

# TECHNICAL REPORT NI43-101

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Grindstone Project

Canadian Energy Materials Corp.

Latitude 47°22'00" N  
Longitude 67°31'00" W

**Effective Date:** August 31<sup>th</sup>, 2018

**Signed Date:**

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**GÉOMINEX**

*Conseil en géologie  
exploration et mines*

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## TABLE OF CONTENTS

1. Summary .....	4
2. Introduction.....	6
3. Reliance on Other Experts .....	7
4. Property Description and Location .....	8
4.1. Property Description .....	8
4.2. Property Location .....	10
4.3. Claims Location .....	11
4.4. Claims Listing .....	12
5. Accessibility, Climate, Local Resources, Infrastructures and Physiography .....	13
5.1. Accessibility .....	13
5.2. Climate .....	13
5.3. Local Resources.....	13
5.4. Physiography.....	14
6. History .....	14
7. Geological Setting and Mineralization .....	18
7.1. Regional Geology.....	18
7.2. Local Geology .....	18
7.3. Structural Geology.....	18
7.4. Mineralization .....	19
8. Deposit Types .....	20
9. Exploration.....	21
9.1. Mobile Magnetotelluric Method .....	21
9.2. Data processing .....	22
9.3. Drill Target.....	32
10. Drilling.....	34
11. Sample Preparation, Analyses and Security.....	35
12. Data Verification .....	36
13. Mineral Processing and Metallurgical Testing.....	40
14. Mineral resource Estimates .....	41
23. Adjacent Properties .....	43
24. Other Relevant Data and Information .....	44
25. Interpretation and Conclusions.....	45
26. Recommendations .....	46
27. References .....	47
Certificate of author .....	48
Certificate of author .....	49
Certificate of author .....	50

## **List of Tables**

Table 4.1 - Claims list.....	8
Table 6.1 - Noranda DDH results.....	15
Table 9.1 - List of planned holes.....	32
Table 12.1 - Samples description.....	37
Table 12.2 - Samples results.....	37
Table 23.1 - Adjacent claims list.....	43

## **List of figures**

Figure 4.1 - Property location.....	10
Figure 4.2 - Claims location.....	11
Figure 4.3 - Claims listing.....	12
Figure 5.1 - Climate data for the St-Quentin area.....	13
Figure 6.1 - Magnetic survey.....	16
Figure 6.2 - Vertical gradient anomalies.....	17
Figure 7.1 - Geology.....	18
Figure 9.1 - Apparent conductivity grids located in 3D with frequency skin-depths 53–8580Hz.....	22
Figure 9.2 - Total Magnetic Intensity (5 nT contour interval).....	23
Figure 9.3 - Apparent Conductivity at 169 Hz.....	24
Figure 9.4 - 3D Conductivity Model - Perspective View.....	25
Figure 9.5 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.002 S/m.....	26
Figure 9.6 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.003 S/m.....	26
Figure 9.7 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.005 S/m.....	27
Figure 9.8 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.010 S/m.....	27
Figure 9.9 - Conductivity Model Plan View Horizontal Slice at 200m elevation a.m.s.l.....	28
Figure 9.10 - Conductivity Model Plan View Horizontal Slice at 0m elevation a.m.s.l.....	28
Figure 9.11 - Conductivity Model Plan View Horizontal Slice at -200m elevation a.m.s.l.....	29
Figure 9.12 - Conductivity Model Plan View Horizontal Slice at -800m elevation a.m.s.l.....	29
Figure 9.13 - Susceptibility Model Plan View Horizontal Slice at 200m elevation a.m.s.l.....	30
Figure 9.14 - Susceptibility Model Plan View Horizontal Slice at -200m elevation a.m.s.l.....	30
Figure 9.15 - Blended Conductivity and Susceptibility Model Plan View Horizontal Slice at -200m elevation a.m.s.l.....	31
Figure 9.16 - Location of planned holes.....	33
Figure 12.1 - Property visit and sampling 2018.....	36
Figure 12.2 - Outcrop of sample S248722.....	39
Figure 12.3 - Area of sample S248722 and Noranda DDH 94-02.....	39

## 1. SUMMARY

This report was prepared to provide a National Instrument 43-101 ("NI 43-101") compliant Technical Report and updated the exploration work on the Grindstone Property located at the northern part of New Brunswick. This Technical Report was prepared by Geominex Inc. at the request of Mr. Michael Schuss, president and CEO of Canadian Energy Materials Corp. (CEM).

The Grindstone Project is located in the parish of Victoria, on the northwestern part of the province of New Brunswick, Canada, on NTS map-sheet 21O/05. It consists in 19 contiguous claims (495 units) covering an area of 10 804 hectares centered at map datum NAD 83: N 47° 20' 30" latitude and W 67° 32' 53.0" longitude (UTM 19 609679 E/ 5244133 N) on the east part of NTS sheet 21O/05. The Property is located at 20 km south south-west from the town of St-Quentin and 35 km north-east of St-Leonard.

Highway 17 passes within 0.5 km of the edge of the Grindstone Property. Access to the property, through a gate bordering highway 17 near Veneer, is good by means of numerous logging roads which proliferate the area. Irving Pulp & Paper Ltd, company which owns the surface right, granted permission to Canadian International Minerals Inc. and its associated firms to access the Property and to execute a defined mining exploration program. Unpaved lumber roads are accessible by four-wheel drive vehicle (ATV or truck) or by snowmobile when winter condition prevails.

On August 31<sup>st</sup>, 2018, Canadian International Minerals Inc. (CIM) signed an agreement to sell, transfer and convey to Canadian Energy Materials Corp. (CEM) and CEM agrees to purchase all of the CIM shares on the basis of one CEM share for each CIM share held for an issuance of a total of 12,000,000 shares. As part of the agreement, 100% of the property Grindstone was transferred to CEM.

The Grindstone property lies in a stratigraphic domain of the northern Appalachian Geological Province or Orogen described by provincial government geologists as the Aroostook-Percé Anticlinorium. This domain is composed of the Middle Paleozoic Matapedia Cover Sequence which regroups sedimentary units originally deposited in a sedimentary basin known as the Matapedia Forearc Basin. In Northern New Brunswick, these sedimentary units are now assigned to both the Grog Brook and the overlying Matapedia Groups.

The Property is underlain by the Grog Brook Group which is subdivided into two formations. At the base, there is the Boland Formation, composed of slate, argillite and siltstone and at the top, is the Whites Brook Formation composed of greywacke and conglomerate. The argillite, which is the main lithology that crop out in the property, has been described as light to dark grey to moderately rusty on weathered surface due to the contents in disseminated sulphide, i.e. pyrite and pyrrhotite. The outcrops show bedding that dip moderately with a well-developed sub-vertical cleavage.

The explorations in the area of the Grindstone Property was initiated by Noranda Exploration from 1993 to 1995. The company conducted an airborne magnetic and radiometric surveys (Sanders Geophysics), and ground follow-up work including: silt and soil geochemical surveys, geological survey, mag-VLF and preliminary diamond drilling totaling five (5) holes and 441 linear meters. This was the last intervention from Noranda who dropped the Property.

In 2007-2008, Golden Bay Resources Ltd (GBR) staked a total of 39 claims in the south part of the Noranda original claim block and commissioned Vickers Geophysics Inc. from Bathurst, New Brunswick to reprocess and interpret Sanders Geophysics aeromagnetic survey data, ground magnetic and Very Low Frequency (VLF) data. No work was carried out in the field of the property.

In 2018, CEM contracted Expert Geophysics Ltd. (EGL) to carry out and complete an airborne Mobile Magnetotelluric (MMT) and magnetometer survey over the Grindstone property. The final data acquired comprises 414,1 line-kilometers over a 7 392,6-ha area. The apparent conductivity and the magnetic intensity map confirm a strong linear, somewhat arcuate feature extending through the survey block from NE to SW; the apparent conductivity and susceptibility are generally coincident. This main feature, moderately conductive and magnetically susceptible, while more or less pervasive through the survey block, does reflect minor cross-trends or structural breaks along its length. Seven drill holes targets were identified to investigate the combined MMT conductivity and magnetic inversion models.

In conclusion, the Grindstone property represent a significant mineral potential for new discoveries related to Cu, Ni or Co such as in Magmatic Cu-Ni  $\pm$ PGE or Sediment-hosted Stratabound Copper types of deposits. It is located in a geological environment favorable to contain major mineralized deposits and the previous exploration work highlighted large geophysical anomalies never tested.

There are certain risks and uncertainties that could be expected to affect the reliability or confidence in the project's potential economic viability. In general, the market volatility and the base metal price have an incidence in raising capital to further develop the property. There is no guarantee of the successful outcome of the future work program.

Geominex recommends that CEM advances the project forward with a drill campaign to explore the geophysical MMT targets with the intention to find a mineralized zone reflecting the presence of a large deposit.

The work program is divided in two phases. The first phase is to explore the conductive and magnetic targets determined by the Mobile Magneto Telluric survey. Phase 2 is not contingent on positive results of all the phase 1. This second phase is for the exploration of other MMT anomalies or for the verification laterally or at depth of interesting holes of the first phase.

It is recommended that CEM takes the following actions:

#### Phase 1:

- 1.1 Five holes to explore the conductive and magnetic targets of the Mobile MagnetoTellurics survey.
- 1.2 Borehole Electromagnetic (BHEM) survey to verify and extend conductor around the holes.

#### Phase 2

- 2.0 Drilling campaign to explore the other MMT targets or to verify previous holes extension laterally or at depth.

## 2. INTRODUCTION

The present National Instrument 43-101 report on the Grindstone Property has been prepared for the Canadian Energy Materials Corp. (CEM) to prepare a complete compilation of the available data filed from previous work programs performed on the Property to evaluate its potential and to recommend a new exploration program.

As required by Mr. Michael E. Schuss, president and CEO of Canadian Energy Materials Corp., Géominex Inc., a geological and a mining exploration consulting firm based in Rimouski, Quebec has received the mandate to produce this technical report. The present report has been prepared by P. Geo. Etienne Forbes and P. Eng. Alain Hupé, Engineer Geologist recognized by the APEGNB and Qualified Persons under the National Instrument 43-101. Mr. Christopher Campbell, P. Geo., professional geoscientist with Campbell & Walker Geophysics Ltd and member of the Engineers and Geoscientists of British Columbia, collaborate to produce the exploration part of this report.

The main source of information was obtained from the Department of Mines and Energy website regarding the claim or mineral tenures and previous work reports. CEM also provided information about an option agreement and a land owner agreement.

Alain Hupé has visited the Grindstone project on July 26<sup>th</sup>, 2018, to verify the geology of the Property and the existence of artefacts of the previous exploration program, i.e. mainly the DDH collars.

### 3. RELIANCE ON OTHER EXPERTS

In section 3, the authors have relied upon information available on the Department of Mines and Energy website regarding the claim or mineral tenures information accessed on August 31, 2018. The authors also relied upon Canadian Energy Materials Corp. regarding the obligation under the option agreement signed with Canadian International Minerals Inc. made effective August 31, 2018 entitled: Securities Exchange Agreement and the Exploration Licence Agreement with the land owner J.D Irving Ltd signed June 20, 2018 (see section 3).

## 4. PROPERTY DESCRIPTION AND LOCATION

### 4.1. PROPERTY DESCRIPTION

The Grindstone Property (the “Property”) consists in 19 claim blocks totalling 495 contiguous map-designated units that covers an area of some 10 804 hectares within the northwestern part of New Brunswick (*Table 4.1*). It is centred at map datum WGS 84: N47° 22' 00” latitude and W67° 31' 00” longitude (Nad83 UTM zone 19 612000E/ 5247000N) on the part of NTS sheets 21O/05 and 21O/06. The Property is located in the parish of Victoria at some 20 km south-southwest from the town of St-Quentin and 35 km northeast from the town of St-Leonard (*Figure 4.1 and Figure 4.2*).

The first block claim has been registered on March 16<sup>th</sup>, 2017 under claim group #8109 with the New Brunswick Department of Energy and Mines (NBDEM) and are active up to March 16<sup>th</sup>, 2019. Claims have not been surveyed. At the time of writing, the claims were all 100% transferred to Canadian Energy Materials Corp. (CEM). *Table 4.1* and *Figure 4.3* below summarize the main information in relation to the claims as available on the NB Government website.

**Table 4.1 - Claims list**

Right #	Mineral Claim Name	Right Holder	Right %	Original Eff. Date	Expiry Date	Status	Units	Area (Ha)
8109	Grindstone	CEM	100%	2017-03-16	2019-03-16	Active	26	567
8339	Grindstone East	CEM	100%	2017-08-11	2019-08-11	Active	30	654
8340	Grindstone Brook East	CEM	100%	2017-08-11	2019-08-11	Active	11	240
8341	Hammond Brook	CEM	100%	2017-08-11	2017-08-11	Active	14	305
8343	Salmon River	CEM	100%	2017-08-13	2019-08-13	Active	20	436
8344	Hammond Bk East	CEM	100%	2017-08-13	2019-08-13	Active	4	87
8372	Grande Riviere	CEM	100%	2017-09-01	2019-09-01	Active	30	655
8373	Deadwater Brook	CEM	100%	2017-09-01	2019-09-01	Active	30	655
8374	Right Hand Branch Jardine Brk	CEM	100%	2017-09-01	2019-09-01	Active	30	655
8375	Hammond Brook	CEM	100%	2017-09-01	2019-09-01	Active	30	655
8376	Hammond Lake	CEM	100%	2017-09-01	2019-09-01	Active	30	655
8798	Upper McGee Brook	CEM	100%	2018-08-08	2019-08-08	Active	30	655
8799	Salmon River	CEM	100%	2018-08-08	2019-08-08	Active	30	655
8800	Grindstone Brook	CEM	100%	2018-08-08	2019-08-08	Active	30	655
8801	Perkins Brook	CEM	100%	2018-08-08	2019-08-08	Active	30	655
8802	Middle Brook	CEM	100%	2018-08-08	2019-08-08	Active	30	655
8803	Perkins Brook	CEM	100%	2018-08-08	2019-08-08	Active	30	655
8804	Salmon River	CEM	100%	2018-08-08	2019-08-08	Active	30	655
8805	McGee Brook	CEM	100%	2018-08-08	2019-08-08	Active	30	655
<b>Total:</b>							<b>495</b>	<b>10804</b>

On August 31<sup>st</sup> 2018, Canadian International Minerals Inc. (CIM) signed an agreement to sell, transfer and convey to Canadian Energy Materials Corp. (CEM) and CIM agrees to purchase all of the CIM shares on the basis of one CEM share for each one CIM share held. All Shareholders (22) of CIM received between 200 000 and 1 500 000 shares of CEM for an issuance of a total of 12,000,000 shares. As part of the agreement, 100% of the property Grindstone was transferred to CEM without other royalties, payments or encumbrances.

