



## News Release

# Murchison Minerals Commences Diamond Drilling at the HPM High-Grade Nickel-Copper-Cobalt Project in Quebec

August 5<sup>th</sup>, 2022 (Burlington, Ontario): **Murchison Minerals Ltd. (“Murchison” or the “Company”)** (TSXV: **MUR** | OTCQB: **MURMF**) is pleased to announce Phase III – diamond drilling – of the summer exploration has commenced. The Company is focused on drilling at the high-grade nickel, copper, cobalt zone called Barre de Fer (“BDF”) as well as the Syrah Target, on the 100% - owned HPM (Haut-Plateau de la Manicouagan) Project, located in Quebec. The Company anticipates drilling a minimum of 7,500 m over the course of the program. The majority of the metres will be allocated towards expansion and delineation at BDF. The remaining drilling will be focused on the Syrah Target – a 600 m long EM anomaly located approximately 240 m from BDF. The Company’s current interpretation shows the possibility that Syrah and BDF are part of the same magmatic sulphide mineralizing system. As a result of the recently closed private placement ([July 4<sup>th</sup>, 2022 news release](#)) the Company is well funded to complete its objectives during the 2022 exploration program.

## Objectives of Summer Drill Program

1. Expand the currently defined high-grade BDF Zone
2. Test the extent of subsurface mineralization at the Syrah Target
3. Define a near surface, high-grade nickel-copper-cobalt resource at BDF

## Barre de Fer Zone

- The BDF Zone (the “Zone”) is currently defined by 25 diamond drill holes, with 5,564 m of drilling completed between 2001 and 2008
- Based on the preliminary modelling, the Zone outcrops on surface, has a strike length of 315 m, and is composed of multiple stacked lenses over a maximum 150 m width. Individual lenses have a maximum thickness of 28 m. The modelled mineralization extends to a vertical depth of 295 m. Extensive mineralization has also been intersected outside the current model, up to a vertical depth of 440 m. The Zone remains unconstrained along strike and at depth.
- The best intersection to date is in hole HPM-08-03, drilled to a depth of 345 m, which intersected five zones of Ni-bearing sulphide mineralization totalling **60.07 m** of composite mineralization, including:
  - **52.15 m** grading **2.04%** NiEq (74.45 m to 126.60 m) including **12.04 m** at **3.00%** NiEq (100.71 m to 112.75 m) and **10.56 m** at **2.92%** NiEq (85.16 m to 95.72 m) (Table 1)

**Table 1: HPM-08-03 Highlight Assay Results**

Hole		From (m)	To (m)	Length (m)	Ni %	Cu %	Co %	Ni Eq. %**
HPM-08-03		52.54	54.96	2.42	0.5	0.19	0.03	0.61
		70.86	71.36	0.5	0.4	0.29	0.02	0.54
		74.45	126.6	52.15	1.5	0.79	0.08	2.04
	<i>includes</i>	79.82	82.94	3.12	2.2	1.31	0.11	3.05
	<i>includes</i>	82.43	82.94	0.51	2.3	4.81	0.12	4.44
		136.07	139.4	3.35	0.3	0.14	0.02	0.44
		174.75	176.4	1.65	0.3	0.2	0.02	0.45

\* Reported as core length, true thickness is not known. \*\*Nickel Equivalent (NiEq) values were calculated using the following USD metal prices from Mar 23, 2022: \$12.76/lb Nickel, \$4.76/lb Copper and \$37.20/lb Cobalt.

