



MURCHISON
MINERALS

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2022 SMA MinExplo Expo - BMK Project Update

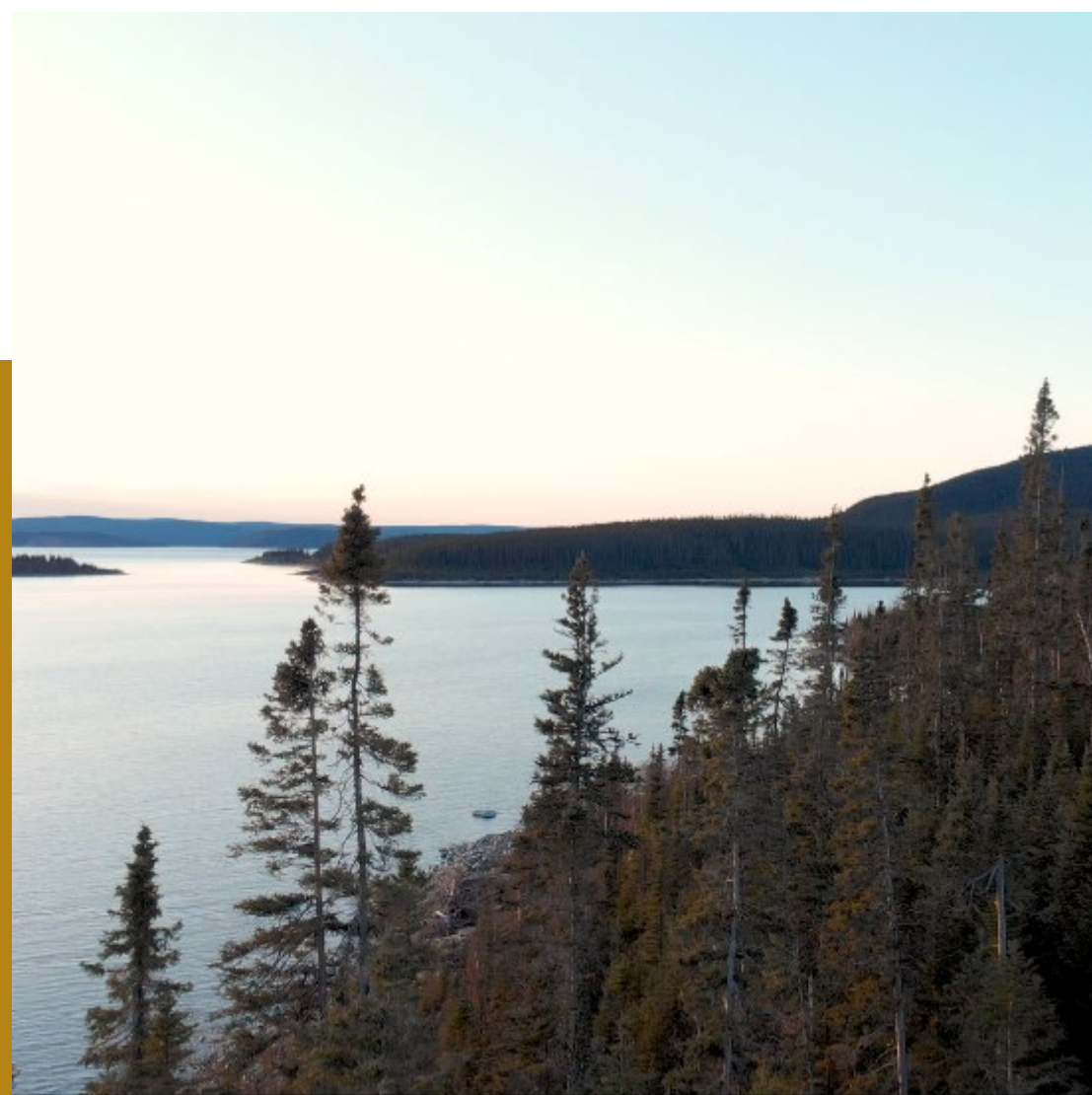
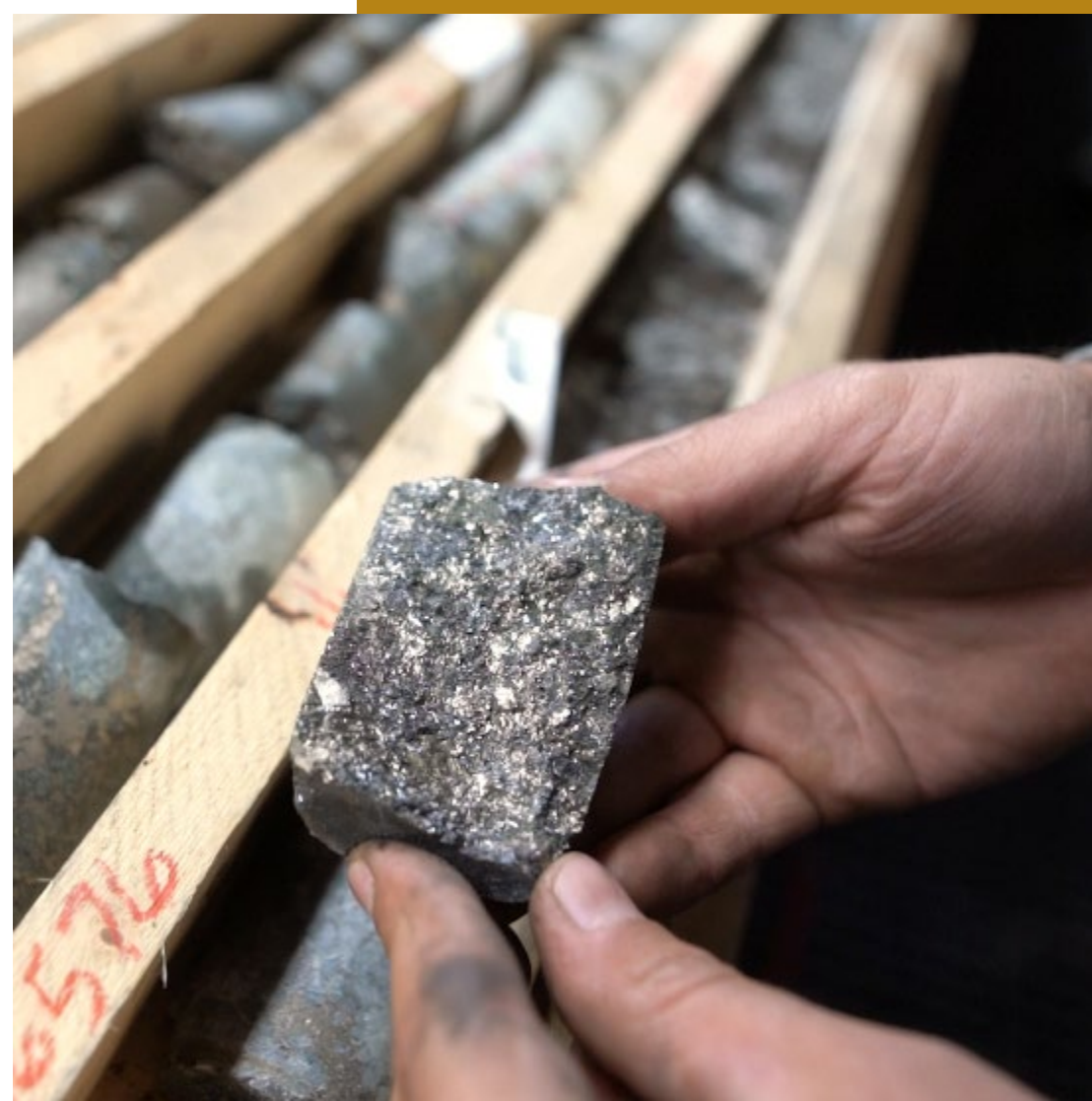


The statements, maps and models in this presentation are based on information currently available to Murchison Minerals Ltd. (the “Company”) and the Company provides no assurance that actual results will meet management's expectations. In certain cases, forward-looking information may be identified by such terms as "anticipates", "believes", "could", "estimates", "expects", "may", “potential”, "shall", "will” or "would". Forward-looking information contained in this presentation is based on certain factors and assumptions regarding, among other things, the estimation of mineral resources and mineral reserves, the realization of resource estimates and reserve estimates, metal prices, the timing and amount of future exploration and development expenditures, the estimation of initial and sustaining capital requirements, the estimation of labour and operating costs, the availability of necessary financing and materials to continue to explore and develop the Company’s project in the short and long-term, the progress of exploration and development activities, the receipt of necessary regulatory approvals, the completion of the environmental assessment process and assumptions with respect to currency fluctuations, environmental risks, title disputes or claims and other similar matters. While the Company considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect.

