ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
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Vancouver, B.C. V6B1L8
Telephone: 604-688-2568 Fax: 604-688-2578

ASSESSMENT REPORT

describing

PROSPECTING, GEOCHEMICAL SAMPLING AND GEOPHYSICAL SURVEY

at the

HOOCH PROPERTY

Hooch 1-12 YD07557-YD07568
13-30 YF35513-YF355530

NTS 115H/2
Latitude 61°02´N; Longitude 136°43´W

located in the

Whitehorse Mining District
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

BONAPARTE RESOURCES INC.
and
STRATEGIC METALS LTD.

by

H. Smith, B.Sc., P.Geo.
May 2012

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INTRODUCTION

The Hooch property covers a copper±gold±silver±molybdenum±tungsten skarn prospect located in southwestern Yukon. Bonaparte Resources Inc. can earn a 100% interest in the property subject to an option agreement with Strategic Metals Ltd.

This report describes one day of field work and a helicopter-borne versatile time-domain electromagnetic (VTEM) survey. The field work comprised prospecting and geochemical sampling and was conducted on September 5, 2011 by Archer, Cathro & Associates (1981) Limited. The geophysical survey was done as part of a large survey that also covered other properties owned by Bonaparte. The survey was flown between November 22 and January 12, 2012 by Geotech Ltd. of Aurora, Ontario. All work was performed on behalf of Bonaparte. The author participated in and directed the field work, and her Statement of Qualifications appears in Appendix I.

PROPERTY LOCATION, CLAIM DATA AND ACCESS

The Hooch property consists of 30 contiguous mineral claims, which are located on NTS map sheet 115H/02 at latitude 61°02´ north and longitude 136°43´ west (Figure 1). The property covers an area of approximately 607 ha (6 sq km). The claims are registered with the Whitehorse Mining Recorder in the name of Archer Cathro, which holds them in trust for Strategic. Specifics concerning claim registration are tabulated below, while the locations of individual claims are shown on Figure 2.

Claim Name	Grant Number	Expiry Date*
Hooch 1-12	YD07557-YD07568	March 23, 2019
13-30	YF35513-YF355530	March 23, 2017

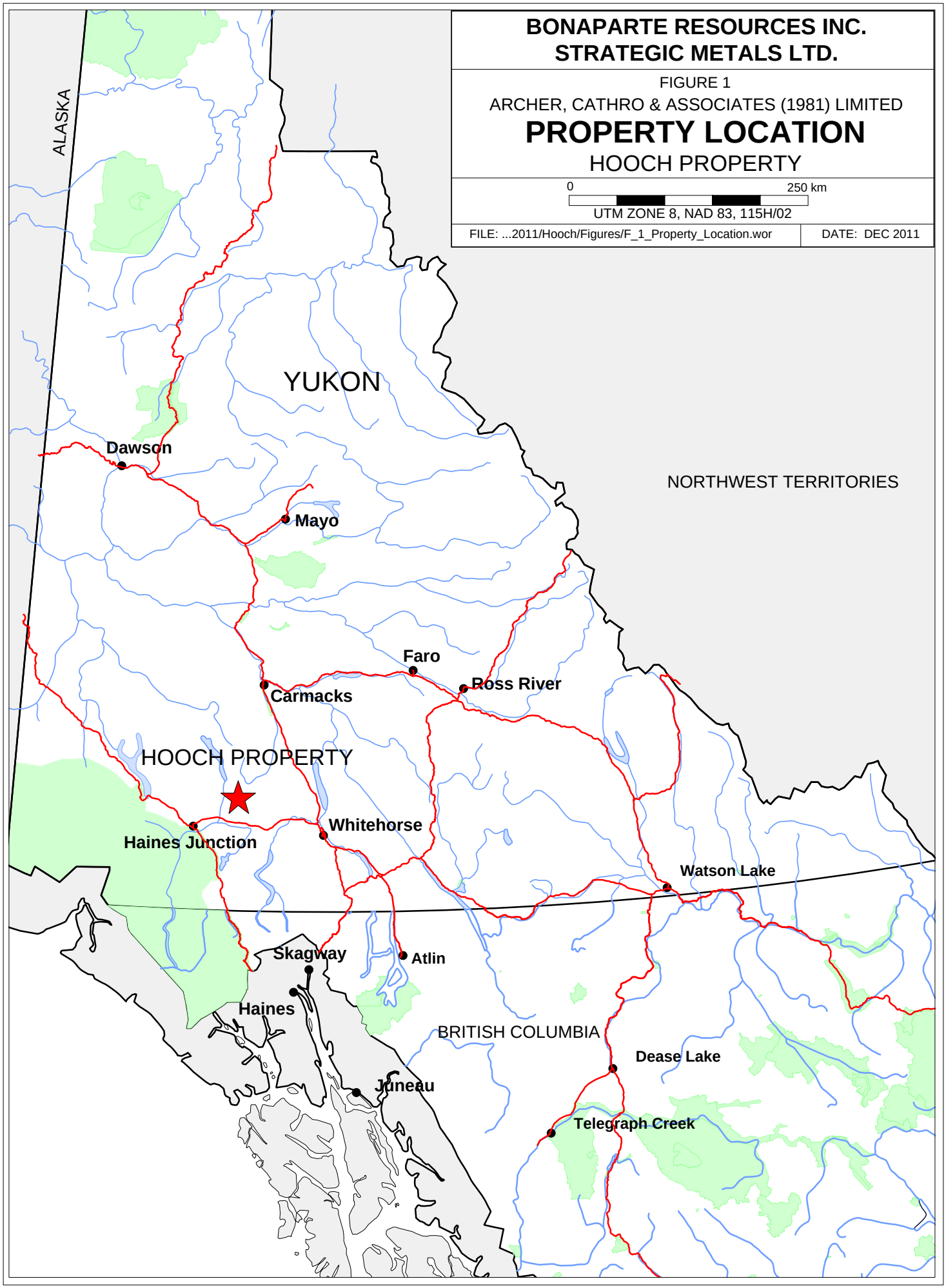
* Expiry dates include 2011 work that has been filed for assessment credit.

The Hooch property lies 14 km east of the Aishihik Lake road, at a point 20 km north of its junction with the Alaska Highway. Previous access to the property was via helicopter or by a bulldozer trail that leaves the Alaska Highway at Cracker Creek (Mile 950). Access to and from the property in 2011 was provided by a Bell 206 B helicopter operated by Kluane Helicopters from its based in Haines Junction, 54 km to the southwest for the duration of the survey.

During the geophysical survey the crew stayed at a hotel in Haines Junction. The helicopter was provided by the geophysical contractor and was positioned at the Haines Junction Airport for the duration of the survey.

HISTORY AND PREVIOUS WORK

The Hooch property covers the Moraine Showing, a copper, gold, silver, molybdenum and tungsten bearing skarn occurrence (Deklerk and Traynor, 2005).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STRATEGIC METALS LTD.
FIGURE 1
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
PROPERTY LOCATION
HOOCH PROPERTY
0
250 km
UTM ZONE 8, NAD 83, 115H/02
FILE: ...2011/Hooch/Figures/F_1_Property_Location.wor
DATE: DEC 2011
ALASKA
YUKON
NORTHWEST TERRITORIES
BRITISH COLUMBIA
Dawson
Mayo
Faro
Ross River
Carmacks
HOOCH PROPERTY
Whitehorse
Haines Junction
Watson Lake
Skagway
Atlin
Haines
Dease Lake
Juneau
Telegraph Creek

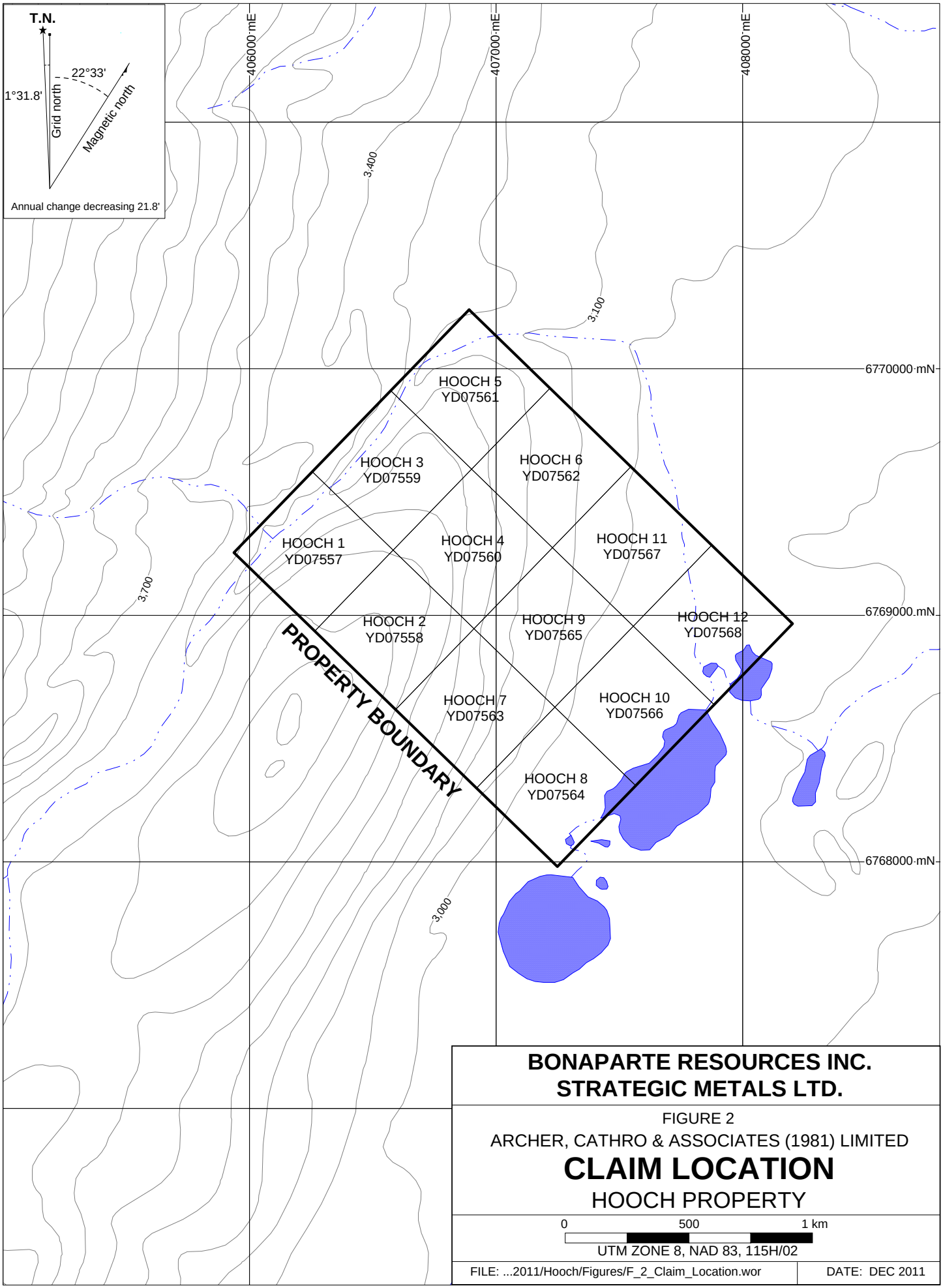

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FIGURE 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CLAIM LOCATION

HOOCH PROPERTY

0 500 1 km

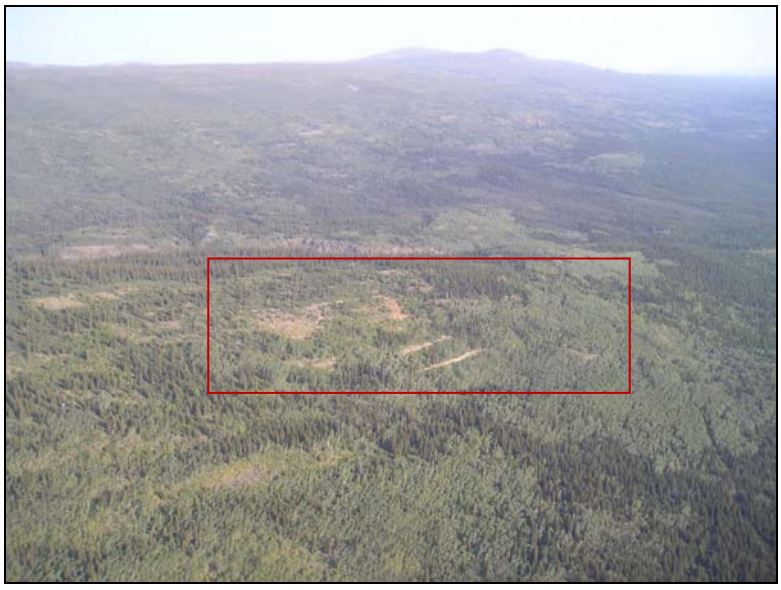
UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_2_Claim_Location.wor | DATE: DEC 2011

The first record of work at the showing was in 1934 or 1935 when Chief Hutshi Joe and Hutshi Jackson staked the Moosehide claims. Six hand pits, a four metre shaft and four, four metre long open cuts were completed. No results were reported and the claims were allowed to lapse following this work.

The showing was restaked by independent prospectors as the Fox claims in 1947 and the Ox claims in 1954. Work programs from that era comprised only a minor amount of trenching. No assessment reports were filed for this work, and the claims were allowed to lapse.

In 1961, the showing was restaked by independent prospectors as the Ball claims. Bulldozer trenching was performed that year, and hand trenching was completed from 1964 to 1966. No assessment report was filed for any of this work.



View of Hooch property facing northwest. Historical trench area is outlined in red.

In 1966, Empress Mines Limited (Atlas Exploration Limited and Nippon Mining Limited) staked the AH claims immediately west of the Ball claims. Minor prospecting was done before the ground was allowed to lapse.

In 1967, the Ball claims were optioned by two prospectors who performed trenching before dropping their option. In 1968, Union Carbide Mining Limited optioned the Ball claims and performed bulldozer trenching, geochemistry, magnetic surveys and mapping. In 1972 and 1975 the prospectors who owned the Ball claims did more hand trenching. No reports were filed on any of this work. The Ball claims lapsed following the 1975 trenching.

In 1978, Whitehorse Copper Mines Limited restaked the showing as the Coot claims, and then formed a joint venture with Hudson Bay Exploration and Development Company Limited. Work performed by the joint venture included: geochemistry, magnetic surveys and mapping (Downing, 1979). The magnetic survey identified two parallel highs that were interpreted to reflect magnetite and pyrrhotite bearing skarns. In 1981, Hudson Bay Exploration performed

mapping, geochemical sampling, hand trenching and VLF-EM surveys. Results from this exploration program were not published.

In 1985, the Geological Survey of Canada conducted a low-density stream sediment and water sampling survey on NTS map sheet 115H (Friske et al., 1985). Only one sample was taken from a creek draining the Hooch property. It returned background values for gold (2 ppb), silver (0.1 ppm), arsenic (2.3 ppm), copper (17 ppm), molybdenum (1 ppm) and tungsten (1 ppm).

In 1989, the showing was restaked by Aurora Gold Limited. Work performed included a magnetometer survey and geological mapping (Stephen, 1990). Chip sampling across an epidote skarn returned 2.06 g/t gold, 2.48% copper, 56.9 g/t silver, 693 ppm molybdenum and 366 ppm tungsten over 3.4 m. A specimen of rusty, garnetiferous limestone assayed 2.47 g/t gold and 0.17% copper. The magnetic survey identified a number of magnetic highs, which were thought to correspond to magnetite-rich granodiorite, and detected a mapped skarn zone as a narrow, linear high. The most interesting magnetic anomaly was reportedly located east of the skarn zone in an area with thick overburden and vegetation cover. The claims were allowed to lapse following this work.

In 2009, Strategic staked the Hooch claims and in summer 2010 it performed one day of prospecting and soil sampling on the property. Results from this work included a 4.5 m chip sample of skarn that returned 0.391 g/t gold, 10.6 g/t silver, 0.32% copper, 340 ppm molybdenum and 350 ppm tungsten. Soil samples dug into overburden on trench floors returned strongly anomalous results including 636 ppb gold (average 50 ppb), 23.6 ppm silver (average 2.25 ppm), 13,350 ppm copper (average 1016 ppm), 170 ppm molybdenum (average 18 ppm) and 1680 ppm tungsten (average 134 ppm). Grid soil sampling in undisturbed areas yielded much weaker values including up to 19 ppb gold, 0.4 ppm silver, 148 ppm copper, 47 ppm molybdenum and 10 ppm tungsten (Smith, 2011).

In July 2011, Bonaparte optioned the Hooch property from Strategic. In December 2011, the Hooch 13 to 30 claims were staked to cover the projected along-strike extension of the skarn horizons and the magnetic anomaly reported from Aurora's 1989 survey.

GEOMORPHOLOGY AND CLIMATE

The Hooch property lies in the southern part of the Ruby Range within the Kluane Plateau physiographic region. This part of Yukon was glaciated during the Late Pleistocene (Duk-Rodkin, 1999). Local elevations range from 900 to 1310 m above sea level. The lowest areas are located near two small, often dry lakes immediately east of the property. The property is forested with spruce, willow and birch with an understory of buckbrush, moss and lichen. The entire property lies below treeline. Bedrock is restricted to bulldozer trenches.

Creeks draining the property flow into the Nordenskiold River, which is part of the Yukon River watershed.

The climate in the Hooch area is typical of northern continental regions with long, cold winters, truncated fall and spring seasons and short, mild summers. The property is mostly snow free from early May to late September.

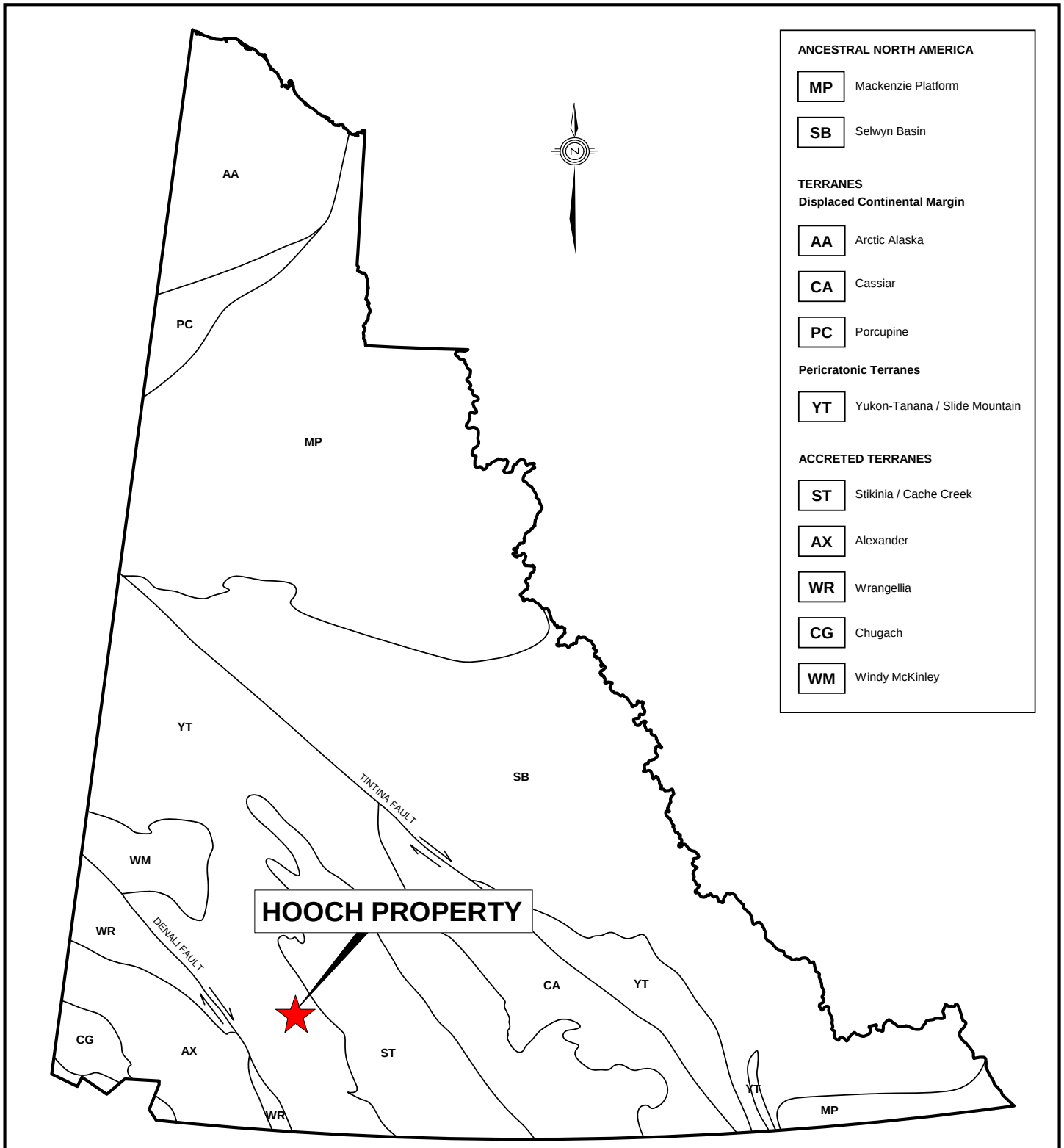


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FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TECTONIC SETTING

HOOCH PROPERTY

0 200 km

UTM ZONE 8, NAD 83, 115H/02

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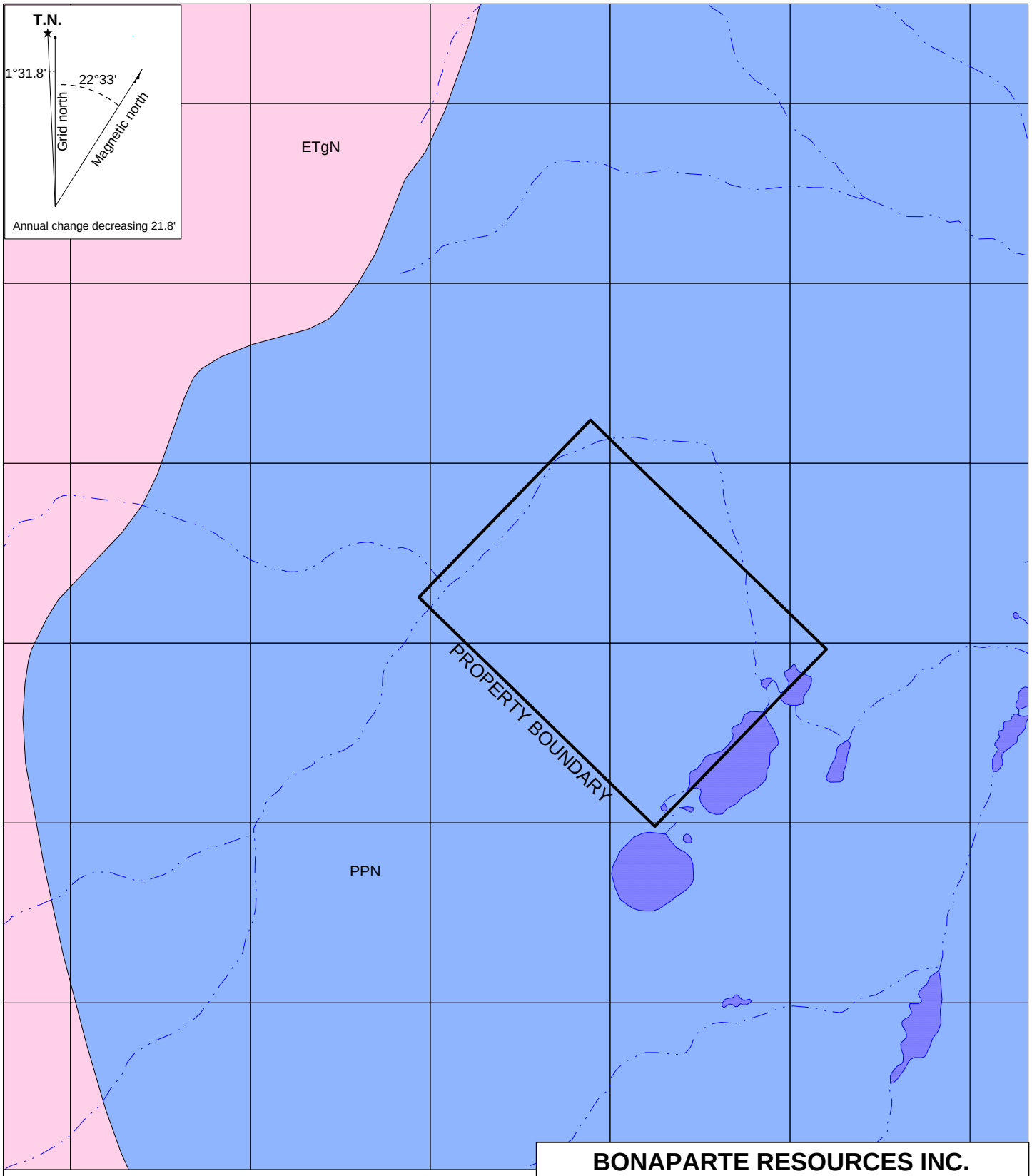

EARLY TERTIARY

ETgN — NISLING RANGE SUITE
Leucocratic, biotite granite; miarolitic alaskite; saccharoidal textured, mafic-poor biotite granite; biotite-hornblende granite to leucocratic granodiorite with sparse white, alkali feldspar phenocrysts; biotite-quartz monzonite.

LOWER PROTEROZOIC TO PALEOZOIC

PPN — NISLING ASSEMBLAGE
Dark grey to brown, biotite-muscovite-quartz-feldspar schist, quartzite; felsic chlorite-biotite orthogneiss; rare amphibolite; minor two-mica gneiss and hornblende-diorite gneiss.

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FIGURE 4

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

REGIONAL GEOLOGY

HOOCH PROPERTY

0 500 1 Km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_4_Regional_Geology.wor | DATE: DEC 2011

REGIONAL GEOLOGY

In 1973, the Geological Survey of Canada published a geological map of the Aishihik Lake area (NTS map sheet 115H) at 1:250,000 scale (Templeman-Kluit, 1974). Gordey and Makepeace (2003) later completed a Yukon-wide geological compilation, which updated the lithological unit names in the Hooch area.

The Hooch property is located within the Yukon-Tanana Terrane (YTT) as shown on Figure 3. The YTT represents a continental arc that developed along the ancient Pacific margin of North America from late Devonian to Permian. Figure 4 illustrates geology as mapped by Templeman-Kluit. The main lithological units are described in the Table I.

Table I – Lithological Units (*after Gordey and Makepeace, 2003*)

Unit Name	Age	Map Name	Description
Nisling Range Suite	Early Tertiary	ETgN	Leucocratic, biotite granite; miarolitic alaskite; saccharoidal textured, mafic-poor biotite granite; biotite-hornblende granite to leucocratic granodiorite with sparse white, alkali feldspar phenocrysts; and biotite-quartz monzonite.
Nisling Assemblage	Lower Proterozoic to Paleozoic	PPN	Dark grey to brown, biotite-muscovite-quartz-feldspar schist, quartzite; felsic chlorite-biotite orthogneiss; rare amphibolite; minor two-mica gneiss and hornblende-diorite gneiss.

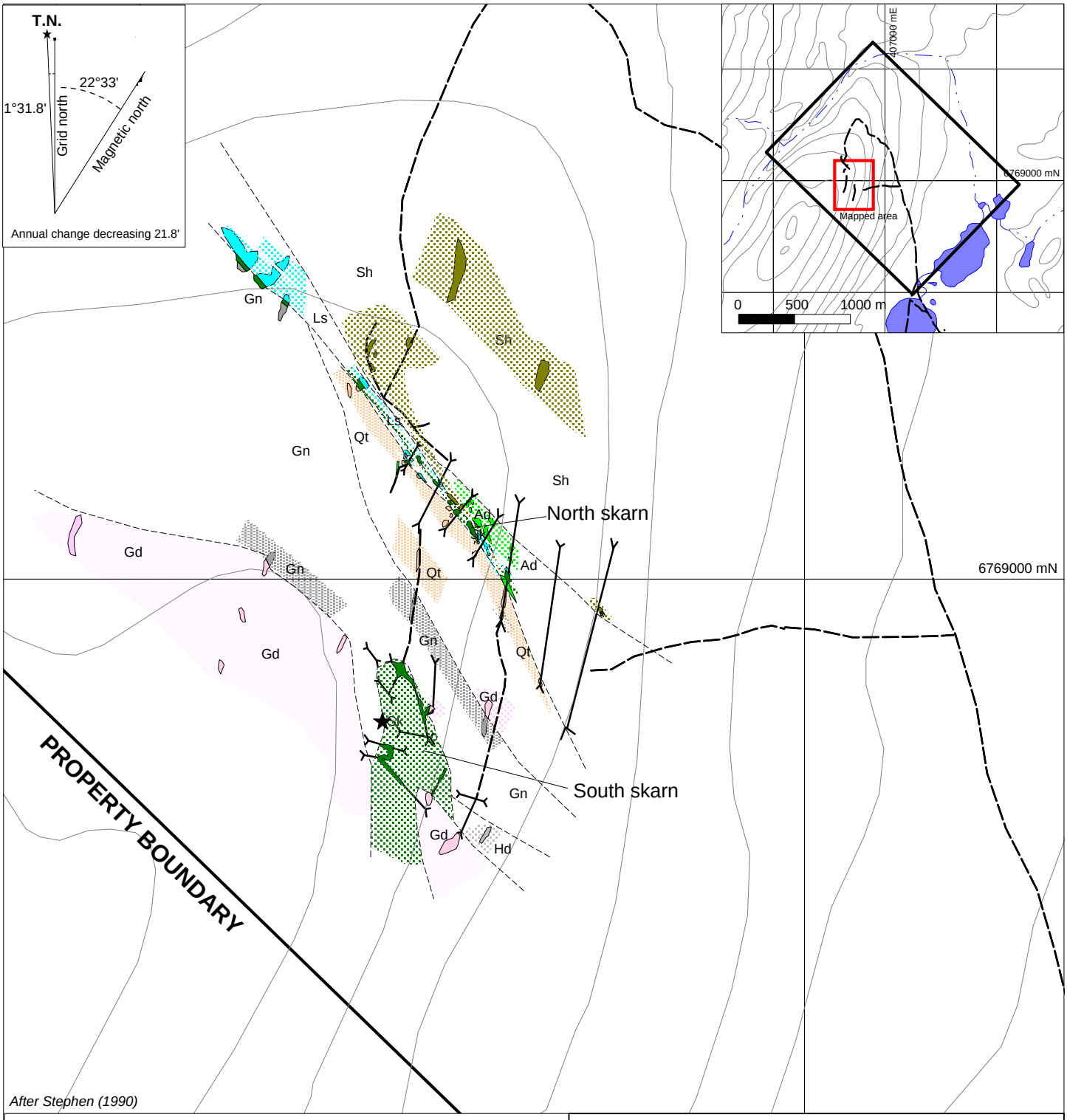
PROPERTY GEOLOGY

In 1990, the Hooch property was mapped at 1:2000 scale (Figure 5). Mapping focused on the trenching area where bedrock was exposed. The following unit descriptions and observations are based on that work. There are five metasedimentary and three intrusive subunits on the property (Stephen, 1990).

Metasedimentary Subunits

Metasedimentary strata form a stratigraphic package with a northwest strike and dips ranging from 30º and 70º to the northeast.

The property is floored by a subunit composed of quartz-biotite gneiss and minor micaceous schist, which has a mapped thickness of about 250 m. This subunit is overlain by a 75 m thick package of quartz-rich gneiss to relatively clean quartzite, which is well fractured and generally rusty. The quartzite package is conformably overlain by a 50 m thick section of limestone that comprises white to grey limestone with thin bands of scattered garnets. There are two skarn horizons within the mapped area (North and South). The North skarn horizon formed at the quartzite-limestone contact as discontinuous, calc-silicate altered lenses interbedded with limestone. A micaceous schist overlies the North skarn horizon. This schist varied from massive quartz-rich gneiss to highly sheared mica schist. The South skarn horizon is globular in



Inferred contact

Bulldozer trail

Outcrop

Gold-bearing quartz vein

INTRUSIVES

Ad Andesite dyke

Hd Hornblende diorite

Gd Granodiorite

METASEDIMENTS

Sh Micaceous schist & gneiss

Ls Limestone

Sk Skarn

Qt Quartzite

Gn Gneiss

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FIGURE 5

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY GEOLOGY

HOOCH PROPERTY

0 50 250 m

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_5_Property_Geology.wor | DATE: DEC 2011

shape (120 by 70 m) and lies near the granodiorite-gneiss contact. Both skarn horizons contain calcite, epidote, actinolite and garnet with local concentrations of magnetite, pyrrhotite, pyrite, chalcopyrite, molybdenum and molybdo-scheelite.

Intrusive Subunits

The metasedimentary package has been intruded by three subunits: granodiorite, hornblende diorite and andesite. The extents of these subunits are not known and most contacts have been inferred.

Granodiorite is grey to light pink and comprises fine to medium grained feldspar, hornblende, quartz and biotite. It is massive and forms a stock and dyke with north-trending, steeply dipping joints. The stock intruded the gneiss in the southwestern part of the mapped area while the dyke lies within the gneiss near the quartzite contact.

Hornblende diorite is fine to medium grained with distinct hornblende crystals. It lies immediately north of the granodiorite and may be a border phase to the stock.

Andesite occurs as massive to fine grained, greenish to dark grey dykes on the edge of the North skarn. The dykes are slightly fractured and feature minor malachite staining.

MINERALIZATION

Most mineralization at the Hooch property is hosted within the two skarn horizons. It comprises pyrrhotite, chalcopyrite, magnetite and pyrite with minor molybdenum and molybdo-scheelite. Secondary copper minerals such as malachite occur on fractures in other subunits. A vuggy quartz vein was discovered in 2011 near one of the skarn showings.

In 2011, 16 rock (grab and composite chip) samples were collected. Rock sample locations and results for gold, silver, bismuth, copper, iron, molybdenum and tungsten are plotted on Figures 6 to 13, respectively. Sampling and Analytical Procedures are explained in Appendix II, Rock Sample Descriptions are provided in Appendix III and Certificates of Analysis are given in Appendix IV.

Both skarn horizons are variably mineralized. The North skarn has been discontinuously sampled over a 30 m wide by 100 m long area. Samples collected in 2011 yielded values up to 0.391 g/t gold, 25.2 g/t silver, low bismuth (less than 5 ppm), 1.06% copper, 38.6% iron, 804 ppm molybdenum and 930 ppm tungsten. The North skarn is open to the southeast where historical trenches were excavated, but did not reach bedrock.

The South skarn spans a 70 m wide by 120 m long area. Skarn samples collected in 2011 returned values up to 2.1 g/t gold, 425 g/t silver, 55 ppm bismuth, 7.22% copper, 37.3% iron, 178 ppm molybdenum and 740 ppm tungsten.

A shallow trench immediately adjacent to South skarn exposed a one metre wide zone of rusty quartz vein felsenmeener. This vein comprises pale grey to white drusy quartz with up to 30%

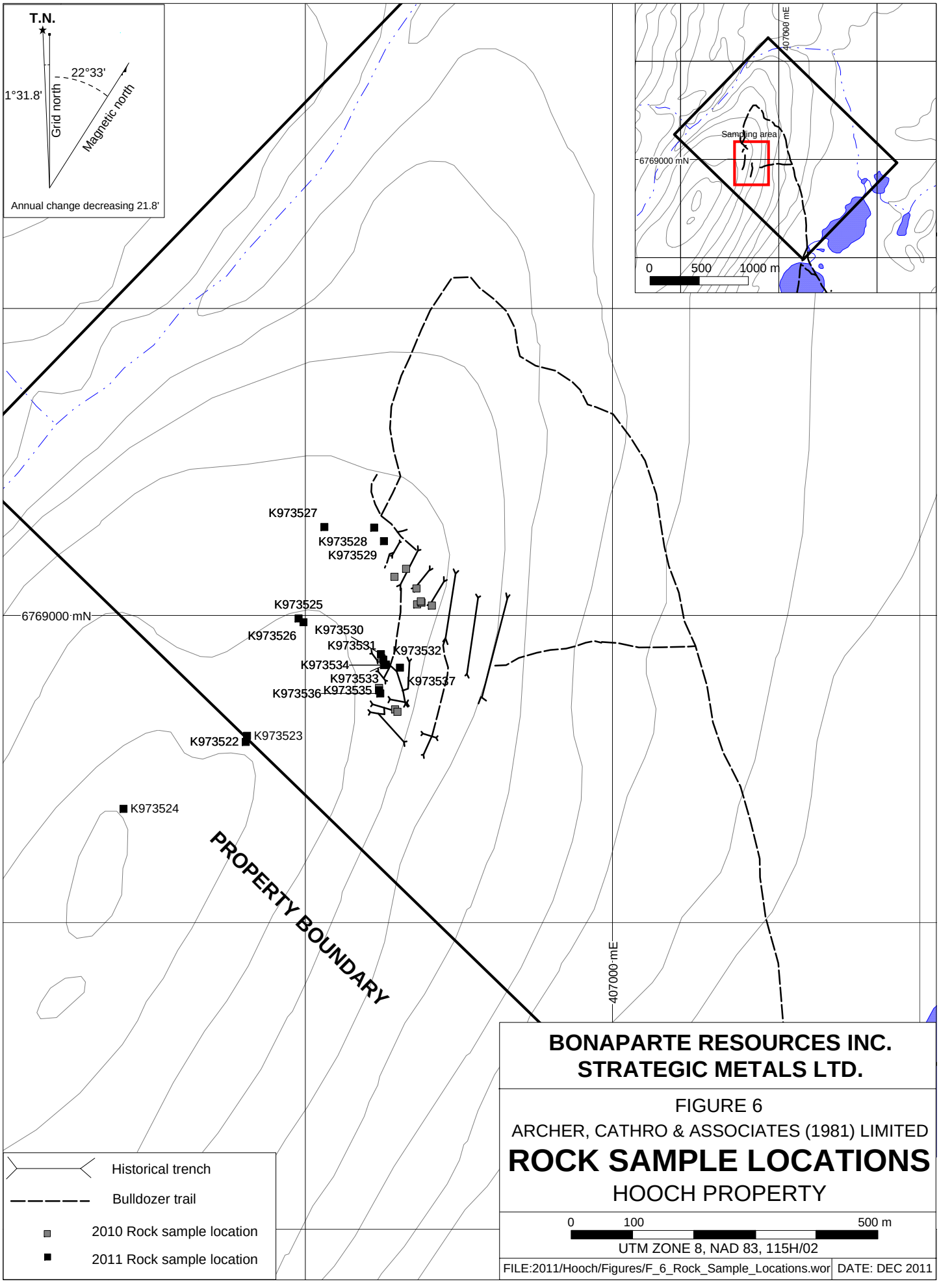

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FIGURE 6

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ROCK SAMPLE LOCATIONS

HOOCH PROPERTY

0 100 500 m

UTM ZONE 8, NAD 83, 115H/02

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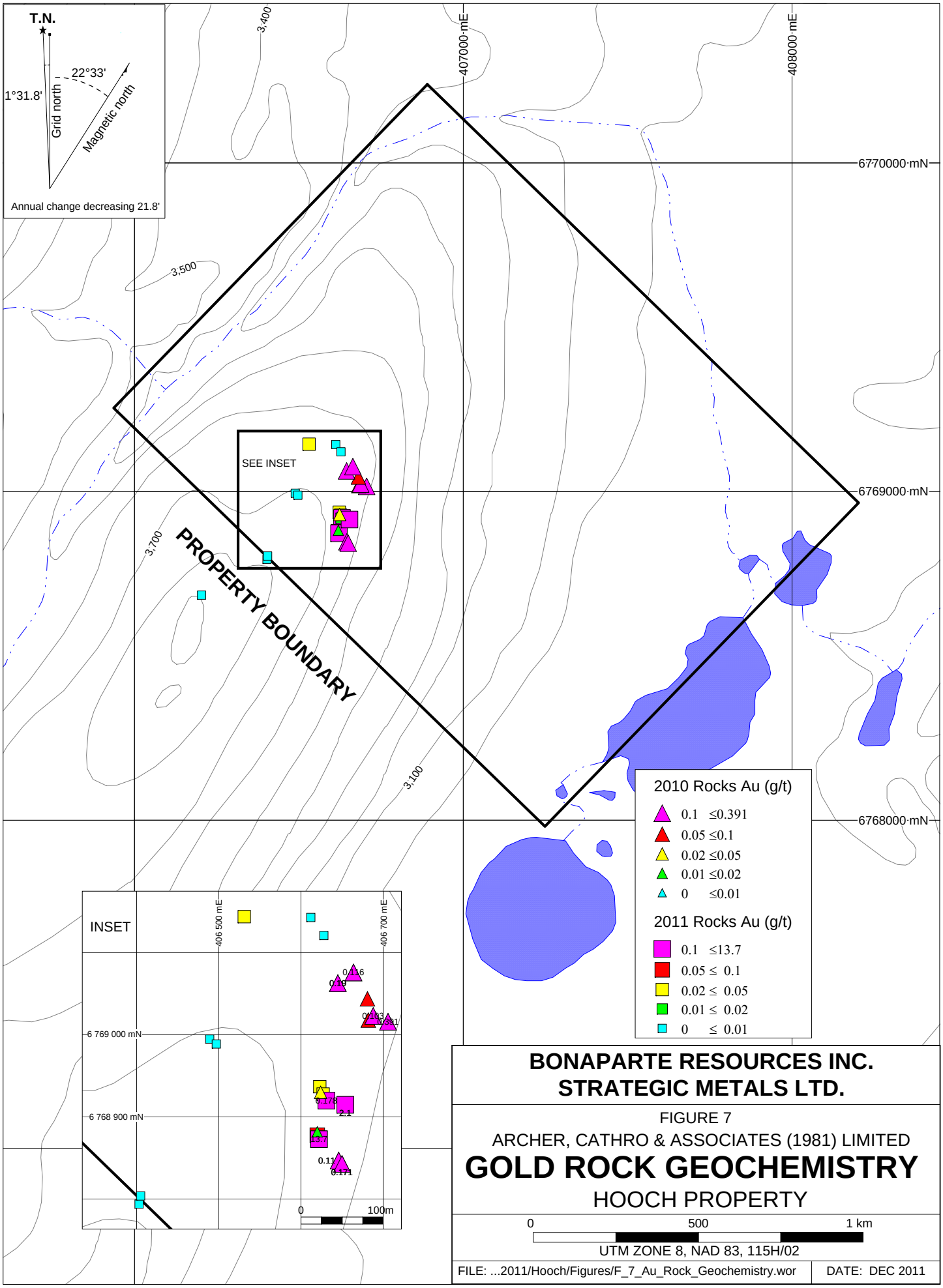

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FIGURE 7

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD ROCK GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

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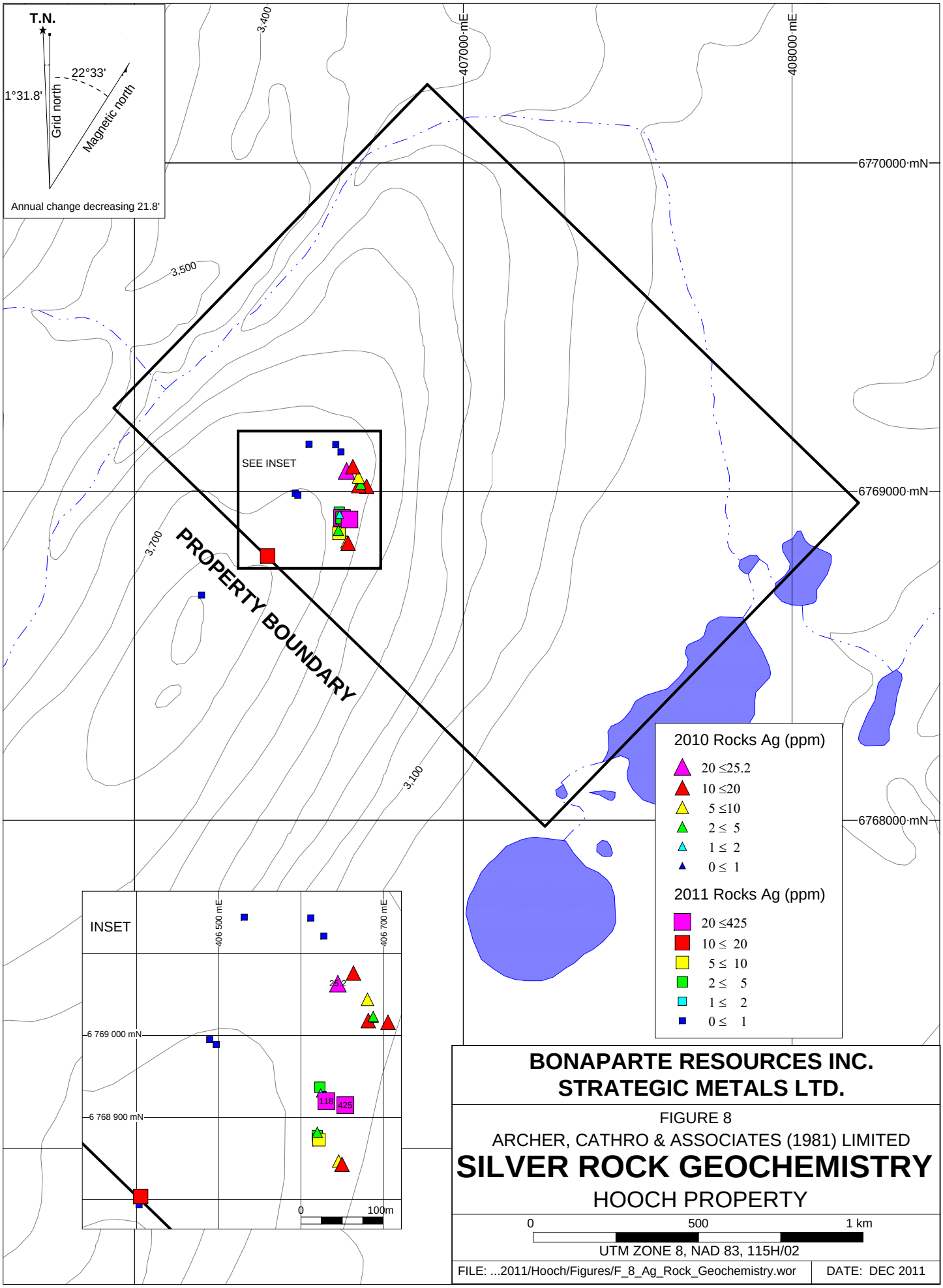

