Ontario

We are committed to providing accessible customer service.
If you need accessible formats or communications supports, please contact us.

Nous tenons à améliorer l'accessibilité des services à la clientèle.
Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez nous contacter.

GEOPHYSICAL REPORT
FOR
MINK VENTURES CORP.
ON THE
MONTCALM PROPERTY
MONTCALM TOWNSHIP
PORCUPINE MINING DIVISION
NORTHEASTERN, ONTARIO

Prepared by: J. C. Grant,
March 2023

TABLE OF CONTENTS

PROPERTY HISTORY

The following summary of exploration work on the Property is largely taken from Keast (2019). Error! Reference source not found. illustrates the locations of many of the drill holes mentioned herein.

1959 - Teck Exploration Company Limited, Teck drilled two holes in the northern portion of the Property. Massive sulphides were intersected but no significant assay values were reported.

1974 - Phelps Dodge Corporation of Canada, Limited, PDC drilled two holes in the northeastern portion of the Property. Semi-massive to massive sulphides were intersected but no significant assay results were reported.
1977 - Geophysical Engineering Limited, GEL completed an 1,812 line-kilometers DIGHEM survey in the northeastern portion of the Property and drilled two follow-up holes (EE-63 and EE-64). Hole EE-64 intersected two massive pyrite-pyrrhotite layers, but no significant assays were reported.

1995 – KRL Resources Corporation, KRL conducted Pulse-electromagnetic (EM) ground surveying in the northwestern portion of the Property and drill tested two targets. Hole M1 deviated and did not intersect the conductor it was designed to test. Hole M2 intersected a magnetite rich zone interpreted to be the source of its target anomaly. Anomalous Ni values (0.1% Ni) were reported.

1996 to 1997 – Teck Exploration Company Ltd., Teck conducted a large drilling program in the area, including six holes completed in the southern and central portions of the Property. No significant results were reported from holes MAC96-16, MAC97-27, or MAC97-29. Anomalous Cu and Ni values were reported from holes MAC96-17, MAC96-18, and MAC97-28.

2003 to 2004 – Aurora Platinum Corp., Aurora commissioned a 358 line-kilometers versatile time domain EM (VTEM) survey in 2003 and completed a four-hole (MC-04-01 to MC-04-04) drilling program to test conductors in 2004. Only two of the holes intersected gabbroic rocks and no significant assays were reported.

2004 to 2007 – Pacific Northwest Capital Corporation. In 2004, PNC completed a helicopter borne AeroTEM combined magnetic and EM survey. In 2005, PNC cut three grids in the central portion of the Property and completed mobile metal ion (MMI) soil sampling and prospecting over selected AeroTEM anomalies. Anomalous Cu values were reported from the MMI sampling. Ground geophysical (magnetic and horizontal loop electromagnetic (HLEM)) surveying was completed over the cut grids. Subsequently, seven drill holes (WTM-05-08 to WTM-05-14) were completed to test HLEM anomalies in the southwestern portion of the Property. Anomalous Cu-Ni values were reported but no economically significant results were returned.

In 2006, PNC completed additional line cutting and conducted a Pulse-EM survey in the eastern portion of the Property. Several anomalies were detected but were interpreted to be overburden related.

In 2007, PNC completed two drill programs to test coincident magnetic and Pulse-EM anomalies. A total of seven holes (WTM-07-19 to WTM-07-21, WTM-07-15 to WTM-07-17, and WTM-07-23) were drilled in the southwestern and eastern portions of the Property. Anomalous Cu-Ni values were intersected in several holes, but no economically significant assays were returned.

2008 to 2009 - International Nickel Ventures Corporation. In 2008, INV completed a 108 line-kilometers ground geophysical (magnetic and UTEM 3) survey over the southern portion of the Property and identified several multi-channel conductors.

In 2009, INV completed a six-hole drilling program (INV09-001 to INV09-004 and INV09-007 to INV09-008) to test UTEM anomalies. Several semi-massive to massive sulphide intersections were reported but no significant assays were returned.

2018 to 2019 – Pancontinental Resources Corporation. In 2018, PRC completed a 286 line-kilometers helicopter-borne VTEM max survey over the northern portion of the Property. The survey was completed along east-west oriented lines spaced at 100 m intervals. Sixteen anomalies were detected. Subsequently, PRC completed a 666 line-kilometers airborne gravity survey, also along east-west oriented lines spaced at 100 m intervals. Gravity anomalies were identified within the Montcalm Gabbro Complex (MGC).

In early 2019, PRC completed a 10-hole, 4,272 m drilling program to test VTEM anomalies from the 2018 survey. A majority of the holes intersected conductive sulphide and/or magnetite intervals in the approximate positions expected, however, two holes (MTC-19-01 and MTC-19-07) did not intersect the targeted anomaly source. Local strike changes in the magnetically complex Hook Zone may explain why the targets may have been missed. No economically significant intersections were achieved. **Refer to Figure 10-1 for the locations of the historical drill hole locations.**

PNC completed a limited, test IP program in the Hook Zone and defined a broad moderate-chargeability anomaly which has yet to be drill tested.

Figure 6-1 illustrate the location of airborne conductors with respect to the local magnetic and gravity patterns, respectively.

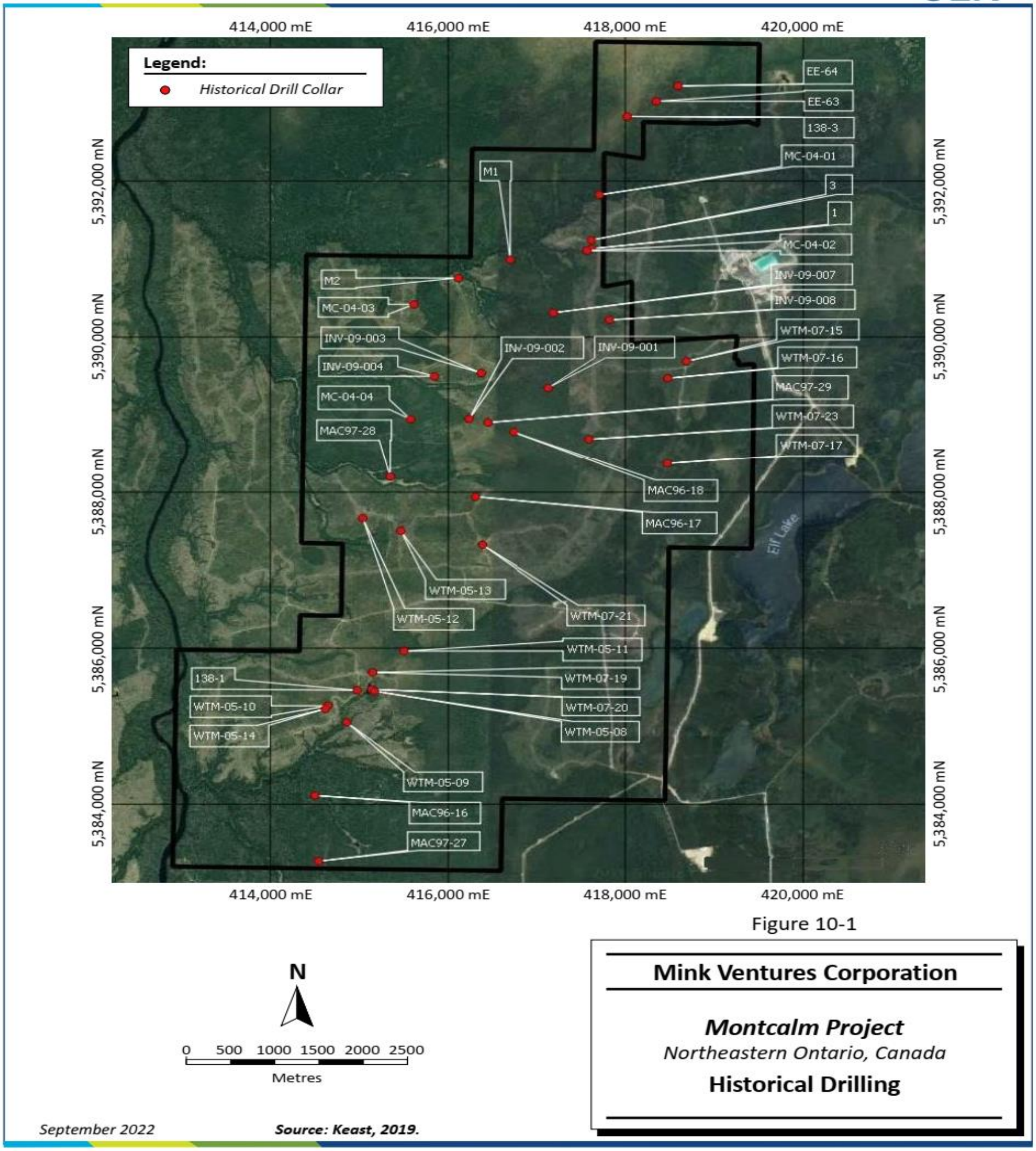
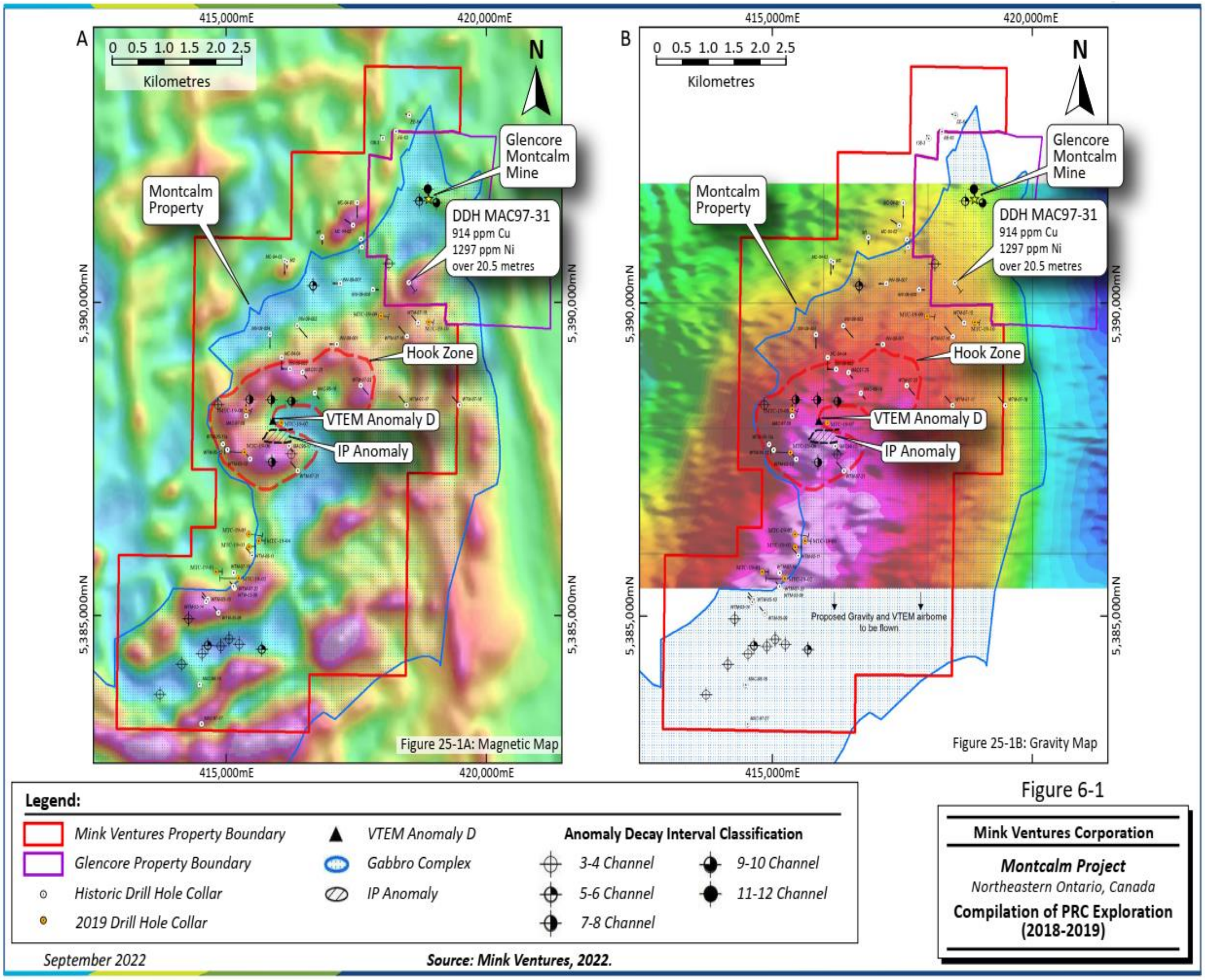


Figure 10-1

Mink Ventures Corporation

Montcalm Project
Northeastern Ontario, Canada
Historical Drilling

September 2022 ***Source: Keast, 2019.***


A
B
415,000mE
420,000mE
5,390,000mN
5,385,000mN
0 0.5 1.0 1.5 2.0 2.5
Kilometres
N
Glencore Montcalm Mine
Montcalm Property
DDH MAC97-31
914 ppm Cu
1297 ppm Ni
over 20.5 metres
Hook Zone
VTEM Anomaly D
IP Anomaly
Figure 25-1A: Magnetic Map
Proposed Gravity and VTEM airborne to be flown
Figure 25-1B: Gravity Map
Legend:
Mink Ventures Property Boundary
Glencore Property Boundary
Historic Drill Hole Collar
2019 Drill Hole Collar
VTEM Anomaly D
Gabbro Complex
IP Anomaly
Anomaly Decay Interval Classification
3-4 Channel
5-6 Channel
7-8 Channel
9-10 Channel
11-12 Channel
Mink Ventures Corporation
Montcalm Project
Northeastern Ontario, Canada
Compilation of PRC Exploration (2018-2019)
September 2022
Source: Mink Ventures, 2022.
Figure 6-1

INTRODUCTION/SUMMARY:

The services of Exsics Exploration Limited were retained by Mr. K. Filo, on behalf of the Company, Mink Ventures Corp., to complete a detailed line cutting and IP survey across a portion of their claim block, called the Montcalm Property, located in Montcalm Township of the Porcupine Mining Division.

