MANICOUAGAN MINERALS INC.

MOUCHALAGANE PROJECT

WORK REPORT OF 2007 (PHASE II) AND 2008 (PHASE III) EXPLORATION PROGRAMS, MOUCHALAGANE PROPERTY, QUEBEC

(NTS map-sheets 23C/03, 04, 05, 06, 23D/01 and 08)

VOLUME 1 OF 4

François Bissonnette, P. Geo	**Manicouagan Minerals Inc.**
Charles Perry, P. Eng	**Manicouagan Minerals Inc.**
Alain Berclaz, M.Sc., P. Geo	**ABGéoconseil**
Bruce W. Mackie, P. Geo	**B Mackie Geological Consulting Services**

March 31st, 2009

SUMMARY

In 2007 and 2008, Manicouagan Minerals Inc. ("MAM") continued exploration work on its 100% owned Mouchalagane Project, which is located approximately 350 km northwest of the city of Baie-Comeau on the north shore of the St-Lawrence River. The Manicouagan Project presently consists of 344 non-contiguous claims distributed in five blocks covering an area of approximately 182 km^2, underlying six (6), 1 : 50 000-scale national topographic sheets (23C/03, 04, 05, 06, 23D/01 and 08).

This report covers exploration work carried out on the Mouchalagane Project by MAM in 2007 (Phase II) and 2008 (Phase III) including an airborne geophysical survey, Horizontal Loop Electromagnetic ('HLEM") and ground magnetic surveys, as well as prospecting, geological mapping, soil geochemical sampling and diamond drilling. Detailed reports covering both the airborne (Aeroquest) and ground (Geophysique TMC, 2007 and Geosig, 2008) surveys are covered under separate reports. A report covering the work carried out by MAM in 2006 has also previously been filed. The majority of work carried out to date on the Mouchalagane Project has been on the Main Mouchalagane Claim Group (referred to here after as the Mouchalagane Property).

The Mouchalagane Project is located in the Parautochtonous Belt, in the eastern central part of the Grenville Province of Quebec. The property is part of the Gagnon Terrane composed of tectonically reworked Archean lithologies of the Opatica Subprovince of the Superior Province. The property is dominantly underlain by metabasalts, metagabbros, and ultramafic intrusive rocks (metaperidotites, pyroxenites) as well as lesser amounts of felsic metavolcanic rocks and metasediments.

The primary exploration target on the Mouchalagane Property is for platinum group metals (platinum-Pt, palladium-Pd, rhodium-Rh and ruthenium-Ru) enriched nickel, copper magmatic sulphide deposits. The project may also have the potential to host volcanogenic massive sulphide and/or lode gold mineralization.

The 2007 exploration programs have successfully indentified three areas of nickel, copper and platinum group element ("Ni-Cu-PGE") mineralization (Bob and Bob-East, Feu/Dernière Chance and Mountain-Front (DDH MCH-07-20+21) located approximately 600 meters west of Feu/Dernière Chance). These mineralized zones are intimately associated with ultramafic flows or sills.

Highlights of the 20007 and 2008 exploration work carried out by Manicouagan Minerals Inc. include :
1) the completion of a 4 327 kilometers AeroTEM II Airborne Geophysical Survey over the entire Mouchalagane Property as well as 135.6 kilometers of ground HLEM and 151.8 kilometers of magnetometer surveying over portions of the Main and West claim blocks.
2) completion of 152 kilometers of line cutting over 13 grids.
3) completion of thirty four (34) diamond drill holes in 2007 (MCH-07-01 to MCH-07-34) totaling 2 957 meters and ten (10) diamond drill holes in 2008 (MCH-08-01 to MCH-08-10) totaling 1 770 meters. Eighteen (18) of these holes were drilled on the Bob and Bob-East Showings; Seven (7) holes were drilled to test the Feu and Dernière Chance Showings and nearby HLEM conductors, three (3) holes were drilled on the Mouche Showing, while the remaining holes tested various HLEM Conductors on the Mouchalagane main grid.
4) the sampling and assays of 493 bedrock grab rocks, and 1 259 soil samples.
5) limited ground follow-up of priority airborne EM targets lead to the discovery of a new Ni-Cu-Co occurrences (**CP-08-079** on grid MCHM-C02) and a Cu-Co occurrences (Carl on grid MCHM-C03). Several other priority airborne EM targets on Claim Blocks West (B), Main (C) and East (F) remain to be followed-up.

Nickel, Copper and Platinum Group Element Mineralization
Surface mineralization at the Bob and Bob-East Showings returned: (*i*) grab samples assaying up to 2.68% Ni, 6.99% Cu and 16.62 g/t Pd+Pt (4.12 g/t Pt + 12.50 g/t Pd) at the Bob Showing and 2.34% Ni, 0.49% Cu and 6.87 g/t Pd+Pt (5.28 g/t Pt + 1.59 g/t Pd) from Bob-East; (*ii*) channel samples assayed up to 2.44% Ni, 0.74% Cu and 17.03 g/t Pd+Pt (3.28 g/t Pt + 13.75 g/t Pd) over 1.94 meters (channel sample Bob-13) and 2.98% Ni, 0.18% Cu and 8.86 g/t Pd+Pt (3.04 g/t Pt + 5.82 g/t Pd) over 1.67 meters (channel sample Bob East-8).

Drilling at the Bob and Bob East Ni-Cu-PGE Showings was successful in extending the known Ni-Cu-PGE mineralization for approximately 200 meters along strike and to a depth of about 90 meters. The mineralization

remains open partially at depth and partially along strike. Drill intercepts from the 2007 and 2008 drillings included: hole MCH-08-02 which intersected 0.89% Ni, 0.28% Cu, 0.96 g/t Pt and 1.64 g/t Pd over 6.47 m; including 1.00% Ni, 0.36% Cu, 1.80 g/t Pt and 2.31 g/t Pd over 2.11 m and hole MCH-07-17 which assayed 1.78% Ni, 0.49% Cu, 2.11 g/t Pt and 6.47 g/t Pd over 2.04 m.

Selected drill core samples from the Bob Ni-Cu-PGE Prospect that were analyzed for the complete suite of Platinum Group Elements (PGE) returned significant concentrations of rhodium-Rh and ruthenium-Ru in addition to the significant results included sample 263662 (DDH MCH-08-04) that assayed 1 730 ppb Rh and 2 630 ppb Ru.

Drilling at the Feu and Dernière Chance Showing was successful in extending the known surface Ni-Cu-PGE mineralization to a depth of approximately 40 m. At Dernière Chance, a consolidated grab sample assayed 0.78% Ni, 11.7% Cu and 2.54 g/t Pd+Pt (0.30 g/t Pt+ 2.24 g/t Pd). Grab samples assayed from the Feu showing included 1.15% Ni, 2.15% Cu and 2.73 Pd+Pt (0.67 g/t Pt + 2.06 g/t Pd). The best channel sample assay returned 3.21% Ni, 2.33% Cu and 29.60 g/t Pd+Pt (3.7 g/t Pt + 25.90 g/t Pd) over 0.5 m (Dernière Chance channel sample No. 8). Assay results from the two holes drilled beneath the Dernière Chance Showing returned 0.90% Ni, 850 ppm Cu, 0.85 g/t Pd+Pt (0.10 g/t Pt + 0.75 g/t Pd) and 810 ppm cobalt ("Co") over 0.21 m (MCH-07-09) and 1.04% Ni, 0.47% Cu and 0.84 g/t Pd+Pt (0.20 g/t Pt + 0.64 g/t Pd) over 0.21 m (MCH-07-10). The mineralization remains open along strike and down dip. This area was not worked in 2008.

A new occurrence of Ni-Cu-PGE mineralization was intersected in MCH-07-20 and 21, Mountain-Front Showing, and may represent the strike extension of Dernière Chance and Feu Showings. It is located about 600 m west of Dernière Chance and Feu. The best intercept from the 2007 drilling was from hole MCH-07-20 which intersected 0.76 m grading 0.41% Ni, 0.16% Cu, 112 ppb Pt and 869 ppb Pd.

Volcanogenic massive sulphide-type polymetallic occurrences

Semi-massive to massive sulphide mineralization is almost ubiquitously associated with horizons of felsic volcanic units interlayered with paragneiss and graphite-hematite iron formations. These tuffaceous sub-units and meter-sized associated mineralization are believed to be exhalative in origin. Economic potential in zinc and copper is much lower than that in Ni-Cu-PGE but warrants to be taken in consideration. Sulphide horizons in felsic volcanic units may be an important catalytic sulphur source for Ni-Cu-PGE mineralization associated with intrusive ultramafic bodies or ultramafic flows.

Lode Gold Mineralization

Gold mineralization associated with quartz-hornblende veins at Corbeau-2 Showing confirms at depth the grab sample of 2.74 g/t Au originally recovered at surface by the vendor Jean Fortin. Gold values associated with calcite alteration in the southern part of the property (MCH-07-16) are of some interest because of the numerous occurrences of Au+As soil anomalies located in this area.

Epigenetic Cu-Ag (±Au-Zn) mineralization

Ag-Cu (±Au-Zn) mineralization encountered in hole MCH-07-25 (0.68-0.71% Cu and 2.3 g/t Ag over 0.29 m) and at the Mouche Showing in MCH-07-34 (0.2% Cu , and 1.12 g/t Ag over 1.87 m, including 0.35% Cu - 1.8 g/t Ag over 0.60 m is in lateral continuity to the "*MRNF Mouchalagane Zone*" where nine (9) samples assayed up to 2.0 g/t Ag, 3.6% As and 0.34% Zn.

Ground truthing of the AEM and HLEM conductors was performed with the aid of a Beepmat IV+, a geophysical prospecting device that detect conductive horizon at a depth of six (6) feet. Where mineralized bedrock was observed, it was exposed by manual overburden stripping and grab sampled using a hammer and chisel. During the 2007 and 2008 field programs, a total of 493 grab samples were collected and sent for analysis.

Soil samples, b-horizon, were collected to cover the multiples AEM and HLEM conductors present on the several grids of the entire property. The goals were to support prospection and to detect the presence of geochemical anomalies in the environment of the geophysical features. During 2007 and 2008 field programs, a total of 1 226 soil samples were collected and sent for analysis.

TABLE OF CONTENTS

FIGURE LIST

TABLE LIST

APPENDIX

MAPS AND SECTIONS

1.0 INTRODUCTION

The Mouchalagane Project consists of five non-contiguous claim blocks located approximately 350 km northwest of the city of Baie-Comeau on the north shore of the St-Lawrence River. The principal exploration target is for nickel, copper, and platinum group elements (platinum, palladium, rhodium and ruthenium) associated with reworked Archean ultramafic lithologies belonging to the Gagnon Terrane, part of the Grenville Geological Province.

The Mouchalagane Project is owned 100% by *Manicouagan Minerals Inc.* and presently consists of 344 contiguous claims distributed in five blocks covering an area of approximately 182 km^2, underlying six (6), 1 : 50 000-scale national topographic sheets (23C03, 04, 05, 06, 23D01 and 08).

The majority of work carried out to date on the Mouchalagane Project has been on the Main Mouchalagane Claim Group (referred to here after as the Mouchalagane Property). Except for the ground geophysical surveys carried out by Geosig in 2008 on the Western Mouchalagane Claim Group, this report restricts itself to the description of work carried out on the Mouchalagane Property.

In 2006, *Manicouagan Minerals Inc.* optioned, and has subsequently earned a 100% interest (subject to a 2% Net Smelter Royalty, three-quarters of which can be bought back for $1.0 million), certain claims that comprise the Mouchalagane Property after the discovery by the vendor of a high grade nickel, copper, and platinum group elements ("Ni, Cu, PGE") showing (Dernière Chance). Exploration work carried out, in 2006, by Manicouagan Minerals Inc. was successful in indentifying two additional zones of Ni, Cu and PGE mineralization (Bob/Bob East and Feu).

This report covers exploration work carried out on Mouchalagane Property by *Manicouagan Minerals Inc.* in 2007 (Phase II Program) and in 2008 (Phase III Program) including an airborne geophysical survey, horizontal loop electromagnetic and ground magnetic surveys, as well as geological mapping, prospecting, soil sampling and diamond drilling. Detailed reports covering both the airborne (Aeroquest) and ground (Geosig 2008 and Geophysique TMC 2007) surveys are covered under separate reports. Similarly the report of work covering Manicouagan Minerals Inc.'s 2006 exploration activities on the Mouchalagane Property is also covered under a separate report.

1.1 Location and Accessibility

The Mouchalagane property is located approximately 70 km north of the Manicouagan Crater and approximately 350 km to north-northwest of the city of Baie-Comeau on the north shore of the St-Lawrence river (**Figure 1**). The project is located in the eastern central part of the Province of Quebec between latitudes 52°05'N and 52°20'N and longitudes 69°04'W and 70°08W (**Figure 2**). The project covers portions of National Topographic Sheets (NTS) 23C/03 (Lac Salières), 23C/04 (Lac Marsac), 23C/05 (Lac à la Neige), 23C/06 (Lac Séchelles), 23D/01 (Lac Daguilhe) and 23D/08 (Lac Pariseau).

Access to the property is typically by helicopter or by charter plane. A helicopter supported base camp referred to as “Bob Camp” was established in 2006 directly on the Mouchalagane Property. Since then, in order to facilitate the use of float or ski equipped chartered aircraft (based from Lac Louise near the Manic Cinq hydro-electric complex, and/or from the Manicor Outfitter Camp located by KM336 on the all weather Provincial Road 389) a new base camp, referred to as “Hélène Camp” was erected east of the Mouchalagane Property. Field activities require helicopter support.

Figure 1 Location of Mouchalagane Project

1.2 Infrastructure, Physiography and Climate

Baie-Comeau is the major town in the area and can provides supplies, consumable and transport facilities including port and railway facilities. Baie-Comeau has an airport with daily scheduled flight to and from major cities such as Quebec City and Montreal. Gagnonville's (closed mining town) paved airstrip is located at about 100 km ESE from Hélène camp. This mint condition airstrip is accessible by Provincial Road 389 (PR-389), which runs between Labrador City, Labrador (NL) and Baie-Comeau, Quebec.

The Mouchalagane property area is characterized by a typical Laurentian topography with numerous rounded hills and depressions frequently occupied by lakes and rivers. The elevation of the highest parts of the hills is about 600-800 m above sea level.

Outcrop exposure is variable and mostly restricted to the tops of hills due to the thin but laterally extensive cover by various glacial deposits.

The Manicouagan area is characterized by cold winters and generally warm and short summers. Temperatures in January are often below -20°C while temperatures in the mid 20°C are common between June and September. Snow accumulation and freeze-up of lakes begin in November and remains until May and occasionally early June.

1.3 Personnel

Field operations were supervised by the MAM exploration team, with the logistic support from Ressources Manicor Inc. The 2007 and 2008 exploration field program was supervised by François Bissonnette, P.Geo with, in 2008, the assistance of geologists: Alain Berclaz, M.Sc., P.Geo and Charles Perry, P.Eng. Exploration technicians and labour included: Daniel Beaulieu, Dominique Bourgouin, Serge Caron, Estelle Côté, Roger Dufour, Jean Fortin, Richard Fournier, Langis Henley, Samuel Jomphe, Robin Lavoie, Normand Lefrançois, Johnny Lévesque, Linda Savoie and Carl Sirois. All of these individuals satisfactorily carried out their respective duties.

2.0 GEOLOGY

2.1 Regional Geology

The Mouchalagane Property lies within the central Grenville Province of the south-eastern Canadian Shield. The Grenville Province has been subdivided by Rivers *et al*. (1989) into Parautochtonous and Allochtonous Belts. The Parautochtonous Belt is the lowest structural terrane and can be correlated with less deformed and metamorphosed terranes located in the Archean Superior Province, northwest of the Grenville Front. The Allochtonous belt structurally overlies the Parautochtonous Belt. It is interpreted as extensively deformed and metamorphosed terrane far-traveled during the Grenvillian orogeny (1190-980 Ma). With respect to the metamorphic history, Rivers *et al*. (1989) has subdivided the Allochtonous Belt into the Allochtonous Polycyclic and the Allochtonous Monocyclic belts. All these belts are separated by fault zones or major thrust zones.

The Manicouagan area exposes a complete geological cross-section, from the Parautochtonous Belt in the northwest to the interior of the hinterland to the southeast (Allochtonous Belt) of the Grenville Province (**Figure 2**). This cross-section is comprised in four contrasting lithotectonic packages (**Figure 3**) :

(1) The structurally lowest Parautochtonous Gagnon Terrane is a Paleoproterozoic continental margin sequence that was deposited unconformably on the Archean basement of the Superior Province, and that was reworked with its Archean basement (at ca. 1.00 Ga) into a fold-thrust and nappe belt, with metamorphic grade increasing southwards from greenschist to upper amphibolites and locally eclogite facies (Rivers *et al*., 1993; Eaton *et al*., 1995).

(2) The Gagnon Terrane is overlain to the southeast by the Manicouagan Imbricate Zone (MIZ), a 1500 km^2 lobate assembly of imbricated Mesoproterozoic rocks (Lelukuau and Tschenukutish Terranes) with a distinctive high P-T Ottawan metamorphic overprint acquired between 1.05 and 1.02 Ga (Indares and Dunning, 2004). The MIZ is correlated to the east with the Molson Lake Terrane.

(3) The structurally higher hinterland comprise the Berthé Terrane, an assembly of migmatites and orthogneisses wrapping the Berthé Anorthosite (of unknown age) to the south and the Banded Complex (1.40 to 1.22 Ga) as well as the Gabriel Complex (1.23 to 1.14 Ga) to the north; and

(4) the Hart Jaune Terrane which consists of mesoproterozoic anorthosite bodies (1.50 Ga; Gobeil *et al*., 1996), abundant two pyroxene mafic granulites (1.47 Ga; Hynes *et al*., 2000), subordinate calc-silicate and metapelite rafts, and gabbro sills (Gobeil, 1997a,b,c; Hynes *et al*., 2000).

The Mouchalagane Property is mainly situated within the Gagnon Terrane of the Parautochtonous belt of the Grenville Province. The Gagnon Terrane in the Mouchalagane area is interpreted to represent tectonically reworked supracrustal rocks and Archean rocks of the Opatica sub-province (Lamothe *et al*., 1998) and is dominantly composed of quartz-muscovite-garnet paragneiss, metabasalt and metagabbro, metaperidotite and metapyroxenite (**Figures 2 and 3**).

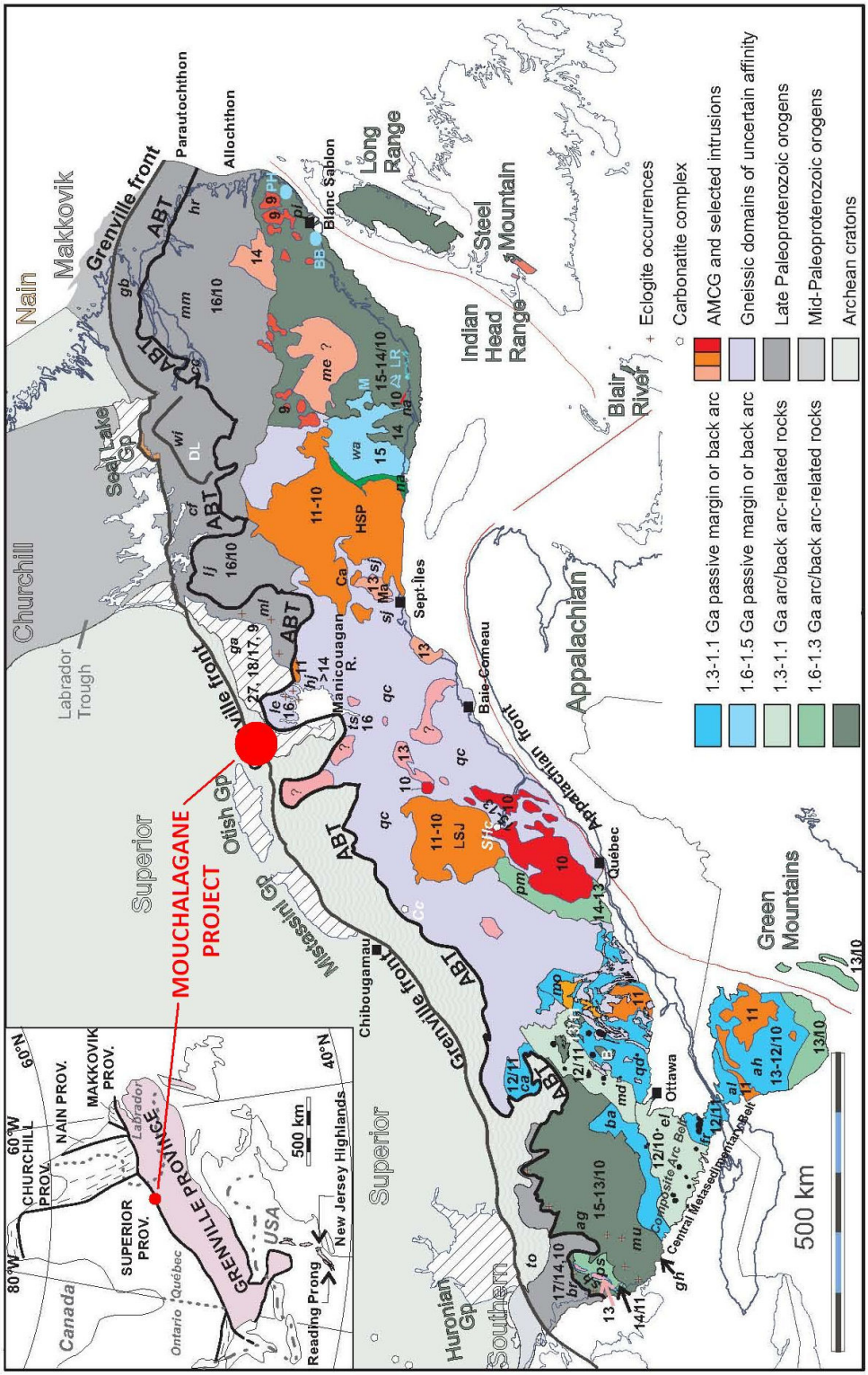

FIGURE 1. Geological subdivisions of the Grenville Province with deposition and intrusion age followed by metamorphic age in geon time scale. Terranes (t.) and domains (d.): ag, Algonquin d.; ah, Adirondack Highlands; al, Adirondack Lowlands; ba, Bancroft t.; br, Britt d.; ca, Cabonga t.; cc, Cape Caribou River allochthon; cf, Churchill Falls t.; el, Elzevir t.; fr, Frontenac t.; ga, Gagnon t.; gb, Groswater Bay t.; gh, Go Home d.; hj, Hart Jaune t.; hr, Hawke River t.; le, Lelukuau t.; lj, Lake Joseph t.; M, Musquaro Lake extension of wa; md, marble-rich d.; me, Mécatina d.; ml, Molson Lake t.; mm, Mealy Mountains t.; mo, Morin t.; mu, Muskoka d.; na, Natashquan Domain; PH, Pitts Harbour Group; pi, Pinware t.; pm, Portneuf-Mauricie d. including the Montauban Group; ps, Parry Sound d.; qc, Quebecia; qd, quartzite-rich d.; sh, Shawanaga d.; to, Tomiko t.; ts, Tshenukutish t.; wa, Wakeham Group; wi, Wilson Lake t. Supracrustal units with hydrothermal alteration zones discussed in text: B, Bondy Gneiss Complex; BB, Baie de Brador assemblage; DL, Disappointment Lake paragneiss; LR, La Romaine Supracrustal Belt. Potassic alkaline plutons of the Kensington-Skootamatta suite are the plutons in black in the Central Metasedimentary Belt. Cc, Crevier carbonatite; Shc, Saint-Honoré carbonatite.

Figure 2 Geology of the Grenville Province (from Corriveau *et al*., 2007)

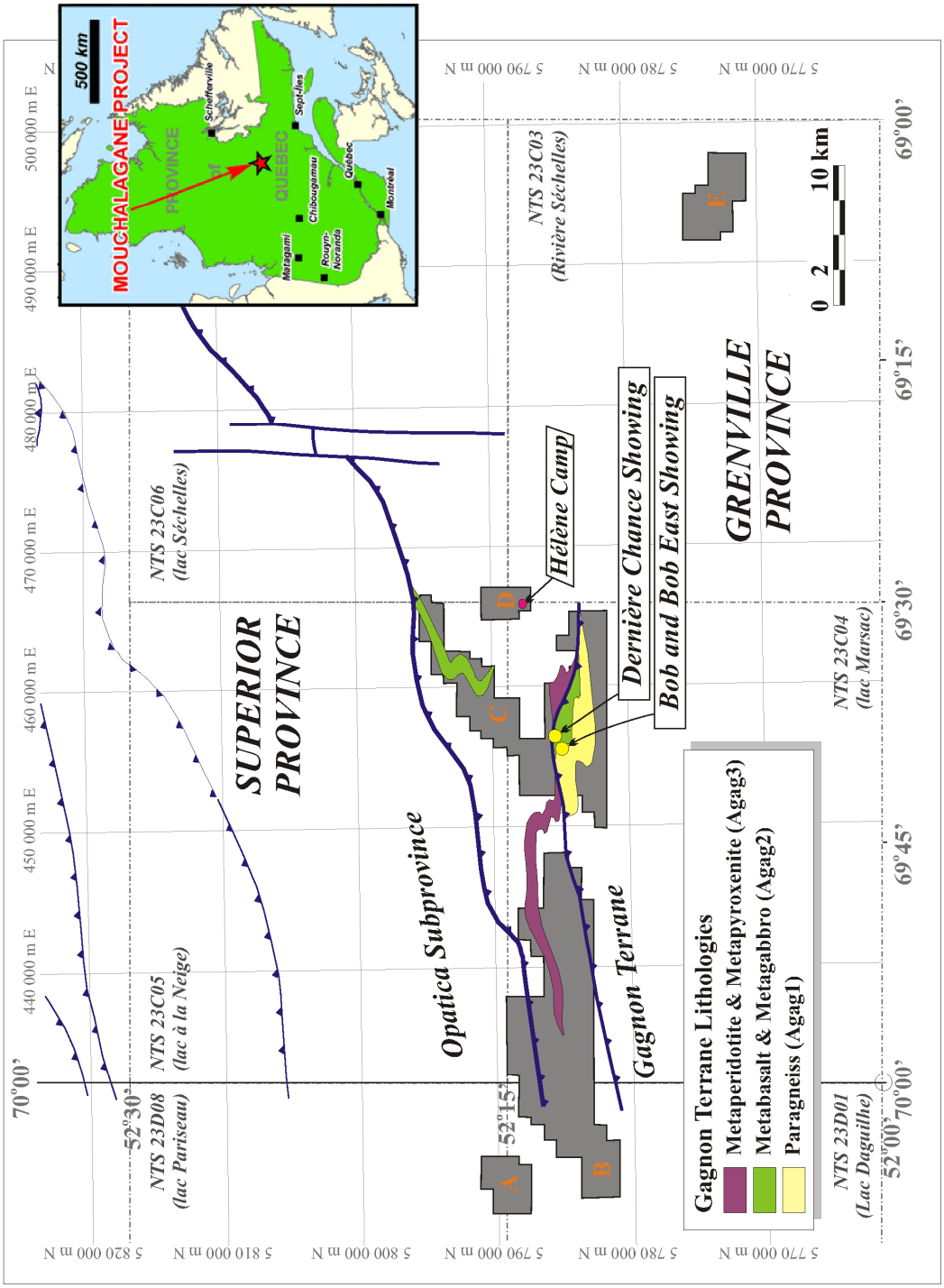

Figure 3 Geology of the Mouchalagane Area

2.2 Property Geology

Property scale geological mapping (**Figure 4, Map 1 in Volume 3**) was completed over a 5 km^2 cut line grid in the immediate area of the Ni-Cu-PGE showings that were acquired in early 2006. The following discussions in this section are taken largely verbatim from internal reports by *(i)* Walter V. Peredery, Ph.D. (Peredery, December 18, 2006) who examined a number of sulphide showings - Bob and Dernière Chance in particular - in July, 2006; and by *(ii)* Lucy Thompson, Ph.D. (Thompson, March 30, 2007) who mapped the property during the summer and early autumn of 2006. Both Peredery and Thompson's discussions are supported by thin sections (Peredery and Thompson) and polished sections (Peredery) of samples collected during their field examinations. In Spring of 2008, petrographic description, supported by Micro-XRF analysis, was performed, at 'Université du Québec à Chicoutimi', on 4 pieces of core from ddh MCH-07-17 mineralized zone. The observations led to the identification of Gersdorffite (NiAsS) (Hounsell and Savard, 2008).

