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2018 - 2019 LINE CUTTING, BOREHOLE AND GROUND GEOPYSICAL SURVEY REPORT

on the

PICK – WINSTON LAKE Zn-Cu PROPERTY

SUPERIOR LAKE RESOURCES LIMITED
(Ophiolite Holdings Pty Ltd.)

Pays Plat Lake Area
Rope Lake Area
Thunder Bay Mining Division
NORTHWEST ONTARIO, CANADA
NTS 42D14, 42E03

- by -

Dave Thomson, RPF

Gerry White, BSc., P.Geo.

November 15, 2019

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LIST OF ABBREVIATIONS

AAS	Atomic Absorption Spectroscopy
Ag	Silver
AI	Alteration Index
Au	Gold
BCMC	Boundary Cell Mining Claim
BHEM	Borehole Electromagnetic (geophysical survey)
CCPI	Chlorite-Carbonate-Pyrite Index
CNR	Canadian National Railway
CPR	Canadian Pacific Railway
cm	Centimeter
Cu	Copper
D1	First Generation Deformation
DDH	Diamond Drill Hole
EM	Electromagnetic
F1	First Generation Folding
GB	Greenstone Belts
GIS	Geographic Information System
GPS	Global Positioning System
GSC	Geological Survey of Canada
g/t	Grams per tonne (Metric ton, 1,000 kg)
ha	Hectare
HQ	Drill Core Diameter / 61.1 mm (2.406 in)
IP	Induced Polarization
JORC	Joint Ore Reserves Committee (Australian Reporting Code, equivalent to NI 43-101)
Kg	Kilogram
Km	Kilometre
LIO	Land Information Ontario
m	Metre
mm	Millimetre
ms	Milliseconds
MDI	Mineral Deposit Inventory
MENDM	Ministry of Energy, Northern Development and Mines
Mlbs	Million pounds
MNDM	Ministry of Northern Development and Mines
MCMC	Multi-cell Mining Claim
NAD83	North American Datum 1983
NI	National Instrument
Ni	Nickel
NTS	National Topographic System
OGS	Ontario Geological Survey
Ounce	Troy ounce (used for precious metals) = 31.103 grams
PGE	Platinum Group Elements
PWLP	Pick-Winston Lake Property
ppb	Parts Per Billion
ppm	Parts Per Million
QAQC	Quality Assurance Quality Control
S0	Depositional or Primary Layering
S1	Secondary Foliation (Rock Fabric)
SCMC	Single Cell Mining Claim
SP	Subprovince

TDEM	Time-Domain Electromagnetic (geophysical survey)
UTM	Universal Transverse Mercator (map projection)
VLF	Very Low Frequency
VMS	Volcanogenic Massive Sulphide
VTEM	Versatile Time Domain Electromagnetic (geophysical survey)
WLGB	Winston Lake Greenstone Belt
WLH	Winston Lake Horizon
WSP	Wawa Subprovince
Zn	Zinc

INTRODUCTION

This report documents the results of Borehole Electromagnetic (BHEM) and Ground Time Domain Electromagnetic (TDEM) geophysical surveys conducted by Abitibi Geophysics Inc. for Superior Lake Resources Limited on the Pick – Winston Lake Zn-Cu Property (Figure 1). The property is located in Northwestern Ontario, north of Lake Superior and the community of Schreiber. These surveys were completed from December 2018 to March 2019. The Ground TDEM survey involved cutting east-west grid lines covering an area east and south of Winston Lake and encompassing the Pick Lake, Winston Lake and Zenith deposits on the property. A total of 64.65 line-km was surveyed. The Borehole BHEM survey was completed on Superior Lake Resources diamond drill hole PL-18-01-W1 (NAD 83, UTM Zone 16, 471530.525 East, 5424063.761 North, Elevation 421.9m), located in cell claim 162598. A total of 850 m was surveyed. These surveys were conducted to detect and characterize deeply buried conductors and to identify targets for further exploration.

Expenditures related to the 2018 – 2019 line cutting and geophysical survey programs totalled $324,225.55 (see Appendix 2 for expenses breakdown). This work was conducted under Exploration Permits No. PR-13-10412R (which covers legacy claims 3001232, 4244161, 4244162, 4244163 and 4244751) and PR-18-000268.

Figure 1. Pick – Winston Lake Property Location Map

PROPERTY, LOCATION AND ACCESS

The Pick – Winston Lake Property (PWLP) is located in Northwestern Ontario approximately 150 km northeast of the City of Thunder Bay and 20 km north northwest of the town of Schreiber along the north shore of Lake Superior. The contiguous claim group lies primarily within the northern portion of the Pays Plat Lake Area (NTS 42D14L and 14K) and partially within the southern portion of the Rope Lake Area (NTS 42E03C and 03D) (Figure 2). Access to the property is via the Trans-Canada Highway 17, 196 km east from Thunder Bay to the Winston Lake Mine access road (also referred to as the Whitefeather Road). The property can be reached by travelling north for 21 km to the mine gate along the all-weather gravel road. Numerous trails and mine access roads traverse the southern and west central portions of the property.

The PWLP is represented by 100 claims consisting of 61 Cell, 18 Multi-Cell (a total of 195 single cells) and 21 Boundary claims occupying close to 5398 ha. As a result, for assessment purposes, the property consists of 256 Cell claims and 21 Boundary claims. A complete list of all claims is provided in Appendix 1.

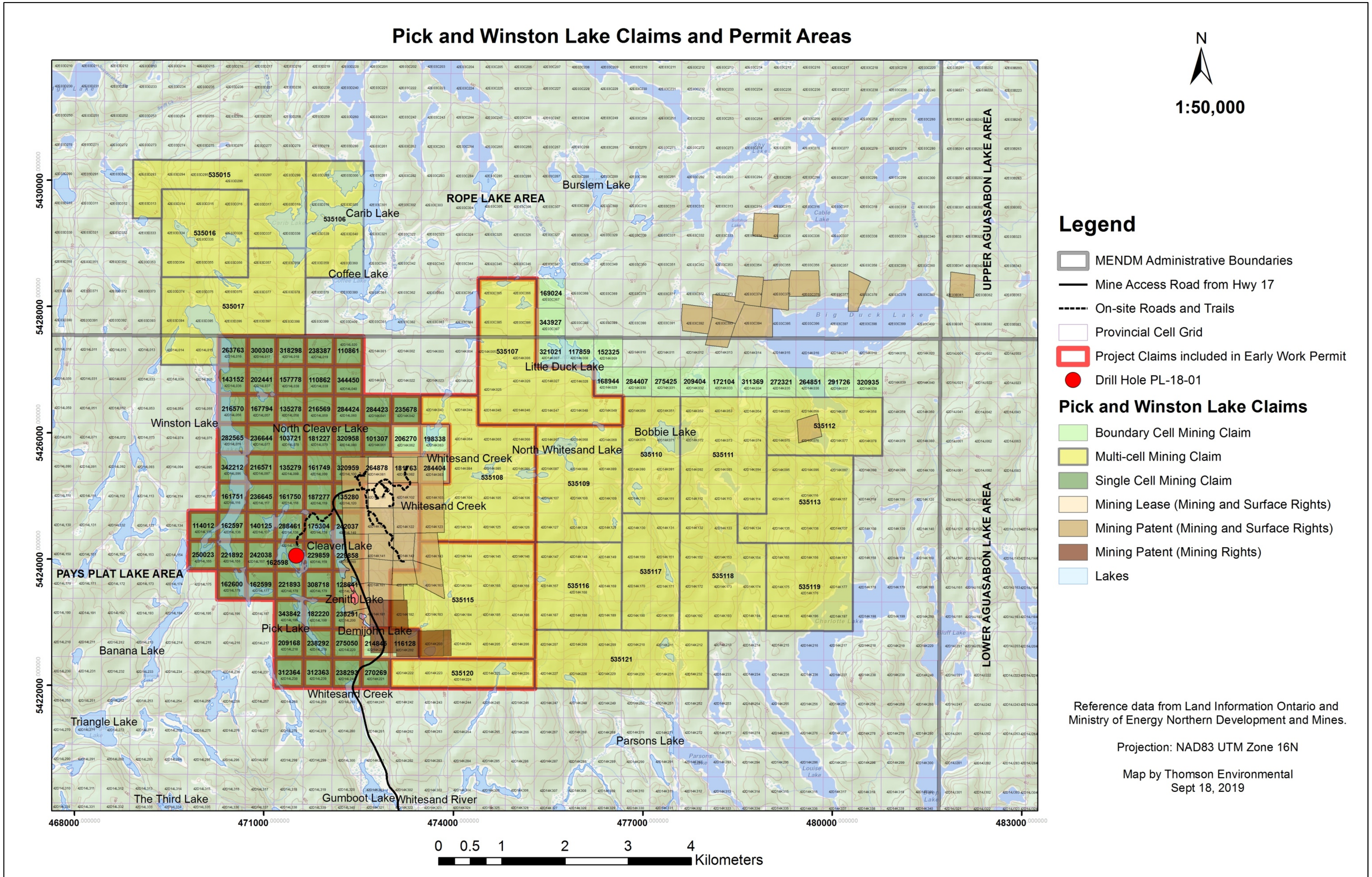

Figure 2. Pick – Winston Lake Property Map

EXPLORATION HISTORY

The exploration and production history of the Pick – Winston Lake Zn-Cu Property, which stretches back over 100 years, is summarized below (Figure 3):

- 1879: Prospectors discovered high grade zinc in the Zenith Lake area, located approximately 1 km east of the Winston Lake Mine.
- 1891 to 1901: The Zenith deposit was developed and close to 3416 t of massive coarse-grained sphalerite was hand-mined (45% Zn) (Puumala et al. 2019). During this same period the Ciglen occurrence, located 2 km northwest of the Winston Lake Mine and east of Winston Lake, was discovered and exposed by 3 trenches along a 35 m strike. Sampling of the No. 1 trench from work conducted at the Ciglen occurrence in 1952 returned 5.09% Zn and 0.08% Cu over 0.9 m (Pye 1964).
- 1952 to 1953: The Anderson Copper Occurrence was discovered and tested by diamond drilling (129 m in 5 holes). A 6 m section of drill core was estimated to contain 0.5% Cu (Pye 1964). The Anderson Occurrence is located about 400 m west of the Pick Lake deposit near the southeast end of Winston Lake.
- 1965: Zenmac Metal Mines Limited investigated both the Ciglen and Anderson occurrences. No assay results were published.
- 1966 to 1970: Zenmac Metal Mines Limited mined the Zenith deposit and produced 164,200 t at 16.5% Zn (Puumala et al. 2019).
- 1978 to 1982: Corporation Falconbridge Copper (CFC) acquired a group of claims adjacent to and west of Zenmac's Zenith deposit. The company conducted detailed mapping, lithogeochemical sampling and various geophysical surveys. This exploration work led to the discovery of the Winston Lake VMS deposit.
- 1981: The Trail Occurrence, located approximately 300 m west of the Winston Lake Mine, was discovered during CFC's mapping program and was identified as hosting VMS mineralization.
- 1983: CFC initiated the development of a 3-compartment shaft for underground delineation drilling. Over an 18-month period CFC completed the shaft and underground drilling, which resulted in an initial historical resource of 2.95 MT@ 17.8% Zn, 0.94% Cu, 0.7 oz/ton Ag and 0.025 oz/ton Au (Superior Lake Resources website, 2018 News Release).
- 1984: CFC announced the discovery of the Pick Lake deposit. Exploration diamond drilling from surface following the down-dip extension of a base metal showing at the Anderson Occurrence resulted in the discovery of the deposit. The discovery of the Winston Lake and Pick Lake VMS deposits were the first in this part of Northwestern Ontario since the discovery in 1954 of the Noranda Geco deposit in the Manitouwadge area, 110 km to the east. (The Geco Mine operated from 1957 to 1995 and produced 49.4 Mt at 1.85% Cu, 3.78% Zn and 56.2 g/t Ag (Puumala et al. 2019)).

- 1987: CFC changed its name to Minnova Inc.
- 1988 to 1999: In 1988 Minnova reported the completion of a 741 m shaft with a designed production capacity of 1000 metric tonnes per day. The development and operation of the Winston Lake Mine occurred over an 11- year period and resulted in the production of 3,269,698 t at 1.04% Cu (~53 Mlbs), 14.56% Zn (~900 Mlbs), 32.32 g/t Ag and 1.4 g/t Au (> 50,000 oz) (Puumala et al. 2019).
- 1993: Minnova Inc. was acquired by Metall Mining Corporation. Underground access to the Pick Lake deposit was gained via a 2,200 m drift west from the Winston Lake deposit. This was followed by the development of a 602 m internal shaft or winze (Turcotte and Verschelden 2013).
- 1995: Metall Mining Corporation changed its name to Inmet Mining Corporation. Production from the Pick Lake deposit, which consists of an Upper and Lower zone, was added to the Winston Lake ore feed from 1995 until operations were suspended in December 1998.
- 1999: The Winston Lake Mine operation was closed in February due to very low zinc prices at the time (US$0.42/lb). During the post cessation of mining, Inmet dismantled the processing plant, sold it and began reclamation at the site. As of January 1, 1999, Inmet Mining reported a non-compliant NI 43-101 Proven and Probable ore reserve for the Lower Pick Lake zone, estimated to be 598,000 tonnes at a grade of 1.0% Cu and 21.2% Zn, including a dilution of 33% (Turcotte and Verschelden 2013).
- 2008 to 2010: Orebot Inc. acquired the Pick Lake Claims and completed several exploration programs.
- 2011: The Pick Lake property was optioned to Silvore Fox Minerals Corporation and the company initiated an airborne versatile time domain electromagnetic (VTEM) survey. Silvore Fox also complete an NI 43-101 Technical Report for the Pick Lake Project, which was released on June 19, 2013 (Turcotte and Verschelden 2013).
- 2013: Inmet Mining Corporation was acquired by First Quantum Minerals Ltd.
- 2017 to 2018: Superior Lake Resources Limited acquired the Pick Lake Licences, optioned the Winston Lake Project and acquired all mining data from First Quantum Minerals (Superior Lake Resources website).
- 2018 to 2019: Superior Lake Resources completed geological mapping and lithogeochemical sampling, a ground TDEM geophysical survey adjacent to the Pick and Winston Lake deposits, a 2,288 m diamond drilling program (cell claim 162598) and borehole electromagnetic (EM) geophysical surveys.
- 2019: On August 28, Superior Lake Resources released a Bankable Feasibility Study for the Pick – Winston Lake Project, which included new JORC (2012) Mineral Resource and Ore Reserve Estimates (compliant with NI 43-101). (Note: Mineral Resources are inclusive of Ore Reserves). The current Mineral Resource is stated as 2.35 Mt at 17.7%Zn, 0.9% Cu, 0.38 g/t Au and 34 g/t Ag with a Probable Ore Reserve of 1.96Mt at 13.9% Zn, 0.6%Cu, 0.2g/t Au and 26.2g/t Ag (Superior Lake Resources Limited, News Release, August 28, 2019).

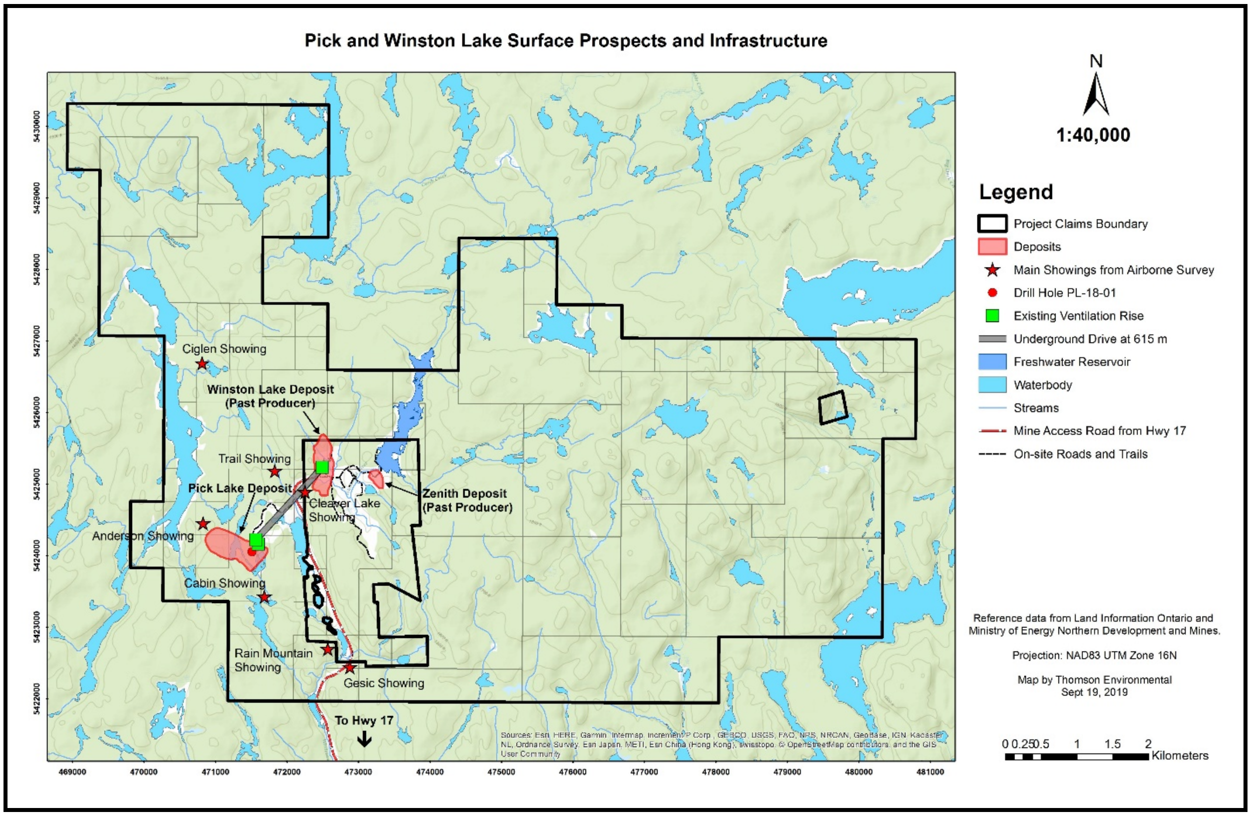

Figure 3. Pick – Winston Lake Property Mineral Occurrences and Prospects

GEOLOGICAL SETTING

The Pick – Winston Lake Property is located in the Wawa-Abitibi terrane along the northern margin of the Wawa Subprovince and south of the Quetico metasedimentary basin or Subprovince (Figure 4). The subprovinces are part of the much larger Archean-age (3.4 to 2.5 Ga) Superior Province which essentially defines the Canadian Precambrian Shield and forms the core of the North American continent (Figure 5). These continental core rocks represent the oldest and most tectonically stable group of rocks in North America.

The Wawa Subprovince (WSP) is a typical Archean greenstone-granite terrane consisting of primitive ultramafic to felsic volcanic rocks and associated metasedimentary rocks, intruded and enclosed by granitoid rocks. The WSP contains a series of greenstone belts of similar age (ca. 2.95 to 2.68 Ga) hosting gold, nickel and zinc deposits. The Winston Lake Greenstone Belt (WLGB), which hosts the Pick Lake and past producing Winston Lake Zn-Cu deposits, is tectonically and stratigraphically equivalent to similar aged greenstone belts (ca 2720 Ma) along the northern margin of the Wawa Subprovince. These include the Vermillion, Shebandowan and Manitouwadge greenstone belts, the latter of which hosts the past producing Geco VMS deposit (Figure 6). Regional metamorphic grade in the WLGB is lower amphibolite facies (Lodge et al. 2019).

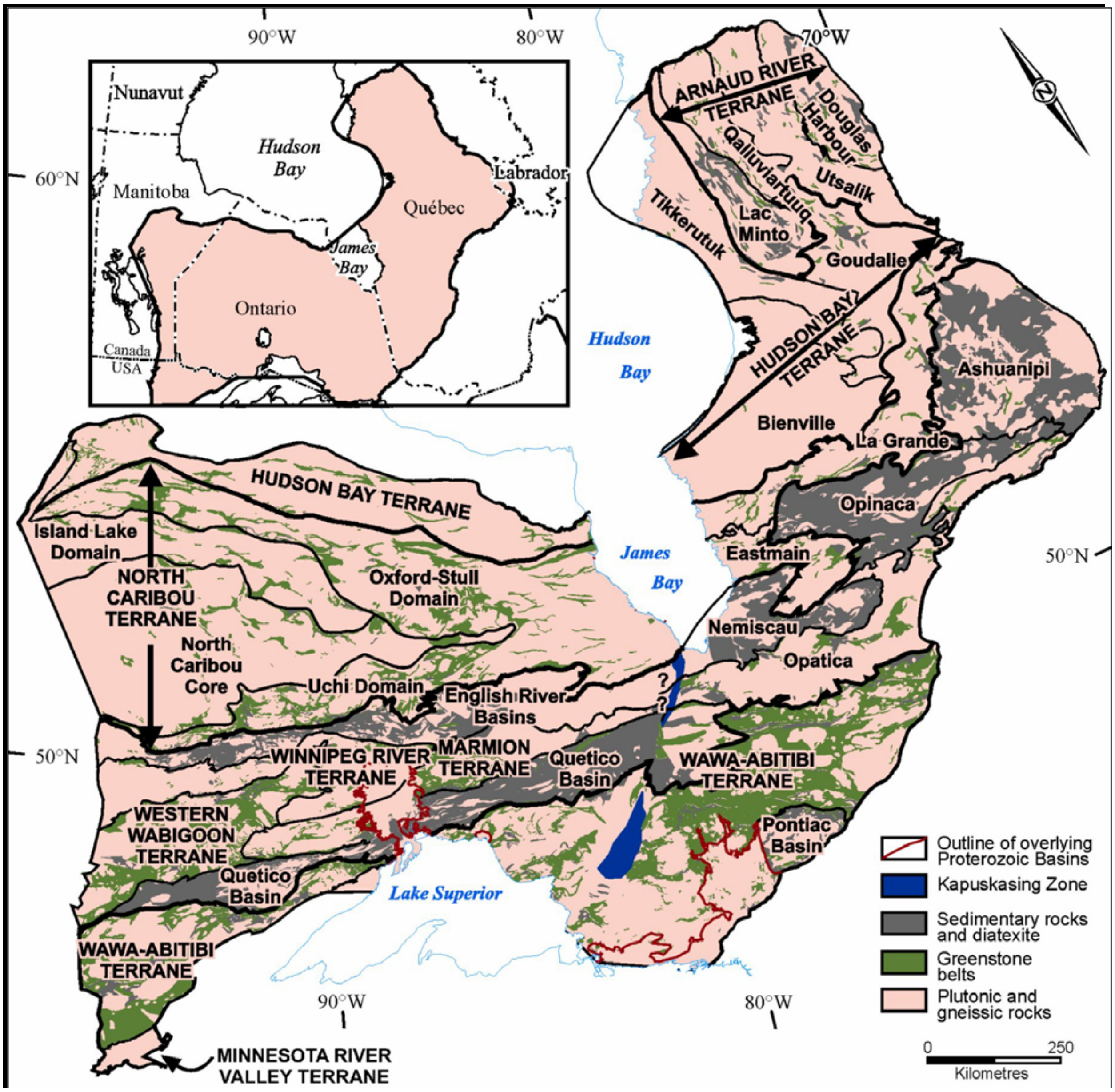

Figure 4. Superior Province within the Canadian Shield showing Subdivisions (Stott 2011)

The Winston Lake Greenstone Belt (Figure 7) is a small belt located directly north of, and almost connected to the Schreiber-Hemlo greenstone belt. The belt is bound to the north by the Quetico Subprovince, to the west by the Winston Lake batholith, and to the south by the Crossman Lake Batholith. Rocks in the western part of the belt that host the past-producing Winston Lake Mine and Pick Lake deposit, were initially interpreted as metasedimentary rocks because of the presence of aluminosilicate minerals (Pye, 1964). They were later interpreted to be hydrothermally altered felsic and mafic volcanic assemblages (Lodge et al. 2019).

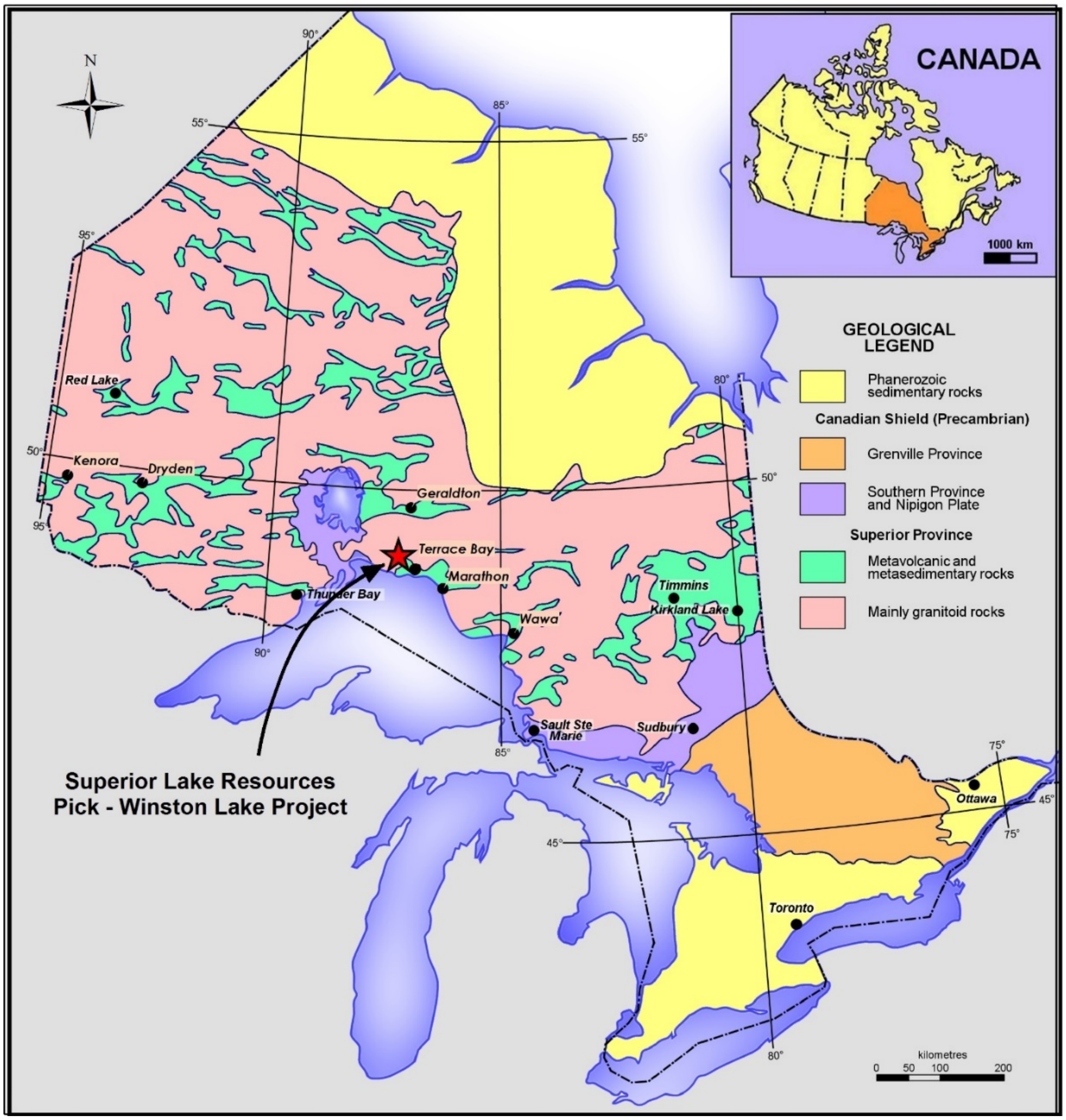

Figure 5. Bedrock Geology Map

The Winston Lake Greenstone Belt has been informally subdivided into two main lithotectonic assemblages: the Winston Lake Assemblage, which occupies the extreme western portion of the belt and the Big Duck Lake Assemblage, a thick mafic unit comprising the eastern and central portions of the belt. The Big Duck

Lake Assemblage consists of Mg- to Fe-rich tholeiitic basalts, quartz-feldspar porphyry dykes and sills, and their brecciated equivalents. The Big Duck Lake Assemblage is thought to conformably overly the Winston Lake Assemblage with the contact intruded by a thick differentiated gabbro. The VMS-hosting Winston

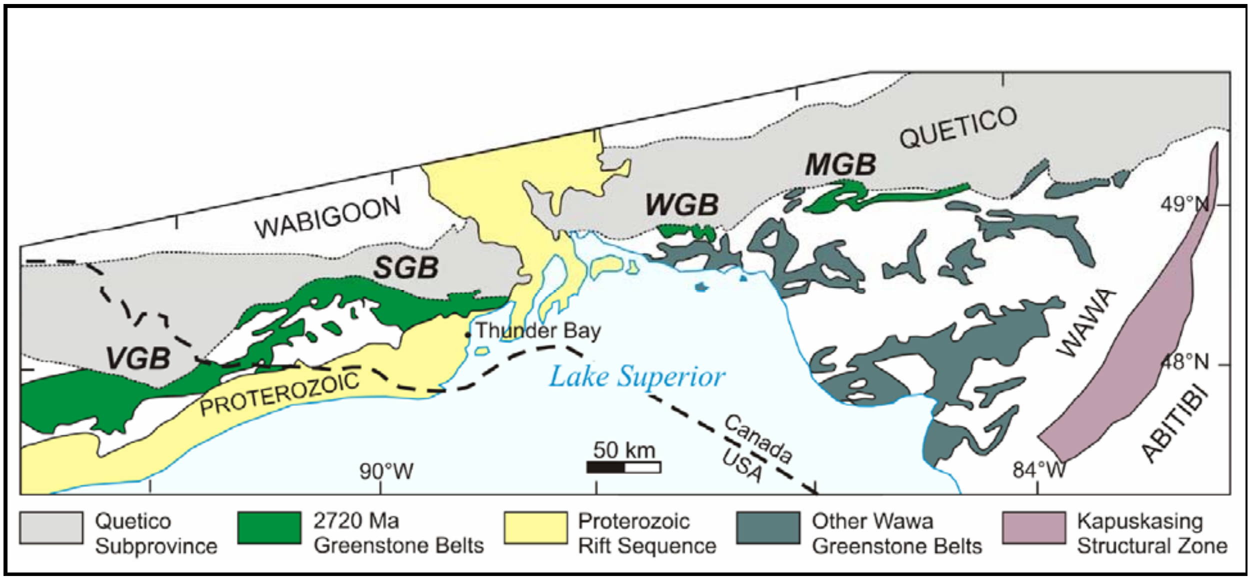

Figure 6. Greenstone Belts in the Northern Wawa Subprovince (Lodge et al. 2019)

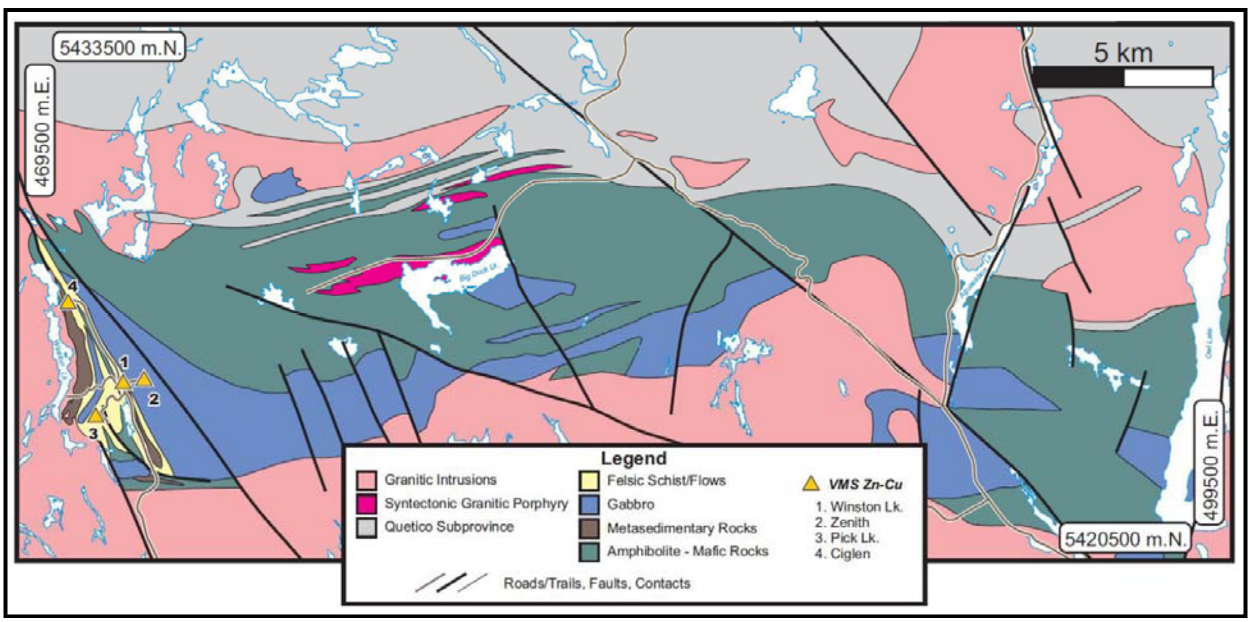

Figure 7. Winston Lake Greenstone Belt (Lodge et al. 2019)

Lake Assemblage is dominated by felsic volcanic and silica-rich sedimentary rocks. Despite the high degree of metamorphism and deformation in the Winston Lake Assemblage, many primary features are preserved in the volcanic rocks. Reliable younging directions obtained from pillowed flows and cross-bedding in volcaniclastic rocks suggest an eastward-younging stratigraphy. The Pick Lake VMS deposit is associated with a quartz-feldspar porphyry flow rocks and the Winston Lake VMS deposit is hosted by altered mafic flow and interlayered felsic volcanic units. The differentiated gabbro at the contact between the 2 assemblages hosts the Zn-rich Zenith orebody (Lodge et al. 2019).

MINERALIZATION and ALTERATION

The Pick Lake deposit varies in thickness from 1.5 m to 14 m (averaging between 2 m and 4 m), is between 100 m and 400 m wide, and has a down-plunge extent of approximately 1 km, beginning from a depth of around 500 m (Doiron et al., 1997; Lodge, 2012). It consists predominantly of massive fine to medium grained sphalerite and pyrrhotite with minor chalcopyrite and pyrite, and occurs in sharp contact with metasedimentary rocks of the “Lower Clastic Succession” (Lodge et al. 2014). Doiron et al. (1997) noted the textural differences between the Winston Lake and Pick Lake deposits, and particularly the presence of durchbewegung textures at Pick Lake, indicative of sheared sulfides incorporating clasts of host or wall rock material. The timing of this deformation post-dated the emplacement of granitic dykes related to the intrusion of the granitoid complexes south and west of the Pick Lake deposit. Copper-rich, high-temperature feeder pipes have not been identified at either the Winston Lake or Pick Lake deposits, consistent with the massive sphalerite lenses having been structurally displaced from their original stratigraphic position (Nielsen 2017).

Six other known mineral occurrences, located in the west and southwestern portion of the Pick – Winston Lake property (see Figure 3), some mentioned in the previous ‘Exploration History’ section and described by Turcotte and Verschelden (2013) in a NI 43-101 technical report, are discussed below (Nielsen 2017).

The Ciglen Zn Occurrence lies within the “Lower Clastic Succession” along the western boundary of the property and east of Winston Lake. Turcotte and Verschelden (2013) indicate:

“It lies in and along the hanging-wall side of a narrow band of intimately interbedded garnet-biotite-quartz-feldspar gneiss and garnet-biotite-quartz schist; like these metasediments, it strikes N100W and dips 35° to 45°E. It is up to 17 feet (5.2 m) thick and has been traced along-strike for 180 feet (54.9 m). The mineralization consists of pyrite and pyrrhotite, with some

sphalerite and a little chalcopyrite. These sulphides compose 10% to 15% of the deposit and occur as either disseminations in the host rock or thin lenses and layers oriented parallel to the foliation. Associated with the sulphides is considerable fine-grained to medium grained smoky quartz."

The Anderson Cu-Zn Occurrence is also hosted within the "Lower Clastic Succession" and is located approximately 800 m west of the Pick Lake deposit. It is considered by Lodge (2012) to represent the surface expression of the Pick Lake deposit and displays a very strong electromagnetic response. The following description is taken from Turcotte and Verschelden (2013):

"From the drilling results in 1952, it is evident the Anderson occurrence lies within a narrow band of biotite gneiss, which is in part garnetiferous, in the granitic rocks in this locality. It strikes N150-200E and dips southeast. The deposit is a crudely tabular body of gneiss containing some disseminated pyrite and pyrrhotite, a little chalcopyrite, and very small amounts of sphalerite, and exhibiting an occasional stringer of quartz. It is about 40 feet (12.2 m) thick and has been tested by the drill holes over a strike-length of 250 feet (76.2 m). The up-plunge and surface expression of the Pick Lake deposit was identified as the Anderson occurrence."

The Trail Occurrence is located approximately 300 m west of the Winston Lake deposit. The following description is taken from the Ontario Ministry of Energy, Northern Development and Mines online Mineral Deposit Inventory (MDI) data base (2019):

"The Trail occurrence is classed as a VMS deposit. The area is underlain by altered and unaltered mafic metavolcanic rocks as well as minor interflow metasedimentary rocks. Severin and Balint (1984) describe the Trail occurrence as follows: a thin sequence of bedded felsic sediments occurs locally between the base of the Ladder Flow and the underlying quartz feldspar porphyry. In this case, this material is intensely altered to a quartz-cordierite-biotite-anthophyllite-garnet±sillimanite assemblage. The primary bedded nature of the material appears preserved. Anomalous sulphide content is common. The 0.15 m thick chalcopyrite mineralized siliceous horizon carries (up to) 6,230 ppm Cu. The Trail Copper occurrence represents a thin exhalative unit between a mafic metavolcanic flow and the underlying quartz porphyry. The material is siliceous to cherty in nature."

The Creek Cu Occurrence is located along Selim Creek approximately 200 m west of the surface expression of the Winston Lake deposit (Smyk and Schnieders, 1995). It consists of a gossan containing pyrite and chalcopyrite hosted by felsic rocks which have been partially altered to biotite-cordierite-anthophyllite.

The Cabin Occurrence lies approximately 500 m south of the Pick Lake deposit near the contact between the "Lower Clastic Succession" and mafic flows. Turcotte and Verschelden (2013) describe it as *"…weakly anomalous base metal* *mineralization at the base of garnet-bearing synvolcanic felsic-derived sediments and/or tuffs and consists of an approximately 1-metre thick highly siliceous pyrrhotite-pyrite rich zone exposed intermittently over approximately 150 metres of strike length."*

The Rain Mountain Occurrence is located near the southwest boundary of the Pick – Winston Lake property. Very little information is available regarding this showing, but it is presumably enriched in Zn and other metals as it is interpreted to be an exhalative horizon associated with submarine hydrothermal activity (Turcotte and Verschelden, 2013).

PROPERTY ALTERATION

The regional metamorphic grade within the WLGB, as discussed earlier, is lower amphibolite facies. This higher degree of metamorphism vs greenschist facies (i.e. Beardmore-Geraldton and Shebandowan greenstone belts), can often mask or destroy evidence of hydrothermal alteration associated with VMS mineralization. The recognition of metamorphosed hydrothermal alteration played an important role in the discovery of the Winston Lake VMS deposit and later the Pick Lake VMS deposit (Severin, Balint and Sim, 1991). Metamorphosed mafic volcanic rocks in contact with the Zenith Gabbro were observed to have unusual mineral assemblages, including the presence of garnet, cordierite and anthophyllite. These rocks, through chemical analysis, were also found to be enriched in Zn, K, Mg and Fe, and depleted in Na and Ca, which defined a zone of hydrothermal alteration associated with a downhole pulse EM anomaly. Drilling of this EM anomaly led to the discovery of the Winston Lake deposit (Nielsen 2017).

LINE CUTTING PROGRAM

Line cutting was carried out by a 5-man crew from Pays Plat First Nations, with training and supervision provided by Greg Smith of A-Star Prospecting. Crew members included Marissa Fugere, Clayton Morriseau, Gerald Morriseau, Roland Auger and George Michano.

Line cutting operations were conducted under the terms of Exploration Permit PR-18-000268 and followed a planned line layout shown on Figure 8 using an azimuth of 090° with a 200 m line spacing.

During the line cutting operation, line 1 was dropped and two sub-lines added at 100 m spacing in the area of the Winston mine site. The lines were chained, with pickets at 25 m intervals. The field layout of the cut lines is shown on Figure 9.

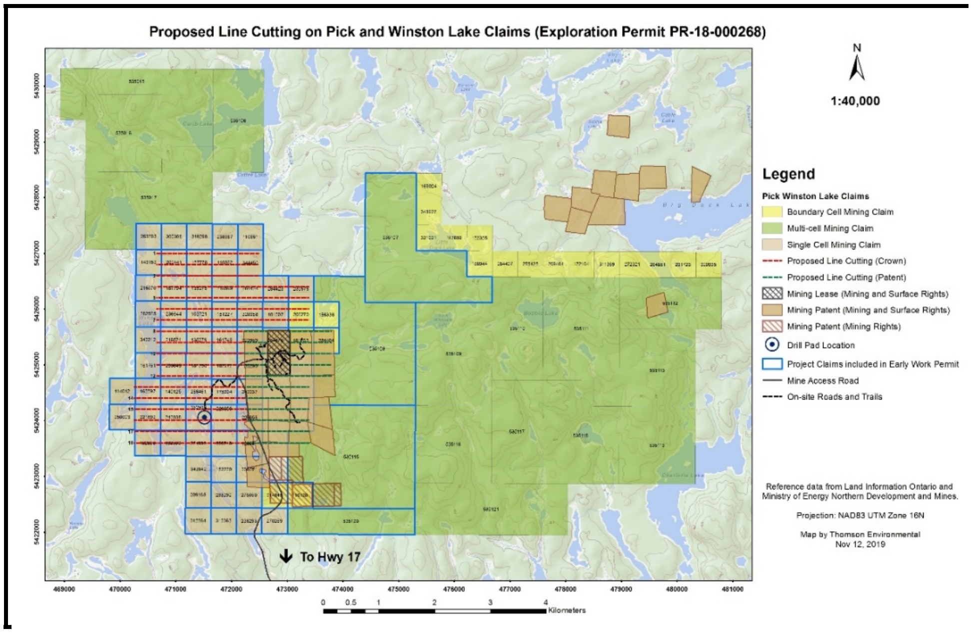

Figure 8. Proposed Line Cutting on the Pick-Winston Lake Property

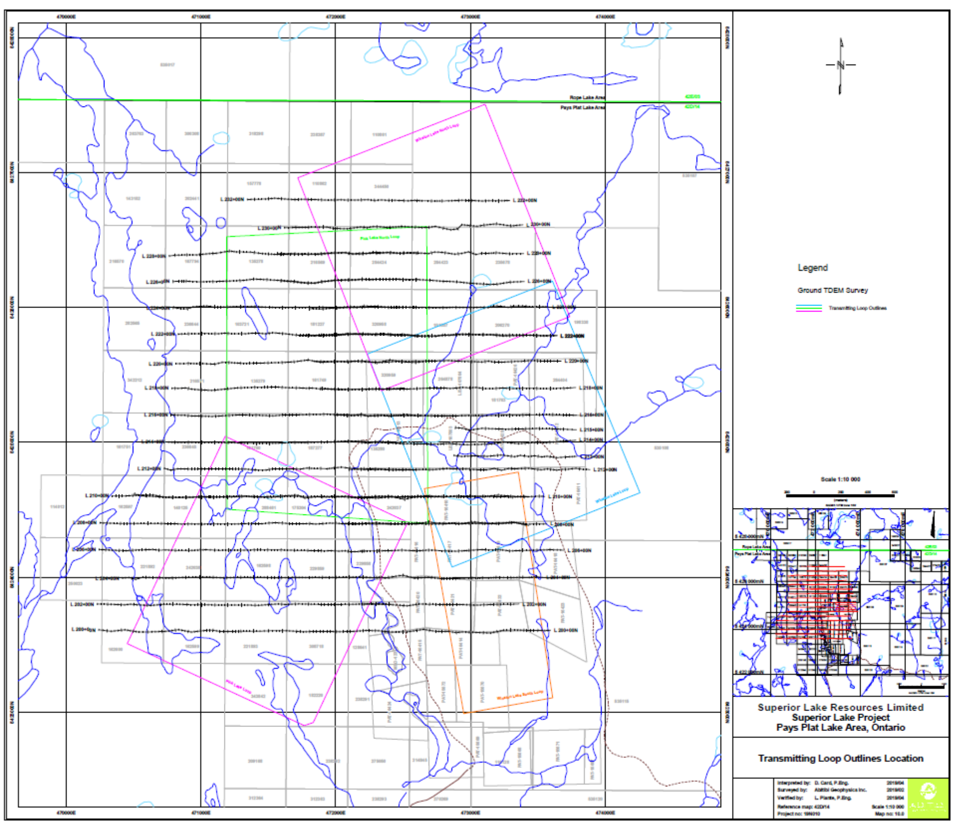

Figure 9. Field Layout of Cut Lines on the Pick-Winston Lake Property

BOREHOLE AND GROUND TDEM GEOPHYSICAL SURVEY PROGRAM

Superior Lake Resources Limited contracted Abitibi Geophysics Inc. of Val-d'Or, Quebec, to complete Borehole and Ground Time Domain Electromagnetic (TDEM) surveys on the Pick – Winston Lake property. The property is located in Northwestern Ontario and the work was conducted during the fall of 2018 and winter of 2019.

A Borehole TDEM survey totalling 850 m, was conducted on Superior Lake Resources diamond drill hole PL-18-01-W1 (NAD 83, UTM Zone 16, 471530.525 East, 5424063.761 North, Elevation 421.9m), located in the eastern portion of cell claim 162598. The survey was initiated and completed on December 3, 2018. The project was supervised by crew chief and operator Martin Lafortune, from Abitibi Geophysics. The Ground TDEM survey involved cutting 38 east-west grid lines covering an area east and south of Winston Lake and encompassing the Pick Lake, Winston Lake and Zenith deposits on the property. A total of 64.65 line-km of data was collected. The project was supervised by crew chief and operator, Kevin Vaillancourt of Abitibi Geophysics and completed between February 12 and March 3, 2019. These surveys were conducted to detect and characterize deeply buried conductors, and to identify targets for further exploration.

BOREHOLE TDEM SURVEY

Abitibi Geophysics report covering the Borehole TDEM survey is provided below. Maps of the response profiles, transmitting loop outlines and DDH locations are listed in Table 1 and included in Appendices 3 and 4:

Table 1. Description of maps delivered

Map #	Description	Scale
	Borehole TDEM Survey	
Stacked Profiles	B-field EM Response Profiles / Components A, U & V	1:5000
10.0	Geophysical Interpretation, Transmitting Loop Outlines & DDH Locations	1:5000

1. MANDATE (Figure 1)

- ❑ *PROJECT ID:* **Superior Lake**

(Our reference: **18N094**)

- ❑ *GENERAL LOCATION:* Schreiber, Ontario, Canada

- ❑ *CUSTOMER:* **Superior Lake Resources Limited**
  Suite 23 / 513 Hay Street
  Subiaco WA 6008, Australia
  Telephone: +61 861 425 088

- ❑ *REPRESENTATIVE:* **David Woodall**
  davidw@superiorlake.com.au
  Telephone: +61 428 878 488
  David Johnson
  david@ziongeophysics.com
  Telephone: +1 801 946 2773

- ❑ *SURVEY TYPE:* **Borehole TDEM Survey**

- ❑ *GEOPHYSICAL OBJECTIVES:*
  • To detect and characterize deeply buried conductors
  • Identify targets for further exploration

2. THE SURVEY AREA (Figure 10)

- ❑ *LOCATION:* **Schreiber, Ontario, Canada**
  Centered on 48°58'11" N and 87°23'17" W
  NAD83 / UTM zone 16N: 471 600 m E, 5 424 200 m N
  NTS sheet: **42D/14**

- ❑ *NEAREST SETTLEMENT:* Schreiber is 20 km southeast of the grid.

- ❑ *ACCESS:* The survey area was accessed primarily by ATV and truck.

- ❑ *GEOMORPHOLOGY:* The survey area is covered by many small to moderate sized lakes and ponds.

- ❑ *CULTURAL FEATURES:* No cultural features seem to have affected data quality.

- ❑ *MINING LAND TENURE:* Superior Lake Resources has entered into an option agreement to acquire Superior Mining Pty Ltd, which has a 70% initial indirect interest in the Pick Lake Zinc Project which is held by Ophiolite Holdings PTY Ltd., an Australian registered company. Superior Lake also has an option agreement with First Quantum Minerals Ltd. (FQML) to acquire 70% of the Winston Lake Project.
- ❑ *SURVEY GRID:* One hole was surveyed.

- ❑ *SECURITY AND ENVIRONMENT:* As part of the Abitibi Geophysics Inc. HS and E program, crew members received first aid training and are provided with safety equipment and specialized training for the geophysical techniques utilized on this project. In addition, the crew was provided with a satellite telephone for emergency communication. No incidents were reported during the project.

- ❑ *COORDINATE SYSTEM* Local Datum: NAD83
  Projection type: Universal Transverse Mercator (UTM)

Zone:16N

3. Borehole TDEM Survey

- *Type of survey:* **TDEM** (Time Domain Electromagnetics)
  Configuration: Fixed Loop
  Reading intervals for borehole survey: 5 m and 10 m

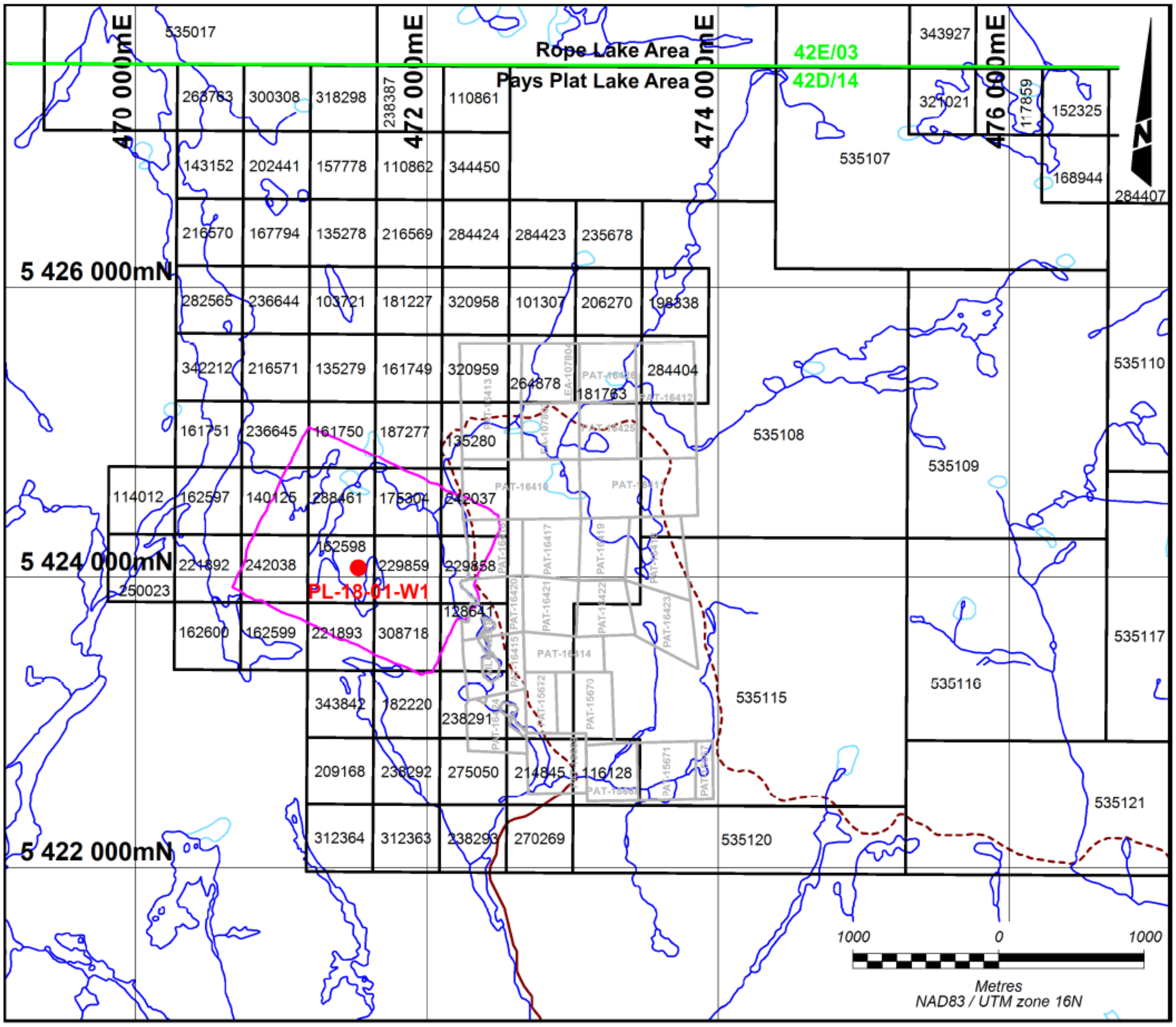

Figure 10. Location of the transmitting loops and surveyed DDH.

- *Measurements:* **Borehole survey:**
  Secondary magnetic **B field** of three components: axial **A** and orthogonal **U** and **V.**

- *Personnel:* Martin Lafortune, Crew chief, operator
  Remi Daoust, Assistant
  Jonathan Simoneau, Logistics
  Carole Picard, Tech., Plotting
  Kevin Ramlakhan, QC, processing

Daniel Card, P.Geo., QC, interpretation and report
Langis Plante, P.Eng., Final verification of product conformity

- ❑ *DATA ACQUISITION:* December 3rd, 2018

- ❑ *SURVEY COVERAGE:* **Borehole survey: 1 hole – 850 m** (see Table 2)

Table 2. Holes surveyed

Hole ID / Loop ID	Collar Easting / Collar Northing	Collar Elevation / Date surveyed	Dip Start / Dip End	Azimuth Start / Azimuth End	Survey Start / Survey End	Length of Hole
PL-18-01-W1	471 530	420	86°	289°	30 m	850 m
Loop 1	5 424 065	December 3rd, 2018	56°	298°	850 m	

Table 3. Loop Specifications

Loop #	Hole ID	Loop Dimensions	Acquisition	Frequency (Hz)	Current (A)	Ramp (µs)
Loop 1	PL-18-01-W1	1500 x 1200 m	December 3rd, 2018	1	20	600

- ❑ *TRANSMITTING LOOP SPECIFICATIONS:*
  Specifications: see table 3
  Localization: see map 10.0 (Appendix 4)

- ❑ *TDEM TRANSMITTER (TX) (Figures 11 and 12)*
  Transmitter: **TerraScope**, **PRO5U**, s/n 8NF
  Power supply: Voltmaster 13000 long run
  Maximal output: 18 kW or 38 A or 400 V
  Transmitted signal: bipolar wave, 50% duty cycle
  Repetition rate: 1 Hz (T/4 = 250 ms)

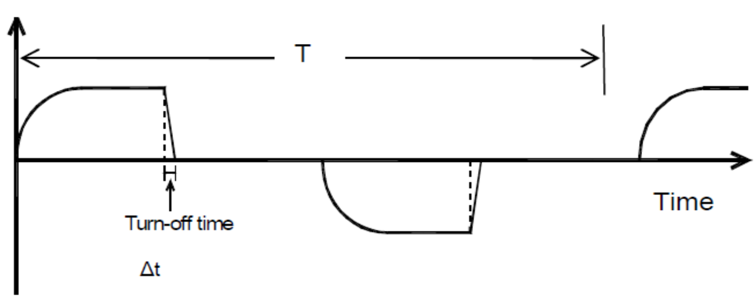

Figure 11. Current (I) waveform transmitted in loops.

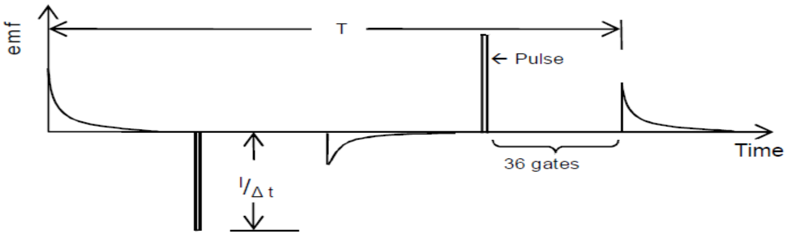

Figure 12. Electromotive force waveform generated in the ground

- *TDEM RECEIVERS (RX):*
  Digital receiver: **DigiAtlantis**, s/n 130
  T_x synchronization: GPS
  Integration time: 4 cycles of 128 stacks
  Start of integration: 90 μs from end of turn off
  Number of gates: 36, geometrically spaced
  Additional delay: 0 μs
  Power line filter: 60 Hz

Table 4. Time gate locations (SMARTem24)

Channel #	1 Hz	
	Centre (ms)	Width (ms)
1	0.0995	0.025
2	0.1245	0.031
3	0.154	0.038
4	0.191	0.048
5	0.2375	0.059
6	0.295	0.074
7	0.366	0.092
8	0.4545	0.113
9	0.5645	0.141
10	0.7005	0.175
11	0.8695	0.217
12	1.08	0.27
13	1.3405	0.335
14	1.664	0.416
15	2.066	0.516
16	2.5645	0.641
17	3.184	0.796
18	3.953	0.988
19	4.9075	1.227
20	6.0925	1.523
21	7.5635	1.891
22	9.3905	2.347
23	11.658	2.914
24	14.473	3.618
25	17.968	4.492
26	22.307	5.576
27	27.6935	6.923
28	34.3809	8.5952
29	42.683	10.6707
30	52.99	13.248
31	65.785	16.447
32	81.671	20.418
33	101.393	25.348
34	125.765	31.469
35	156.272	39.068
36	194.008	48.502

Digital receiver: EMIT **SMARTem24**, s/n 1485 (see Table 4)
Tx synchronization: GPS
Integration time: 4 cycles of 128 stacks
Start of integration: 90 µs from end of turn off
Number of gates: 36, geometrically spaced
Additional delay: 0 µs
Power line filter: 60 Hz

- *SENSOR* **DigiAtlantis,** s/n 130
  Simultaneous measurement of the A, U and V components of the B-Field.

- *POLARITY CONVENTION*
  A: Parallel to the hole-axis (positive upward)
  U: Perpendicular to the hole-axis and in the hole dip direction.
  V: Perpendicular to hole axis, horizontal, to left of hole dip dir.

- *SOFTWARE*
  EMIT **SMARTem24**: Rx data transfer to PC via USB port.
  EMIT **Maxwell**: Data processing, plotting and interpretation.

- *QUALITY CONTROL (RECORDS AVAILABLE UPON REQUEST)*

Before the survey:
- ✓ Transmitter and motor generator were checked for maximum output using calibrated loads.

Daily and prior to data acquisition:
- ✓ The battery voltage of each receiver was checked.
- ✓ The polarity of the primary field was verified on each receiver.
- ✓ Receivers were calibrated and accurately synchronized to the transmitter prior to and during data acquisition.

At the Base of Operations:
- ✓ Field QCs were inspected and validated.
- ✓ A, U and V – Polarity of the primary field components were checked and corrected as required.

Survey noise evaluation:
- ✓ No problematic geomagnetic activity was observed throughout the survey.
- ✓ No abnormal instrumental noise was detected during the survey.

Respectfully Submitted,
Abitibi Geophysics Inc.

Daniel Card, P.Geo.,

DC/jg

GROUND TDEM SURVEY

Abitibi Geophysics report covering the Ground TDEM survey is provided below. Maps of the response profiles, contoured anomaly panels and transmitting loop outlines are listed in Table 5 and included in Appendices 5, 6 and 7:

Table 5. Description of Maps included with the Ground TDEM Survey (Appendices 5, 6 and 7)

Map #	Ground TDEM Survey	Scale
Stacked Profiles	B-field EM Response Profiles / Components Z, X & Y	1:10 000
Stacked Profiles	∂B/∂t EM Response Profiles / Components Z, X & Y (**PDF format only**)	1:10 000
6.4	Z Component Contours (B-field) / Channels 10 to 20 (pT/A)	1:10 000
6.5	X Component Contours (B-field) / Channels 10 to 20 (pT/A)	1:10 000
10.0	Transmitting Loop Outlines Location	1:10 000

1. MANDATE (Figure 1)

- *PROJECT ID:* **Superior Lake**
  (Our reference: **19N010**)

- *GENERAL LOCATION:* Schreiber, Ontario, Canada

- *CUSTOMER:* **Superior Lake Resources Limited**
  Suite 23 / 513 Hay Street
  Subiaco WA 6008, Australia
  Telephone: +61 861 425 088

- *REPRESENTATIVES:*
  David Woodall
  davidw@superiorlake.com.au
  Telephone: +61 428 878 488

  David Johnson
  david@ziongeophysics.com
  Telephone: +1 801 946 2773

- *SURVEY TYPE:* **Ground TDEM Survey**

- *GEOPHYSICAL OBJECTIVES:*
  - To detect and characterize deeply buried conductors
  - Identify targets for further exploration

2. THE SURVEY AREA

- *LOCATION:* **Schreiber, Ontario, Canada**
  Centered on 48°58'38" N and 87°23'32" W
  NAD83 / UTM zone 16N: 472 500 m E, 5 425 000 m N
  NTS sheet: **42D/14**

- *NEAREST SETTLEMENT:* Schreiber is 20 km southeast of the grid

- *ACCESS:* The survey area was accessed primarily by snowmobile and truck.

