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Technical Report
On the
Kitto Project

Thunder Bay Mining District
Northwestern Ontario, Canada

Cells

555589 and 555590

Prepared for:

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Prepared by:
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P. Geo
August 3rd 2021

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1.0 SUMMARY

The project described in this report includes an initial attempt to file in some gaps of geological and geophysical knowledge of the Kitto Intrusion which is the main geological interest of the project and outline possible near surface conductors to continue with exploration work in the fall of 2021.

2.0 INTRODUCTION

This report covers the results of a geophysical survey, VLF EM-16, completed by Pleson Geoscience which took place from May 26th to May 29th 2021 on the project. Brody Stenlund and the author were present on the property during the time of the survey. Alex Pleson operated the instrument and Brody Stenlund acted as the line flagger and data recorder. The geophysics technician (the author) used a Geonic's model EM16 (serial# 3353) to perform the survey which requires a helper to record the position and readings. The complete specifications are available in Appendix D. The geophysics report is listed in Appendix C.

3.0 PROPERTY DESCRIPTION AND LOCATION

The Kitto Nickel project is road accessible, located 13 km to the west of the town of Beardmore, Ontario. The project is best accessed via gravel road off of Highway 580 referred to as the "Mary-Jane" road and traversing due west from the south-west corner of Duck Eggs Lake. This lake is easily accessible by ATV and then a 2.1 km walk is required to access the survey area on the North EM grid on mining cell 555589. The South EM grid is best accessed via boat from High Hill Harbour at the end of Highway 580. Strong caution should be taken when utilizing a small vessel on Lake Nipigon as the weather changed drastically during our trip. Claim lines are still visible on the lake north of the Blackwater River mouth. Walking the E-W claim lines offers the quickest route into the South EM grid although the topography is challenging, access is still possible.

Table 1: Claim Data

Township	Claim ID	Type	Due Date	Status	Ownership (%)	Work Required ($)
KITTO	555590	Multi-cell Mining Claim	2021-08-09	Active	100	3600
KITTO	555589	Multi-cell Mining Claim	2021-08-09	Active	100	2400

