Murchison Announces Excellent Preliminary Metallurgical Results from the 100%-Owned Zn-CU-AG Brabant-Mckenzie Deposit

written by Raj Shah | August 10, 2021

August 10, 2021 (Source) – Murchison Minerals Ltd. ("Murchison" or the "Company") (TSXV:MUR) is pleased to announce the results from preliminary metallurgical testing on core samples collected from its 100%-owned Brabant-McKenzie Zn-Cu-Ag Deposit located in north-central Saskatchewan, Canada. The results indicate that a simple flotation test using a coarse grind with a rougher and scavenger circuit was able to upgrade the zinc grade from 9.13% to 27% with a 98% recovery. A further 4-stage cleaner flotation test resulted in a zinc concentrate of 50.2% with an 85.06% recovery. The recycling of cleaner tails is expected to result in an overall net zinc recovery of at least 90%. Precious metals were concentrated in the 4^{th} stage cleaner tail material with a grade of 180 g/t silver and 1.13 g/t gold.

Excellent results for copper recovery were also achieved with the simple rougher and scavenger flotation test increasing the grade to 2.19% with 92.9% recovery and the 4-stage cleaner flotation resulting in a grade of 4.12% with a 74.7% recovery. These preliminary results are highly-encouraging and it is assumed they can be improved through further optimization.

Murchison CEO, Jean-Charles Potvin, comments, *"The initial results from metallurgical testing are extremely positive and we*

are very pleased that simple grinding and flotation using commonly available reagents, are able to produce a high-grade and clean concentrate with high recoveries, this will help immensely with the deposit's economics having a very simple flowsheet, minimizing CAPEX and OPEX."

Results of 4-stage Cleaner Flotation

Product	Weigh	Zn		Cu		Au		Ag	
	%	%	%dist	%	%dist	ppb	%dist	ppm	%dist
4th Cleaner Conc	16.5	50.20	85.06	4.12	74.7	373.00	53.64	90.60	49.13
4th Cleaner Tail	1.80	36.60	6.80	3.47	6.9	1130.0	17.81	180.0	10.70
3rd Cleaner Tail	2.62	12.90	3.47	1.77	5.1	373.00	8.52	90.60	7.81
2nd Cleaner Tail	5.62	3.22	1.86	0.62	3.8	128.00	6.28	45.30	8.38
1st Cleaner Tail	8.48	1.08	0.94	0.30	2.8	40.00	2.96	20.70	5.78
Tails	65.0	0.28	1.87	0.09	6.7	19.00	10.79	8.50	18.20
Calc'd Head	100.0	9.72	100.0	0.91	100.0	114.51	100.0	30.36	100.0
Assay Head		9.13		0.84		74.00		38.40	
4th Cleaner Conc	16.5	50.20	85.1	4.12	74.7	373.00	53.6	90.60	49.1
3rd Cleaner Conc	18.3	48.86	91.9	4.06	81.6	447.78	71.5	99.43	59.8
2nd Cleaner Conc	20.9	44.35	95.3	3.77	86.7	438.41	80.0	98.32	67.6
1st Cleaner Conc	26.5	35.64	97.2	3.10	90.5	372.62	86.3	87.09	76.0
Total Ro.	35.0	27.26	98.1	2.42	93.3	292.02	89.2	71.00	81.8
The master	100.0	9.72	100.0	0.91	100.0	114.51	100.0	30.36	100.0

The metallurgical work was conducted by the Saskatchewan Research Council (SRC) located in Saskatoon, Saskatchewan on 40.52 kilograms of massive to semi-massive sulphide submitted to the laboratory on April 22nd, 2021. The sulphide samples consisted of half-core from a single drill hole BM21-004 over a 15.35 metre interval from the approximate center of the deposit. The samples were crushed and homogenized, and the homogenized material assayed 9.13% zinc, 0.84% copper, 0.13% lead, 38.4 g/t silver and 0.074 g/t gold.