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FIGURE 8

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

SILVER ROCK GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

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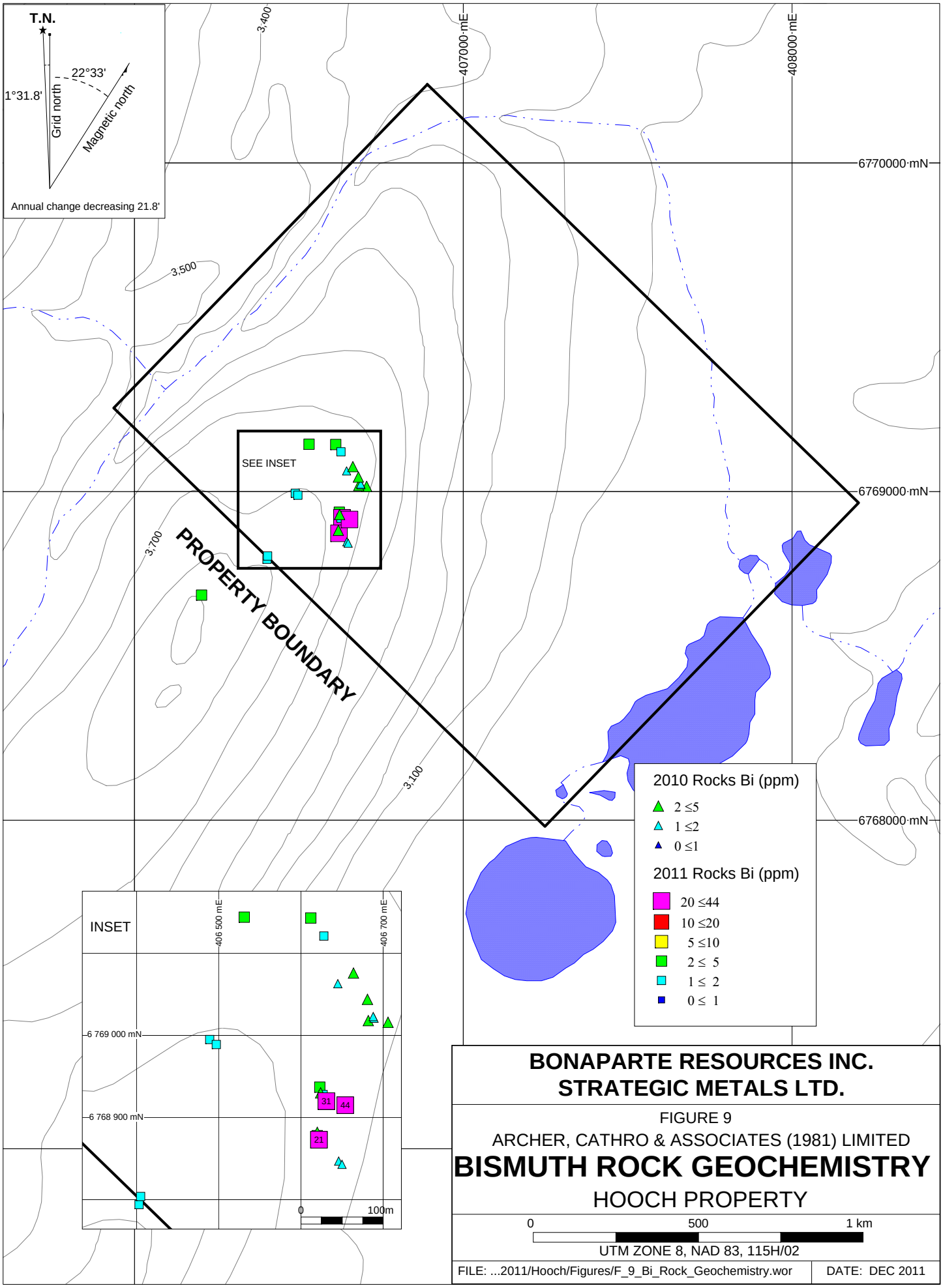

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FIGURE 9

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

BISMUTH ROCK GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

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DATE: DEC 2011

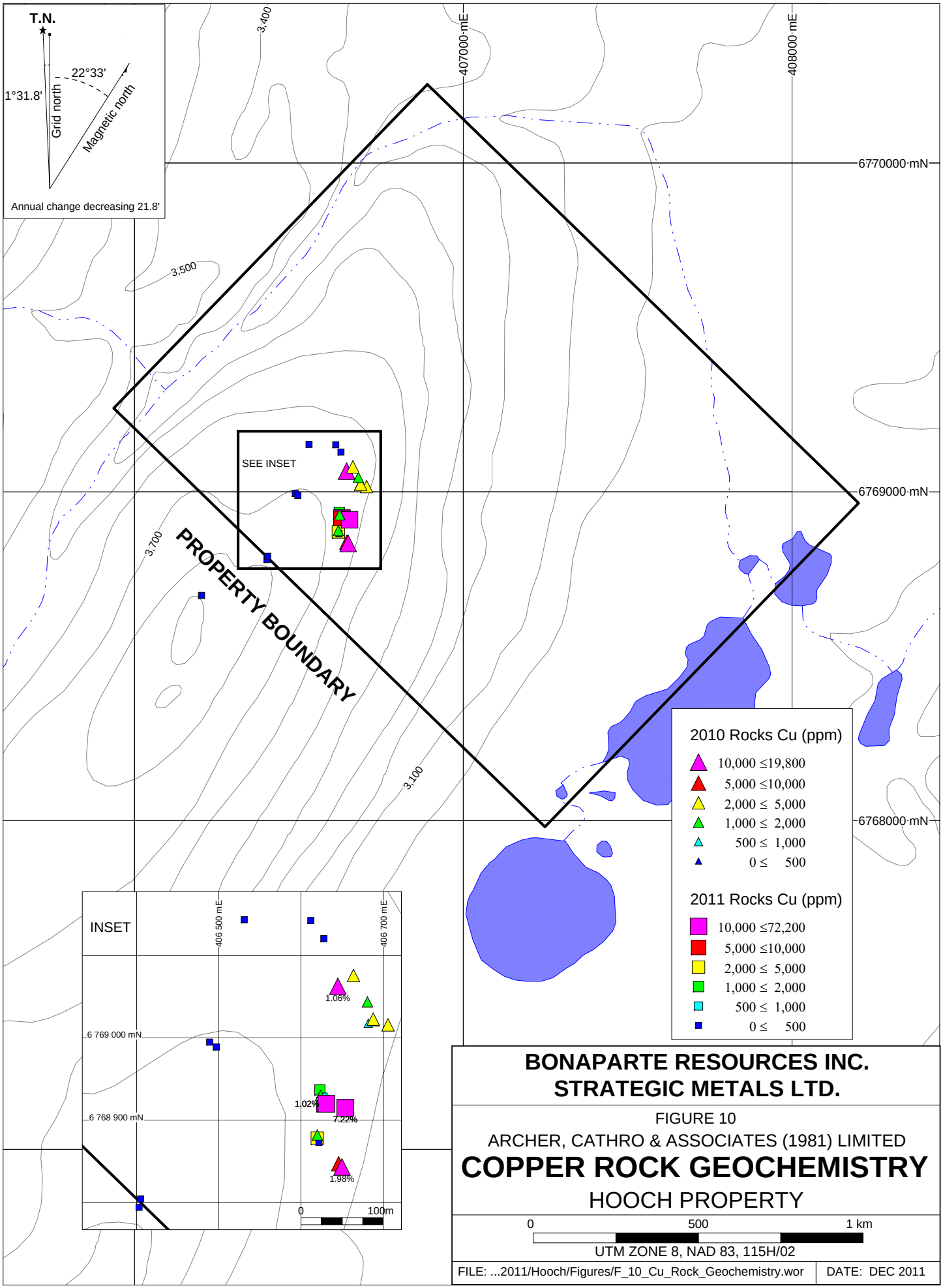

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FIGURE 10

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

COPPER ROCK GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

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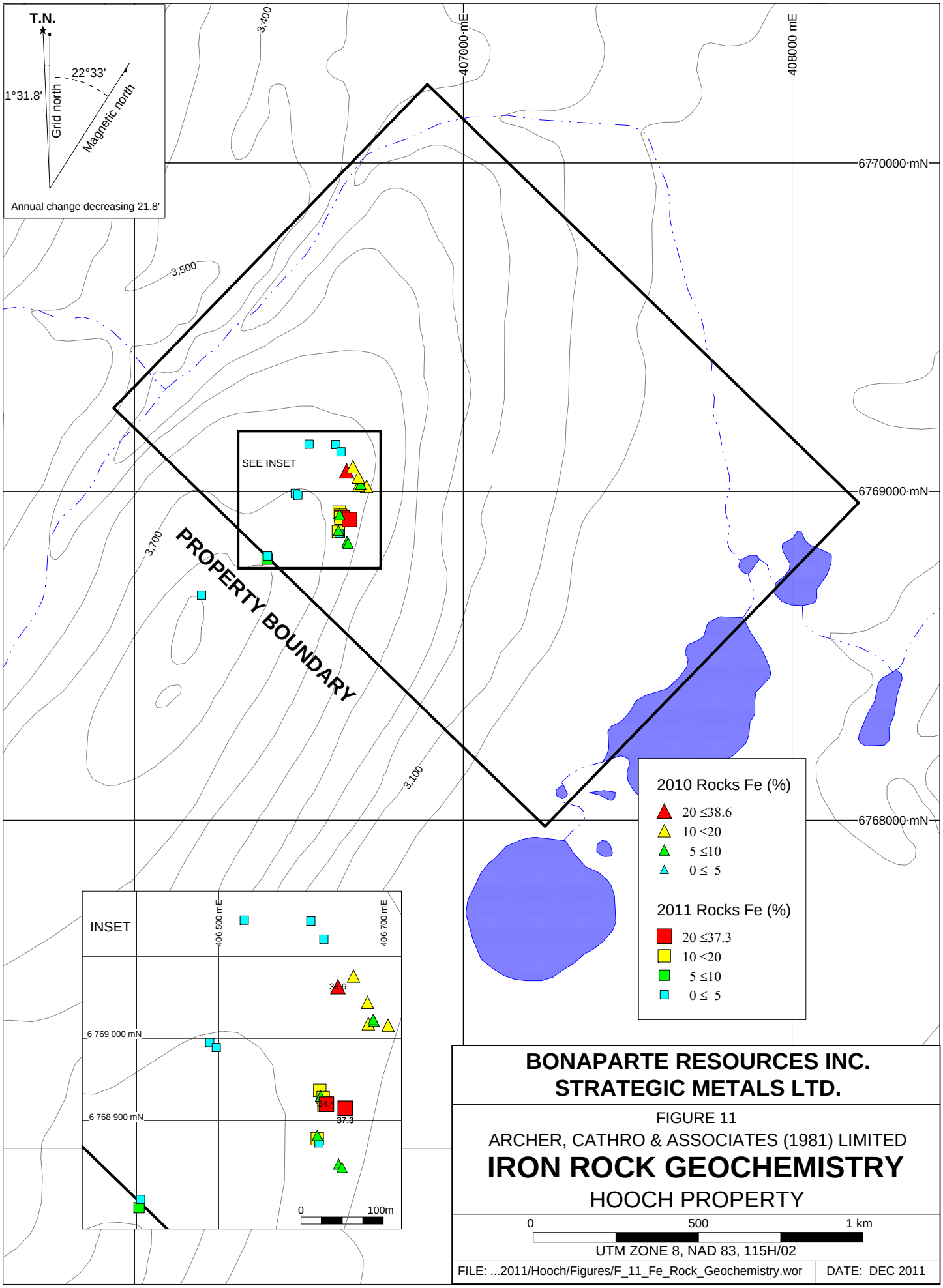

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FIGURE 11

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

IRON ROCK GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

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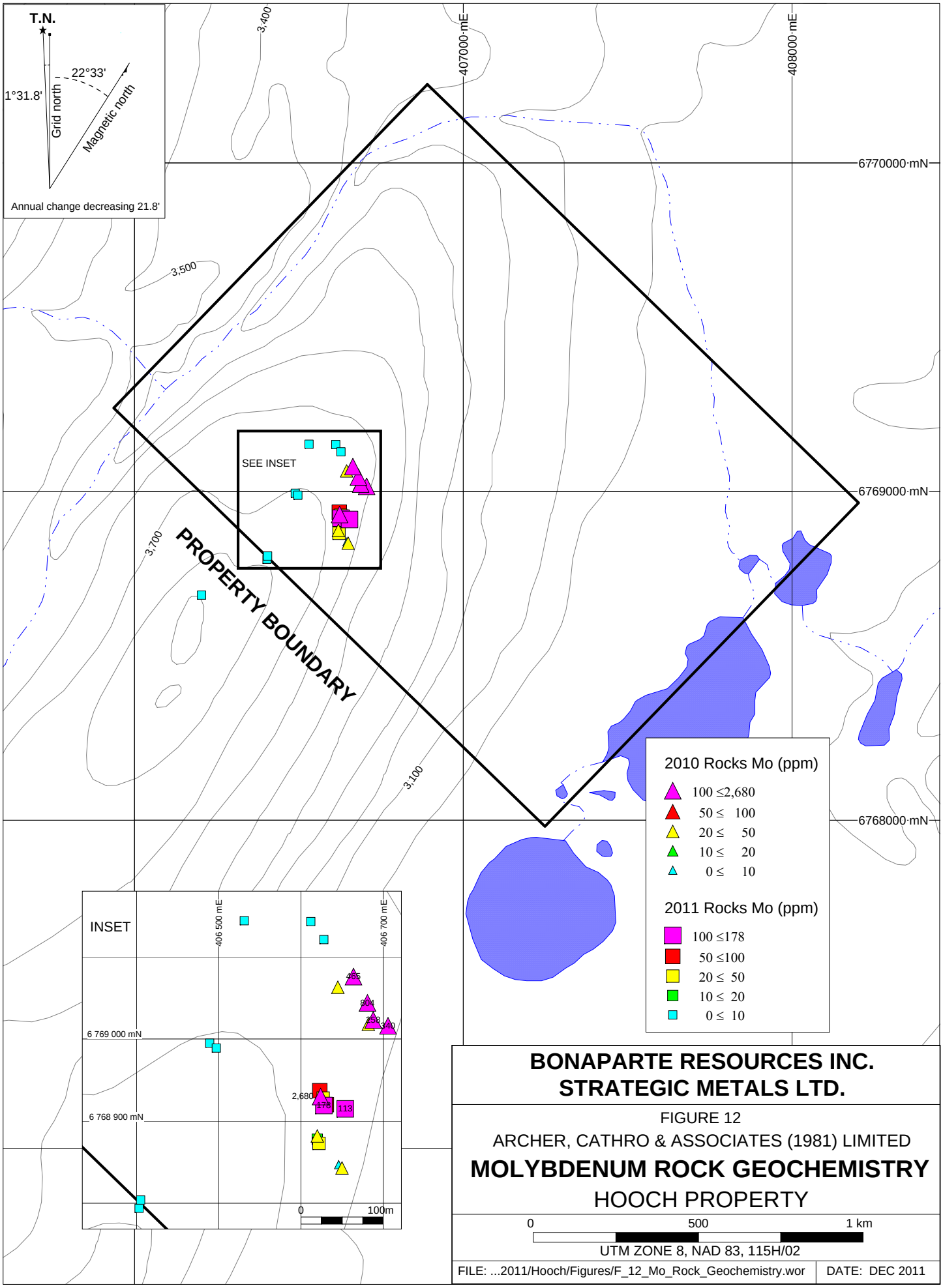

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FIGURE 12

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

MOLYBDENUM ROCK GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

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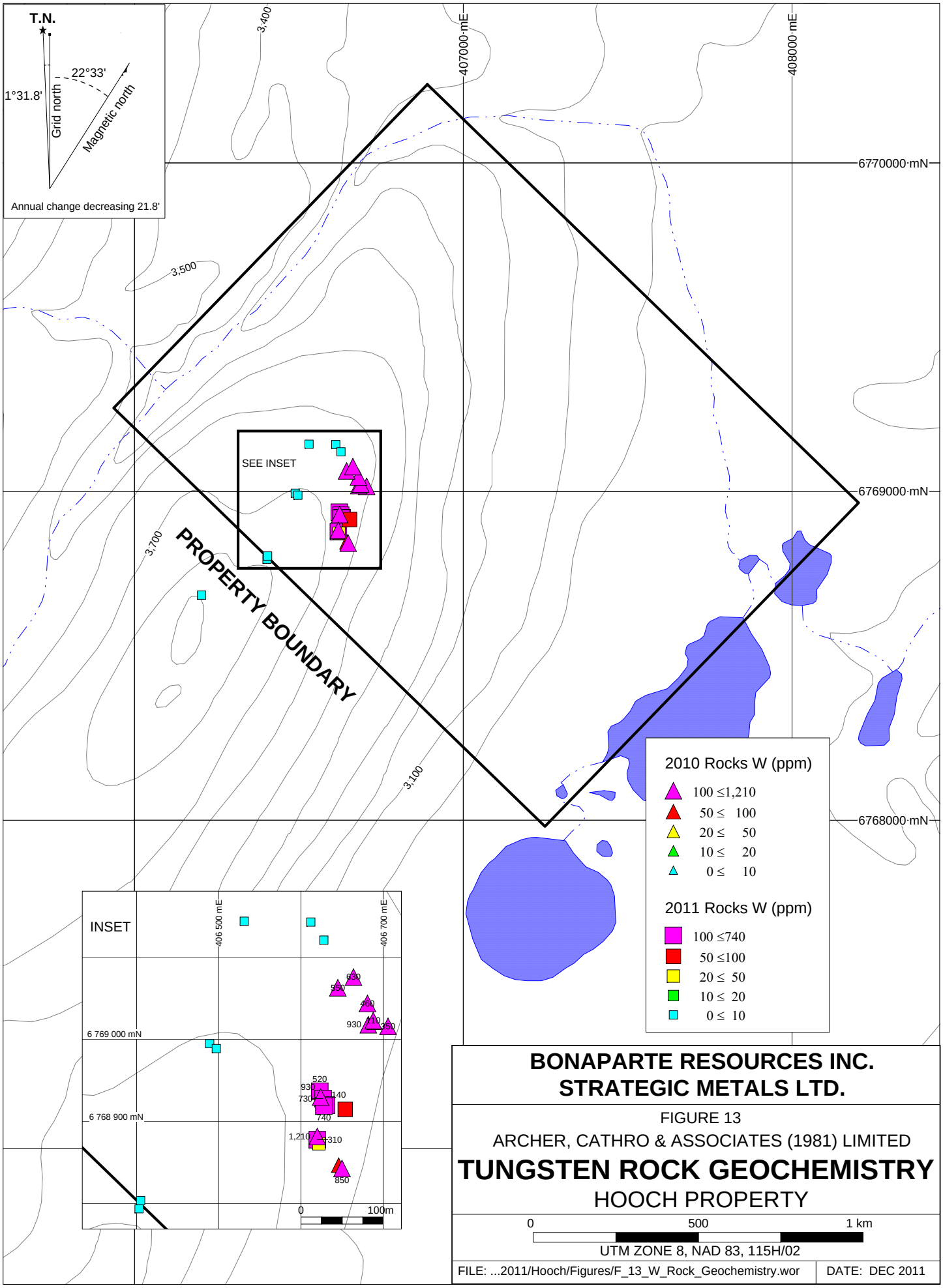

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FIGURE 13

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TUNGSTEN ROCK GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_13_W_Rock_Geochemistry.wor | DATE: DEC 2011

vugs hosting fine grained disseminated black mineral (chalcocite?). A sample from it returned 13.7 g/t gold, 9.9 g/t silver, 21 ppm bismuth and 1.8% copper with low molybdenum and tungsten values. No attempt was made to trace the quartz vein.

SOIL GEOCHEMISTRY

In 2011, 119 samples were taken using hand held soil augers (Figure 14). Approximately a third of the samples were collected from historical trenches within the South skarn zone while the remaining samples were collected about 500 m northeast and immediately southwest of the trenches in areas where there are no surface disturbances. Sample locations and results for gold, silver, bismuth, copper, iron, molybdenum and tungsten are plotted on Figures 15 to 21 respectively. Sampling and Analytical Procedures are provided in Appendix II, while Certificates of Analysis are given in Appendix IV.

Trench floor soil samples yielded background to strongly anomalous values for gold (5 to 205 ppb), silver (0.1 to 10.5 ppm), bismuth (1 to 8 ppm), copper (20 to 3570 ppm), iron (5 to 16.7%), molybdenum (0.5 to 130 ppm), and tungsten (5 to 1780 ppm). This sampling identified both skarn zones.

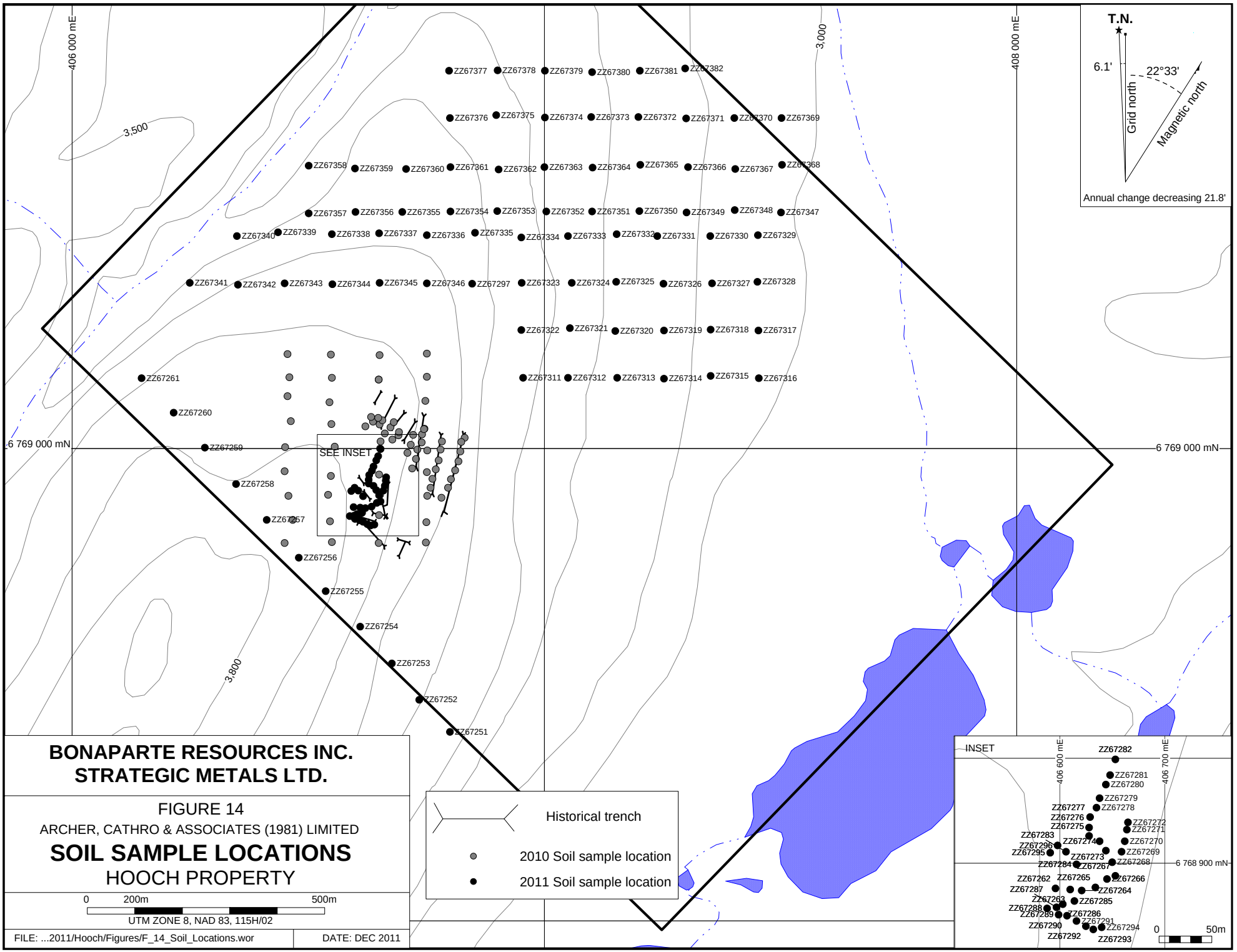
Grid samples yielded background to moderately anomalous values for gold (5 to 27 ppb), silver (0.1 to 1.1 ppm), bismuth (1 to 5 ppm), copper (20 to 118 ppm) and molybdenum (1 to 23 ppm). Values for iron and tungsten were low.

GEOPHYSICAL SURVEY

In 2011, Bonaparte contracted Geotech Ltd. of Aurora, Ontario to perform a helicopter-borne versatile time-domain electromagnetic (VTEM) survey over its Hopper, Moraine and Hooch properties. A total of 2080 line kilometres were flown over the properties and prospective open ground separating them. The Hooch block comprised 1132 of 2080 line kilometres.

Appendix V contains a report by Geotech, which describe equipment and procedures that were used during the surveys and un-interpreted results. CDs containing digital survey data are also attached to this report.

On the Hooch property the VTEM survey identified northwest-trending, weak conductors, which parallel the known skarn zones exposed in the bulldozer trenches (Figure 22). Larger and stronger, northwest-trending anomalies were identified northeast and southeast of the Hooch property. The magnetic surveys show a broad high that coincides with a mapped granitic batholith, southwest of the property. The metasediments show as a magnetic low. New claims were staked to cover the favourable contact areas and to connect the Hooch and Moraine properties; however, because this ground was open at the time of the VTEM survey, data pertaining to it is not to be discussed in this report.


406 000 mE
408 000 mE
3,000
3,500
3,800
6 769 000 mN
6 768 900 mN
SEE INSET
T.N.
6.1'
22°33'
Grid north
Magnetic north
Annual change decreasing 21.8'
ZZ67377 ZZ67378 ZZ67379 ZZ67380 ZZ67381 ZZ67382
ZZ67376 ZZ67375 ZZ67374 ZZ67373 ZZ67372 ZZ67371 ZZ67370 ZZ67369
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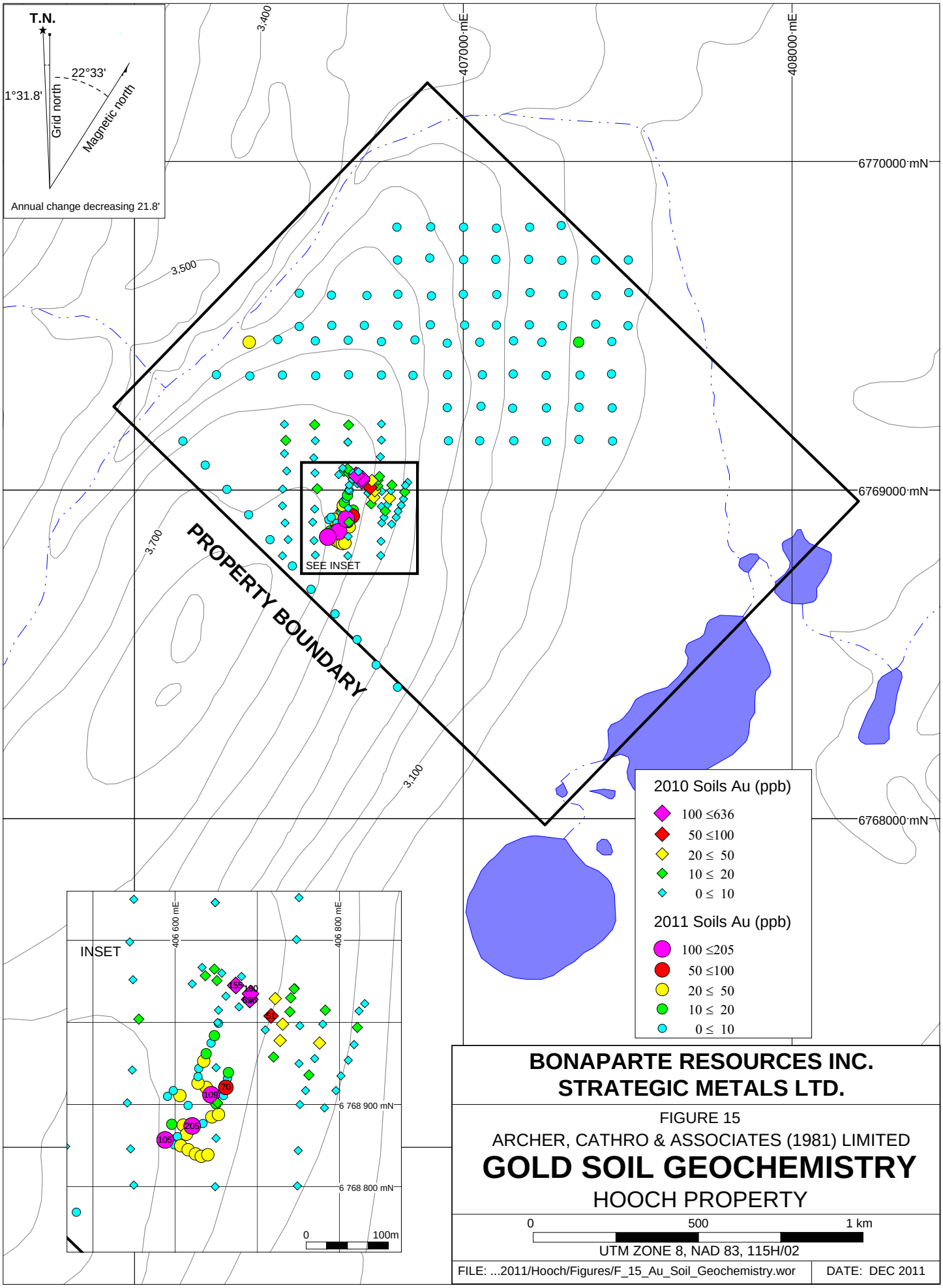
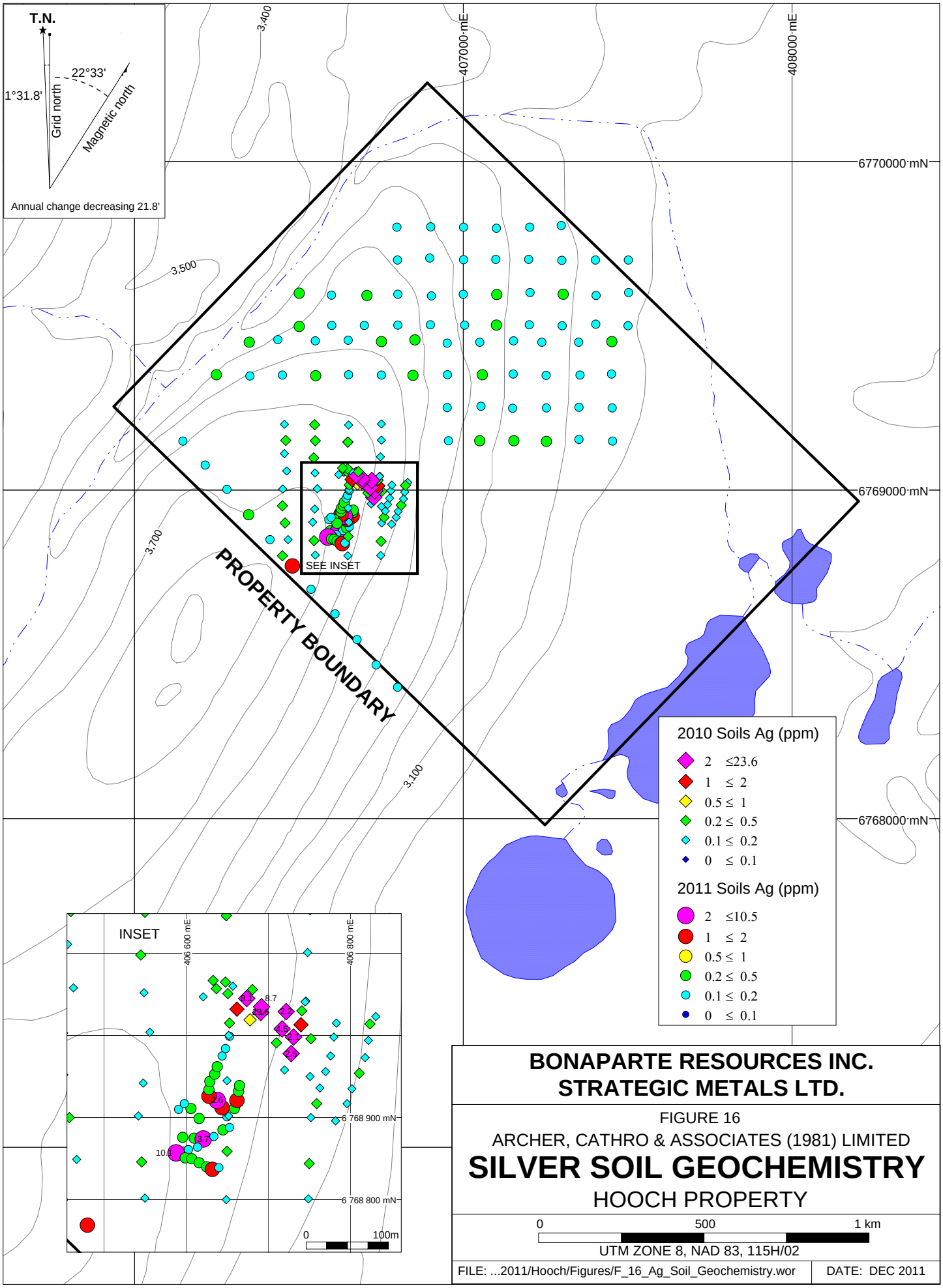
ZZ67357 ZZ67356 ZZ67355 ZZ67354 ZZ67353 ZZ67352 ZZ67351 ZZ67350 ZZ67349 ZZ67348 ZZ67347
ZZ67340 ZZ67339 ZZ67338 ZZ67337 ZZ67336 ZZ67335 ZZ67334 ZZ67333 ZZ67332 ZZ67331 ZZ67330 ZZ67329
ZZ67341 ZZ67342 ZZ67343 ZZ67344 ZZ67345 ZZ67346 ZZ67297 ZZ67323 ZZ67324 ZZ67325 ZZ67326 ZZ67327 ZZ67328
ZZ67322 ZZ67321 ZZ67320 ZZ67319 ZZ67318 ZZ67317
ZZ67261
ZZ67311 ZZ67312 ZZ67313 ZZ67314 ZZ67315 ZZ67316
ZZ67260
ZZ67259
ZZ67258
ZZ67257
ZZ67256
ZZ67255
ZZ67254
ZZ67253
ZZ67252
ZZ67251
INSET
406 600 mE
406 700 mE
ZZ67282
ZZ67281
ZZ67280
ZZ67279
ZZ67277
ZZ67278
ZZ67276
ZZ67272
ZZ67275
ZZ67271
ZZ67283
ZZ67274
ZZ67270
ZZ67296
ZZ67295
ZZ67273
ZZ67269
ZZ67268
ZZ67284
ZZ67267
ZZ67262
ZZ67265
ZZ67266
ZZ67287
ZZ67264
ZZ67263
ZZ67285
ZZ67288
ZZ67289
ZZ67286
ZZ67291
ZZ67290
ZZ67294
ZZ67292
ZZ67293
0
50m
Historical trench
2010 Soil sample location
2011 Soil sample location
0
200m
500m
UTM ZONE 8, NAD 83, 115H/02
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 14
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
SOIL SAMPLE LOCATIONS
HOOCH PROPERTY
FILE: ...2011/Hooch/Figures/F_14_Soil_Locations.wor
DATE: DEC 2011


T.N.
22°33'
1°31.8'
Grid north
Magnetic north
Annual change decreasing 21.8'
3,400
3,500
3,700
3,100
407000 mE
408000 mE
6770000 mN
6769000 mN
6768000 mN
PROPERTY BOUNDARY
SEE INSET
2010 Soils Au (ppb)
100 ≤636
50 ≤100
20 ≤ 50
10 ≤ 20
0 ≤ 10
2011 Soils Au (ppb)
100 ≤205
50 ≤100
20 ≤ 50
10 ≤ 20
0 ≤ 10
INSET
406 600 mE
406 800 mE
6 768 900 mN
6 768 800 mN
0
100m
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 15
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
GOLD SOIL GEOCHEMISTRY
HOOCH PROPERTY
0
500
1 km
UTM ZONE 8, NAD 83, 115H/02
FILE: ...2011/Hooch/Figures/F_15_Au_Soil_Geochemistry.wor
DATE: DEC 2011



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 16

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

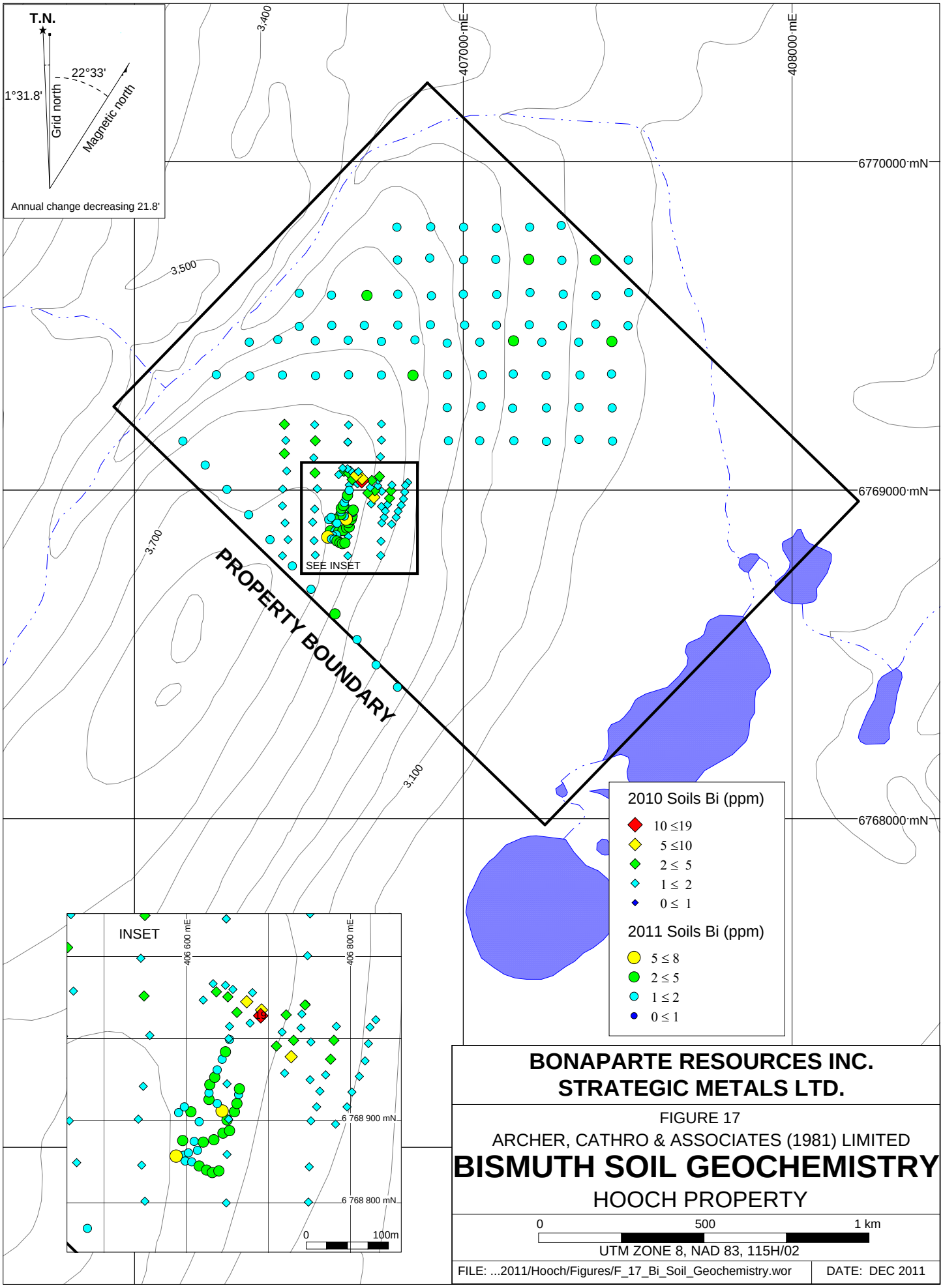
SILVER SOIL GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_16_Ag_Soil_Geochemistry.wor | DATE: DEC 2011



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 17

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

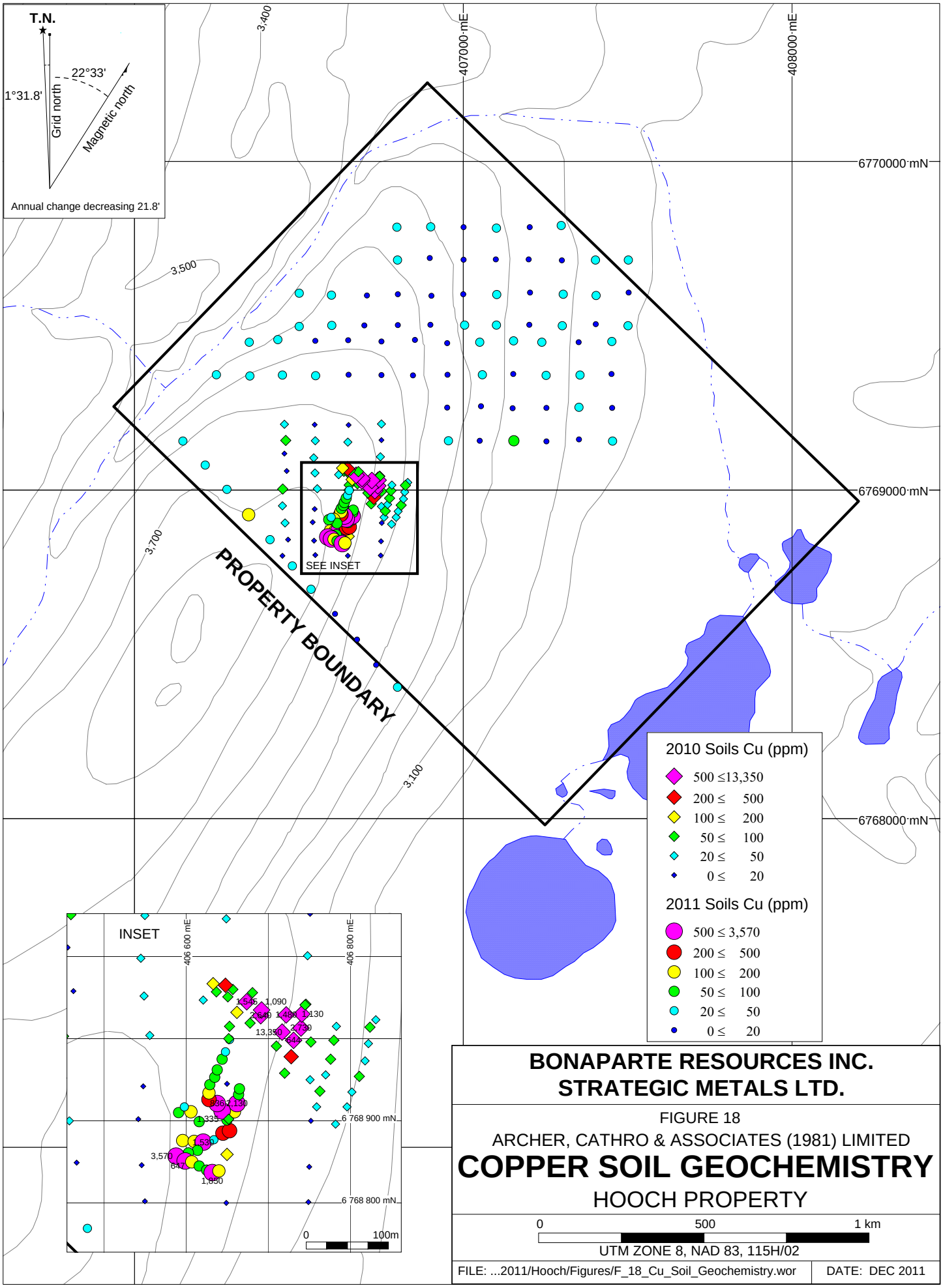
BISMUTH SOIL GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_17_Bi_Soil_Geochemistry.wor | DATE: DEC 2011



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 18

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

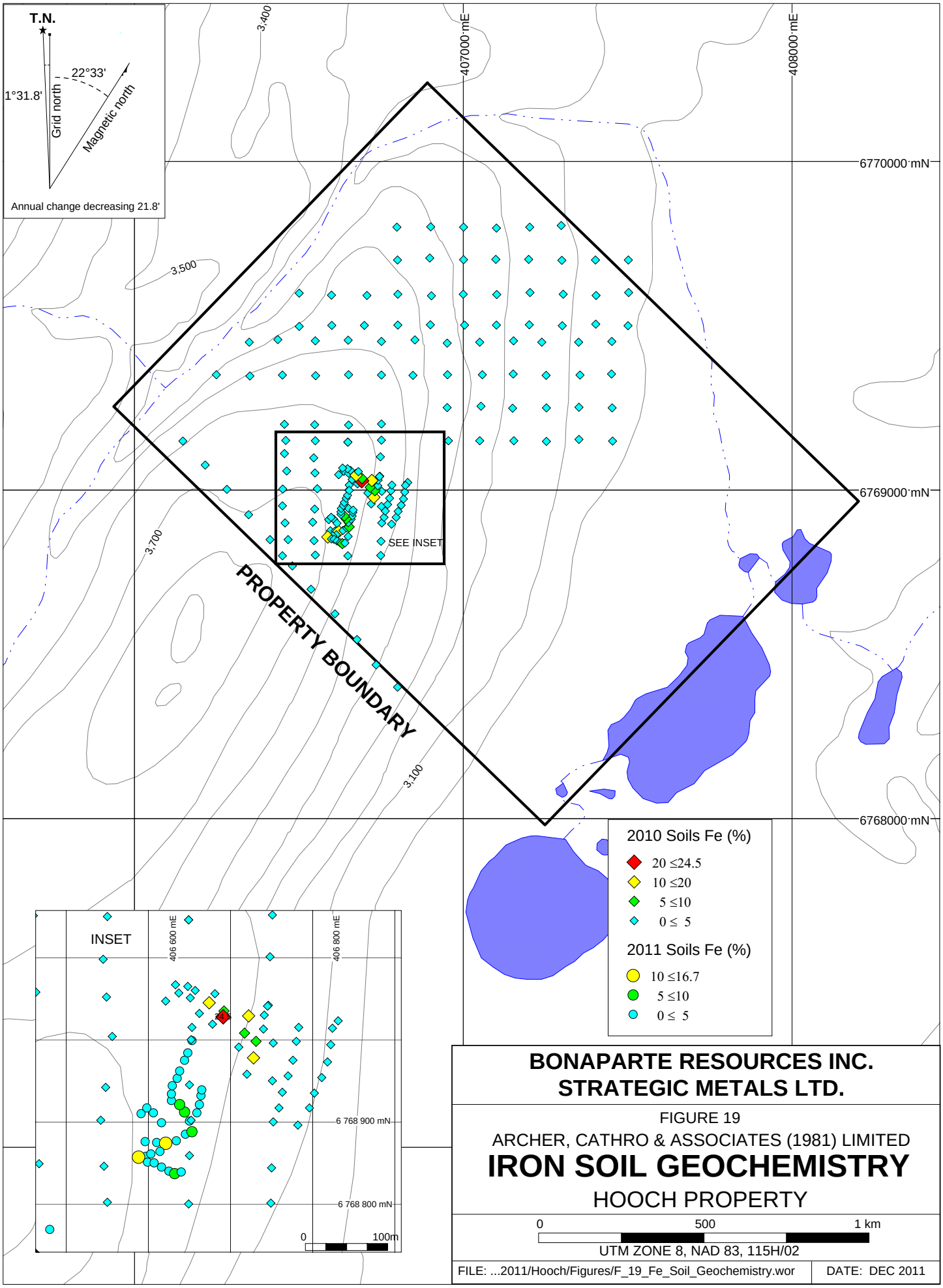
COPPER SOIL GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_18_Cu_Soil_Geochemistry.wor | DATE: DEC 2011