The surface rights are held by J.D. Irving Ltd. In New Brunswick. It is a requirement of the Mining Act that claim holders establish an agreement with the surface rights holder in order to enter upon and conduct exploration over those lands. CEM has an Exploration Licence agreement to work on the property. The agreement was signed June 20, 2018, ending Dec 31, 2018 and is renewable yearly. In compensation to access by logging and forestry road, CEM have to pay a one-time fee of 2500\$ and 400\$ for each day the land is accessed. CEM will pay for all timber and wood products on the land which are cut or damage. Damage to the roads or structures located on the property have to be repaired by CEM.

The authors are not aware of any political, legal or environmental liabilities or other significant factors or risks that may affect access, title or the right and ability to perform work on the property.

## 4.2. PROPERTY LOCATION

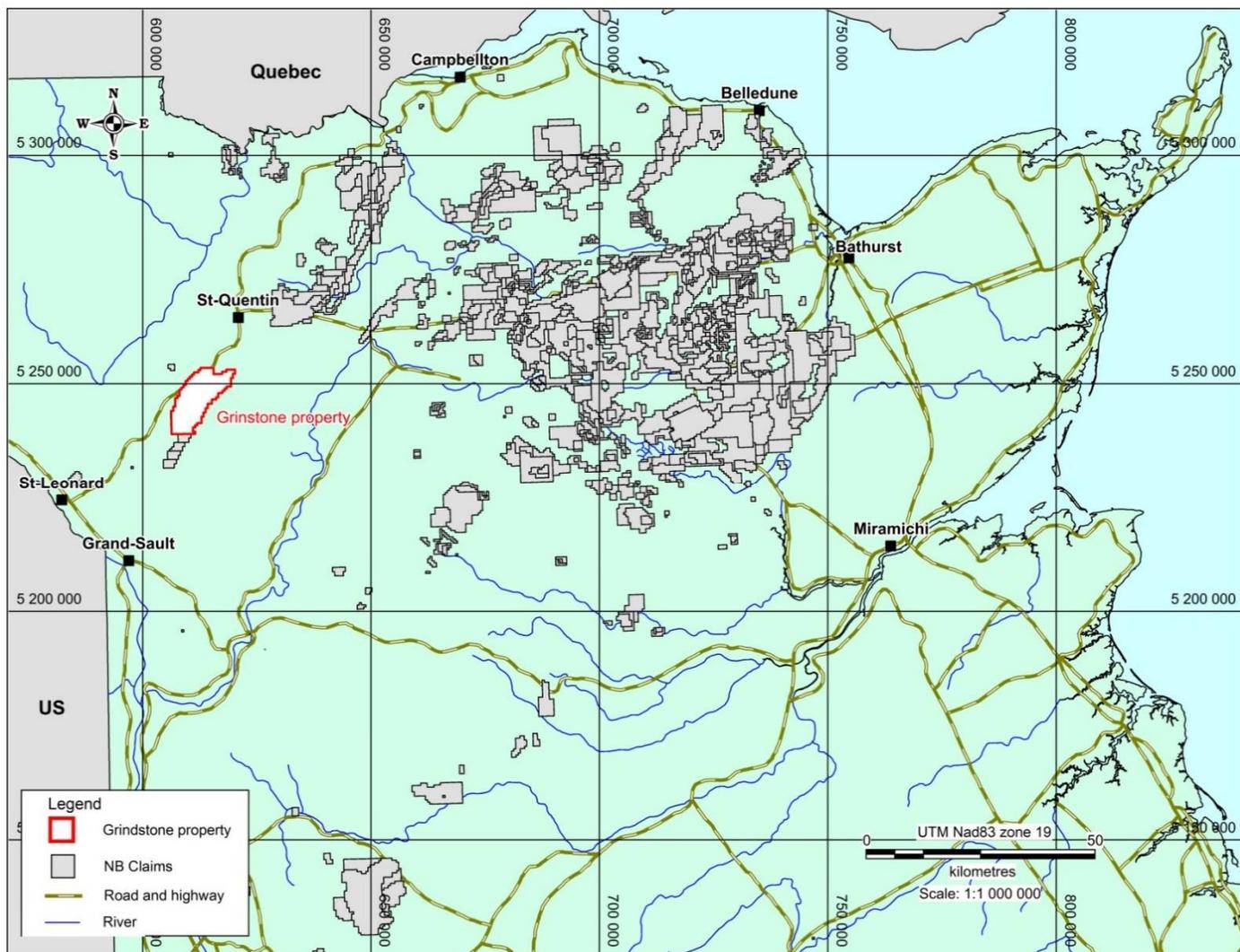


Figure 4.1 - Property location

### 4.3. CLAIMS LOCATION

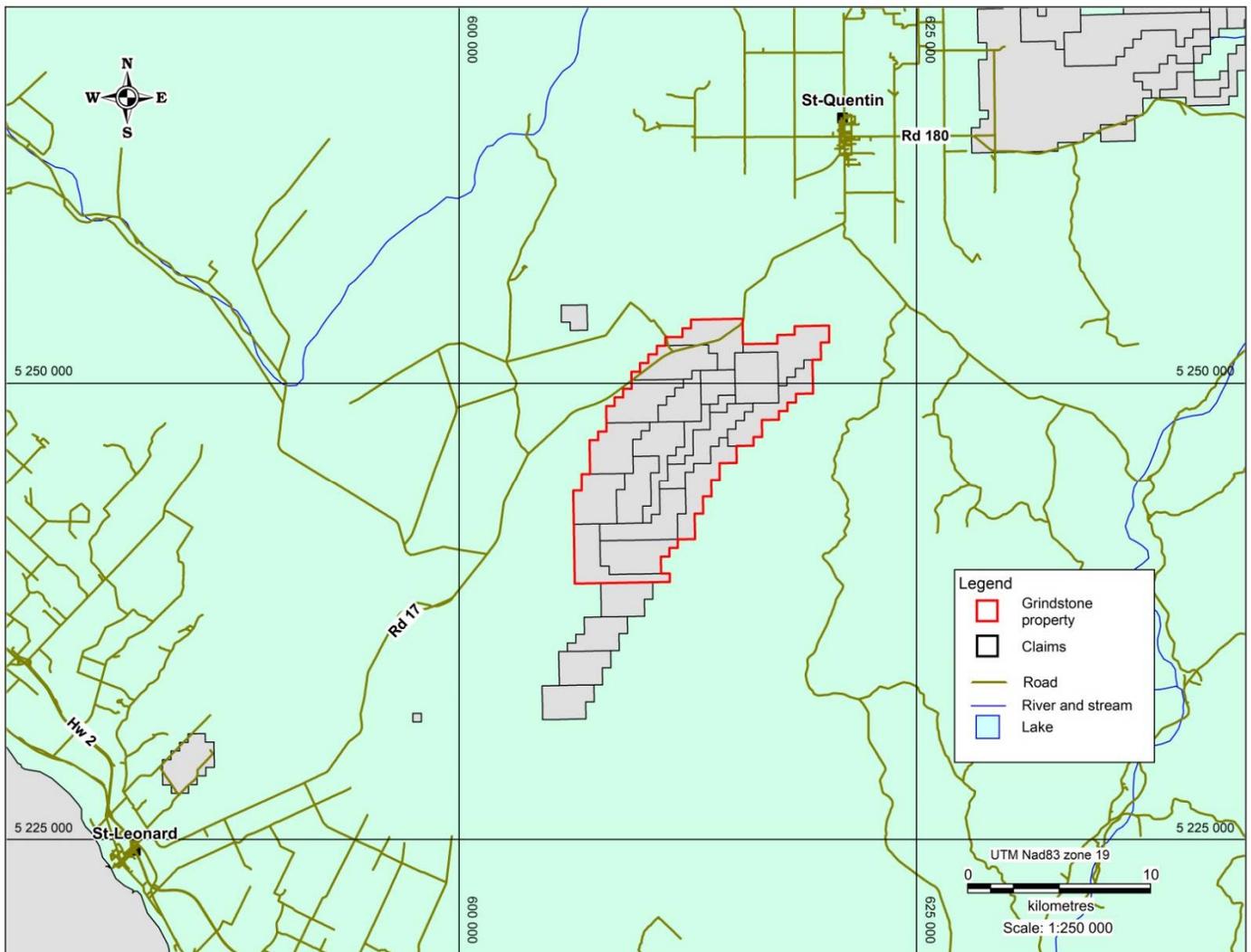


Figure 4.2 - Claims location

#### 4.4. CLAIMS LISTING

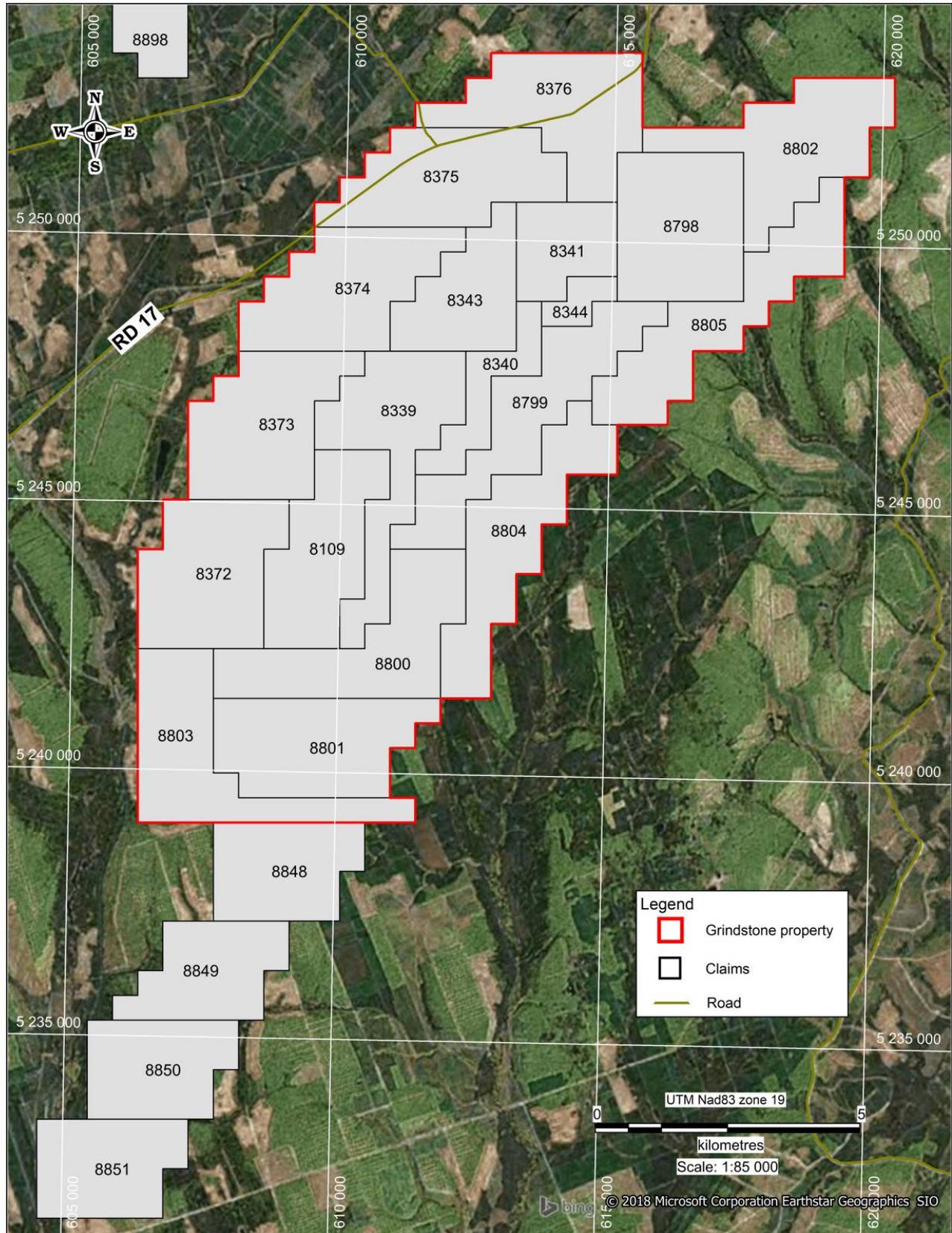


Figure 4.3 - Claims listing

## 5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURES AND PHYSIOGRAPHY

### 5.1. ACCESSIBILITY

Access to the Property, through many gates bordering highway 17 (*Figure 4.2*), is good by means of numerous logging roads which proliferate in the area. These roads are accessible by four-wheel drive vehicle (ATV or truck) generally over a period of seven months between May and November or by snowmobile when winter condition prevails.

### 5.2. CLIMATE

The climate in St-Quentin is cold and temperate temperature averages 2.3°C annually. Temperature can be as high as 30°C in summertime and can drop as low as -30°C in winter.

The area receives annually a high total precipitation, i.e. averaging 1014 mm. This includes rain precipitation from May to mid-November and snow precipitation from Mid-November to the end of April. Each year, the area receives 3 to 4 meters of snow that persist on the ground up to mid-May.

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	-13.6	-11.9	-5.8	1.5	8.4	13.9	16.9	15.3	10.7	4.8	-1.8	-10.5
Min. Temperature (°C)	-19.1	-17.9	-11.6	-3.7	2	7.4	10.6	9	4.6	-0.1	-5.6	-15.4
Max. Temperature (°C)	-8.1	-5.8	0	6.8	14.9	20.5	23.3	21.7	16.8	9.7	2.1	-5.5
Avg. Temperature (°F)	7.5	10.6	21.6	34.7	47.1	57.0	62.4	59.5	51.3	40.6	28.8	13.1
Min. Temperature (°F)	-2.4	-0.2	11.1	25.3	35.6	45.3	51.1	48.2	40.3	31.8	21.9	4.3
Max. Temperature (°F)	17.4	21.6	32.0	44.2	58.8	68.9	73.9	71.1	62.2	49.5	35.8	22.1
Precipitation / Rainfall (mm)	75	63	67	65	79	91	109	104	92	85	90	94

**Figure 5.1 - Climate data for the St-Quentin area**

Accessed May 2018 – Source: <https://en.climate-data.org/location/100029/>

### 5.3. LOCAL RESOURCES

Mining infrastructures in the surrounding area is good due to the rich mining history. Previous and current mining operations such as Brunswick 12, Heath Steele, Stratmat, Caribou, Brunswick 6, Piccadilly (potash), etc. have established all the commercial infrastructures needed to support an active mining operation. Additionally, there is a ready workforce, the result of Brunswick 12 which closed in 2013 and the Piccadilly mine which closed in 2016. There are numerous experienced industrial suppliers and contractors available in the St. Quentin (2,200 pop.) and St. Leonard (1,100 pop.) areas. The New Brunswick Government is welcoming of mining operations and has legislation supportive of mining operations. Mining operations are welcomed by the general population for the economic benefit they provide. A New Brunswick Energy powerline parallel to the highway 17 crosses the north part of the property.

## 5.4. PHYSIOGRAPHY

The Grindstone property is situated in an area of high relief. There are numerous ravines which have rivers and tributaries flowing through. The high relief is beneficial as it discourages stagnant water and swampy terrain. The Grindstone property is elevated approximately 200m above the surrounding area. Irving Pulp & Paper Ltd who operates logging activities in the area are cultivating coniferous trees such as: pines, spruces and firs. This required the company to build numerous good quality logging roads allowing a better access to the property. - Clear-cut blocks also provide better access on foot and by off-road vehicle. Logging activities have also served to remove some of the overburden, granting better bedrock exposure.