2.2.1 Lithologies

The Mouchalagane Complex (MC) is referred herein to designate all volcano-sedimentary and mafic to ultramafic plutonic rocks studied in the Mouchalagane Property.

Volcanic rocks of the MC are dominated by basaltic units interlayered with meter-scale, ultramafic and metagabbroic rocks, felsic volcanic horizons as well as sedimentary rocks. Mafic volcanic rocks may be subdivided in two main facies: (*i*) dominant, heterogeneous, highly altered, gneissic amphibolites; and (*ii*) homogeneously laminated to massive amphibolites.

Layered amphibolites are highly altered in hornblende-biotite-garnet. The proportion of hornblende commonly dominates over biotite and garnet. The units are metamorphosed at lower- to mid-amphibolite facies. Of some interest is a section of liestwanite occurring and to the north of the Dernière Chance Showing, and encountered over a 21.60 meters thickness in diamond drill hole MCH-07-26. This unit is composed of porphyroblastic garnets (<5 cm in size and up to 80% of the rock mode), fuchsite, calcite, sericite, actinolite/tremolite. In the homogeneously laminated, foliated to massive amphibolites, primary volcanic textures are remarkably well preserved. Crystal tuffs are dominating; aggregates of glomero-porphyritic plagioclase crystal and mafic lapilli tuffs are again locally well preserved.

Gabbroic units occur interlayered within volcanic and ultramafic units. These plutonic rocks are commonly homogeneous and range from melanocratic and foliated to isotropic with ophitic texture. Thicker layers exhibit chilled margins.

In outcrop the metabasalt and metagabbroic units are manifested by fine, to medium, to coarse grained, generally schistose, green, amphibole-rich rocks. Pillow structures, are usually well preserved, indicating a sub-marine origin for at least some of these lithologies. Coarse grained, less foliated and more massive amphibole-rich rocks may represent gabbroic, intrusive sills or dykes that fed the basalt lava flows or the interior of relatively thick flows. The mineralogy of both the metabasaltic and metagabbroic lithologies is dominated by a blue-green to green-yellow, pleochroic amphibole.

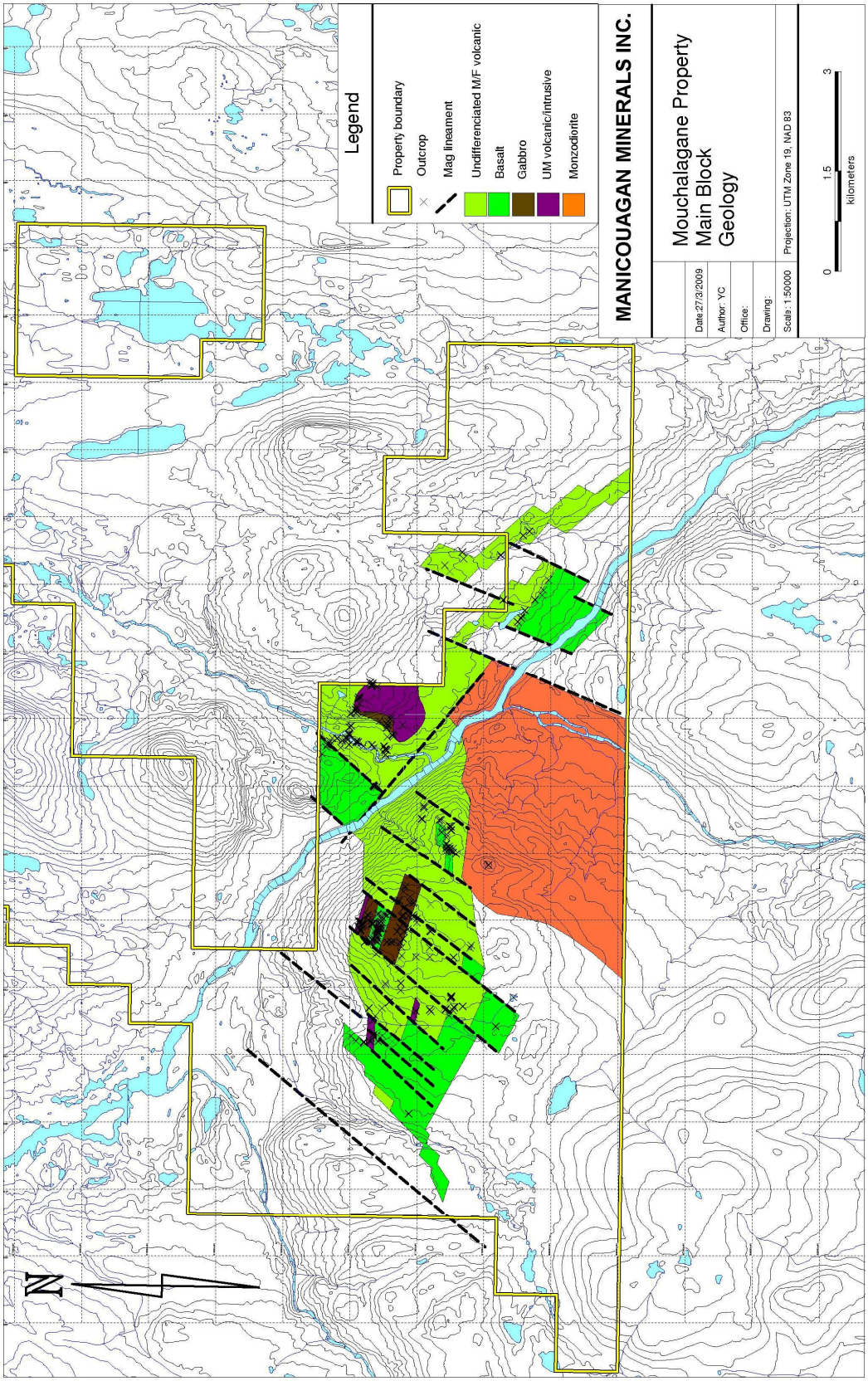

Figure 4 Mouchalagane Main Block geology map

Garnetiferous horizons are commonly observed; individual garnets attaining up to 2-3 cm in size and occasionally delineating the rim of pillows. Other minerals present include quartz (typically unstrained and recrystallized) and zoisite +/- opaques and titanite. Minor plagioclase was observed within the metagabbroic unit on the top of the hill in the NE sector of the property. The absence of plagioclase and ubiquitous presence of recrystallized quartz indicates widespread silicification of the lithologies. Where the amphibolite is observed to have undergone extensive recrystallization to tremolite/actinolite and chlorite, calcite is typically present.

Ultramafic rocks are pale green to grey on a fresh surface and are highly altered to talc and serpentine and locally have been totally transformed into soap stones. Coarse porphyroclasts of muscovite/talc and non-pleochroic, rhombs and needles of tremolite appear to be post-tectonic. Fine opaques are disseminated throughout. This unit is interpreted as having an ultramafic protolith. At the Bob Showing, the ultramafic unit that hosts much of the Ni-Cu-PGE mineralization comprised almost entirely of tremolite amphibole with minor chlorite and disseminated opaques.

Felsic volcanic units are interpreted to be predominantly pyroclastic in origin and are abundant throughout the MC. Felsic crystal and lapilli tuffs are dominating and often grade out into dark grey coloured ash tuffs with minor oxide-facies iron formations, which could be exhalative in origin. Felsic tuffs are quartzo-feldspathic with biotite as the dominant mafic mineral. They have a typical lustrated aspect because of the pervasive presence of sericite as an alteration mineral. Ash tuffs are aphanitic and closely interlayered with non magnetic oxide-facies iron formation. Iron formations, composed of hematite, are usually graphitic, and almost always contain semi-massive to massive sulphide (pyrrhotite with trace sphalerite) mineralization.

Sedimentary units are dominated by quartzo-feldspathic paragneisses (greywackes) accompanied by more aluminous layers (metapelites/mudstones). Greywackes show mineral composition similar to felsic crystal/lapilli tuffs and are suggesting they are in part epiclastic in origin. Metapelites/mudstones are dominantly biotite-rich and poikilitic garnet-bearing. Sedimentary structures such as graded-bedding or cross-beddings are locally well preserved.

Metasedimentary units can range from a few centimeters to several hundreds of meters in thickness and are usually interlayered with amphibolites. They range from quartzite layers in the mid-northern sector of the property to possible iron formation at the Corbeau-2 Showing in the NE of the project. However, a several hundred meters thick metasedimentary belt, bisecting the property from east to west, is characterized by the presence of a blue/grey, very fine grained horizon, which results in a property wide, formational HLEM Conductors G and H. This blue/grey, finely laminated unit comprises very fine flakes of graphite and finely disseminated opaques (probably pyrrhotite), interlaminated with slightly coarser biotite, quartz and chlorite +/- muscovite/talc layers. Other metasedimentary assemblages include quartz, biotite, garnet, chlorite schists and quartz, muscovite schists with green fuchsitic horizons.

2.2.2 Metamorphism

Metamorphism of the MC is typical of low-pressure and relatively high-temperature type recognized in Archean greenstone belts in northern Quebec. Rocks in the MC contain metamorphic assemblages dominated by amphibole with the presence of garnet indicates that the rocks were subject to mid-amphibolite facies metamorphism. However, the presence of chlorite and the recrystallization of the blue/green amphibole to a weakly- or non-pleochroic tremolite-actinolite amphibole indicate retrogression to greenschist facies.

2.2.3 Structure

There is no systematic structural analysis reported for the area but field evidence, such as the presence of cross-folds in a few localities, suggest at least two periods of deformation. Crenulations are well developed in some of the metasedimentary mica-bearing units, which, along with the meta-ultramafic layers, appear to be more intensely deformed than the amphibolite. Trenching of the Bob Showing and the discovery of several key, field outcrops indicate that the structure of the property is quite complex and was not easy to observe on most exposures. A systematic structural analysis of the property would aid in interpretation and targeting the subsurface extension of the mineralized horizons. In general, the schistosity trends broadly east-west and dips to the south. Folding also appears to occur about an east-west axis, with plunges both to the east and west. Slickensides are associated with metasediments and indicate evidence of thrusting or normal movement of an overturned sequence.

2.2.4 Mineralization

Known PGE-Ni-Cu occurrences discovered to date on the Mouchalagane Property include the Bob, Bob East, Feu, Dernière Chance as well as Mouche Showings. PGE-Ni-Cu occurrences at Mouchalagane are usually associated with ultramafic lithologies in contact with sulphidic paragneisses. They are unusual occurrences due to their high PGE values and highly variable palladium/platinum ratios.

Mineralization at Bob Showing has been traced by drilling for a total strike length of approximately 200 meters over widths of up to 6.5 meters. The Bob Showing is directly associated with two, east striking, weak, third priority, short strike length electro-magnetic (HLEM) conductors. Of potential significance is the presence of a strong, first priority, east striking, 400 meters long EM conductor is situated just 200 meters south of the Bob Showing which remains untested or explained. The Bob-East Showing is located 45 meters grid east of the main Bob Showing, returned outstanding assay results further substantiating the significance of the Bob Showing and again is associated with a weak electromagnetic conductor. Both occurrences are interpreted to occur along the contact of an ultramafic flow or sill and paragneisses.

The Feu and Dernière Chance Showings are located within ultramafic volcanic rocks near a metasedimentary contact. Mineralization consists of discontinuous lenses of massive

pyrrhotite +/- chalcopyrite up to 0.6 meter in width and 1.0 meter in length. These occurrences have not been as extensively drill tested as the Bob and Bob-East Prospects.

Polished section and detailed hand sample examination studies reveal that sulphides include disseminated and massive varieties and include fine grained recrystallized and coarse grained varieties. Fine-grained sulphides are recrystallized as are enclosing host rocks. Coarse-grained varieties likely consist of relic primary sulphides that escaped deformation as well as sulphides that were totally recrystallized in the waning stages of deformation. The latter type has hexagonal high temperature pyrrhotite. Mineralogically the sulphide assemblage is typical for magmatic sulphides consisting of pyrrhotite-chalcopyrite-pentlandite assemblages.

Coarse grained disseminated blebs and veins of chalcopyrite that are oriented sub parallel to the long axes of the sulphide lenses suggest that during deformation the copper sulphide fluid (chalcopyrite) was more mobile than the main mass of pyrrhotite in the sulphide lenses.

Minor fine grained magnetite occurs in some massive sulphides. Significant amounts of gersdorffite occur locally and are also associated with hexagonal coarse grained pyrrhotite which carries only minor amounts of chalcopyrite and pentlandite. Gersdorffite (NiAsS) generally occurs as a hydrothermal vein mineral along with other nickel sulphides, associated with platinum-group minerals (PGM). At Mouchalagane, it is likely formed by high temperature recrystallization during the waning stages of regional scale deformation of the intrusion.

The distribution of EM anomalies throughout the northern part of the MIC suggests that these anomalies are likely attributed to massive sulphide lenses. Furthermore the deformed character of the MIC suggests that these lenses may be part of a larger sulphide body somewhere within the intrusive complex.

Elsewhere on the Mouchalagane Property the dominant sulphide mineralization pyrrhotite, both coarse grained and finely disseminated. Minor to trace chalcopyrite is also locally observed invariably associated with the pyrrhotite mineralization. The pyrrhotite mineralization appears to occur in at least three distinct environments. *(i)* The first is associated with quartz veining. Here, massive, coarse pyrrhotite is associated with the contact of, and occurs within a quartz vein that cuts fine grained amphibolite. Massive, fine grained pyrrhotite is also observed within the amphibolite. Assays reveal little nickel, copper or PGE associated with this occurrence. *(ii)* Finely disseminated pyrrhotite within the laminated, blue/grey, graphitic meta-mudstones also contains no appreciable nickel, copper or PGE. *(iii)* The third and highest grade type of pyrrhotite mineralization occurs within the amphibolites and appears to be associated with the close proximity of the meta-ultramafic units. In the latter case silicification, carbonatization and chloritization of the amphibolite is commonly observed. The pyrrhotite forms fine laminations to thicker, massive layers, which parallel the schistosity within the amphibolite and may be concentrated in fold hinges. Chalcopyrite

is both finely disseminated within the pyrrhotite rich layers and laminations and also forms thin, mm-thick veins, cross-cutting the laminations.

2.3 Economic Geology

The main exploration target on the Mouchalagane Property is for magmatic and or hydrothermal nickel, copper and PGE deposits. The property also may have some limited potential to host volcanogenic massive sulphide ("VMS") and lode gold mineralization.

2.3.1 PGE-Ni-Cu Deposit Types

Economically viable deposits of Ni-Cu-PGE associated with mafic and ultramafic rocks are mainly subdivided in three distinct types: *(i)* Ni-Cu-PGE mineralization associated with ultramafic rocks (komatiite, peridotite) in volcano-sedimentary sequences; *(ii)* Ni-Cu-PGE mineralization associated with mafic and ultramafic (pyroxenite, peridotite) intrusions; as well as *(iii)* hydrothermal type Ni-Cu-PGE mineralization, dominantly enriched in PGE and proximal to magmatic deposits and associated with anomalous contents in Au-Ag.

Most economic Ni-Cu-PGE mineralization in volcano-sedimentary sequences is magmatic in origin and associated with pristine komatiitic (magnesium-rich) bodies (komatiite, peridotite) as volcanic flows and related sill-like intrusions. Komatiitic ore deposits are world-widely distributed, but mainly in Neoarchean greenstone belts (ex. Kambalda camp or Mt. Keith deposit in Australia; Langmuir and Redstone mines in Ontario) and Paleoproterozoic terranes such as Raglan Horizon in Ungava - Cape Smith belt in northern Quebec (Production and reserve : Raglan Mine : 35 Mt at 2.8% Ni - 0.8% Cu – 3 g/t PGE; Nunavik Mine : 11.3 Mt at 1.0% Ni – 1.1% Cu – 2.4 g/t PGE) or Thompson Belt in northern Manitoba (Production and reserve : Thompson Mine : 140 Mt at 2.5% Ni – 0.2% Cu).

Most economic Ni-Cu-PGE deposits associated with mafic and ultramafic (pyroxenite, peridotite) intrusions occur almost exclusively at the base of their associated mafic igneous bodies and except for the Sudbury orebodies are restricted to "conduits" including thermal erosion channels (Kambalda), conduits feeding extrusive magmatism (Noril'sk) or feeders to a large mafic intrusion (Jinchuan) or within a feeder linking a lower reaction chamber with an overlying intrusive (Voisey's Bay). Two notable Canadian examples to the above are the Montcalm and Lynn Lake Ni-Cu Deposits which are interpreted to have been tectonically emplaced into their current locations from a predominantly pyroxenitic host during the late stages of consolidation.

Most economic hydrothermal type Ni-Cu-PGE deposits such as Lac-des-Iles Deposit in Ontario (Canada) is described as being a very dynamic system and the product of the multiple stages of intrusion, alteration and mineralization. Mineralization sequence is interpreted as being initiated by energetic injection of sulfide and PGE enriched magma into a partially crystallized chamber, creating intrusive breccias, as a result of abundance of dissolved volatiles in the magma.

Ultramafic bodies in the Mouchalagane Complex (MC) contain high MgO contents (26.40 to 29.24%) and are related to peridotitic komatiite-type. The relatively high contents in Ni (1-3%) and the intrusive nature of the ultramafic bodies would classify the MC Ni-Cu-PGE mineralization as "Class IIIB - group 2" (medium-sized fairly high grade Ni deposits associated with komatiites and related to intrusive bodies) according to Naldrett (1984) classification.

Sulphide mineralization in MC is dominated by pyrrhotite associated with minor chalcopyrite, pentlandite and gersdorffite. The presence and proportion of gersdorffite is apparently the phase controlling the PGE concentrations. The relationship between relatively low Pt/(Pd+Pt) ratios with low Cu/(Cu+Ni) ratios confirms the komatiite-like nature of the mineralization.

Infiltration of sulphide at the interface between (basal?) ultramafic units and adjacent basaltic or felsic volcanic units could have been operative through a syn-kinematic and syn-magmatic filter pressing process. Sulphide mineralization could be remobilized by deformation and concentrated in complex F1-F2 fold hinges. Post-depositional deformation and metamorphic processes could have also caused liberation, remobilization and redeposition of Ni-Cu-PGE within the massive sulphides.

Source of sulphidic wallrocks are recognized to play an important role in sulphide saturation of magma. Addition of sulphur to ultramafic magma by incorporation of older sulphide horizons - such as those believed to be exhalative in origin and associated with felsic volcanic flows or exhalites – could have produced sulphide saturation in ultramafic magma and favor Ni-Cu-PGE suphide precipitation. Assimilation of silicates by the intrusive ultramafic magma increases the silica content of the ultramafic magma and has a same effect of decrease of the solubility of sulphide of magma, thereby triggering sulphide saturation.

Recognition through mapping of intrusive ultramafic bodies or flows - or its geophysical signature – in contact with felsic volcanic units is thus believed to be an important part of exploration targeting.

2.3.2 Volcanogenic Massive Sulphide Deposit Types

Volcanogenic Massive Sulphide ("VMS") Deposits also known as volcanic-associated, volcanic-hosted, and volcano-sedimentary-hosted massive sulphide deposits typically occur as lenses of polymetallic (principally copper, zinc, lead, silver and gold) massive sulphide that form at or near the seafloor in submarine volcanic environments. VMS Deposits are interpreted to have formed from metal-enriched fluids associated with seafloor hydrothermal convection. Their immediate host rocks can be either volcanic or sedimentary. VMS deposits are major sources of Zn, Cu, Pb, Ag, and Au, and significant sources for Co, Sn, Se, Mn, Cd, In, Bi, Te, Ga, and Ge.

VMS Deposits are an attractive exploration target due to their polymetallic nature which can provide some security against fluctuating prices of different metals.

VMS Deposits form at, or near, the seafloor by the discharging of hot, metal-rich hydrothermal fluids. Most VMS Deposits have two components : typically there is a mound-shaped to tabular, stratabound body composed principally of massive (>40%) sulphides, contained within hydrothermally altered wall rock. These stratabound bodies are often underlain by discordant to semi-concordant stockwork veins and disseminated sulphides. The stockwork vein systems, or "pipes", are enveloped in distinctive alteration halos, which may extend into the hanging-wall strata above the VMS Deposit.

VMS Deposits have been grouped or classified by a variety of methods including their base metal content, gold content, host-rock lithologies, characteristic and alteration mineral assemblages.

On the Mouchalagane Property, particularly its northern portions, felsic volcanic units, while proportionally minor in volume, are common and ubiquitously contain disseminated to locally semi-massive to massive sulphide (pyrrhotite +/- pyrite, with trace chalcopyrite and sphalerite) mineralization especially with horizons that are interpreted to represent ash tuffs interlayered with graphite-hematite iron formations. These tuffaceous sub-units and meter-sized associated mineralization are believed to be exhalative in origin.

The potential on the Mouchalagane Property for VMS Deposits is believed to be much lower than for PGE-Ni-Cu but warrants to be taken in consideration. Several HLEM Conductors within the felsic volcanics were drilled tested in 2007 and 2008 without much encouragement. However it is worth mentioning that above sulphide bearing horizons could be an important sulphur source for the PGE-Ni-Cu mineralization associated with intrusive ultramafic bodies or ultramafic flows.

2.3.3 Lode Gold Mineralization

The Mouchalagane Property may offer some potential to host lode gold mineralization. At the Corbeau-2 Showing grab samples of 2.74 g/t Au were obtained from a minor quartz-hornblende vein. Also minor gold-arsenic mineralization associated with calcite alteration in the southern part of the property was intersected in MCH-07-16 (1.3 g/t Au over 0.95 meter).

2.3.4 Other Mineralization

Minor silver-copper (±gold-zinc) mineralization encountered in hole MCH-07-25 (0.68-0.71% Cu - 2.3 g/t Ag over 0.29 m) and at the Mouche Showing in MCH-07-34 (0.2% Cu - 1.12 g/t Ag over 1.87 m, including 0.35% Cu - 1.8 g/t Ag over 0.60 m) is the lateral continuity of the "MRNF Mouchalagane Zone" where nine (9) samples assayed up to 2.0 g/t Ag, 3.6% As, 0.34% Zn. This mineralization is late staged associated with quartz-calcite alteration.

3.0 PROPERTY STATUS

The Mouchalagane Project consists of five (5) non-contiguous groups of mining titles that can be subdivided into a Far Western Block, West Block, Main Block (referred to in this report as the Mouchalagane Property), East Block and Northern (or Camp Hélène) Block that are situated on six (6) 1 : 50 000 NTS map sheets (23C/03, 04, 05, 06, 23D/01 and 08; **Figure 5**).

The Mouchalagane Project initially consisted of 58 map designated claim cells (CDCs) covering an area of approximately 30 km^2. In April 2006, the property was purchased by Manicouagan Minerals Inc. by issuing 300,000 of its common shares to the vendor M. Jean Fortin. In the event of mineral production from the entire property, the vendor is entitled to a 2% Net Smelter Royalty (NSR) of which, 1.5% could be purchased for CDN$1,000,000 within six (6) months from a production decision. Since acquiring the original 58 CDCs, Manicouagan Minerals Inc has acquired, through map staking, an additional 435 CDC for a total of 493 map designated cells. Recently, a decision was made to relinquish 149 low priority CDC's on their renewal date of March 22nd, 2009. After this date the property will then be composed of 344 CDC, for an aggregate area of 182 km^2. All of the CDCs are registered 100% under Manicouagan Minerals Inc.

Full size CDCs are measured in geographical dimension of 0° 0’ 30”x 0° 0’ 30” (30 second by 30 second). At the latitude of the Mouchalagane Property a full size CDC has an average area of 52.78 ha.

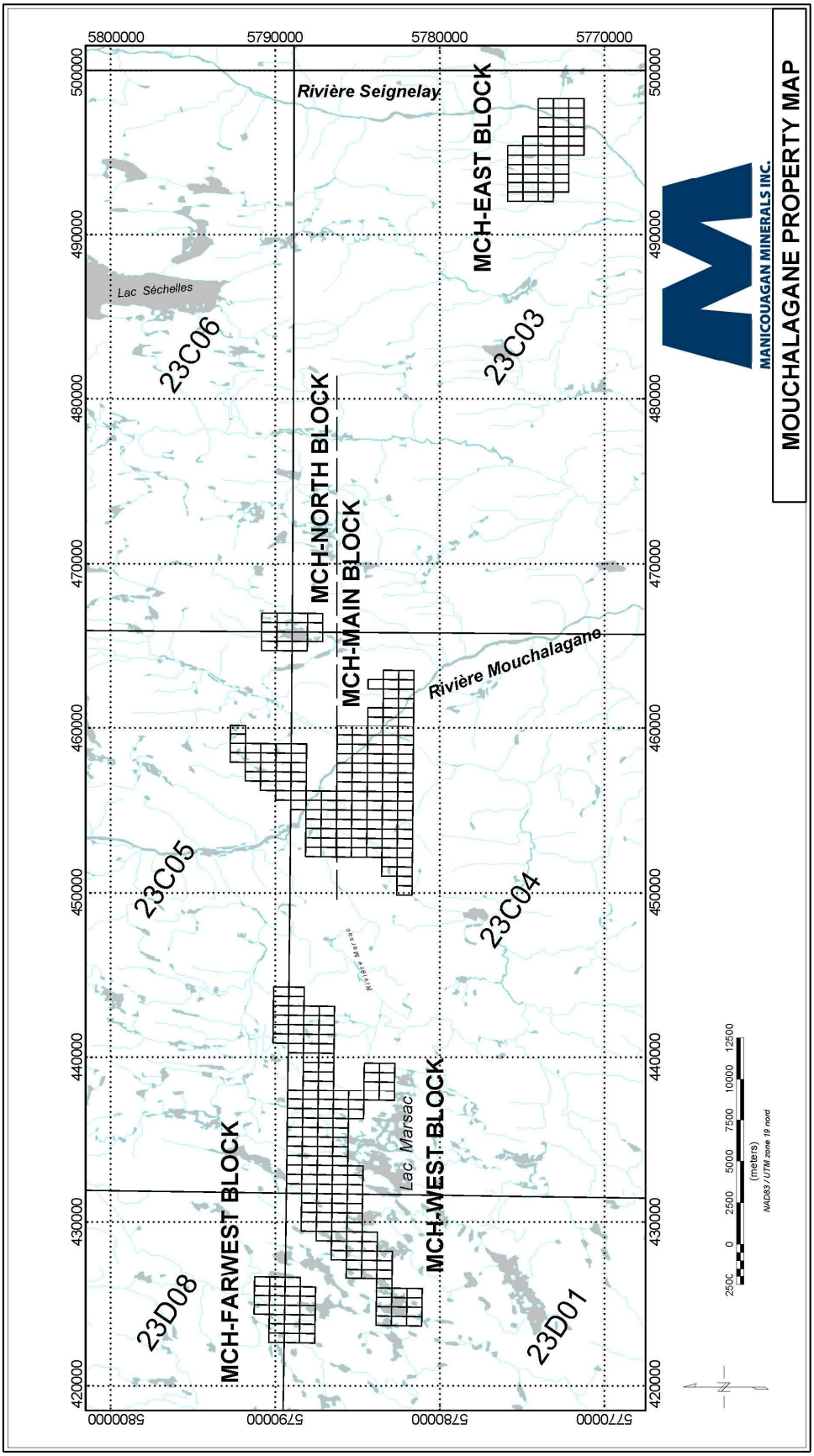

Figure 5 Mouchalagane property

4.0 PREVIOUS EXPLORATION WORK

4.1 Regional work

The first geological reconnaissance mapping in the Manicouagan area was conducted by Low *(1897)* of the Geological Survey of Canada (GSC) at the end of the 19th Century. Hammond *(1946)* briefly described the geology along the shores of Lake Mouchalagane and suggested that the apparently flat-lying igneous rocks along the inner shores were late Precambrian or Early Paleozoic in age. Major geologic features of the area were published by Rose *(1957).* Eade (1966) carried out a reconnaissance mapping project at a 1 : 100 000 scale between the latitudes 52°00'N and 56°00'N representing an area of 285 000 km^2. Geologic information was acquired by helicopter at pre-determined site spacing of 10 km.

In 1968, the Mouchalagane area was covered by national aeromagnetic surveys. Magnetic data was acquired at a nominal line spacing of 800 meters and a nominal mean terrain clearance of 305 meters. Survey products include total magnetic intensity contour maps at a scale of 1 : 63 360 (one inch to one mile).

