



(the “Company”)

**FORM 51-102F1  
MANAGEMENT’S DISCUSSION AND ANALYSIS  
FOR THE SIX MONTHS ENDED JUNE 30, 2023 AND 2022**

**Introduction**

This Management’s Discussion and Analysis (“MD&A”) of South Star Battery Metals Corp. is the responsibility of management and covers the period ended June 30, 2023. The MD&A takes into account information available up to and including August 24, 2023 and should be read together with the unaudited condensed consolidated interim financial statements for the six months ended June 30, 2023 and 2022, which are available on the SEDAR website at [www.sedar.com](http://www.sedar.com). All financial information in this document is prepared in accordance with International Financial Reporting Standards (“IFRS”) and is presented in Canadian dollars unless otherwise indicated.

Throughout this document the terms *we*, *us*, *our*, *the Company* and *South Star* refer to South Star Battery Metals Corp.

Additional information related to the Company is available for view on SEDAR ([www.sedar.com](http://www.sedar.com)).

This document contains forward-looking statements. Please refer to “Note Regarding Forward-Looking Statements.”

The Company trades on the TSX Venture Exchange (“TSXV”) under the symbol STS and on the OTCQB under the symbol STSBF.

**Description of Business**

The Company is a Canadian battery metals project developer focused on the selective acquisition and development of near-term production projects in the Americas. The Company’s primary focus is the Santa Cruz Graphite Mine in Southern Bahia, Brazil. The Company is also advancing its option on the BamaStar Graphite Project in Alabama, USA.

**Q2 2023 BUSINESS HIGHLIGHTS**

Santa Cruz Project Highlights

*Phase 1 Construction*

The Company is working to commission Phase 1 facilities for approximately 420t/month capacity in December 2023. In December 2022, the Company mobilized contractors for civil and earthworks and made down payments on most of the major equipment to lock in capital costs.

Main work programs for Q2 2023 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; and
- Delivery of approximately 35% of the major equipment.

#### *Permitting and licensing*

In February 2022, the Company received approval from the Brazilian Mining Authority ("ANM") for its final exploration reports for its 13 claims of the Santa Cruz Graphite Mine Project. On August 1, 2022, the Company submitted the Planned Economic Analysis ("PAE") and the request for the final mining license ("concessão de lavra") to the ANM for the Claim 872.737/2010, which is where the Phase 1 facilities are currently being installed. This was followed on August 15, 2022 by the filing of the requests with the ANM for Claims 872.735/2010, 872.736/2010, 871.053/2011 and 871.524/2013, which is where the Phase 2 and 3 facilities are planned. By January 24, 2023 the PAEs and request for the final mining license for all 13 exploration claims were submitted to the ANM and are in technical evaluation.

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 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); and
- Life of mine ("LOM") with 50,000 tpy of concentrates (Phase 3).

The approval of the PAE and mining license is the final step in securing the LOM mining license for each of the 13 exploration claims and converting them to mining concessions.

Phase 1 operations are fully licensed with a trial mining license ("GU") and associated environmental license for the Claim 872.737/2010. The Company has paid the municipal building permit for construction of the Phase 1 plant, mine and infrastructure and which was received in the year ended December 31, 2022.

The documentation for the definitive mining licenses incorporating Phases 2 (25,000 tpy concentrate) & 3 (50,000 tpy concentrate) for all the 13 mining concessions have been submitted to the Brazilian Mining Authorities and are in technical evaluation. The environmental field work for Phases 2 & 3 is complete. The Company submitted the consolidated Phases 1, 2 & 3 environmental reports and documentation in April 2023 with the objective of obtaining both the mining and environmental permits and licenses required for Phases 2 & 3 approved in 2023 before finalizing the commissioning of Phase 1 operations.

#### *Exploration*

The Company mobilized a geophysics contractor in November 2022 to perform approximately 3-4 linear kilometers of geophysics to test the limits of the priority drilling targets at the Santa Cruz Project for an exploration program in 2023 which will include 3000-4000m of drilling in Q3/Q4-2023 to expand current resources and reserves to extend mine life.

The geophysics team has completed the field work for the first three lines of induced polarization ("IP") & electrical resistivity ("ER") with 10m electrode spacing with an estimated penetration of 80-90 meters. The lines were completed on sections with known geology and graphite grades based on recent drilling program. The results are being interpreted and then will be compared to the known geologic sections and graphitic carbon ("Cg") grade. The IP and the ER together provided excellent results on the known sections and identified some previously unknown potential targets. The team is planning to complete an additional 5-6 kms of IP/ER. The results will be used to plan and prioritize the 2023 drilling program scheduled for Q3/Q4 2023.

*Value-Add Products*

In 2022, the Company confirmed the process flowsheet. The Company also generated and shipped 100g samples of various product samples to potential clients. Those samples are in evaluation.

The contracts for a value-add process trade-off study are currently being negotiated, and with the study due to start in Q3 2023 comparing thermal, chemical and caustic purification technologies, as well as shaping and coating technologies, and develop conceptual capital and operating costs for each alternative. This is expected to be part of the upcoming 43-101 PEA study.

BamaStar Graphite Project, Alabama Highlights*Exploration*

On April 26, 2023, the Company filed the NI 43-101 Technical Report and Mineral Resource Estimate on the BamaStar Graphite Project. The maiden resource estimate includes 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. The mineral resource estimate confirms the significant potential of this historical mine with graphite mineralization open at depth and in both directions (NE & SW). Further, 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. Summary technical information with respect to the BamaStar Graphite Project is provided below.