Mink Ventures has an option agreement with Voltage Metals Inc., the holders of the claims in Montcalm Township, to earn an 80 percent interest in the project for $50,000 in cash, 1.6 million in stock and a $600,000 work commitment.

The purpose of the ground program was to check several airborne Magnetic and Electromagnetic targets that would be considered as a favorable geological setting that may lend itself to potential cobalt and or base metal deposition.

PROPERTY LOCATION AND ACCESS:

The Montcalm Property is situated approximately 62 kilometers to the northwest of the City of Timmins and is situated in the central east section of Montcalm Township which is part of the Porcupine Mining Division in Northeastern Ontario. Refer to Figure 1 of this report.

More specifically the survey area is situated to the immediate west of Elf Lake and immediate north of Heath Lake. The Ground Hog River lies to the west of the grid area and the Montcalm mine is about 3.4 kilometers to the northeast. **The center of the current grid is represented by UTN Point 415050E/5384440N, Zone 17, And 83, Figure 3 and 3A.**

Access to the grid during the survey period was ideal. Highway 101 runs west from the City of Timmins to the Mallette access gravel road that lies about 11 kilometers to the west of the city. This road is an all-weather gravel road that runs west then northwest from Highway 101 and provides access to the Montcalm Mine site that lies about 68 kilometers up this road.

The grid lines that were cut and surveyed during the current ground program are accessible by skidoos off several ingress roads and trails that run west and southwest off of this gravel road. Travelling time from Timmins to the grid is about 2 hours. Figure 2, Area location map and Figure 2A, a detailed google map of the claim block and local topography.

FIGURE 1 LOCATION MAP:

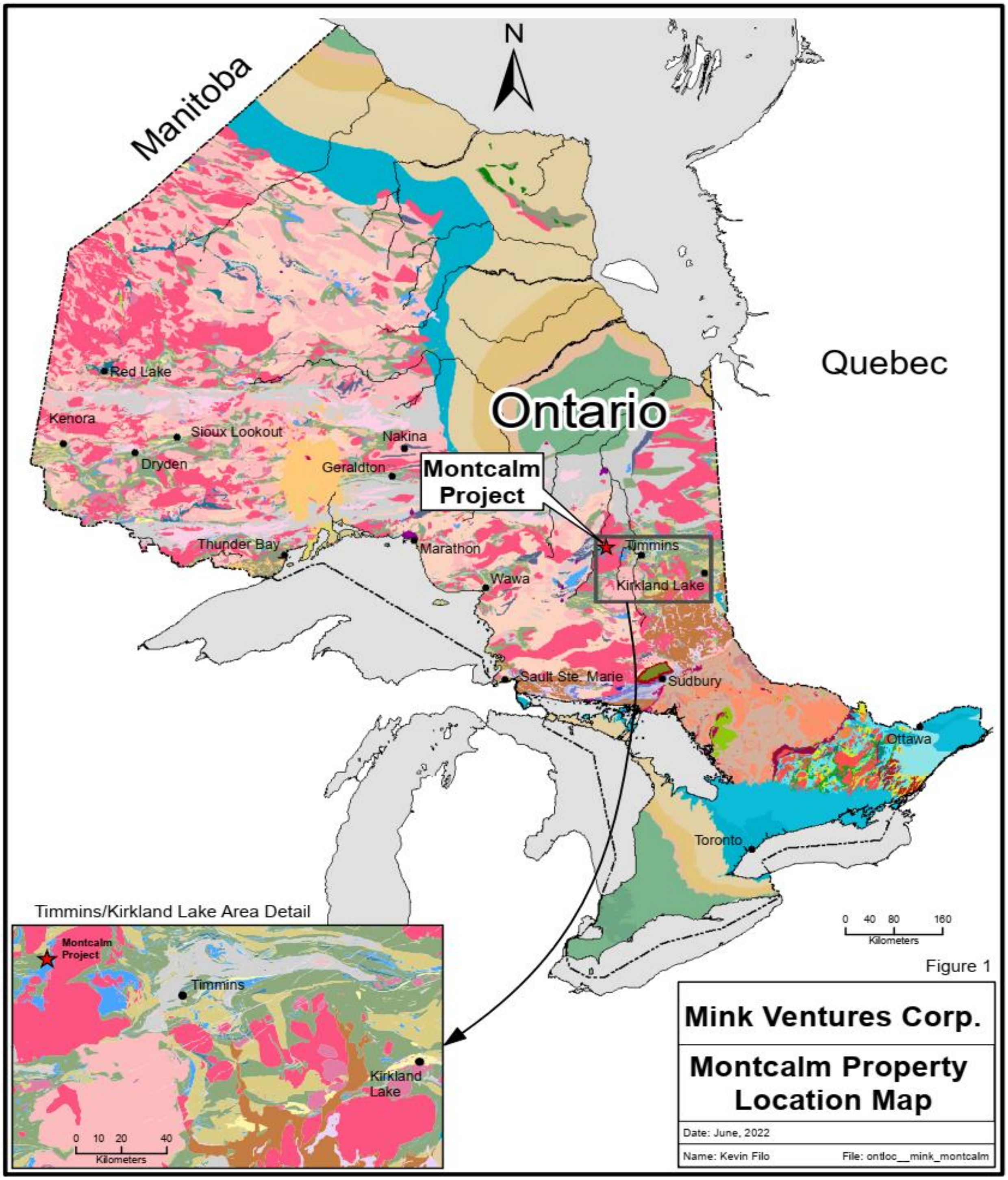


FIGURE 2 PROPERTY LOCATION MAP

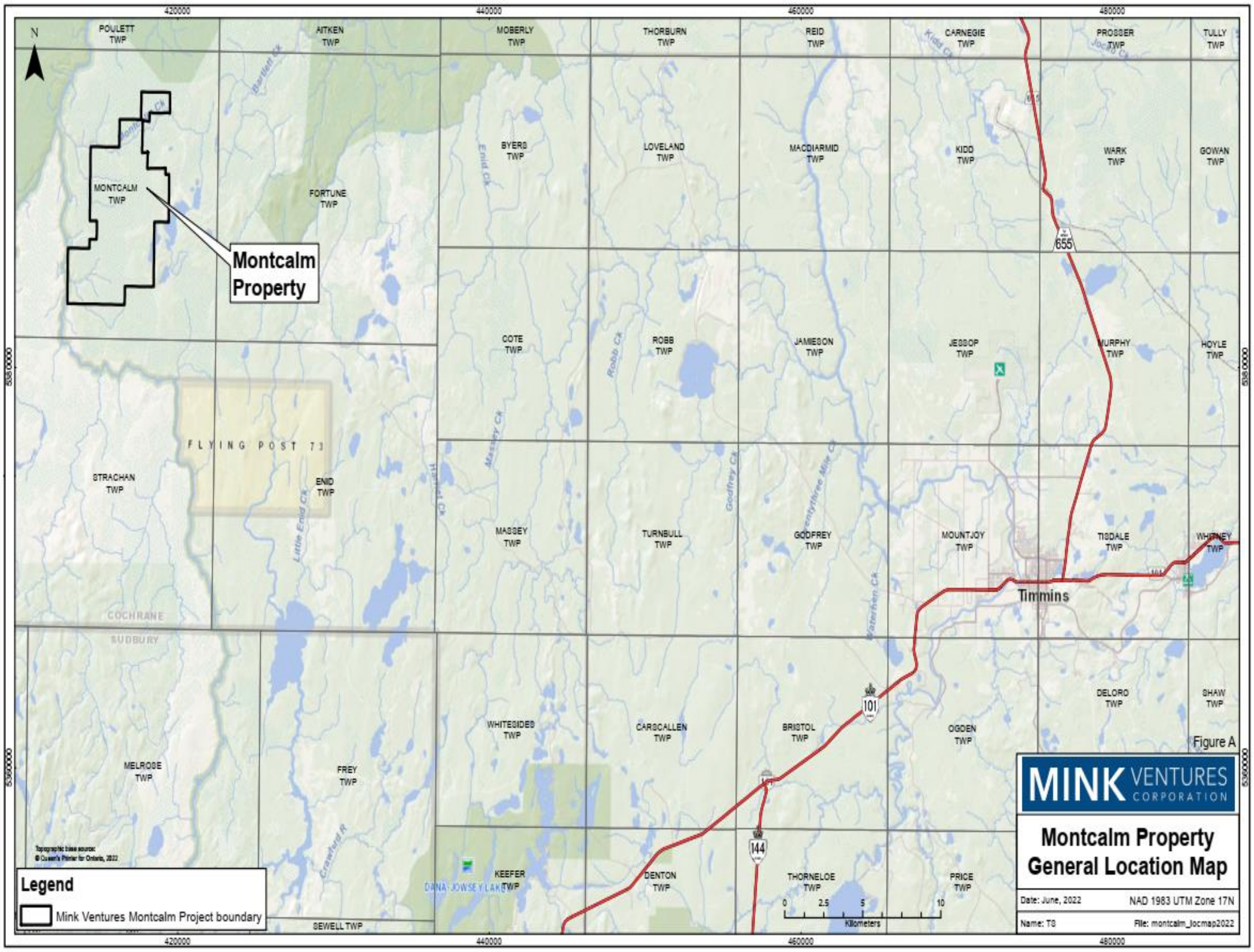
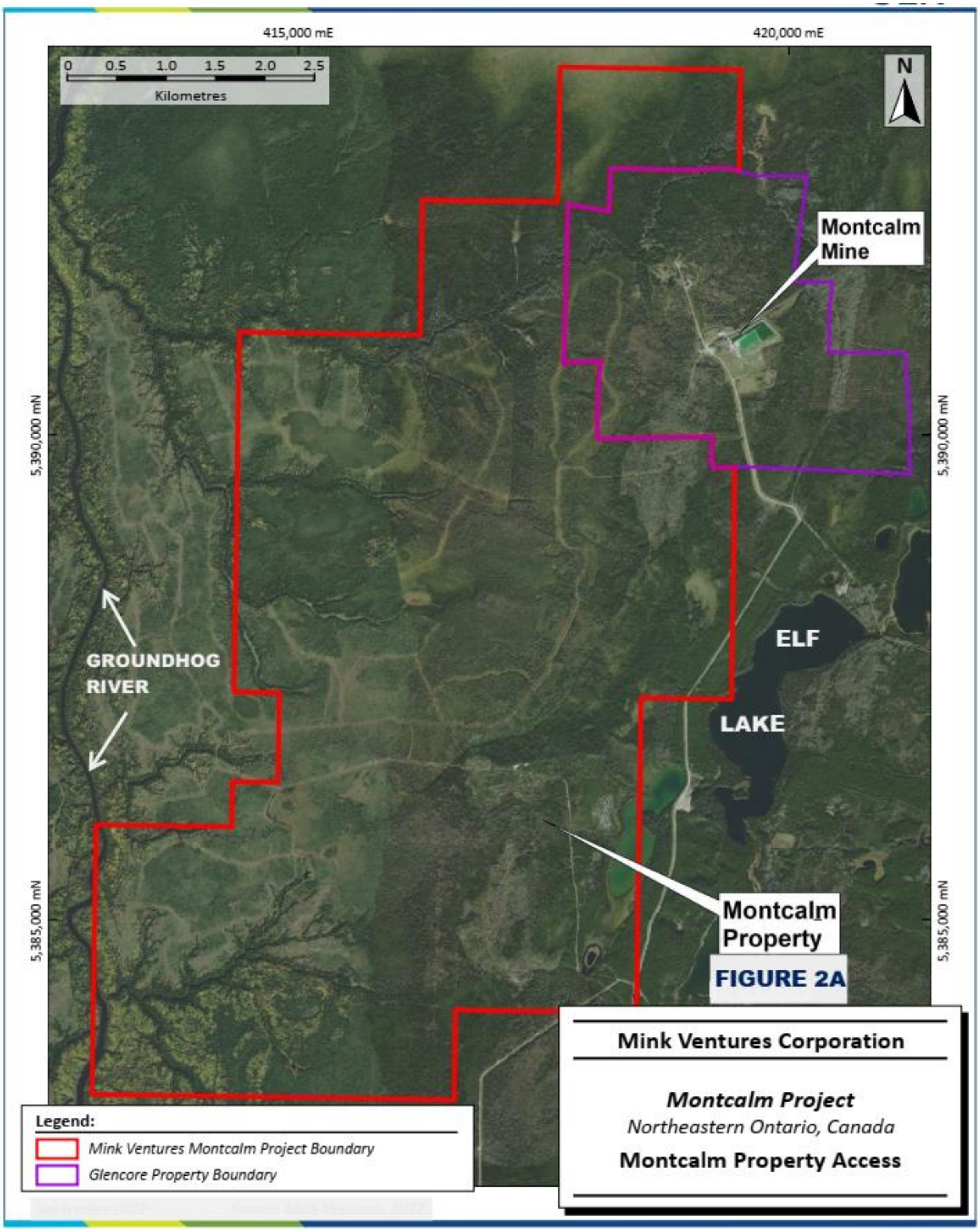


FIGURE 2A PROPERTY DETAILED GOOGLE MAP



CLAIM BLOCK:

The claim numbers that represent the Montcalm Property Can be found on Figure 3 copied from MNDM Plan Map of Montcalm Township.