In 1987, the *Ministère des Ressources naturelles of Quebec (MRNQ)* initiated a regional lake sediments survey of 85 000 km^2 between latitudes 51°00'N and 54°00'N and longitudes 66°00'W and 72°00W (Beaumier, 1988, 1989). A total of 1 244 lake sediment samples were collected at a density of one (1) sample per 12 km^2; the assay values highlighted multi-elements anomalies with favourable exploration targets (Choinière 1995, Leclair *et al.*, 1996, Lamothe *et al.*, 1998).

In 1997, the MRNQ completed a 1 : 250 000-scale, mapping project in the Lac Vallard (NTS 23C) area (Lamothe *et al.*, 1998). Geologic data in the Lac Vallard survey was acquired along ground traverses of 6-10 km length at 5-10 km spacing.

4.2 Exploration work on Mouchalagane Property

The 1 : 250 000-scale mapping project carried out by the MRNQ in the Lac Vallard area resulted in the discovery of a mineralized occurrence referred to as the "Mouchalagane Zone" by Lamothe *et al.* (1998) (**Figure 3**). The reference site (#127; UTM Nad83, Zone19, E : 456 395; N : 5 785 196) is located on the main Mouchalagane grid area approximately 100 meters of the "Feu Showing" of *Manicouagan Minerals Inc.* (see below). The Mouchalagane Zone was described by Lamothe *et al*. as an east-west oriented gossan zone of 130m length and 25m width. It is enclosed within pillowed metabasalt in contact with a highly sheared, medium-grained, homogeneous metagabbro. The mineralization appears to be a meter-thick, and is located in the core of a fold nose. It consists of massive pyrrhotite engulfing centimeter-size and silicate-bearing inclusions of pyrite. The foliation ranges from sub-horizontal and gently dipping to the east to sub-vertical and east-west oriented a few meter to the north. The mineralized zone is overlain to the east by a muscovite-fuchsite schist containing up to 10% of <1 cm arsenopyrite porphyroblasts. Nine (9) samples taken by MRNQ returned 0.8-2.0 ppm Ag, 3.2-3.6% As, 1 100-1 400 ppm Ni and 3 400 ppm Zn (Lamothe *et al.*, 1998).

The regional lake sediments carried out by the MRNQ in the Mouchalagane Property area highlighted a favourable exploration target (referred to as Target #5 in Lamothe *et al.*, 1998) which is composed of six (6) sites and are located from 3 to 6 kilometers to the east from the MRNQ Mouchalagane Zone. These sample sites were anomalous in copper (from 49 to 74 ppm) among which two are also anomalous in arsenic (32 and 10 ppm).

In April 2006, *Manicouagan Minerals Inc.* optioned the Mouchalagane Property which at the time consisted of 58 map designated claims covering an approximate area of 30 $km^{2.}$. Prior to taking an option on the property, prospecting by the vendor resulted in the discovery of two base metal surface showings referred to as "Dernière Chance" and "Mouche", and one gold showing referred to as "Corbeau-2". All three showings are located within mafic to ultramafic volcanic rocks near a metasedimentary contact. Nine grab samples from the Dernière Chance ranged from 0.30 to 3.51% Cu, 0.48 to 1.38% Ni, 0.94 to 2.12 g/t Pd and 0.12 to 0.82 g/t Pt. The Corbeau 2 Showing is located at approximately 100 meters northeast of the Dernière Chance Showing where one grab sample returned 2.74 g/t Au. The third showing "Mouche" is located about 600 meters southeast of Dernière Chance. Five grab samples taken by the vendor at Mouche averaged 0.39% Cu and 0.08% Ni; highest values were 0.98% Cu and 0.17% Ni (no analyses was done for PGE).

In May 2006, *Manicouagan Minerals Inc.* purchased a THEM (Transient Helicopter Electromagnetic) survey that was flown in 2004 from a third party. Analysis of the survey data revealed that the Mouchalagane Property hosted at least seven parallel shallow electromagnetic conductors located in the vicinity of the Dernière Chance and Mouche Cu-Ni Showings. More specifically, a portion of an 800 m long coincident HLEM conductor and magnetic anomaly is underlain by the Dernière Chance Showing.

In June 2006, *Manicouagan Minerals Inc.* initiated a program of trenching and sampling to follow up on the three showings as well as to ground truth selected electromagnetic conductors located in the vicinity of two of the previously discovered Dernière Chance and Mouche Cu-Ni showings.

At the same time of the trenching and sampling program, a grid was established to cover the areas of interest. A total of 30 kilometers of lines were established to facilitate ground geophysical surveys (horizontal loop electromagnetic "HLEM" and magnetometer) as well as to act as control for systematic geological mapping, rock and soil sampling. Line cutting and prospecting services provided by *Ressources Manicor*.

The ground electromagnetic surveys revealed the presence of : *(i)* a long and continuous formational conductor generally coincident with a major east-west thrust fault that transects the property, *(ii)* a number of shorter strike length conductors. It was in following up some of these shorter length HLEM anomalies that the Bob and Feu Ni-Cu-PGE showings were discovered.

Exploration, in September 2006, continued to focus on the Bob, Feu and Dernière Chance Showings. Additional stripping and power washing in areas of shallow overburden to further expose mineralized zones to enable a systematic channel sampling program to be carried out. Channel sampling was performed over an area of approximately 300 m^2.

A total of 142 grab samples were collected in the 2006 exploration program. Detailed sample description can be found in the Exploration Work Report 2006 Exploration Campaign for the Mouchalagane Property (Moar & Berclaz, 2008). Ni-Cu-PGE mineralization at the Bob Showing was extended for a total strike length of approximately 60 m and up to widths of 1.12 m. Grab samples from the Bob Showing assayed up to 6.99% Cu, 2.68% Ni, 12.5 g/t Pd, and 4.1 g/t Pt. Samples collected from the Bob-East Showing, located 45 meters grid east of the main Bob occurrence assayed up to 2.34% Ni, 0.70% Cu, 1.59 g/t Pd and 5.28 g/t Pt. Assays from grab samples taken from the Feu Showing include 2.15% Cu, 1.15% Ni, 2.06 g/t Pd and 0.67 g/t Pt. At the Dernière Chance Showing, a composite sample of chalcopyrite-rich material was assayed for research purposes and assayed 0.78% Ni, 11.7% Cu, 0.3 g/t Pt and 2.24 g/t Pd.

A total of 174 channel samples were also collected during the course of the 2006 exploration program (Moar & Berclaz, 2008). Channel samples from the Bob Showing returned assays up to 2.44% Ni, 0.74% Cu, 13.75 g/t Pd and 3.28 g/t Pt over 1.94 meters. High grade samples from the Bob Showing were re-assayed for the complete suite of PGE (platinum, palladium, rhenium, rhodium, ruthenium, osmium and iridium). In addition to significant Pd and Pt concentrations, these samples returned significant concentrations of up to 1 010 ppb rhodium (Rh) and 1 150 ppb ruthenium (Ru).

The Bob-East Showing returned additional encouraging assay results further substantiating the significance of the Bob Showing and emphasizing the importance of ground truthing nearby electromagnetic conductors. The best result from channel sampling at Bob East Showing which was 2.98% Ni, 0.18% Cu, 5.82 g/t Pd and 3.04 g/t Pt over 1.67 meters.

Mineralization at Feu and Dernière Chance consists of discontinuous small lenses of massive pyrrhotite +/- chalcopyrite up to 0.6 meter in width and 1.0 meter in length. Forty-one (41) channel samples were obtained over a total cumulative length of 83.3 meters. Individual channel samples ranged between 0.35 meter and 1.3 meters in length and composited intervals ranged between 0.5 meter and 5.4 meters in length. The best sample returned 25.90 g/t Pd, 3.7 g/t Pt, 2.33% Cu and 3.21% Ni over 0.5 meter.

Also during the 2006 exploration program, a total of 395 soil samples were collected and 366 were assayed multi-elements Scan package in addition to a suite of rare earth elements, on the Main Mouchalagane grid area at a spacing of approximately 50 meters along the existing grid lines and at 25 meters around Bob and Bob-East Showings. This survey highlighted numerous and correlative anomalies in nickel, copper, cobalt and chromium suggestive of the presence of ultramafic rocks and are locally correlative with known Ni-Cu-PGE mineralization. Other relevant multi-element anomalies include coincident anomalies in gold and in arsenic mainly in eastern part of the grid area (from L2+00W to L4+00E) (Moar & Berclaz, 2008).

5.0 2008 EXPLORATION PROGRAM

5.1 Airborne Geophysics

5.1.1 Introduction

Near surface (<200 meters) nickel-copper massive sulphide deposits and volcanogenic massive sulphide ("VMS") deposits are commonly associated with and are usually discovered by following up airborne and/or ground electromagnetic anomalies. It should be noted however, that while areas of higher conductivity maybe suggestive or encouraging they are not a prerequisite for a sulphide deposit. Further not all sulphides are of exploration interest. Pyrrhotite is highly conductive as well as magnetic. Graphite is also an excellent conductor.

Aeroquest International of Mississauga, Ontario, was awarded the contract to survey many properties held by Manicouagan Minerals Inc. in the area around and including the Mouchalagane Property (**Figures 6**). The total survey covered 4 327 line kilometers of which 816 line kilometers fell within the Mouchalagane Property boundaries. The survey was flown at 100 meters line spacing and in a North-South survey flight direction, at a nominal terrain clearance of 220 ft (65 meters).

The airborne survey took place from March 5th to April 9th, 2008. The principal geophysical sensor is AeroTEM II time domain helicopter borne electromagnetic system which is employed in conjunction with a high-sensitivity caesium vapour magnetometer. Ancillary equipment includes a real-time differential GPS navigation system, radar altimeter, video recorder, and a base station magnetometer. The base of survey operations was in Hélène Camp.

A logistical report from Aeroquest dated August 2008 (Kahue, 2008) as well as an addendum written by Marc Boivin dated November 2008 for purposes of meeting certain assessment requirements of the Ressources Naturelles et Faune have been filed under a single cover (Boivin, 2008).

5.1.2 Discussion of Results

The AeroTEM II generated some 788 AEM anomalies (**Figure 7, 8 and 9**). Some of which corresponded to known sulphide occurrences. Ground truthing results of the AEM anomalies will be discussed in section 6.4 Prospecting below.

In early June (preliminary results) and again in September 2008 (final results) the Aeroquest data and maps were provided to Frank Jagodits a consultant geophysicist who reviewed, on a line by line basis and identified thirty-eight (38) prospective conductors on the Main Mouchalagane grid for the prospecting crews to ground truth. A copy of the Frank Jagodits memos describing the results of this findings and listings of his anomaly picks (**Figure 10**) can be found in **Appendix G**.

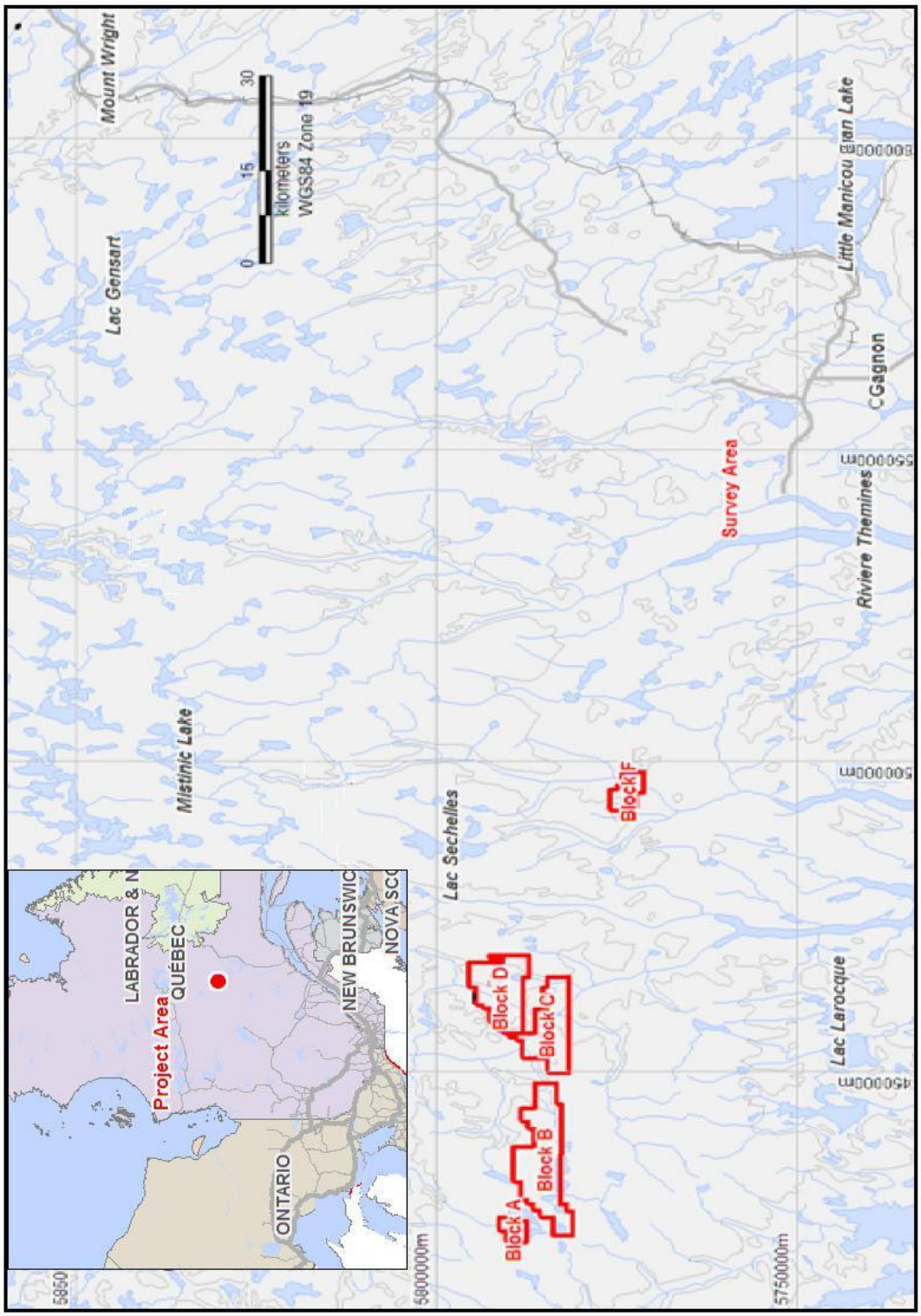

Figure 6 Location of Aeroquest Airborne Surveys, 2008

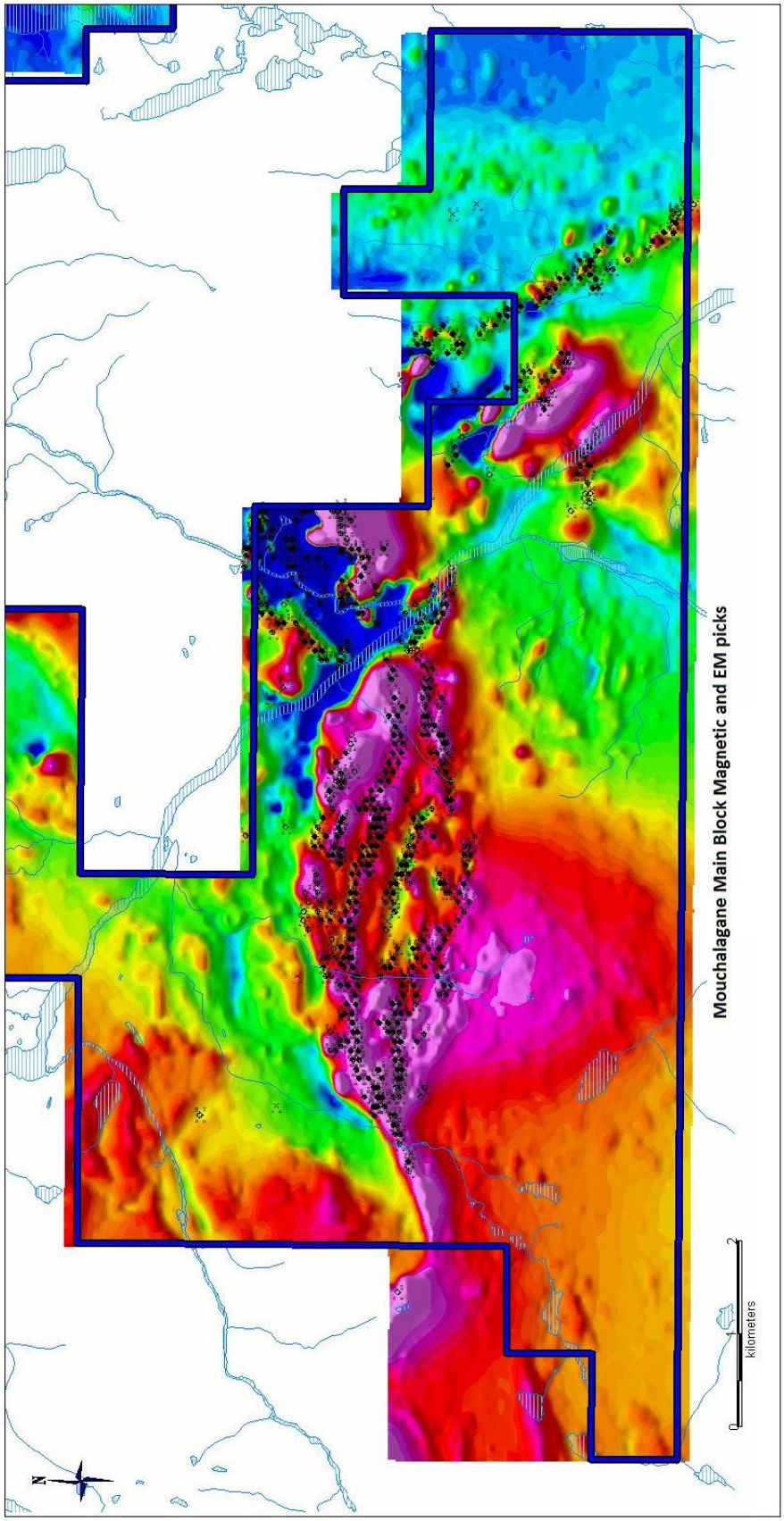

Figure 7 Aeroquest Airborne Total Field Magnetics and EM anomalies

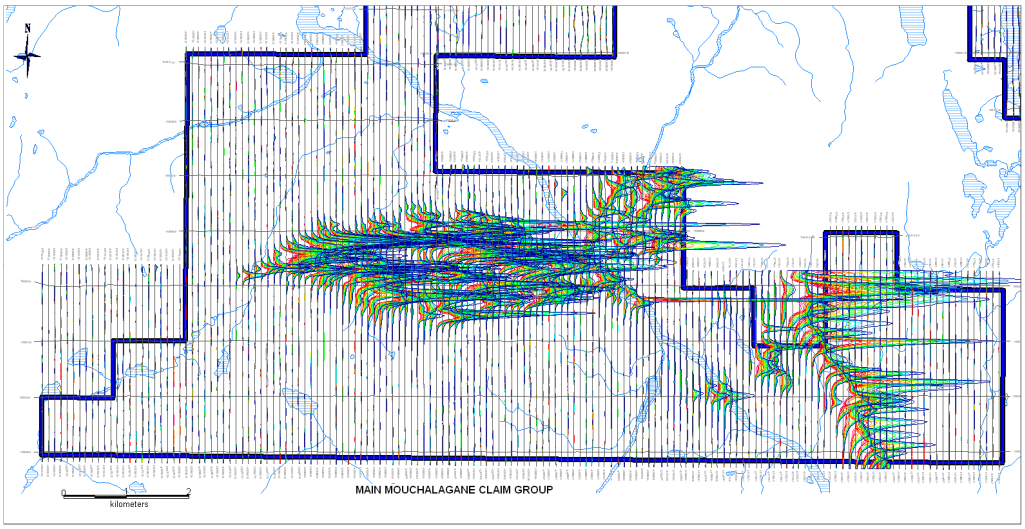

Figure 8 Aeroquest Airborne EM Profiles

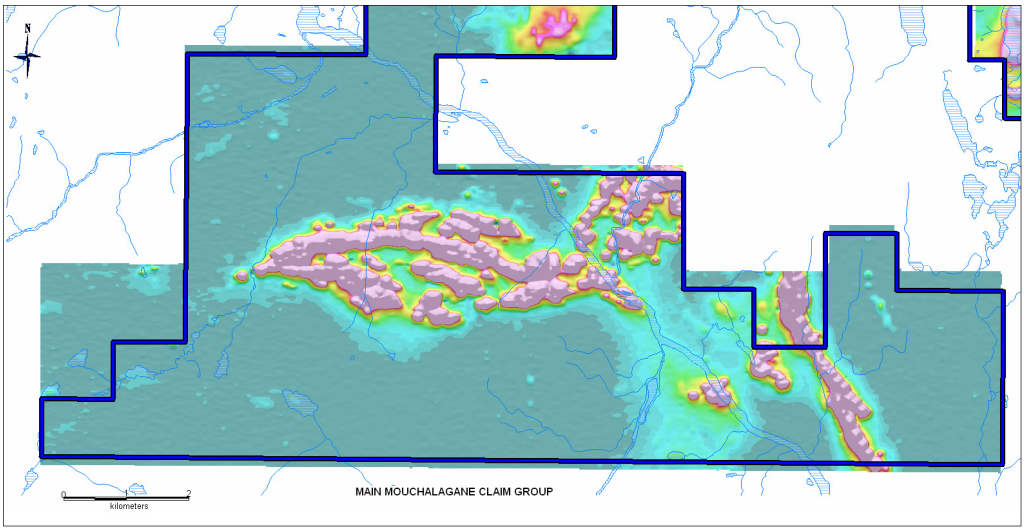

Figure 9 Aeroquest Airborne Z Coil Off-Time Channel 0

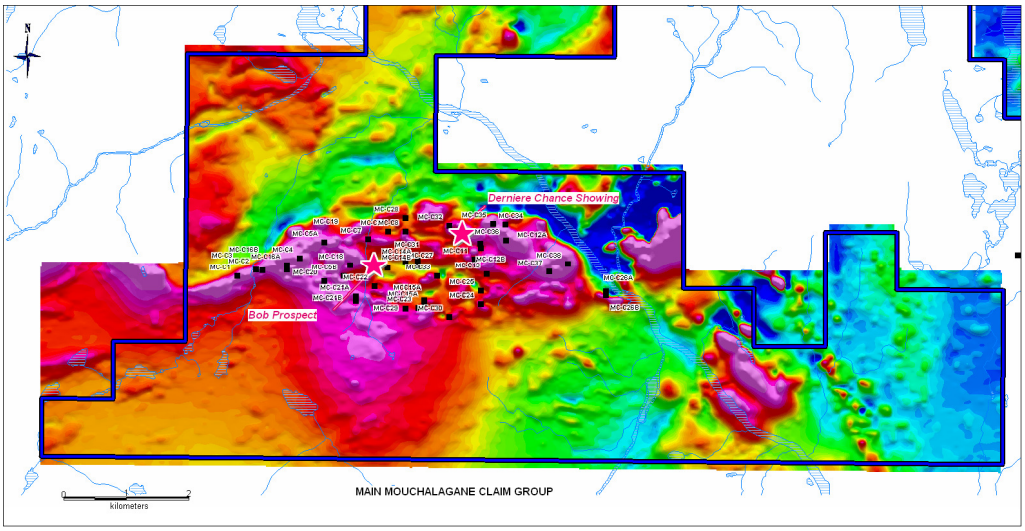

Figure 10 Aeroquest Airborne F. Jagodits Priority Picks

5.2 2007 Ground Geophysics

5.2.1 Introduction

In 2007, from September 14 to October 1st, ground magnetic and horizontal loop electromagnetic ("HLEM") surveys were conducted by Geophysique TMC of Val-d'Or, Quebec on the Main Mouchalagane Property. In total, 73.4 line-kilometers of magnetic survey and 62.6 line-kilometers of HLEM survey, using three frequencies (440Hz, 1760Hz and 3520Hz) using a 100 m coil separation (locally 50 m and 150 m), were completed during this period (**Figure 11**).

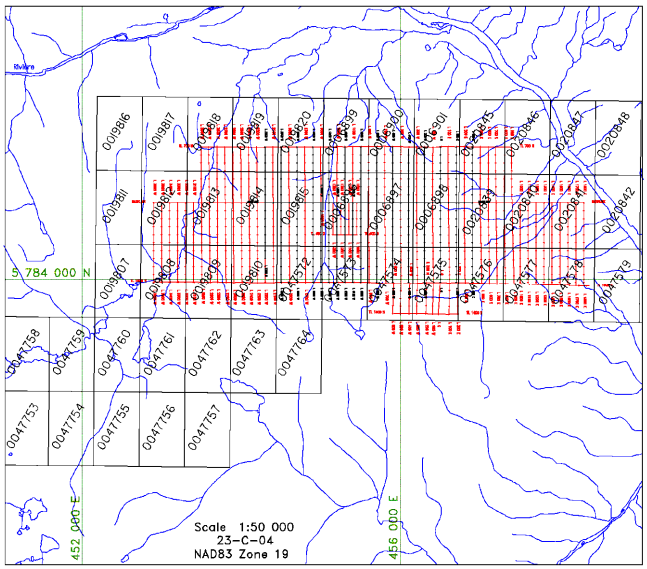

Figure 11 Mag and HLEM surveys location, Mouchalagane Project, 2007 (from Boileau, 2007).

5.2.2 Discussion of Results

The following text is taken to a large degree from the Geophysique TMC Report covering the results of the ground geophysical program (Boileau, 2007).

The area covered by the survey exhibits a strong magnetic relief where total field intensities fluctuate from 54 000 nT to 60 000 nT, with a background level hovering near 56 400 nT. This magnetic relief is characterized by the presence of more or less continuous zones of magnetic highs of about 500 to 2 500 nT, with local isolated peaks reaching 3 000 to 5 000 nT (locally 11 000 nT) above or below the local background level. These anomalies, which show a general E-W orientation, are likely related with mafic to ultramafic rock formations which are rich in high-susceptibility magnetic material (magnetite, pyrrhotite). The spotted pattern of the total field contour image is likely due to the shallow depth (near-surface) of the individual magnetic sources. Moreover, the overall magnetic pattern produced by both integrated, 2006 and 2007, surveys appears to draw a large E-W oriented oval pattern about 5 km long by 1.5 km wide (**Figure 12**).

