

**FORM 51-102F3
MATERIAL CHANGE REPORT**

ITEM 1. NAME AND ADDRESS OF ISSUER

Sandfire Resources America Inc. (the "**Company**")
PO Box 431
White Sulphur Springs, MT
USA, 59645

ITEM 2. DATE OF MATERIAL CHANGE

October 25, 2019

ITEM 3. NEWS RELEASE

The Company disseminated a news release on October 25, 2019, a copy of which is filed on SEDAR.

ITEM 4. SUMMARY OF MATERIAL CHANGE

The Company announced an updated Mineral Resource estimate for the Johnny Lee Deposit, Black Butte Copper Project, a proposed underground mine located in Montana, USA.

ITEM 5.1 FULL DESCRIPTION OF MATERIAL CHANGE

The Company announced an updated Mineral Resource estimate for the Black Butte Copper Project.

The updated Mineral Resource statement for the Johnny Lee Deposit is summarized in Table 1. This Mineral Resource statement is based upon the Preliminary Economic Assessment (effective date: July 12, 2013) further supported by additional drilling, analyses, geological modeling, and extensive metallurgical studies to provide updated recoveries.

Table 1: Mineral Resource Estimate for the Johnny Lee Deposit as of October 15, 2019.

Category	Quantity (Mt)	Cu (%)	Total Metal (kt)
UCZ			
Measured	1.4	2.6	36.2
Indicated	8.3	2.3	191.3
Measured and Indicated	9.7	2.4	227.5
Inferred	2.2	2.2	49.5
LCZ			
Measured	0.6	5.7	32.9
Indicated	0.6	7.9	50.5
Measured and Indicated	1.2	6.8	83.4
Inferred	0.5	6.3	30.3
Combined UCZ + LCZ			
Measured	2.0	3.5	69.1
Indicated	8.9	2.7	241.8
Measured and Indicated	10.9	2.9	310.9
Inferred	2.7	3.0	79.7

Source: SRK, 2019

- The effective date for this Mineral Resource is October 15, 2019. All significant figures are rounded to reflect the relative accuracy of the estimates. Copper assay values were capped where appropriate;

- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. Inferred Mineral Resources have a high degree of uncertainty as to their economic and technical feasibility. It cannot be assumed that all or any part of an Inferred Mineral Resources can be upgraded to Measured or Indicated Mineral Resources;
- Metallurgical recovery of copper has been estimated on a block basis in the UCZ, averaging 77.4%, with a consistent 94.0% Cu recovery applied to the LCZ;
- To demonstrate reasonable prospects for eventual economic extraction of Mineral Resources, a cut-off grade of 1.00% copper based on metal recoverability assumptions, long-term copper price assumptions of \$3.20/lb, mining costs, processing costs, G&A costs totaling \$71/t;
- There are no known legal, political, environmental, or other risks that could materially affect the potential development of the Mineral Resources other than those outlined in the Management Discussion and Analyses of the June 2019 Company Quarterly Report. All Mineral Resources are located within land currently under control or lease to Sandfire Resources America Inc.

The 2019 Mineral Resource update was supervised and reviewed by SRK Consulting (U.S.), Inc. ("SRK") and represents the changes in the defined Mineral Resource from the previously defined Mineral Resource estimate contained within the Updated Technical Report and Preliminary Economic Assessment for the Black Butte Copper Project (effective date: July 12, 2013) due to:

- Additional drilling, analytical data, geological and structural modeling, and interpretation of geological and mineralization for improved confidence;
- Metallurgical and geometallurgical studies;
- Removal of Co, Ag, and Au by-products; and
- Updated cut-off grade used to define the Mineral Resource.

The Mineral Resource estimate incorporated drill data from 140 diamond drillholes completed by its predecessors and, 48 diamond drillholes completed by the Company. The Mineral Resource estimate was reviewed and approved by SRK of Denver, Colorado, USA under the supervision of Erik Ronald, an Independent Qualified Person under NI 43-101.

Twenty-two metallurgical composite samples, constructed from fourteen drillholes completed by the Company, were used to conduct a metallurgical test work program for the Johnny Lee deposit. The metallurgical test results were integrated with systematic mineralogy of drillhole samples to develop a metallurgical copper recovery model for the Johnny Lee deposit. Metallurgical testing was conducted at Base Metallurgical Laboratories (Kamloops, British Columbia) under the supervision of Dr. Deepak Malhotra of Resource Development Incorporated, an Independent Qualified Person under NI 43-101.