QEMSCAN Analysis

The sample material was analyzed by QEMSCAN which identifies the mineral phases present with the results indicating the material contains 47% sulphide minerals. The dominant sulphides present are pyrrhotite (30.86%), sphalerite (14.17%), chalcopyrite (1.77%) and pyrite (0.19%). It was determined that 98.03% of the zinc in the sample is hosted by sphalerite with the remaining 1.97% hosted by gahnite. The remaining 41% of the sample mass is composed of feldspar, quartz, pyroxene, and amphiboles.

Results of Modal Mineralogy

Group	Mineral	wt.%	Group	Mineral	wt.%
Sulfides	Pyrrhotite	30.86	Phyllosilicates	Biotite	2.47
	Sphalerite	14.17		Chlorite	1.97
	Chalcopyrite	1.77		Muscovite	0.76
	Pyrite	0.19	Oxides	Fe-Oxides	3.78
Silicates	Orthoclase	8.51		Gahnite	0.86
	Plagioclase	8.19	Others	Gypsum	0.56
	Quartz	7.82		Calcite	0.47
	Clinopyroxene	7.56			
	Amphibole	5.56			
	Orthopyroxene	3.71			

Magnetic Separation and Gravity Separation

Work was also completed using both magnetic separation and gravity separation. The early magnetic separation work was positive by being able to remove 13% – 14% of the crushed material as nonmagnetic fraction containing 0.2% – 0.3% zinc. Heavy-liquid separation showed positive results in extracting some of the gangue material. Further work using magnetic separation and gravity separation as well as x-ray sorting will be further explored to analyze its viability to aid in removing the amount of gangue material prior to floatation.

Qualifying Statement

The foregoing scientific and technical disclosures on the Brabant-McKenzie 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 the Brabant-McKenzie Project

The Brabant-McKenzie project is located 175 kilometres northeast of La Ronge, Saskatchewan and approximately three kilometres from the community of Brabant Lake. The area is accessed year-round via provincial Highway 102 and is serviced by grid power. The project consists of one mining lease, which hosts the Brabant-McKenzie VMS deposit, and additional mineral claims totalling 629 square kilometres, which cover approximately 57 kilometres of strike length over favourable geological horizons, multiple known mineralized showings and identified geophysical conductors.

Mineral Resource Summary for Brabant-McKenzie VMS Deposit

Category	Tonnes	Zn %	Cu %	Pb %	Au (g/t)	Ag (g/t)	Zn Eq (%)
Indicated	2,100,000	7.08	0.69	0.49	0.23	39.6	9.98
Inferred	7,600,000	4.46	0.57	0.19	0.10	18.4	6.29

The above mineral resource estimate for the Brabant-McKenzie VMS Deposit was prepared by independent qualified person (“QP”) Finley Bakker, P.Geo., and has an effective date of September 4, 2018. The NI 43-101 Technical Report named Technical Report on the Resource Estimate Update for the Brabant-McKenzie Property, Brabant Lake, Saskatchewan is available on the Company’s website and on SEDAR.

The mineral resource of the Brabant-McKenzie VMS Deposit was estimated based on metal prices of USD $1.20/lb Zn, $2.50/lb Cu, $1.00/lb Pb, $16.00/Oz. Ag, and $1,200/Oz. Au, and a USD exchange rate of $1.25. A Net Smelter Return (NSR) cut-off of $90/tonne and a 3.5% zinc equivalent based on above metal prices and an average recovery of 75% for all metals.

About Murchison Minerals Ltd. (TSXV:MUR)
Murchison is a Canadian-based exploration company focused on the exploration and development of the 100%-owned Brabant Lake zinc-copper-silver project in north-central Saskatchewan. The Company also own 100% of the HPM nickel-copper-cobalt project in Quebec and 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 108.9 million shares issued and outstanding.

Additional information about Murchison and its exploration projects can be found on the Company's website at **www.murchisonminerals.com**. For further information, please contact:

Jean-Charles (JC) Potvin, President and CEO
jcpotvin@murchisonminerals.com

Erik H Martin, CFO
Tel: (416) 350-3776
info@murchisonminerals.com

CHF Capital Markets
Thomas Do, IR Manager
Tel: (416) 868-1079 x 232
thomas@chfir.com

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