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 19

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

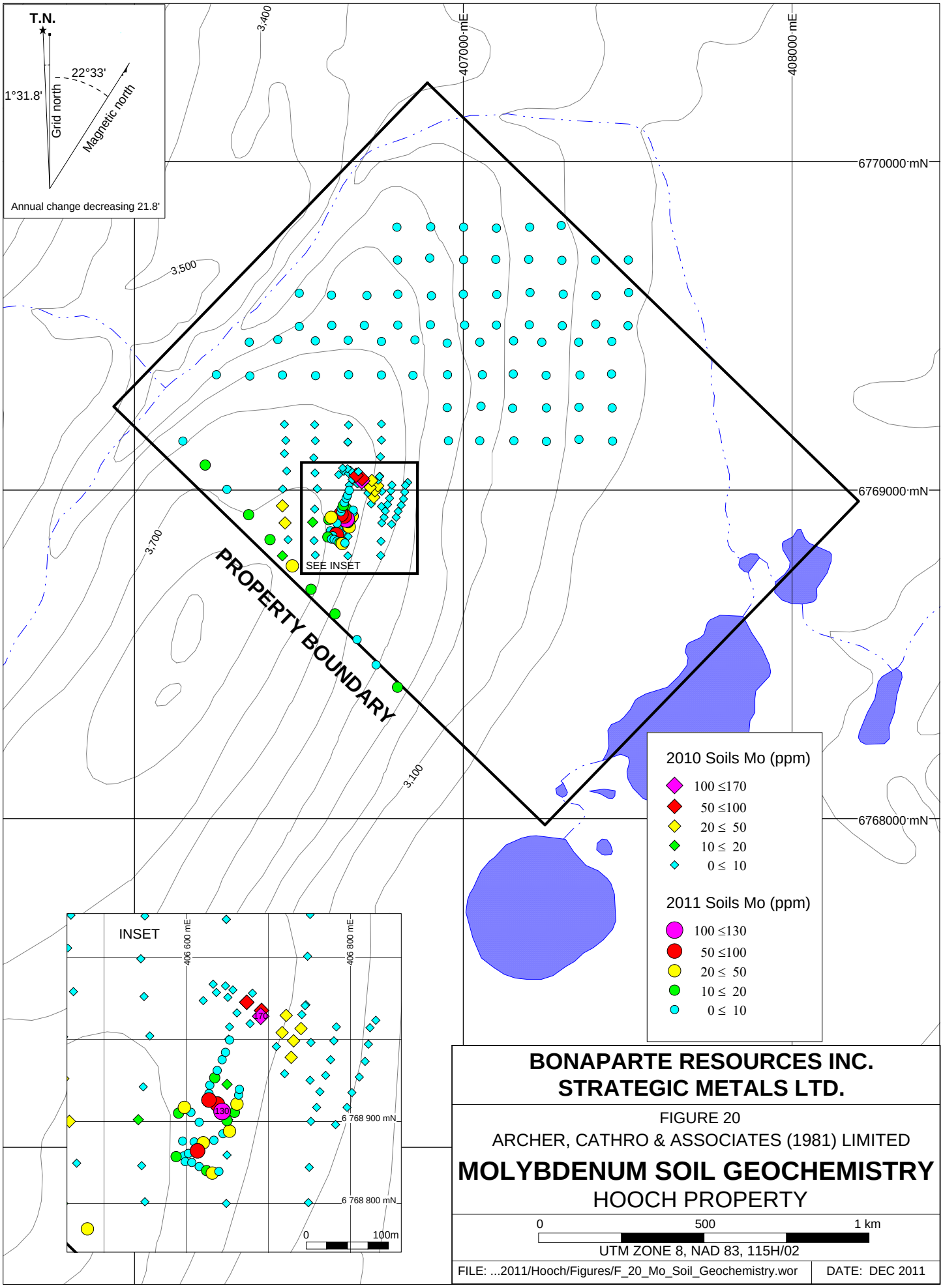
IRON SOIL GEOCHEMISTRY

HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_19_Fe_Soil_Geochemistry.wor | DATE: DEC 2011



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 20

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

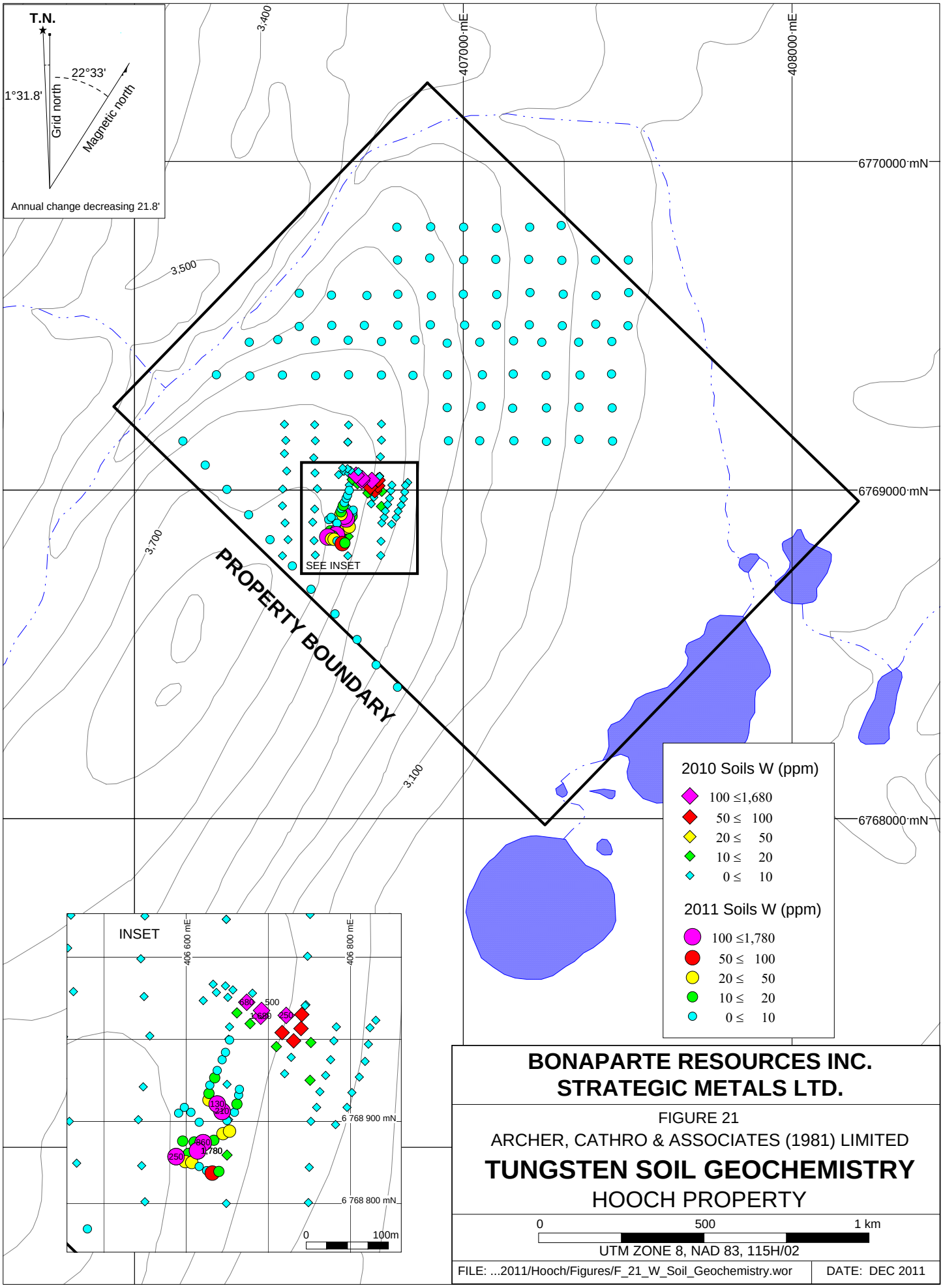
MOLYBDENUM SOIL GEOCHEMISTRY

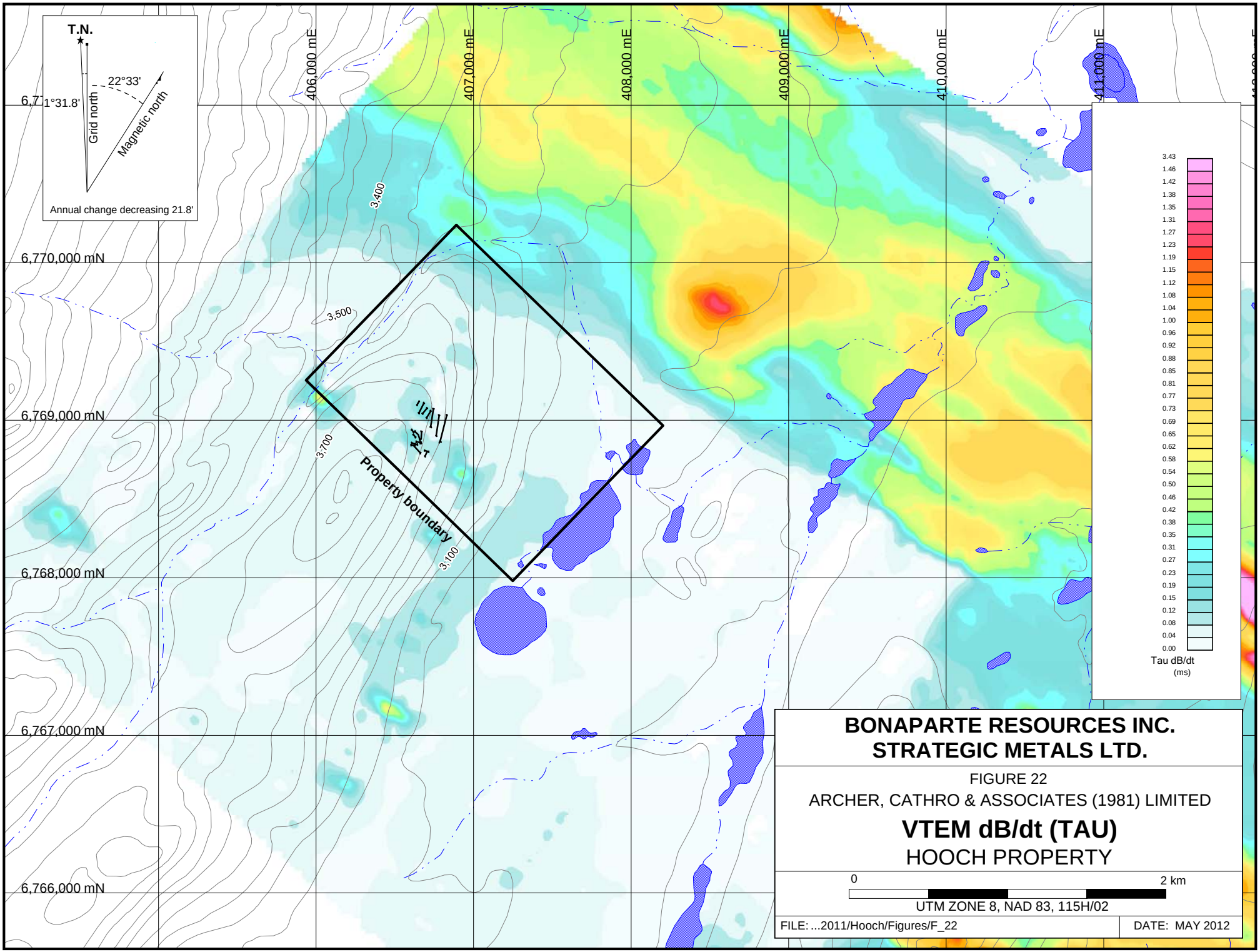
HOOCH PROPERTY

0 500 1 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_20_Mo_Soil_Geochemistry.wor | DATE: DEC 2011


T.N.
22°33'
1°31.8'
Grid north
Magnetic north
Annual change decreasing 21.8'
3,400
3,500
3,700
3,100
407000 mE
408000 mE
6770000 mN
6769000 mN
6768000 mN
SEE INSET
PROPERTY BOUNDARY
2010 Soils W (ppm)
100 ≤1,680
50 ≤ 100
20 ≤ 50
10 ≤ 20
0 ≤ 10
2011 Soils W (ppm)
100 ≤1,780
50 ≤ 100
20 ≤ 50
10 ≤ 20
0 ≤ 10
INSET
406 600 mE
406 800 mE
6 768 900 mN
6 768 800 mN
0
100m
BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.
FIGURE 21
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
TUNGSTEN SOIL GEOCHEMISTRY
HOOCH PROPERTY
0
500
1 km
UTM ZONE 8, NAD 83, 115H/02
FILE: ...2011/Hooch/Figures/F_21_W_Soil_Geochemistry.wor
DATE: DEC 2011



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 22

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

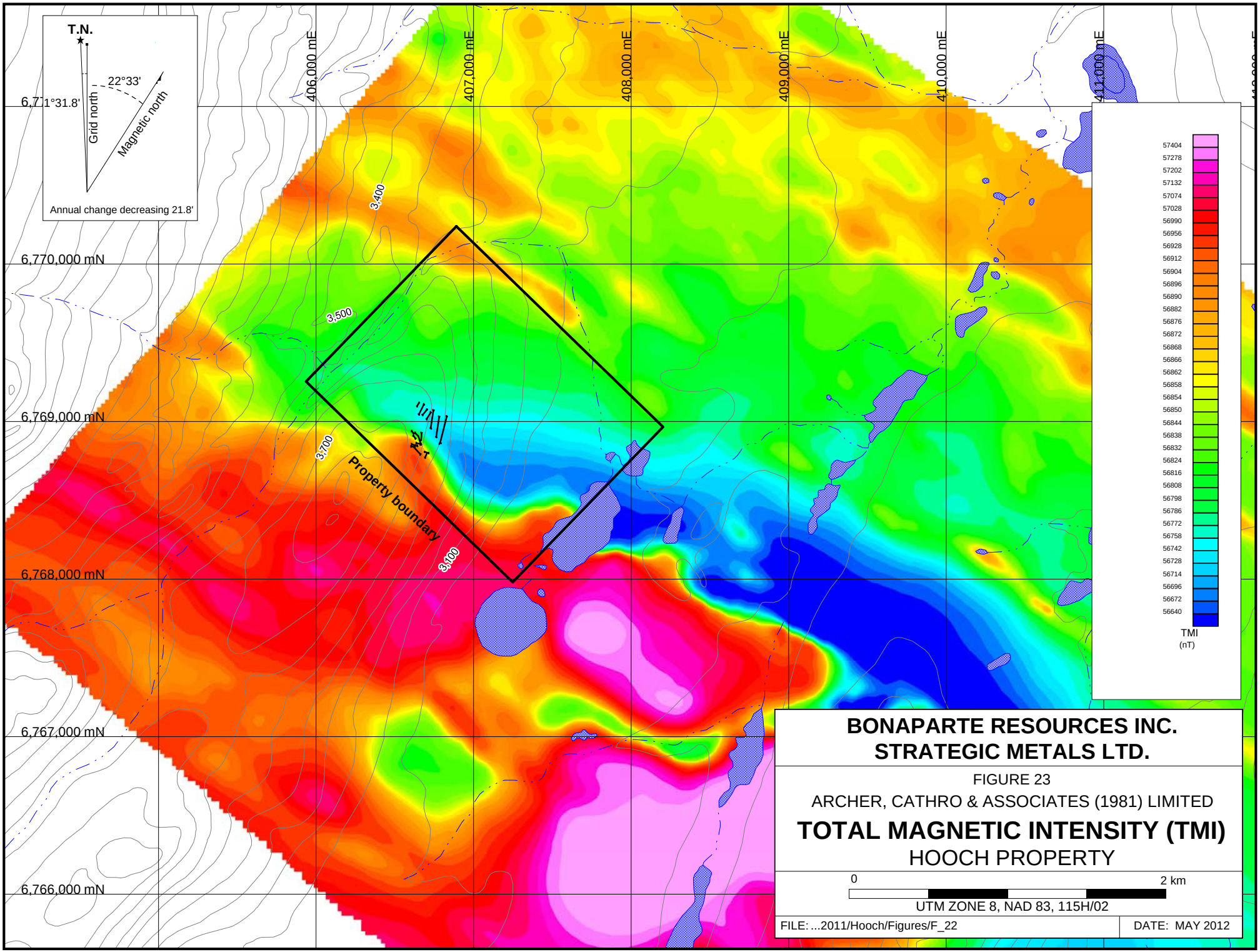
VTEM dB/dt (TAU)

HOOCH PROPERTY

0 — 2 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_22 | DATE: MAY 2012



BONAPARTE RESOURCES INC.
STRATEGIC METALS LTD.

FIGURE 23

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TOTAL MAGNETIC INTENSITY (TMI)

HOOCH PROPERTY

0 2 km

UTM ZONE 8, NAD 83, 115H/02

FILE: ...2011/Hooch/Figures/F_22 | DATE: MAY 2012

DISCUSSION AND CONCLUSIONS

Two distinct skarn zones, both with strong multi-element geochemistry, have been identified on the Hooch property. Neither zone has been fully delineated due to limited bedrock exposure, a lack of soil sample coverage to the southeast and frozen overburden to the north and northwest.

Grid soil sampling in undisturbed areas appears to be relatively ineffective because of the thick frozen layer of glacial till and windblown colluvium. However, samples collected within trenches from deeper in the soil profile did return strongly anomalous values that show skarn geochemical signatures (gold ± silver ± bismuth ± copper ± iron ± molybdenum ± tungsten). This sampling confirmed the need for an alternative technique for penetrating the soil profile. A track-mounted reverse circulation (RC) percussion drill or a power auger mounted on a bulldozer are recommended to test the soil-bedrock interface.

The VTEM survey identified a weak conductor in areas where thick overburden and forest obscure bedrock, while the helicopter-borne magnetic clearly marked the main contact between the plutonic rocks to the south west and metasediments to the northeast. A ground magnetic survey is recommended to further delineate skarn horizons. Once the skarns have been delineated, the RC drill or power auger could be used to sample the skarns in a timely and cost effective manner. Pending favourable results, a diamond drill could be used to test the skarns at depth.

Additional prospecting should be done to test the continuity of the gold-rich quartz vein. This appears to be a new discovery and a concerted effort should be made to determine its extent, average grade and relationship to the skarn mineralization.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

Heather Smith, B.Sc., P.Geo.

REFERENCES

Deklerk, R. and Traynor, S. (compilers)
2005 Yukon MINFILE – a database of mineral occurrences (Minfile Occurrence 115H 015, Moraine); available at: http://servlet.gov.yk.ca/ygsmin/occurrence.do?occurrenceID=115H+015

Duk-Rodkin, A.
1999 Glacial limits map of Yukon Territory; Geological Survey of Canada Geoscience, Map 1999-2.

Downing, D.A.
1979 Cool claims magnetometer survey for Hudson Bay Exploration and Development Company Limited; Assessment Report 090488.

Friske, P.W.B., Hornbrook, E.H.W., Lynch, J.J., McCurdy, M.W., Gross, H., Galletta, A.C. and Durham, C.C.
1985 Regional stream sediment and water geochemical reconnaissance data (115H); Geological Survey of Canada, Open File 2363.

Gordey, S.P. and Makepeace, A.J. (compilers)
2003 Yukon digital geology, version 2.0; Geological Survey of Canada, Open File 1749 and Yukon Geological Survey, Open File 2003-9 (D).

Smith, H.
2011 Assessment report on prospecting and geochemical sampling on the Hooch 1-12 claims; prepared for Strategic Metals Ltd.

Stephen, J.C.
1990 Report on magnetometer survey and reconnaissance geology on the Skip 1-16 claims by J.C. Stephen Explorations Ltd. report prepared for Aurora Gold Ltd/Casau Exploration Ltd; Assessment Report 092884.

Templeman-Kluit, D.J.
1974 Reconnaissance Geology of Aishihik Lake, Snag and Part of Stewart River map areas, West Central Yukon; Geological Survey of Canada, Map 17-1973.

APPENDIX I

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Heather Smith, geologist, with business addresses in Vancouver, British Columbia and Whitehorse, Yukon Territory and residential address in Squamish, British Columbia do hereby certify that:

1. I graduated from the University of British Columbia in 2006 with a B. Sc in Geological Sciences.

2. From 2004 to present, I have been actively engaged in mineral exploration in the Yukon Territory, British Columbia and Northwest Territories.

3. I am a Professional Geoscientist (P.Geo.) with the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 150000).

4. I have personally participated in the fieldwork reported herein and have interpreted all data resulting from this work.

Heather Smith, B.Sc., P.Geo.

APPENDIX II

SAMPLING AND ANALYTICAL PROCEDURES

2011 Rock Geochemical Samples

Rock geochemical sample sites on the property were marked with orange flagging tape labelled with the sample number. The location of each sample was determined using a handheld GPS unit.

Multi-element analyses for rock samples were carried out at ALS Chemex in North Vancouver, B.C. Each sample was dried, fine crushed to better than 70% passing -2mm and then a 250 g split was pulverized to better than 85% passing 75 micron. The fine fraction was then analyzed for gold using fire assay followed by inductively coupled plasma-atomic emission spectroscopy analysis and for 35 other elements using an aqua regia digestion and inductively coupled plasma-atomic emission spectroscopy analysis (Au-AA24 and ME-ICP41). Overlimit values for gold (Au-GRA22), silver (Ag-OG46) and copper (Cu-OG46) were also performed.

2011 Soil Geochemical Samples

All 2011 soil sample locations were recorded using hand-held GPS units. Sample sites are marked by aluminum tags inscribed with the sample numbers and affixed to 0.5 m wooden lath that were driven into the ground. Soil samples were collected from 10 to 30 cm deep holes dug by hand-held auger. They were placed into individually pre-numbered Kraft paper bags.

The soil samples were sent to ALS Chemex, where they were dried, screened to -180 microns, dissolved in aqua regia solution and then analyzed for 35 elements using the inductively coupled plasma with atomic emission spectroscopy technique (ME-ICP41). An additional 50 g charge was further analysed for gold by fire assay with inductively coupled plasma-atomic emissions spectroscopy finish (Au-AA24).

APPENDIX III

ROCK SAMPLE DESCRIPTIONS

Rock Sample Descriptions Project: Hooch Property: Hooch

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973522	UTM:	406403	E	UTM:	6768794	N	Sample Width: 20x30x10 cm	Abundance:
	Elevation:		m					

Comments: Float sample of diopside-hornblende-actinolite skarn with disseminated arsenopyrite.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973523	UTM:	406405	E	UTM:	6768804	N	Sample Width: 10x10x5 cm	Abundance:
	Elevation:		m					

Comments: Float sample of metamorphosed felsic schist with coarse blebs of galena and stringers of rusty limonite.

Sample Number:	Grid East:		E	Grid North:		N	Type: float	Dimension:
K973524	UTM:	406204	E	UTM:	6768685	N	Sample Width: 4 pc	Abundance:
	Elevation:		m					

Comments: float sample of rubbe/composite chip of 4 pieces over 1 m. Bleached, pale yellow/orange quartzite with limonitic bands, pits and blebs.

Sample Number:	Grid East:		E	Grid North:		N	Type: Bedrock	Dimension:
K973525	UTM:	406489	E	UTM:	6768995	N	Sample Width: 20x20x30 cm	Abundance:
	Elevation:		m					

Comments: Sample from bedrock. Possible quartz sweat with garnet in well foliated metamorphosed schist. Trace tremolite with possilbe wolframite.

Sample Number:	Grid East:		E	Grid North:		N	Type: Float	Dimension:
K973526	UTM:	406497	E	UTM:	6768989	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Quartz-calcite-flourite vein, white to pale grey. Trace dissemianted pyrite.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973527	UTM:	406531	E	UTM:	6769144	N	Sample Width: 20x30x10 cm	Abundance:
	Elevation:		m					

Comments: Float sample of siliceous quartz fragments. Medium to dark grey quartz. Dissagregated sulphide? Trace pyrite. Abundant limonite and jarosite. Vuggy quartz vein.

Rock Sample Descriptions Project: Hooch Property: Hooch

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973528	UTM:	406612	E	UTM:	6769143	N	Sample Width: 60x40x20	Abundance:
	Elevation:		m					

Comments: Quartz vein float. Pieces of white quartz with sub parallel, dark green fracture coatings/bands. Trace blebby pyrrhotite. Photo, but no rep.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973529	UTM:	406628	E	UTM:	6769121	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Composite chip from old cat clearing. Rusty/oxidized epidote-diopside skarn with trace pyrrhotite. White precipitate on surfaces.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973530	UTM:	406623	E	UTM:	6768937	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Cat push pile. Diopside-epidote-actinolite skarn with abundant limonite pits, goethite and mariposite.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973531	UTM:	406627	E	UTM:	6768928	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Cat push pile. Calcite-muscovite-mariposite-actinolite-wollastonite skarn with trace pyrite. 1 blood red - mercury/antimony mineral?

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973532	UTM:	406631	E	UTM:	6768920	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Cat push pile. Quartz flood inot epidote-garnet skarn. Coarse garned with 1% chalcopyrite, malachite and actinolite.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973533	UTM:	406631	E	UTM:	6768920	N	Sample Width: 10 x 10 cm	Abundance:
	Elevation:		m					

Comments: Cat push pile. Two pieces, both 10 cm squared. Calcite-chlorite-actinolite skarn with chalcopyrite, pyrrhotite, malachite and limonite.

Rock Sample Descriptions Project: Hooch Property: Hooch

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973534	UTM:	406628	E	UTM:	6768919	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Cat push pile. Calcite-chlorite-epidote-wolframite skarn with 1% chalcopyrite, pyrite and jarosite.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973535	UTM:	406620	E	UTM:	6768878	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Trench floor sample of epidote-chlorite-garnet-magnetite skarn with coarse chalcopyrite, pyrrhotite, pyrite (2% combined).

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973536	UTM:	406622	E	UTM:	6768873	N	Sample Width: 1 m	Abundance:
	Elevation:		m					

Comments: Float across 1 m felsenmeener. Siliceous quartz with > 30% vugs. Quartz is pale grey to white. Drusy.

Sample Number:	Grid East:		E	Grid North:		N	Type:	Dimension:
K973537	UTM:	406654	E	UTM:	6768915	N	Sample Width:	Abundance:
	Elevation:		m					

Comments: Float below 3 m wide skarn horizon. Semi massive, chalcopyrite/pyrite with limonite, goethite and jarosite.

APPENDIX IV

CERTIFICATES OF ANALYSIS

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- NOV- 2011
Account: F

CERTIFICATE WH11180092

Project: Hooch

P.O. No.:

This report is for 16 Rock samples submitted to our lab in Whitehorse, YT, Canada on 7- SEP- 2011.

The following have access to data associated with this certificate:

SARAH EATON	JOAN MARIACHER	HEATHER SMITH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 31	Fine crushing - 70% < 2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% < 75 um
PUL- QC	Pulverizing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Cu- OG46	Ore Grade Cu - Aqua Regia	VARIABLE
Au- AA24	Au 50g FA AA finish	AAS
Au- GRA22	Au 50 g FA- GRAV finish	WST- SIM
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
Ag- OG46	Ore Grade Ag - Aqua Regia	VARIABLE
ME- OG46	Ore Grade Elements - AquaRegia	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- NOV- 2011
Account: F

Project: Hooch

CERTIFICATE OF ANALYSIS WH11180092

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	Au- GRA22 Au ppm 0.05	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1
K973522		1.36	<0.005		<0.2	2.99	2	<10	80	<0.5	<2	2.67	<0.5	33	19	278
K973523		0.94	0.009		10.2	0.97	29	<10	220	0.9	<2	9.3	35.9	12	38	49
K973524		0.22	<0.005		0.3	0.59	7	<10	90	<0.5	2	0.25	1.3	2	11	17
K973525		1.52	<0.005		<0.2	1.33	29	<10	70	<0.5	<2	0.40	<0.5	11	41	42
K973526		1.00	<0.005		<0.2	0.56	3	<10	90	<0.5	<2	0.17	<0.5	3	8	10
K973527		1.44	0.029		0.6	0.55	47	<10	40	<0.5	2	0.10	<0.5	3	22	14
K973528		1.22	<0.005		<0.2	0.34	3	<10	60	<0.5	2	3.69	<0.5	2	8	3
K973529		1.64	<0.005		0.2	5.24	4	<10	80	2.1	<2	3.02	<0.5	18	78	135
K973530		1.40	0.021		4.5	1.78	6	<10	10	<0.5	3	1.77	0.6	38	16	1385
K973531		0.70	0.020		0.4	4.14	3	<10	50	0.6	<2	6.92	<0.5	15	9	610
K973532		0.76	0.091		>100	0.55	27	<10	20	<0.5	31	1.00	1.9	3	26	10000
K973533		0.50	0.178		8.7	2.49	166	<10	20	<0.5	30	0.24	<0.5	189	7	7130
K973534		0.52	0.019		4.2	1.37	8	<10	20	<0.5	<2	15.8	<0.5	7	5	9120
K973535		0.82	0.087		4.2	1.20	46	<10	30	0.5	3	10.0	<0.5	99	10	2820
K973536		1.30	>10.0	13.70	9.9	0.54	47	<10	190	<0.5	21	0.11	<0.5	1	5	49
K973537		1.28	2.10		>100	0.30	11	<10	30	<0.5	44	0.08	7.3	1	<1	>10000

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 24- NOV- 2011
Account: F

Project: Hooch

CERTIFICATE OF ANALYSIS WH11180092

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
	Units	%	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
	LOR	0.01	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
K973522		5.55	10	1	0.21	<10	0.94	355	1	0.38	22	1800	<2	2.28	<2	10
K973523		3.16	<10	1	0.46	10	1.23	2130	1	0.01	19	540	3370	0.46	5	7
K973524		1.29	<10	<1	0.23	20	0.07	272	4	0.15	15	170	231	0.02	<2	1
K973525		2.23	<10	<1	0.50	10	0.33	177	<1	0.08	28	340	4	0.07	<2	3
K973526		0.76	<10	<1	0.36	<10	0.08	111	<1	0.07	2	80	40	0.01	<2	1
K973527		1.65	<10	1	0.13	10	0.02	96	1	0.02	4	770	15	0.37	8	3
K973528		0.71	<10	<1	0.15	<10	0.08	258	<1	0.07	3	160	5	0.16	<2	1
K973529		4.87	20	<1	0.76	20	1.11	293	1	0.43	42	1050	13	1.99	2	7
K973530		10.80	10	1	0.02	<10	0.46	638	81	0.01	18	70	5	2.24	2	2
K973531		10.75	20	<1	0.40	<10	1.09	967	20	0.02	7	330	3	1.39	<2	2
K973532		2.69	<10	<1	0.07	<10	0.23	256	36	0.01	7	420	276	0.04	<2	2
K973533		34.4	20	<1	0.07	<10	0.50	576	59	0.01	140	80	3	>10.0	3	3
K973534		10.45	10	<1	0.09	<10	1.10	2300	178	0.02	32	240	2	2.03	<2	2
K973535		13.55	10	<1	0.37	<10	0.32	1205	13	0.02	17	110	3	8.47	<2	2
K973536		1.80	<10	<1	0.49	<10	0.03	70	37	0.01	<1	20	89	0.73	<2	1
K973537		37.3	10	<1	0.31	<10	0.02	83	113	0.03	10	30	6	>10.0	3	2

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CERTIFICATE OF ANALYSIS WH11180092

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	Ag- OG46	Cu- OG46
	Analyte	Sr	Th	Ti	Tl	U	V	W	Zn	Ag	Cu
	Units	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	1	20	0.01	10	10	1	10	2	1	0.001
K973522		262	<20	0.18	<10	<10	131	<10	32		
K973523		610	<20	0.01	<10	<10	20	<10	3010		
K973524		35	<20	0.01	<10	<10	7	<10	186		
K973525		21	<20	0.12	<10	<10	26	<10	17		
K973526		51	<20	0.02	<10	<10	3	<10	27		
K973527		17	<20	0.01	<10	<10	22	<10	10		
K973528		110	<20	0.03	<10	<10	8	<10	4		
K973529		191	<20	0.23	<10	<10	72	<10	52		
K973530		65	<20	0.09	<10	<10	59	520	75		
K973531		138	<20	0.01	<10	<10	55	730	71		
K973532		9	40	<0.01	<10	10	42	150	131	118	1.020
K973533		6	40	0.01	10	<10	58	140	76		
K973534		374	<20	<0.01	<10	10	41	740	83		
K973535		164	<20	0.04	<10	<10	25	310	27		
K973536		8	<20	0.01	<10	<10	14	20	5		
K973537		47	<20	<0.01	10	<10	21	50	532	425	7.22

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1016- 510 W HASTINGS ST
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Finalized Date: 3- NOV- 2011
This copy reported on 23- NOV- 2011
Account: F

CERTIFICATE WH11179934

Project: HOOCH

P.O. No.:

This report is for 119 Soil samples submitted to our lab in Whitehorse, YT, Canada on 7- SEP- 2011.

The following have access to data associated with this certificate:

SARAH EATON	JOAN MARIACHER	HEATHER SMITH

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au- AA24	Au 50g FA AA finish	AAS
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES

To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
ATTN: JOAN MARIACHER
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager

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Project: HOOCH

CERTIFICATE OF ANALYSIS WH11179934

Sample Description	Method	WEI- 21	Au- AA24	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
ZZ67251		0.22	<0.005	<0.2	1.69	3	<10	130	<0.5	<2	0.56	<0.5	10	36	32	2.74
ZZ67252		0.30	<0.005	<0.2	1.35	<2	<10	80	<0.5	<2	0.39	<0.5	7	30	10	2.19
ZZ67253		0.18	<0.005	<0.2	1.40	3	<10	140	<0.5	<2	0.42	<0.5	9	29	19	2.20
ZZ67254		0.22	<0.005	<0.2	1.62	3	<10	110	<0.5	3	0.36	<0.5	10	32	17	2.60
ZZ67255		0.22	<0.005	<0.2	1.74	3	<10	150	<0.5	<2	0.52	<0.5	10	37	31	2.72
ZZ67256		0.18	<0.005	1.1	1.63	3	<10	100	<0.5	<2	0.62	0.5	10	46	27	2.66
ZZ67257		0.32	<0.005	<0.2	1.52	3	<10	160	<0.5	<2	0.49	<0.5	9	29	26	2.23
ZZ67258		0.34	<0.005	0.2	1.28	5	<10	130	<0.5	<2	0.99	<0.5	11	29	118	2.09
ZZ67259		0.26	<0.005	<0.2	2.03	3	<10	130	<0.5	<2	0.38	<0.5	11	41	25	2.91
ZZ67260		0.22	0.005	<0.2	1.82	<2	<10	160	<0.5	<2	0.31	<0.5	16	35	22	2.87
ZZ67261		0.22	<0.005	<0.2	1.41	5	<10	70	<0.5	<2	0.30	<0.5	8	33	39	2.26
ZZ67262		0.28	0.017	0.3	1.89	5	<10	160	0.5	2	1.58	0.5	15	47	122	3.08
ZZ67263		0.22	0.020	0.2	1.65	5	<10	180	<0.5	<2	1.77	<0.5	15	40	149	3.17
ZZ67264		0.24	0.205	3.7	1.81	71	<10	110	0.5	4	0.82	<0.5	33	34	1530	11.15
ZZ67265		0.18	0.007	<0.2	1.70	5	<10	70	<0.5	2	0.46	<0.5	10	39	43	2.80
ZZ67266		0.24	0.036	0.4	1.79	5	<10	210	<0.5	2	3.61	<0.5	14	36	212	3.56
ZZ67267		0.26	0.037	<0.2	2.99	24	<10	130	1.1	3	1.23	1.1	28	80	362	8.07
ZZ67268		0.24	0.011	<0.2	2.34	6	<10	200	0.5	2	0.75	<0.5	14	59	94	3.51
ZZ67269		0.22	0.007	0.2	1.86	12	<10	140	<0.5	2	0.78	0.5	13	43	118	3.19
ZZ67270		0.24	0.070	1.2	1.92	7	<10	170	<0.5	3	1.38	0.7	19	46	2130	3.44
ZZ67271		0.26	<0.005	0.3	1.98	7	<10	210	<0.5	<2	0.86	<0.5	13	52	77	3.36
ZZ67272		0.32	0.019	0.4	1.96	7	<10	180	<0.5	2	1.63	<0.5	13	47	91	3.28
ZZ67273		0.28	0.109	1.8	1.86	39	<10	90	<0.5	5	5.63	5.8	35	38	1335	7.73
ZZ67274		0.18	0.049	2.6	1.42	11	<10	110	<0.5	<2	5.94	2.0	22	29	836	5.50
ZZ67275		0.34	0.031	1.9	1.53	55	<10	150	<0.5	2	2.83	2.7	15	31	433	3.94
ZZ67276		0.32	0.009	0.3	1.57	7	<10	150	<0.5	<2	2.67	0.6	12	36	104	2.71
ZZ67277		0.32	0.005	0.2	1.52	6	<10	150	<0.5	2	2.31	0.5	11	36	63	2.71
ZZ67278		0.28	0.027	0.2	1.66	9	<10	160	<0.5	3	1.83	<0.5	13	41	85	3.03
ZZ67279		0.30	0.015	0.2	1.53	7	<10	120	<0.5	<2	2.75	0.5	12	38	79	2.67
ZZ67280		0.20	0.009	<0.2	2.07	7	<10	130	<0.5	<2	0.81	<0.5	14	51	59	3.34
ZZ67281		0.20	0.010	<0.2	2.09	8	<10	130	0.5	2	0.52	<0.5	13	45	46	3.16
ZZ67282		0.32	0.008	<0.2	1.73	5	<10	120	<0.5	<2	0.58	<0.5	10	40	39	2.79
ZZ67283		0.30	0.024	0.2	1.75	11	<10	130	<0.5	2	1.51	7.8	13	42	124	3.06
ZZ67284		0.24	0.006	0.2	1.77	7	<10	170	<0.5	<2	2.09	<0.5	14	44	96	3.11
ZZ67285		0.20	0.045	<0.2	2.39	7	<10	90	0.5	<2	1.09	<0.5	15	45	68	4.49
ZZ67286		0.26	0.006	<0.2	2.19	9	<10	110	0.5	<2	0.54	<0.5	14	47	85	3.51
ZZ67287		0.20	<0.005	0.2	1.76	7	<10	60	<0.5	<2	0.37	<0.5	10	44	25	3.06
ZZ67288		0.18	0.105	10.1	2.34	24	<10	40	0.8	8	1.53	0.8	78	19	3570	16.7
ZZ67289		0.16	0.005	0.2	1.85	5	<10	180	<0.5	<2	2.21	0.8	33	46	647	3.31
ZZ67290		0.20	0.020	0.3	2.25	5	<10	150	<0.5	<2	0.86	<0.5	19	77	124	4.18

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Account: F

Project: HOOCH

CERTIFICATE OF ANALYSIS WH11179934

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ67251		<10	<1	0.30	10	0.74	352	18	0.04	18	560	8	<0.01	<2	6	38
ZZ67252		<10	<1	0.21	<10	0.55	202	2	0.03	15	550	5	<0.01	<2	3	25
ZZ67253		<10	<1	0.20	10	0.50	351	9	0.03	13	530	7	0.01	<2	4	27
ZZ67254		<10	<1	0.22	10	0.55	291	14	0.03	17	220	7	0.01	<2	4	25
ZZ67255		<10	<1	0.25	10	0.73	393	13	0.04	20	550	7	0.01	<2	5	34
ZZ67256		<10	<1	0.29	10	0.78	291	23	0.04	19	340	13	0.02	<2	4	39
ZZ67257		<10	<1	0.09	10	0.54	424	11	0.04	15	520	3	0.01	<2	4	31
ZZ67258		<10	<1	0.15	10	0.54	322	10	0.04	24	700	5	0.02	<2	4	53
ZZ67259		10	<1	0.09	10	0.74	261	5	0.04	19	410	11	<0.01	<2	4	29
ZZ67260		10	<1	0.11	10	0.56	733	14	0.04	16	210	9	0.01	<2	4	25
ZZ67261		10	<1	0.17	10	0.59	213	3	0.03	16	230	4	0.01	<2	4	23
ZZ67262		<10	<1	0.29	10	0.81	474	4	0.08	27	1120	21	0.02	<2	6	75
ZZ67263		<10	<1	0.25	10	0.84	535	6	0.06	23	860	18	0.01	<2	5	61
ZZ67264		10	<1	0.21	10	0.64	677	24	0.04	54	540	16	0.32	<2	5	56
ZZ67265		<10	<1	0.27	10	0.72	277	3	0.03	21	370	10	0.01	<2	4	28
ZZ67266		<10	1	0.41	10	0.86	725	5	0.06	21	900	15	0.02	<2	6	79
ZZ67267		10	<1	0.47	10	1.87	2300	23	0.03	47	420	14	0.04	<2	12	33
ZZ67268		10	<1	0.17	20	1.10	527	10	0.06	29	640	17	0.01	<2	8	46
ZZ67269		10	<1	0.32	10	0.77	454	14	0.05	25	430	13	0.02	<2	5	42
ZZ67270		<10	<1	0.33	10	0.90	534	23	0.06	36	790	14	0.03	<2	7	61
ZZ67271		10	<1	0.30	10	1.02	463	6	0.07	31	1020	19	0.01	<2	7	53
ZZ67272		10	<1	0.37	10	0.95	465	7	0.07	26	920	17	0.02	<2	7	68
ZZ67273		<10	<1	0.24	<10	0.79	1545	130	0.04	41	490	19	0.18	<2	5	129
ZZ67274		<10	<1	0.26	<10	0.66	1770	55	0.05	27	690	20	0.05	<2	4	104
ZZ67275		<10	1	0.31	20	0.71	690	79	0.06	23	920	51	0.03	<2	5	86
ZZ67276		<10	<1	0.33	10	0.80	470	5	0.06	21	1000	20	0.02	<2	5	91
ZZ67277		<10	<1	0.31	10	0.77	457	6	0.06	22	940	16	0.01	<2	5	79
ZZ67278		<10	<1	0.34	10	0.83	480	12	0.06	25	940	15	0.01	<2	6	71
ZZ67279		<10	<1	0.32	10	0.83	424	3	0.06	23	950	16	0.02	<2	5	89
ZZ67280		10	1	0.33	10	0.98	473	2	0.06	31	1020	15	0.01	<2	7	48
ZZ67281		10	<1	0.32	10	0.90	338	4	0.05	31	450	23	0.02	<2	5	43
ZZ67282		<10	<1	0.18	10	0.77	403	1	0.06	21	540	13	0.01	<2	5	41
ZZ67283		<10	<1	0.34	10	0.90	414	9	0.07	24	980	21	0.01	<2	6	77
ZZ67284		<10	1	0.29	10	0.95	496	6	0.07	26	1010	21	0.02	<2	6	91
ZZ67285		10	<1	0.28	10	1.10	887	59	0.05	26	260	22	0.07	<2	6	46
ZZ67286		10	<1	0.22	20	0.90	437	4	0.05	30	280	20	0.02	<2	7	33
ZZ67287		10	<1	0.25	10	0.87	275	3	0.03	28	290	13	0.02	<2	4	24
ZZ67288		10	<1	0.21	10	1.03	1455	19	0.02	77	660	11	0.52	<2	5	46
ZZ67289		<10	<1	0.32	20	1.01	798	4	0.06	50	1110	24	0.03	<2	7	73
ZZ67290		10	<1	0.38	20	1.24	551	7	0.04	36	680	29	0.02	<2	10	45

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CERTIFICATE OF ANALYSIS WH11179934

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	20	0.01	10	10	1	10	2
ZZ67251		<20	0.15	<10	<10	64	<10	52
ZZ67252		<20	0.13	<10	<10	56	<10	41
ZZ67253		<20	0.12	<10	<10	53	<10	55
ZZ67254		<20	0.14	<10	<10	62	<10	54
ZZ67255		<20	0.14	<10	<10	65	<10	53
ZZ67256		<20	0.14	<10	<10	68	<10	58
ZZ67257		<20	0.11	<10	<10	54	<10	45
ZZ67258		<20	0.11	<10	<10	45	<10	51
ZZ67259		<20	0.16	<10	<10	77	<10	52
ZZ67260		<20	0.15	<10	<10	72	<10	63
ZZ67261		<20	0.14	<10	<10	63	<10	39
ZZ67262		<20	0.15	<10	<10	62	10	69
ZZ67263		<20	0.16	<10	<10	66	10	69
ZZ67264		<20	0.12	<10	<10	79	860	58
ZZ67265		<20	0.15	<10	<10	67	10	48
ZZ67266		<20	0.17	<10	<10	66	20	72
ZZ67267		<20	0.18	<10	<10	80	40	257
ZZ67268		<20	0.17	<10	<10	74	<10	67
ZZ67269		<20	0.16	<10	<10	67	<10	65
ZZ67270		<20	0.17	<10	<10	68	10	88
ZZ67271		<20	0.19	<10	<10	73	<10	70
ZZ67272		<20	0.19	<10	<10	72	<10	70
ZZ67273		<20	0.10	<10	<10	60	210	212
ZZ67274		<20	0.11	<10	<10	45	130	138
ZZ67275		20	0.13	<10	<10	55	30	262
ZZ67276		<20	0.16	<10	<10	60	10	75
ZZ67277		<20	0.15	<10	<10	57	<10	68
ZZ67278		<20	0.16	<10	<10	62	10	69
ZZ67279		<20	0.15	<10	<10	57	<10	70
ZZ67280		<20	0.18	<10	<10	67	<10	62
ZZ67281		<20	0.17	<10	<10	64	<10	58
ZZ67282		<20	0.15	<10	<10	60	<10	49
ZZ67283		<20	0.17	<10	<10	67	<10	124
ZZ67284		<20	0.18	<10	<10	68	<10	70
ZZ67285		<20	0.15	<10	<10	80	1780	66
ZZ67286		<20	0.17	<10	<10	70	10	59
ZZ67287		<20	0.15	<10	<10	72	<10	54
ZZ67288		<20	0.09	<10	<10	77	250	70
ZZ67289		<20	0.17	<10	<10	77	20	88
ZZ67290		<20	0.25	<10	<10	91	40	75