## 6. HISTORY

Mining exploration in the Grindstone Brook area was conducted by Noranda Mining and Exploration (Noranda) in 1993. As an initial phase, Noranda commissioned Sanders Geophysics Ltd. to perform a gamma-ray spectrometer & high sensitivity magnetometer airborne survey over a total of 5 blocks located in the Restigouche area. The survey particularly outlined the presence of a NE/SW striking and 30km long magnetic anomaly (*Figure 6.1*) in the north-east part of the Victoria County. The latter caught the interest of Noranda who staked a total of 349 contiguous claims to entirely cover the anomaly. This was the original Noranda's Grindstone property.

In 1994-1995, Noranda carried out a ground follow up program. They started with conducting a silt geochemical survey (237 samples) that highlighted a cluster of weak Cu anomalies. The elevated samples were then analyzed for Co, Ni and Mn which confirmed values up to 800ppm Co and up to 2200ppm Ni. These anomalies were in trend with the western extent of the airborne magnetic anomaly. This was followed with geological mapping, prospecting and rock chip sampling that returned only minor Cu-Ni-Co values.

During this program, Noranda exploration team also established a grid line totaling 52.1km, performed B-horizon soil sampling, ground mag, ground VLF-EM survey and gravity survey. B-horizon soil survey confirmed previous silt sampling with a several hundred meters long Cu-Ni-Co anomaly along the western margin of the grid.

The magnetometer survey was performed over a total line length 46.5km using an EDA OMNI PLUS field magnetometer together with an OMNI-IV base station. The survey allowed to detect two main magnetic trends, i.e. one coincident with the area of anomalous Co-Ni along the western margin of the grid and the strongest along the baseline in the northern part of the grid.

The ground VLF-EM survey that was completed over a total of 46.5km using transmitting station Cutler, Maine, allowed to detect narrow linear anomalies parallel to the prominent cleavage direction interpreted as representing fault zones. It also detected broader discontinuous and less intense conductors interpreted to originate from graphitic horizons in the folded argillaceous rocks.

A gravity survey was conducted in the western part of the baseline on L110N and L111N to cover the soil geochemical anomalies, magnetic and VLF-EM anomalies but also on reconnaissance lines. The survey which was performed using a Lacoste & Rhomberg instrument detected no significant anomalies in both surveyed areas.

In November-December 1994, Noranda carried out a diamond drilling program totaling five holes and 441m over the claim block. Holes intersected sedimentary units such as argillite and siltstone, fault graphitic argillite and sections containing disseminated 1-2% pyrrhotite and pyrite interpreted to be respectively responsible for the VLF conductors and for the magnetic anomalies. However, the mineralized sections returned very low grades in Cu-Ni-Co with fairly narrow range illustrated in *Table 6.1 - Noranda DDH results*. The results are 10-20 times lower Ni-Co than in the soil samples and 2-3 times less for the Cu. Noranda concluded that drilling results were not explaining the soil anomalies and recommended more and deeper drilling to find the origin of the Cu-Ni-Co soil and silt anomalies.

**Table 6.1 - Noranda DDH results**

<b>Element</b>	<b>Mean (ppm)</b>	<b>St. Dev. (ppm)</b>
Cu	42	8
Co	31	6
Ni	154	29

In July 2007, Golden Bay Resources Inc. (GBR) staked a total of 39 contiguous claims to cover the south part of the original Noranda Grindstone property.

From 2007 to 2008, GBR proceeded to a data compilation and commissioned Vickers Geophysics Inc. from Bathurst, New Brunswick to reprocess and interpret Sanders Geophysics aeromagnetic survey data (*Figure 6.1*), ground magnetic and Very Low Frequency (VLF) data gathered by or for Noranda during the 1993-1995 program. Reprocessing of the aeromagnetic survey enhanced four anomalies on the actual property: M1, M2, M-3 and M4 (*Figure 6.2*). None of those anomalies were tested by Noranda's drilling program 1994-95. Deep drilling was warranted to test these magnetic anomalies.

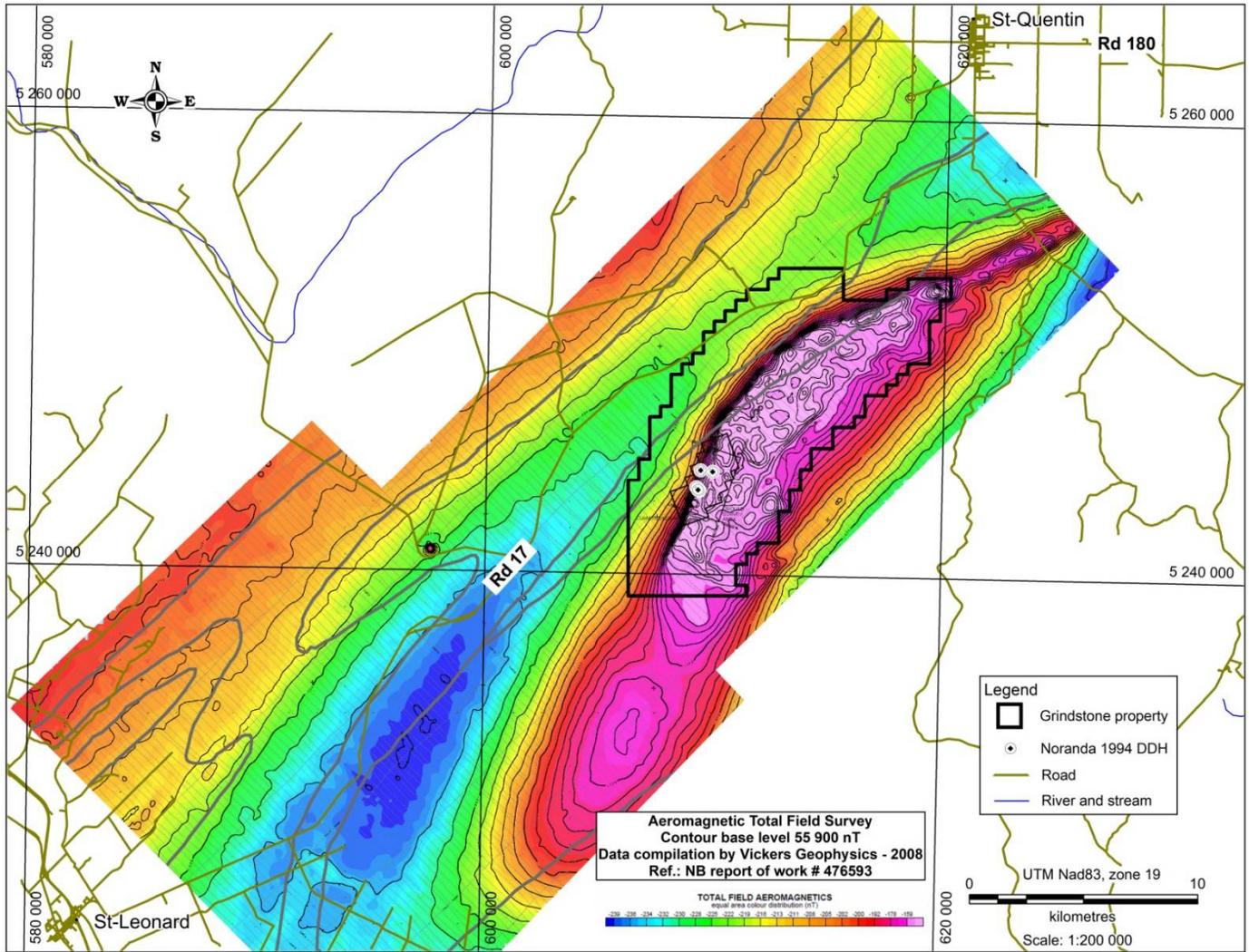


Figure 6.1 - Magnetic survey

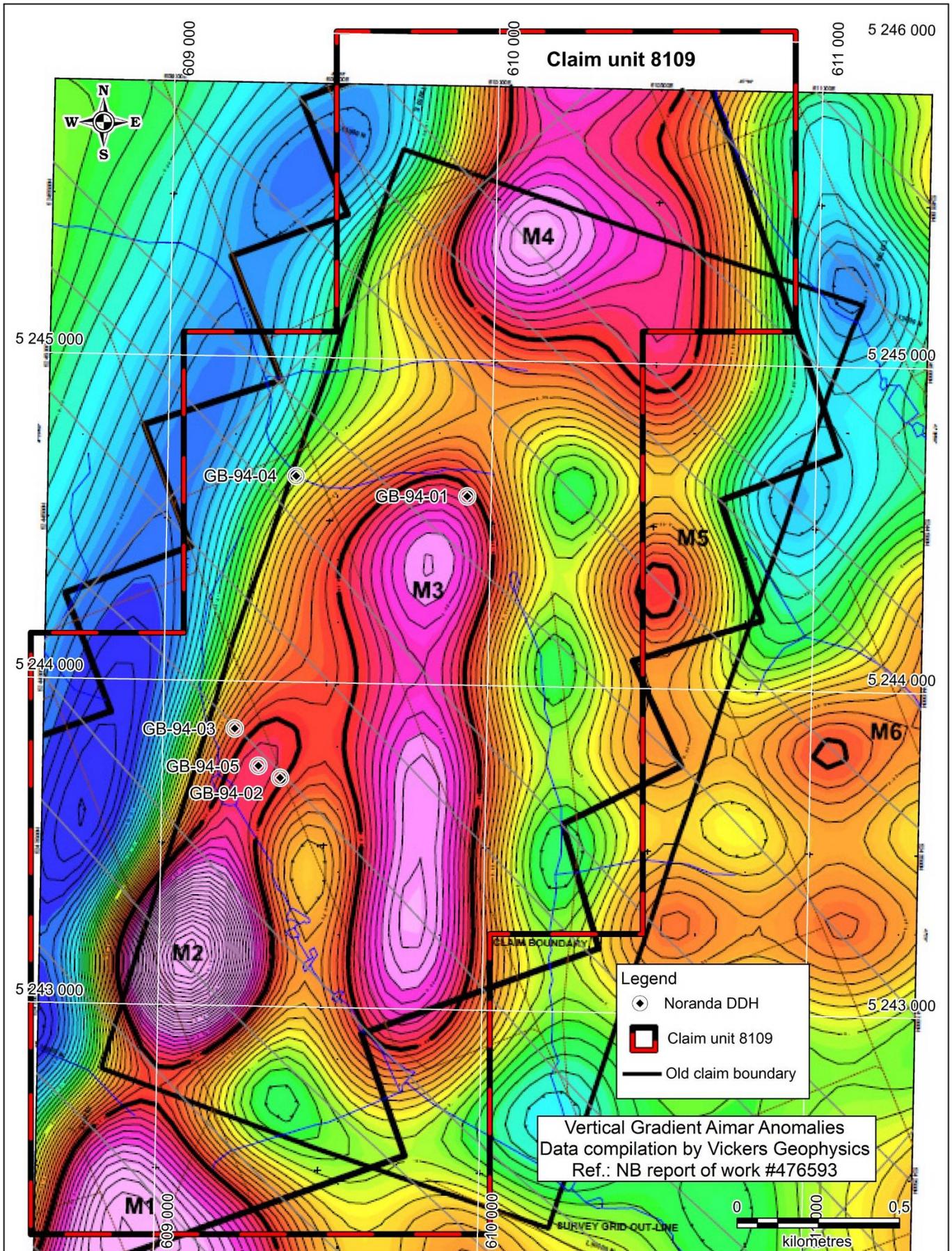


Figure 6.2 - Vertical gradient anomalies

## 7. GEOLOGICAL SETTING AND MINERALIZATION

### 7.1. REGIONAL GEOLOGY

The Grindstone property lies in a stratigraphic domain of the northern Appalachian Geological Province or Orogen described by provincial government geologists as the Aroostook-Percé Anticlinorium. This domain is composed of the Middle Paleozoic Matapédia Cover Sequence (MCS) which regroups sedimentary units originally deposited in a sedimentary basin known as the Matapédia Forearc Basin. In Northern New Brunswick, these sedimentary units are now assigned to both the Grog Brook and overlying Matapédia Groups (*Figure 7.1*).

### 7.2. LOCAL GEOLOGY

The Property is underlain by the Grog Brook Group which is subdivided into two formations. At the base, there is the Boland Formation, composed of slate, argillite and siltstone and at the top, is the Whites Brook Formation composed of greywacke and conglomerate. The argillite, which is the main lithology that crops out in the property, has been described as light to dark grey to moderately rusty on weathered surface due to the contents in disseminated sulphides, i.e. pyrite and pyrrhotite. The outcrops show bedding that dip moderately with a well-developed sub-vertical cleavage.

### 7.3. STRUCTURAL GEOLOGY

According to St. Peter (1978a), Carrol (2003b) and Wilson and Kamo (2012), the Matapédia Groups geological unit in the St-Quentin-Kedgwick area show two main deformation periods. A first phase of deformation F1 is associated to the Salinic period folding with fold axis trending north-west to east-west. These anticline and syncline folds are affected by a later Acadian folding phase with show north-east trending fold axis.

