

**FORM 51-102F3  
MATERIAL CHANGE REPORT  
UNDER NATIONAL INSTRUMENT 51-102**

**Item 1. Name and Address of Company**

NextSource Materials Inc. (“**NextSource**” or the “**Company**”)  
130 King Street West, Exchange Tower Suite 1940  
Toronto, Ontario, M5X 2A2  
Canada

**Item 2. Date of Material Change**

April 28, 2022

**Item 3. News Release**

A news release was issued by the Company on April 28, 2022 through the facilities of Issuer Direct and was subsequently filed on SEDAR.

**Item 4. Summary of Material Change**

The Company provided a Phase 1 construction update for the Molo Graphite Mine in Madagascar.

The Company filed a Technical Report titled “Molo Phase 2 Preliminary Economic Assessment” dated April 27, 2022 on SEDAR and on its website at [www.nextsourcematerials.com](http://www.nextsourcematerials.com). The Company also announced updated results for the PEA, which supersedes the original results that were press released on February 28, 2022.

**Item 5. Full Description of Material Change**

*The Company provided a Phase 1 construction update for the Molo Graphite Mine in Madagascar:*

The Company announced that its construction team is now setup at the Molo Graphite Mine site in Madagascar and civil and earthworks have been initiated in preparation for the delivery and installation of the processing plant. The offsite fabrication and construction of the auxiliary buildings and structures has also been completed and these are in the process of being delivered to the mine site.

Work crews have begun civil construction and earthworks, utilizing heavy construction equipment to prepare the ground for the delivery and installation of the processing plant and auxiliary buildings. The work will involve:

- site stripping and leveling
- laying of foundations for buildings and structures
- excavation for utility installation
- road remediation

The Phase 1 processing plant was designed and built using an all-modular approach and is capable of processing 240,000 tpa of ore and producing approximately 17,000 tpa of graphite concentrate. On February 28, 2022, the Company announced the processing plant, which was fully assembled at an offshore facility and had successfully passed factory acceptance testing and final verification, had been dismantled, packaged, and is ready to be shipped to the mine site. The processing plant is expected to be delivered to the mine site in Q2 2022, followed by installation and commissioning in Q3 2022.

The following auxiliary buildings and structures are expected to be delivered and installed at the mine site during Q2 2022:

- Accommodation camp
- Water treatment plant
- Sewage treatment plant
- Plant offices
- Plant workshop
- Testing laboratory
- Plant ablutions
- Change house

On April 27, 2022, the Company filed a Technical Report titled “Molo Phase 2 Preliminary Economic Assessment” dated April 27, 2022 (“PEA”) on SEDAR and on its website at [www.nextsourcematerials.com](http://www.nextsourcematerials.com) for a proposed Phase 2 expansion of its Molo Graphite Mine project located near the village of Fotadrevo in the Province of Toliara, Madagascar. The Company also announced updated results for the PEA, which supersedes the original results that were press released on February 28, 2022:

The PEA considers an enhanced Phase 2 expansion consisting of a stand-alone processing plant with a production capacity of 150,000 tonnes per annum (“tpa”) of graphite concentrate over a 26-year life of mine (“LOM”). The PEA assumes the Phase 2 processing plant is built adjacent to the Phase 1 processing plant currently under construction.

The PEA was updated to reflect changes to the processing plant power cost assumptions involving the consumption of diesel fuel. The PEA estimated that Phase 2 capital costs will be US\$155.8 million (no changes) resulting in a pre-tax NPV utilizing an 8% discount rate of US\$904.8 million (previously US\$929.6 million) and a pre-tax IRR of 40.4% (previously 41.1%), the details of which are set out in the PEA. The original press release stated an incorrect average stripping ratio, which is corrected in the table below with no impact on the PEA results.