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To: **ARCHER, CATHRO AND ASSOCIATES (1981) LIMITED**
1016- 510 W HASTINGS ST
VANCOUVER BC V6B 1L8

Finalized Date: 3- NOV- 2011
Account: F

Project: HOOCH

CERTIFICATE OF ANALYSIS WH11179934

Sample Description	Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ67291		0.26	0.021	0.4	1.95	6	<10	110	<0.5	2	0.82	<0.5	13	48	87	3.31
ZZ67292		0.30	0.044	0.2	1.86	11	<10	150	0.5	2	0.68	<0.5	13	45	93	3.39
ZZ67293		0.26	0.024	1.1	1.65	7	<10	140	<0.5	2	1.77	0.7	61	39	1850	6.75
ZZ67294		0.28	0.032	<0.2	1.83	6	<10	210	<0.5	2	0.72	<0.5	15	46	160	3.47
ZZ67295		0.20	<0.005	<0.2	1.65	5	<10	130	<0.5	<2	0.69	<0.5	11	39	62	2.85
ZZ67296		0.28	<0.005	<0.2	1.62	3	<10	150	<0.5	<2	0.69	<0.5	8	33	20	2.57
ZZ67297		0.20	<0.005	0.3	2.30	3	<10	60	<0.5	3	0.67	<0.5	9	41	17	3.01
ZZ67311		0.14	<0.005	<0.2	1.82	3	<10	180	<0.5	<2	0.55	<0.5	17	40	31	3.07
ZZ67312		0.20	<0.005	0.2	1.54	3	<10	120	<0.5	<2	0.55	<0.5	10	35	16	2.57
ZZ67313		0.18	<0.005	0.3	1.70	6	<10	210	0.5	<2	0.82	<0.5	20	33	58	3.00
ZZ67314		0.20	<0.005	0.2	1.57	3	<10	120	<0.5	<2	0.50	<0.5	9	31	16	2.57
ZZ67315		0.26	<0.005	<0.2	1.59	2	<10	70	<0.5	<2	0.37	<0.5	9	32	11	2.57
ZZ67316		0.14	<0.005	<0.2	1.64	5	<10	170	<0.5	<2	1.31	<0.5	10	33	25	2.71
ZZ67317		0.22	<0.005	<0.2	1.67	5	<10	100	<0.5	<2	0.77	<0.5	8	35	15	2.71
ZZ67318		0.20	<0.005	<0.2	1.60	2	<10	140	<0.5	<2	0.77	<0.5	9	33	24	2.52
ZZ67319		0.24	<0.005	<0.2	1.47	8	<10	80	<0.5	<2	0.44	<0.5	8	35	12	2.55
ZZ67320		0.22	<0.005	<0.2	1.69	4	<10	90	<0.5	<2	0.49	<0.5	9	35	15	2.70
ZZ67321		0.24	<0.005	<0.2	1.28	4	<10	100	<0.5	<2	0.44	<0.5	8	28	16	2.18
ZZ67322		0.22	<0.005	<0.2	1.56	3	<10	140	<0.5	<2	0.40	0.5	13	33	14	2.72
ZZ67323		0.20	<0.005	<0.2	1.74	2	<10	150	<0.5	<2	0.48	<0.5	12	35	16	2.72
ZZ67324		0.14	<0.005	0.2	1.49	5	<10	100	<0.5	<2	0.60	<0.5	8	31	20	2.42
ZZ67325		0.22	<0.005	<0.2	1.21	2	<10	70	<0.5	<2	0.37	<0.5	7	24	11	2.04
ZZ67326		0.28	<0.005	<0.2	2.36	6	<10	100	<0.5	<2	0.54	<0.5	10	41	24	3.24
ZZ67327		0.28	<0.005	<0.2	1.68	3	<10	140	<0.5	<2	0.53	<0.5	10	34	23	2.75
ZZ67328		0.24	<0.005	<0.2	1.65	4	<10	70	<0.5	<2	0.53	<0.5	8	34	15	2.60
ZZ67329		0.26	<0.005	0.2	1.96	6	<10	200	<0.5	2	1.25	<0.5	10	41	39	2.92
ZZ67330		0.22	0.014	<0.2	1.38	2	<10	100	<0.5	<2	0.66	<0.5	10	27	14	2.46
ZZ67331		0.26	<0.005	<0.2	1.55	6	<10	110	<0.5	<2	0.63	<0.5	9	32	21	2.51
ZZ67332		0.16	<0.005	<0.2	1.58	5	<10	140	<0.5	2	0.95	<0.5	9	33	36	2.61
ZZ67333		0.22	<0.005	<0.2	1.67	3	<10	110	<0.5	<2	0.78	<0.5	12	35	21	2.80
ZZ67334		0.26	<0.005	<0.2	1.57	3	<10	160	<0.5	<2	0.51	<0.5	9	32	16	2.63
ZZ67335		0.28	<0.005	0.2	1.85	3	<10	80	<0.5	<2	0.60	<0.5	9	35	16	2.80
ZZ67336		0.20	<0.005	0.2	1.72	3	<10	180	<0.5	<2	0.42	<0.5	12	35	18	2.86
ZZ67337		0.18	<0.005	<0.2	1.42	2	<10	90	<0.5	<2	0.45	<0.5	7	28	9	2.10
ZZ67338		0.16	<0.005	<0.2	1.73	<2	<10	200	<0.5	<2	0.63	0.8	10	34	15	3.03
ZZ67339		0.20	0.006	<0.2	1.32	3	<10	120	<0.5	<2	1.50	<0.5	9	32	22	1.90
ZZ67340		0.20	0.027	0.2	1.33	2	<10	150	<0.5	<2	1.28	<0.5	9	30	33	2.29
ZZ67341		0.22	0.007	0.2	1.46	4	<10	150	<0.5	<2	0.96	<0.5	12	35	30	2.52
ZZ67342		0.32	<0.005	<0.2	2.02	5	<10	110	<0.5	<2	0.34	<0.5	11	41	30	2.93
ZZ67343		0.26	<0.005	<0.2	1.78	6	<10	120	<0.5	<2	0.77	<0.5	11	46	21	2.79

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CERTIFICATE OF ANALYSIS WH11179934

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ67291		10	<1	0.39	10	0.92	395	2	0.04	27	550	26	0.03	<2	7	42
ZZ67292		10	<1	0.21	20	0.91	555	10	0.04	21	720	37	0.01	<2	7	41
ZZ67293		<10	<1	0.20	10	0.91	1030	21	0.04	70	1230	19	0.09	<2	6	61
ZZ67294		10	<1	0.24	20	1.03	503	3	0.04	23	1110	21	0.01	<2	8	39
ZZ67295		<10	<1	0.19	10	0.74	340	18	0.04	23	520	8	0.02	<2	5	46
ZZ67296		<10	<1	0.11	10	0.68	335	24	0.03	18	560	5	0.03	<2	5	47
ZZ67297		10	<1	0.24	10	0.79	256	1	0.03	21	260	7	0.02	<2	5	37
ZZ67311		10	<1	0.30	10	0.65	881	2	0.03	29	450	10	0.02	<2	4	39
ZZ67312		<10	<1	0.36	10	0.62	300	1	0.03	18	280	5	0.02	<2	4	38
ZZ67313		<10	<1	0.23	10	0.49	2040	3	0.03	33	400	7	0.02	<2	4	55
ZZ67314		<10	<1	0.24	10	0.54	276	1	0.02	21	190	5	0.01	<2	4	31
ZZ67315		<10	<1	0.18	10	0.54	187	1	0.02	17	130	5	0.01	<2	3	24
ZZ67316		<10	<1	0.22	10	0.61	361	1	0.03	22	350	6	0.04	<2	4	90
ZZ67317		<10	<1	0.27	10	0.69	259	1	0.03	18	230	4	0.02	<2	5	52
ZZ67318		<10	<1	0.34	10	0.66	256	1	0.03	20	330	6	0.04	<2	4	63
ZZ67319		<10	<1	0.30	10	0.64	289	<1	0.02	17	340	5	0.01	<2	4	26
ZZ67320		<10	<1	0.28	10	0.65	316	1	0.03	18	370	4	0.02	<2	4	31
ZZ67321		<10	<1	0.23	10	0.48	214	1	0.02	18	370	5	0.02	<2	3	27
ZZ67322		10	<1	0.23	10	0.56	539	3	0.03	17	230	9	0.02	<2	3	25
ZZ67323		<10	<1	0.19	10	0.61	451	1	0.03	20	440	5	0.01	<2	4	28
ZZ67324		<10	<1	0.26	10	0.56	242	3	0.02	17	280	11	0.02	<2	4	34
ZZ67325		<10	<1	0.20	<10	0.43	169	1	0.02	13	220	4	0.01	<2	2	25
ZZ67326		10	<1	0.43	10	0.85	265	1	0.04	27	290	7	0.02	<2	5	36
ZZ67327		<10	<1	0.26	10	0.60	312	<1	0.02	24	210	5	0.02	<2	5	31
ZZ67328		10	<1	0.27	10	0.66	217	1	0.03	17	220	5	0.03	<2	5	34
ZZ67329		<10	<1	0.39	10	0.83	359	<1	0.05	24	420	7	0.07	<2	6	73
ZZ67330		<10	<1	0.22	10	0.43	169	1	0.03	16	210	6	0.03	<2	3	37
ZZ67331		<10	<1	0.26	10	0.59	215	1	0.03	18	210	5	0.02	<2	5	34
ZZ67332		<10	<1	0.27	10	0.73	384	1	0.04	23	570	5	0.03	<2	5	53
ZZ67333		10	<1	0.25	10	0.63	301	2	0.03	19	280	7	0.02	<2	4	42
ZZ67334		<10	<1	0.26	10	0.56	269	1	0.02	17	190	6	0.02	<2	4	29
ZZ67335		10	<1	0.25	10	0.67	216	2	0.02	18	330	6	0.03	<2	4	35
ZZ67336		10	<1	0.24	10	0.66	536	1	0.02	23	320	6	0.01	<2	4	27
ZZ67337		<10	<1	0.14	10	0.56	331	4	0.02	13	220	4	0.01	<2	3	24
ZZ67338		10	<1	0.18	10	0.55	212	3	0.02	18	200	8	0.01	<2	4	46
ZZ67339		<10	<1	0.17	10	0.62	338	5	0.03	17	590	5	0.07	<2	4	79
ZZ67340		<10	<1	0.25	10	0.66	320	<1	0.04	19	640	4	0.03	<2	4	72
ZZ67341		<10	<1	0.28	10	0.70	474	<1	0.04	22	730	11	0.03	<2	4	51
ZZ67342		<10	<1	0.16	10	0.74	222	<1	0.03	31	280	5	0.01	<2	4	25
ZZ67343		<10	<1	0.30	10	0.91	274	1	0.04	24	420	8	0.04	<2	5	51

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CERTIFICATE OF ANALYSIS WH11179934

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	20	0.01	10	10	1	10	2
ZZ67291		<20	0.17	<10	<10	77	<10	62
ZZ67292		<20	0.17	<10	<10	75	<10	57
ZZ67293		<20	0.18	<10	<10	67	80	85
ZZ67294		<20	0.20	<10	<10	76	10	65
ZZ67295		<20	0.15	<10	<10	69	<10	48
ZZ67296		<20	0.13	<10	<10	61	<10	41
ZZ67297		<20	0.20	<10	<10	74	<10	50
ZZ67311		<20	0.15	<10	<10	64	<10	85
ZZ67312		<20	0.14	<10	<10	63	<10	42
ZZ67313		<20	0.14	<10	<10	65	<10	65
ZZ67314		<20	0.15	<10	<10	59	<10	37
ZZ67315		<20	0.15	<10	<10	65	<10	36
ZZ67316		<20	0.13	<10	<10	61	<10	39
ZZ67317		<20	0.14	<10	<10	63	<10	42
ZZ67318		<20	0.14	<10	<10	58	<10	39
ZZ67319		<20	0.15	<10	<10	62	<10	40
ZZ67320		<20	0.15	<10	<10	66	<10	41
ZZ67321		<20	0.13	<10	<10	55	<10	45
ZZ67322		<20	0.15	<10	<10	65	<10	54
ZZ67323		<20	0.14	<10	<10	63	<10	48
ZZ67324		<20	0.14	<10	<10	61	<10	48
ZZ67325		<20	0.12	<10	<10	50	<10	30
ZZ67326		<20	0.19	<10	<10	75	<10	48
ZZ67327		<20	0.15	<10	<10	63	<10	40
ZZ67328		<20	0.14	<10	<10	62	<10	39
ZZ67329		<20	0.16	<10	<10	64	<10	53
ZZ67330		<20	0.13	<10	<10	55	<10	30
ZZ67331		<20	0.14	<10	<10	59	<10	39
ZZ67332		<20	0.14	<10	<10	58	<10	51
ZZ67333		<20	0.14	<10	<10	67	<10	48
ZZ67334		<20	0.15	<10	<10	65	<10	50
ZZ67335		<20	0.14	<10	<10	68	<10	48
ZZ67336		<20	0.15	<10	<10	66	<10	105
ZZ67337		<20	0.12	<10	<10	54	<10	48
ZZ67338		<20	0.15	<10	<10	74	<10	108
ZZ67339		<20	0.11	<10	<10	47	<10	57
ZZ67340		<20	0.13	<10	<10	55	<10	41
ZZ67341		<20	0.11	<10	<10	52	<10	46
ZZ67342		<20	0.15	<10	<10	64	<10	42
ZZ67343		<20	0.14	<10	<10	57	<10	49

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Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA24 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
ZZ67344		0.22	<0.005	0.2	1.85	6	<10	180	<0.5	<2	1.20	<0.5	14	47	34	2.80
ZZ67345		0.26	<0.005	<0.2	2.00	6	<10	110	<0.5	<2	0.45	<0.5	10	34	17	2.80
ZZ67346		0.30	<0.005	<0.2	1.56	4	<10	80	<0.5	<2	0.47	<0.5	7	30	13	2.30
ZZ67347		0.28	<0.005	<0.2	1.32	2	<10	100	<0.5	<2	0.84	<0.5	8	29	25	2.29
ZZ67348		0.24	<0.005	<0.2	1.59	<2	<10	110	<0.5	<2	0.42	<0.5	11	32	15	2.71
ZZ67349		0.24	<0.005	<0.2	1.53	4	<10	140	<0.5	<2	1.73	<0.5	9	32	21	2.59
ZZ67350		0.18	<0.005	<0.2	1.55	3	<10	60	<0.5	<2	0.38	<0.5	8	31	12	2.44
ZZ67351		0.18	<0.005	0.2	1.54	3	<10	100	<0.5	<2	0.77	<0.5	8	31	29	2.45
ZZ67352		0.24	<0.005	<0.2	1.65	3	<10	140	<0.5	<2	0.85	<0.5	8	35	36	2.63
ZZ67353		0.30	<0.005	<0.2	1.63	4	<10	100	<0.5	<2	0.50	<0.5	7	33	15	2.51
ZZ67354		0.24	<0.005	<0.2	2.18	5	<10	180	<0.5	<2	0.73	<0.5	12	44	16	3.18
ZZ67355		0.28	<0.005	<0.2	1.69	5	<10	140	<0.5	<2	0.31	<0.5	8	31	13	2.42
ZZ67356		0.34	<0.005	<0.2	1.71	<2	<10	180	<0.5	<2	0.94	<0.5	10	33	43	2.43
ZZ67357		0.26	0.006	0.2	1.89	4	<10	140	<0.5	<2	1.01	<0.5	13	45	21	3.37
ZZ67358		0.20	0.005	0.2	1.31	2	<10	90	<0.5	<2	1.24	<0.5	8	28	29	2.04
ZZ67359		0.34	<0.005	<0.2	1.49	3	<10	160	<0.5	<2	0.45	<0.5	9	28	21	2.17
ZZ67360		0.20	<0.005	0.2	1.92	2	<10	140	<0.5	2	0.50	<0.5	11	37	17	3.01
ZZ67361		0.22	<0.005	<0.2	1.49	<2	<10	170	<0.5	<2	0.55	<0.5	9	30	19	2.40
ZZ67362		0.36	<0.005	<0.2	1.44	4	<10	140	<0.5	<2	0.62	<0.5	8	29	18	2.26
ZZ67363		0.34	<0.005	<0.2	1.96	<2	<10	170	<0.5	<2	0.61	<0.5	10	40	17	2.95
ZZ67364		0.24	<0.005	0.2	2.14	5	<10	180	<0.5	<2	0.85	<0.5	10	49	26	3.21
ZZ67365		0.26	<0.005	<0.2	1.43	4	<10	90	<0.5	<2	0.38	<0.5	9	30	12	2.35
ZZ67366		0.32	<0.005	0.2	1.24	2	<10	100	<0.5	<2	0.65	<0.5	7	28	38	2.15
ZZ67367		0.22	<0.005	<0.2	2.14	6	<10	130	<0.5	<2	0.52	<0.5	11	42	20	3.18
ZZ67368		0.16	<0.005	<0.2	1.64	4	<10	70	<0.5	<2	0.43	<0.5	9	35	13	2.64
ZZ67369		0.24	<0.005	<0.2	1.53	3	<10	160	<0.5	<2	0.85	<0.5	11	30	33	2.51
ZZ67370		0.24	<0.005	<0.2	1.56	4	<10	120	<0.5	2	0.63	<0.5	9	32	26	2.53
ZZ67371		0.24	<0.005	<0.2	1.66	3	<10	120	<0.5	<2	0.38	<0.5	9	62	18	2.71
ZZ67372		0.32	<0.005	<0.2	1.34	3	<10	90	<0.5	2	0.55	<0.5	7	28	18	2.19
ZZ67373		0.26	<0.005	<0.2	1.69	3	<10	110	<0.5	<2	0.70	<0.5	9	33	18	2.62
ZZ67374		0.26	<0.005	<0.2	1.95	8	<10	90	<0.5	<2	0.47	<0.5	10	43	16	2.86
ZZ67375		0.24	<0.005	<0.2	1.72	3	<10	90	<0.5	<2	0.42	<0.5	7	33	14	2.51
ZZ67376		0.30	0.008	<0.2	1.63	<2	<10	150	<0.5	<2	0.84	<0.5	10	36	31	2.63
ZZ67377		0.24	<0.005	<0.2	2.00	2	<10	110	<0.5	<2	0.39	<0.5	9	36	20	2.70
ZZ67378		0.32	<0.005	<0.2	2.67	5	<10	90	0.6	<2	0.26	<0.5	10	46	27	3.22
ZZ67379		0.24	<0.005	<0.2	1.60	6	<10	80	<0.5	<2	0.52	<0.5	8	33	19	2.51
ZZ67380		0.32	<0.005	<0.2	1.85	8	<10	130	<0.5	<2	0.57	<0.5	10	39	20	2.92
ZZ67381		0.22	<0.005	<0.2	1.62	3	<10	110	<0.5	<2	0.57	<0.5	7	34	17	2.52
ZZ67382		0.24	<0.005	<0.2	1.45	4	<10	110	<0.5	<2	0.64	<0.5	8	33	21	2.40

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Finalized Date: 3- NOV- 2011
Account: F

Project: HOOCH

CERTIFICATE OF ANALYSIS WH11179934

Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
	Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
	LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
ZZ67344		10	<1	0.32	10	0.84	434	<1	0.04	30	580	10	0.05	<2	5	71
ZZ67345		10	<1	0.10	10	0.67	220	1	0.02	22	270	5	0.01	<2	4	27
ZZ67346		<10	<1	0.09	10	0.55	195	<1	0.02	16	340	4	0.01	<2	4	28
ZZ67347		<10	<1	0.22	10	0.71	275	1	0.03	19	750	3	0.01	<2	4	48
ZZ67348		<10	<1	0.23	10	0.59	278	1	0.02	19	190	5	0.01	<2	4	27
ZZ67349		<10	<1	0.25	10	0.78	307	<1	0.04	19	880	4	0.02	<2	5	59
ZZ67350		<10	<1	0.18	10	0.53	171	1	0.02	18	140	5	<0.01	<2	3	22
ZZ67351		<10	<1	0.24	10	0.60	259	1	0.03	28	330	5	0.01	<2	4	41
ZZ67352		<10	<1	0.28	10	0.74	268	1	0.04	21	550	5	0.01	<2	5	43
ZZ67353		<10	<1	0.16	10	0.62	234	1	0.02	17	650	4	<0.01	<2	4	29
ZZ67354		10	<1	0.47	10	0.89	340	1	0.04	23	470	6	0.02	<2	4	47
ZZ67355		<10	<1	0.14	10	0.56	239	1	0.02	17	320	4	<0.01	<2	4	20
ZZ67356		<10	<1	0.19	10	0.74	273	1	0.03	20	450	6	0.03	<2	5	51
ZZ67357		10	<1	0.41	10	1.06	402	6	0.05	22	900	9	0.03	<2	5	61
ZZ67358		<10	<1	0.20	10	0.55	234	<1	0.04	18	590	5	0.03	<2	4	54
ZZ67359		<10	<1	0.14	10	0.53	377	1	0.02	15	440	4	<0.01	<2	4	27
ZZ67360		10	<1	0.23	10	0.65	324	1	0.02	19	380	7	0.01	<2	4	32
ZZ67361		<10	<1	0.29	10	0.79	422	<1	0.04	17	650	3	0.02	<2	4	43
ZZ67362		<10	<1	0.11	10	0.50	318	1	0.03	15	460	4	0.01	<2	4	31
ZZ67363		10	<1	0.24	10	0.81	258	1	0.03	21	450	6	0.01	2	5	34
ZZ67364		10	<1	0.57	10	0.90	366	1	0.04	21	360	6	0.01	<2	7	51
ZZ67365		<10	<1	0.22	10	0.50	181	1	0.02	14	250	5	<0.01	<2	3	23
ZZ67366		<10	<1	0.22	10	0.62	254	<1	0.03	19	760	3	0.01	<2	4	35
ZZ67367		10	<1	0.42	10	0.81	294	1	0.04	25	300	6	0.01	<2	6	34
ZZ67368		<10	<1	0.24	10	0.68	219	1	0.03	18	180	4	0.01	<2	4	29
ZZ67369		<10	<1	0.20	10	0.54	483	1	0.03	21	480	5	0.01	<2	4	61
ZZ67370		<10	<1	0.25	10	0.67	333	1	0.03	18	310	4	0.01	<2	5	41
ZZ67371		<10	<1	0.33	10	0.71	200	2	0.03	19	330	4	0.02	<2	4	25
ZZ67372		<10	<1	0.18	10	0.51	249	1	0.03	17	370	4	<0.01	<2	4	32
ZZ67373		10	<1	0.35	10	0.77	345	2	0.04	17	560	6	0.01	<2	5	48
ZZ67374		10	<1	0.30	10	0.73	280	1	0.03	21	300	5	<0.01	<2	5	28
ZZ67375		10	<1	0.12	10	0.59	212	1	0.02	18	420	5	<0.01	<2	4	27
ZZ67376		10	<1	0.23	10	0.69	442	<1	0.03	19	660	4	0.01	<2	5	41
ZZ67377		10	<1	0.25	10	0.75	288	<1	0.03	21	490	6	0.01	<2	4	30
ZZ67378		10	<1	0.14	10	0.80	267	1	0.02	25	340	5	0.01	<2	6	21
ZZ67379		10	<1	0.23	10	0.62	253	1	0.03	18	370	4	<0.01	<2	5	30
ZZ67380		10	<1	0.24	10	0.69	374	2	0.03	20	300	6	<0.01	<2	6	36
ZZ67381		<10	<1	0.31	10	0.68	244	1	0.03	17	340	4	0.01	<2	5	37
ZZ67382		<10	<1	0.28	10	0.62	303	1	0.03	17	530	4	<0.01	<2	4	38

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Sample Description	Method	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	20	0.01	10	10	1	10	2
ZZ67344		<20	0.14	<10	<10	62	<10	51
ZZ67345		<20	0.12	<10	<10	64	<10	42
ZZ67346		<20	0.12	<10	<10	56	<10	35
ZZ67347		<20	0.11	<10	<10	53	<10	42
ZZ67348		<20	0.14	<10	<10	64	<10	42
ZZ67349		<20	0.13	<10	<10	57	<10	50
ZZ67350		<20	0.14	<10	<10	62	<10	34
ZZ67351		<20	0.12	<10	<10	52	<10	41
ZZ67352		<20	0.14	<10	<10	59	<10	47
ZZ67353		<20	0.12	<10	<10	59	<10	41
ZZ67354		<20	0.17	<10	<10	72	<10	60
ZZ67355		<20	0.13	<10	<10	62	<10	40
ZZ67356		<20	0.14	<10	<10	56	<10	58
ZZ67357		<20	0.14	<10	<10	63	<10	87
ZZ67358		<20	0.11	<10	<10	46	<10	41
ZZ67359		<20	0.12	<10	<10	49	<10	66
ZZ67360		<20	0.15	<10	<10	65	<10	51
ZZ67361		<20	0.14	<10	<10	52	<10	47
ZZ67362		<20	0.12	<10	<10	53	<10	44
ZZ67363		<20	0.17	<10	<10	69	<10	48
ZZ67364		<20	0.19	<10	<10	77	<10	55
ZZ67365		<20	0.14	<10	<10	60	<10	45
ZZ67366		<20	0.11	<10	<10	50	<10	39
ZZ67367		<20	0.19	<10	<10	74	<10	49
ZZ67368		<20	0.15	<10	<10	64	<10	39
ZZ67369		<20	0.11	<10	<10	56	<10	47
ZZ67370		<20	0.13	<10	<10	59	<10	43
ZZ67371		<20	0.14	<10	<10	68	<10	43
ZZ67372		<20	0.12	<10	<10	52	<10	35
ZZ67373		<20	0.15	<10	<10	61	<10	47
ZZ67374		<20	0.17	<10	<10	71	<10	48
ZZ67375		<20	0.14	<10	<10	62	<10	38
ZZ67376		<20	0.15	<10	<10	61	<10	58
ZZ67377		<20	0.16	<10	<10	59	<10	48
ZZ67378		<20	0.18	<10	<10	77	<10	49
ZZ67379		<20	0.14	<10	<10	60	<10	39
ZZ67380		<20	0.15	<10	<10	71	<10	46
ZZ67381		<20	0.14	<10	<10	56	<10	39
ZZ67382		<20	0.13	<10	<10	57	<10	40

APPENDIX V

GEOPHYSICAL REPORT

REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM) AND AEROMAGNETIC GEOPHYSICAL SURVEY

Hopper and Hooch Properties

Haines Junction, Yukon Territory

For:

Bonaparte Resources Inc.

By:

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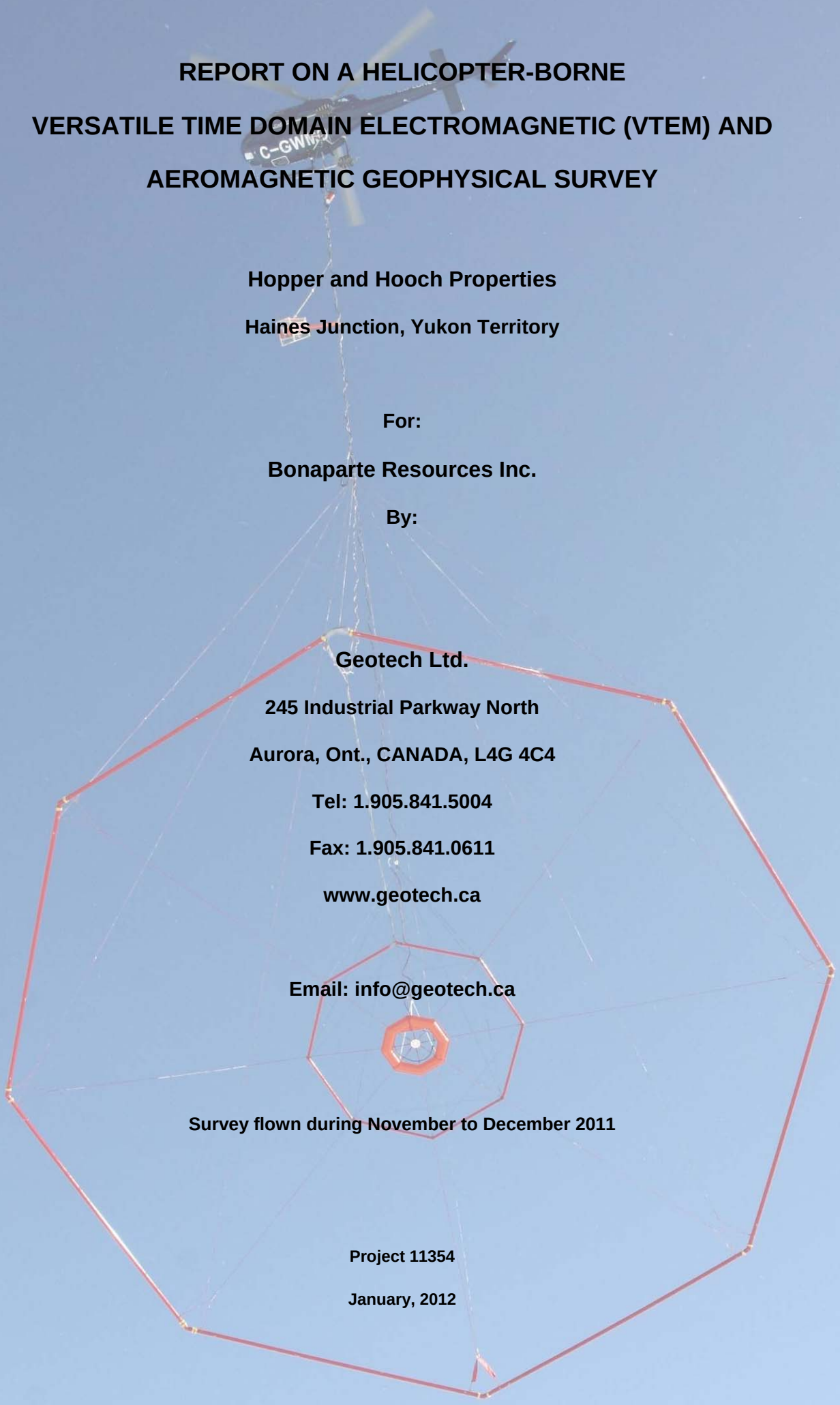

Survey flown during November to December 2011

Project 11354

January, 2012

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REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM) and AEROMAGNETIC SURVEY

Hooch and Hopper Properties
Haines Junction, Yukon Territory

Executive Summary

During November 22nd, 2011 to January 12th, 2012 Geotech Ltd. carried out a helicopter-borne geophysical survey over the Hooch and Hopper Properties located near Haines Junction, Yukon Territory, Canada.

Principal geophysical sensors included a versatile time domain electromagnetic (VTEM) system, and a cesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 2083 line-kilometres of geophysical data were acquired.

In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as the following maps:

- Total Magnetic Intensity
- B-Field Z Component Channel grid
- Calculated Time Constant (TAU)
- Electromagnetic stacked profiles of the B-field Z component
- Electromagnetic stacked profiles of the dB/dt Z component

Digital data includes all electromagnetic and magnetic products, ancillary data and the VTEM waveform.

The survey report describes the procedures for data acquisition, processing, final image presentation and the specifications for the digital data set.

1. INTRODUCTION

1.1 General Considerations

Geotech Ltd. performed a helicopter-borne geophysical survey over the Hooch and Hopper Properties located near Haines Junction, Yukon Territory, Canada (Figure 1 & 2).

Matt Turner represented Bonaparte Resources Inc during the data acquisition and data processing phases of this project.

The geophysical surveys consisted of helicopter borne EM using the versatile time-domain electromagnetic (VTEM) system with Z component measurements and aeromagnetics using a cesium magnetometer. A total of 2083 line-km of geophysical data were acquired during the survey.

The crew was based out of Haines Junction, Yukon Territory for the acquisition phase of the survey. Survey flying started on November 22nd, 2011 and was completed on January 12th, 2012.

Data quality control and quality assurance, and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Final data processing followed immediately after the end of the survey. Final reporting, data presentation and archiving were completed from the Aurora office of Geotech Ltd. in January, 2012.

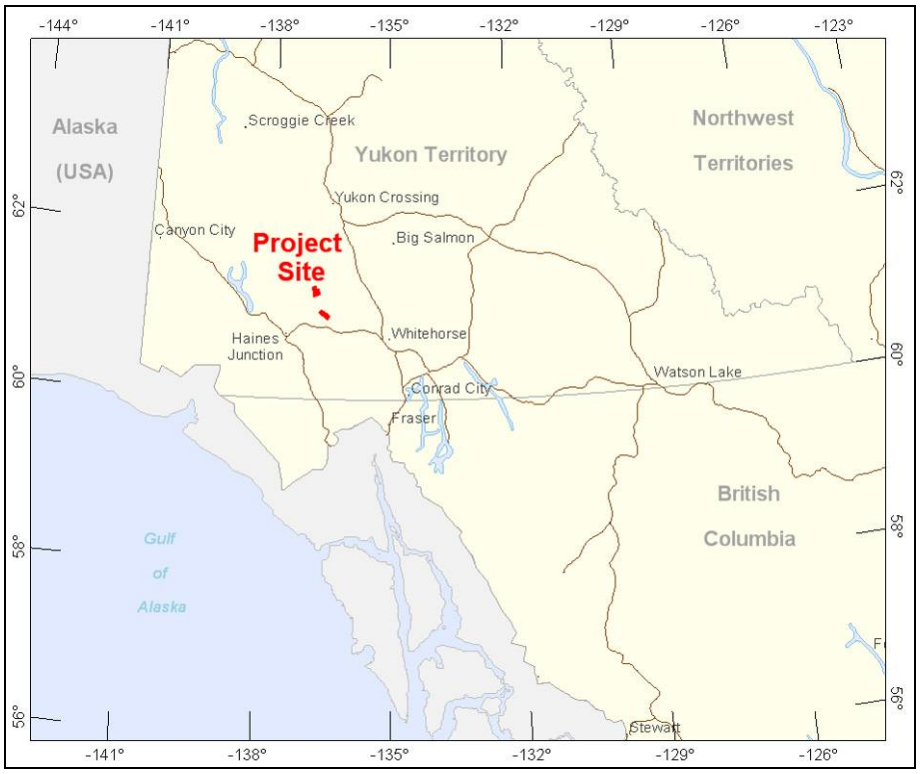


Figure 1: Property Location

1.2 Survey and System Specifications

The Blocks are located northeast of Haines Junction, Yukon Territory (Figure 2).

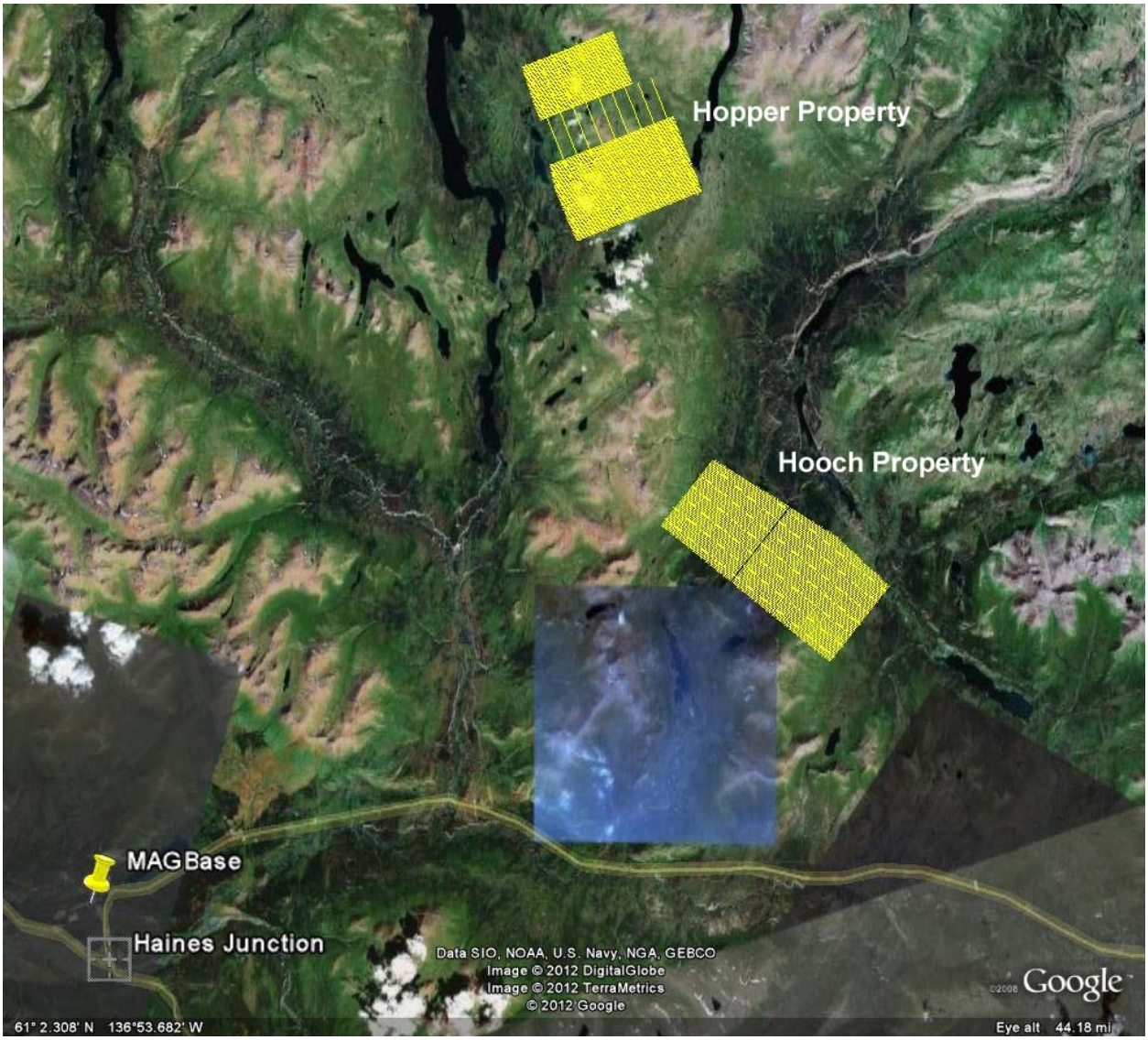


Figure 2: Survey area location on Google Earth

The Hooch block was flown in a southwest to northeast (N 40° E azimuth) direction with traverse line spacing of 100 metres as depicted in Figure 4. Tie lines were flown perpendicular to the traverse lines at a spacing of 1000 metres (N 130° E azimuth).

The Hopper block was flown in a southwest to northeast (N 70° E azimuth) direction with traverse line spacing of 100 metres as depicted in Figure 4. Tie lines were flown perpendicular to the traverse lines at a spacing of 1000 metres (N 160° E azimuth).

For more detailed information on the flight spacing and direction see Table 1.

1.3 Topographic Relief and Cultural Features

Topographically, the blocks exhibit a high relief with elevations ranging from 972 to 1622 metres above mean sea level over an area of 216 square kilometres (Figure 3 & 4).

There are various rivers and streams running through the survey area which connect various lakes and wetlands. There are visible signs of culture such as roads and a power line which run along the west side of the Hopper Property.

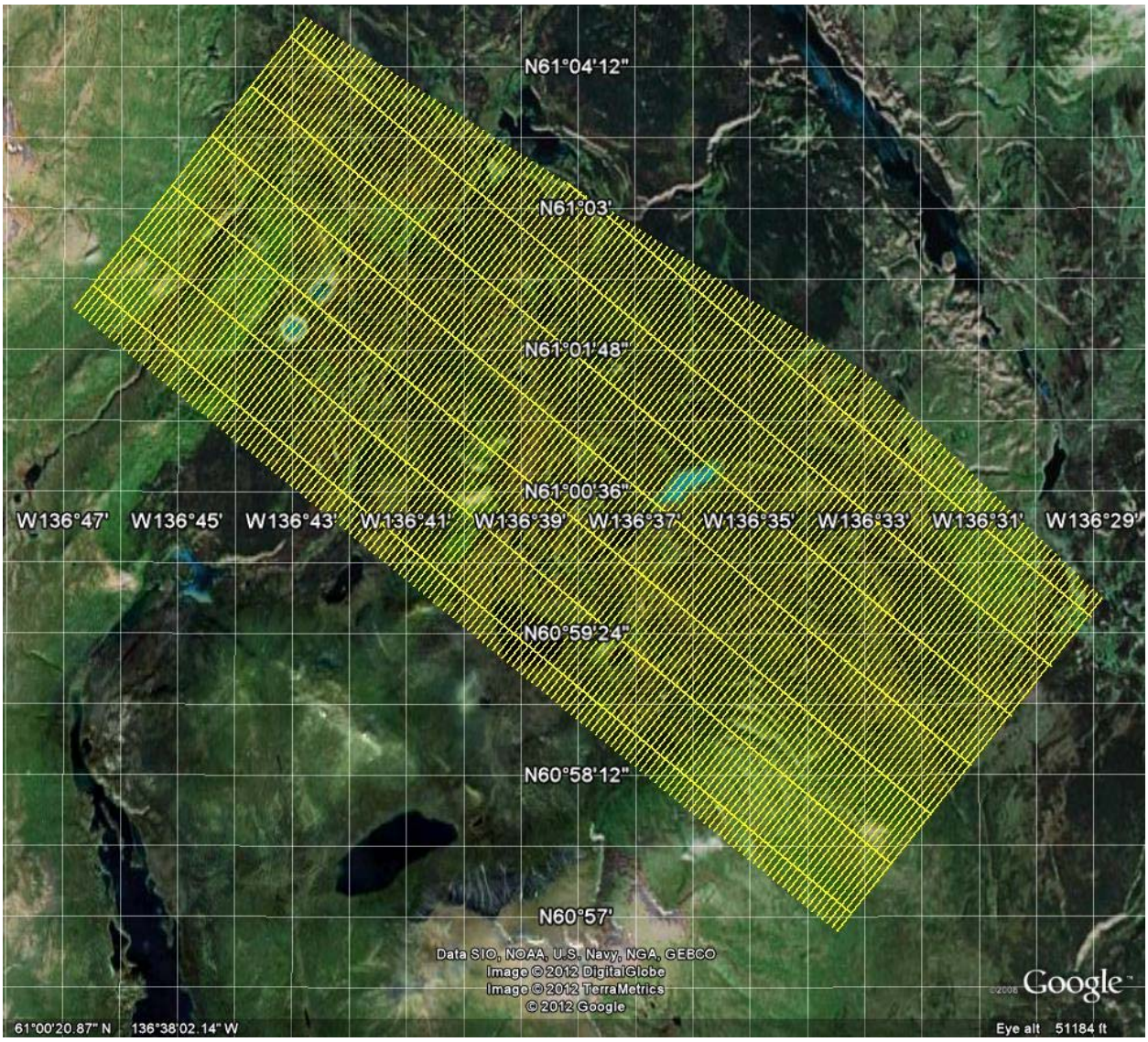


Figure 3 - Hooch Property Flight path over a Google Earth Image

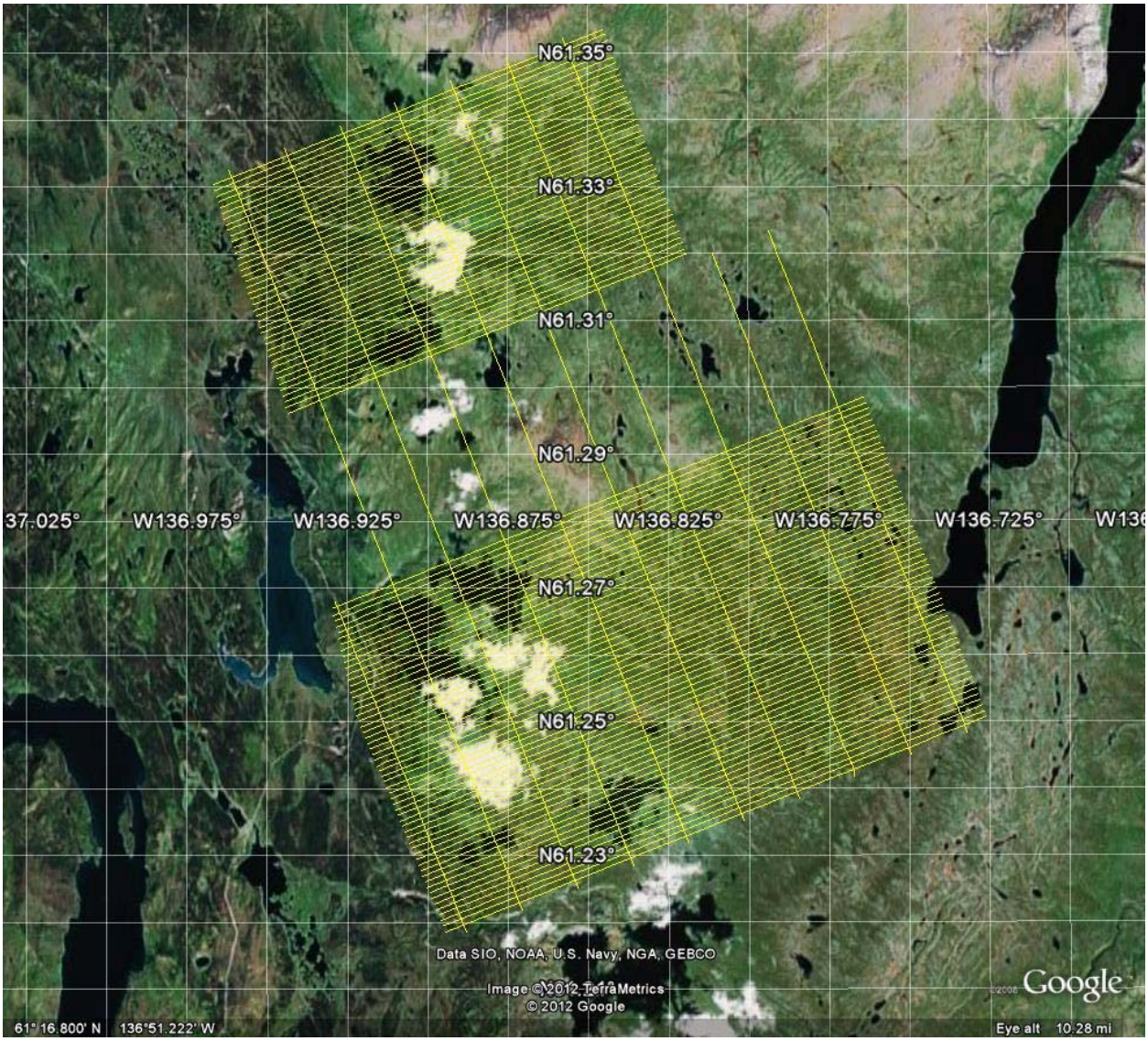


Figure 4: - Hopper Property Flight path over a Google Earth Image

2. DATA ACQUISITION

2.1 Survey Area

The survey blocks (see Figure 4 and Appendix A) and general flight specifications are as follows:

Table 1: Survey Specifications

Survey block	Traverse Line spacing (m)	Area (Km^2)	Planned[1] Line-km	Actual Line-km	Flight direction	Line numbers
Hooch	Traverse: 100	103	1138	1132	N 40° E / N 220° E	L3000-L4550
	Tie: 1000				N 130° E / N 310° E	T4800-T4860
Hopper	Traverse: 100	113	1239	951	N 70° E / N 250° E	L1000-T2300
	Tie: 1000				N 160° E / N 340° E	T2800-T2890
TOTAL		216	2378	2083		

Survey block boundaries co-ordinates are provided in Appendix B.