The drillers have been contracted to perform approximately 1500-2000 m of drilling to support the upcoming PEA scheduled to be released in Q1 of 2024. Drillers mobilized in May 2023 with completion anticipated in Q3 of 2023. Consulting engineering, laboratory test facilities and process design firms are reviewing the scope of work and preparing a budget proposal and statement of qualifications. The PEA study is expected to be awarded in Q3 of 2023.

*Value-Add Products*

In 2022, the Company contracted North Carolina State University Mineral Research Laboratory ("MRL") to complete a metallurgical testing program using 3 x 1-tonne samples of ore from various targets within the BamaStar Graphite Project. Approximately 30 kgs of bulk flake concentrate with an average Cg grade of 94.12% was produced. Intermediate process samples including ore, rougher concentrate and tails were preserved for further testing. The concentrates will be sent to a technological partner in the United States for physical and chemical characterization and value-add/battery testing.

The contracts for a value-add process trade-off study are currently being negotiated, comparing thermal, chemical and caustic purification technologies, as well as shaping and coating technologies, and develop conceptual capital and operating costs for each alternative. This is expected to be part of the upcoming 43-101 PEA study.

Corporate Highlights

On January 10, 2023, the Company closed a non-brokered private placement by issuing 434,277 Units for gross proceeds of \$230,166 under the same terms as the Units issued in November 2022. In connection with the second tranche, the Company paid cash finder's fees of \$13,810 and issued 8,685 finder's warrants exercisable at a price of \$0.53 for a period of 5 years.

On May 23, 2023, the Company closed a non-brokered private placement by issuing 127,925 Units at \$0.53 for gross proceeds of \$67,800. Each Unit consisted of one common share and one common share purchase warrant. Each warrant entitles the holders to purchase one additional common share of the Company at an exercise price of \$1.25 per common share for a period of five years from the date of issue and is subject to certain acceleration provisions.

On July 14, 2023, the Company completed a non-brokered private placement by issuing 8,533,865 Units at \$0.53 for gross proceeds of \$4,522,948. Each Unit consisted of one common share and one common share purchase warrant. Each warrant entitles the holders to purchase one additional common share of the Company at an exercise price of \$1.25 per common share for a period of five years from the date of issue and is subject to certain acceleration provisions. The Company paid cash finder's fees of \$27,825.

## PROJECTS

### Santa Cruz Graphite Mine Project

South Star Battery Metals Corp. owns 100% of the Santa Cruz Graphite Mine Project through its wholly owned subsidiaries Brasil Graphite Corp. ("BGC") and Brasil Graphite Mineracao Ltda. ("BGM"). The Santa Cruz Project is located in the state of Bahia, Brazil and consists of 13 approved licenses covering 13,316 hectares. The Company issued a Prefeasibility Study ("PFS") technical report prepared in accordance with National Instrument 43-101 guidelines with an effective date of March 18, 2020 as filed on Sedar.com.

Phase 1 pilot plant operations are fully licensed and permitted and in construction. There is a 12-month construction and commissioning schedule with commercial production scheduled for EOY 2023. The purpose of the Phase 1 operations is to start production and cash flow, generate large scale samples for material qualification processes and solidify long-term commercial relationships for securing purchase agreements for the Phase 2 production. The Company will continue to develop the project with additional drilling, environmental studies, independent metallurgical studies, mine planning, process plant engineering, and equipment sourcing for the Phase 2 operations, including advanced purification processing technology to upgrade concentrates for value-add applications. This includes the lithium-ion battery market, alkaline battery markets, dispersions and coatings, expandable graphites & fire retardants and other newly emerging graphite technologies.

In 2022, the Company closed on Phase 1 of a Stream Agreement with Sprott Private Resource Streaming and Royalty (B) Corp. for US\$10,000,000 as outlined in the accompanying unaudited condensed consolidated interim financial statements for the period ended June 30, 2023.

### BamaStar Graphite Project, Alabama

The Company has entered into an Earn-in and Option Agreement ("BamaStar Agreement") on the BamaStar Graphite Project in Alabama with Hexagon Energy Materials Limited ("Hexagon") (ASX: HXG) and U.S. Critical Minerals LLC, a privately held exploration company incorporated in the United States. The BamaStar Agreement allows South Star to earn-in up to 75% of the BamaStar Graphite Project.

Currently, Hexagon owns 80% of the BamaStar Graphite Project, and USCM with a small group of individuals owning the remaining 20% of the BamaStar Graphite Project. The BamaStar Graphite Project is located on the northeast end of the Alabama Graphite Belt and covers approximately 500 acres in Coosa County, Alabama. The BamaStar Graphite Project is an historic mine active during World Wars I & II. The BamaStar Graphite mine historically targeted friable outcropping graphite mineralization, averaging approximately 3%-5% graphitic carbon. Mineralization is at surface, and the graphitic host rock was mined historically with shovels and excavators with no drilling and blasting required.