### Syrah Target

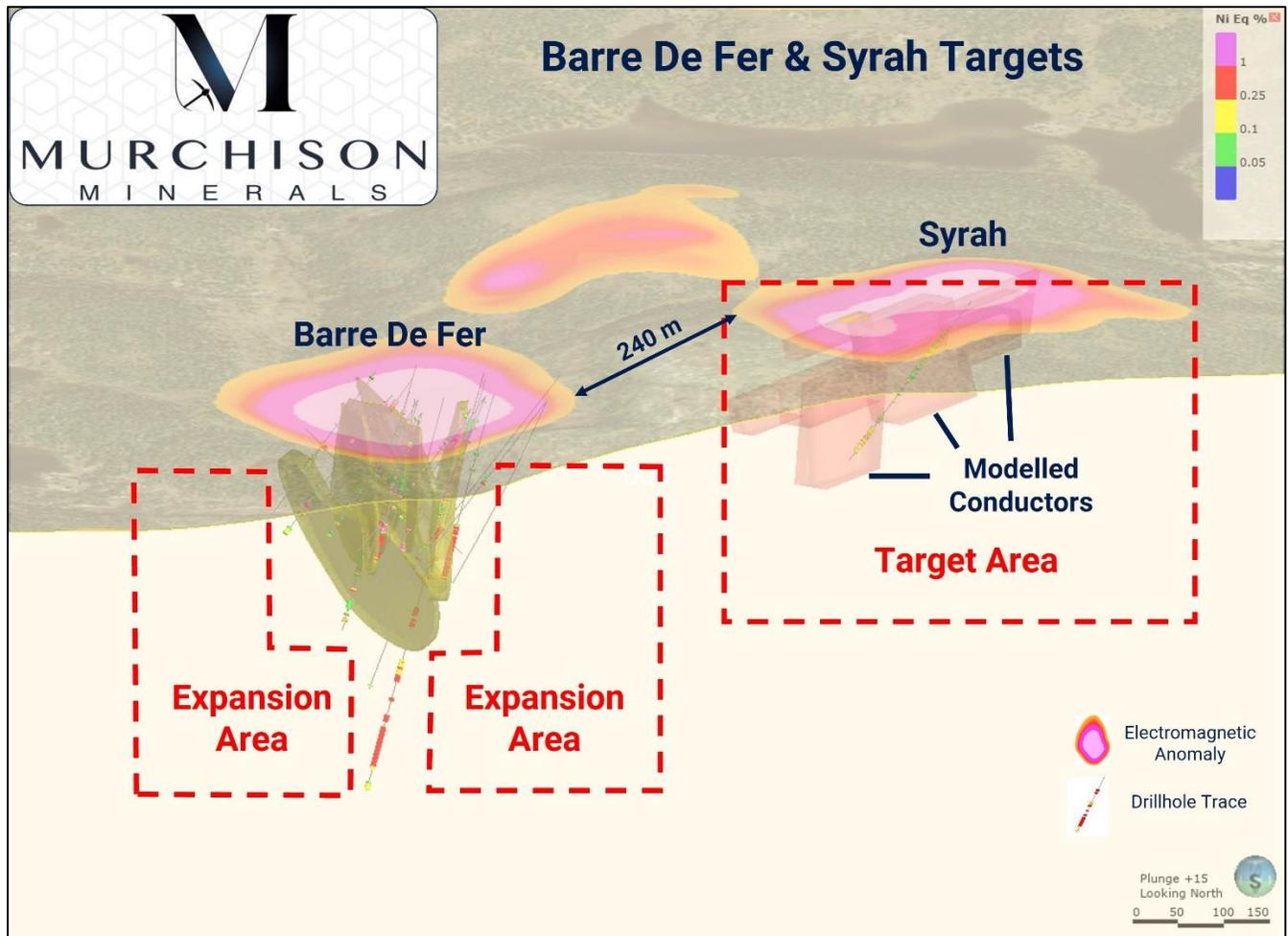
- Syrah is located just 240 m from BDF Zone, displaying a similar geophysical and geochemical signatures
- Nickel-bearing sulphide mineralization outcrops and sub-crops over an ~375 m strike length, within the footprint of an ~600-metre-long conductive geophysical anomaly
- Grab samples from the spring 2021 prospecting program returned grades as high as 0.83% Ni Equivalent\* (0.58% Ni, 0.24% Cu, 0.05% Co) ([Sept 1<sup>st</sup>, 2021 news release](#))
- The Company's current interpretation, based on the similarity in geochemical and geophysical signatures, indicates that BDF and Syrah may belong to the same mineralizing system and have similar economic prospectivity

### Drilling Plans

During Phase III – diamond drilling – the Company intends to drill approximately 6,000 m at BDF, comprising 15-20 drill holes. The focus of this portion of the program will be expansion of the current mineralized domains (Figure 1), followed by delineation – or in-fill drilling – designed to produce a maiden resource estimate.