Qualified Persons

The technical information contained in this presentation has been reviewed and approved by John Shmyr, P. Geo., Murchison’s VP Exploration, a Qualified Person in accordance with National Instrument NI-43-101.

Forward looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include risks inherent in the exploration and development of mineral deposits, including risks relating to changes in project parameters as plans continue to be redefined including the possibility that mining operations may not commence at the Company’s project risks relating to variations in mineral resources, mineral reserves, grade or recovery rates resulting from current exploration and development activities, risks relating to changes in metal prices and the worldwide demand for and supply of base and precious metals, risks related to increased competition in the mining industry generally, risks related to current global financial conditions, uncertainties inherent in the estimation of mineral resources and mineral reserves, access and supply risks, reliance on key personnel, operational risks inherent in the conduct of mining activities, including the risk of accidents, labour disputes, increases in capital and operating costs and the risk of delays or increased costs that might be encountered during the development process, regulatory risks, including risks relating to the acquisition of the necessary licenses and permits, financing, capitalization and liquidity risks, including the risk that the financing necessary to fund the exploration and development activities at the Company’s project may not be available on satisfactory terms, or at all, risks related to disputes concerning property titles and interest, and environmental risks. The Company does not undertake to update any forward-looking information that may be made from time to time by the Company or on its behalf, except in accordance with applicable securities laws.



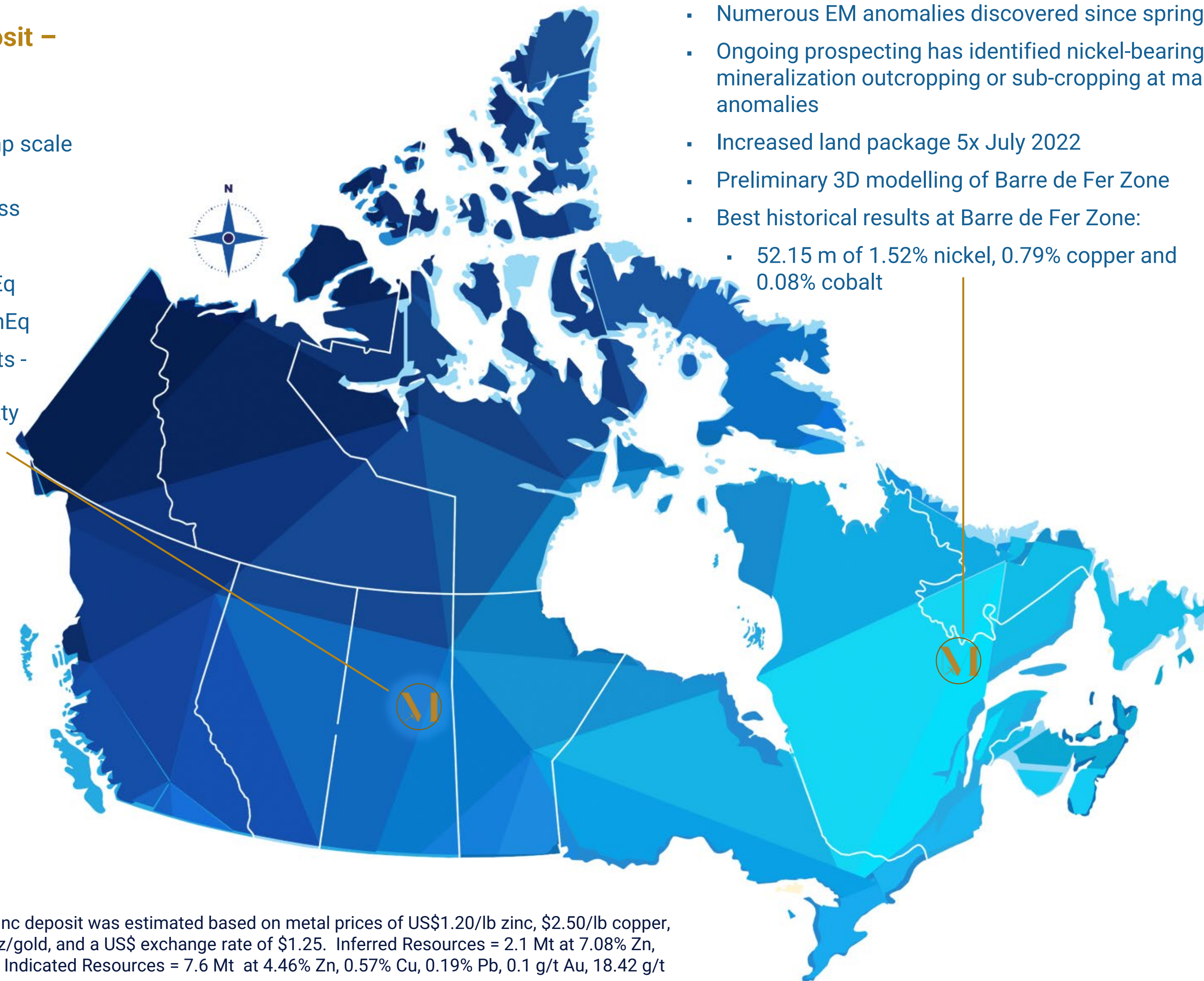
As countries accelerate their efforts to reduce greenhouse gas emissions, **clean energy technologies** are becoming one of the fastest-growing segments of the economy. Some of the main inputs in these new technologies are **critical metals** like **Copper, Cobalt, Nickel, and Zinc**.

To meet the **rapidly expanding demand** for **energy metals**, commitment and **expedited investment in exploration**, mine development, and production is essential. We must look at **stable jurisdictions** for our **future supply**.

Junior mining companies such as **Murchison Minerals** play a significant role in the discovery of metals needed for the quickly evolving clean energy revolution.

Brabant-McKenzie VMS Deposit – Saskatchewan

- 100% owned
- Dominant land position with camp scale VMS potential
- Year-round road and power access
- Resource ⁽¹⁾
 - Inferred: 7.6 Mt @ 6.29% ZnEq
 - Indicated: 2.1 Mt @ 9.98% ZnEq
- 10 highly prospective VMS targets - VMS style mineralization already intersected at Main Lake and Betty target areas



HPM Ni-Cu-Co Project - Quebec

- 100% owned since 2019
- Dominant land position with camp scale Ni-Cu-Co potential
- Rail access within 8 km of project area, ~225 km to Port of Sept Iles
- Numerous EM anomalies discovered since spring of 2021
- Ongoing prospecting has identified nickel-bearing sulphide mineralization outcropping or sub-cropping at many of the EM anomalies
- Increased land package 5x July 2022
- Preliminary 3D modelling of Barre de Fer Zone
- Best historical results at Barre de Fer Zone:
 - 52.15 m of 1.52% nickel, 0.79% copper and 0.08% cobalt

(1) The resource for the Brabant-McKenzie zinc deposit was estimated based on metal prices of US\$1.20/lb zinc, \$2.50/lb copper, \$1.00/lb lead, \$16.00/oz silver and \$1200/oz/gold, and a US\$ exchange rate of \$1.25. Inferred Resources = 2.1 Mt at 7.08% Zn, 0.69% Cu, 0.49% Pb, 0.23 g/t Au, 39.6 g/t Ag. Indicated Resources = 7.6 Mt at 4.46% Zn, 0.57% Cu, 0.19% Pb, 0.1 g/t Au, 18.42 g/t Ag

