

Stillwater Critical Minerals Launches Expansion Drill Program

July 20, 2023 - Vancouver, B.C., Stillwater Critical Minerals Corp. (TSX.V: PGE | OTCQB: PGEZF) (the “Company” or “Stillwater”) is pleased to announce the start of 2023 expansion drilling at its flagship Stillwater West nickel-PGE-copper-cobalt and gold project in Montana, USA, in addition to providing an update on other initiatives including work already underway.

Highlights

- Drilling will focus on expansion of the NI 43-101-compliant resources announced January 25, 2023 which demonstrated world-class grade and scale with **1.6 billion pounds of nickel, copper and cobalt and 3.8 million ounces of palladium, platinum, rhodium, and gold (“4E”) in a base case study totaling 255 million tonnes (“Mt”), with a high-grade component of 11.6 Mt grading 1.05% recovered nickel equivalent (as 0.56% Ni, 0.33% Cu, 0.03% Co, 0.54 g/t Pd, 0.27 g/t Pt, 0.15 g/t Au and 0.019 g/t Rh).**
- Priority is on expansion of high-grade mineralization at the DR-Hybrid deposit at Chrome Mountain, including:
 - Drill hole **CM2021-05**, which returned **13.2 meters grading 2.89% Recovered Nickel Equivalent¹ (“NiEq”) (2.31% Ni, 1.51 g/t 4E, 0.35% Cu, and 0.115% Co), starting at 37.6 meters. This high-grade mineralization, contained within 400.8 meters of continuous battery and precious metal mineralization**, is of a type not previously identified in the Stillwater district and appears to be related to **8.5 meters of similar high-grade, high-tenor nickel sulphide returned in hole CM2020-04**, approximately 125 meters down dip to the west. See news releases from May 03, 2022, and March 03, 2021.
- Drilling is also expected to expand on high-grade targets at the CZ and HGR deposits at Iron Mountain, up to nine kilometers east of Chrome Mountain, as step-outs from the following intercepts:
 - Drill hole **CZ2021-01**, which returned **63.7 meters grading 0.86% NiEq (0.47% Ni, 0.42 g/t Pd, 0.27% Cu, and 0.04% Co as well as significant Pt and Au values), within 367.6 meters of continuous mineralization**. This hole was a step-out from hole **CZ2019-01** which returned **62.0 meters grading 0.56% NiEq** and also **3.54 meters of 2.67% NiEq (as 1.53% Ni, 0.49% Cu, 0.099% Co, and 3.45 g/t 4E) within 399 meters of continuous mineralization**, starting at surface. The CZ deposit benefits from a historic resource and positive preliminary metallurgical work completed by AMAX in the 1970s. See news releases from December 20, 2021, and January 21, 2020.
 - Drill hole **IM2021-05** in the HGR deposit area returned **7.3 meters grading 0.70% NiEq (as 0.45% Ni, 0.51 g/t 4E, 0.17% Cu and 0.026% Co), and 2.4 meters 2.04% NiEq (as 1.55% Ni, 0.85 g/t 4E, 0.17% Cu, and 0.087% Co), within 379.2 meters of continuous battery and precious metal mineralization** starting at surface. This hole was a step-out from **hole IM2019-03** which returned **26.8 meters grading 0.85% NiEq (as 0.34% Ni, 0.15% Cu, 0.019% Co, and 1.24 g/t 4E) within 272.5 meters of continuous mineralization**. See news releases from July 07, 2022, and December 18, 2019.
- The 2023 campaign will be the first to apply updated geological models which incorporate similar geology from South Africa’s Platreef district under the direction of Dr. Danie Grobler, who joined the team in May of 2022 as Vice-President Exploration.
- This campaign is funded by the recent 9.99% strategic equity investment by Glencore and is expected to consist of approximately 5,000 meters of diamond core drilling.

Michael Rowley, President and CEO of Stillwater Critical Minerals, stated, “We are very pleased to announce the arrival of equipment and crews for our 2023 drill campaign with a view to expanding our recent high-grade nickel and copper sulphide discoveries, enriched in cobalt and precious metals. Those intercepts included some of the widest and highest-grade intervals in their respective years and drove a robust and low-cost expansion of our previous mineral resource. We are focused on continuing that trend as we apply our new understanding of the geology of the Stillwater complex from the giant mines of South Africa. The broader fundamentals are stronger than ever for our sector, and the recent strategic investment by Glencore in Stillwater is an important validation of both the project and the underlying fundamentals of US critical mineral supply. We look forward to further announcements from this iconic and expanding American mining district, which has been producing high-grade critical minerals for over one hundred years.”

