

NEWS RELEASE

South Star Battery Metals Announces Santa Cruz Graphite Mine Construction and Licensing Updates as well as Filing of NI 43-101 Maiden Mineral Resource Estimate Report for the BamaStar Graphite Project in Coosa County Alabama, USA

Highlights:

- **Santa Cruz Phase 1 construction is on budget and on schedule for commercial production at the EOY 2023.**
- **All documents for Santa Cruz Phases 2 and 3 environmental permits and mining licenses have been submitted to regulatory agencies for review and comment.**
- **At BamaStar, 520,000 tonnes of contained graphite with an open pit-constrained mineral resource estimate of 22M tonnes of inferred resources at an average grade of 2.4% (Cg), based on a 1.1% cut-off grade.**
- **Estimate is based on 12 drill holes totaling 506m of HQ diamond drilling completed in 2022.**
- **The mineral resource estimate confirms the significant potential of this historical mine with graphite mineralization open at depth and in both directions (NE & SW).**
- **The mineral resource estimate and initial open pit optimization confirms the deposit is amenable to open pit mining operations with at-surface mineralization and low strip ratios.**
- **Grant of RSUs.**

Vancouver, Canada, April 27, 2023 – South Star Battery Metals Corp. (“South Star” or the “Company”) (TSXV: STS) (OTCQB: STSBD), is pleased to announce a construction and permitting update for the Santa Cruz Graphite Mine currently in construction on the Phase 1 installations in Brazil, as well as the filing of the NI 43-101 technical report (“TR”) of its maiden mineral resource estimate (“MRE”) for the BamaStar Graphite Project located in Coosa County, Alabama, United States (the “Project”).

Richard Pearce, CEO of South Star commented, “Santa Cruz construction on the Phase 1 plant and mine installations is on budget and on schedule through the end March 2023. All licensing and permitting documents for Phases 2 and 3 for up to 50,000 of graphite concentrate have been submitted and are in technical evaluation. We are planning to have all licenses and permits in hand by the end of 2023, which will help facilitate the financing process for the future expansions. The BamaStar NI 43-101 technical report with the maiden mineral resource estimate is a fantastic result and confirms the potential for a significant deposit at this historical mine with at-surface mineralization that should be amenable to open pit mining techniques and low strip ratios. It’s one of two projects in the continental United States with a defined mineral resource estimate. The drillers are scheduled to return in May 2023, and we are planning to get a NI 43-101 Preliminary Economic Assessment (PEA) completed by Q1 of 2024. The PEA will present our strategic plan of two mines, each producing 50,000 tonnes per year of concentrates, feeding a centrally located, value-add plant in the southeast United States and producing active anode material for electric vehicles, as well as purified/micronized and expandable graphite products.” Mr. Pearce continued, “South Star has two scalable assets in strategic, stable, mining-friendly jurisdictions and the team to build and operate them in a safe responsible manner in partnership with communities and stakeholders. It’s happening at the perfect time, when supply is constrained and demand is outstripping supply. This dynamic is expected to place significant pressure on the graphite price in 2023 and for the foreseeable future. Santa Cruz

will be the first new graphite producer in the Americas since 1996, and BamaStar is expected to be producing in 2027. Congratulations to the team for all the hard work!”

Santa Cruz Construction and Licensing Update

Construction through the end of March 2023 is on schedule and on budget for Phase 1 commercial production at the EOY 2023. Q2 2023 main work programs include:

- Civil construction, foundations, and retention walls for the plant area;
- Civil infrastructure including entrance, security, additional offices, supply chain storage warehouse and contractor support area;
- Electrical substation and internal electrical distribution network; &
- Delivery of approximately 35% of the major equipment.

In addition, all environmental and mining documents for permitting and licensing of Santa Cruz Phases 2 and 3 have been filed with the Municipality of Itabela and the Brazilian Mining Agency (“ANM”). The consolidated operations environmental permitting process incorporating Phases 1, 2 and 3 is similar to the approved Phase 1 process, which was previously reviewed and approved in approximately 3 months.

The Company has also submitted the Planned Economic Analysis (“PAE”) and the request for the final mining license (“concessão de lavra”) for all 13 areas to the Brazilian Mining Authority (“ANM”). The proposed PAE doubles the Santa Cruz production capacity presented in the previously released PFS (March 2020) and incorporates a third phase of project development. The approval of the PAEs and mining licenses is the final step in securing the LOM mining license for each of the exploration claims and converting them to mining concessions. The planned production schedule follows:

- 2 years with 5,000 tonnes per year (“tpy”) of concentrates (Phase 1);
- 2 years with 25,000 tpy of concentrates (Phase 2); &
- Life of mine (“LOM”) with 50,000 tpy of concentrates (Phase 3).

