

### **16 DECEMBER 2025**

### **BLACK BUTTE COPPER PROJECT STUDY UPDATE**

Sandfire Resources Limited (ASX: SFR) (**Sandfire**) provides the following update on the Black Butte Copper Project in Montana, USA (**Black Butte** or the **Project**) and refers to the TSX listed Sandfire Resources America Inc. (TSX-V: SFR) (**Sandfire America**) News Release dated 16 December 2025 which outlines an updated pre-feasibility study (**PFS**) for the Johnny Lee deposit and updated Mineral Resource for the Lowry deposit.

Black Butte is a fully permitted, high-grade copper development project. Sandfire's interest is held through an 87% equity stake in Sandfire America, which owns 100% of the Project, comprising the Johnny Lee and Lowry deposits and a contiguous land package that remains underexplored with strong discovery potential.

The Johnny Lee PFS confirms the potential for a low technical risk underground operation and a conventional 1.2Mtpa processing plant producing ~35ktpa of contained copper in the initial four years of operation and an average ~29ktpa of contained copper over an initial eight-year mine life<sup>1</sup>. These plans are supported by an updated Mineral Resource for Johnny Lee of 22.3Mt at 2.4% Cu (520kt contained Cu) and an updated Ore Reserve of 9.5Mt at 2.9% Cu (270kt contained Cu).

In parallel, Sandfire America has reported an updated Mineral Resource for Lowry of 9.3Mt at 2.3% Cu (210kt contained Cu) which is within ~3km of Johnny Lee and has the potential to be accessed from the planned Johnny Lee underground workings, thereby providing an opportunity to materially extend mine life at a low capital cost.

A copy of Sandfire America's TSX News Release describing the PFS outcomes and Mineral Resource and Mineral Reserve estimates prepared in accordance with NI 43-101 can be found at this link. A summary JORC Code (2012) Table 1 is attached as Appendix 1.

### **BLACK BUTTE RESOURCE AND RESERVE HIGHLIGHTS**

- Increased tonnes within the Johnny Lee Mineral Resource by 64% for a 33% increase in contained copper<sup>2</sup>.
- Increased tonnes in the Johnny Lee Ore Reserve by 8% for a 19% increase in contained copper<sup>3</sup>.
- Increased tonnes within the Lowry Mineral Resource by 12% for a 5% increase in contained copper<sup>4</sup>.

### Sandfire's Chief Executive Officer and Managing Director, Mr Brendan Harris, said:

"The completion of the Johnny Lee PFS marks a significant milestone for Sandfire America and I'd like to congratulate Lincoln and his team for taking the Black Butte Project one step closer to its ultimate development.

"All good projects in our industry are ultimately underpinned by high quality reserves and resources, and that's why we're particularly pleased to see the significant increase in tonnage that recent drilling and updated modelling assumptions have delivered at both Johnny Lee and Lowry. With all key permits in place, and the potential upside that the satellite Lowry deposit provides, Black Butte is well placed as one of the few near shovel ready copper projects in the United States.

"Having achieved this important milestone, Sandfire America is also ideally positioned to benefit from the tight fundamentals projected for the global copper market and the supportive investment environment for critical minerals projects located within the United States.

"As previously indicated, the completion of this significant body of work by the Sandfire America team and the announcement of the updated mineral resource and ore reserve estimates will enable Sandfire to appropriately assess the project's strategic fit within our global portfolio."

<sup>3</sup> Is compared with the estimate reported in 2020 and reflects updated resource and modifying factors.

<sup>&</sup>lt;sup>1</sup> The production target and financial forecasts referred to in this announcement are underpinned solely by the Johnny Lee Ore Reserve of 9.5Mt at 2.9% Cu (100% Probable Ore Reserves), and the Johnny Lee PFS, and reflect assumptions regarding mining method, processing recoveries, operating costs, capital costs, commodity prices, foreign exchange rates and permitting. Sandfire confirms that it has reasonable grounds for providing the forecast financial information. These assumptions are subject to change and actual outcomes may differ materially from those reflected in the production targets. The material assumptions underpinning the production targets and forecast financial information are set out in this announcement and Appendix 1. There is no certainty that the production targets will be achieved.

<sup>&</sup>lt;sup>2</sup> Is compared with the estimate reported in 2019 and is supported by additional drilling, updated geological modelling and a revised cut-off methodology.

<sup>&</sup>lt;sup>4</sup> Is compared with the estimate reported in 2020 and reflects additional drilling, updated geological modelling and a revised cut-off methodology.



# **SUMMARY OF MINERAL RESOURCES AND ORE RESERVES (JORC CODE 2012)**

## **Lowry Mineral Resource Update**

Following additional drilling and evaluation, the Lowry deposit now has an updated Mineral Resource estimate comprising Measured, Indicated and Inferred categories; however, Lowry remains outside the current Johnny Lee PFS mine plan and financial analysis, and any potential development would require further technical studies, environmental review and permitting.

### Johnny Lee and Lowry - Mineral Resources

Information material to understanding the Mineral Resource estimates reported for the Johnny Lee and Lowry deposits is summarised below.

Table 1 - Johnny Lee and Lowry Mineral Resources (JORC 2012), as at 5 November 2025 (100% basis)

Deposit	Resource category	Tonnes (Mt)	Copper (%)	Contained copper (kt)
	Measured	2.8	2.8	80
Johnny Lee	Indicated	16.1	2.4	380
-	Inferred	3.4	1.9	60
	Total	22.3	2.4	520
	Measured	1.2	2.5	30
Lowry	Indicated	5.3	2.3	120
•	Inferred	2.8	2.1	60
	Total	9.3	2.3	210

#### Notes:

- Mineral Resources are not Ore Reserves and do not have demonstrated economic viability. Inferred Mineral Resources have a high degree of uncertainty as to their economic and technical feasibility. There is no certainty that all or any part of Inferred Mineral Resources will be converted to Measured or Indicated Mineral Resources in the future.
- To demonstrate reasonable prospects for eventual economic extraction, Mineral Resources for the Johnny Lee deposits are reported using an economic NSR cut-off value of \$45/t, which is approximately equivalent to 0.52% recoverable Cu, based on long-term Cu price assumptions of \$4.70/lb and variable recovery and mill processing cost assumptions; Mineral Resources for the Lowry deposits are reported using an economic NSR cut-off value of \$110/t, which is approximately equivalent to 1.28% recoverable Cu, based on long-term Cu price assumptions of \$4.70/lb and variable recovery and mill processing cost assumptions.
- Variable metallurgical recovery has been estimated in the Johnny Lee UCZ on a block basis with a consistent 95% Cu recovery applied to the Johnny Lee Lower Copper LCZ, Metallurgical recovery for Cu has been assigned to the Lowry deposits: 91% for both Lowry UCZ and Lowry MCZ and 94% for Lowry LCZ.
- There are no known legal, political, environmental, or other risks that could materially affect the potential future development of the Mineral Resources. All Mineral Resources are located within land currently under control or lease to Sandfire America.
- All quantities are rounded to the appropriate number of significant figures to reflect the relative accuracy of the estimate; consequently, sums may not add up due to rounding. Cu assay values were capped where appropriate.
- The Mineral Resources for the Johnny Lee UCZ and LCZ were reviewed and approved by Berkley Tracy, P.Geo (PGO#3024) of SRK Consulting (U.S.), Inc., a Competent Person as defined by JORC.
- The Mineral Resources for the Lowry Upper Copper Zone (LUCZ), Lowry Middle Copper Zone (LMCZ), and Lowry Lower Copper Zone (LLCZ) were reviewed and approved by Berkley Tracy, P.Geo (PGO#3024) of SRK Consulting (U.S.), Inc., a Competent Person as defined by JORC.



The total Johnny Lee Mineral Resource has increased by approximately 64% in tonnes and 33% in contained copper tonnes, with a decrease of approximately 16% in copper grade. These changes are due to additional drilling, updated geological modelling and changes to cut-off methodology introduced since the previously reported Mineral Resource estimate as of 15 October 2019.<sup>5</sup>

The total Lowry Mineral Resource has increased by approximately 12% in tonnes and 5% in contained copper tonnes, with a decrease of approximately 4% in copper grade. These changes are the result of additional resource definition drilling, updated geological modelling and changes to cut-off methodology introduced since the previously reported Mineral Resource estimate as of 15 October 2020.<sup>6</sup>

The Mineral Resource estimates were originally prepared and classified using the CIM Definition Standards under NI 43-101. The Competent Persons have reviewed the estimation methodology, cut-off grade criteria, modifying factors and classification parameters and are satisfied that the CIM categories are equivalent in definition and confidence level to the corresponding JORC Code (2012) categories (Measured, Indicated, Inferred). The Mineral Resources are therefore reported herein in accordance with the JORC Code (2012). Further details required by the JORC Code (2012) are set out in Appendix 1 – JORC Table 1 (Sections 1–3).

### **Geology and Geological Interpretation**

- Johnny Lee and Lowry are high-grade, stratabound, sediment-hosted copper deposits located in the Helena Embayment of the Belt Supergroup in central Montana.
- Copper mineralisation occurs in laterally continuous, shallow-dipping sulphide horizons:
  - Johnny Lee: Upper Copper Zone (UCZ) and Lower Copper Zone (LCZ).
  - Lowry: Lowry Upper Copper Zone (LUCZ), Lowry Middle Copper Zone (LMCZ) and Lowry Lower Copper Zone (LLCZ), with lower-grade mineralisation extending above and below the main lenses.
- Geological interpretation is based on detailed lithological, alteration, structural and mineralogical logging of diamond drill core, supported by geophysical data and surface mapping.

### **Drilling, Sampling Techniques and Data Quality**

- Mineral Resources are supported by an extensive diamond drilling database; all drillholes used in the estimates are HQ or NQ core (with some PQ at Johnny Lee for metallurgical work), drilled from surface or as diamond tails on rock-bit precollars.
- Core is geologically and geotechnically logged by professional geologists, oriented (only at Johnny Lee since 2014), photographed, and sampled on nominal intervals adjusted to geological boundaries, following documented procedures.
- Sample preparation and assaying are undertaken at accredited laboratories (ALS Reno) using industry-standard methods, under a QA/QC program that includes blanks, certified reference materials, duplicates and umpire checks.
- The Competent Persons consider the data quality appropriate for Mineral Resource estimation.