BMK | Saskatchewan

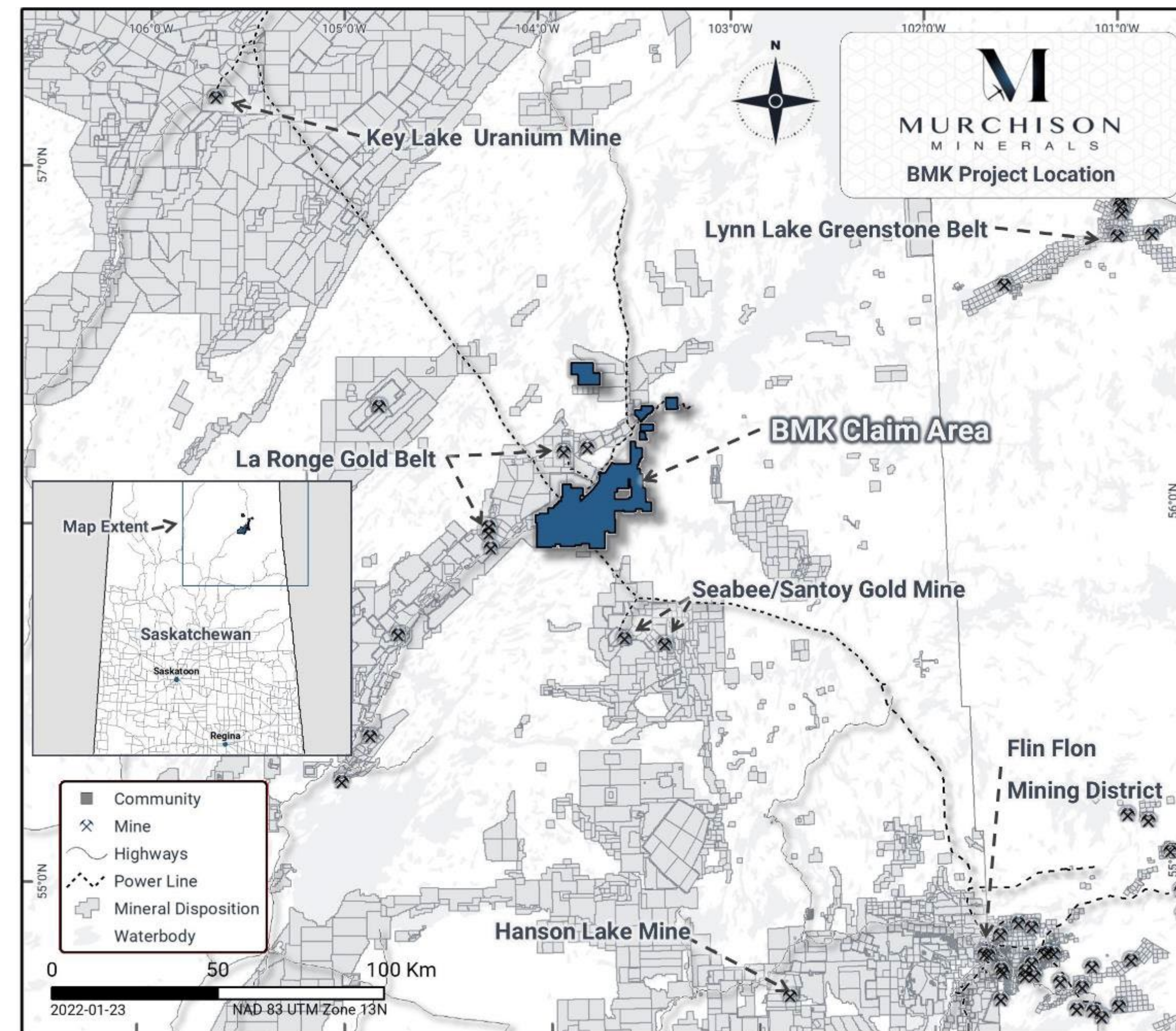
Zn-Cu-Ag Project



BMK | 100% Owned | VMS Project

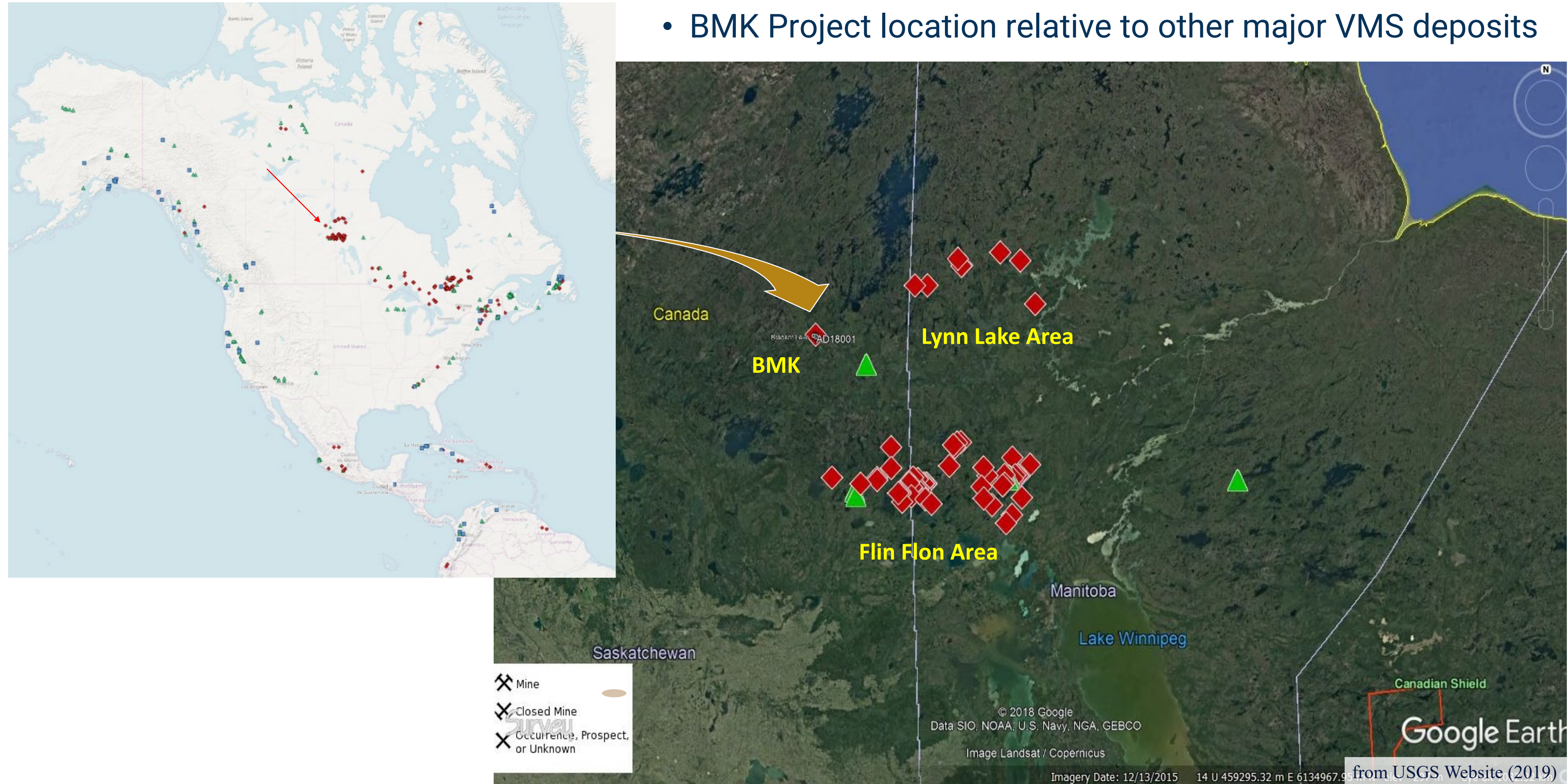
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- Located in northeast Saskatchewan approximately 170 km north-east of La Ronge
- Excellent Infrastructure:
 - Maintained road on the property – Saskatchewan HWY 102
 - Existing power-lines running through project site
 - Project area lies within an active and historic mining jurisdiction
 - Community of Brabant Lake adjacent to the project area
- Entire 627 km² land package covered with modern VTEM surveys; highly-prospective for VMS deposits, as well as gold