#### *BamaStar Agreement Terms*

The following is a summary of the key terms of the Earn-in and Option:

- South Star to complete drilling, resource estimation, and analysis needed to produce a NI 43-101 compliant Preliminary Economic Assessment (PEA) within three years from the signing of the final agreements ("Earn-in Period").
- South Star to fund an annual minimum expenditure of CAD\$250,000 (CAD\$750,000 total minimum) during the Earn-in Period to earn 75% of the BamaStar Graphite Project.
- South Star to extend or renew, as needed, and as part of the earn-in expenditure, the existing mineral leases and surface agreements on the BamaStar Graphite Project to ensure they are valid for a period of a minimum of 12 months beyond the Earn-in Period.
- Upon satisfaction of the first three items listed above, South Star shall have the right, but not the obligation, exercisable within an agreed period, to acquire 75% of the BamaStar Graphite Project, following which (subject to the put option described below) the parties would operate the BamaStar Graphite Project as a joint venture.
- For a period of six months following the exercise of the 75% earn-in option ("Option Period"), Hexagon and USCM individually have the right, but not the obligation, to sell their remaining 25% interest in the BamaStar Graphite Project for an aggregate payment of CAD\$250,000 in South Star shares ("Put Option").
- During the Option Period, any expenditures will be shared pro rata. Failure by any party to pay their share shall result in a proportional dilution of interest in the BamaStar Graphite Project.

- Should South Star's interest in the BamaStar Graphite Project increase to 90% or greater, South Star shall have the right, but not the obligation, to purchase the entire remaining interest not owned or under its control on a basis proportional to the Put Option.
- Within six months of the BamaStar Graphite Project achieving commercial production, South Star shall make a payment of CAD\$250,000 in South Star shares ("Production Bonus"). The Production Bonus shall be proportionately reduced to reflect any reduction in the remaining 25% interest held by the parties.

In 2022, the Company contracted North Carolina State University Mineral Research Laboratory ("MRL") to complete a metallurgical testing program using 3 x 1-tonne samples of ore from various targets within the BamaStar Graphite Project which were delivered to MRL in August 2022. A bulk sampling program was carried out in 2019 at the BamaStar Project during which a total of approximately 100 tons of prospective material from 8 locations were extracted, crushed and placed in 1-ton super sacks. All sacks were sealed, marked for identification and securely stored in a commercial warehouse. A one-ton sample sack was selected from each of 3 sample locations and sent to the MRL for pilot and bench scale work. The bulk sample locations selected are identified as CMB002, CMB005 and CMB007 (See exploration map from news release dated December 12, 2022) and were chosen to be representative across the project area. Approximately 30 kgs of bulk flake concentrate with an average Cg grade of 94.12% was produced. Intermediate process samples including ore, rougher concentrate and tails were preserved for further testing.

The concentrates will be sent to a technological partner in the United States for physical and chemical characterization and value-add/battery testing. The program will encompass:

- Characterization of physiochemical properties;
- Carbothermal purification;
- Micronization;
- Spheronization and coating;
- Cathode conductivity enhancement material;
- LiB coin cell construction and long-term cycling;
- Coating dispersion;
- Expandability; and
- Market analysis to maximize profitability for a basket of goods produced from and based on the BamaStar Project's graphite characteristics.

The Company completed a maiden drilling campaign at the BamaStar Graphite Project which was carried out by Logan Drilling USA and consisted of 12 holes of HQ core and totaled 506 meters. Sample assays for all 12 holes were completed at Activation Laboratory Ltd. ("Actlabs") in Ontario, Canada.

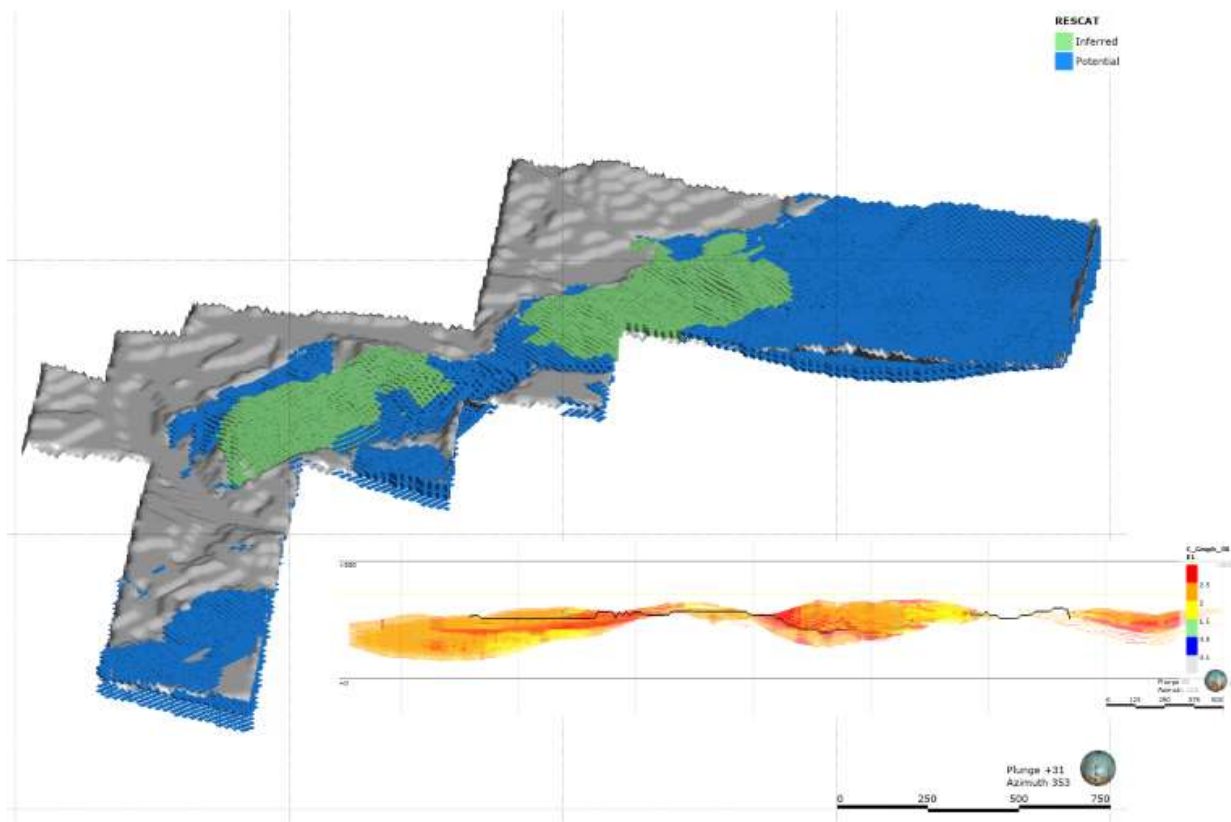
The maiden drilling program was based on the previous mapping, trenching and sampling. The program was designed to test the geologic model, lithologies, controls and mineralization. Drill collar locations for the 12 holes in Phase 1 can be viewed on a map on South Star's website.