# **Estimation Methodology and Classification**

Three-dimensional wireframes define mineralised domains corresponding to the UCZ and LCZ at
Johnny Lee and the LUCZ, LMCZ and LLCZ at Lowry, based on lithology, structure and
chalcopyrite distribution. Grades are estimated into block models using ordinary kriging (OK);
inverse distance weighted (IDW), top-cutting and suitable search strategies, within these domains.

- Bulk density is estimated using the IDW method from extensive specific gravity measurements by lithology and sulphide content.
- Classification as Measured, Indicated and Inferred reflects drill spacing, geological and grade continuity, data quality (including historical drilling) and estimation performance, and is consistent with the JORC Code (2012) and aligned with CIM guidelines.

<sup>&</sup>lt;sup>5</sup> Refer to Sandfire's ASX announcement titled 'Updated Mineral Resource Completed for Johnny Lee Deposit, Black Butte Copper Project, USA', dated 30 October 2019 for details.

<sup>6</sup> Refer to Sandfire's ASX announcement titled 'USA and Botswana Development Projects Update', dated 28 October 2020 for details.



### **Cut-off Values and Reasonable Prospects**

- Mineral Resources are reported above a Net Smelter Return (NSR) value specified separately for each deposit (\$45/t for Johnny Lee and \$110/t for Lowry), selected to reflect reasonable prospects for eventual economic extraction based on long-term copper price assumptions, metallurgical recoveries and operating cost estimates from the Black Butte PFS work.
- The cut-off values and reporting constraints are designed to exclude isolated or uneconomic material and to retain only mineralisation with a reasonable likelihood of future underground extraction.

### Mining, Metallurgical and Other Modifying Factors (Resource Level)

- Mineral Resources have been constrained and reported in a manner consistent with extraction by underground methods, informed by engineering studies and mine design work completed for Johnny Lee and conceptually applied to Lowry.
- Metallurgical testwork and geometallurgical studies indicate that conventional flotation can achieve
  recoveries consistent with the assumptions used in the project studies, and no metallurgical,
  geotechnical, environmental or social factors have been identified at the current level of study that
  would materially compromise the reasonable prospects for eventual economic extraction of the
  reported Mineral Resources, subject to the risks and assumptions disclosed elsewhere in this
  announcement.

### Johnny Lee - Ore Reserves

Information material to understanding the Ore Reserve estimate for the Johnny Lee deposit is summarised below.

Table 2 – Johnny Lee Ore Reserve (JORC 2012), as at 14 November 2025 (100% basis)

Deposit	Reserve category	Tonnes (Mt)	Copper (%)	Contained copper (kt)
laboro la s	Proved	-	-	-
Johnny Lee	Probable	9.5	2.9	270
	Total	9.5	2.9	270

#### Notes:

- 1. The Competent Person for the Ore Reserve estimate is Shane McLeay FAusIMM.
- 2. Ore Reserves were estimated using a \$4.70/lb Cu price and NSR cut-off values of \$110/t (operating cost) and \$45/t (incremental operating cost).
- 3. Tonnages are rounded to the nearest 100kt, metal grades are rounded to one decimal place, and metal tonnes are rounded the nearest 10kt. All units are metric. Rounding as required by reporting guidelines may result in summation differences.
- 4. Average LOM Metallurgical Recovery is 95% for LCZ, 78% for UCZ, and 86% combined.
- 5. Ore Reserves are based on the Mineral Resource as at 5 November 2025.
- 6. Ore Reserves are a subset of Mineral Resources.

The Johnny Lee Ore Reserve has increased by approximately 8% in tonnes and 19% in contained copper tonnes, with an increase of approximately 12% in copper grade compared to the previous Ore Reserve estimate as at 19 October 2020. These changes are due to an updated Mineral Resource estimate and modifying factors.<sup>6</sup>

The Ore Reserve estimates were originally prepared and classified using the CIM Definition Standards for Mineral Reserves under NI 43-101. The Competent Persons have reviewed the estimation methodology, cut-off grade criteria, modifying factors and classification parameters and are satisfied that the CIM Mineral Reserve categories are equivalent in definition and confidence level to the corresponding JORC Code (2012) Ore Reserve categories (Proved and Probable). The Ore Reserves are therefore reported herein in accordance with the JORC Code (2012). Further details required by the JORC Code (2012) are set out in Appendix 1 – JORC Table 1 (Section 4).



# **Material Assumptions and PFS Status**

- The Ore Reserve estimate for Johnny Lee is based on an underground PFS, which assumes:
  - Long-term copper price of \$4.70/lb
  - Life of mine average metallurgical recovery of 86% for copper
  - Initial capital cost of approximately \$474M, LOM sustaining capital of \$82M; and
  - Life of mine C1 cash cost of \$2.56/lb of payable copper
- The level of engineering, costing and risk assessment is considered appropriate to a PFS and sufficient to support the declaration of Probable Ore Reserves

## **Mining Method and Assumptions**

- Mining is by underground methods, with access via a decline from surface, and ore extraction by mechanised drift-and-fill and mechanised cut-and-fill and longhole stripping with paste backfill
- The mine is designed for a nominal production rate of 1.2Mtpa of ore
- Life of mine mining dilution and recovery factors are based on detailed stope design, geotechnical assessments and backfill assumptions
- Ore Reserves include the effects of dilution and mining losses and are reported on a diluted basis

### **Processing Method and Metallurgical Assumptions**

- Processing will be by conventional crushing, grinding and flotation to produce a copper concentrate
- Metallurgical recoveries are based on extensive laboratory test work and integrated geometallurgical modelling for UCZ and LCZ material, including variability testwork and assessment of deleterious elements
- The Ore Reserve estimates assume an average life-of-mine copper recovery of 86% and concentrate quality and impurity levels consistent with the treatment and refining charges used in the PFS

### **Cut-off Values**

- A NSR value was calculated for all blocks which considered the metallurgical recovery of each block, allowances for payability, royalties, concentrate transport and treatment and refining costs and a copper price of \$4.70/lb
- Ore Reserves are reported based on the use of two NSR cut-off values. An operating cost of \$110/t and an incremental cost of \$45/t used to determine whether material is sent to waste or processed

### **Modifying Factors**

### Mining and Geotechnical

 Geotechnical parameters for the PFS were derived from dedicated geotechnical drilling, logging and rock mass characterisation, with stope design and ground support specified accordingly

### **Environmental and Permitting**

- Exploration and project activities are being conducted under the Montana Department of Environmental Quality (MT DEQ) Exploration License #00710 with reclamation bonding in place, and closure obligations (including removal of groundwater wells) identified
- Environmental impacts have been comprehensively assessed through the MT DEQ Environmental Impact Statement and the approved Mine Operating Permit (MOP). Including the approved MOP, 28 permits and plans are required; 23 have been granted and the remaining items are largely administrative, with work initiated on all but one. Key operating approvals, including the MOP, Air Quality Permit, MPDES and construction stormwater permit, together with the DEQ Record of Decision, demonstrate regulatory compliance and no environmental or permitting constraints have been identified that would materially affect the Ore Reserve



### Infrastructure and Services

 The Ore Reserve is premised on construction of decline access, underground infrastructure, process plant, paste backfill plant, double-lined and cemented tailings facility, water management systems and associated site infrastructure in line with the PFS design

### Social, Legal and Government

- The MOP has been confirmed as valid through recent Montana Supreme Court decisions in 2024 and 2025, which reinstated the Mine Operating Permit in full and upheld the Montana Department of Natural Resources & Conservation water rights determinations, removing all outstanding legal challenges
- The Project is expected to deliver substantial employment and economic benefits to Meagher County and the State of Montana while operating under stringent environmental and social standards. Accordingly, no social, legal or governmental impediments have been identified that would materially impact the Ore Reserve

The Competent Persons consider that the modifying factors have been evaluated to a level consistent with PFS status and are reasonable for the purposes of estimating Probable Ore Reserves.



#### Competent Person's Statement - Mineral Resources

The information in this report that relates to the Johnny Lee and Lowry Mineral Resources is based on and fairly represents information and supporting documentation reviewed and prepared by Mr Berkely Tracy who is a Certified Professional Geologist of The American Institute of Professional Geologists. Mr Tracy is a full-time employee of SRK Consulting (U.S.) Inc. Mr Tracy has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr Tracy consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

### Competent Person's Statement - Ore Reserves

The information in this report that relates to the Johnny Lee Ore Reserves is based on and fairly represents information and supporting documentation prepared by Mr Shane McLeay who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr McLeay is a full-time employee of Entech Pty Ltd. Mr McLeay has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves'. Mr McLeay consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

#### **Forward-Looking Statements**

Certain statements made within or in connection with this release contain or comprise certain forward-looking statements regarding Sandfire's Mineral Resources and Ore Reserves, exploration and project development operations, production rates, life of mine, projected cash flow, capital expenditure, operating costs and other economic performance and financial condition as well as general market outlook. Forward-looking statements can generally be identified by the use of forward-looking words such as 'expect', 'anticipate', 'may', 'likely', 'should', 'could', predict', 'propose', 'will', 'believe', 'estimate', 'target', 'guidance', and other similar expressions. Sandfire believes that it has reasonable grounds for making the forward-looking statements in this announcement, including the production target and forecast financial information. You are cautioned not to place undue reliance on forward-looking statements. Forward-looking statements are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. Although Sandfire believes that the expectations reflected in such forward-looking statements are reasonable, such expectations are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance or achievements to differ materially from those expressed, implied or projected in any forward-looking statements and no assurance can be given that such expectations will prove to have been correct.

Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, delays or changes in project development, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management.

Unless otherwise stated, the forward-looking statements are current as at the date of this announcement. Except as required by law or regulation, for statutory liability which cannot be excluded, each of Sandfire, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in these forward-looking statements and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in forward-looking statements or any error or omission. Sandfire undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events other than required by the Corporations Act and ASX Listing Rules. Accordingly, you should not place undue reliance on any forward-looking statement.

#### - ENDS -

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This announcement is authorised for release by Sandfire's Chief Executive Officer and Managing Director, Brendan Harris.



# **APPENDIX 1: JORC CODE, 2012 EDITION - TABLE 1**

Mr Tracy assumes responsibility for matters related to Sections 1-3 of JORC Table 1 for the Johnny Lee and Lowry deposits. Mr McLeay assumes responsibility for matters related to Section 4 of JORC Table 1 for the Johnny Lee deposit.