2.2 Survey Operations

Survey operations were based out of Haines Junction from November 22nd, 2011 to January 12th, 2012. The following table shows the timing of the flying.

Table 2: Survey schedule

Date	Flight #	Flow km	Block	Crew location	Comments
22-Nov-2011				Haines Junction,YT	Crew mobilized
23-Nov-2011				Haines Junction,YT	Crew delayed due to weather
24-Nov-2011				Haines Junction,YT	Crew arrived
25-Nov-2011				Haines Junction,YT	System assembly commenced
26-Nov-2011				Haines Junction,YT	System assembly
27-Nov-2011				Haines Junction,YT	System assembly completed
28-Nov-2011				Haines Junction,YT	Testing not done due to weather
29-Nov-2011				Haines Junction,YT	Testing started
30-Nov-2011				Haines Junction,YT	Testing
1-Dec-2011				Haines Junction,YT	Testing
2-Dec-2011				Haines Junction,YT	Testing
3-Dec-2011				Haines Junction,YT	Testing
4-Dec-2011	1	6	hooch	Haines Junction,YT	6km flown limited production due to weather
5-Dec-2011				Haines Junction,YT	No production due to weather
6-Dec-2011	2,3	232	hooch	Haines Junction,YT	232km flown
7-Dec-2011	4	205	hooch	Haines Junction,YT	205km flown
8-Dec-2011	5	215	hooch	Haines Junction,YT	215km flown
9-Dec-2011				Haines Junction,YT	No production due to technical issues
10-Dec-2011	6	107	hooch	Haines Junction,YT	107km flown

[1] Note: Actual Line kilometres represent the total line kilometres in the final database. These line-km normally exceed the Planned line-km, as indicated in the survey NAV files. However, the survey was stopped early as per the client.

Date	Flight #	Flow km	Block	Crew location	Comments
11-Dec-2011	7,8	169	hooch	Haines Junction,YT	169km flown
12-Dec-2011				Haines Junction,YT	No production due to weather
13-Dec-2011	9	67	hooch	Haines Junction,YT	67km flown limited production due to weather
14-Dec-2011	10,11	207	hopper	Haines Junction,YT	207km flown
15-Dec-2011				Haines Junction,YT	No production due to weather
16-Dec-2011	12,13	241	hopper	Haines Junction,YT	241km flown
17-Dec-2011	14,15	246	hopper	Haines Junction,YT	246km flown
18-Dec-2011				Haines Junction,YT	No production due to weather
19-Dec-2011	16	175	hopper	Haines Junction,YT	175km flown
20-Dec-2011	17,18	212	hopper	Haines Junction,YT	212km flown
21-Dec-2011				Haines Junction,YT	No production due to weather
22-Dec-2011				Haines Junction,YT	Holiday break until Jan 3 2012
3-Jan-2012				Haines Junction,YT	Crew mobilized
4-Jan-2012				Haines Junction,YT	Crew arrived
5-Jan-2012				Haines Junction,YT	Reassembly of system
6-Jan-2012				Haines Junction,YT	System testing
7-Jan-2012				Haines Junction,YT	System testing limited due to weather
8-Jan-2012				Haines Junction,YT	System testing limited due to weather
9-Jan-2012				Haines Junction,YT	No production due to weather
10-Jan-2012				Haines Junction,YT	No production due to weather
11-Jan-2012				Haines Junction,YT	No production due to weather
12-Jan-2012				Haines Junction,YT	No production due to weather – job terminated as per client

2.3 Flight Specifications

During the survey the helicopter was maintained at a mean altitude of 76 metres above the ground with a nominal survey speed of 80 km/hour. This allowed for a nominal EM bird terrain clearance of 41 metres and a magnetic sensor clearance of 63 metres.

The on board operator was responsible for monitoring the system integrity. He also maintained a detailed flight log during the survey, tracking the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer. The data were then uploaded via ftp to the Geotech office in Aurora for daily quality assurance and quality control by qualified personnel.

2.4 Aircraft and Equipment

2.4.1 Survey Aircraft

The survey was flown using a Eurocopter Aerospatiale (Astar) 350 B3 helicopter, registration C-GTEQ. The helicopter is owned and operated by Geotech Aviation. Installation of the geophysical and ancillary equipment was carried out by a Geotech Ltd crew.

2.4.2 Electromagnetic System

The electromagnetic system was a Geotech Time Domain EM (VTEM) system. VTEM, with the serial number 17 had been used for the survey. The configuration is as indicated in Figure 6.

The VTEM Receiver and transmitter coils were in concentric-coplanar and Z-direction oriented configuration. The EM bird was towed at a mean distance of 35 metres below the aircraft as shown in Figure 6 and Figure 7. The receiver decay recording scheme is shown diagrammatically in Figure 5.

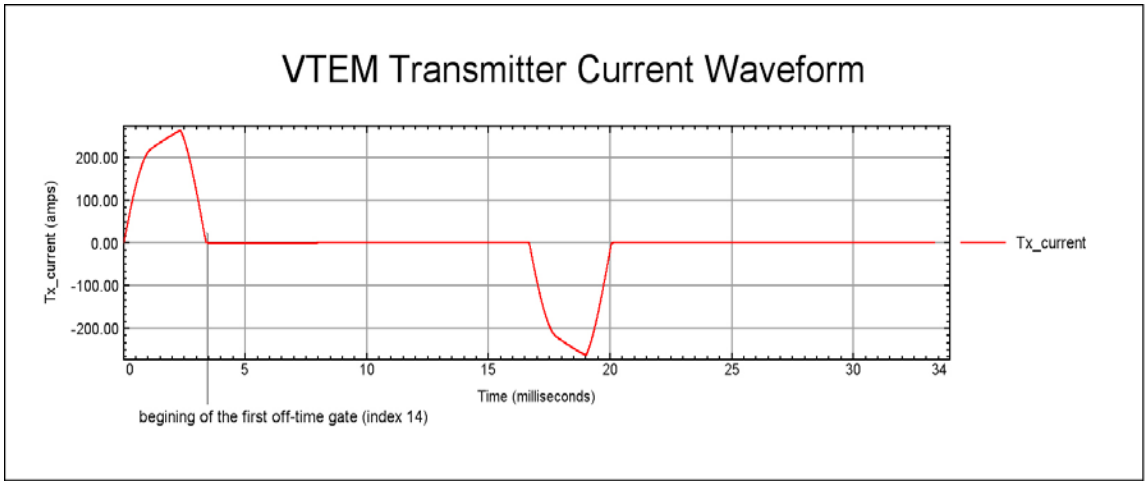


Figure 5 - VTEM Waveform

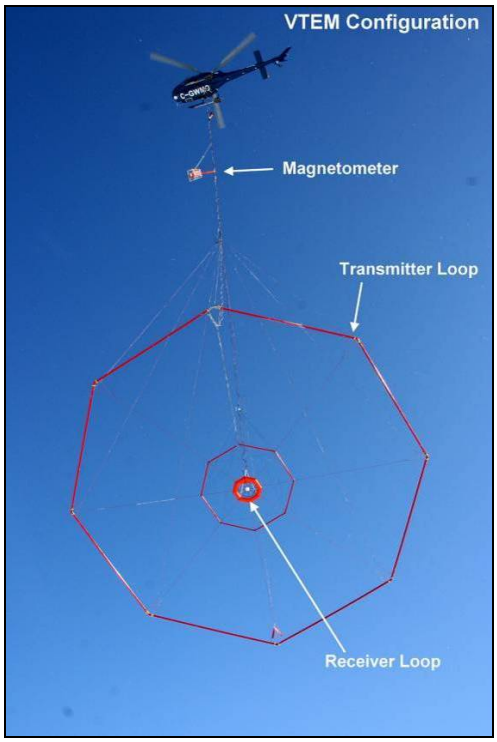


Figure 6: VTEM Configuration, with magnetometer.

The VTEM decay sampling scheme is shown in Table 3 below. Thirty-two time measurement gates were used for the final data processing in the range from 0.096 to 7.036 msec.

Table 3: Off-Time Decay Sampling Scheme

VTEM Decay Sampling Scheme			
Index	**Middle**	**Start**	**End**
Milliseconds			
14	0.096	0.090	0.103
15	0.110	0.103	0.118
16	0.126	0.118	0.136
17	0.145	0.136	0.156
18	0.167	0.156	0.179
19	0.192	0.179	0.206
20	0.220	0.206	0.236
21	0.253	0.236	0.271
22	0.290	0.271	0.312
23	0.333	0.312	0.358
24	0.383	0.358	0.411
25	0.440	0.411	0.472
26	0.505	0.472	0.543
27	0.580	0.543	0.623
28	0.667	0.623	0.716
29	0.766	0.716	0.823
30	0.880	0.823	0.945
31	1.010	0.945	1.086
32	1.161	1.086	1.247
33	1.333	1.247	1.432
34	1.531	1.432	1.646
35	1.760	1.646	1.891
36	2.021	1.891	2.172
37	2.323	2.172	2.495
38	2.667	2.495	2.865
39	3.063	2.865	3.292
40	3.521	3.292	3.781
41	4.042	3.781	4.341
42	4.641	4.341	4.987
43	5.333	4.987	5.729
44	6.125	5.729	6.581
45	7.036	6.581	7.560

Z Component: 14-45 time gates
X Component: 20-45 time gates.

VTEM system specification:

Transmitter

- Transmitter coil diameter: 17.6 m
- Number of turns: 4
- Effective coil area: 973 m^2
- Transmitter base frequency: 30 Hz
- Peak current: 260 A
- Pulse width: 3.40 ms
- Wave form shape: trapezoid
- Peak dipole moment: 253,016 nIA
- Nominal EM Bird terrain clearance: 41 metres above the ground

Receiver

- Z-Coil coil diameter: 1.2 m
- Number of turns: 100
- Effective coil area: 113.04 m^2

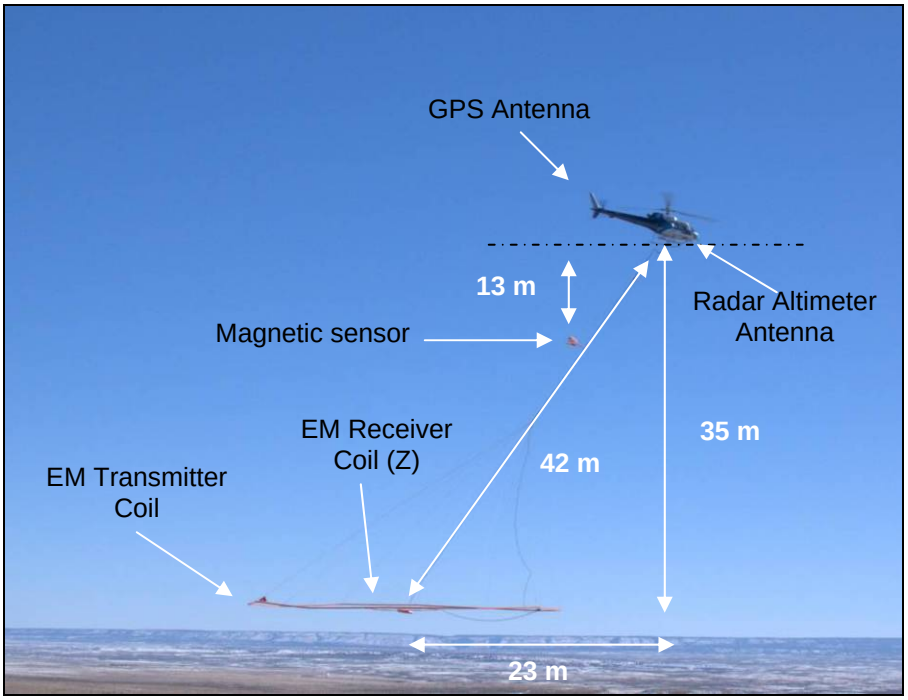


Figure 7: VTEM System Configuration

2.4.3 Airborne magnetometer

The magnetic sensor utilized for the survey was Geometrics optically pumped cesium vapour magnetic field sensor mounted 13 metres below the helicopter, as shown in Figure 7. The sensitivity of the magnetic sensor is 0.02 nanoTesla (nT) at a sampling interval of 0.1 seconds.

2.4.4 Radar Altimeter

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance. The antenna was mounted beneath the bubble of the helicopter cockpit (Figure 7).

2.4.5 GPS Navigation System

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's WAAS(Wide Area Augmentation System) enable OEM4-G2-3151W GPS receiver, Geotech navigate software, a full screen display with controls in front of the pilot to direct the flight and an NovAtel GPS antenna mounted on the helicopter tail (Figure 7). As many as 11 GPS and two WAAS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m, with WAAS active, it is 1.0 m. The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.6 Digital Acquisition System

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. The data type and sampling interval as provided in Table 4.

Table 4: Acquisition Sampling Rates

Data Type	Sampling
TDEM	0.1 sec
Magnetometer	0.1 sec
GPS Position	0.2 sec
Radar Altimeter	0.2 sec

2.5 Base Station

A combined magnetometer/GPS base station was utilized on this project. A Geometrics Cesium vapour magnetometer was used as a magnetic sensor with a sensitivity of 0.001 nT. The base station was recording the magnetic field together with the GPS time at 1 Hz on a base station computer.

The base station magnetometer sensor was installed at Haines Junction airport in wooded area (60º 47.3879'N, 137º 32.2584'W); away from electric transmission lines and moving ferrous objects such as motor vehicles. The base station data were backed-up to the data processing computer at the end of each survey day.

3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

Field:

Project Manager:	Darren Tuck (office)
Data QA/QC:	Emilio Schein (office)
Crew Chief:	Benjamin Bruder
System Operators:	Claudiu Chirigel

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – Geotech Aviation.

Pilot:	Guy Poirier
Mechanical Engineer:	Greg Hynes

Office:

Preliminary Data Processing:	Emilio Schein
Final Data Processing:	ZiHao Han
Final Data QA/QC:	Alexander Prikhodko
Reporting/Mapping:	Wendy Acorn

Data acquisition phase was carried out under the supervision of Andrei Bagrianski, P. Geo, Chief Operations Officer. The processing and interpretation phase was under the supervision of Alexander Prikhodko, P. Geo, Ph.D. The overall contract management and customer relations were by Mandy Long.

4. DATA PROCESSING AND PRESENTATION

Data compilation and processing were carried out by the application of Geosoft OASIS Montaj and programs proprietary to Geotech Ltd.

4.1 Flight Path

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the NAD83 Datum, UTM Zone 8 North coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x, y positions from the navigation system. Positions are updated every second and expressed as UTM easting's (x) and UTM northing's (y).

4.2 Electromagnetic Data

A three stage digital filtering process was used to reject major sferic events and to reduce system noise. Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major sferic events.

The signal to noise ratio was further improved by the application of a low pass linear digital filter. This filter has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 1 second or 15 metres. This filter is a symmetrical 1 sec linear filter.

The results are presented as stacked profiles of EM voltages for the time gates, in linear - logarithmic scale for the B-field Z component and dB/dt responses in the Z. B-field Z component time channel recorded at 2.021 milliseconds after the termination of the impulse is also presented as a color image. Calculated Time Constant (TAU) with anomaly contours of Calculated Vertical Derivative of TMI is presented in Appendix C and E. Tau was calculated for B-Field and dB/dt. Resistivity Depth Image (RDI) is also presented in Appendix C and F.

VTEM receiver coil orientation Z-axis coil is oriented parallel to the transmitter coil axis and is horizontal to the ground. Generalized modeling results of VTEM data, are shown in Appendix D.

Z component data produce double peak type anomalies for "thin" subvertical targets and single peak for "thick" targets.

The limits and change-over of "thin-thick" depends on dimensions of a TEM system the system's height and depth of a target. For example see Appendix D, Fig.D-16.

4.3 Magnetic Data

The processing of the magnetic data involved the correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aeromagnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along traverse lines. A micro-levelling procedure was applied to remove persistent low-amplitude components of flight-line noise remaining in the data.

The corrected magnetic data was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of approximately 25 metres at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. DELIVERABLES

5.1 Survey Report

The survey report describes the data acquisition, processing, and final presentation of the survey results. The survey report is provided in two paper copies and digitally in PDF format.

5.2 Maps

Final maps were produced at scale of 1:20,000 for best representation of the survey size and line spacing. The coordinate/projection system used was NAD83 Datum, UTM Zone 8 North. All maps show the mining claims, flight path trace and topographic data; latitude and longitude are also noted on maps.

The preliminary and final results of the survey are presented as EM profiles, a late-time gate gridded EM channel, and a color magnetic TMI contour map. The following maps are presented on paper;

- VTEM dB/dt profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
- VTEM B-Field profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
- VTEM B-Field late time Z Component colour image.
- Total Magnetic Intensity (TMI) colour image and contours.
- VTEM dB/dt & B-Field Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

5.3 Digital Data

- Two copies of the data and maps on DVD were prepared to accompany the report. Each DVD contains a digital file of the line data in GDB Geosoft Montaj format as well as the maps in Geosoft Montaj Map and PDF format.

- DVD structure.

  Data contains databases, grids and maps, as described below.
  Report contains a copy of the report and appendices in PDF format.

  Databases in Geosoft GDB format, containing the channels listed in Table 5.

Table 5: Geosoft GDB Data Format

Channel name	Units	Description
X:	metres	UTM Easting NAD83 Zone 8 North
Y:	metres	UTM Northing NAD83 Zone 8 North
Z:	metres	GPS antenna elevation (above Geoid)
Longitude:	Decimal Degrees	WGS 84 Longitude data
Latitude:	Decimal Degrees	WGS 84 Latitude data
Radar:	metres	helicopter terrain clearance from radar altimeter
Radarb:	metres	Calculated EM bird terrain clearance from radar altimeter
DEM:	metres	Digital Elevation Model
Gtime:	Seconds of the day	GPS time
Mag1:	nT	Raw Total Magnetic field data
Basemag:	nT	Magnetic diurnal variation data
Mag2:	nT	Diurnal corrected Total Magnetic field data
Mag3:	nT	Levelled Total Magnetic field data
SFz[14]:	pV/(A*m^4)	Z dB/dt 96 microsecond time channel
SFz[15]:	pV/(A*m^4)	Z dB/dt 110 microsecond time channel
SFz[16]:	pV/(A*m^4)	Z dB/dt 126 microsecond time channel
SFz[17]:	pV/(A*m^4)	Z dB/dt 145 microsecond time channel
SFz[18]:	pV/(A*m^4)	Z dB/dt 167 microsecond time channel
SFz[19]:	pV/(A*m^4)	Z dB/dt 192 microsecond time channel
SFz[20]:	pV/(A*m^4)	Z dB/dt 220 microsecond time channel
SFz[21]:	pV/(A*m^4)	Z dB/dt 253 microsecond time channel
SFz[22]:	pV/(A*m^4)	Z dB/dt 290 microsecond time channel
SFz[23]:	pV/(A*m^4)	Z dB/dt 333 microsecond time channel
SFz[24]:	pV/(A*m^4)	Z dB/dt 383 microsecond time channel
SFz[25]:	pV/(A*m^4)	Z dB/dt 440 microsecond time channel
SFz[26]:	pV/(A*m^4)	Z dB/dt 505 microsecond time channel
SFz[27]:	pV/(A*m^4)	Z dB/dt 580 microsecond time channel
SFz[28]:	pV/(A*m^4)	Z dB/dt 667 microsecond time channel
SFz[29]:	pV/(A*m^4)	Z dB/dt 766 microsecond time channel
SFz[30]:	pV/(A*m^4)	Z dB/dt 880 microsecond time channel
SFz[31]:	pV/(A*m^4)	Z dB/dt 1010 microsecond time channel
SFz[32]:	pV/(A*m^4)	Z dB/dt 1161 microsecond time channel
SFz[33]:	pV/(A*m^4)	Z dB/dt 1333 microsecond time channel
SFz[34]:	pV/(A*m^4)	Z dB/dt 1531 microsecond time channel
SFz[35]:	pV/(A*m^4)	Z dB/dt 1760 microsecond time channel
SFz[36]:	pV/(A*m^4)	Z dB/dt 2021 microsecond time channel
SFz[37]:	pV/(A*m^4)	Z dB/dt 2323 microsecond time channel
SFz[38]:	pV/(A*m^4)	Z dB/dt 2667 microsecond time channel
SFz[39]:	pV/(A*m^4)	Z dB/dt 3063 microsecond time channel
SFz[40]:	pV/(A*m^4)	Z dB/dt 3521 microsecond time channel
SFz[41]:	pV/(A*m^4)	Z dB/dt 4042 microsecond time channel
SFz[42]:	pV/(A*m^4)	Z dB/dt 4641 microsecond time channel
SFz[43]:	pV/(A*m^4)	Z dB/dt 5333 microsecond time channel
SFz[44]:	pV/(A*m^4)	Z dB/dt 6125 microsecond time channel
SFz[45]:	pV/(A*m^4)	Z dB/dt 7036 microsecond time channel
BFz	(pV*ms)/(A*m^4)	Z B-Field data for time channels 14 to 45
PLM:		60 Hz power line monitor
CVG	nT/m	Calculated Magnetic Vertical Gradient
TauSF	milliseconds	Time Constant (Tau) calculated from dB/dt data
TauBF	milliseconds	Time Constant (Tau) calculated from B-Field data
Nchan_BF		Last channel where the Tau algorithm stops calculation, B-Field data
Nchan_SF		Last channel where the Tau algorithm stops calculation, dB/dt data

Electromagnetic B-field and dB/dt Z component data is found in array channel format between indexes 14 – 45.

- Database of the VTEM Waveform “11354_waveform_final.gdb” in Geosoft GDB format, containing the following channels:

Time:	Sampling rate interval, 5.2083 milliseconds
Rx_Volt:	Output voltage of the receiver coil (Volt)
Tx_Current:	Output current of the transmitter (Amp)

- Grids in Geosoft GRD format, as follows:

TMI:	Total Magnetic Intensity (nT)
BFz36:	B-Field Z Component Channel 36 (Time Gate 2.021 ms)
TAUSFz:	dB/dt Calculated Time Constant (TAU)
TAUBFz:	B-Field Calculated Time Constant (TAU)
CVG:	Calculated Vertical Derivative of TMI (CVG)
DEM:	Digital Elevation Model

  A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 25 metres was used.

- Maps at 1:20,000 in Geosoft MAP format, as follows:

11354_20K_dBdt_bb:	dB/dt profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
11354_20K_Bfield_bb:	B-field profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
11354_20K_BFz36_bb:	B-Field late time Z Component Channel 36, Time Gate 2.021 ms colour image.
11354_20K_TMI_bb:	Total Magnetic Intensity (TMI) colour image and contours.
11354_20K_TauSF_bb:	dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

  Where bb represents the block name ie 11354_20k_TMI_Hooch

  Maps are also presented in PDF format.

- 1:50,000 topographic vectors were taken from the NRCAN Geogratis database at; http://geogratis.gc.ca/geogratis/en/index.html.

- A Google Earth file *11354_Bonaparte.kml* showing the flight path of the block is included. Free versions of Google Earth software from: http://earth.google.com/download-earth.html

6. CONCLUSIONS AND RECOMMENDATIONS

A helicopter-borne versatile time domain electromagnetic (VTEM) geophysical survey has been completed over the Hooch and Hopper Properties near Haines Junction, Yukon Territory.

The total area coverage is 216 km^2. Total survey line coverage is 2083 line kilometres. The principal sensors included a Time Domain EM system and a magnetometer. Results have been presented as stacked profiles, and contour color images at a scale of 1:20,000. A formal Interpretation has not been included or requested.

Based on the geophysical results obtained, a number of TEM anomalies were identified across the properties. These anomalies are considered as low to moderate conductive targets.

The Hopper Property

Four of EM anomaly zones in the block with high time constants (TAU dB/dt) are outlined by blue rectangles in Figure 8.

Two of them are situated in the north part of the block and conform to the (N20°W) direction (along 2820T line – NW zone and along 2840T line – NE zone). The targets are considered as dipping plate similar conductors with estimated depths to the tops less than 50 meters below the surface (See Appendix C RDI L1110). The conductive zones lengths are about 2 km along the magnetic sources. Sometimes association with local magnetic anomalies is visible (See Appendix C TAU-CVG map). The NW zone is going beyond of the block border to the north but cut by the last line.

A long anomalous zone with strong EM response oriented NNW along magnetic anomaly is located at the south-west edge of the block T2800 line). The boundary is open to both directions of its strike. The target is considered as structural conductors with top of the conductive unit near surface (See Appendix C RDI's L1920 & L2130).

The fourth anomalous zone lies about 1 km east and oriented in NW direction crossing magnetic sources, with about 3 km in length. The target is considered as a gently dipping to the east lithological conductor.

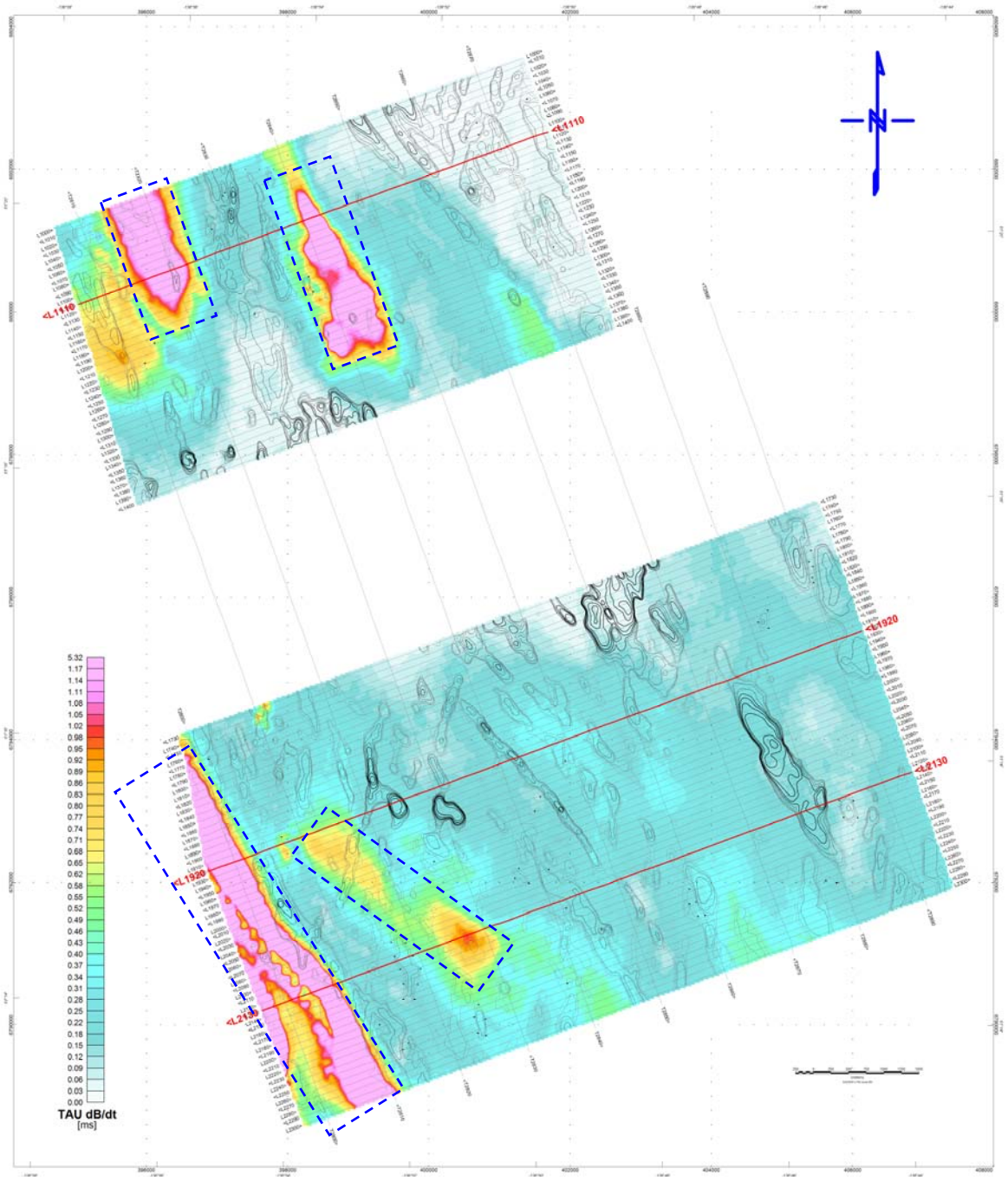


Figure 8 - TAU (dB/dt) grid overlain by CVG contours with lines chosen for RDI sections (Hopper Block)

The Hooch Property

There are several long EM anomalous zones (Zone A, B and C) and two of them traverse the whole block in NW direction (Zone B and C) along the magnetic anomaly sources (Figure 9).

Zone A is situated in the central area of the block with 6.5 km length. 4-5 EM local anomalies are in or close to this zone. The estimated depths of the targets are about 100m (See Appendix C RDI L3840).

In Zone B, there are 5 anomalies have relative larger size and higher time constant (TAU dB/dt) values. According to the RDIs, the depths of these targets are from near surface to about 100m (See Appendix C RDI L3260, L3840 and L4290).

Zone C is located along the east border of the survey area. The boundaries of the two anomalies along this zone are open.

If the conductors correspond to an exploration model, it is recommended picking anomalies with conductance grading and center localization of the targets, detail resistivity depth imaging, magnetic 3D inversion and plate Maxwell modelling prior to ground follow up and drill testing.

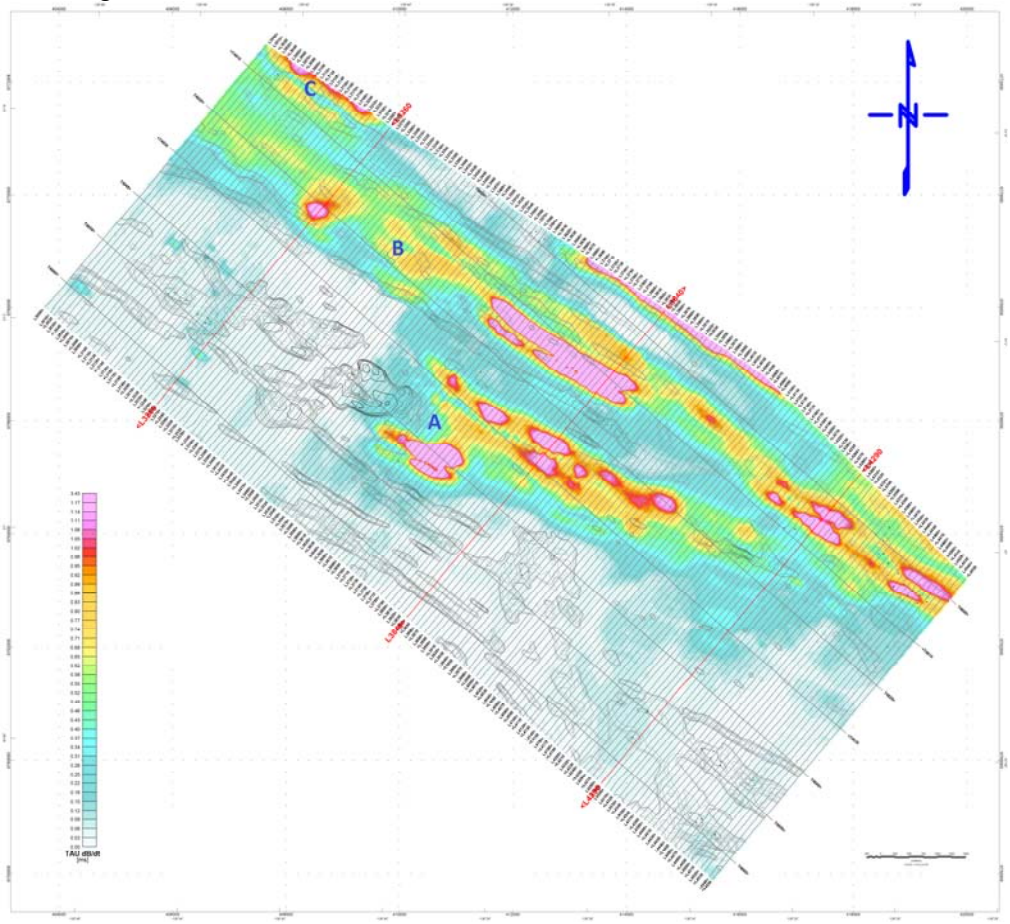


Figure 9 - TAU (dB/dt) grid overlain by CVG contours with lines chosen for RDI sections (Hooch Block)

Respectfully submitted[6],

Emilio Schein
Geotech Ltd.

ZiHao Han
Geotech Ltd.

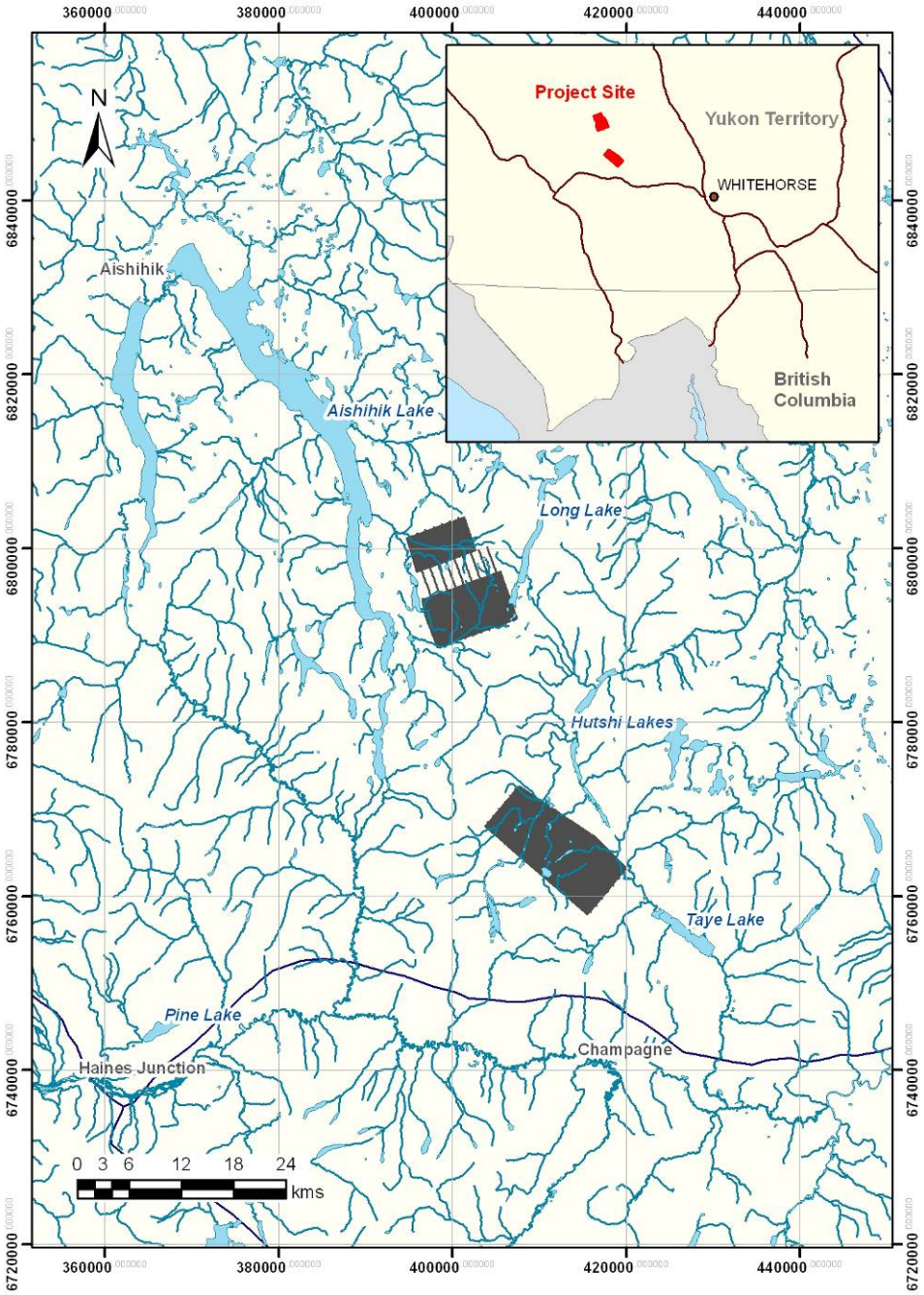
Alexander Prikhodko, P. Geo
Geotech Ltd.

January 2012

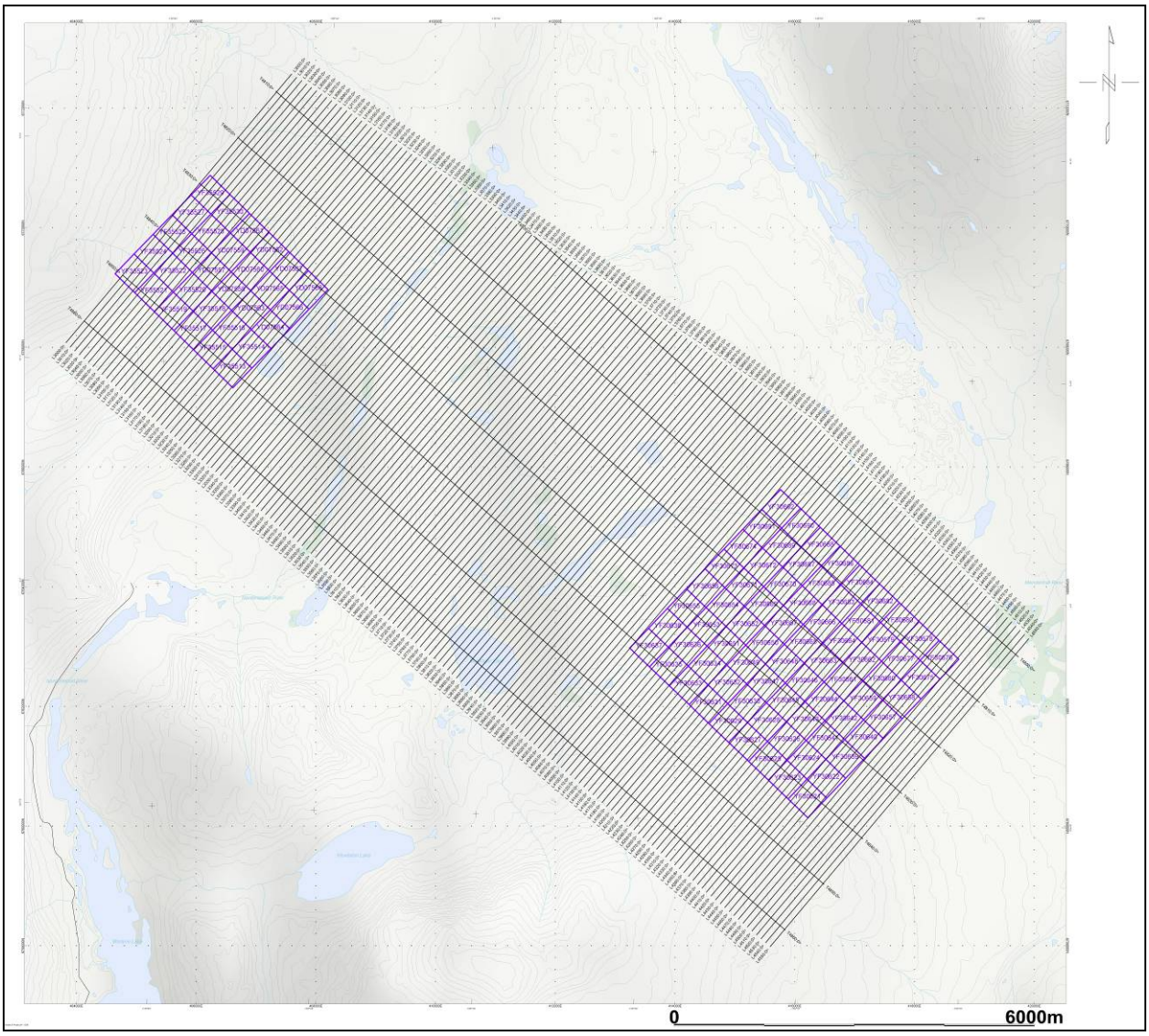
[6]Final data processing of the EM and magnetic data were carried out by Emilio Schein and ZiHao Han, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Alexander Prikhodko, P.Geo., PhD, Senior Geophysicist, VTEM Interpretation Supervisor.