Assay samples were sent to ActLabs and graphitic carbon (% Cg) was tested using LECO analysis. Actlabs is an accredited independent laboratory with the ISO 9001:2015 & ISO/IEC 17025:2017 registrations.

In April 2023, the Company published NI 43-101 Mineral Resource Estimate and Technical report with summary results as follows:

The maiden resource estimate includes 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. The mineral resource estimate confirms the significant potential of this historical mine with graphite mineralization open at depth and in both directions (NE & SW). Further, 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.

## Mineral Resource Estimate



**Figure 1: BamaStar NI 43-101 Inferred and Potential Mineral Resource Estimate**

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

| Mineral Resource Category | Zone           | Density (g/cm <sup>3</sup> ) | 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              |
|                           | <b>Totals:</b> | <b>2.62</b>                  | <b>22</b>  | <b>2.4</b>              | <b>520,000</b>       |

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

| Mineral Resource Category | Zone          | Density (g/cm <sup>3</sup> ) | 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              |
|                           | <b>Total:</b> | <b>2.62</b>                  | <b>23</b>  | <b>2.4</b>              | <b>540,000</b>       |

**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 mineralized 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 Neighbor 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/cm<sup>3</sup> (t/m<sup>3</sup>), moderate weathering is 2.47 g/cm<sup>3</sup> (t/m<sup>3</sup>), weak weathering is 2.62 g/cm<sup>3</sup> (t/m<sup>3</sup>), while the fresh rock domain of the resource model yielded 2.80 g/cm<sup>3</sup> (t/m<sup>3</sup>).
12. The Mineral Resource Estimate was prepared following the CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines (November 29, 2019).

The next drilling program began in May 2023, with a plan to get a NI 43-101 PEA completed by Q1 of 2024. The PEA will present the vertically integrated strategic production 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.

## Outlook

Santa Cruz Phase 1 (5,000 tpy concentrates) is in construction with commercial production scheduled for December 2023. This phase has a 12-month construction and commissioning schedule. In 2023, work is planned to begin on an updated 43-101 Bankable Feasibility Study to expand resources and reserves, update costs/pricing assumptions, revise capital and operating forecasts, and incorporate Phase 3 expansion to 50,000 tpa of concentrates. We aim to secure Phases 2 & 3 mining licenses and environmental permits approval before Phase 1 commissioning completion to facilitate financing conversations with all permits, mining tenure, and initial land purchase in hand.

- Phase 1 Commissioning & Start of Commercial Production in Dec. 2023;

- Exploration and Resource/Reserves Expansion (3,500-5,000m Drilling);
- Value Add Process Trade-off study with conceptual level CAPEX/OPEX;
- Approval of Environmental Permitting and Mining License for Phase 2 (25,000 tpy concentrate) and Phase 3 (50,000 tpy concentrate) prior to Phase 1 commissioning.
- Commercial Agreements; &
- Begin Phases 2 & 3 43-101 Bankable Feasibility study (BFS).

The BamaStar Graphite Project is ahead of the original 3-year development program as outlined in the earn-in Agreement with the delivery of the PEA looking to be approximately one year ahead of schedule. The NI 43-101 Mineral Resource Estimate and Technical report was filed in April 2023. In 2023, we also plan to increase resource and reserve estimates with an additional 2,000m drilling campaign and complete the value-add testing program in order to support a 43-101 PEA of the strategic plan in Q1 of 2024. The PEA will present the vertically integrated 5- to 7-year strategic production plan with 2 mines each producing 50,000 tpy of concentrates and a centrally located value-add plant producing around 50,000 – 70,000 tpy of active anode, micronized purified, and expandable graphites, amongst others. We will incorporate the BFS work from Santa Cruz Mine and look to go straight from our PEA to a BFS for BamaStar, which should be completed 16-18 months after the PEA (Q2/Q3 2025).

- 43-101 Maiden Resource Report (completed);
- Exploration & Drilling Program (1,500 – 2,000m of drilling);
- Physical and chemical characterization and value-add suitability/optimization studies;
- Value Add Process Trade-off study with conceptual level CAPEX/OPEX; and
- Preliminary Environmental Characterization.