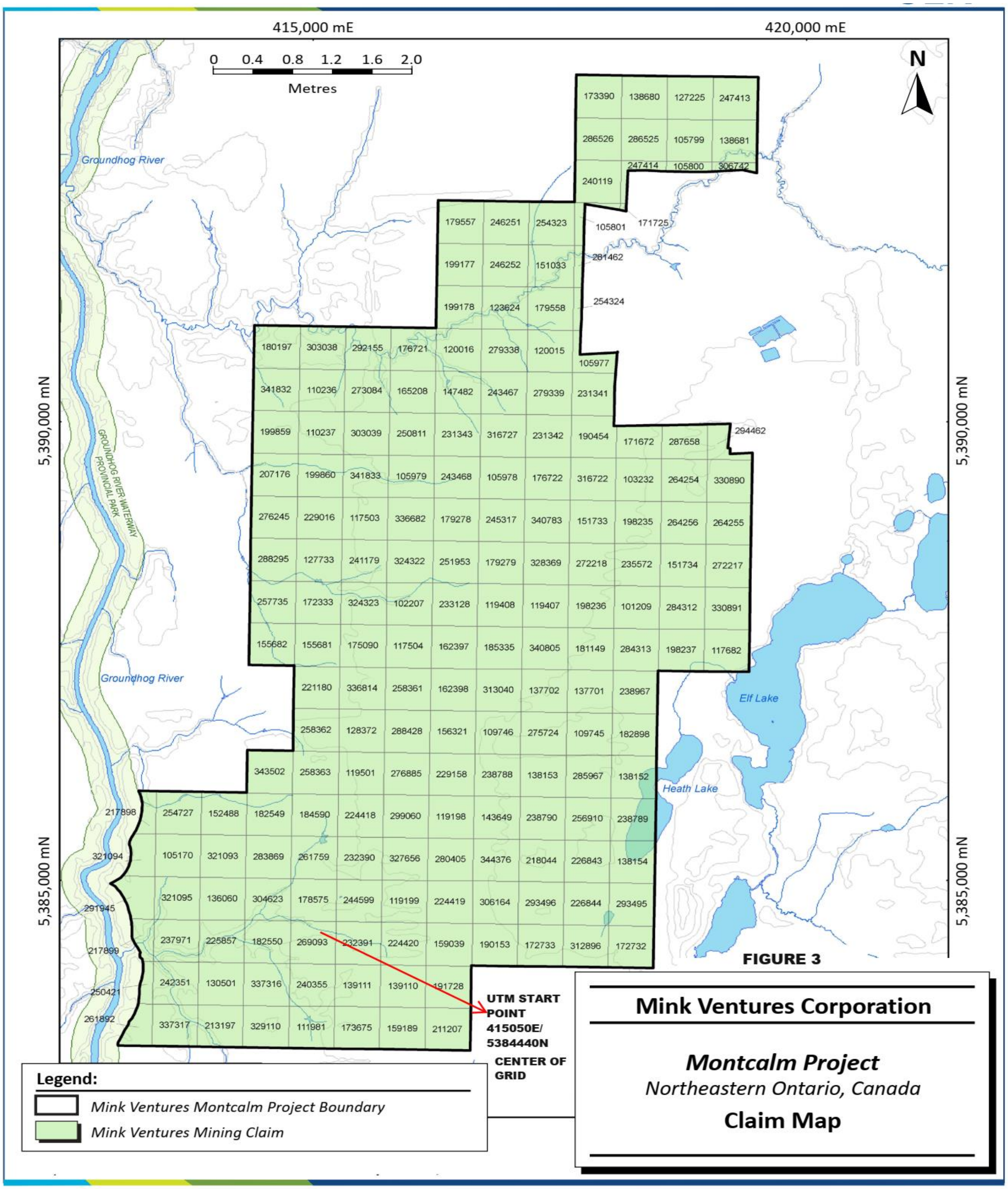


Figure 3A shows the current grid area that was covered by the 2023 line cutting and IP surveys in relation to the overall proposed grid area under consideration for further follow up ground surveys.

Figure 3 CLAIM BLOCK GRID LINES

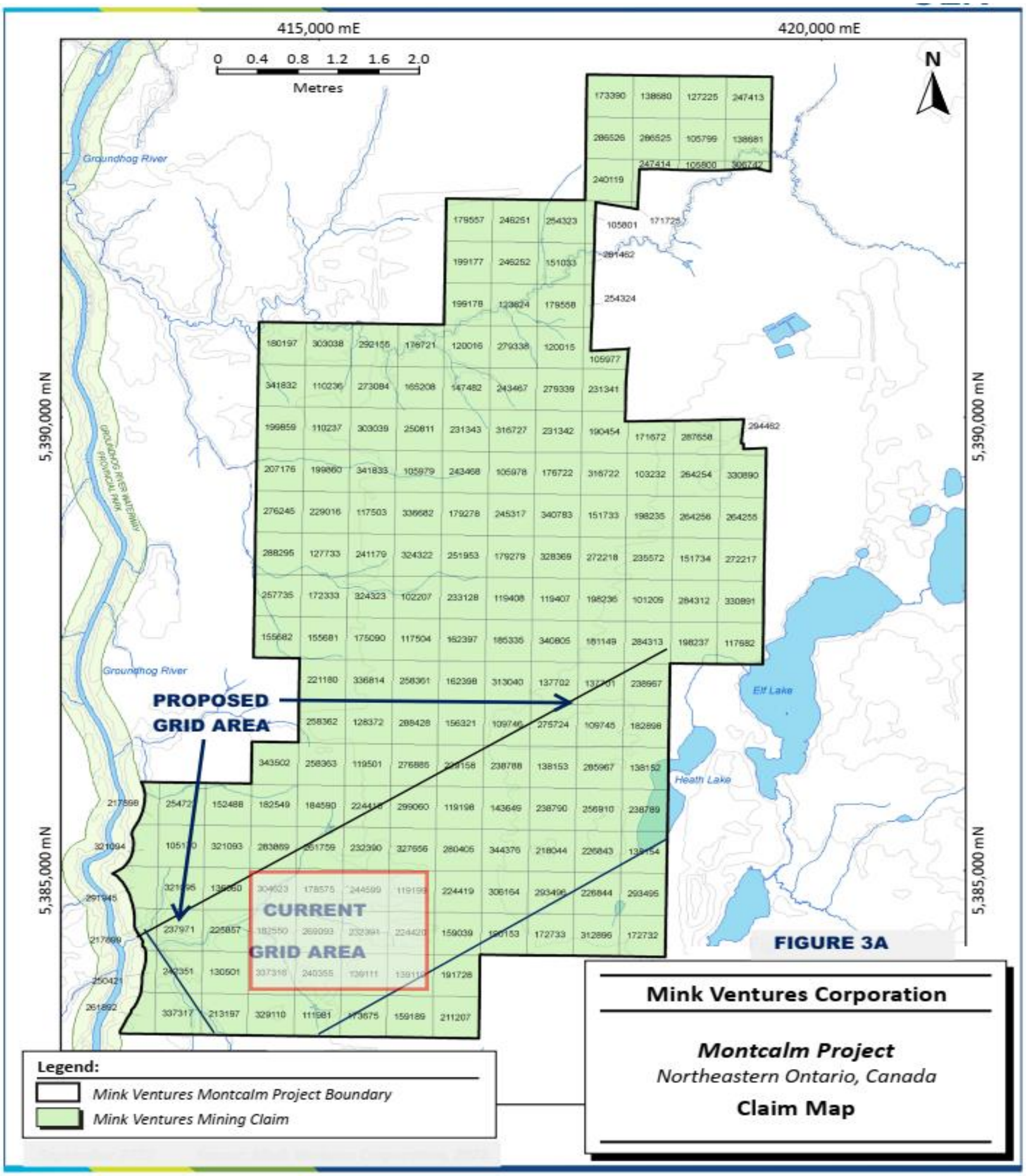
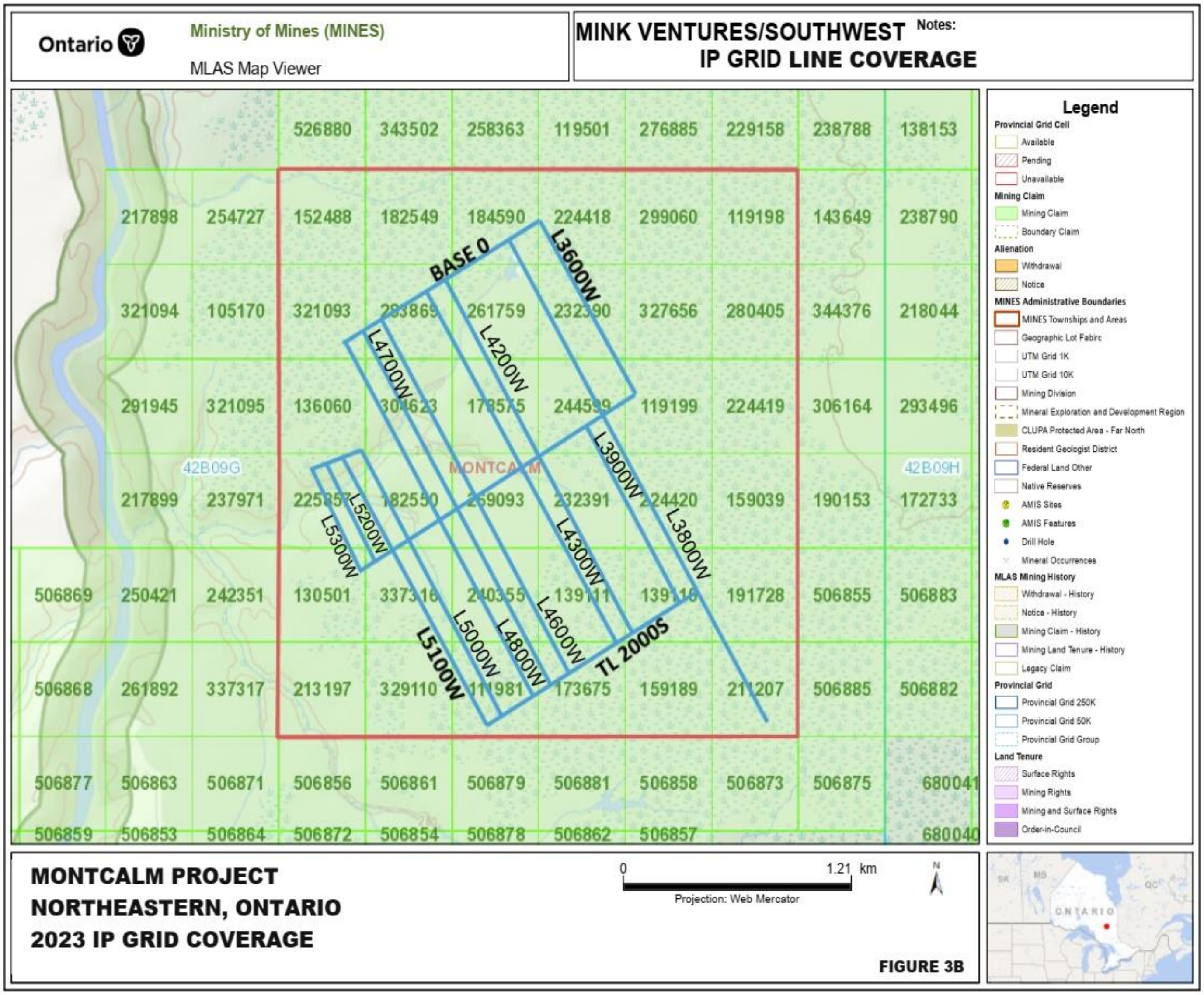


FIGURE 3B, IP GRID COVERAGE 2023 PROGRAM



REGIONAL GEOLOGY:

The Project is located in the Superior Province of Northern Ontario. The Superior Province is divided into numerous sub provinces (Figure 4), each bounded by linear faults and characterized by differing lithologies, structural/tectonic conditions, ages, and metamorphic conditions. These sub provinces are classified into four types by Card and Ciesielski (1986):

- volcano-plutonic; consisting of low-grade metamorphic greenstone belts, typically intruded by granitic magmas, and products of multiple deformation events,

- metasedimentary; dominated by clastic sediments and displaying low grade metamorphism at the sub province boundary and amphibolite to granulite facies towards the centres,

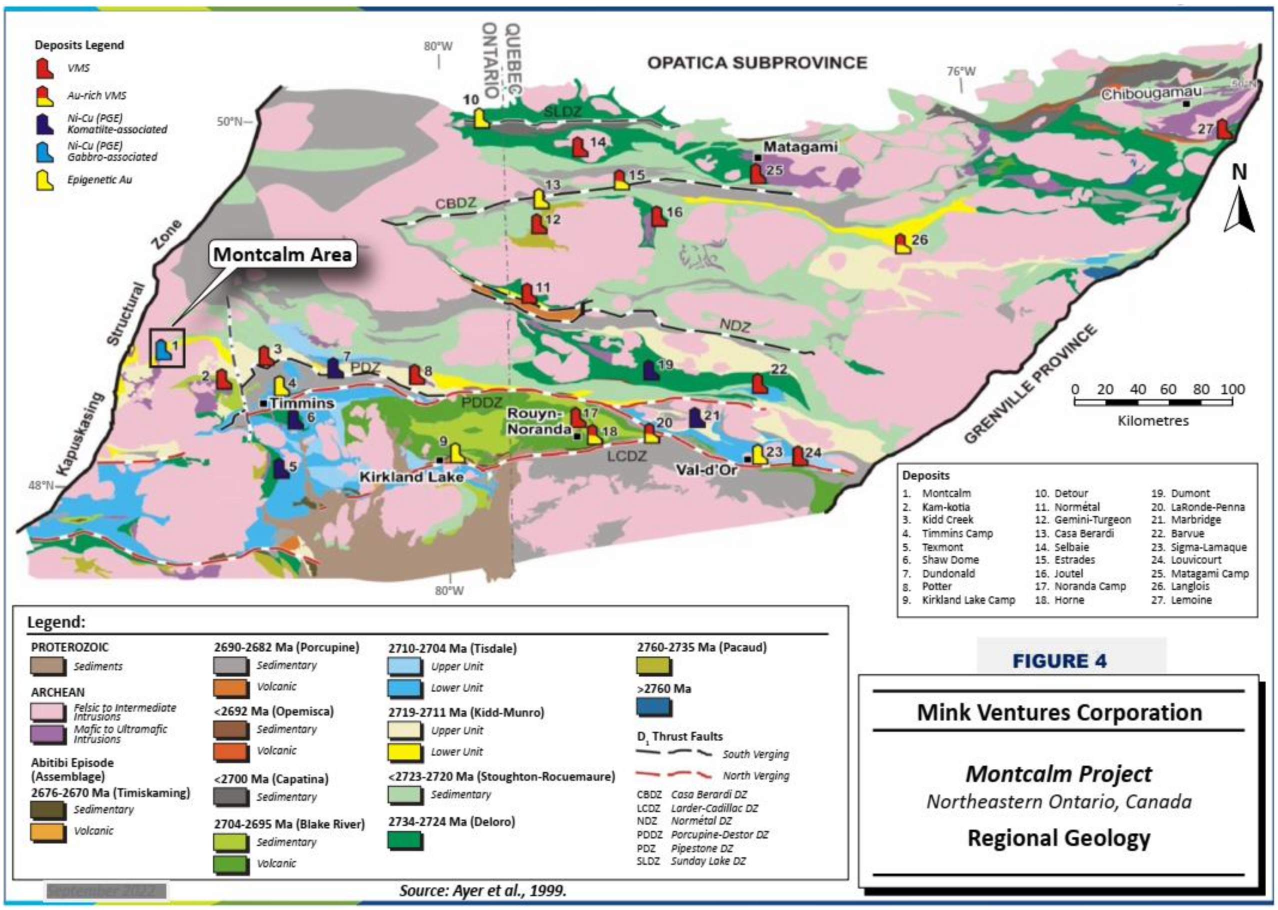
- gneissic-plutonic; comprised of tonalitic gneiss containing early plutonic and volcanic mafic enclaves, and larger volumes of granitoid plutons, which range from sodic (early) to potassic (late), and

- high grade gneissic sub provinces, characterized by amphibolite to granulite facies igneous and metasedimentary gneisses intruded by tonalite, granodioritic, and syenitic magmas.