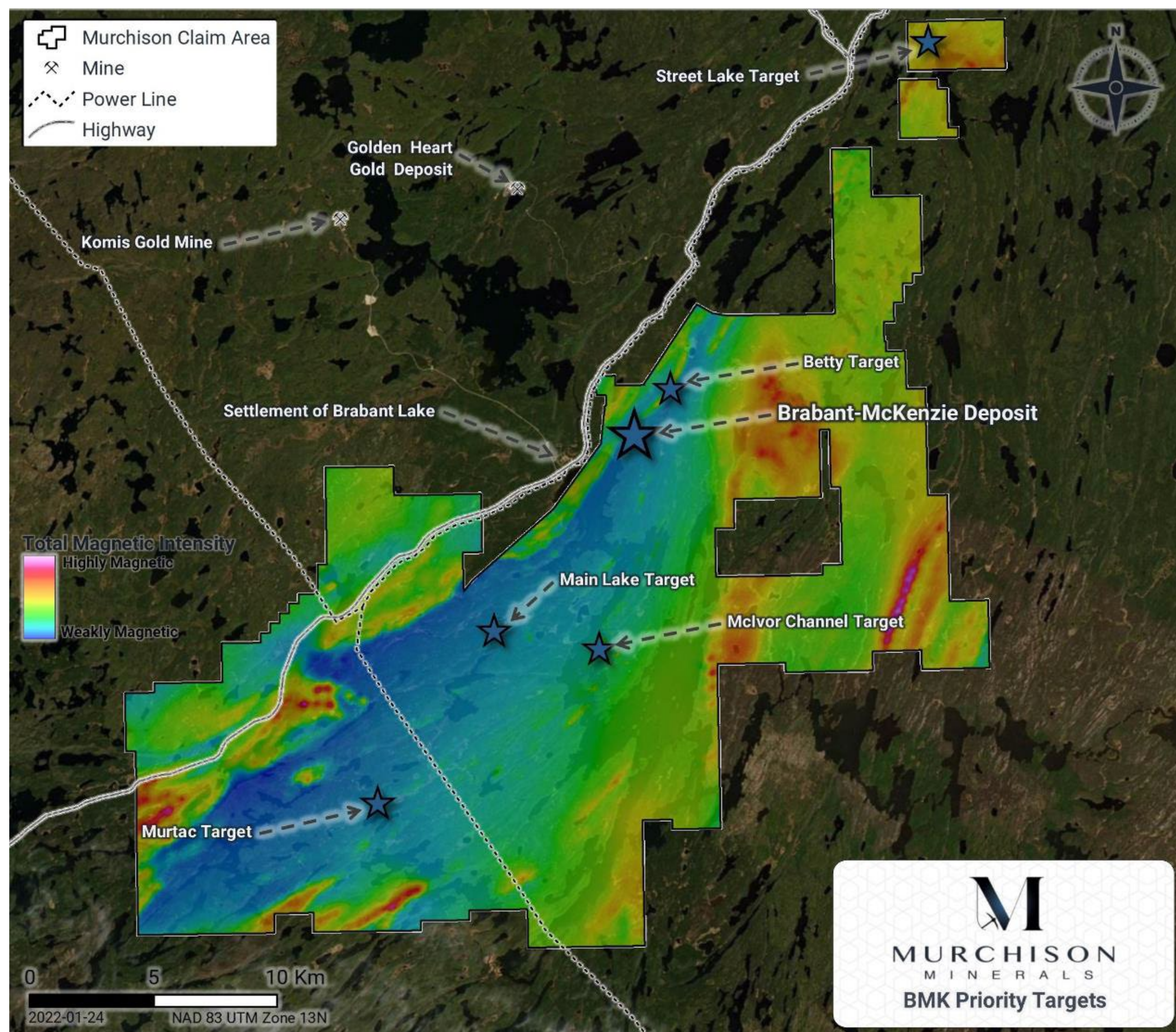
BMK | Location

- BMK Project location relative to other major VMS deposits



BMK | Camp Scale Potential

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1. GEOLOGIC SETTING:

- Similar geological environment as Flin Flon, Lalor Lake, Lynn Lake, and Snow Lake Deposits
- Hosts the Brabant-McKenzie deposit which is a metamorphosed sedimentary volcanogenic massive sulphide deposit within the Kisseynew metasedimentary belt associated with the La Ronge metavolcanics

2. PROPERTY SCALE EXPLORATION:

- Claims cover extensive area of similar stratigraphy that hosts the BMK deposit
- VTEM surveys have highlighted numerous prospective conductors
- Project is large enough to host a VMS mining camp

3. UPSIDE POTENTIAL FOR MORE VMS:

- VMS deposits occur in clusters and Brabant-McKenzie is the only known deposit in the area
- VMS mineralization and alteration has been intersected at the Betty and Main Lake targets



Deposit Information

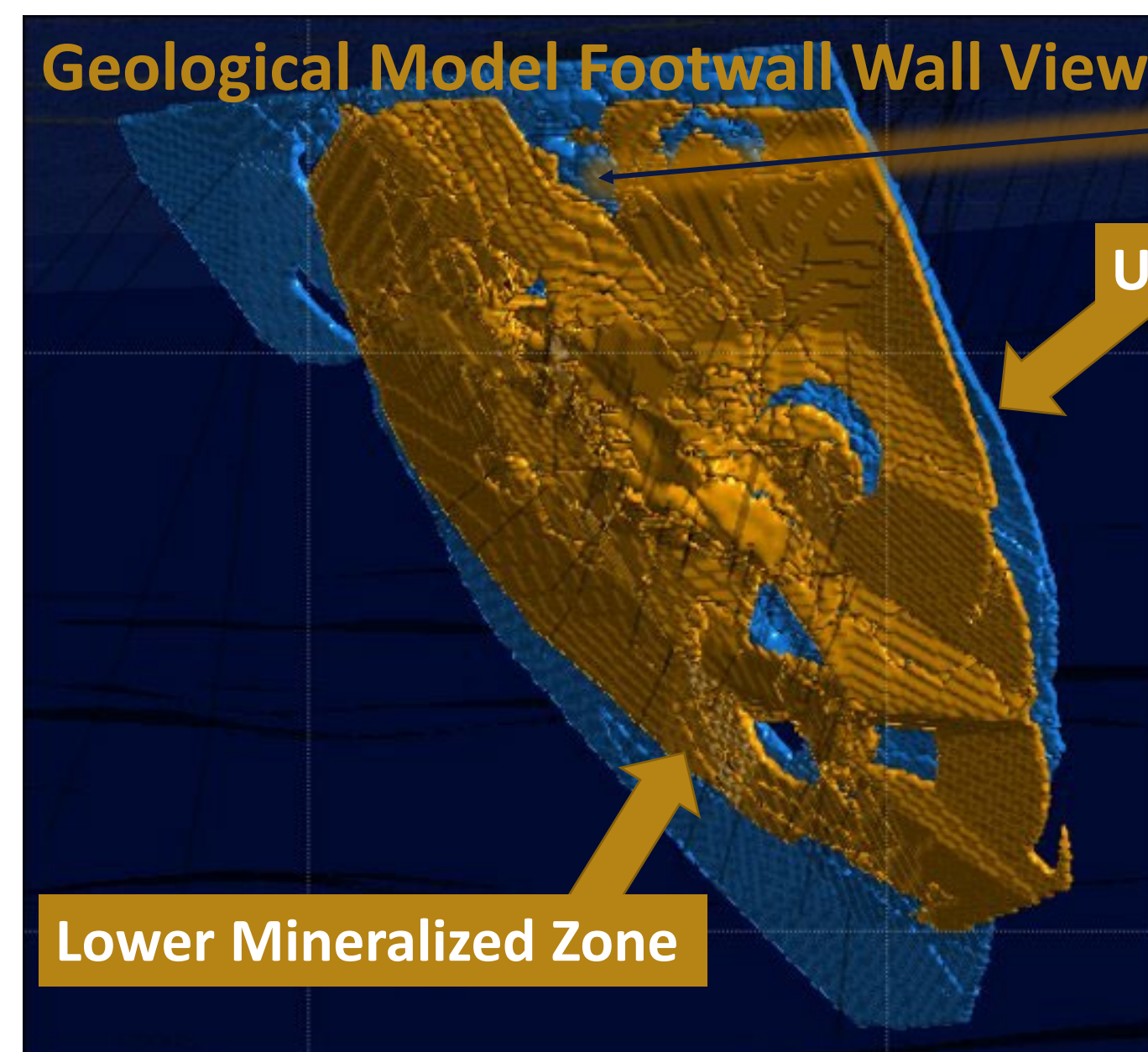
- Discovered by prospecting in 1956, limited work was done throughout 1960's, and again late in the 1980's
- Acquired by Murchison's predecessor, Manicouagan Minerals in 2006
- NI-43-101 Resource estimate updated in September of 2018, significantly expanding resource
- Resource estimate:
 - Indicated: 2.1 M t @ 9.98% Zn Eq
 - Inferred: 7.6 M t @ 6.29% Zn Eq
- Estimate based on 138 drill holes with 3.5% Zn Eq cut-off grade
- Deposit remains open at depth and along strike

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	39.60	9.98
Inferred	7,600,000	4.46	0.57	0.19	0.10	18.42	6.29

BMK | Deposit Highlights

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- Mineralization occurs as disseminated to massive, semi-massive, and breccia-vein sulphides
- Coarse-grained (recrystallized), pyrrhotite, sphalerite, chalcopyrite, and galena
- Outcrops at surface, dip averages -51 degrees NW
- Mineralization tentatively correlated over 1,100 m strike length
- 2 mineralized zones defined:
 - Upper Mineralized Zone**
 - Defined over strike and dip length of 1 km at 50 m depth
 - Maximum width to 16 m, averages 5.3 m
 - Lower Mineralized Zone**
 - Up to 25-30 m below upper zone
 - Defined over strike and dip length of 800 m from surface
 - Maximum width to 18 m, averaging 6.7 m