## **BLACK BUTTE - JOHNNY LEE AND LOWRY PROJECTS**

JORC Code Assessment Criteria	Comment		
Section 1 Sampling Techniques and Data	Johnny Lee	Lowry	
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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.  Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.  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 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 (e.g., submarine nodules) may warrant disclosure of detailed information.	<ul> <li>Sampling for analytical testing has been performed on diamond drill core either by splitting of core on historical drilling (pre-2010) or by half-core sawing (2010 to present).</li> <li>Sampling intervals are nominally 1.0 m in length.</li> <li>Prior to 2010, analyses were undertaken by the previous project owners at internal and external laboratories. Details on the analytical methods and QA/QC protocols is not available. Six drillholes were twinned, resampled and reanalysed with results demonstrating the historical data is suitable for Mineral Resource estimation.</li> <li>The intervals selected for sampling were halved using a core saw. The sample cut was made approximately 5° clockwise (looking downhole) from the orientation line. The half-core that did not contain the orientation line was sampled. Where a field duplicate had been requested by the logging geologist, the remaining half-core was quartered and the quarter without the orientation line was sampled. If core-orientation was not performed, or had failed, the core was cut perpendicular to bedding and the same half-core was consistently sampled.</li> <li>Post 2010, half-core is prepared and then analysed by ALS Laboratories of Reno, Nevada, USA. Samples were weighed and</li> </ul>	<ul> <li>Sampling for analytical testing has been performed on diamond drill core either by splitting of core on historical drilling (pre-2010) or by half-core sawing (2010 to present).</li> <li>Sampling intervals are nominally 1.5 to 2.0 m in length.</li> <li>Post 2010, half-core is prepared and then analysed by ALS Laboratories of Reno, Nevada, USA. Samples were weighed and crushed to 70% passing 2mm and then a riffle split 250g-split pulverised to 85%, &lt;75um. A 25 to 50 g sub-sample was collected, and a 0.4 g aliquot was subjected to four acid digestion and analysed using ICP-AES. A 30 g aliquot was assayed for gold by fire assay with an atomic absorption spectroscopy (AAS) finish.</li> <li>All sampling has been supervised by professional geologists.</li> <li>A quality assurance program has been in-place since initial exploration on the Lowry Deposit that includes regular addition of quality control samples such as blanks, standards, and duplicates. The Competent Person notes that raw QA/QC data collected prior to 2010 is not available, therefore the presence of historic drilling has been taken into account for risk assessment and Mineral Resource classification purposes.</li> <li>Logging for lithology, alteration, mineralisation, and structure has been performed on all drill</li> </ul>	



JORC Code Assessment Criteria	Comment	
	crushed to 70% passing 2mm and then a riffle split 250g-split pulverised to 85%, <75um. A 25 to 50 g sub-sample was collected, and a 0.4 g aliquot was subjected to four acid digestion and analysed using ICP-AES. A 30 g aliquot was assayed for gold by fire assay with an atomic absorption spectroscopy (AAS) finish.	core by professional geologists. Based on mineralisation logging, samples are collected within each mineralised zone, identified by visual logging of chalcopyrite content, ensuring at least 9 m of material was sampled above and below the logged mineralised interval.
	<ul> <li>All sampling has been supervised by professional geologists.</li> </ul>	
	<ul> <li>A quality assurance program has been in-place since initial exploration on Johnny Lee Deposit that includes regular addition of quality control samples such as blanks, standards, and duplicates. The Competent Person notes that raw QA/QC data collected prior to 2010 is not available, therefore the presence of historic drilling has been taken into account for risk assessment and Mineral Resource classification purposes.</li> <li>Logging for lithology, alteration, mineralisation, and structure has been performed on all drill core by professional geologists. Based on mineralisation logging, samples are collected within each mineralised zone, identified by</li> </ul>	
	visual logging of chalcopyrite content, ensuring at least 9 m of material was sampled above	
Duilling to aboring	and below the logged mineralised interval.	
Drilling techniques  Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.), and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is oriented and if	<ul> <li>All drilling is either diamond drill core from surface or collared using a rock bit, switching to diamond core drilling when competent ground is encountered, prior to mineralisation.</li> </ul>	<ul> <li>All drilling is either diamond drill core from surface or diamond core tail of a rock bit hole to reach deeper mineralisation.</li> <li>All core used for resource estimation was either</li> </ul>
so, by what method, etc.).	<ul> <li>All core used for resource estimation was either HQ- or NQ-sized diameter. In 2018, PQ core was collected for metallurgical testing of the Johnny Lee Upper Copper Zone</li> </ul>	<ul><li>HQ- or NQ-sized diameter.</li><li>No oriented core has been performed at Lowry.</li></ul>
	Core orientation using a Reflex ACT-II or ACT-III tool has been undertaken on all drillholes since 2014. Drillhole core prior to 2014 was not orientated.	



JORC Code Assessment Criteria	Comment	
Drill sample recovery  Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample recovery and ensure representative nature of the samples.  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.	<ul> <li>Diamond drill core recovery and rock quality designation (RQD) were logged by geologists.</li> <li>Core recovery is considered acceptable with average recoveries greater than 90% in the JL UCZ and averaging 98% in the Johnny Lee Lower Copper Zone (JL LCZ).</li> <li>Drillers, in collaboration with Sandfire America geologists, take measures such as reducing torque and penetration rates of drilling when targeting zones of known fracturing.</li> <li>It is the opinion of the Competent Person that core recovery loss is not material to overall grade modelling and estimation.</li> </ul>	<ul> <li>Diamond drill core recovery and rock quality designation (RQD) were logged by geologists.</li> <li>Core recovery is considered acceptable with average recovery of 89.3% for the Lowry Middle Copper Zone and 86.6% for the Lowry Lower Copper Zone with lower recoveries (&lt; 50%) observed in fault zones.</li> <li>Drillers, in collaboration with Company geologists, take measures such as reducing torque and penetration rates of drilling when targeting zones of known faulting.</li> <li>It is the opinion of the Competent Person that core recovery loss is not material to overall grade modelling and estimation.</li> </ul>
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.  Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.), photography.  The total length and percentage of the relevant intersections logged.	<ul> <li>All diamond drill core from the Johnny Lee Deposit has been geologically logged by geologists.</li> <li>No quantitative logging has occurred.</li> <li>All core has been photographed using high resolution digital photography.</li> <li>Data logged includes lithology, alteration, mineralisation, structural geology, veining, recovery, and RQD.</li> <li>Total length of drilling at the Johnny Lee Deposit is 95,540.2 m with copper assay intervals totalling 29,636.6 m.</li> </ul>	<ul> <li>All diamond drill core at the Lowry Deposit has been geologically logged by geologists.</li> <li>No quantitative logging has occurred.</li> <li>All core has been photographed using high resolution digital photography.</li> <li>Data logged includes lithology, alteration, mineralisation, major structures, recovery, and RQD.</li> <li>Total length of drilling at the Lowry Deposit is 40,586.5 m with copper assay intervals totalling 14,790.3 m.</li> </ul>
Sub-sampling techniques and sample preparation  If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, rotary split, etc., and whether sampled wet or dry.  For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>Sampling for analytical testing has been performed on diamond drill core either by splitting of core on historical drilling (pre-2010) or by half-core sawing (2010 to present).</li> <li>Details of sample preparation and analyses prior to 2010 are not available. Analyses of samples from six twinned holes has confirmed the validity of the historical data.</li> <li>All samples subsequent to 2010 were prepared and analysed at ALS Reno, USA or ALS Vancouver, Canada.</li> </ul>	<ul> <li>Sampling for analytical testing has been performed on diamond drill core either by splitting of core on historical drilling or by half-core sawing.</li> <li>Sample drying and preparation was conducted by an independent, reputable laboratory (ALS) using four-acid digestion and analyses by inductively coupled plasma – atomic emission spectrometry (ICPAES), fire assay (FA), and atomic absorption spectrometry (AAS).</li> <li>Crushed samples were split to appropriate sample aliquots.</li> </ul>



JORC Code Assessment Criteria	Comment		
Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.  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.  Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>The samples were dried for a minimum of eight hours at 100°C. The samples were then coarse-crushed to 70% minus 6 mm using a swing jaw-crusher. Every 30th sample was passed through a dry sieve to ensure that required crush specifications were obtained.</li> <li>The coarse-crushed material was then fine-crushed to 70% minus 2 mm using a Boyd jaw-crusher and a 1,000 g analytical sample was split off using a Boyd rotary splitter. The fine-crushed material from every 20th sample was passed through a dry-sieve for quality control of fine-crushing.</li> <li>The 1,000 g analytical sample was then pulverised to 85% minus 75 µm using an Essa LM2 vibratory pulverizing mill. A split of the pulverised material from every 20th sample was wet-sieved to ensure that at least 85% of the pulverised material was &lt;75 µm.</li> <li>The 1,000 g pulverised sample (pulp) was tipped-out of the grinding bowl onto a mat and an approximately 130 g sub-sample collected, for fire assay at ALS-Reno, by scooping an x-pattern through the pulp pile (similar to cone and quartering). A 25 to 50 g sub-sample was collected in the same way for acid-digest ICP-AES. The remaining pulp material (pulp residue) was bagged and stored. Envelopes containing the acid-digest ICP-AES sub-sample</li> </ul>		
	<ul> <li>were shipped to ALS Vancouver.</li> <li>At ALS Reno, a duplicate 1,000 g fine-crush split was created for selected samples (Laboratory Duplicate) and pulverised to 85% minus 75 µm. ALS Reno was also instructed to retain all analytical sample pulp residues such that a certain proportion could be reanalysed at a different laboratory (Umpire Samples).</li> <li>Subsequent to 2010, coarse duplicates were inserted into the sample sequence to monitor</li> </ul>		



JORC Code Assessment Criteria	Comment
Quality of assay data and laboratory tests  The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  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.  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.	<ul> <li>potential laboratory contamination during sample preparation.</li> <li>It is the opinion of the Competent Person that sample interval size is acceptable based on mean copper grade and thresholds used for modelling of mineralised zones.</li> <li>A split of the analytical pulp was sent to ALS Global, 2155 Dollarton Highway, North Vancouver, British Columbia (ALS Vancouver). ALS Vancouver is ISO/IEC 17025 accredited for gold assay by lead collection fire assay, four acid sample digestion and multi-element analysis using an Inductively Coupled Plasma - Atomic Emission Spectrometer (ICP-AES) for low-grade to high-grade base metal ores.</li> <li>A four-acid digestion was performed on a 0.4 g aliquot, and the analysis of the digest was performed using an ICP-AES, calibrated for intermediate level analyses (low to medium grade ore).</li> <li>When the upper limits of detection for the intermediate level ICP-AES were exceeded for Cu, Ag, Pb or Zn, the digests from the overlimit samples were re-analysed for the overlimit elements in an ore grade level ICP-AES</li> </ul>
	circuit.  All umpire sample analyses were completed at American Assay Laboratories (AAL), 1506 Glendale Ave, Sparks, Nevada which is ISO/IEC 17025 accredited. Gold analyses of umpire samples were performed using a 30 g charge, lead collection fire-assay, acid digest and an ICP-AES finish. Detection range for gold analyses using this technique at AAL is 0.003 to 10 ppm. AAL use a five acid-digest of a 0.5 g aliquot to produce a digest for 35 element ICP-AES analysis.  Upper limits of detection for the ICP-AES were sometimes exceeded for Cu and Zn. Where