APPENDIX A

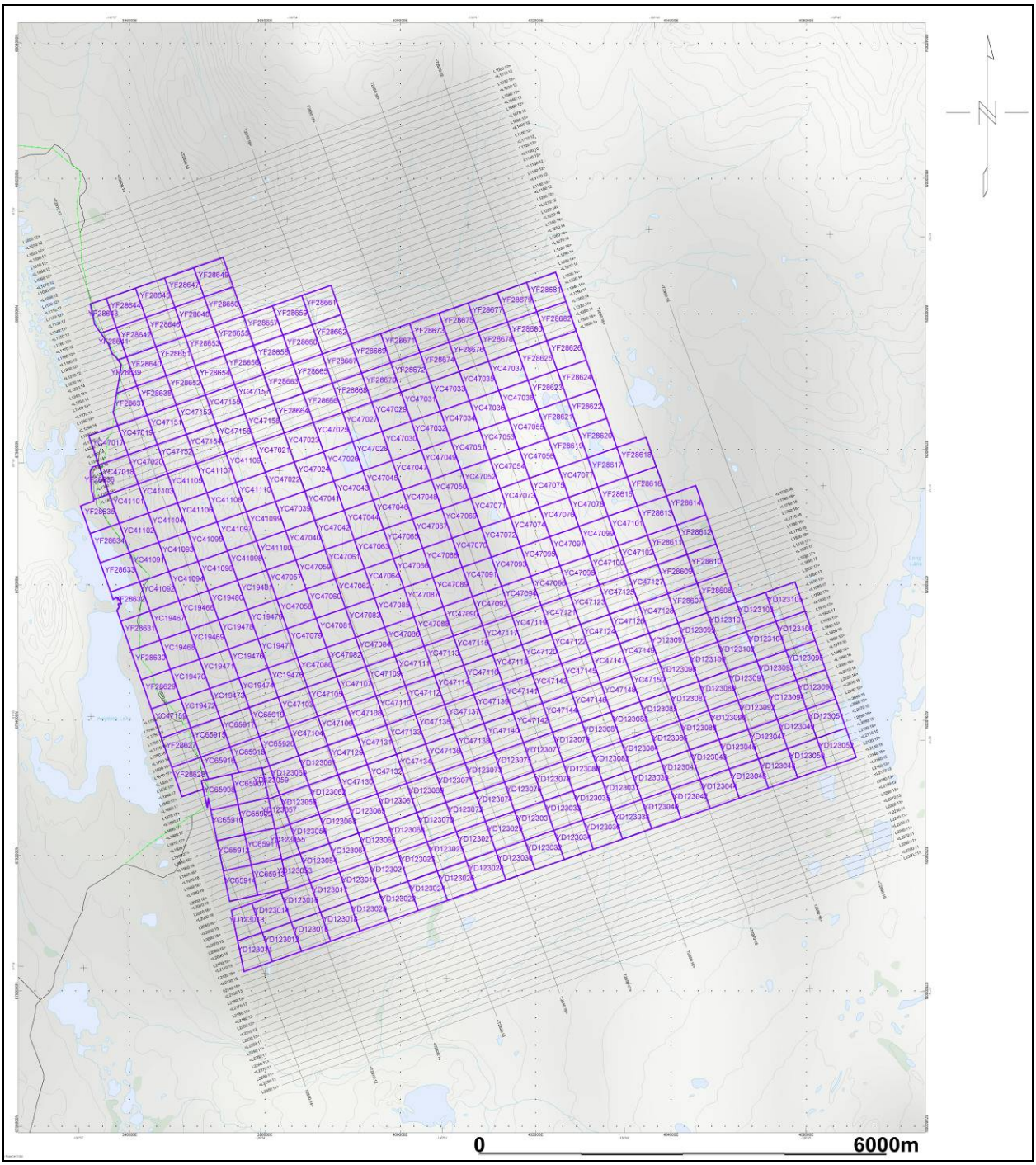
SURVEY BLOCK LOCATION MAP



Survey Overview of the Block



Mining Claims - Hooch Property



Mining Claims - Hopper Property

APPENDIX B

SURVEY BLOCK COORDINATES
(WGS 84, UTM Zone 8 North)

Hopper Property

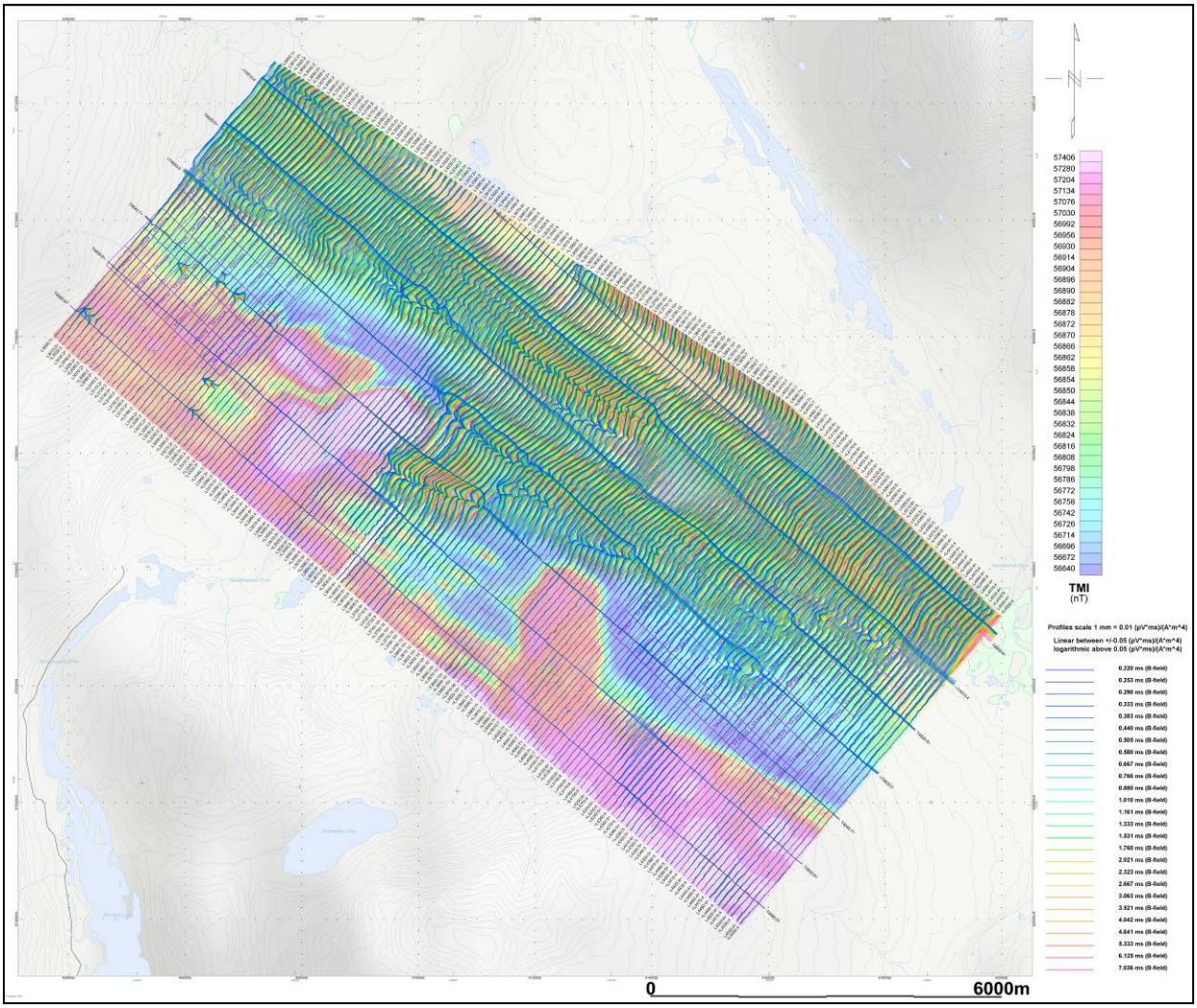
X	Y
394818.7	6801196.9
401236.7	6803532.9
402593.5	6799533
404384.4	6800170.3
407301.5	6791906
398342.6	6788644.2
396952.1	6792283.4
395976	6797314.4

Hooch Property

X	Y
403819.2	6768071.4
407580	6772580
416328.8	6766722.6
419952.9	6763082.4
415595	6757977.9

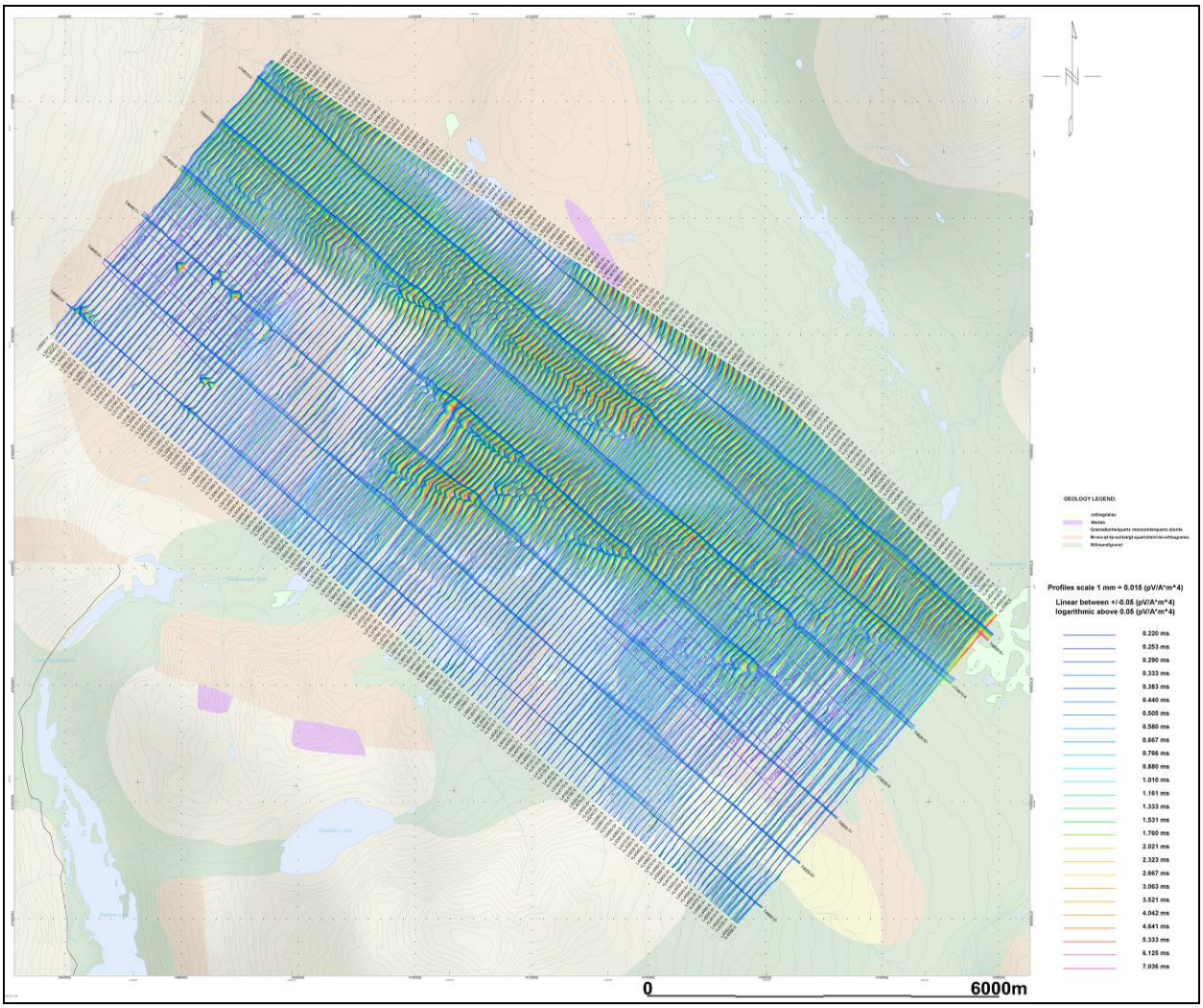
APPENDIX C

GEOPHYSICAL MAPS[1]

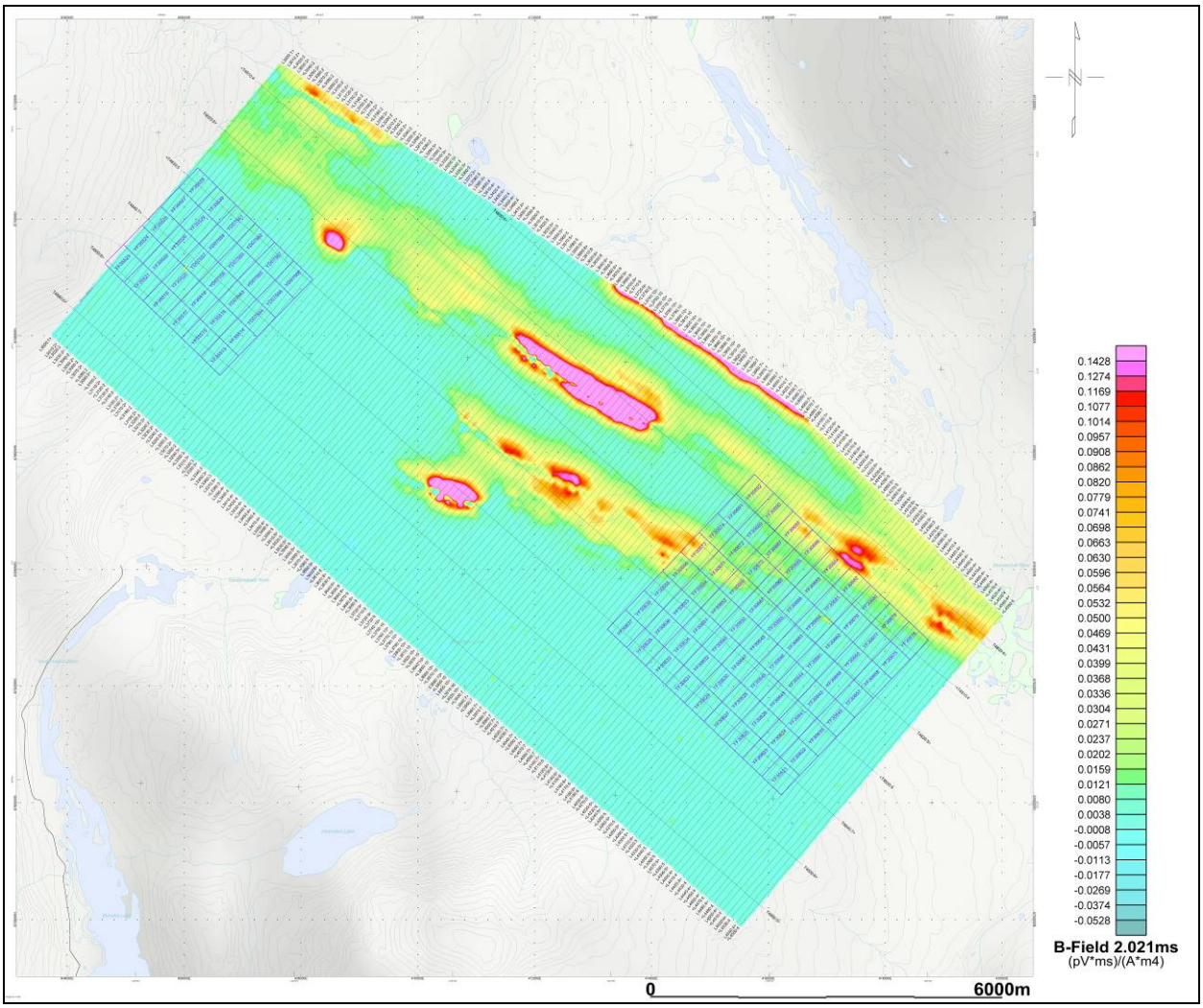


Hooch Property - VTEM B-Field Z Component Profiles, Time Gates 0.220 to 7.036 ms

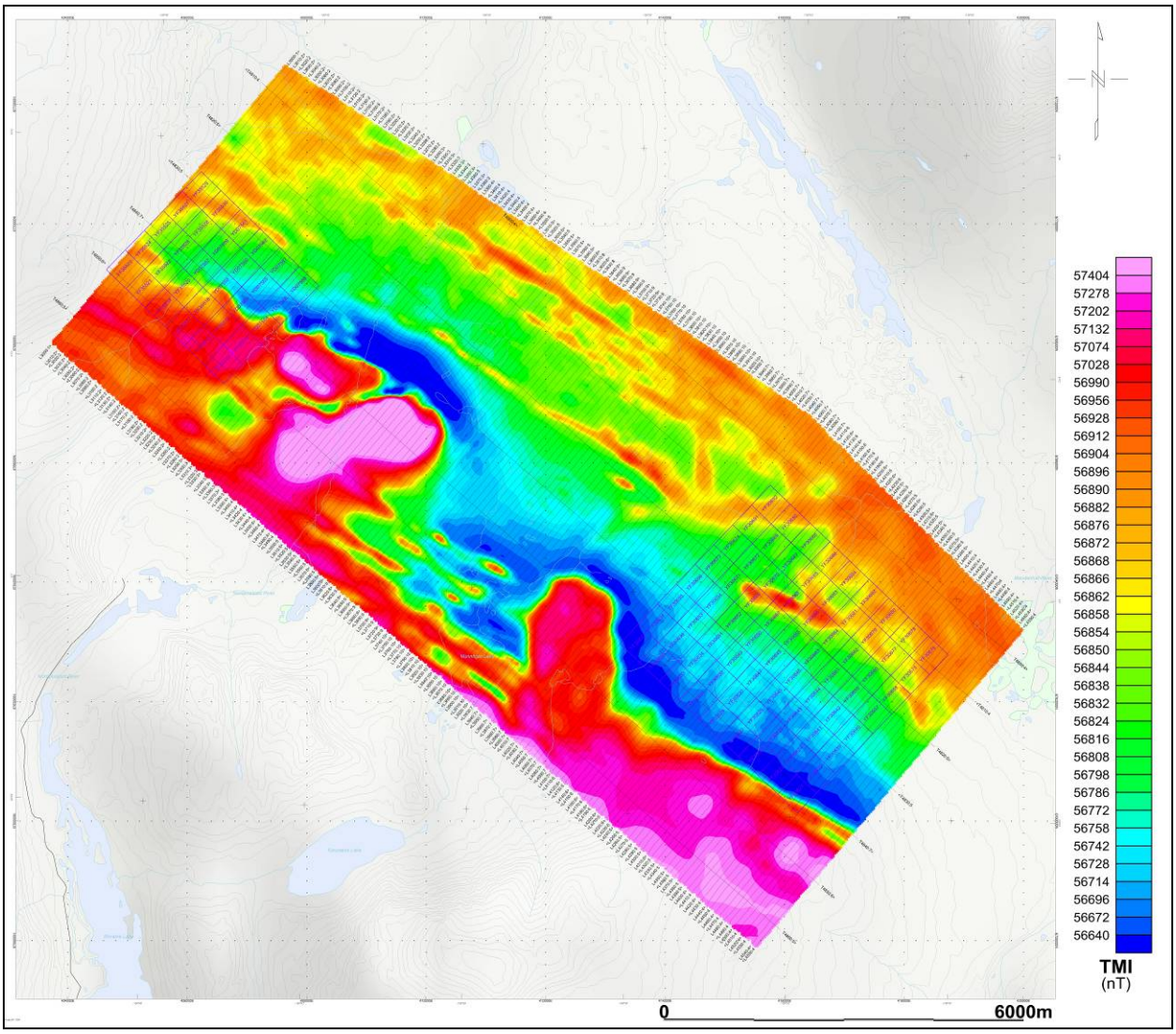
[1] Full size geophysical maps are also available in PDF format on the final DVD



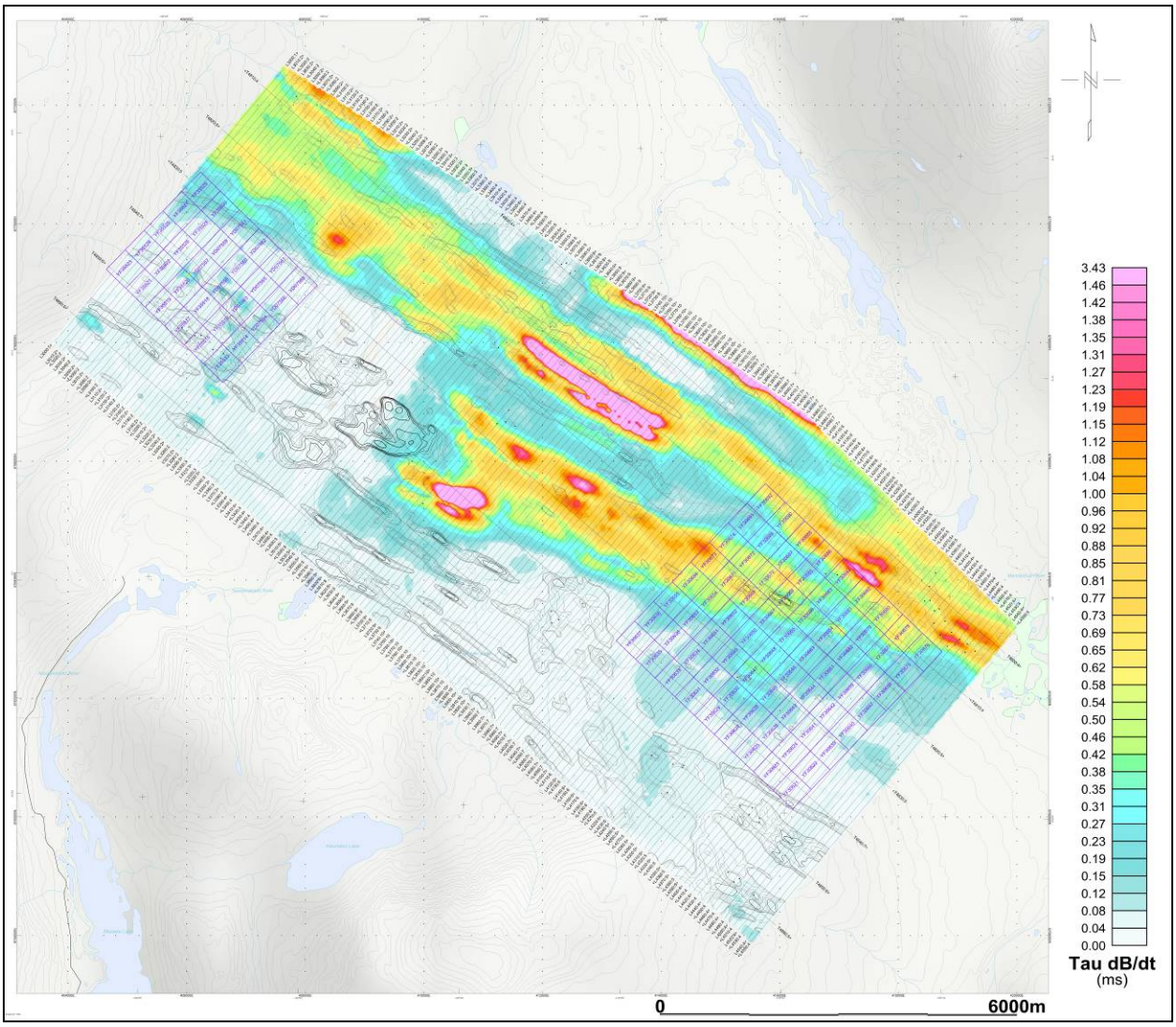
Hooch Property - VTEM dB/dt Z Component Profiles, Time Gates 0.220 to 7.036 ms



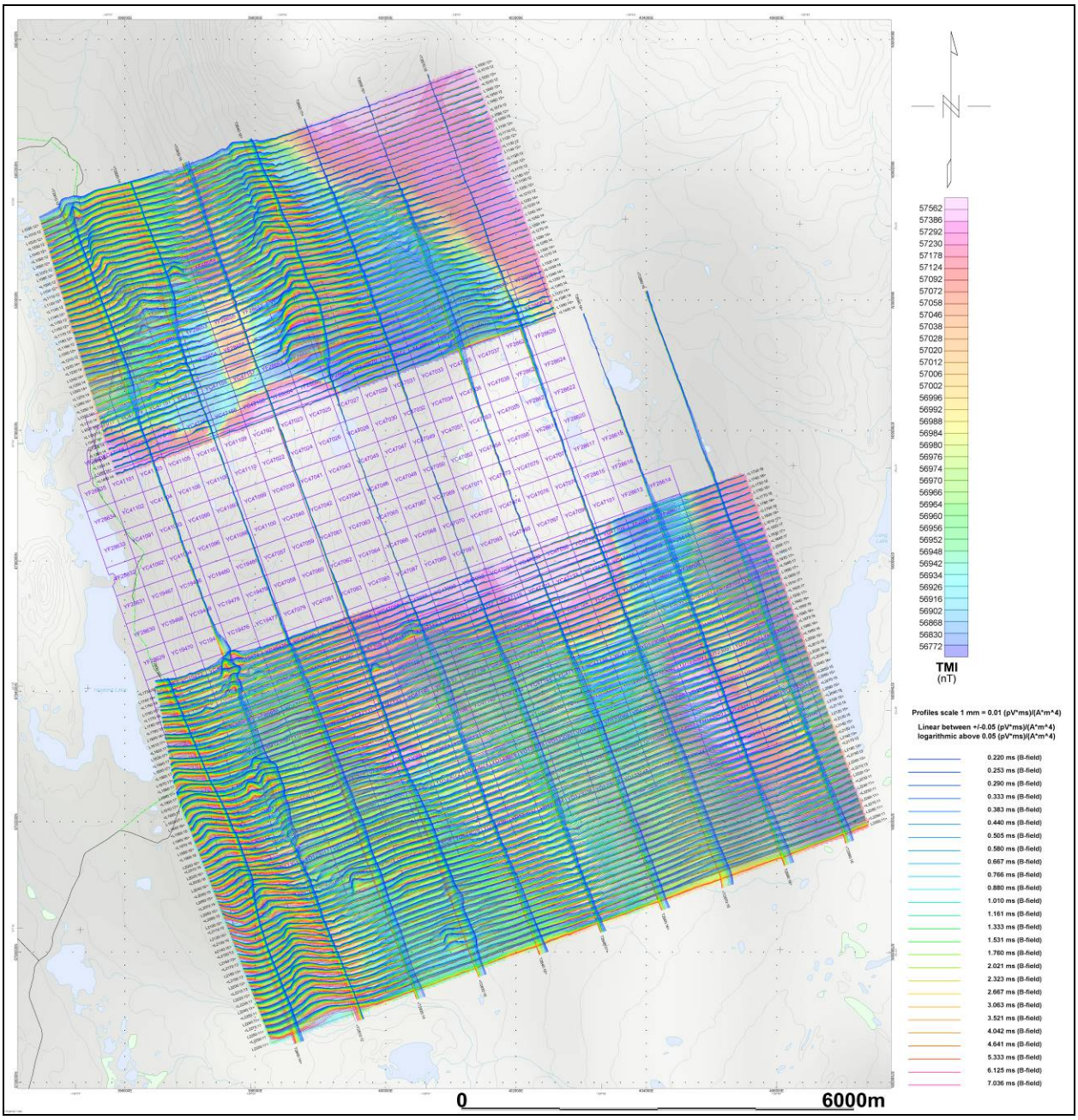
Hooch Property - VTEM B-Field Channel 36, Time Gate 2.021 ms



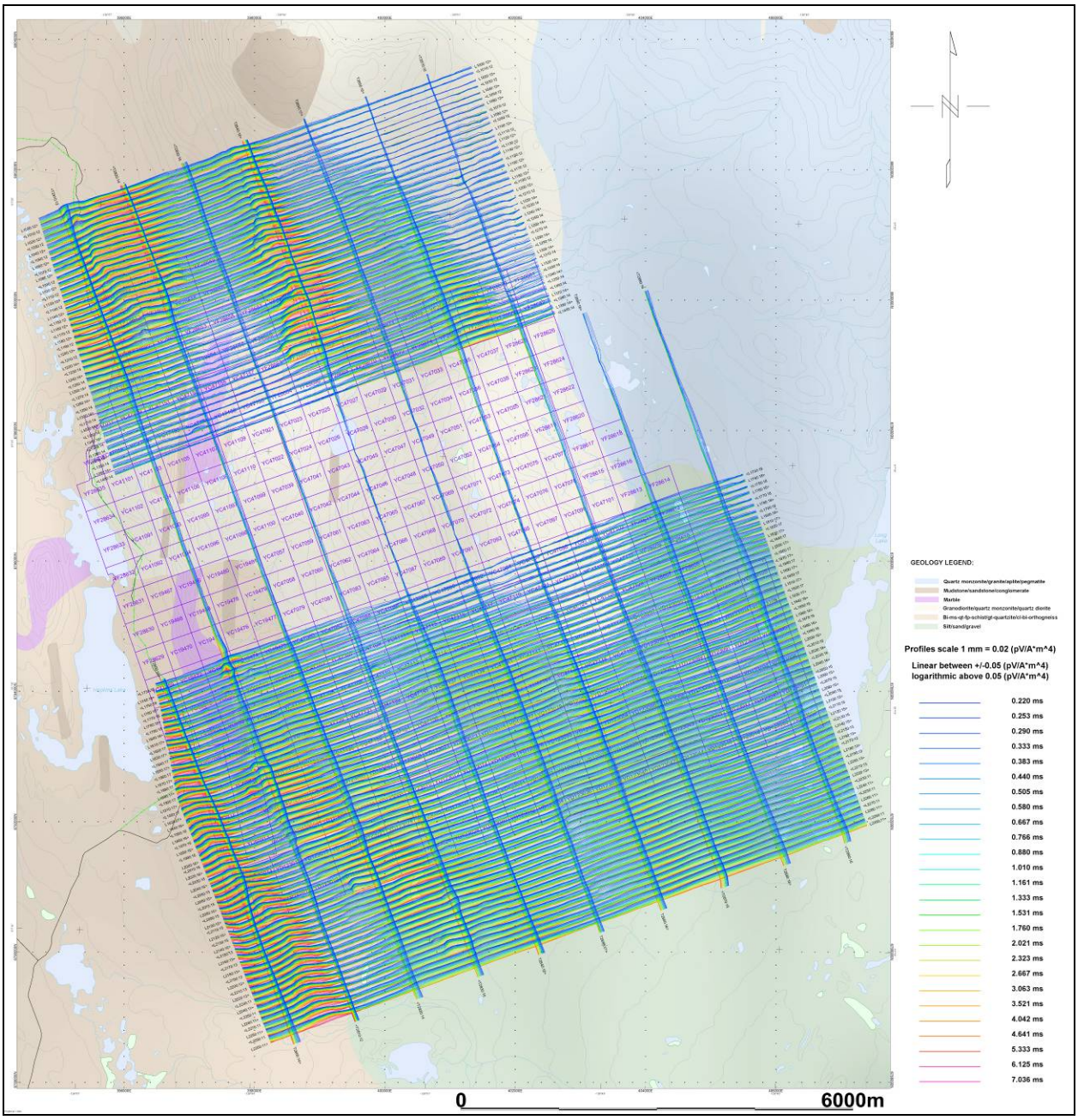
Hooch Property - Total Magnetic Intensity



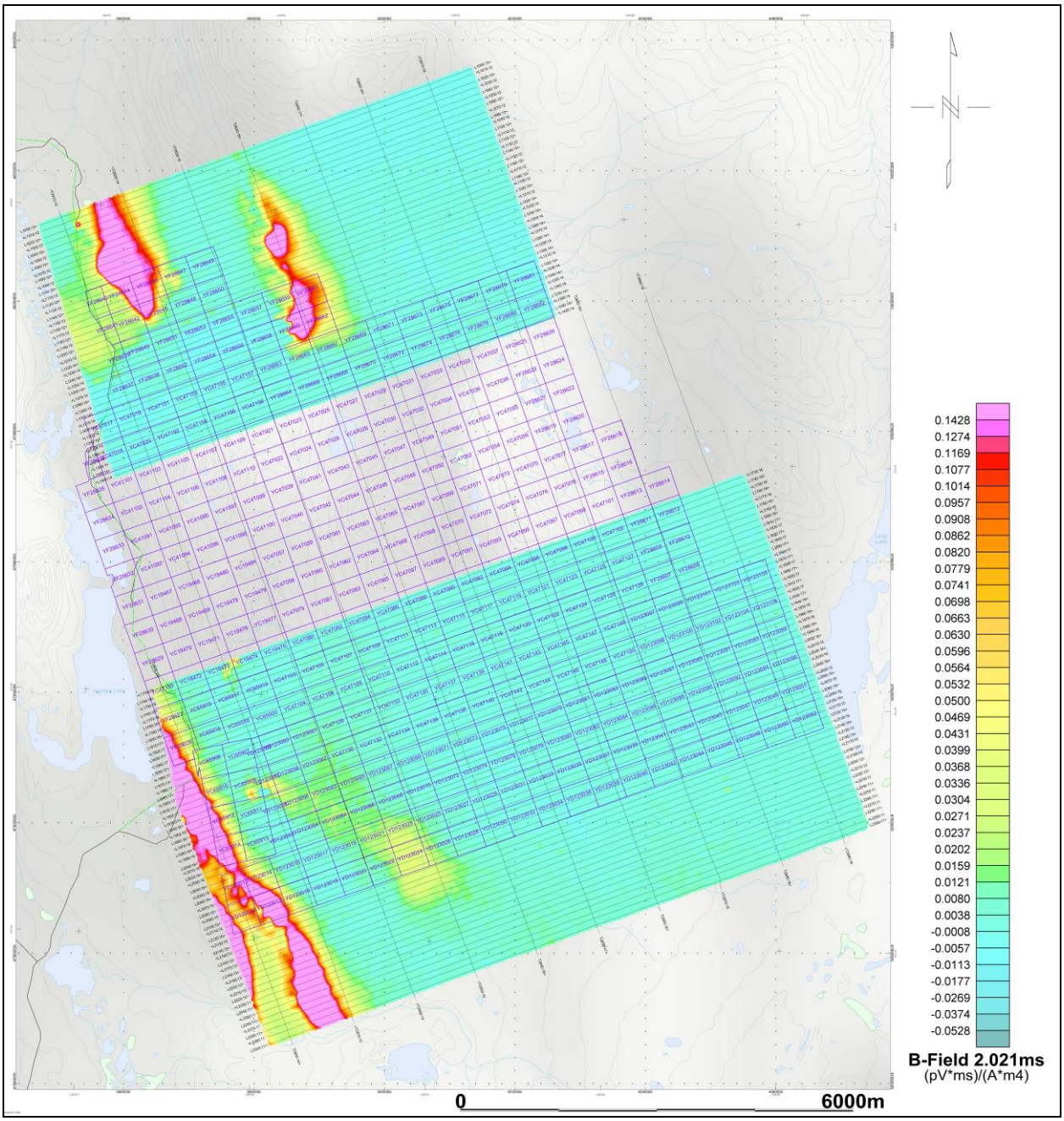
Hooch Property - VTEM dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI



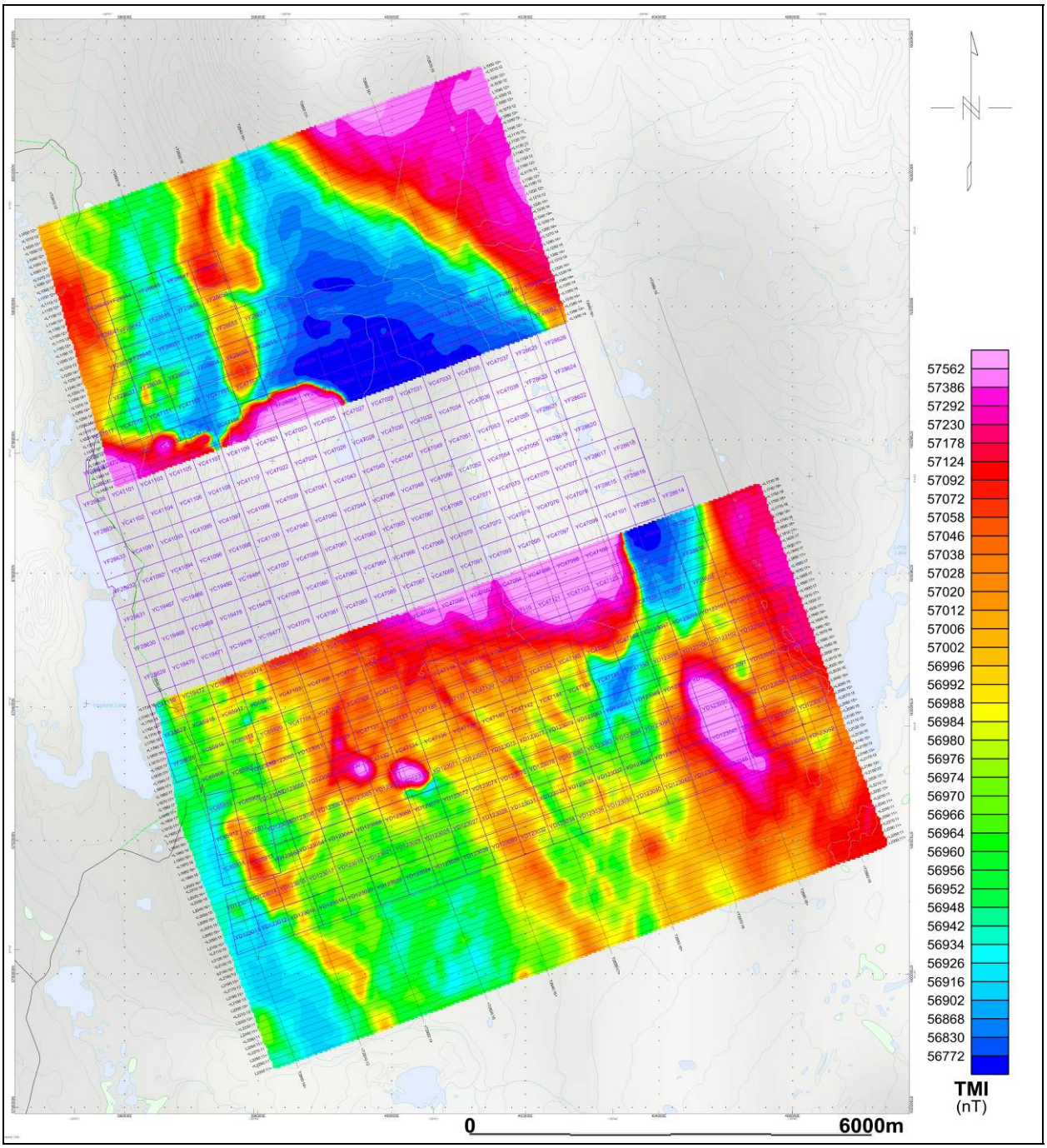
Hopper Property - VTEM B-Field Z Component Profiles, Time Gates 0.220 to 7.036 ms



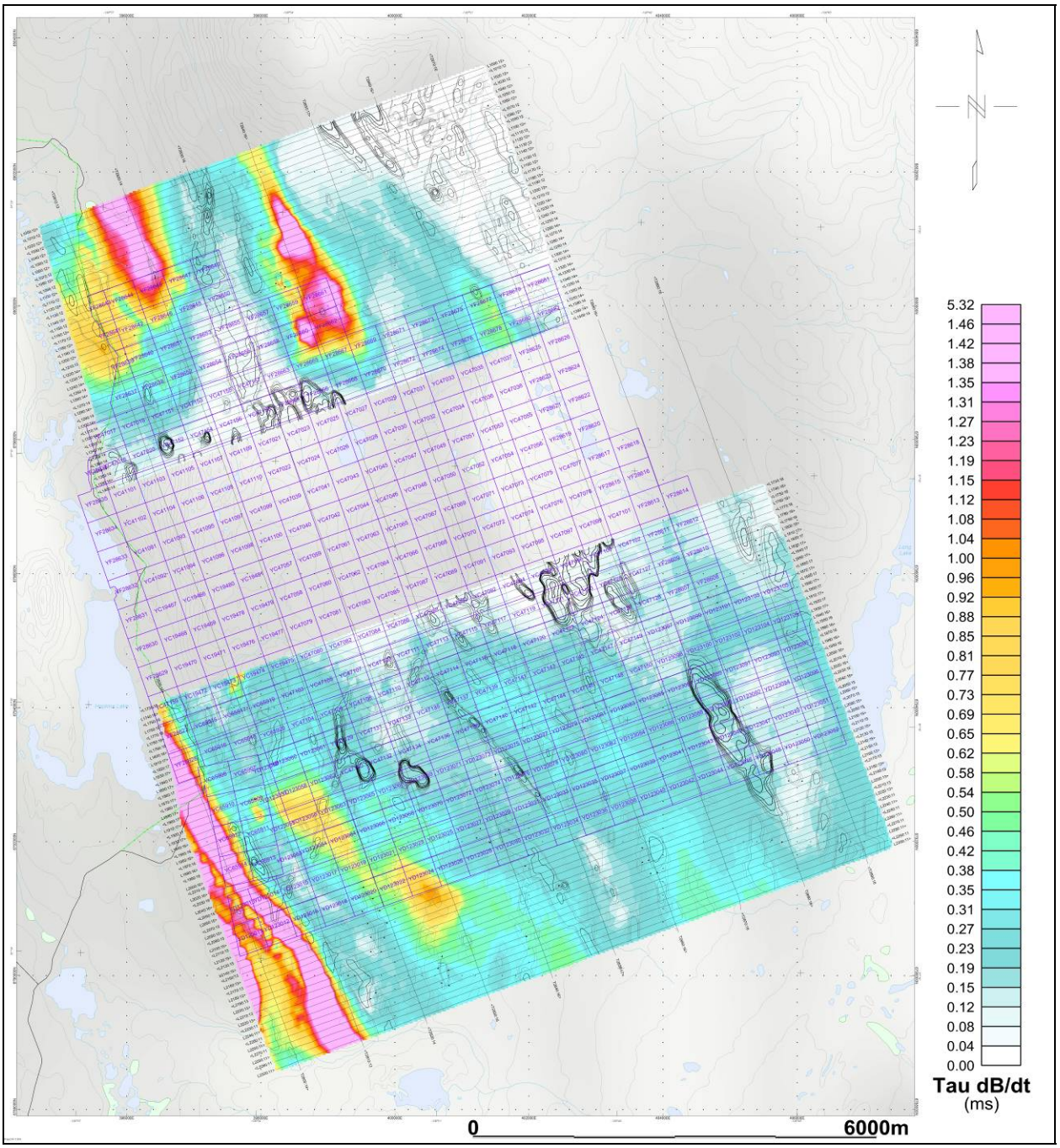
Hopper Property - VTEM dB/dt Z Component Profiles, Time Gates 0.220 to 7.036 ms



Hopper Property - VTEM B-Field Channel 36, Time Gate 2.021 ms

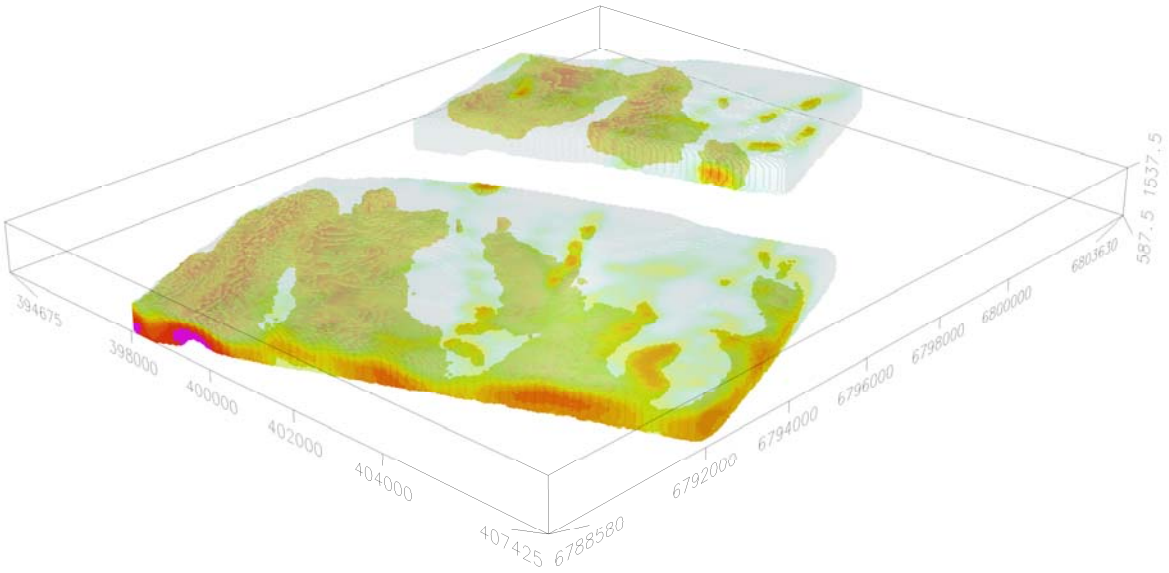


Hopper Property - Total Magnetic Intensity

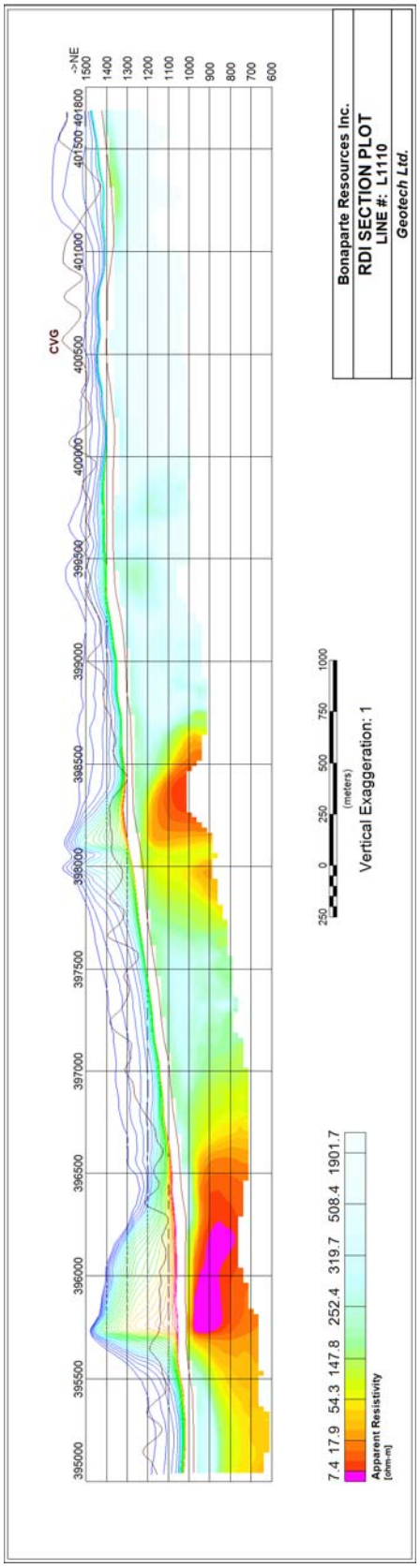


Hopper Property - VTEM dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

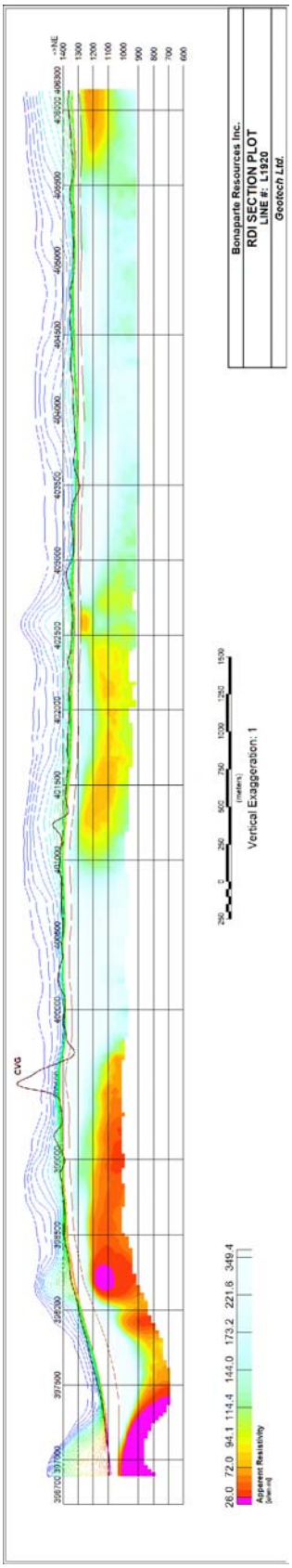
Resistivity Depth Image (RDI) MAPS



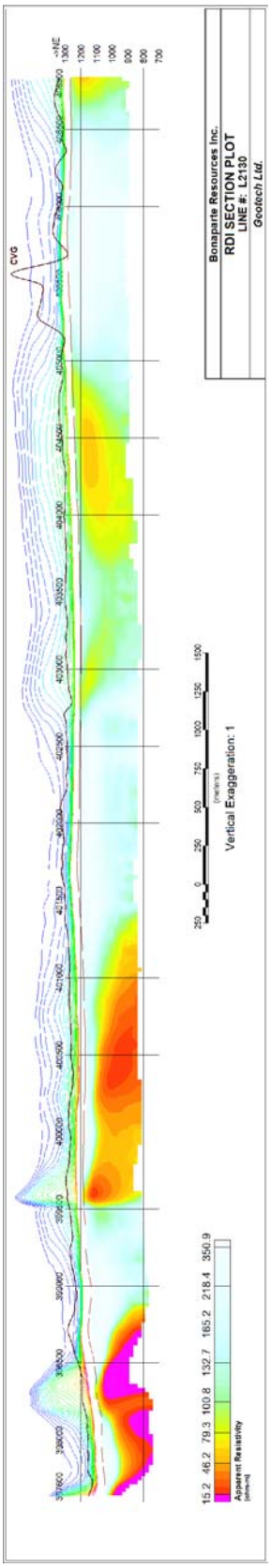
3D Resistivity-Depth Image (RDI) – Hopper Property