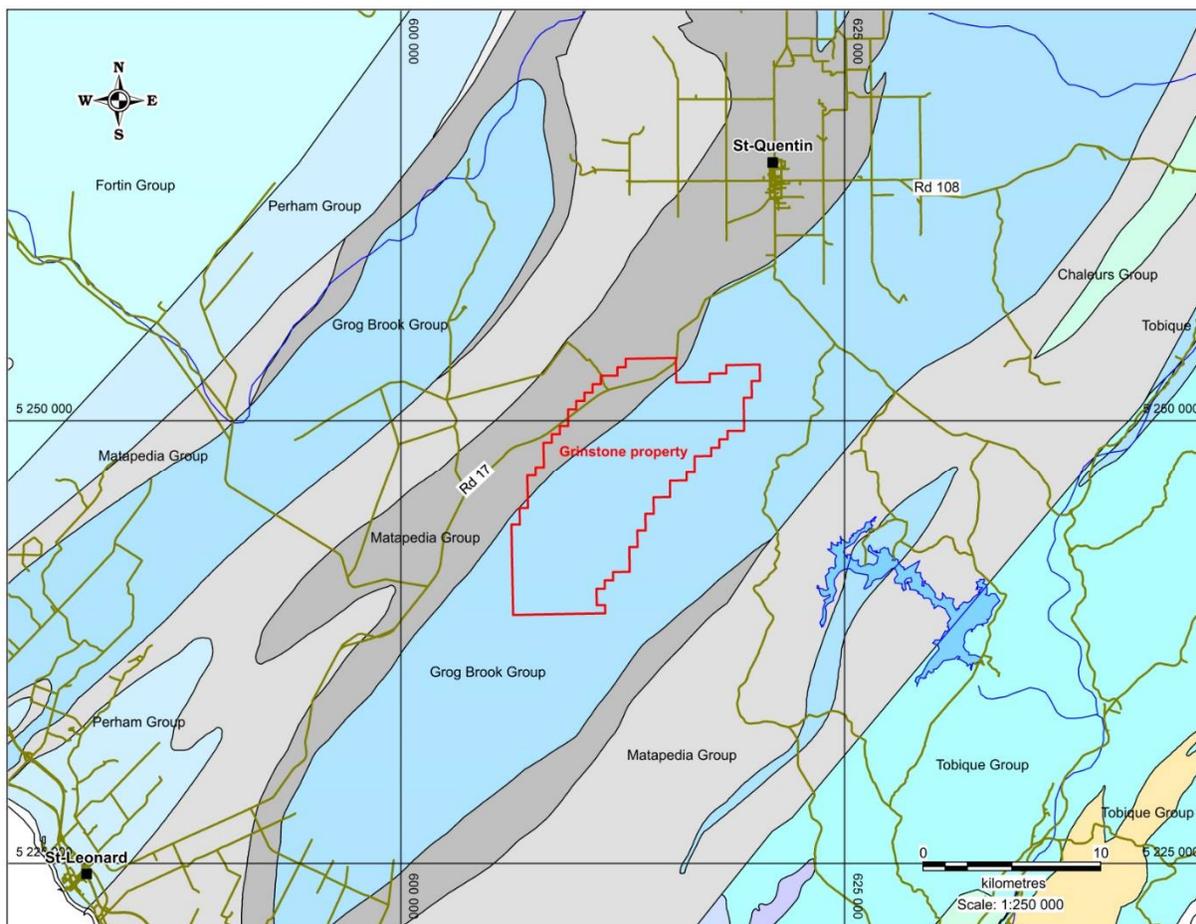


Figure 7.1 - Geology

#### 7.4. MINERALIZATION

Noranda reported between 0.5 to 4% of disseminated pyrite-pyrrhotite mineralization intersected in its five diamond drill holes. This mineralization, which is found associated with several facies of siltstone (siltstone, calcareous siltstone and graphitic argillite-siltstone), is described to have a sedimentary origin with minor remobilization.

However, assay results returned no significant Ni-Co-Cu content (see *Table 6.1 - Noranda DDH results*) associated with the above-mentioned mineralization.

## 8. DEPOSIT TYPES

Based on the results of previous work program on the property that outlined the presence of a multikilometric scale magnetic high anomaly together (or not) with silt geochemical Cu-Ni-Co anomalies, at least two deposit types can be targeted by CEM.

Among the deposit types that can be envisaged to be explore for are:

1. Magmatic Cu-Ni  $\pm$ PGE (Sudbury, Voisey Bay, Noril'sk-Talnakh, Raglan);
2. Sediment-hosted Stratabound Copper deposit (Poland, Central Africa Copperbelt of Zambia-Zaire);

- **Magmatic Cu-Ni  $\pm$ PGE**

Magmatic Cu-Ni  $\pm$  PGE deposits type occur as sulphides concentration associated with a variety of mafic and ultramafic magmatic rocks (Eckstrand et al., 2004; Naldrett, 2004). The magma originating from the upper mantle emplaced in the earth crust. When it happens, Ni-Cu  $\pm$ PGE elements that are included in the cooling magma react with S to create sulphide liquid that forms droplets that slowly, because a greater density, sink at the base of the deposit until the magmatic body is completely solid. At the base, massive to semi-massive to disseminated Cu-Ni-Fe sulphides are present such as chalcopyrite, pyrite, pentlandite and pyrrhotite...etc. The latter is the second most magnetic mineral after the magnetite that can also be present in the mafic-ultramafic due to subsequent metamorphic reaction. Then, these magmatic bodies are generally more magnetic than the surrounding rock and form magnetic high anomaly as the one present on the Grindstone project.

In addition, when they are exposed on surface, these magmatic bodies and their minerals content can be eroded and transported in a secondary environment to form Cu-Ni or even cobalt silt and soil C-Ni-Co geochemical anomalies.

- **Sediment-hosted stratabound Copper deposit (from M. L. Zientek et al., 2010)**

*«Sediment-hosted stratabound Copper mineralization consists of fine grained copper and copper-iron-sulfide minerals that occur as stratabound to stratiform disseminations in siliciclastic or dolomitic sedimentary rocks. Ore minerals occur as cements and replacements, and less commonly, as veinlets. The concentration of sulfide minerals conforms closely, but not exactly, with the stratification of the host rocks. Typically, the ore zones comprise chalcocite and bornite. These deposits are characterized by zoning of ore minerals laterally along and across bedding, from pyrite to chalcopyrite to bornite to chalcocite to hematite. Deposits are hosted in black, gray, green or white (reduced) sedimentary strata within or above a thick section of red (oxidized) beds.»*

Due to the early stage of the project, authors suggest that at least two other deposit types could also be targeted by CEM, i.e. the Magmatic Porphyry Copper and associated Skarn Cu deposit and the banded Iron Formation.

## 9. EXPLORATION

Canadian Energy Materials Corp. (CEM) contracted Expert Geophysics Ltd. (EGL) to carry out and complete an airborne magnetotelluric and magnetometer survey over the Grindstone property. EGL is using a Mobile MagnetoTellurics (MMT) system in this survey. It is an advanced generation of airborne AFMAG technologies. The final data acquired comprises 414,1 line-kilometers over a 7 392,6-ha area.

A total of 5 survey flights were flown from a base of operations established at Saint-Quentin, New Brunswick using an Airbus Helicopters SAS AS350 BA+, registration C-G0HP, belonging to Panorama Helicopters Ltd. Data acquisition occurred July 28 to 30, 2018. The survey lines are oriented N135°E while the tie lines are oriented at N45°E, on a 200 x 2000 m grid, respectively.

2D inversions of the MMT survey results were completed by EGL over all lines using a 2D OCCAM smooth model inversion. Following an initial review and plan-view interpretation of the data, Computational Geosciences Inc. (CGI) was engaged in October–November 2018 to undertake a 3D inversion of the MMT data.

The purpose of the survey was mapping bedrock structure and lithology, including possible alteration and mineralization zones, using apparent conductivity as it corresponds to different depth levels and magnetic properties of the bedrock units.

### 9.1. MOBILE MAGNETOTELLURIC METHOD

The MMT technology utilizes the naturally occurring electromagnetic field in the frequency range of 25 – 20,000 Hz. The exploration system includes two pairs of grounded electric wire lines and moving three-component inductive coil system for magnetic field measurements in three orthogonal directions. MMT was first deployed by EGL in early 2018. Further information on the technology is provided in Data Acquisition and Processing Report (in Appendix).

In summary the MMT is a natural-field electromagnetic system designed by Petr Kuzmin and operated by Expert Geophysics Limited (EGL):

- provides a wide frequency range 25 Hz – 20 kHz with a sampling rate of 98 kHz.
- records three-component airborne dB/dt data (1.4 m diameter coils)
- base station records horizontal E-field data with 2 pairs of orthogonal sensors (signal and reference) separated by ~30 m
- includes a cesium magnetometer (Geometrics G-822A)

The objective of the survey was therefore the mapping of bedrock structure and lithology, including possible alteration and mineralization zones, using apparent conductivity corresponding to different depth levels. The magnetics was included as a standard and complements previous work carried out on the properties (see Section 6).

## 9.2. DATA PROCESSING

The digital data were gridded after standard processing and corrections and presented as: 18 grids of apparent conductivity at various frequencies, calculated vertical gradient, total magnetic intensity, digital terrain model, and finally power line monitor to assess for cultural (man-made) electronic interference):

The total natural field data for 18 frequencies in the range 53-8580 Hz were used to produce apparent resistivity grids and maps.

### **Figure 9.1 - Apparent conductivity grids located in 3D with frequency skin-depths 53–8580Hz**

The apparent conductivity and the magnetic intensity map confirm a strong linear, somewhat arcuate feature extending through the survey block from NE to SW; the apparent conductivity and susceptibility are generally coincident. This main feature, moderately conductive and magnetically susceptible, while more or less pervasive through the survey block, does reflect minor cross-trends or structural breaks along its length. Different frequencies reflect behavior of the structures at different depths. Representative maps of total magnetic intensity and apparent conductivity are shown following; the 1994 Noranda drilling is also shown on these maps for reference purposes.

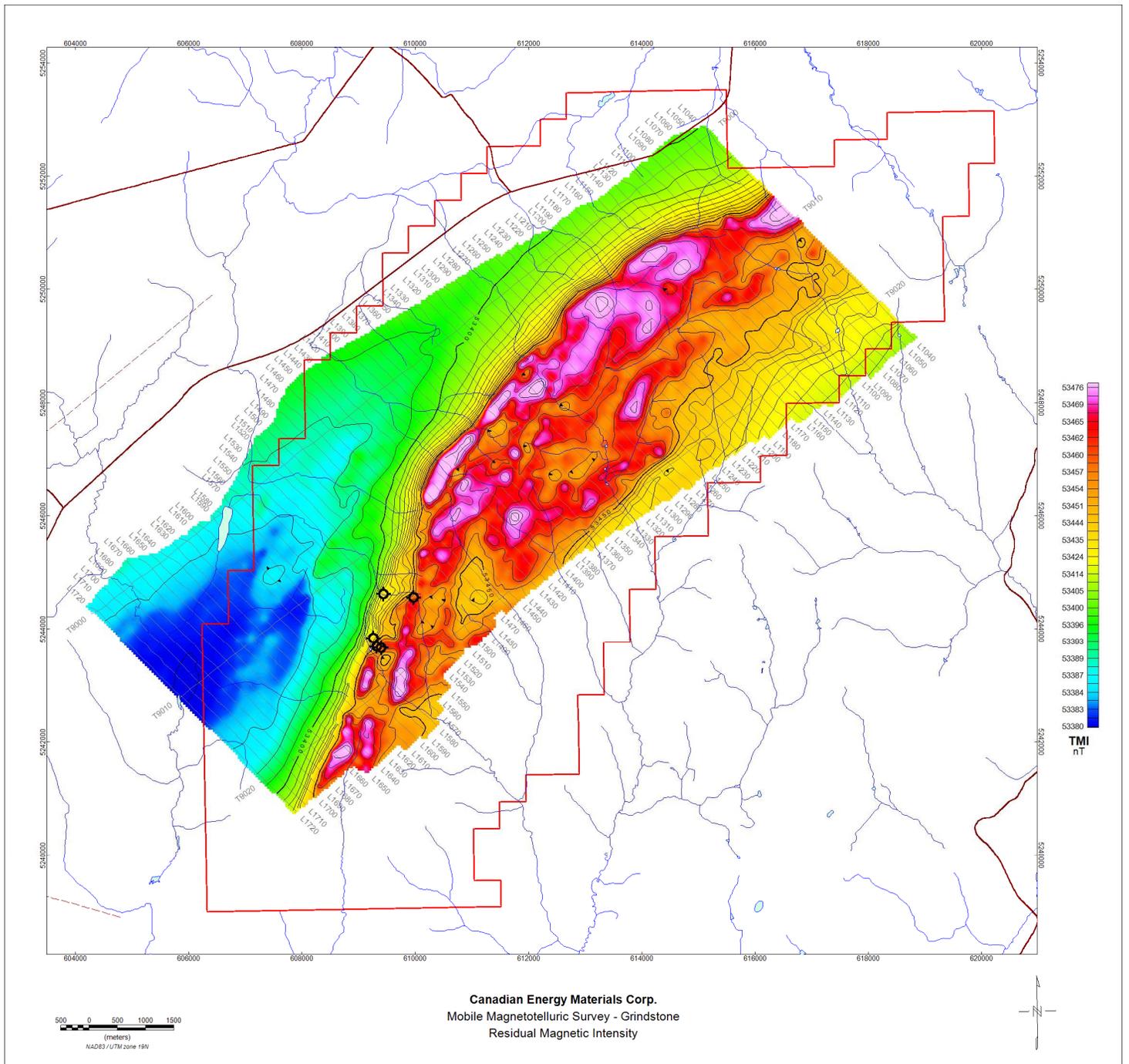


Figure 9.2 - Total Magnetic Intensity (5 nT contour interval)

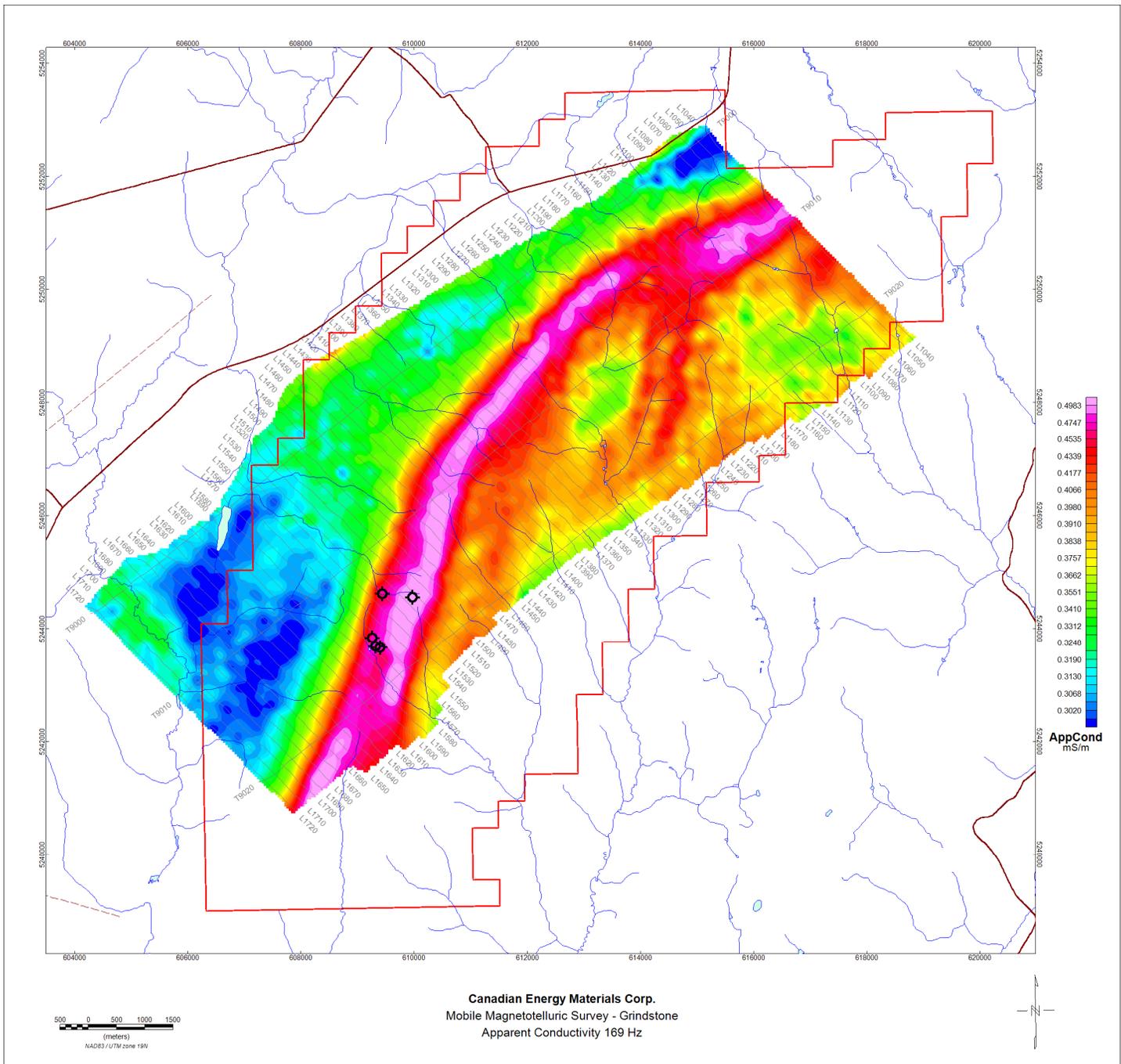


Figure 9.3 - Apparent Conductivity at 169 Hz

2D inversions of the MMT survey results were completed by EGL over all lines using a 2D OCCAM smooth model inversion using a 3000 ohm-m half-space as a starting model. Input parameters include the computed apparent resistivity, digital elevation model, MMT receiver height and station coordinates.