BamaStar NI 43-101 Technical Report with Maiden Mineral Resource Estimate

The independent mineral resource estimate was prepared by Caracle Creek International Consulting Inc. in accordance with Canadian Securities Administrators’ National Instrument 43-101. There are no material differences between the Company’s March 13, 2023 press release and the filed TR, and it’s available under the Company’s SEDAR profile and on the Company’s website.

Table 1. Mineral Resource Statement: Open Pit-Constrained Resources (1.1% Cg cut-off grade).

Mineral Resource Category	Zone	Density (g/cm ³)	Tonnes (M)	Graphitic Carbon (% Cg)	In-Situ Graphite (t)
Inferred	Central	2.64	11	2.4	260,000
	North	2.60	11	2.3	260,000
	Totals:	2.62	22	2.4	520,000

Table 2. Un-constrained Inferred Mineral Resources (1.1% Cg cut-off grade).

Mineral Resource Category	Zone	Density (g/cm ³)	Tonnes (M)	Graphitic Carbon (% Cg)	In-Situ Graphite (t)
Inferred	Central	2.64	11	2.5	270,000
	North	2.61	12	2.3	280,000
	Total:	2.62	23	2.4	540,000

Notes to Table 1 and Table 2 (#7 does not apply to Table 2):

1. The independent Qualified Person for the Mineral Resource Estimate, as defined by NI 43-101, is Mr. Simon Mortimer, (FAIG #7795) of Atticus Geoscience Consulting S.A.C., working with Caracle Creek International Consulting Inc. The effective date of the Mineral Resource Estimate is March 7, 2023.
2. These Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability. The quantity and grade of reported Inferred Resources in this Mineral Resource Estimate are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated. However, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. Slight differences may occur due to rounding.
3. Mineralized domains were based on lithological contacts. A cut-off grade of 1.0% graphitic carbon (Cg) was used for defining the mineralised domain, which was determined on the basis of core, surface trench, and surface sample pit assay geostatistics and drill core lithologies for the deposit.
4. Geological and block models for the Mineral Resource Estimate used data from a total of 12 surface diamond drill holes (core), 29 trenches, and 90 surface sample pits. The drill hole database was validated prior to resource estimation and QA/QC checks were made using industry-standard control charts for blanks, core duplicates and commercial certified reference material inserted into assay batches by South Star Battery Metals.
5. Quantities and grades in the Mineral Resource Estimate are rounded to an appropriate number of significant figures to reflect that they are estimations. Slight differences may occur due to rounding.
6. An economic cut-off grade of 1.1% graphitic carbon (Cg) was calculated and applied to the resource block model for reporting purposes.
7. The mineral resource estimates (Central and North zones) were constrained by conceptual pit envelopes using the following optimization parameters, as provided by South Star Battery Metals, and agreed to by the QP. Commodity prices used were (US\$) \$7,770/t graphite, pit slopes of 34 degrees in oxide and 54 degrees in fresh rock. Mining and processing costs (US\$) were based on benchmarking from similar deposit types, utilizing a mining cost of \$2.25/t (oxide) and \$2.75/t (fresh rock), recovery of 97.2% graphite, with processing cost of \$76.12/t (oxide) and \$78.10/t (fresh rock), and a G&A cost of \$2.00/t. Pit optimization was performed using Datamine's Studio NPVS software.
8. The geological model comprises one mineralized domain split into five solids due to faulting, they are hosted by quartzites and sillimanite gneisses both with quartz veins and graphite lenses up to 40 m wide. Individual wireframes were created for each domain.

9. *The block model was prepared using Leapfrog Edge. A 15 m x 15 m with variable height block model was created and samples were composited at 1.0 m intervals. Grade estimation for graphite used data from trench and drill hole data and was carried out using Inverse Distance Squared Weighting.*
10. *Grade estimation was validated by comparison of input and output statistics (Nearest Neighbour method), swath plot analysis, and by visual inspection of the assay data, block model, and grade shells in cross-sections.*
11. *Density assignment was carried out for the mineralization domain using flat density by weathering domain, on the basis of 37 specific gravity measurements collected in 14 surface locations, and 51 specific gravity measurements collected during the core logging process, the average estimated density value within the strong weathering is 2.32 g/cm³ (t/m³), moderate weathering is 2.47 g/cm³ (t/m³), weak weathering is 2.62 g/cm³ (t/m³), while the fresh rock domain of the resource model yielded 2.80 g/cm³ (t/m³).*
12. *The Mineral Resource Estimate was prepared following the CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (November 29, 2019).*
13. *The NI 43-101 Mineral Resource Estimate and Technical report will be filed on Sedar within 45 days of this press release.*

Granting of RSUs

South Star also reports that it has granted an aggregate of 257,436 restricted share units (the “RSUs”) to an officer pursuant to the Company’s Incentive plan at a deemed value of CAD \$0.53. The RSUs vest over a period of one year.