The following is a summary of the economic and operational highlights in the updated PEA that considers the increase in the power cost assumptions, as compared to the previously released results, and which supersedes the previously released results:

	<b>Phase 2 PEA</b>	<b>Previous Results</b>
<b>Economic Highlights</b>		
Pre-tax Net Present Value (“NPV”) (8% discount rate) <sup>(1)(2)(4)(8)</sup>	US\$904.8 million	US\$929.6 million
Post-tax NPV (8% discount rate) <sup>(1)(2)(3)(4)(8)</sup>	US\$593.0 million	US\$612.6 million
Pre-tax Internal Rate of Return (“IRR”) <sup>(1)(2)(4)(8)</sup>	40.4%	41.1%
Post-tax IRR <sup>(1)(2)(3)(4)(8)</sup>	31.4%	32.0%
Life of Mine (“LoM”)	26 years	26 years
Pre-tax payback <sup>(1)(2)(4)(8)</sup>	3.18 years	3.10 years
Post-tax payback <sup>(1)(2)(3)(4)(8)</sup>	3.74 years	3.70 years
Capital costs (“CAPEX”) including contingency of \$31.96 million <sup>(2)</sup>	US\$155.8 million	US\$155.8 million
<b>Operational Highlights</b>		
Graphite concentrate sale price (US\$ per tonne of concentrate) <sup>(8)</sup>	US\$1,230.50	US\$1,230.50
Average operating costs FOB (“Opex”) (US\$ per tonne of concentrate following ramp-up) <sup>(7)</sup>	US\$495.62	US\$479.03
Average annual production of concentrate <sup>(5)(6)</sup>	150,000 tpa	150,000 tpa
Average ore mined per annum over LoM	2,532,345 tpa	2,532,345 tpa
Average head grade	6.16%	6.16%

	<b>Phase 2 PEA</b>	<b>Previous Results</b>
Concentrate purity (Cg) of finished product	97%	97%
Average stripping ratio	0.53:1	0.8:1
Average carbon recovery	88.30%	88.30%

- (1) Assumes Project is financed with 100% equity.
- (2) Capex includes process equipment, civil and infrastructure, mining, buildings, electrical infrastructure, project and construction services.
- (3) Assumes 2% government gross revenue royalty, 3% Vision Blue gross revenue royalty, 1.5% NSR royalty and corporate tax rate of 20%.
- (4) Assumes no inflationary adjustments in sales price, or operating costs.
- (5) Assumes all mineralized material from the Company's 2019 Feasibility Study, including ore from the Measured, Indicated and Inferred Mineral Resource categories, are sent to the treatment plant.
- (6) Assumes a cut-off grade of 4.5% carbon has been applied, with all material below this cut-off grade treated as waste.
- (7) Assumes all concentrate will be sold on a FOB basis at the Port of Ehoala, Madagascar.
- (8) Based on current market prices provided by UK-based commodity price reporting agencies Benchmark Minerals Intelligence and fast markets.

The PEA has been filed and is now available on SEDAR ([www.sedar.com](http://www.sedar.com)) and is also available on NextSource's website at [www.nextsourcematerials.com](http://www.nextsourcematerials.com). The PEA was prepared by Erudite Strategies (Pty) Ltd. ("Erudite") of South Africa, an independent engineering and consulting firm specializing in the mining and processing of commodities and battery materials.

The Company cautions that the PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability and there is no certainty that the PEA will be realized.

#### **QUALIFIED PERSONS**

The PEA was prepared in accordance with National Instrument 43-101 standards by Mr. Johann de Bruin, Pr.Eng, of Erudite Strategies (Pty) Ltd. Please refer to the PEA titled "Molo Phase 2 Preliminary Economic Assessment" dated April 27, 2022 filed on the Company's profile at [www.SEDAR.com](http://www.SEDAR.com).

Mr. Craig Scherba, P.Geo., President and CEO of NextSource, is the qualified person who reviewed and approved the technical information provided in this press release.

#### **Item 6. Reliance on subsection 7.1(2) of National Instrument 51-102**

Not applicable.

#### **Item 7. Omitted Information**

Not applicable.

#### **Item 8. Executive Officer**

Marc Johnson  
Chief Financial Officer  
(416) 364-4911

#### **Item 9. Date of Report**

April 28, 2022.