Figure 1: Property Location Map

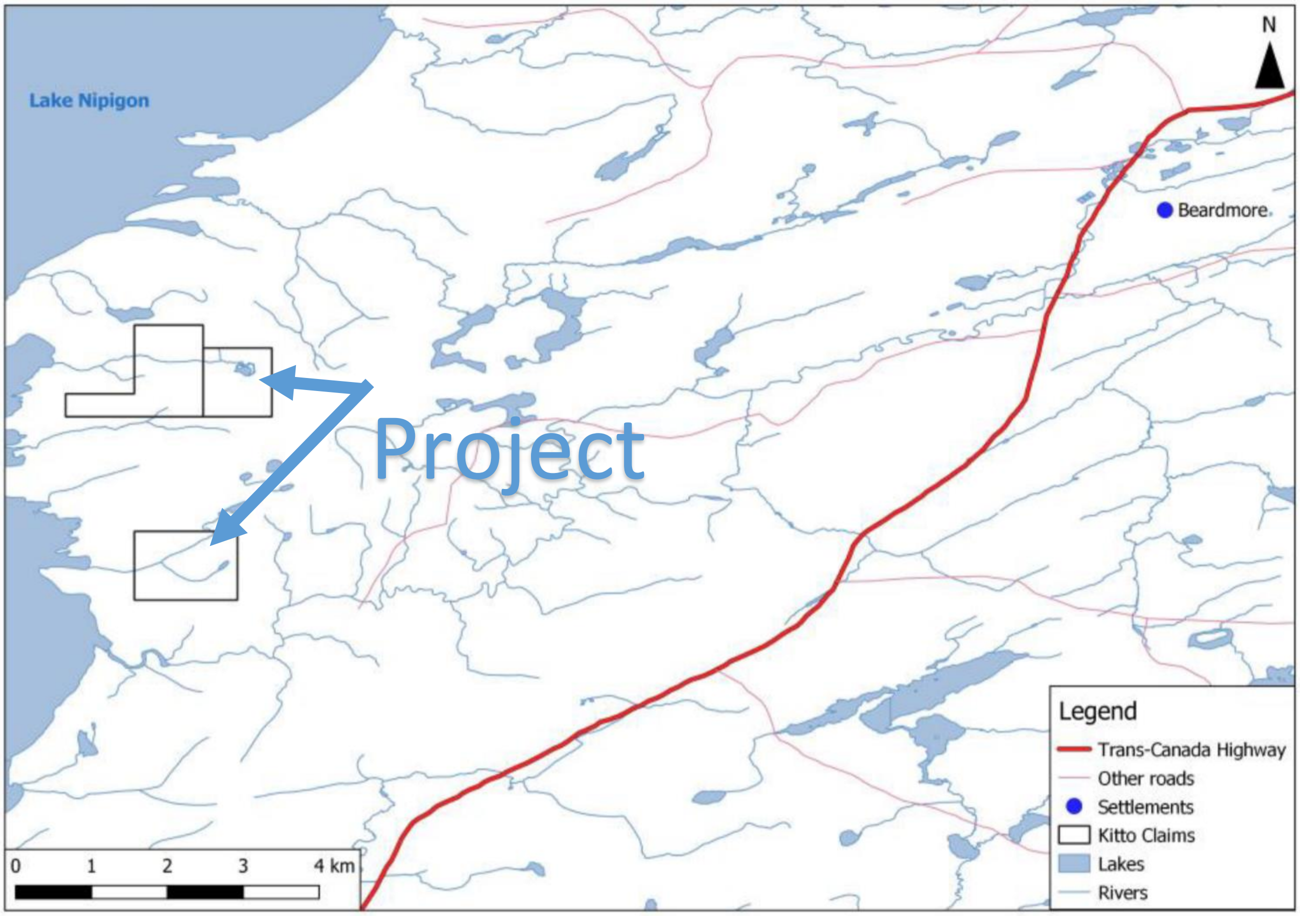
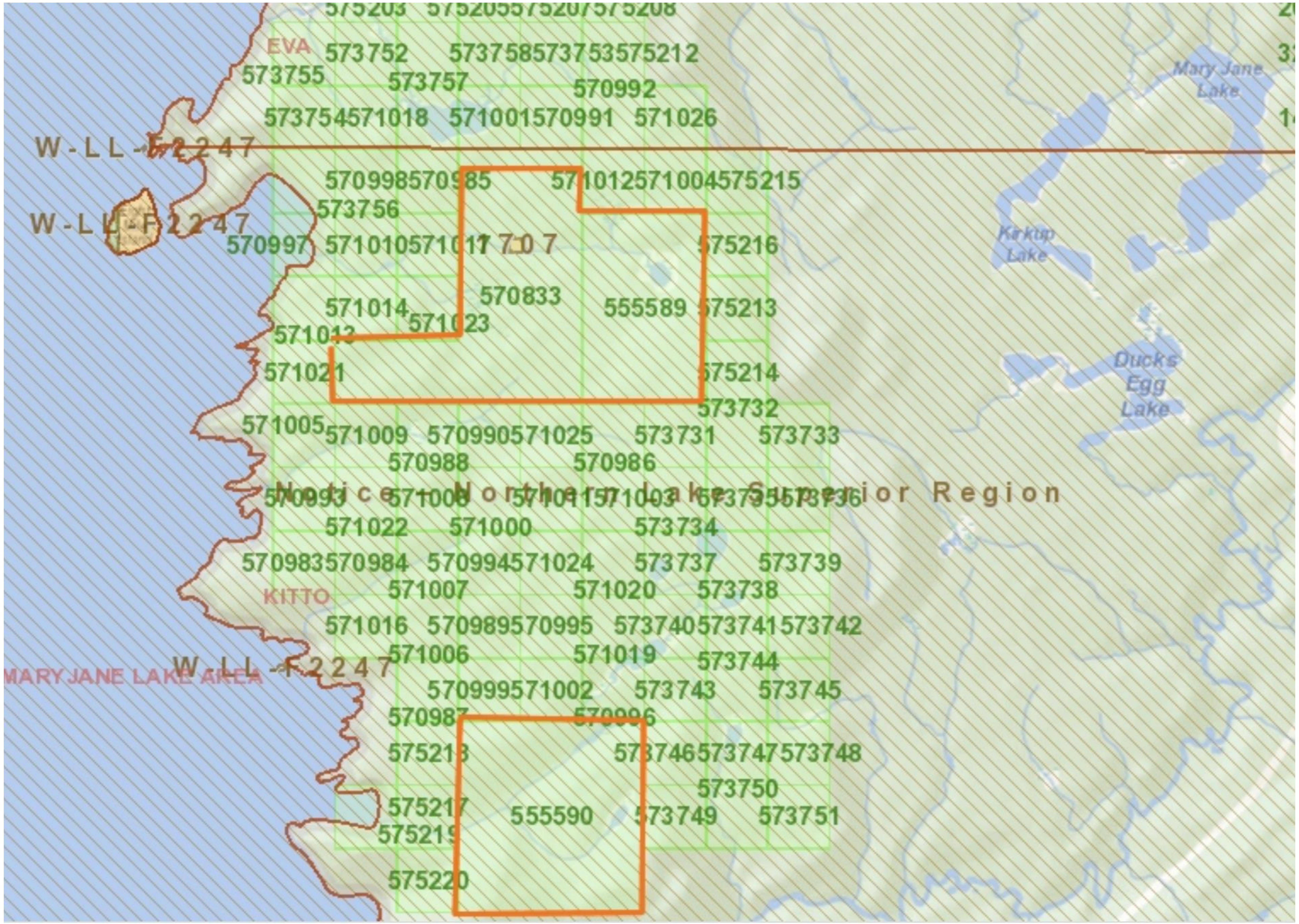


Figure 2: Mineral Claim Map (Project Claims highlighted in Orange)



4.0 ACCESS, CLIMATE, PHYSIOGRAPHY, LOCAL RESOURCES, AND INFRASTRUCTURE

The Kitto Project is located 175 kilometers northeast of Thunder Bay, Ontario, and approximately 12 kilometers southwest from the town of Beardmore, Ontario (Figure 1). It is located in Kitto Township, in Thunder Bay North Mining Division.