- *GEOMORPHOLOGY:* The survey area is covered by many small to moderate sized lakes and ponds.

- *CULTURAL FEATURES:* There are several roads, powerlines and other infrastructure present within the survey grids.

- *MINING LAND TENURE:* Superior Lake Resources has entered into an option agreement to acquire Superior Mining Pty Ltd, which has a 70% initial indirect interest in the Pick Lake Zinc Project, which is held by Ophiolite Holdings Pty Ltd, an Australian registered company. Superior Lake also has an option agreement with First Quantum Minerals Ltd (FQML) to acquire 70% of the Winston Lake Project.

- *SURVEY GRID:*
  Thirty-eight lines oriented east-west, were surveyed.

- *SECURITY AND ENVIRONMENT:*
  As part of the Abitibi Geophysics Inc. HS and E program, crew members received first aid training and are provided with safety equipment and specialized training for the geophysical techniques utilized on this project. In addition, the crew was provided with a satellite telephone for emergency communication. No incidents were reported during the project.

- *COORDINATE SYSTEM:*
  Local Datum: NAD83
  Projection type: Universal Transverse Mercator (UTM)
  Zone: 16N

3. GROUND TDEM SURVEY (Figure 13)

- *TYPE OF SURVEY:* **TDEM** (Time Domain Electromagnetics)
  Loop Configuration: Fixed Loop
  Reading intervals for surface survey: 100 to 25 m

- *MEASUREMENTS:* Vertical **Z** and horizontal **X** and **Y B-field** and partial time derivatives (∂**B/**∂**t**) of the secondary EM field.

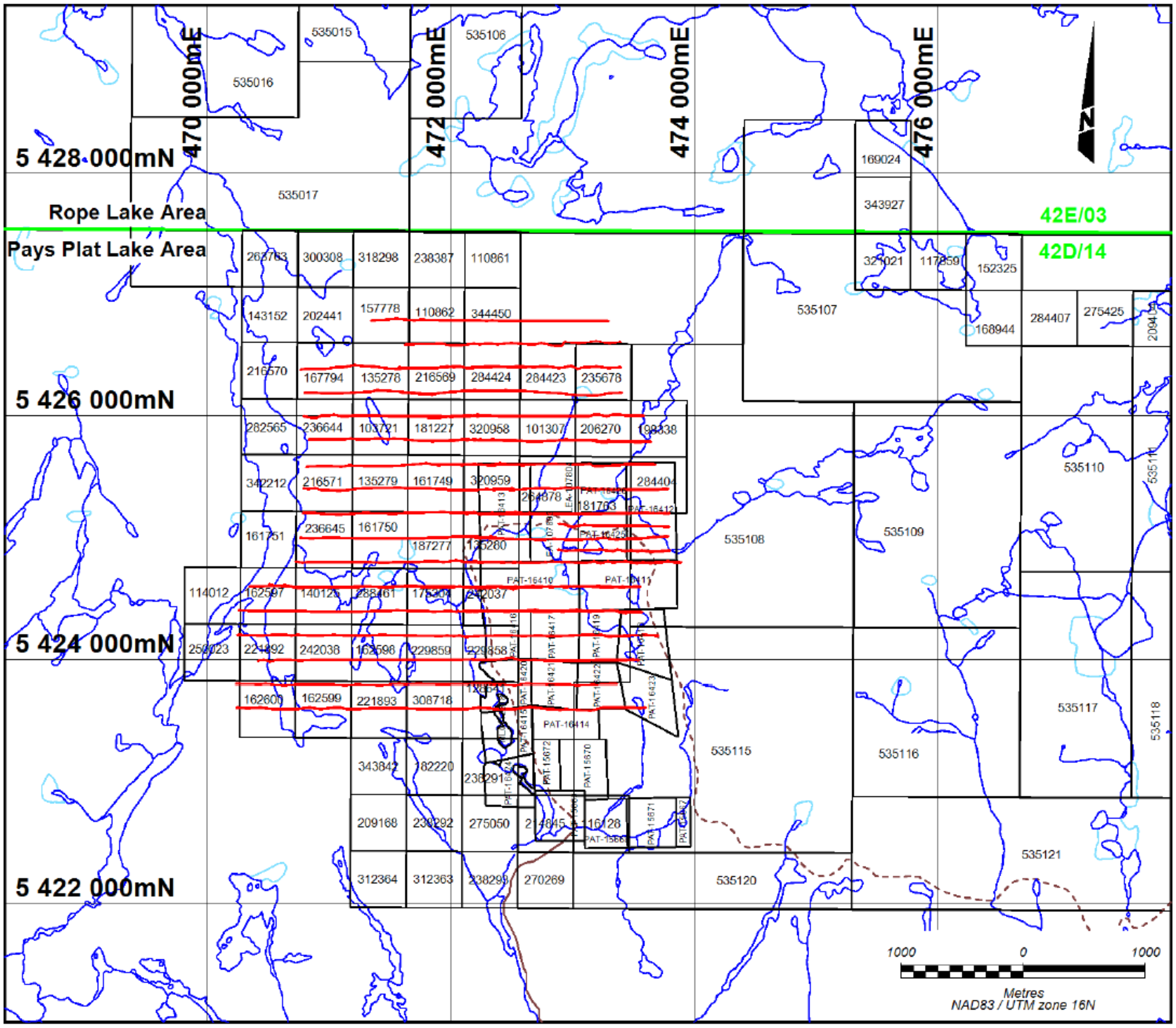

Figure 13. Survey grid on property claim map

- ❑ *PERSONNEL:*
  Kevin Vaillancourt, Crew chief and operator
  Mamadou Saidou Balde, Operator
  Remi Daoust, Assistant
  Marc Auclair, Assistant
  Melissa Laviolette, Assistant
  William Weizineau, Assistant
  Carole Picard, Tech., Plotting
  Jonathan Simoneau, Logistics
  Kevin Ramlakhan, QC and Processing
  Daniel Card, P.Geo., QC, Interpretation and Report
  Langis Plante, P.Eng., Final verification of product conformity

- ❑ *DATA ACQUISITION:* February 12th to March 3rd, 2019

- ❑ *SURVEY COVERAGE:* **Ground survey: 38 lines – 64.65 km**

- ❑ *TRANSMITTING LOOP SPECIFICATIONS:*
  Specifications: see table 6
  Localization: see map 10.0 (Appendix 7)

Table 6. Loop Specifications

<table>
<tr><th>Loop #</th><th>Lines Surveyed</th><th>Dimensions</th><th>Acquisition</th><th>Frequency (Hz)</th><th>Current (A)</th><th>Ramp (µs)</th></tr>
<tr><td rowspan="6">Pick Lake Loop</td><td>L 200+00N</td><td rowspan="6">1700x1500 m</td><td rowspan="6">February 12th to 17th, 2019</td><td rowspan="26">5</td><td rowspan="26">23</td><td rowspan="6">620</td></tr>
<tr><td>L 202+00N</td></tr>
<tr><td>L 204+00N</td></tr>
<tr><td>L 206+00N</td></tr>
<tr><td>L 208+00N</td></tr>
<tr><td>L 210+00N</td></tr>
<tr><td rowspan="10">Pick Lake North Loop</td><td>L 210+00N</td><td rowspan="10">2100x1500 m</td><td rowspan="10">February 24th to March 1st, 2019</td><td rowspan="6">650</td></tr>
<tr><td>L 212+00N</td></tr>
<tr><td>L 214+00N</td></tr>
<tr><td>L 216+00N</td></tr>
<tr><td>L 218+00N</td></tr>
<tr><td>L 220+00N</td></tr>
<tr><td>L 222+00N</td><td>620</td></tr>
<tr><td>L 224+00N</td><td rowspan="3">650</td></tr>
<tr><td>L 226+00N</td></tr>
<tr><td>L 228+00N</td></tr>
<tr><td rowspan="10">Winston Lake Loop</td><td>L 208+00N</td><td rowspan="10">1700x1500 m</td><td rowspan="10">February 18th to 20th, 2019</td><td rowspan="5">640</td></tr>
<tr><td>L 210+00N</td></tr>
<tr><td>L 212+00N</td></tr>
<tr><td>L 213+00N</td></tr>
<tr><td>L 214+00N</td></tr>
<tr><td>L 215+00N</td><td rowspan="3">620</td></tr>
<tr><td>L 216+00N</td></tr>
<tr><td>L 218+00N</td></tr>
<tr><td>L 220+00N</td><td rowspan="2">640</td></tr>
<tr><td>L 222+00N</td></tr>
</table>

Loop #	Lines Surveyed	Dimensions	Acquisition	Frequency (Hz)	Current (A)	Ramp (µs)
Winston Lake North Loop	L 222+00N	1700x1500 m	February 21st to 23rd, 2019	5		620
	L 224+00N					
	L 226+00N					
	L 228+00N					
	L 230+00N					
	L 232+00N					
Winston Lake South Loop	L 200+00N	1700x700 m	March 2nd to 3rd, 2019			590
	L 202+00N					
	L 204+00N					
	L 206+00N					
	L 208+00N					
	L 210+00N					

- *TDEM TRANSMITTER (TX) (Figure 14 and 15):*
  SMART Transmitter: TerraScope, **PRO5U**, s/n 2NF, 3NF, 12NF
  Power supply: Voltmaster 13000 long run
  Maximal output: 18 kW or 25 A or 600 V
  Transmitted signal: bipolar wave, 50% duty cycle
  Repetition rate: 5 Hz (T/4 = 50 ms)

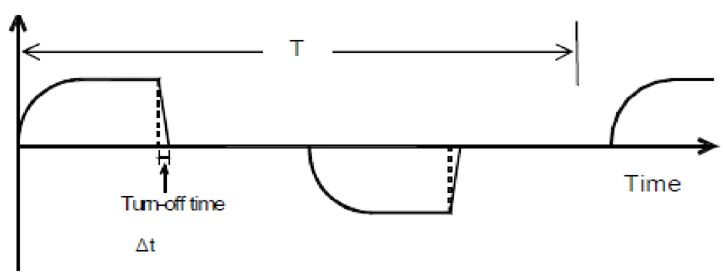

Figure 14. Current (I) waveform transmitted in the loops

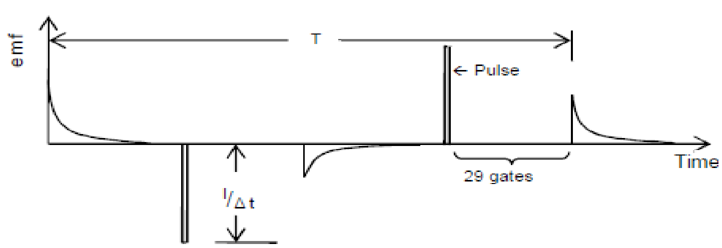

Figure 15. Electromotive force waveform generated in the ground

Table 7. Time gate locations (SMARTem24)

Channel #	5 Hz	
	Center (ms)	Width (ms)
1	0.1042	0.0333
2	0.1253	0.0333
3	0.1515	0.0333
4	0.1841	0.0333
5	0.2412	0.0667
6	0.2914	0.0667
7	0.3704	0.1
8	0.4477	0.1
9	0.5604	0.1333
10	0.6963	0.1667
11	0.8777	0.2333
12	1.0781	0.2667
13	1.3404	0.3351
14	1.6641	0.416
15	2.066	0.5165
16	2.5649	0.6412
17	3.1842	0.7961
18	3.9531	0.9883
19	4.9077	1.2269
20	6.0928	1.5232
21	7.564	1.891
22	9.3905	2.3476
23	11.6581	2.9145
24	14.4733	3.6183
25	17.9682	4.4921
26	22.307	5.5768
27	27.6936	6.9234
28	34.3809	8.5952
29	42.683	10.6707

- *TDEM RECEIVER (RX):*
  Digital receivers: EMIT **SMARTem24**, s/n 1182, 1222, 1514
  T_x synchronization: GPS
  Integration time: 4 cycles of 256 stacks
  Start of integration: 90 µs from end of turn off
  Number of gates: 29, geometrically spaced
  Additional delay: 0 µs
  Power line filter: 60 Hz

- *SURFACE SENSOR:* **ARMIT Mk2**, s/n 1, 5, 10, 14
  Simultaneous measurement of the Z, X and Y components of
  B-field and ∂B/∂t.

Figure 16. Photo of Ground Survey Activity

- *POLARITY CONVENTION:*
  Z: vertical, positive upward
  X: horizontal, positive to the grid east
  Y: horizontal, positive to the grid north

- *SOFTWARE:*
  EMIT **SMARTem24**: Rx data transfer to PC via USB port.
  EMIT **Maxwell©**: Data processing, plotting and interpretation.

- *QUALITY CONTROL (RECORDS AVAILABLE UPON REQUEST)*

Before the survey:
- ✓ Optimum operation of the transmitter and generator has been checked using standard loads.
- ✓ A probe test was performed and validated.

Daily and prior to data acquisition:
- ✓ The receiver has been calibrated and correctly synchronized with the transmitter.
- ✓ The polarity of the primary field has been checked.
- ✓ The drift of the synchronization was measured and remained within the previously defined limits.

At the Base of Operations:

- ✓ Field inspections were inspected and validated.
- ✓ The polarity of the primary field components has been checked and corrected when necessary.

Survey noise evaluation:

- ✓ No problematic geomagnetic activity was observed during the survey.
- ✓ No abnormal instrumental noise is present on the measured data.

Respectfully Submitted,
Abitibi Geophysics Inc.

D.J.
CARD
Member
39874G

Daniel Card, P.Geo.,

DC/jg

RESULTS AND INTERPRETATION

The information provided in this section of the report specifically related to the interpretation and definition of geophysical anomalies, was sourced from analysis (internal company reports and memos, 2018, 2019) conducted by Superior Lake Resources consulting geophysicist, David Johnson of Zion Geophysics.

BOREHOLE TDEM SURVEY

Modelling of the Borehole TDEM data indicates the presence of a moderate to strong conductor located to the south and above the point where diamond drill hole PL-18-01-W1 intersected the target contact between 820 m and 840 m downhole (Figure 17). Additional diamond drilling should be targeted in this area. Johnson (2018) also noted that the dip extent and width of the conductor are not well constrained by the TDEM data at this point (Figure 18). He suggests more surveys are required to provide sufficient information to accurately estimate those parameters.

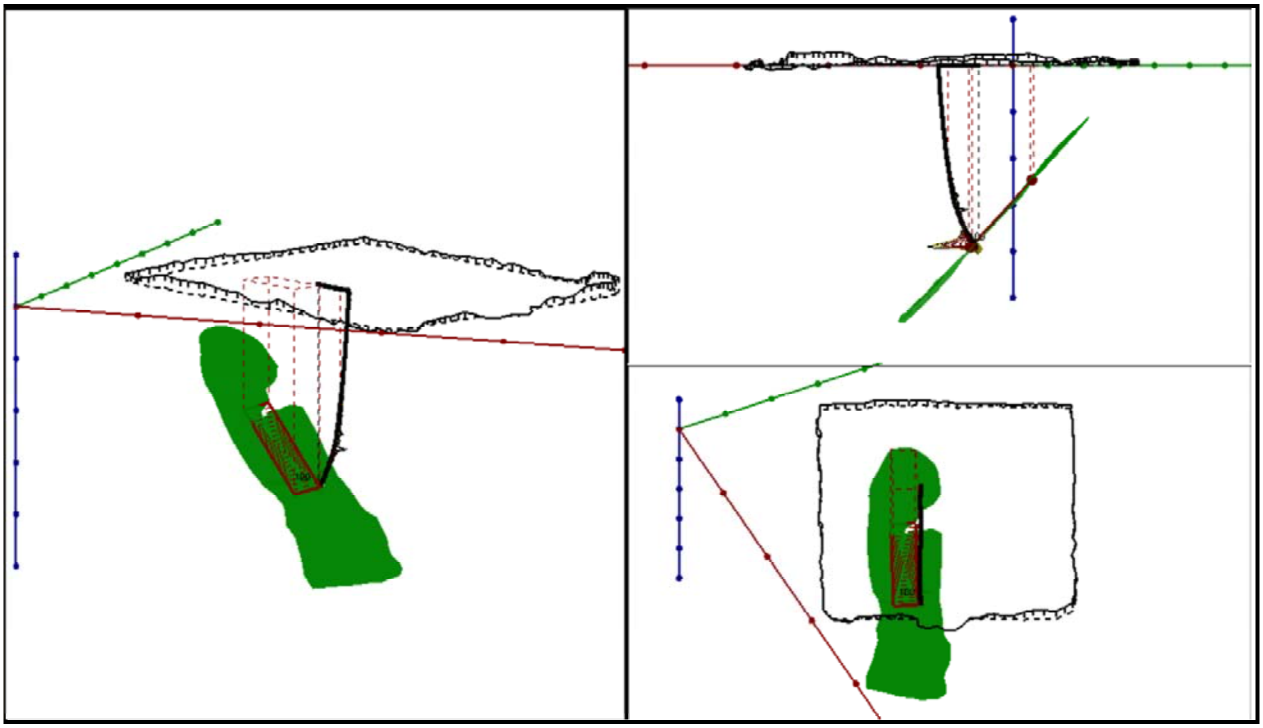

Figure 17. 3D views of Pick Lake mineralization solid (green) and conductor model (red) (Johnson 2018).

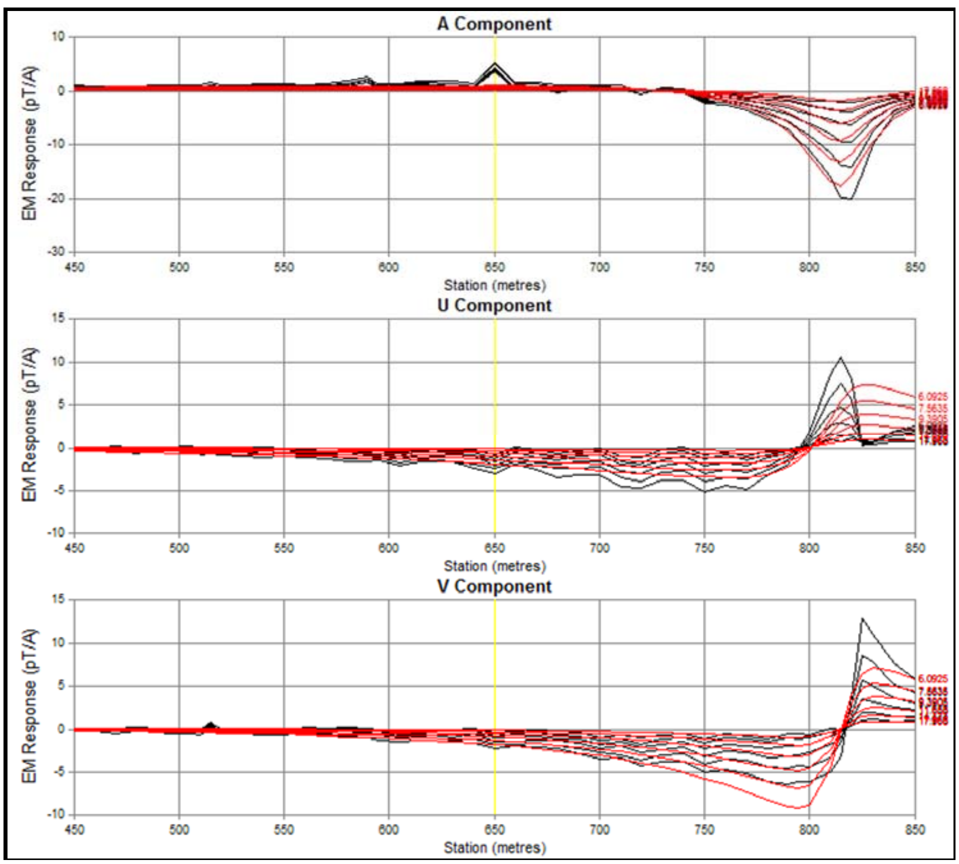

Figure 18. 3D TDEM response profiles for channels 20-25. Observed data profiles in black and calculated model profiles in red (Johnson 2018).

GROUND TDEM SURVEY

Johnson (2019) provides a detailed analysis of the Ground TDEM data on the Pick-Winston Lake property as follows:

The Pick-Winston Lake TDEM survey defined anomalous responses in prospective locations: on the Winston Lake trend and coincident with lithogeochemical targets north of Pick Lake. However, most of the conductor models fitted to the observed data are small. This isn't necessarily fatal to the targets; in some cases, the loop is poorly coupled to east-dipping conductors, so the survey is only "seeing" part of the conductor.

The survey was designed specifically to test for deep conductors along the Pick trend and most of the shallow conductors, particularly those in the eastern half of the loop, are poorly coupled. The fixed nature of the inducing field makes this form of EM survey a poor choice for reconnaissance, but moving loop is impractical in this terrain. It is also possible that some of the conductors form small parts of otherwise weakly conducting systems.

Responses on each of the survey lines hosting significant anomalies are discussed below, together with models fitted to the data. The anomalies have been assigned letters (A – G, Figure 19).

- Anomalies A, E and F are not evident in the TDEM data (Figure 21), although a shallow conductive zone (C15) north of E (and close to lithogeochemical target MT6/WR6) produces a TDEM response.

- Anomaly D is a small, sharp peak in the TDEM x-component profile (very difficult to model convincingly, due to superposition with a large spike on the loop edge) that coincides with TDEM anomaly pick C14 (close to lithogeochemical target MT4/WR3).

- Anomalies B and C near Winston Lake are hard to resolve in the TDEM data, which are affected by culture, producing responses superimposed on the response of the Winston Lake remnant mineralization.

- Anomalies G and F are associated with the Anderson showing, which is the up-dip expression of the Pick Lake orebody.

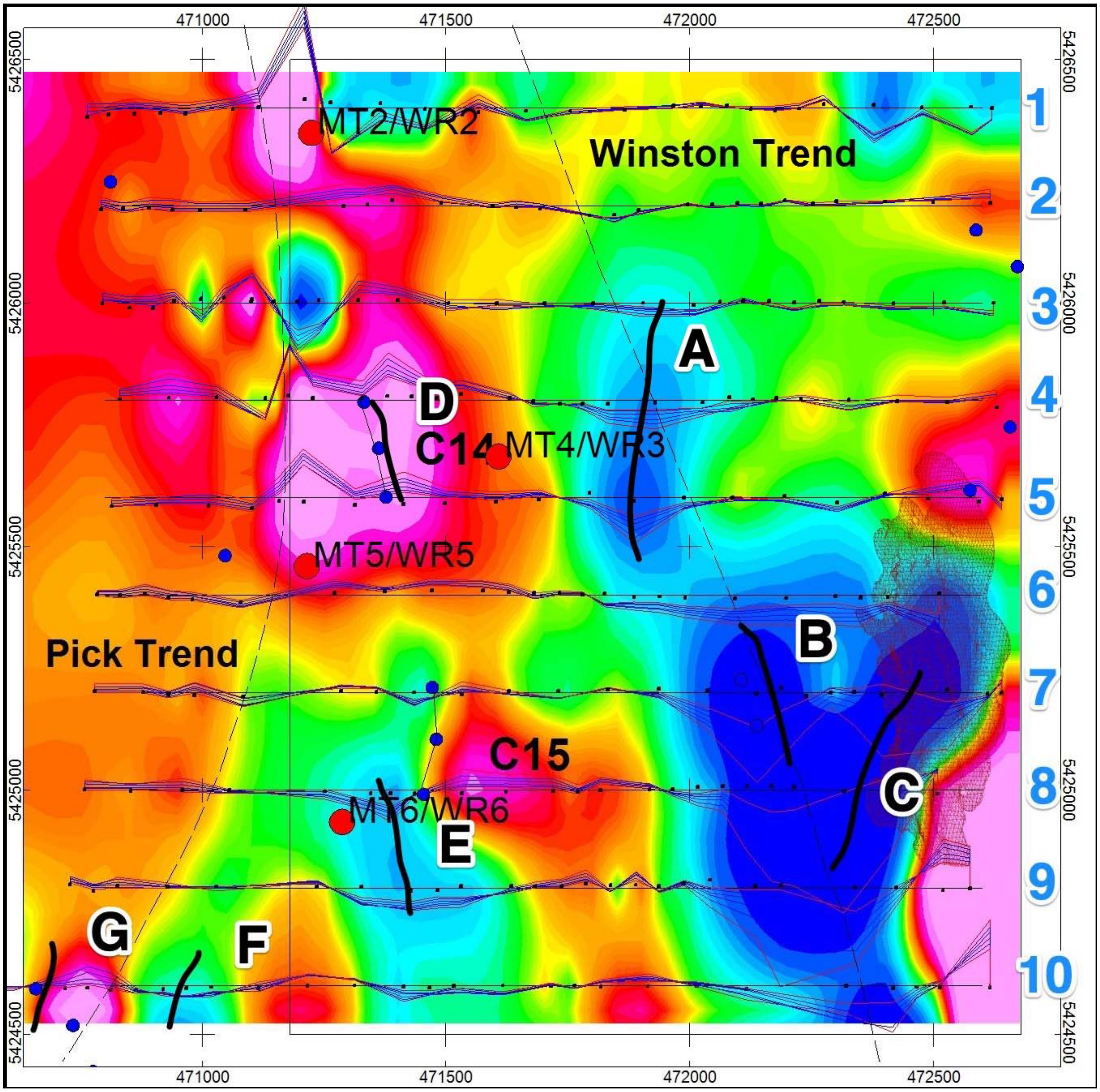

Figure 19. Image of Pick Lake North TDEM x-component (channel 15) with profiles of channel 15-20. Survey lines are numbered increasing southward down the right-hand side of the map. Blue dots indicate TDEM anomaly picks. Red dots indicate lithogeochemical targets identified by Norman. TDEM anomalies are indicated by black lines and designated letters A through G.

The z-component data is problematic: the sharp spike (Figure 21) occurring along the western edge of the loop (the eastern side was not crossed by the survey lines, but a peak can be seen forming at the eastern ends of the lines) is not caused by a plate-like conductor; no geometry can be found that produces a calculated response resembling the observed anomaly. Also note that there is no conductive response evident in the TDEM data along the edge of the Pick Lake North loop (see Figure 20 below).

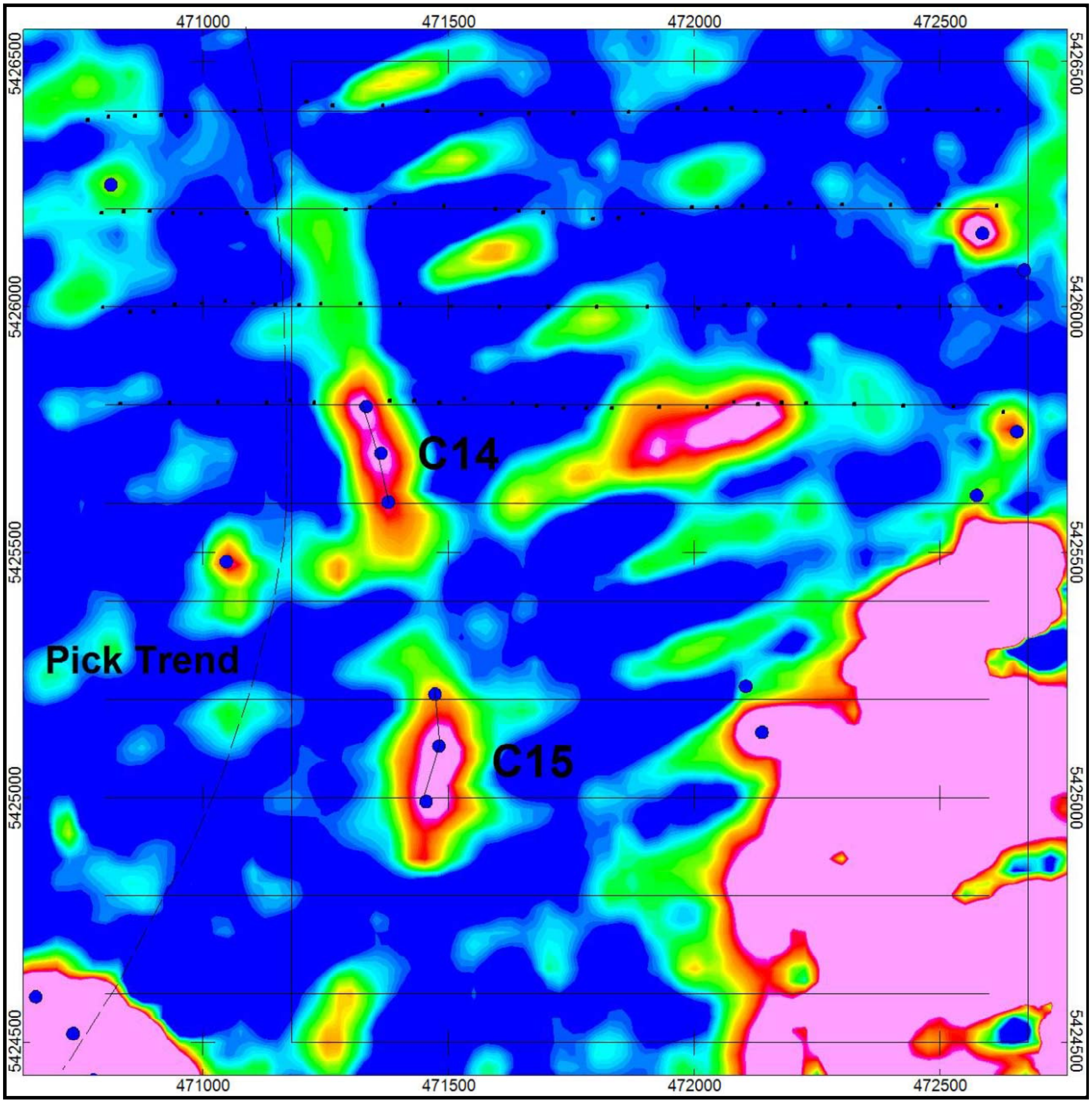

Figure 20. Image of TDEM response (channel 26) over the Pick-Winston Lake survey area.

Strange loop effects are common in TDEM data, and this effect is under discussion with Abitibi Geophysics. However, the shape of the dipolar z-component response at the loop edge also seems to be influenced by geology on the southern survey lines 7 to 10; it departs from the north-south trend seen on the northern line 1 to 6 and follows the trend of the Pick contact.

The x-component data contain a lot of short-wavelength character contributed by small, shallow conductors and noise. To produce an image of the long-wavelength component caused by larger, deeper conductors, the channel 15 x-component gridded data were upward continued by 200 m (Figure 22).

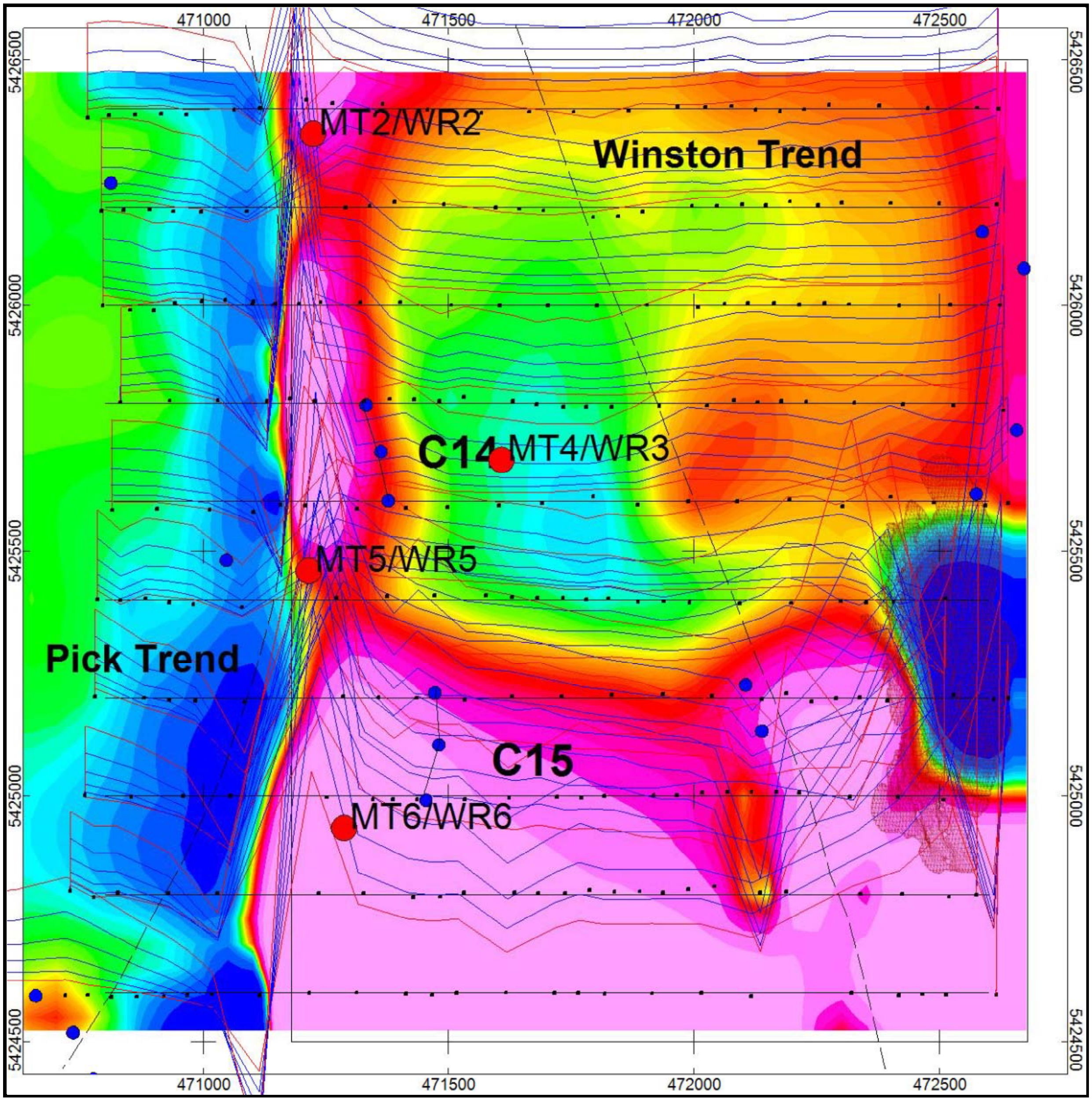

Figure 21. Image of Pick-Winston Lake TDEM z-component (channel 15) with profiles of channel 15-20.

This greatly simplifies the raw x-component image shown above (Figure 19), emphasizing the anomalies caused by the Winston Lake (and footwall) conductors and the conductor responsible for Anomaly E (MT6/WR6 alteration/lithogeochemical target) which also coincides with a broad positive response in the z-component. Interestingly, the low associated with Winston Lake extends to the north at much lower amplitude, possibly indicating a deep conductor response that was not obvious in the raw data.

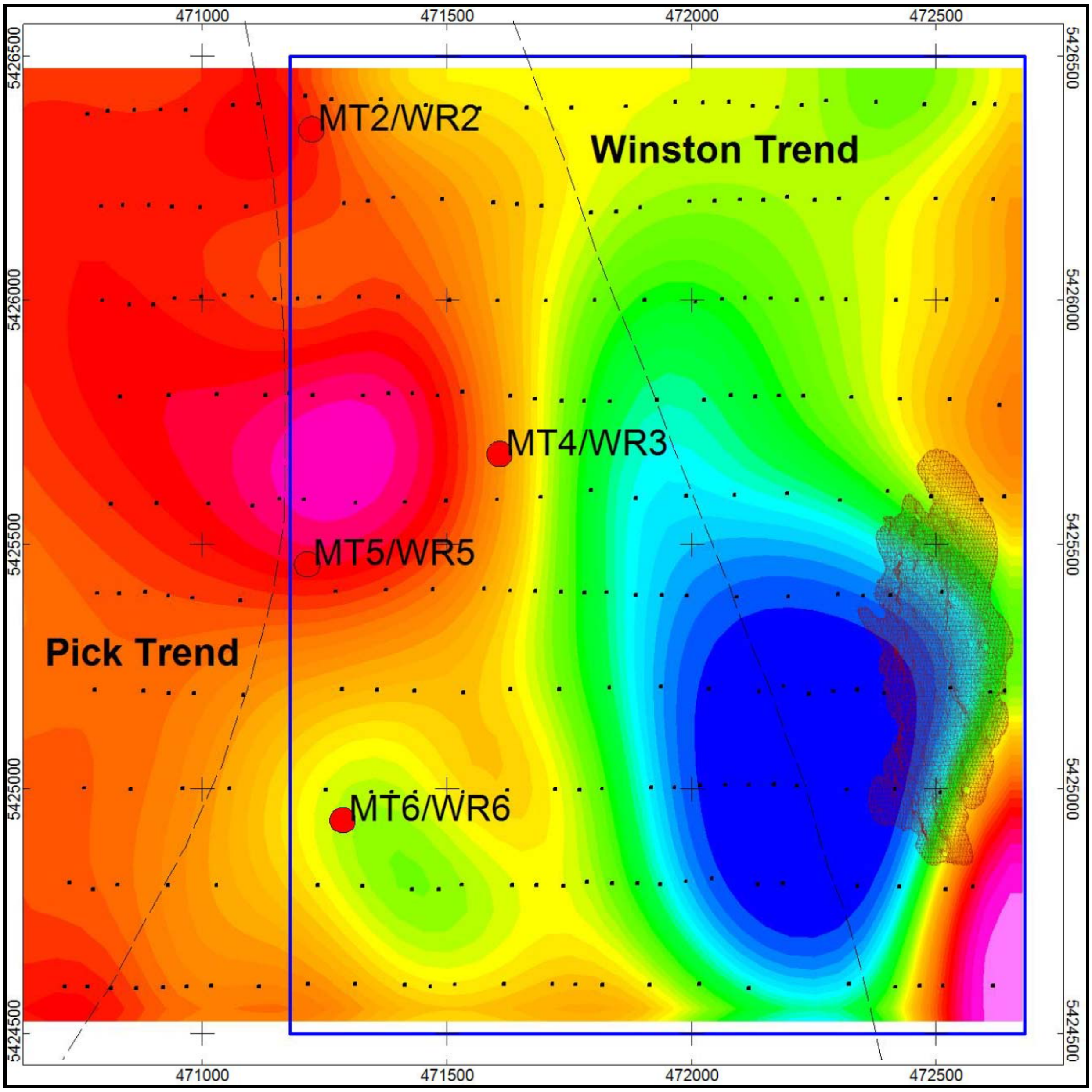

Figure 22. Image of x-component B-field channel 15 data with 200m upward continuation applied.

FLTEM Line 1

The sharp dipolar spike in the z-component data on Line 1 (Figure 23) at the western loop edge is discussed above. No other features of note are apparent.

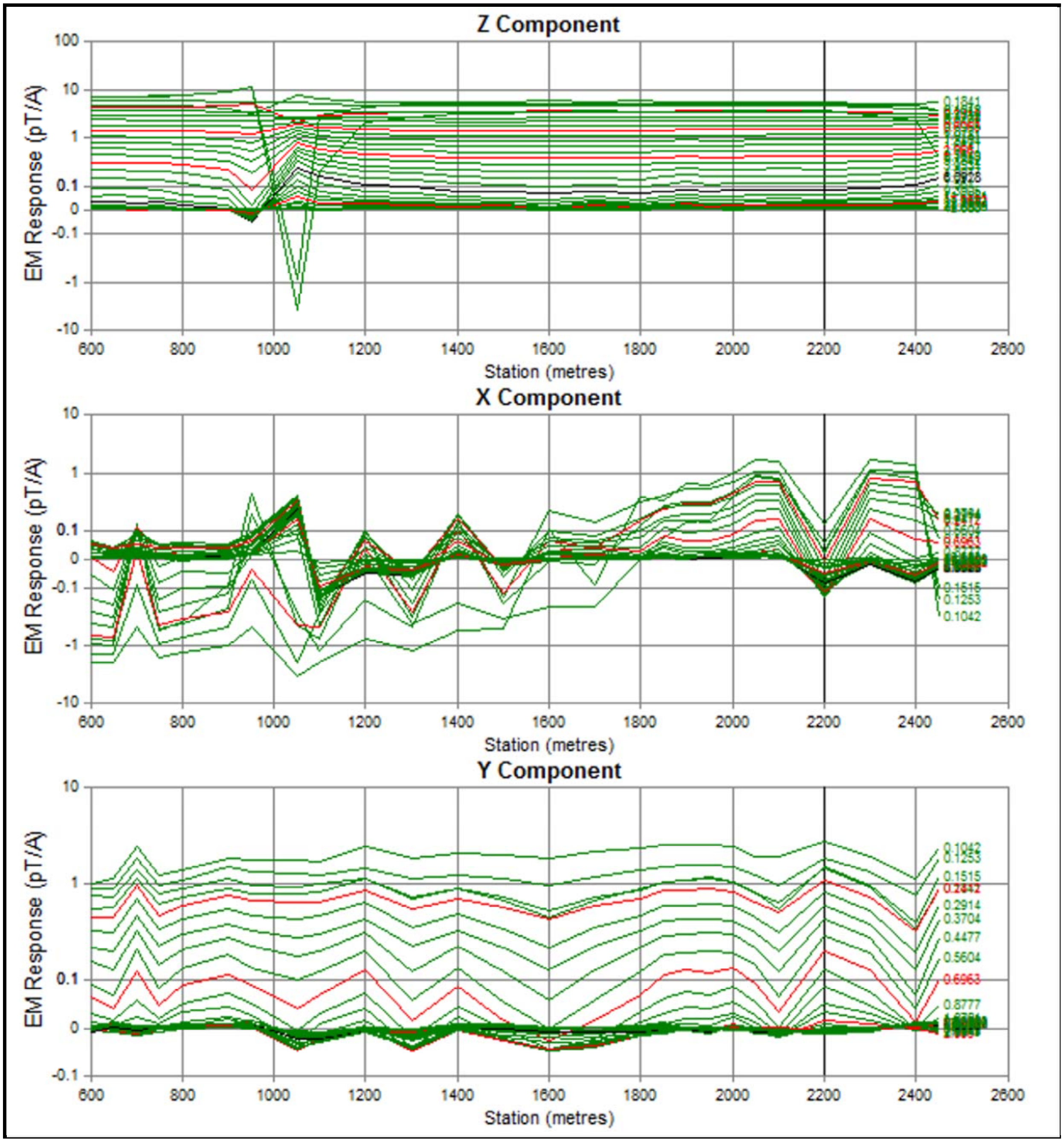

Figure 23. Line 1 B-field response profiles.

FLTEM Line 2

As with Line 1, the z-component data display a sharp peak over the loop edge (Figure 24), but in this case there is a slight shoulder on the eastern side of this peak. If there is an associated x-component feature, we cannot see it in these data, due to the noisy response close to the loop edge.

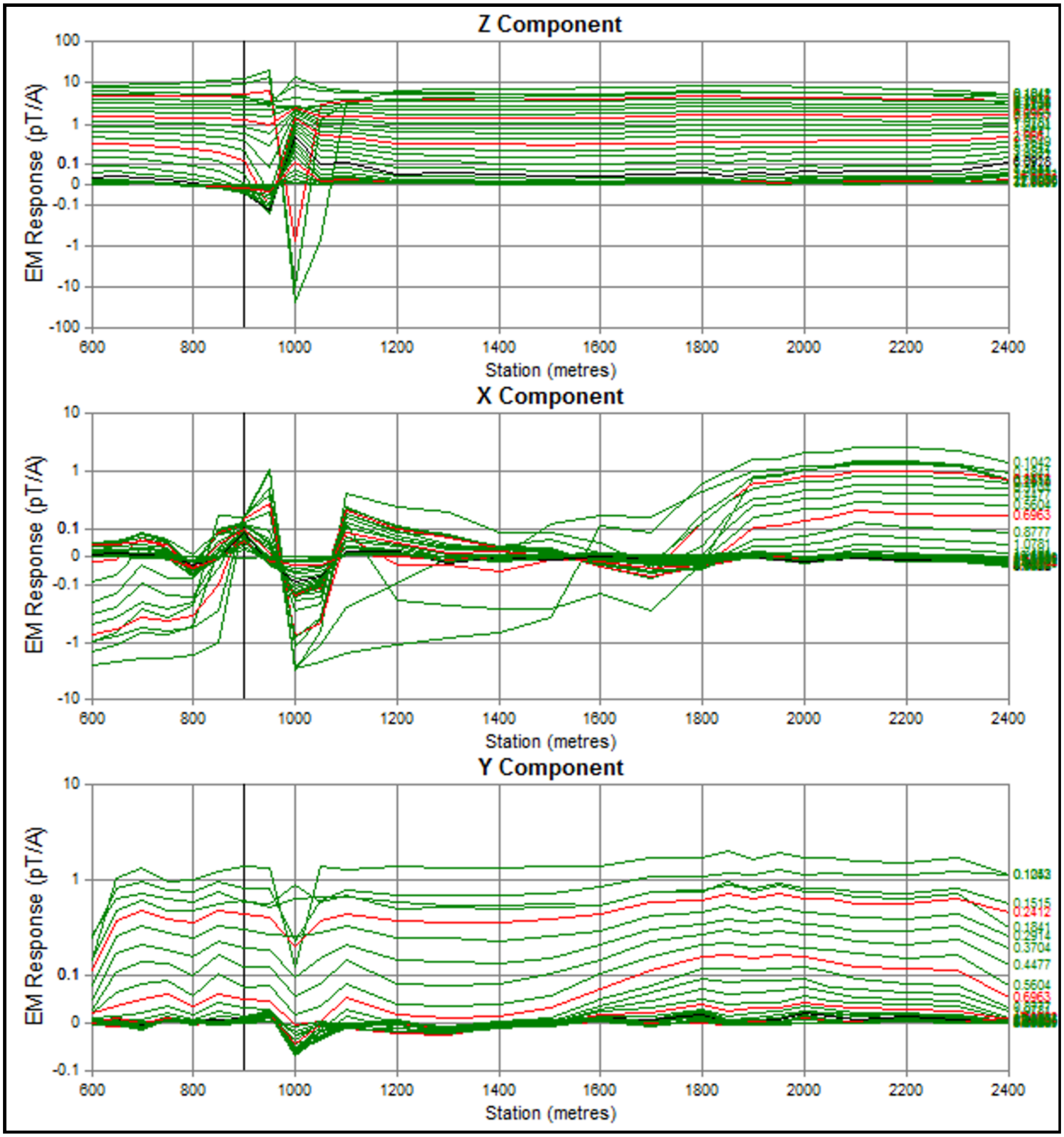

Figure 24. Line 2 profiles.

FLTEM Line 3

The main feature of interest on Line 3 is the sharp, low amplitude negative x-component response between stations 1600 and 1800 (Figure 25). That feature can be fitted by a small conductor located to the south of the line (Figure 26). But the observed x-component profile to the east flattens off whereas the model response continues to climb, so this is an unresolved aspect of the response (possibly a conductor that would have been covered by the Winston Lake survey, which should be revisited) (Figure 27).

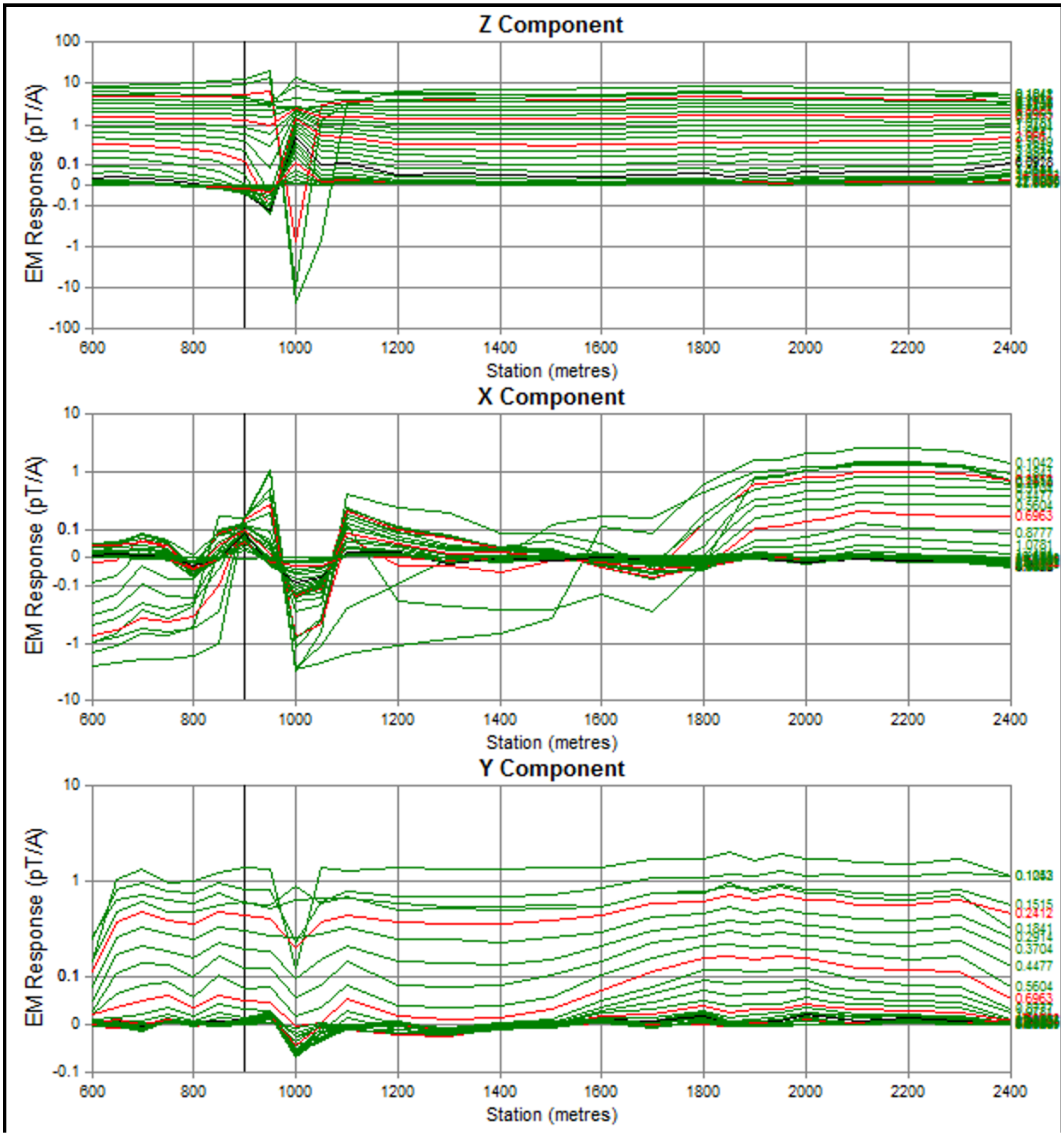

Figure 25. Line 3 profiles.

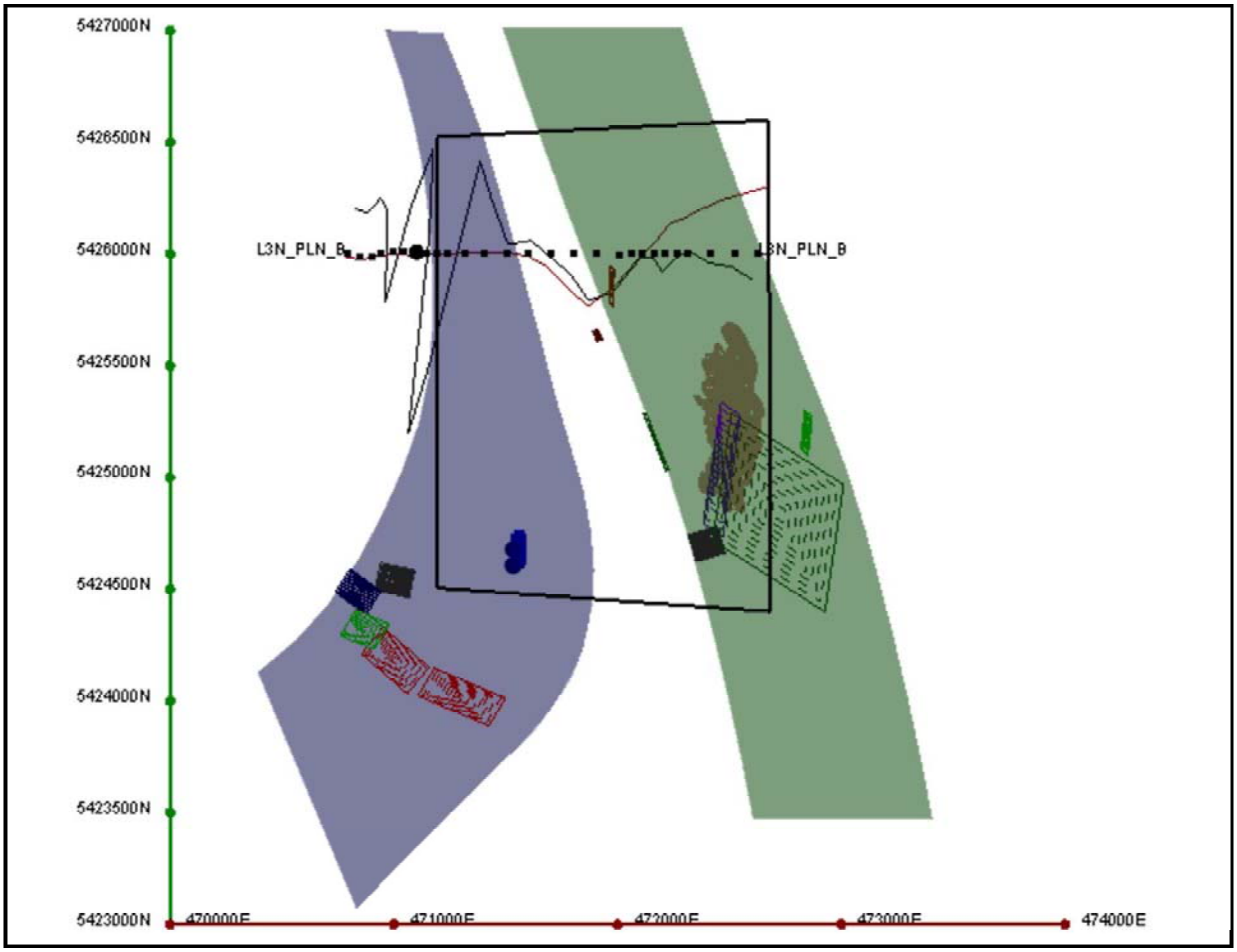

Figure 26. Plan view of TDEM models with Line 3 x-component profile (channel 15). The fit between observed and calculated data on the eastern end of the line is poor. The negative response in the x-component is the northern end of Anomaly A, which is modelled using the conductor to the south of the line.

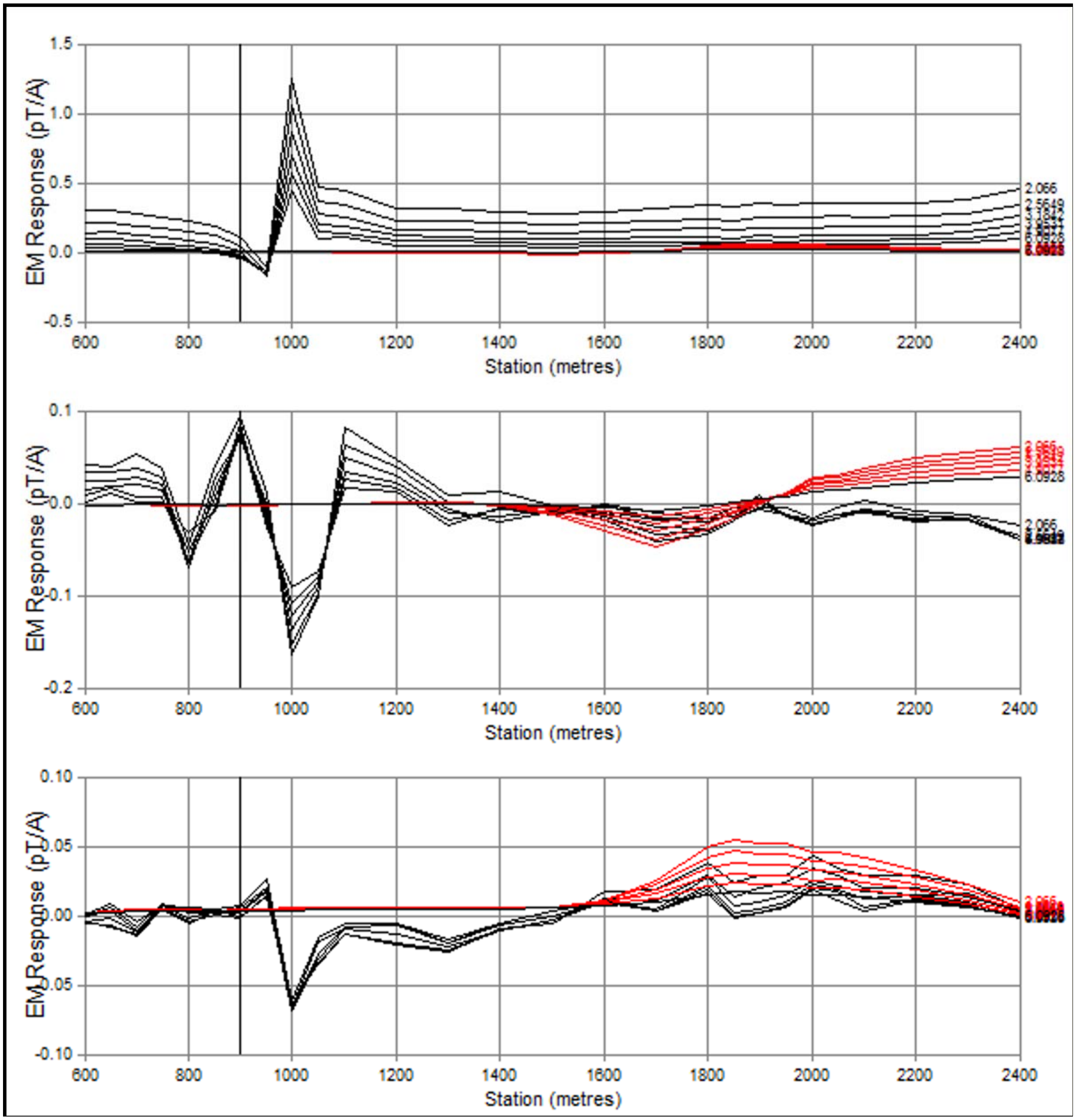

Figure 27. Line 3 late time (channels 15-20) observed (black) and calculated (red) profiles.

FLTEM Line 4

The negative x-component anomaly seen on Line 3 is stronger on Line 4 (Figure 28), which passes over the southern end of the small conductor (Figure 29). Note that this response largely disappears when the data are upward continued (see Figure 4 above). The model provides a reasonable fit to the observed data (Figure 30). Note that this conductor has a small vertical extent: only 60m (strike length 175m) and conductance is 400 S (i.e. moderately high for a VMS environment). The conductor is close to the middle of the transmitter loop, where the primary field is close to vertical (slightly inclined towards the east), so a steeply east dipping conductor will be poorly coupled with the loop. As a result, we may not be inducing a response from the full conductive body with this loop. This target could have greater size than the model derived from these data implies. The Winston Lake transmitter loop would have coupled better but the response is dominated by the Winston Lake mineralization. The Winston Lake North survey detects this conductor, but the profile is affected by spikes around the loop edge. A second anomalous response is evident inside the loop, so perhaps it is related to the same conductor – a loop placed slightly further to the east would be helpful.