In very general terms, the Abitibi Sub province consists of Late Archean metavolcanic rocks, related synvolcanic intrusions, and clastic metasedimentary rocks, intruded by Archean alkaline intrusions and Paleoproterozoic diabase dykes. The traditional Abitibi greenstone belt stratigraphic model envisages lithostratigraphic units deposited in autochthonous successions, with their current complex map pattern distribution developed through the interplay of multi-phase folding and faulting (Heather, 1998).

The Project lies in the westernmost part of the Abitibi Sub province of the Superior Province. The area has been subjected to regional metamorphism to the lower greenschist facies and locally to the lower amphibolite facies proximal to the margins of large granitoid intrusions (Barrie and Shirey, 2011).

REGIONAL GEOLOGY



LOCAL GEOLOGY

The Property is located within the Montcalm Greenstone Belt (MGB) in the western Abitibi Sub province (Figure 5). The following is taken from MacTavish (1990), Barrie and Naldrett (1989), and Jackson and Fyon (1991).

Most of the area is underlain by rocks of Neoarchean age. The oldest lithologies are mafic metavolcanic flows and felsic to intermediate pyroclastic rocks locally interbedded with clastic and chemical metasedimentary rocks and ultramafic flows.

The supracrustal rocks have been partially divided into the large, dominantly mafic metavolcanic Montcalm assemblage, the dominantly intermediate pyroclastic metavolcanic Nova assemblage, and the composite Oates assemblage. They were intruded by the Montcalm Gabbroic Complex (MGC) in the north and the Strachan Gabbroic Complex (SGC) in the south. Both complexes are layered.

The metavolcanic and gabbroic rocks were then intruded by the Nat River Granitoid Complex to the south and east, by an unnamed granitoid complex to the north, and by much smaller felsic to intermediate stocks in western Strachan Township, northern Belford Township, and northwestern Nova Township.

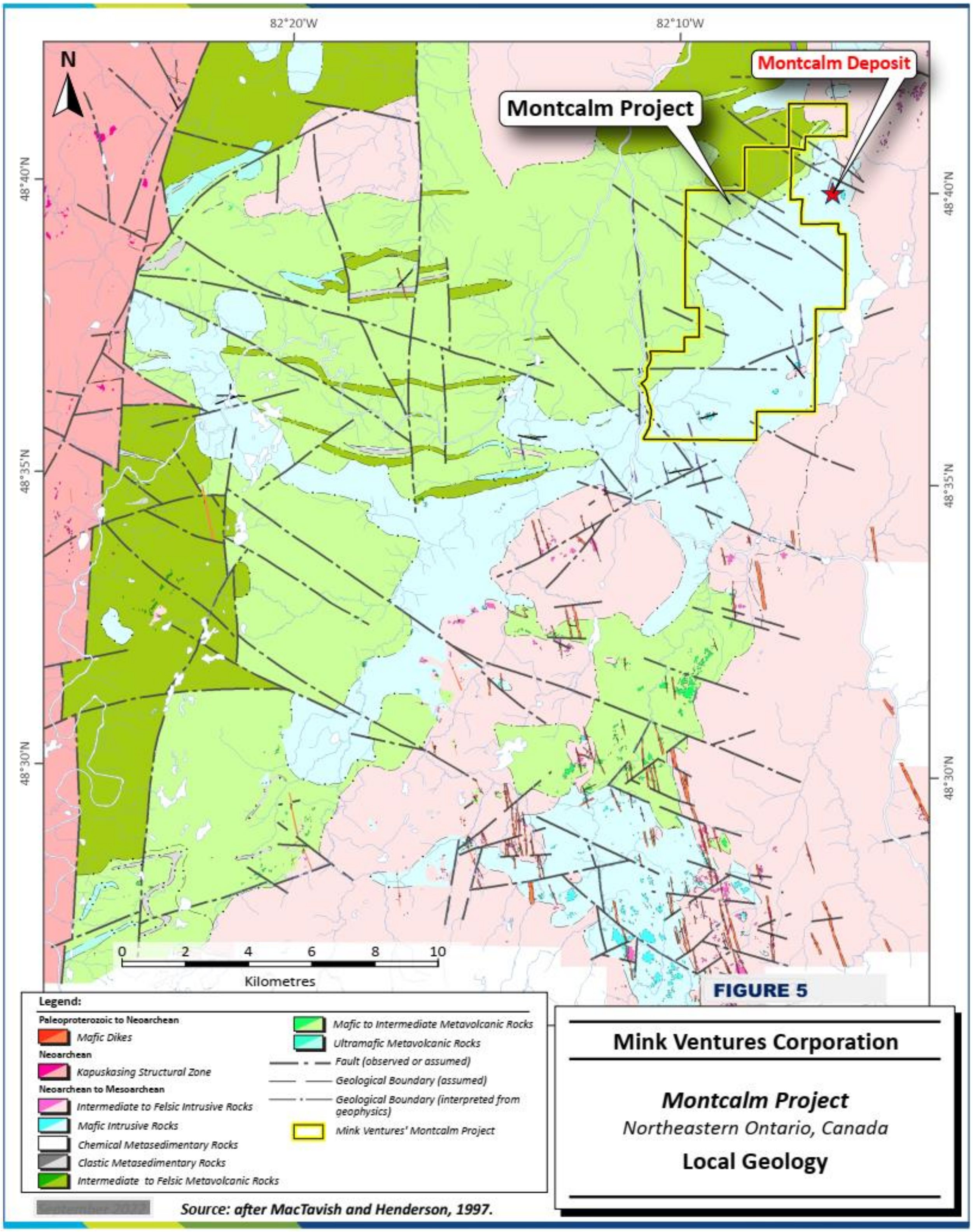
All rock types are crosscut by Paleoproterozoic diabase dykes, mainly of the Matachewan swarm, and some diabase dykes of an unknown (possibly Abitibi) swarm. Lamprophyre dykes are common locally.

The western edge of the area was truncated by the high-grade metamorphic terrane of the Kapuskasing structural zone (KSZ). The Neoarchean rocks were subjected to at least two, possibly three, periods of deformation. The first was a period of flattening within supracrustal rocks that resulted in northeast to north-northeast trending foliations subparallel to the stratigraphy.

The second was a regional, possibly sub province-scale, event that affected all Neoarchean rock types and produced east-southeast trending conjugate fault systems, open folds, and foliations. Emplacement of the KSZ during the late Neoarchean or the early Paleoproterozoic formed the north to north-northeast trending Ivanhoe Lake cataclastic zone and numerous subsidiary structures.

The supracrustal and gabbroic rocks were affected by regional, lower to middle amphibolite grade metamorphism. Upper amphibolite grade metamorphism was observed locally. Contact metamorphism produced narrow, sometimes overlapping, zones of granoblastic textures near the various granitoid intrusions. A second regional metamorphic event may have accompanied the emplacement of the KSZ.

LOCAL GEOLOGY



PROPERTY GEOLOGY

The Property is underlain almost exclusively by lithologies comprising the MGC. The following is taken from Barrie and Naldrett (1989) and Barrie and Shirey (2011). Figure 6 illustrates the general geology of the Property.

The MGC is in contact with predominantly mafic volcanic rocks to the south and undifferentiated volcanic and sedimentary rocks to the north. The MGC forms a crescent shape within the volcanic rocks and can be divided into four zones on the basis of petrology and geochemistry:

1. Pyroxenite zone, which consists of ortho-cumulus textured pyroxenite-hornblendite and pegmatitic gabbro units with relatively low Mg numbers (68-74) and high incompatible element contents.
2. Gabbro zone of mesocumulus to adcumulus textured plagioclase-clinopyroxene gabbros with higher Mg numbers (73-81) and lower incompatible element contents.
3. Anorthositic gabbro zone, characterized by a plagioclase-porphyritic texture and erratic Mg numbers (43-69), owing to the sporadic occurrence of Fe-Ti oxides; and
4. Ferroan gabbro zone commonly with cumulus Fe-Ti oxides and lower Mg numbers (25-69).

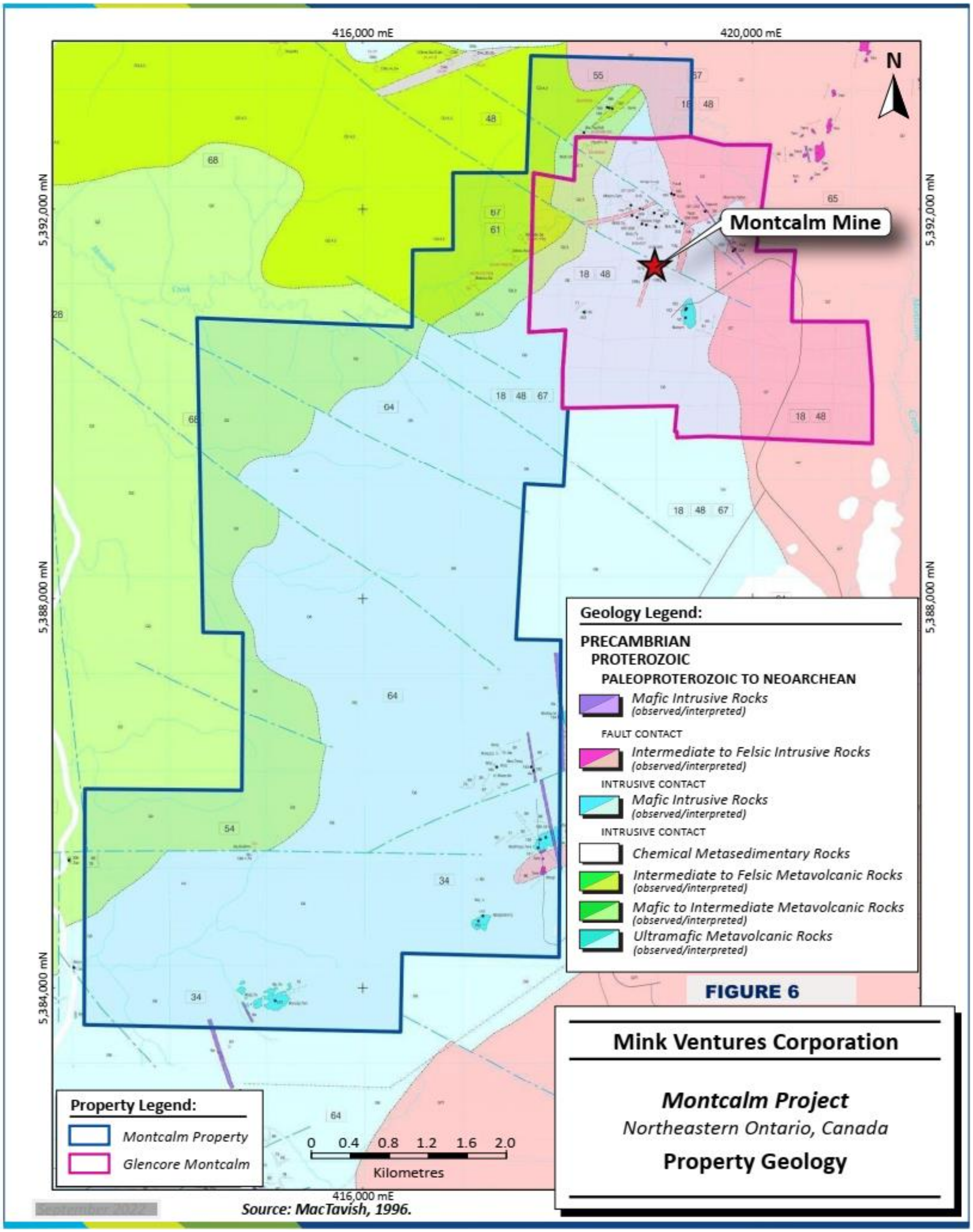
The MGC appears to be gradational into overlying metavolcanic rocks. Compositional layering within the MGC suggests that the sill faces south.

Endogenous mafic and ultramafic dykes cut all MGC cumulate lithologies and a subvertical felsic dyke suite, including a slightly younger subvertical quartz monzonite-granodiorite dyke, cuts the Ni-Cu-Co deposit.

The MGC was subjected to two deformational events. Regional deformation, consistent with a broad doming to the northwest, created a penetrative, subvertical fabric generally parallel to the intrusion contacts.

Later regional granitoid emplacement created contact strain zones along the eastern and southern margins of the MGC.