***Richard L. Pearce, a Director of South Star Battery Metals Corp., is a Qualified Person as defined by National Instrument 43-101 and was responsible for verifying the scientific and technical information herein and has read and approved this MD&A.***

### Summary Quarterly Results

The following table summarizes the quarterly results for each of the three-month periods ended:

| In Canadian dollars               | June 30,<br>2023 | March 31,<br>2023 | December 31,<br>2022 | September 30,<br>2022 |
|-----------------------------------|------------------|-------------------|----------------------|-----------------------|
| Total assets                      | \$ 26,811,613    | \$ 27,119,052     | \$ 26,471,888        | \$ 12,335,400         |
| Long-term liabilities             | 14,197,633       | 14,680,087        | 14,257,266           | 511,609               |
| Working capital                   | 8,585,931        | 1,460,770         | 16,318,359           | 966,296               |
| Net loss                          | (1,311,110)      | (858,009)         | (2,244,065)          | (828,584)             |
| Basic and diluted loss per share* | (0.04)           | (0.03)            | (0.08)               | (0.04)                |
|                                   | June 30,<br>2022 | March 31,<br>2022 | December 31,<br>2021 | September 30,<br>2021 |
| Total assets                      | \$ 13,142,905    | \$ 10,291,815     | \$ 9,389,602         | \$ 7,357,677          |
| Long-term liabilities             | 484,195          | 1,054,727         | -                    | -                     |
| Working capital                   | 1,792,326        | 1,460,770         | 3,231,983            | 1,384,562             |
| Net loss                          | (976,348)        | (853,489)         | (902,302)            | (555,933)             |
| Basic and diluted loss per share* | (0.05)           | (0.04)            | (0.05)               | (0.04)                |

\*Post 5:1 share consolidation effected June 2022

Over the quarters of fiscal 2021, the Company was working to position its Santa Cruz Graphite Project for development following the publication of the PFS in early 2020. Over the periods presented, periodic private placements or similar financings have bolstered total assets and enabled investment into the Santa Cruz Graphite Project and the BamaStar Graphite Project in 2022. The completion of the Phase 1 Stream with SRSR in the quarter ended December 31, 2022 has spurred the movement to development of the Santa Cruz Graphite Project and injected US\$10 million into the Company. The amount is recorded as a long-term liability (deferred revenue). This also added a non-cash expense of \$440,882 for warrants issued to SRSR. The loss per quarter over 2022 increased with additional capital resources from private placements and the addition of the BamaStar Graphite Project with the associated drill program in 2022. Work in the three months ended March 31, 2023 and June 30, 2023 included the continuing development of the Santa Cruz Graphite Mine Project as well as exploration on the BamaStar Graphite Project.

## Results of Operations

### *Results for the three months ended June 30, 2023 and 2022*

During the three months ended June 30, 2023, the Company incurred a net loss of \$1,311,110 as compared to a net loss of \$976,348 for the three months ended June 30, 2022. Significant items making up the loss include:

- Consulting and management fees of \$129,728 (2022 - \$128,660) which captures the costs of the CEO, CFO and supporting accounting staff.
- Exploration and evaluation expenditures of \$579,475 (2022 - \$312,594) increased as the Company incurred drilling expenditures on the BamaStar Graphite Project in Alabama, U.S. In the prior period, expenditures related to the Santa Cruz Graphite Mine Project which is now in development.
- Investor relations expense of \$85,171 (2022 - \$272,605) reflected marketing programs and resources during the respective periods.
- Professional fees of \$50,760 (2022 - \$185,109) include ongoing legal and audit fees. In the prior period, an increase specifically related to legal costs under the Stream Agreement.
- Wages and support staff of \$127,684 (2022 - \$Nil) relates to costs for staff in Brazil to support operations.
- Finance expense of \$402,497 (2022 - \$Nil) includes recognition of a non-cash financing expense on the deferred revenue of the stream pursuant to accounting standards of \$401,765.

Additionally, the Company incurred a non-recurring recovery of \$137,573 in the three months ended June 30, 2023 by issuing RSUs vesting through April 2024 to the CEO in settlement of a bonus accrued as of December 31, 2022.

### *Results for the six months ended June 30, 2023 and 2022*

During the six months ended June 30, 2023, the Company incurred a net loss of \$2,169,119 as compared to \$1,829,837 for the six months ended June 30, 2022. Significant items making up the loss include:

- Consulting and management fees of \$262,221 (2022 - \$215,693) which increased in the current period as a result of contracting additional services to support corporate objectives with respect to the BamaStar Graphite Project. In both periods, the expenses capture the costs of the CEO, CFO and supporting accounting staff which have increased between the two periods commensurate with activity.
- Exploration and evaluation expenditures of \$727,601 (2022 - \$496,207) increased as the Company completed its NI 43-101 Maiden Resource Report on BamaStar Graphite Project in Alabama, U.S. and began a drill program in June 2023. In the prior period, expenditures related to the Santa Cruz Graphite Mine Project which is now in development.
- Investor relations expense of \$215,647 (2022 - \$549,771) reflected marketing programs and resources during the respective periods.
- Professional fees of \$135,144 (2022 - \$451,438) include ongoing legal and audit fees. In the prior period, an increase specifically related to legal costs under the Stream Agreement.
- Wages and support staff of \$249,820 (2022 - \$Nil) relates to costs for staff in Brazil to support operations.
- Finance expense of \$803,546 (2022 - \$Nil) includes recognition of a non-cash financing expense on the deferred revenue of the stream pursuant to accounting standards of \$801,968.