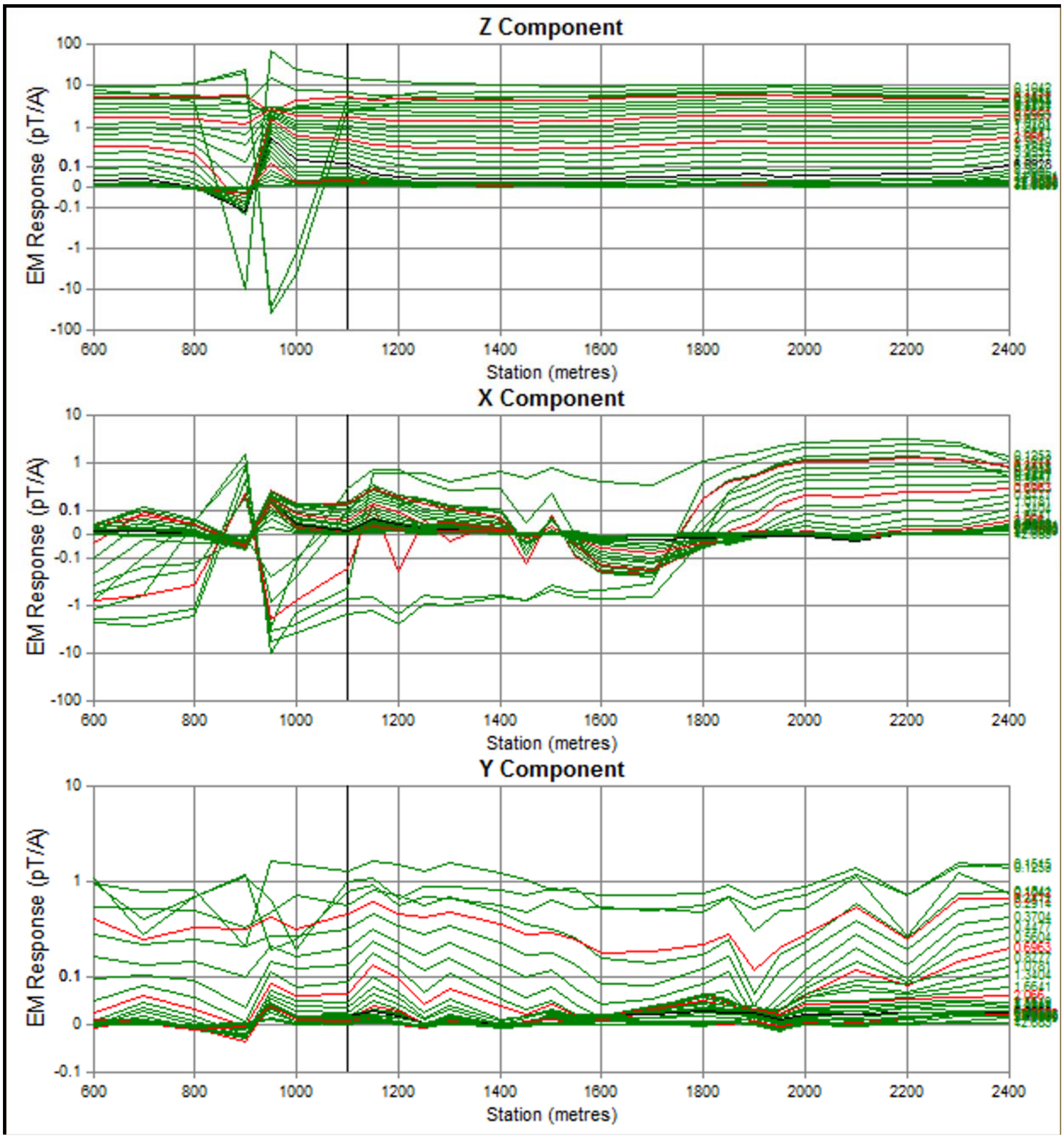

Figure 28. Line 4 profiles.

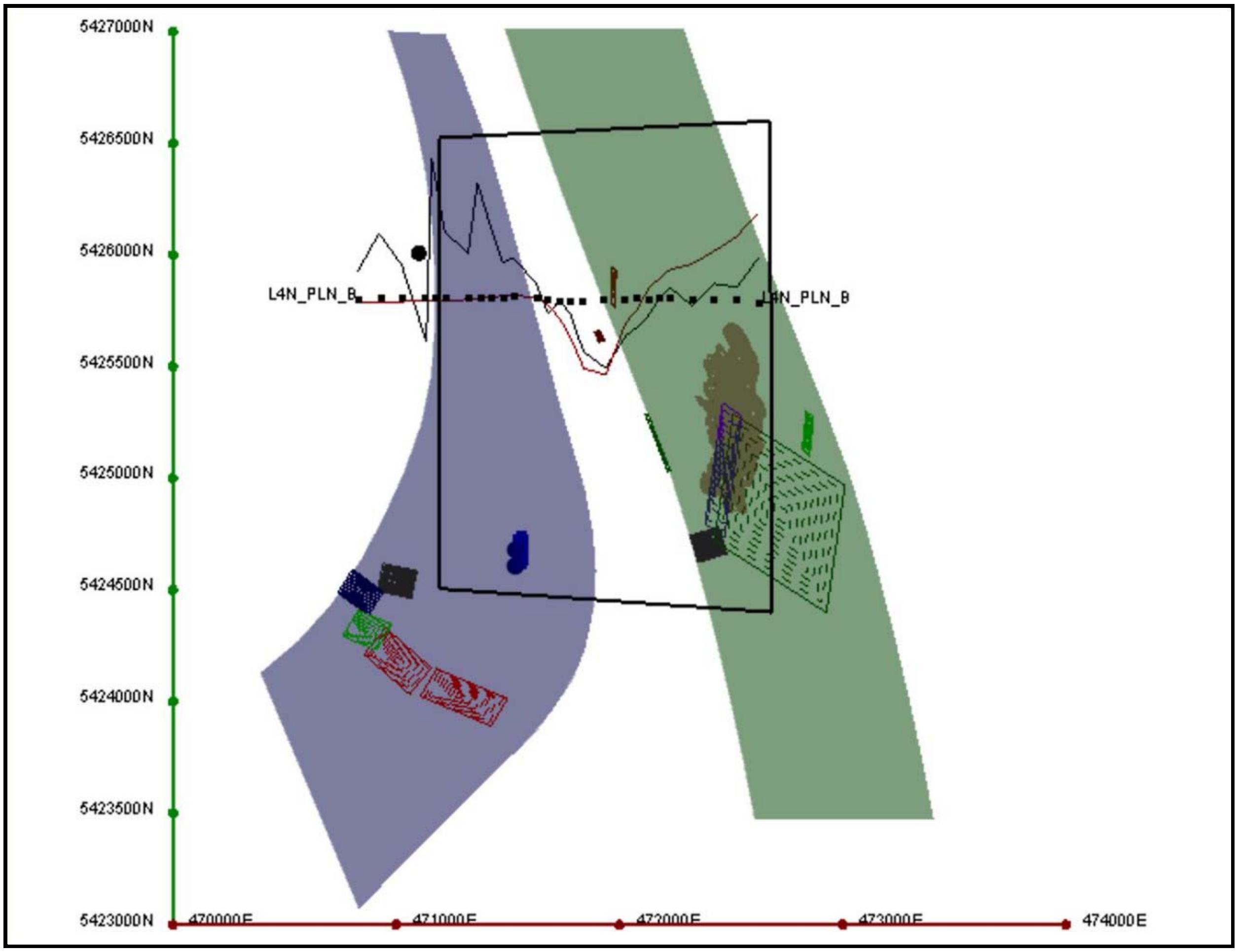

Figure 29. Plan view of TDEM models with Line 4 x-component profile (channel 15).

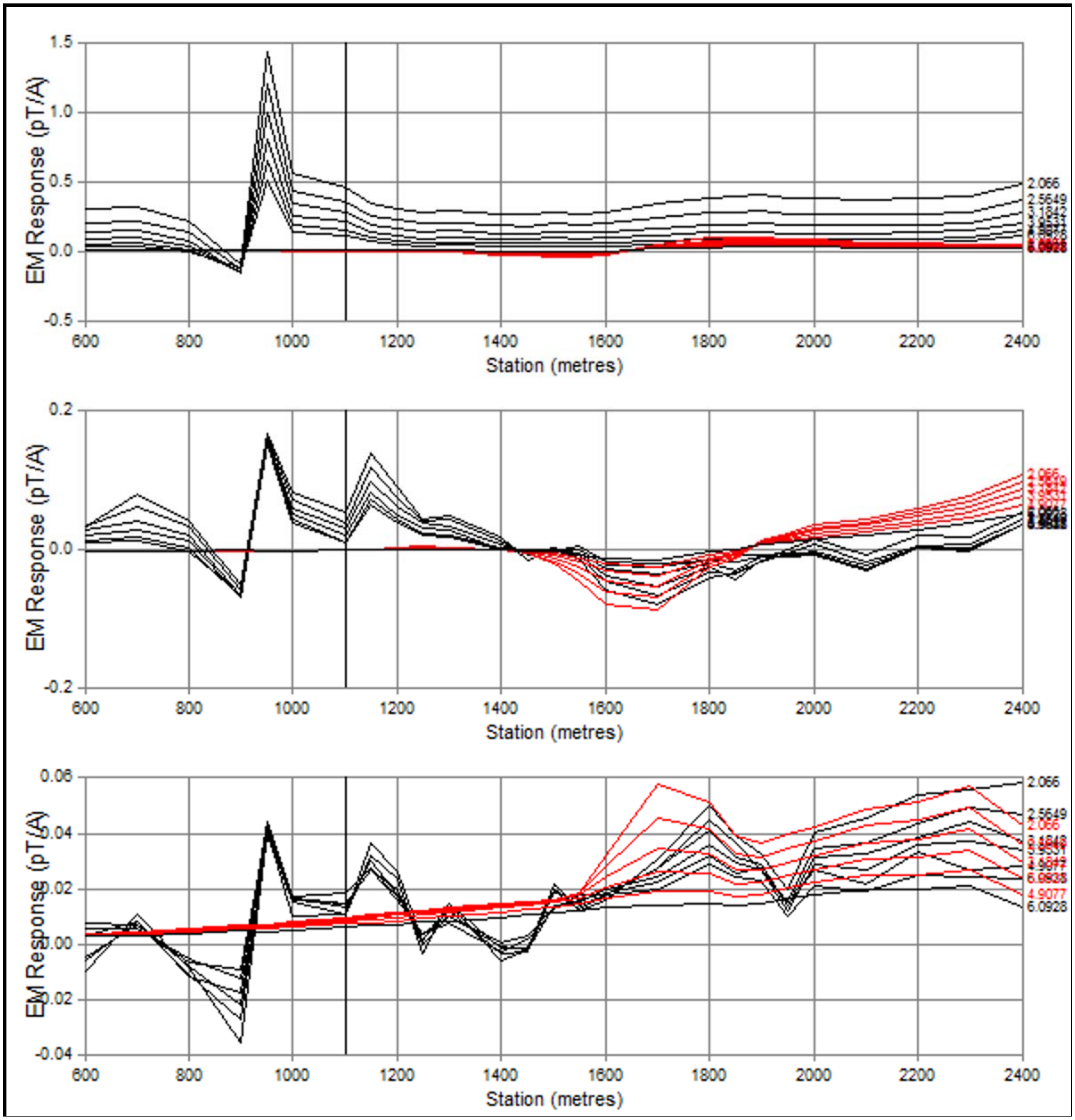

Figure 30. Line 4 late time (channels 15-20) observed (black) and calculated (red) profiles.

FLTEM Line 5

The sharp negative x-component response (Figure 31) is fitted by a tiny (50 m x 50 m, 300 S) conductor located just north of the line (Figure 32). A second negative x-component response to the east, just west of the north end of the Winston Lake resource (Figure 33) was not fitted. The conductor probably coincides with the known mineralization, but this will be subject to further work, probably involving refinement of the interpretation of the Winston Lake TDEM survey data. Another potentially important feature that was not modelled (due to the profile being affected by spikes at the loop edge) is the positive x-component peak at station 1200 (Figure 33), which coincides with Norman's MT4/WR3 target and VTEM anomaly C14 (see Figure 20) and is designated Anomaly D. This feature coincides with a shoulder on the eastern side of the z-component spike. This conductor should be followed up with a transmitter loop positioned to avoid disrupting the anomaly profile with loop effects. The Pick Lake North loop was positioned to illuminate deep targets further to the east, not shallow targets near the surface trace of the Pick trend.

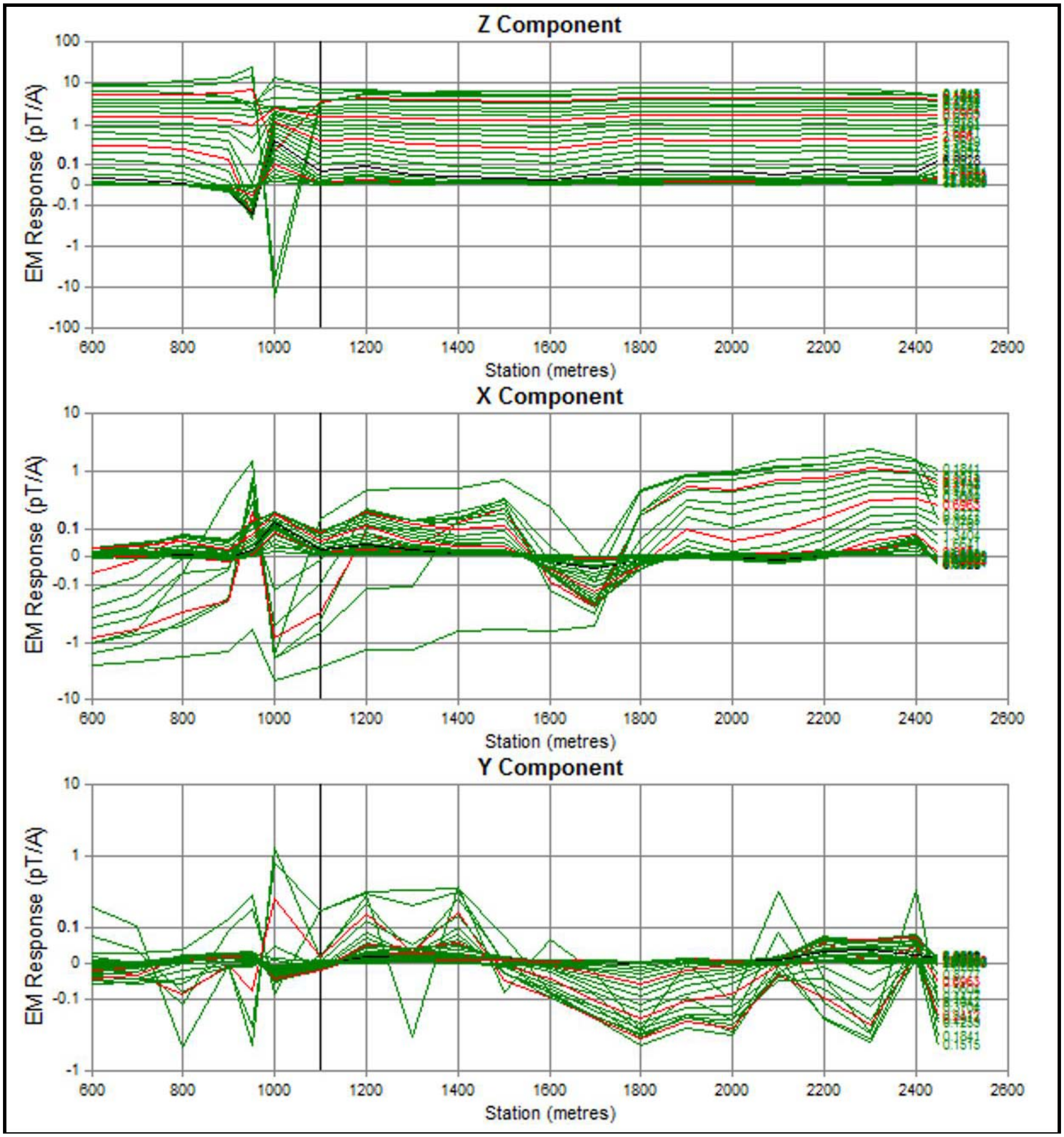

Figure 31. Line 5 profiles.

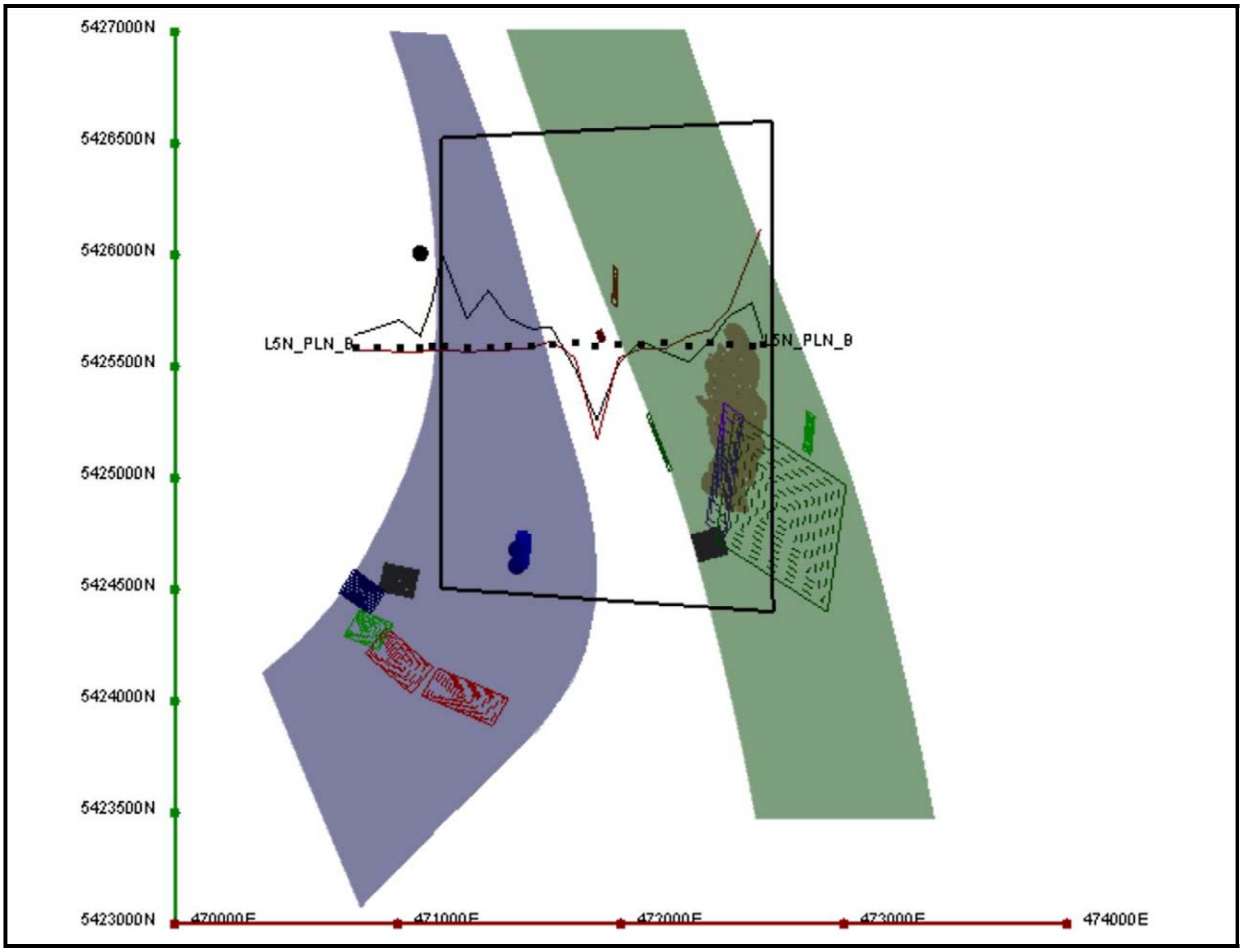

Figure 32. Plan view of TDEM models with Line 5 x-component profile (channel 15).

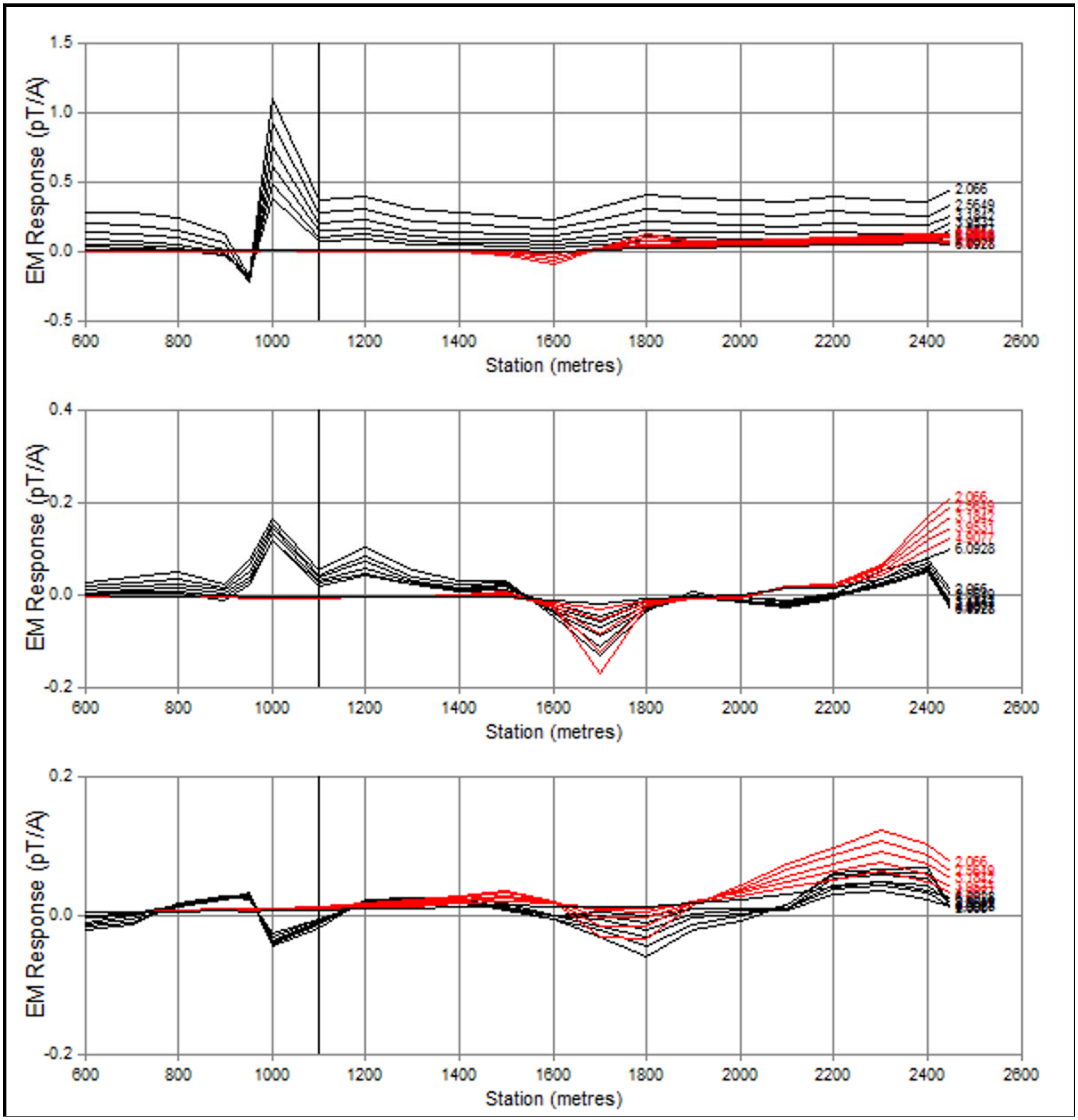

Figure 33. Line 5 late time (channels 15-20) observed (black) and calculated (red) profiles.

FLTEM Line 6

The broad negative x-component peak on Line 6 (Figure 34) is fitted by a narrow, steeply dipping conductor to the south of the line (Figure 35). But the strong response at the eastern end of the line (negative z-component response) has not been fitted (Figure 36) and probably relates to something in the hanging wall to the remnant Winston Lake mineralization. A re-examination of the Winston Lake TDEM may yield a model more easily than attempting to fit this partial anomaly profile.

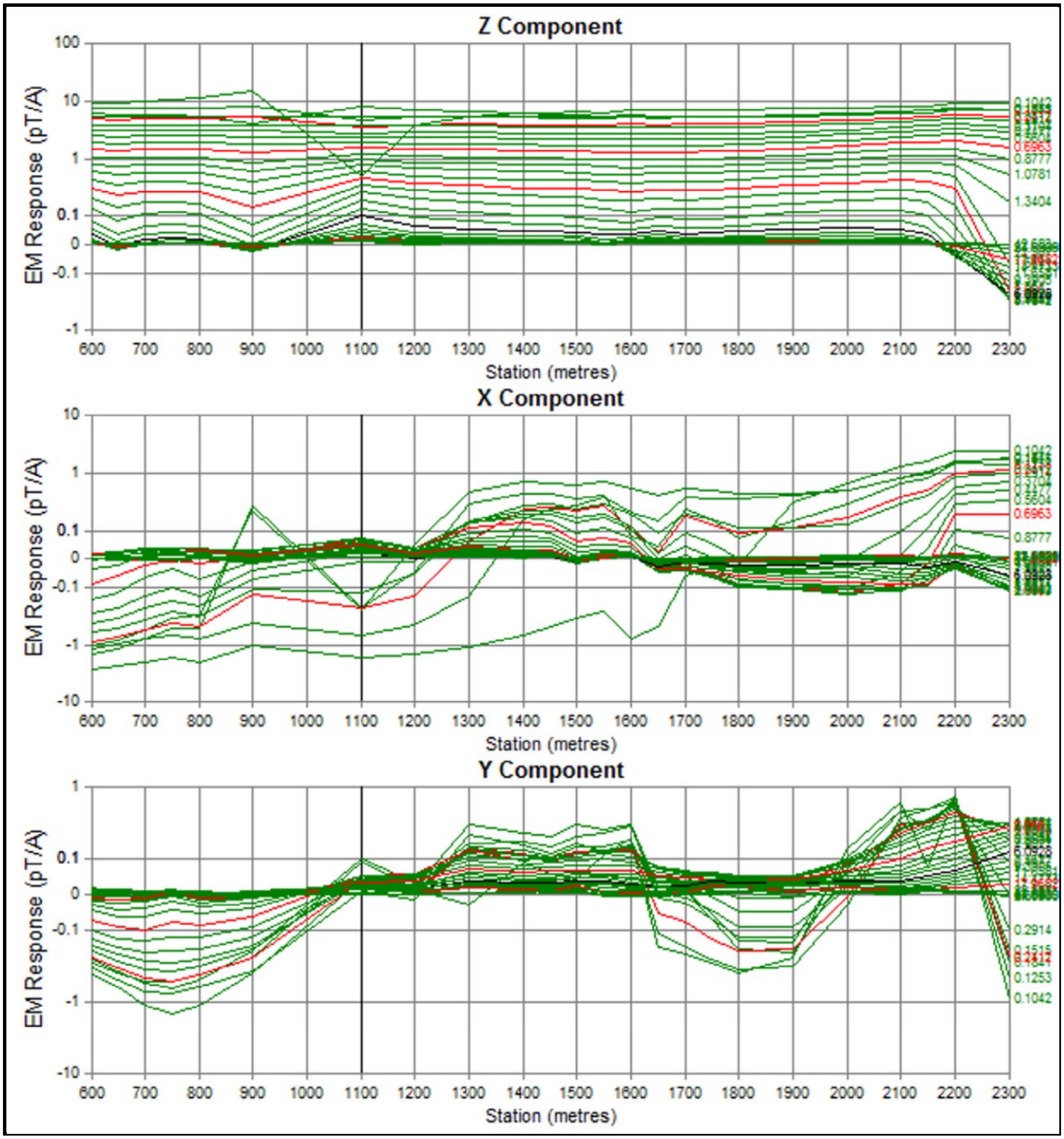

Figure 34. Line 6 profiles.

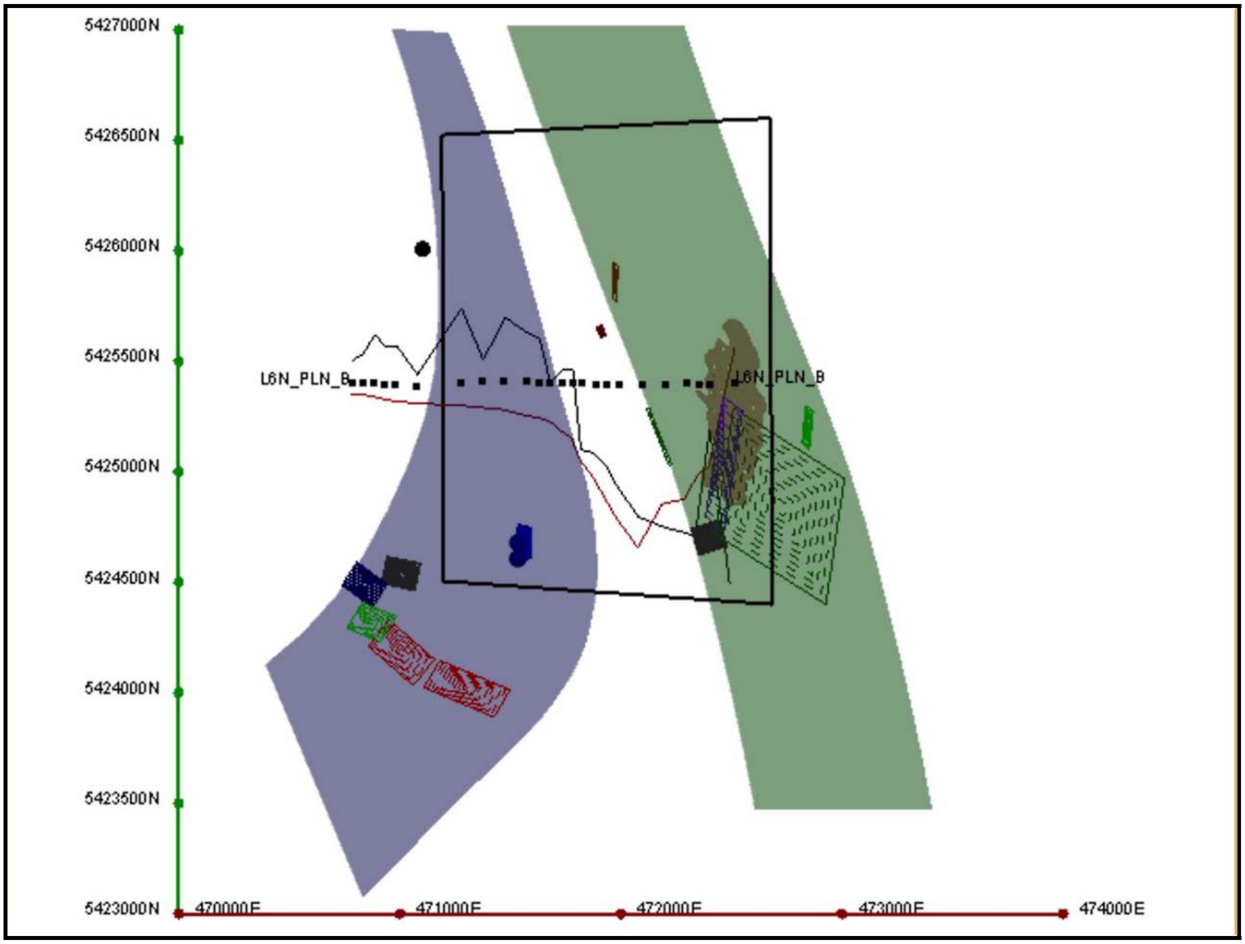

Figure 35. Plan view of TDEM models with Line 6 x-component profile (channel 15).

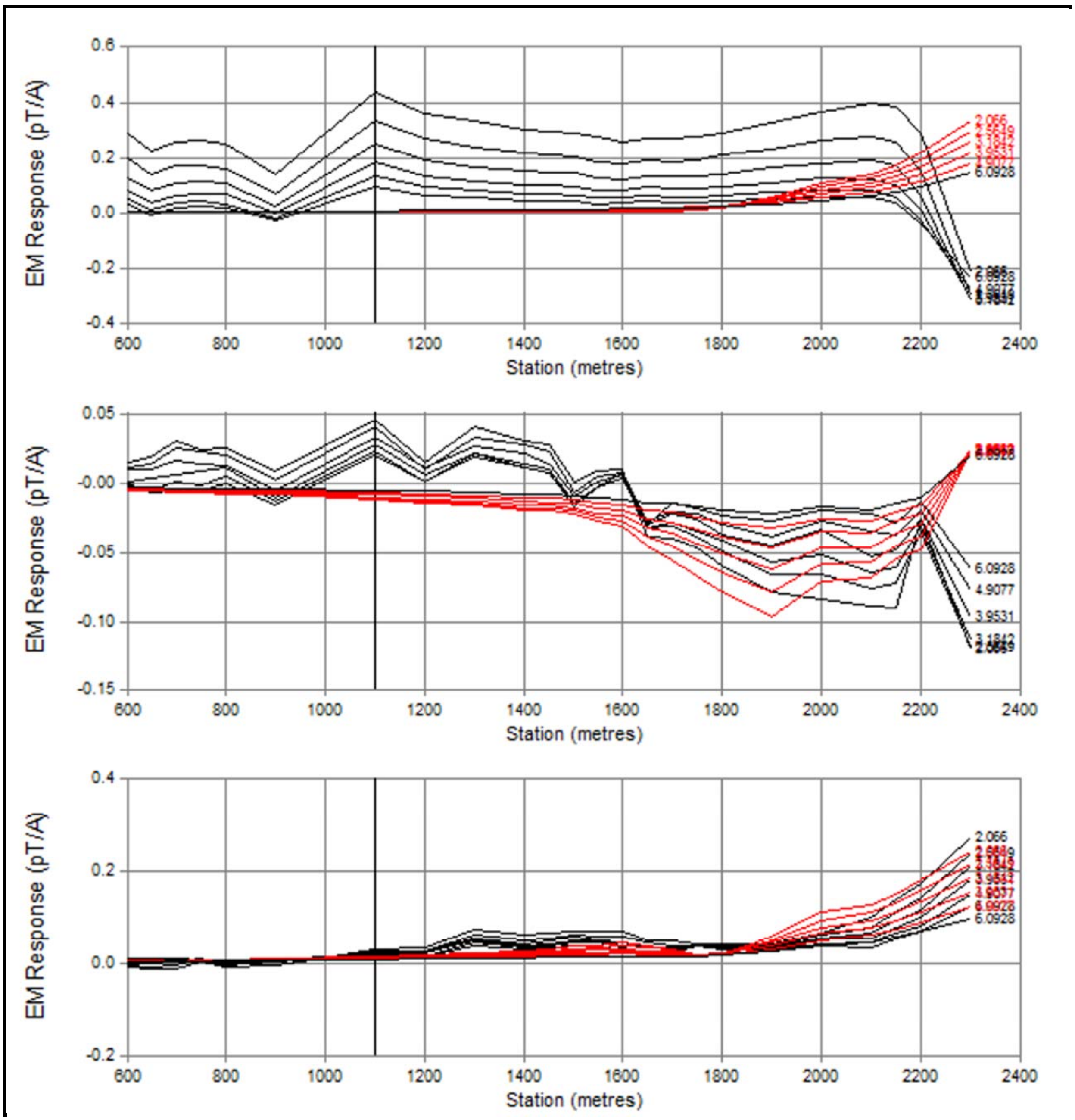

Figure 36. Line 6 late time (channels 15-20) observed (black) and calculated (red) profiles.

FLTEM Line 7

Line 7 defines a complex double negative peak in the x-component (Figure 37), caused by the narrow (275 m x 20 m, 800 S) conductor in the footwall and the top edge of the remnant Winston Lake mineralization (Figure 38). Again, the negative response in the z-component at the eastern end of the line (Figure 39) is not fitted and will require a re-visit when reviewing the Winston Lake TDEM. The north-south positioning of the footwall conductor could be refined in order to fit the y-component peak. Narrow conductors such as the one used to fit the sharp negative x-component peak could correspond to culture (e.g. grounded steel pipelines) so some ground checking is warranted.

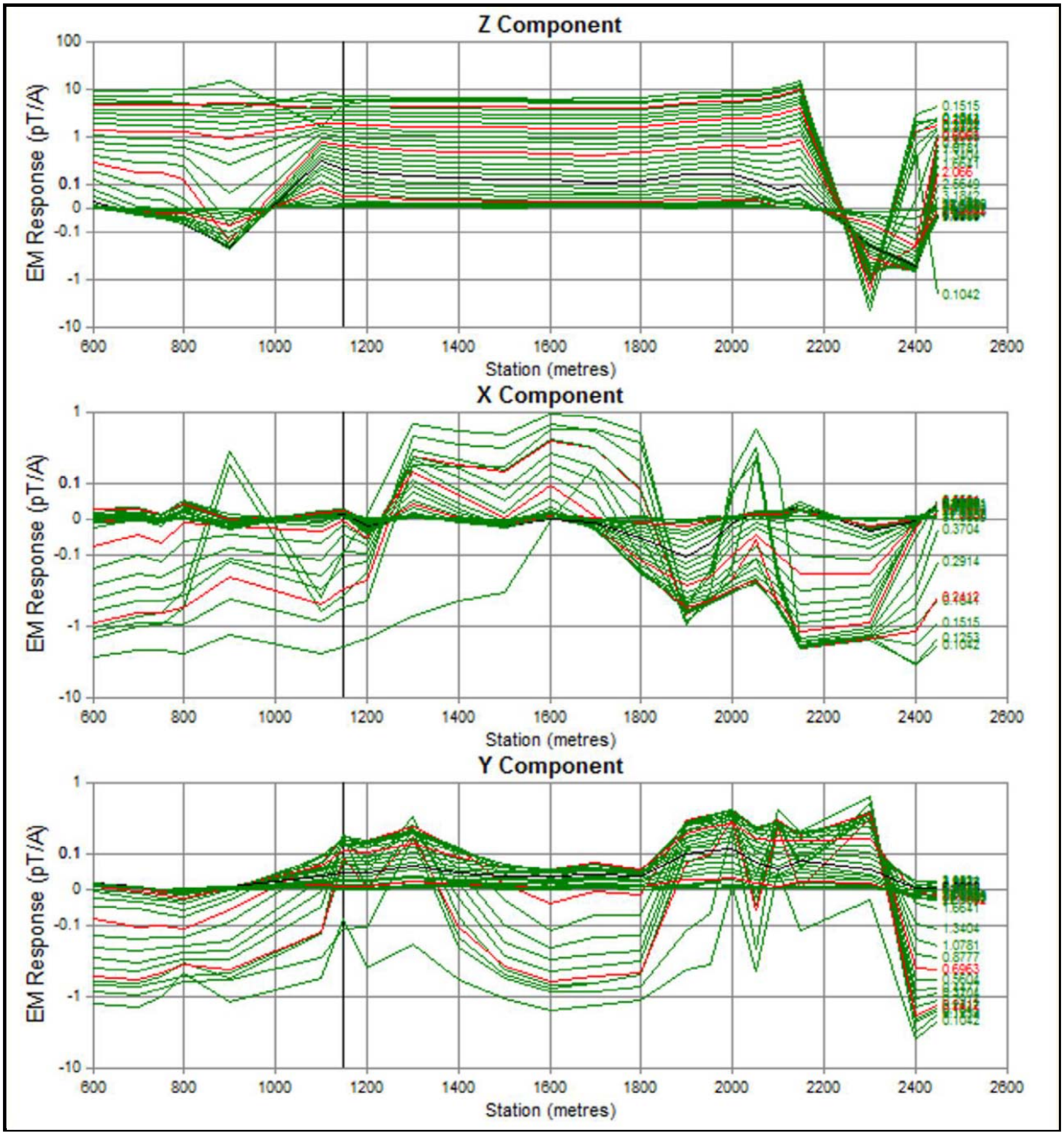

Figure 37. Line 7 profiles.

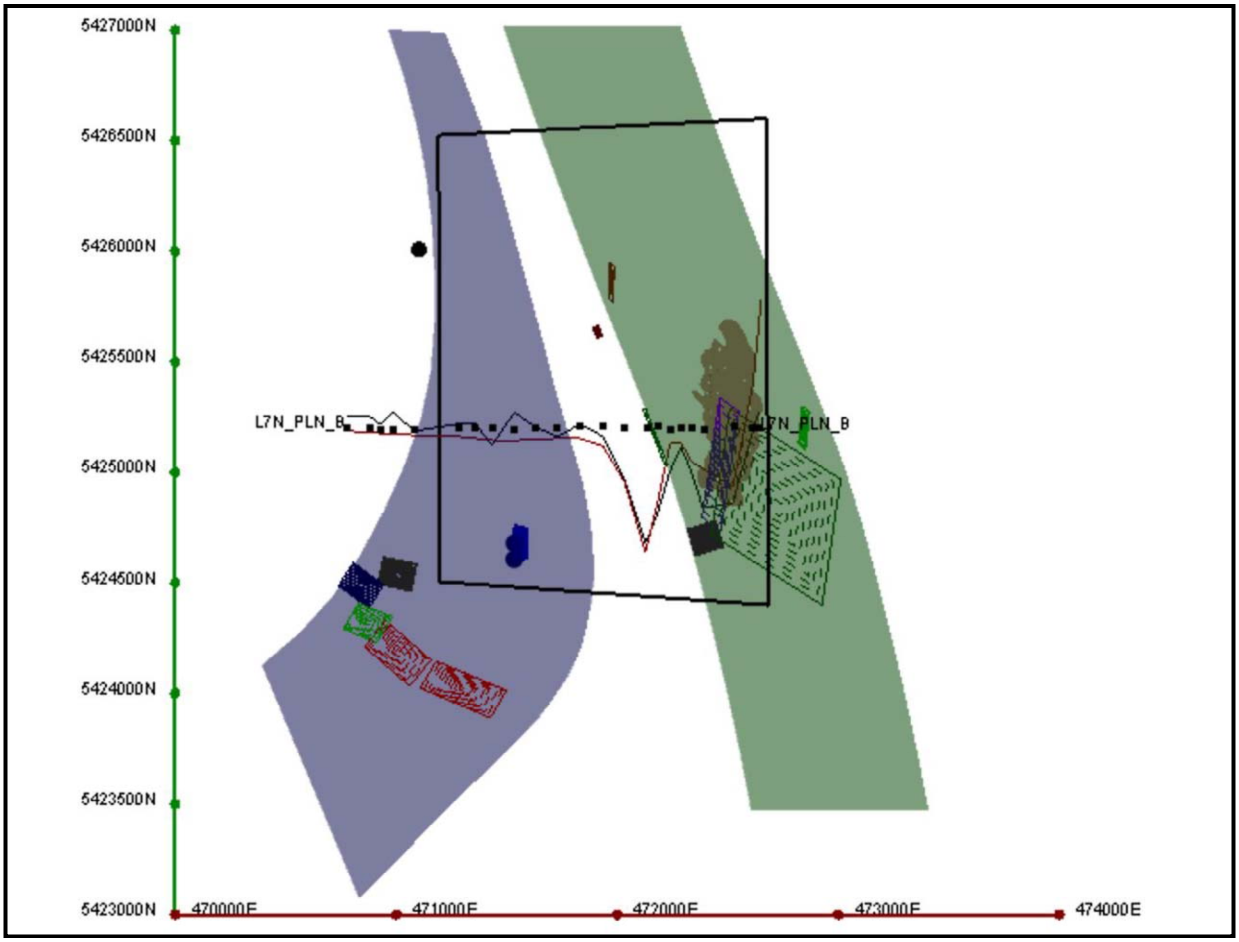

Figure 38. Plan view of TDEM models with Line 7 x-component profile (channel 15).

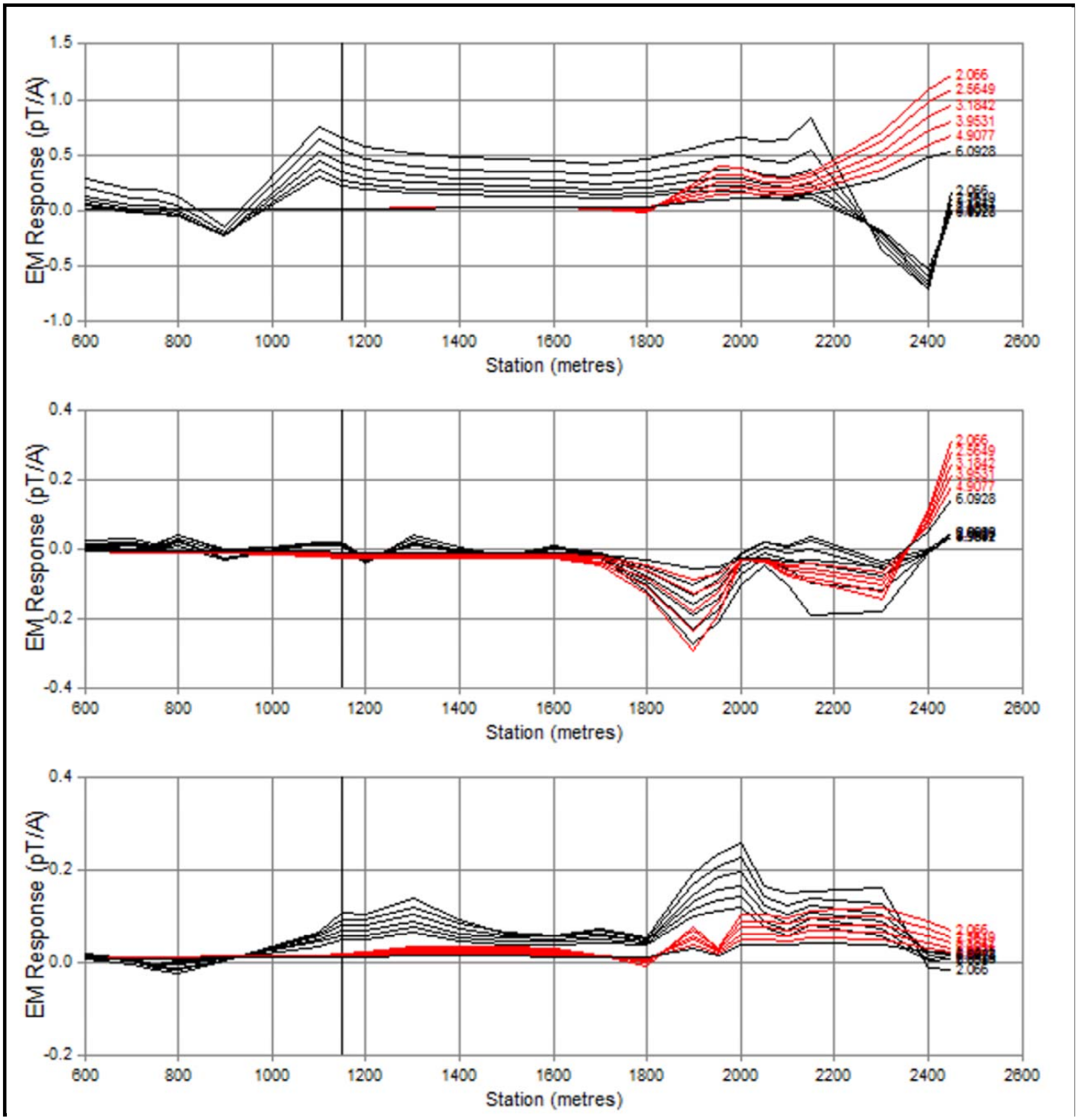

Figure 39. Line 7 late time (channels 15-20) observed (black) and calculated (red) profiles.

FLTEM Line 8

As with the previous two lines, the negative x-component anomaly on Line 8 (Figure 40) is fitted by the narrow footwall conductor and the top edge of the remnant Winston Lake resource (Figure 41). The conductor causing the strong negative z-component response at the eastern ends of lines 6 and 7 does not apparently extend far enough south to influence the Line 8 response.

The strike of the small conductor used to fit the negative x-component response near the middle of the line (Anomaly E – refer to Figure 38) seems to need to be rotated more to the west to align with the observed feature on Line 8 (Figure 42). The observed response is also sharper than the model response, indicating a shallower conductor. Perhaps there are two conductors in this zone.

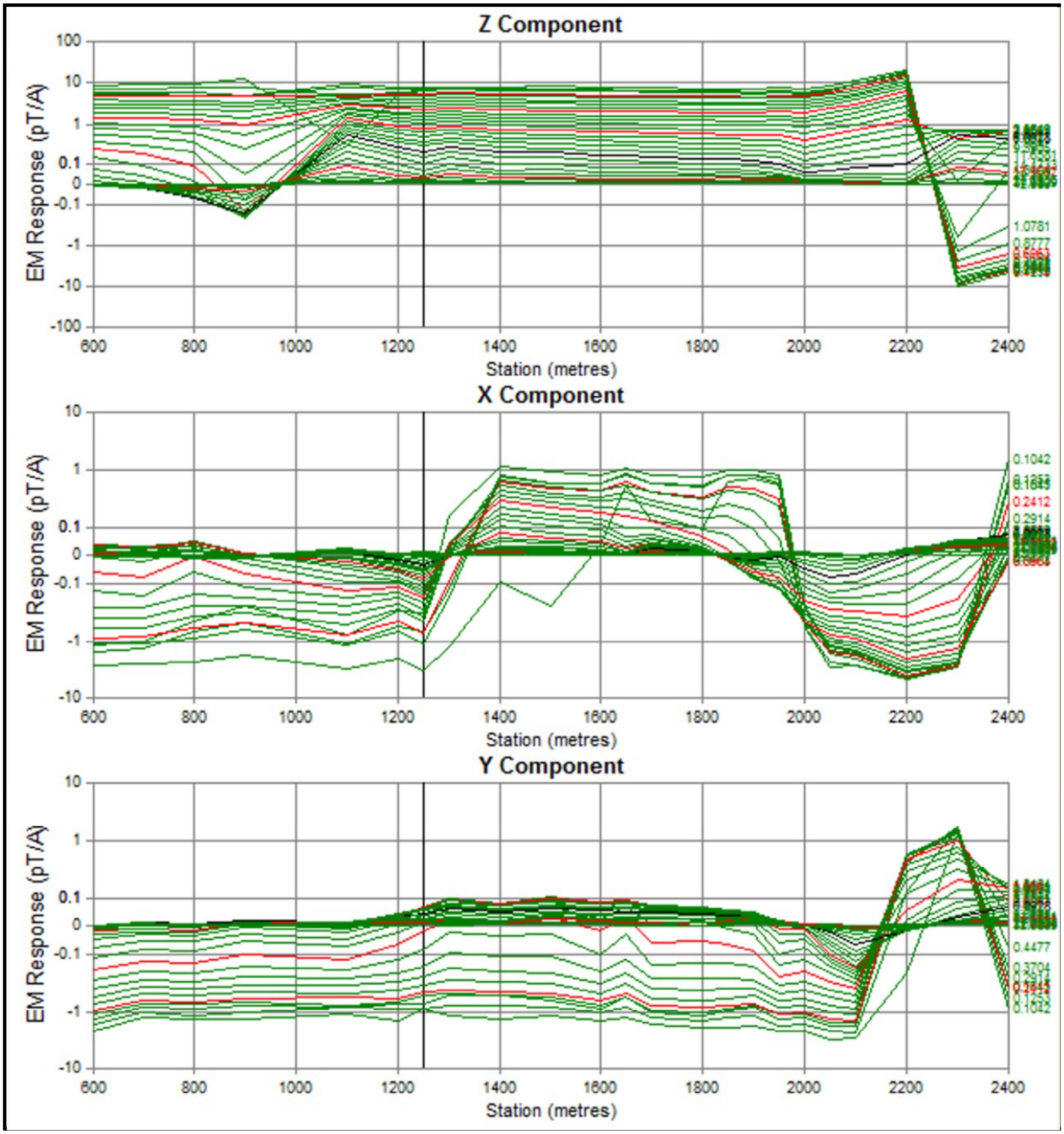

Figure 40. Line 8 profiles.

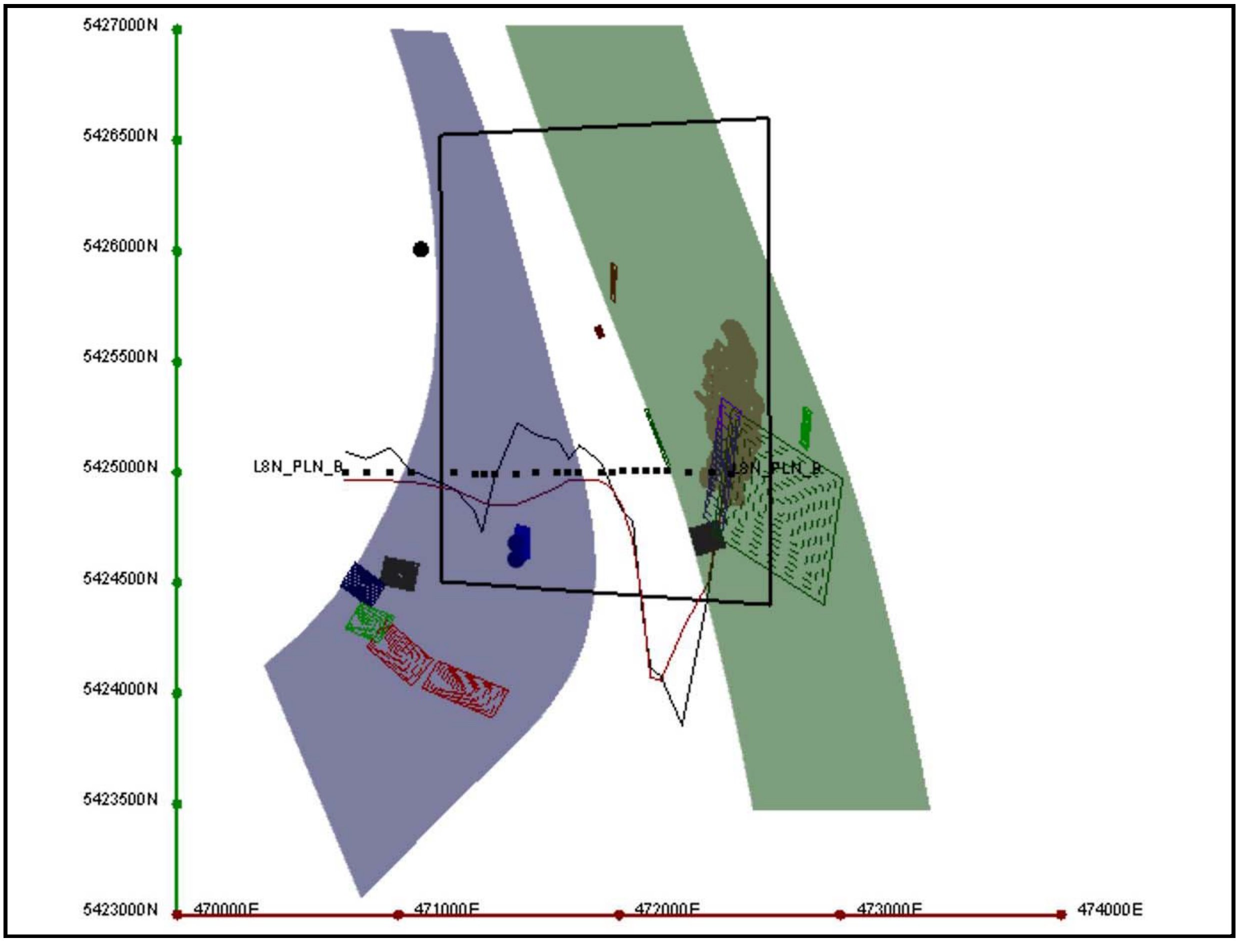

Figure 41. Plan view of TDEM models with Line 8 x-component profile (channel 15).

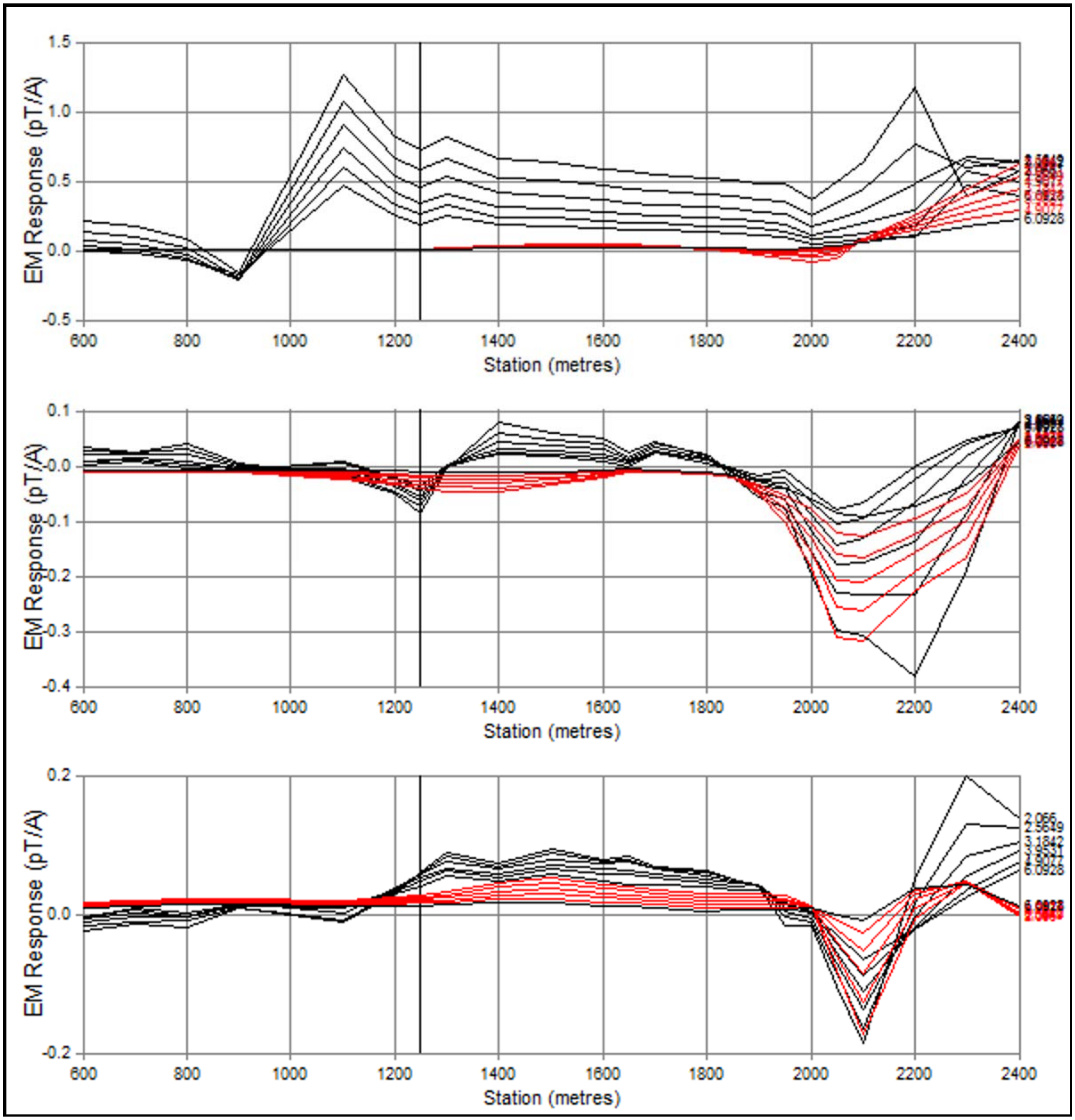

Figure 42. Line 8 late time (channels 15-20) observed (black) and calculated (red) profiles

FLTEM Line 9

Anomaly E is better developed and smoother (deeper source) on Line 9 (Figure 43) than on Line 8 and has been modelled by a conductor located to the south of this line (Figure 44).

A shallow conductor up-plunge from Winston Lake was introduced in order to fit the profiles at the eastern end of the line (Figure 45).

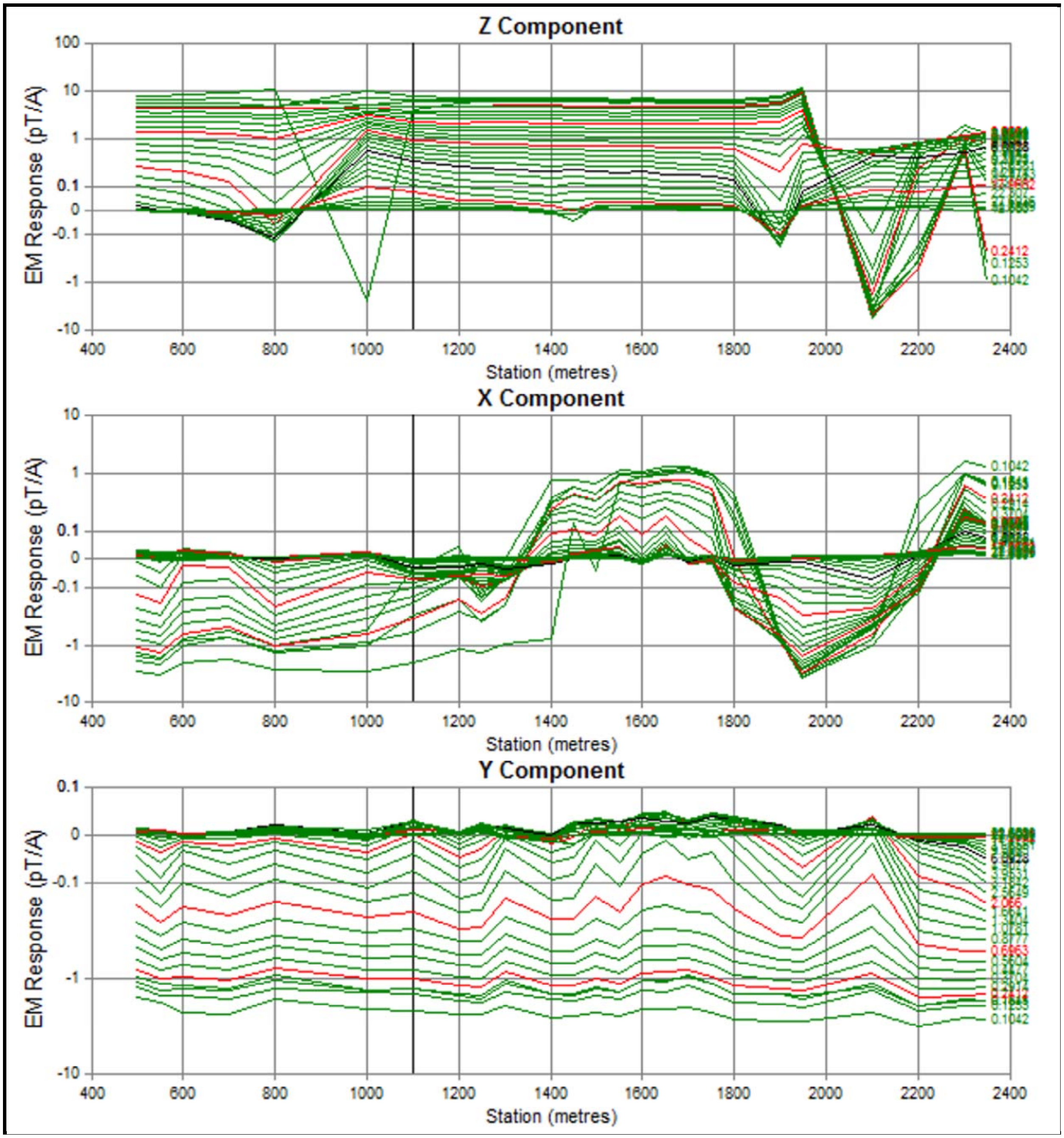

Figure 43. Line 9 profiles.