PROPERTY GEOLOGY



PERSONNEL:

The field crew directly responsible for the collection of all the raw data were as follows:

J. Francoeur	Timmins, Ontario
R. Bradshaw	Timmins, Ontario
G. Martin	Timmins, Ontario
J. Hamelin	Timmins, Ontario
P. Boily	Timmins, Ontario

The program was completed under the direct supervision of J. Grant and the plotting and report was completed by J. C. Grant of Exsics.

GROUND PROGRAM:

The ground program consisted of cutting specific lines across the southwestern section of the Montcalm Property that were then to be then followed up with an Induced Polarization, (IP), survey. **In all a total of 24 kilometers of grid lines were established across the claim block**.

Once the cutting was completed the IP survey was completed across all the cross lines. This was done using the Instrumentation G.D.D. IP receiver and 5.0-kilowatt transmitter system. Specifications for these units can be found in Appendix A of this report**. In all a total of 18.75 kilometers of IP surveys were completed across the cut lines. The program commenced on January 24th and was completed by March 3rd of 2023.**

The following parameters were kept constant throughout the survey period.

IP Survey:

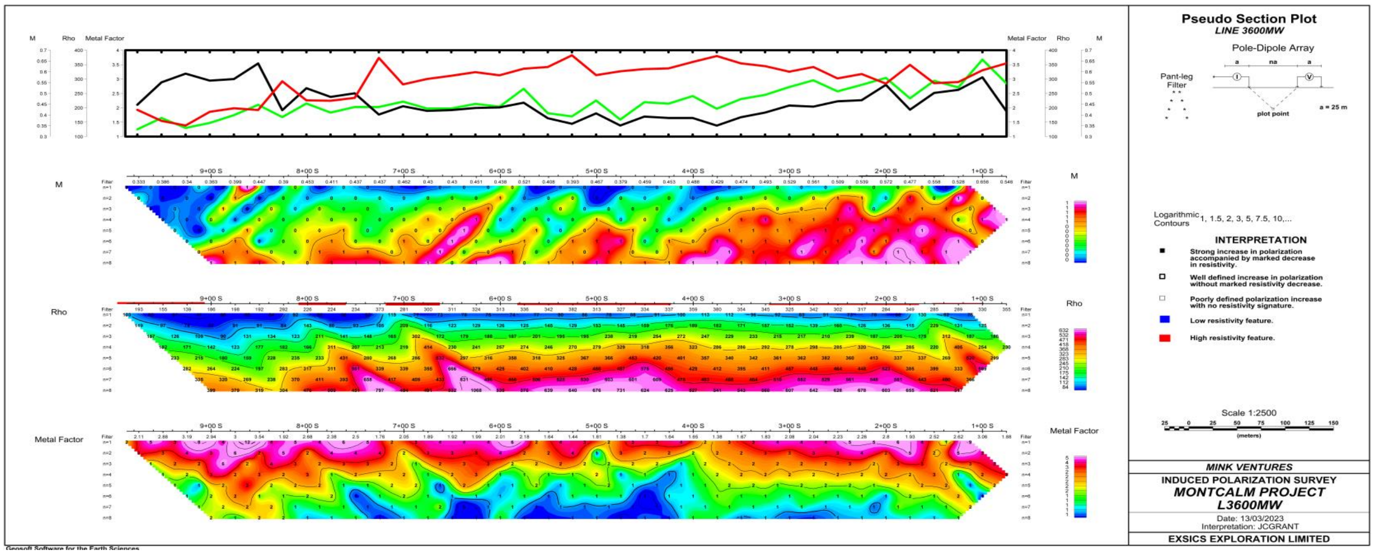
Line spacing	Varied
Reading intervals	25 meters
IP survey method	Time Domain
IP array	Pole-Dipole array
Number of electrodes & spacing	8 electrodes, 25 meters
Parameters measured	Chargeability in Milliamps
	Resistivity in ohms/meter
	Calculated Metal Factor

The collected data was then presented as individual line-colored pseudo-sections showing the contoured results of the chargeability and resistivity as well as a calculated metal factor. A copy of these individual line and color pseudo-section are included below.

<u>IP SURVEY RESULTS:</u>

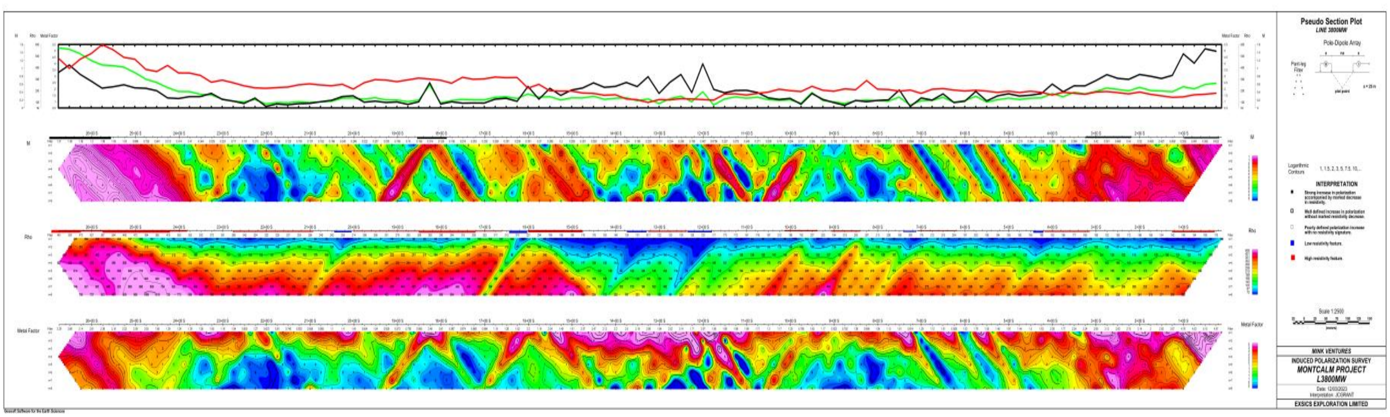
The IP survey was successful in locating and outlining a significant zone across the central south section of the survey area. Several more modest IP zones were also noted across additional areas of the grid. Each of the zones will be discussed in detail below.

LINE 3600MWIP

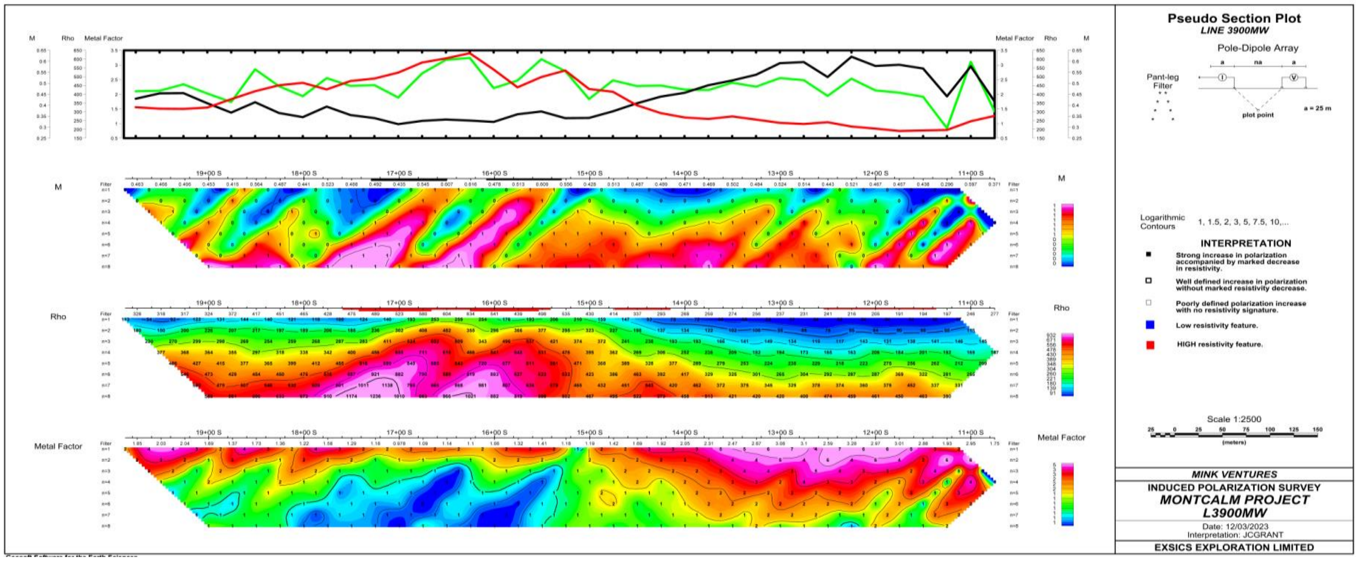


No significant results from the IP survey.

LINE 3800MWIP

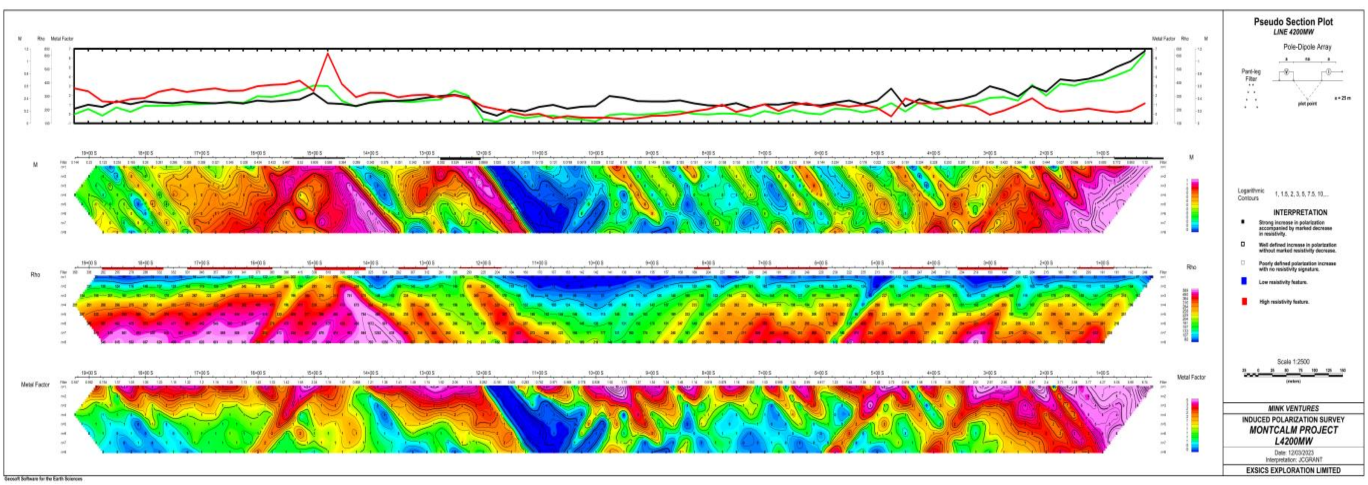


This line outlined a modest chargeability high on the southern tip of the line that appears to continue off of the grid to the south. The zone correlates to a good resistivity high and correlates to a good magnetic high unit. (Figure 7). A weak shallow zone was noted at 1825MS that correlates to a modest resistivity building at depth. This zone is associated with the southeast edge of the main magnetic trend. At this writing the two weak northern zones would be considered as low priority.



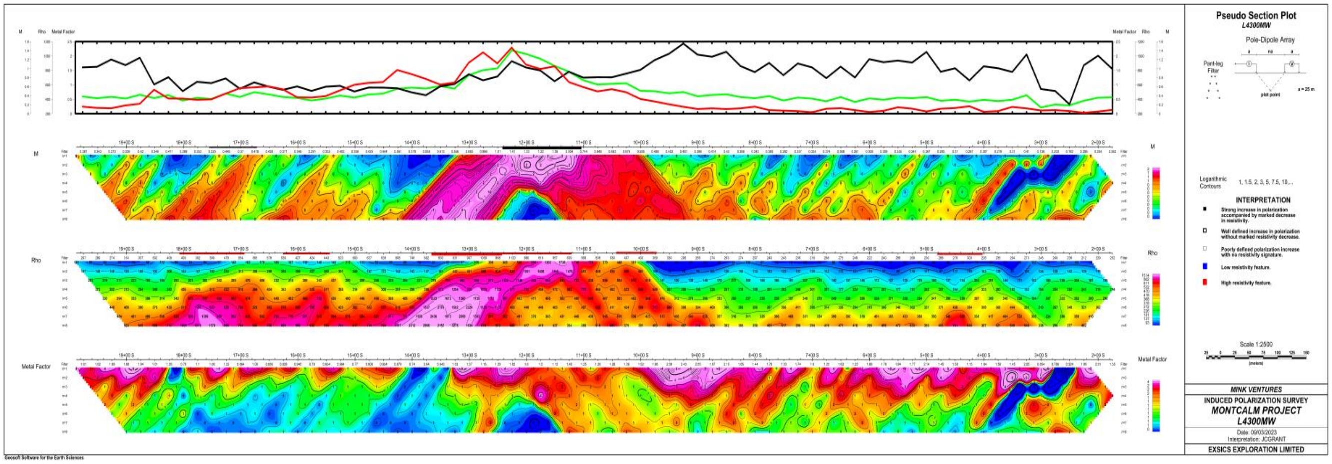
Two weak parallel zones were noted on this line between 1700MS and 1550MS and both correlate to modertae to good resistivity highs that are building at depth. Both zone are associated with the southern section of the magnetic high unit.