- Hole BM21-004 confirms the continuity of the high-grade mineralization within the deposit with 15.35 metres of continuous sulphide mineralization at 13.16% Zn Eq. at the peripheral edge of Indicated Mineral Resources
- The intersection consists of 9.07% Zn, 0.81% Cu, 0.26% Pb, 0.11 g/t Au, and 35.11 g/t Ag from 341.20 to 356.55 metres

Indicated Resource	Tonnes	Zn%	Cu%	Pb%	Au (g/t)	Ag (g/t)	Zn Eq%
Lower Mineralized Zone	1,200,000	8.13	0.75	0.67	0.28	48.00	11.53
Upper Mineralized Zone	900,000	5.70	0.60	0.24	0.17	28.52	7.93
TOTAL	2,100,000	7.08	0.69	0.49	0.23	39.60	9.98

Inferred Resource	Tonnes	Zn%	Cu%	Pb%	Au (g/t)	Ag (g/t)	Zn Eq%
Lower Mineralized Zone	2,700,000	4.88	0.55	0.42	0.14	29.02	7.14
Upper Mineralized Zone	4,900,000	4.22	0.57	0.06	0.08	12.46	5.81
TOTAL	7,600,000	4.46	0.57	0.19	0.10	18.42	6.29



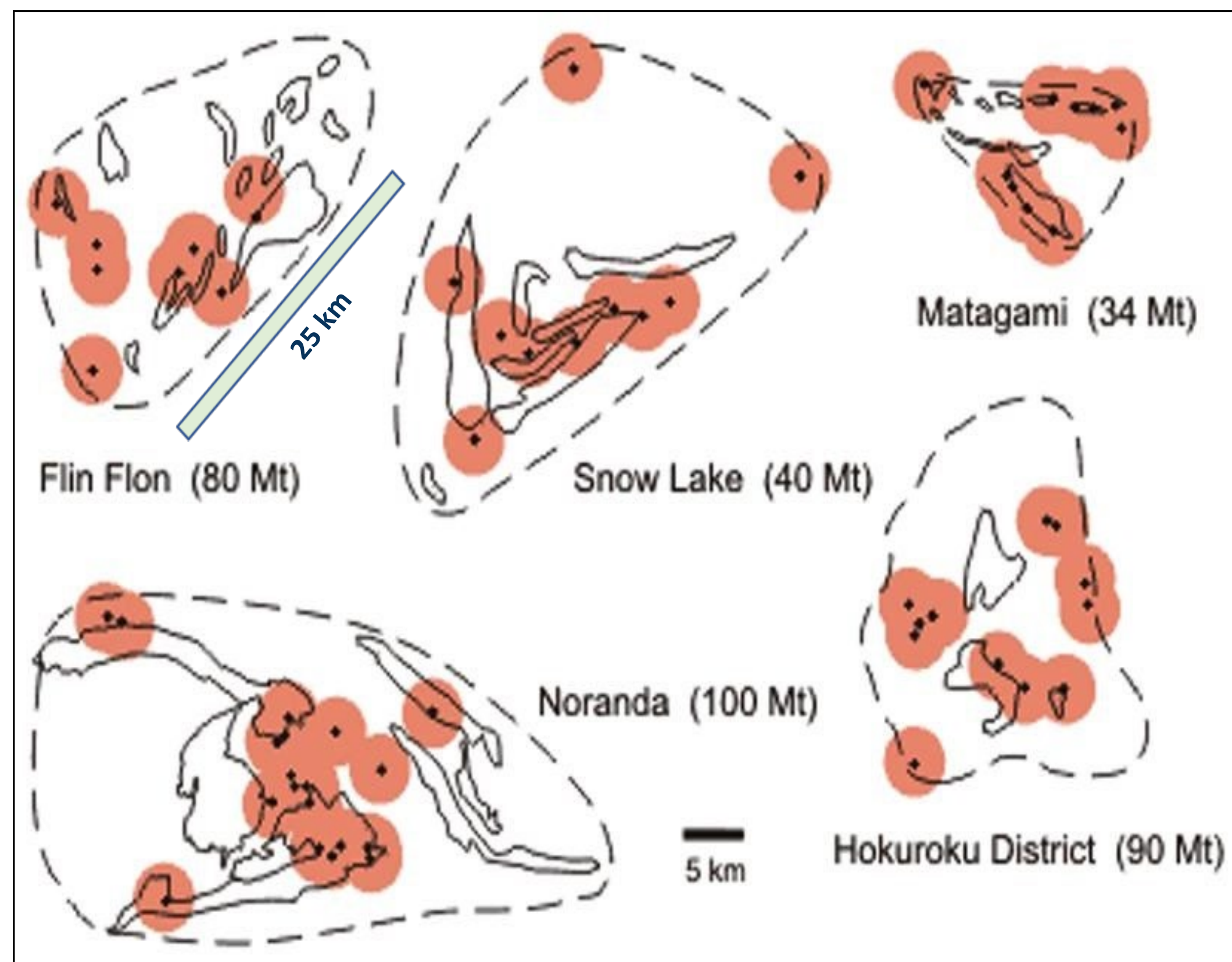
- Drill core representative of the indicated resource of the deposit was submitted to SRC for preliminary metallurgical work
- A 15.35 metre sample was blended, crushed, and homogenized to make a master composite, which was subjected to multiple Flotation Tests for the recovery of Zn, Cu, Au, and Ag, and resulted in a zinc concentrate of 50.2% with an 85.06% recovery
- Further optimization is expected to result in an overall net zinc recovery of at least 90%
- Excellent results for copper recovery were also achieved, resulting in a copper grade of 4.12% with a 74.7% recovery
- Possibly don't require multiple circuits for metal extraction
- QEMSCAN results indicate the material contains 47% sulphide minerals, with dominant sulphides present including pyrrhotite (30.86%), sphalerite (14.17%), chalcopyrite (1.77%), and pyrite (0.19%)
- 98.03% of the zinc in the sample is hosted by sphalerite with the remaining 1.97% hosted by gahnite

Results of 4-stage Cleaner Flotation									
Product	Weight	Zn		Cu		Au		Ag	
	%	%	%dist	%	%dist	ppb	%dist	ppm	%dist
4th Cleaner Conc	16.50	50.20	85.06	4.12	74.70	373.00	53.64	90.60	49.13
4th Cleaner Tail	1.80	36.60	6.80	3.47	6.90	1130.00	17.81	180.00	10.70
3rd Cleaner Tail	2.62	12.90	3.47	1.77	5.10	373.00	8.52	90.60	7.81
2nd Cleaner Tail	5.62	3.22	1.86	0.62	3.80	128.00	6.28	45.30	8.38
1st Cleaner Tail	8.48	1.08	0.94	0.30	2.80	40.00	2.96	20.70	5.78
Tails	65.00	0.28	1.87	0.09	6.70	19.00	10.79	8.50	18.20
Calc'd Head	100.00	9.72	100.00	0.91	100.00	114.51	100.00	30.36	100.00
Assay Head	-	9.13	-	0.84	-	74.00	-	38.40	-
4th Cleaner Conc	16.50	50.20	85.10	4.12	74.70	373.00	53.60	90.60	49.10
3rd Cleaner Conc	18.30	48.86	91.90	4.06	81.60	447.78	71.50	99.43	59.80
2nd Cleaner Conc	20.90	44.35	95.30	3.77	86.70	438.41	80.00	98.32	67.60
1st Cleaner Conc	26.50	35.64	97.20	3.10	90.50	372.62	86.30	87.09	76.00
Total Ro. Concentrate	35.00	27.26	98.10	2.42	93.30	292.02	89.20	71.00	81.80
The master composite	100.00	9.72	100.00	0.91	100.00	114.51	100.00	30.36	100.00