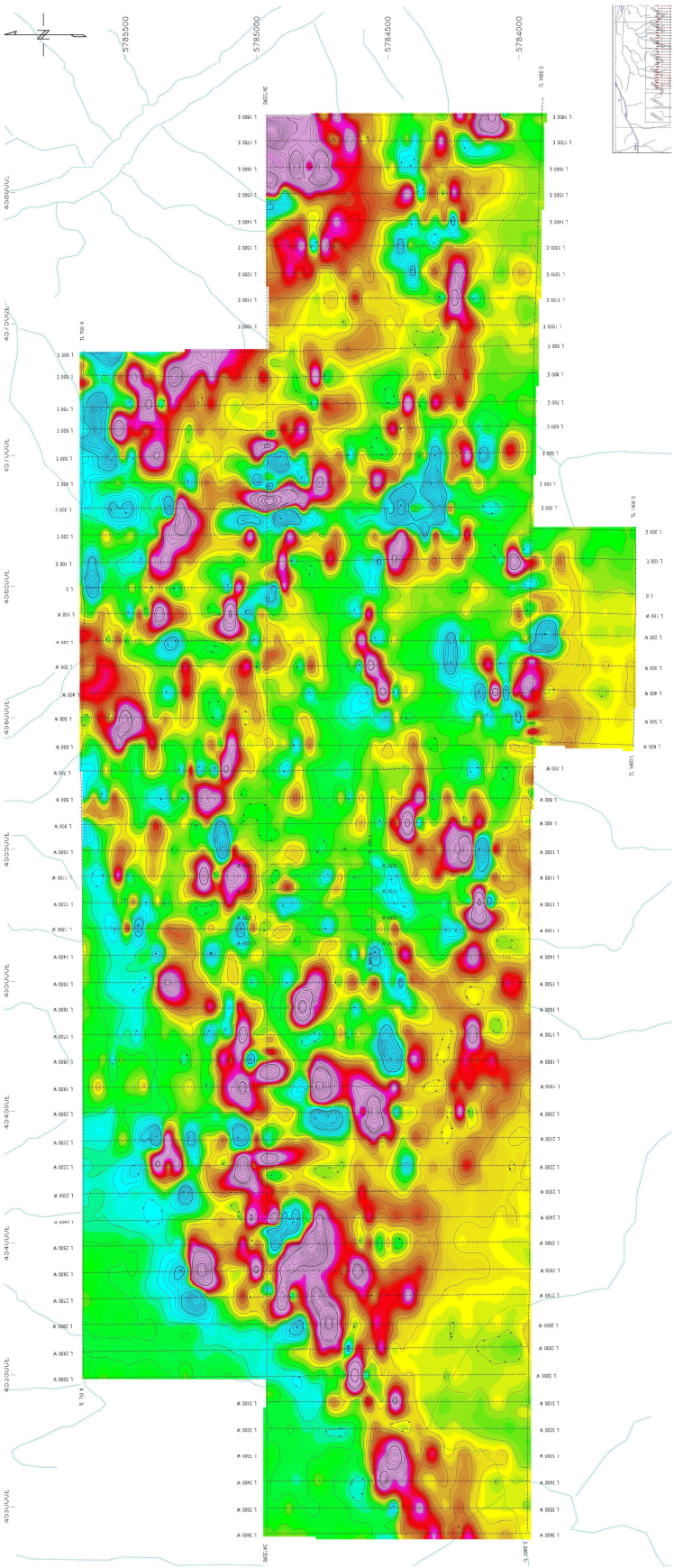

Figure 12 Total Field Ground Magnetics, Mouchalagane main grid, Geophysique TMC, 2007

The 2007 HLEM survey detected, several anomalies of various intensities which are mostly parts of extensions of conductors (labeled A to S) first detected in the 2006 survey (Moar and Berclaz, 2008). The 2007 survey also outlined two new conductors, named T and U. In general terms, the image drawn from the 2007 program is that various conductors on the property form a large oval pattern (**Figure 13**) which coincides with the magnetic one. HLEM conductors A, I, L, M, N, T and U are characterized by moderate conductances of 20 to 48 siemens which could be explained by semi-massive to massive sulphide mineralization. Conductors B, D, F, J, P and R show a lower order of conductivity with conductances often less than 20 siemens and could be produced by stringer to semi-massive sulphide mineralization. Conductor K exhibits a similar In-phase response on all 3 frequencies with no corresponding Out-of-phase response, suggesting a strong horizontal (flat-lying) conductor. In general, dips are mostly sub-vertical to steeply to the south. Finally, most of the HLEM conductors exhibit a close or direct magnetic association and could be explained, at least partly, by the presence of pyrrhotite.

Table 1 summarizing the HLEM Conductors delineated in the 2007 survey is given below which is reproduced from the TMC Report. **Figure 13** shows the location of all of the HLEM Conductors detected on the Main Mouchalagane Block from the various 2006, 07 and 08 ground surveys.

Table 1 HLEM Conductors, Main Mouchalagane Block, Geophysique TMC, 2007

Conductor	**Length** (m)	**Conductance** (siemens)	**Depth** (m)	**Magnetic Assoc.** (nT)	**Comments**
A	900	23 – 35	18 - 35	400 - 3 000	Semi-mass. to mass. mineralization (po)
B	200	?	?	None	Weak, doubtfull (stringers ?)
C	400	> 100	Surface	1 000 - 2 000	Massive min. (po ?) Wide, multiple conductors
D	900	8 -15	15 - 35	400 - 1 600	Semi-massive mineralization
E	400	17 – 90	13 - 20	Close 400 - 800	Semi-mass. to mass. min. Wide, multiple conductors
F	200	?	?	Locally 2 500	Weak (stringers ?)
G	4 200 +	>100 Loc. 25 - 75	Surface Loc. 15 - 30	Direct 1 000 - 3 000	Formational / Massive min. Wide, multiple conductors
H	3 500 +	>100 Loc. 25 - 75	Surface Loc. 12 - 48	1 000 - 3 000 Loc. 11 000	Formational / Massive min. Wide, multiple conductors
I	600	26 - 100 Loc. weak	Surface	450	Semi-massive to massive mineralization
J	200	?	?	Close 300 - 500	Weak (stringers ?)
K	200	?	Surface ?	300 - 500	Near-surface horizontal conduct. ? / Questionable
L	200	20 - 100	15 Loc. surface	700	Semi-massive to massive mineralization
M	1 700	21 - 48 Loc. 5 - 10	10 - 35	500 - 2 000	Semi-mass. to mass. min. Wide, multiple conductors
N	400	10 - 45	10	Locally 2 500	Semi-massive to massive mineralization
O	900	40 – 100	35 - surface	300 - 500 Loc. 3 000	Massive mineralization Wide, multiple conductors
P	500	8 - 35	10 - 28	100 ?	Semi-massive to massive mineralization
Q	600	15 – 100	Surface to 20	Locally 1 000 - 2 000	Semi-massive to massive mineralization
R	200	5 - 25	Surface	400 - 1 000	Semi-massive to massive mineralization
S	500	29 – 80	Surface Loc. 10 - 35	1 000	Semi-massive to massive mineralization
T	700	5 - 22 Loc. 64	10 - 35	Locally 450 - 1000	Semi-massive to massive mineralization
U	800	10 - 45 Loc. 3 - 9	12 - 32 Loc. surface	Low 600 - 2000	Semi-massive to massive mineralization

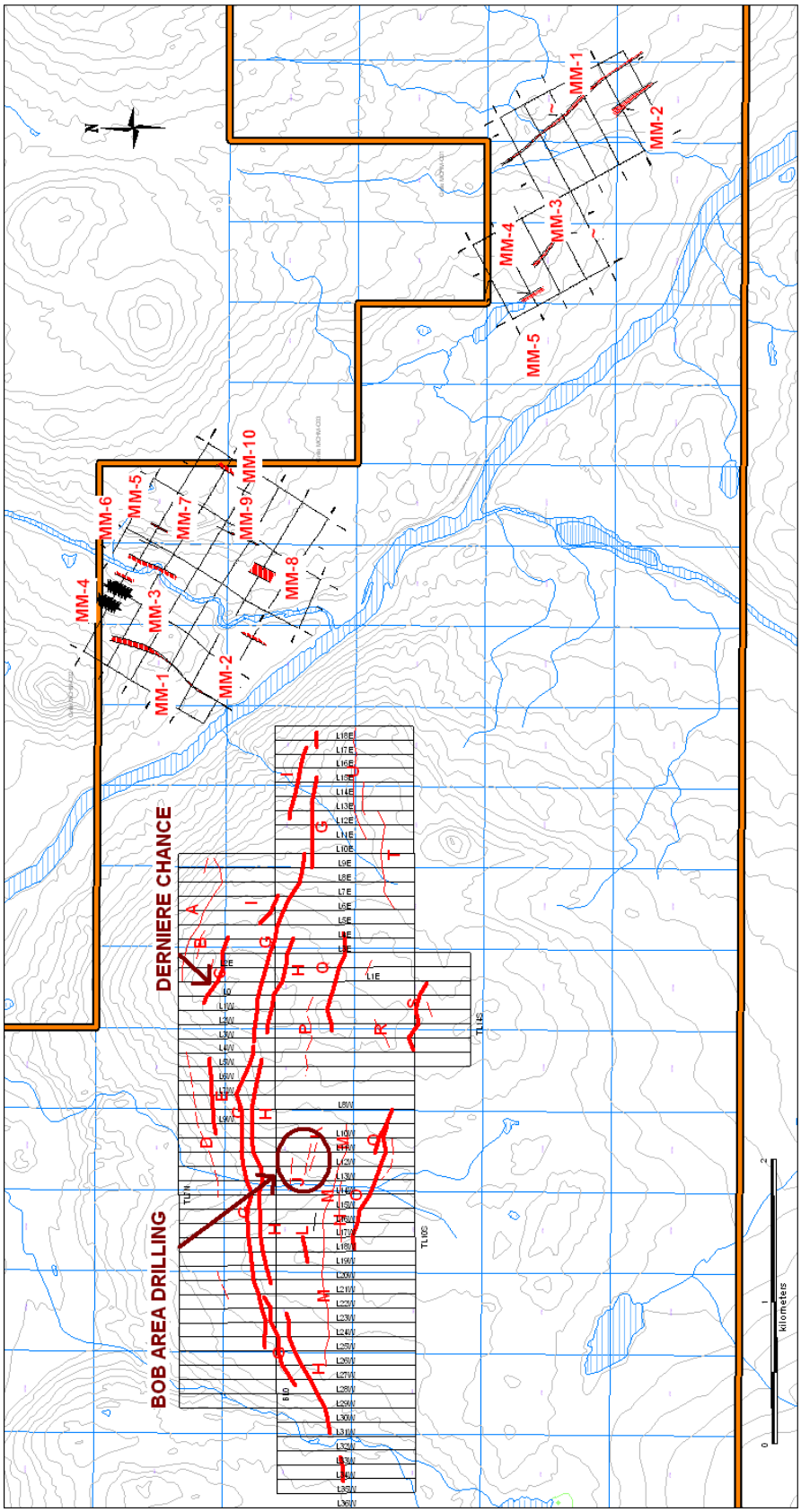

Figure 13 Location of Ground HLEM Conductors, Main Mouchalagane Block, 2006-08

5.3 2008 Ground Geophysics

5.3.1 Introduction

In 2008, from September 5 to September 16, magnetic and electromagnetic horizontal loop surveys were conducted by Géosig Inc. of Quebec City, Quebec, at the request of Manicouagan Minerals Inc., on twelve small grids located on the Main Mouchalagane Block (MCHM-C01 to 03) as well as the West Mouchalagane Block (MCHW-C01 to 04, 06, 10, 13, 14, and 16). The lines, cut at 200m intervals, were chained and marked every 25m. In total, 78.4 line-kilometers of magnetic survey and 73.0 line-kilometers of HLEM survey, using three frequencies (440Hz, 1760Hz, and 3520 Hz) using a 100m coil separation, were completed (**Figure 14**).

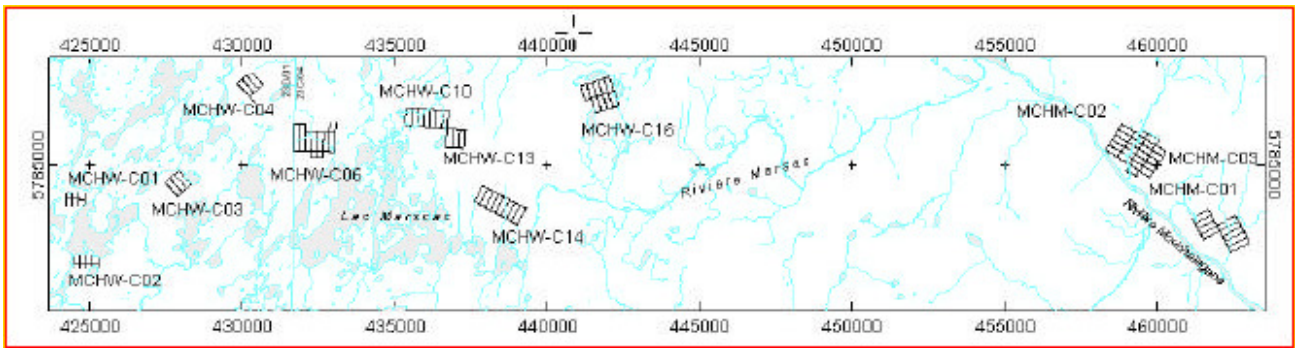

Figure 14 2008 Mag and HLEM surveys location, Mouchalagane Project (from Tshimbalanga, 2009).

5.3.2 Discussion of Results

Main Mouchalagane Block, east of Mouchalagane River

On the MCHM-C01 grid total magnetic field intensities fluctuated from 54 200 nT to 58 900 nT (**Figure 15**). The eastern part of the grid presents axial anomalies of 200 nT, while the western part shows broader anomalies of 35 to 350 nT with two pics over 400 nT. The survey detected five conductors closely associated with magnetic anomalies (MM-1 to 5).
On the MCHM-C02 grid total magnetic field intensities fluctuated from 54 050 nT to 58 660 nT (**Figure 15**). The survey show many magnetic formations of various widths and intensity of 35 to 350 nT, with two pics over 400 nT. The more obvious one is located on line L6N and L8N at the 1+75E station. The survey detected four conductors, named MM-1 to MM-4, closely associated with magnetic anomalies. The stronger one is a long formational conductor who crossed over the entire grid. The three others are shorter and located near Mouchalagane River.

MCHM-C03 is contiguous with the previous grid, and is located on the east side of the Mouchalagane River (**Figure 15**). The total magnetic field intensities fluctuate from 51 220 nT to 63 330 nT. The eastern third part of the grid shows an increase of the magnetic field suggesting a lithological change. Six conductors (MM-6 to MM-10) were detected by the HLEM survey. MM-5 is located on lines L8N and L10N, along the river,

and is possibly in continuity with some of the MCHM-C02 conductors. On line L10N MM-6 and MM-7, like MM-5, have a possible extension to the north. MM-8 is a wide conductor located on line L2N and centered at station 1+75W. The width is probably created by several parallels conductors. MM-9 is a strong and shallow conductor located on lines L4N and L6N, station 0+50W. It is associated with a magnetic low. MM-10 is located at L8N 3+35E on the flank of a very strong magnetic area. This anomaly was not totally covered by the survey and remained open to the south-east.

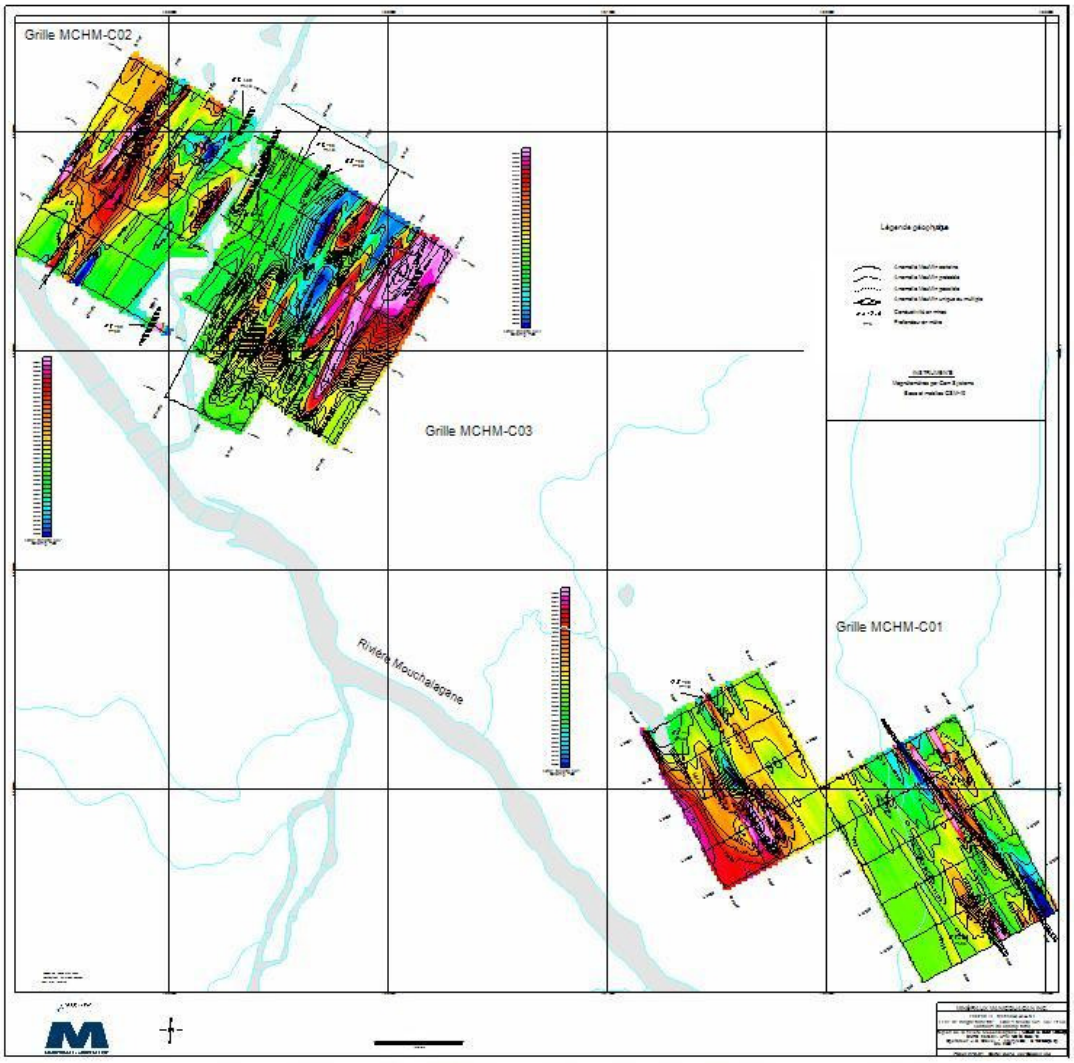

Figure 15 2008 ground geophysical surveys, MCHM-C01, C02 and C03, Main Mouchalagane Block

Mouchalagane West Property

MCHW-C01 covers an east-west magnetic anomaly with total magnetic field intensities fluctuating from 54 760 nT to 62 300 nT (**Figure 16**). Only one unconventional conductor was located at L4E 0+25S, associated with a strong magnetic anomaly of about 2 000 nT. The shape of the HLEM anomaly suggested the presence of several parallels conductors.

About 1.5 kilometers south of the previous grid, MCHW-C02 showed total magnetic field intensities fluctuating from 56 200 nT to 57 650 nT (**Figure 16**). The magnetic survey defined two distinct areas, a strongly magnetic one in the north, and a moderated one to the south. One faint and deep setting (about 50m) HLEM conductor was detected at L6E 2+00N, associated with a strong magnetic anomaly of 2 500 nT.

MCHW-C03 had total field intensities fluctuating from 55 300 nT to 57 590 nT **(Figure 16**). The magnetic survey outlined a magnetic high at the center of the grid. Three HLEM conductors were detected, MM-1 to MM-3. MM-2 goes from L2E 3+00N to L6E 3+50N is a moderate and deep setting conductor (about 40m). It is associated with the highly magnetic lithology. MM-1 is a faint conductor located at L4E 5+25N. MM-3 is a dubious conductor located at L4E 1+75N.

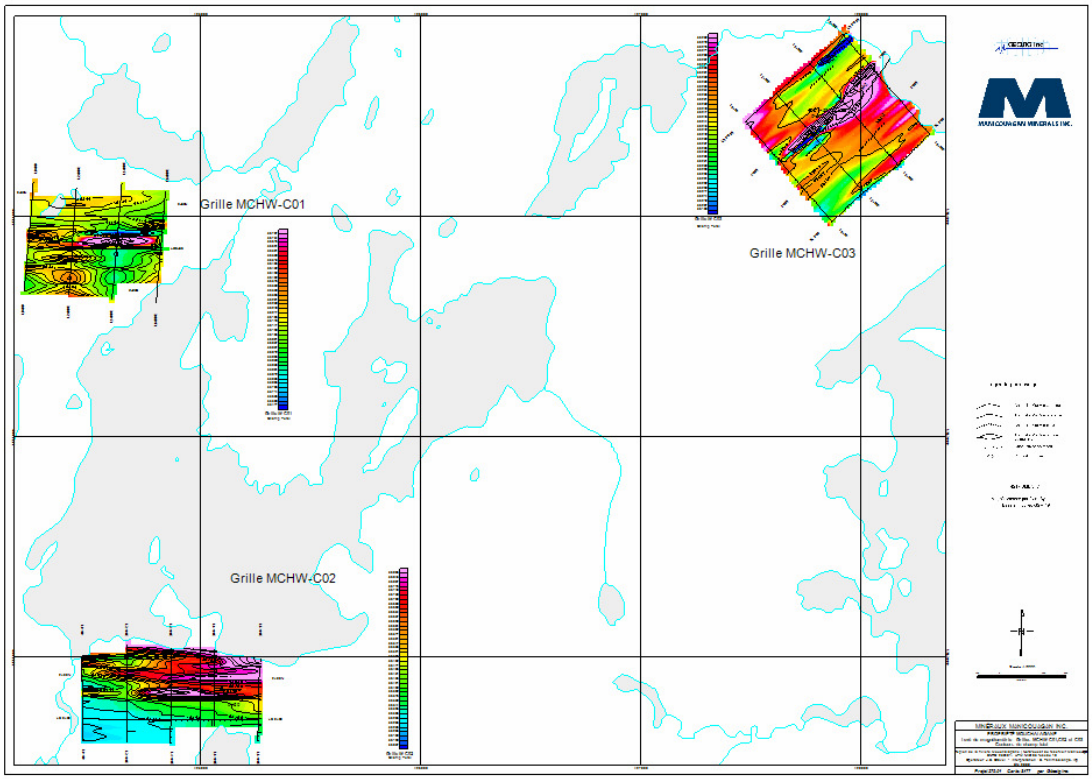

Figure 16 2008 ground geophysical surveys, MCHW-C01, C02 and C03, West Mouchalagane Block

Nearly 2 kilometers south-east of the MCHW-C04 grid, MCHW-C06 shows a total magnetic field intensities fluctuating from 53 580 nT to 57 560 nT (**Figure 17**). The magnetic survey outlined two distinct magnetic areas with a contact around station 6+00N. The northern area has an average total field over 56 250 nT, while the southern area has an average under 56 250 nT. Still it is in the southern area that we have the stronger magnetic anomalies. Three HLEM conductors were detected, MM-1 to MM-3. MM-1 is a moderate conductor located at L2E 3+12N, and associated with a low-mag structure. MM-2 goes from L6E 3+12N to L12E 3+87N is a good, 20m wide, conductor locally associated with the high magnetic anomalies. MM-3 is a faint conductor located at L14E 5+50N associated with a high magnetic anomaly.

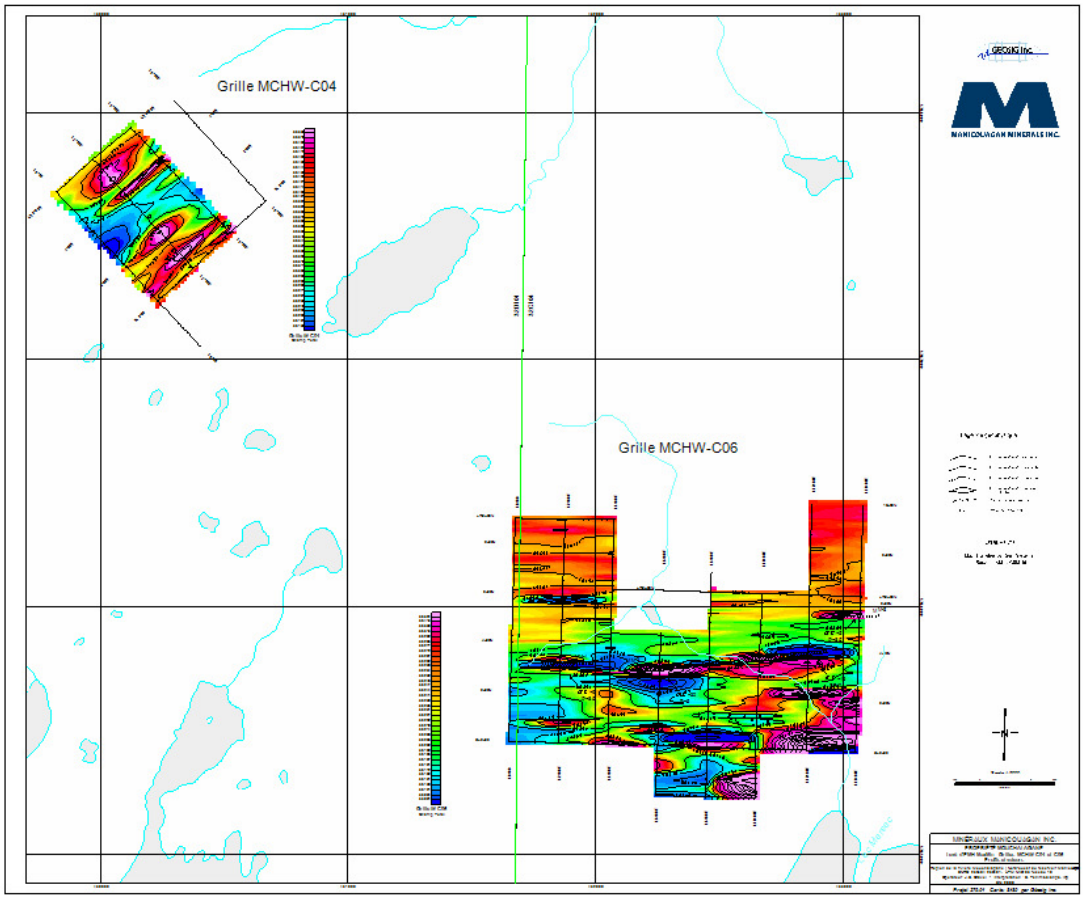

Figure 17 2008 ground geophysical surveys, MCHW-C04 and C06, West Mouchalagane Block

MCHW-C10 and C13 grids had total magnetic field intensities fluctuating from 55 500 nT to 61 500 nT (**Figure 18**). The magnetic survey outlined two distinct magnetic areas with a contact crossing diagonally from L8E 0+00 to L14E 5+00N. The northwestern area has an average total magnetic field over 56 250 nT, while the southeastern area has an average under 56 250 nT. Again it is in the southeastern area that we have the stronger magnetic anomalies. A large low-mag strip crossed diagonally the center of the MCHM-C13 grid. No conductor was detected by the HLEM survey.

MCHW-C14 showed strong magnetic activity that outlined a SE-NW pattern. Total magnetic field intensities is fluctuating from 51 238 nT to 59 168 nT (**Figure 18**). Four conductors were detected by the HLEM survey, MM-1 to MM-4. MM-1 is a strong and shallow conductor located at L6W 4+00N, along a high-mag contact. MM-2 is a good conductor that goes from L8W 1+62N to L6W 2+50N, along associated with a high-mag contact. MM-3 is a moderate conductor located at L2W 3+00N, also associated with a high-mag contact. MM-4 is also a moderate conductor that can be traced from L2E 2+00N to L4E 2+75N.

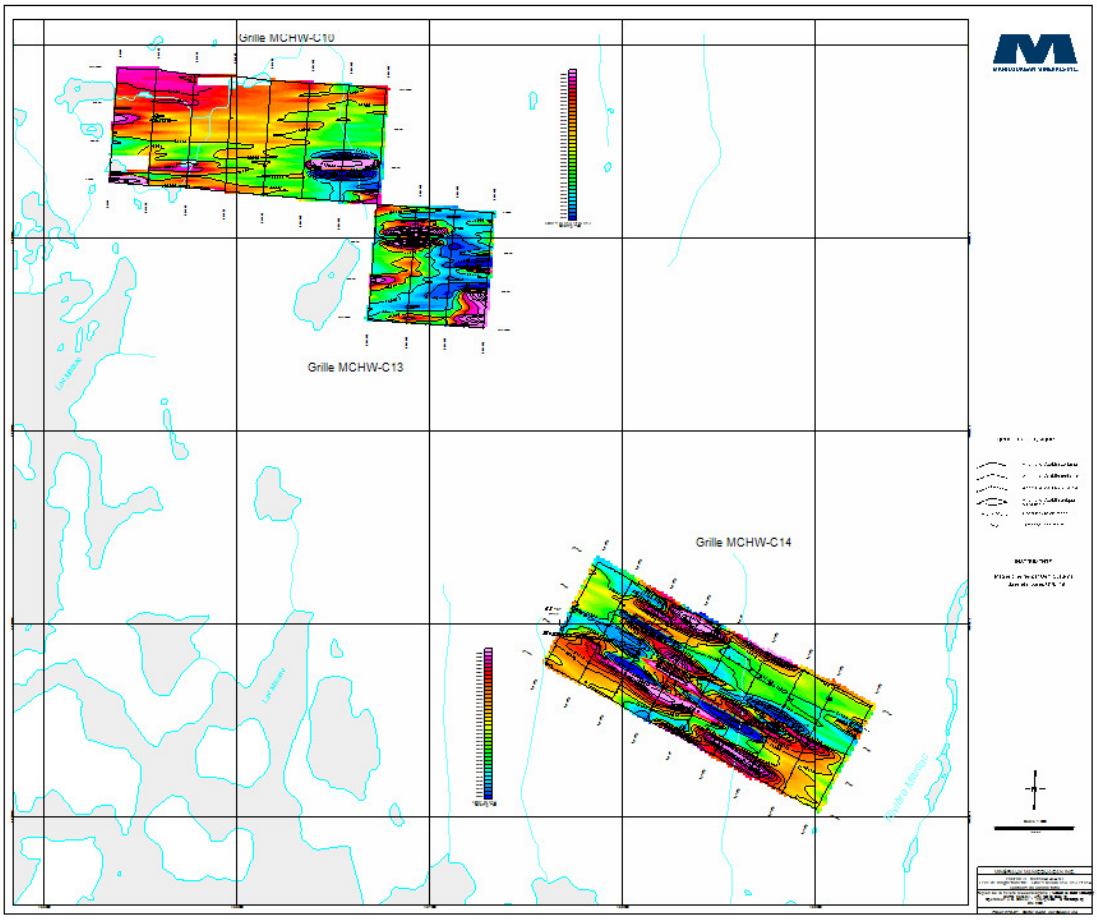

Figure 18 2008 ground geophysical surveys, MCHW-C10, C13 and C14, West Mouchalagane Block

MCHW-C16 showed weak magnetic activity except for a strong 200m wide magnetic unit at the edge of the grid. This unit is flanked by a low-mag to the north, suggesting southerly dip. Total magnetic field intensities varied from 55 800 nT to 58 300 nT (**Figure 19**). Two dubious conductors were detected by the HLEM survey. They appeared to be created by overburden effect or a lithology with a lower resistivity.