LINE 4200MWIP



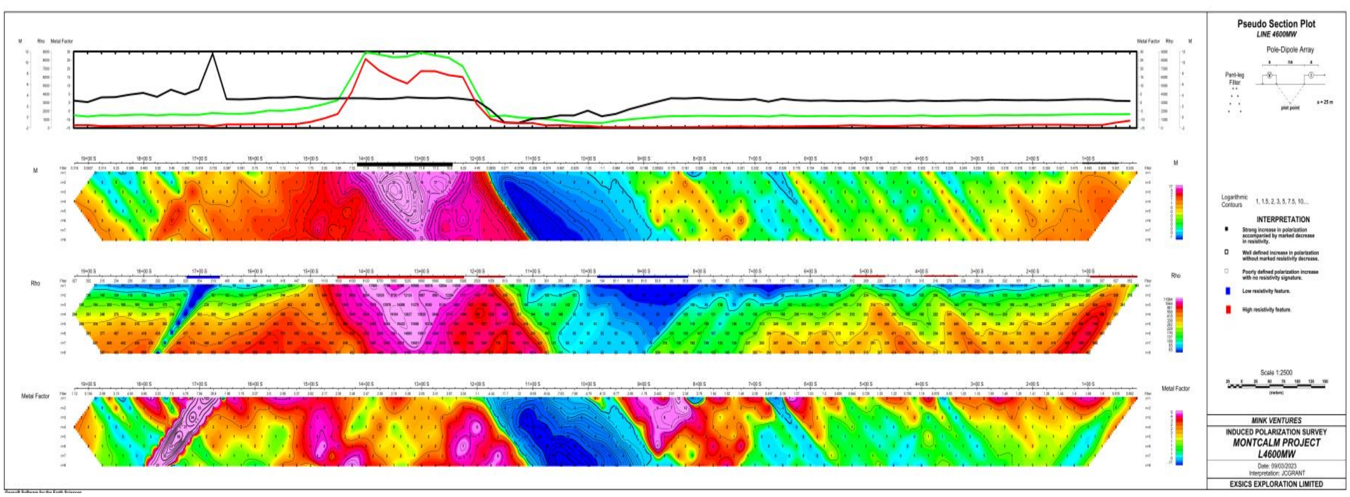
This line outlined two weak and parallel zones situated between 1250MS and 1475MS. The southern zone correlates to a good resistivity high building at depth and it lies within the main magnetic feature of the grid. The northern zone is a weak chargeability high that correlated to a narrow resistivity high extending to depth. This zone lies along the northern edge of the main magnetic high unit.

LINE 4300MWIP



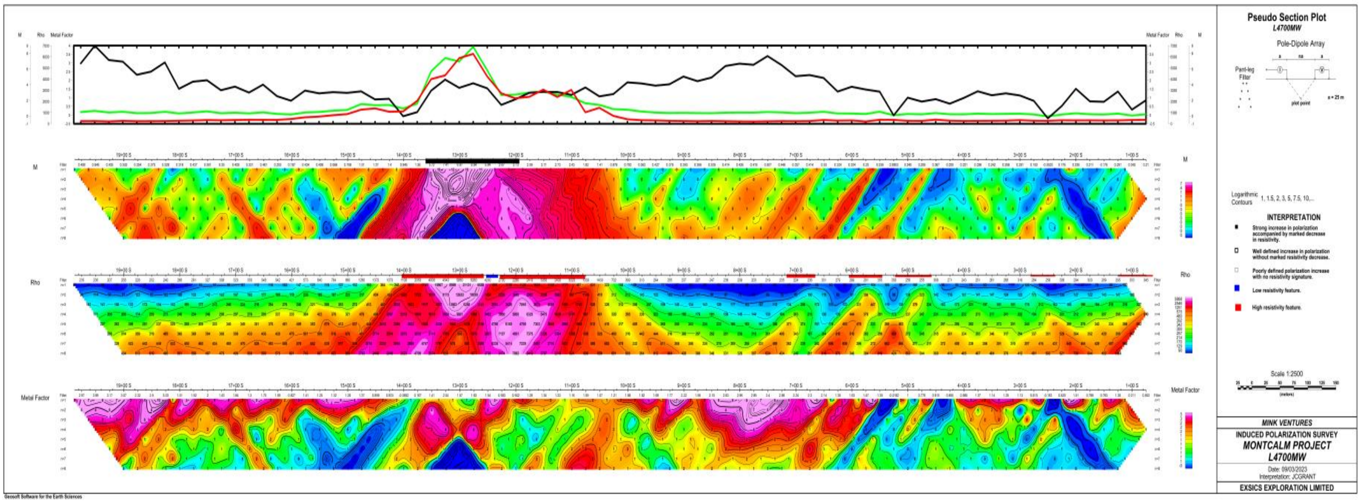
The main zone outlined on this line lies between 1100MS and 1300MS, centered at 1200MS. The zone is represented by a moderate chargeability high that is quite broad and shallow. The zone correlates to a good resistivity high that is building at depth on its southern flank This may be the northeast extension of the most predominant feature of the grid to the southwest, crossing lines 4600MW to 4800MW. This zone lies along the northern edge of the main magnetic high unit.

LINE 4600MWIP



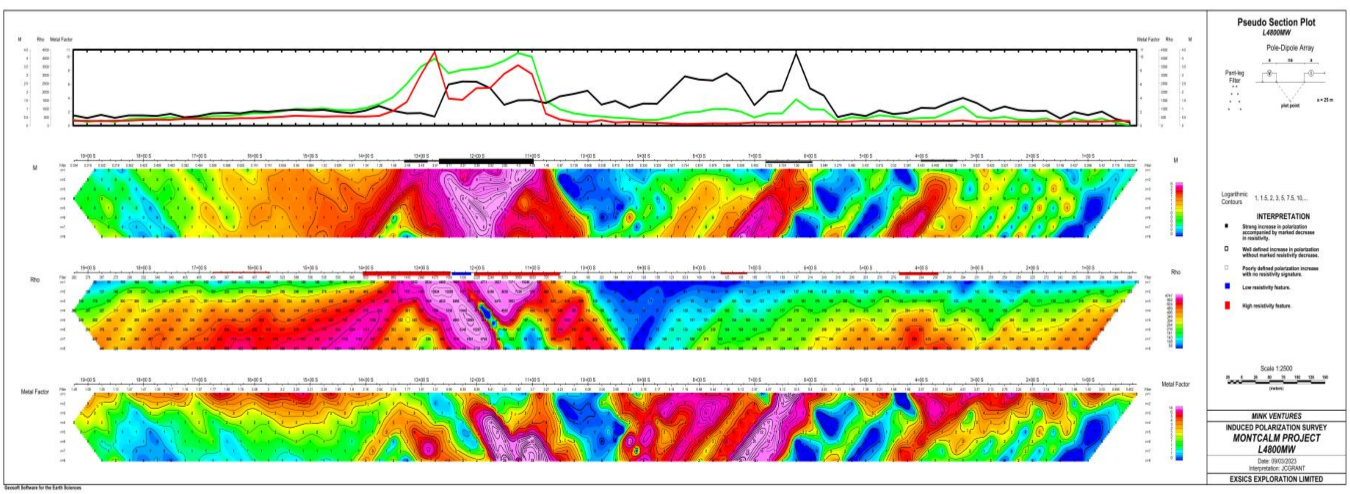
The most predominant IP zone, (IPM1), outlined on the grid, crosses lines 4600MW to 4800MW and may extend as far as line 4300MW and possibly line 5000MW. The strongest portion of the zone lies on 4600MW and is centered 1325MS. The zone is represented by a good strong chargeability high, the highest on the survey grid, and it correlates with a good strong resistivity high which appears to be quite shallow. The zone correlates directly with a good magnetic high and possibly outcrops in the area.

LINE 4700MWIP



This line also outlined the main IP zone and it is cenetred between 1200MS and 1350MS. The zone is represented by a good strong chaargeability at surface that seems to continue at depth on its southern flank. The zone correlates to a good strong and shallow resistivity high that is underlain by a modest resisitivyt low. This zone lies along the northern edge of the main magnetic high unit.

LINE 4800MWIP

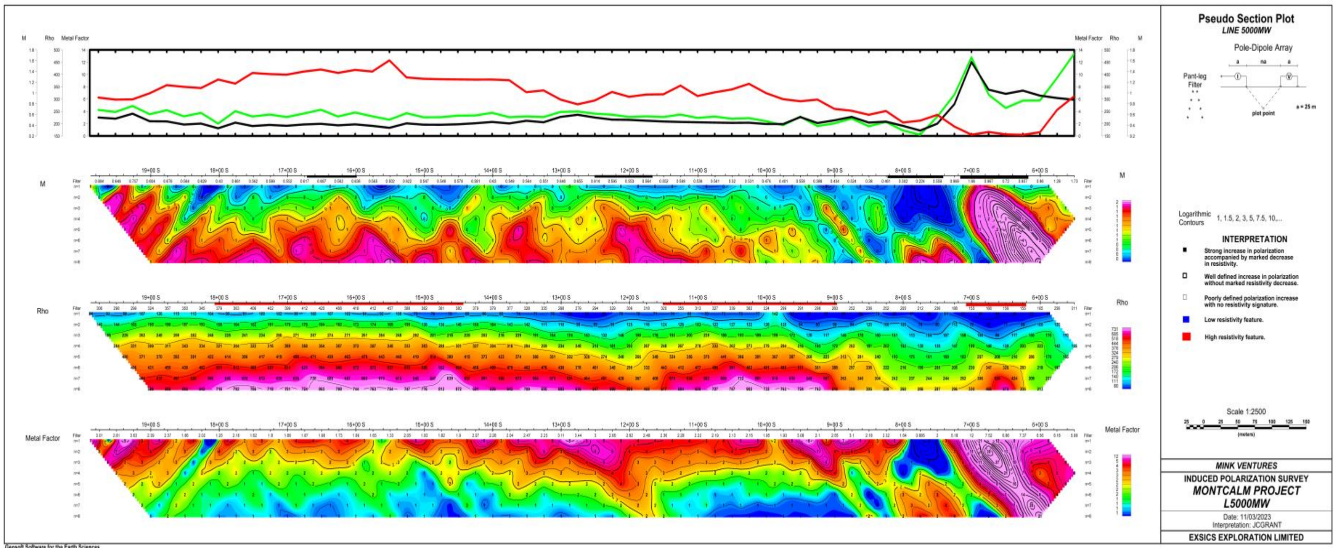


The main zone lies between 1100MS and 1300MS and it is represented by a good strong chargeability high that correlates to a good strong and shallow resistivity high that appears to have been crosscut by a narrow resistivity low. The zone also correlates to the northern edge of the main magnetic high unit. The zone lies with a broad magnetic low feature that lies between the two predominant magnetic highs.

A final zone lies between 400MS and 325MS and is represented by a moderate chargeability high and a deep-rooted moderate resistivity high. This zone lies along the southern edge of the north magnetic high unit.

A second weaker zone was noted between 700MS and 600MS that is represented by a moderate chargeability high that correlates to a modest resistivity low.

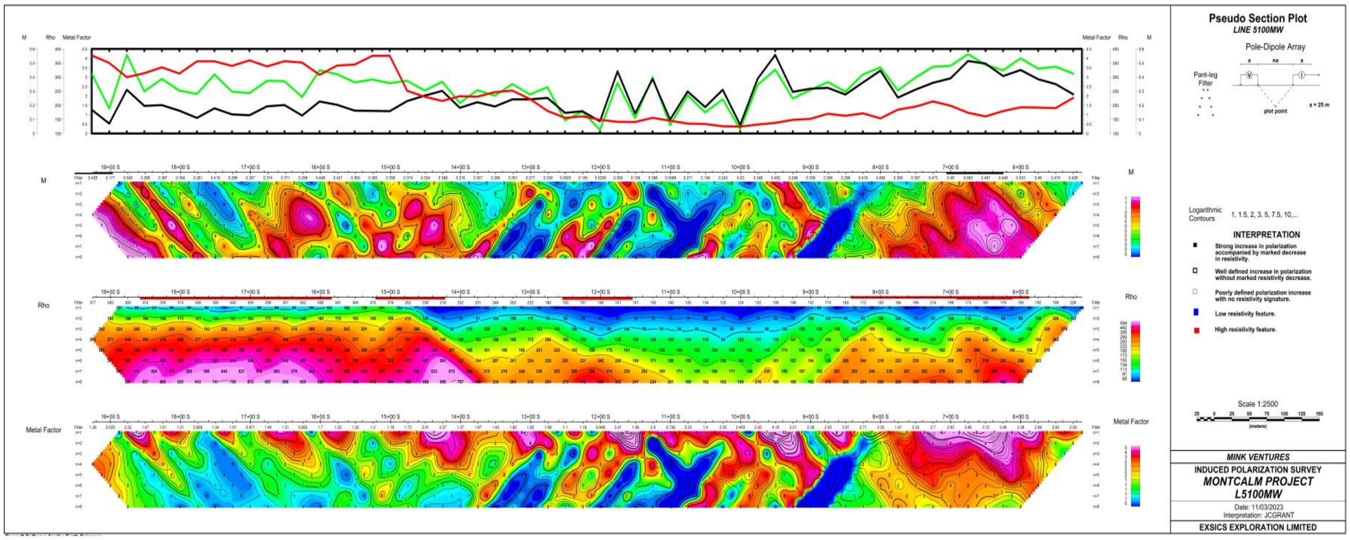
LINE 5000MWIP



The most predominant feature on this line is the moderate chargeability high situated bbetweeen 600MS and 700MS. This zone lies on the northern edge of a modest and deep resistivity high that is building at depth. The zone lies within a broad magnetic low situated between the two flanking magnetic high units.