The towns of Beardmore and Nipigon are the closest communities, located approximately 14 km east and 70km south, respectively, of the project. Beardmore is part of Greenstone, an amalgamated town encompassing Nakina, Geraldton, Longlac, Beardmore, Caramat, Jellicoe, Macdiarmid and Orient Bay. The population of Greenstone is 4,906 people (Statistics Canada, www.statcan.gc.ca) and the population of Beardmore is approximately 150 people (http://www.highway11.ca/ThunderBay/06Beardmore). Beardmore has limited accommodation and restaurants.

The town of Thunder Bay, located about 275 kilometers from the Property, is the largest city in Northwestern Ontario, serving as a regional commercial Centre. The town is a major source of workforce, contracting services, and transportation for the forestry, pulp and paper and mining industry. Thunder Bay is a transportation hub for Canada, as the TransCanada highways 11 and 17 link eastern and western Canada. It is close to the Canada-U.S. border and highway 61 links Thunder Bay with Minnesota, United States. Thunder Bay has an international airport with daily flights to Toronto, Ontario and Winnipeg, Manitoba, and the United States.

The city of Thunder Bay has most of the required supplies for exploration work including drilling and geophysical survey companies, grocery stores, hardware stores, exploration equipment supply stores, restaurants, hotels, and a hospital. The population of the city of Thunder Bay was 109,140 people in 2006 (Statistics Canada, www.statcan.gc.ca). Many junior exploration and mining companies are based in Thunder Bay, and thus the city is a source of skilled mining labour.

The height of land ranges from 335 m and 370 meters above sea level. Inferred thickness of overburden varies from bedrock exposure to 21.9 meters as evidenced in the surface trenching program and overburden depths in both the historical drilling programs. The overburden cover consists of unconsolidated glacial gravelly, silty sand diamicton with thin sand and gravel areas in higher relief areas, and thick organic matter and clay in poorly drained lower relief areas. extensive clay-rich swamp and muskeg with poor drainage.

5.0 HISTORY

Mapping, sampling, geophysics, and minimal drilling have been conducted on the property historically. Anomalous metal values were returned for grab samples from within lherzolite and olivine websterite layers in the intrusion (see diagram to the right). As well, drilling encountered anomalous Pt-Pd mineralization and fine interstitial sulphides and a VTEM survey identified several conductors on the property. None of these conductors have been drill tested. Further mapping of the intrusion is recommended to understand the structure and possible hosts to mineralization. A follow-up ground EM survey is also recommended, along with drill-testing of conductors.

A summary of work is presented in Table 2 prior to Pleson Geoscience's work is listed below:

Table 2: Historic Exploration Summary

1971 The Geological Survey of Canada performed an airborne EM survey over the eastern part of Eva Kitto intrusion

1981 R.H. Sutcliffe, O.G.S, mapped the Nipigon Plate and first delineated the Eva-Kitto Township intrusions

1986 Sutcliffe, as part of his PhD thesis, did petrography, XRF analysis, ion exchange chromatography, and ICP on the picritic rocks of the Nipigon Embayment and concluded the rocks have an Fe-Ti basalt chemistry (like the Osler Group volcanics) and high concentration of incompatible elements probably indicative of crustal contamination

1988 Kenting Earth Sciences performed an airborne EM survey for the Geological Survey of Canada over the Beardmore-Geraldton Belt outlining conductors bordering the intrusion

1989 Questor Surveys Limited performed an airborne TDEM survey for Glen Auden Resources Ltd. and detected anomalies associated with the iron formations

1990 The Geological Survey of Canada sampled anomalous nickel, copper and chromium in lake sediments over the Eva-Kitto intrusion

2001 The Ontario Geological Survey mapped the intrusion and revealed a showing with weak copper, nickel and PGE mineralization in a creek (Phoenix Prospect)

2001 Hunter Dickinson Incorporated did prospecting and sampling returning assays of ppb Pt and Pd.

2002 Kennecott Canada Exploration Inc supervised an airborne MegaTEM and magnetics survey done by Fugro Airborne Surveys Corp. EM and magnetic anomalies were prospected with some assays running at 901 and 1065ppb Pt+Pd.

2003 Kennecott Canada Exploration Inc drilled 4 DDH holes. Hole EK-2 intersected disseminated po-cpy mineralization and was the only hole to hit the magnetiferous metapelites of the Archean basement. Assays were up to 0.28%Ni, 0.13%Cu and 563ppb Pt+Pd in a 1.22m interval.

2005 East West Resource Corp and Maple Minerals carry out geological mapping and sampling on the northeast margin of the intrusion.