Exploration at the adjacent Syrah Target, will amount to approximately 1,500 m, comprising drill holes which are designed for optionality and flexibility based on results. Maxwell plate modelling from the recently completed 2022 VTEM and downhole borehole EM surveys, indicates drill hole HPM-08-14 was drilled parallel or oblique to the newly interpreted plates, missing the prospective electromagnetic target. Consequently, drilling at Syrah will focus on following up on mineralization intersected in this hole and nickel-bearing sulphide mineralization outcropping on

surface. Furthermore, the Company will be testing the recently interpreted Maxwell plates, derived from the 2022 VTEM and borehole EM surveys.



**Figure 1:** Barre de Fer Zone & Syrah Target, zones of expansion, Oblique view with VTEM overlay

## Operations

Murchison has undertaken several initiatives that will provide real-time results and control expenditures. These initiatives include:

1. Acquiring a helicopter portable track-mounted diamond drill, allowing for quicker drill moves which are not dependent on helicopter support
2. All samples collected at the core facilities will undergo portable x-ray fluorescence analysis (XRF) to provide accurate, real-time assays results prior to being shipped to the lab. A Thermo Scientific direct rock sampler (DRS) will be used to provide representative samples for XRF analysis. XRF analysis will be completed on all drill core undergoing standard assay analysis at a geoanalytical lab. This will provide Murchison with the flexibility to target the most prospective areas at BDF and Syrah in real time.

3. A resource development team, from Understood Mineral Resources Ltd., has been integrated into the exploration process

***Murchison Minerals President and CEO Troy Boisjoli comments:***

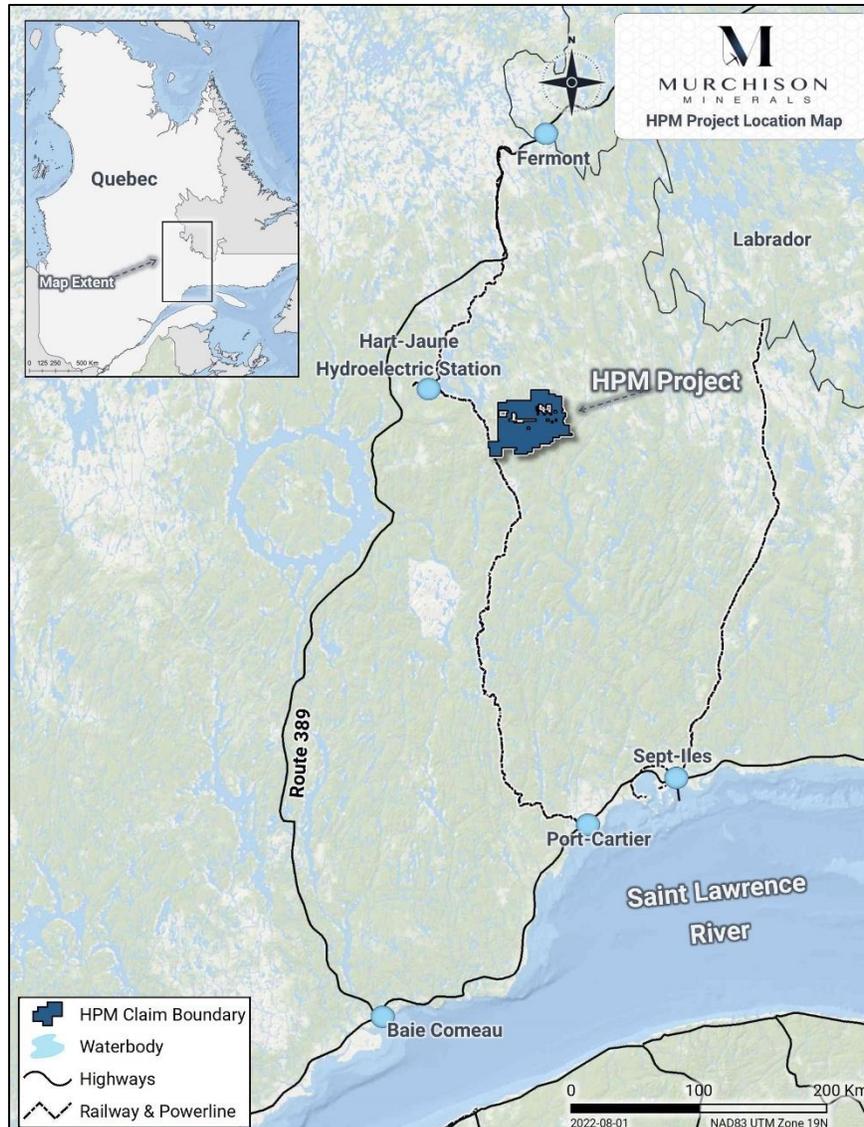
*“Murchison is extremely to excited to initiate the drilling phase for the 2022 summer exploration program at HPM, and unlock the potential at the high-grade nickel, copper, cobalt at the BDF Zone and Syrah Target. The team is eager to drill test numerous prospective areas for expansion of the BDF Zone in anticipation of producing a near surface high-grade nickel mineral resource estimate later this year. With a minimum of 7,500 m of drilling planned, Murchison is well positioned to achieve this goal and truly unlock the potential of BDF and Syrah.”*