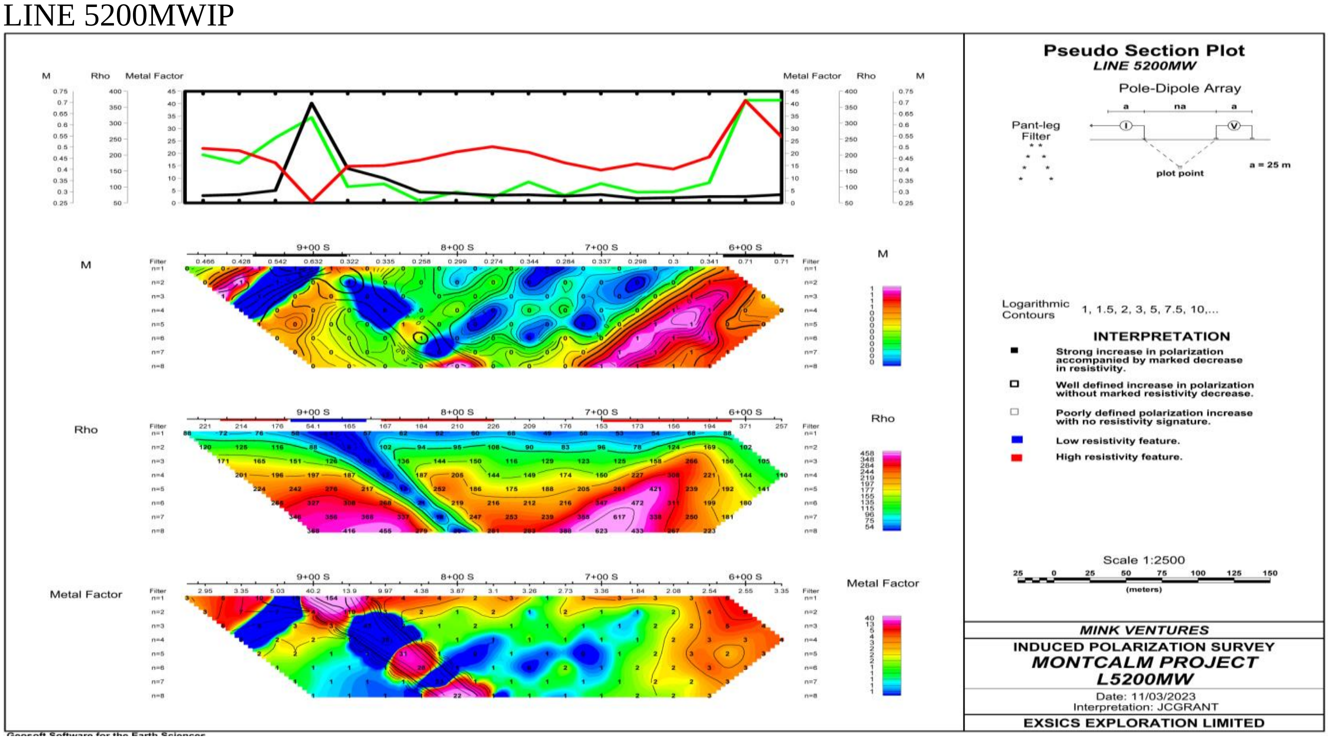
Aweak zone lies between 1150MS and 1250MS that may be the southwest extension of the more predominant IP zone that strikes across lines 4600MW to 4800MW. The zone lies at the extreme northern edge of the magnetic high unit.

LINE 5100MWIP



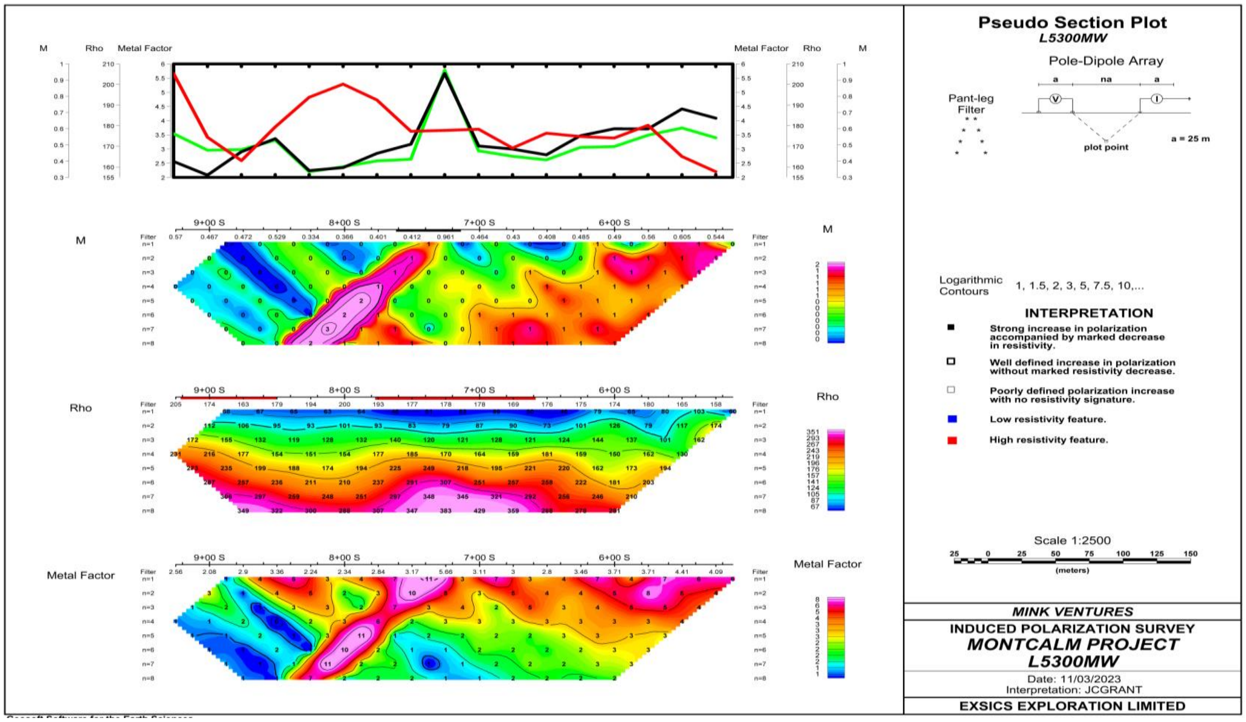
Two weak zones were outlined on this line, one at each end of the line. Both feature correlate to broad modests resistivity highs. Both zones are considered a low priority at this writing.

LINE 5200MWIP



There is a weak zone at the northern tip of the line that correlates to a moderate resistivity high unit. The zone lies within the broad magnetic low and is considered a low priority at this writing.

LINE 5300MWIP



No significant zone was outlined on this line. The narrow chargeability high at 725MS may correlate to a possible drill casing in the vicinity,(exact location not known).

CONCLUSIONS AND RECOMMENDATIONS:

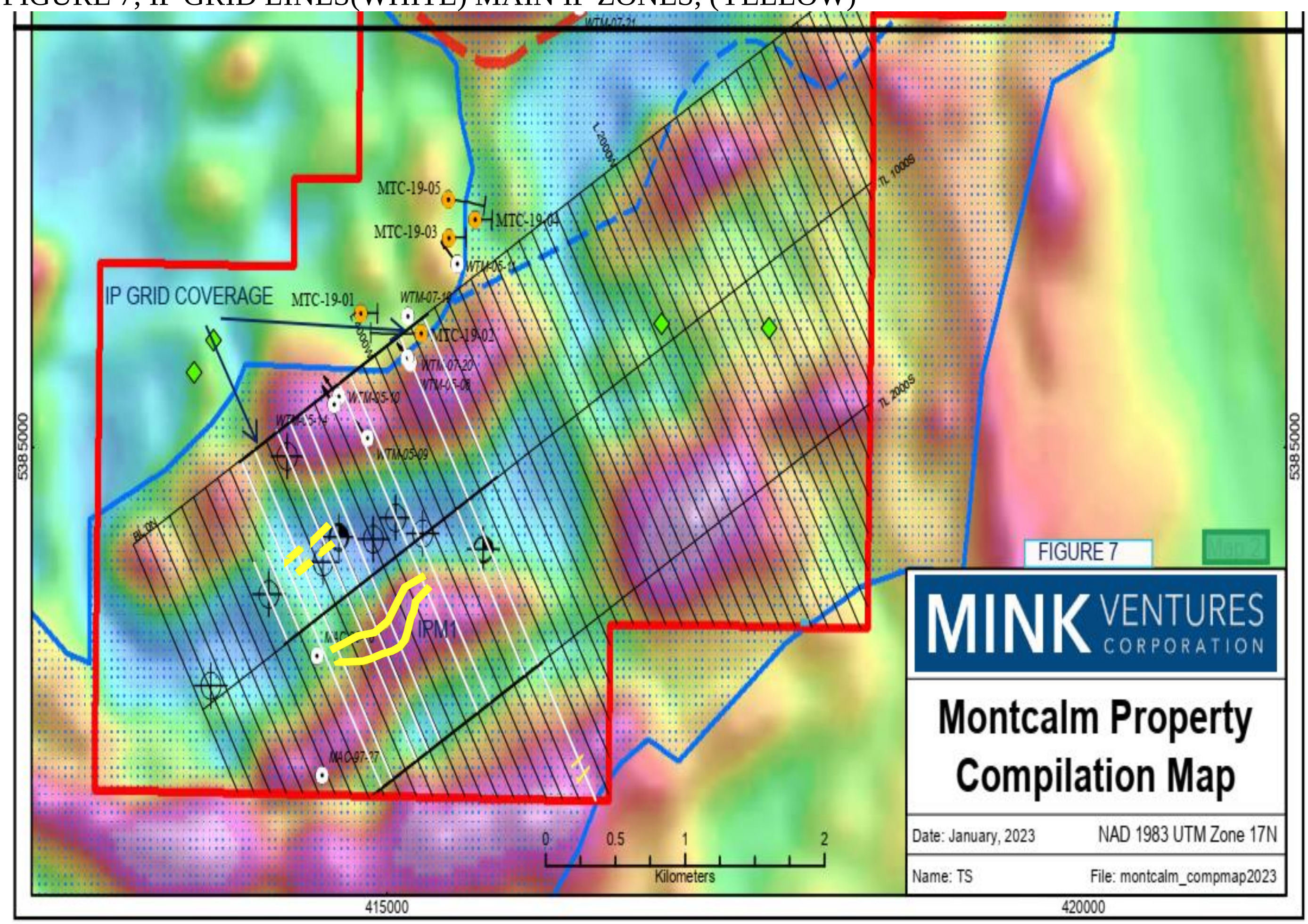
The IP program was successful in defining a significant IP zone, (IPM1), striking across lines 4600MW to 4800MW between 1250MS and 1325MS. This zone is represented by a good strong chargeability high and a strong resistivity high which may also correlate to a significant outcropping in the area. The entire zone lies within and or along the northern edge of a good magnetic high unit. The zone may extend as far as line 4300MW to the northeast and possibly 5000MW to the southwest. This zone would be considered as a high priority for follow up programs of detailed geological mapping of the outcrop and follow up drilling.

The zone outlined on the northern end of line 5000MW should also be considered in any future follow up programs. The zone has a good chargeability signature and has a moderate resistivity building at depth.

The zone outlined on line 4800MW at 650MS should also be considered for further follow up. The zone has a moderate chargeability high associated with a modest resistivity low. This zone may correlate to a weak airborne conductor as shown on Figure 7.

Follow up on the weaker IP zones that are scattered across the grid area would be based on the follow up drilling program results.

FIGURE 7, IP GRID LINES(WHITE) MAIN IP ZONES, (YELLOW)



Respectfully submitted.

JC Grant

J. C. Grant, CET, FGAC
March 2023.

REFERENCES

Atkinson, B.T., Pace, A., Beauchamp, S.A., Bousquet, P., Butorac, S., Draper, D.M., and Wilson, A.C., 2010: Report of Activities 2009 Resident Geologist Program, Timmins Regional Resident Geologist Report, Timmins and Sault Ste. Marie Districts. Ontario Geological Survey, OFR 6247.

Ayer, J.A., Thurston, P.C., Bateman, R., Dube, B., Gibson, H.L., Hamilton, M.A., Hathaway, B., Hocker, S.M., Houle, M.G., Hudak, G., Ispolatov, V.O., Lafrance, B., Lesher, C.M., MacDonald, P.J., Peloquin, A.S., Piercy, S.J., Reed, L.E., and Thompson, P.H., 2005: Overview of results from the Greenstone Architecture Project: Discover Abitibi Initiative: OGS Open File 6154, 146 p.

Ayer, J.A., Amelin, Y., Corfu, F., Kamo, S.L., Ketchum, J.W.F., Kwok, K. and Trowell, N.F., 2002: Evolution of the southern Abitibi greenstone belt based on U-Pb geochronology: autochthonous volcanic construction followed by plutonism, regional deformation and sedimentation; Precambrian Research, v115, pp. 63-95.

Ayer, J.A., Ketchum, J.W.F. and Trowell, N.F., 2002: New geochronological and neodymium isotopic results from the Abitibi greenstone belt, with emphasis on the timing and the tectonic implications of Neoarchean sedimentation and volcanism; In Summary of Field Work and Other Activities 2002, Ontario Geological Survey, Open File Report 6100, pp. 5-1 to 5-16.

Ayer, J., Berger, B., Johns, G., Trowell, N., Born, P., and Mueller, W.U., 1999: Late Archean rock types and controls on gold mineralization in the southern Abitibi greenstone belt of Ontario: Geological Association of Canada- Mineralogical Association of Canada Joint Annual Meeting, Sudbury, Canada, 1999, Field Trip B3 Guidebook, 73 p.

Ayer, J.A., Trowell, N.F., Madon, Z., Kamo, S., Kwok, Y.Y., and Amelin, Y., 1999: Compilation of the Abitibi Greenstone Belt in the Timmins-Kirkland Lake Area: Revisions to Stratigraphy and new Geochronological Results; in Summary of Field Work and Other Activities 1999, Ontario Geological Survey, Open File Report 6000, pp. 4-1 to 4-13.

Barrie, C.T., Naldrett, A.J., and Davis, D.W., 1990: Geochemical constraints on the genesis of the Montcalm gabbroic complex and Ni-Cu deposit, western Abitibi Subprovince, Ontario. The Canadian Mineralogist, Volume 28, part 3, pp. 451-474.

Barrie, C.T., and Naldrett, A.J., 1989: Geology and Tectonic Setting of the Montcalm Gabbroic Complex and Ni-Cu Deposit, Western Abitibi Subprovince, Ontario, Canada in Magmatic Sulphides, The Zimbabwe Volume (M.D. Prendergast and M.J. Jones, eds.) Inst. Min. Metall., London, pp. 151-165).