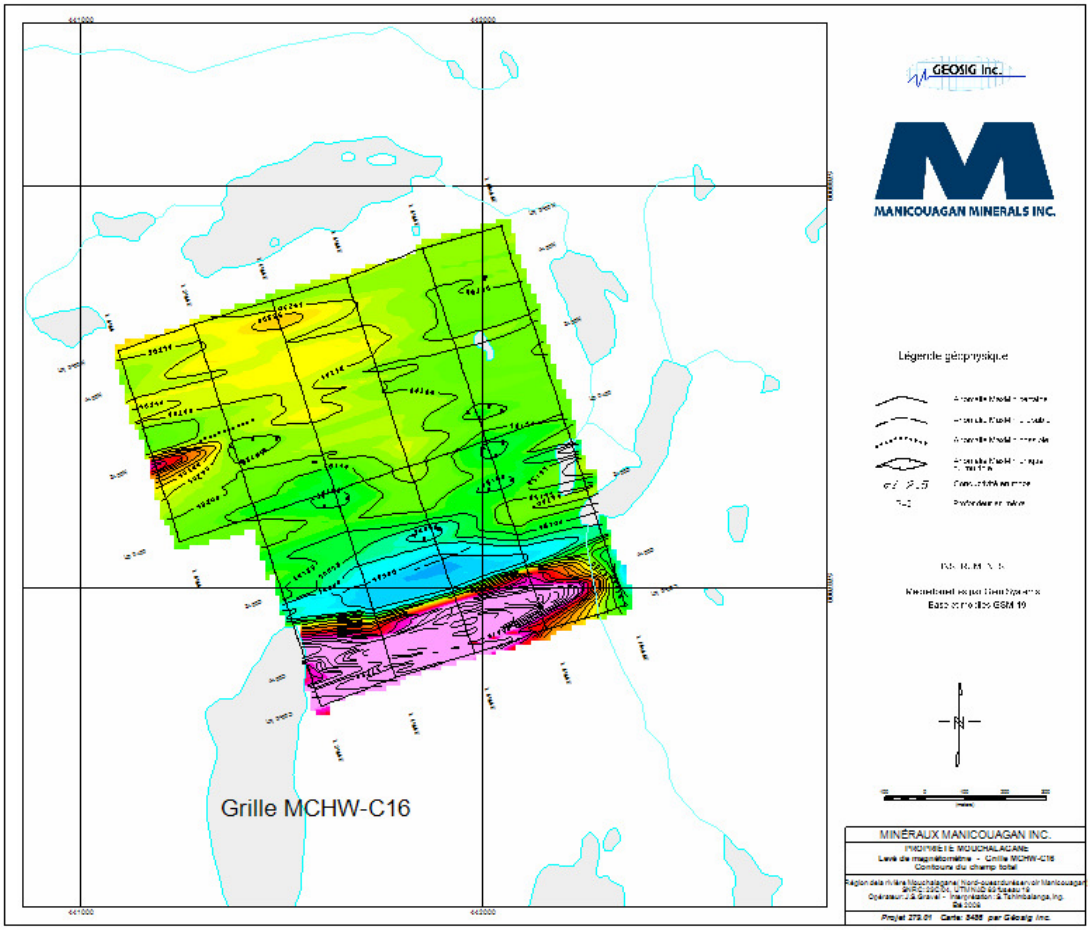

Figure 19 2008 ground geophysical surveys, MCHW-C16, West Mouchalagane Block

5.4 Diamond Drilling Program

5.4.1 Introduction

Two diamond drilling programs have been carried out on the Mouchalagane Project. The first program toke place from July 20th to October 3rd, 2007, and consisted of thirty four (34) drill holes (MCH-07-01 to 34) totaling 2 957 meters. The second program took place between June 13th to July 6th, 2008 and was comprised of ten (10) holes totaling 1 770 meters.

Eighteen (18) drilling diamond holes (MCH-07-03 to 08, 17, 31 to 33; MCH-08-01 to 04, 06 to 09) totaling 1 904.5 meters were drilled on the Bob and Bob East Showings. Nine (9) other holes (MCH-07-01, 02, 14-16, 29, and 30; MCH-08-05, and 10) totaling 1 102 meters were drilled to test nearby ground Horizontal Loop Electromagnetic ("HLEM") Conductors. Three (3) holes were drilled at the Dernière Chance/Feu Showings (MCH-07-09 to 11) while four (4) holes (MCH-07-20, 21, 25 and 26) tested HLEM Conductors D and E that are located some 600 meters to the west of Feu/Dernière Chance (total 575 meters). Three (3) other holes (333 meters) were drilled at the Mouche Showing. The remaining seven (7) holes (MCH-07-18, 19, 22, to 24, 27 and 28) were drilled to test other ground HLEM Conductors located in the main grid area.

The drilling in 2007 was conducted by Cabo Drilling of Kirkland Lake, Ontario, whereas the drilling in 2008 was conducted by Forages Pelletier of Cap-Chat, Québec.

Drill holes were aligned parallel to the grid lines, collar locations were recorded in UTM coordinates using a GPSmap 76CSx hand-held GPS. Downhole surveys were conducted at 50 meters intervals using Reflex (2007) and Flex-It (2008) systems. Unfortunately the azimuth data collected was adversely affected by local magnetism caused by the presence of pyrrhotite and/or magnetite. For future drill programs a different downhole surveying instrumentation (Gyro Type) will be employed. Suspected spurious results were not included into the Gemcom Database.

A total of 743 core samples representing a combined length of 475.4 meters were collected in 2007, and a total of 693 core samples representing a combined length of 449.7 meters were collected in 2008. A selection of core samples from 2008 containing massive and semi-massive sulphides were sawed, while all of the other samples were split. Sample intervals were marked in the core boxes with a colored 'China Marker'. A 'Write-in-Rain' numbered tag was placed at the beginning of each core sample. Sampling lengths ranged from 0.06 to 1.36 meters and averaged ~0.6 meters. Samples collected were individually bagged and labeled; individually bagged samples were then put into rice bags for shipping to TSL Laboratories in Saskatoon.

Mafic, ultramafic, volcanic and plutonic lithologies containing significant sulphides were analyzed by *Fire Assay* in order to get accurate nickel, copper, cobalt as well as platinum and palladium contents, while most of other felsic volcanic and sedimentary lithologies were analyzed with the multi-element package in order to detect a wider range of elements. A selection of nineteen (19) core samples containing significant platinum and palladium content were re-analyzed for the complete suite of PGE (osmium, iridium, ruthenium, rhodium, platinum, palladium, and rhenium).

Summaries of the diamond drill collar coordinates as well as highlights of the mineralized zones and assay results encountered are given respectively in **Tables 2** and **3.** A drilling summary table and diamond drill logs can be found in **Appendix C**, while copies of the Assay Certificates are located in **Appendix E**. **Figure 20** shows the location of the diamond drill holes in relation to the HLEM Conductors.

Diamond drill hole data were entered into Gemcom and a set of 25 meters spaced sections produced for Bob and Bob-East Prospect was produced at a scale of 1 : 250. These sections are included as **Maps 2 to 9**.

Table 2 DDH Collar Coordinates and Targets, Mouchalagane Property, 2007-08 Drill Programs

DDH MCH-	Collar location					Azimuth	Dip	Length (m)	Target	Mining Titles
	Grid coordinates		Easting	Northing	Elev. (m)					
			Nad83, Zone 19U							
07-01	L2E	4+50S	456673	5784502	700	N180	-45	100.5	Cond. Q	0006898
07-02	L2W	4+20S	456273	5784544	719	N360	-45	102	Cond. Q	0006898
07-03*	12+37W	2+83S	455239	5784710	646	N030	-45	101	Cond. K/Bob	0006896
07-04*	11+72W	2+93S	455306	5784702	639	N360	-45	98	Cond. K/Bob	0006896
07-05*	11+72W	2+93S	455306	5784702	639	N360	-85	51	Cond. K/Bob	0006896
07-06a	L12W	3+20S	455275	5784673	652	N360	-45	36	Cond. K/Bob	0006896
07-06*	L12W	3+20S	455275	5784673	652	N360	-55	60	Cond. K/Bob	0006896
07-07*	L12W	3+20S	455275	5784673	652	N360	-85	81	Cond. K/Bob	0006896
07-08*	L12W	2+20S	455281	5784772	651	N180	-45	99	Cond. K/Bob	0006896
07-09	0+05E	3+40N	456504	5785299	734	N360	-45	89	Cond. C/D.Chance	0006898
07-10	0+05E	3+40N	456504	5785299	734	N360	-60	60	Cond. C/D.Chance	0006898
07-11	2+04E	3+50N	456692	5785301	717	N360	-45	93	Cond. C	0006898
07-12	L4E	0+40S	456884	5784907	702	N360	-45	45	Cond. G	0020839
07-13	L4E	0+40S	456884	5784907	702	N360	-80	60	Cond. G	0020839
07-14	L13W	4+70S	455177	5784527	648	N360	-45	69	Cond. M	0006896
07-15	L13W	4+70S	455177	5784527	648	N360	-80	57	Cond. M	0006896
07-16	L10W	8+15S	455454	5784177	677	N360	-45	102	Cond. O	0047573
07-17*	L13W	2+80S	455183	5784718	640	N360	-45	101	Cond. K/Bob	0006896
07-18	L4W	1+22N	456086	5785092	708	N360	-45	102	Cond. H + G	0006897
07-19	L4W	1+22N	456086	5785092	708	N360	-80	42	Cond. H + G	0006897
07-20	L6W	3+95N	455896	5785364	652	N360	-45	69	Cond. E	0006900
07-21	L6W	3+95N	455896	5785364	652	N360	-56	60	Cond. E	0006900
07-22	L8W	1+05N	455689	5785085	684	N360	-45	99	Cond. H	0006897
07-23	L8W	1+05N	455689	5785085	684	N360	-60	69	Cond. H	0006897
07-24	L8W	2+25N	455695	5785204	664	N360	-45	101	Cond. G	0006897
07-25	L8W	4+20N	455704	5785397	628	N360	-45	102	Cond. E	0006900
07-26	L6W	5+65N	455894	5785536	642	N360	-45	102	Cond. D	0006900
07-27	L22W	0+50N	454289	5785075	637	N360	-45	102	Cond. H + G	0019814
07-28	L22W	0+50N	454289	5785075	637	N360	-70	51	Cond. H + G	0019814
07-29	L18W	2+30S	454679	5784783	651	N360	-45	99	Cond. L	0019815
07-30	L13W	1+45S	455186	5784851	641	N360	-45	102	Cond. J	0006896
07-31*	L13W	2+80S	455183	5784718	640	N360	-60	101.5	Cond. K/Bob	0006896
07-32*	L13W	2+80S	455183	5784718	640	N360	-80	102	Cond. K/Bob	0006896
07-33*	L11+50W	2+56S	455328	5784736	642	N360	-45	102	Cond. K/Bob	0006896
07-34	4+40E	0+18N	456920	5784966	702	N360	-45	94.5	Sample 150501	0020839
08-01*	L11+75W	3+75S	455303	5784616	641	N360	-45	222	Cond. K/Bob	0006896
08-02*	L13W	3+45S	455183	5784658	646	N360	-45	153	Cond. K/Bob	0006896
08-03*	L13W	3+45S	455183	5784658	646	N360	-65	141	Cond. K/Bob	0006896
08-04*	L13W	3+45S	455183	5784658	646	N360	-85	201	Cond. K/Bob	0006896
08-05	L17W	3+45S	454777	5784665	646	N360	-45	132	Cond. M	0019815
08-06*	L12+50W	3+15S	455226	5784680	645	N360	-45	162	Cond. K/Bob	0006896
08-07*	L12+50W	3+15S	455226	5784680	645	N360	-69	162	Cond. K/Bob	0006896
08-08*	L13+50W	3+15S	455129	5784680	641	N360	-45	129	Cond. K/Bob	0006896
08-09*	L13+50W	3+15S	455129	5784680	641	N360	-65	129	Cond. K/Bob	0006896
08-10	L15W	5+20S	454977	5784485	643	N360	-60	339	Bob showing area	0019815
						Total :		**4674.5**	**meters**	

Note:* denotes holes drilled at Bob and Bob-East showings

Table 3 Result Highlights, Mouchalagane Property, 2007-08 Drill Programs

DDH MCH-	Target	Feature	Interval			Results						
			from (m)	to (m)	length (m)	Au (ppb)	Pt (ppb)	Pd (ppb)	Ni (ppm)	Cu (ppm)	Co (ppm)	Zn (ppm)
07-01	Cond. Q	No significant mineralization	No significant interval/result									
07-02	Cond. Q	Zn bearing felsic volc. breccia	64.61	64.81	0.20	25	<10	10	223	714	84	3646
07-03	Cond. K/Bob	Ni-PGE massive sulphide vein	24.24	24.40	0.16	710	1170	7880	94900	710	4500	
07-04	Cond. K/Bob	Ni-PGE bearing sulphide	21.42	22.47	1.05	36	156	292	2392	145	173	
		Ni-PGE semi-massive sulphide	24.27	24.94	0.67	203	1286	6012	23572	8199	1511	
07-05	Cond. K/Bob	Ni-PGE massive sulphide	42.28	42.90	0.32	38	1913	4261	31123	2989	853	
07-06a	Cond. K/Bob	Abandoned before reaching mineralized horizon										
07-06	Cond. K/Bob	Ni-Cu-PGE massive sulphide	47.86	48.30	0.44	200	2560	6050	31100	14300	1060	
07-07	Cond. K/Bob	No significant mineralization	No significant interval/result									
07-08	Scissor at Bob	No significant mineralization	No significant interval/result									
07-09	Cond. C/D.Chance	Ni-PGE semi-massive sulphide	23.16	23.55	0.39	15	118	492	5538	702	496	
07-10	Cond. C/D.Chance	Ni-PGE massive sulphide	24.69	24.90	0.21	25	200	640	10400	4700	940	
07-11	Cond. C	Au bearing mafic volc. breccia	60.67	64.40	3.73	645			41	66	17	2
07-12	Cond. G	Zn bearing felsic volc. breccia	13.84	17.71	3.87	<0.5			227	631	147	2467
07-13	Cond. G	Zn bearing felsic volc. breccia	18.69	22.65	3.86	<0.5			256	563	211	3274
07-14	Cond. M	Sulphide bearing mafic volc.	No significant interval/result									
07-15	Cond. M	No significant mineralization	No significant interval/result									
07-16	Cond. O	Large intercept of sulphide rich mafic volcanic	No significant interval/result									
		Au bearing mafic volcanic	75.45	76.40	0.95	1314	<10	<5	102	46	42	51
07-17	Cond. K/Bob	Ni-PGE bearing sulphide	49.30	49.74	0.44	65	290	360	5500	3780	320	
		Ni-PGE semi-massive sulphide	51.40	53.44	2.04	172	2106	6467	17790	4901	914	
07-18	Cond. H + G	Zn bearing felsic volc. breccia	30.30	33.40	3.10	3			253	596	90	2530
07-19	Cond. H + G	Zn bearing felsic volc. breccia	32.20	33.00	0.80	6	<10	<5	460	643	158	5072
07-20	Cond. E	Zn bearing felsic volc. breccia	35.16	35.63	0.47	50	<10	10	583.6	696.3	121.3	4572
		Ni-PGE semi-massive sulphide	52.30	53.06	0.76	17	112	869	4119	1551	633	
07-21	Cond. E	Ni-PGE semi-massive sulphide	54.19	55.11	0.92	14	76	100	3737	4040	443	
07-22	Cond. H	Zn bearing felsic volc. breccia	55.04	55.92	0.88	1	<10	5	308	269	82	5758
		Zn bearing felsic volc. breccia	92.26	92.50	0.24	0.6			161.5	585.9	85.9	2639
		Zn bearing felsic volc. breccia	93.82	94.75	0.93	6			147	458	86	4800
07-23	Cond. H	Ni bearing felsic volc. breccia	53.44	60.15	6.71	2	<10	7	563	259	82	836
07-24	Cond. G	Zn bearing mafic volc. + metasediment	6.11	7.20	1.09	4			167	2827	77	3137
		Zn bearing felsic volc. breccia	54.89	55.70	0.81	6			138	784	90	3262
07-25	Cond. E	Ni-Cu massive sulphide	15.77	16.06	0.29	10	<10	45	6133	7083	697	3
		Sphalerite veins in felsic volc.	99.00	100.16	1.16	<0.5			65	36	17	7556
07-26	Cond. D	Ni bearing garnet-fuchsite rich liestwanite	15.23	16.75	1.52	16	10	7	1705	182	107	40
07-27	Cond. H + G	Zn bearing felsic volc.	57.07	57.25	0.18	4			311	324	98	2006
		Zn bearing felsic volc.	63.78	63.96	0.18	4			498	691	159	2095
		Zn bearing felsic volc.+metasediment	64.96	65.19	0.23	7			470	884	126	3422
07-28	Cond. H + G	Massive+semi-massive sulphides	No significant interval/result									
07-29	Cond. L	Disseminated to semi-massive sulphides	No significant interval/result									
07-30	Cond. J	No significant mineralization	No significant interval/result									

07-31	Cond. K/Bob	Ni bearing sulphides in ultramafic unit	55.61	58.40	2.79	34	26	60	1711	171	131	
		Ni-PGE bearing suphildes injections	61.00	63.08	2.08	25	560	661	4973	813	217	
07-32	Cond. K/Bob	Ni-PGE bearing disseminated suphildes	57.46	57.71	0.25	65	710	960	23000	7500	800	
		Ni-PGE bearing suphildes injections	60.09	60.31	0.22	70	670	1570	6800	4	250	
		Ni-PGE bearing suphildes injections	60.68	61.45	0.77	13	134	546	1790	327	144	
07-33	Cond. K/Bob	Fract. horiz. with Ni-PGE massive suphildes	7.08	8.20	1.12	103	351	3367	7362	3116	749	
07-34	Sample 150501	Disseminated sulphides in mafic volc.	No significant interval/result									
08-01	Cond. K/Bob	Disseminated Ni-PGE sulphides in mafic volc.	84.95	85.30	0.35	55	1100	1600	8200	2450	460	
		Disseminated Ni sulphides in mafic volc.	106.87	109.00	2.63	14	22	43	1267	168	71	
08-02	Cond. K/Bob	Disseminated Ni-PGE sulphides in mafic volc.	86.46	90.80	4.34	112	1218	1912	10304	3669	310	
		Ni-PGE bearing suphildes injections	91.66	93.18	1.52	26	681	1522	9565	4414	449	
08-03	Cond. K/Bob	Ni-PGE massive sulphide	85.53	85.86	0.33	25	1020	1370	27100	650	580	
		Disseminated Ni-PGE sulphides in mafic volc.	92.58	93.22	0.64	<5	580	280	9100	2640	280	
08-04	Cond. K/Bob	Ni-PGE bearing semi-massive sulphide vein	81.87	81.93	0.06	75	2050	4610	6500	22000	950	
		Ni-PGE massive sulphides	90.86	91.75	0.89	883	3034	2406	22507	2589	565	
08-05	Cond. M	Disseminated to massive sulphides	No significant interval/result									
08-06	Cond. K/Bob	Disseminated Ni sulphides in ultramafic unit	63.00	66.95	3.95	<5	<10	7	915	46	57	
		Disseminated Ni sulphides in ultramafic unit	76.73	81.62	4.89	<5	10	9	1139	57	57	
08-07	Cond. K/Bob	Disseminated sulphides	No significant interval/result									
08-08	Cond. K/Bob	Disseminated Ni-PGE sulphides in mafic volc.	84.43	85.91	1.48	24	499	2571	7242	2185	529	
		Disseminated Ni-(PGE) sulphides in ultramafic	90.00	92.47	2.47	17	78	131	1697	349	134	
08-09	Cond. K/Bob	Ni bearing ultramafic unit	87.30	93.67	6.37	9	19	28	938	26	75	
08-10	Bob showing area	Au-Cu bearing sulphides in ultramafic unit	242.46	242.85	0.39	10120	<10	<5	330	4000	82	
		Ni bearing ultramafic unit	246.80	248.20	1.40	<5	<10	11	1004	75	53	
		Ni bearing ultramafic unit	272.00	274.00	2.00	<5	20	35	1620	260	125	

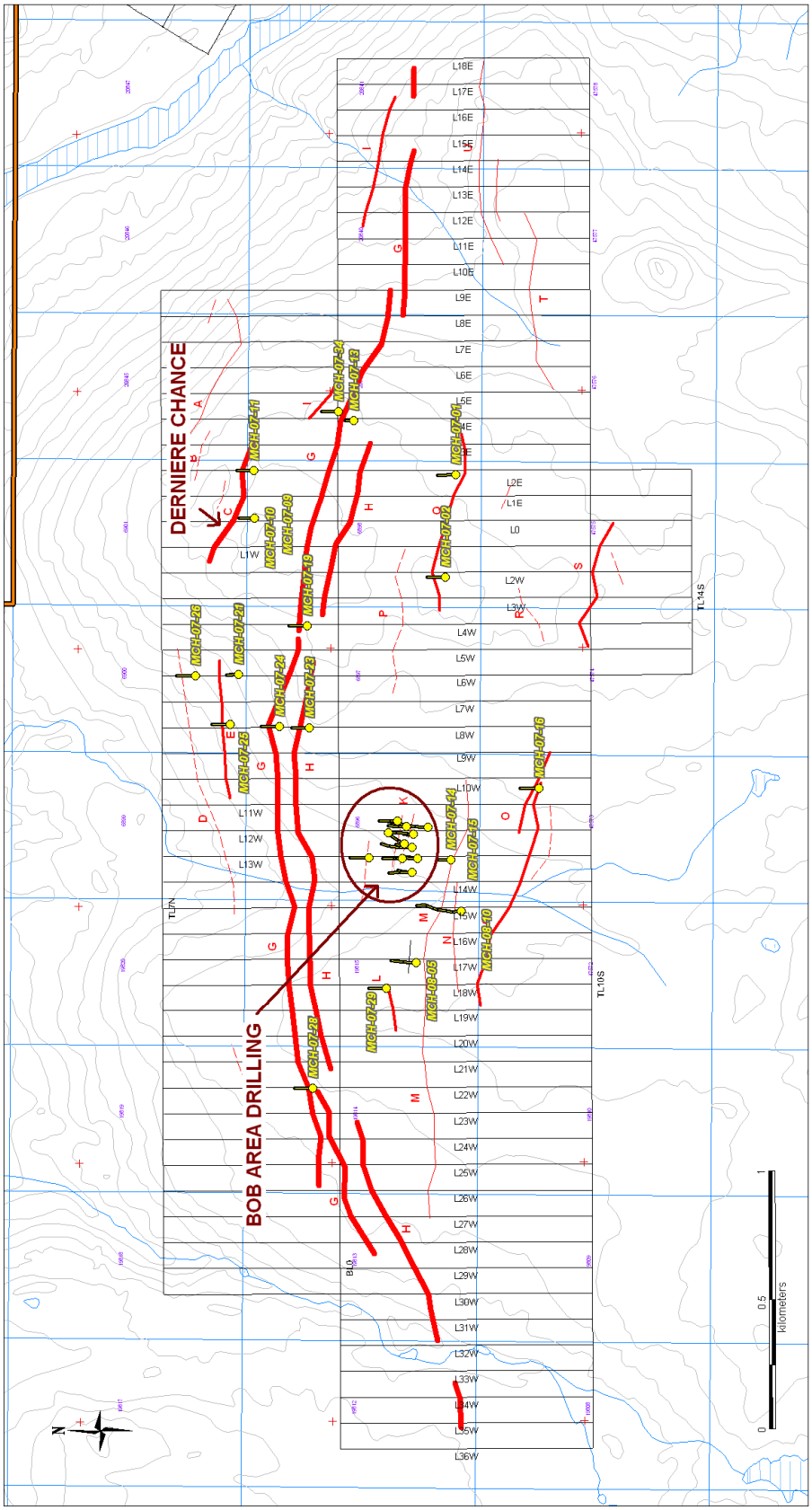

Figure 20 2007 and 2008 DDH Location Showing HLEM Conductors, MCH Main Block

5.4.2 Discussion of Results

Surface prospecting identified two 2 areas for their Ni-Cu-PGE potential : Bob/Bob-East and the Dernière Chance/Feu Showings. A third area, the Mountain-Front Showing, located some 600 meters west of the Dernière Chance/Feu Showings, was discovered during the 2007 diamond drill program (MCH-07-20 and 21).
Stratabound sulphide mineralization is ubiquitously associated with felsic volcanic rocks tuffs and mostly with minor ash tuffs interlayered with hematite-graphite-oxide iron formation. Mineralization ranges from massive to semi-massive and disseminated pyrrhotite with trace chalcopyrite and sphalerite. This occurs : (i) in the northern sedimentary sequences (MCH-07-09, 10 and 25); (ii) in the main central sedimentary sequences, i.e. from west to east, around Mouche Showing (MCH-07-12 and 13), in MCH-07-18 and 19; in MCH-07-22, 24, 27 and 29; and (iii) approximately 1 km to the east of Bob and Bob-East Showings in MCH-07-02.
Epigenetic Au mineralization occurs at Corbeau Showing (Holes MCH-07-11) and approximately 500m to the south of Bob and Bob-East (MCH-07-16).
Cu-Ag (±Au-Zn) mineralization associated with quartz-calcite veins occur at Mouche Showing (MCH-07-34) and 800m to the west of Dernière Chance/Feu Showings (MCH-07-25).

1- Bob and Bob-East Showings, HLEM Conductor K to Q
Among the eighteen (18) holes drilled proximal to Bob and Bob-East Prospect, sixteen (16) holes intersected Ni-Cu-PGE mineralization for approximately 200 meters along strike and to a depth of about 90 meters. The mineralization remains partially open along strike and partially at depth. Sections are discussed below from west to east (**Figure 21**).

Section 455125E – MCH-08-08 and 09
Diamond drill holes MCH-08-08 and 09 were collared from the same setup at 155 meters south-west of the Bob Showing. Mineralization is hosted in a metabasaltic breccia along the contact with an underlying ultramafic unit. Mineralization occurs as stringers and disseminations of pyrrhotite-chalcopyrite and gersdorffite. Hole MCH-08-08 intersected 1.48m grading 0.72% Ni, 0.22% Cu, 3.07 g/t Pd+Pt (0.50 g/t Pt and 2.57 g/t Pd). The ultramafic unit locally contains disseminated mineralization containing minor amounts of Ni, Cu and PGEs.