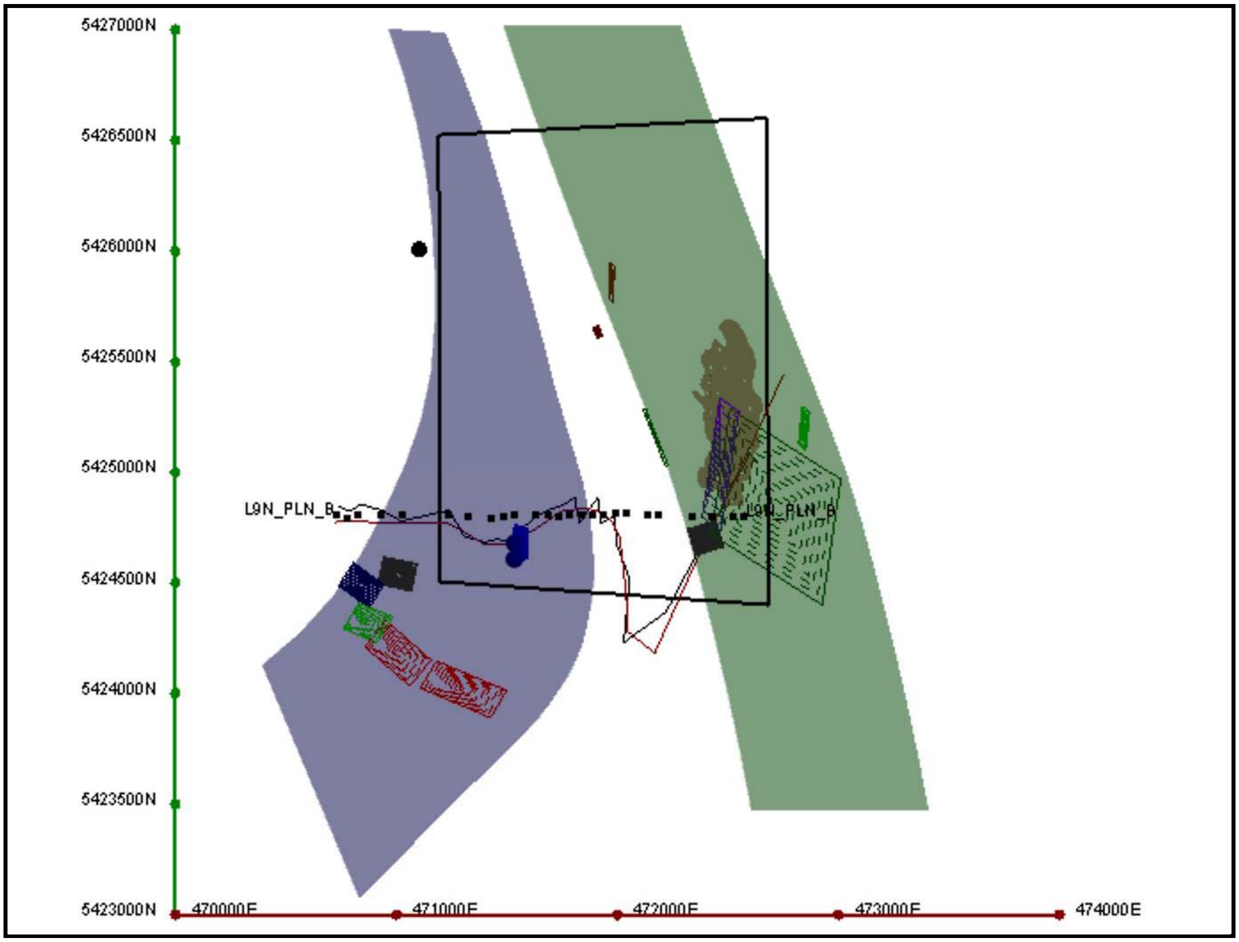

Figure 44. Plan view of TDEM models with Line 9 x-component profile (channel 15).

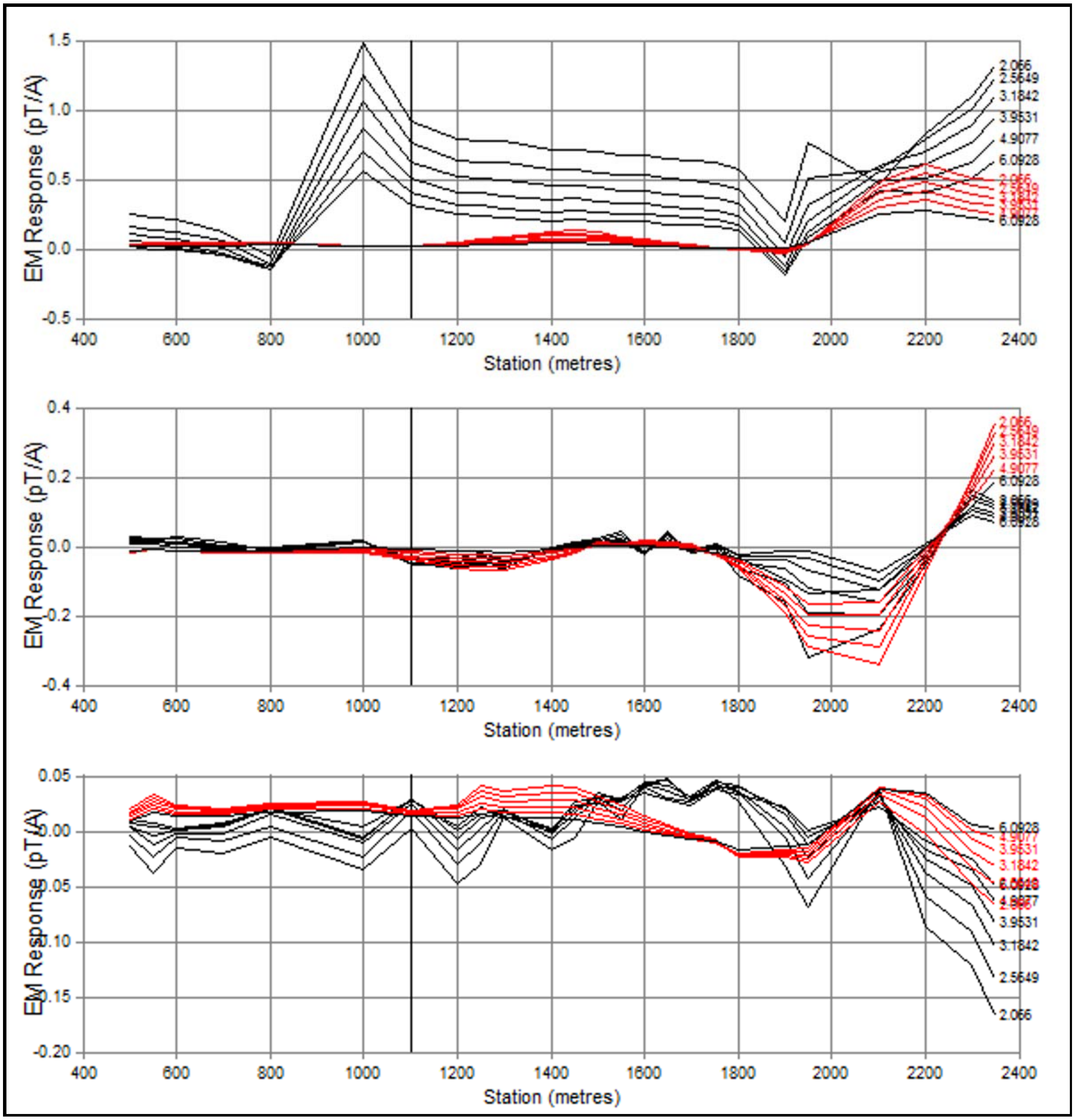

Figure 45. Line 9 late time (channels 15-20) observed (black) and calculated (red) profiles

FLTEM Line 10

In addition to the negative x-component response (Anomaly E, see Figure 20) extending from the north, two responses at the western end of the line corresponding to the Anderson Showing (up-dip extension of Pick Lake) were identified (Figure 46). These were fitted by small conductors (125 m x 300 m and 125 m x 200 m) located north of the top edge of Pick Lake (Figures 47 and 48). It would be worthwhile to determine whether these conductors have been tested by drilling.

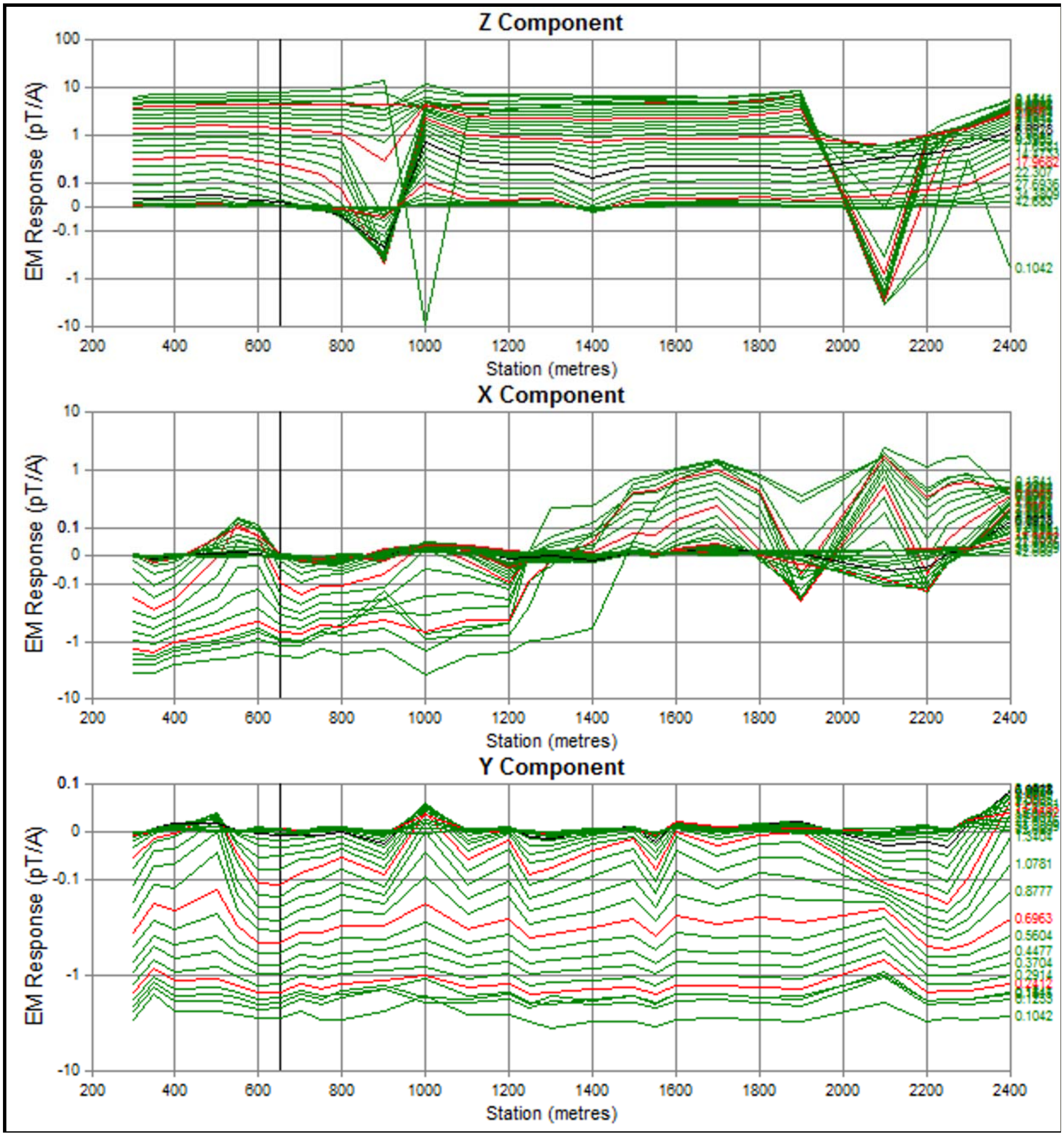

Figure 46. Line 10 profiles.

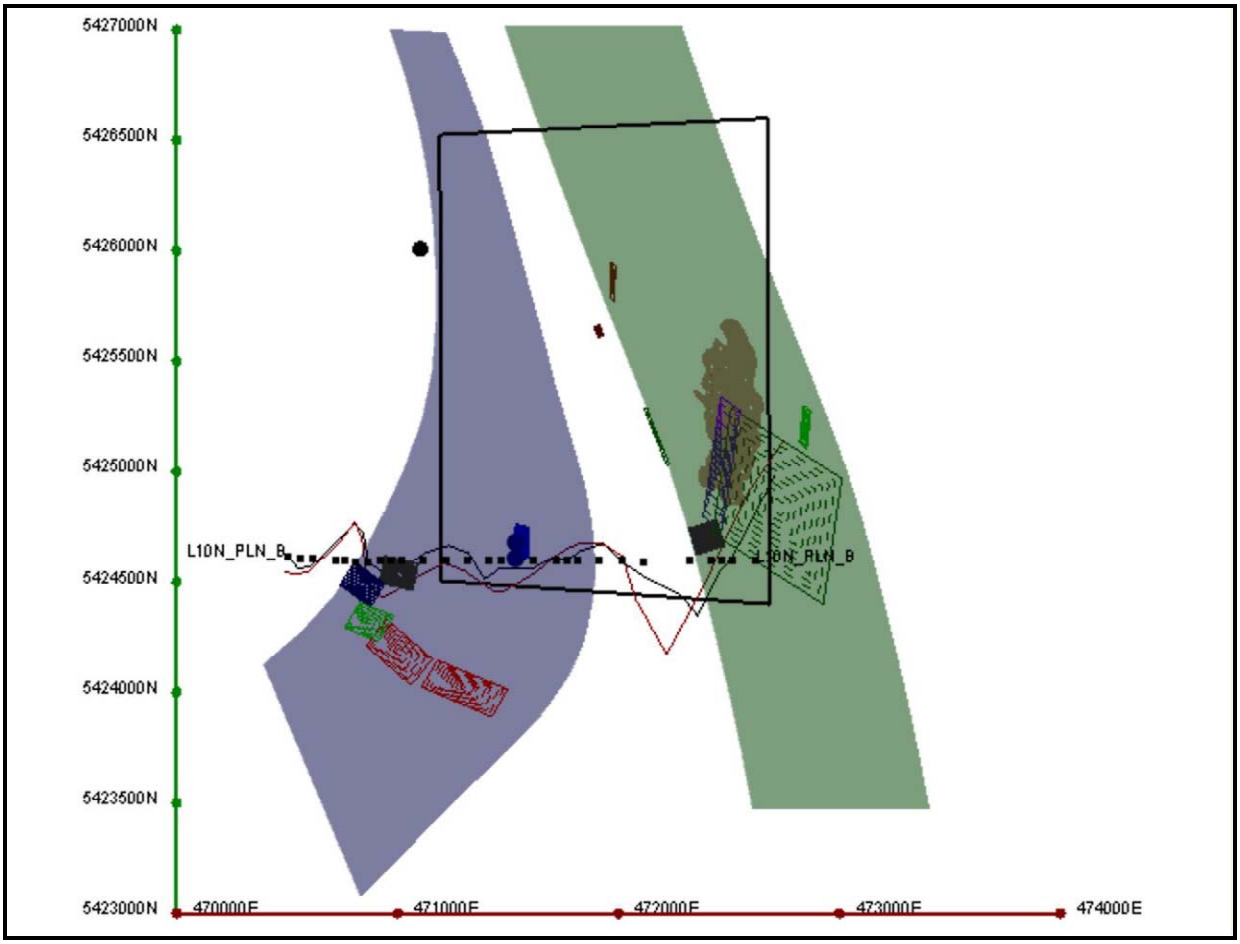

Figure 47. Plan view of TDEM models with Line 10 x-component profile (channel 15).

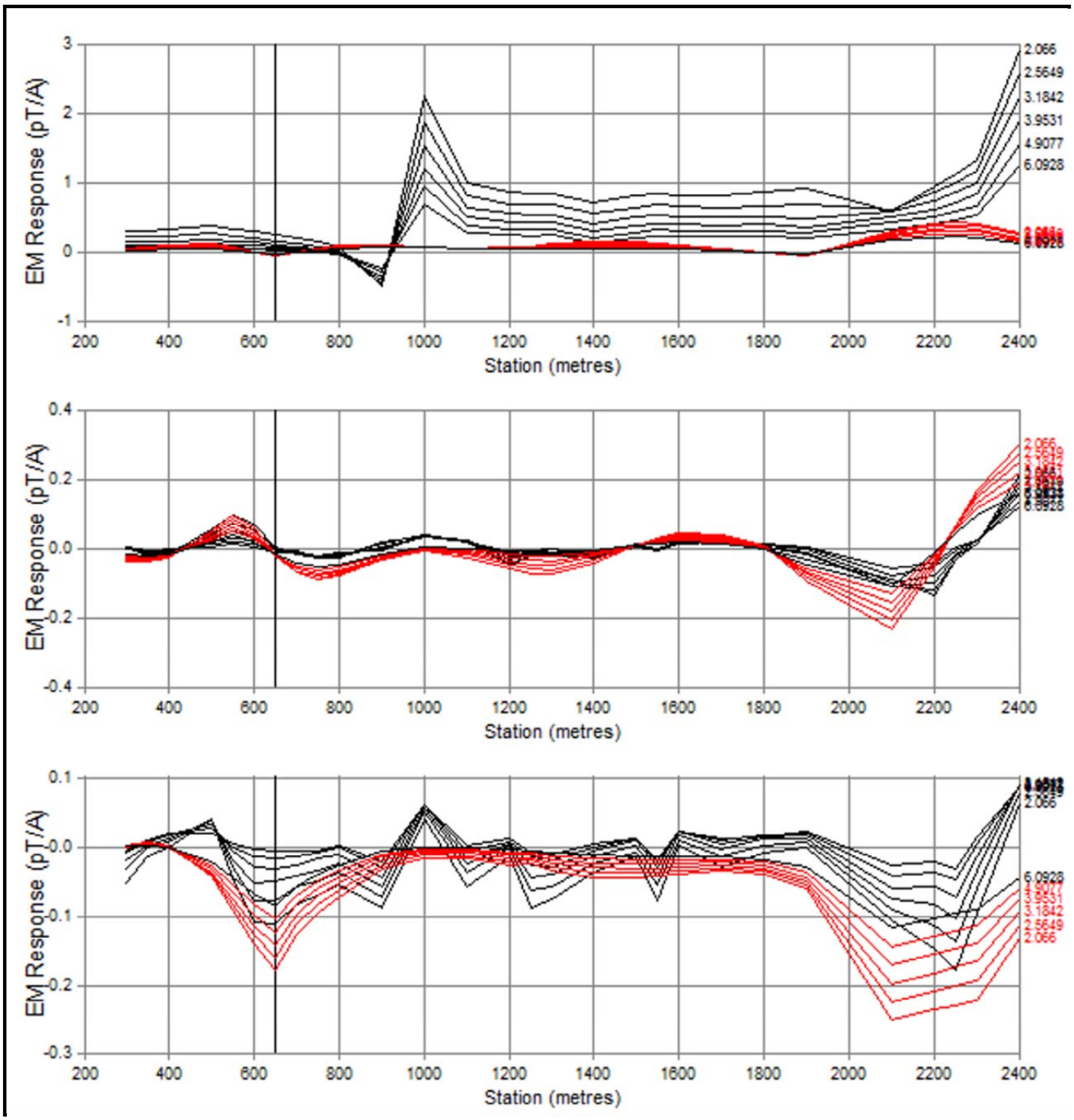

Figure 48. Line 10 late time (channels 15-20) observed (black) and calculated (red) profiles.

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AUTHOR'S CERTIFICATES

I, David J. Thomson do hereby certify as follows:

1. I am a Registered Professional Forester and consultant to the mining industry, and I reside and carry on a business at 114 Pennock Drive, Rosslyn, Ontario P7K0E1, under Thomson Environmental;

2. That I have the degree of Honors Bachelor of Science in Forestry, 1977, from Lakehead University;

3. That I am a member in good standing of the Ontario Professional Forester's Association (Member No. 1223, effective May 28, 1982):

4. That, as part of my profession, I have been trained in and regularly used Geographic Information (GIS) tools since 2001;

5. That I am the co-author of an assessment report entitled "2018 Geological Mapping and Geochemical Sampling Report, Pick – Winston Lake Zn-Cu Property, Pays Plat and Rope Lakes Area, Thunder Bay District, Northwest Ontario, Canada" addressed to Superior Lake Resources Limited, with an effective date of October 30, 2019, and that I am responsible primarily for all maps in the report;

6. That I am Licensed Ontario Prospector (Licence Number 2000085) and regular user of the MLAS system and associated GIS data.

7. That, as at the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated at Thunder Bay, Ontario
This 30th day of September 2019

David J. Thomson, R.P.F.

I, Gerald Dewar White (Gerry), do hereby certify as follows:

1. I am an independent consulting geologist, and I reside and carry on business at 28 Hill Street South, Thunder Bay, Ontario, P7B 3T5 under Superior Rift Geoconsulting Inc.;

2. That I have the degree of Bachelor of Science in Geology, 1979, from the University of Manitoba;

3. That I am a member in good standing of the Professional Geoscientists of Ontario (Member No. 0184, effective June 22, 2002)

4. That I have been practicing my profession in Canada continuously since 1979;

5. That I am the co-author of an assessment report entitled "2018 Geological Mapping and Geochemical Sampling Report, Pick – Winston Lake Zn-Cu Property, Pays Plat and Rope Lakes Area, Thunder Bay District, Northwest Ontario, Canada" addressed to Superior Lake Resources Limited, with an effective date of October 30, 2019, and that I am responsible for all sections of these Reports;

6. That, as at the effective date of the Report, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the Report not misleading.

Dated at Thunder Bay, Ontario
This 30th day of September 2019

PROFESSIONAL GEOSCIENTISTS
GERALD D. WHITE
PRACTISING MEMBER
0184
ONTARIO

Gerald White, BSc., P.Geo.

Appendix 1: Table of Mining Claims

Claim	Type	Status	Issue Date	Anniversary Date	Holder
117859	BCMC	Active	2018-04-10	2019-10-10	(100) OPHIOLITE HOLDINGS PTY LTD.
116128	BCMC	Active	2018-04-10	2019-10-10	(100) OPHIOLITE HOLDINGS PTY LTD.
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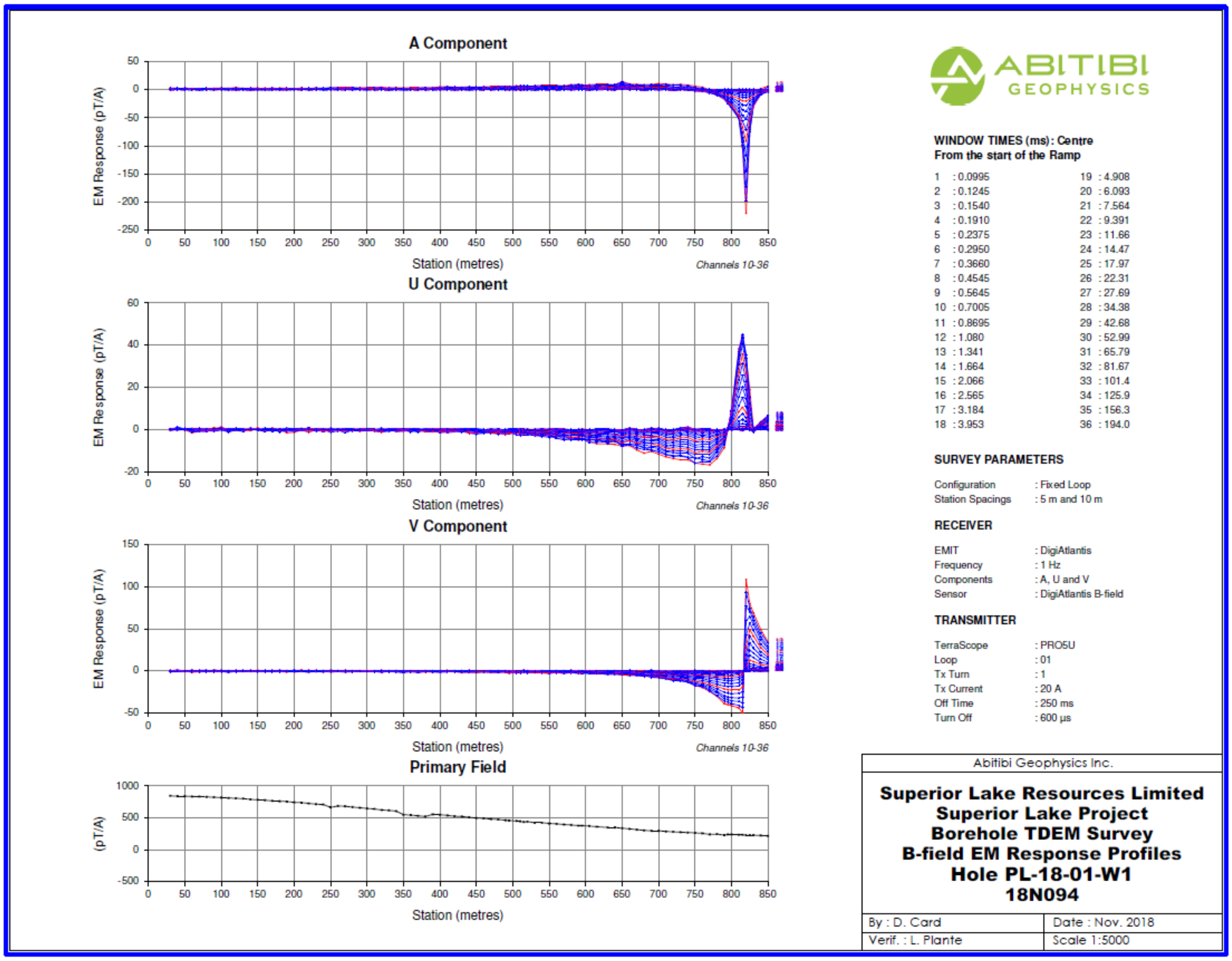
284424	SCMC	Active	2018-04-10	2019-07-22	(100) OPHIOLITE HOLDINGS PTY LTD.
288461	SCMC	Active	2018-04-10	2019-06-09	(100) OPHIOLITE HOLDINGS PTY LTD.
300308	SCMC	Active	2018-04-10	2019-09-16	(100) OPHIOLITE HOLDINGS PTY LTD.
308718	SCMC	Active	2018-04-10	2019-09-09	(100) OPHIOLITE HOLDINGS PTY LTD.
312363	SCMC	Active	2018-04-10	2019-09-09	(100) OPHIOLITE HOLDINGS PTY LTD.
312364	SCMC	Active	2018-04-10	2019-09-09	(100) OPHIOLITE HOLDINGS PTY LTD.
318298	SCMC	Active	2018-04-10	2019-09-16	(100) OPHIOLITE HOLDINGS PTY LTD.
320958	SCMC	Active	2018-04-10	2019-07-22	(100) OPHIOLITE HOLDINGS PTY LTD.
320959	SCMC	Active	2018-04-10	2019-07-22	(100) OPHIOLITE HOLDINGS PTY LTD.
344450	SCMC	Active	2018-04-10	2019-07-22	(100) OPHIOLITE HOLDINGS PTY LTD.
342212	SCMC	Active	2018-04-10	2019-07-22	(100) OPHIOLITE HOLDINGS PTY LTD.
343842	SCMC	Active	2018-04-10	2019-09-09	(100) OPHIOLITE HOLDINGS PTY LTD.

Appendix 2: Expenses Breakdown

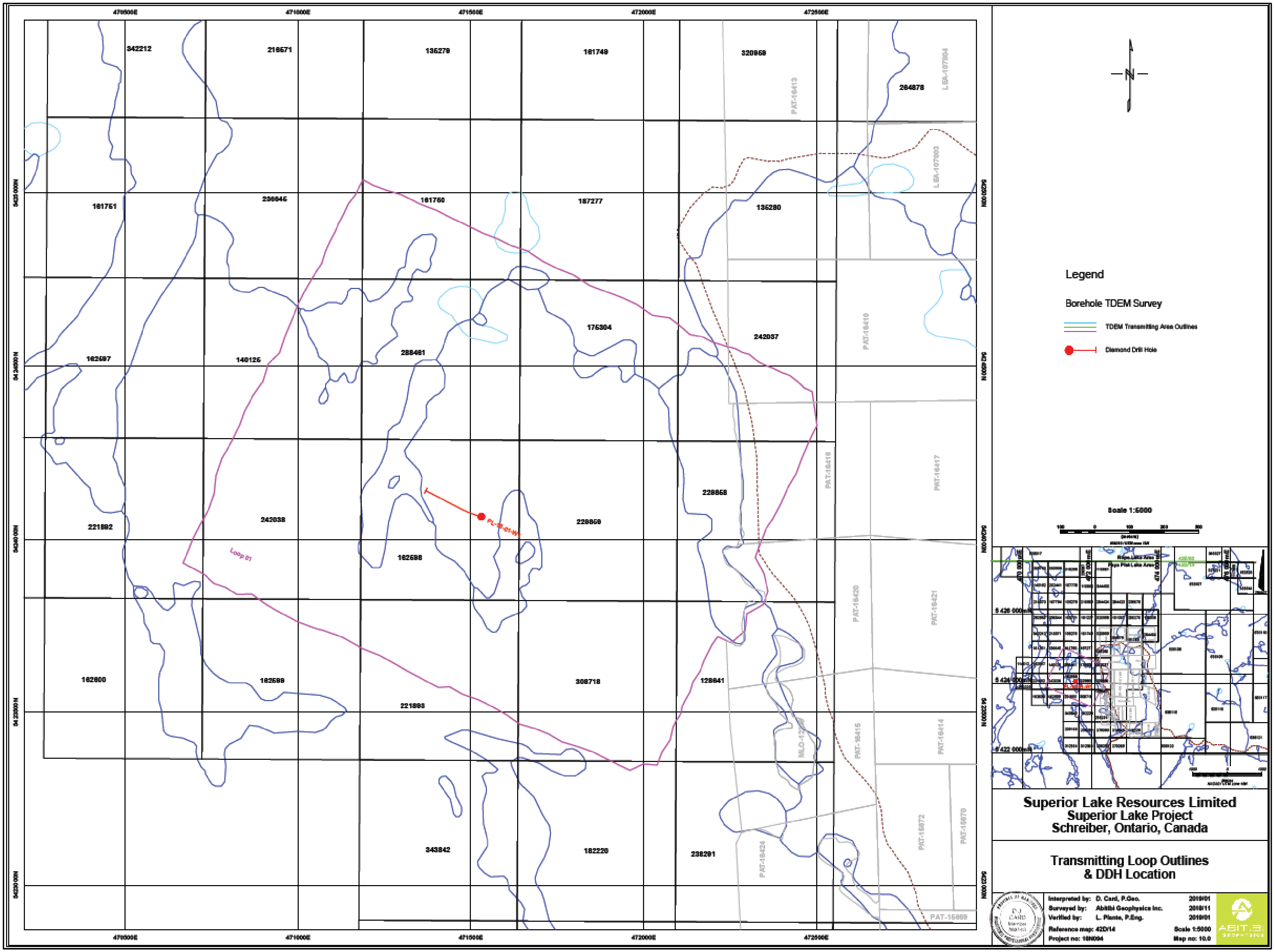
Pick and Winston Lake Line Cutting and Geophysical Work Expenses

Company	Invoice Number	Date	Amount	Activity	Details
Line Cutting					
A-Star Prospecting		28-Feb-19	$37,654.21	Line Cutting Training (Pays Plat First Nation)	7 Pays Plat workers
A-Star Prospecting		28-Feb-19	$64,297.00	Line Cutting and Field Supervision	5 Pays Plat workers
Total			**$101,951.21**		
Borehole Geophysical (TDEM) Survey					
Abitibi Geophysics	18-4567	20-Nov-18	$13,927.25	Borehole TDEM Survey	
Abitibi Geophysics	19-4599	10-Jan-19	$34,415.85	Borehole TDEM Survey	
Total			**$48,343.10**		
Ground Geophysical (TDEM) Survey					
A-Star Prospecting		7-Mar-19	$21,470.00	Assistance with Geophysics	2 workers
Abitibi Geophysics	19-4614	1-Feb-19	$50,397.10	Ground ARMIT TDEM Survey	
Abitibi Geophysics	19-4632C	12-Mar-19	$86,818.02	Ground ARMIT TDEM Survey	
Abitibi Geophysics	19-4653	26-Apr-19	$15,246.12	Ground ARMIT TDEM Survey	
Total			**$173,931.24**		
$324,225.55					

Appendix 3: Borehole TDEM Survey, Response Profiles

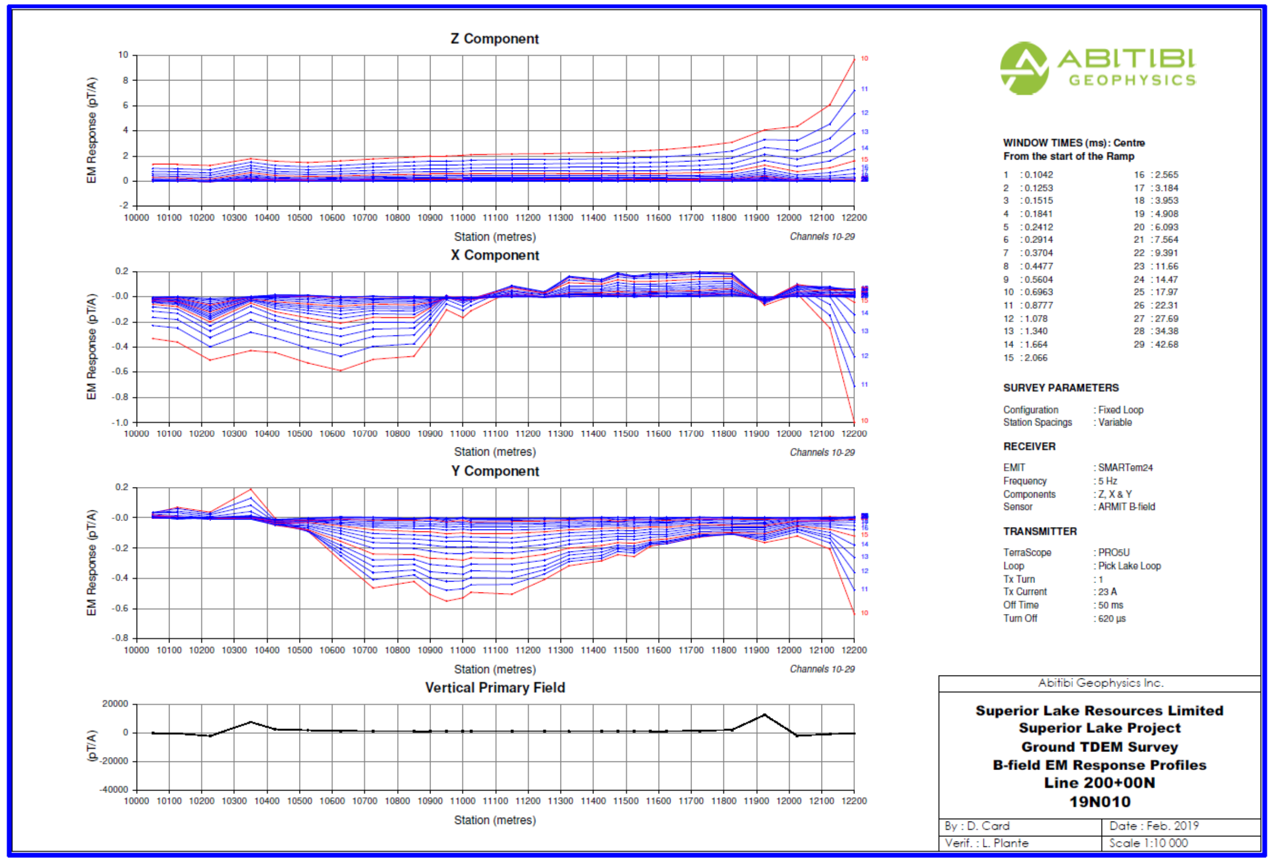


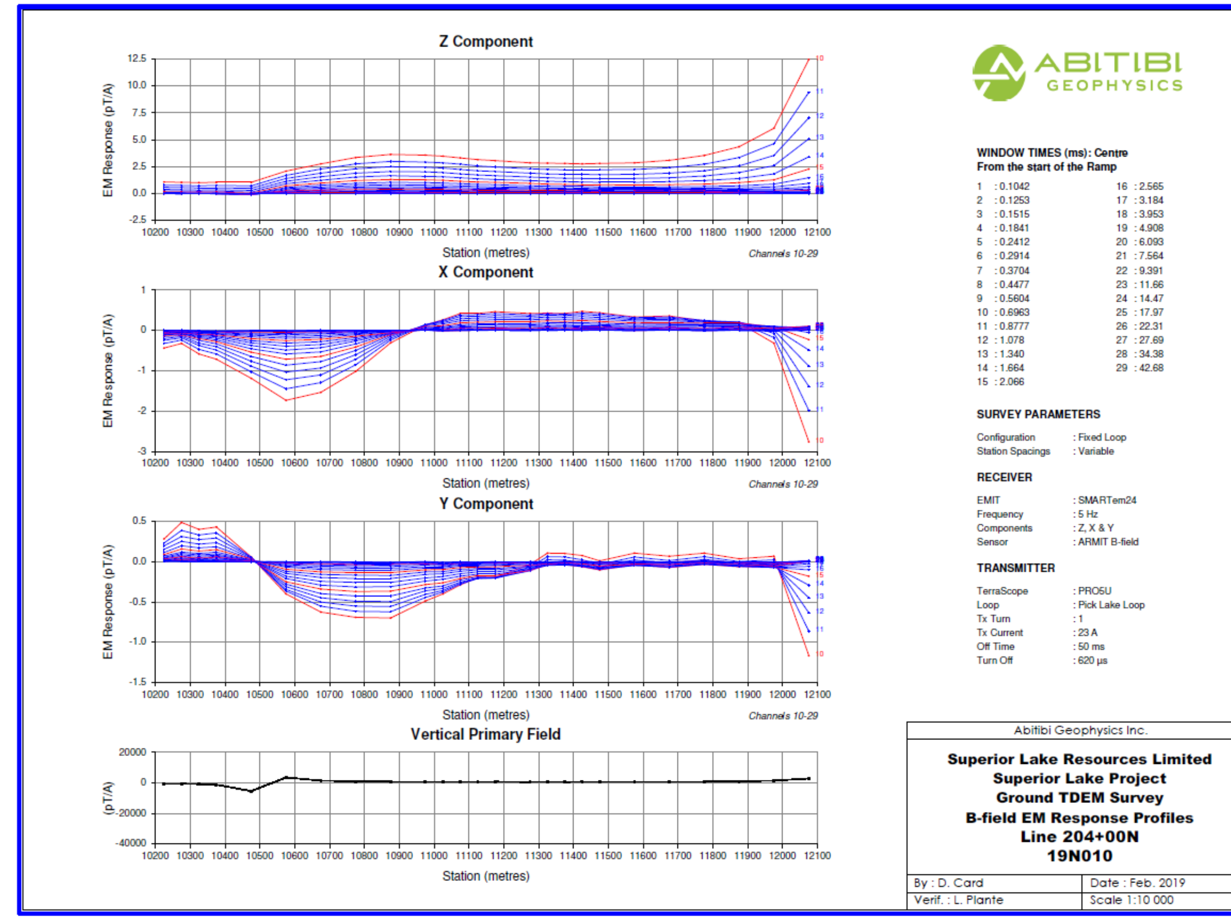
Appendix 4: Borehole TDEM Survey, Transmitting Loop Outlines and DDH Locations

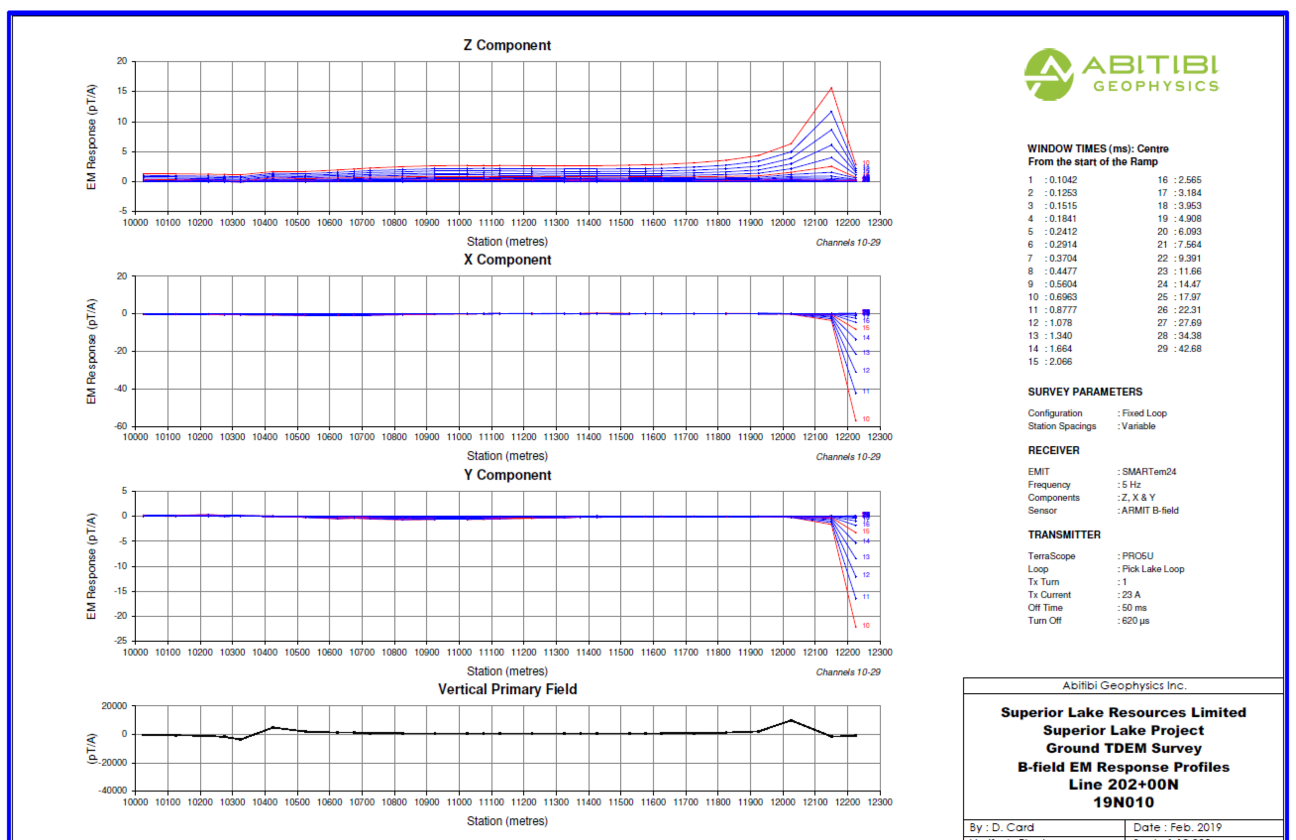


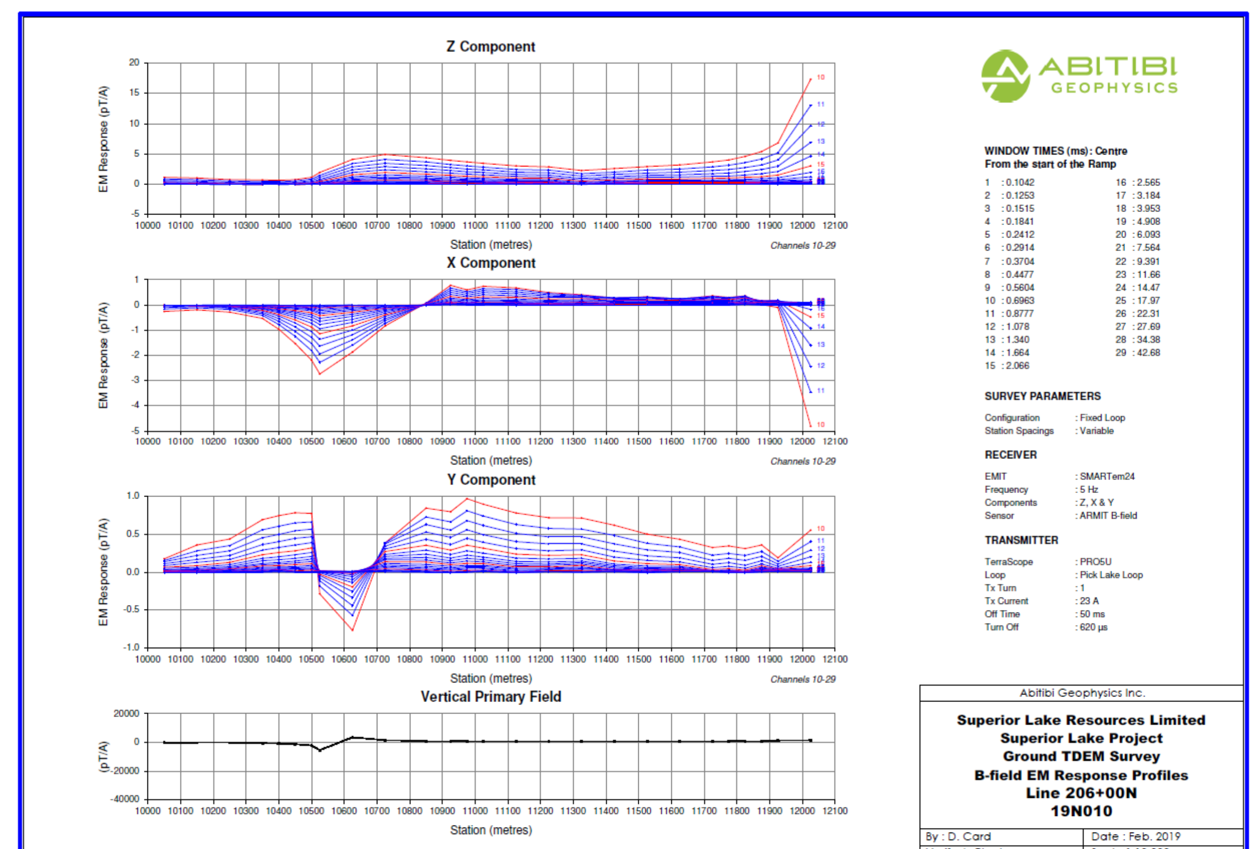
Legend
Borehole TDEM Survey
TDEM Transmitting Area Outlines
Diamond Drill Hole
Scale 1:5000
Loop 01
Superior Lake Resources Limited
Superior Lake Project
Schreiber, Ontario, Canada
Transmitting Loop Outlines
& DDH Location
Interpreted by: D. Card, P.Geo.
Surveyed by: Abitibi Geophysics Inc.
Verified by: L. Plante, P.Eng.
Reference map: 42D/14
Scale 1:5000
Map no: 10.0

Appendix 5: Ground TDEM Survey, EM Response Profiles


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 200+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 204+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 202+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000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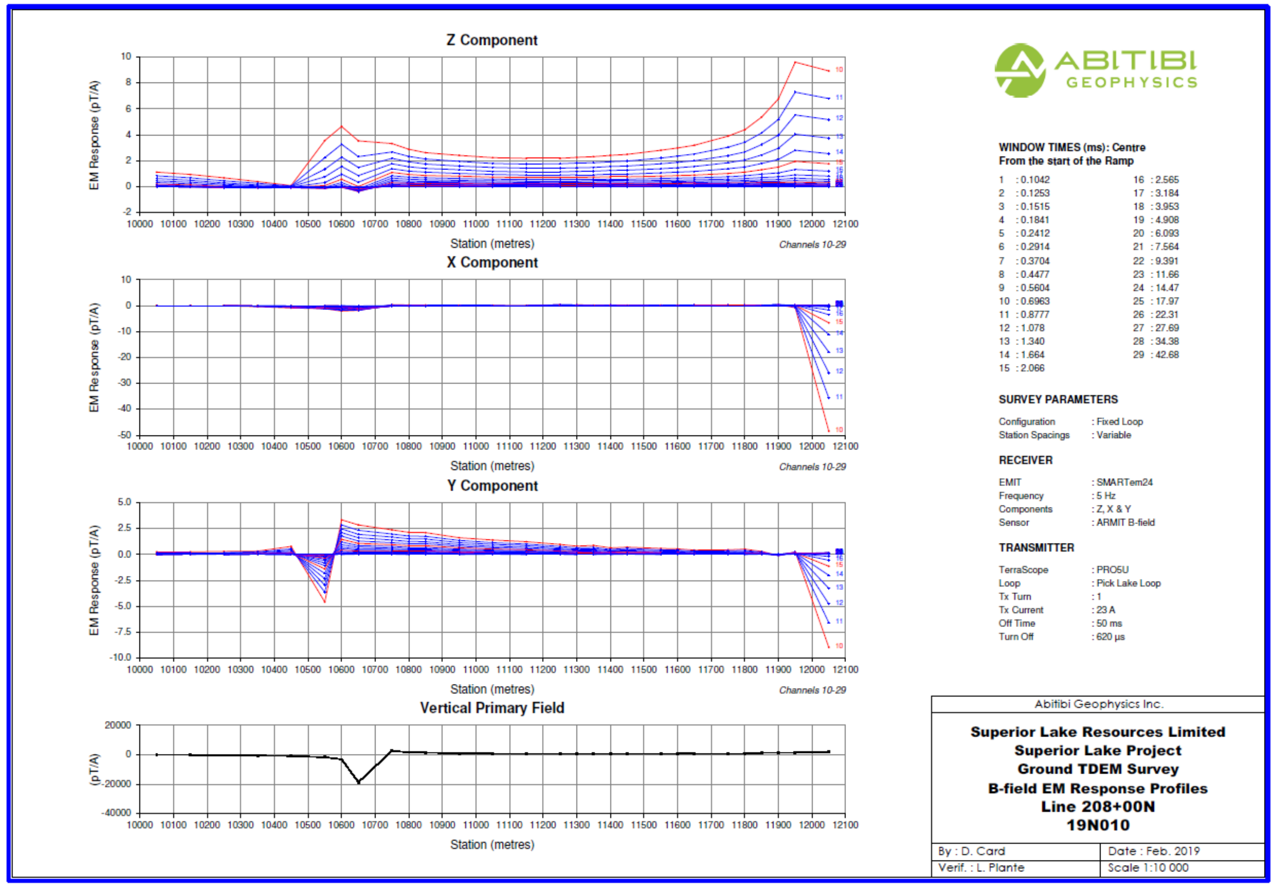
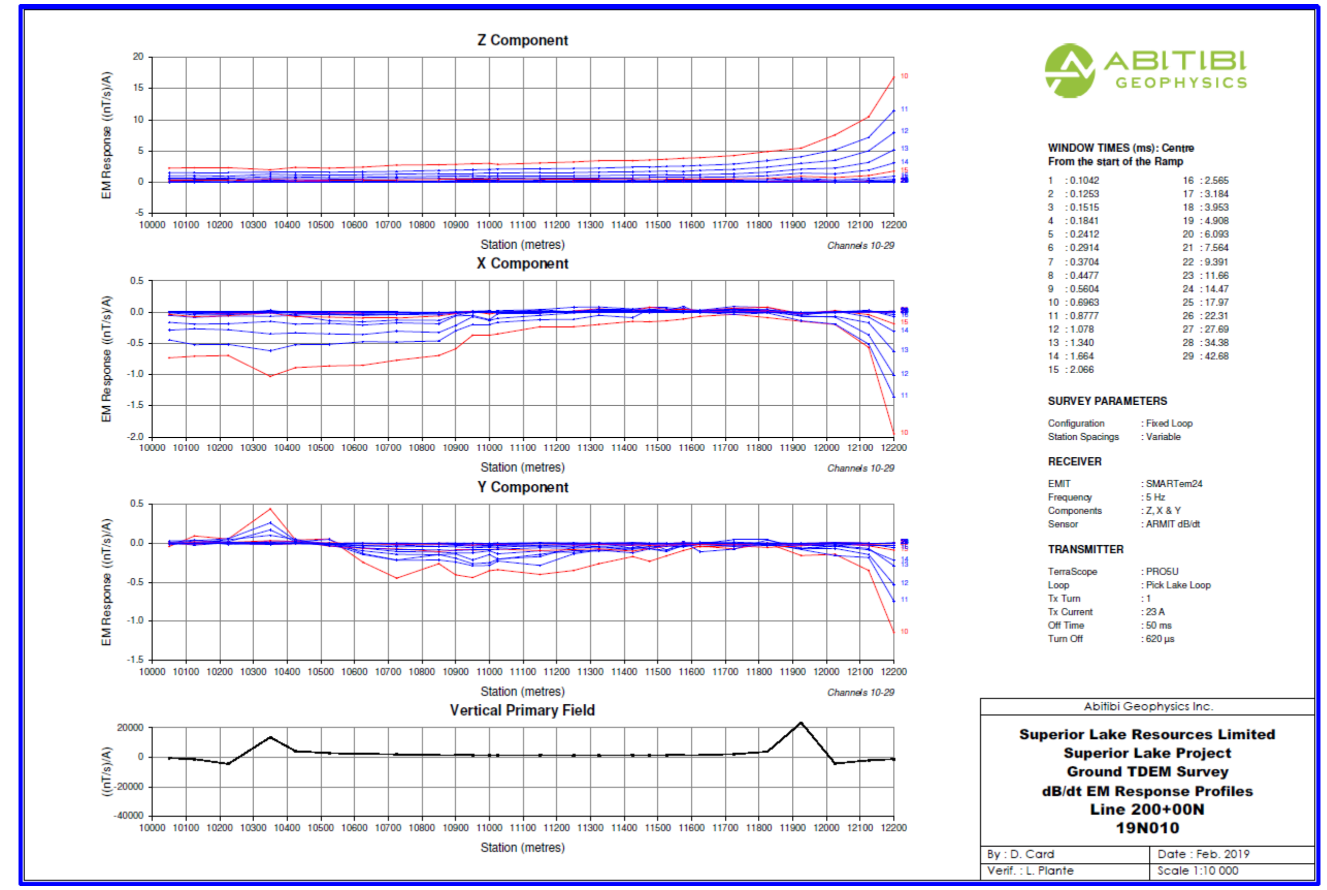
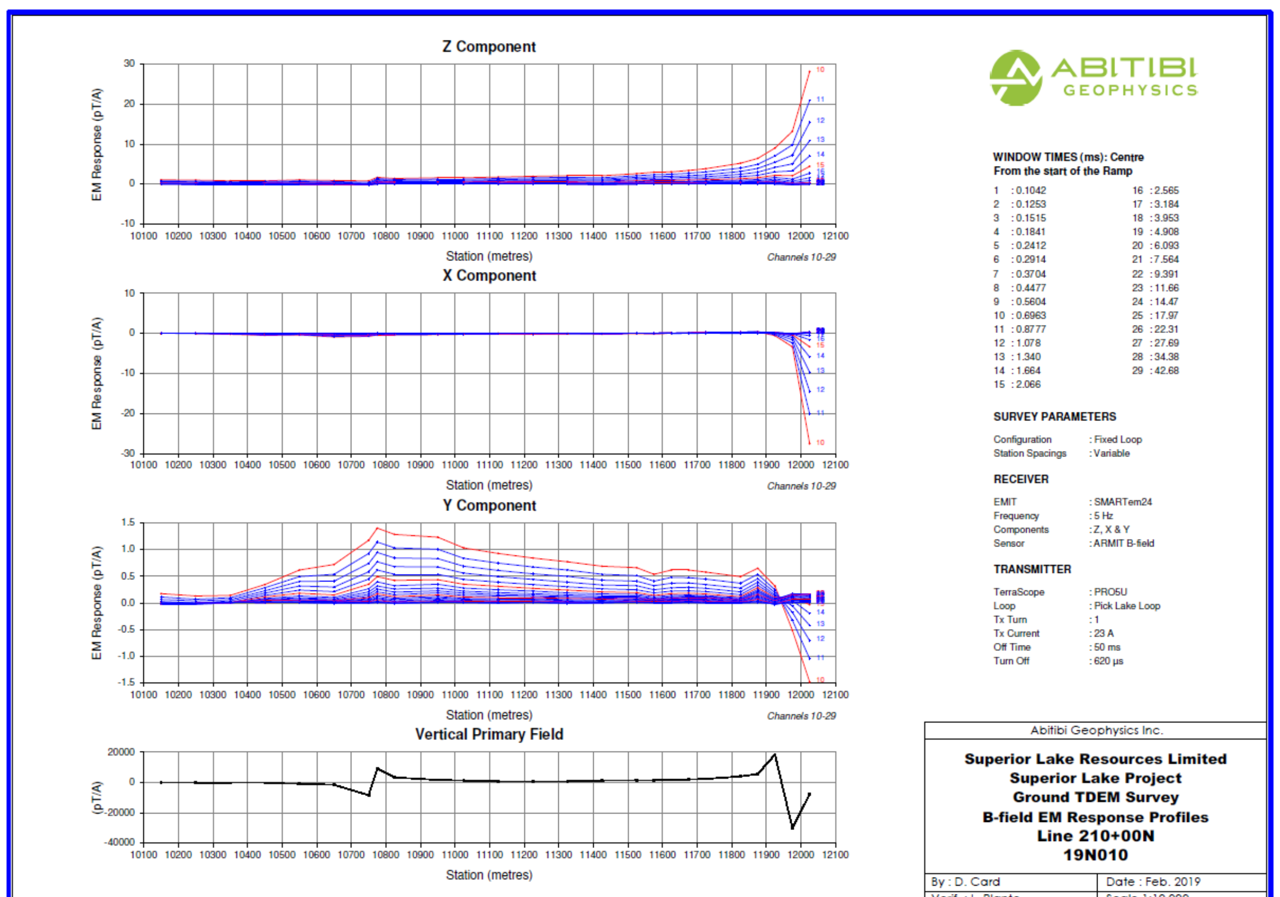
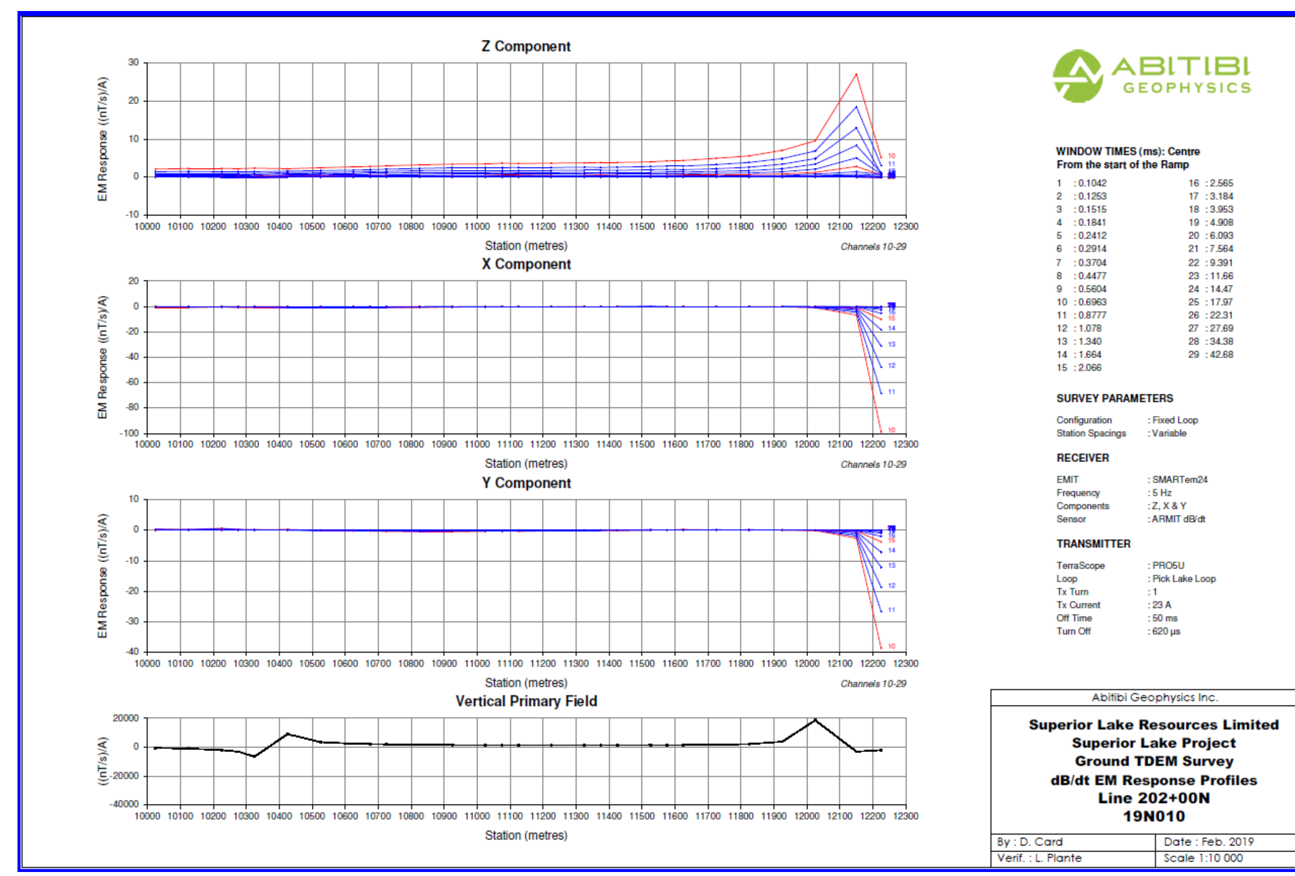
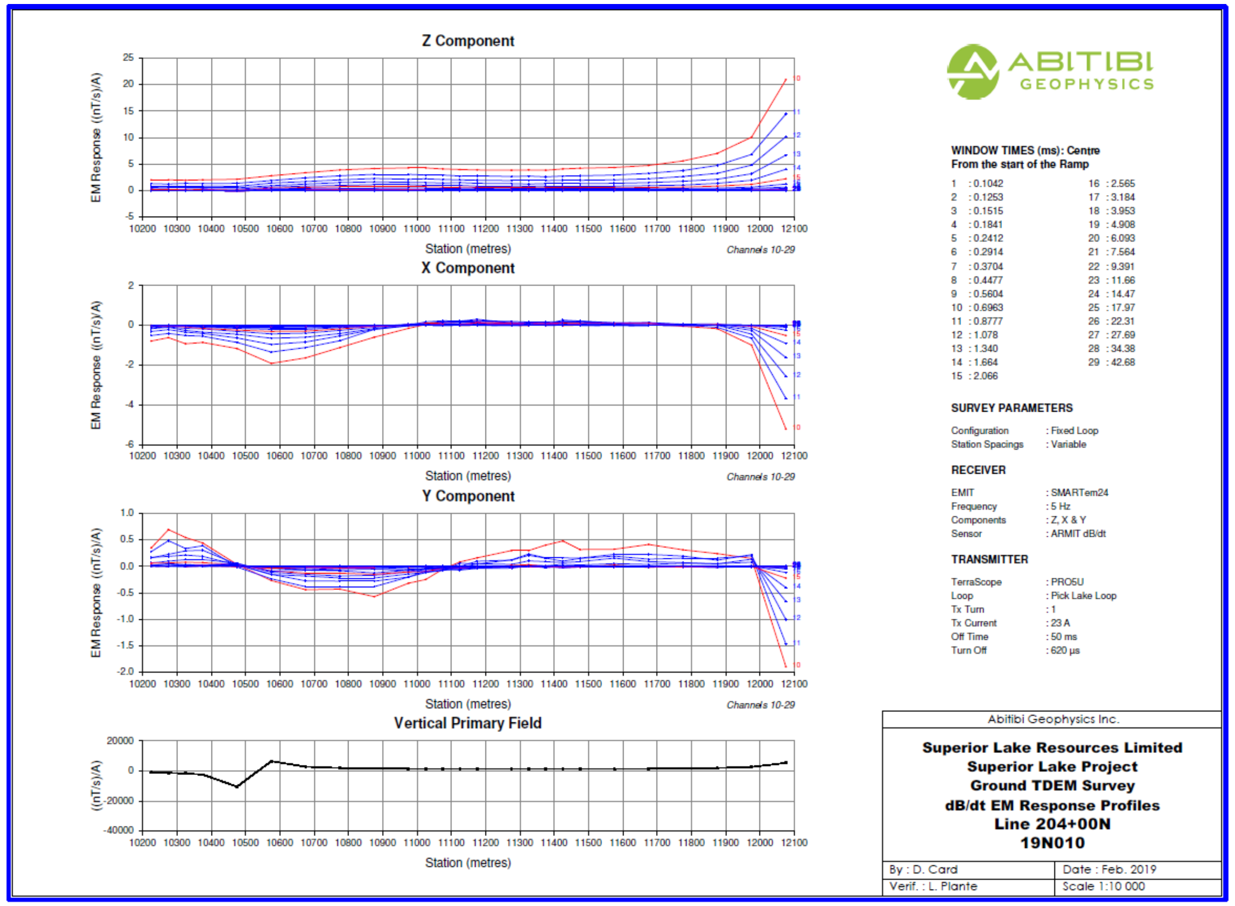
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 206+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