***Murchison Minerals Vice-President of Exploration John Shmyr comments:***

*“Extensive data compilation and prospecting at BDF and Syrah over the last year have led to this exciting phase of the 2022 summer exploration program at HPM. The exploration methods applied to date including geological mapping, Beep Mat surveying, and backpack drilling have identified exciting prospective target areas at BDF and Syrah that Murchison is keen to drill test this summer.”*

**About the HPM Project**

The HPM Project is located within the Haut-Plateau de la Manicouagan area, east of the Manicouagan structure, the site of a major 215 Ma impact event. The extensive reservoir at Manicouagan supports five hydro-power plants. The existing Quebec Cartier rail line, located eight kilometres west of the PYC target area, links Labrador City to Port Cartier and Sept Iles, two major iron ore port facilities.

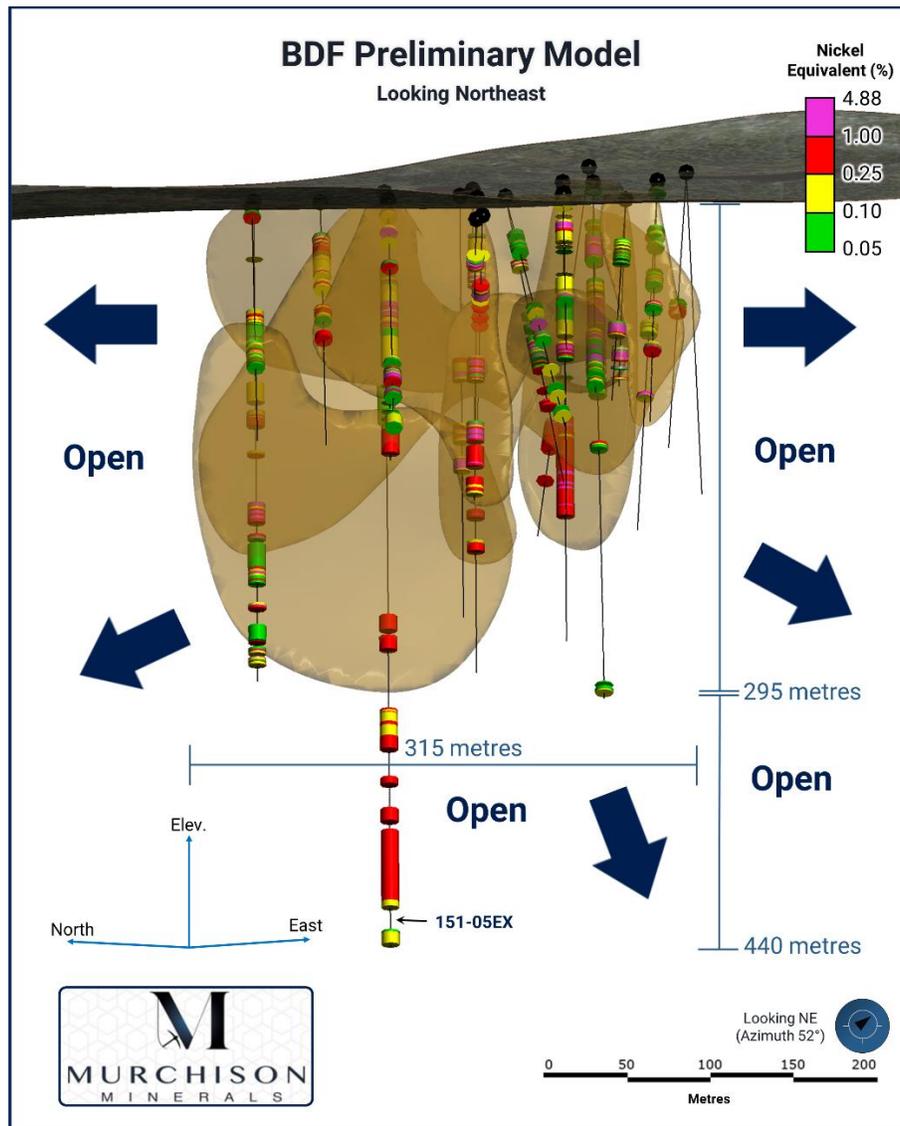


**Figure 2: HPM Location Map**

The claims host prospective gabbroic, ultramafic and anorthositic bodies within the Manicouagan metamorphic complex and are associated with significant nickel-copper-cobalt sulphide mineralization first identified by Falconbridge in 1999, where they discovered extensive nickel-bearing sulphide mineralization at BDF during drilling in 2001 - 2002. Murchison Minerals Ltd.'s predecessor – Manicouagan Minerals – drilled in the area in 2008 and 2009. The majority of the past drilling at the HPM Project targeted the BDF geophysical conductor and confirmed the presence of nickel-copper-cobalt sulphide mineralization over approximately 300-metres strike length to a depth of 280 metres. The mineralization remains open at depth and partially along strike.

The Company recently completed a comprehensive data compilation, verification and modelling program, comprising all drill hole data from the BDF Zone. The modelling program consisted of developing a preliminary 3D interpretation of nickel mineralization at BDF (Figure 3). Based on

the modelling, the Zone outcrops on surface, extends to a vertical depth of 295 m, has a strike length of 315 m, and is composed of multiple stacked lenses over a maximum footprint width of 150 m. Individual lenses have a maximum thickness of 28 m. However, extensive mineralization has been intersected to a vertical depth of 440 m, and the Zone remains undrilled and unconstrained along strike and at depth. No resource estimates have been completed on the Zone to date.