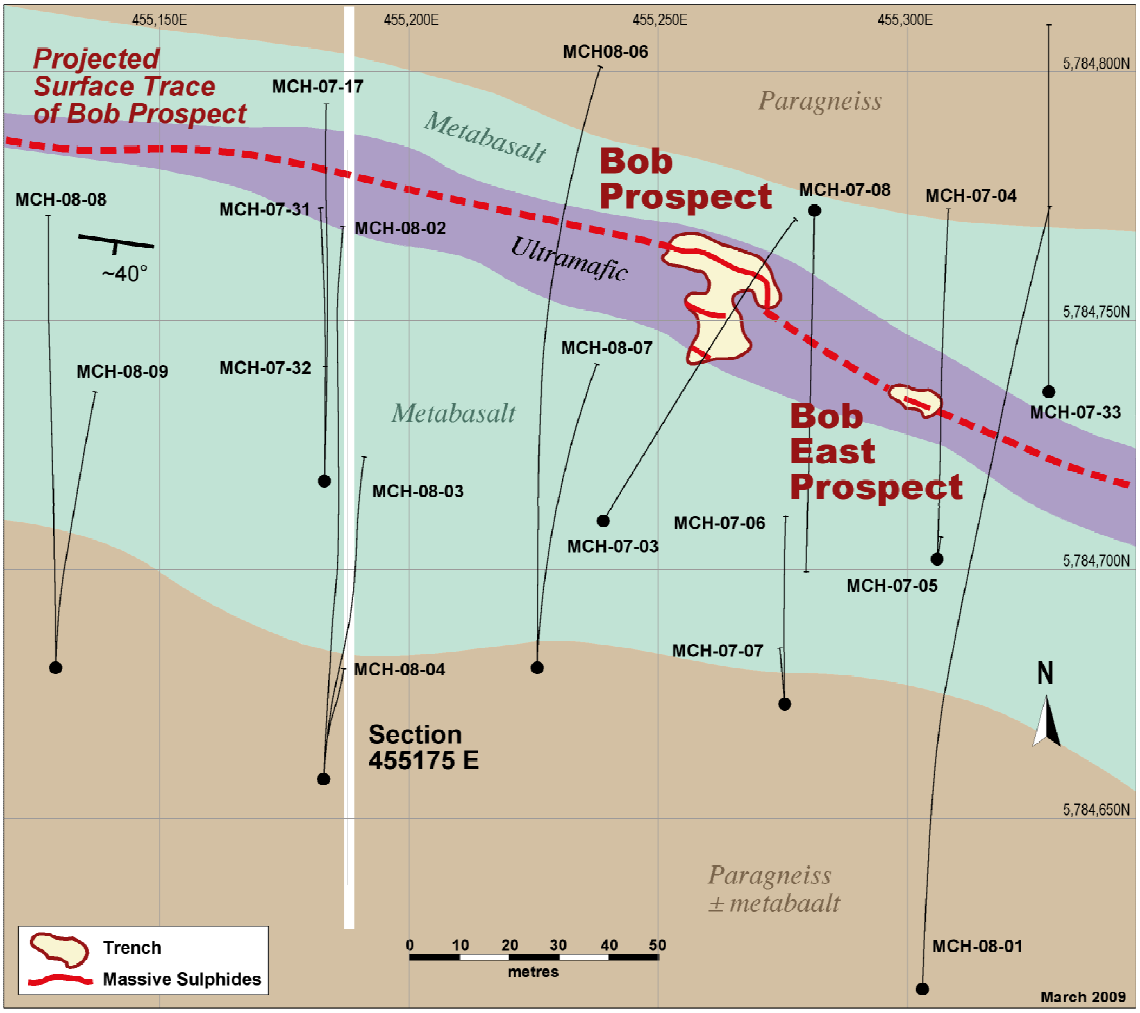

Figure 21 Bob and Bob-East diamond drill hole locations

Section 455175E – MCH-07-17, 30, 31, 32 and MCH-08-02, 03, 04

Diamond drill holes MCH07-17, 31 and 32, drilled respectively at -45°, -60° and -80°, were collared from the same setup at 100 meters south-west of the Bob Showing (**Figure 22**).

In hole MCH-07-17, mineralization is hosted by an ultramafic unit which is up to 10.90 meters in true thickness. The ultramafic unit is highly serpentinized, and altered to talc. It is believed to have been intrusive in origin due to the presence of rafts or inclusions of metabasalt and paragneiss.

Massive sulfide mineralization occurs preferentially along the structurally hangingwall contact or the ultramafic unit. Massive sulfides are composed of pyrrhotite, chalcopyrite, pentlandite and gersdorffite. Pyrrhotite, pentlandite and gersdorffite are interpreted to be co-genetic but the chalcopyrite appears to occur at least in part as a later phase as crosscutting veinlets.

Mineralized samples in MCH-07-17 (between 51.40 and 54.44m) returned 1.78% Ni, 0.49% Cu, 914 ppm Co, 8.57 g/t Pd+Pt (2.11 g/t Pt + 6.47 g/t Pd), over 2.04 meters, including 3.82% Ni, 1.47% Cu, 0.21% Co, 23.40 g/t Pd+Pt (5.11 g/t Pt + 18.29 g/t Pd) over

0.57 meter. This 2.04 meters section was re-assayed for the complete suite of PGE and returned 8.58 g/t Pd+Pt (2.11 g/t Pt + 6.47 g/t Pd), 0.44 g/t Rh, 0.40 g/t Ru.

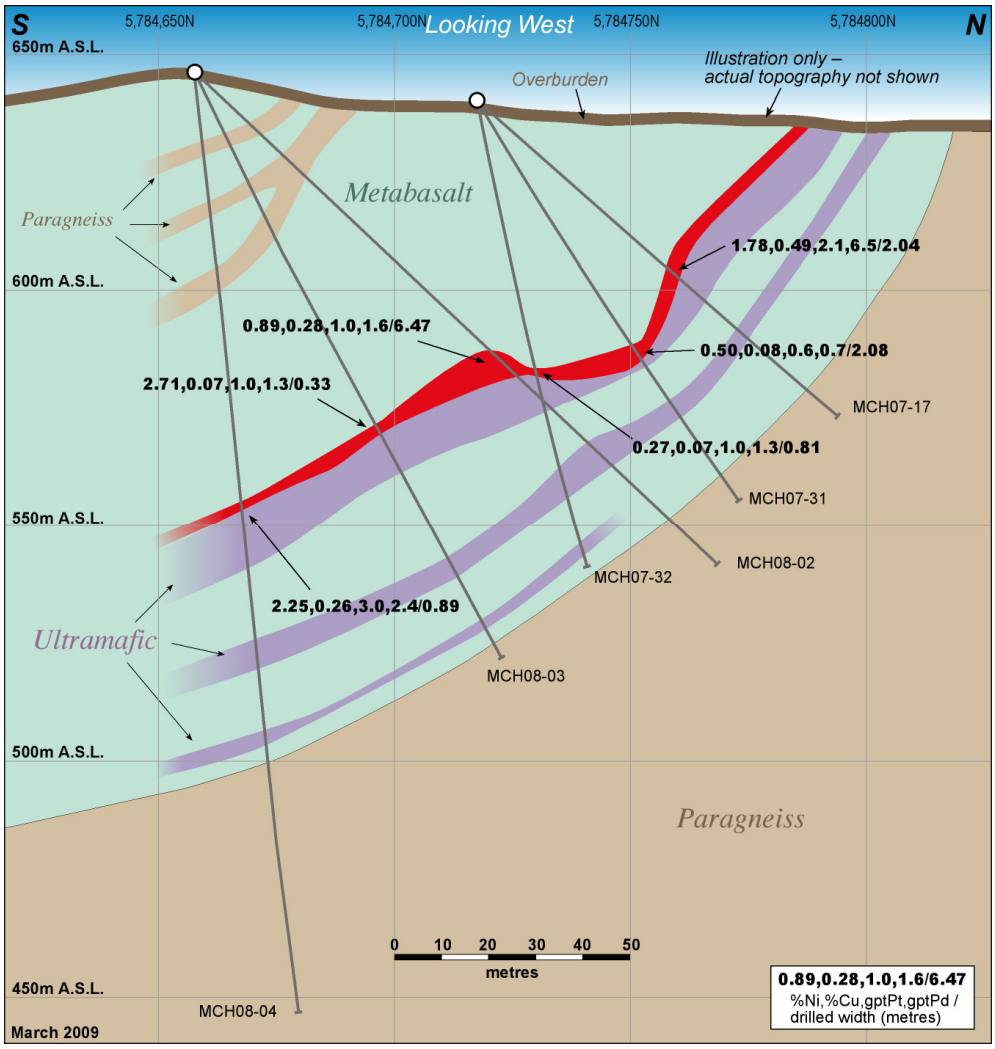

Figure 22 Cross section (ddh MCH-07-17, 31, 32; MCH-08-02, 03, 04) at Bob and Bob-East Showing

Correlative units in holes MCH-07-31 and 32 exhibits a similar lithological and mineralization setting. In hole MCH-07-31 the ultramafic unit is 7.30 meters thick. The mineralized zone occurs between 61.0 and 63.1m, and returned : 0.49% Ni, 0.08% Cu, 217 ppm Co, 1.22 g/t Pd+Pt (0.56 g/t Pt + 0.66 g/t Pd) over 2.08 meters.

The mineralized ultramafic unit in hole MCH-07-32 is 10.90 meters thick. Mineralization occurs within three small narrow zones of heterogeneous disseminated sulphides to semi-massive sulphide veinlets between 57.5 and 61.5m. The best assay was: 2.30% Ni, 0.75% Cu, 800 ppm Co, 1.67 g/t Pd+Pt (0.71 g/t Pt + 0.96 g/t Pd) over 0.25 meter (between 57.46 and 57.71m).

Diamond drill holes MCH-08-02, 03 and 04 were collared at the same setup at 60m to the south of holes MCH-07-17, 31 and 32 in order to assess the down dip extension of the mineralized zones. Mineralization is mainly located in the same brecciated basaltic

unit overlying the ultramafic unit mentioned above. Mineralization occurs as breccia stringers of semi-massive pyrrhotite, chalcopyrite and gersdorffite.
Hole MCH-08-02, with a dip of -43°, intersected the mineralized zones 43 meters down dip of those in hole MCH-07-17 and assayed 0.89% Ni, 0.28% Cu, 2.60 g/t Pd+Pt (0.90 g/t Pt and 1.64 g/t Pd) over 6.4 meters; including 1.00% Ni, 0.36% Cu, 4.11 g/t Pd+Pt (1.80 g/t Pt and 2.31 g/t Pd) over 2.11 meters. Samples 263621 to 263624 from 87.45 to 89.26m (1.81 meter) were re-assayed for the complete suite of PGE and returned 5.66 g/t Pd+Pt (2.53 g/t Pt + 3.13 g/t Pd), 54 ppb Rh, and 29 ppb Ru.
Hole MCH-08-03, with a dip of -65°, intersected 7.72 meters of mineralization (from 85.50 to 93.22m). The best values were : 2.71% Ni, 0.07% Cu, 2.39 g/t Pd+Pt (1.02 g/t Pt and 1.37 g/t Pd) over 0.33 meter, and 0.91% Ni, 0.26% Cu, 0.86 g/t Pd+Pt (0.58 g/t Pt and 0.28 g/t Pd) over 0.64 meter.
Hole MCH-08-04, with a dip of -84°, intersected 0.89 meter (from 90.86 to 91.75m) grading 2.25% Ni, 0.26% Cu, 5.44 g/t Pd+Pt (3.03 g/t Pt and 2.41 g/t Pd).
Diamond drill hole MCH-07-30, with a dip of -45**,** was collared 95 meters to the north of hole MCH-07-17, 31 and 32. This hole was collared to drill test HLEM Conductor J and failed to intersect any conductive horizon.

Section 455225E – MCH-07-03 and MCH-08-06, 07

Hole MCH-07-03 was drilled with a dip of -45° in a N030 direction to test for the down dip extension of Bob Showing. The drill hole intersected mineralization hosted by a laminated metabasalt close to the contact with the underlying ultramafic unit. The metabasalt is dark grey-colored and aphanitic. It has been partially altered to biotite and has been partially retrogressed to chlorite, with minor garnet porphyroblasts. Massive sulphides occur as thin <20cm thick lenses and stringers composed of medium-grained to coarse-grained pyrrhotite, gersdorffite and chalcopyrite. The best assay was 9.49% Ni, 710 ppm Cu, 0.45% Co, 9.05 g/t Pd+Pt (1.17 g/t Pt + 7.88 g/t Pd) over 0.16 meter.
Diamond drill holes MCH-08-06 and 07 were collared at 30 meters to the west-southwest of hole MCH-07-03 to test for the deeper and lateral (to the west) extension of Bob Showing. No significant mineralization was encountered in either hole.

Section 455275E – MCH-07-06a, 06, 07, 08

Diamond drill hole MCH-07-06a was drilled with a dip of -45° and was abandoned due to bad ground conditions before reaching its targeted depth. In hole MCH-07-06 (-55°) mineralization is hosted by the same ultramafic unit (except it was only 1.7 meter thick) as described previously. The sulphide bearing zone consists of ~ 0.5 meter thick massive pyrrhotite, pentlandite and chalcopyrite close to the interface with upper metabasalt. This zone assayed 3.11% Ni, 1.43% Cu, 0.11% Co, 8.61 g/t Pd+Pt (2.56 g/t Pt + 6.05 g/t Pd) over 0.44 meter. The interval was re-assayed for the complete suite of PGE and returned 10.53 g/t PGE, including 9.07 g/t Pd+Pt (2.77 g/t Pt + 6.30 g/t Pd), 0.60 g/t Rh and 0.59 g/t Ru.
Diamond drill hole MCH-07-07 was collared at the same setup as hole MCH-07-06 and 06a but with a dip of -85°. Diamond drill hole MCH-07-08, was drilled with a dip of -45° in the opposite direction (from north to south) to all the previous holes in an attempt to try and gain a better understanding of the geometry of the Bob Showing mineralization. Both these holes failed to intersect any significant mineralization.

Section 455305E – MCH-07-04, 05 and MCH-08-01

Diamond drill holes MCH-07-04 and 05 were collared at the same setup, at 36 meters south of Bob-East Showing, MCH-08-01 was collared 856 meters south of MCH-07-04 and 05, to test the down dip extension of the mineralization of Bob East Showing. Holes MCH07-04 and 05 intersected zones of massive sulphides near the contact between the ultramafic and metabasalt. In hole MCH-07-04, the mineralized zone occurred within the metabasalt. Massive sulphides occur over a core length of ~0.7 meter and are composed of fine-grained to medium-grained pyrrhotite, pentlandite +/- chalcopyrite as well as late <3mm pyrrhotite veinlets. The mineralized zone returned 2.36% Ni, 0.82% Cu, 0.15% Co, 7.30 g/t Pd+Pt (1.29 g/t Pt + 6.01 g/t Pd) over 0.67 meter.

In hole MCH-07-05, mineralization occurs deeper in the section and is hosted by the 1.9 meter thick ultramafic unit. Massive sulphides are ~0.6 meter in thickness and occur close to the interface with the underlying metabasalt. The zone is composed of fine-grained pyrrhotite, pentlandite +/- chalcopyrite associated with smoky quartz veins. The mineralized zone assayed 3.11% Ni, 0.30% Cu, 853 ppm Co, 6.17 g/t Pd+Pt (1.91 g/t Pt + 4.26 g/t Pd) over 0.62 meter. This section was also re-assayed for the complete suite of PGE and returned 8.57 g/t PGE, including 5.71 g/t Pd+Pt (1.85 g/t Pt + 3.86 g/t Pd), 0.96 g/t Rh and 1.38 g/t Ru.

Diamond drill hole MCH-08-01 with a dip of -43° was collared 86 meters to the south of holes MCH-07-04 and 05 to test the down dip extension of Bob East Showing. The hole encountered the permissive ultramafic unit over 18.9 meters. Mineralization occurs as stringers to veinlets of disseminated to semi-massive pyrrhotite with minor chalcopyrite. The best assay was between 84.95 and 85.30m (0.35 meter) which graded 0.82% Ni, 0.25% Cu, 460 ppm Co, 2.70 g/t Pd+Pt (1.10 g/t Pt + 1.70 g/t Pd).

Section 455325E – MCH-07-33

Diamond drill hole MCH-07-33 was collared 25 meters to the east of Bob East Showing. It encountered sulphide mineralization over ~2 meters in the upper part of the hole. Mineralization vary from disseminated (<1%) pyrrhotite to semi-massive veinlets and massive lenses of pyrrhotite with minor chalcopyrite; and is hosted by a highly sericitic, biotite-bearing felsic schist and adjacent chloritic schist. The best assay returned 0.74% Ni, 0.32% Cu, 3.72 g/t Pd+Pt (0.35 g/t Pt + 3.37 g/t Pd) over 1.12 meter.

MCH-07-29; Conductor L

MCH-07-29 was collared approximately 600 meters west of the Bob and Bob East Showings to test HLEM Conductor L. It intersected predominantly metasediments and a 15 meters thick, laminated felsic volcanic unit that was highly altered to sericite after biotite-hornblende +/- garnet. The lower part of this felsic unit (from 21.39 to 27.25m) is in contact with underlying basaltic tuffs and contained thin veinlets (<2-3mm) and patchy lenses (<1cm) of semi-massive to massive pyrrhotite with traces of bornite/covellite. The section between 23.04 to 26.21m returned anomalous values of zinc (0.10 % Zn over 3.17 meters).

MCH-08-05; Conductor M

MCH-08-05 was collared on grid line L17W approximately 500m west of the Bob Showing, to test HLEM Conductor M. It intersected predominantly metasediments and

ended in laminated metabasalt. The metasediments contained thin 10-20cm horizons of disseminated, semi-massive to massive and fine-grained pyrrhotite which returned no significant values.

MCH-08-10; Conductor M

Diamond drill hole MCH-08-10 was collared approximately 170 meters southwest of holes MCH-08-02 to 04 in order to test a magnetic high anomaly as well as for the possible down dip and lateral extension of the mineralization intersected in MCH-08-02 to 04. The hole encountered predominated heterogeneous metabasalt along with mafic tuffs and some minor metasedimentary units. In addition, several ultramafic units ranging from 1.1 to 6.2 meters was intersected in the upper part of the hole. These ultramafic units are not believed to be the same as those that host the mineralization at Bob and Bob-East. No significant Ni-Cu-PGE mineralization encountered in the hole. A sample of altered ultramafic unit, containing disseminated chalcopyrite, 10.12 g/t Au and 0.40% Cu over 0.39 meters.

MCH-07-14, 15; Conductor M

Diamond drill holes MCH-07-14 and 15, with dips of -45° and -80° respectively, were collared at the same setup at approximately 240 meters south of the Bob and Bob-East Showings to also test HLEM Conductor M. They encountered mainly heterogeneous metabasalt containing a few semi-massive to massive horizons (<0.5m in thickness) of pyrrhotite. No significant, economic values were recovered in the holes.

MCH-07-16; Conductor O

Diamond drill hole MCH-07-16 was collared approximately 600 meters to the south-southeast of the Bob and Bob-East Showings to test HLEM Conductor O. The hole encountered predominately heterogeneous metabasalt along with minor mafic tuffs containing numerous narrow intersections of massive pyrrhotite. One zone of disseminated (<5%) pyrrhotite and arsenopyrite in a laminated basaltic tuff, returned 1.31 g/t Au over 0.95 meter.

MCH-07-01, 02; Conductor Q

Diamond drill holes MCH-07-01 and 02, were collared at approximately 1.2 kilometres east-southeast of the Bob and Bob-East Showings to test HLEM Conductor Q. Hole MCH-07-01 - which was drilled towards the south and down dip to lithologies - intersected heterogeneous metabasalt and a layer of metagabbro. No significant mineralization was observed. Hole MCH-07-02, which was drilled towards the north, intersected metabasalt and two volcanic felsic units. The upper felsic unit was 8.7 meters-thick, highly altered to sericite and fuchsite, and contained 5% pyrrhotite veinlets and veins (<1cm-thick) that returned 0.12% Zn, 255 ppm Cu over 4.61 meters (between 35.88 and 39.68m). The lower felsic unit is 3.1 meters thick and more heterogeneous in composition. Brecciated and sericite-rich felsic crystal tuffs grade out down-hole into laminated ash tuffs with mudstones and graphite-hematite-oxide iron formations, that contain 10-15% disseminated pyrrhotite-chalcopyrite and returned 0.19% Zn, 340 ppm Cu over 1.15 meter (between 61.98 and 63.13m).

2 – Feu, Dernière Chance and Corbeau 2 Showings

Dernière Chance Showing (MCH-07-09, 10); HLEM Conductor C

Diamond drill holes MCH-07-09 and 10 were collared at the same setup to test below the surface expression of the Dernière Chance Showing (**Figure 23**). Ni-Cu-PGE mineralization at Dernière Chance is associated with an ultramafic unit at the interface with an overlying metabasalt. The host ultramafic unit was 19.67 meters in thickness in hole MCH-07-09 and was 22.29 meters thick in hole MCH-07-10. Mineralization in hole MCH-07-09 returned 0.55% Ni, 0.07% Cu, 0.61 g/t Pd+Pt over 0.39 meter. Hole MCH-07-10 returned 1.04% Ni, 0.47% Cu, 940 ppm Co, 0.84 g/t Pd+Pt (0.20 g/t Pt + 0.64 g/t Pd) over 0.21 meter.

A volcanic felsic unit underlying the ultramafic unit was intersected over 14.4 meters in MCH-07-09 and over 4.1 meters in MCH-07-10. This felsic unit contains massive to semi-massive sulphide mineralizations, which are anomalous in Zn and Cu (**Figure 23**). Semi-massive to massive sulphide zones, consisting of pyrite and pyrrhotite, are interlayered at a scale of <40cm thickness over 3.67 meters in hole MCH-07-09, and returned 0.19% Zn over 0.81 meter. Mineralization in MCH-07-10 is predominantly semi-massive over 1.17 meter; assays returned 0.17% Zn over 0.21 meter.

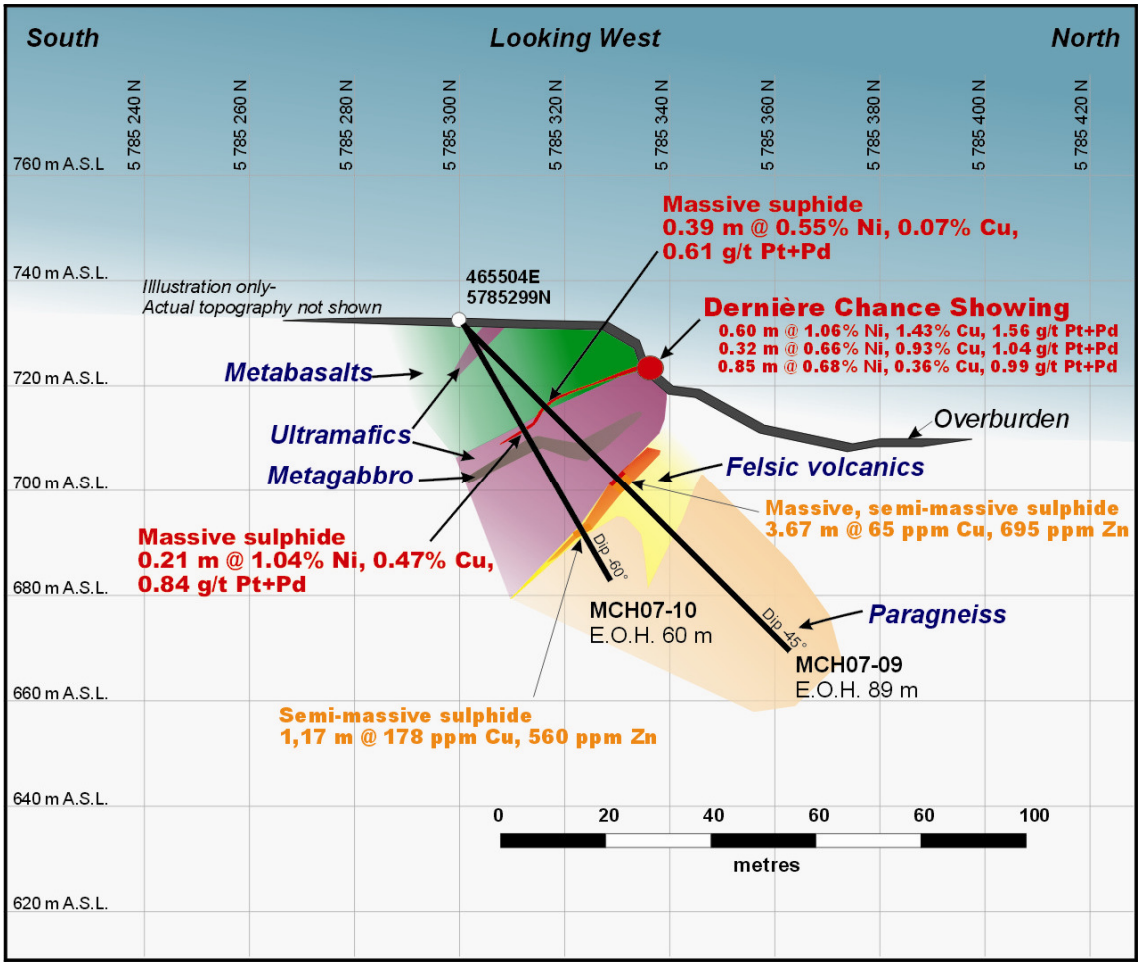

Figure 23 Cross section through MCH-07-09, 10 and Dernière Chance Showing

Corbeau-2 Showing; MCH-07-11; HLEM Conductor C

Diamond drill holes MCH-07-11 was collared at 190 meters to the east of the Dernière Chance Showing to test for the possible strike extension of the Dernière Chance mineralization as well as the down dip extension of a surface showing known as the Corbeau-2 Showing where a grab sample of 2.74 g/t Au was obtained.

Hole MCH-07-11 failed to intersect any permissive ultramafic units. Epigenetic Au mineralization consisting of disseminated pyrrhotite associated with quartz-hornblende veins (<2.85 meters-thick) occurred in a highly foliated or mylonitic gabbro. A section between 60.67 and 61.47m assayed 1.03 g/t Au over 2.01 meters.

MCH-07-20, 21 and MCH-07-25, 26; HLEM Conductor D and E

Ni-Cu-PGE mineralization, Mountain-Front Showing, was intersected in diamond drill holes MCH-07-20 and 21 which were collared approximately 600 meters west of the Feu and Dernière Chance Showings.

In the top part of hole MCH-07-20, a 3.83 meters thick section of felsic tuffs interlayered with mudstone and hematite-graphite oxide-facies iron formation enclosed in metabasalt was encountered. This section contained semi-massive pyrrhotite which returned 0.16% Zn and 0.04% Cu over 2.35 meters. More significantly, further down the hole a 4.15 meters thick ultramafic unit was intersected containing several short intervals of <0.25 meter thick massive pyrrhotite, which returned values up to 0.41% Ni, 0.16% Cu, 0.98 g/t Pd+Pt (0.11 g/t Pt + 0.87 g/t Pd) over 0.76 meter. This ultramafic unit in hole MCH-07-21 was thicker (12.13 meters) but massive sulphide mineralization does not exceed 0.37% Ni, 0.40% Cu, 443 ppm Co, 176 ppb Pd+Pt.

Diamond drill hole MCH-07-26 was collared at 170 meters to the north of ddh MCH-07-20 and 21. Hole MCH-07-26 intersected several intervals (<11.2 meters thick) of ultramafic units which where locally altered to liestwanite but no significant sulphide mineralization was encountered.

Approximately 200 meters further to the west of holes MCH-07-20 and 21, MCH-07-25 was collared to test for the possible continuation of the mineralization intersected at Dernière Chance. This hole intersected several quartz-calcite veins (<10cm-thick) in the first 43 meters of the section, containing semi-massive to massive pyrrhotite with minor chalcopyrite. Sulphides range from very fine-grained to coarse-grained and are recrystallized. Quartz-calcite veins and mineralization are cutting at high angle (50-60°) the main S1-S2 foliation. A sample assayed 0.68% Ni, 0.71% Cu and 2.3 g/t Ag over 0.29 meter (between 15.77 and 16.06m).

Further down the hole, a thin unit (1.2 meter thick) of ultramafic was intersected but it was found to be barren of Ni-Cu-PGE mineralization.

At the bottom the hole, a >10 meters thick unit composed of felsic volcanics that were heterogeneously altered into sericite, biotite, hornblende and garnet, or biotite, garnet and fuchsite. This felsic unit was cut by quartz veins associated with sphalerite, pyrrhotite and chalcopyrite. Two samples (#150628 and #150630) returned respectively 2.15% and 1.52% zinc.

3 – Central Volcano-Sedimentary Sequence; HLEM *Conductors G and H*

The main central volcano-sedimentary sequence is outlined by two sub-parallel HLEM Conductors G and H that can be traced in an east west direction across the Mouchalagane Property over a length of more than 2.6 kilometers. Ten diamond drill holes have been collared along these conductors. Main features are presented below (from west to east).

MCH-07-27, 28; HLEM Conductors G and H

Diamond drill holes MCH-07-27 and 28, with dips of -45° and -70° respectively, were collared from the same setup at the interpreted western closure of the two HLEM Conductors.