JORC Code Assessment Criteria	Comment	
	this occurred the digests from the over-limit umpire samples were re-analysed for the over-limit elements in an ore grade level ICP-AES circuit.	
	<ul> <li>Sampling, preparation, and analyses for copper are considered appropriate for evaluation of the Johnny Lee Deposit.</li> </ul>	
	<ul> <li>Four-acid digestion coupled with ICP-AES provides robust analyses suitable for assessment of mineralisation.</li> </ul>	
	<ul> <li>The company utilises an acceptable QA/QC program which includes use of certified reference material (CRM) standards, blanks, and duplicates along with umpire samples at a second independent laboratory.</li> </ul>	
	<ul> <li>QA/QC results indicate an acceptable level of accuracy and precision for copper analyses.</li> </ul>	
Verification of sampling and assaying  The verification of significant intersections by either independent or alternative company personnel.	Significant intercepts of mineralisation have been confirmed over multiple drilling campaigns based on preliminary models.	<ul> <li>Significant intercepts of mineralisation have been confirmed over multiple drilling campaigns based on preliminary models.</li> </ul>
The use of twinned holes.	Six twinned holes have been completed at the Johnny Lee Deposit.	Comparisons of historic (pre-2010) and recent (2010 to current) sampling have demonstrated acceptable comparisons of grade and
Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.  Discuss any adjustment to assay data.	<ul> <li>Prior to the 2018 program, all logging was conducted using graphic logging sheets. The information recorded included: depth, colour, lithology, mineralogy, oxidation, grain size, texture, sedimentary structures, alteration, mineralisation, and structure.</li> </ul>	thickness of mineralisation within the Lowry Deposit.  No twin drilling has been performed at the Lowry Deposit.
	• In the 2018/19 drill programs, digital logging software (OCRIS™) was utilised to record all logging information using a portable computer. The digital logging was accompanied by summary graphic logging such that sedimentary facies could be identified in a similar manner to the 2014 through 2018 Phase 1 drill programs. All geological logging	<ul> <li>Hole SC087 was wedged with minor deviation that provided verification of logging and mineralisation between the two drill holes.</li> <li>No adjustments to assay data have been required.</li> </ul>



JORC Code Assessment Criteria	Comment	
	<ul> <li>For the 2021 / 2022 drill program, core holes were logged by hand on paper sheets. This information was then entered into OCRIS™ for transfer to the database team in Perth.</li> </ul>	
	<ul> <li>For the 2023 / 2025 drill program, core holes were logged by hand on paper sheets. This information was then entered into MXDeposit™ for transfer to the database team in Perth.</li> </ul>	
	A Structured Query Language (SQL) database is used as the central data storage system, managed in Perth, using DataShed™ v4.6.3 as the front-end. User access to the database is restricted and regulated by specific user permissions. Existing protocols maximise data functionality and quality, while minimizing the likelihood of error introduction at primary data collection points and subsequent database upload, storage, and retrieval points.	
	<ul> <li>Assay laboratory files are electronically supplied to the data base administrator in .sif and text file format. The assay data is loaded into the database by the DBA. Project Geologists assess the QA/QC of the assay batch and decide whether it passes or fails.</li> </ul>	
	<ul> <li>The SQL server database is configured for optimal validation through constraints, library tables, triggers, and stored procedures. Data that fails these rules during import is rejected or quarantined until reviewed by a geologist.</li> <li>No adjustments to assay data have been required.</li> </ul>	
Location of data points	required.	
Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	The Black Butte Copper Project uses the North American datum of 1983 (NAD83) – universal transverse Mercator (UTM), zone 12 North coordinate system.	<ul> <li>The Black Butte Copper Project uses the North American datum of 1983 (NAD83) – universal transverse Mercator (UTM), zone 12 North coordinate system.</li> </ul>
Specification of the grid system used.	<ul> <li>Upon completion of drillholes, the collars were accurately surveyed by a registered surveyor</li> </ul>	<ul> <li>Drill collars are surveyed by an independent survey contractor (WWC Engineering of</li> </ul>



JORC Code Assessment Criteria	Comment	Comment		
Quality and adequacy of topographic control.	from WWC Engineering of Helena, Montana, USA using an RTK GPS instrument (Trimble R8 GNSS™) with horizontal and vertical tolerance set to 0.05 ft (approximately 15 mm). WWC Engineering located and surveyed all historic drillhole collars used for the determination of Mineral Resources.  • Drillhole collars were pegged using either a handheld Global Positioning System (GPS) or a Real-Time Kinetic (RTK) GPS instrument. Prior to the 2018 drill program, drill-rig alignment was completed using a sighting compass and inclinometer. For the 2019 Phase 2 program, a Reflex TN14 Gyrocompass™, north-seeking gyroscopic alignment tool was used to ensure accurate azimuth and dip alignment. Prior to 2014, downhole surveying was completed using either singleshot downhole cameras or single-shot electro-magnetic downhole survey instruments.  • For the 2014 and 2015 drilling programs, a Reflex EZ-Trac™ electromagnetic survey instrument was used to record downhole survey data. Survey shots were taken at 30 m intervals downhole. During the 2018 Phase 1 and 2018/19 Phase 2 drill programs, a Reflex EZ-Trac™ survey instrument was used to record downhole survey data during drilling. A Reflex EZ-Gyro™ (north seeking gyroscope) was used to survey each hole at 3 m to 6 m intervals, upon drillhole completion. For the 2023/2025 drill programs, an Omnix38 instrument was used for steeper holes, while the Omnix42 was obtained from a LiDAR survey flown in October 2012 by MT LiDAR of	Helena, Montana, USA) using an RTK-GPS survey instrument that determines collar coordinates to sub-0.2 m accuracy.  Downhole survey was completed on all holes using an electronic survey instrument REFLEX tool at approximately 30 m intervals.  Site topography was obtained from a LiDAR survey flown in October 2012 by MT LiDAR of Kalispell, Montana, USA. Surface resolution is less than 1 m.		



JORC Code Assessment Criteria	Comment		
	Kalispell, Montana, USA. Surface resolution is less than 1 m.		
Data spacing and distribution  Data spacing for reporting of Exploration Results.  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.	<ul> <li>It is the opinion of the Competent Person that the current spacing is sufficient for the estimation and classification of Mineral Resources at Johnny Lee.</li> <li>Data spacing at the Johnny Lee Deposit ranges from 35 m to 120 m.</li> <li>Using a cut-off grade that accounts for operational costs and an estimate of metallurgical recovery, a Mineral Resource estimate has been undertaken for the Johnny Lee deposit that classifies the mineralised zones as Measured, Indicated, or Inferred where there are sufficient drill data and confidence to do so. Where there is insufficient drill data, regardless of grade, a Mineral Resource estimate has not been completed, and the mineralisation remains unclassified.</li> <li>Sampling intervals are nominally 1.0 m in length. It was determined that 1.5 m composite was most appropriate considering the data and geological model. Residual lengths less than 0.75 m were distributed equally to the group of composites within each domain. Additionally, 3.0 m composites were run for block height comparisons during estimation validation.</li> </ul>	the current spacing is sufficient for the estimation and classification of Mineral Resources at Lowry.  Data spacing at the Lowry Deposit Middle Copper Zone (LMCZ) ranges from 40 m to 100 m with the Lowry Deposit Lower Copper Zone (LLCZ) ranging from 60 m to 200 m spacing.	
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.  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.	<ul> <li>Mineralisation at the Johnny Lee deposit is replacement style that is bedding sub-parallel and occurs in sedimentary strata with gentle to moderate dips. Drillholes are steeply inclined such that there is always a high angle between the angle of drilling and the orientation of the mineralization.</li> <li>The Competent Person has reviewed the various orientations of mineralisation intercepts and concluded that there is no relational bias observed in data.</li> </ul>	with the aim of intercepting mineralisation zones at perpendicular angles, when possible. Due to local variations in strike and dip of mineralisation, oblique, but not perpendicular, intersections were obtained in some drillholes.	



JORC Code Assessment Criteria	Comment	
Sample security  The measures taken to ensure sample security.	<ul> <li>Drill core was collected from the drill rigs daily by staff and delivered directly to a secure corelogging facility, attached to the office in White Sulphur Springs, Montana, USA. After logging, the drill core was stored in a secure warehouse/core-cutting facility, until it was cut and sampled. Access to the logging facility and warehouse/ core cutting facility was restricted to Company geological staff.</li> <li>Once drill core samples were cut, they were placed in labelled calico bags. Multiple calico bags were placed in polypropylene sacks were placed on wooden pallets and secured using plastic wrap. Samples in preparation were kept in the secure warehouse. Once a pallet of samples was ready for dispatch it was moved to the secure core logging facility</li> <li>All samples were shipped to ALS Reno by FedEx Corporation (FedEx). FedEx collected the samples from the secure logging facility at which point they assumed responsibility for the chain of custody until delivery to the laboratory.</li> <li>Upon delivery to the laboratory the samples were unpacked and checked by laboratory staff. ALS Reno has industry standard sample security protocols at all sample preparation and analytical facilities.</li> <li>The final database housing all geological data is maintained in a secure structured query language (SQL) database housed by the Company with sufficient back-ups in-place. Access to the database is restricted and regulated by specific user permissions to Company staff.</li> </ul>	<ul> <li>All drill core is collected from the drill rig by Company geologists and brought to a centralised core logging facility.</li> <li>The logging facility is access-controlled and secure, located in White Sulphur Springs, Montana, USA.</li> <li>After logging and sample cutting, sample bags are collected at the Company facility by a third-party courier and delivered directly to the independent analytical laboratory.</li> <li>The final database housing all geological data is maintained in a secure structured query language (SQL) database housed by the Company with sufficient back-ups in-place. Access to the database is restricted and regulated by specific user permissions to Company staff.</li> </ul>
Audits and reviews  The results of any audits or reviews of sampling techniques and data.	<ul> <li>The drilling, sampling, and logging techniques and data were reviewed and deemed satisfactory by the Competent Person, an independent consultant to the Company.</li> </ul>	<ul> <li>The drilling, sampling, and logging techniques and data were reviewed and deemed satisfactory by the Competent Person, an independent consultant to the Company.</li> </ul>