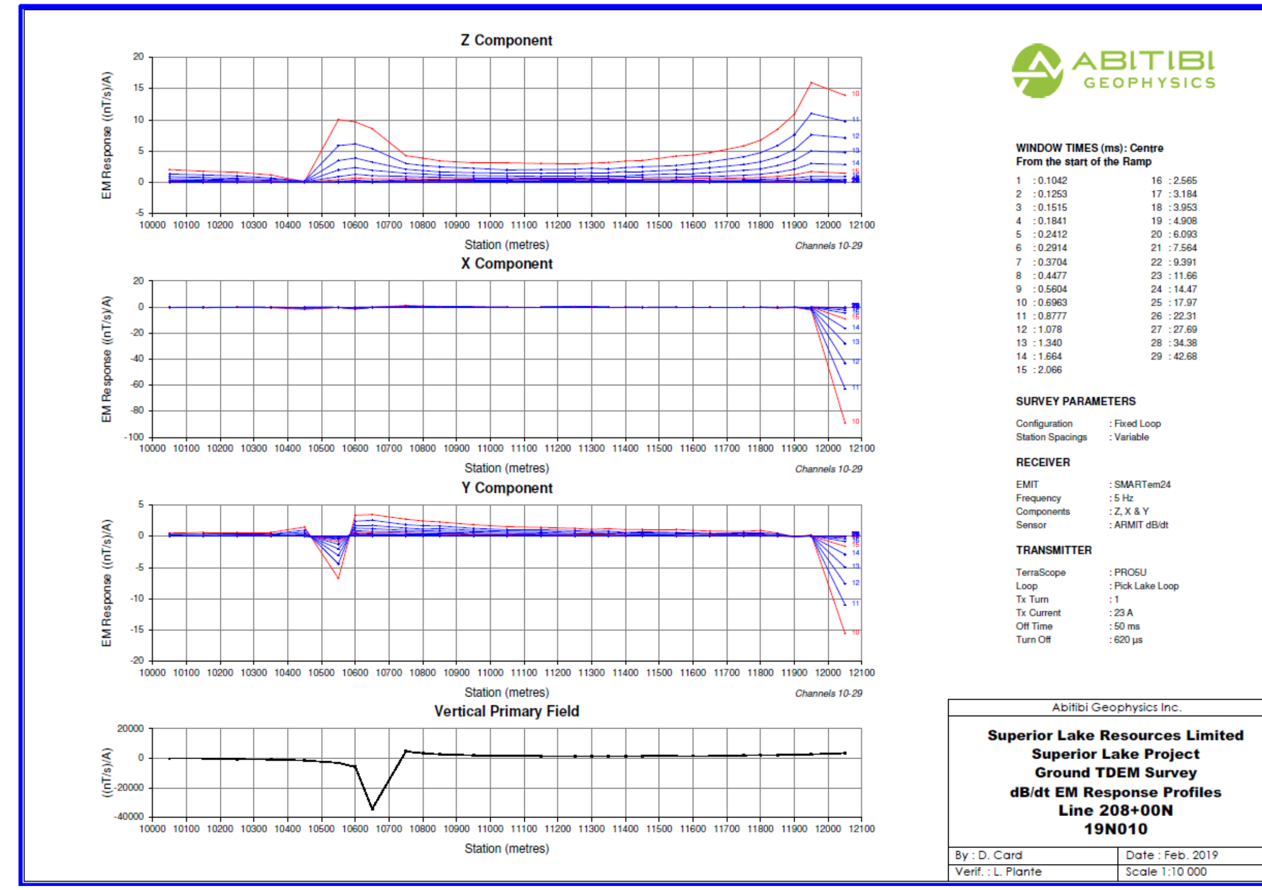

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 208+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response ((nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 200+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response ((nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 202+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response ((nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PROSU
Loop : Pick Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 204+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000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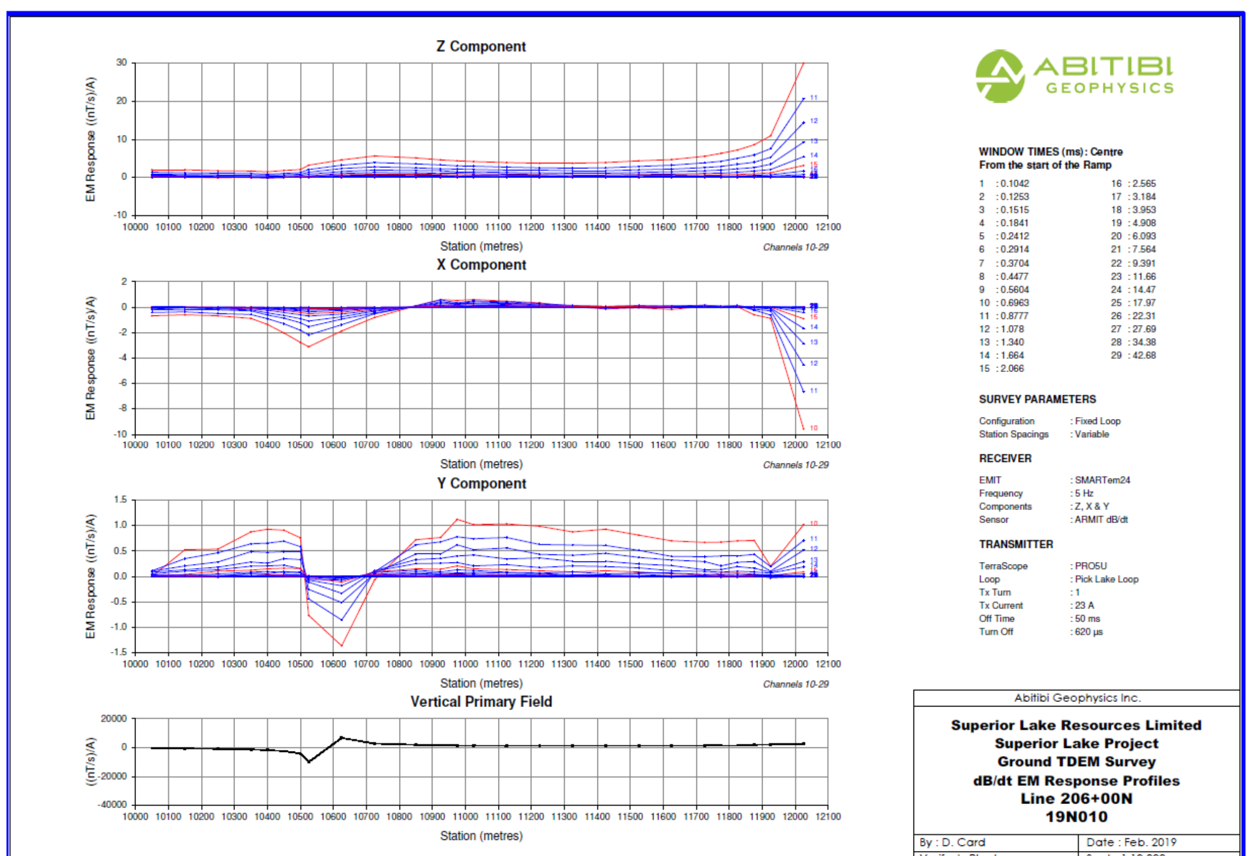
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response ((nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 208+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000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X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response ((nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 206+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
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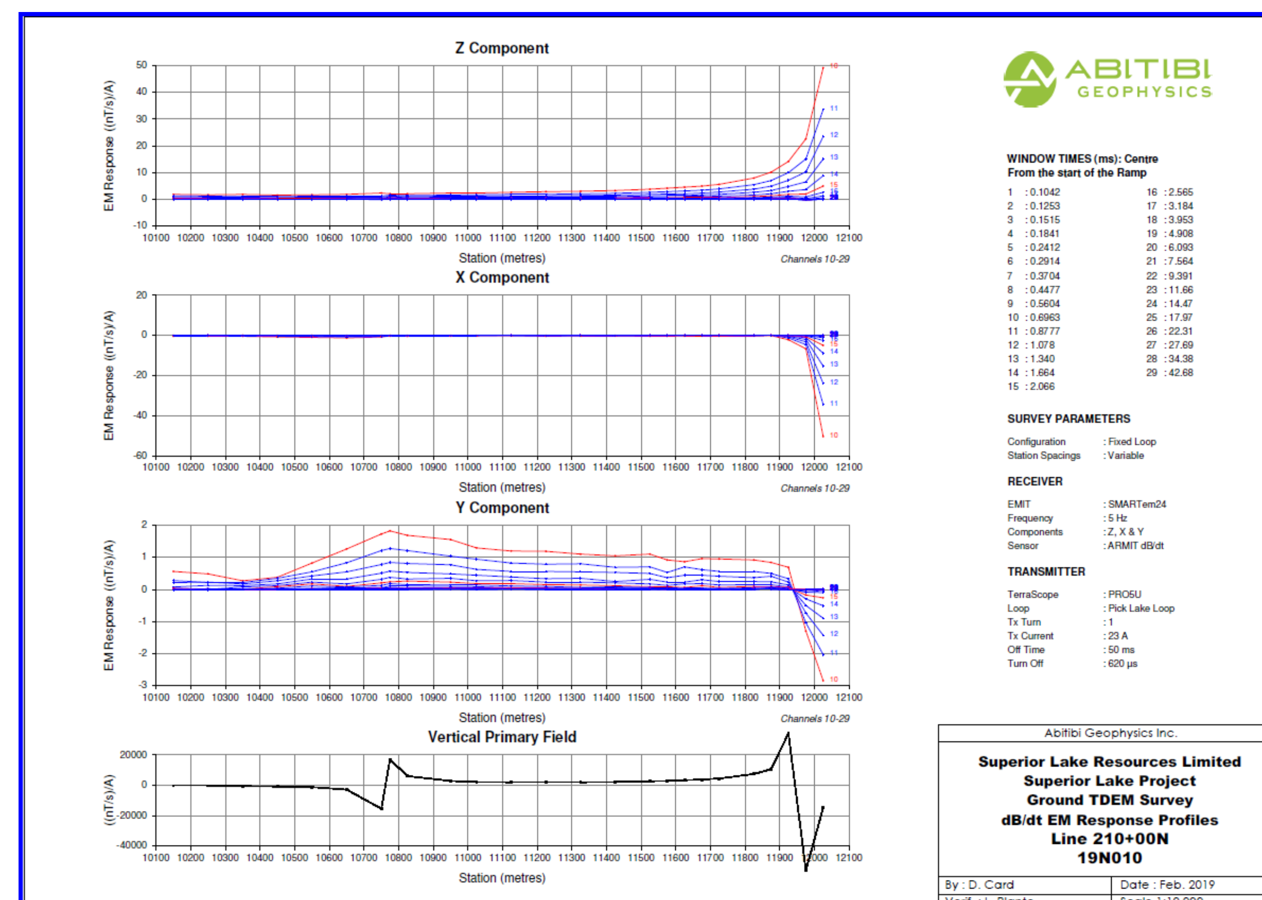
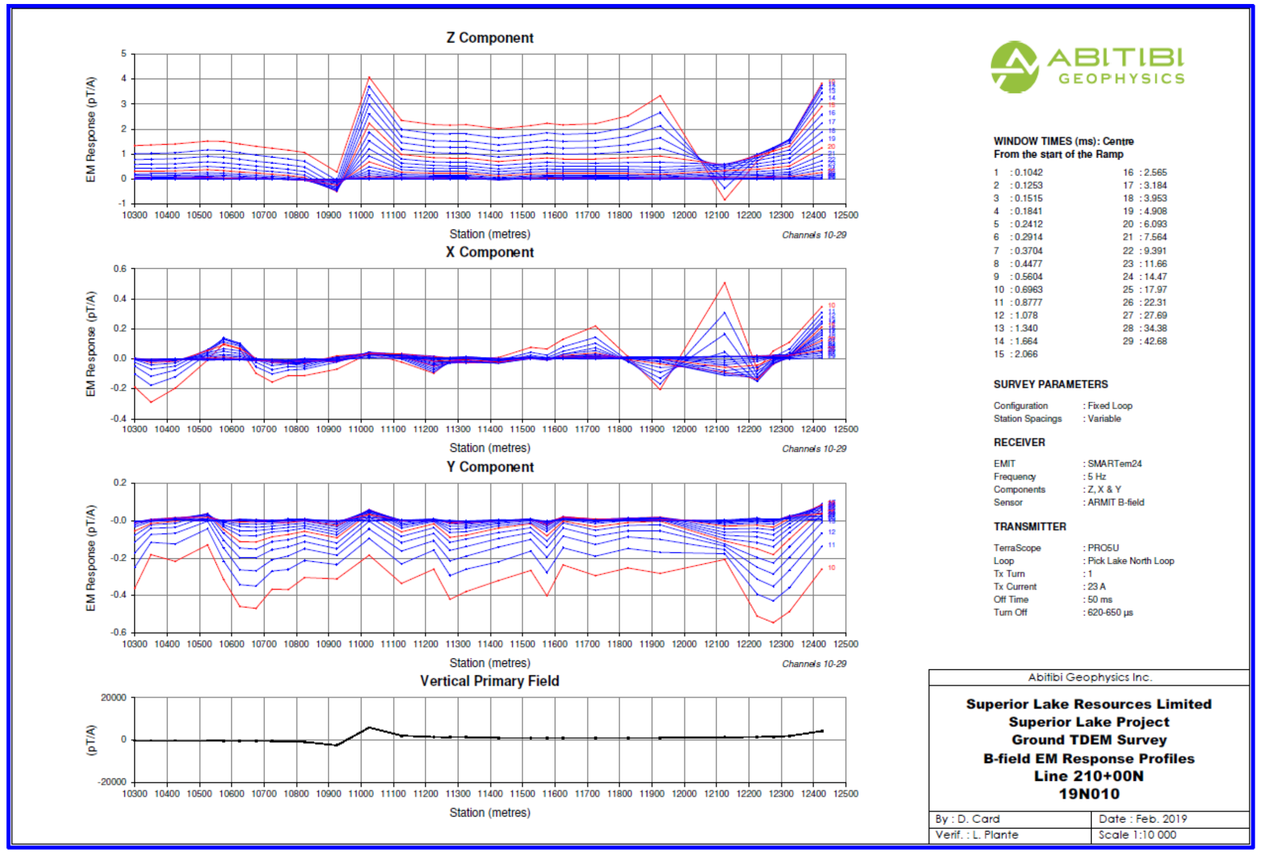
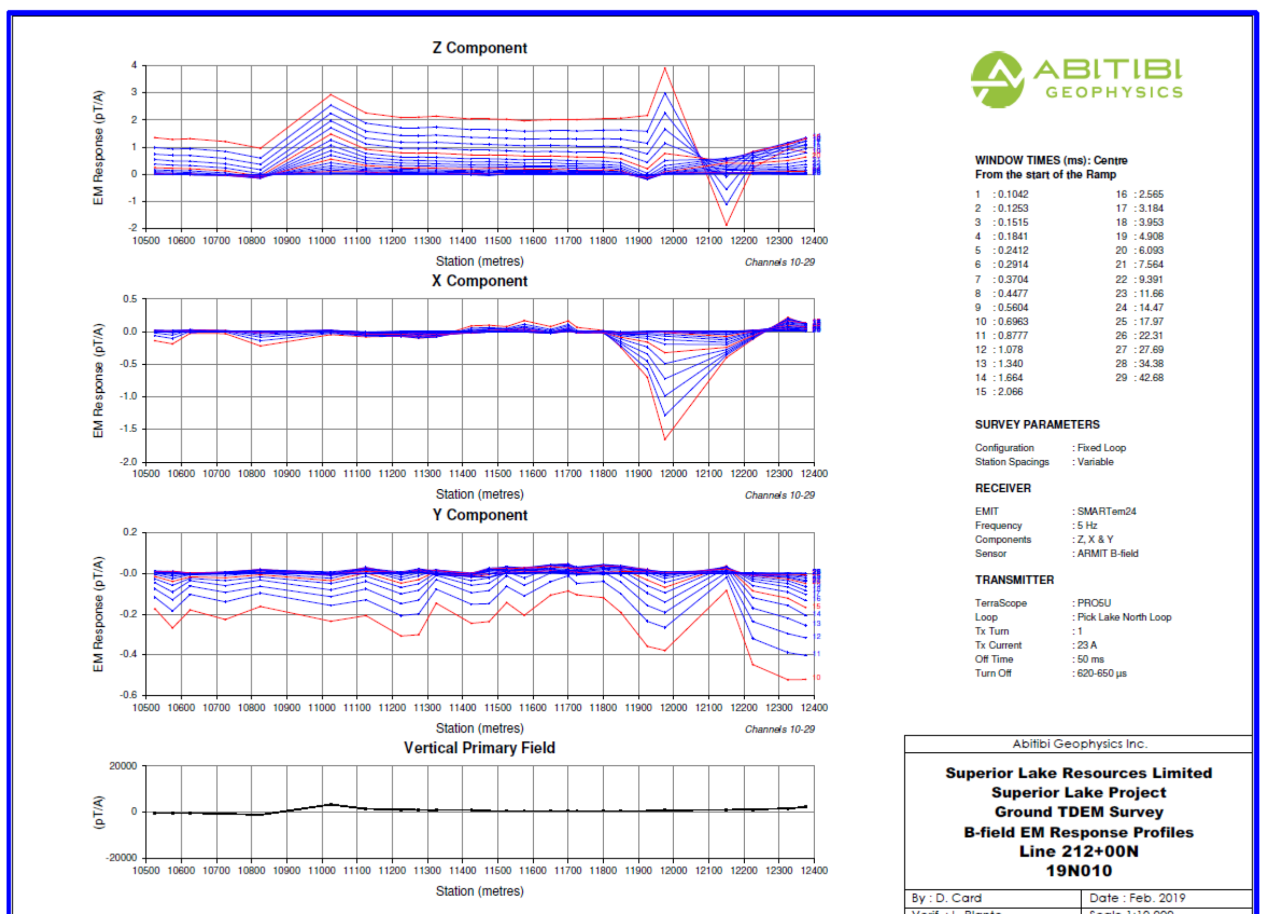
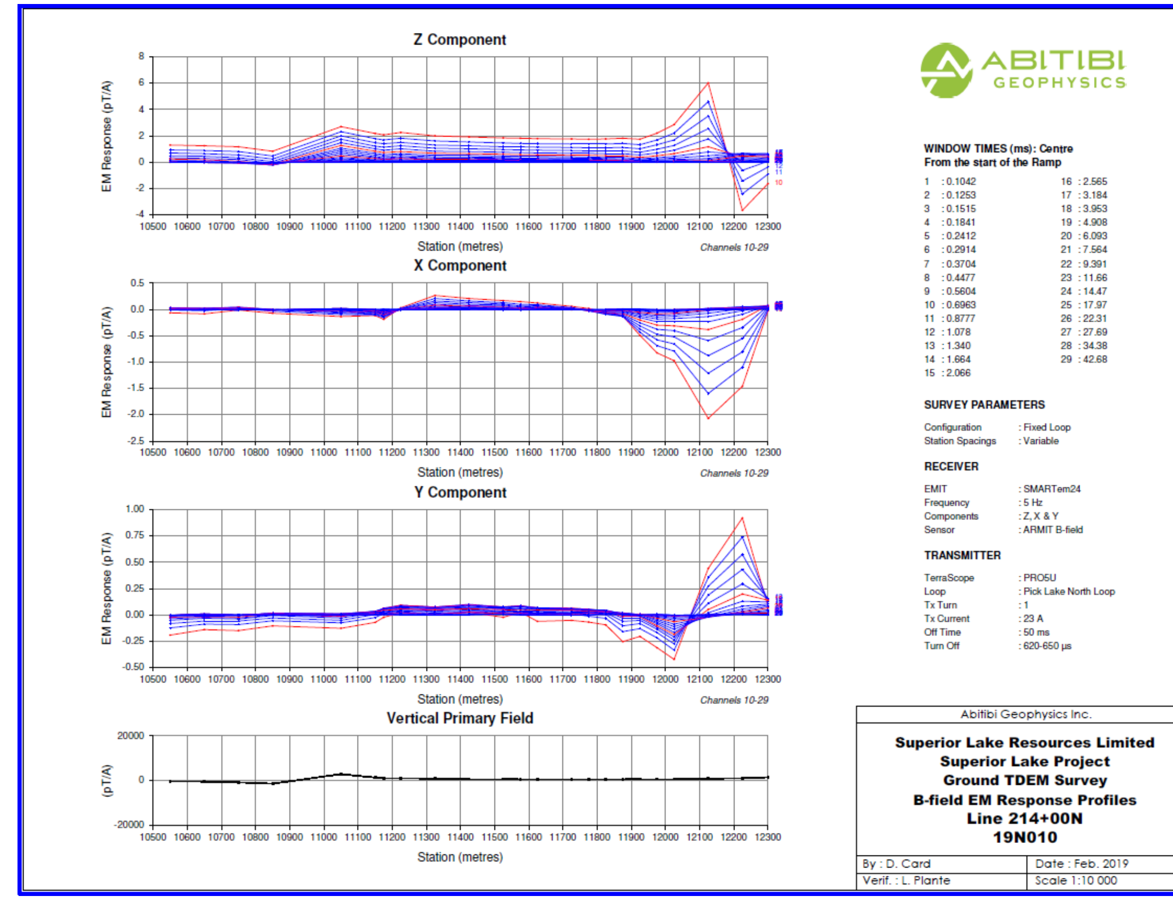
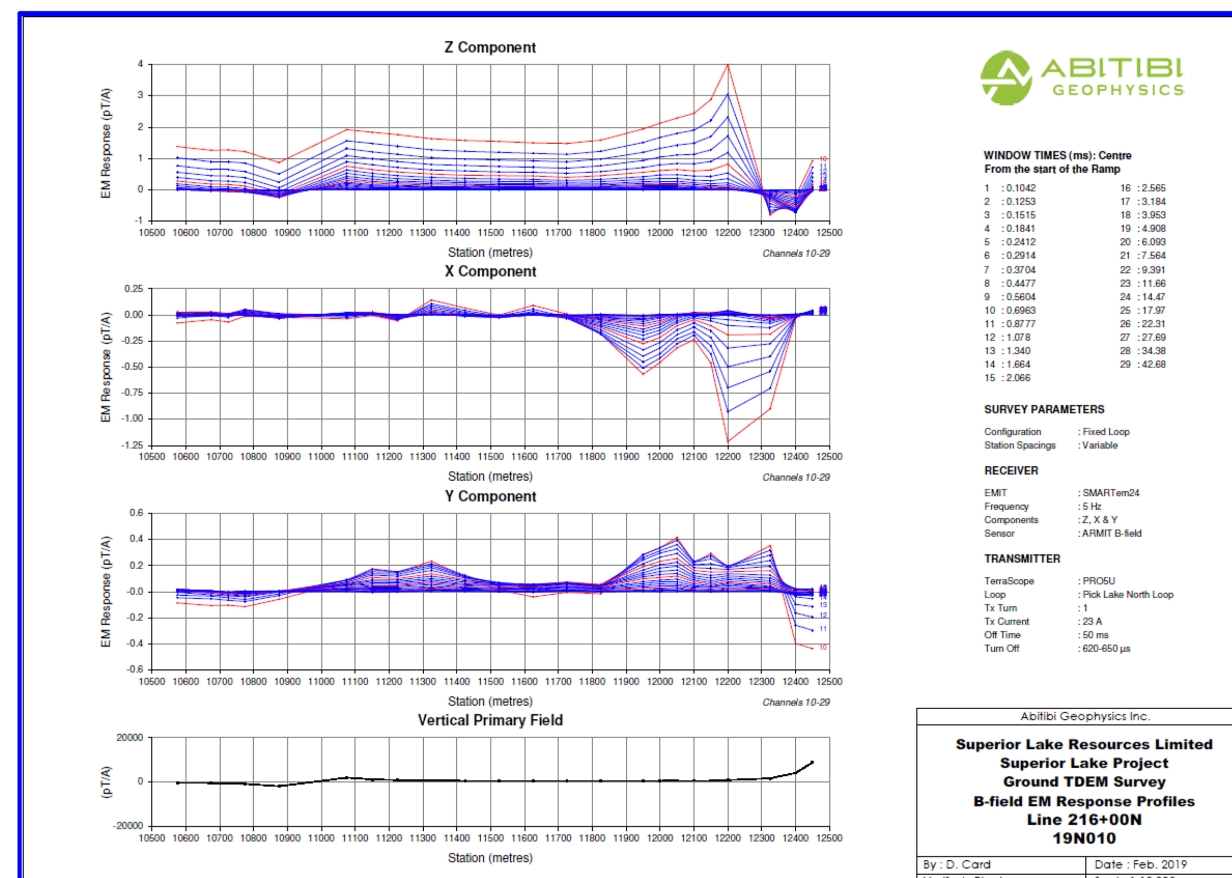
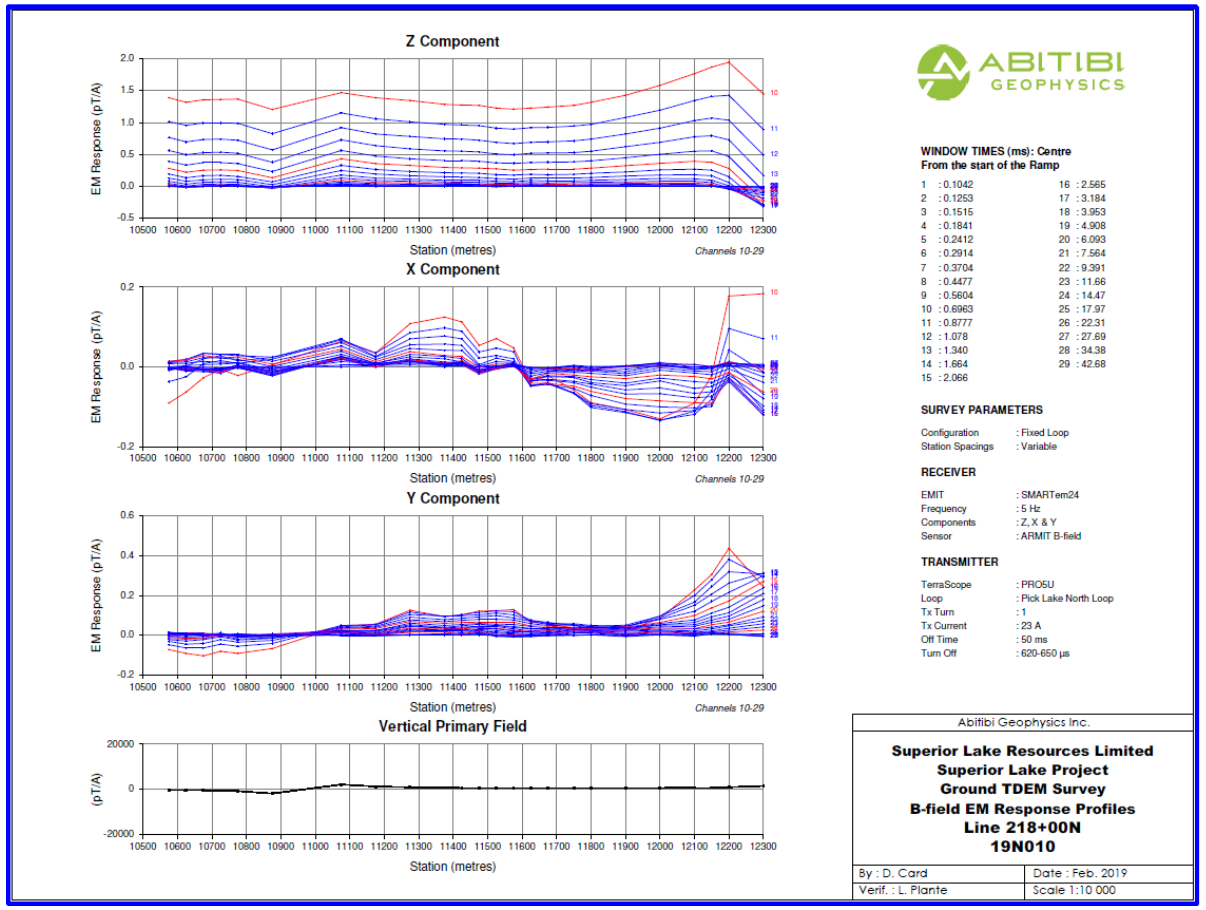

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response ((nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

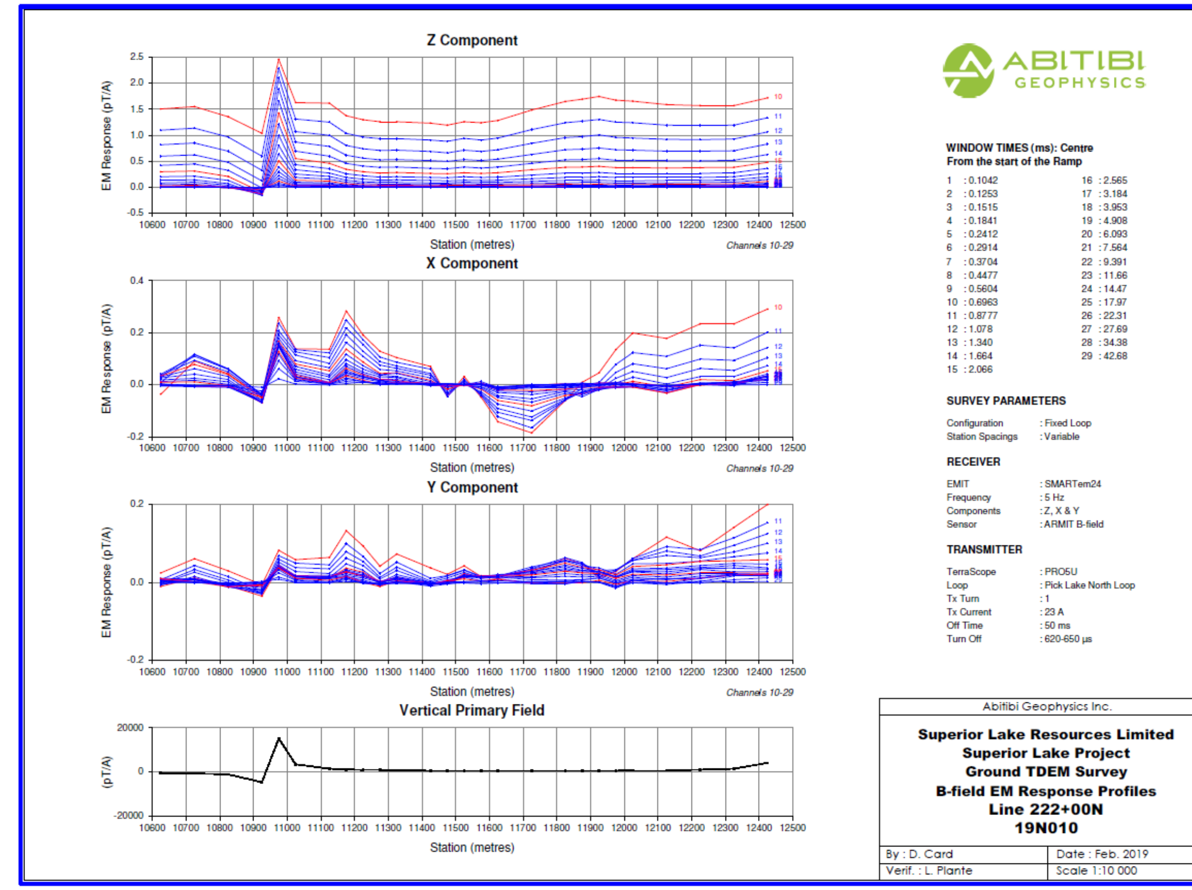

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

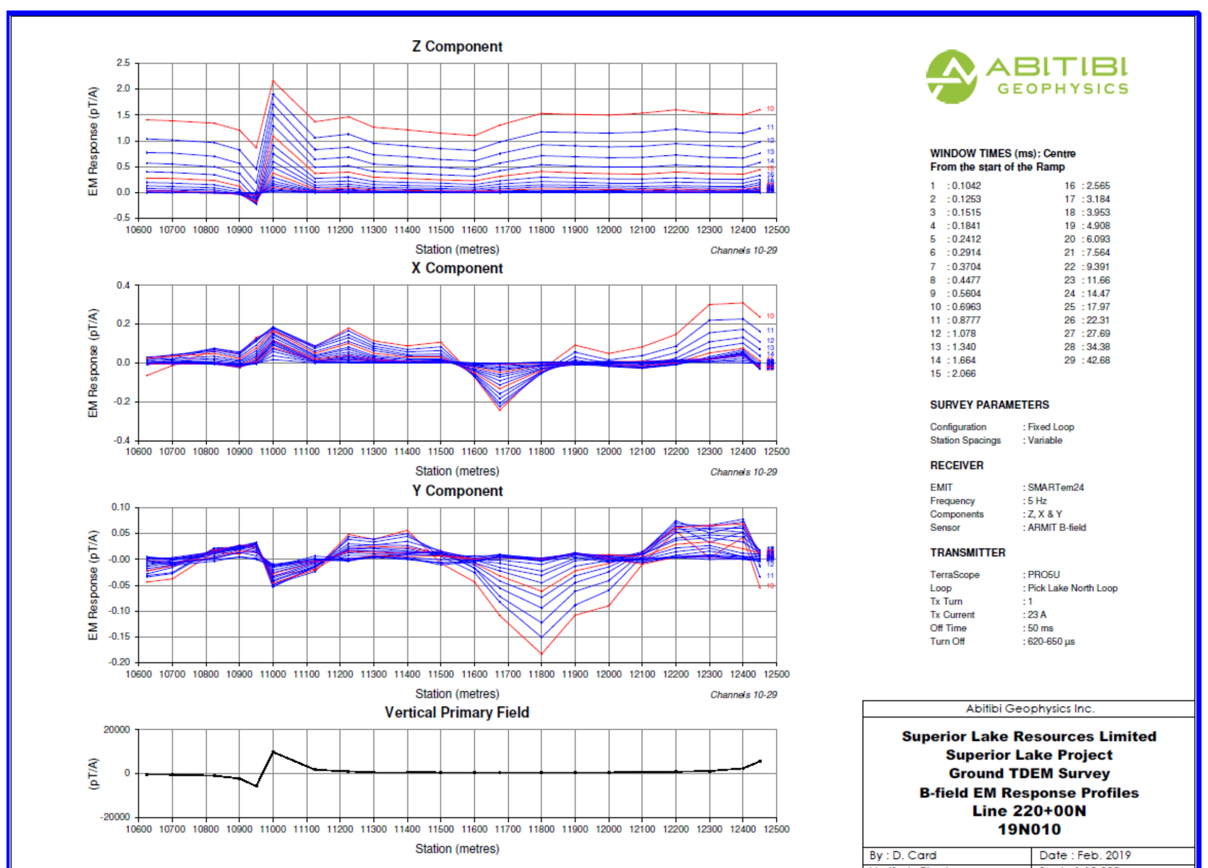

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 212+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

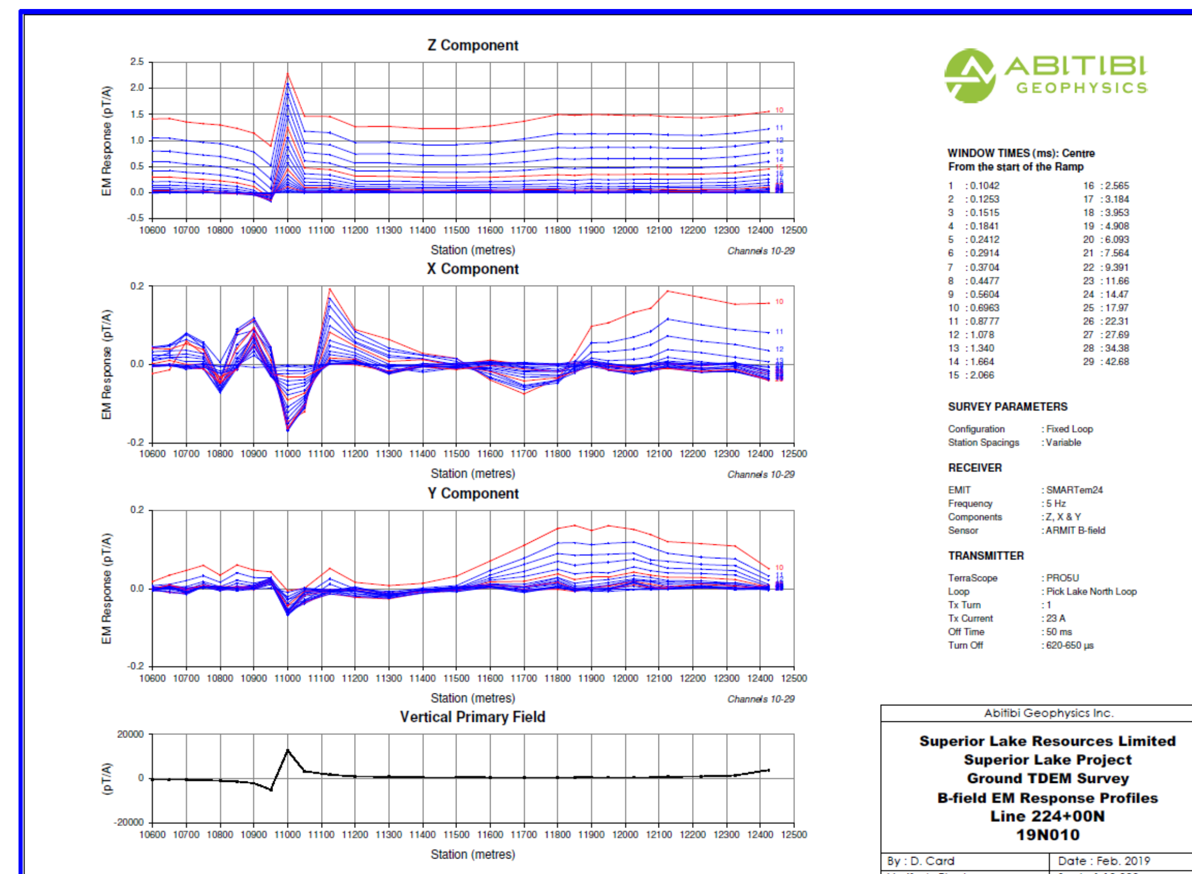

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 214+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 216+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042 16 : 2.565
2 : 0.1253 17 : 3.184
3 : 0.1515 18 : 3.953
4 : 0.1841 19 : 4.908
5 : 0.2412 20 : 6.093
6 : 0.2914 21 : 7.564
7 : 0.3704 22 : 9.391
8 : 0.4477 23 : 11.66
9 : 0.5604 24 : 14.47
10 : 0.6963 25 : 17.97
11 : 0.8777 26 : 22.31
12 : 1.078 27 : 27.69
13 : 1.340 28 : 34.38
14 : 1.664 29 : 42.68
15 : 2.066
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 218+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042 16 : 2.565
2 : 0.1253 17 : 3.184
3 : 0.1515 18 : 3.953
4 : 0.1841 19 : 4.908
5 : 0.2412 20 : 6.093
6 : 0.2914 21 : 7.564
7 : 0.3704 22 : 9.391
8 : 0.4477 23 : 11.66
9 : 0.5604 24 : 14.47
10 : 0.6963 25 : 17.97
11 : 0.8777 26 : 22.31
12 : 1.078 27 : 27.69
13 : 1.340 28 : 34.38
14 : 1.664 29 : 42.68
15 : 2.066
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 222+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042 16 : 2.565
2 : 0.1253 17 : 3.184
3 : 0.1515 18 : 3.953
4 : 0.1841 19 : 4.908
5 : 0.2412 20 : 6.093
6 : 0.2914 21 : 7.564
7 : 0.3704 22 : 9.391
8 : 0.4477 23 : 11.66
9 : 0.5604 24 : 14.47
10 : 0.6963 25 : 17.97
11 : 0.8777 26 : 22.31
12 : 1.078 27 : 27.69
13 : 1.340 28 : 34.38
14 : 1.664 29 : 42.68
15 : 2.066
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 220+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000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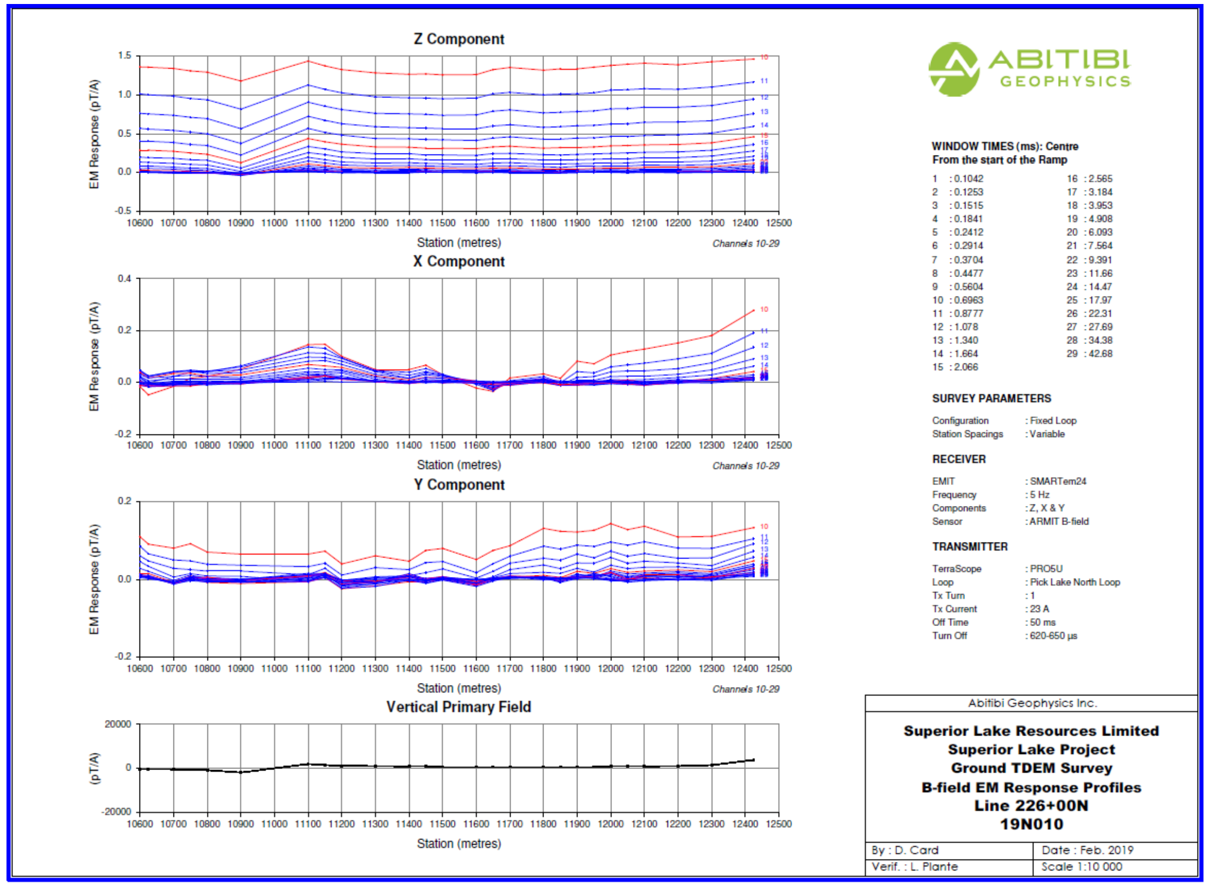
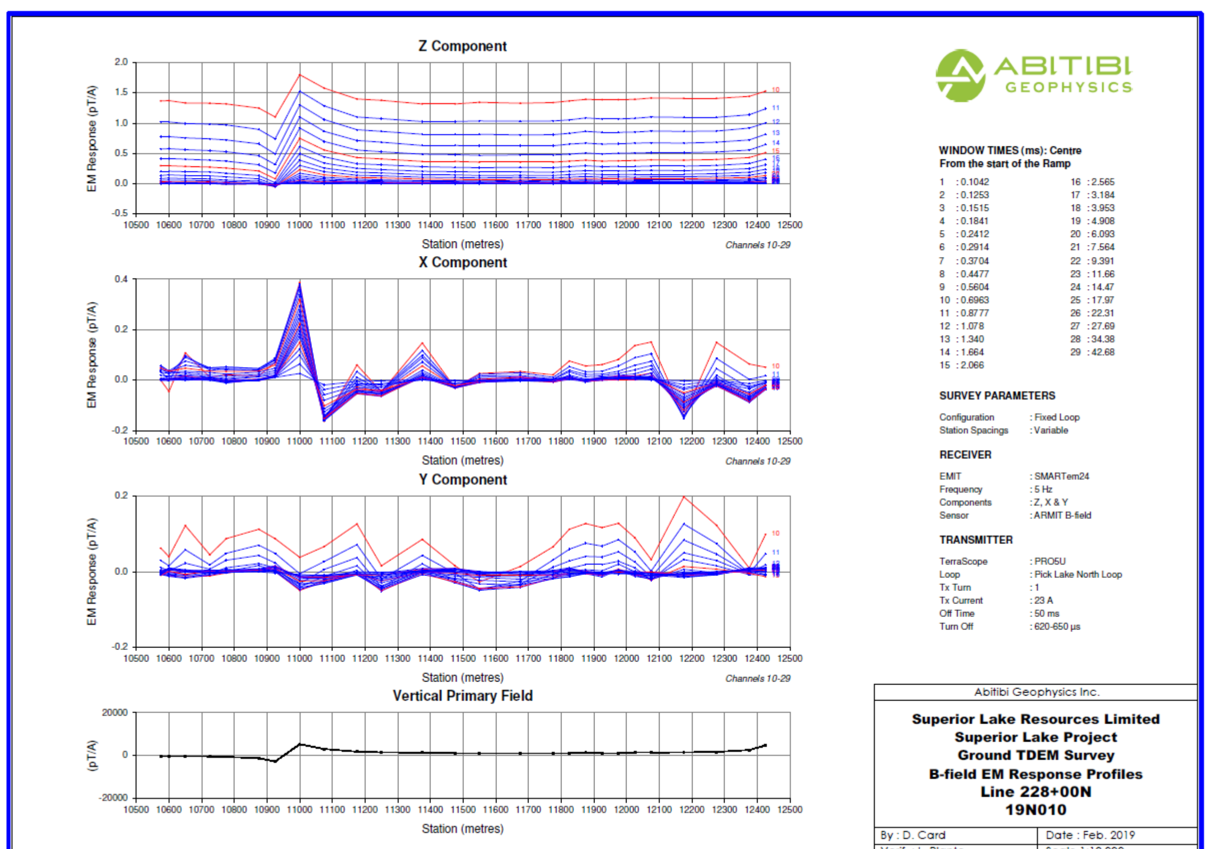
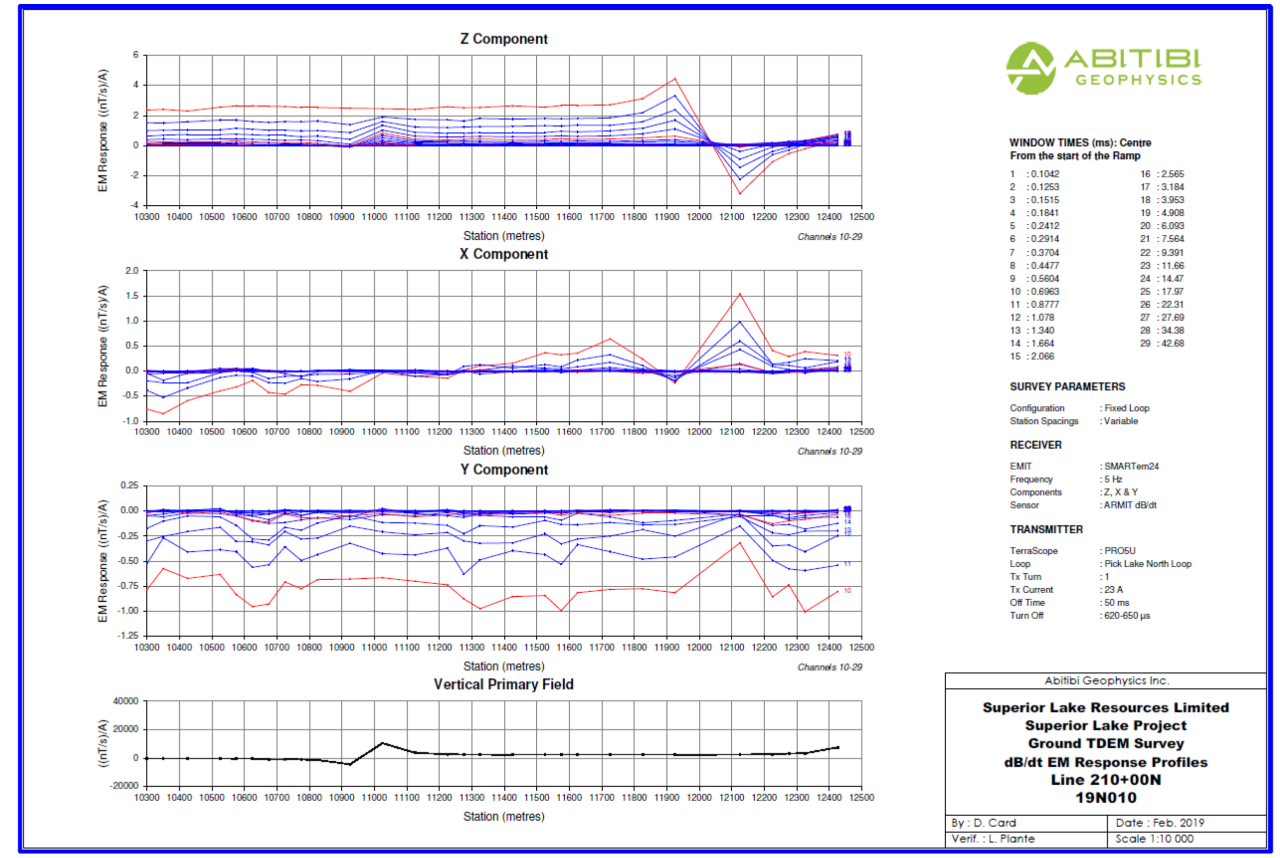
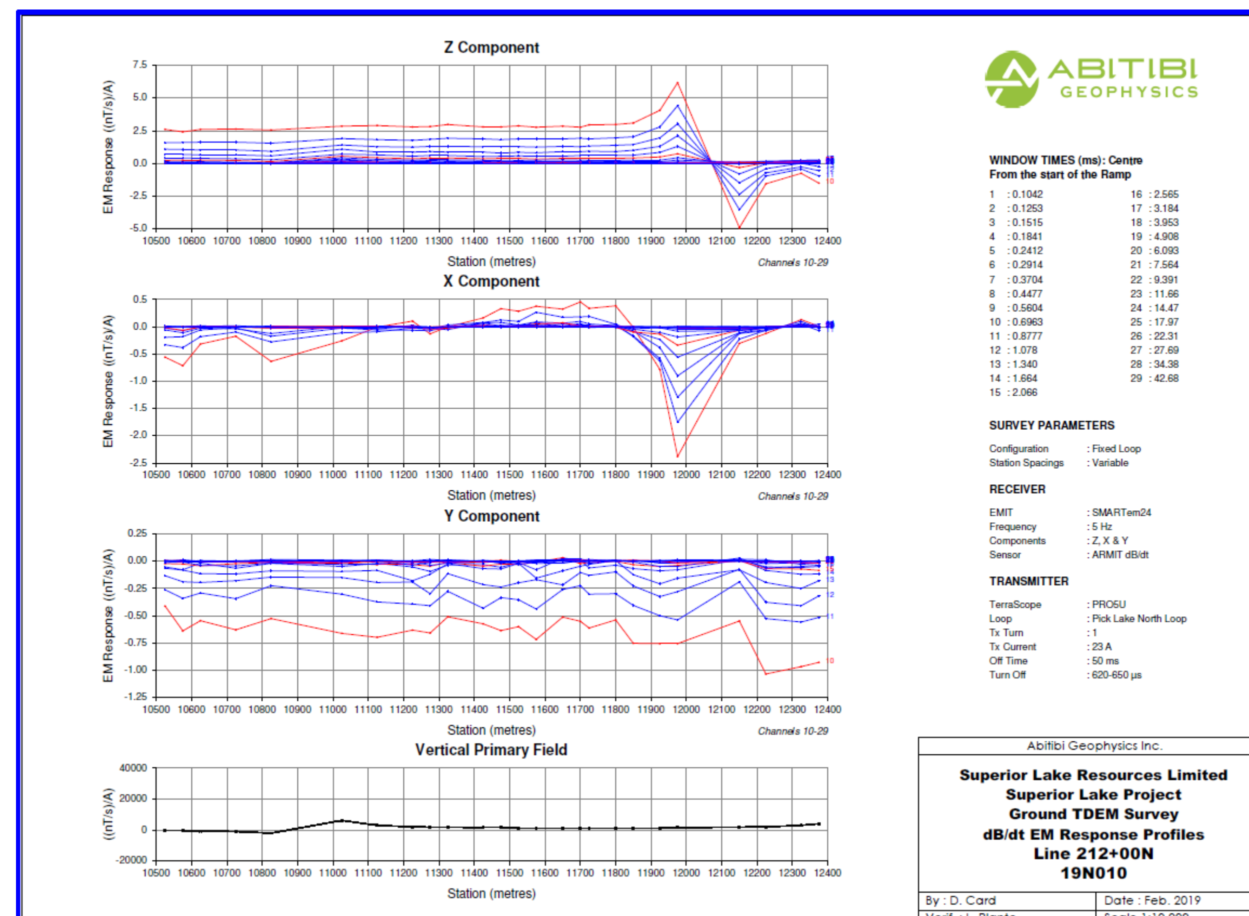
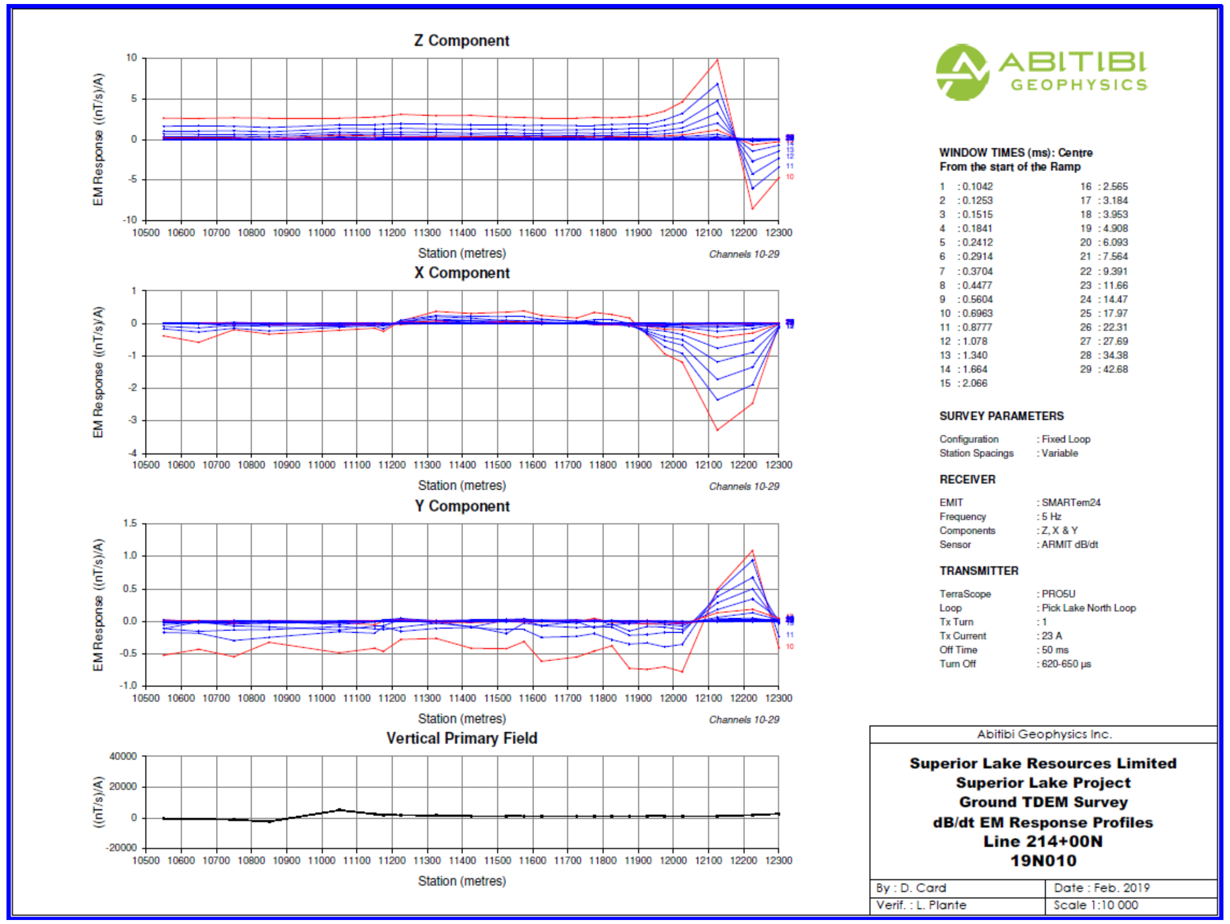
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042 16 : 2.565
2 : 0.1253 17 : 3.184
3 : 0.1515 18 : 3.953
4 : 0.1841 19 : 4.908
5 : 0.2412 20 : 6.093
6 : 0.2914 21 : 7.564
7 : 0.3704 22 : 9.391
8 : 0.4477 23 : 11.66
9 : 0.5604 24 : 14.47
10 : 0.6963 25 : 17.97
11 : 0.8777 26 : 22.31
12 : 1.078 27 : 27.69
13 : 1.340 28 : 34.38
14 : 1.664 29 : 42.68
15 : 2.066
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 224+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