Dr. Danie Grobler, Vice-President of Exploration for Stillwater Critical Minerals, said “It’s exciting to be embarking on the 2023 drill campaign, which will be the first ever in the Stillwater Igneous Complex that incorporates detailed structural and stratigraphic models from very similar mineralization in South Africa’s Bushveld Igneous Complex. Field work, which commenced in June, includes a ground-based high resolution magnetic survey which has already provided a clear response to the high-grade massive sulphide zone identified in holes CM2021-05 and CM2020-04 holes noted above, further defining that target while also delineating stratigraphic and structural controls on mineralization. The world-class size and well-mineralized nature of the Stillwater complex, coupled with our new understanding of the structure and controls on mineralization, has provided us with a large number of targets to guide expansion of the existing resources while also leading us into exciting new areas”.

Metallurgy, US Geological Survey, and Other Initiatives

Sample collection for more detailed metallurgical testing is on-going as part of the expanding development of Stillwater West, with a view to including full metallurgical assessment in future studies. Preliminary metallurgical assessments by Stillwater returned strong nickel tenor in sulphides drilled by the Company to date. In addition, favorable historic bench-scale metallurgical results completed historically by AMAX at the Iron Mountain target area demonstrate the potential for effective nickel and copper sulphide flotation and PGE recovery.

2023 fieldwork surface programs including geophysical and geological prospecting and mapping surveys are also planned as part of the 2023 campaign. Some of these programs commenced earlier this year with a view to detailing priority drill targets.

In addition, the Company is pleased to report its continuing and expanding engagement with the US Geological Survey which includes new technical programs in addition to ongoing consultation and data sharing following multiple onsite meetings, with some programs eligible for funding under the Inflation Reduction Act and other government initiatives.

Carbon Capture

All five deposits in the 2023 Resource contain desirable nickel sulphide mineralization that has been shown to require a much lower environmental footprint in subsequent processing to nickel metal or nickel sulphate in comparison to the laterite nickel ores that dominate global production. As part of Stillwater’s commitment to global sustainability initiatives, the Company is also examining the potential for large-scale carbon sequestration with the objective of further reducing and possibly eliminating the carbon footprint of a potential mining operation at Stillwater West.

Carbon sequestration studies are ongoing in two channels as reported previously. The first, led by Dr. Greeshma Gadikota at Cornell University with funding by the Department of Energy under the Advanced Research Projects Agency-Energy program, is focused on novel hydrometallurgical techniques and carbon capture with the objective of increasing the extraction of critical minerals using reduced energy for a carbon negative mining future. The second is via ARCA Climate (formerly Carbin Minerals Inc) and the University of British Columbia with focus on investigating the potential to exploit the presence of certain ultramafic minerals that are known to have high capacity to bind carbon dioxide by a natural process known as mineral carbonation for carbon capture as part of a potential mining operation at Stillwater West.

This work strongly aligns with Stillwater’s Environmental, Social and Governance guidelines and principles, and the incorporation of carbon uptake may bring financial benefits via initiatives such as the 45Q Tax Credit for Carbon Oxide Sequestration that is now in place in the US.

About Stillwater Critical Minerals Corp.

Stillwater Critical Minerals (TSX.V: PGE | OTCQB: PGEZF) is a mineral exploration company focused on its flagship Stillwater West Ni-PGE-Cu-Co + Au project in the iconic and famously productive Stillwater mining district in Montana, USA. With the addition of two renowned Bushveld and Platreef geologists to the team and a strategic investment by Glencore, the Company is well positioned to advance the next phase of large-scale critical mineral supply from this world-class American district, building on past production of nickel, copper, and chromium, and the on-going production of platinum group and other metals by neighboring Sibanye-Stillwater. An expanded NI 43-101 mineral resource estimate, released January 2023, delineates a compelling suite of critical minerals contained within five Platreef-style nickel and copper sulphide deposits at Stillwater West, which host a total of 1.6 billion pounds of nickel,

copper and cobalt, and 3.8 million ounces of palladium, platinum, rhodium, and gold, and remains open for expansion along trend and at depth.

Stillwater Critical Minerals also holds the high-grade Black Lake-Drayton Gold project adjacent to Treasury Metals' development-stage Goliath Gold Complex in northwest Ontario, currently under an earn-in agreement with Heritage Mining, and the Kluane PGE-Ni-Cu-Co critical minerals project on trend with Nickel Creek Platinum's Wellgreen deposit in Canada's Yukon Territory.