## Liquidity

The Company's mineral exploration and development activities do not currently provide a source of income and we therefore have a history of losses, and an accumulated deficit. However, given the nature of our business, the results of operations as reflected in the net losses and losses per share do not provide a complete interpretation of our valuation.

As of June 30, 2023, the Company had working capital of \$8,585,931. This balance included a cash and cash equivalents balance of \$10,700,993 (December 31, 2022 - \$17,257,618) to settle current liabilities of \$2,292,858 (December 31, 2022 - \$1,098,874).

Prior to the execution of the Phase 1 Stream, the Company financed its operations primarily through the issuance of common shares and convertible debentures. The Company considers that the Phase 1 Stream will have provided adequate funding to execute on the capital requirements of the Phase 1 operations of the Santa Cruz Graphite Mine Project slated for commissioning in December 2023. As needed, the Company will continue to seek capital to fund its business objectives which include exploration and engineering studies related to both the Santa Cruz and the BamaStar Graphite Projects. There is no guarantee that the Company will be able to execute on its business objectives without obtaining additional capital.

**Operating Activities:** The Company does not yet generate cash from active operating activities. The Company used net cash for operating activities for the period ended June 30, 2023 of \$993,965 (2022 – \$1,746,794). The operating Company does not generate revenue at this time and operating activities reflect cash consumed in its regular development, exploration and corporate activities.

**Investing Activities:** Net cash used by the Company for investing activities for the six months ended June 30, 2023 was \$6,210,894 (2022 - \$913,436). The Company invested \$2,285,426 (2022 - \$Nil) into construction in progress and mine development costs which includes ongoing infrastructure, civil and earthworks at the Santa Cruz Graphite Mine Project. Additionally, the Company made payments of \$3,131,287 (2022 - \$Nil) toward the purchase of machinery and equipment to be delivered in 2023. In 2023, the Company spent \$662,735 (2022 - \$900,119) for land purchase payments pursuant to the contractual payment plan to acquire land at the Santa Cruz site and purchased equipment for \$131,446 (2022 - \$13,317).

**Financing Activities:** For the six months ended June 30, 2023, cash generated from financing activities was \$33,229 (2022 – \$4,379,030). The Company received \$67,800 (2022 - \$1,906,990) from issuance of shares and paid \$24,198 (2022 – \$75,335) in share issuance costs. Additionally, the Company received \$Nil (2022 - \$9,625) from the exercise of options and \$Nil (2022 - \$39,750) from the exercise of warrants. The Company received a promissory note of \$Nil (2022 - \$2,498,000) and made lease payments of \$10,373 (2022 - \$nil) in the six months ended June 30, 2023.

The financial statements have been prepared on a going concern basis which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future. The Company's continuing operations rely on the ability of the Company to continue to raise capital until it achieves profitable operations.

### **Capital Resources**

In 2022, the Company entered into land purchases payable over two years pursuant to a payment schedule. Title to the land will transfer once the payments are completed. The Company has remaining (undiscounted) purchase obligations of \$660,946.

The Company entered into the Stream Agreement with the Phase 1 Stream closing in November 2022. Consequently, the Company recognized a deferred revenue obligation of US\$10 million which is presented as a long-term liability.

The Company will continue to seek capital to advance its business objectives as defined above in "Outlook". In the past the Company has raised capital in the public markets by issuing common shares pursuant to private placements and through loans payable. The Company does not presently utilize any quantitative measures to monitor its capital and is not subject to externally imposed capital requirements.

### **Off-Balance Sheet Arrangements**

As June 30, 2023, the Company had no material off-balance sheet arrangements such as guarantee contracts, contingent interest in assets transferred to an entity, derivative instruments obligations or any obligations that trigger financing, liquidity, market, or credit risk to the Company.

### Related Party Transactions

Key management personnel consist of the officers of the Company and the Company's Board of Directors. During the period ended June 30, 2023, the Company:

- a) Paid or accrued management and consulting fees of \$59,378 (2022 - \$55,376) to Red Fern Consulting Ltd., a company in which the Chief Financial Officer ("CFO") is a significant shareholder, for services provided by the CFO and accounting team; and
- b) Paid or accrued management and consulting fees of \$121,938 (2022 - \$157,316) to the Chief Executive Officer of the Company and employment benefits of \$5,249 (2022 - \$2,428) to the CEO of the Company.

Included in accounts payable and accrued liabilities as at June 30, 2023 is \$115,782 (December 31, 2022 - \$218,516) due to officers, directors or companies with a director in common for cash advances, unpaid consulting fees and unpaid expenses. The amounts due to related parties are unsecured, non-interest bearing and due on demand.

During the period ended June 30, 2023, the Company granted 257,436 RSUs to the CEO in settlement of a compensation bonus in the amount of US\$101,068 recorded as of December 31, 2022. The RSUs vest over the period of one year. Consequently, the Company recorded a recovery of \$137,573 for the amount previously recorded to accounts payable for management bonus compensation in the six months ended June 30, 2023 and related party share-based compensation of \$23,924 related to the RSUs.