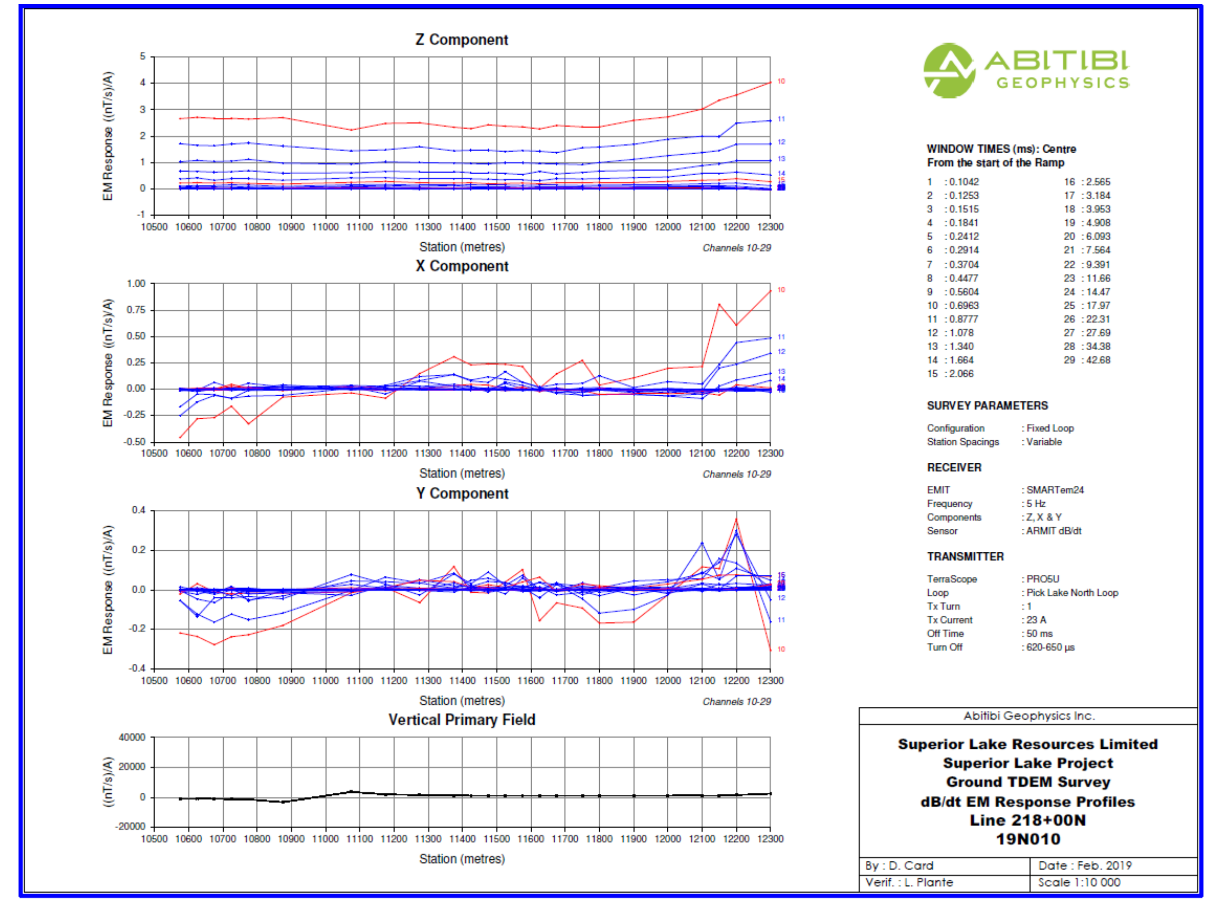

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 226+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

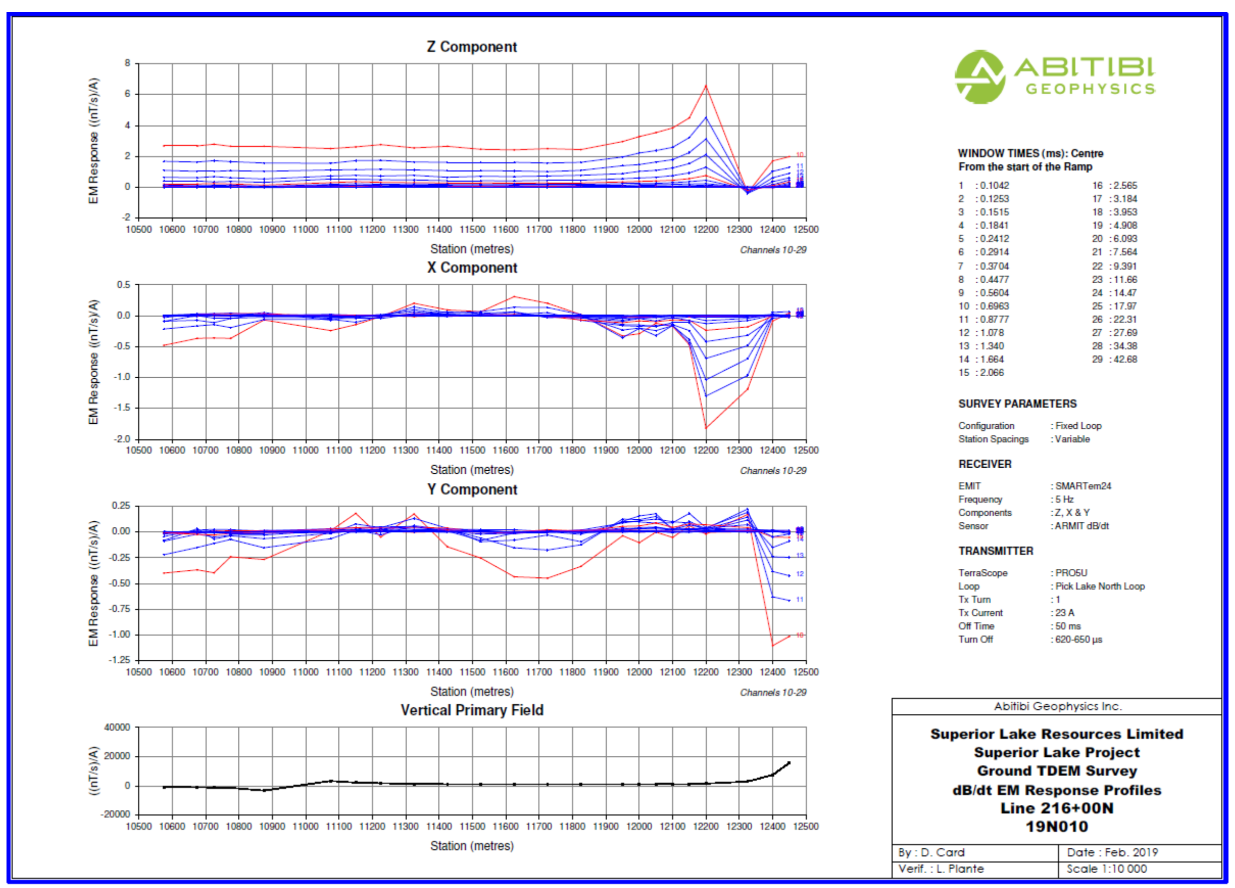

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 228+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

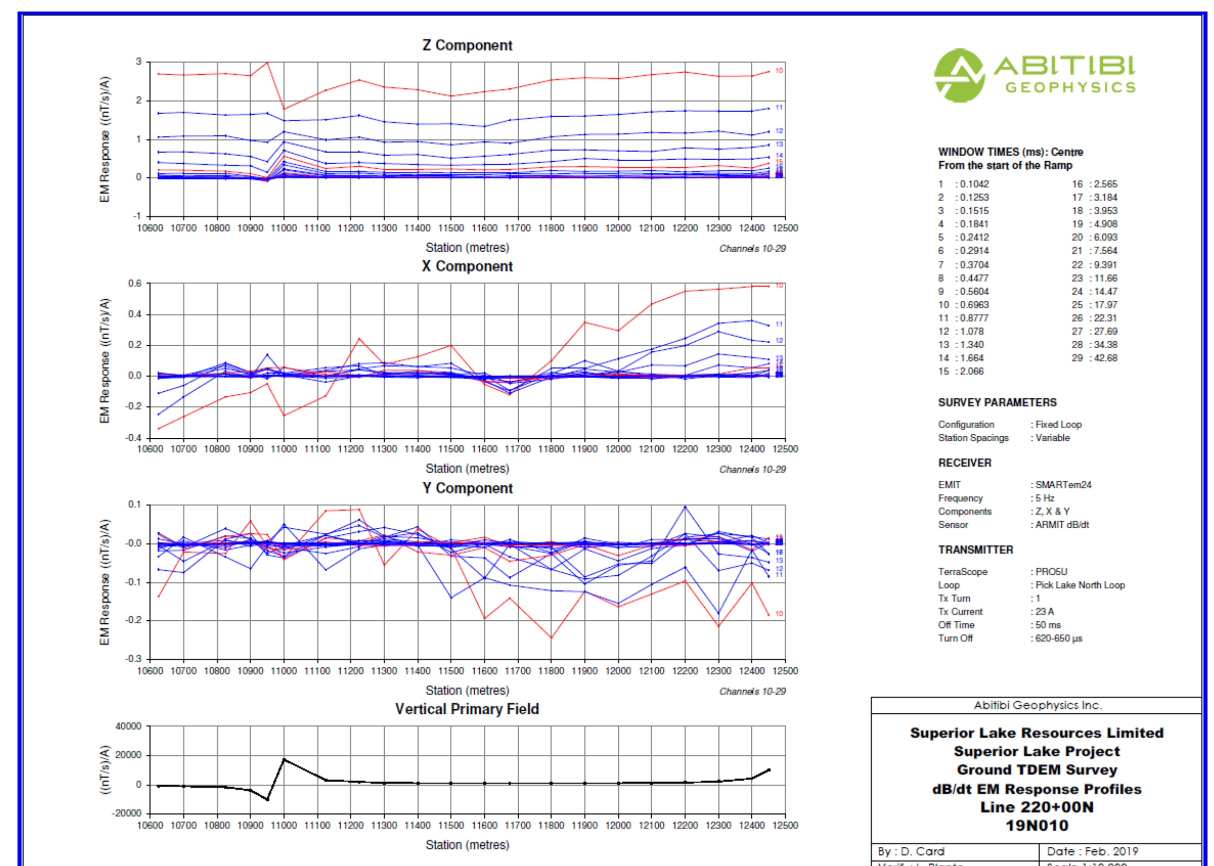

Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

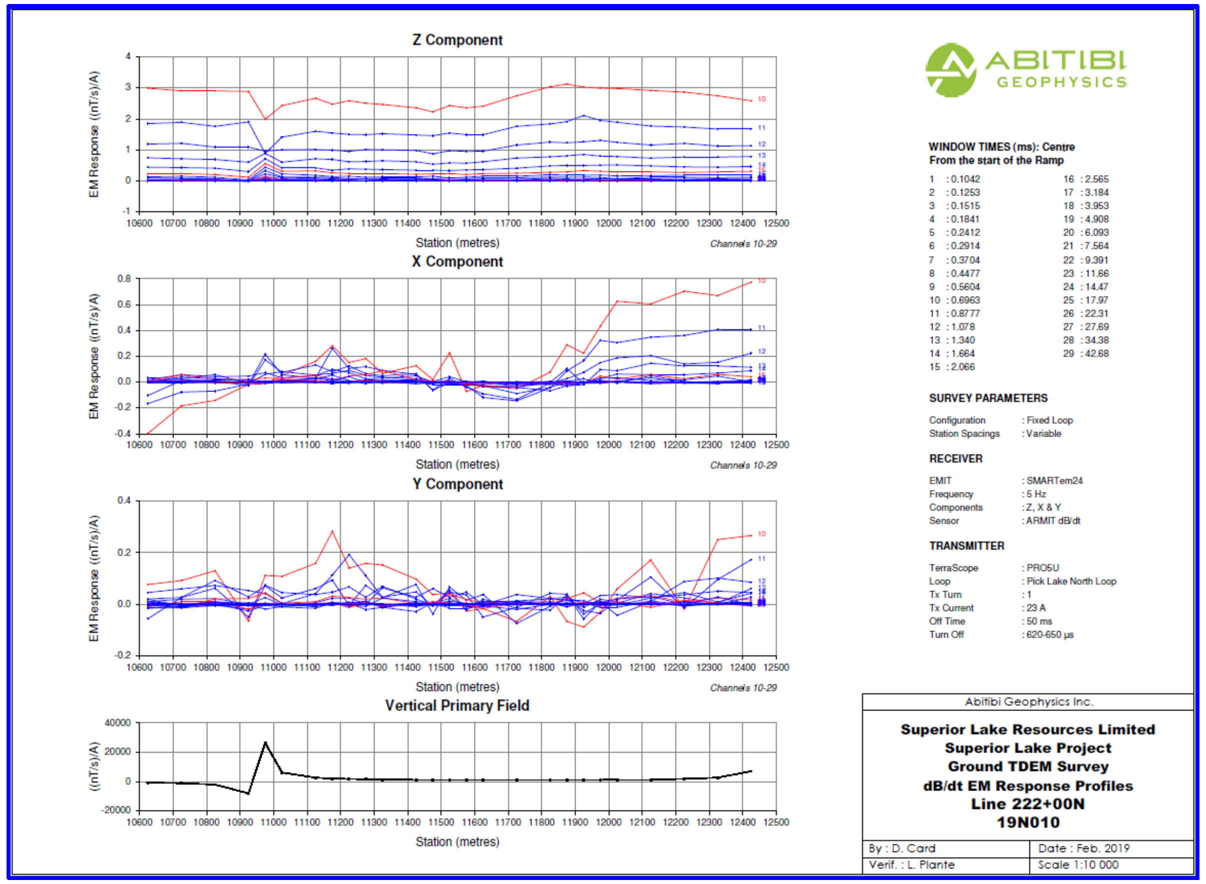

Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 212+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

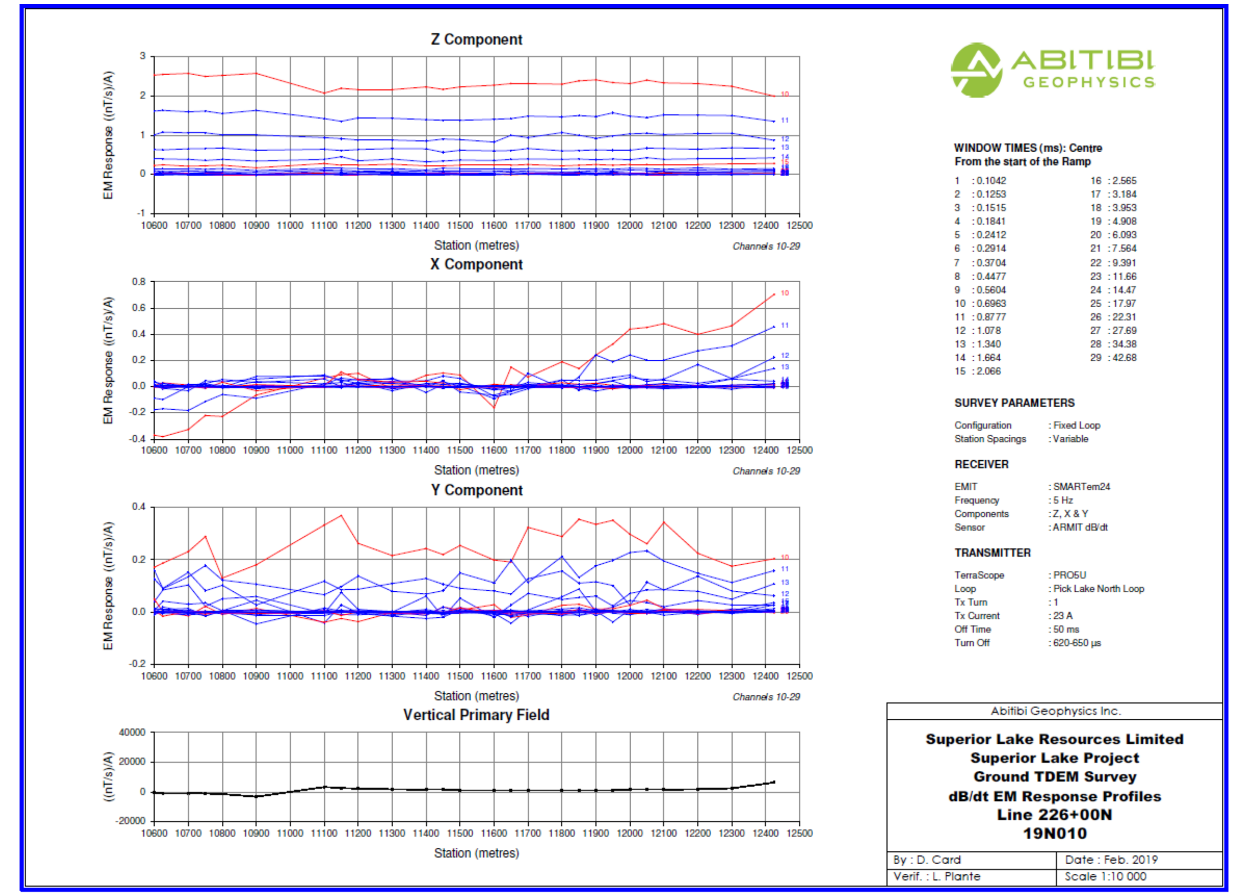

Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 :0.1042 16 :2.565
2 :0.1253 17 :3.184
3 :0.1515 18 :3.953
4 :0.1841 19 :4.908
5 :0.2412 20 :6.093
6 :0.2914 21 :7.564
7 :0.3704 22 :9.391
8 :0.4477 23 :11.66
9 :0.5604 24 :14.47
10 :0.6963 25 :17.97
11 :0.8777 26 :22.31
12 :1.078 27 :27.69
13 :1.340 28 :34.38
14 :1.664 29 :42.68
15 :2.066
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 214+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

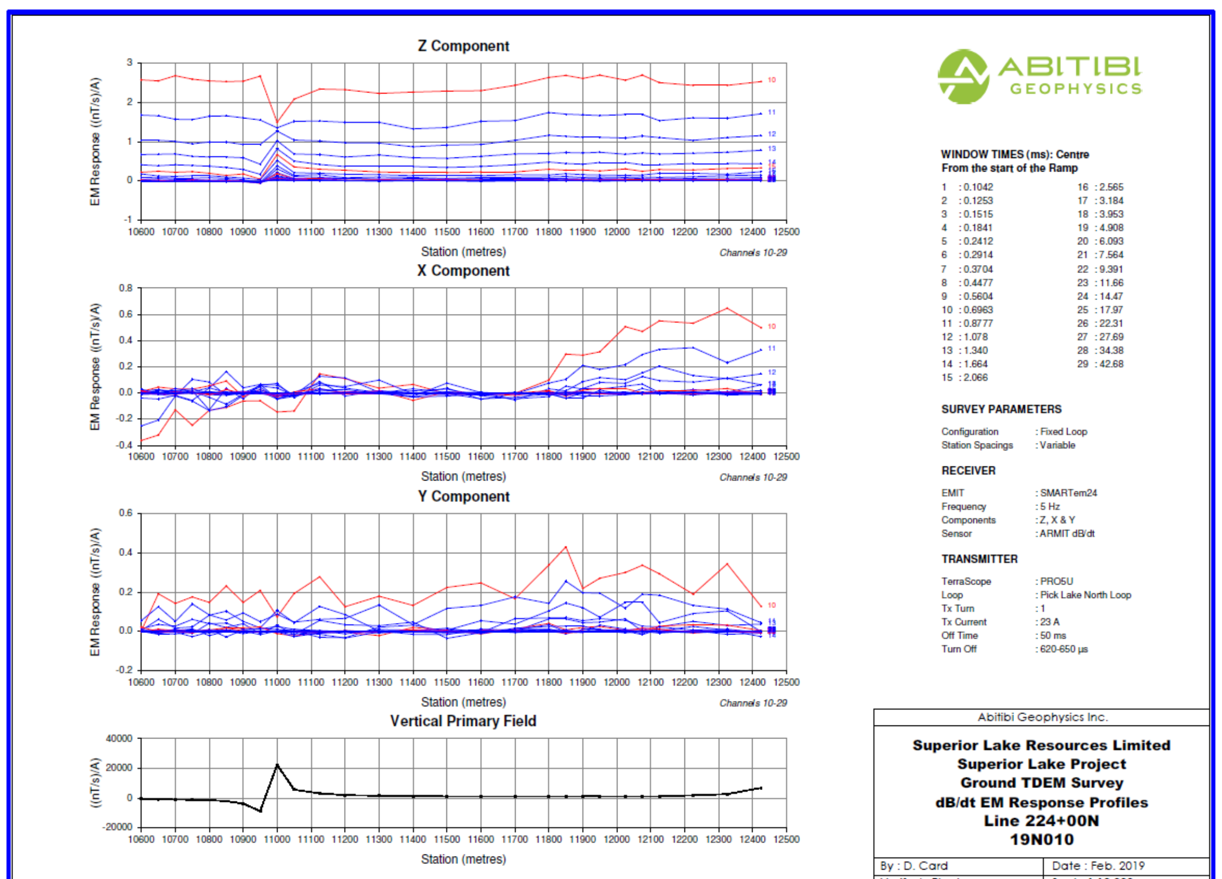

Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 218+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 216+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Pick Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-650 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 220+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 222+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 226+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 224+00N
19N010
By : D. Card
Date : Feb. 2019
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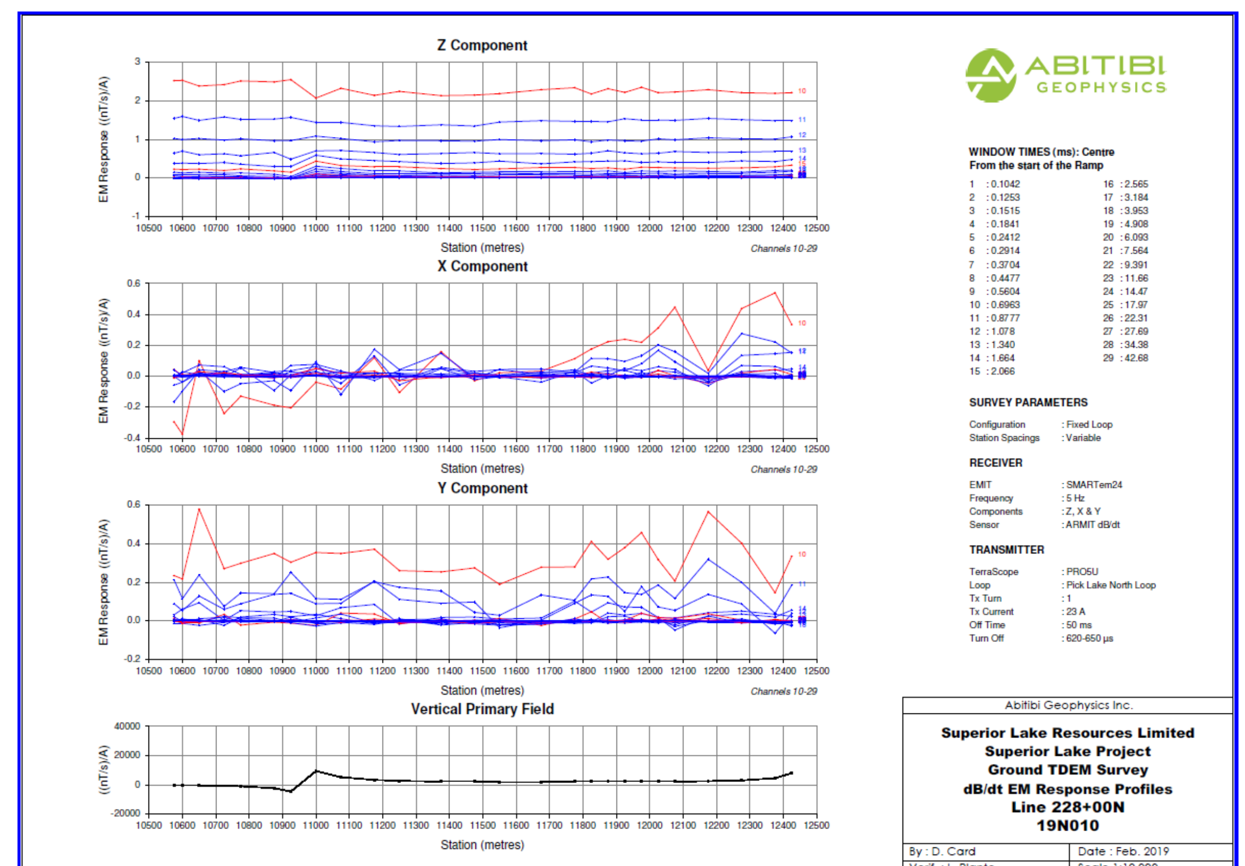
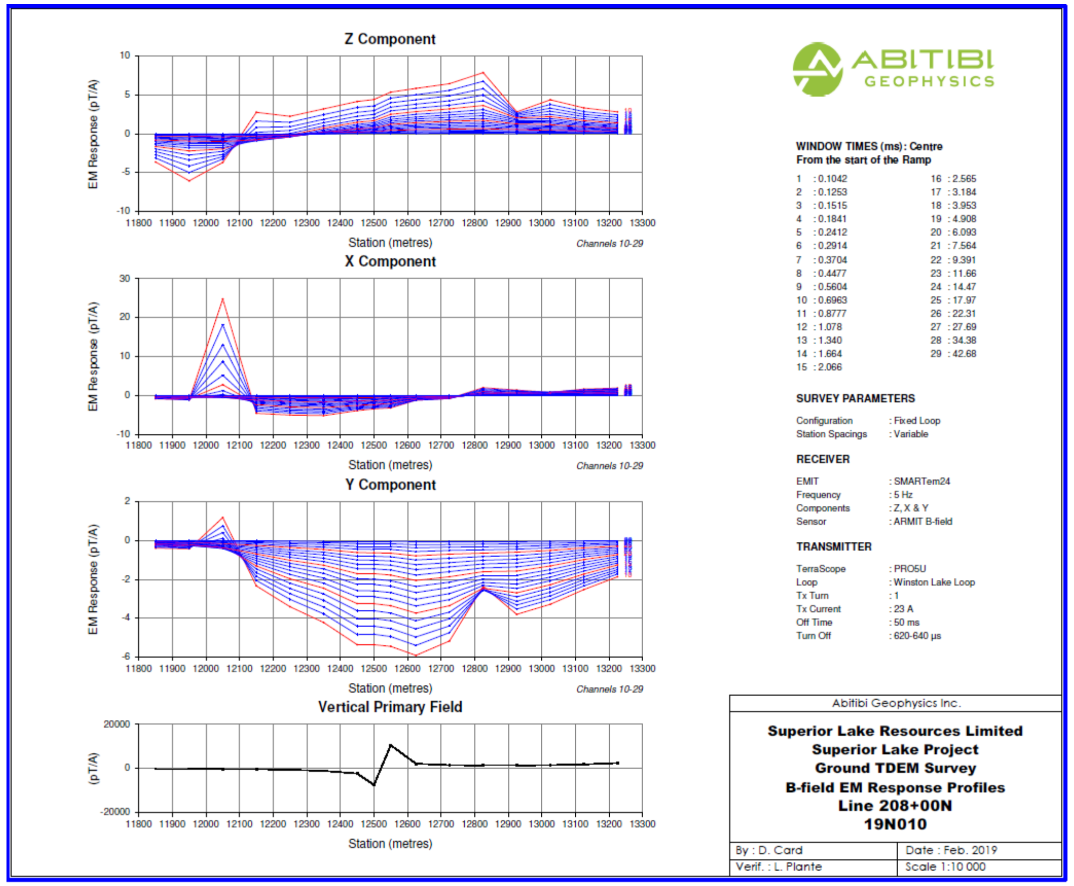
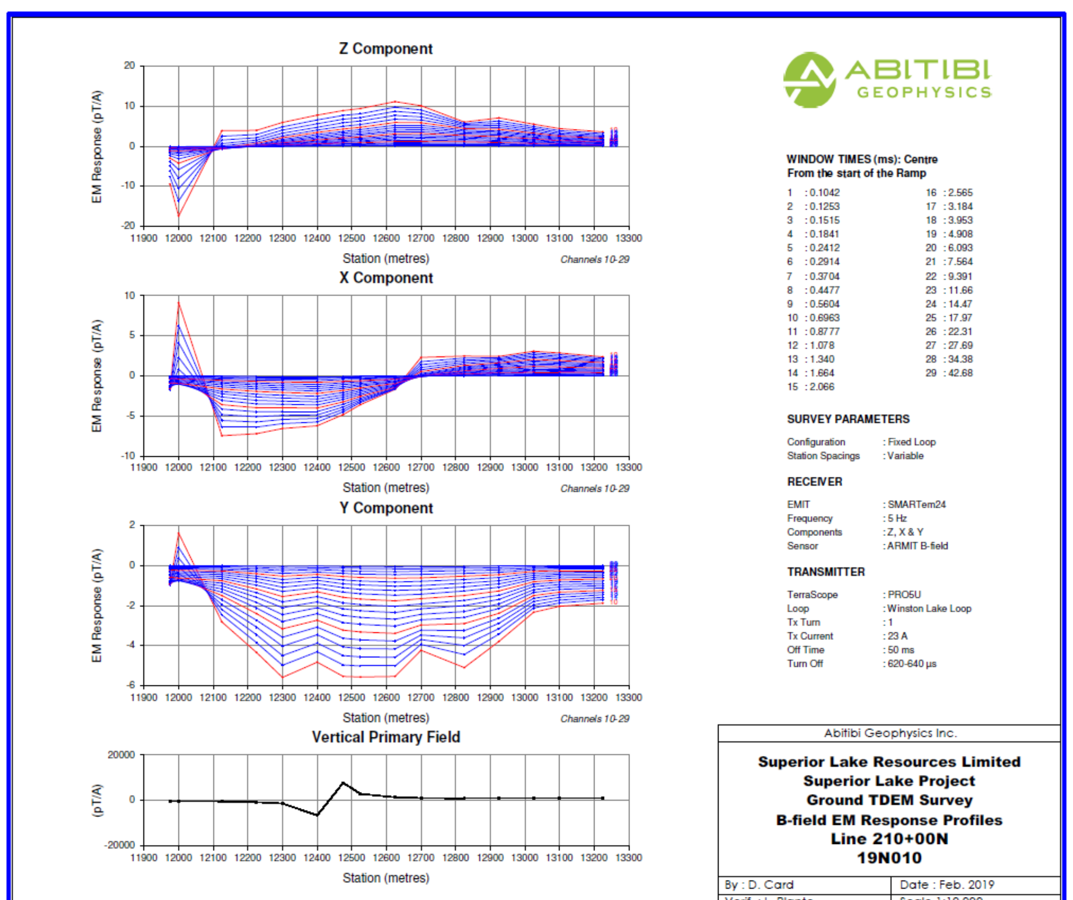
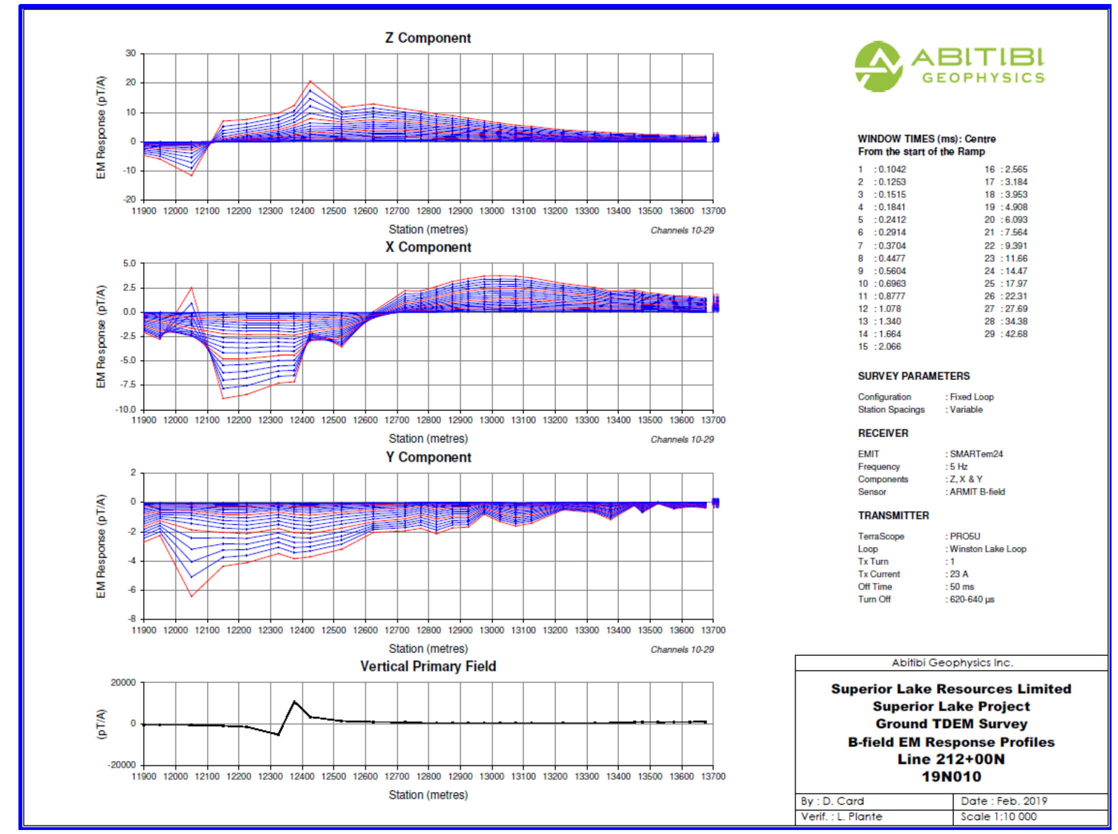
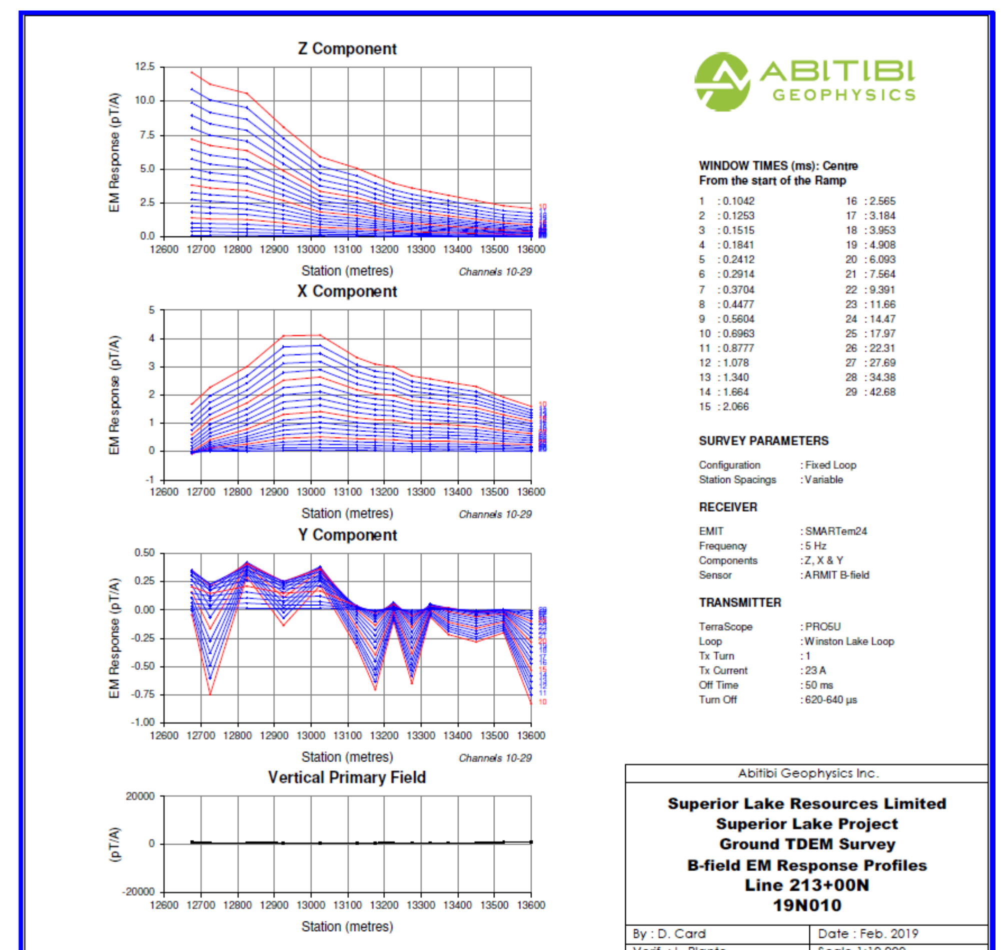
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (nT/s)/A)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 228+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 208+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 212+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 213+00N
19N010
By : D. Card
Date : Feb. 2019
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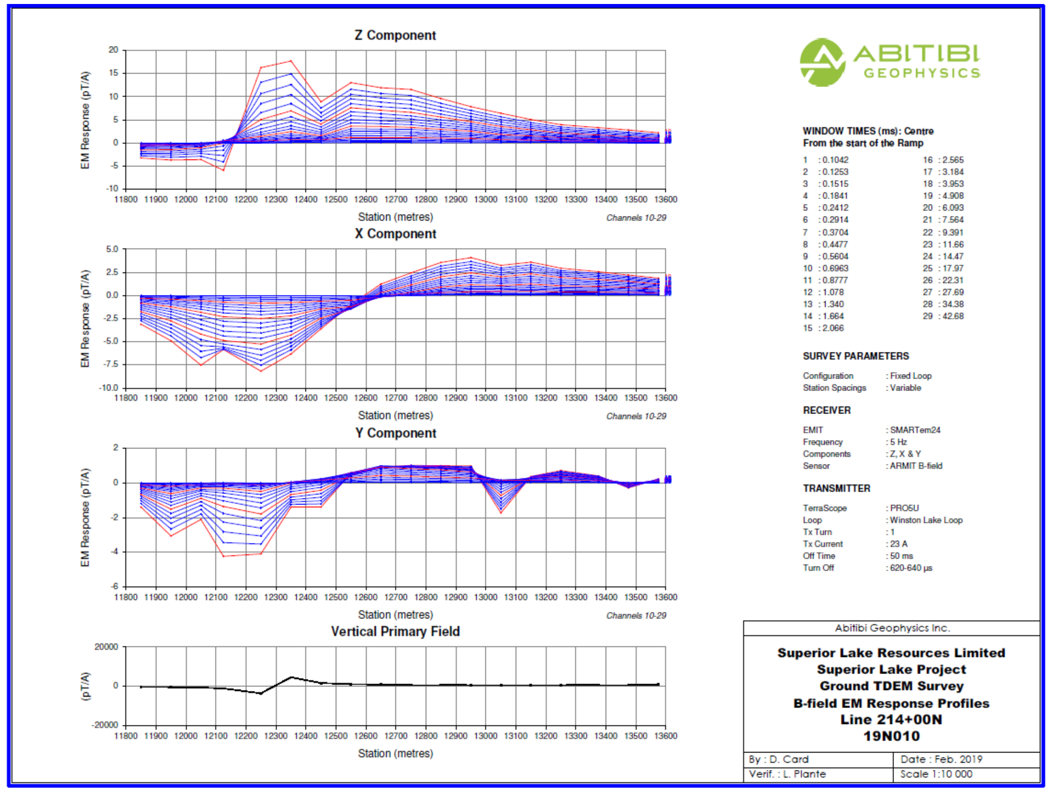
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 214+00N
19N010
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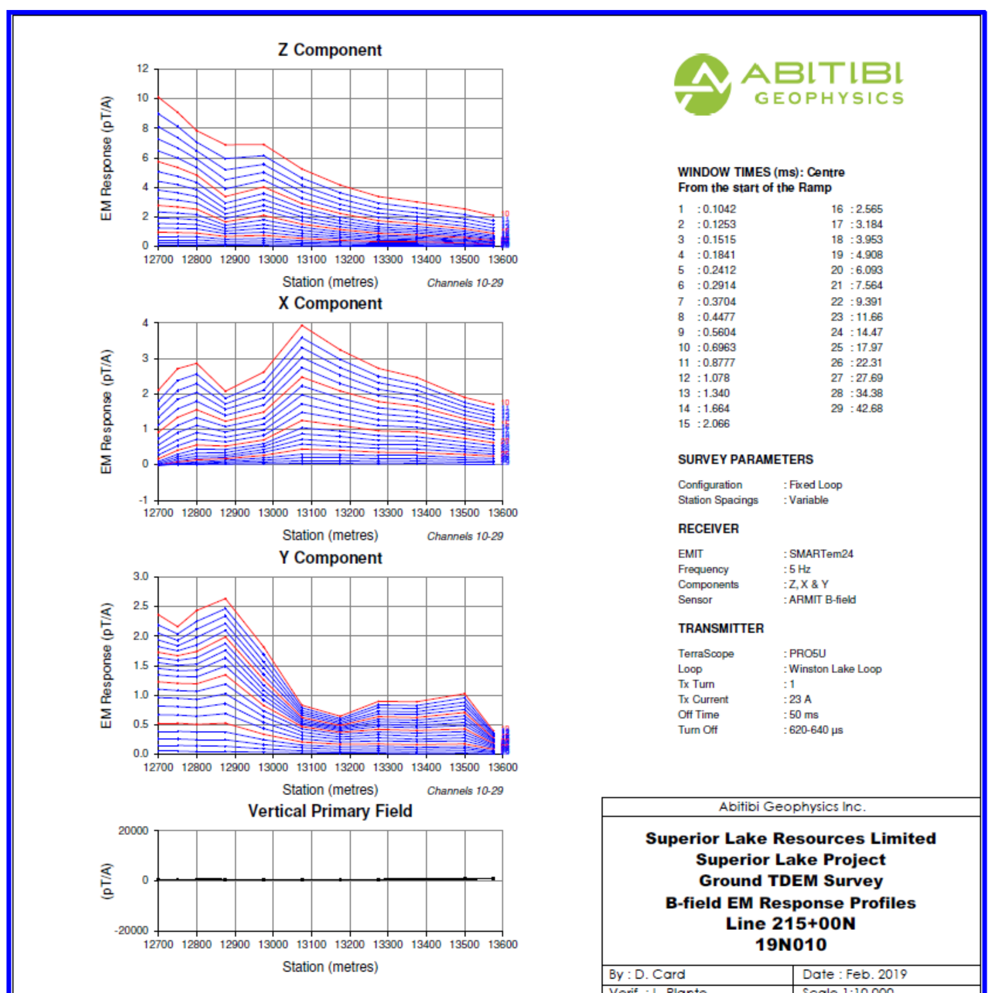
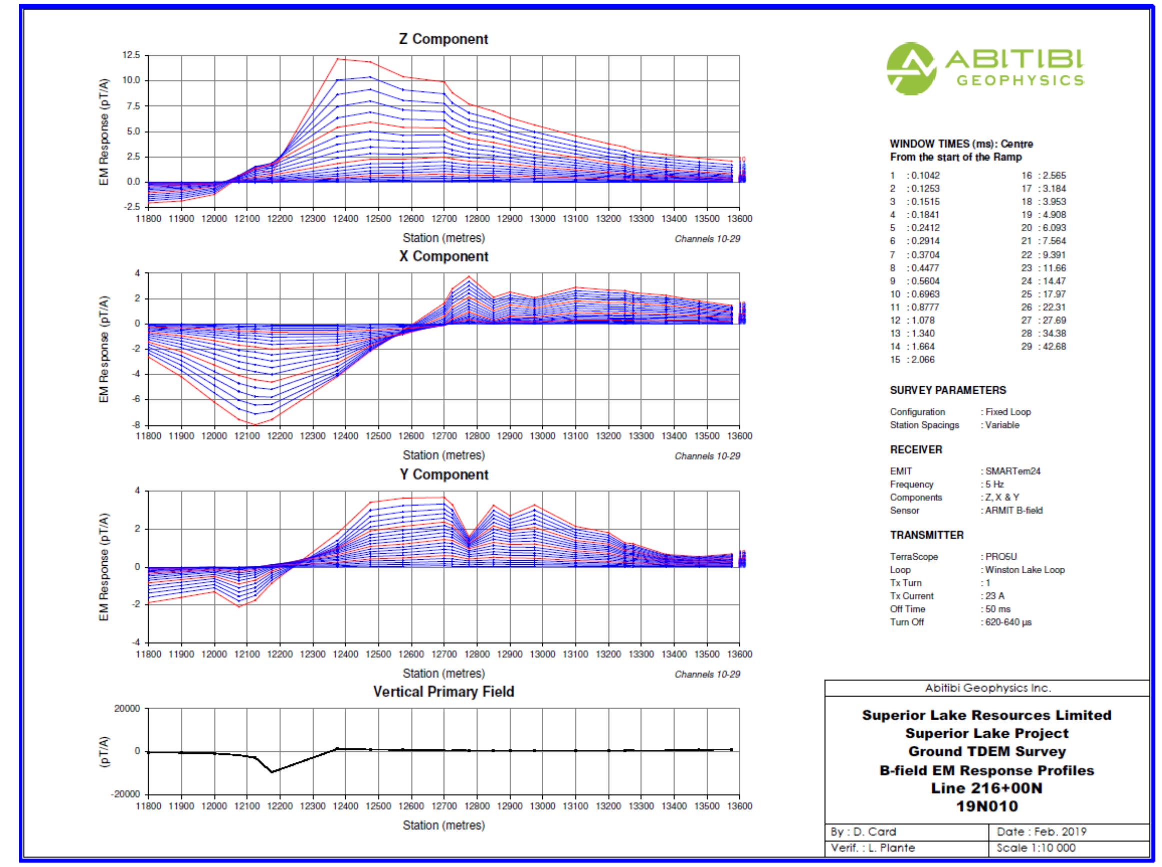
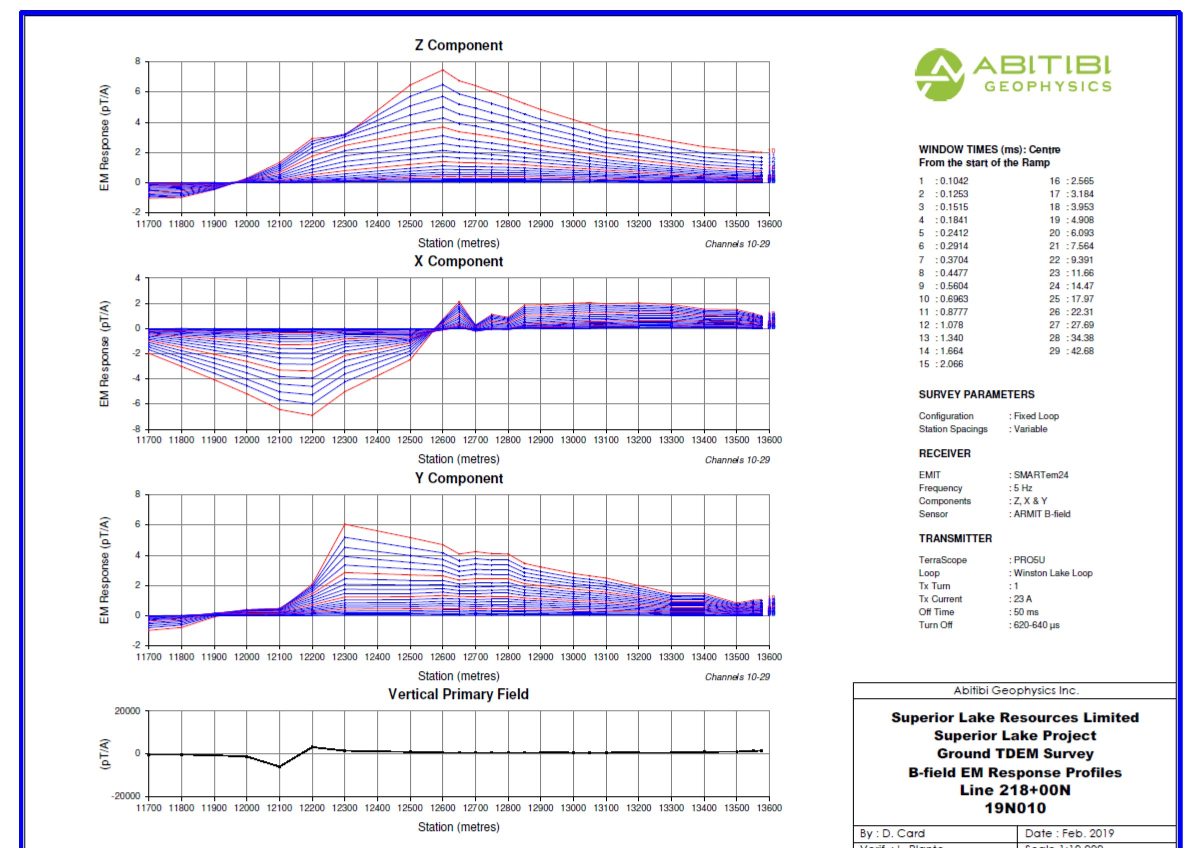
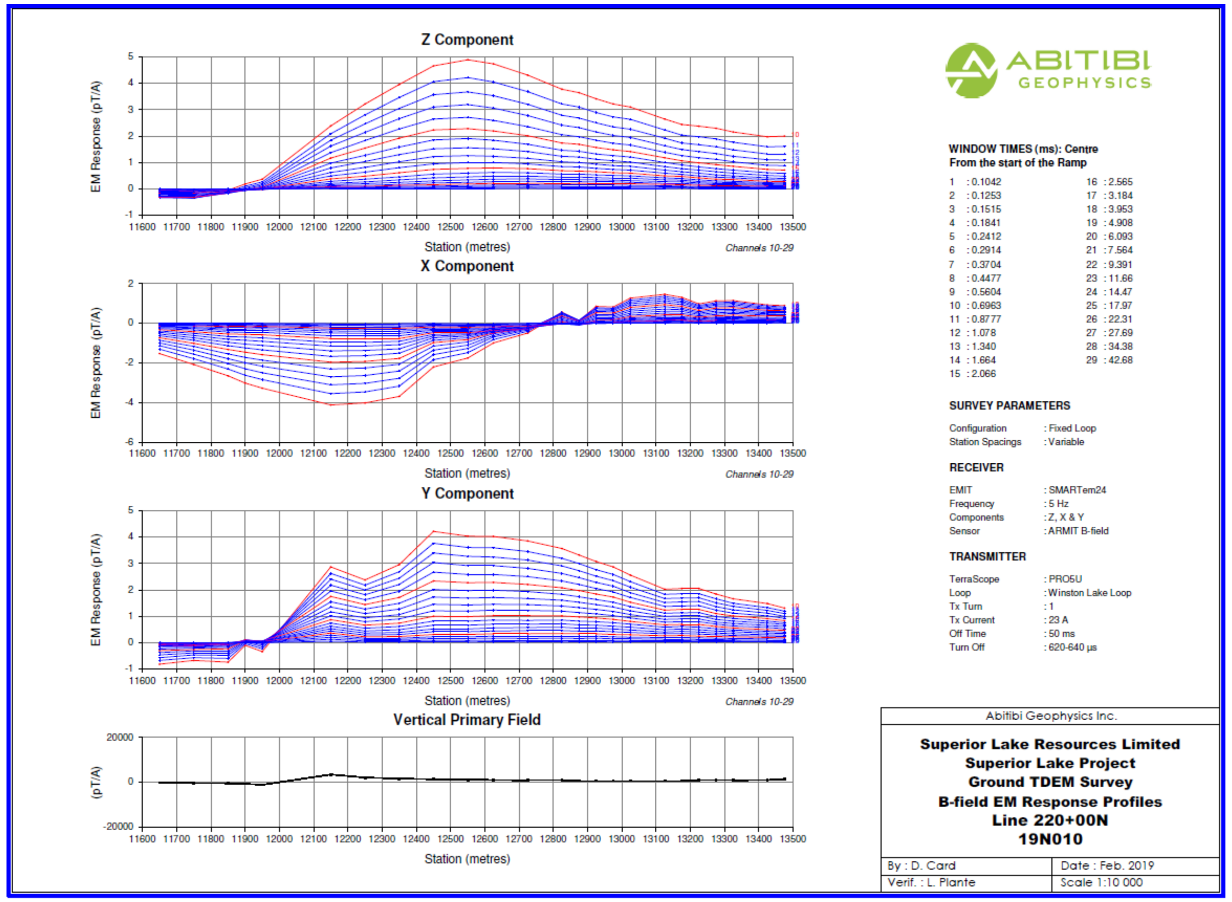
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 215+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 216+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 218+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response (pT/A)
Station (metres)
Channels 10-29
X Component
EM Response (pT/A)
Station (metres)
Channels 10-29
Y Component
EM Response (pT/A)
Station (metres)
Channels 10-29
Vertical Primary Field
(pT/A)
Station (metres)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
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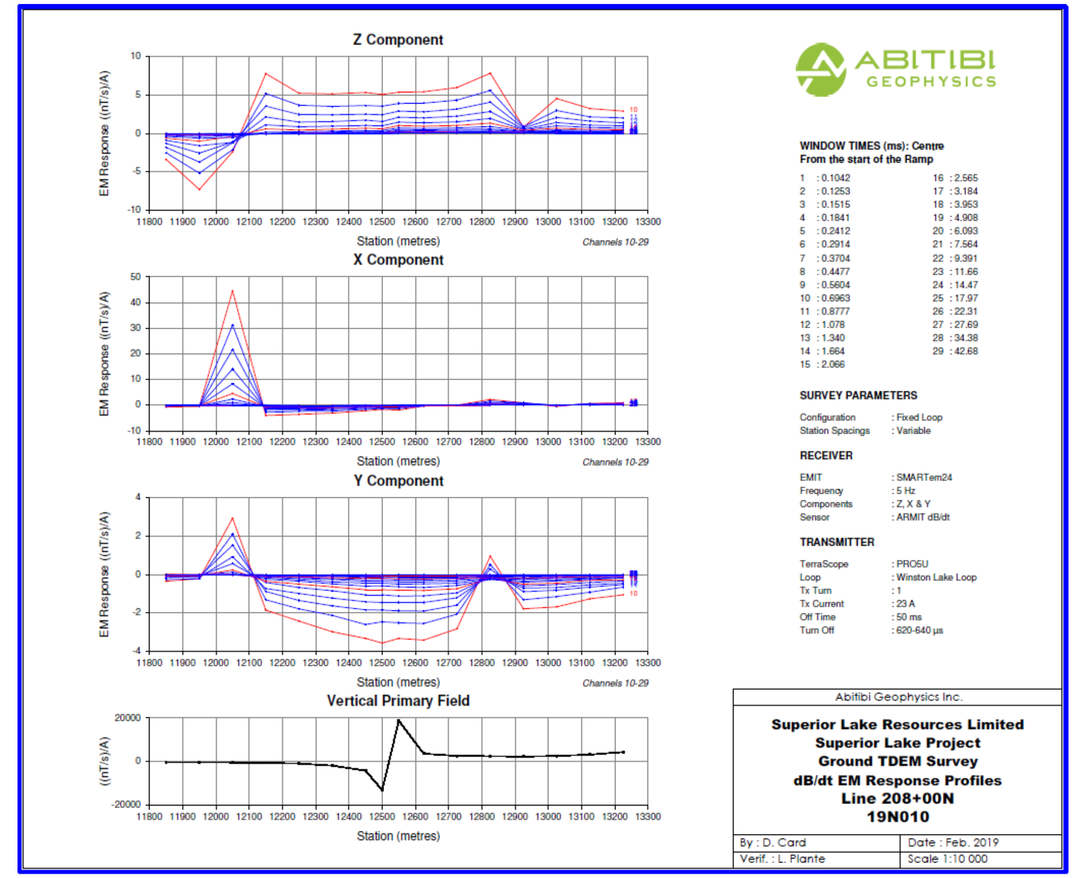
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 220+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
Y Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
Vertical Primary Field
((nT/s)/A)
Station (metres)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
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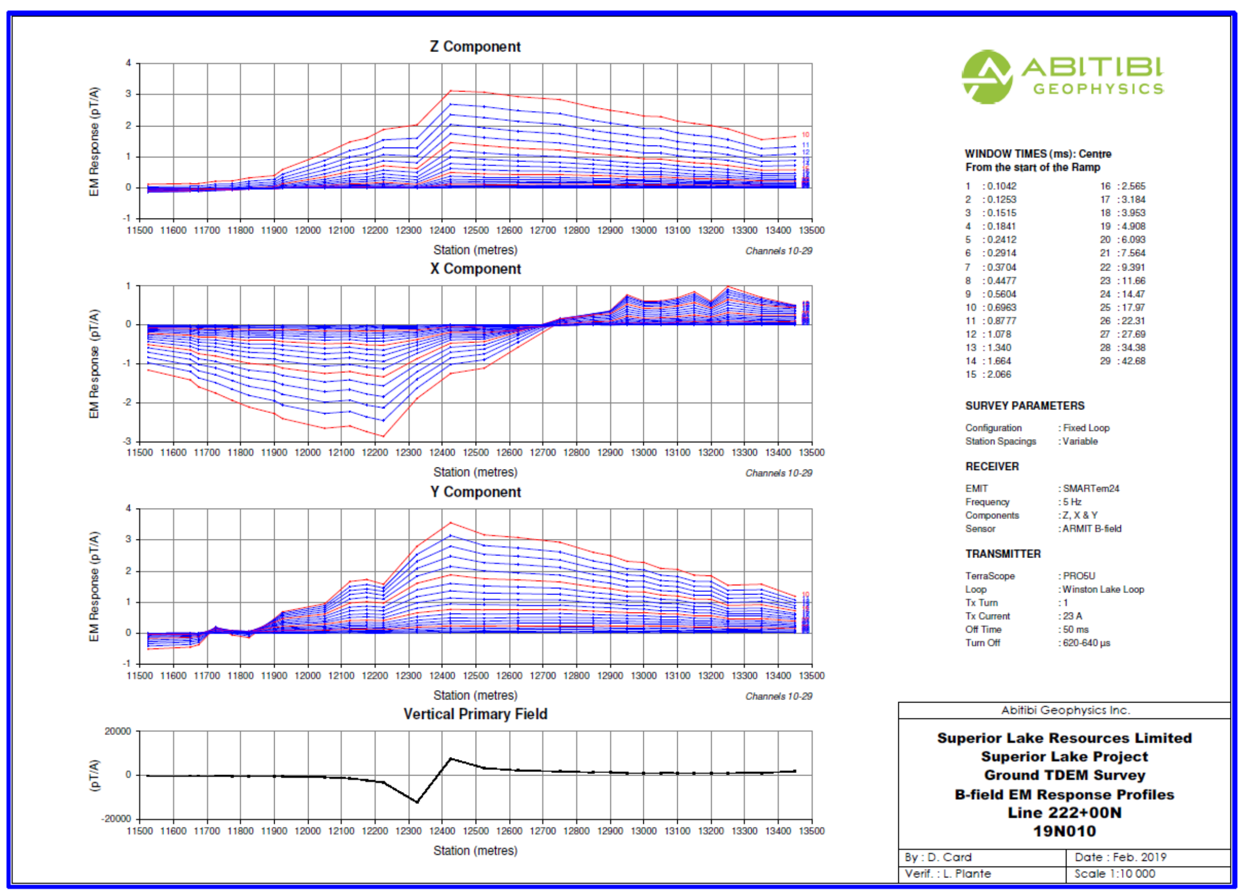
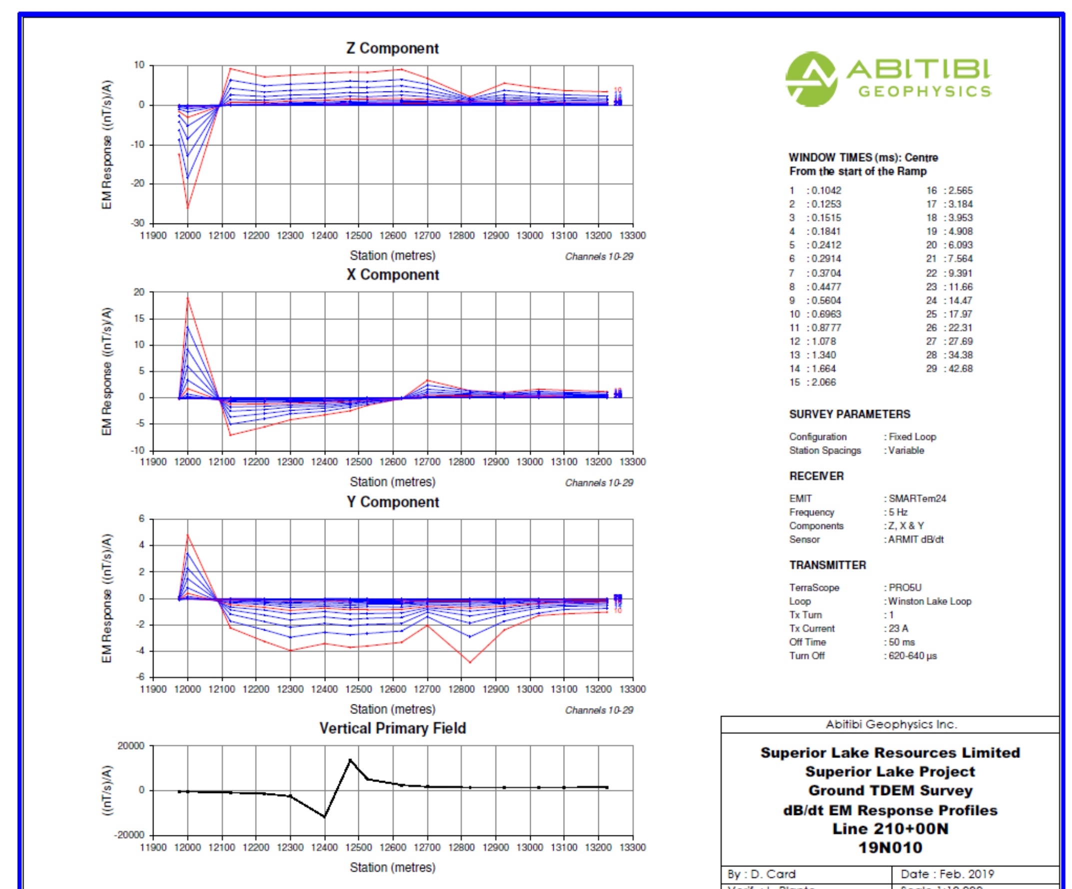
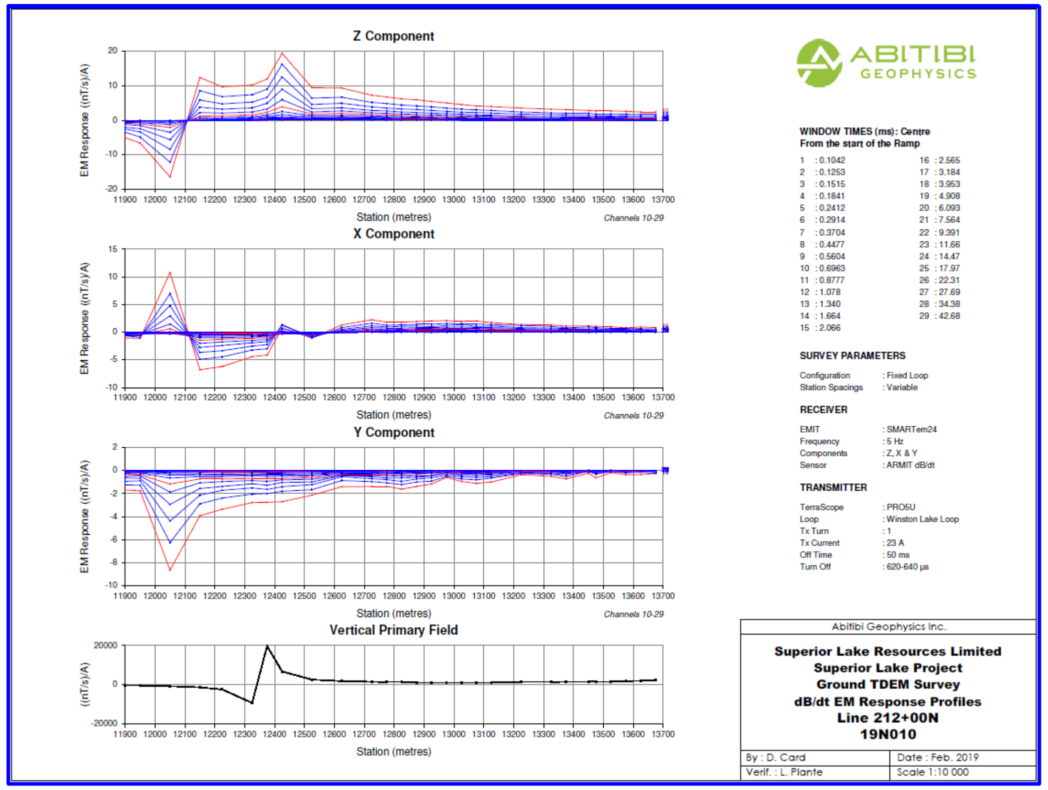
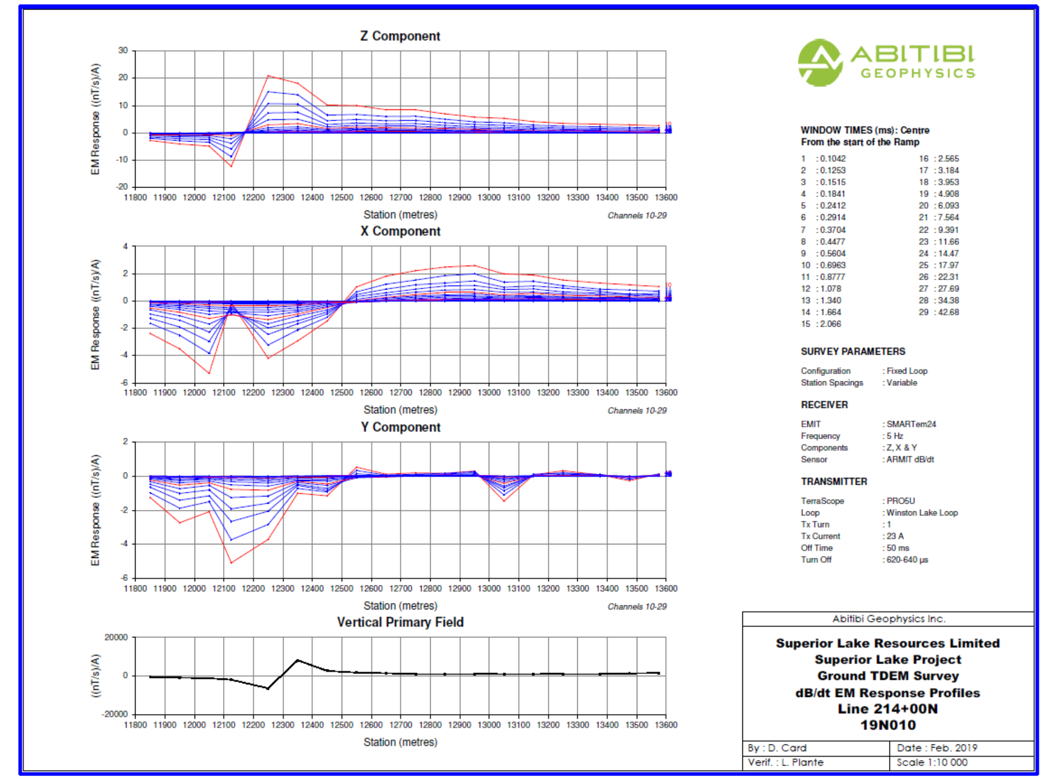
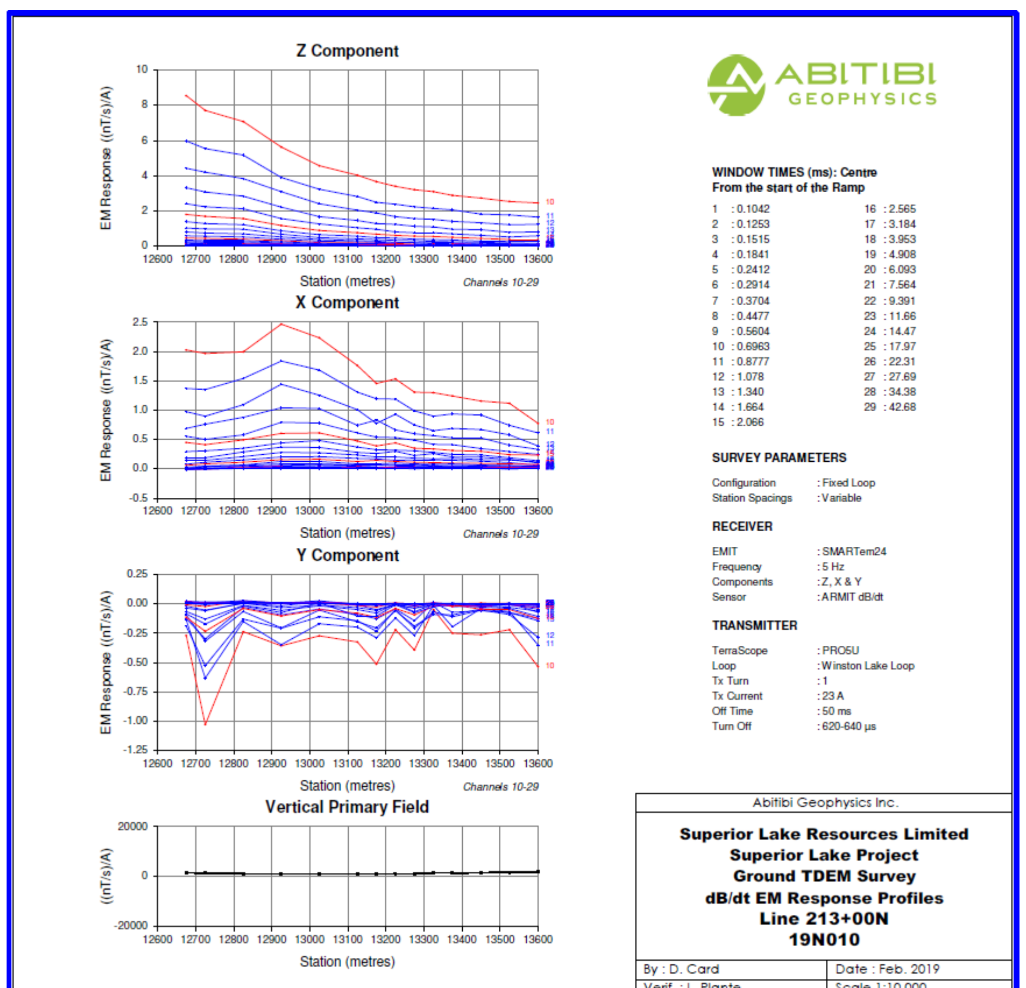
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 208+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