JORC Code Assessment Criteria	Comment		
Section 2 Reporting of Exploration Results	Johnny Lee	Lowry	
Mineral tenement and land tenure status	The Black Butte Project is located within Meagher (	County, Montana, USA, approximately 27 kilometre	
Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	(km) north of the town of White Sulphur Springs (see	Montana  Black Butte Project	



JORC Code Assessment Criteria	Comment
	<ul> <li>The Black Butte Copper Project Property consists of approximately 7,684.3 ha (18,986.8 acres) of fee simple lands under mineral lease by SRA through Tintina Montana Inc. (collectively referred to as SRA), and 1,040 unpatented mining claims on USFS lands covering approximately 8,077.8 ha (19,960.4 acres).</li> </ul>
	Tract Surface Estate Mineral Estate Agreement Date Hectares
	Black Butte Tintina Montana Inc. Dupea Hanson, Hanson, 20-Dec 535 217
	Mine Property Short, Joy Short Joy (15%), Davis (85%)  Short Joy (15%), 20-Dec 29.2 11.8
	Bar Z Ranch Inc. Bar Z Ranch, Hanson, Hanson, 10-May 2,021 818.1
	Short, Joy Short, Joy Short, (15%) Davis (85%)  14-Nov 2,091 846
	Buckingham Buckingham, Johnston, Bodell 11-Jun 2,970 1,201.90
	Thorson Ranch LLC Thorson Ranch LLC Thorson Ranch LLC 100% Thorson Ranch LLC 18-Oct 3,442 1,393
	LLC         Thorson         50%         Thorsen         18-Oct         7,615         3,081.70
	Patented claims - s26;T12N, Bar Z Ranch, Barfuss, Lower & 10-May 38 15.4
	R6E surface Inc. Lower 23-Aug 38 15.4
	Patented claims Barfuss, SRA leases sub- - s34;T 12N, Lower & 300' from Barfuss, 23-Aug 207.6 84 R6E Lower & Lower & Lower
	24 unpatented mining claims  U.S. Forest SRA leases sub- 300' from GCC Trident LLC  23-Apr 268.4 108.6
	1016 unpatented unpatented mining claims  US Forest Service  Controlled by SRA various staking dates staking dates



Comment	
A summary of mineral lands held on the property is provided in the table below. The project's land holdings are within Sections 25, 26, 27, 29, 30, 31, 32, 34, 35, and 36 of Township 12 North, Range 7 East; Sections 23, 24, 25, 26, 27, 28, 30, 32, 33, 34, 35 and 36 of Township 12 North, Range 6 East; Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 23 and 24 of Township 11 North, Range 6 East; Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 of Township 11 North, Range 6 East; Sections 1, 4, 5, 7, 8, 9, 10, 11, 12, 15, 16, 17, 20, 21, 22, 26, 27 and 28 of Township 11 North, Range 5 East; and, Sections 1 and 12 of Township 11 North, Range 4 East.  There are no known impediments to obtaining a licence to operate on the property.  The Johnny Lee Deposit is located on two tracts of land holding termed the "Bar Z" and "Short" tract. with a surface use and mineral lease agreement. The Lowry deposit is located on the "Short" tract.  The agreement for the Bar Z tract sets out an advanced royalty payment of \$193,800 per year plus \$75,000 per year in surface rent. The combined mineral interest has a Net Smelter Royalty of 5% with an option to buy this down to a 2% NSR for \$5,000,000.  The agreement for the Short Tract sets out an advanced royalty of payment of \$160,802 per year plus \$75,000 per year in surface rent. The combined mineral interest has a NSR of 5% with an option to buy this down to a 2% NSR for \$5,000,000.  Summary landholdings for the entire Black Butte Copper project property in relation to the MOP are provided in the figure below.  Short  Tract  Mine Property  Surface projection of Jubinary Lee LCZ  Tract  Nine Property  Surface projection of Jubinary Lee LCZ  Tract  Nine Property  Surface projection of Jubinary Lee LCZ  Tract  Nine Property	



JORC Code Assessment Criteria	Comment	
Exploration done by other parties  Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Various exploration campaigns have occurred on the Black Butte Copper Project property from 1976 through 1993. Work was conducted by Cominco America, Inc., Utah International Inc., and BHP Billiton Ltd.</li> <li>Work programs included geological mapping, surface &amp; downhole geochemical sampling, geophysical surveys, and 342 drillholes across the entire property.</li> <li>Tintina Resources (the predecessor to Sandfire Resources America) conducted exploration activities on the property including compilation and updating of geological maps, soil chemical survey, airborne magnetics and resistivity survey, and a ground-based magnetic survey over the areas that include the Johnny Lee and Lowry Deposits.</li> </ul>	
Geology  Deposit type, geological setting and style of mineralisation.	<ul> <li>The Johnny Lee Deposit is a hybrid deposit exhibiting attributes of a sedimentary exhalative sulphide deposit (SEDEX) and a sedimenthosted stratabound copper deposit (SSC).</li> <li>The Black Butte deposits feature large pyriterich sulphide lenses that occur within marine sediments deposited in a continental rift, a host lithofacies, and paleo-tectonic setting consistent with that of SEDEX deposits. Whereas SEDEX deposits are commonly Pband Zn- rich and form on or near the seafloor the Johnny Lee Deposit is enriched in Cu-Co-Ag and lacks significant Pb-Zn mineralization. Textural evidence indicates that some Cu sulphides at Johnny Lee formed synchronous with primitive, early pyrite but that the majority of Cu-Co-Ag sulphide mineralization occurred by replacement of early pyrite and that mineralization/remobilization continued post-burial and lithification.</li> <li>The Johnny Lee deposits same continued post-burial and lithification.</li> <li>The Johnny Lee deposits termed Reduced-facies SSC deposits: Cu-Co-(Ag) mineralization hosted by reduced, organic- and pyrite-bearing shale, silt and carbonaceous dolomitic siltstone. These SSC deposits are epigenetic, and mineralization is typically found as pore fillings or replacement of existing minerals. Mineralization from relatively Cu-rich at the</li> </ul>	



JORC Code Assessment Criteria	Comment	
	base (native copper, chalcocite, digenite) to more iron-rich at the top (i.e. chalcopyrite). No zonation is evident in the Johnny Lee Deposit but the association of Cu sulphide mineralization with post-lithification veins and hydraulic brecciation supports a partially epigenetic origin.	
Drill hole information	The Competent Person has purposely	The Competent Person has purposely
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:  Easting and northing of the drill hole collar	excluded individual drill hole intercepts as the Johnny Lee Deposit contains interpreted, modelled, estimated, and classified Mineral Resources, thus individual drill intercepts are less important to the overall project that the sum of Mineral Resources disclosed.	excluded individual drill hole intercepts as the Lowry Deposit contains interpreted, modelled, estimated, and classified Mineral Resources, thus individual drill intercepts are less important
Elevation or RL (reduced level – elevation above sea level in metres) of the drill hole collar		to the overall project that the sum of Mineral Resources disclosed.
Dip and azimuth of the hole		
Downhole length and interception depth		
Hole length.		
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.		
Data aggregation methods	Drilling data has been composited to 1.5 m	Drilling data has been composited to 2.5 m
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	lengths based on a run-length compositing method bound and broken by 3D modelled wireframes.	lengths based on a run-length compositing method bound and broken by 3D modelled wireframes.
and should be stated.  Where aggregate intercepts incorporate short lengths of high-	<ul> <li>Wireframes are constructed based on a combination of structure, lithology, and grade shelling. In the JL UCZ, the primary mineralisation is modelled using a 1.2% Cu cut-</li> </ul>	<ul> <li>Wireframes are constructed based on a combination of structure, lithology, and grade shelling. The primary mineralisation is modelled using a 1.2% Cu cut-off threshold while</li> </ul>
grade results and longer low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	off threshold, while the JL LCZ geological continuity was best achieved using a 2.0% Cu cut-off for modelling.	secondary or "halo" mineralisation is modelled using an approximate 0.25% Cu threshold.
The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are stated for this property as all economics are based on copper.	<ul> <li>No metal equivalent values are stated for this property as all economics are based on copper.</li> <li>Capping was applied to Cu grades by domain, as follows: Sulphide 1-7 at 1.0% Cu, Beds 1-6 at</li> </ul>



JORC Code Assessment Criteria	Comment		
	<ul> <li>Capping was applied to Cu grades by domain, as follows: JL UCZ HG Cu at 10.1% Cu, JL UCZ Cu 1 at 4.51% Cu, JL LCZ MASU at 3.11% Cu, and no capping for JL UCZ Cu 2, JL LCZ Main, and JL LCZ Upper.</li> </ul>	2.0% Cu, LMCZ at 8.0% Cu, and LLCZ at 4.5% Cu.	
Relationship between mineralisation widths and intercept lengths	The mineralisation zones at the Johnny Lee     UCZ occur within a gently folded.	The stacked mineralisation zones at the Lowry deposit dip at shallow angles to the south.	
These relationships are particularly important in the reporting of Exploration Results.	<ul> <li>Drillholes are inclined such that they intersect mineralisation at high angles.</li> </ul>	Drillholes are inclined such that they intersect mineralisation at high angles.	
If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The mineralisation zones at the Johnny Lee LCZ dip at shallow angles to the south.		
If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').	<ul> <li>Drillholes are inclined such that they intersect mineralisation at high angles.</li> </ul>		
Diagrams	No exploration results are reported in this	No exploration results are reported in this	
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.	announcement.	announcement.	
Balance reporting	The Competent Person has purposely	The Competent Person has purposely	
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.	excluded all exploration results as the Johnny Lee Deposit contains Mineral Resources. Individual exploration results are not material to the overall deposit.	excluded all exploration results as the Lowry Deposit contains Mineral Resources. Individual exploration results are not material to the overall deposit.	
Other substantive exploration data	131 drillhole composites from the Johnny Lee	Metallurgical testing in the form of	
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.	deposit were submitted for comprehensive mineragraphy. The results from this study were integrated with metallurgical test work to develop a metallurgical recovery model for the JL UCZ. Variable Cu recoveries are assigned by block in the JL UCZ. Mineralogy work has also been completed on the JL LCZ, which supports an assigned 95.2% Cu recovery.	comprehensive mineralogical analyses has been completed on samples from the Lowry Deposit. Testing results are similar to those obtained at the nearby Johnny Lee Deposit, also located on the Black Butte Copper Project property. Metallurgical recovery for Cu has been assigned to the Lowry deposits: 91% for both LUCZ and LMCZ and 94% for LLCZ.	