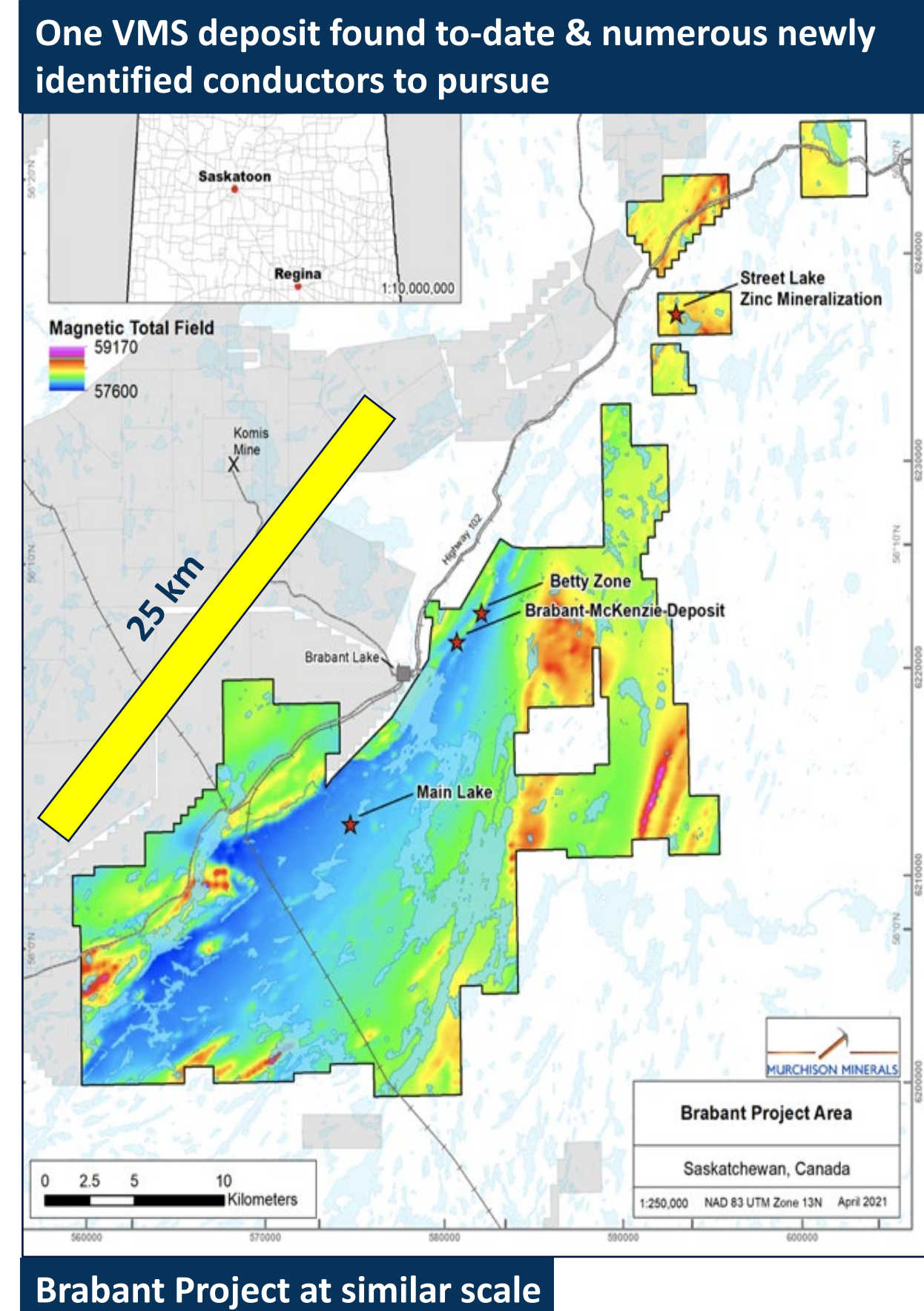
BMK | Exploration Potential

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- VMS Deposits typically occur in clusters
- BMK Project has significant exploration potential as Brabant-McKenzie Deposit is only known deposit to date in the area
- Currently multiple prospective targets requiring follow-up work



from Sangster (1980)



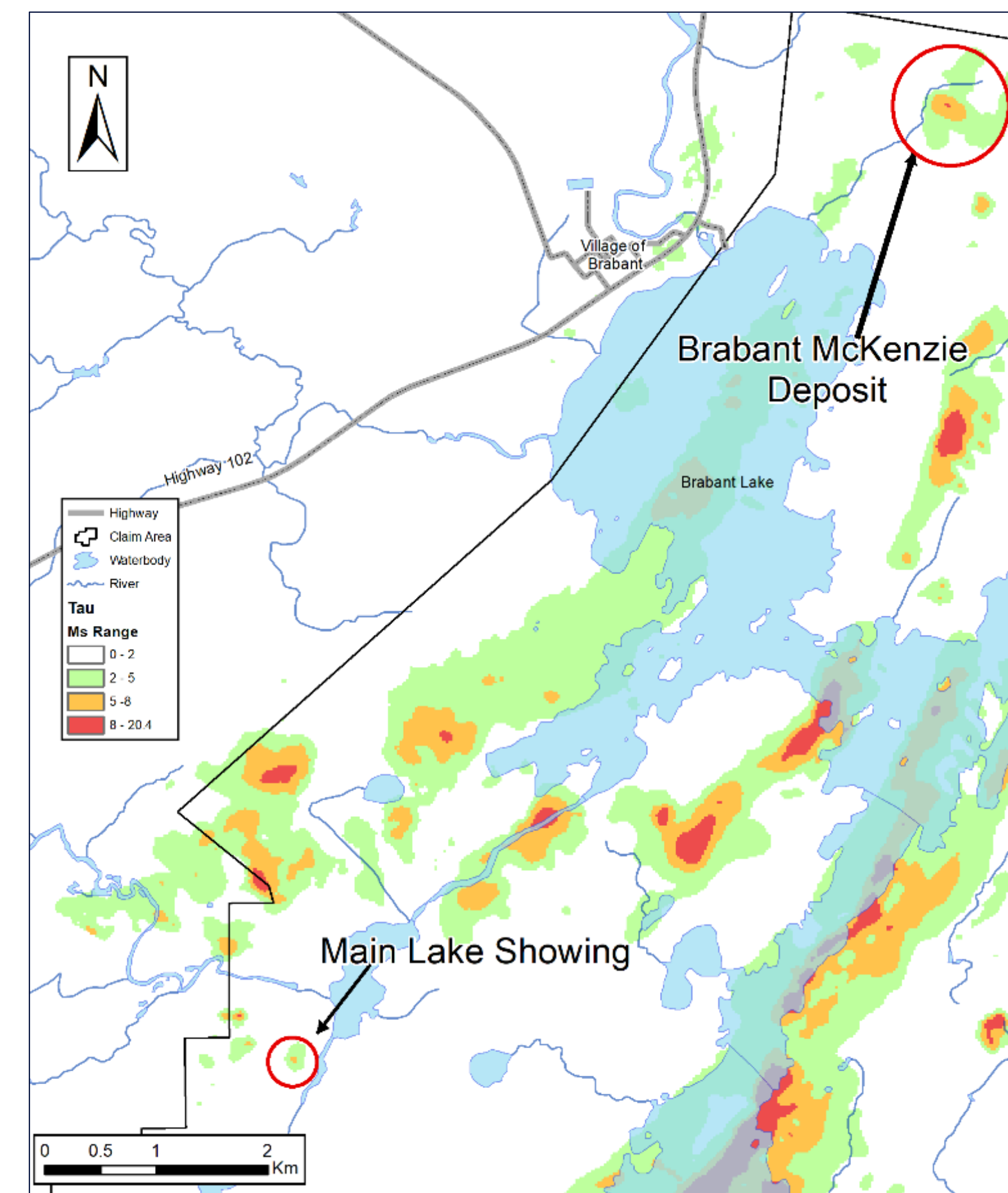
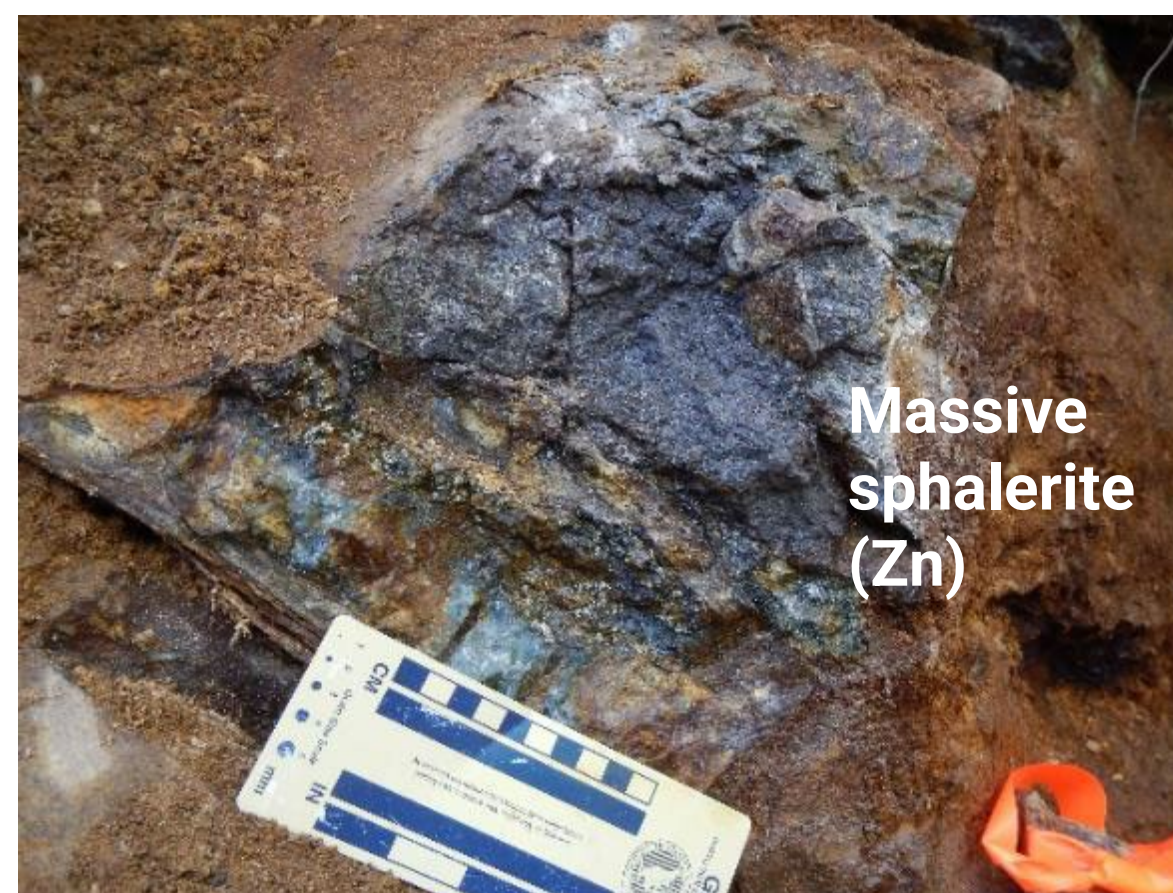
Brabant Project at similar scale