It is further noted by the author that MMT data is inherently 3D because the inline and crossline components of the H field have been combined into a single apparent conductivity value. Unlike ZTEM where one can ignore cross-line data and 'hope' the world is 2D, we cannot make this assumption this with MMT data. Therefore, the 2D inversion resistivity depth sections should be treated with caution.

An unconstrained 3D inversion of the magnetics from the MMT survey was completed using the Geosoft Voxi solid earth modelling technology with Magnetic Vector Inversion being utilized. The model mesh consisted of 50 x 50 x 25 m voxels. Multiple inversions were carried out in order to find a model that fit the observed data within the allocated noise threshold while not adding unnecessary features to the model. The final model is the amplitude of the magnetization vector normalized to the induced field strength; this results in model units equivalent to SI susceptibility. This more detailed 3D inversion of magnetics was ultimately integrated with the subsequent 3D inversion of MMT conductivity data.

Following an initial review and plan-view interpretation of the data, Computational Geosciences Inc. (CGI) was engaged in October–November 2018 to undertake a 3D inversion of the MMT data. CGI's proprietary MT code inverts MMT data on an OcTree grid representation of the earth, allowing sufficiently small cell sizes to capture important geologic features while increasing accuracy and inversion efficiency. The inversion of MMT data employs a simplified apparent conductivity formulation with two polarizations (Hy/Ex and Hx/Ey) being used simultaneously. The smallest cell size in this 3D inversion was 50 x 50 x 50 m; a starting model of 3333.33 ohm-m was utilized.

The MMT conductivity model was transferred from the OcTree mesh to a Tensor UBC mesh for ease of visualization. The model is shown in perspective and volume-rendered, plan-view; comparisons are shown with the 3D magnetic inversion discussed above (Figure 9.4 to Figure 9.15).

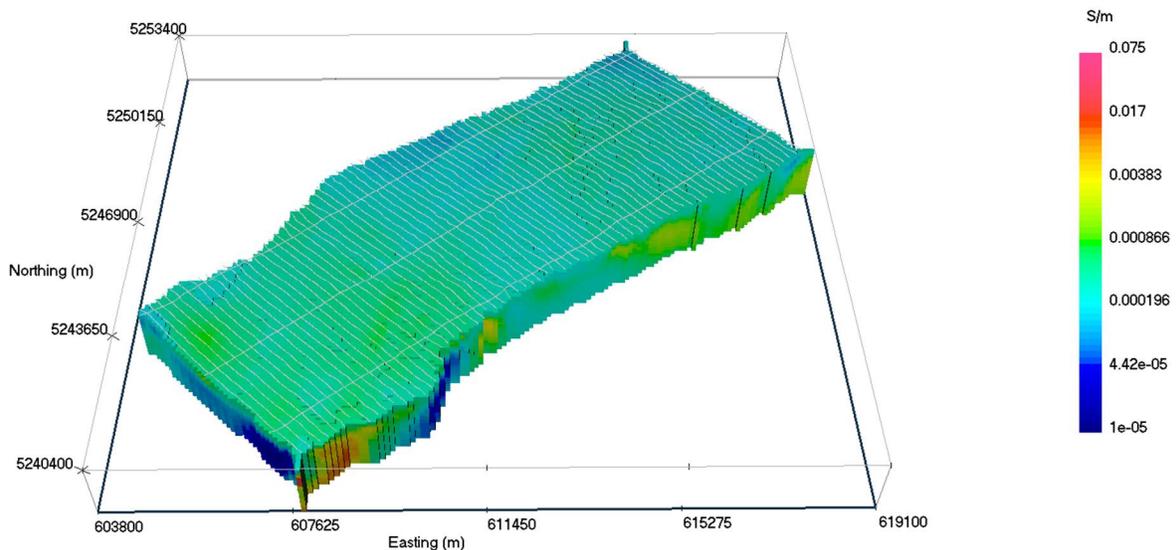


Figure 9.4 - 3D Conductivity Model - Perspective View

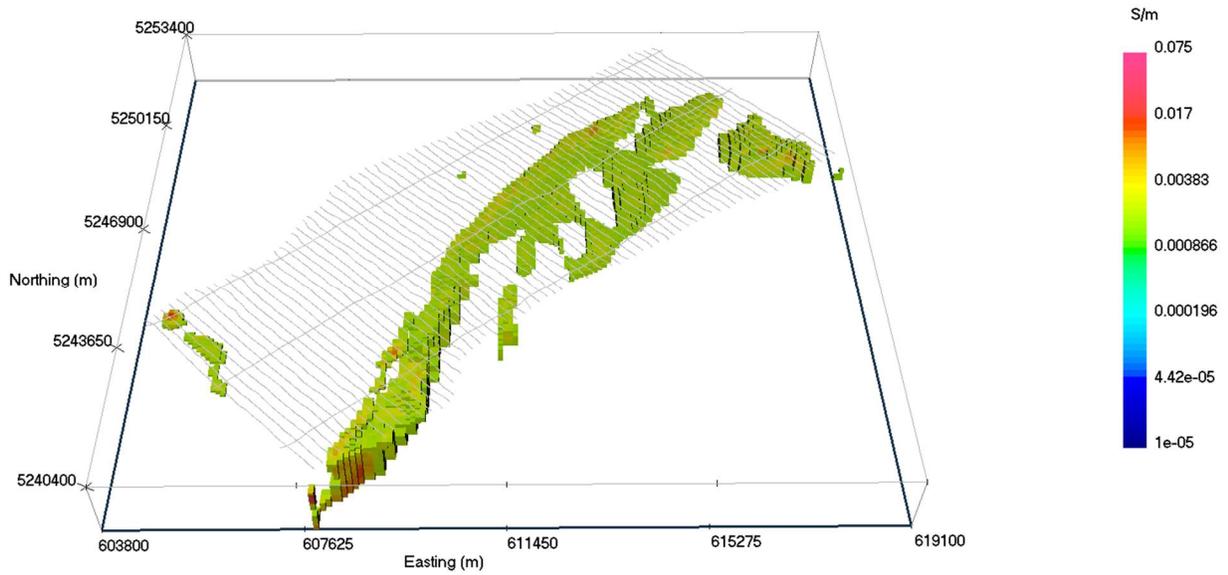


Figure 9.5 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.002 S/m

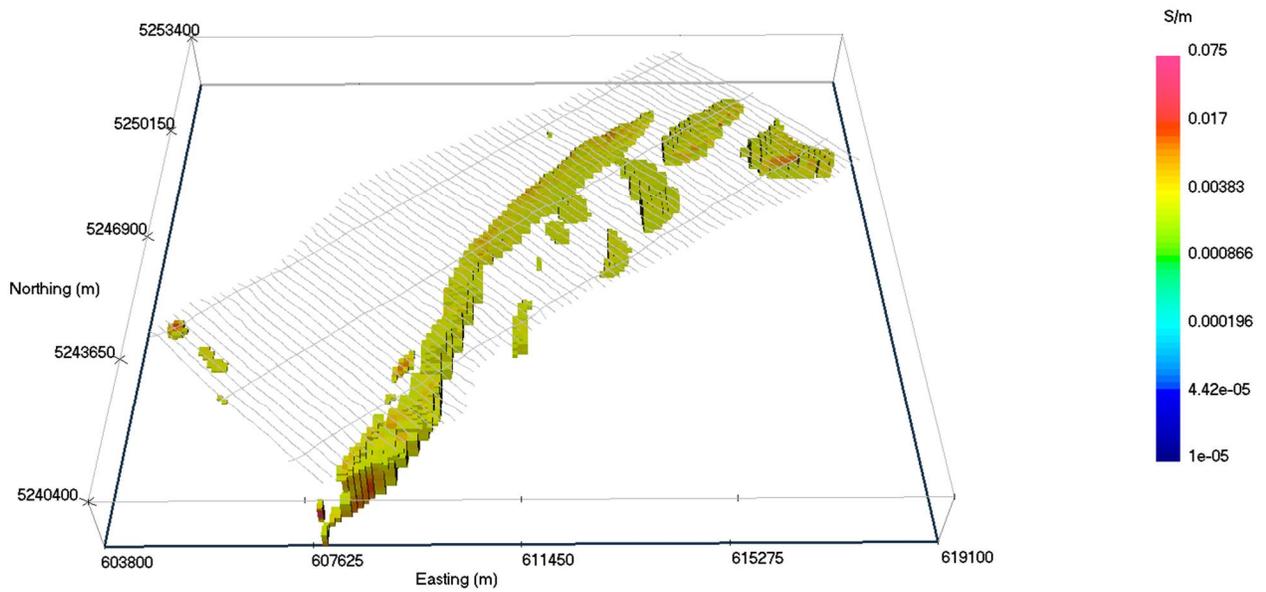


Figure 9.6 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.003 S/m

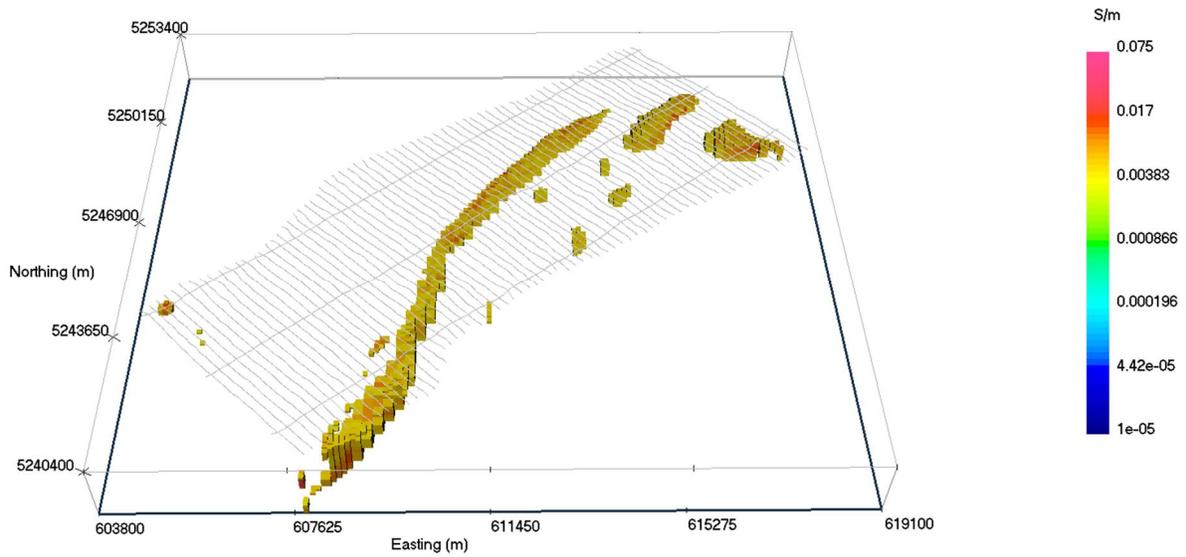


Figure 9.7 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.005 S/m

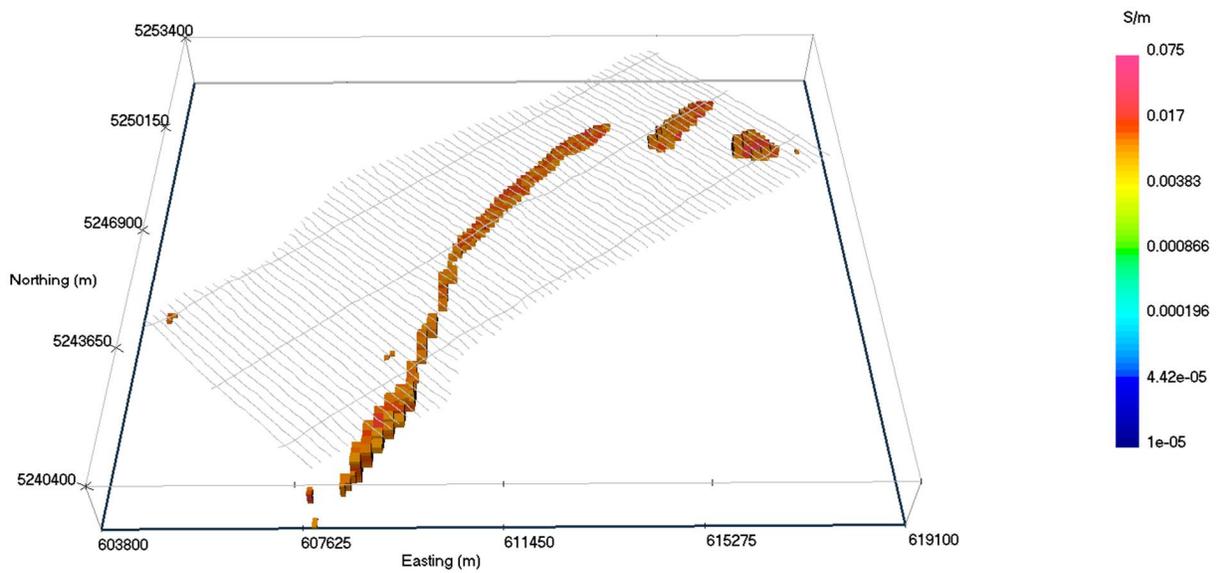


Figure 9.8 - Conductivity Model - Perspective View: Volume Rendered cut-off at 0.010 S/m

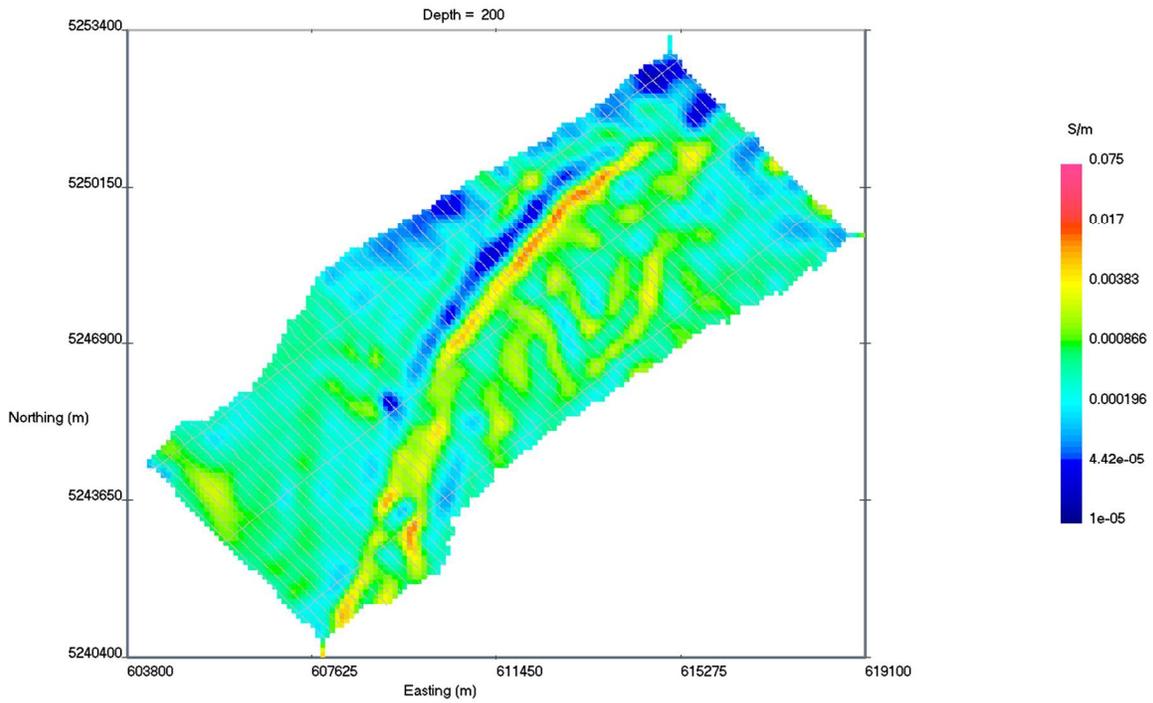


Figure 9.9 - Conductivity Model Plan View Horizontal Slice at 200m elevation a.m.s.l.