JORC Code Assessment Criteria	Comment	
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).	<ul> <li>Additional drilling to convert mineralisation currently classified as Inferred Resource or Unclassified may be conducted as the project progresses.</li> </ul>	<ul> <li>Additional work is in the planning stages for the Lowry Deposit. This includes additional infill diamond drill core to improve data spacing and additional metallurgical analysis, with updated modelling and estimation.</li> </ul>
Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.		



Section 3 Estimation and Reporting of Mineral Resources	Johnny Lee	Lowry
Database integrity  Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	The Competent Person has performed a validation check on the database used for Mineral Resource reporting. This included a combination of visual, statistical and software validation checks. No issues or errors were found.	The Competent Person has performed a validation check on the database used for Mineral Resource reporting. This included a combination of visual, statistical and software validation checks. No issues or errors were found.
Data validation procedures used.	The Company has performed multiple validation checks and data verification on recent drilling campaigns. This includes cross-checks of logging to analytical data, verification of collar, survey, and associated data.	The Company has performed multiple validation checks and data verification on recent drilling campaigns. This includes cross-checks of logging to analytical data, verification of collar, survey, and associated data.
	<ul> <li>The Company has performed validation of all analytical data in reference to the original assay certificates obtained from third-party laboratories for the 2010-2012 drilling campaigns.</li> </ul>	<ul> <li>The Company has performed validation of all analytical data in reference to the original assay certificates obtained from third-party laboratories for the 2010-2012 drilling campaigns.</li> </ul>
Site visits  Comment on any site visits undertaken by the Competent Person and the outcome of those visits.  If no site visits have been undertaken indicate why this is the case.	The Competent Person visited the Black Butte Copper Project property during September 2022 and June 2025. During the site visit, the CP observed drilling activities, sampling, logging, data entry and toured the core shed, logging facility, and the property.	<ul> <li>The Competent Person visited the Black Butte Copper Project property during September 2022 and June 2025. During the site visit, the CP observed drilling activities, sampling, logging, data entry and toured the core shed, logging facility, and the property.</li> </ul>
Geological interpretation  Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.  Nature of the data used and of any assumptions made.	The Competent Person's confidence in the geological interpretation of the Johnny Lee Deposit is considered adequate for the estimation, classification, and reporting of Mineral Resources.	The Competent Person's confidence in the geological interpretation of the Lowry Deposit is considered adequate for the estimation, classification, and reporting of Mineral Resources.
The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation.  The factors affecting continuity both of grade and geology.	<ul> <li>Geological modelling was performed by Sandfire Resources America, Inc. personnel in close collaboration with the Competent Person.</li> <li>Geological modelling was performed using a combination of explicit and implicit modelling techniques based on regional and local.</li> </ul>	<ul> <li>Geological modelling was performed by Sandfire Resources America, Inc. personnel in close collaboration with the Competent Person.</li> <li>Geological modelling was performed using a combination of explicit and implicit modelling techniques based on regional and local.</li> </ul>
	<ul> <li>Geology, understanding of the lithostratigraphic sequence, and aided by analytical data.</li> <li>Multiple iterations of the interpreted geological</li> </ul>	<ul> <li>Geology, understanding of the lithostratigraphic sequence, and aided by analytical data.</li> <li>Multiple iterations of the interpreted geological</li> </ul>



Dimensions  The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	•	model were created including use of historic geological models of the deposit.  All modelling was performed in 3D with occasional 2D cross-sectional validation checks performed.  Grade is highly controlled by specific geological horizons and interaction with major structures. The modelled mineralisation envelops were truncated based on supporting data or lack thereof.  The Johnny Lee Upper Copper Zone is truncated in the north by the Volcano Valley HW Fault and has plan-view dimensions of 550 m east-west by up to about 1,025 m north-south. The true width of the JL UCZ extends up to about 30 m in the south.  The Johnny Lee Lower Copper Zone occurs at depths of 350 to 525 m below surface, strikes approximately east-west for about 1,200 m and dips at 20° to the south. The north-south dimension is variable with extents from 50 to 250 m. The true width of the JL LCZ extends up to about 10 m in the east.	•	model were created including use of historic geological models of the deposit.  All modelling was performed in 3D with occasional 2D cross-sectional validation checks performed.  Grade is highly controlled by specific geological horizons and interaction with major structures. The modelled mineralisation envelops were truncated based on supporting data or lack thereof.  Modelled mineralisation at the Lowry Deposit extends approximately 1,000 m north-south and up to 600 m east-west. Mineralisation can be locally discontinuous within select lenses of the LMCZ and LLCZ  High-grade (> 1.2% Cu) mineralisation thickness averages 3-10 m with a broader and lower grade (> 0.25% Cu) "halo" zone extending around the high-grade up to 20 m thickness.
Estimation and modelling techniques  The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters, and	•	Cu and SG were estimated into the modelled 3D mineralised wireframes with hard-boundary conditions within the JL UCZ and JL LCZ. Statistical and geostatistical analyses were	•	Cu and SG were estimated into the modelled 3D mineralised wireframes with hard-boundary conditions at Lowry.  Statistical and geostatistical analyses were
maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a		performed on each zone with an emphasis on copper.	_	performed on all zones with an emphasis on copper.
The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource	•	Analytical data was composited at 1.5 m bounded and broken by mineralisation volumes with residual lengths less than 0.75 m distributed equally.	•	Analytical data was composited at 2.5 m bounded and broken by mineralisation volumes with residual lengths less than 1.0 m merged with the previous interval.
estimate takes appropriate account of such data.  The assumptions made regarding recovery of by-products.	•	A high-yield capping analysis was performed on copper by zone. Capping was applied to Cu grades by domain, as follows: JL UCZ HG Cu at 10.1% Cu JL UCZ Cu 1.2t 4.51% Cu JL	•	A high-yield capping analysis was performed on copper by zone. Capping was applied to Cu grades by domain, as follows: Sulphide 1-7 at 1.0% Cu. Bods 1.6 at 2.0% Cu. LMC7 at 8.0%

at 10.1% Cu, JL UCZ Cu 1 at 4.51% Cu, JL

LCZ MASU at 3.11% Cu, and no capping for JL UCZ Cu 2, JL LCZ Main, and JL LCZ Upper.

1.0% Cu, Beds 1-6 at 2.0% Cu, LMCZ at 8.0%

Cu, and LLCZ at 4.5% Cu.



Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation).

In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.

Any assumptions behind modelling of selective mining units.

Any assumptions about correlation between variables.

Description of how the geological interpretation was used to control the resource estimates.

Discussion of basis for using or not using grade cutting or capping.

The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.

- Cu estimation was performed using Ordinary Kriging (OK) in a multiple pass search neighbourhood. SG estimation was conducted via IDW2 interpolation with separate 1.5-m composites broken on domains in the JL UCZ and JL LCZ.
- Due to the undulating nature of mineralisation at the Johnny Lee Deposit, a variable orientation surface was utilized to optimise the local search neighbourhood.
- Block dimensions are parent blocks at 25 m x 25 m x 3 m with octree sub-blocking to 1.5625 m x 1.5625 m x 1.5625 m x 1.5 m. It is the opinion of the Competent Person that block size is appropriate for the data spacing observed at the Johnny Lee deposit.
- No by-products or co-products are considered economically viable at this time. Copper is the focus of the Johnny Lee Deposit.
- The estimated resource block model was validated against composited data and a nearest neighbour block estimate for copper using visual validation, summary statistical comparisons, and swath plots. The results of the validation show no material bias, and it is the opinion of the Competent Person that the model provides adequate representation of drilling data appropriate in block volumes.

- Cu estimation was performed using OK in a multiple pass search neighbourhood and filled in with IDW3 estimates for poorly informed blocks. SG was estimated using IDW3 and a unique search neighbourhood by domain.
- Block dimensions are parent blocks at 20 m x 20 m x 5 m with sub-blocking to 2.5 m x 2.5 m x 2.5 m. It is the opinion of the Competent Person that block size is appropriate for the variable data spacing observed at the Lowry deposit.
- No by-products or co-products are considered economically viable at this time. Copper is the focus of the Lowry Deposit.
- The estimated resource block model was validated against composited data and a nearest neighbour block estimate for copper using visual validation, summary statistical comparisons, and swath plots. The results of the validation show no material bias, and it is the opinion of the Competent Person that the model provides adequate representation of drilling data appropriate in block volumes.

#### Moisture

Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.

- All Mineral Resource tonnes are estimated and reported on a dry basis.
- All Mineral Resource tonnes are estimated and reported on a dry basis.

### **Cut-off parameters**

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

- To demonstrate reasonable prospects for eventual economic extraction, a Net Smelter Return (NSR) cut-off value (CoV) was applied.
- The CoV was determined based on a modelled variable copper recovery for the JL UCZ and a 95.2% recovery for the JL LCZ with the following assumed economic parameters.
- To demonstrate reasonable prospects for eventual economic extraction, a NSR CoV was applied.
- The CoV was determined based on assigned Lowry metallurgical recovery (91 % for LUCZ and LMCZ and 94% for LLCZ), and the following assumed economic parameters.