Hole MCH-07-27 intersected in its upper part a 12.20 meters-sequence of felsic volcanic rocks varying from laminated and very-fine-grained ash tuff to homogeneously foliated and medium-grained crystal tuff. The upper part of the sequence contains massive sulphide horizons. Sample #150658 taken from a 10cm-thick, coarse-grained, massive sulphide horizon returned 1.3 g/t Ag over 0.17 meter, and sample #150662 taken from massive pyrrhotite associated with quartz vein returned 0.18% Cu over 0.62 meter.

Further down the hole, from 54.31 to 80.04m, thin (<1 meter) layers of felsic tuffs were found to be interlayered with thicker (<10 meters) layers of metasediments. Six (6) samples (#150685, 150689, 150694, 150696, 150699, 150704) with disseminated to semi-massive veinlets of pyrrhotite-(pyrite)-chalcopyrite associated with quartz and/or calcite veinlets, and returned up to 0.34% Zn, 0.09% Cu over 0.23 meter.

MCH-07-22, 23 and 24; HLEM Conductors G and H

Diamond drill holes MCH-07-22 and 23, with dips of -45° and -60° respectively, were collared at the same setup in the center of the grid area on grid line L8W to test HLEM Conductor H. Diamond drill hole MCH-07-24, with a dip of -45°, has been collared 20 meters to the north to test the parallel HLEM Conductor G. The three holes intersected sequences of felsic volcanic rocks interlayered with horizons of mudstones and graphite-oxide iron formations. Bands, veins and breccias veins of massive to semi-massive pyrrhotite and chalcopyrite were noted. The two sequences are interpreted to form the upper and lower limbs of a complex synform fold pattern, verging to the north. In hole MCH-07-22, the upper sequence (from 51.05 to 55.92m) returned 0.58% Zn, 586 ppm Cu over 0.88 meter. The correlative sequence in MCH-07-23 (from 53.44 to 60.15m) returned 0.13% Zn, 560 ppm Cu over 0.18 meter and 0.11% Zn, 261 ppm Cu over 3.15 meters. The upper sequence in hole MCH-07-24 (between 4.5 and 9.0m) returned 0.31% Zn, 0.28% Cu over 1.09 meter. The lower sequence (between 89.79 and 94.75m) in MCH-07-22 returned 0.48% Zn, 0.05% Cu over 0.93 meter.

MCH-07-18 and 19; HLEM Conductor H

Diamond drill holes MCH-07-18 and 19, with dips of -45° and -80° respectively, were collared at the same setup approximately 400 meters to the east of MCH-07-22 and 23 on grid line L4W also to test HLEM Conductor H. The upper part of both holes intersected three thin units of felsic volcanic rocks interlayered with horizons of mudstones and graphite-oxide iron formations, and contained quartz veins and breccias

veins associated with massive to semi-massive pyrrhotite and chalcopyrite. The three felsic units are less than 5.91 meters.
In MCH-07-18, samples taken from the upper felsic unit (between 11.55 and 13.75m) of have not been analyzed for zinc. Samples from the middle felsic unit (between 29.80 and 33.40m) returned 0.25% Zn, 596 ppm Cu over 3.10 meters. A down-hole lower, subsidiary felsic unit (between 40.37 and 44.80m) returned 0.20% Zn, 142 ppm Cu over 3.77 meters.
Correlative units and associated mineralized zones in MCH-07-19, returned up to 0.16% Zn, 757 ppm Cu over 0.80 meter from the upper felsic unit (between 12.90 and 17.86m). Massive sulphides occurring in the middle unit (28.80 and 34.71m) returned 0.39% Zn, 531 ppm Cu over 1.19 meter.

Mouche Showing Area, MCH-07-12, 13 and 34; HLEM Conductors G and H

Diamond drill holes MCH-07-12 and 13, with dips of -45° and -80° respectively, were collared at the same setup in the eastern part of grid area on line L4E to test HLEM Conductors G and H. Both holes intersected predominated barren metagabbro. Both holes mid-sections are composed of a sequence of felsic tuffaceous rocks interlayered with horizons of mudstones and graphite-oxide iron formations containing veins and breccias veins of massive to semi-massive pyrrhotite and chalcopyrite. This rock package reaches 8.09 meters in thickness in MCH-07-12 and 9.72 meters in thickness in hole MCH-07-13.
Mineralization in MCH-07-12 averages 0.25% Zn, 630 ppm Cu over 3.87 meters (between 13.84 and 17.71m). Correlative mineralization in MCH-07-13 returned 0.32% Zn, 600 ppm Cu over 4.01 meters. Adjacent to the lower felsic crystal tuff section is a fuchsite-bearing, semi-massive pyrrhotite-pyrite, stockwork-like breccia zone. This mineralized section returned 825 ppm Zn, 244 ppm Cu over 1.38 meter (between 22.55 and 23.93m).

Diamond drill hole MCH-07-34, with a dip of -45°, was collared approximately 70 meters to the north-northeast of holes MCH-07-12 and 13 to test beneath the Mouche Showing where 2.81 g/t Au, 0.14% Ni, 0.12% Cu and 620 ppm Co were obtained from a surface grab sample. Hole MCH-07-34 intersected metagabbro grading out downhole into very fine-grained to aphanitic tuffaceous metabasalt which contains two sets of epigenetic mineralization : (i) barren veinlets of semi-massive pyrrhotite associated with laminations of hornblende-garnet; and (ii) veinlets of very fine-grained, semi-massive pyrrhotite-chalcopyrite or lenses of coarse-grained pyrrhotite-chalcopyrite-pyrite associated with quartz-calcite veinlets. This second type of alteration and mineralization returned 0.20% Cu, 1.12 g/t Ag over 1.87 meter (between 25.87 and 27.74m).

5.5 2007 and 2008 Prospecting Program

5.5.1 Introduction

Prospection programs were conducted from June to September, 2007 and from June to September, 2008 under the supervision of A. Berclaz, F. Bissonnette and C. Perry. The main objectives were to :

(1) evaluate the potential and extensions of the Ni-Cu-PGE mineralizations found in 2006 on the Mouchalagane property,

(2) explore the Main Mouchalagane Block for new Ni-Cu-PGE occurrences,

(3) investigate the presence of airborne electromagnetic anomalies (AEM) and ground HLEM conductors over the 2008 grids.

The AEM and HLEM conductors were ground truthed with the aid of a Beepmat IV+ geophysical prospecting device, rented from Instrumentation GDD Inc of Québec City. Where mineralized bedrock was observed it was exposed by manual overburden stripping and grab sampled using a hammer and chisel. A total of 493 samples were collected, individually bagged and labelled and then put into rice bags for shipping to TSL Laboratories in Saskatoon, where 54 analysis were produced by Fire Assay in order to get accurate gold, platinum, palladium, nickel, copper and cobalt content, 436 analysis were produced for multi-element analyses (Scan : Aqua Regia\ICP-MS), 13 of the 'scanned' samples were also analysed for their content in platinum and palladium. Lithologies descriptions for 30 of the 493 grab samples were lost during the 2008 program. Finally, 7 rocks samples were analysed for their major element composition.

5.5.2 Discussion of results

Ni-Cu Deposit Showing

Highly anomalous nickel-copper-cobalt results are present in pyrrhotite dominated massive sulphide and disseminated sulphide mineralized 3m wide quartz veins injected in a gabbro host on outcrop **CP-08-079** area. Nickel and cobalt results are strong mineralized sample, while copper values are erratic. Even if very little work was performed so far on the showing, we think it possesses a fair Ni-Cu-Co potential. We cannot statute on the PGE potential of the showing before all of the sulphide rich samples are assayed for the PGE content. Showing is located in the mid-eastern part of MCHM-C02 grid, close to the stream that separates C02 and C03 grids; it is located in the vicinity of HLEM conductor MM-1. Main results are presented in **Table 4**.

Table 4 Outcrop CP-08-079 area main results, MCHM-C02 grid

Sample	Lithology	Mineralization	Au ppb	Pt ppb	Pd ppb	Ni ppm	Cu ppm	Co ppm	As ppm	Zn ppm
266470	v.FPQZCB	PO10(CP)	13			**3252**	**2466**	**691**	<0.5	16
266473	v.QZCL	PO35CP++	10			**2726**	**6269**	**586**	<0.5	5
266474	v.QZCL	PO15CP++	**95**	<10	25	**2920**	**3370**	**650**		
266475	SFM	PO50CP	4			**6922**	415	**1672**	<0.5	6
266476	v.QZ	PO30CP++	26			**2240**	**19000**	**587**	**176**	30
266477	SFM	PO40CP++	40	<10	35	**3620**	**3560**	**820**		
266479	v.QZ	PO20CP	4			**3580**	467	**799**	<0.5	3
266482	v.QZ	PO++CP+	7			**2185**	**2875**	**539**	<0.5	4
266483	v.QZ	PO++CP	3			**1795**	1631	456	<0.5	3

Copper-Cobalt Carl Showing

Located in the south-eastern part of the MCHM-C03 grid, Carl Showing is composed of a spectacular pyrrhotite dominated 1m thick massive sulphide enclosed in an ultramafic unit in contact with metasomatic fuchsite-tourmaline gneiss. The massive sulphide geophysical expression is related to the wide HLEM conductor MM-8. Others massive sulphides have been discovered in the Cark Showing area, they are associated with altered basalts. Copper (up to 1.65%) and cobalt (up to 0.38%) results are attractive; nickel values are generally low. We believe to be in front of a new type of mineralization for the area. More comprehensive ground work is needed to understand this Cu-Co occurrence. Main results are presented in **Table 5**.

Table 5 Carl Showing main results, MCHM-C03 grid

Sample	Lithology	Mineralization	Au ppb	Pt ppb	Pd ppb	Ni ppm	Cu ppm	Co ppm	As ppm	Zn ppm
266089	SFsm	PO30PY(CP)	11			176	**3695**	**1146**	28	43
266090	SFsm	PO25PY+CP+	14			219	**3461**	437	17	327
266091	SFM	PO40PY+CP+	69	<10	15	326	**4300**	**607**	12	36
266093	SFsm	PO20PYCP+	35	<10	10	202	**12100**	**953**	10	81
266094	M4/S1	PO++PY(CP)	5			152	**3231**	60	<0.5	54
266095	SFsm	PO30PYCP+	22	<10	10	186	**4400**	**963**	13	49
266096	SFsm	PO20PYCP	11			158	**4057**	209	2	273
266097	SFM	PO40PYCP+	25	<10	35	242	**9700**	**1634**	2	92
266098	SFsm	PO25PYCP++	7			274	**4946**	112	<0.5	23
266101	SFM	PO60PY+CP(AS)	8			271	**3233**	**1192**	**670**	22
266106	SFM	PO50PY+CP+	8			123	**5489**	**2800**	**197**	50
266108	SFM	PO40CP++PY+(AS)	18			263	**16500**	**1179**	**437**	31
266109	SFM	PY50CP+PO+	23			96	**6159**	**3800**	**135**	108
266110	SFM	PO60PY+CP	11			359	**5253**	191	**282**	29
266452	SFM	PO40CP++	50	<10	15	320	**2890**	130		
266453	SFM	PO50CP++	15			739	**4146**	306	<0.5	59
266457	M12	PO++(CP)	14			312	**2615**	153	<0.5	1375
266466	SFM	PO35CP++	20	<10	35	**1590**	**9400**	**570**		

Nickel-chromium occurrences
Two rock samples anomalous in Ni-Cr are associated with two distinct talc altered ultramafic flows located in the eastern part of grid MCHM-C03. 266417 : 0.10% Ni and 0.24% Cr; 266418 : 0.13% Ni and 0.19% Cr.

Gold occurrences
Best surface gold results (sample 150501 : **2.81 g/t Au**) came from Corbeau-2 showing area (Mouchalagane main grid). It confirms the previous grab sample that contained 2.74 g/t Au.
Worth mentioning, two (2) sulphide bearing felsic volcanics outcrops gave **1.2** and **1.1 g/t Au** (samples 265904 and 150503). These occurrences are about 1 km apart, sample 265904 being located close to HLEM conductor D and sample 150503 being located right on HLEM conductor G.

5.6 2007 and 2008 Soil Sampling

5.6.1 Introduction

The goals were to support prospection and to detect the presence of geochemical anomalies in the environment of the geophysical features. Soil samples, b-horizon, were collected to cover the multiples AEM and HLEM conductors present on the several grids of the entire property. During 2007 and 2008 field programs, a total of 1 226 soil samples were collected and sent for analysis.

In 2007, 405 soil samples were collected to cover the Main Mouchalagane grid. In 2008, 821 soil samples were collected on the twelve new grids, which cover selected AEM anomalies and HLEM conductors located on Main and West Mouchalagane Blocks (**Figure 14**). Sampling spacing was about 50m along the grid line. All the samples were assayed for multi-elements package (Scan).

5.6.2 Discussion of Results

This survey highlights numerous and correlative anomalies in Ni, Cu, Co, Cr indicating presence of ultramafic rocks and is locally correlative with Ni-Cu-PGE mineralizations and/or EM conductors. Other relevant multi-elements anomalies highlight correlative anomalies in Au and in As mainly in eastern part of the grid area (from L2W to L4E). Au and As correlation is more punctually correlative in the remaining area.

Mouchalagane Main Grid (Figure 24)
Nickel
Forty-six (46) soils samples are presenting nickel anomalies, ranging from 30.6 to 217.3 ppm Ni. A group of six (6) anomalous nickel results (from 37.9 to 205 ppm Ni) are associated with the Ni-Cu-PGE Bob showing.
On line L30W, two (2) nickel anomalies (36.9 and 46.8 ppm Ni) are present in the western extension of an ultramafic unit, located close to HLEM conductors G and H.

In the northern part of the grid, a group of three (3) very strong nickel anomalies (111, 112.5 and 143 ppm Ni) are related to mafic/ultramafic units and coincident with HLEM conductors A and F.
In the eastern end of the main grid, a single nickel very strong anomaly (161.9 ppm Ni) is coincident with HLEM conductor U. Please note that a 0.43% Cu showing is present at a close distance to the west.
Numerous nickel anomalies are presents along the southern and western borders of the main grid which are not related to mineralized outcrop or HLEM conductors, including the higher nickel results of the survey (217.3 ppm Ni).

Copper

Soil geochemical survey outlined some 28 sites anomalous in copper; values are ranging from 38.9 to 590 ppm Cu. The higher values (237, 241, 466 and 590 ppm Cu) are located in the eastern half of the main grid near metasedimentary unit and/or major fold axis. A group of four (4) anomalies (from 60.1 to 108 ppm Cu) are spatially associated with the Ni-Cu-PGE Bob showing. Nineteen (19) of these Cu anomalous sites are also anomalous in nickel.

Gold

Almost all the gold anomalous values in soil are located on the main grid. Nine (9) values between 38.3 and 450 ppb Au are located in the northern part of the grid with five (5) of them bordering a gold showing. In the central part of the grid there are two significant clusters of three and seven anomalous sites (from 30.1 to 92.3 ppb Au) that are not related to known mineralizations.

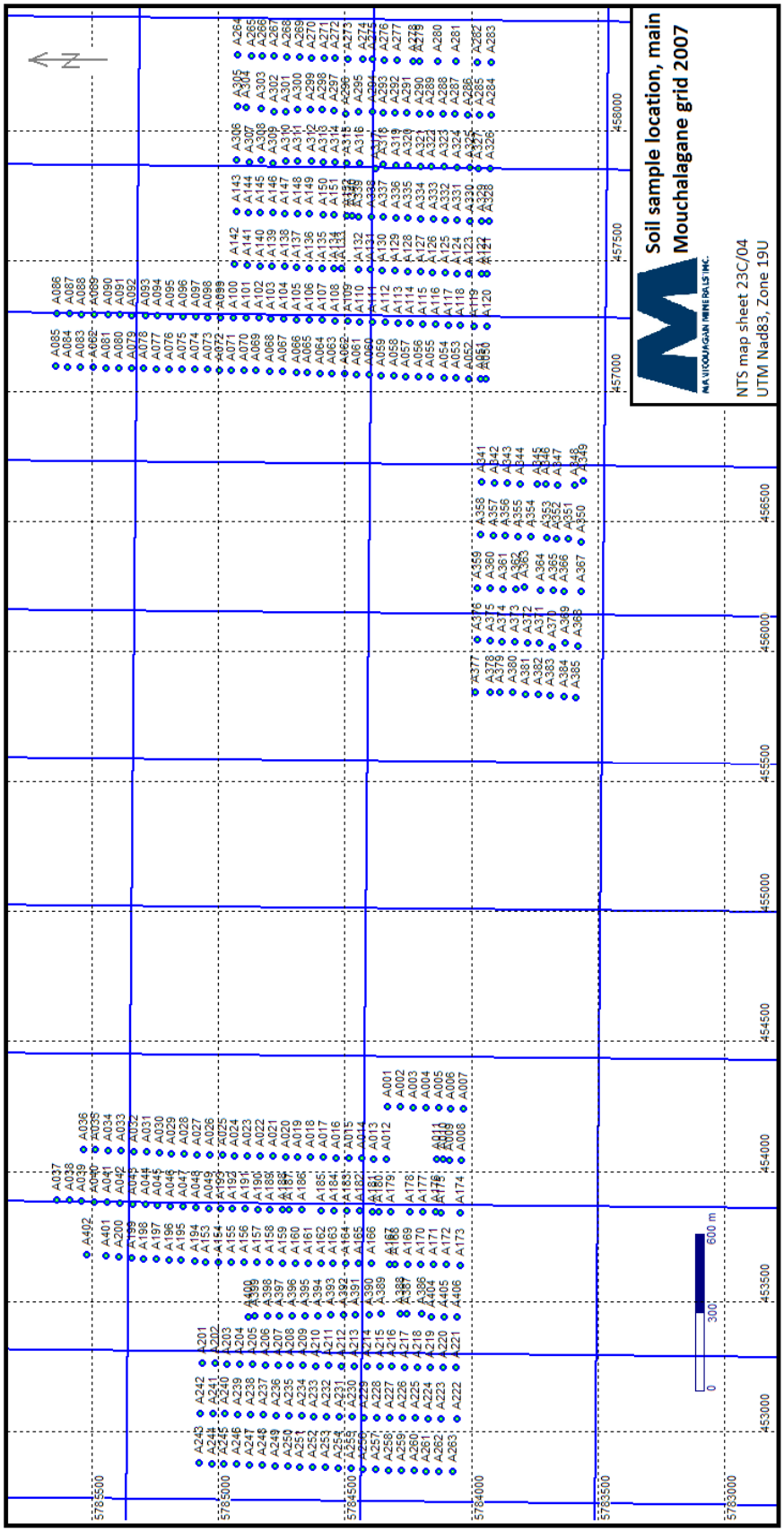

Figure 24 Soil sample location, main Mouchalagane grid, 2007

MCHM-C01 Grid (Figure 25)
Five (5) soils samples are anomalous in nickel (from 30.7 to 45.9 ppm), they are located on lines L6S and L12S. Nickel anomalies remain open to the west. Three (3) nickel anomalies are present on line L6S are coincident with a high magnetic signature.

On the grid, six (6) sites are anomalous in copper (from 39.5 to 181.3 ppm Cu). A group of four (4) anomalies is located on the eastern part of line L6S covering both side of a thin basaltic flow inside a broader metasediments unit. This anomalous area is partly coincident to HLEM conductor MM-1 on line L6S. Only one of these sites is also anomalous in Ni.

MCHM-C02 and C03 Grids (Figure 26)
The area holds thirteen (13) sites anomalous in nickel (from 32.8 to 92.3 ppm Ni). Ten (10) anomalies are spatially related to some ultramafic/mafic units in the southeastern part of grid MCHM-C03, where HLEM conductors MM-9 and MM-10 are present. Two (2) others nickel anomalies are located on grid C02, close to HLEM conductor MM-3.
In the C02 and C03 grids, twenty (20) sites are showing copper anomalies (from 38.2 and 144 ppm Cu). The anomalies are mainly associated with basaltic rocks. Two of these sites are also anomalous in nickel.

MCHW-C01 Grid (Figure 27)
Six (6) sites are anomalous in nickel (from 31.7 and 39.6 ppm Ni). They do not seem to be related to any particular geophysical signature (mag and/or EM). Only one site is also anomalous in copper (39.9 ppm Cu), located in the southern end of line L2E.

MCHW-C02 Grid (Figure 27)
No geochemical anomaly in soils recorded on this grid. The highest values obtained for base metals are 25.9ppm Ni and 14.3ppm Cu, which are not worth mentioning.

MCHW-C03 Grid (Figure 27)
Four (4) sites are anomalous in nickel (from 40.2 to 107.7 ppm Ni). Two (2) of these (40.2 and 53.2 ppm Ni) are located in the vicinity of HLEM conductor MM-2, who appear to border an elongated magnetic high feature. A very high value of 107.7 ppm Ni is coincident with HLEM conductor MM-1. The higher copper value in soils sample on this grid is 18.5 ppm Cu, which is not worth mentioning.

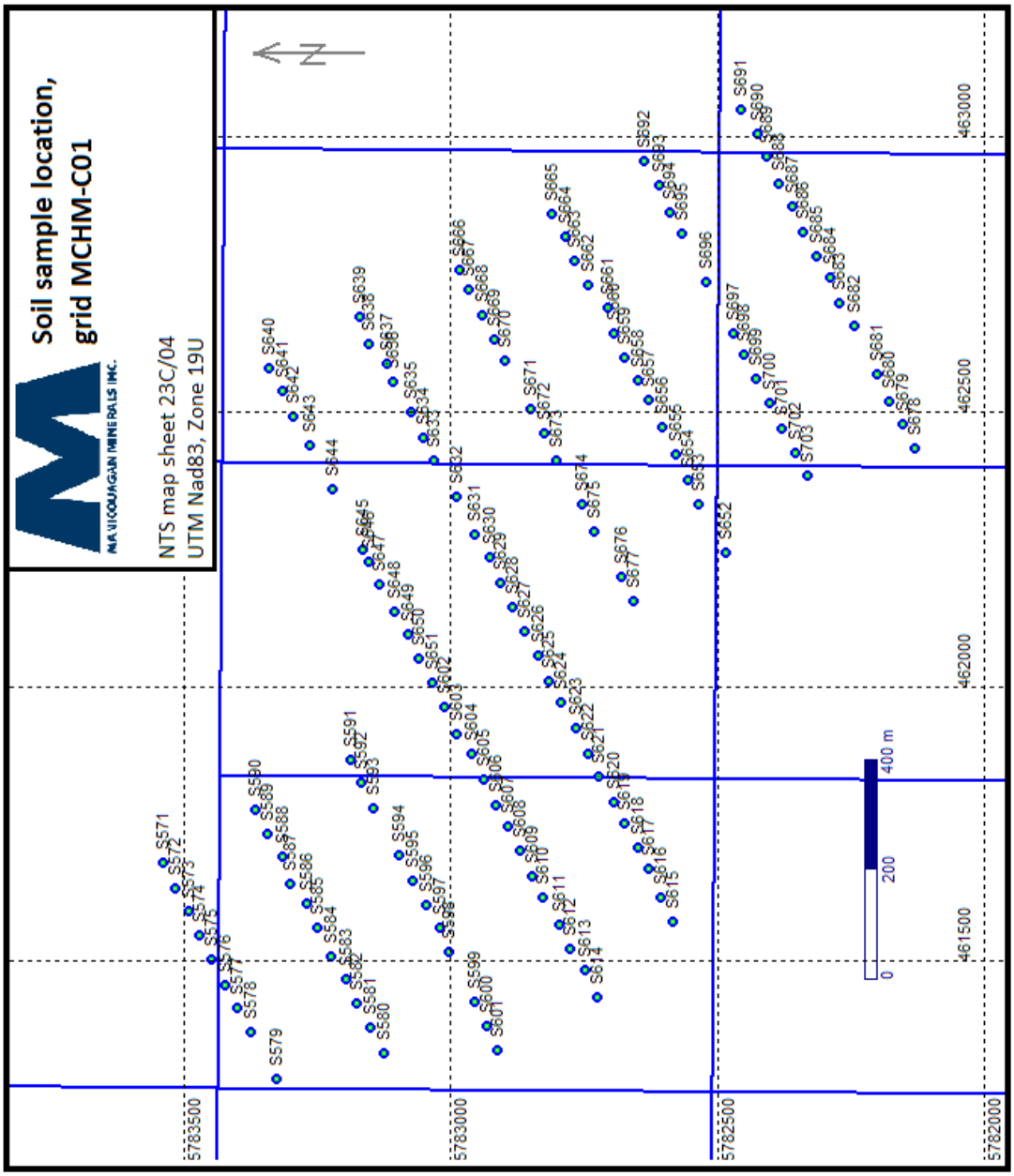

Figure 25 Soil sample location, grid MCHM-C01, 2008

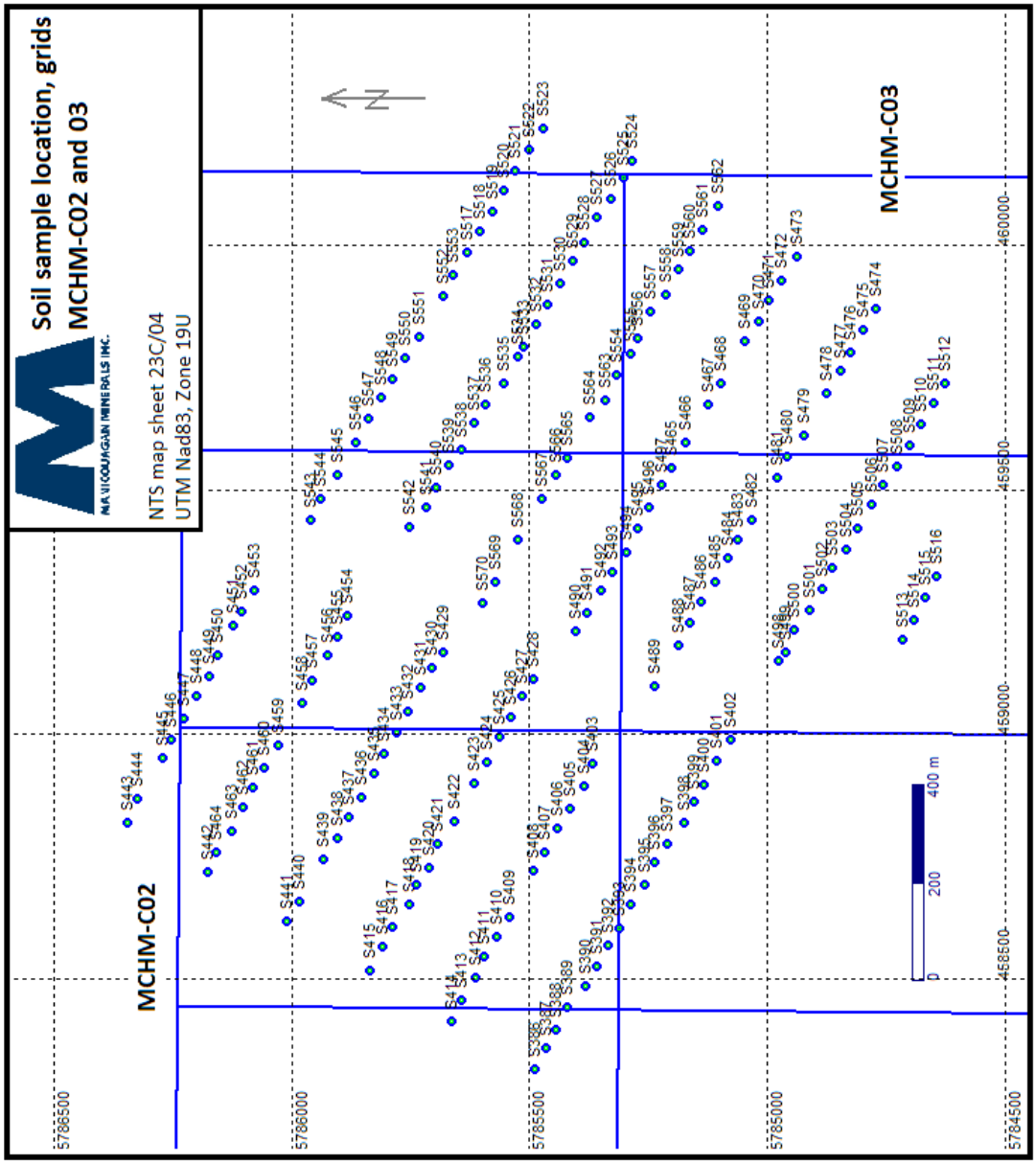

Figure 26 Soil sample location, grids MCHM-C02 and C03, 2008

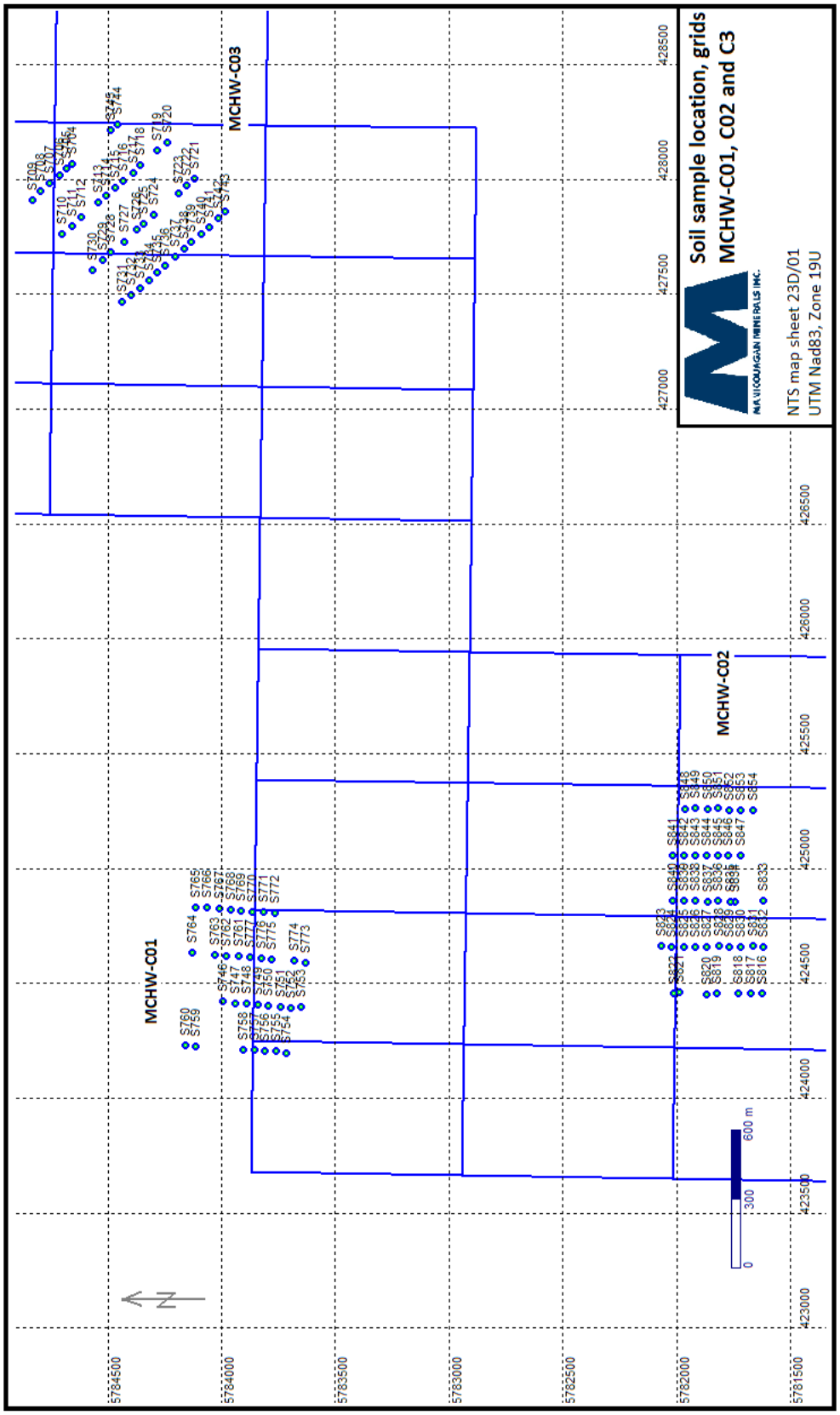

Figure 27 Soil sample location, grids MCHW-C01, C02 and C03, 2008

MCHW-C04 Grid (Figure 28)
No geochemical anomaly in soil recorded on this grid. The highest values obtained for base metals are 19.7 ppm Ni and 9.5 ppm Cu, which are not worth mentioning.