Barrie, C.T., and Shirey, S.B., 2011: Nd- and Sr-isotope systematics for the Kamiskotia-Montcalm area: implications for the formation of late Archean crust in the western Abitibi Subprovince, Canada. Canadian Journal of Earth Sciences, Vol. 28(1), pp. 58-76.

Blecha, M., Thalenhorst, H., and Komura, A., 1977: Teck's Montcalm copper nickel deposit: AEM survey brings major discovery. Canadian Mining Journal, Vol. 98 (4), pp. 21-28.

Card, K.D., and Ciesielski, A., 1986: DNAG #1. Subdivisions of the Superior Province of the Canadian Shield. Geoscience Canada, vol. 13, pp. 5-13.

Chamois, P., NI-43101 Technical Report on the Montcalm Property, Montcalm Township, Porcupine Mining Division, Ontario. Qualifying transaction report prepared on behalf of Mink Ventures Corporation., 74 p.

Eckstrand, O.R. and Hulbert, L.J., 2007: Magmatic Nickel-Copper-Platinum Group Element Deposits in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit Types, District Metallogeny, the Evolution of Geological Provinces and Exploration Methods, Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, pp. 205-222.

Eckstrand, O.R., 1984: Canadian Mineral Deposit Types: A Geological Synopsis. Geological Survey of Canada Economic Geology Report 36, 86 p.

Fraser, D.C., 1978: Geophysics of the Montcalm Copper-Nickel Discovery. CIM Bulletin Volume 71 – No. 789, pp. 99-104.

Heather, K.B., 1998: New insights on the stratigraphy and structural geology of the southwestern Abitibi greenstone belt: Implications for the tectonic evolution and setting of mineral deposits in the Superior Province: in The first age of giant ore formation: stratigraphy, tectonics and mineralization in the Late Archean and Early Proterozoic; Papers presented at the PDAC, pp. 63 -101.

Jackson, S.I., and Fyon, J.A., 1991: The Western Abitibi Subprovince in Ontario in Geology of Ontario, Ontario Geological Survey Volume 4, Part 1, pp. 405-484.

Keast, T., 2019: Exploratory Diamond Drilling Report, Montcalm Property, Montcalm Twp., Porcupine Mining Division, Ontario. An assessment report prepared on behalf of Pancontinental Resources Corp., 22 p.

MacTavish, A.D., 1996: Precambrian Geology: Montcalm Greenstone Belt. Ontario Geological Survey Report 300, 76 p.

Marshall, I.B., and Schutt, P.H., 1999: A national ecological framework for Canada – Overview. A co-operative product of Ecosystems Science Directorate, Environment Canada and Research Branch, Agriculture and Agri-Food Canada.

Ontario Geological Survey, 1990: Airborne electromagnetic and total field intensity magnetic survey – Montcalm area. Ontario Geological Survey Map 81360. Scale 1:20,000.

Ontario Mineral Inventory Record MDI42B09NE00007: Montcalm Mine.

Webster, B., 2023: Exploratory Geophysical Report, Montcalm Property, Montcalm Twp., Porcupine Mining Division, Ontario. An assessment report prepared on behalf of Mink Ventures Corporation., 45 p.

CERTIFICATION

I, John Charles Grant, of 108 Kay Crescent, in the City of Timmins, Province of Ontario, hereby certify that:

1). I am a graduate of Cambrian College of Applied Arts and Technology, 1975, Sudbury Ontario Campus, with a 3 year Honors Diploma in Geological and Geophysical Technology.

2). I have worked subsequently as an Exploration Geophysicist for Teck Exploration Limited, (5 years, 1975 to 1980), and currently as Exploration Manager and Chief Geophysicist for Exsics Exploration Limited, since May, 1980.

3). I am a member in good standing of the Certified Engineering Technologist Association, (CET), since 1984.

4). I am in good standing as a Fellow of the Geological Association of Canada, (FGAC), since 1986.

5). I have been actively engaged in my profession since the 15th day of May, 1975, in all aspects of ground exploration programs including the planning and execution of field programs, project supervision, data compilation, interpretations and reports.

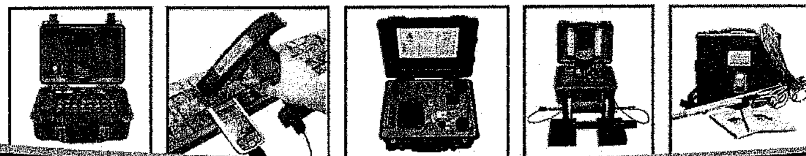
6). I have no specific or special interest nor do I expect to receive any such interest in the herein described property. I have been retained by the property holders and or their Agents as a Geological and Geophysical Consultant and Contract Manager.

John Charles Grant, CET., FGAC.

GEOLOGICAL ASSOCIATION OF CANADA
JOHN GRANT
FELLOW

APPENDIX A

INSTRUMENTATION GDD INC.



Canadian Manufacturer of Geophysical Instrumentation since 1976
Sales, Rental, Customer Service, R&D and Field training WWW.GDD.CA

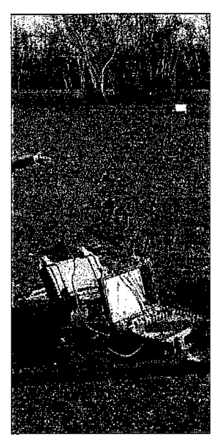
IP Receiver Model GRx8-32

«Field users have reported that the GDD IP Receiver provided more reliable readings than any other time domain IP receiver and it reads a few additional dipoles. »

FEATURES

- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey:
  4 lines X 8 channels - 2 lines X 16 channels
  1 line X 32 channels
- Link to a PDA by wireless communication or a serial cable
- Real-time data and automatic data stacking (Full Wave)
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10^9)
- Shock resistant, portable and environmentally sealed

GRx8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. Its high ruggedness allows it to work under any field conditions.



User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole, IPR-12 and user defined.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRx8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

Internal memory: A 4 Go (or more) Compact Flash memory card is used to store the readings. Each reading includes the full set of parameters characterizing the measurements for all channels; the full wave signal for post-treatment processing. The data is stored in flash type memory not requiring any battery power for safekeeping.

Manufactured in Canada by Instrumentation GDD Inc.

New IP Receiver Model GRx8-32 with PDA

GRX8-32: This new receiver is a compact and low consumption unit designed for high productivity Resistivity and Induced Polarization surveys. It features high ruggedness allowing to work in any field conditions

Reception poles/dipoles: 8 simultaneous channels expandable to 16, 24 or 32, for dipole-dipole, pole-dipole or pole-pole arrays.

Programmable windows: The GRX8-32 offers twenty fully programmable windows for a higher flexibility in the definition of the IP decay curve.

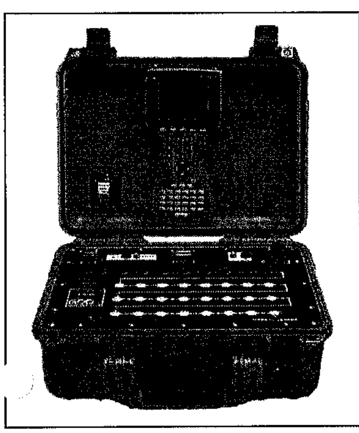
User modes available: Arithmetic, logarithmic, semi-logarithmic, Cole-Cole and user define.

IP display: Chargeability values, Resistivity values and IP decay curves can be displayed in real time. The GRX8-32 can be used for monitoring the noise level and checking the primary voltage waveform.

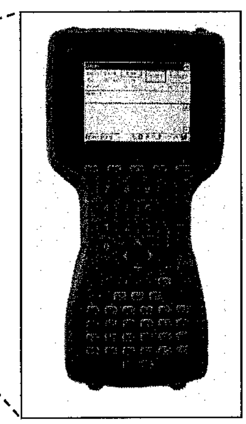
Internal memory: The memory of 64 megabytes can store 64,000 readings. Each reading totalizes one kilobyte and includes the full set of parameters characterizing the measurements on 8 channels. The data is stored in flash memories not requiring any lithium battery for safeguard. The memory can hold many days worth of data. It also stores fullwave form of the signal at each electrode for post-treatment.

Features:

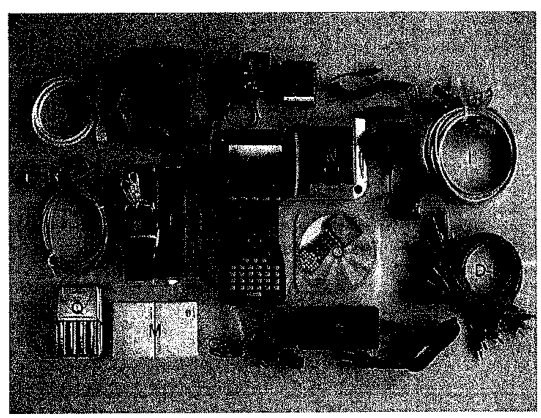
- 8 channels expandable to 16, 24 or 32
- Reads up to 32 ch. simultaneously in poles or dipoles configuration
- PDA menu-driven software / simple to use
- 32 channels configuration allows 3D Survey: 4 lines X 8 channels, 2 lines X 16 channels or 1 line X 32 channels
- Link to a PDA by Bluetooth or RS-232 port
- Real-time data and automatic data stacking
- Self-test diagnostic
- Screen-graphics: decay curves, resistivity, chargeability
- Automatic SP compensation and gain setting
- 20 programmable chargeability windows
- Survey capabilities: Resistivity and Time domain IP
- One 24 bit A/D converter per channel
- Gain from 1 to 1,000,000,000 (10^8)
- Shock resistant, portable and environmentally sealed



GDD IP Receiver model GRx8-32



PDA included with GRX8-32 Standard Juniper - Allegro CX mobile PDA

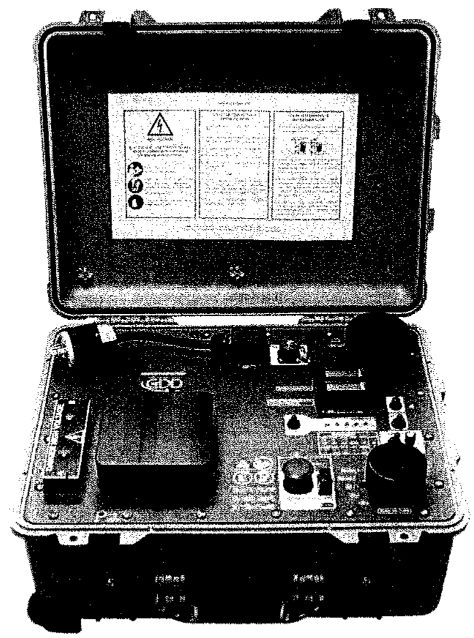


Components included with GDD IP Receiver GRx8-32

IP Transmitter

Model TxII
5000W-2400V-15A

Instruction Manual



INSTRUMENTATION GDD INC.

860 boul. de la Chaudière, suite 200
Québec (Qc), Canada, G1X 4B7
Tel.: +1 (418) 877-4249
Fax: +1 (418) 877-4054
E-Mail: gdd@gdd.ca
Web site: www.gdd.ca

6. MASTER / SLAVE MODE

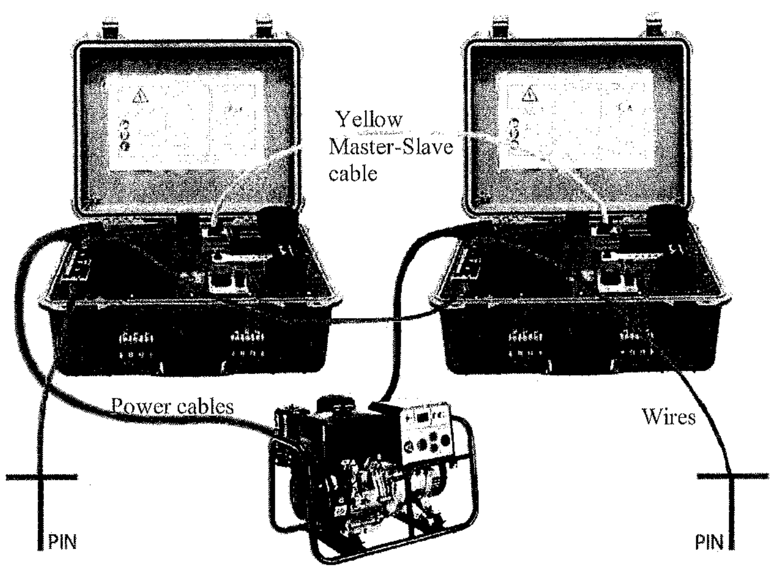
Here are the basic steps for a Master/Slave operation of the TxII:

1. Connect the yellow synchronization cable (Master/Slave) to the transmitters. The Master/Slave cable terminations are different: one is labeled *MASTER* and the other one *SLAVE*. The transmitter is *MASTER* or *SLAVE* according to the termination of the cable connected on its interface. The *MASTER* and *SLAVE* LEDs indicate the mode of each transmitter. (see figure 2, yellow line)

2. Connect an insulated wire between the terminal (A) of one transmitter and the terminal (B) of the other one. (see figure 2, blue line)

3. Connect the two power cables from the transmitters to the generator. (see figure 2, red lines)

4. Drive the electrodes into the ground and connect them to the unused terminals (A) and (B) by using insulated wires. (see figure 2, blue lines)



9. SPECIFICATIONS

Size :	TxII-5000W with a blue carrying case: 34 x 52 x 76 cm TxII-5000W only: 26 x 45 x 55 cm
Weight :	TxII-5000W with a blue carrying case: ~ 58 kg TxII-5000W only: ~ 40 kg
Operating Temperature :	-40°C to 65°C (-40°F to 150°F)
Time Base:	2 s ON+, 2 s OFF, 2 s ON- DC, 1, 2, 4, 8 or 16 s
Output current :	0.030A to 15A (normal operation) 0.0A to 15A (cancel open loop) Maximum of 7.5A in DC mode
Rated Output Voltage :	150V to 2400V Up to 4800V in a master/slave configuration
LCD Display :	Output current, 0.001A resolution Output power Ground resistance (when the transmitter is turned off)
Power source :	220-240V / 50-60Hz