	<ul> <li>Mill Processing Costs are based on dry concentrate and include costs for treatment (\$79.00 per dry material tonne (dmt) concentrate), refining (\$0.079 per pound of payable Cu), freight (\$167.00 per dmt concentrate), and a 2% NSR royalty.</li> <li>Long-term Cu price of \$4.70 per pound (\$10,360 per tonne) was used based on current market consensus forecast for upside Cu pricing.</li> <li>Using these metrics, a CoV of \$45/t NSR, which is approximately equal to 0.56% recoverable Cu, was used to report the Johnny Lee deposit.</li> </ul>	<ul> <li>Mill Processing Costs are based on dry concentrate and include costs for treatment (\$79.00 per dry material tonne (dmt) concentrate), refining (\$0.079 per pound of payable Cu), freight (\$167.00 per dmt concentrate), and a 2% NSR royalty.</li> <li>Long-term Cu price of \$4.70 per pound (\$10,360 per tonne) was used based on current market consensus forecast for upside Cu pricing.</li> <li>Using these metrics, a CoV of \$110/t NSR, which is approximately equal to 1.28% recoverable Cu, was used to report the Lowry deposit.</li> </ul>
Mining factors or assumptions	The assumed mining method is underground	The assumed mining method is underground
Assumptions made regarding possible mining methods,	drift and fill mining.	cut & paste fill mining.
minimum mining dimensions and internal (or, if applicable, external) mining dilution.	No considerations to dilution or a minimum	No considerations to dilution or a minimum
external) mining dilution.	mining width were applied for Mineral Resources purposes.	mining width were applied for Mineral Resources purposes.
It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Tresources purposes.	rteseurese purposes.
Metallurgical factors or assumptions	Historical Metallurgical studies of the Johnny	Mineralogical testing at the Lowry Deposit was
The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the	Lee Upper Copper Zone have indicated that metallurgical Cu Recovery is highly variable.	used in combination of recovery regression curves derived from the nearby Johnny Lee
process of determining reasonable prospects for eventual	For the purpose of this study, 131 drillhole	Deposit. As the mineralogical testing was
economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical	composites were used for systematic	considered comparable to data collected at Johnny Lee Deposit, these regressions were
treatment processes and parameters made when reporting	mineragraphy.  Comprehensive metallurgical testing was	used.
Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the	undertaken on 21 drillhole composites and the	<ul> <li>Lowry metallurgical recovery tests indicated averages of 91 % for LUCZ and LMCZ and</li> </ul>
basis of the metallurgical assumptions made.	results were used to derive a regression-based Cu recovery algorithm using mineragraphy metrics.	94% for LLCZ. These values were assigned across the Lowry deposit by domain for the
	For the JL UCZ, the estimation of recovery in concentrate was extended from the 2019	purposes of determining NSR CoV.
		1



geometallurgical recovery model, an IDW2
estimate developed by SRA, into the 2025
block model using a NN interpolation of the
2019 block centroids

 Metallurgical test work for the JL LCZ has shown relatively consistent Cu recoveries that average 95.2%, which has been applied for the Mineral Resource estimate.

#### **Environmental factors or assumptions**

Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.

- No direct assumptions were applied for environmental considerations in Mineral Resource calculations at Johnny Lee.
- Tailings materials generated over the LOM from the on-site process plant will be mixed with binder/cement and either be pumped to the double-lined Cemented Tailings Storage Facility (CTF) for permanent storage on surface or utilised as underground paste backfill during mining operations and mine closure.
- Waste rock sourced from the underground mine workings will ultimately be transferred to the CTF for permanent storage where it along with the cemented tailings paste will ultimately be covered with excess bedrock, HDPE liner, and soils in order to minimise any surface water seepage directly into the waste materials and that will allow the surface to be used for beneficial use at the end of the mine life.
- Collection of all water pumped out of the mine during construction, operations, and mine closure will be stored in various double-lined ponds. Each of these facilities include the additional protection of constant leak detection systems.
- Water will be treated through a two stage Reverse Osmosis (RO) water treatment system capable of treating water to nondegradation standards for groundwater before being ultimately reintroduced (discharged) to the groundwater through the alluvial underground infiltration gallery. Brine reject from the WTP operations will either be stored in the brine cell

- No direct assumptions were applied for environmental considerations in Mineral Resource calculations at the Lowry deposit.
- Assumptions on waste disposal and impacts are that the Lowry Deposit would utilise planned infrastructure as part of the Johnny Lee Deposit development and operation. Tailings would be incorporated into a paste plant and utilised in the cut & paste fill mining method with excess stored in the Johnny Lee long-term storage facility.



Classification  The basis for the classification of the Mineral Resources into varying confidence categories.  Whether appropriate account has been taken of all relevant factors, i.e., relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data.  Whether the result appropriately reflects the Competent Person(s)' view of the deposit.	Considerations for the Mineral Resource classification at the Johnny Lee Deposit includes deposit geological knowledge, continuity of copper grade within mineralised volumes, the thickness of mineralised zones, confidence in the raw drilling and analytical data, spatial continuity of copper based on variography studies, estimation quality variables including Kriging Efficiency and Slope of Regression, mean distance to samples, and the estimation pass number.  Based on the above inputs, the Competent	Considerations for the Mineral Resource classification at the Lowry Deposit includes deposit geological knowledge, continuity of copper grade within mineralised volumes, the thickness of mineralised zones, confidence in the raw drilling and analytical data, spatial continuity of copper based on variography studies, estimation quality variables including Kriging Efficiency and Slope of Regression, mean distance to samples, and the estimation pass number.  Based on the above inputs, the Competent
Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.  The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.  Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	<ul> <li>Bulk density was measured using the immersion method from diamond drill core.</li> <li>All SG data was tested by Company staff at the core logging facility.</li> <li>Bulk density was estimated in the Lowry Deposit resource block model by domain using Inverse Distance Weighting Power of Two (IDW2) interpolation.</li> <li>A mean SG value based on composite data within each domain was applied to unestimated blocks.</li> </ul>	Bulk density was measured using the immersion method from diamond drill core.  All SG data was tested by Sandfire Resources America Inc. staff at the core logging facility.  Bulk density was estimated in the Lowry Deposit resource block model by domain using Inverse Distance Weighting Power of Three (IDW3) interpolation.  A mean SG value based on composite data within each domain was applied to unestimated blocks
	of the CWP, added to the tailings thickener, or ultimately hauled off site to an approved disposal facility.  In mine closure the planned installation of plugs in declines and shafts will segment the mine at certain locations that will make the planned underground pumping and rinsing more efficient and result in the environmental benefit of reducing flow of contact water through open tunnels and shafts. The Mine Operating Permit satisfies the substantive requirements of the Montana Metal Mine Reclamation Act.	

Person has assigned a combination of Measured, Indicated, and Inferred Mineral Resources at the Johnny Lee Deposit. Person has assigned a combination of Measured, Indicated, and Inferred Mineral

Resources at the Lowry Deposit.



	The Competent Person is satisfied that the reported Mineral Resource classification reflects the relevant factors of the deposit.	The Competent Person is satisfied that the reported Mineral Resource classification reflects the relevant factors of the deposit.
Audits or reviews  The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>All stages of the Mineral Resource estimation and classification have undergone reviews by the Competent Person as an independent consultant, and reviews by geological personal within Sandfire Resources America, Inc.</li> </ul>	<ul> <li>All stages of the Mineral Resource estimation and classification have undergone reviews by the Competent Person as an independent consultant, and reviews by geological personal within Sandfire Resources America, Inc.</li> </ul>
Discussion of relative accuracy/confidence  Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.  The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.  These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The relevant accuracy and confidence in Mineral Resources reflects the current level of study for the Johnny Lee Deposit at Feasibility level.	<ul> <li>The relevant accuracy and confidence in Mineral Resources reflects the current level of study for the Lowry Deposit.</li> <li>The Competent Person has relied on assumptions applied to the nearby Johnny Lee Deposit due to the similarity of mineralisation and minerology observed in both deposits at the Black Butte Copper Project.</li> </ul>



Section 4 Estimation and Reporting of Ore Reserves	Johnny Lee	
Mineral Resource estimate for conversion to Ore Reserve  Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.  Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	<ul> <li>The Ore Reserve is based on the Johnny Lee Mineral Resources with an effective date of 5 November 2025.</li> <li>Mineral Resources are reported inclusive of Ore Reserves</li> </ul>	
Site visits	The CP undertook a site visit to the project site in June 2025.	
Comment on any site visits undertaken by the Competent Person and the outcome of those visits.  If no site visits have been undertaken indicate why this is the case.	The CP inspected drill core, current site status, surroundings, and site access routes and found no causes for concern regarding the viability of the Ore Reserve plan.	
Study status	The Ore Reserve estimate is underpinned by a comprehensive pre-feasibility study conducted on the	
The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.  The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	<ul> <li>Project.</li> <li>Modifying factors accurate to the study level were applied based on detailed expert design analysis.</li> <li>The study indicates that the Ore Reserve mine plan is technically achievable and economically viable.</li> </ul>	
Cut-off parameters	A Net Smelter Return (NSR) was calculated for all blocks which considered the varying metallurgical	
The basis of the cut-off grade(s) or quality parameters applied.	recovery of each block, allowances for payability, royalties, concentrate transport and treatment/refining costs. The currency denomination used for the analysis and referenced in this table was US\$.  The NSR was calculated using a \$4.70/lb Cu Price.  A cut off value of \$110/t was used to determine the economic inventory envelope.  In addition, an incremental cut off value of \$45/t was used for development that has to be mined to gain access to fully costed economic material.	
Mining Factors or assumptions	Cut-off values and geotechnical inputs were used to apply mathematical stope optimisation algorithms	
The method and assumptions used as reported in the Pre- Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate	on the Mineral Resource to identify economic mining areas. Detailed underground mine designs were then completed, incorporating the optimisation results, and these were used as the basis of the Ore Reserve estimate. Modifying factors were applied to the design based on PFS-level analysis and a	



factors by optimisation or by preliminary or detailed design).

The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.

The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and preproduction drilling.

The major assumptions made, and Mineral Resource model used for pit and stope optimisation (if appropriate).

The mining dilution factors used.

The mining recovery factors used.

Any minimum mining widths used.

The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.