MCHW-C06 Grid (Figure 28)
Five (5) sites are anomalous in nickel (from 30 to 61.4 ppm Ni). Four of these are grouped in a kilometric long area of higher Ni background, which corresponds to the high magnetic features of the grid. The elongated nickel anomaly is bordering HLEM conductor MM-2. A single site is anomalous in copper with a value of 71.7 ppm Cu.

MCHW-C10 and C13 Grids (Figure 29)
Ten (10) sites are anomalous in nickel (from 31.2 to 61.4 ppm Ni), distributed in two (2) separate groups. A first one is located in the center of grid MCHW-C10; the second one is located in the southeast part of grid MCHW-C13, in the vicinity of a high magnetic feature. On grid MCHM-C10, 2 sites are anomalous in copper with values of 41.2 and 127.8 ppm Cu.

MCHW-C14 Grid (Figure 30)
Two (2) sites are anomalous in nickel (30 and 43.6 ppm Ni). The last one is coincident with HLEM conductor MM-1. The highest copper value recorded on this grid is 21.1 ppm Cu, which is not worth mentioning.

MCHW-C16 Grid (Figure 31)
No geochemical anomaly in soil recorded on this grid. The highest values obtained on this grid are 19.7 ppm Ni and 10.2 ppm Cu, which are not worth mentioning.

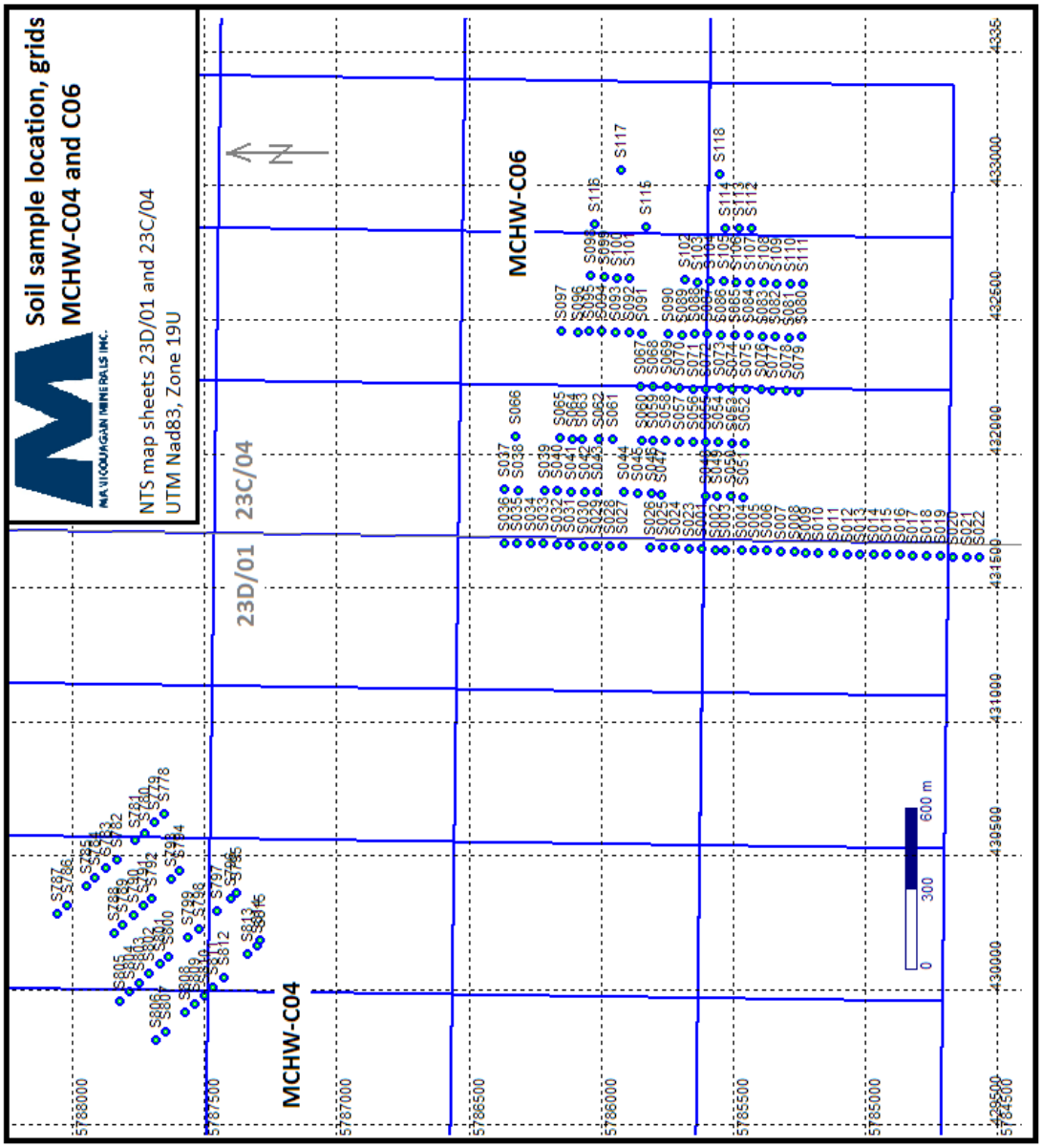

Figure 28 Soil sample location, MCHW-C04 and C06, 2008

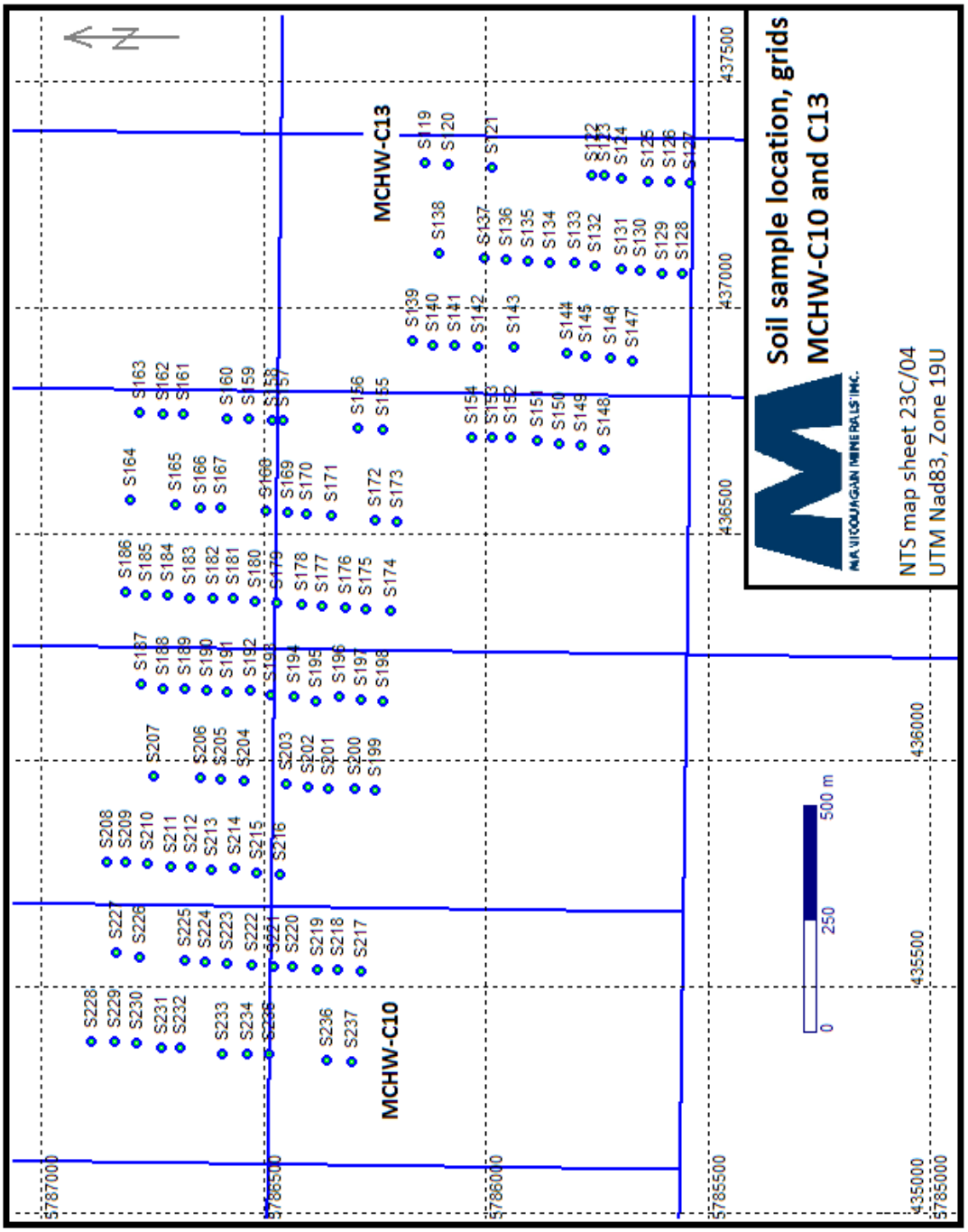

Figure 29 Soil sample location, MCHW-C10 and C13, 2008

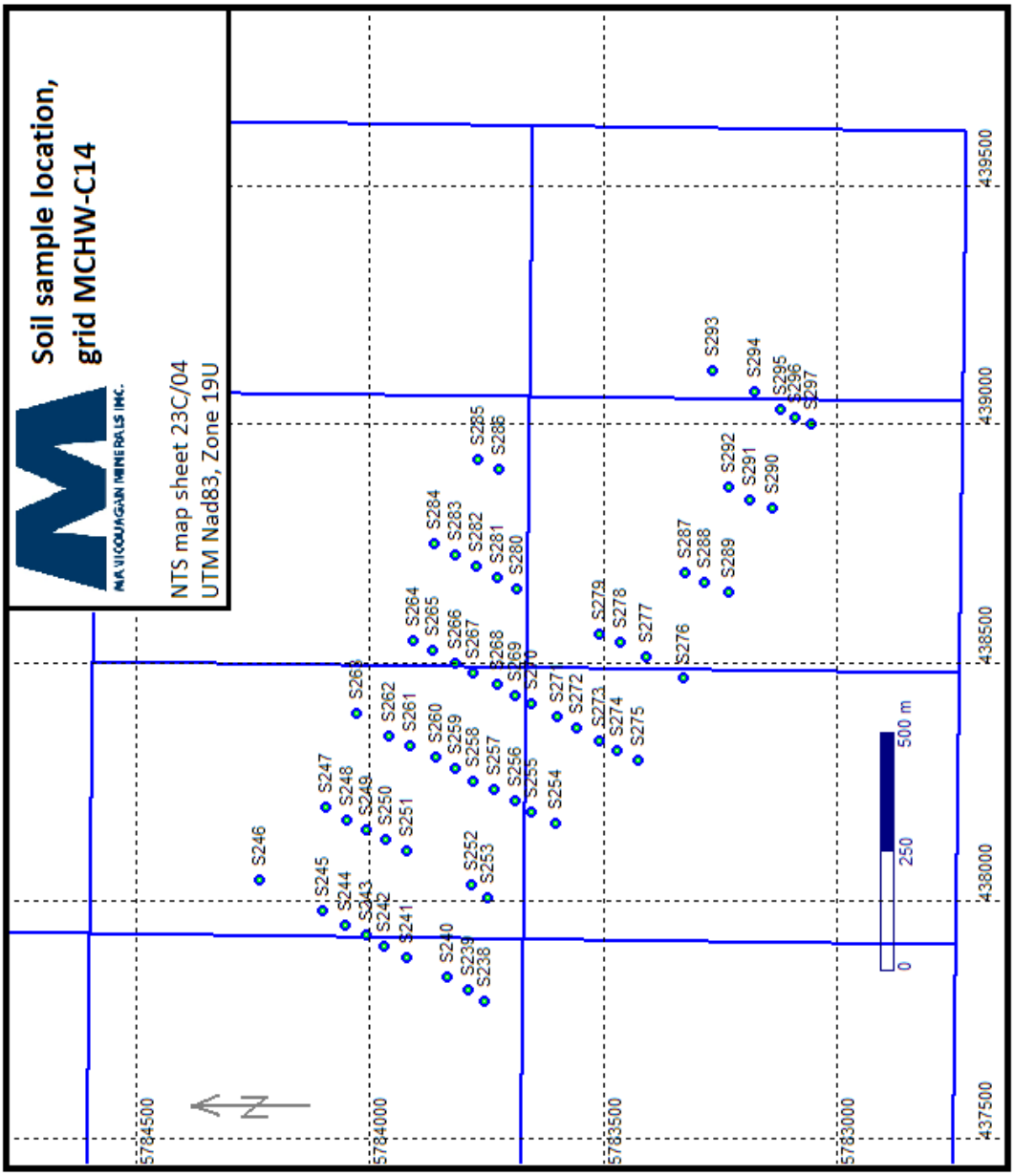

Figure 30 Soil sample location, MCHW-C14, 2008

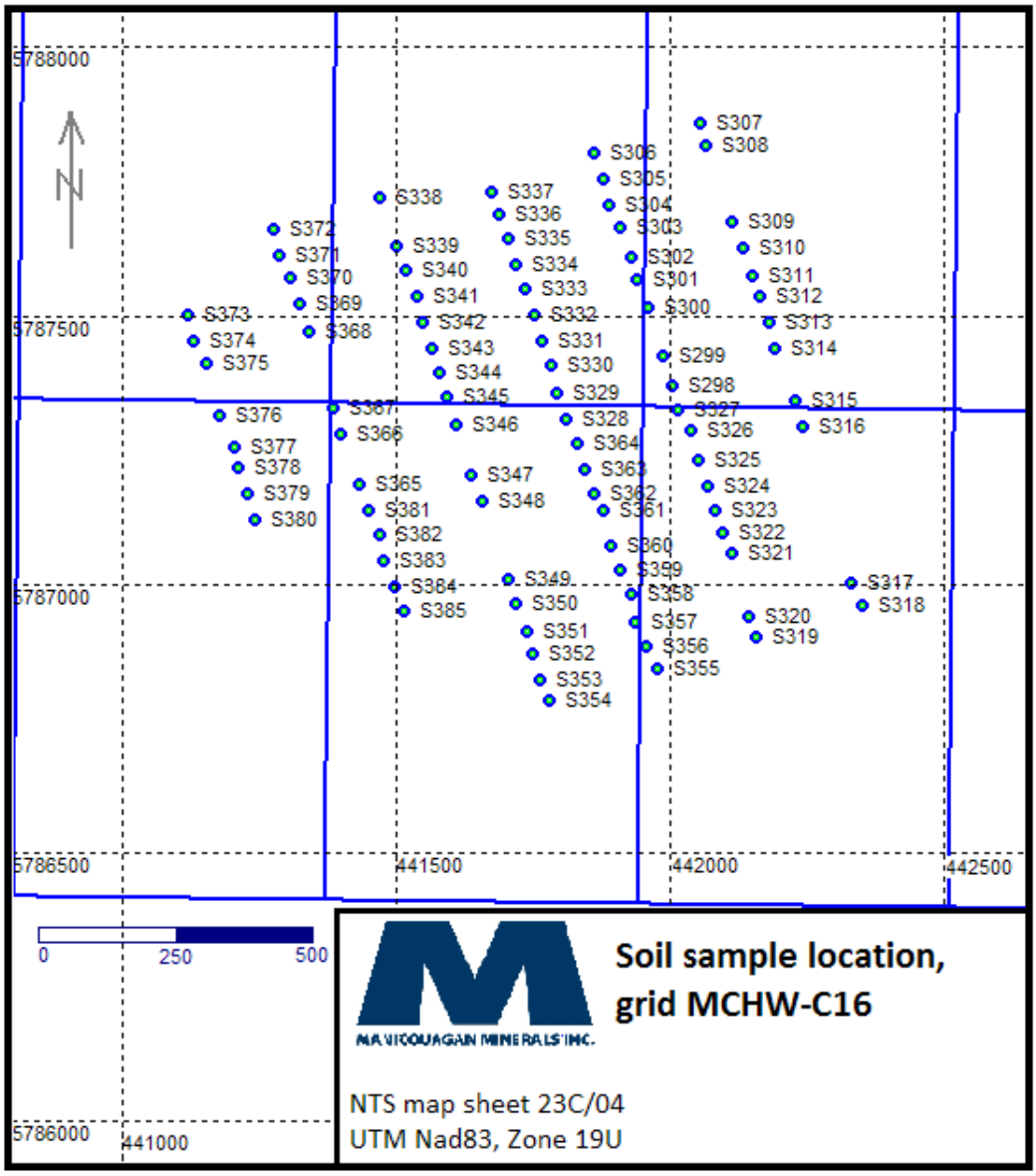

Figure 31 Soil sample location, MCHW-C16, 2008

6.0 CONCLUSIONS

Exception for the AeroTEM Airborne Survey, virtually all of the exploration work carried out to date, on the five claim blocks that collectively comprise the Mouchalagane Property, has been concentrated on the Mouchalagane main grid therefore, recommendations that follow will be restricted to Mouchalagane main grid.

The Mouchalagane main grid covers two underexplored prospective horizons that include a suite of ultramafic flows and sills which locally host significant amounts of nickel, copper and PGE mineralization (Bob/Bob-East Showing, Feu/Dernière Chance Showing and Mountain-Front drilling discovery located approximately 600 meters west of Feu and Dernière Chance). Drilling at Bob and Bob-East Showing as well as Feu/Dernière Chance and Mountain-Front has demonstrated that while the mineralization encountered to date is likely uneconomical, it is on a local scale continuous along strike and down dip.

The nickel, copper and PGE mineralization observed to date on the Mouchalagane Property is associated with the structural hanging-wall (stratigraphic footwall?) contact between variably altered and metamorphosed ultramafic flows and are coincident with ground HLEM Conductors.

The nickel, copper and PGE mineralization exhibits both primary and secondary textures suggesting that while they maybe magmatic in origin the mineralization has been in part remobilized.

The Bob and Bob-East Showings are distinguished by their high PGE (platinum, palladium, ruthenium and rhodium) contents.

A significant amount of monies were incurred testing the Mouchalagane main grid for its potential to host volcanogenic massive sulphide and lode-epigenetic gold potential. Results to date have been discouraging and while the possibility of the property holding these types of mineral deposits cannot be dismissed they should be considered of low priority for any future exploration program.

The results of the ground geophysical program are also currently being reviewed and will be integrated and reconciled against the airborne geophysics. Ground follow up of the selected airborne anomalies proved to be a very cost effective and successful method in outlining new exploration targets.

7.0 RECOMMENDATIONS

As in the section above, the recommendations are restricted to the Mouchalagane main grid.

On a regional basis it is suggested that some attempt be made into understanding the tectonic setting of the nickel, copper and PGE bearing ultramafic bodies within the Mouchalagane Complex. Additional petrography and whole rock geochemistry should be carried out on both the mineralized as well as the barren lithologies. Representative samples of the mafic to ultramafic lithologies collected for whole rock and multi-element (including Ni, Cu, Co and PGE) should be modeled. The formation of a magmatic sulphide deposit requires the concentration of a large amount of sulphides without the concurrent crystallization of silicate minerals. This phenomenon does not occur in a normal closed magmatic system. There are several quantitative analyses using among other methods : nickel content, nickel/magnesium, or copper/zirconium ratios etc. That can be employed to help determine if the host mafic lithologies were permissive for the formation of economic massive sulphide deposits.

It is recommended that property be geologically mapped at a scale of 1 : 5 000 using available digital topographic base maps and/or airphotos and landsat images with a hand held GPS for control. The purpose of the geological mapping program is to provide a geological context for the Airborne EM anomalies as well as for the nickel, copper and PGE mineralization observed on the property and hopefully identify new potential areas for similar mineralization.

Coincident with the geological mapping, prospecting with crew(s) utilizing a “Beepmat” should be considered. During the 2007 and 2008 summer exploration program prospecting using a Beepmat was found to be a very effective and cost efficient method of following up and explaining airborne EM anomalies and led to the discovering of several new zones of sulphide mineralization.

While further drilling on all three occurrences is warranted, no diamond drilling is being recommended at this time until the entire Main Mouchalagane Block has been mapped and prospected, and the various targets properly prioritised.

The airborne as well as various ground geophysical surveys should be compiled by a geophysicist and integrated into Manicouagan’s GIS database. These surveys should by re-interpreted in light of the recent work carried out and information collected by Manicouagan from 2006 to 2008. Near surface (<200 meters) nickel, copper and PGE bearing sulphide deposits are commonly associated with electromagnetic features and are usually discovered by following up airborne and/or ground electromagnetic anomalies. As part of this program a critical analysis should be done as to the cost effectiveness or (re) establishing grids and conducting ground EM and magnetic surveys. Further, if ground work is proposed, it should determined if it would be carried out over the entire Mouchalagane main grid or over priority targets being considered for testing by diamond drilling.

Additional processing of the airborne geophysical data is recommended. More specifically the following enhancements should be considered : pole reduced total field magnetic and vertical magnetic gradients, apparent magnetic susceptibility, electromagnetic time constant (Tau) and electromagnetic conductance calculations.

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9.0 AUTHOR'S CERTIFICATION

The present is to certify that :

I have resided at 31 rue du Satellite #5, Gatineau (Québec), since October 2004.

I have been actively involved in the field of geology and mineral exploration since 1989. I have been involved in base metal exploration since May 1991.

I am a graduate in geology from *Université Laval* (B.Sc., 1993).

I am a member of the *Ordre des Géologues du Québec* (OGQ #542) and licensee of the *Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories and Nunavut* (NAPEG #L1590).

I have been performing mineral exploration for the account of **Manicouagan Minerals Inc** since June 2007.

This report on the Mouchalagane property complies with the available documentation and my professional experience for this type of study. I fully endorse this report and its conclusions.

I have been directly involved in the supervision and execution of mineral exploration programs on the Mouchalagane project since June 2007.

I have no direct interest, nor do I expect to receive such interest in the Mouchalagane property. I do have stock options of **Manicouagan Minerals Inc**.

Signed in Québec City, on March 31st, 2009

François Bissonnette, P.Geo.
Senior Project Geologist
Manicouagan Minerals Inc.

Co-author's Certificate & Signature Page

I, Alain Berclaz, do hereby certify that:

1. I am a consultant geologist with offices at 507 rue de Ferréol, Terrebonne, Quebec, J6Y 1Y9, Canada.
2. I graduated with a Bachelor Degree in Geology from the *Université Joseph Fourier*, *Grenoble (France)* in 1990 and with a Master of Science Degree in Geology from the *Université Laval, Québec (Canada)* in 1993.
3. I am a member of the *Ordre des Géologues du Québec* (No. 1066).
4. I have worked as a geologist for a total of 18 years since my graduation from university.
5. I have been performing mineral exploration for the account of *Manicouagan Minerals Inc.* since February 2008.
6. I am co-responsible for the preparation of the assessment report entitled "*Report on Summer of 2008 Exploration Work on Mouchalagane Property, Québec (NTS map sheets 23C/03, 04, 05, 06, 23D/01 and 08)*" and dated December 31st, 2008. This report on the Mouchalagane property complies with the available documentation and my professional experience for this type of study. I fully endorse this report and its conclusions.
7. I have visited and performed exploration work on the Mouchalagane property during the 2008 field campaign.
8. I have no direct interest, nor do I expect to receive such interest in the Mouchalagane property.

Dated this March 31st, 2009

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Signature of Qualified Person
Alain Berclaz, M.Sc., P.Geo (OGQ - No. 1066)

Bruce W. Mackie, P. GEO.

CERTIFICATE of AUTHOR

I, Bruce W. Mackie, P. Geo., residing at 339 Parkridge Crescent, Oakville, Ontario, L6M 1A8 do hereby certify that:

1) Manicouagan Minerals Inc currently contracts me as a consultant geologist.

2) I graduated with an Honours Bachelor of Science degree in Geology and Chemistry from the Carleton University in 1975 and with a Master of Science degree in Geology from University of Manitoba in 1978.

3) I am a member of the Canadian Institute of Mining and Metallurgy and a P. Geo., Registered in the Province of Ontario (APGO No. 0585).

4) I have worked as a geologist for a total of 34 years since obtaining my B.Sc. degree.

5) I am jointly responsible for the preparation of this report titled "Report on Summer of 2008 Exploration Work on Mouchalagane Property" and dated March 31, 2008.

6) I visited the Main Mouchalagane Block, which comprises part of the Mouchalagane Property on August 27th and 28th, 2008 and examined diamond drill core from the Bob Prospect.

7) I have had no prior involvement with the mineral Property that forms the subject of this report.

Dated this 31st date of March, 2009

{SIGNED & SEALED}

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Bruce W. Mackie P. Geo.