



# Granite Creek Copper Announces Results of Mine Planning & Mineral Processing Work Conducted on the Carmacks Copper-Gold Project by Sedgman and Mining Plus

December 1, 2021 - Vancouver, B.C., Granite Creek Copper Ltd. (TSX.V: GCX | OTCQB: GCXXF) ("Granite Creek" or the "Company") is pleased to announce the results of work completed by Sedgman Canada and Mining Plus on the Company's Carmacks copper-gold-silver deposit in the Minto Copper Belt located in central Yukon, Canada. The Company has received a final report on studies that include review of alternate leach technologies, mine planning, ore sorting and other key elements which are expected to be highly influential on the updated preliminary economic assessment ("PEA") planned for H1 2022.

## Highlights include:

- Excellent results from initial metallurgical testing on sulfide material;
- Confirmation of in tank leaching as the preferred method of extraction of both copper and precious metals from oxide ores;
- Identification of conventional flotation as the preferred method of producing a copper concentrate from sulfide ores;
- Development of a draft underground mine plan, with sub-level block cave as the preferred underground mining method at Carmacks;

Granite Creek President & CEO, Tim Johnson, stated, "We are extraordinarily pleased with the results provided by Sedgman and Mining Plus and the degree of efficiency, expertise and professionalism they have demonstrated since Granite Creek initially engaged them in May of this year. The studies have provided a great deal of new insight and clarity on the best path forward as we continue to advance Carmacks toward updated economics and, ultimately, production. We are very confident that these elements of mine planning and optimization, combined with the updated 43-101 mineral resource estimate we anticipate in Q1, will form the basis of a robust new PEA. The Yukon is an exceptional mining jurisdiction, the Minto belt has excellent infrastructure and robust mineralization currently being mined by Minto Metals Corp. just to the north of us who are now publicly traded on the Venture Exchange. We look forward to additional announcements soon as the pieces continue to fall into place at Carmacks."

#### Virtual Investor Conference – OTC Markets Group

Granite Creek will be presenting at the upcoming Mining & Metals Virtual Investor Conference hosted by OTC Markets Group on Wednesday, December 8<sup>th</sup> at 11:30 AM PT / 2:30 PM ET. Topics of discussion will include the Company's 2021 drilling campaign, the mine planning and mineral processing results described herein, and implications for the expected updates to both the existing 43-101 mineral resource estimate and PEA. <u>To register, click here</u>.

#### **Sedgman / Mining Plus Report Discussion**

An initial review of geotechnical studies as referenced in the 2017 PEA<sup>1,2</sup>, has indicated that a sub-level block cave is likely the most cost-effective method of underground mining of Zone 1 at the Carmacks Deposit. Based on this, Granite Creek will now move to initiate costing studies to support an updated PEA that includes potential underground resources not only in Zone 1 but other adjacent zones. In addition, the Company will launch pit design and optimization efforts on mineralized zones that lie outside of the pit contemplated in the 2017 PEA. Specifically, Zones 2000S and 13 will see pit optimization scenarios that will determine how much material could potentially be mined via open pit and what portion of the resources will be extracted by underground mining methods.

Metallurgical testing of sulfide mineralization to determine recovery of copper minerals using conventional flotation technology to create a copper concentrate was highly successful, achieving copper recoveries of up to 95%. Further testing is planned to confirm these recovery rates and to add gold and silver to a concentrate scenario. This work will be used identify the correct sizing of a copper-gold-silver concentrator circuit and the associated economics.

Previous economic assessments did not consider the potential value from processing of the high-grade sulphide material at Carmacks, despite a defined sulfide resource. In conducting a comprehensive review of the Carmacks deposit and the Carmacks North target area, the presence of significant sulfide mineralization became immediately

apparent and Granite Creek felt it prudent to examine its potential inclusion as a means to expand the overall resource, extend mine life and improve economics. The majority of the Company's 2021 drilling campaign focused on delineating and expanding sulfide resources with both near surface and deeper targets explored. Both oxide and sulphide mineralized zones remain open to expansion, with a significant expansion of the sulphide resource anticipated in the upcoming resource estimate update in Q1 2022. The updated PEA will incorporate this expanded resource and will include review of the mining sequence including an assessment of whether any sulfide resources may be mined via open pit and the optimal sequence for sulfide flotation and oxide leaching.

Table 1. Current Mineral Resource Estimate on the Carmacks Copper Project<sup>1,2</sup>

	Category	Tonnes (000)	Cu (%)	Au (g/t)	Ag (g/t)
Oxide & Transition Mineralization	Measured	6,484	0.86	0.41	4.24
	Indicated	9,206	0.97	0.36	3.80
	M&I	15,690	0.94	0.38	3.97
	Inferred	913	0.45	0.12	1.90
Sulphide Mineralization	Measured	1,381	0.64	0.19	2.17
	Indicated	6,687	0.69	0.17	2.34
	M&I	8,068	0.68	0.18	2.33
	Inferred	8,407	0.63	0.15	1.99

<sup>[1]</sup> JDS Energy and Mining. Feb 9, 2017. NI 43-101 Preliminary Economic Assessment Technical Report on the Carmacks Project, Yukon, Canada. Contained metal based on 23.76 million tonnes of NI 43-101 compliant resources in the Measured and Indicated categories grading 0.85% Cu, 0.31 g/t Au, 3.14 g/t Ag.

[2] Arseneau Consulting Services, 2016 Independent Technical Report on the Carmacks Copper Project, Yukon, Canada.

#### **About Granite Creek Copper**

Granite Creek, a member of the Metallic Group of Companies, is a Canadian exploration company focused on the 176 square kilometer Carmacks project in the Minto copper district of Canada's Yukon Territory. The project is on trend with the high-grade Minto copper-gold mine, operated by Minto Metals Corp., to the north, and features excellent access to infrastructure with the nearby paved Yukon Highway 2, along with grid power within 12 km. More information about Granite Creek Copper can be viewed on the Company's website at www.gcxcopper.com.

### FOR FURTHER INFORMATION PLEASE CONTACT:

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#### **Qualified Person**

Ms. Debbie James, P.Geo., a qualified person for the purposes of National Instrument 43-101, has reviewed and approved the technical disclosure contained in this news release.

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 Granite Creek Copper 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 Granite Creek Copper 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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