During the period ended June 30, 2023, the Company recorded share-based payments of \$Nil (2022 - \$1,275) related to the fair value of stock options issued to key management personnel.

### Proposed Transactions

There are no proposed transactions, defined as a proposed asset or business combination or disposition, under consideration.

### Changes in Accounting Policies including Initial Adoption

The Company's accounting policies are described in Note 4 of its annual audited financial statements for the year ended December 31, 2022.

### Financial Instruments and Risk Management

Financial assets and financial liabilities are measured on an ongoing basis at fair value or amortized cost. The disclosures in the notes to these financial statements describe how the categories of financial instruments are measured and how income and expenses, including fair value gains and losses, are recognized.

As at June 30, 2023, the carrying value and fair values of the Company's financial instruments, with comparative figures for December 31, 2022 are shown in the table below:

|                              | June 30, 2023 |                | December 31, 2022 |                |
|------------------------------|---------------|----------------|-------------------|----------------|
|                              | Fair Value    | Carrying Value | Fair Value        | Carrying Value |
| <b>Financial assets</b>      |               |                |                   |                |
| Cash                         | \$ 10,700,993 | \$ 10,700,993  | \$ 17,257,618     | \$ 17,257,618  |
| <b>Financial liabilities</b> |               |                |                   |                |
| Accounts payable             | 1,673,134     | 1,673,134      | 470,121           | 470,121        |
| Land purchase liability      | 660,946       | 599,547        | 1,253,685         | 1,141,103      |

**Financial risk factors**

The Company's risk exposures and the impact on the Company's financial instruments are summarized below:

*Credit risk*

Credit risk is the risk of potential loss to the Company if the counterparty to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to its liquid financial assets including cash and receivables. The Company limits exposure to credit risk on liquid financial assets through maintaining its cash with high-credit quality financial institutions.

*Liquidity risk*

The Company's approach to managing liquidity risk is to try and have sufficient liquidity to meet liabilities when due. As at June 30, 2023, the Company had a cash balance of \$10,700,993 (December 31, 2022- \$17,257,618) to settle current liabilities of \$2,292,858 (December 31, 2022 - \$1,098,874). All of the Company's accounts payable and accrued liabilities have contractual maturities of 30 days or due on demand and are subject to normal trade terms. Land purchase commitments are subject to payment plans with some timing uncertainty relative to contractual deliverables by the seller.

*Market risk*

Market risk is the risk of loss that may arise from changes in market factors such as interest rates, foreign exchange rates, and commodity and equity prices. The Company does not have a practice of trading derivatives.

*Currency risk*

The Company's main project is in Brazil with local operations. As such, the Company is exposed to foreign currency risk. Fluctuations in the exchange rate between the Canadian dollar, United States dollar and the Brazilian real (R\$) may have an adverse effect on the Company's business. The Company does not enter into any foreign exchange hedging contracts. As at June 30, 2023, the Company held net financial instruments in Brazil of R\$9,264,901 (CAD\$2,549,700). A 10% movement in the foreign exchange rate would have impacted other comprehensive income by approximately \$254,970 as the Brazilian real is the functional currency of that entity. Foreign currency risk will have an impact the Company's net loss and net financial instruments.

*Interest rate risk*

The Company's financial assets exposed to interest rate risk consist of cash balances. The Company's current policy is to invest excess cash in high-interest bank accounts and investment-grade short-term deposit certificates issued by its banking institutions. The Company periodically monitors the investments it makes and is satisfied with the credit ratings of its banks. As at June 30, 2023, the Company had deposits of \$4,204,835 (R\$15,279,198) in interest-bearing cash equivalents in Brazil. As at June 30, 2023, the Company did not have any interest-bearing debt.

*Price risk*

The Company is exposed to price risk with respect to commodity and equity prices. The Company closely monitors commodity prices, individual equity movements, and the stock market to determine the appropriate course of action to be taken by the Company.

### Outstanding Share Data

As at the date of this report, the Company had 41,851,345 common shares issued and outstanding. The Company has 257,436 restricted share units outstanding and vesting on April 27, 2024.

The following incentive stock options and share purchase warrants were outstanding at the date of this report:

|                      | Number           | Exercise price | Expiry date      |
|----------------------|------------------|----------------|------------------|
| <b>Stock options</b> |                  |                |                  |
|                      | 18,000           | \$ 0.75        | June 17, 2024    |
|                      | 100,000          | 0.62           | December 7, 2024 |
|                      | 462,000          | 0.275          | August 4, 2025   |
|                      | 835,000          | 0.41           | August 24, 2027  |
|                      | <b>1,415,000</b> |                |                  |