2006 East West Resource Corporation and Mega Uranium Ltd. carried out diamond drilling (EK-05-01) on the northeast margin of the intrusion.

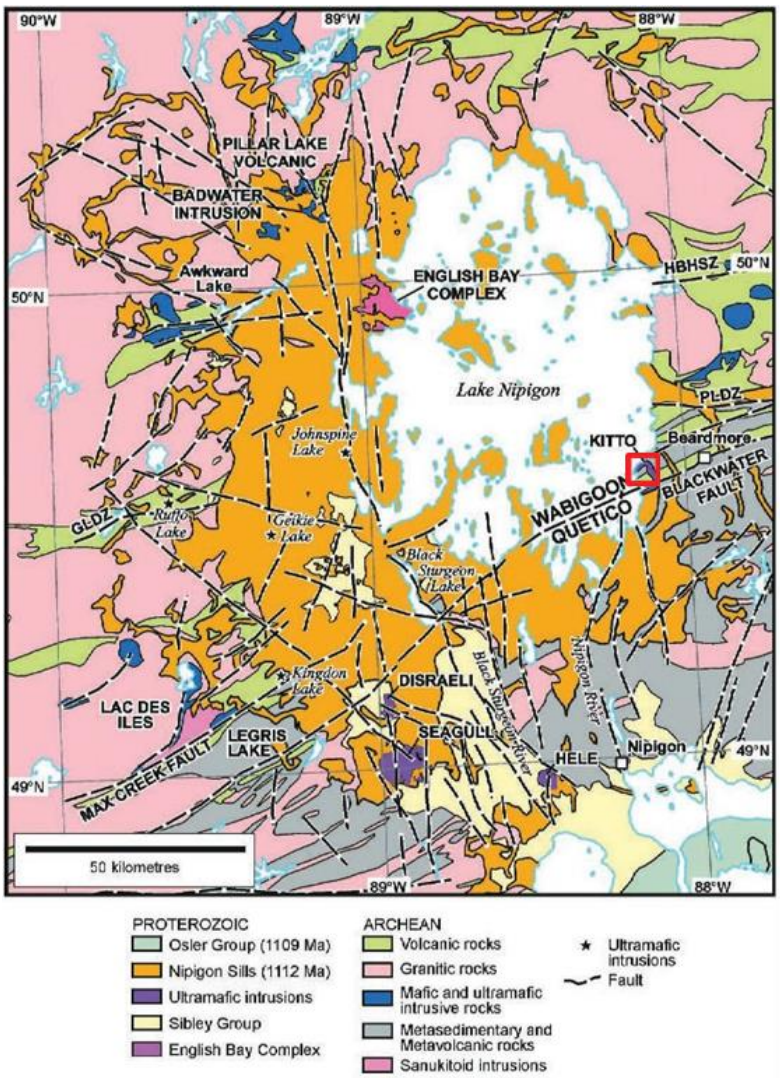
2007 East West Resource Corporation and Mega Uranium Ltd. carried out diamond drilling (EK-07-02) on the northeast margin of the intrusion.

2008 East West Resource Corporation International Bethlehem Corporation supervised a VTEM survey performed by Geotech Ltd. on 210 restaked Eva Kitto mining claims.
2008-2009 East West Resource Corporation International Bethlehem Corporation carried out diamond drilling (EK-08-01) at the Phoenix Occurrence at the southern part of the intrusion.

6.0 GEOLOGY

Geology on the property is dominated by a large layered mafic-ultramafic intrusion associated with the failed arm of the Midcontinental Rift. It appears to be a relatively flat-lying sill intruding into volcanics and sediments. Iron formations within the sediments are thought to have provided the sulphur necessary for sulphide precipitation.