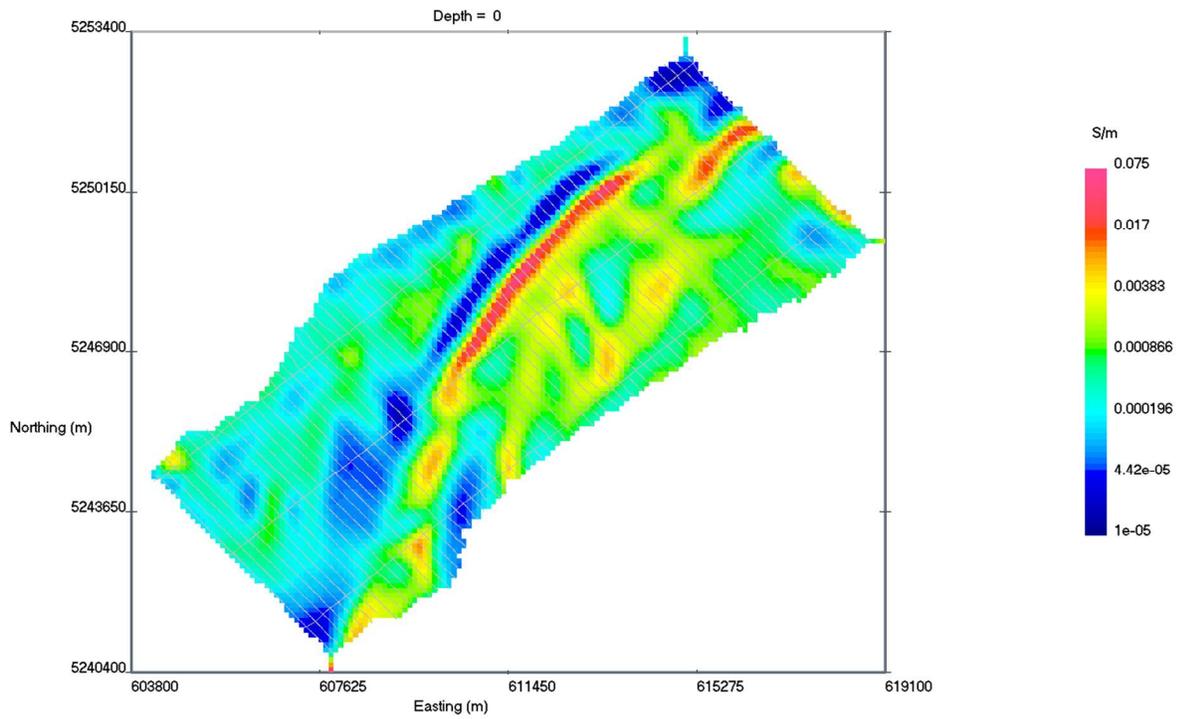


Figure 9.10 - Conductivity Model Plan View Horizontal Slice at 0m elevation a.m.s.l.

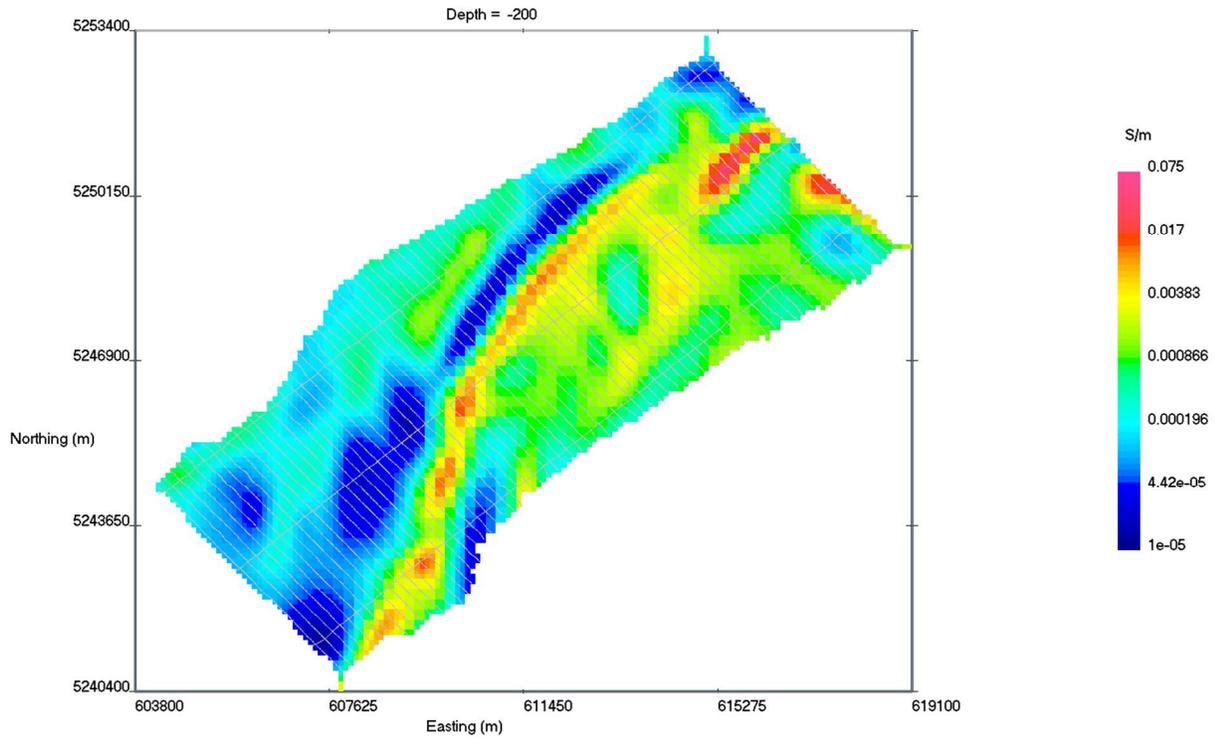


Figure 9.11 - Conductivity Model Plan View Horizontal Slice at -200m elevation a.m.s.l.

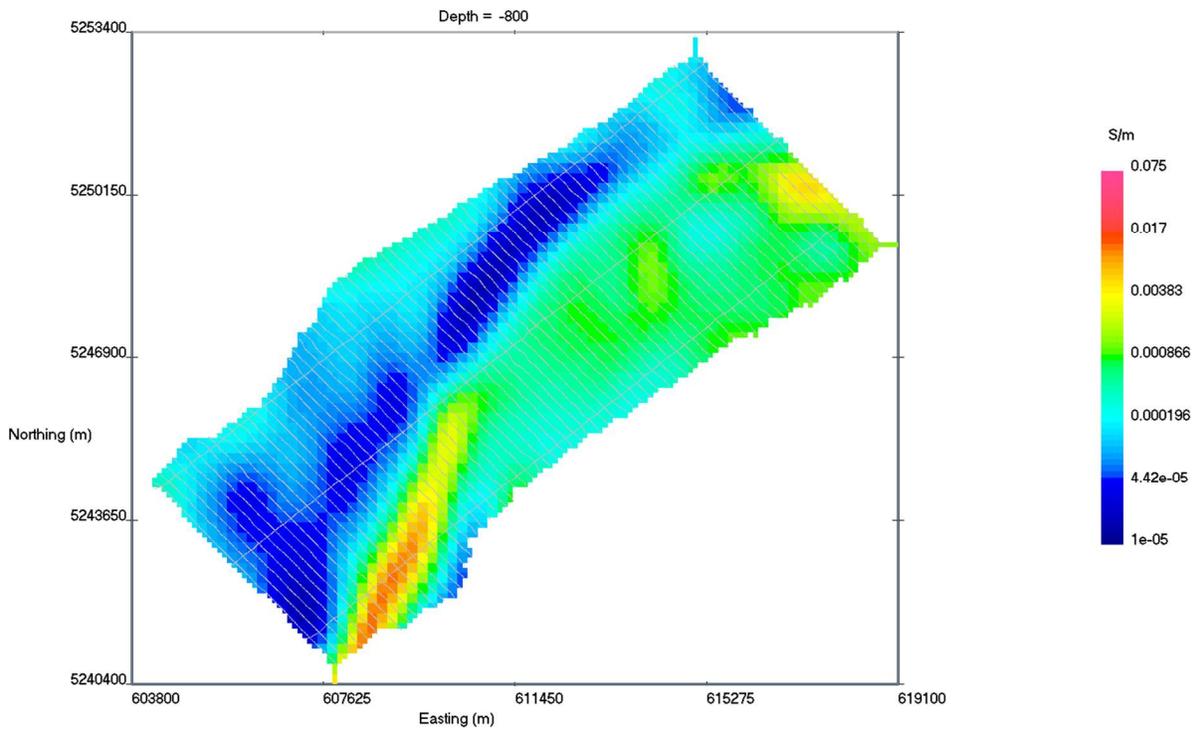


Figure 9.12 - Conductivity Model Plan View Horizontal Slice at -800m elevation a.m.s.l.

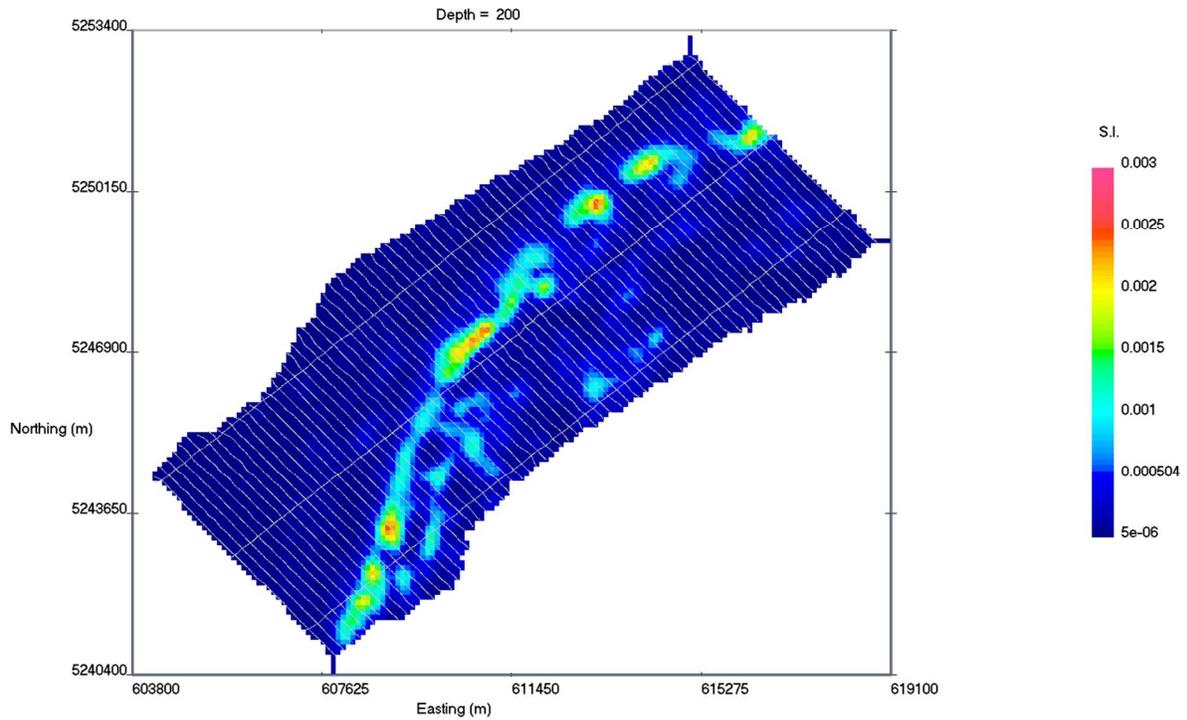


Figure 9.13 - Susceptibility Model Plan View Horizontal Slice at 200m elevation a.m.s.l.