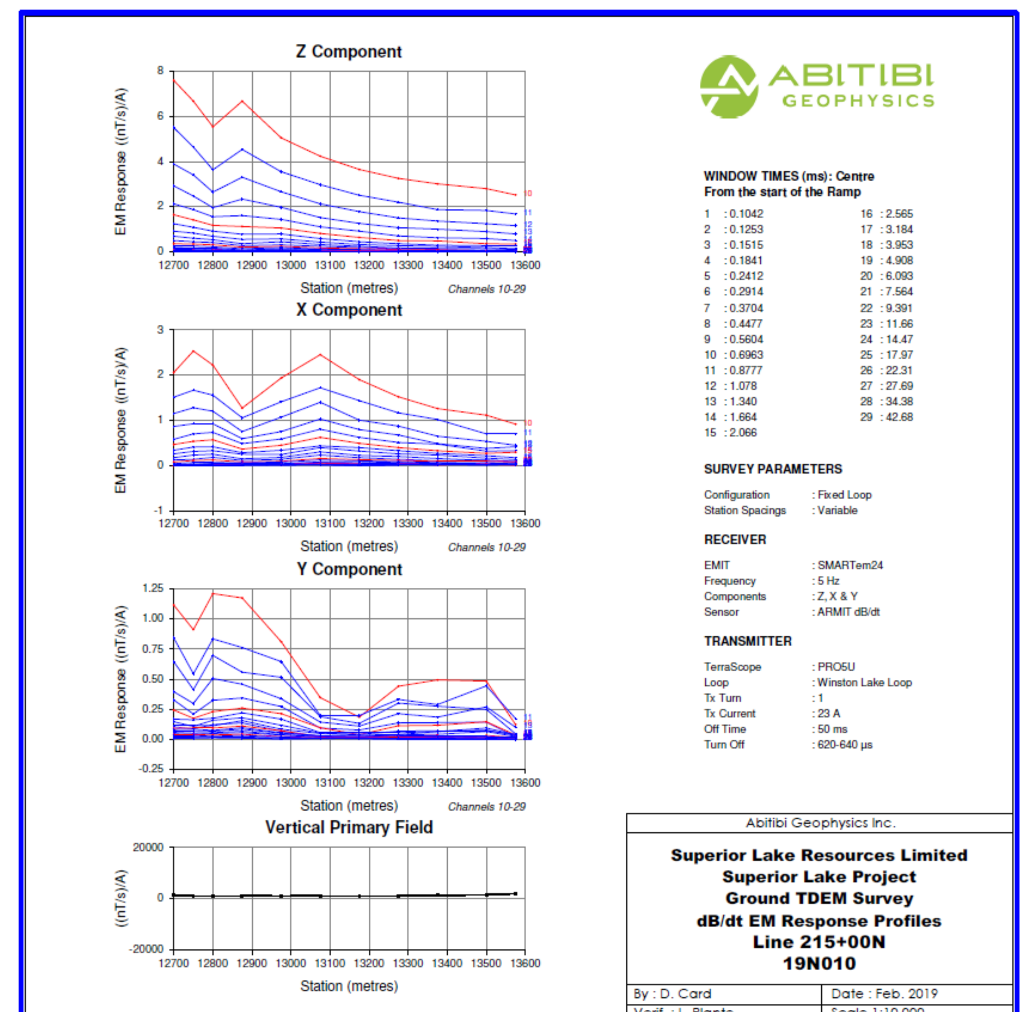

Z Component
EM Response (pT/A)
Station (metres)
Channels 10-29
X Component
EM Response (pT/A)
Station (metres)
Channels 10-29
Y Component
EM Response (pT/A)
Station (metres)
Channels 10-29
Vertical Primary Field
(pT/A)
Station (metres)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 222+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

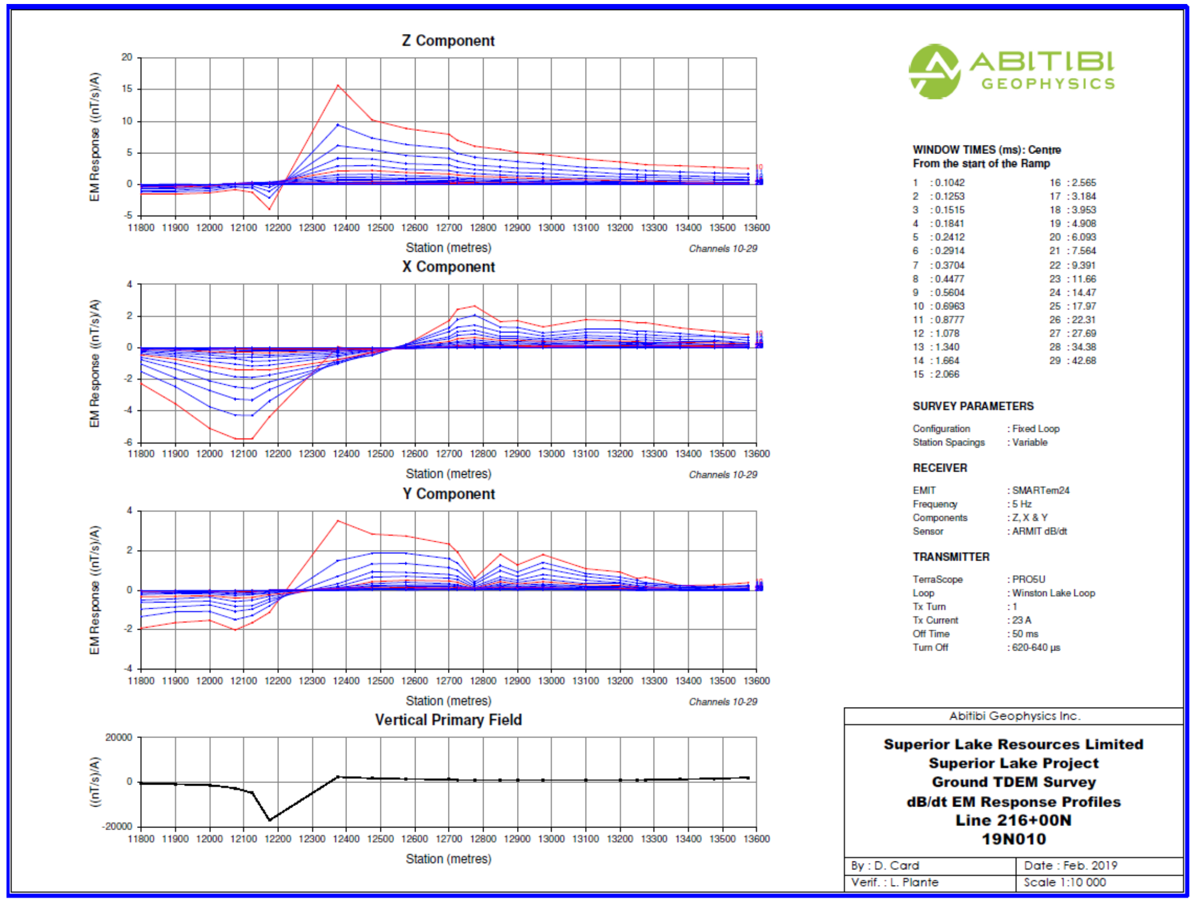

Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
Y Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
Vertical Primary Field
((nT/s)/A)
Station (metres)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
ABITIBI GEOPHYSICS
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 212+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
ABITIBI GEOPHYSICS
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 214+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 213+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 215+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
((nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
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19 : 4.908
20 : 6.093
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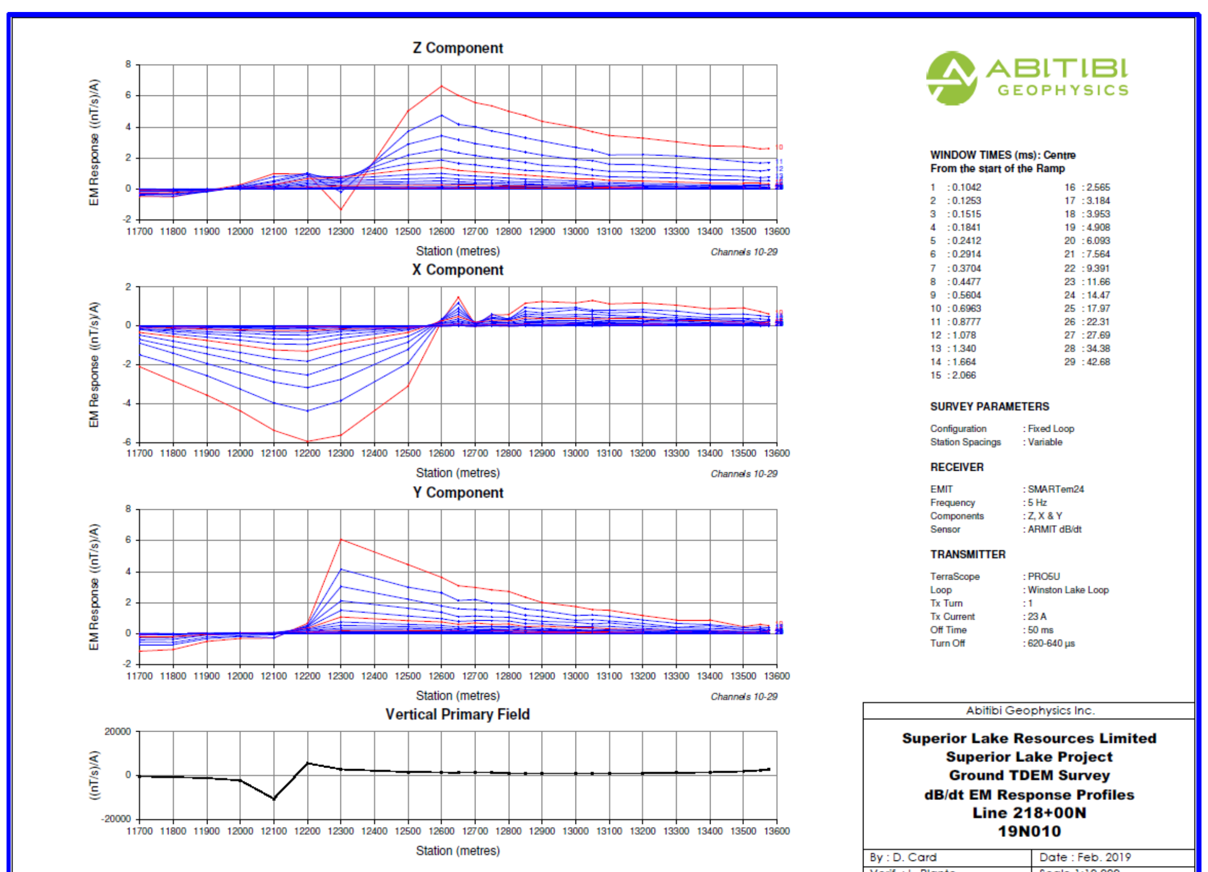
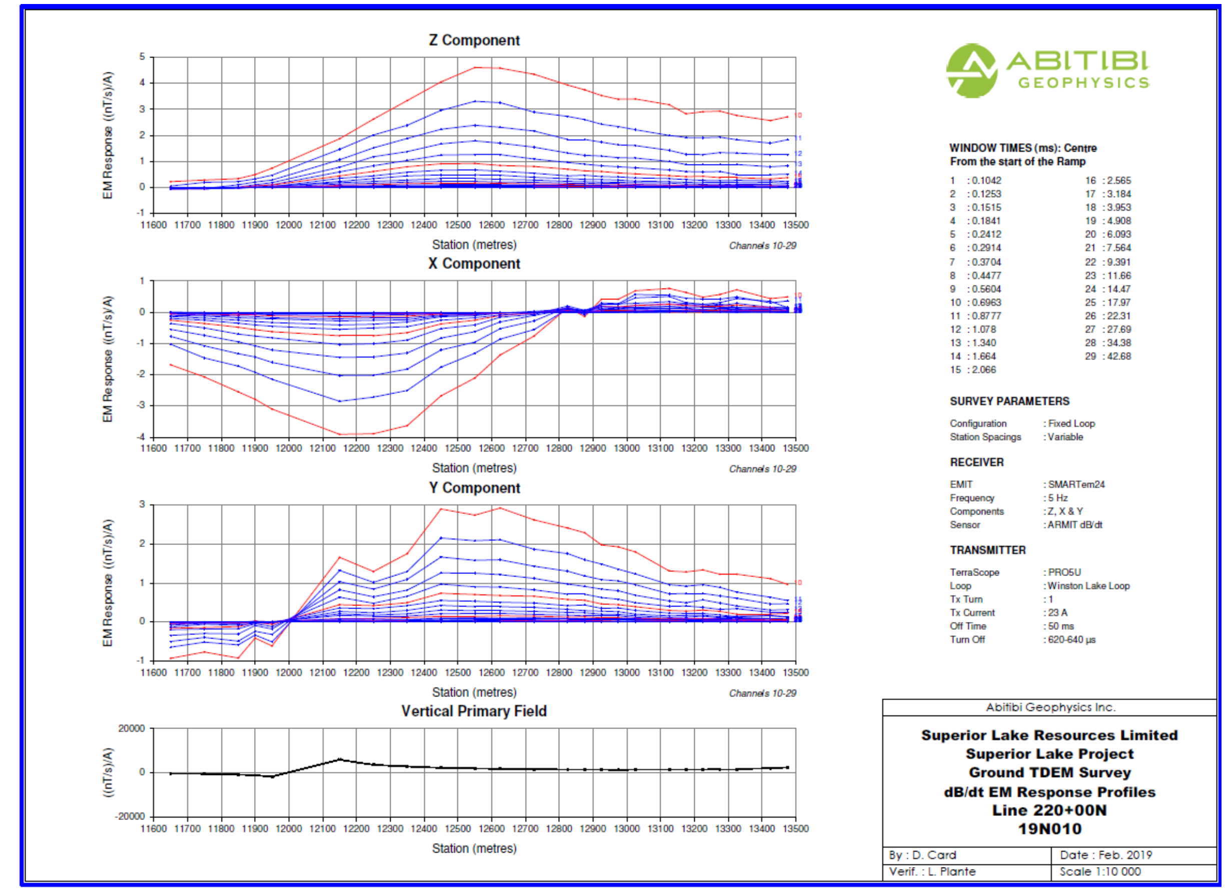
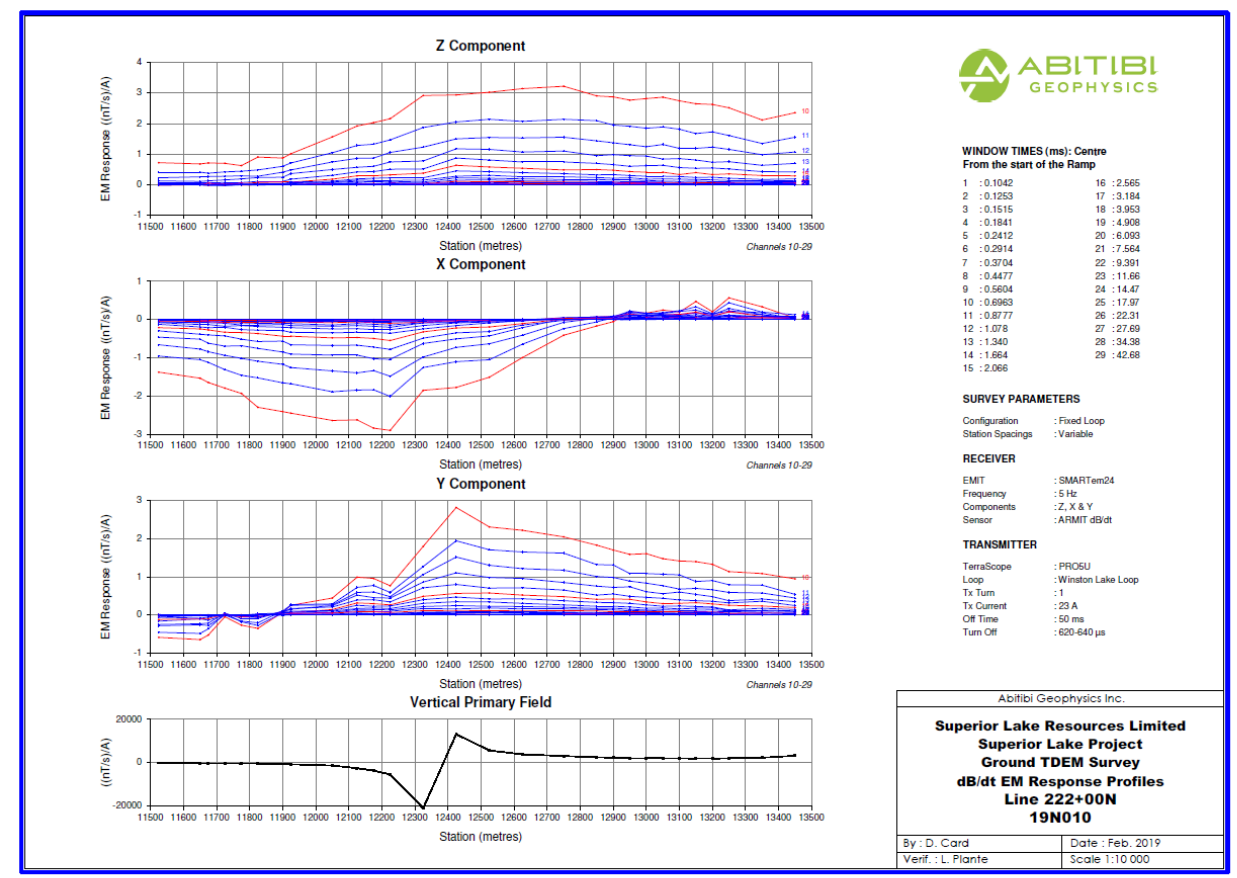
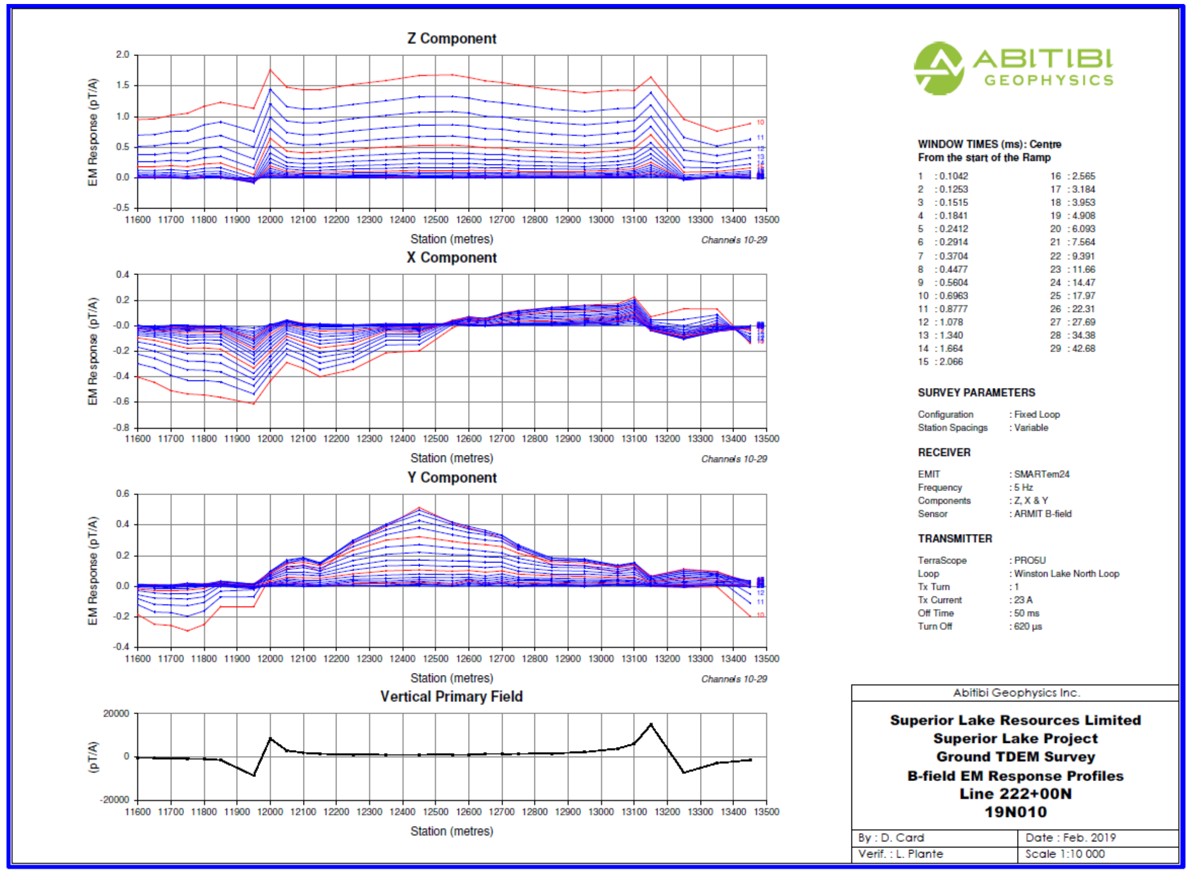
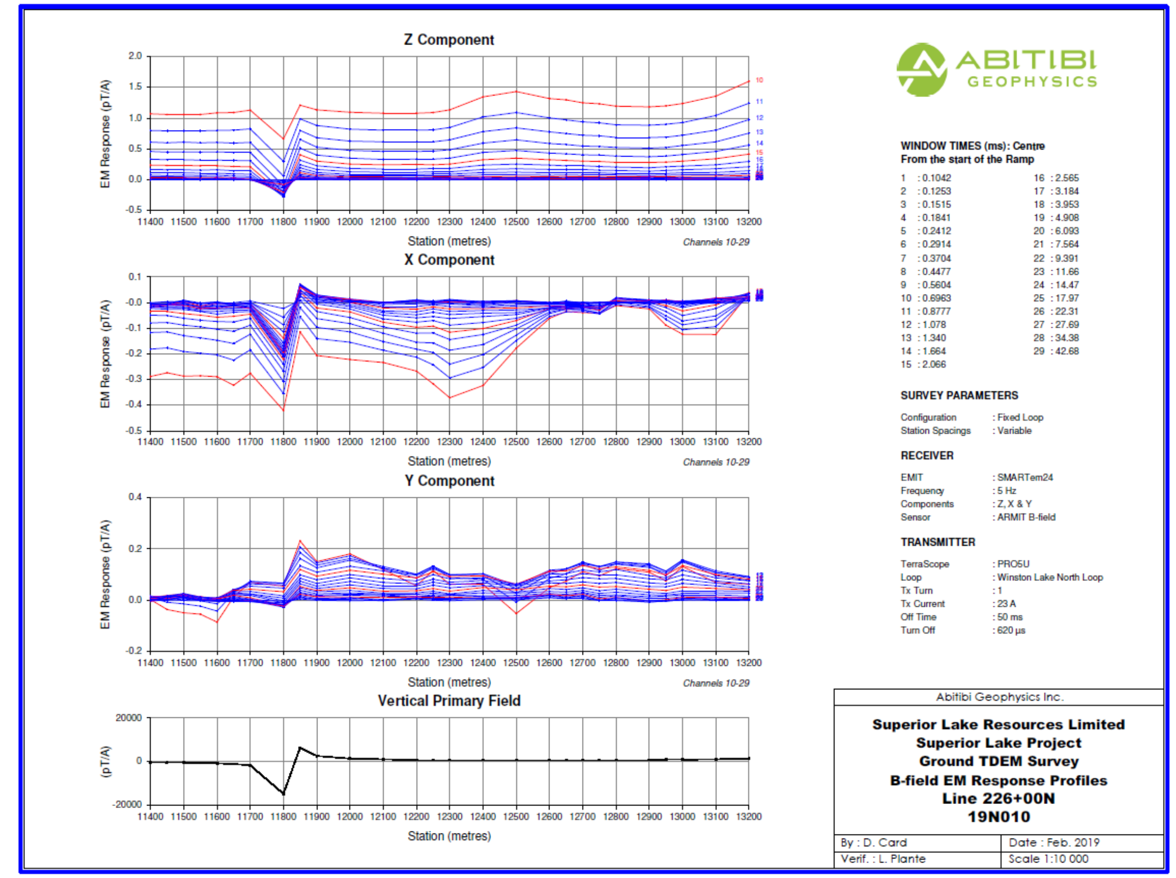
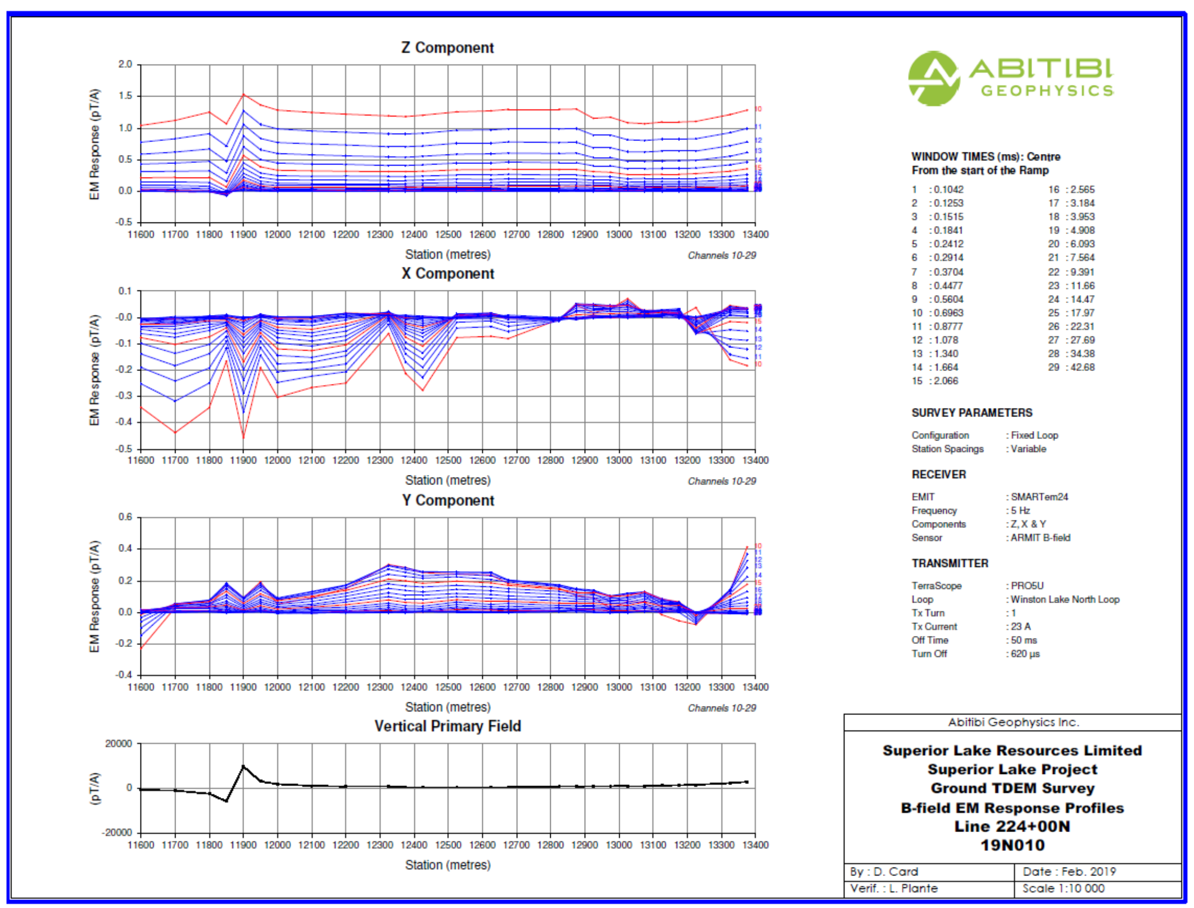
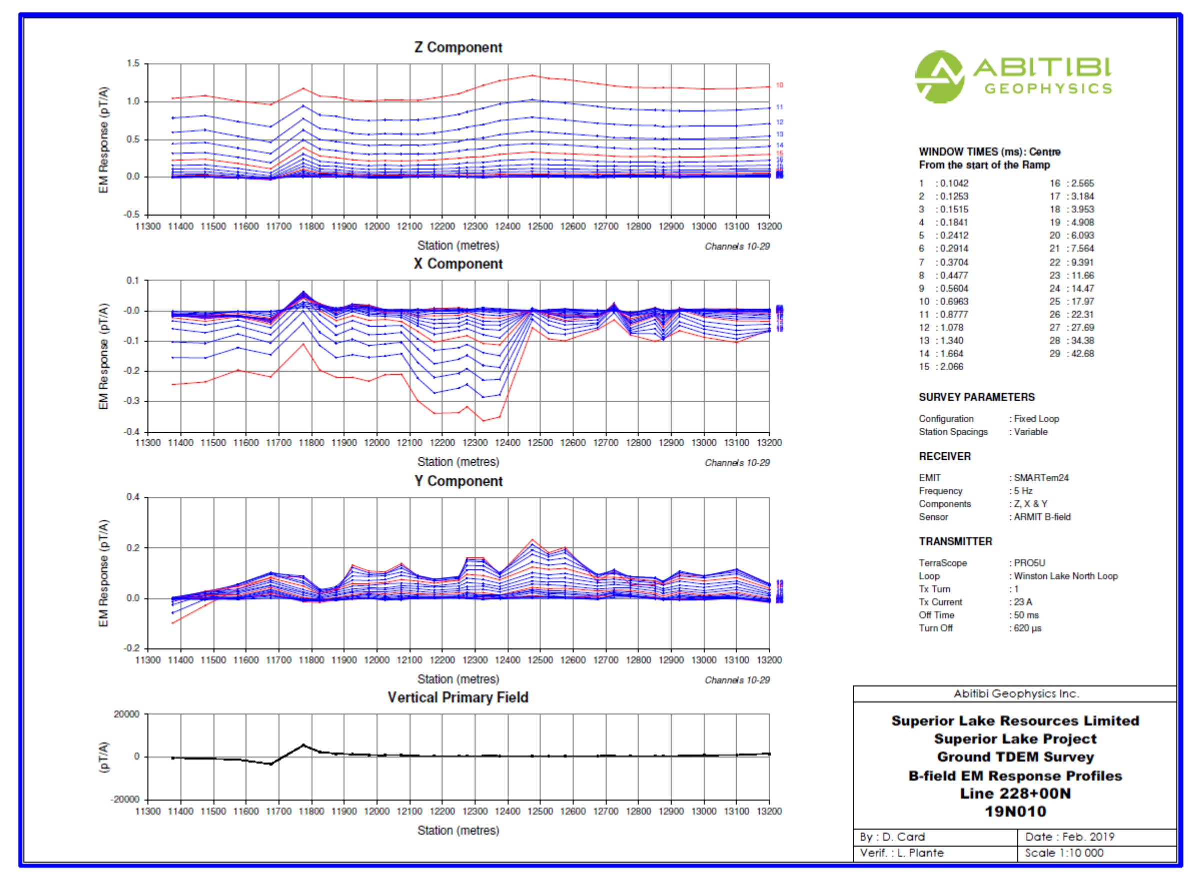
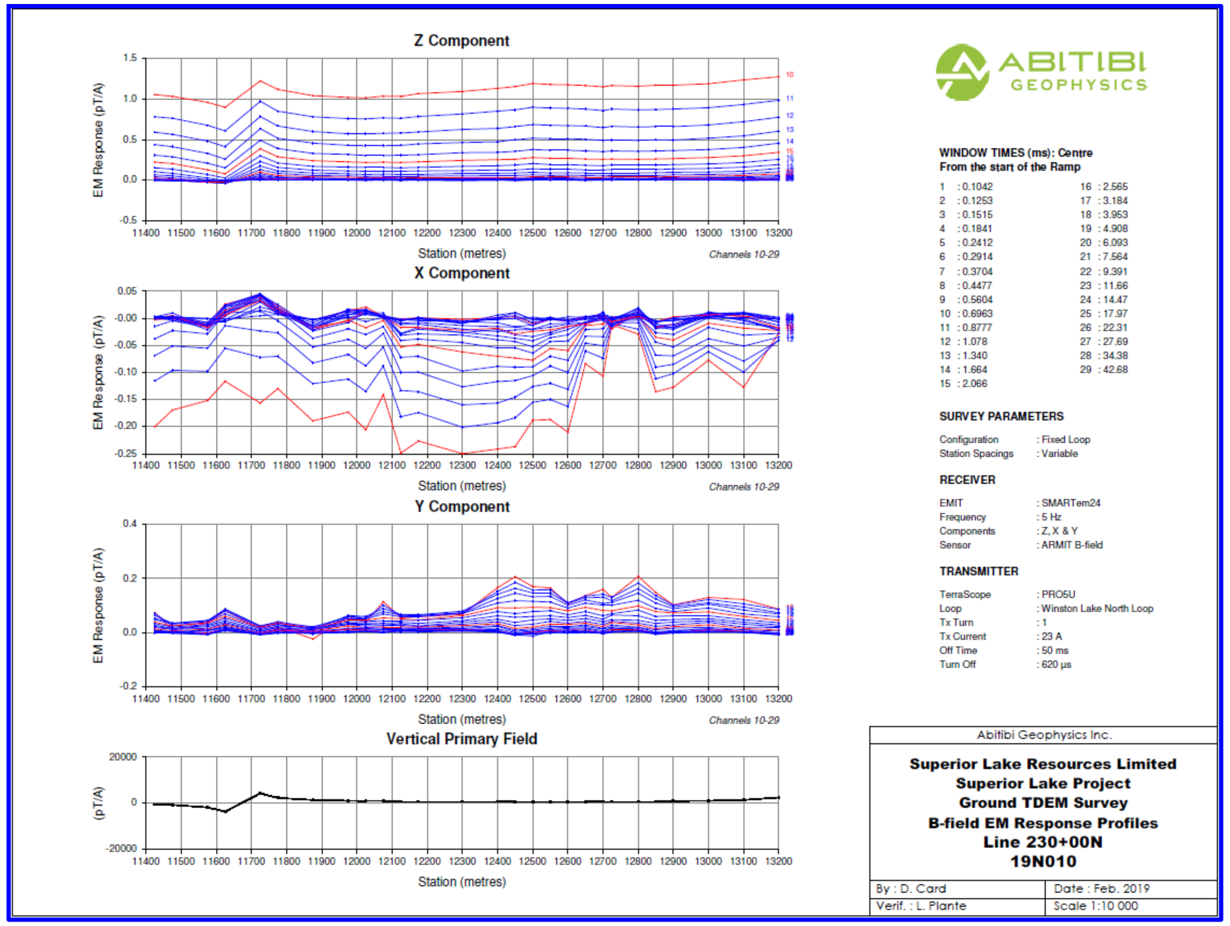
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620-640 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 216+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

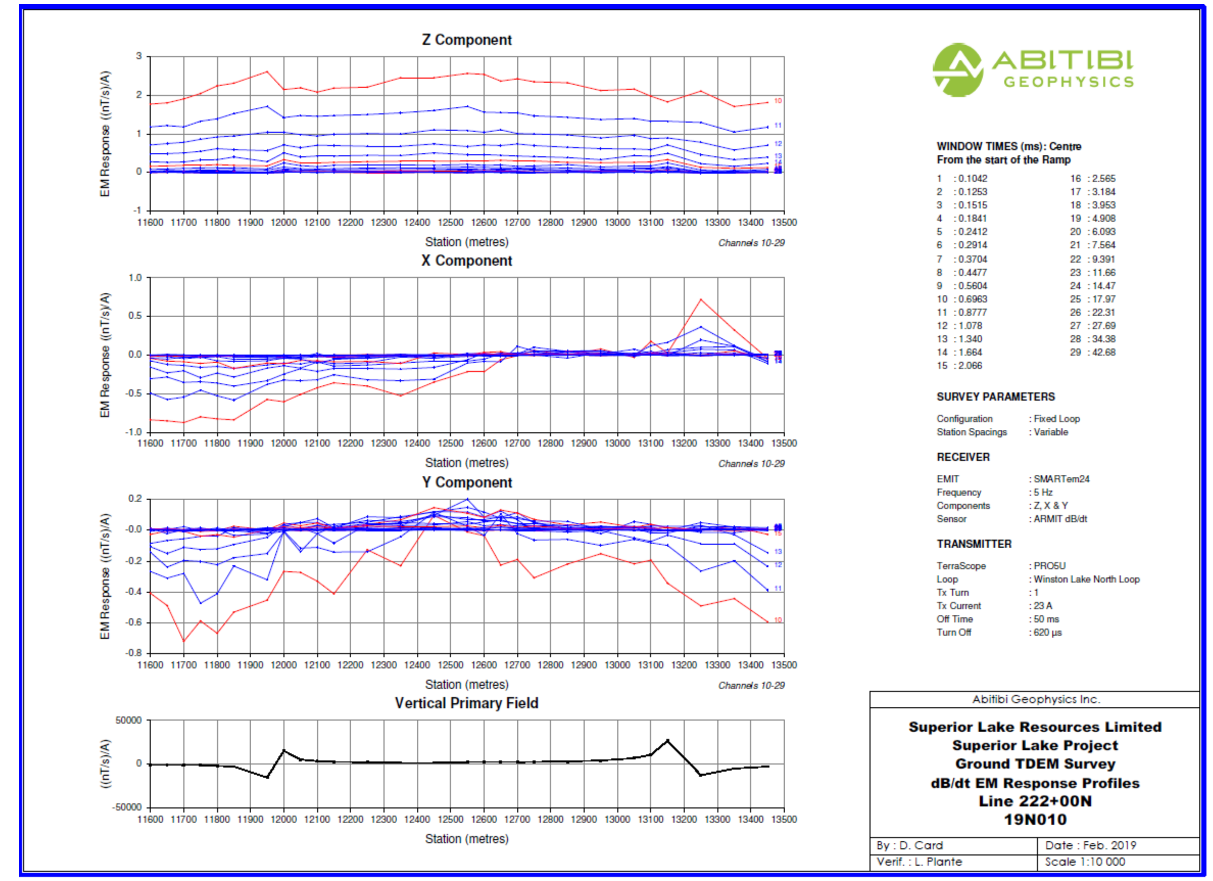

Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
((nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 218+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

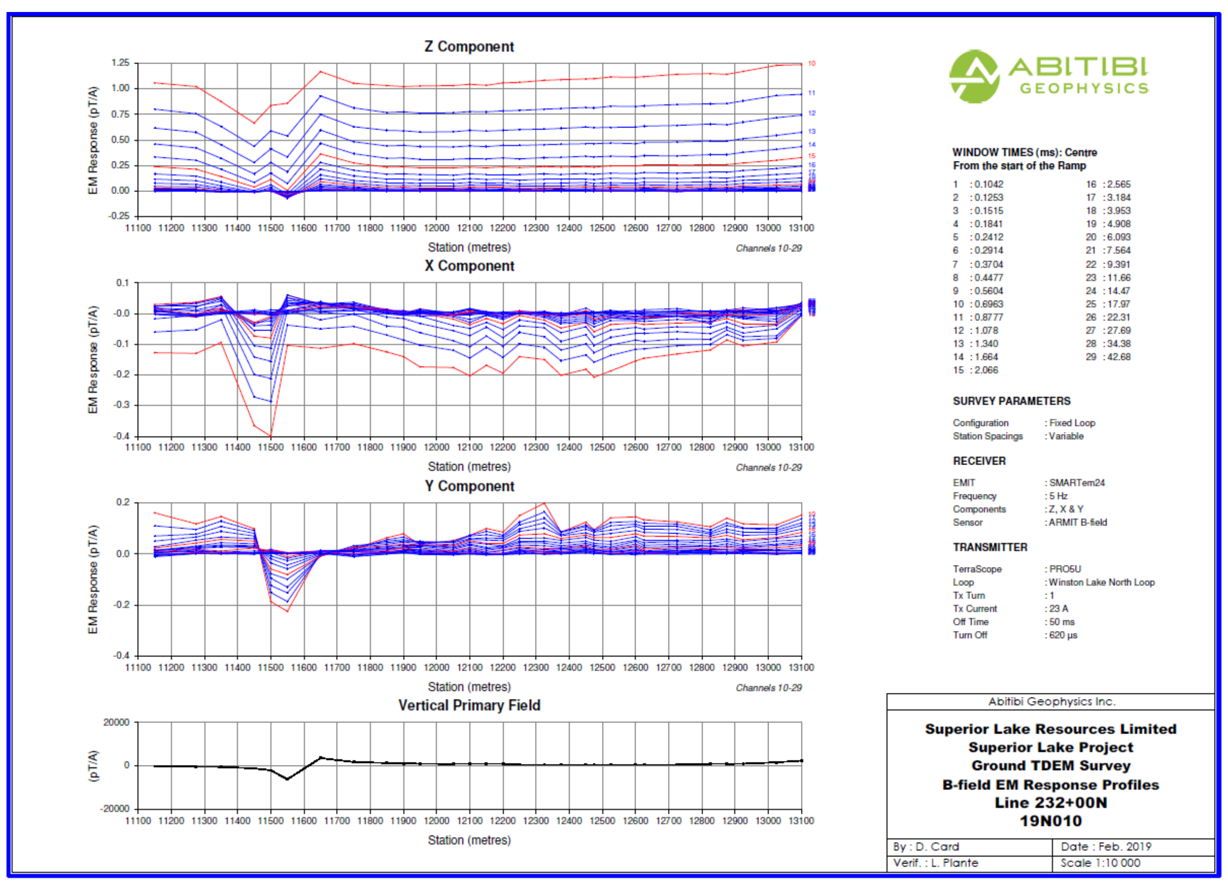

Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
((nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 220+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

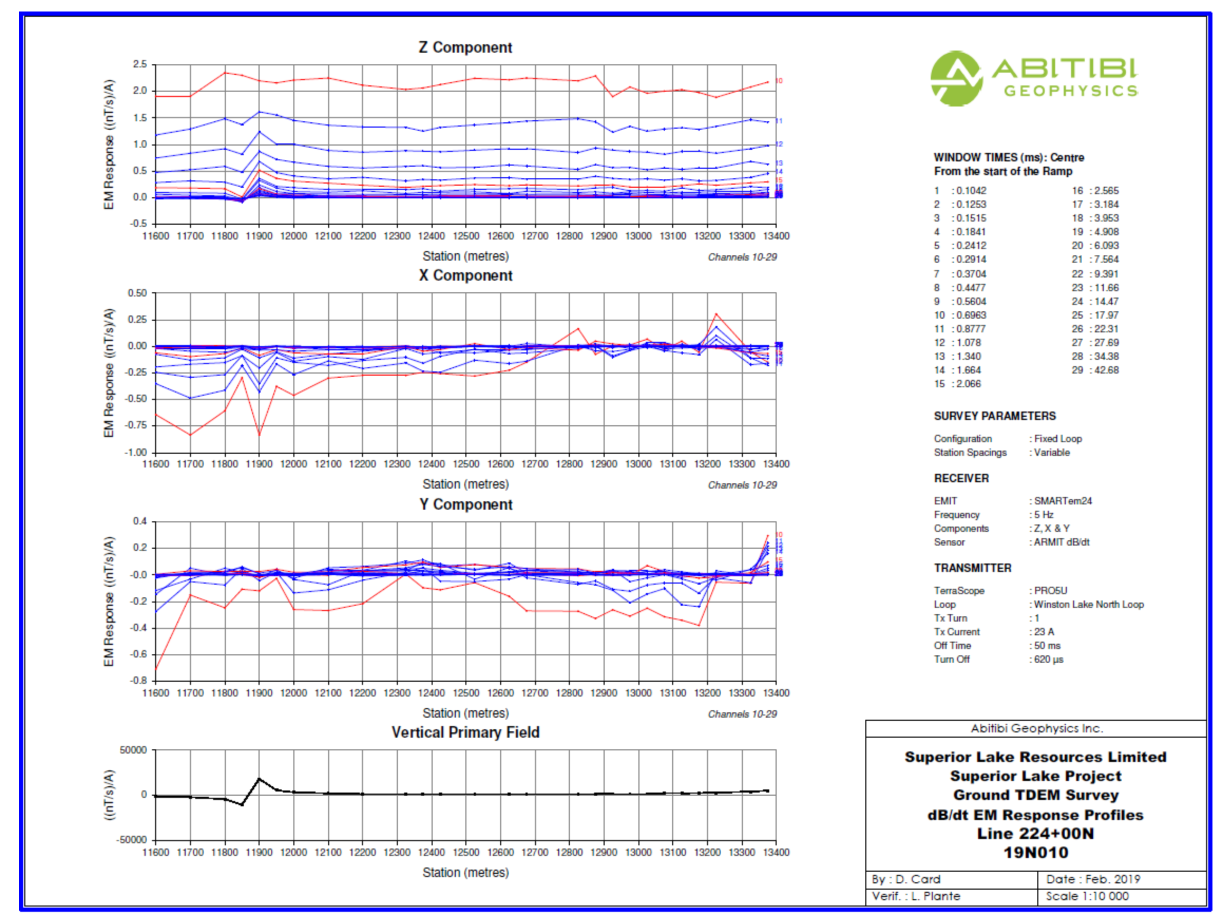

Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
((nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 222+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