Figure 3: Regional Geology



6.2 Property Geology

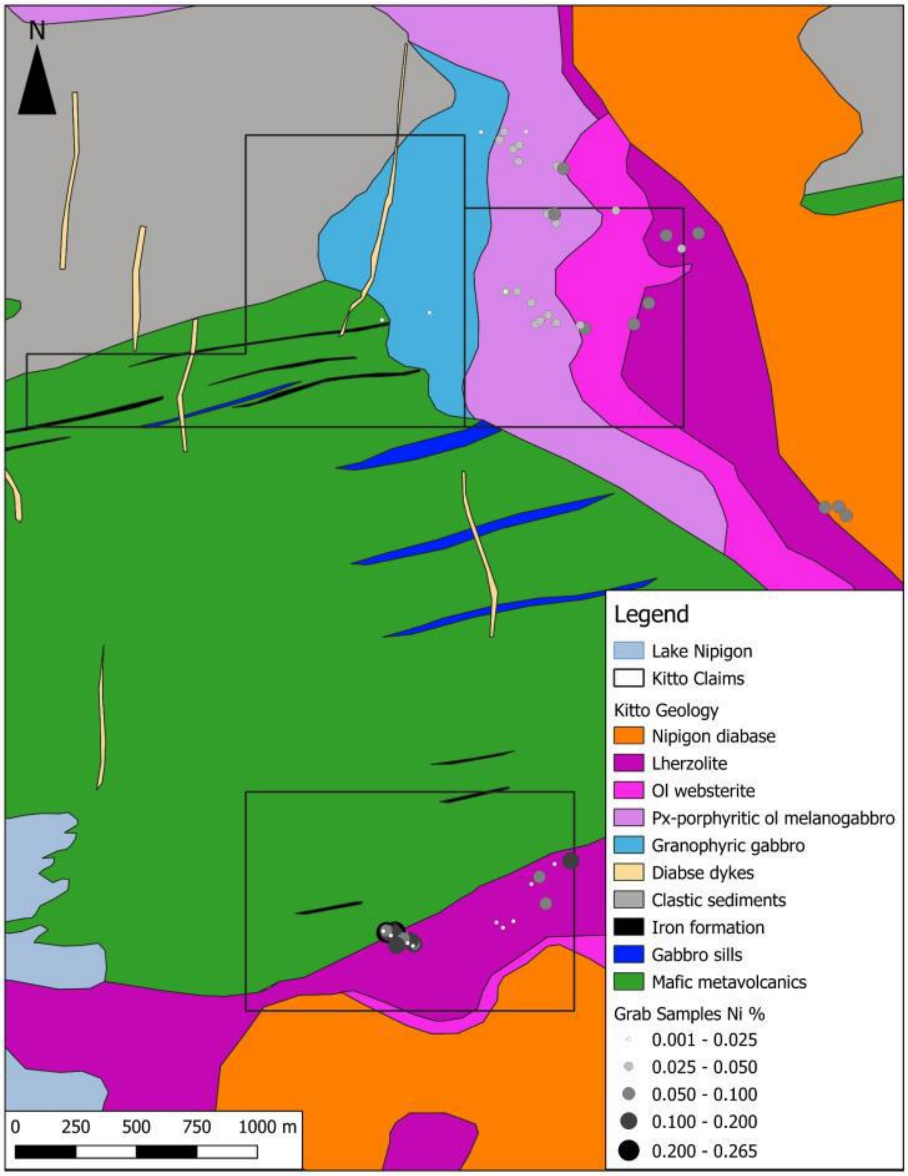
The following description of the local geology was extracted from Hart et al. (2002) and the references therein. The Eva-Kitto property is underlain by Archean metasedimentary and metavolcanic rocks of the Beardmore–Geraldton Belt (BGB) to the north and metasedimentary rocks of the Quetico Subprovince to the south (Fig.4 and 5). The north portion of the property is underlain by rocks of the southern metasedimentary subbelt (SSB) of the BGB which consist of thinly to thickly bedded feldspathic wacke, lithic wacke, siltstone, polymictic conglomerate, and mudstone and/or argillite with argillite-magnetite iron formation and jasper-hematite iron formation. Bounding the SSB to the south are mafic metavolcanic rocks of the southern metavolcanic subbelt (SVB) which consist of massive and pillowed flows with minor tuffs, lapilli tuffs, and tuff breccias and interflow chert-magnetite iron formations.

Separated from the BGB by the southwest-trending Blackwater Fault, the thinly bedded feldspathic wacke, siltstone, argillite and conglomerate of the Quetico Subprovince underlie the south portion of the property. The sedimentary rocks of the Quetico resemble metamorphosed equivalents of the metasedimentary rocks of the BGB. Late post-tectonic mafic sills were emplaced into the metavolcanic rocks of the SVB. A swarm of narrow, generally north-striking diabase dikes intrude the supracrustal rocks. Sedimentary rocks of the Sibley Group, comprised of calcareous mudstone to sandy dolostone of the Rossport Formation, unconformably overly the Archean rocks on the south side of the property.

Two ages of Proterozoic sills were emplaced into all older units, the 1117 Ma mafic-ultramafic Kitto sill and the 1108 Ma diabase sill of the Nipigon Sill Complex (Fig. 4). The mafic- ultramafic Kitto intrusion outcrops in a roughly semi-circular body with shallowly dipping layers suggesting a sill that dips shallowly to the west. A generally flat-lying to shallowly dipping diabase sill intrudes both the Archean rocks and the Kitto intrusion. The diabase sills are commonly massive, medium- to coarse-grained and should be properly classified as gabbro and are variable in thickness from <5 to >185 m. Formed by single or multiple pulses of magma, the sills range in grain size from chill to very coarse-grained with pegmatitic intervals. Contacts are commonly aphanitic, polygonal jointed or, when in contact with sedimentary rocks, xenolith-rich hybrids.

The majority of the rocks of the BGB exhibit a relatively uniform low to middle greenschist-facies metamorphism. The sedimentary rocks of the Quetico Subprovince are at a slightly higher metamorphic grade than rocks of the BGB. Hornfels metamorphism is restricted to a small area and overlying the Kitto intrusion along the SVB–SSB contact, and is most evident as well hornfels iron formation.