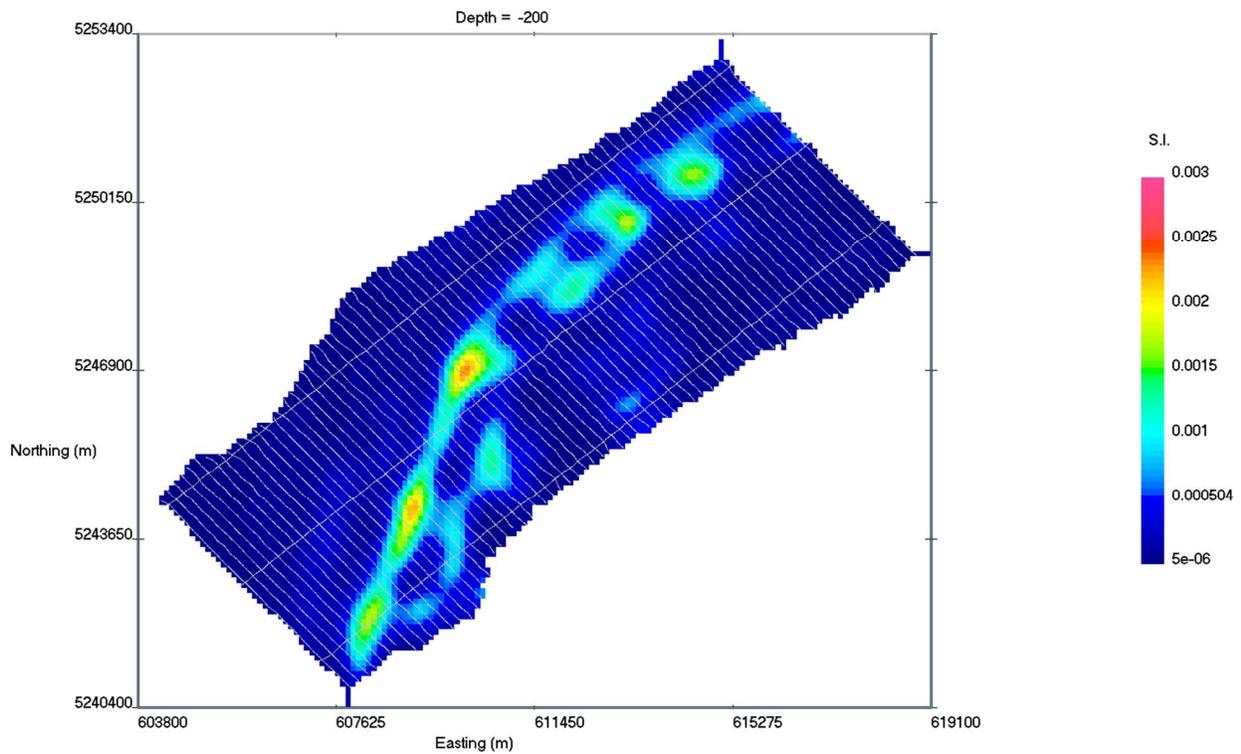
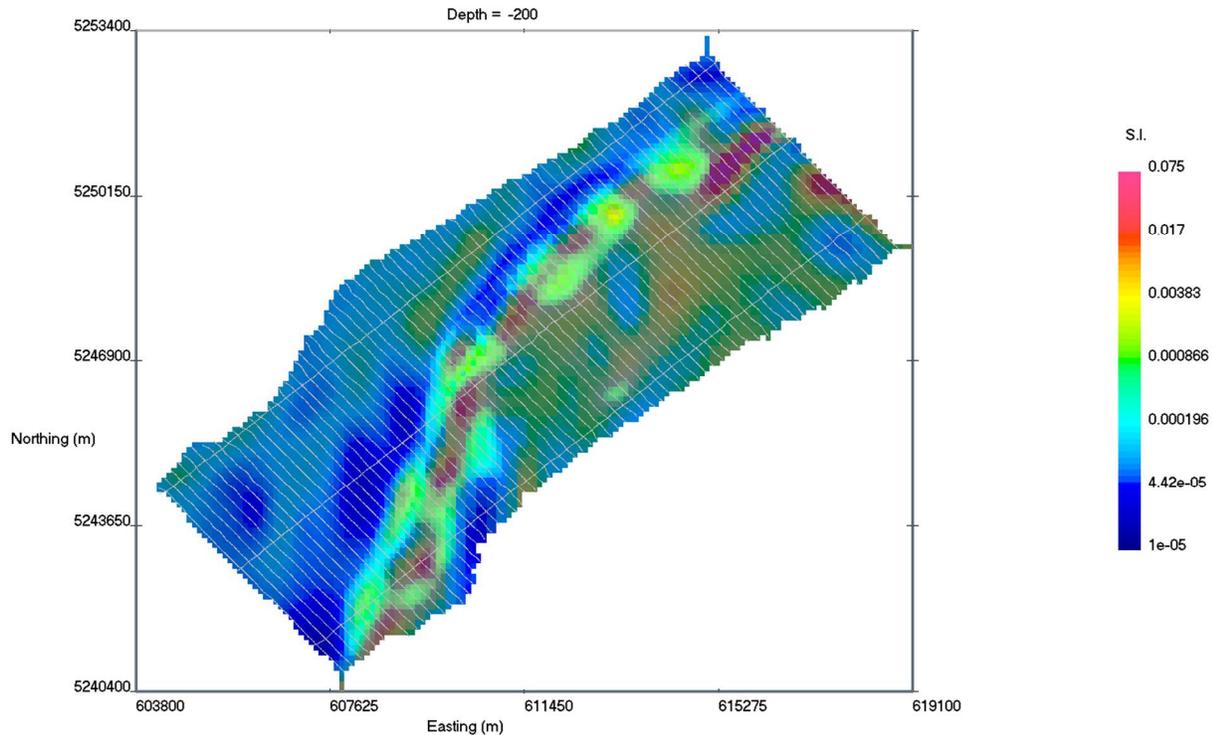


Figure 9.14 - Susceptibility Model Plan View Horizontal Slice at -200m elevation a.m.s.l.



**Figure 9.15 - Blended Conductivity and Susceptibility Model Plan View Horizontal Slice at -200m elevation a.m.s.l.**

In conclusion, the correlation between the 3D conductivity inversion and the magnetic inversion is very good; conductive zones in some parts of the model are seen surrounded by magnetic material suggesting a possible alteration halo as per the blended model plan view at -200m (Figure 9.15).

The delivered model is cut off at an elevation of -1000m. Most large features are starting to be hard to detect at this depth. A sensitivity analysis could be run in the future to determine an approximate depth of investigation based on this model, should those depths of investigation become of interest. As geologic mapping, drilling, and physical property data become available, or other geophysical data are acquired, it is recommended that this model be updated through constrained or joint inversion modelling to be consistent with all geoscience data.

### 9.3. DRILL TARGET

Seven drill holes are planned to investigate the combined MMT conductivity and magnetic inversion models. These holes are designed to penetrate anomalous conductivity only with the southern 3 holes, while the northern 4 holes will test coincident conductivity and susceptibility. The Southern 3 holes will however, test the previously acquired Co and Ni identified in a 1994 soil geochemistry survey (reference open-file report). Drill collars with azimuth and dip are provided in Table 9.1 and Figure 9.16.

Table 9.1 - List of planned holes

Hole #	Est (m)	North (m)	Elev. (m)	Length (m)	Azimuth (°)	Dip (°)
DH18-001	609384	5243678	376	350	315	-75
DH18-002	609671	5244182	432	350	315	-75
DH18-003	610019	5244804	436	350	315	-75
DH18-004	610574	5246636	413	350	315	-75
DH18-005	610841	5247030	438	350	315	-75
DH18-006	611357	5247884	418	350	315	-75
DH18-007	611697	5248415	420	350	315	-75

Coord.: UTM Nad83, zone 19

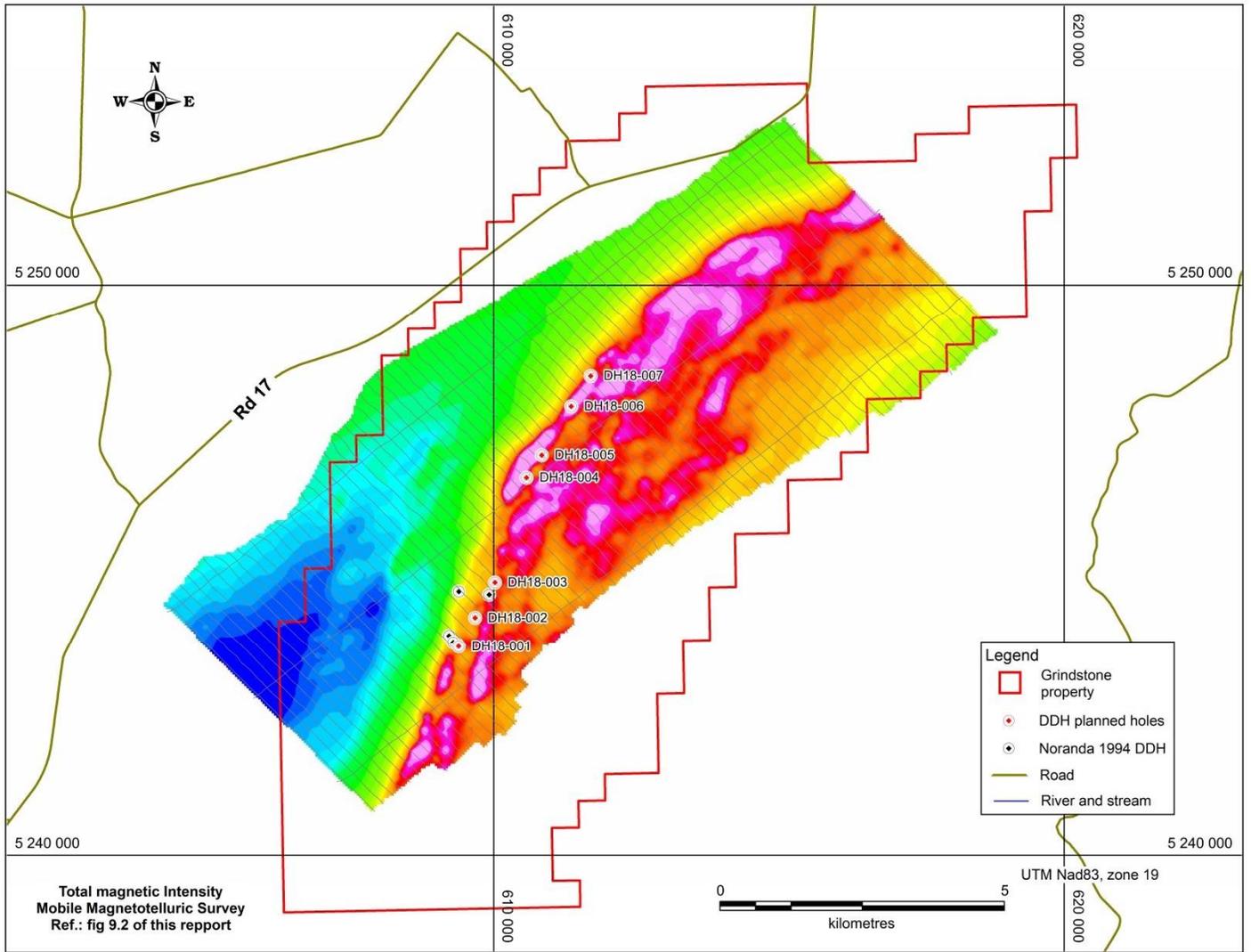


Figure 9.16 - Location of planned holes

## 10. DRILLING

This section is not relevant to this report.

## 11. SAMPLE PREPARATION, ANALYSES AND SECURITY

The Grindstone property was visited and sampled by Alain Hupé, Engineer Geologist, on July 26<sup>th</sup>, 2018. Five outcrops were sampled on site (see section 12 for description and analysis results). Samples were placed in a plastic bag with a unique tag. They were then placed in a larger polypropylene bag for shipping. Samples were shipped by Armour Transportations and driven to ALS-Global Laboratories in Sudbury.

ALS-Global is an accredited laboratory certified to perform, inter alia, assay and umpire assay work for the elements routinely assayed for Geominex. Their laboratories meet all requirements of International Standards ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

The five (5) samples were analysed for Gold by Fire Assay Fusion (FA) and Atomic Absorption Spectroscopy (AAS) and the other 47 elements were analysed by combining a four-acid digestion with inductively coupled plasma-atomic emission spectrometry (ICP-AES) and inductively coupled plasma-mass spectrometry (ICP-MS). Laboratory results are presented in *Table 12.2*.

Geominex considers that the sample preparation, security and analytical procedures are in compliance with industry's best practises and have produced accurate and precise results for the elements in the resource estimate.

## 12. DATA VERIFICATION

The Grindstone property was visited and sampled by Alain Hupé, Senior Engineer Geologist, on July 26<sup>th</sup>, 2018. Five outcrops were sampled in the vicinity of 1994 Noranda drill holes on claim block 8109 (Figure 12.1).

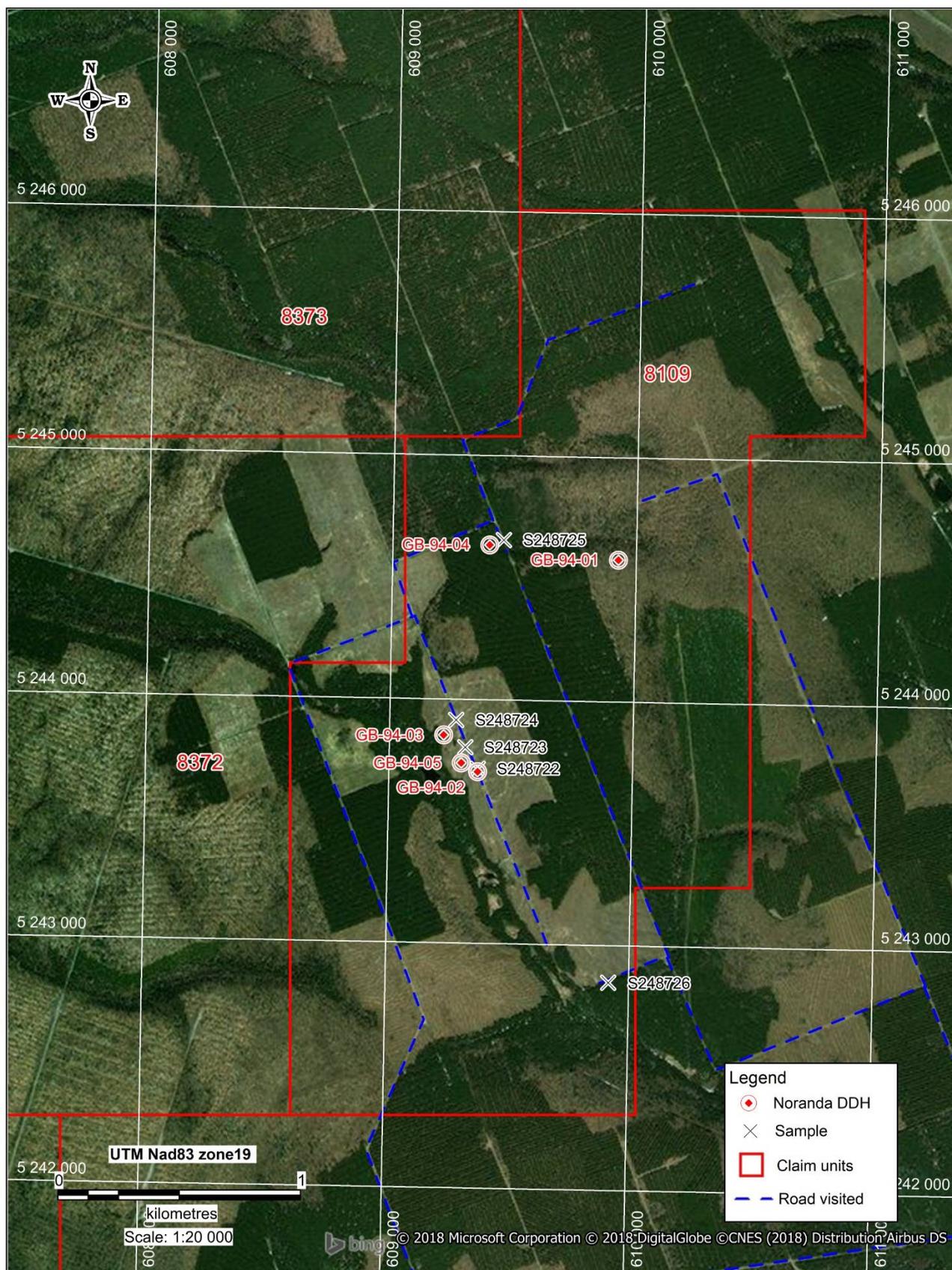


Figure 12.1 - Property visit and sampling 2018

The Grindstone property was visited on July 26<sup>th</sup>, 2018, by Mr. Alain Hupé, P.Eng., P. Geo., a Qualified Person, (“QP”) as defined by Canadian National Instrument NI 43-101 standards of disclosure for mineral projects, for the purposes of completing a site visit and independent sampling program.