|                                | Number            | Exercise price | Expiry date                      |
|--------------------------------|-------------------|----------------|----------------------------------|
| <b>Share purchase warrants</b> |                   |                |                                  |
|                                | 2,626,000         | \$ 0.75        | February 16, 2024 <sup>(1)</sup> |
|                                | 1,863,018         | 0.75           | February 23, 2024 <sup>(1)</sup> |
|                                | 1,060,000         | 0.30           | May 4, 2024 <sup>(2)</sup>       |
|                                | 4,472,800         | 0.75           | October 25, 2024 <sup>(3)</sup>  |
|                                | 3,468,890         | 1.25           | June 23, 2027 <sup>(3)</sup>     |
|                                | 4,365,096         | 1.25           | November 3, 2027 <sup>(3)</sup>  |
|                                | 69,194            | 0.53           | November 3, 2027 <sup>(3)</sup>  |
|                                | 4,390,000         | 1.25           | November 15, 2027 <sup>(3)</sup> |
|                                | 73,300            | 0.53           | November 15, 2027 <sup>(3)</sup> |
|                                | 1,200,000         | 0.72           | November 22, 2025 <sup>(4)</sup> |
|                                | 434,277           | 1.25           | January 12, 2028 <sup>(3)</sup>  |
|                                | 8,685             | 0.53           | January 12, 2028 <sup>(3)</sup>  |
|                                | 127,925           | 1.25           | May 23, 2028 <sup>(3)</sup>      |
|                                | 1,159,981         | 1.25           | July 15, 2028 <sup>(3)</sup>     |
|                                | 7,373,884         | 1.25           | August 11, 2028 <sup>(3)</sup>   |
|                                | <b>32,693,050</b> |                |                                  |

Outstanding warrants are subject to acceleration clause: If during a period of ten consecutive trading days between the date that is four (4) months following the issuance and the expiry of the Warrants the daily volume weighted average trading price of the common shares of the Company on the TSXV (or such other stock exchange where the majority of the trading volume occurs) exceeds

<sup>(1)</sup> C\$2.00,

<sup>(2)</sup> C\$1.25, or

<sup>(3)</sup> C\$2.50, or

<sup>(4)</sup> C\$1.80,

respectively, on each of those ten consecutive days, the Company may, within 30 days of such an occurrence, give written notice to the holders of the Warrants that the Warrants will expire at 4:00 p.m. (Vancouver time) on the 30th day following the giving of notice unless exercised by the holders prior to such date. Upon receipt of such notice, the holders of the Warrants will have 30 days to exercise their Warrants. Any Warrants which remain unexercised at 4:00 p.m. (Vancouver time) on the 30th day following the giving of such notice will expire at that time.

## RISK FACTORS

The securities of the Company should be considered a highly speculative investment and investors should carefully consider all of the information disclosed in this MD&A and the Company's profile on the SEDAR website at [www.sedar.com](http://www.sedar.com) prior to making an investment in our securities. In addition to the other information presented in this MD&A, the following risk factors should be given special consideration when evaluating an investment in any of our securities.

There is no assurance that risk management steps taken will avoid future loss due to the occurrence of the risks described below (or incorporated by reference herein) or other unforeseen risks. If any of the risks described below actually occur, then the Company's business, financial condition and operating results could be adversely affected.

The risks and uncertainties described or incorporated by reference herein are not the only ones the Company faces. Additional risks and uncertainties, including those that the Company is unaware of or that are currently deemed immaterial, may also adversely affect the Company and its business. Investors should consult with their professional advisors to assess any investment in the Company.

The Company's presentation of identified and significant uncertainties and risks are included in the Company's MD&A for the year ended December 31, 2022 as filed on Sedar.com on March 30, 2023.

### Note Regarding Forward-Looking Statements

Except for historical information, this MD&A may contain forward-looking statements. These statements involve known and unknown risks, uncertainties, and other factors that may cause the Company's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievement expressed or implied by these forward-looking statements.

The factors that could cause actual results to differ materially include, but are not limited to, the following: The Company has no assurance that the licenses will be issued nor if issued, that they will be issued in a timely manner, general economic conditions; changes in financial markets; the impact of exchange rates; political conditions and developments in countries in which the Company operates; changes in the supply, demand and pricing of the metal commodities which the Company hopes to find and successfully mine; changes in regulatory requirements impacting the Company's operations; the sufficiency of current working capital and the estimated cost and availability of funding for the continued exploration and development of the Company's exploration properties.

This list is not exhaustive and these and other factors should be considered carefully, and readers should not place undue reliance on the Company's forward-looking statements. As a result of the foregoing and other factors, no assurance can be given as to any such future results, levels of activity or achievements and neither the Company nor any other person assumes responsibility for the accuracy and completeness of these forward-looking statements.

This MD&A contains certain forward-looking statements inclusive of, but not limited to the production arrangements and the timing of the mine development, mill construction and ore production. Although forward-looking statements and information contained in this MD&A are based on the beliefs of the Company's management, which we consider to be reasonable, as well as assumptions made by and information currently available to the Company's management, there is no assurance that the forward-looking statement or information will prove to be accurate. The assumptions made include assumptions about the Company's ability to move forward with the arrangements as set out in the Agreement. The forward-looking statements and information contained in this MD&A are subject to current risks, uncertainties and assumptions related to certain factors including, without limitations, obtaining all necessary approvals, feasibility of mine and plant development, exploration and development risks, expenditure and financing requirements, title matters, operating hazards, metal prices, political and economic factors, competitive factors, general economic conditions, relationships with vendors and strategic partners, governmental regulation and supervision, seasonality, technological change, industry practices, and one-time events as well as risks, uncertainties and other factors discussed in our quarterly and annual and interim management's discussion and analysis. Should any one or more of these risks or uncertainties materialize or change, or should any underlying assumptions prove incorrect, actual results and forward-looking statements and information may vary materially from those described herein. Accordingly, readers should not place undue reliance on forward-looking statements and information contained in this MD&A. We undertake no obligation to update forward-looking statements or information except as required by law.

**South Star Battery Metals Corp.**

*"Samantha Shorter"*

Chief Financial Officer  
August 24, 2023