**Figure 3: Barre de Fer Zone Preliminary Nickel Mineralization Model, isometric view looking Northeast**

(Nickel Equivalent (NiEq) values were calculated using the following USD metal prices from Mar 23, 2022: \$12.76/lb Nickel, \$4.76/lb Copper and \$37.20/lb Cobalt.)

After Murchison acquired 100% ownership of the property in 2019, the Company focused exploration work on the camp-scale potential of the region. Aerial EM surveys completed in the

spring of 2021 identified more than 50 anomalous conductors. Prospecting crews were able to traverse three (3) of the more than 50 anomalies, and discovered new outcrops of nickel-bearing sulphide mineralization in the process. The prospecting program was followed by an inaugural drill program at the PYC Target area – an EM anomaly with a 1.95-km strike length. Subsequent to the completion of the drill program at PYC, the Company increased its dominant land position in the Haut-Plateau region from 139 km<sup>2</sup> to 576 km<sup>2</sup>. Finally, as a result of the spring 2022 VTEM survey, completed over the remaining 85% of the HPM property area, the Company further increase its land holdings at HPM to 648 km<sup>2</sup>.

### **Qualifying Statement**

The foregoing scientific and technical disclosures on the HPM Project have been reviewed by John Shmyr, P.Geo., VP Exploration, a registered member of the Professional Engineers and Geoscientists of Saskatchewan. Mr. Shmyr is a Qualified Person as defined by National Instrument 43-101.

### **About Murchison Minerals Ltd. (TSXV: MUR, OTCQB: MURMF)**

Murchison is a Canadian-based exploration company focused on nickel-copper-cobalt exploration at the 100% - owned HPM Project in Quebec and the exploration and development of the 100% - owned Brabant Lake zinc-copper-silver project in north-central Saskatchewan. The Company also holds an option to earn 100% interest in the Barraute VMS exploration project also located in Quebec, north of Val d'Or. Murchison currently has 218.2 million shares issued and outstanding.

Additional information about Murchison and its exploration projects can be found on the Company's website at [www.murchisonminerals.ca](http://www.murchisonminerals.ca) . For further information, please contact:

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