FOR FURTHER INFORMATION, PLEASE CONTACT:

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1 - Recovered Nickel Equivalents ("NiEq") are presented for comparative purposes using conservative long-term metal prices (all USD): \$8.00/lb nickel (Ni), \$4.00/lb copper (Cu), \$24.00/lb cobalt (Co), \$1,000/oz platinum (Pt), \$2,200/oz palladium (Pd), \$1,800/oz gold (Au), and \$10,000/oz rhodium (Rh). NiEq is determined as follows: $NiEq\% = [Ni\% \times recovery] + [Cu\% \times recovery \times Cu\ price / Ni\ price] + [Co\% \times recovery \times Co\ price / Ni\ price] + [Pt\ g/t \times recovery / 31.103 \times Pt\ price / Ni\ price / 2,204 \times 100] + [Pd\ g/t \times recovery / 31.103 \times Pd\ price / Ni\ price / 2,204 \times 100] + [Au\ g/t \times recovery / 31.103 \times Au\ price / Ni\ price / 2,204 \times 100]$. In the above calculations: 31.103 = grams per troy ounce, 2,204 = lbs per metric tonne, and 100 and 0.01 convert assay results reported in % and g/t. The following recoveries have been assumed for purposes of the above equivalent calculations: 85% for Ni and 90% for all other listed metals, based on recoveries at similar nearby operations.

Quality Control and Quality Assurance

Mr. Mike Ostenson, P.Geo., is the qualified person for the purposes of National Instrument 43-101, and he has reviewed and approved the technical disclosure contained in this news release.

Forward-Looking Statements

This news release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other than statements of historical facts including, without limitation, statements regarding potential mineralization, historic production, estimation of mineral resources, the realization of mineral resource estimates, interpretation of prior exploration and potential exploration results, the timing and success of exploration activities generally, the timing and results of future resource estimates, permitting time lines, metal prices and currency exchange rates, availability of capital, government regulation of exploration operations, environmental risks, reclamation, title, and future plans and objectives of the company are forward-looking statements that involve various risks and uncertainties. Although Stillwater Critical Minerals believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward-looking statements. Forward-looking statements are based on a number of material factors and assumptions. Factors that could cause actual results to differ materially from those in forward-looking statements include failure to obtain necessary approvals, unsuccessful exploration results, changes in project parameters as plans continue to be refined, results of future resource estimates, future metal prices, availability of capital and financing on acceptable terms, general economic, market or business conditions, risks associated with regulatory changes, defects in title, availability of personnel, materials and equipment on a timely basis, accidents or equipment breakdowns, uninsured risks, delays in receiving government approvals, unanticipated environmental impacts on operations and costs to remedy same, and other exploration or other risks detailed herein and from time to time in the filings made by the companies with securities regulators. Readers are cautioned that mineral resources that are not mineral reserves do not have demonstrated economic viability. Mineral exploration and development of mines is an inherently risky business. Accordingly, the actual events may differ materially from those projected in the forward-looking statements. For more information on Stillwater Critical Minerals and the risks and challenges of their businesses, investors should review their annual filings that are available at www.sedar.com.

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1.6Blbs Ni+Cu+Co plus **3.8Moz Pd+Pt+Rh+Au** are currently modeled in **5 deposits** that are set in **12 km** of high-level geophysical anomalies with coincident metal-in-soil anomalies spanning the **25km main claim block**, demonstrating exceptional expansion potential. Step-out drilling at the following high-grade intercepts is a priority for 2023:

1. **13.2m of 2.89% NiEq (2.31% Ni, 0.35% Cu, 0.115% Co, 1.51 g/t 4E)** within **401m** of continuous mineralization - DR/Hybrid Deposit at Chrome Mtn (CM2021-05)
2. **63.7m of 0.86% NiEq (0.47% Ni, 0.42 g/t Pd, 0.27% Cu, 0.04% Co plus Pt/Au)** within **368m** of continuous mineralization – CZ deposit at Iron Mtn (CZ2021-01)
3. **7.3m of 0.70% NiEq (0.45% Ni, 0.51 g/t 4E, 0.17% Cu, 0.026% Co), and 2.4m of 2.04% NiEq (1.55% Ni, 0.85 g/t 4E, 0.17% Cu, 0.087% Co),** within **379m** of continuous mineralization – HGR deposit at Iron Mtn (IM2021-05)