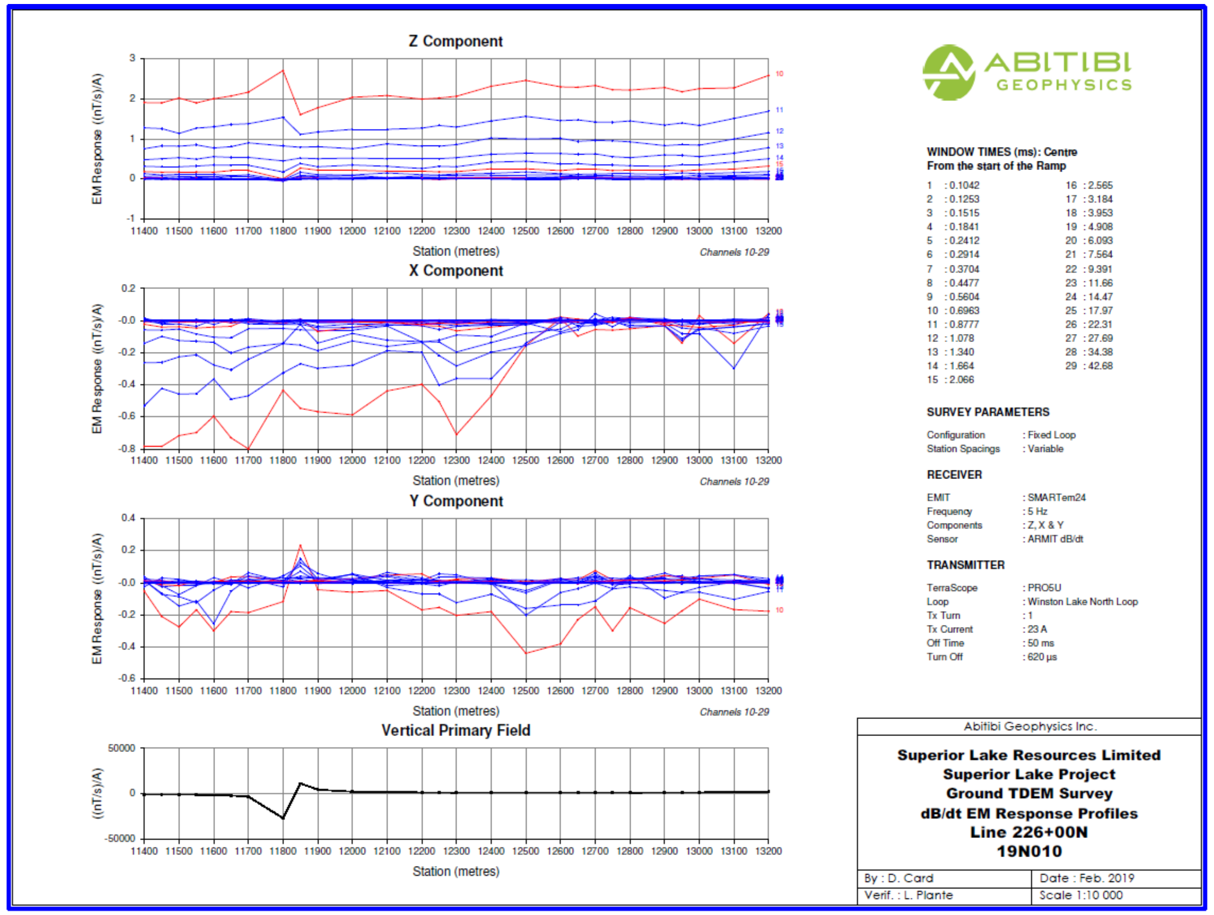

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 222+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 226+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 224+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
EM Response (pT/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 228+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response (pT/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 230+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response (nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 222+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response (pT/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 232+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response (nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 224+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
(nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
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14 : 1.664
15 : 2.066
16 : 2.565
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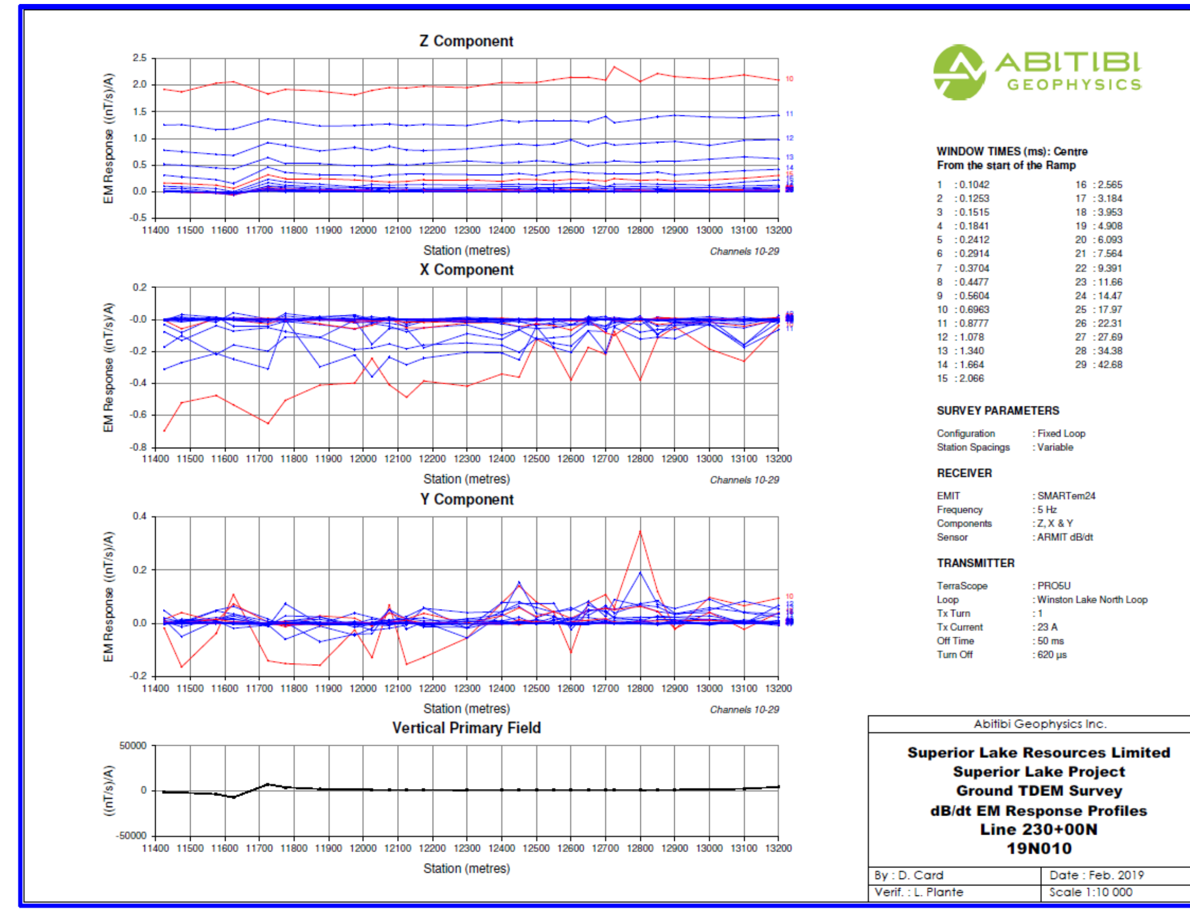
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 226+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
(nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
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SURVEY PARAMETERS
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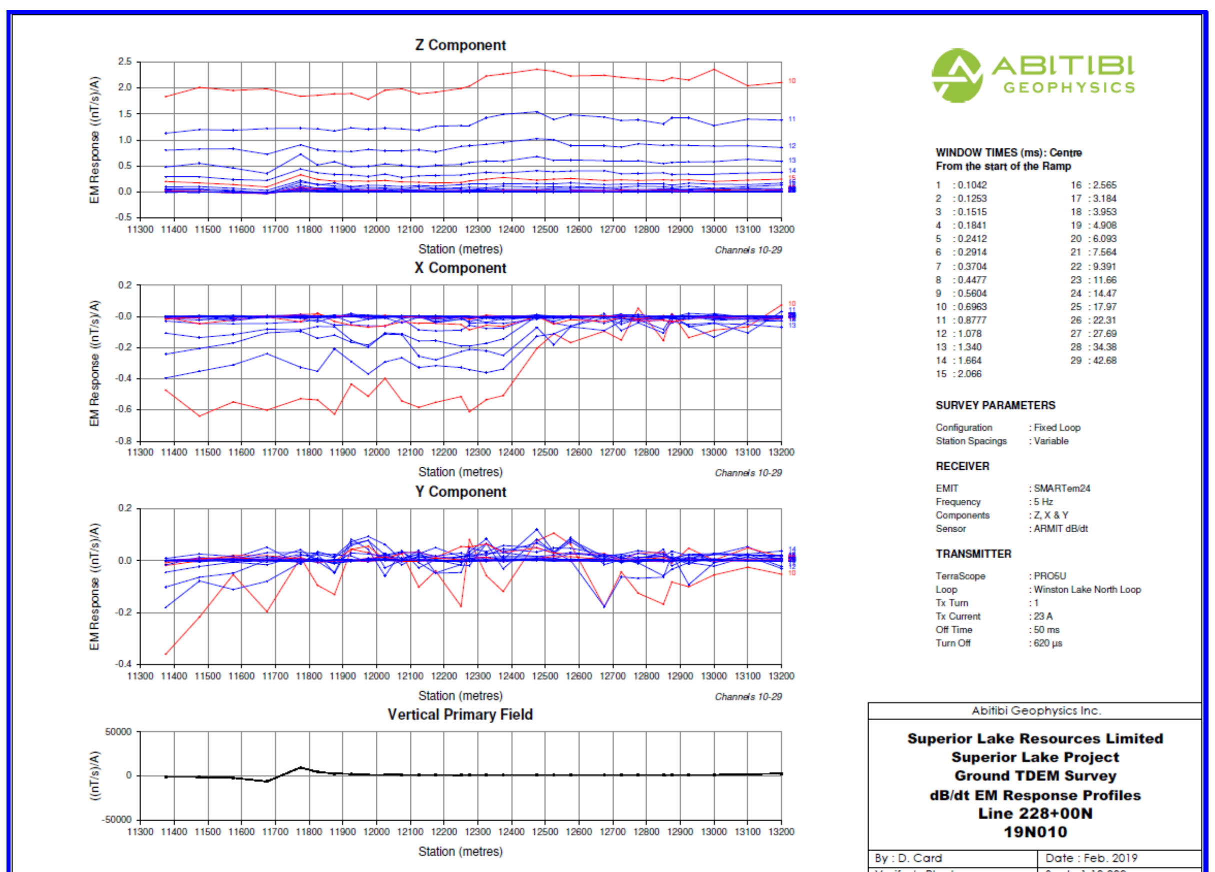
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 230+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
(nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
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10 : 0.6963
11 : 0.8777
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27 : 27.69
28 : 34.38
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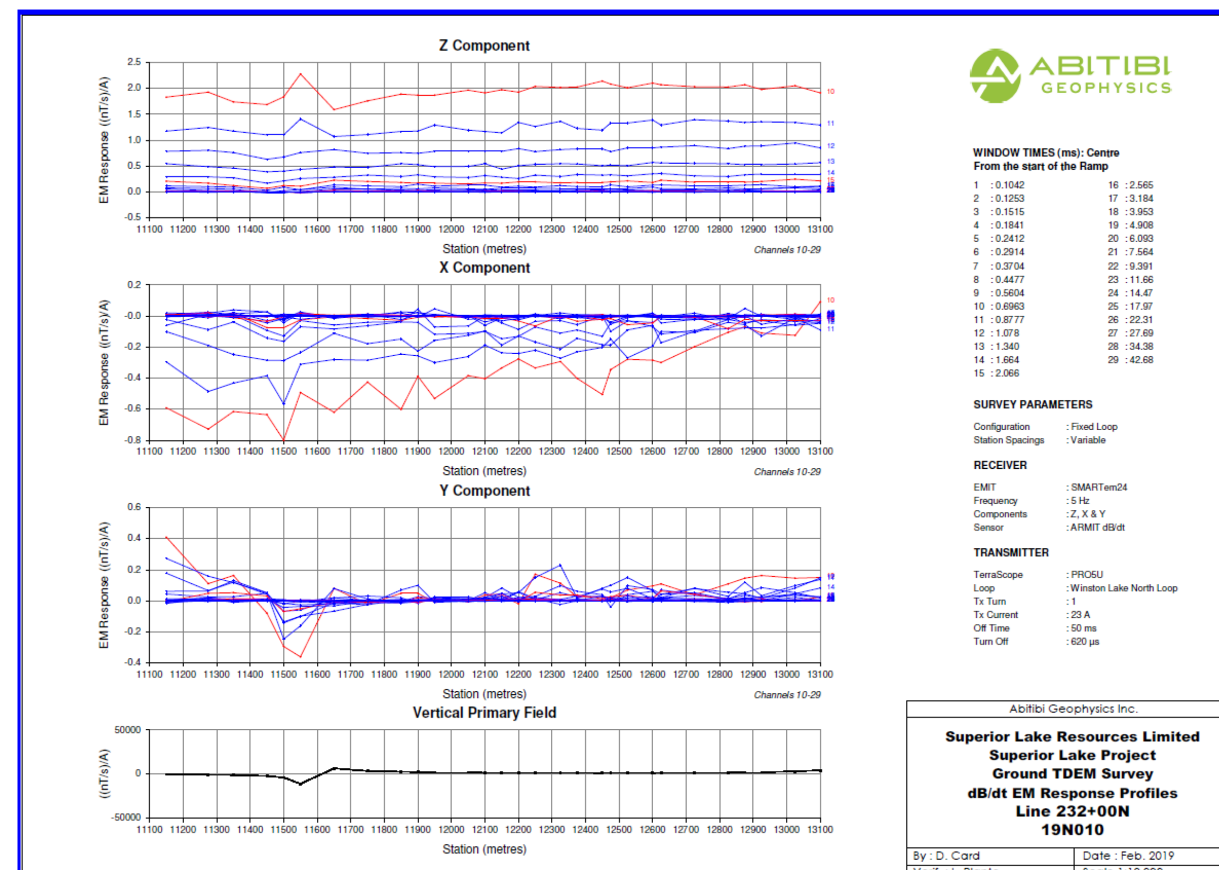
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 228+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
X Component
Y Component
Vertical Primary Field
(nT/s)/A)
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
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4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
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9 : 0.5604
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11 : 0.8777
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14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
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25 : 17.97
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27 : 27.69
28 : 34.38
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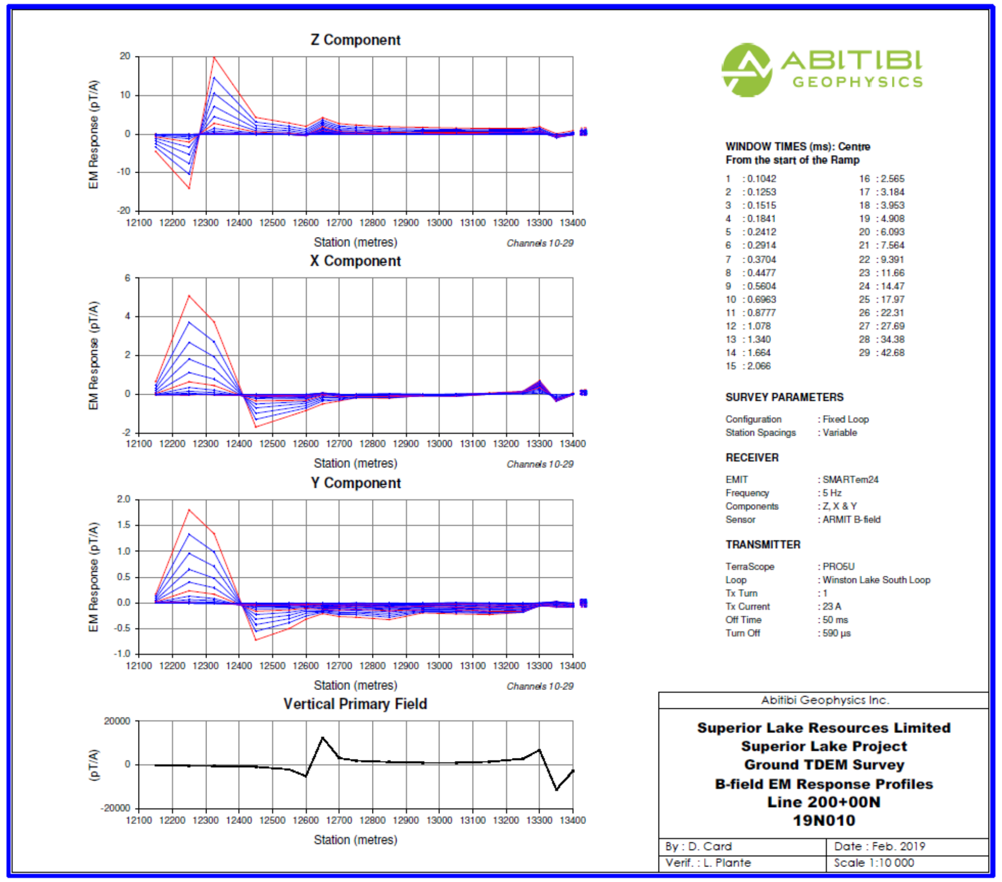
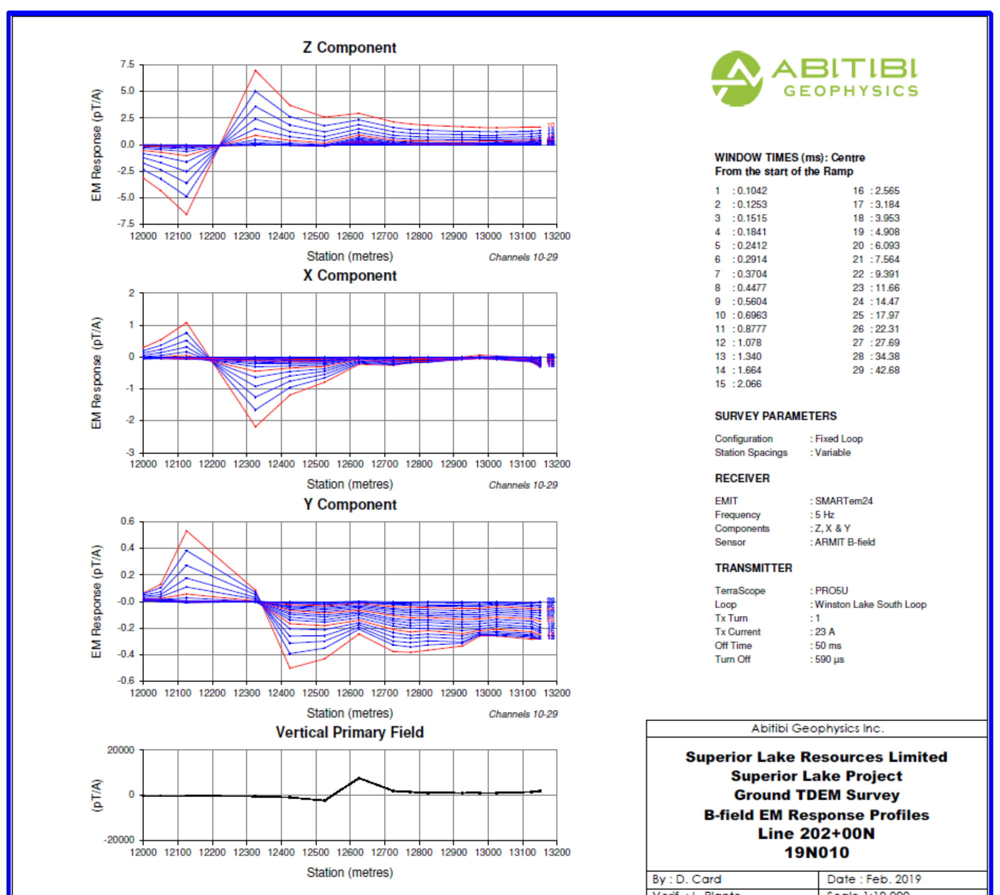
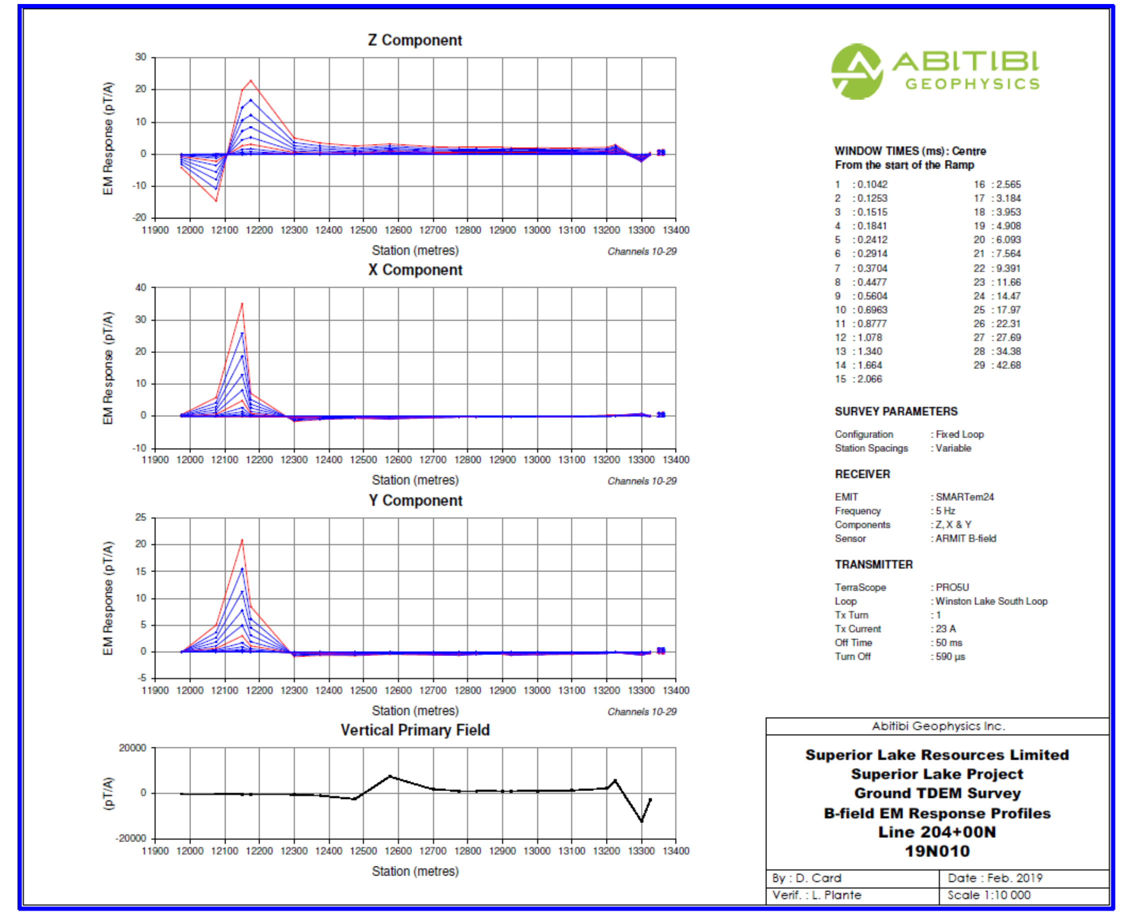
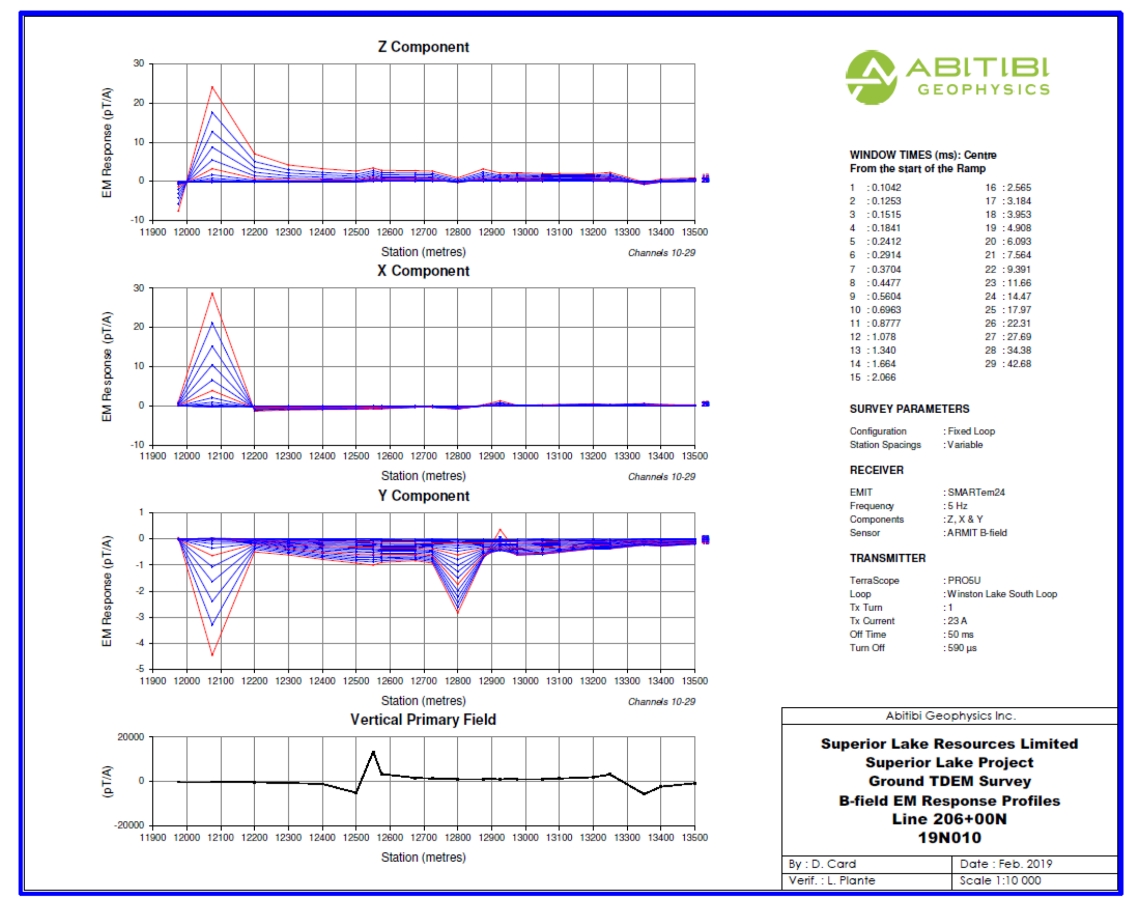
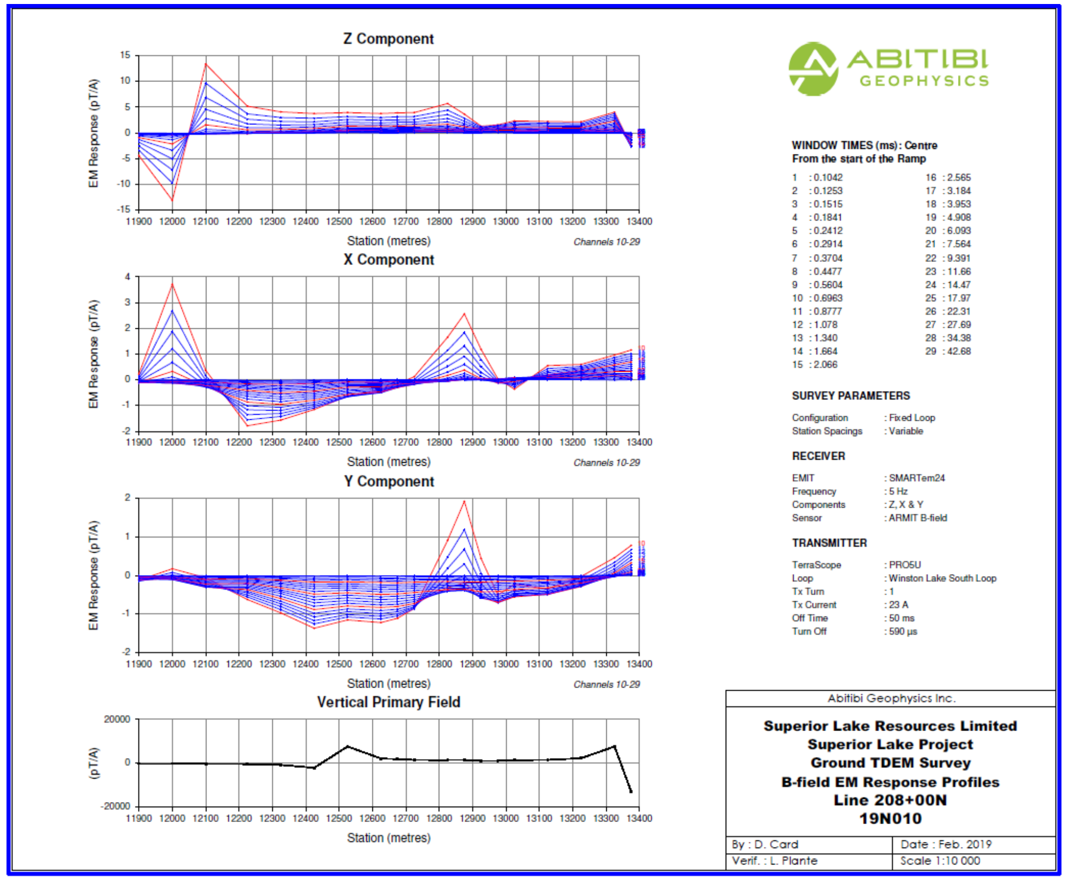
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake North Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 620 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 232+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

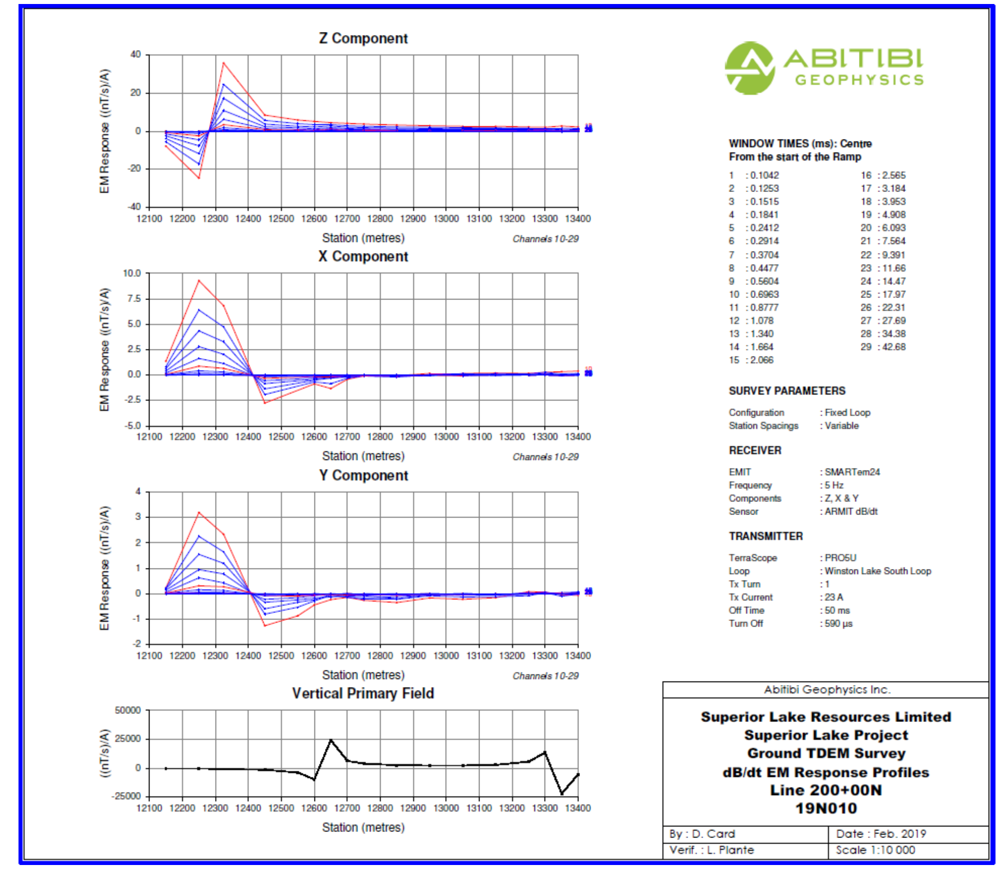

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 200+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

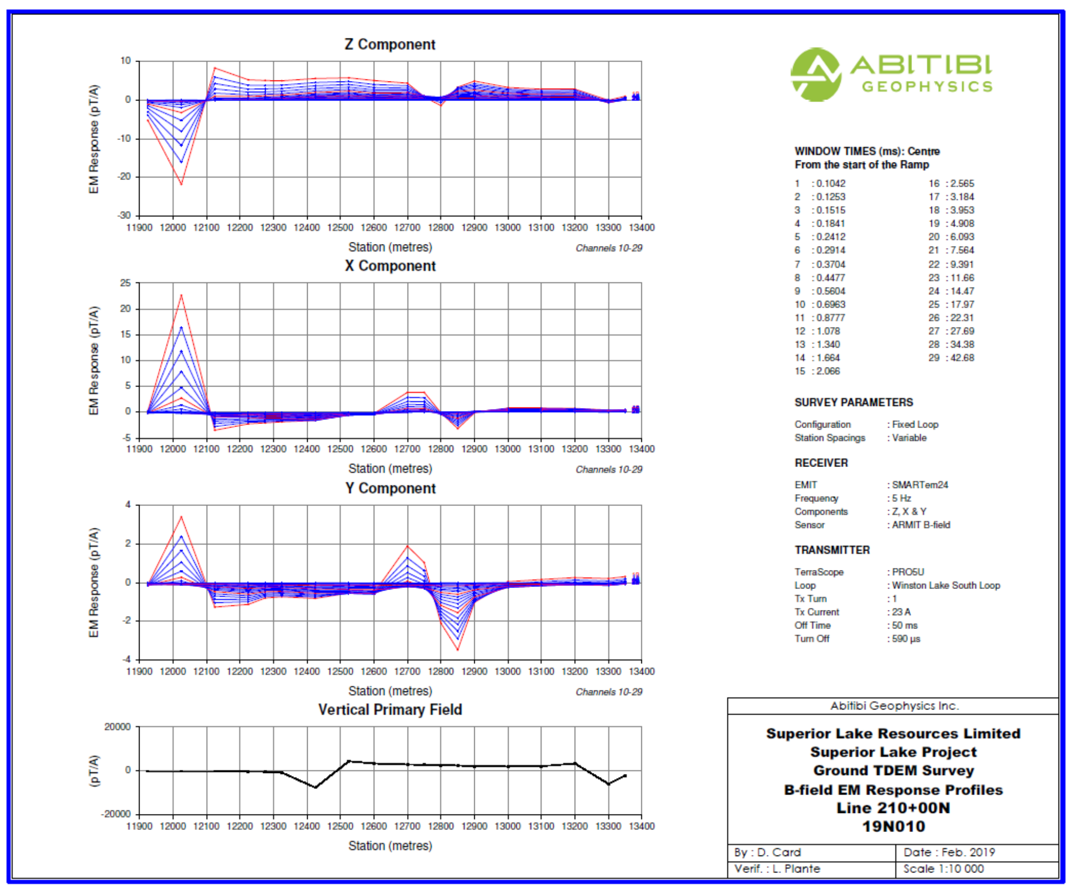

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 202+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

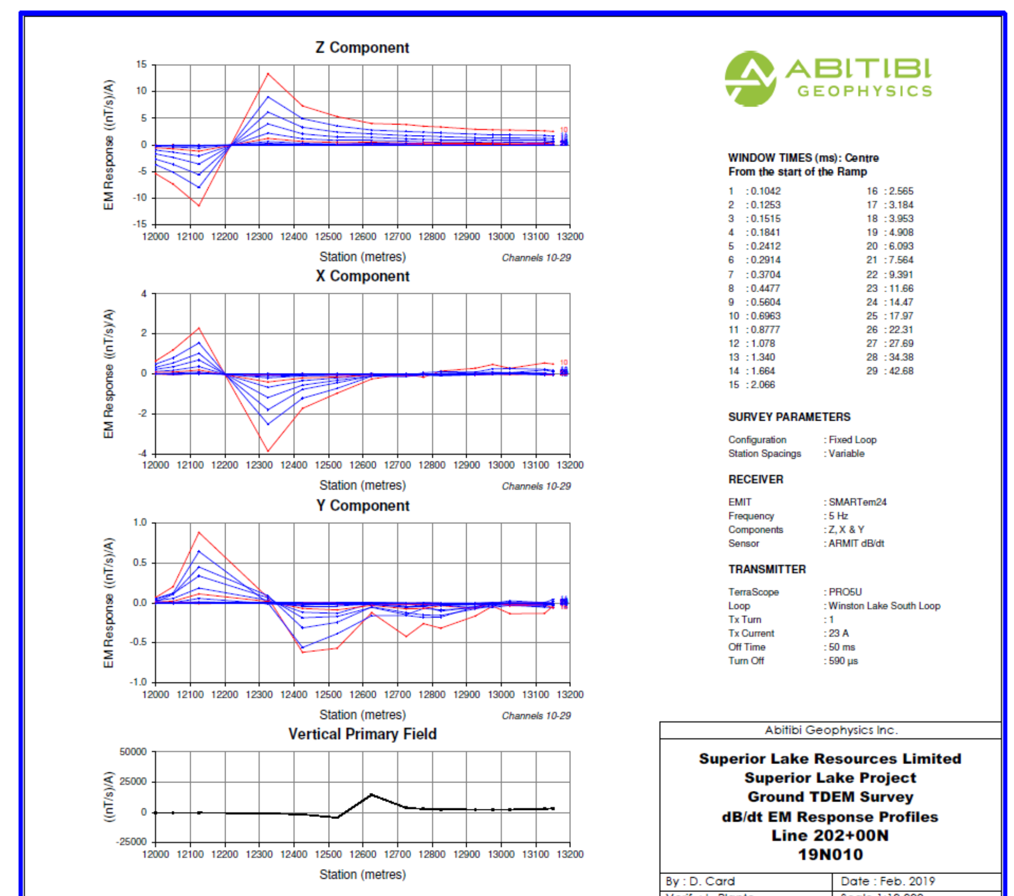

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 204+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

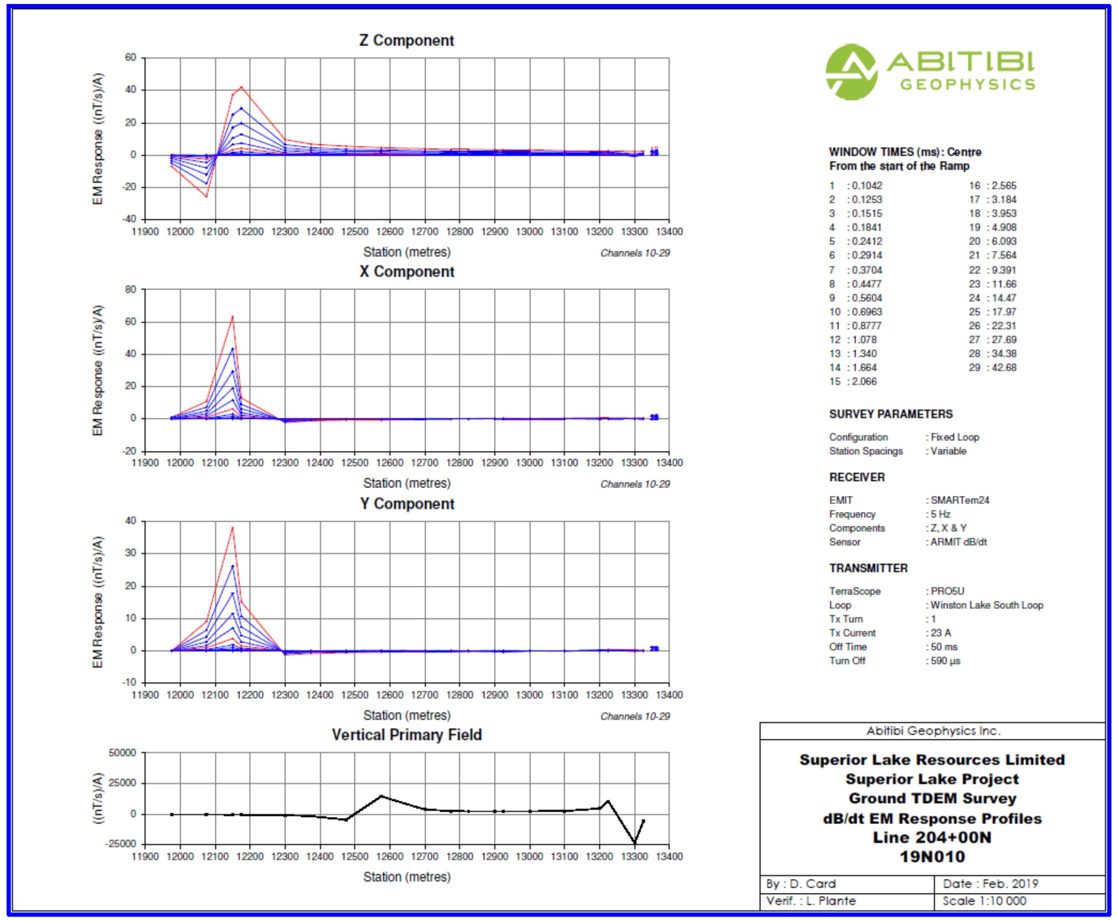

Z Component
X Component
Y Component
Vertical Primary Field
EM Response (pT/A)
(pT/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT B-field
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 206+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

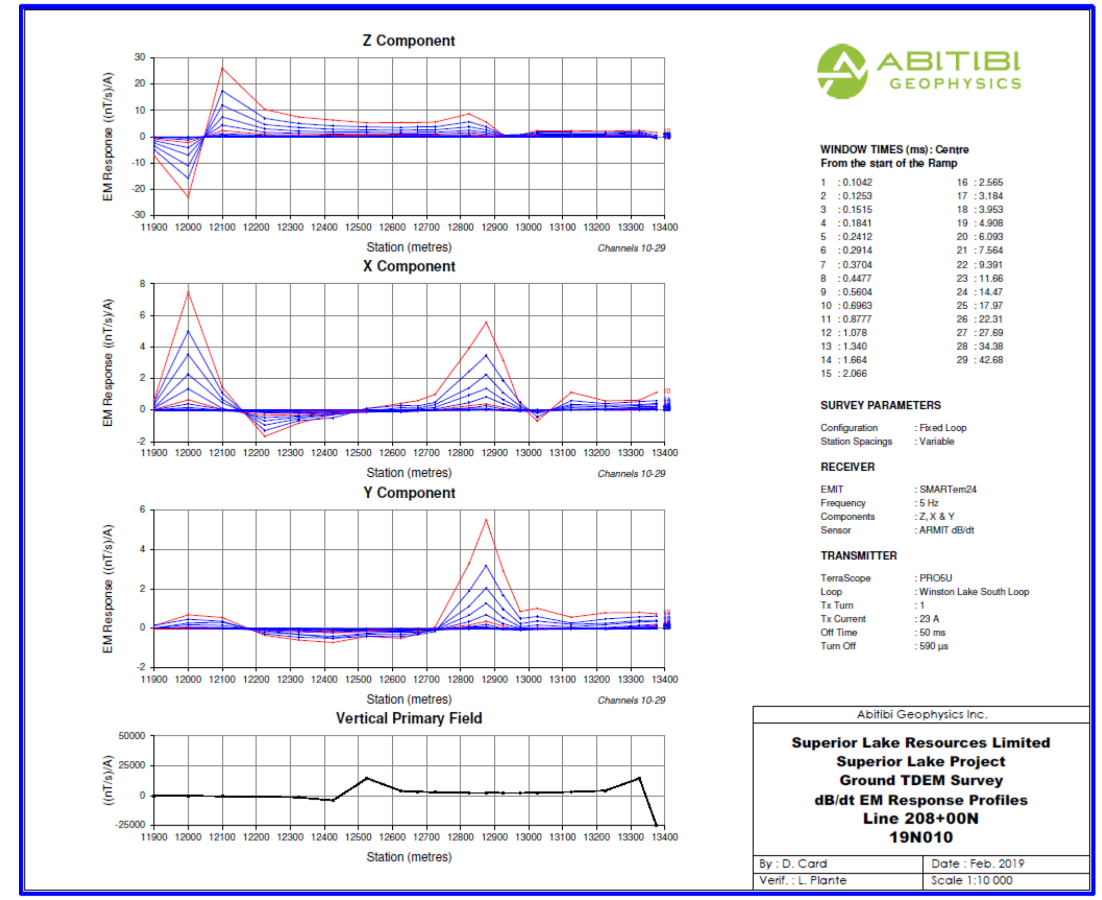

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 208+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

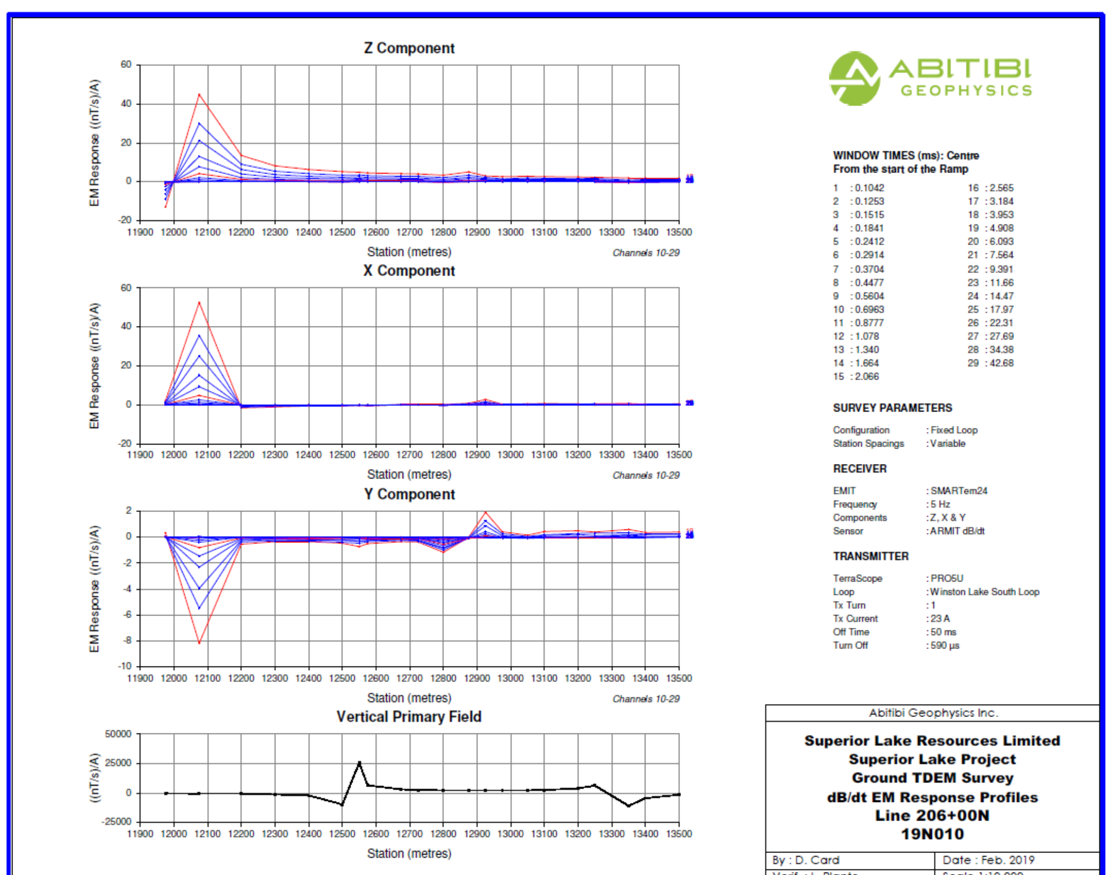

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 200+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

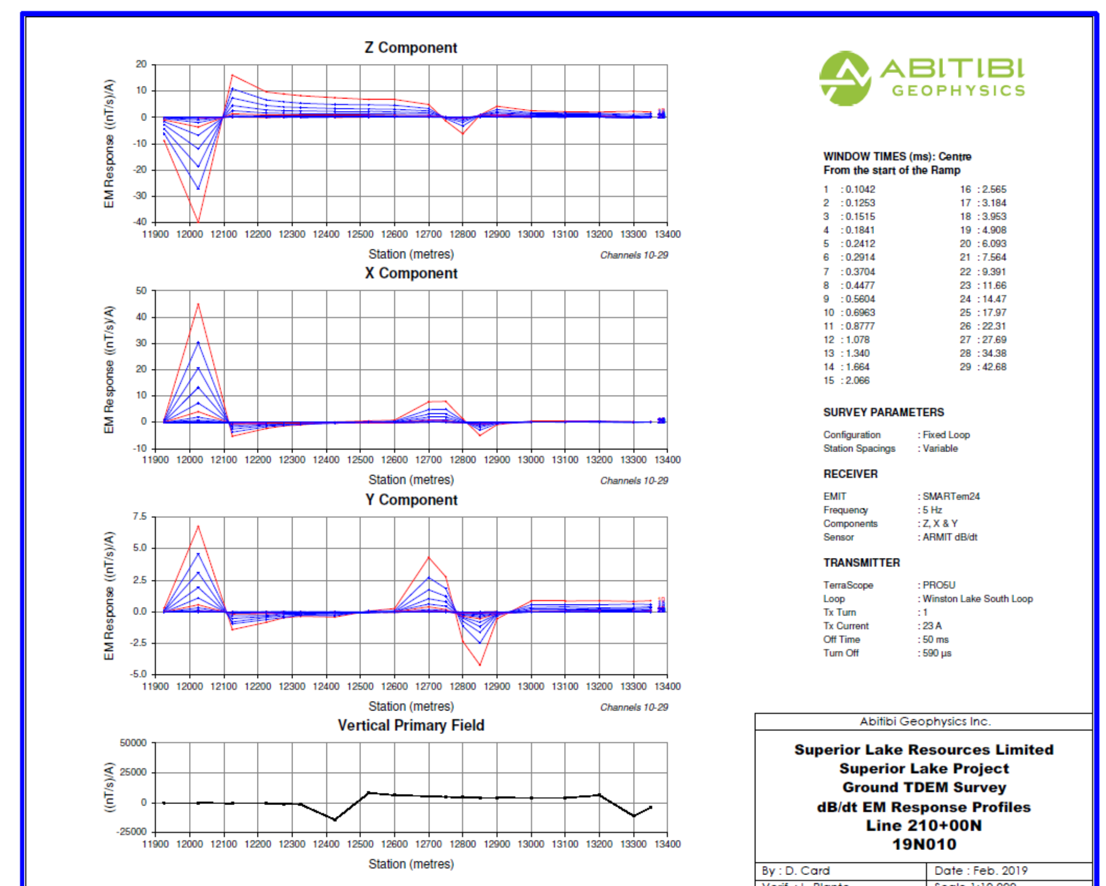

Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
B-field EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre From the start of the Ramp
SURVEY PARAMETERS
RECEIVER
TRANSMITTER
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 202+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

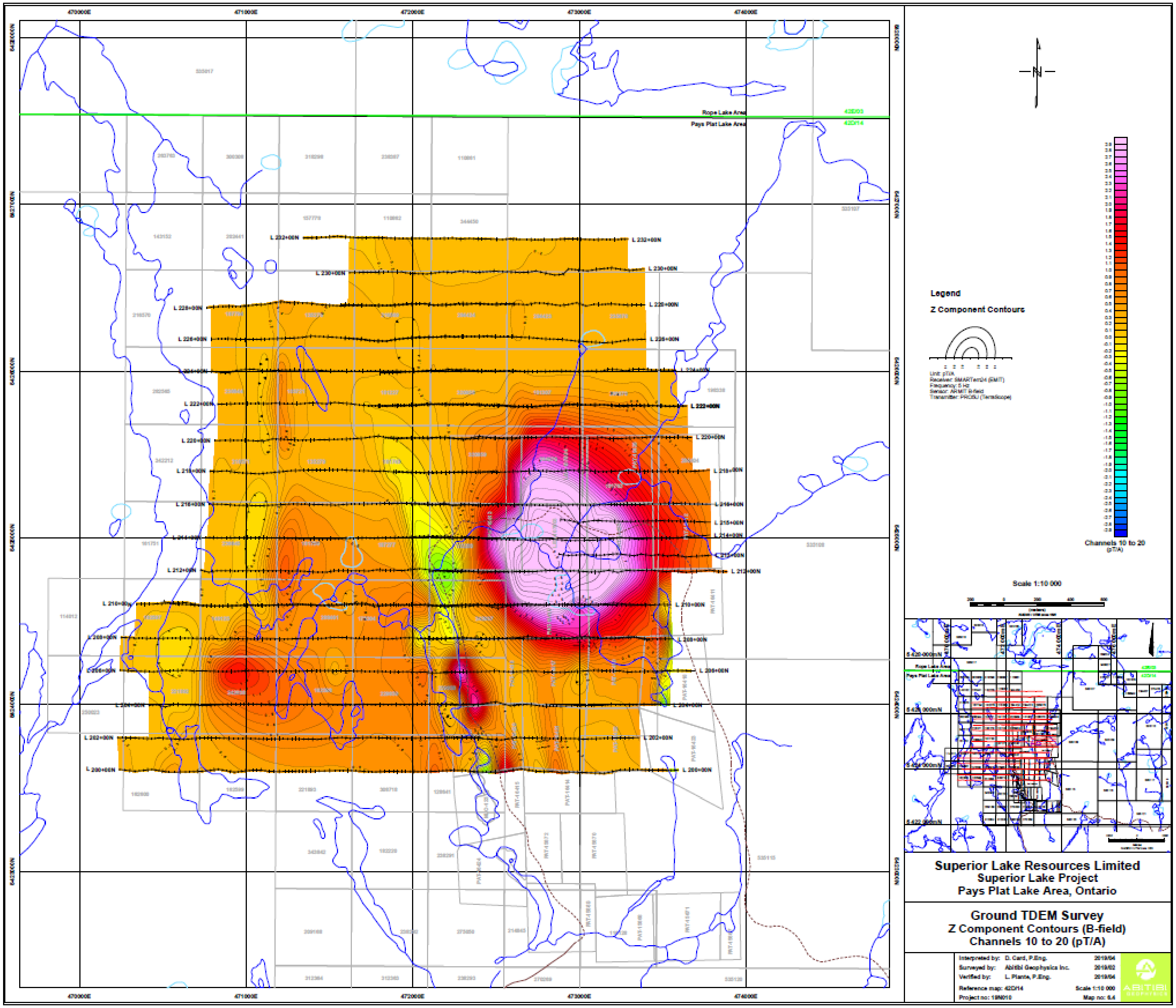

Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
1 : 0.1042
2 : 0.1253
3 : 0.1515
4 : 0.1841
5 : 0.2412
6 : 0.2914
7 : 0.3704
8 : 0.4477
9 : 0.5604
10 : 0.6963
11 : 0.8777
12 : 1.078
13 : 1.340
14 : 1.664
15 : 2.066
16 : 2.565
17 : 3.184
18 : 3.953
19 : 4.908
20 : 6.093
21 : 7.564
22 : 9.391
23 : 11.66
24 : 14.47
25 : 17.97
26 : 22.31
27 : 27.69
28 : 34.38
29 : 42.68
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 204+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

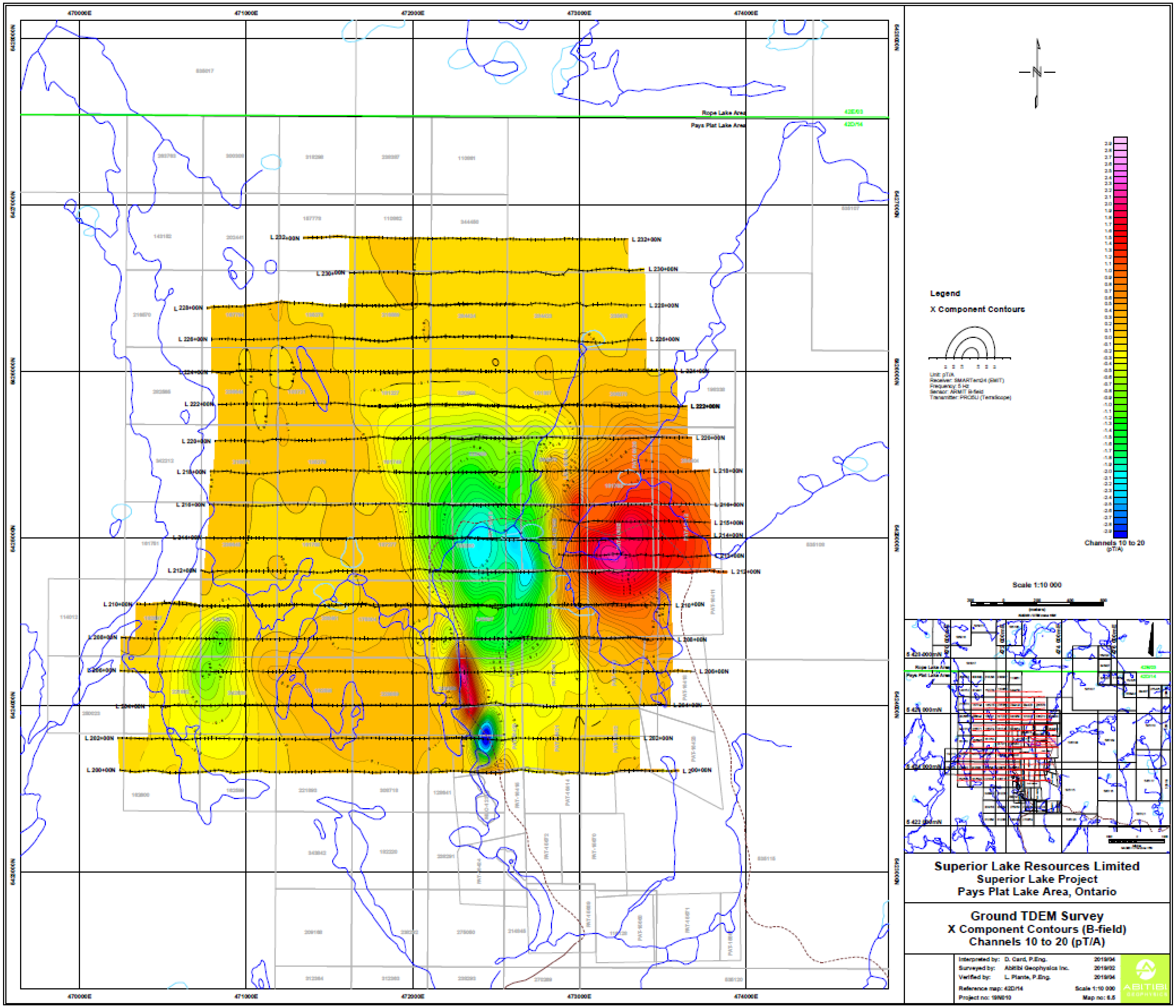

Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 208+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000


Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 206+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

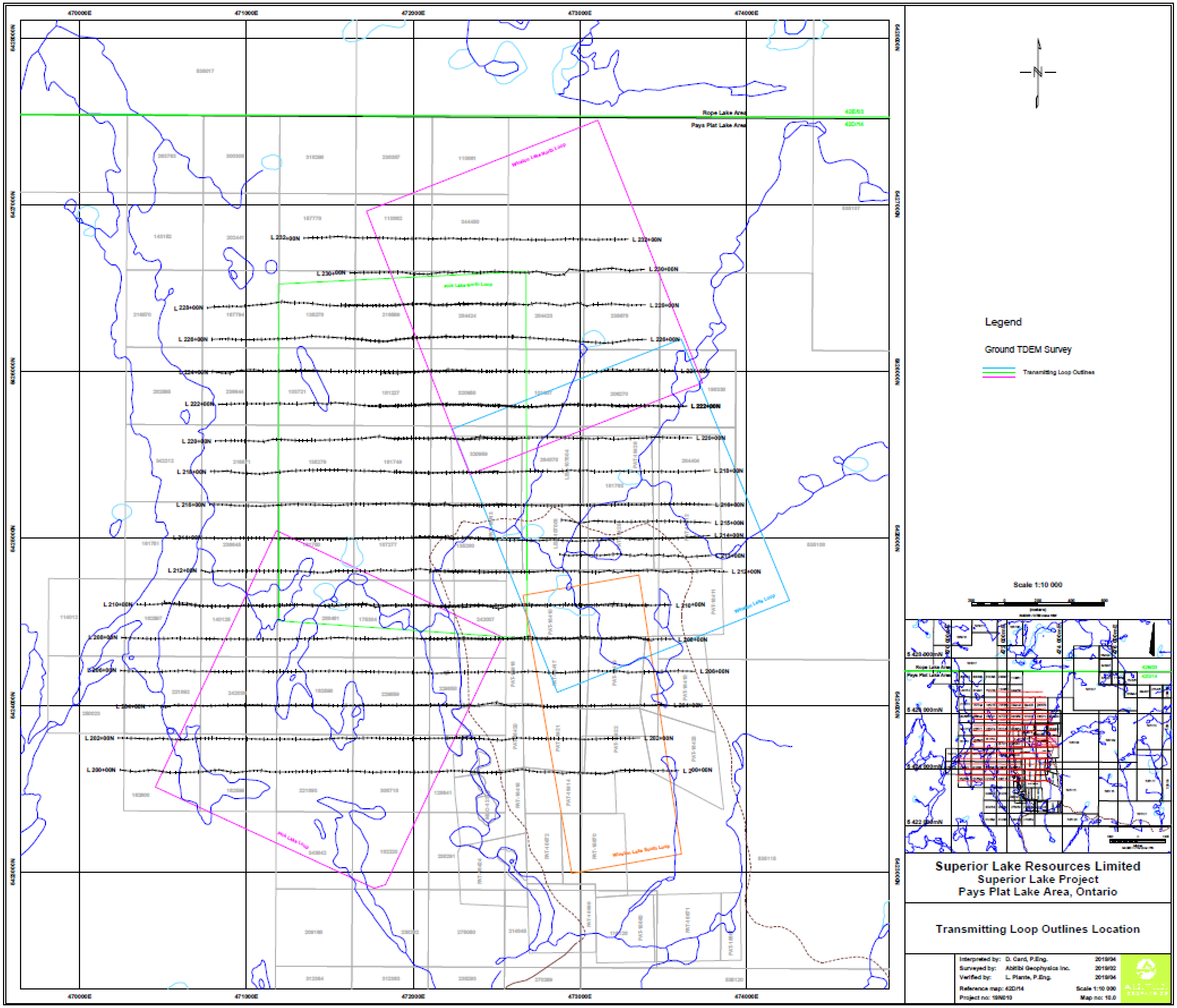

Z Component
X Component
Y Component
Vertical Primary Field
EM Response ((nT/s)/A)
Station (metres)
Channels 10-29
ABITIBI GEOPHYSICS
WINDOW TIMES (ms): Centre
From the start of the Ramp
SURVEY PARAMETERS
Configuration : Fixed Loop
Station Spacings : Variable
RECEIVER
EMIT : SMARTem24
Frequency : 5 Hz
Components : Z, X & Y
Sensor : ARMIT dB/dt
TRANSMITTER
TerraScope : PRO5U
Loop : Winston Lake South Loop
Tx Turn : 1
Tx Current : 23 A
Off Time : 50 ms
Turn Off : 590 µs
Abitibi Geophysics Inc.
Superior Lake Resources Limited
Superior Lake Project
Ground TDEM Survey
dB/dt EM Response Profiles
Line 210+00N
19N010
By : D. Card
Date : Feb. 2019
Verif. : L. Plante
Scale 1:10 000

Appendix 6: Ground TDEM Survey, Contour Anomaly Maps


Legend
Z Component Contours
Channels 10 to 20 (pT/A)
Scale 1:10 000
Superior Lake Resources Limited
Superior Lake Project
Pays Plat Lake Area, Ontario
Ground TDEM Survey
Z Component Contours (B-field)
Channels 10 to 20 (pT/A)
Interpreted by: D. Card, P.Eng.
Surveyed by: Abitibi Geophysics Inc.
Verified by: L. Plante, P.Eng.
Rope Lake Area
Pays Plat Lake Area


Legend
X Component Contours
Channels 10 to 20 (pT/A)
Scale 1:10 000
Superior Lake Resources Limited
Superior Lake Project
Pays Plat Lake Area, Ontario
Ground TDEM Survey
X Component Contours (B-field)
Channels 10 to 20 (pT/A)

Appendix 7: Ground TDEM Survey, Transmitting Loop Outlines Location


Legend
Ground TDEM Survey
Transmitting Loop Outlines
Scale 1:10 000
Superior Lake Resources Limited
Superior Lake Project
Pays Plat Lake Area, Ontario
Transmitting Loop Outlines Location
Interpreted by: D. Card, P.Eng.
Surveyed by: Abitibi Geophysics Inc.
Verified by: L. Plante, P.Eng.
Reference map: 42D/14
Scale 1:10 000
Map no: 10.0
Rope Lake Area
Pays Plat Lake Area
470000E
471000E
472000E
473000E
474000E