The infrastructure requirements of the selected mining methods

- mine plan was subsequently scheduled. This mine plan was evaluated with a detailed financial model to ensure that the Ore Reserve is economically viable at the forecast commodity price.
- The mining methods employed were primary-secondary overhand jumbo cut-and-fill, and primary-secondary jumbo drift-and-fill. Cemented pastefill will be used for post-mining void filling. This will be generated using tailings from the processing plant.
- The mining methods were selected based on a detailed analysis having regard for orebody geometry and geotechnical advice. Diesel powered trucks and loaders will be used for materials handling. Diesel-electric jumbo drill rigs will be used for development and ground support installation, and diesel-electric longhole rigs used for production drilling. Ore will be hauled directly to the processing plant run-of-mine (ROM) pad by the underground trucking fleet. Waste rock will be initially deposited on a surface waste dump to be constructed close to the portal then transferred to the cemented tailings facility (CTF) for final disposal.
- The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be estimated with an appropriate degree of accuracy.
- Independent geotechnical consultants Entech Pty Ltd contributed appropriate geotechnical analyses to a PFS level of detail based on geotechnical drilling and data analysis. These inputs were incorporated into the mining method selection, mine design, ground support and dilution assumptions for the Ore Reserve estimate.
- A maximum unsupported underground void span of 10 m x 30 m was designed based on the geotechnical analysis.
- Costing and design allowance have been made for grade control activities.
- The Mineral Resource models used for stope optimisation were those noted previously.
- Only the Measured and Indicated portions of the Mineral Resource were used to estimate the Ore Reserve. NSR cut-off values used for optimisation were those noted previously. Mining geometry and modifying factor assumptions used are detailed below.
- All unsupported stripping voids had a waste dilution of 5% applied mathematically.
- No additional dilution outside of design was applied to development.
- A mining recovery of 90% was applied to all unsupported stripping activities. In addition, barrier pillars were designed to be left in-situ in the UCZ area for global stability based on geotechnical advice. All development had 100% mining recovery assumed.
- A minimum ore drive height of 4.5 m was applied in UCZ, and 5.0 m in LCZ, based on the proposed mining methods and equipment fleet. Any waste material contained within the ore drive profile was captured as planned dilution.
- All Inferred material was set to waste grade and all mining shapes subsequently falling below NSR cut
  off were excluded. The Ore Reserve is technically and economically viable without the inclusion of
  Inferred Mineral Resource material.
- The Ore Reserve mine plan will require installation of all mining infrastructure including electrical power connection and distribution, water and compressed air supply, ventilation infrastructure, dewatering systems and storage, communications and emergency response and egress facilities.



# Metallurgical factors or assumptions

The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.

Whether the metallurgical process is well-tested technology or novel in nature.

The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.

Any assumptions or allowances made for deleterious elements.

The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.

For minerals that are defined by a specification, has the Ore Reserve estimation been based on the appropriate mineralogy to meet the specifications?

#### Environmental

The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.

#### Infrastructure

The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.

- All required surface infrastructure will also need to be provided including access road upgrade, site
  offices, ablutions, workshops, waste dumps and ore pads, laydown yards, water management systems
  and explosives magazines.
- Costs associated with mobilisation, establishment and all required site and mine infrastructure to support underground mining have been accounted for in the study.
- Copper will be recovered by a standard comminution and flotation process. The 1.2 Mtpa processing
  plant will be a conventional flotation-based concentrator consisting of crushing, grinding, sulphide
  flotation, thickening and filtering. The plant will be constructed on-site and engineered to the specific
  characteristics of the orebody.
- The proposed metallurgical process is well established and widely used in the mining jurisdiction.
- Extensive metallurgical testwork has been performed on the Johnny Lee deposit to a sufficient level of detail to support the Ore Reserve. Testwork has shown consistent high copper recoveries from the LCZ while the copper recoveries from the UCZ are generally lower than the LCZ, and more variable. Blending of ore feed from the two orebodies will require management to optimise recovery results, and this is reflected in the Ore Reserve estimate mine plan which accesses both zones prior to commencement of processing.
- Copper recoveries are forecast to be variable in the UCZ and were therefore added as a field in the block model to generate a recovered copper grade for subsequent value analysis. The LCZ has a consistent 95.2% Cu recovery applied. Global forecast project Cu recovery is 86.1%.
- Arsenic is the only potential deleterious element that is expected to be present in the saleable copper concentrate to be transported off site. This has been accounted for in financial modelling via penalty allowances in \$/dmt concentrate, and higher treatment/refining cost allowances.
- No bulk sample or pilot scale test work has been conducted. The proposed processing methods are sufficiently well-established to enable support for the Ore Reserve assumptions based on the extensive testwork conducted to date.
- The copper concentrate is expected to be saleable in existing markets. No prescriptive specification is applicable.
- Environmental impacts have been comprehensively assessed through the MT DEQ Environmental Impact Statement and the approved MOP. Including the approved MOP, 28 permits and plans are required; 23 have been granted and the remaining items are largely administrative, with work initiated on all but one. Key operating approvals, including the MOP, Air Quality Permit, MPDES and construction stormwater permit, together with the DEQ Record of Decision, demonstrate regulatory compliance and no environmental or permitting constraints have been identified that would materially affect the Ore Reserve.
- Limited infrastructure currently exists at the site.
- The site is located 27 km north of the township of White Sulphur Springs, close to existing public road, power and rail infrastructure.
- Concentrate is planned to be shipped using a combination of trucking and rail over existing networks to port facilities located on the west coast of the USA. Regional and international airports are located at various locations within the state of Montana for personnel movement where required. An



accommodation village is planned to be constructed in the project area to ease the local housing burden during construction and operations. Labour is expected to be sourced locally, from within the State and wider USA and internationally dependent on availability of the required skillsets for the phase of development and operation.

- There is sufficient land within the lease area for the establishment and operation of the planned facilities including the processing plant, water management facilities and tailings dam.
- Power is planned to be supplied from the public grid. A 58 km 100 kV overhead transmission line will be constructed for this connection.
- Service and process water is planned to be primarily sourced from recycled water and dewatering of the underground workings.
- There are no known impediments to construction of all required infrastructure.

#### Costs

The derivation of, or assumptions made, regarding projected capital costs in the study.

The methodology used to estimate operating costs.

Allowances made for the content of deleterious elements.

The source of exchange rates used in the study.

Derivation of transportation charges.

The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.

The allowances made for royalties payable, both Government and private

- Capital cost estimates for establishment and construction of the processing plant and site surface non-processing infrastructure were estimated under the oversight of GR Engineering Services Pty Ltd (GRES) to a PFS level of detail.
- The infrastructure capital estimate is based upon preliminary engineering, quantity take-offs, budget price quotations for major equipment, and bulk commodity costs achieved recently on similar projects undertaken in the minerals processing industry. Unit rates for installation were benchmarked to those achieved recently on similar projects undertaken in the minerals processing industry.
- Underground mine capital costs were primarily based on a request for quotation (RFQ) process involving three experienced and reputable underground mining contractors. Costs for major mine infrastructure items not included in the contractor quotes were sourced from vendors.
- Operating cost estimates were based on mining contractor RFQ submissions, detailed quotes from suppliers, current labour market conditions, first principles estimates, and benchmarking.
- A penalty has been allowed for elevated As grade in concentrate in the Ore Reserve economic analysis, based on forecast mined grades and metallurgical testing data.
- All costs and revenues were calculated in US dollars. No exchange rates were required for the financial analysis of the Ore Reserve estimate.
- Road, rail and sea transport charges for concentrate are based on concentrate transport studies
  prepared by a third party.
- As penalties and treatment and refining charges were estimated based on standard market agreements and consultations with potential offtake partners.
- A 2% landholder royalty plus \$10M option payment was allowed for based on advice provided by SRA.



#### **Revenue Factors**

The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.

The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.

- Commodity price assumptions were based on forecasts provided by Consensus Economics.
- The copper price used in the Ore Reserve estimation economic viability analysis was \$4.70/lb.
- Payability and deduction terms were based on standard copper concentrate marketing terms and are considered appropriate for the project.

#### **Market assessment**

The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.

A customer and competitor analysis along with the identification of likely market windows for the product.

Price and volume forecasts and the basis for these forecasts.

For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.

- The project will be a producer of copper concentrate sold on the open global market.
- The price of copper is generally set based on the LME which is a mature, well established and publicly traded exchange. Sandfire Resources America relies upon independent expert publications (CRU, Wood Mac, Metal Bulletin) and other sources (bank reports, trader reports, conferences, other trade publications) in forming a view about future demand and supply and the likely effects of this on both metal prices and concentrate prices.

### **Economic**

The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.

NPV ranges and sensitivity to variations in the significant assumptions and inputs.

- The Ore Reserve estimate is based on a financial evaluation prepared at a PFS level of accuracy. Mining operations, processing, transportation, sustaining capital, and contingencies, have been scheduled and evaluated to generate a life of mine financial model.
- A discount rate of 8% has been applied to determine net present value (NPV).
- The NPV of the project is positive at the assumed commodity price.
- The NPV is most sensitive to changes in Cu selling price followed by mine operating costs and total capital costs. The project is economically viable with a commodity price reduction of 7%.

### Social

The status of agreements with key stakeholders and matters leading to social licence to operate.

SRA are in liaison with both government and key stakeholders regarding development of the project. The Competent Person is not aware of any reason why additional required permitting will not be granted within a reasonable time frame to allow mining to commence

#### Other

To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:

 A formal process to assess and mitigate naturally occurring risks has been undertaken as part of the PFS. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation.



Any identified material naturally occurring risks.

The status of material legal agreements and marketing arrangements.

The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.

- The tenements are all current and held in good standing. Discussions with key stakeholders are ongoing.
- Sandfire Resources America has advised that Black Butte Copper is currently compliant with all legal and regulatory requirements.
- No marketing arrangements are in place, however based on available information, the Competent Person sees no major concerns around successful resolution of these agreements within a reasonable timeframe.

#### Classification

The basis for the classification of the Ore Reserves into varying confidence categories.

Whether the result appropriately reflects the Competent Person's view of the deposit.

The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).

- The Probable Ore Reserve is based on that portion of the Measured and Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss. The Competent Person is of the opinion that insufficient support exists to classify any material as a Proved Ore Reserve
- The results appropriately reflect the Competent Person's view of the deposit
- The proportion of Cu metal in the Probable Ore Reserves derived from Measured Resources is 21%.

#### **Audits or reviews**

The results of any audits or reviews of Ore Reserve estimates.

- The Ore Reserves estimation has been subjected to an internal review by senior technical personnel of Entech Pty Ltd.
- The Ore Reserve estimate has been reviewed by Sandfire Corporate Technical Services.
- WSP conducted an independent, high-level peer review of the pre-feasibility study to assess potential red-flag risks to project delivery, with no significant issues identified.

### Discussion of relative accuracy/ confidence

Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.

- The design, schedule, and financial model on which the Ore Reserve is based has been completed to a PFS standard, with a corresponding level of confidence.
- All modifying factors have been applied on a global scale.
- Considerations which could affect the relative accuracy and confidence in the Ore Reserve include:
- Commodity price forecasts carry an inherent level of risk.
- There is a degree of uncertainty associated with geological estimates. The Ore Reserve classifications reflect the levels of geological confidence in the estimates.



The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.

Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.

It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

- There is a degree of uncertainty regarding the impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study.
- Permits for the Black Butte Copper Project are substantially in place having received the Final Mine Operating Permit from the MDEQ.
- No marketing agreements are yet in place.
- Confidence in the Project will be increased by moving to the next phase of study.
- Further quantitative analysis of risk is not warranted or considered appropriate at the current level of technical and financial study.