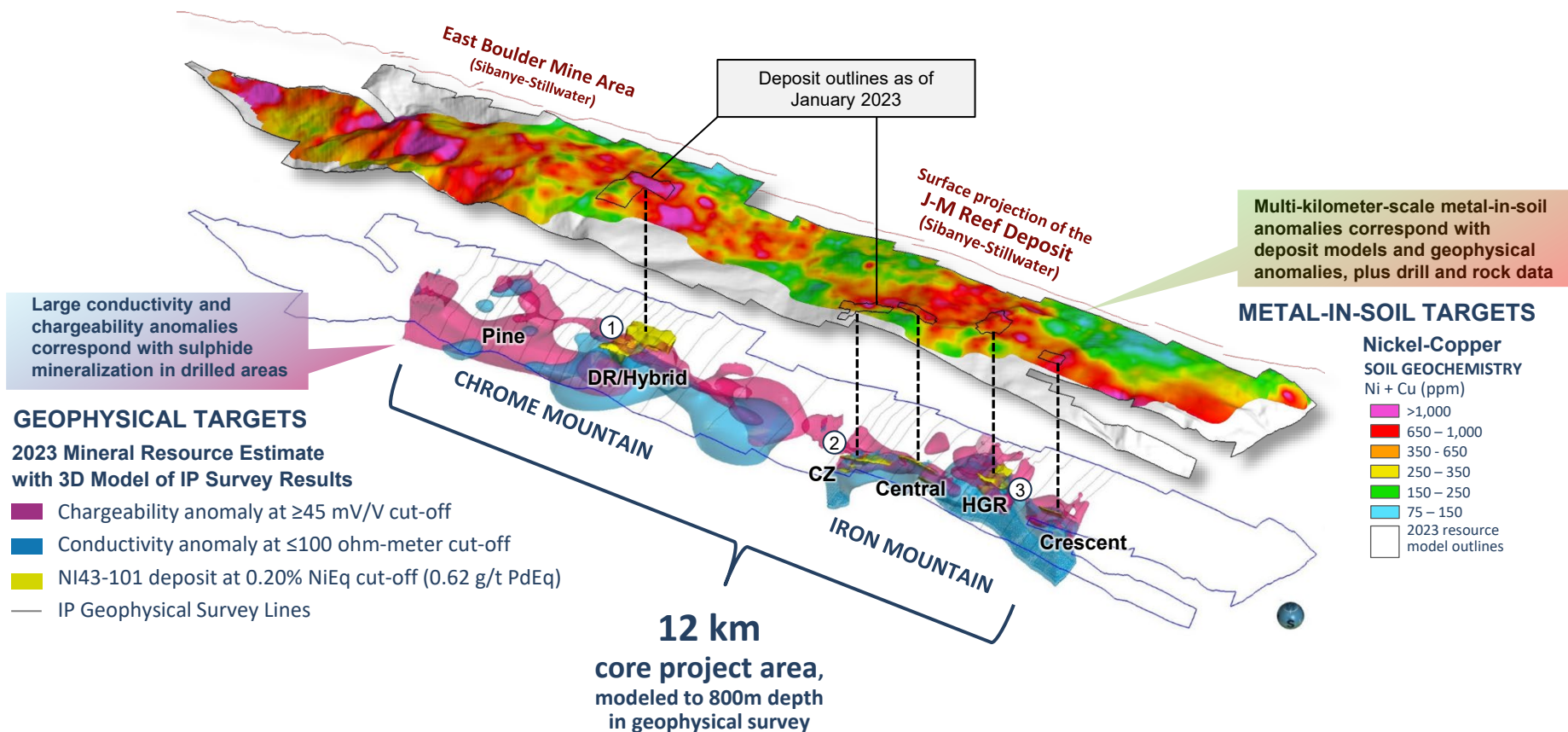


Figure 1 – 2023 DEPOSIT MODELS WITH SELECT DRILL RESULTS OVER Ni-Cu SOIL RESULTS AND 3D INDUCED POLARIZATION (“IP”) GEOPHYSICAL SURVEY RESULTS STILLWATER WEST Ni-PGE-Cu-Co + Au PROJECT, Montana, USA



See news release January 25, 2023. Mineral Resources are presented at a cut-off grade of 0.20% NiEq. Cut-off grades and equivalents are based on metal prices of \$9.00/lb Ni, \$3.75/lb Cu, \$24.00/lb Co, \$1,000/oz Pt, \$2,000/oz Pd and \$1,800/oz Au, with assumed metal recoveries of 80% for Ni, 85% for copper, 80% for Co, Pt, Pd and Au, a mining cost of US\$2.50/t rock and processing and G&A cost of US\$18.00/t mineralized material. Mineral Resources are not Mineral Reserves as they do not have demonstrated economic viability. The quantity and grade of reported Inferred Resources are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured. However, based on the current knowledge of the deposits, it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.