Figure 4: Local Geology *(Jessica Daniel 2020 – Earn in Partner)*



7.0 EXPLORATION WORK

The geophysical survey technician and helper spent 4 days gaining access to the project, flagging lines, and establishing the base line, and completing the surveys. No exploration permit was required for the survey. Alex Pleson used a Geonics EM16 VLF handheld unit (serial# 3353) using Cutler, Maine, U.S.A @ 24.0 kHz. Flagged line spacing was 100 m and stations were every 50m on the line. The survey was strategically designed to maximize the perpendicularity of the instrument to the predicted axis of unconformity. A total of 5000m were surveyed and flagged. A detailed data review and map of the line data is listed in Appendix D and final map in Figure 5.

Figure 5: VLF Survey Grid Location Map

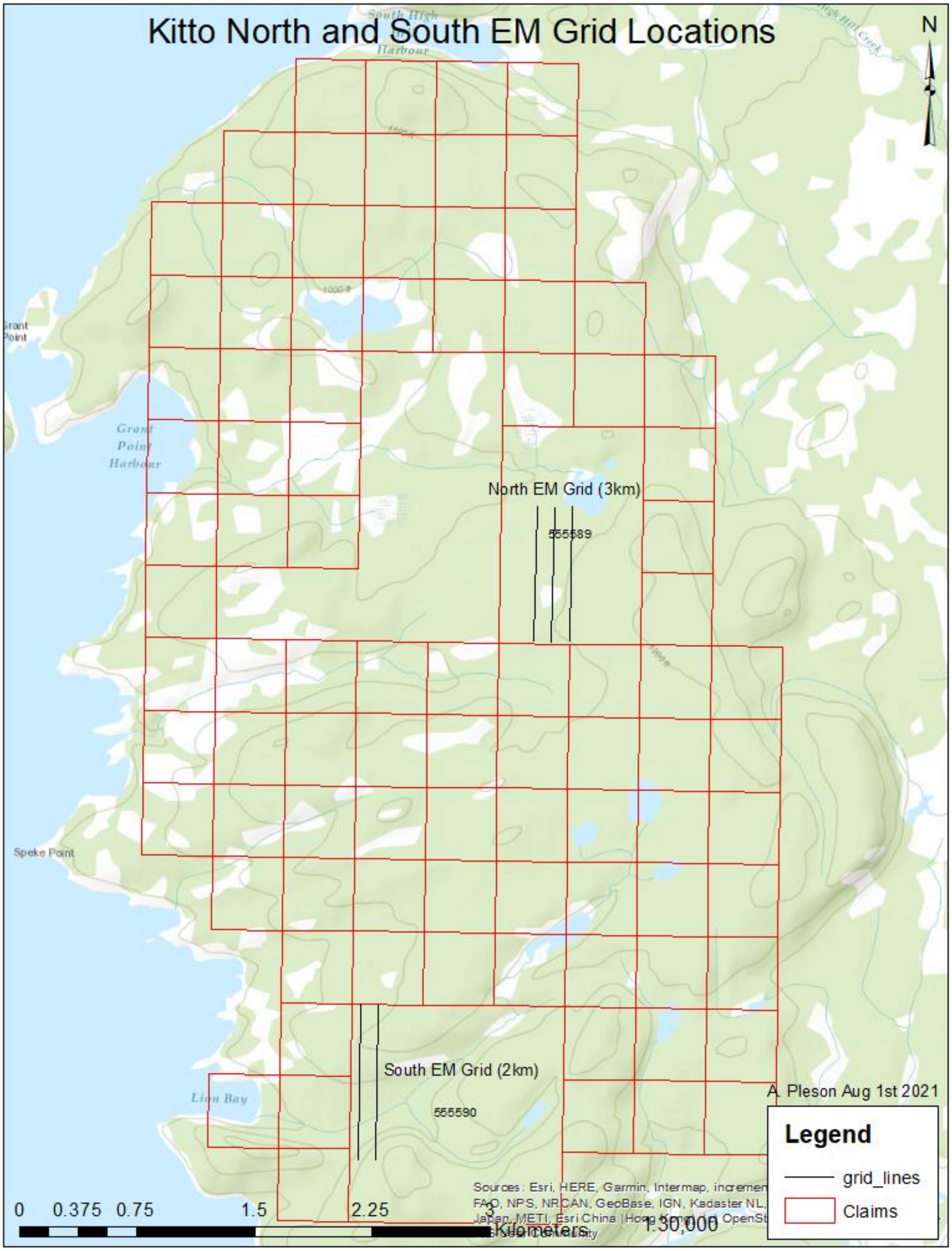
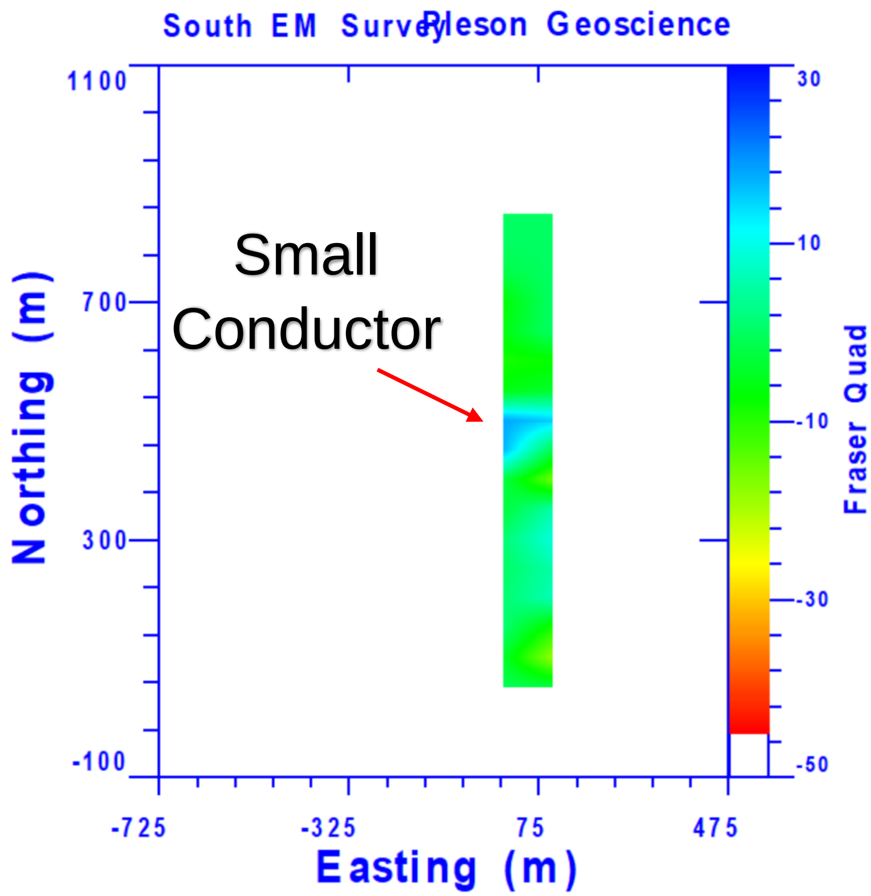
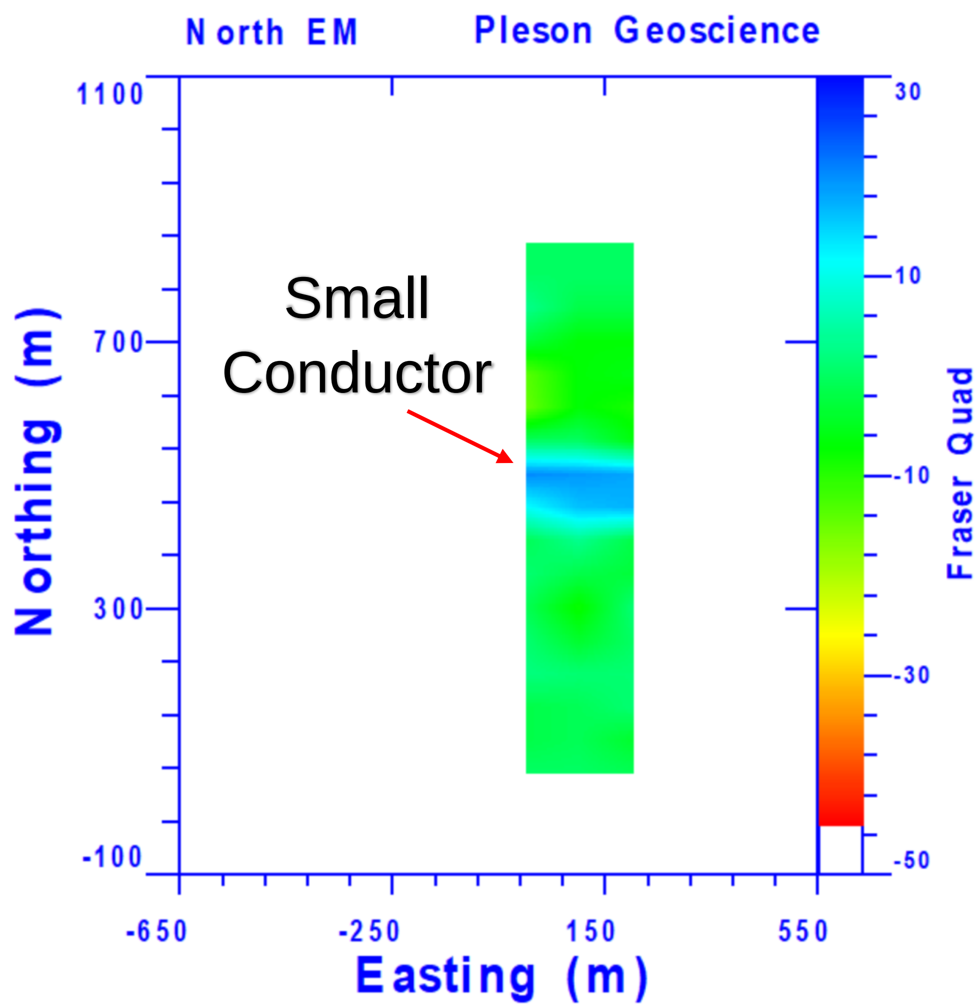