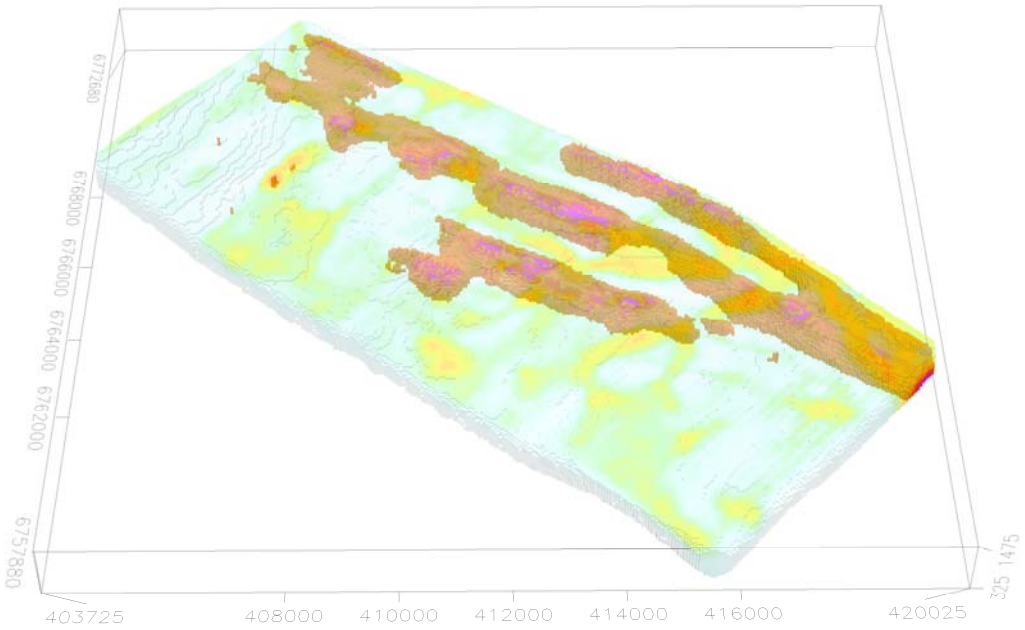
Line 1110 – Hopper Property



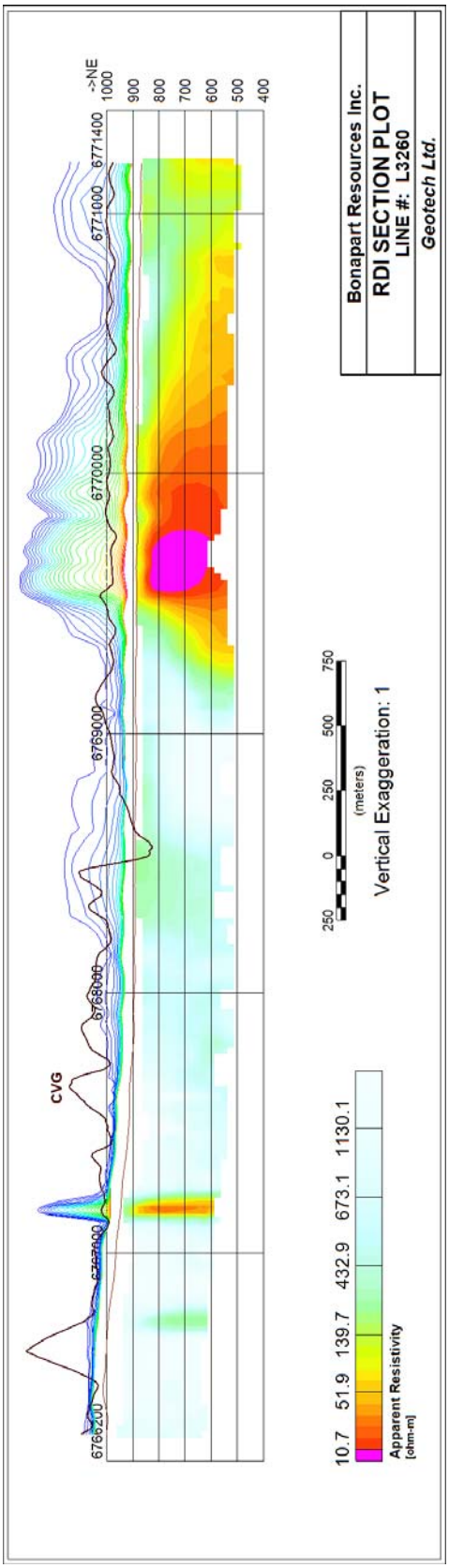
Line 1920 – Hopper Property



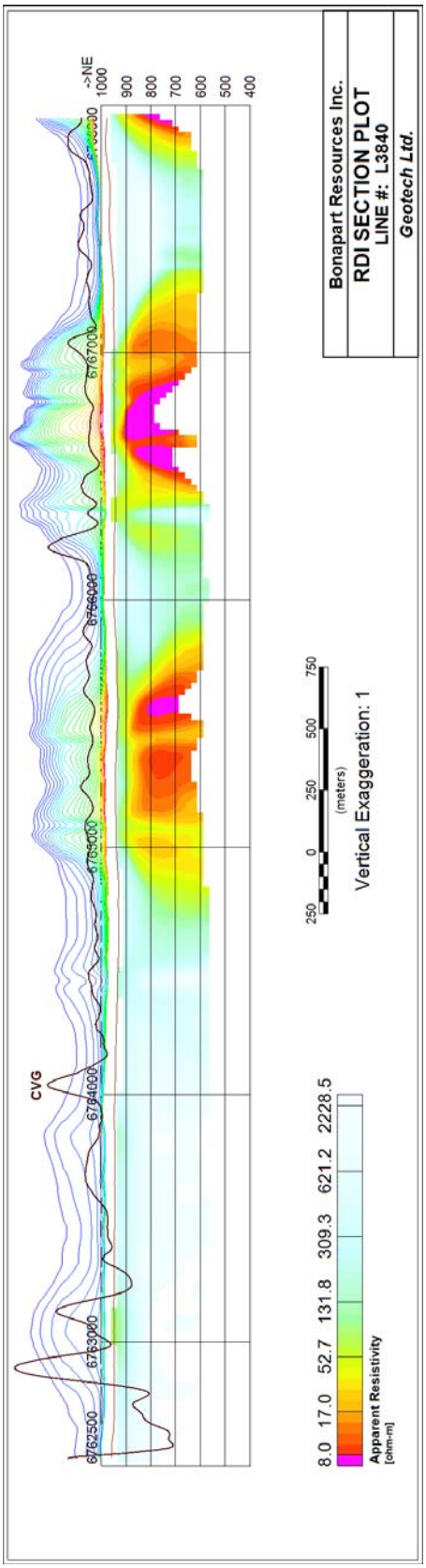
Line 2130 – Hopper Property



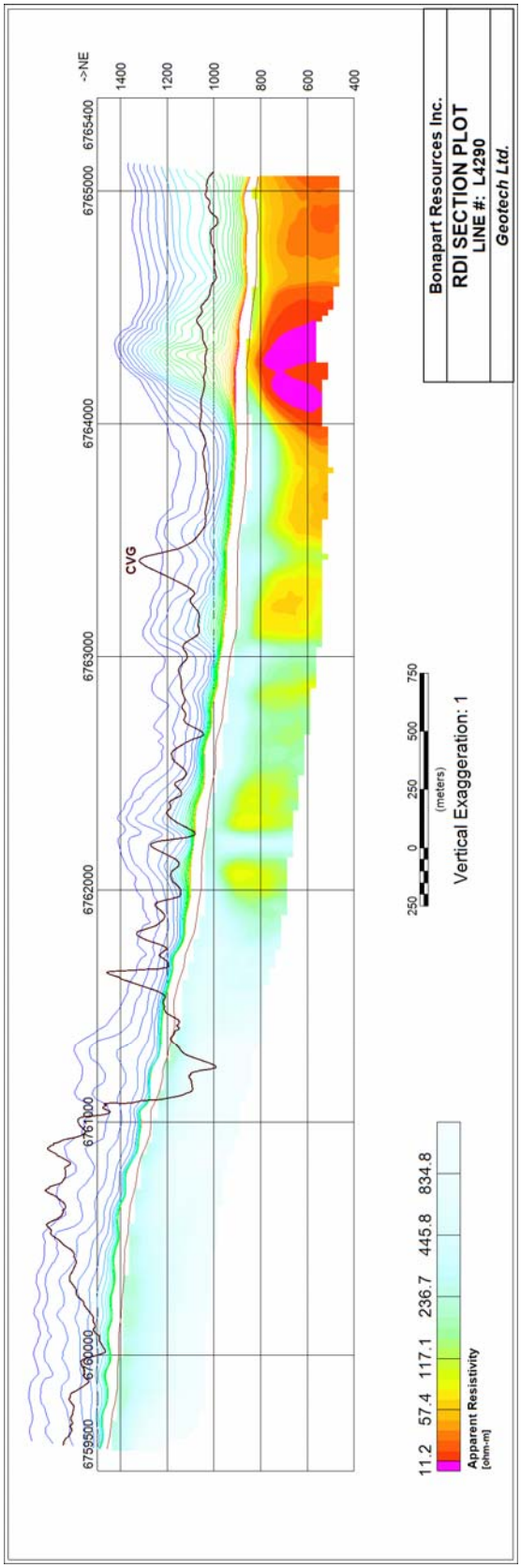
3D Resistivity-Depth Image (RDI) – Hooch Property



Line 3260 – Hooch Property



Line 3840 – Hooch Property



Line 4290 – Hooch Property

APPENDIX D

GENERALIZED MODELING RESULTS OF THE VTEM SYSTEM

Introduction

The VTEM system is based on a concentric or central loop design, whereby, the receiver is positioned at the centre of a transmitter loop that produces a primary field. The wave form is a bi-polar, modified square wave with a turn-on and turn-off at each end.

During turn-on and turn-off, a time varying field is produced (dB/dt) and an electro-motive force (emf) is created as a finite impulse response. A current ring around the transmitter loop moves outward and downward as time progresses. When conductive rocks and mineralization are encountered, a secondary field is created by mutual induction and measured by the receiver at the centre of the transmitter loop.

Efficient modeling of the results can be carried out on regularly shaped geometries, thus yielding close approximations to the parameters of the measured targets. The following is a description of a series of common models made for the purpose of promoting a general understanding of the measured results.

A set of models has been produced for the Geotech VTEM® system dB/dT Z and X components (see models D1 to D15). The Maxwell ^{TM} modeling program (EMIT Technology Pty. Ltd. Midland, WA, AU) used to generate the following responses assumes a resistive half-space. The reader is encouraged to review these models, so as to get a general understanding of the responses as they apply to survey results. While these models do not begin to cover all possibilities, they give a general perspective on the simple and most commonly encountered anomalies.

As the plate dips and departs from the vertical position, the peaks become asymmetrical.

As the dip increases, the aspect ratio (Min/Max) decreases and this aspect ratio can be used as an empirical guide to dip angles from near 90º to about 30º. The method is not sensitive enough where dips are less than about 30º.

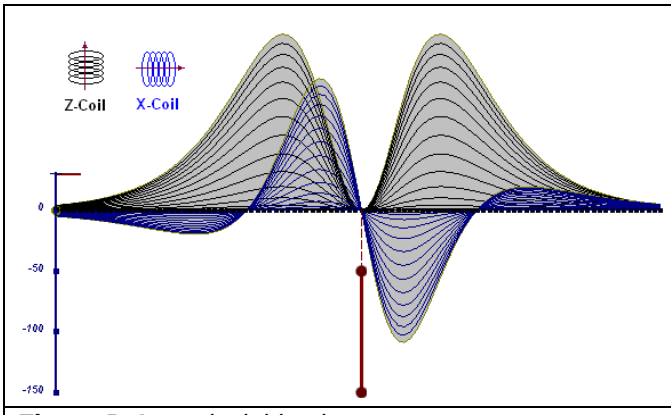


Figure D-1: vertical thin plate

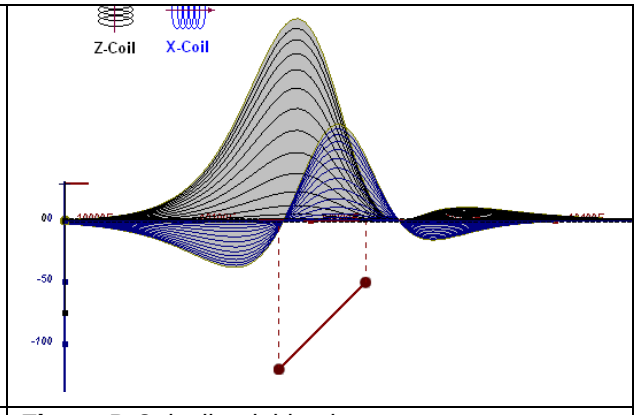


Figure D-2: inclined thin plate

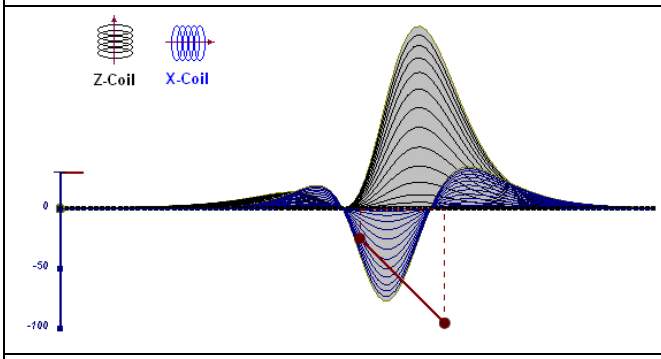


Figure D-3: inclined thin plate

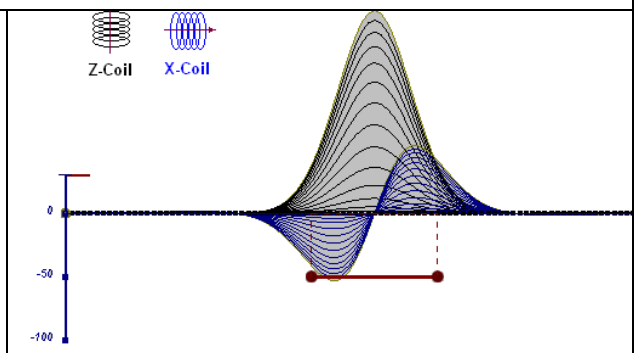


Figure D-4: horizontal thin plate

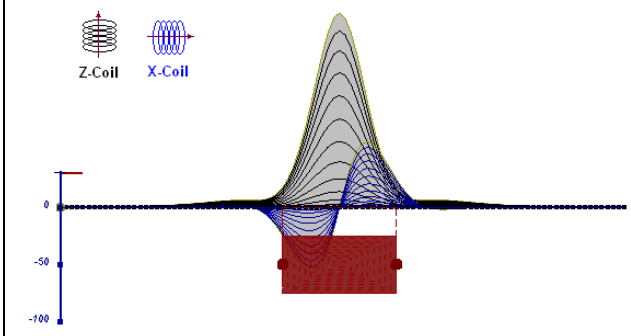


Figure D-5: horizontal thick plate (linear scale of the response)

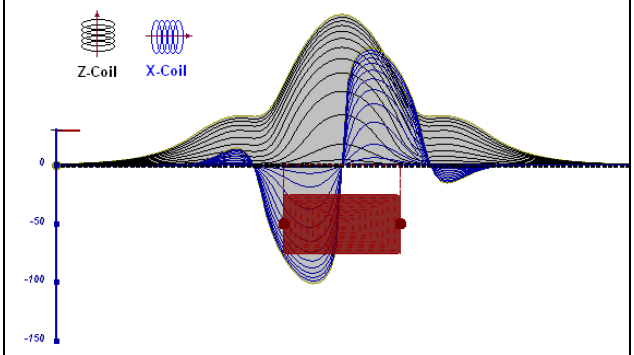


Figure D-6: horizontal thick plate (log scale of the response)

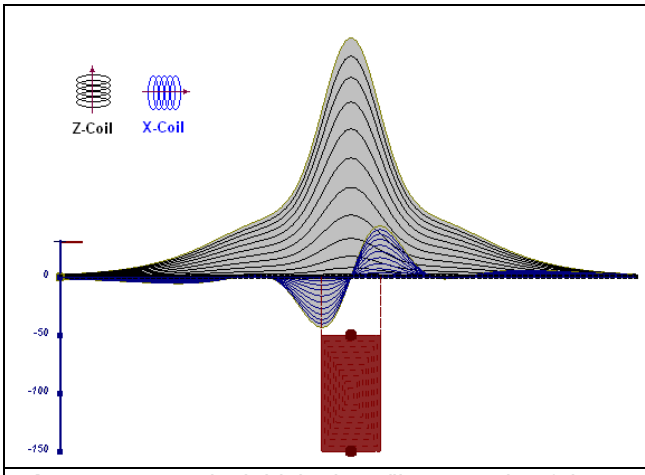


Figure D-7: vertical thick plate (linear scale of the response). 50 m depth

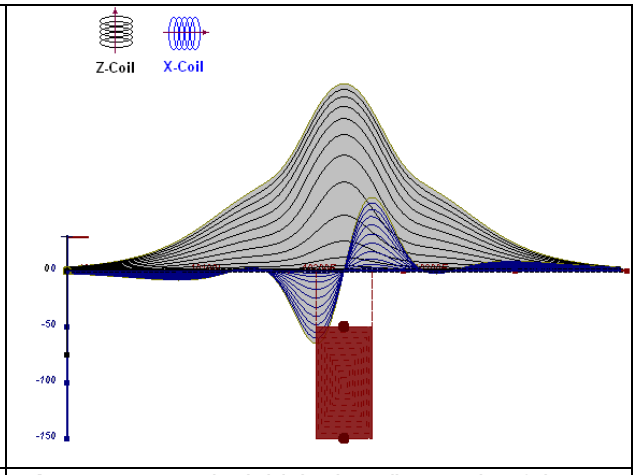


Figure D-8: vertical thick plate (log scale of the response). 50 m depth

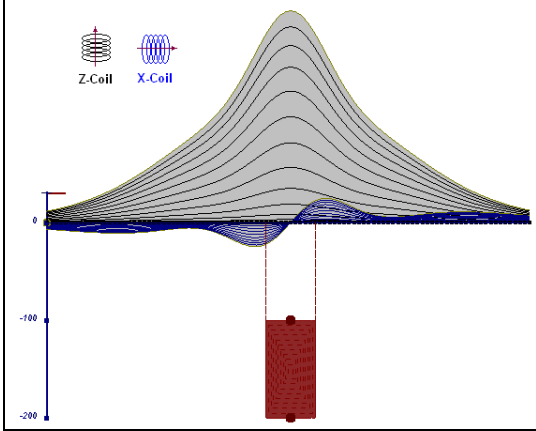


Figure D-9: vertical thick plate (linear scale of the response). 100 m depth

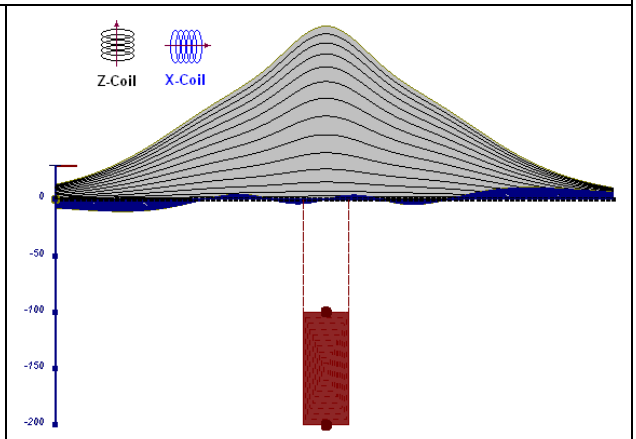


Figure D-10: vertical thick plate (linear scale of the response). Depth/hor.thickness=2.5

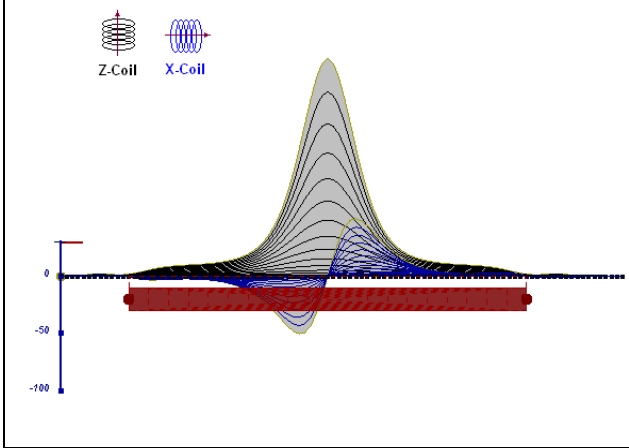


Figure D-10: horizontal thick plate (linear scale of the response)

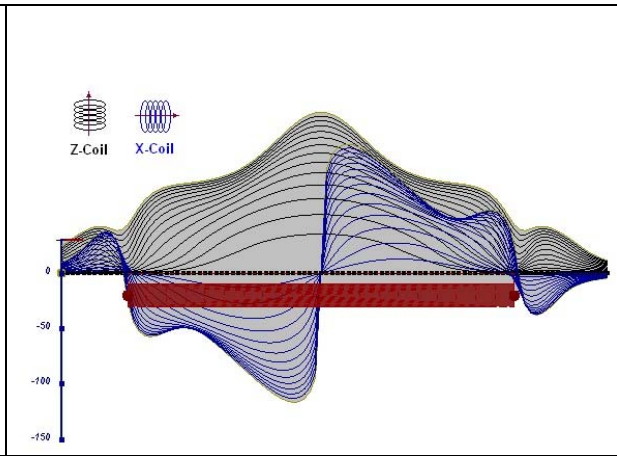


Figure D-11: horizontal thick plate (log scale of the response)

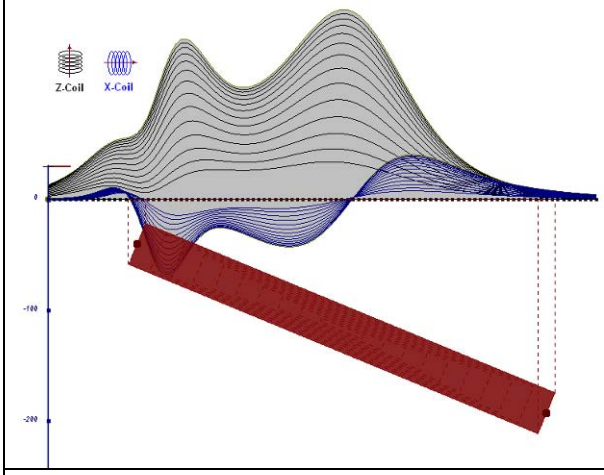


Figure D-12: inclined long thick plate

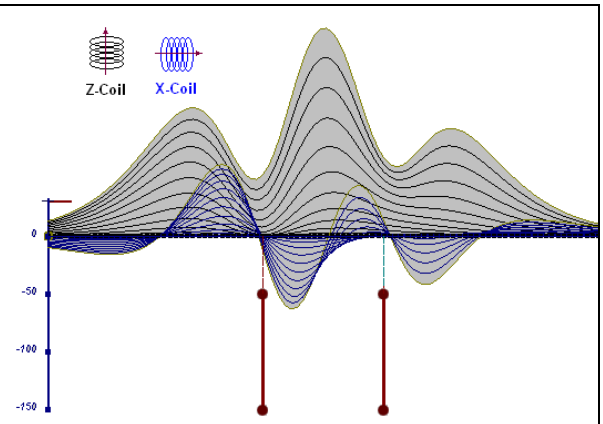


Figure D-13: two vertical thin plates

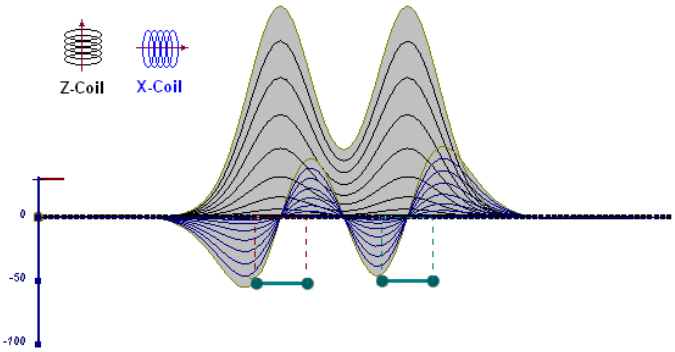


Figure D-14: two horizontal thin plates

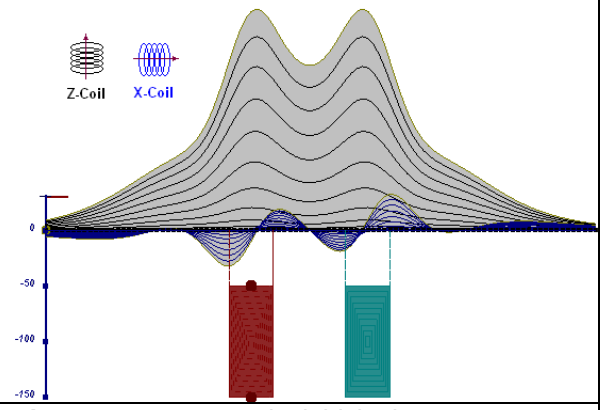
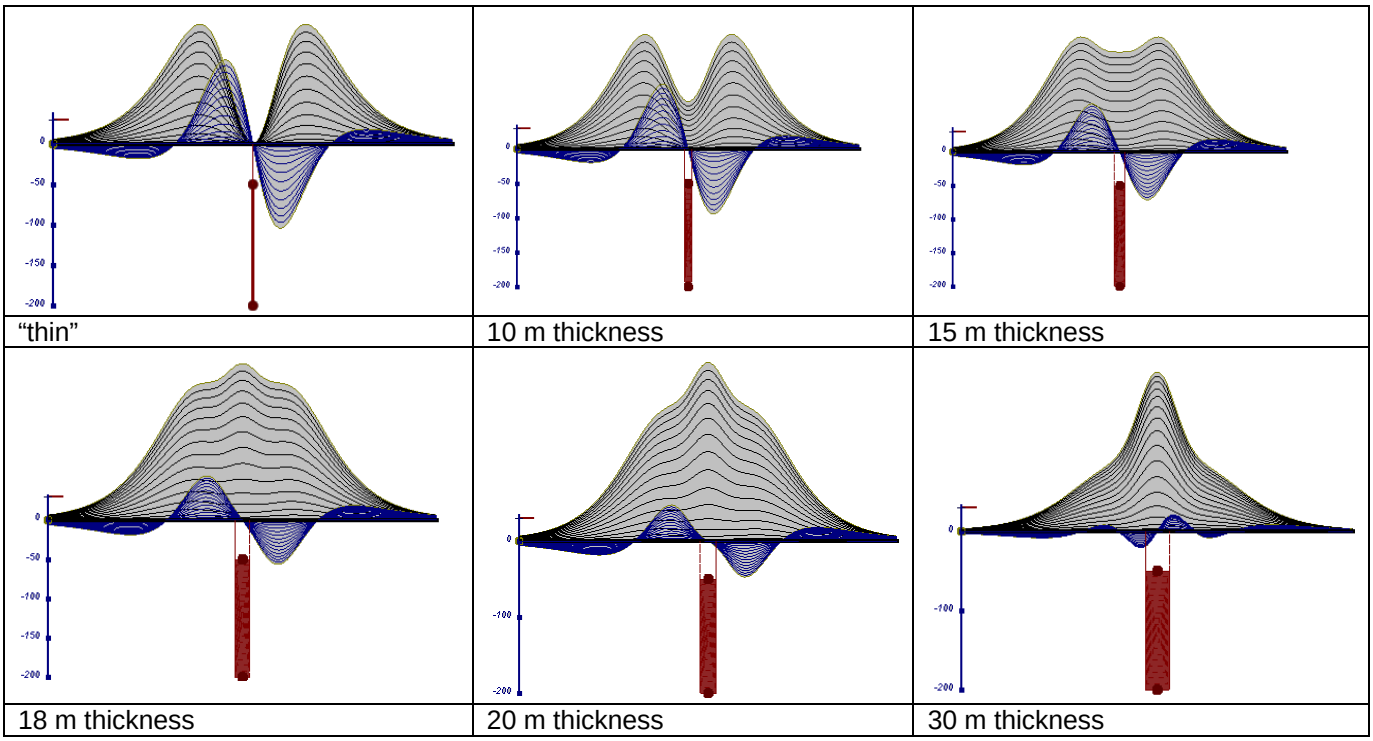


Figure D-15: two vertical thick plates

The same type of target but with different thickness, for example, creates different form of the response:



"thin"	10 m thickness	15 m thickness
18 m thickness	20 m thickness	30 m thickness

Figure D-16: Conductive vertical plate, depth 50 m, strike length 200 m, depth extend 150 m.

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September 2010

APPENDIX E

EM TIME CONSTANT (TAU) ANALYSIS

Estimation of time constant parameter[1] in transient electromagnetic method is one of the steps toward the extraction of the information about conductances beneath the surface from TEM measurements.

The most reliable method to discriminate or rank conductors from overburden, background or one and other is by calculating the EM field decay time constant (TAU parameter), which directly depends on conductance despite their depth and accordingly amplitude of the response.

Theory

As established in electromagnetic theory, the magnitude of the electro-motive force (emf) induced is proportional to the time rate of change of primary magnetic field at the conductor. This emf causes eddy currents to flow in the conductor with a characteristic transient decay, whose Time Constant (Tau) is a function of the conductance of the survey target or conductivity and geometry (including dimensions) of the target. The decaying currents generate a proportional secondary magnetic field, the time rate of change of which is measured by the receiver coil as induced voltage during the Off time.

The receiver coil output voltage ($\mathbf{e_0}$) is proportional to the time rate of change of the secondary magnetic field and has the form,

$$e_0 \alpha (1 / \tau) e^{-(t/\tau)}$$

Where,
τ = L/R is the characteristic time constant of the target (TAU)
R = resistance
L = inductance

From the expression, conductive targets that have small value of resistance and hence large value of τ yield signals with small initial amplitude that decays relatively slowly with progress of time. Conversely, signals from poorly conducting targets that have large resistance value and smallτ, have high initial amplitude but decay rapidly with time[1] (Figure E-1).

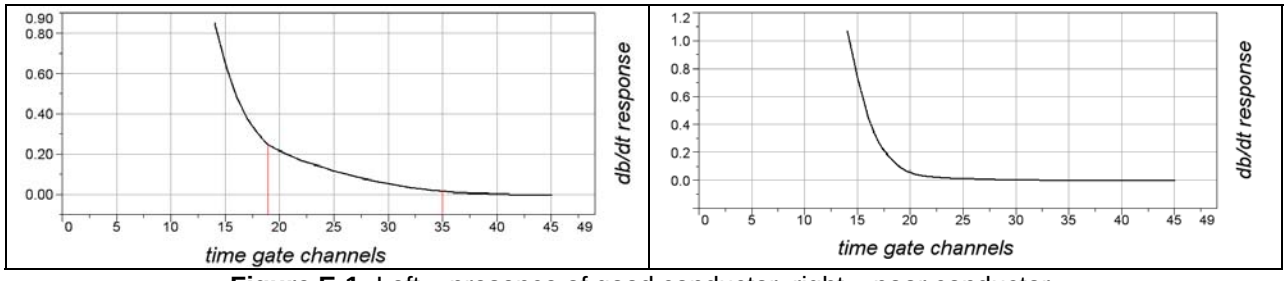

Figure E-1: Left – presence of good conductor, right – poor conductor.

[1] McNeill, JD, 1980, "Applications of Transient Electromagnetic Techniques", Technical Note TN-7 page 5, Geonics Limited, Mississauga, Ontario.

EM Time Constant (Tau) Calculation

The EM Time-Constant (TAU) is a general measure of the speed of decay of the electromagnetic response and indicates the presence of eddy currents in conductive sources as well as reflecting the "conductance quality" of a source. Although TAU can be calculated using either the measured dB/dt decay or the calculated B-field decay, dB/dt is commonly preferred due to better stability (S/N) relating to signal noise. Generally, TAU calculated on base of early time response reflects both near surface overburden and poor conductors whereas, in the late ranges of time, deep and more conductive sources, respectively. For example early time TAU distribution in an area that indicates conductive overburden is shown in Figure 2.

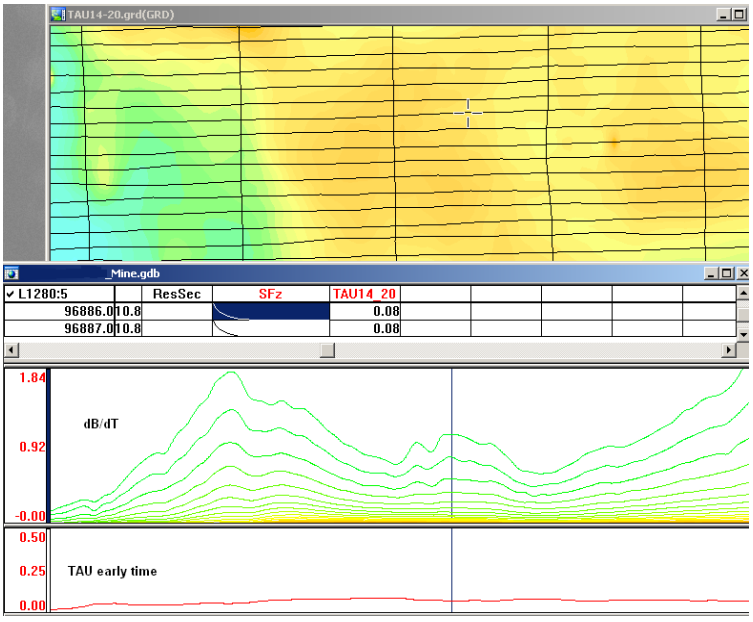

Figure E-2: Map of early time TAU Area with overburden conductive layer and local sources.

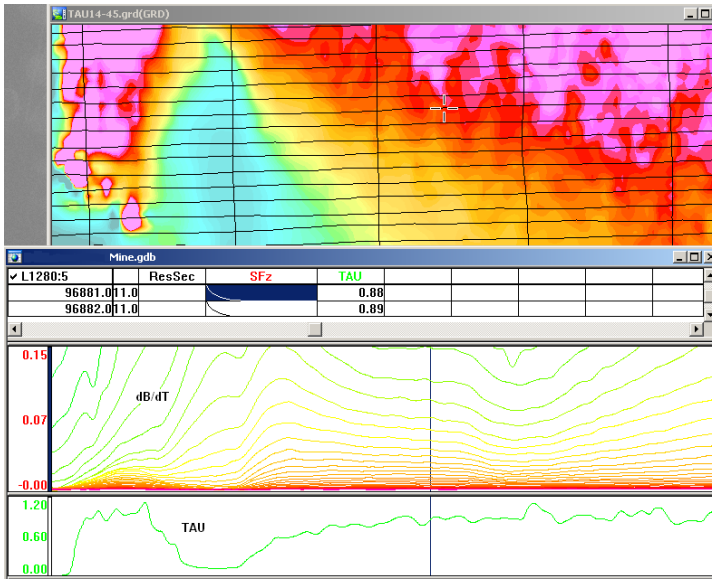

Figure E-3: Map of full time range TAU with EM anomaly due to deep highly conductive target.

There are many advantages of TAU maps:

- TAU depends only on one parameter (conductance) in contrast to response magnitude;
- TAU is integral parameter, which covers time range and all conductive zones and targets are displayed independently of their depth and conductivity on a single map.
- Very good differential resolution in complex conductive places with many sources with different conductivity.
- Signs of the presence of good conductive targets are amplified and emphasized independently of their depth and level of response accordingly.

In the example shown in Figure 4 and 5, three local targets are defined, each of them with a different depth of burial, as indicated on the resistivity depth image (RDI). All are very good conductors but the deeper target (number 2) has a relatively weak dB/dt signal yet also features the strongest total TAU (Figure 4). This example highlights the benefit of TAU analysis in terms of an additional target discrimination tool.

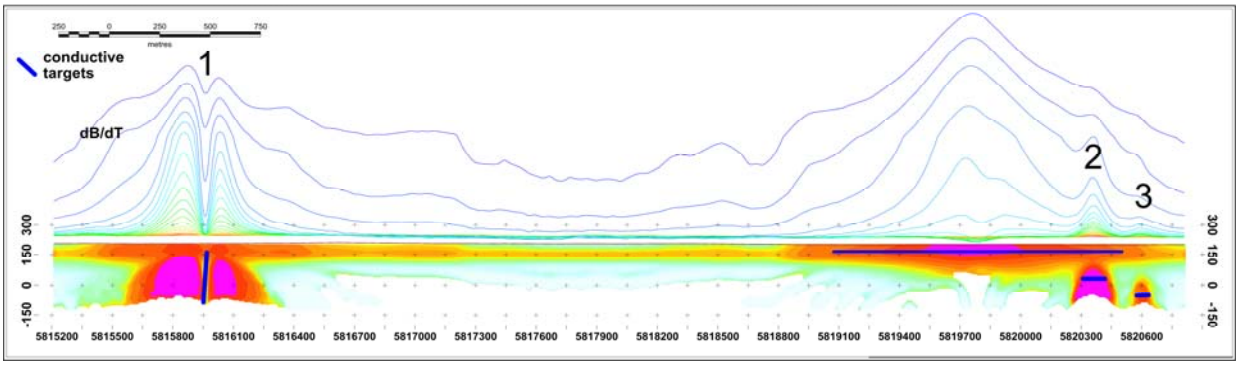

Figure E-4: dB/dt profile and RDI with different depths of targets.

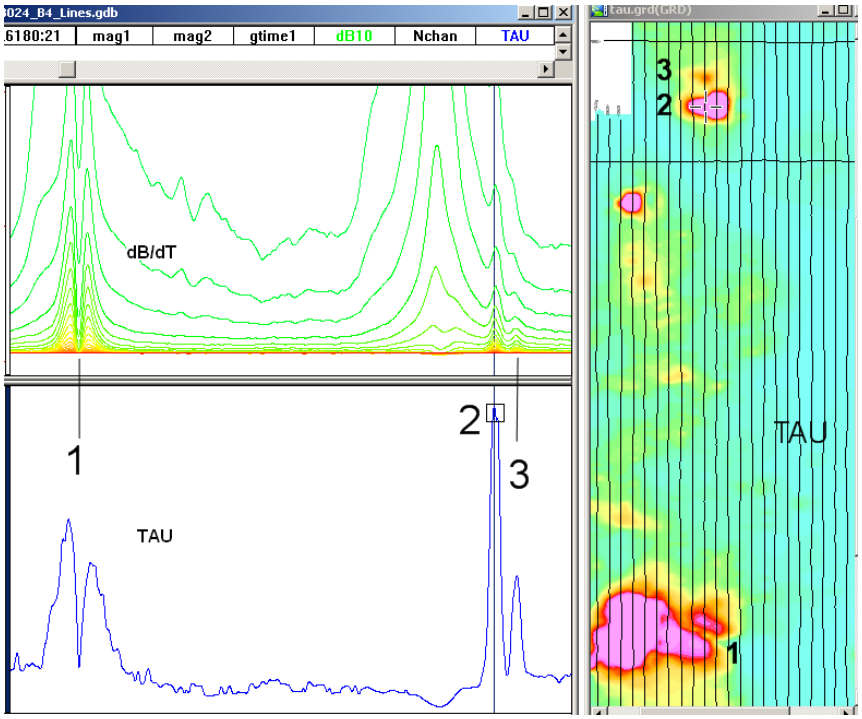

Figure E-5: Map of total TAU and dB/dt profile.

The EM Time Constants for dB/dt and B-field were calculated using the "sliding Tau" in-house program developed at Geotech2. The principle of the calculation is based on using of time window (4 time channels) which is sliding along the curve decay and looking for latest time channels which have a response above the level of noise and decay. The EM decays are obtained from all available decay channels, starting at the latest channel. Time constants are taken from a least square fit of a straight-line (log/linear space) over the last 4 gates above a pre-set signal threshold level (Figure E-6). Threshold settings are pointed in the "label" property of TAU database channels. The sliding Tau method determines that, as the amplitudes increase, the time-constant is taken at progressively later times in the EM decay. Conversely, as the amplitudes decrease, Tau is taken at progressively earlier times in the decay. If the maximum signal amplitude falls below the threshold, or becomes negative for any of the 4 time gates, then Tau is not calculated and is assigned a value of "dummy" by default.

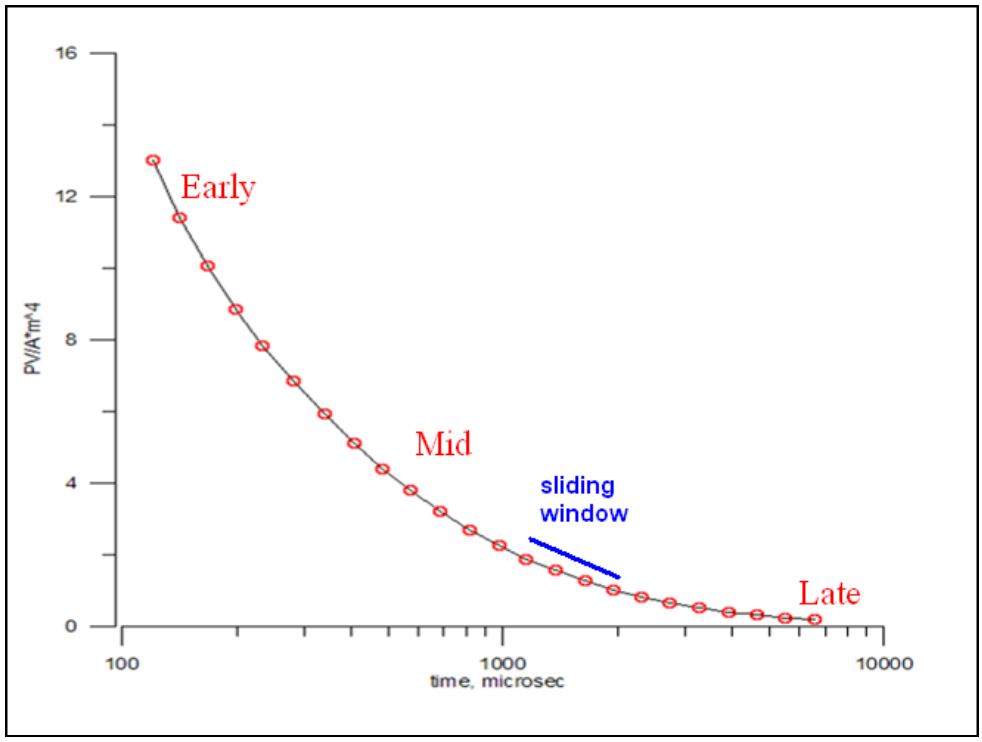

Figure E-6: Typical dB/dt decays of VTEM data

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September 2010

[2] by A.Prikhodko

APPENDIX F

TEM RESISTIVITY DEPTH IMAGING (RDI)

Resistivity depth imaging (RDI) is technique used to rapidly convert EM profile decay data into an equivalent resistivity versus depth cross-section, by deconvolving the measured TEM data.
The used RDI algorithm of Resistivity-Depth transformation is based on scheme of the apparent resistivity transform of Maxwell A.Meju (1998)[1] and TEM response from conductive half-space. The program is developed by Alexander Prikhodko and depth calibrated based on forward plate modeling for VTEM system configuration (Fig. 1-10).

RDIs provide reasonable indications of conductor relative depth and vertical extent, as well as accurate 1D layered-earth apparent conductivity/resistivity structure across VTEM flight lines. Approximate depth of investigation of a TEM system, image of secondary field distribution in half space, effective resistivity, initial geometry and position of conductive targets is the information obtained on base of the RDIs.

Maxwell forward modeling with RDI sections from the synthetic responses (VTEM system)

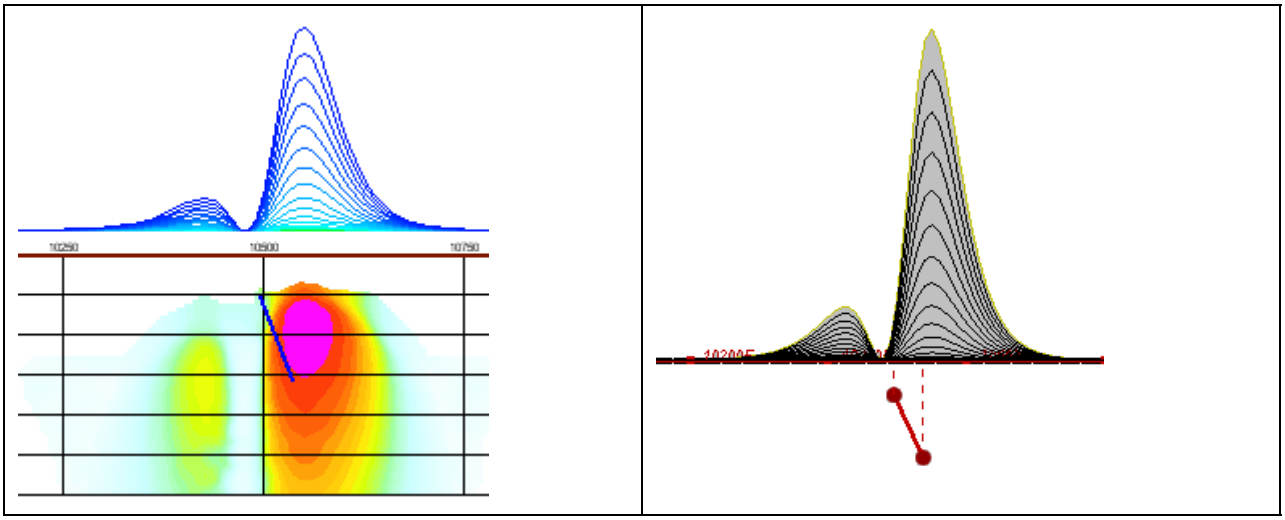


Figure F-1: Maxwell plate model and RDI from the calculated response for conductive “thin” plate (depth 50 m, dip 65 degree, depth extend 100 m).

[1] Maxwell A.Meju, 1998, Short Note: A simple method of transient electromagnetic data analysis, Geophysics, **63**, 405–410.

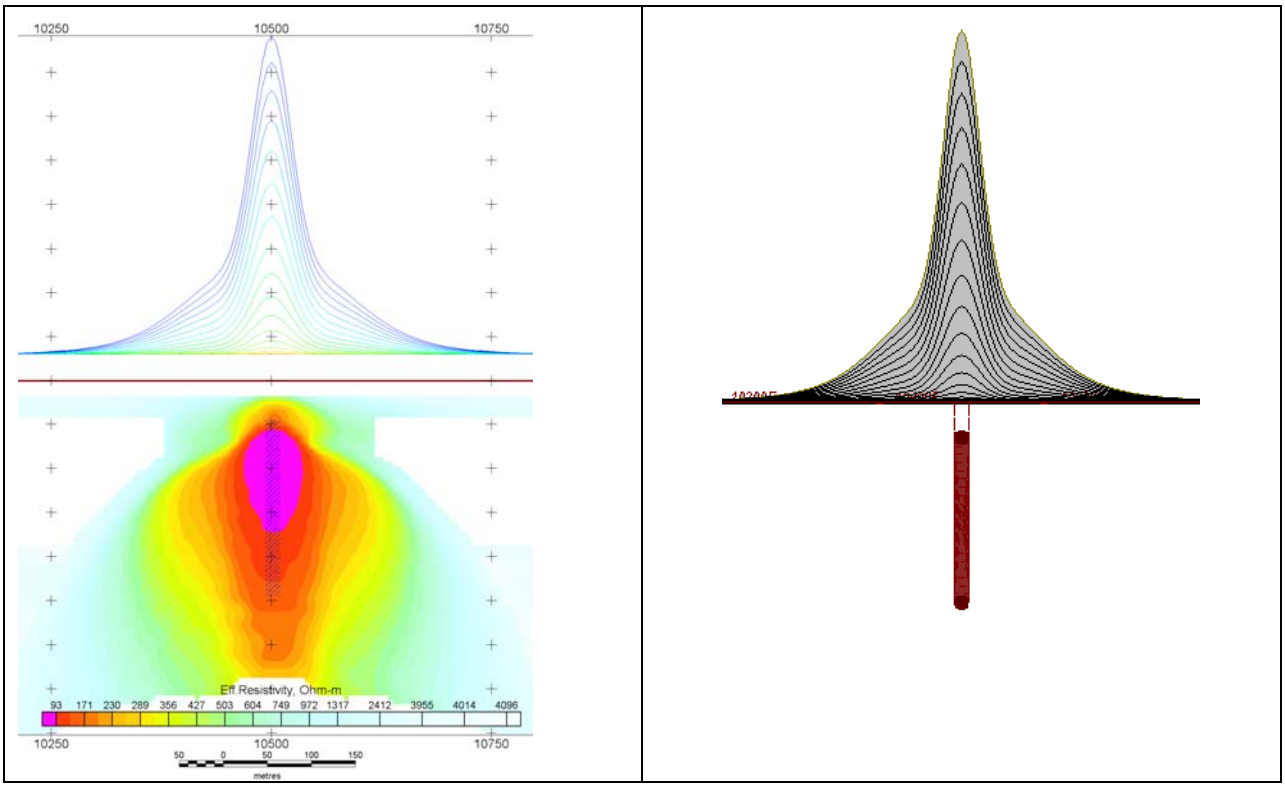


Figure F-2: Maxwell plate model and RDI from the calculated response for "thick" plate 18 m thickness, depth 50 m, depth extend 200 m).