Mr. Hupé toured previous work area of the property, more specifically claim block 8109, in truck. The area of each 1994 Noranda drill holes were walked to search for casing or trace of drilling. No casing was found but the forest was cut recently or reforested so no trace can be seen.

Mr. Hupé collected five (5) samples of outcrops near drill sites (*Table 12.1*). All samples were similar to the sedimentary rocks typical of the Matapedia or the Grog Brook Group.

**Table 12.1 - Samples description**

Sample #	East m	North m	Elevation m	Type	Lithology	Description	Structure
<b>S248722</b>	609365	5243720	371	Outcrop, 2 m diameter, in the road	Shale	Shale: Interbedded mudstone and siltstone, mm to cm, grey to green highly foliated with some rust in the foliation	S=45N90
<b>S248723</b>	609312	5243807	365	Outcrop, 2-3 m diameter, in border of the road	Shale	Idem S248722	S=45N90
<b>S248724</b>	609273	5243918	369	Outcrop, 1 m diameter, in the road	Shale	Idem S248722	S=45N90
<b>S248725</b>	609455	5244658	371	Sub-outcrop, 1 m diameter, in the road	Shale	Idem S248722	S=45N90
<b>S248726</b>	609917	5242852	343	Outcrop, 2 x 4 m, in the road	Shale	Black shale with some light grey 2-5 mm beds. Highly foliated with light to moderate rust.	S=45N90, S <sub>0</sub> =20N90
Coord.: UTM Nad 83 zone 20							

No significant value was obtained. Results from the 2018 visit sampling are similar to those of Noranda previous work (section 6) as shown in sample S248723 with a slight increase value in Ni to 111,5 ppm (*Table 12.2*). All results from the laboratory analysis are presented below.

**Table 12.2 - Samples results**

SAMPLE #	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm
<b>S248722</b>	-0,01	0,05	8,47	3,4	350	1,84	0,2	0,21	0,04	12,5	9,7
<b>S248723</b>	-0,01	0,03	8,93	14,9	350	2,09	0,14	0,22	0,03	39	21,6
<b>S248724</b>	-0,01	0,03	8,64	12,3	380	2,11	0,15	0,19	0,06	23,9	19,5
<b>S248725</b>	-0,01	0,04	8,51	10,4	540	2,41	0,16	0,31	0,04	34,9	15
<b>S248726</b>	-0,01	0,06	9,1	13	460	2,15	0,2	0,04	0,04	54,2	12,4

<b>SAMPLE #</b>	<b>Cr ppm</b>	<b>Cs ppm</b>	<b>Cu ppm</b>	<b>Fe %</b>	<b>Ga ppm</b>	<b>Ge ppm</b>	<b>Hf ppm</b>	<b>In ppm</b>	<b>K %</b>	<b>La ppm</b>	<b>Li ppm</b>
<b>S248722</b>	221	3,82	38	5,42	19	0,09	3,1	0,062	2,52	4,4	69,1
<b>S248723</b>	197	4,19	36	5,49	19,1	0,13	2,9	0,063	2,49	16,1	79,6
<b>S248724</b>	213	4,06	39,4	5,58	20,6	0,11	3,1	0,065	2,55	9,8	74,5
<b>S248725</b>	187	3,42	44,9	5,47	21	0,13	3,2	0,066	2,53	11	68,8
<b>S248726</b>	184	4,46	34,1	5,43	22,4	0,14	3,2	0,071	2,54	26,8	86,9

<b>SAMPLE #</b>	<b>Mg %</b>	<b>Mn ppm</b>	<b>Mo ppm</b>	<b>Na %</b>	<b>Nb ppm</b>	<b>Ni ppm</b>	<b>P ppm</b>	<b>Pb ppm</b>	<b>Rb ppm</b>	<b>Re ppm</b>	<b>S %</b>
<b>S248722</b>	3,27	427	1,25	1,26	9,1	39,6	690	24,6	77,7	0,002	0,29
<b>S248723</b>	3,49	457	1,07	1,28	9,1	111,5	670	13,1	92,8	-0,002	0,45
<b>S248724</b>	3,31	459	1,14	1,23	9,7	96	680	14,8	71,5	-0,002	0,27
<b>S248725</b>	3,25	492	1,06	1,39	11,5	62,7	650	12,8	82,8	-0,002	0,06
<b>S248726</b>	3,21	393	1,77	1,47	9,8	50,7	560	19,9	95,9	0,002	0,55

<b>SAMPLE #</b>	<b>Sb ppm</b>	<b>Sc ppm</b>	<b>Se ppm</b>	<b>Sn ppm</b>	<b>Sr ppm</b>	<b>Ta ppm</b>	<b>Te ppm</b>	<b>Th ppm</b>	<b>Ti %</b>	<b>Tl ppm</b>	<b>U ppm</b>
<b>S248722</b>	0,36	20,3	1	1,8	86	0,59	-0,05	7,09	0,461	0,48	2,2
<b>S248723</b>	0,32	20,5	1	1,7	98	0,57	-0,05	7,83	0,439	0,49	2,1
<b>S248724</b>	0,27	20,3	1	1,9	86,7	0,63	-0,05	6,67	0,466	0,55	2,2
<b>S248725</b>	0,38	20,3	-1	1,8	102	0,67	-0,05	9,13	0,491	0,49	2,5
<b>S248726</b>	3,38	22,7	-1	1,9	106	0,62	-0,05	8,68	0,462	0,53	2,5

<b>SAMPLE #</b>	<b>V ppm</b>	<b>W ppm</b>	<b>Y ppm</b>	<b>Zn ppm</b>	<b>Zr ppm</b>
<b>S248722</b>	137	0,7	11,7	96	112
<b>S248723</b>	137	0,6	15	103	107,5
<b>S248724</b>	138	0,7	13	100	110
<b>S248725</b>	150	0,6	16,9	88	131
<b>S248726</b>	152	1	8,6	93	118,5

The access to the property is very easy (*Figure 12.2* and *Figure 12.3*). Many outcrops were seen along the road and in the area of Noranda drilling program. All those outcrops seen and sampled are similar to the drill core describes by Noranda's geologist.



**Figure 12.2 - Outcrop of sample S248722**



**Figure 12.3 - Area of sample S248722 and Noranda DDH 94-02**

The authors have audited the drilling logs, compared analytical data to laboratory results, compiled the geological database and conducted independent sample verification following a site visit. Overall, Geominex is in the opinion that the data verification demonstrated the validity and adequacy of the data for the purpose of this report.

## 13. MINERAL PROCESSING AND METALLURGICAL TESTING

This section is not relevant to this report.

## 14. MINERAL RESOURCE ESTIMATES

This section is not relevant to this report.

Items 15 to 22 are not relevant to the report due to the early stage of the Grindstone Project.

## 23. ADJACENT PROPERTIES

There are four blocks of claims located at the southern part the Grinsdtone property (*Figure 4.3 and Table 23.1*). No exploration work has been recorded so far at the government registrar on those.

Table 23.1 - Adjacent claims list

Right #	Mineral Claim Name	Right %	Right Holder	Original Eff. Date	Expiry Date	Status	Units	Area (Ha)
8848	Perkins Brook A	100%	NORMAN PITRE	2018-09-20	2019-09-20	Active	22	480,5
8849	Perkins Brook B	100%	DAVID MANN	2018-09-20	2019-09-20	Active	21	458,8
8850	Perkins Brook C	100%	ROLAND LOVESEY	2018-09-20	2019-09-20	Active	22	480,8
8851	Perkins Brook D	100%	RICHARD MANN	2018-08-20	2019-09-20	Active	22	481,0
<b>Total</b>							<b>87</b>	<b>1901</b>

## 24. OTHER RELEVANT DATA AND INFORMATION

Geominex is not aware of any other relevant data or information as of the effective date of this report.

## 25. INTERPRETATION AND CONCLUSIONS

The present report on the Grindstone property has been prepared to compile the available data filed from previous work programs performed to evaluate its potential and to recommend a new exploration program.

The Property is underlain by the Grog Brook Group which is composed of sedimentary rocks: argillite, siltstone, greywacke and conglomerate. Exploration in the area of the Grindstone Property was initiated by Noranda Exploration Company from 1993 to 1995 who conducted geological, geochemical and geophysical surveys with a final diamond drilling program. No significant results were found to explain the geochemical and geophysical anomalies. In 2007-2008, Golden Bay Resources reprocess and interpret the geophysical survey and no work was carried out.

The Grindstone property represent a significant mineral potential for new discoveries related to Cu, Ni or Co such as in Magmatic Cu-Ni ±PGE or Sediment-hosted Stratabound Copper types of deposits. It is located in a geological environment favorable to contain major mineralized deposits and the previous exploration work highlighted large geophysical anomalies never tested.

There are certain risks and uncertainties that could be expected to affect the reliability or confidence in the project's potential economic viability. In general, the market volatility and the base metal price have an incidence in raising capital to further develop the property. There is no guarantee of the successful outcome of the future work program.

## 26. RECOMMENDATIONS

The authors recommends that CEM advances the project forward with a drill campaign to explore the geophysical MMT targets with the intention to find a mineralized zone reflecting the presence of a large deposit.

The work program is divided in two phases. The first phase is to explore the conductive and magnetic targets determined by the Mobile Magneto Telluric survey. Phase 2 is not contingent on positive results of all the phase 1. This second phase is for the exploration of other MMT anomalies or for the verification laterally or at depth of interesting holes of the first phase.

It is recommended that CEM takes the following actions:

### Phase 1:

- 1.2 Five holes to explore the conductive and magnetic targets of the Mobile MagnetoTellurics survey.
- 1.2 Borehole Electromagnetic (BHEM) survey to verify and extend conductor around the holes.

### Phase 2

- 2.0 Drilling campaign to explore the other MMT targets or to verify previous holes extension laterally or at depth.

The following is the budget for the recommended program:

Phase 1	
1.1 Drilling of 5 holes, 1875m (170 \$/m all included)	\$318 750
1.2 BHEM survey	\$79 250
Sub total:	<b>\$398 000</b>
Phase 2	
2.0 Drilling of 600m (170 \$/m all included)	<b>\$102 000</b>
<b>Total:</b>	<b>\$500 000</b>

## 27. REFERENCES

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## CERTIFICATE OF AUTHOR

I, Etienne Forbes, P. Geo., do hereby certify that:

1. I am a professional geologist with Geominex Inc., a consulting firm specializing in Mining Exploration with office at 175, rue Legaré, Rimouski (Québec).
2. I am a graduate from the Université du Québec à Montréal (UQAM) with a B. Sc. in geology in 1994.
3. I am a Professional in Geology and registered member of the Engineers Geoscientists of New Brunswick, Licence number L5715.
4. I have worked as a geologist for a total 22 years since my graduation from university.
5. I have read the definition of «qualified person» as defined in National Instrument 43-101 («NI 43-101») and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am, as co-author, responsible for Items 1 to 8 of the report titled «NI-43-101 Technical Report on the Grindstone Project» with an effective date of August 31<sup>st</sup>, 2018.
7. I examined the Property which is the subject of the Technical Report in the field this June 10th, 2018.
8. I did not have prior involvement with the property that is subject of the Technical Report.
9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
10. I am independent of the issuer applying all of the tests in Section 1.5 of Ni 43-101 and also independent of both the Vendor and the Property as stated in the mining standards guidelines (Appendix 3F).
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated at Rimouski, Québec this 31<sup>th</sup> day of August 2018.

Signed and sealed

Etienne Forbes, P. Geo.

## CERTIFICATE OF AUTHOR

I, Alain Hupé, P. Eng., do hereby certify that:

1. I am a professional engineer with Geominex Inc., a consulting firm specializing in Mining Exploration with office at 175, rue Legaré, Rimouski (Québec).
2. I am a graduate from the Université Laval à Quebec with a B. Sc. A. in engineer geology in 1992.
3. I am a Professional in Geology and registered member of the Engineers Geoscientists of New Brunswick, Licence number L5652 and member of OIQ #112482.
4. I have worked as an engineer geologist for a total 26 years since my graduation from university.
5. I have read the definition of «qualified person» as defined in National Instrument 43-101 («NI 43-101») and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am, as a co-author, responsible for 9 to 14 and 23 to 27 of the report titled «NI-43-101 Technical Report on the Grindstone Project» with an effective date of August 31<sup>st</sup>, 2018.
7. I have conducted a site visit to the properties, on July 26, 2018.
8. I did not have prior involvement with the property that is subject of the Technical Report.
9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
10. I am independent of the issuer applying all of the tests in Section 1.5 of Ni 43-101 and also independent of both the Vendor and the Property as stated in the mining standards guidelines (Appendix 3F).
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated at Rimouski, Québec this 31<sup>th</sup> day of August 2018.

Signed and sealed

Alain Hupé, Eng.

## CERTIFICATE OF AUTHOR

I, Christopher Campbell, P. Geo., do hereby certify that:

1. I am a professional geoscientist with Campbell & Walker Geophysics Ltd., a consulting firm specializing in Mining Exploration with office at 4505 Cove Cliff Road, North Vancouver (British Columbia).
2. I am a graduate from the University of British Columbia with a B. Sc. in Geophysics in 1972.
3. I am a Professional in Geophysics and registered member of the Engineers and Geoscientists of British Columbia, membership / license no. 18828.
4. I have worked continuously as an exploration geophysicist for a total 46 years since my graduation from university.
5. I have read the definition of «qualified person» as defined in National Instrument 43-101 («NI 43-101») and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
6. I am, as a co-author, responsible for section 9 of the report titled «NI-43-101 Technical Report on the Grindstone Project» with an effective date of August 31<sup>st</sup>, 2018.
7. I have not conducted a site visit to the properties.
8. I did not have prior involvement with the property that is subject of the Technical Report.
9. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
10. I am independent of the issuer applying all of the tests in Section 1.5 of Ni 43-101 and also independent of both the Vendor and the Property as stated in the mining standards guidelines (Appendix 3F).
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated at North Vancouver, BC this 31<sup>th</sup> day of August 2018.

Signed and sealed

Christopher Campbell, P. Geo.