Figure 5: VLF Final Map




North EM
Pleson Geoscience
Small Conductor
Northing (m)
1100
700
300
-100
Easting (m)
-650
-250
150
550
Fraser Quad
30
10
-10
-30
-50

8.0 EXPLORATION RESULTS AND RECOMMENDATIONS

The VLF survey performed has identified two small conductors which warrant further work. Overall, the author recommends the following actions be taken to advance the project:

- Apply for exploration permit(s) for follow up work
- Prospect for outcrops near or along strike of the identified conductors
- Continue with VLF surveys along trend to expand E-W conductors (possibly faults?)
- Geological mapping to explain conductors
- Soil sampling (SGH or MMI) as outcrop is very minimal in this area based on historic work
- Data compilation of historic work especially East-West Resources geochemical data from surface and DDH work

9.0 REFERENCES

Laarman., 2012, Diamond Drilling Report, Assessment File# 20010749

Hart, T., 2016, REPORT ON RECONNAISANCE MAPPING, Transition Metals Inc.

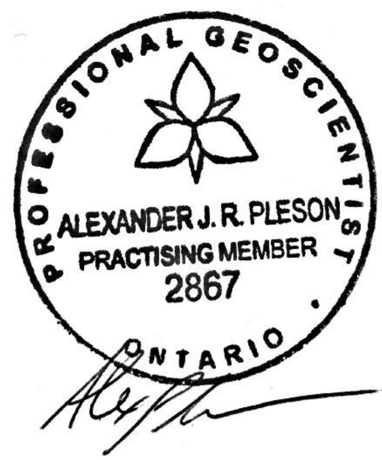
10.0 CERTIFICATE OF AUTHOR

I, Alexander Pleson, P.Geo., as an author of this report regarding the exploration project in the Thunder Bay Mining District, Northwestern Ontario, Canada; do hereby certify that:

1. I am a consulting geologist at Pleson Geoscience of Nipigon, ON, CA P0T 2J0
2. I have B.Sc. degree in Geology from Lakehead University.
3. I am registered as a Professional Geologist in Ontario (License #: 2867).
4. I have been practicing as a professional since 2017, and have 12 years of experience in mineral exploration.
5. The exploration work was carried out under my supervision and I was on site through the duration of the project.
6. I retain 100% ownership in the project

Dated: August 3rd, 2021

Signed and Sealed:



APPENDIX A

LIST OF PERSONNEL WORKED ON EXPLORATION WORK

List of Personnel / Contractors Involved on the Project

1. **Alexander Pleson, P.Geo., - Geologist of Nipigon, ON (Claim Holder)**

2. **Brody Stenlund – Labourer Nipigon, Ontario (Contractor)**

APPENDIX B

STATEMENT OF EXPENDITURES

North EM (Mining Cell 555589)				
Item	Rate	Unit	Duration/Units	Sub-Total
VLF	1500	km	3	4500
Boat	125	day	2	250
50% Mob/demob	975	day	0.5	487.5
50% Map, Report	650	day	0.5	325
			Total	5562.5

South EM (Mining Cell 555590)				
Item	Rate	Unit	Duration/Units	Sub-Total
VLF	1500	km	2	3000
Boat	125	day	1	125
50% Mob/demob	975	day	0.5	487.5
50% Map, Report	650	day	0.5	325
			Total	3937.5

APPENDIX C

VLF Map and Data

APPENDIX D

Instrument Specifications

EM16/16R Specifications

MEASURED QUANTITIES	EM16: In-phase and Quadrature components of the secondary VLF field, as percentages of the primary field EM16R: Apparent resistivity in ohm-metres, and phase angle between Ex and Hy
PRIMARY FIELD SOURCE	VLF broadcast stations
SENSOR	EM16: Ferrite-core coil EM16R: Stainless-steel electrodes, separated by 10 m; sensor impedance is 100 MΩ in parallel with 0.5 pf
OPERATING FREQUENCY	15 to 28 kHz, depending on VLF broadcasting station
MEASUREMENT RANGES	EM16: In-phase: ±150 %: Quadrature: ±40 % EM16R: 300, 3000, 30000 Ω-m, Phase: 0-90°
POWER SOURCE	EM16 or EM16/16R: 9 V battery
OPERATING TEMPERATURE	-30° C to +50° C
DIMENSIONS	EM16 or EM16/16R: 53 x 30 x 22 cm
WEIGHT	EM16: Instrument: 1.8 kg; Shipping: 6.2 kg EM16R: Instrument: 1.5 kg; Shipping: 6 kg