BMK | Main Lake Target

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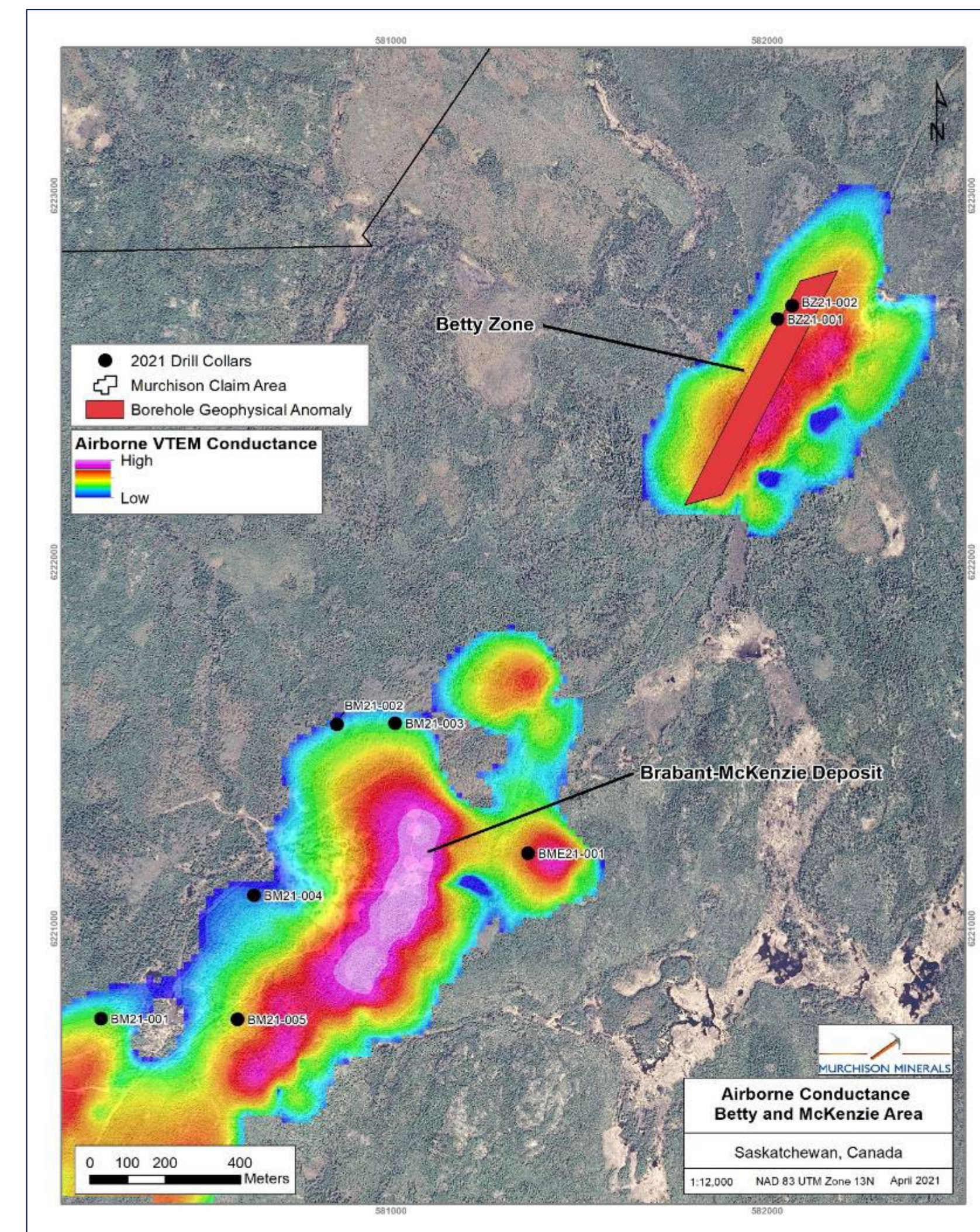
- Historic mineral showing relocated in 2019, along strike with the Brabant-McKenzie Deposit
- Showing was resampled using a backpack drill and resulted in a 0.89 m sample which assayed 8.31% Zn, 6.17% Cu, 140g/t Ag, and 0.2 g/t Au
- Follow up drilling succeeded in intersecting 2 lenses of VMS style massive sulphide mineralization, and extensive VMS type alteration was intersected and appears stronger than that observed at the Brabant-McKenzie Deposit
- ML-20-004 intersected 3.59 m of 0.83% Cu, 0.61% Zn, and 11.8 g/t Ag in the upper interval
 - The lower interval assayed 6.62 m of 0.09% Cu, 1.62% Zn, and 41 g/t Ag (including 1.02 metres at 5.08% Zn)
- Additional drilling and geophysics is required to track mineralization along strike