ABOUT SOUTH STAR BATTERY METALS CORP

South Star Battery Metals Corp. is a Canadian battery metals project developer focused on the selective acquisition and development of near-term production projects in the Americas. South Star’s Santa Cruz Graphite Project, located in Southern Bahia, Brazil is the first of a series of industrial and battery metals projects that will be put into production. Brazil is the second-largest graphite-producing region in the world with more than 80 years of continuous mining. Santa Cruz has at-surface mineralization in friable materials, and successful large-scale pilot-plant testing (>30t) has been completed. The results of the testing show that approximately 65% of Cg concentrate is +80 mesh with good recoveries and 95%-99% Cg. With excellent infrastructure and logistics, South Star is fully funded for Phase 1, and the 12-month construction and commissioning are underway. Santa Cruz will be the first new graphite production in the Americas since 1996 with Phase 1 commercial production projected in Q4 2023. Phase 2 production (25,000tpy) is partially funded and planned for 2026, while Phase 3 (50,000tpy) is scheduled for 2028.

South Star’s second project in the development pipeline is strategically located in Alabama in the center of a developing electric vehicle, aerospace and defense hub in the southeastern United States. The BamaStar Project is a historic mine active during World Wars I & II. Trenching, phase 1 drilling, sampling, analysis, and preliminary metallurgical testing have been completed. The testing indicates a traditional crush/grind/flotation concentration circuit that achieved grades of approximately 94-97% Cg with approximately 86% recoveries. South Star is executing on its plan to create a multi-asset, diversified battery metals company with near-term operations in strategic jurisdictions. South Star trades on the TSX Venture Exchange under the symbol STS, and on the OTCQB under the symbol STSBF.

South Star is committed to a corporate culture, project execution plan and safe operations that embrace the highest standards of ESG principles based on transparency, stakeholder engagement, ongoing education, and stewardship. To learn more, please visit the Company website at <http://www.southstarbatterymetals.com>.



The technical and scientific information related to geology and mineral resource estimate in this news release has been reviewed and approved by Mr. Simon Mortimer (FAIG #4083) of Atticus Geoscience Consulting S.A.C. and Dr. Scott Jobin-Bevans (P.Ge. #0183) of Caracle Creek International Consulting Inc. Mr. Mortimer and Dr. Jobin-Bevans are both a Qualified Person as defined by National Instrument 43-101 and are independent of South Star Battery Metals.

This news release has been reviewed and approved by Richard Pearce, P.E., a "Qualified Person" under National Instrument 43-101 and President and CEO of South Star Battery Metals Corp.

On behalf of the Board,

Mr. Richard Pearce
Chief Executive Officer

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CAUTIONARY STATEMENT

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this press release.

FORWARD-LOOKING INFORMATION

This press release contains "forward-looking statements" within the meaning of applicable securities legislation. Forward-looking statements relate to information that is based on assumptions of management, forecasts of future results, and estimates of amounts not yet determinable. Any statements that express predictions, expectations, beliefs, plans, projections, objectives, assumptions or future events or performance are not statements of historical fact and may be "forward-looking statements". Forward-looking statements in this press release include, but are not limited to, statements regarding: moving Santa Cruz into production and scaling operations as well as advancing the Alabama project; and the Company's plans and expectations.

Forward-looking statements are subject to a variety of risks and uncertainties which could cause actual events or results to differ from those reflected in the forward-looking statements, including, without limitation: risks related to failure to obtain adequate financing on a timely basis and on acceptable terms; risks related to the outcome of legal proceedings; political and regulatory risks associated with mining and exploration; risks related to the maintenance of stock exchange listings; risks related to environmental regulation and liability; the potential for delays in exploration or development activities or the completion of feasibility studies; the uncertainty of profitability; risks and uncertainties relating to the interpretation of drill results, the geology, grade and continuity



of mineral deposits; risks related to the inherent uncertainty of production and cost estimates and the potential for unexpected costs and expenses; results of prefeasibility and feasibility studies, and the possibility that future exploration, development or mining results will not be consistent with the Company's expectations; risks related to commodity price fluctuations; and other risks and uncertainties related to the Company's prospects, properties and business detailed elsewhere in the Company's disclosure record. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking statements. Investors are cautioned against attributing undue certainty to forward-looking statements. These forward-looking statements are made as of the date hereof and the Company does not assume any obligation to update or revise them to reflect new events or circumstances. Actual events or results could differ materially from the Company's expectations or projections.