Resource Estimation Methodology and Parameters

A quality assurance and quality control (QA/QC) program was implemented to support the Mineral Resource estimate. Diamond drill core sampling intervals were collected from above the mineralization zones to the end of each drillhole. HQ (2.5 inch) diamond core was sawn into half-core samples for copper analyses. Diamond drill core analyses for copper mineralization was performed at ALS Laboratories (ALS) in Reno, Nevada and metallurgical testing at Base Metallurgical Laboratories in Kamloops, British Columbia, Canada. Approximately 20% of the submitted samples consisted of QA/QC samples including: duplicates, blanks, and certified Reference Materials (CRM). All QA/QC, sampling, drilling, and analytical methodologies have been deemed acceptable by the QP for use in determination of Mineral Resources as per CIM guidelines.

Geological continuity of up to eight, vertically stacked, shallow dipping >1.2% copper mineralized layers in the UCZ has been demonstrated and modeled as wireframe domains in three-dimensions (3D). The >1.2% copper domains in the UCZ are encapsulated within a zone of >0.25% copper mineralization modeled in 3D as wireframe volumes.

Copper mineralization within the LCZ occurs within three discrete >2.0% copper lenses that occur at approximately the same elevation. Each of these lenses has been modeled in 3D as separate wireframe volumes. Compositing and capping were utilized for copper grade estimated into each modeled domain using Ordinary Kriging for both the UCZ and LCZ. Density was estimated into the block model by domain using Ordinary Kriging of composited data. The block models were used to constrain the tonnage and copper grade estimations for the Mineral Resource estimate.

Copper Recovery Estimation

Metallurgical test work using UCZ composites has shown that copper recoveries, using the optimized recovery process, are highly variable. Mineralogical investigation of UCZ metallurgical composites has demonstrated that this variability is due to differences in copper sulfide liberation characteristics. The estimated copper recoveries determined from copper sulfide liberation metrics have been interpolated into a block model using an inverse distance weighting squared process. Estimated copper recoveries for the UCZ range from 68.2% to 87.9%.

Historic and recent metallurgical test work for the LCZ has demonstrated relatively high recoveries with low variability. Accordingly, a 94.0% copper recovery has been applied to the LCZ model.

Determination of Cut-off Grade for Resource

To demonstrate the prospect of eventual economic extraction of Mineral Resources, SRK applied a cut-off grade that accounts for metallurgical recovery of copper, operational costs, and market-driven copper pricing. The following technical and economic parameters are assumed and accounted for in the determination of cut-off grade:

- Metallurgical recoveries: Estimated variable copper recovery for the UCZ. Assigned mean 94% copper recovery for the LCZ.
- Operational Costs: US\$71/tonne. This includes mining, processing and general and administrative costs.
- Copper Price: A long term copper price of US\$3.20 per pound (US\$7,055 per metric tonne) is based on market consensus forecast for upside copper pricing.

Using these metrics, a cut-off grade of 1.0% Cu based on recovery assumptions was used for the entire Johnny Lee deposit.

The technical information contained in this material change report related to the Johnny Lee Deposit has been reviewed and approved by Erik Ronald, M. Eng., P.Geo, RM-SME, Principal Consultant, SRK Consulting (U.S.) Inc. and Deepak Malhotra Ph.D. RM-SME, Resource Development Inc. Messrs. Ronald and Malhotra are Qualified Persons pursuant to NI 43-101 for Mineral Resources and Metallurgical processing respectively. Messrs. Ronald and Malhotra are independent of the Company.

ITEM 5.2 DISCLOSURE FOR RESTRUCTURING TRANSACTIONS

Not Applicable.

ITEM 6. RELIANCE ON SUBSECTION 7.1(2) OF NATIONAL INSTRUMENT 51-102

Not Applicable.

ITEM 7. OMITTED INFORMATION

No information has been omitted on the basis that it is confidential information.

ITEM 8. EXECUTIVE OFFICER

Contact: Robert Scargill, CEO
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ITEM 9. DATE OF REPORT

October 25, 2019