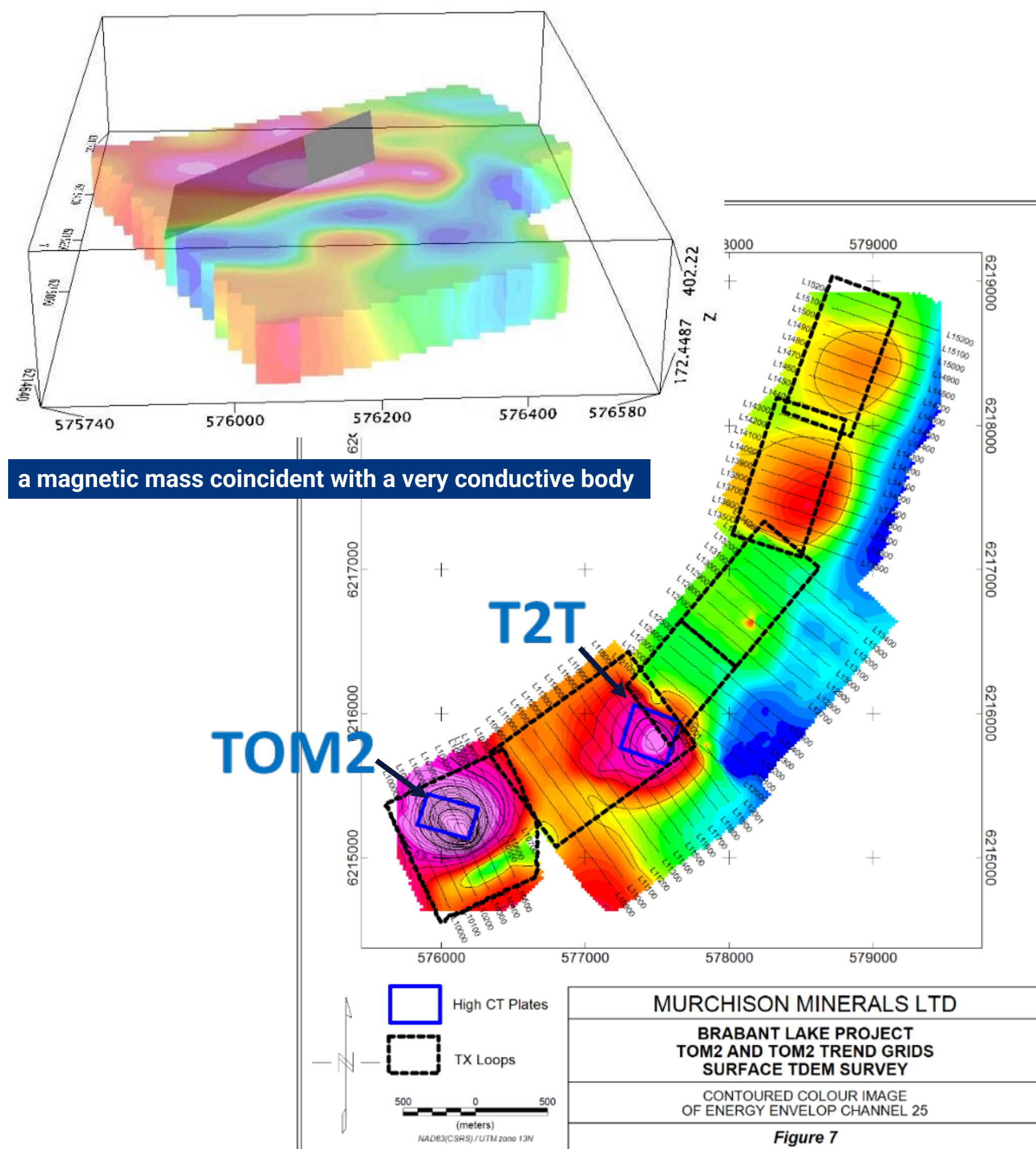
BMK | Betty Zone

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- Geophysical anomaly located approximately 1 km north-east of the Brabant-McKenzie deposit
- Historic drill intercepts reported sphalerite but lacked zinc assays
- Drilling in 2021 intersected narrow VMS style mineralization
- BZ21-002 intersected 4.40% Zn, 1.33% Cu, and 12.95 g/t Ag from 280.73 to 281.65 metres (0.92 m)
- Requires follow-up drilling



BMK | TOM2 and T2T Targets

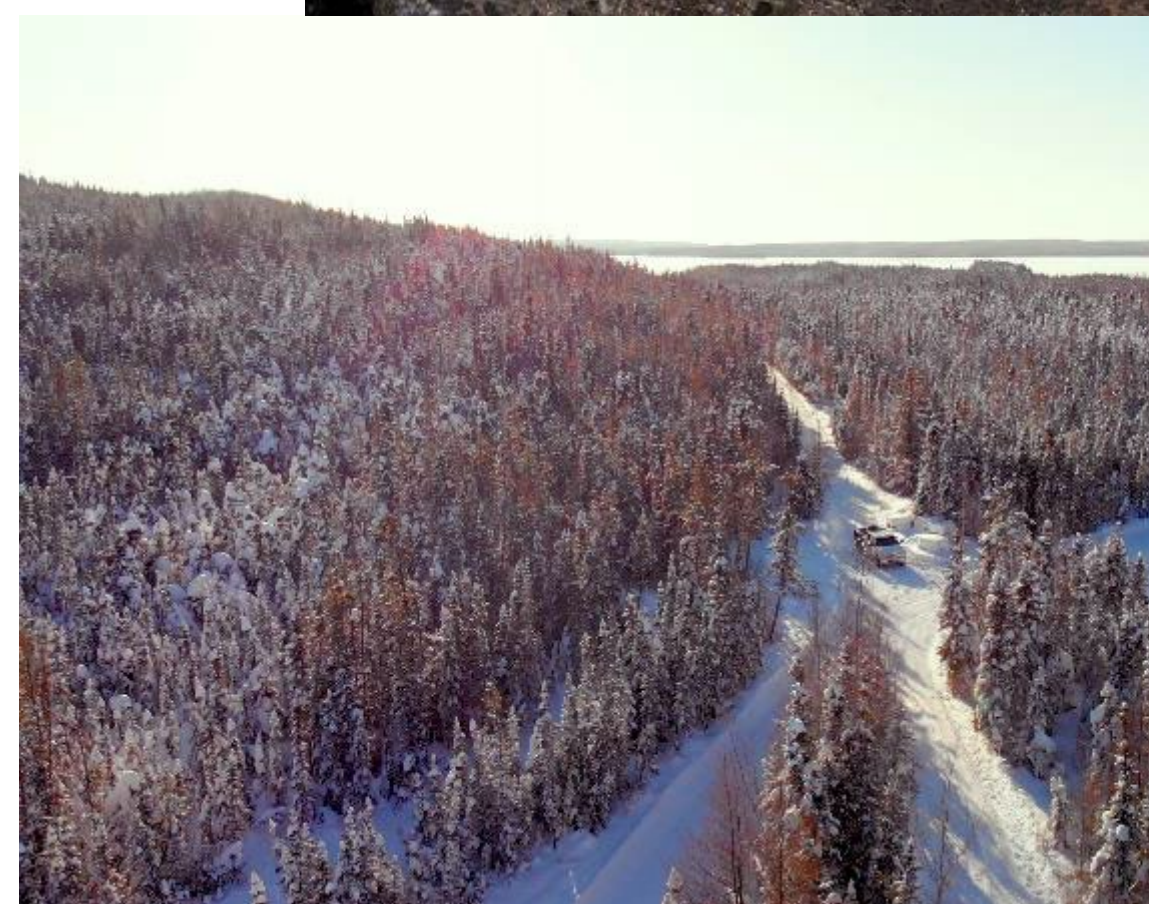


- Strong geophysical anomalies 6 and 7.5 km south of Brabant-McKenzie Deposit, and located directly on strike of the Deposit
- Both targets tested in 2020 with a single drill hole each which failed to adequately explain the conductors
- Subsequent reinterpretation of borehole EM data identified significant off hole geophysical anomalies
- Relogging of the 2020 T2T drill core identified VMS style alteration consistent with what is observed near the BMK deposit
- Gahnite, a rare zinc mineral, was identified in the 2020 T2T core and is common just outside the BMK deposit

TOM2 is a well-isolated EM anomaly detected by surface TDEM. It has modelled dimensions of **373 m X 231 m** with a high CT of **5,752 Siemens**.

T2T is a well-isolated EM anomaly detected by a surface Time Domain survey (TDEM). It has modelled dimensions of **399 m X 312 m** with a high CT of **4,452 Siemens**.

BMK | Future Plans



- Currently conducting a comprehensive desktop study on results to date in order to systematically optimize future exploration programs
- Next drill program will focus on multiple objectives:
 - 1) Expand high-grade domains and test along strike and down dip from the current Brabant-McKenzie deposit extents
 - 2) Collect and complete additional metallurgical work throughout the deposit to test for uniformity
 - 3) Continue exploration drilling at Main Lake, Betty, T2T and TOM2 targets



- **Exploration Employment Opportunities:**
 - Geotechnicians
 - Cook/Medic
 - Line Cutter/Pad Builder
- **Service Provider Opportunities:**
 - Diamond Drilling
 - Helicopter Support
 - Groceries
 - Fuel
 - Core Boxes
 - Geophysical Contractor

- Brabant Lake Resort, Brabant Lake – Accommodations & Water
- Robertson's Trading Post, La Ronge - Food
- Lake Country Co-op, La Ronge – Food
- JP Enterprises Inc, La Ronge – Supplies
- KIN Enterprises Inc, Prince Albert – Supplies
- Mid City Electric Limited, La Ronge – Supplies
- La Ronge Petroleum Ltd, La Ronge – Fuel
- Little Rock Enterprises, La Ronge – Logistics



- Project adjacent to Settlement of Brabant Lake
- Provides optimal base of operations and year-round access for field programs as Murchison owns 3 houses in the community
- Committed to hiring locally from the community for field programs, as well as hosting and assisting community events



BMK | Blue Sky Potential

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COMPLETED

- ✓ 2017-2018 large in-fill drill program
- ✓ NI-43-101 report in October of 2018, resource expanded significantly
- ✓ Winter 2019 – 2020 completed VTEM coverage across all claims
- ✓ Summer 2019 – 2020 extensive prospecting program
- ✓ Winter 2020 exploration drill program, discovered VMS style mineralization at Main Lake target
- ✓ Winter 2021 exploration drill program, discovered VMS style mineralization at Betty target
- ✓ Summer 2021 completed preliminary metallurgy with exceptional results

WHAT'S NEXT

- Comprehensive desktop study on results to date in order to systematically optimize future drill programs
- Expand high-grade domains and testing along strike and down dip from current deposit extents
- Collect and complete additional metallurgical work throughout the deposit to test for uniformity
- Continue exploration drilling at Main Lake, Betty, T2T and TOM2 targets



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