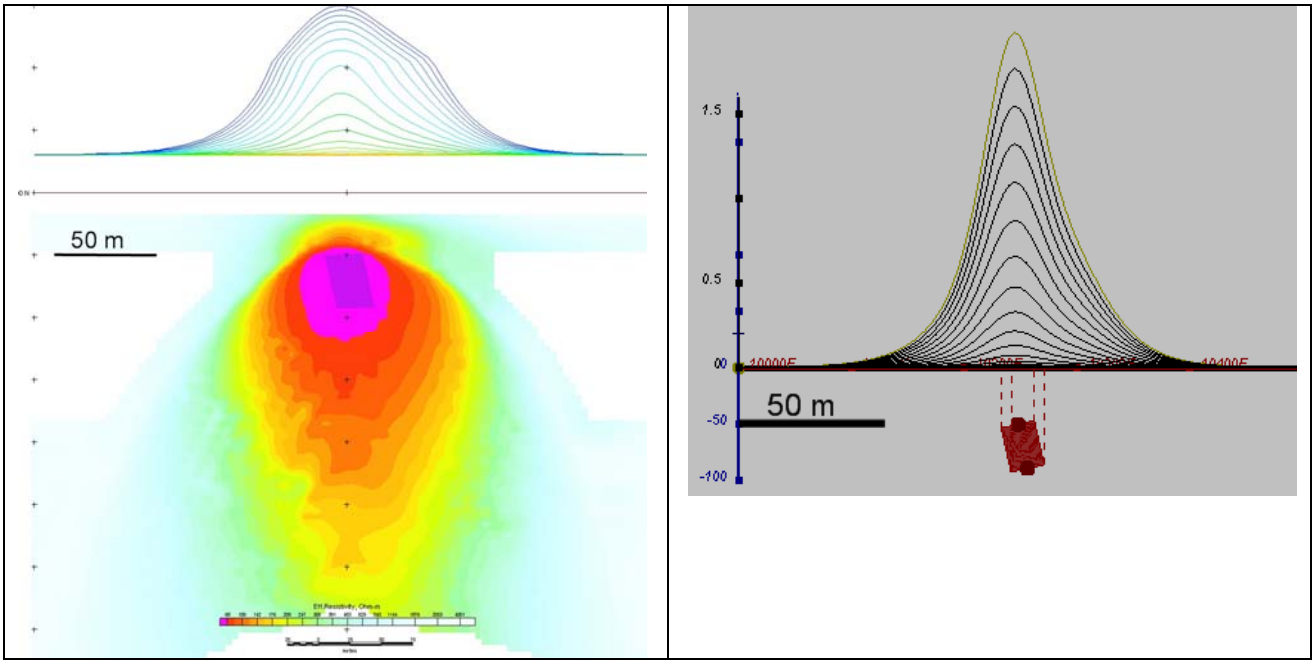


Figure F-3: Maxwell plate model and RDI from the calculated response for bulk ("thick") 100 m length, 40 m depth extend, 30 m thickness

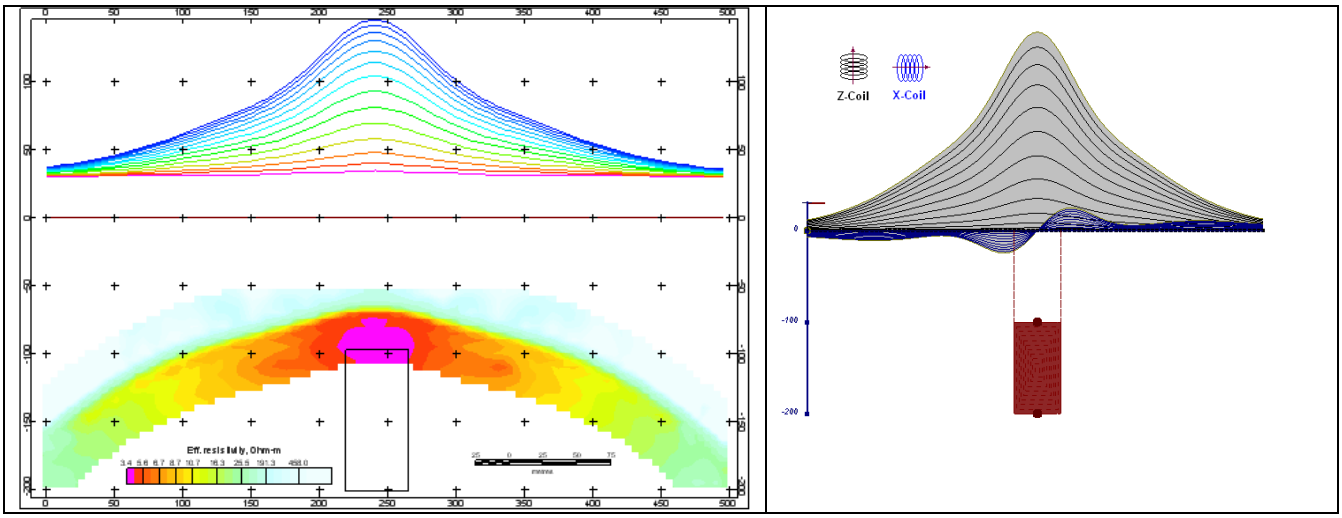


Figure F-4: Maxwell plate model and RDI from the calculated response for "thick" vertical target (depth 100 m, depth extend 100 m). 19-44 chan.

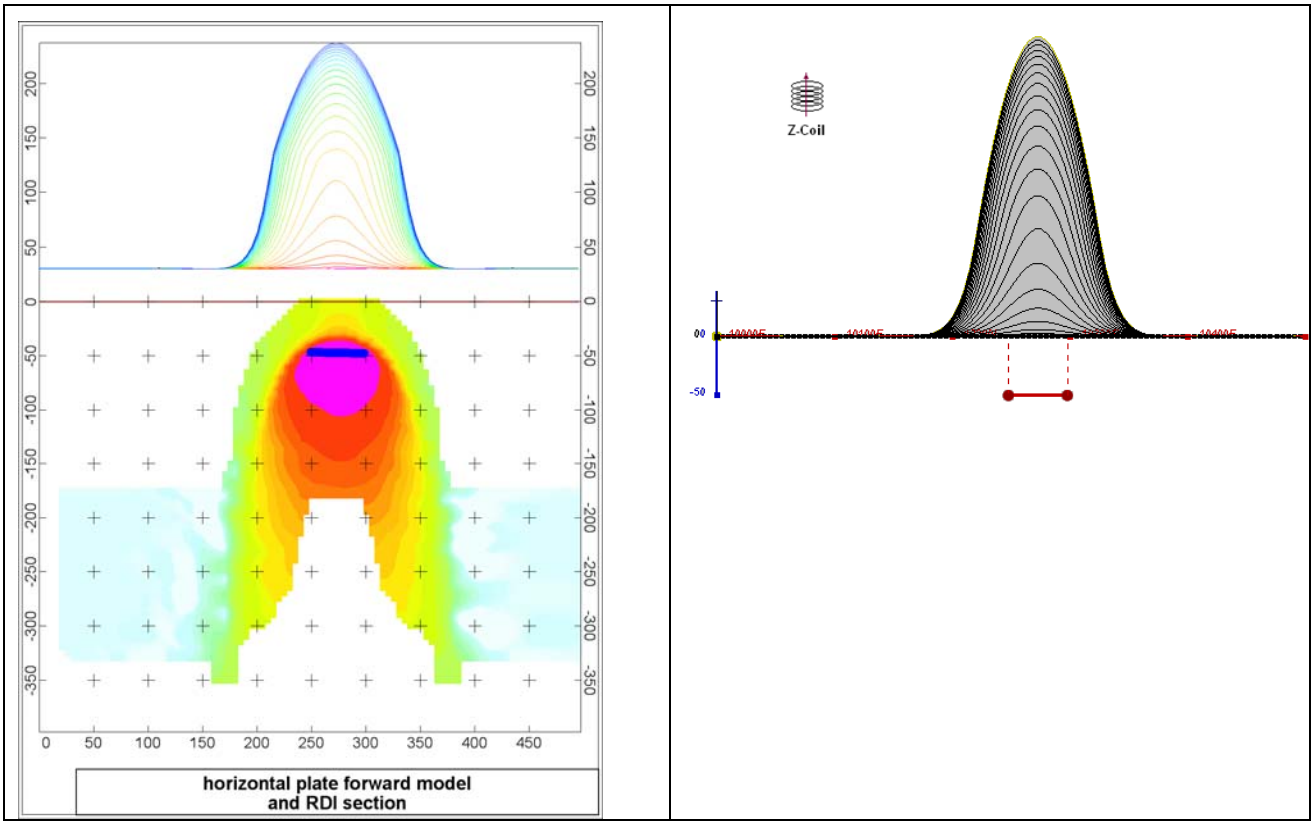


Figure F-5: Maxwell plate model and RDI from the calculated response for horizontal thin plate (depth 50 m, dim 50x100 m). 15-44 chan.

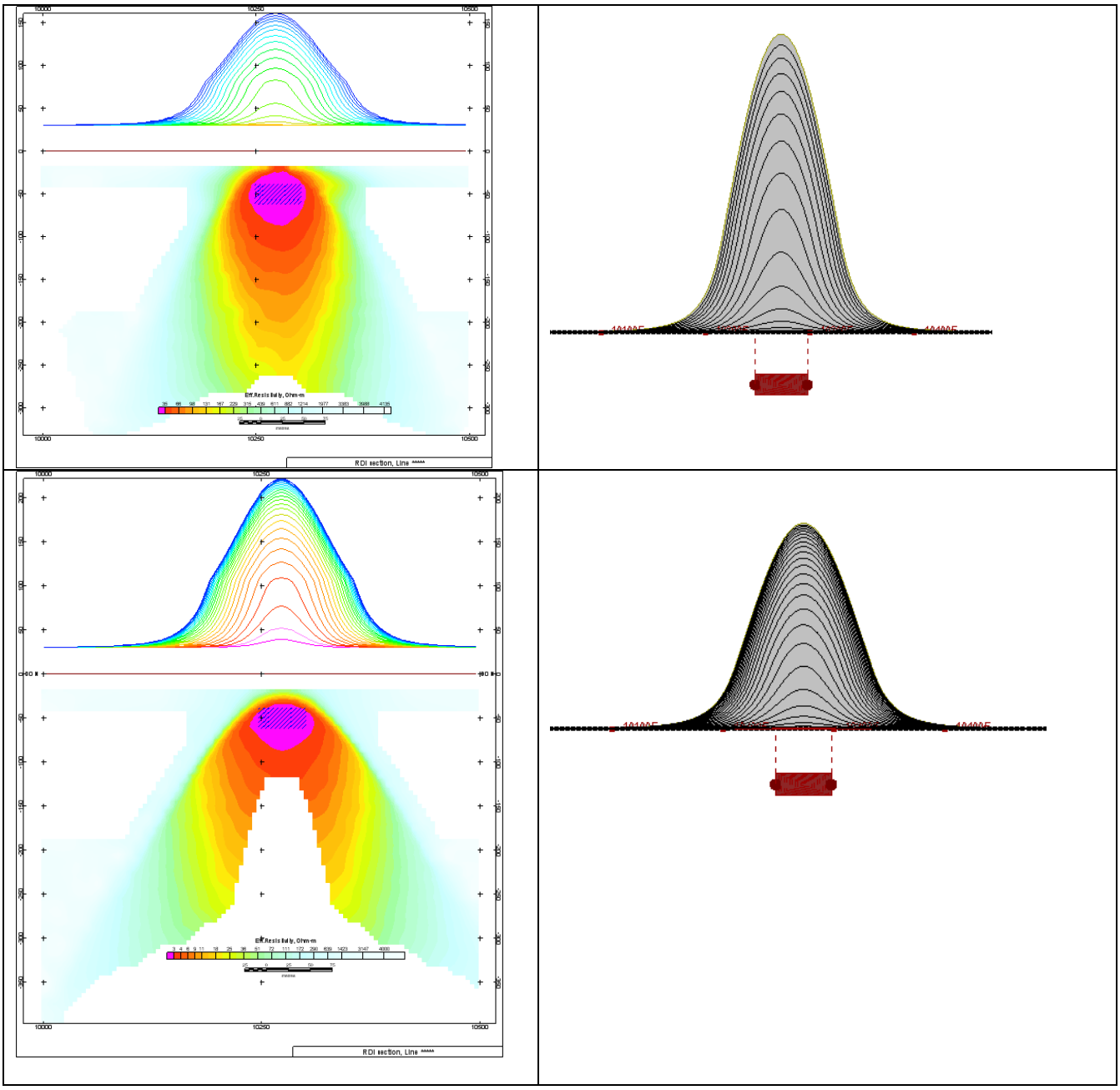


Figure F-6: Maxwell plate model and RDI from the calculated response for horizontal thick (20m) plate – less conductive (on the top), more conductive (below)

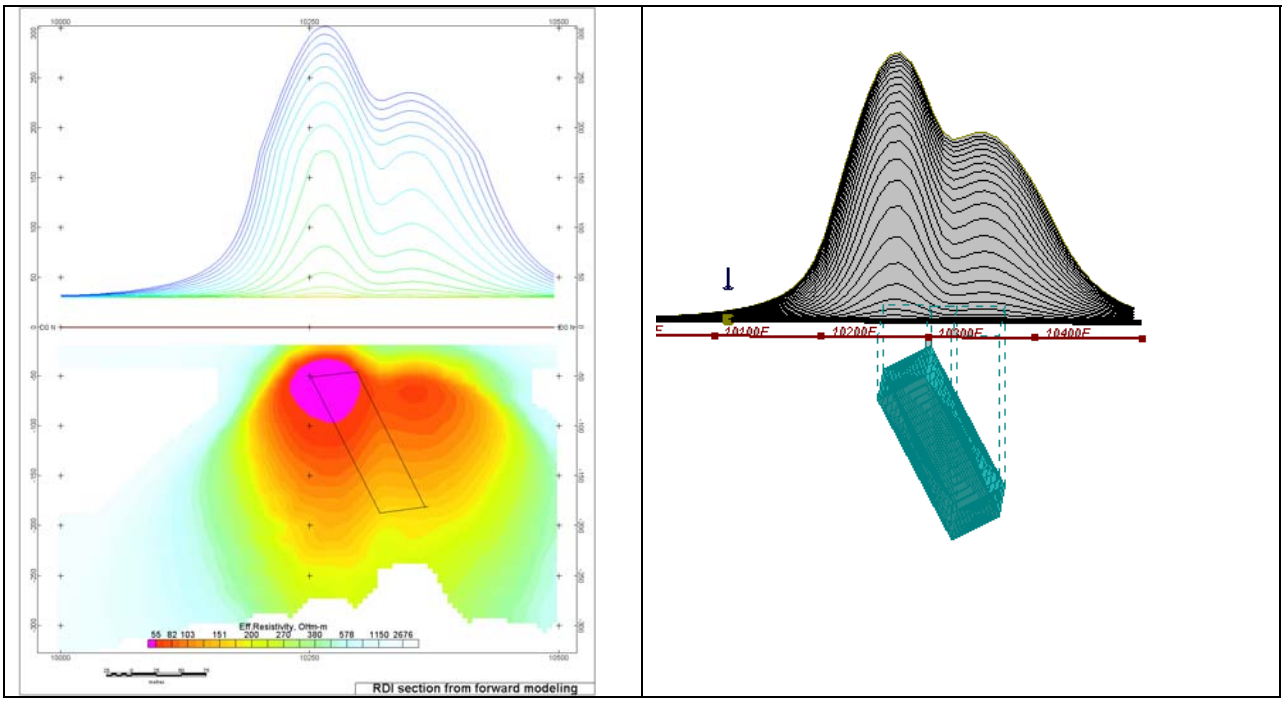


Figure G-7: Maxwell plate model and RDI from the calculated response for inclined thick (50m) plate. Depth extends 150 m, depth to the target 50 m.

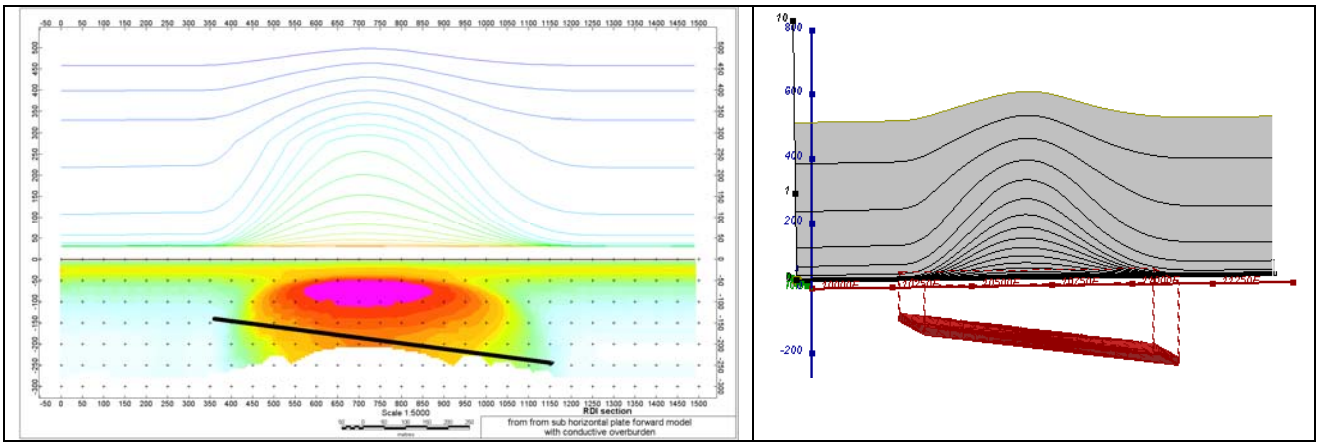


Figure F-8: Maxwell plate model and RDI from the calculated response for the long, wide and deep subhorizontal plate (depth 140 m, dim 25x500x800 m) with conductive overburden.

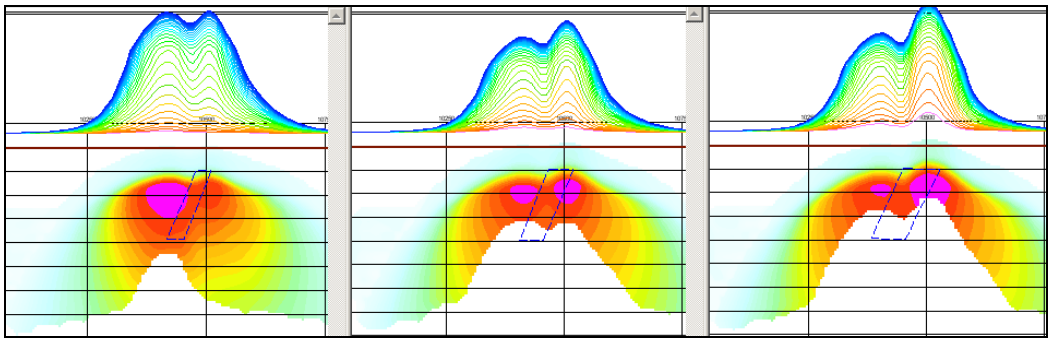


Figure F-9: Maxwell plate models and RDIs from the calculated response for “thick” dipping plates (35, 50, 75 m thickness), depth 50 m, conductivity 2.5 S/m.

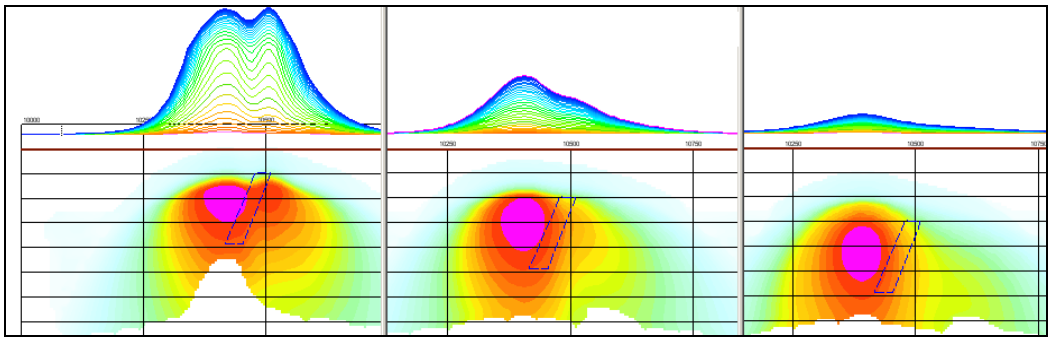


Figure F-10: Maxwell plate models and RDIs from the calculated response for “thick” (35 m thickness) dipping plate on different depth (50, 100, 150 m),, conductivity 2.5 S/m.

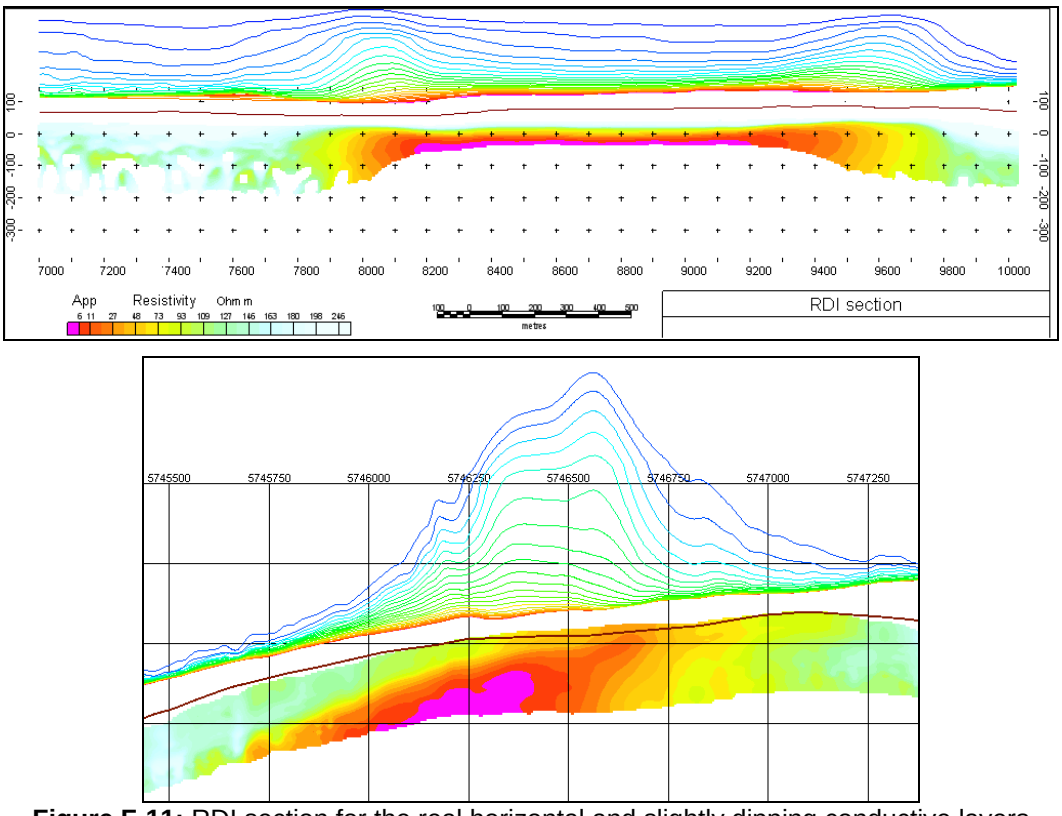
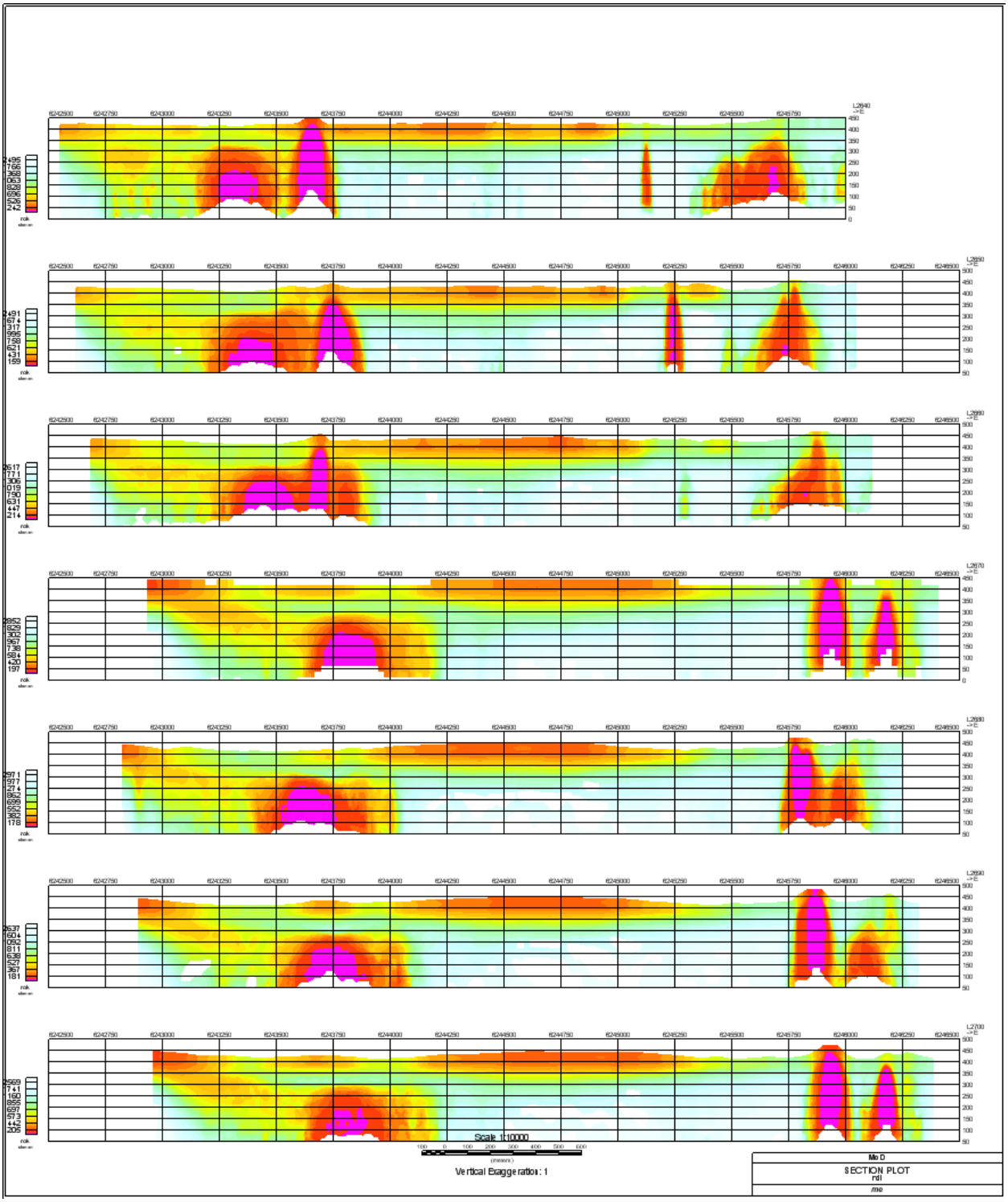


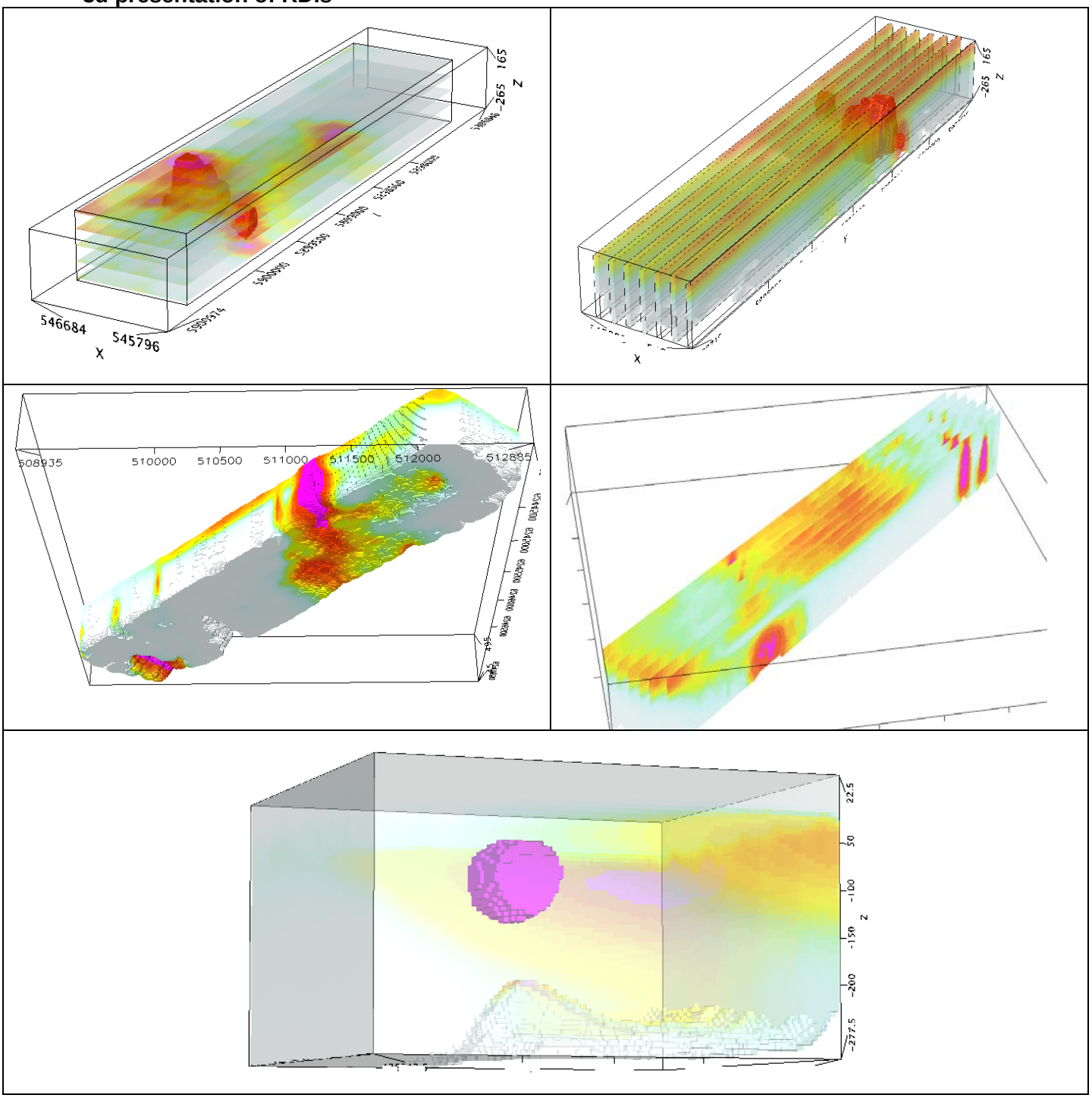
Figure F-11: RDI section for the real horizontal and slightly dipping conductive layers

FORMS OF RDI PRESENTATION

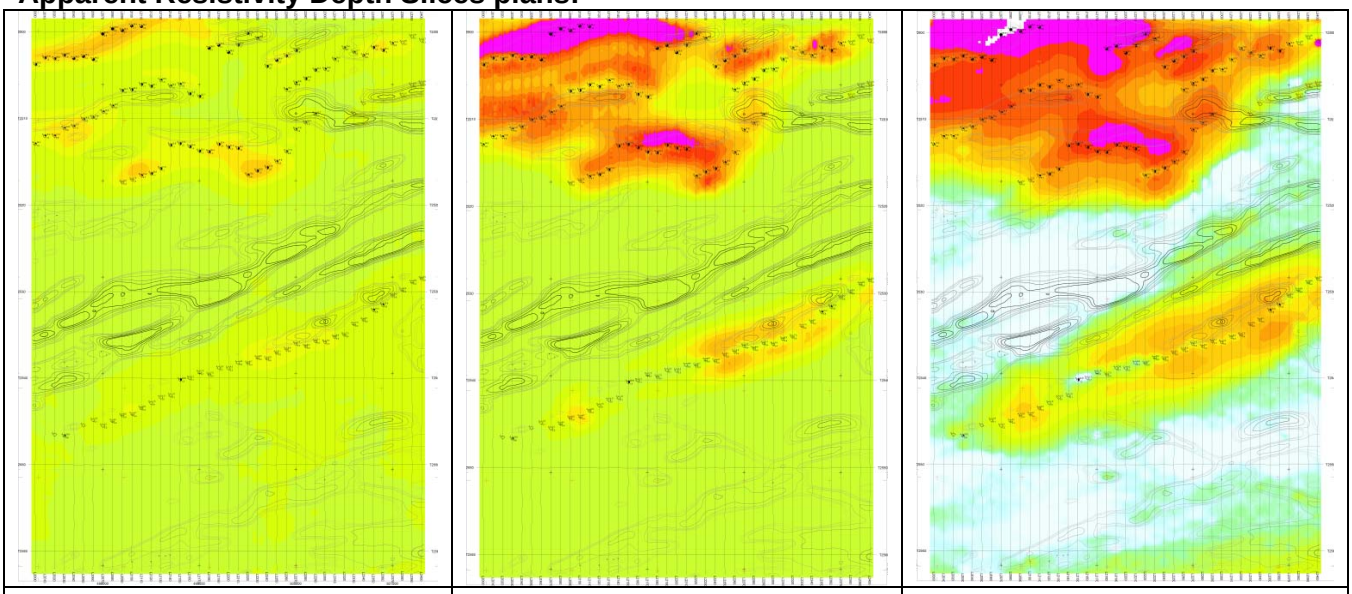
Presentation of series of lines



3d presentation of RDIs

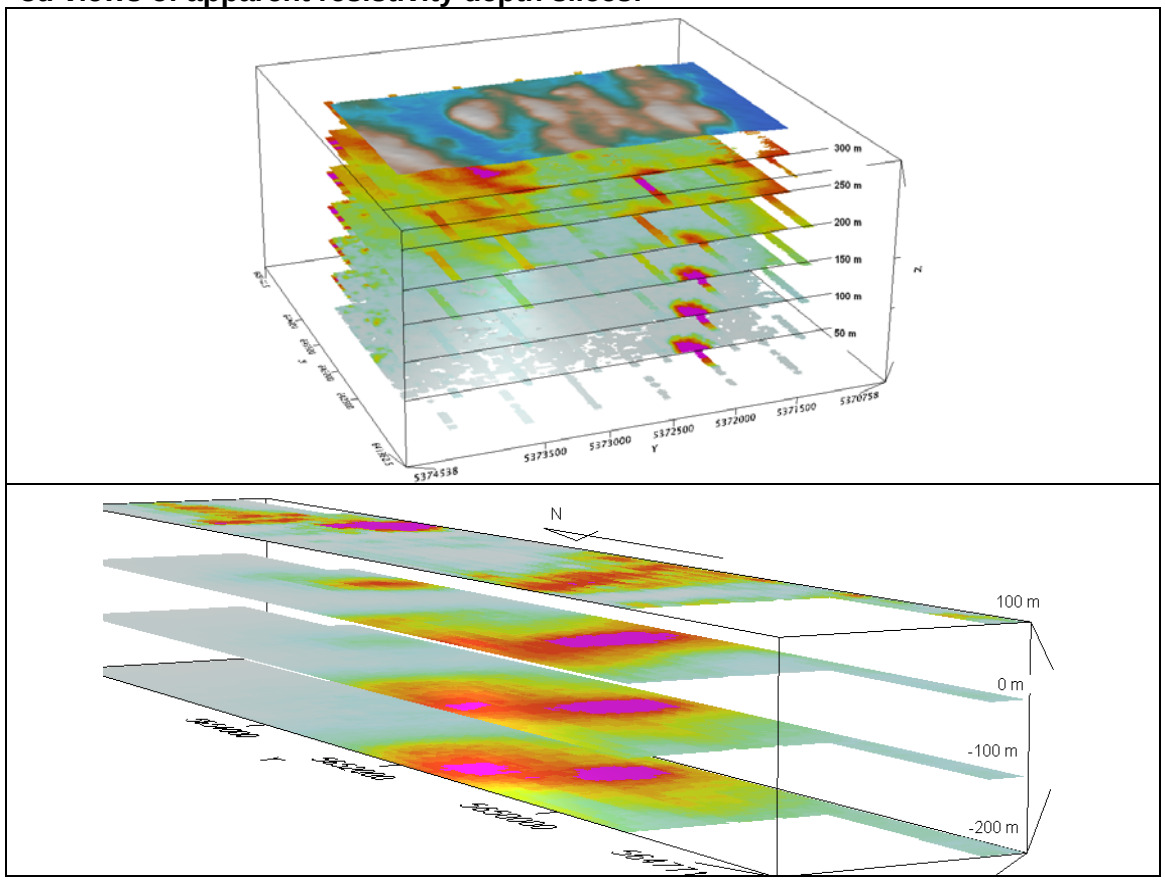


Apparent Resistivity Depth Slices plans:



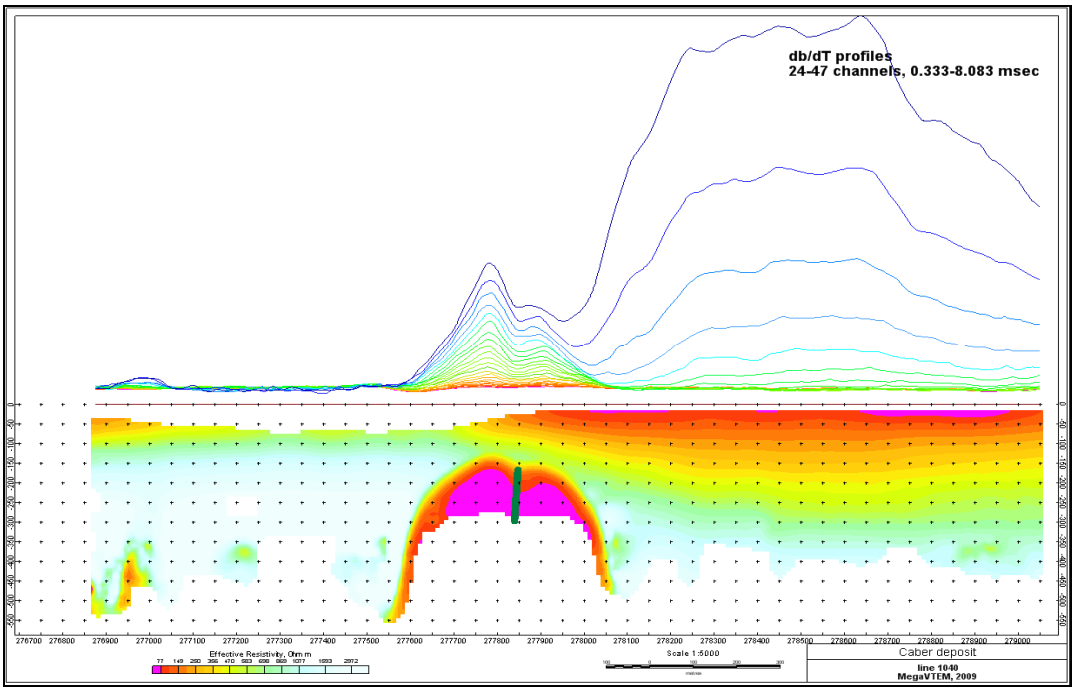
0 m (surface)	-100 m	-200 m

3d views of apparent resistivity depth slices:

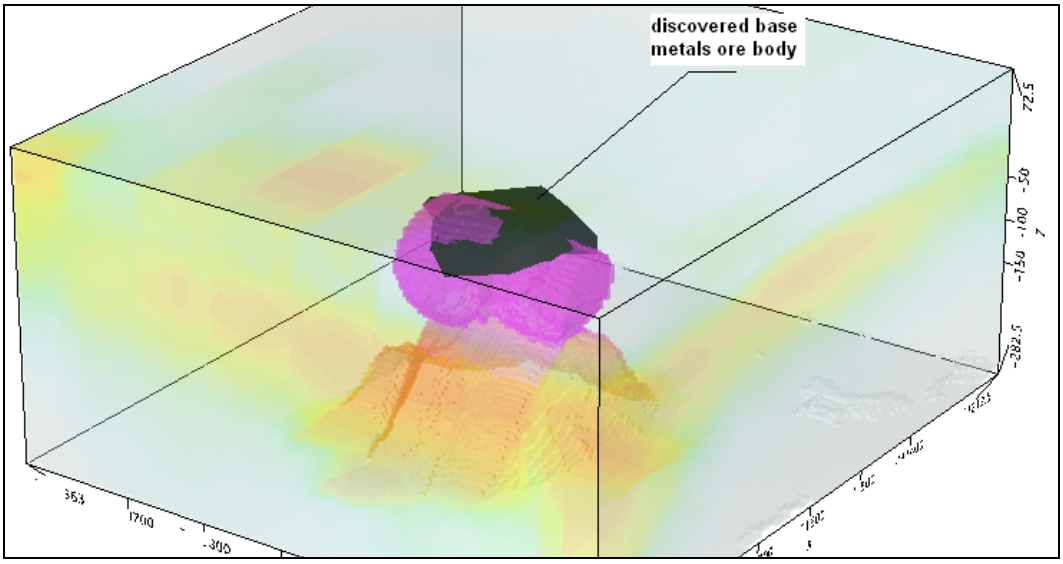


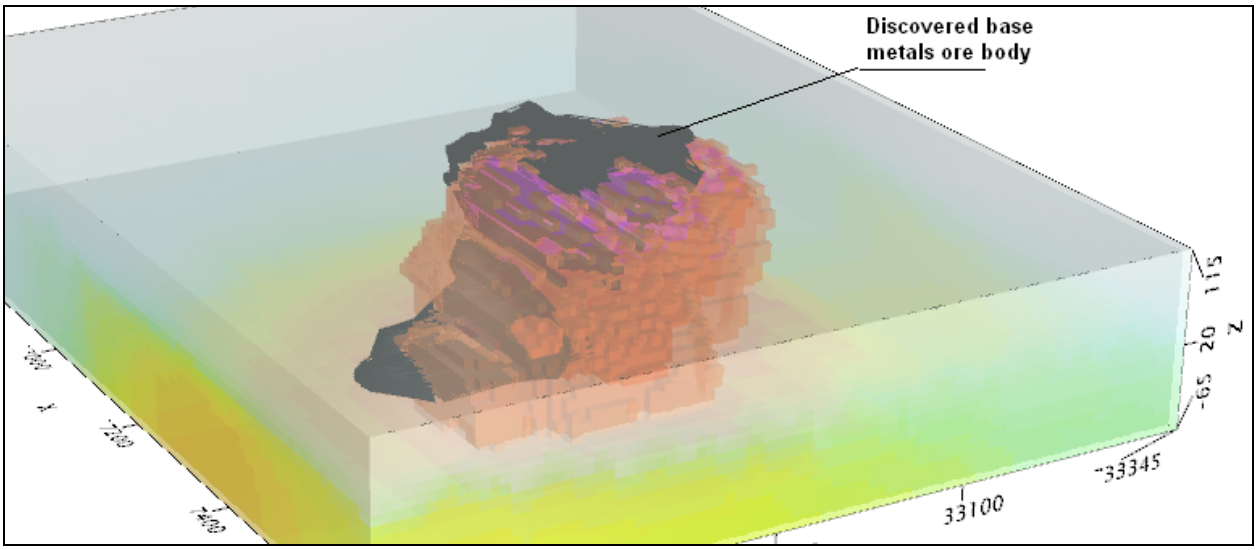
Real base metal targets in comparison with RDIs:

RDI section of the line over Caber deposit ("thin" subvertical plate target and conductive overburden).



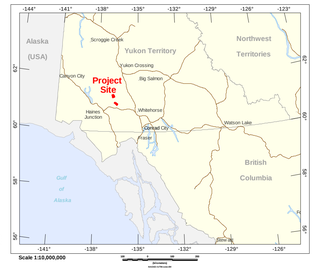
3d RDI voxels with base metals ore bodies (Middle East):





Alexander Prikhodko, PhD, P.Geo
Geotech Ltd.
April 2011

GEOTECH LTD.



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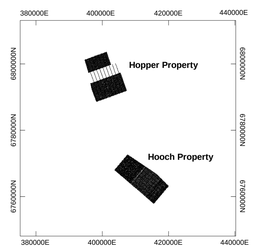

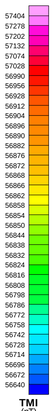

TMI Contour Intervals:

- 10 nT
- 50 nT
- 250 nT

TOPOGRAPHIC LEGEND:

- Roads
- Streams / Rivers
- Contours
- Lakes / Ponds
- Wetlands
- Mining Claims

Scale 1:20000

250 0 250 500 750 1000

(meters)

NAD83 / UTM zone 8N

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Bonaparte Resources Inc.
Hooch Property
Haines Junction, Yukon Territory

Geotech VTEM System

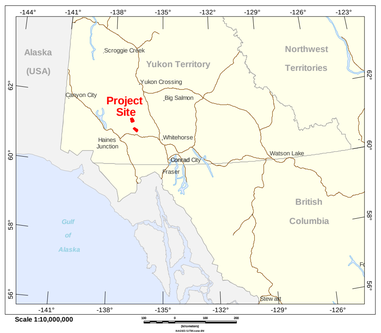
Total Magnetic Intensity (TMI)

Flown and processed by Geotech Ltd.
245 Industrial Parkway North,
Aurora, Ontario, Canada L4G 4C4
www.geotech.ca

January 2012

Geotech Project # 11354

GEOTECH LTD.



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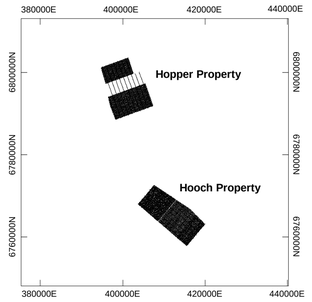

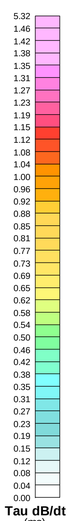

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250 0 250 500 750 1000

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Hopper Property
Haines Junction, Yukon Territory

Geotech VTEM System

dB/dt Calculated Time Constant (Tau) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

Flown and processed by Geotech Ltd.
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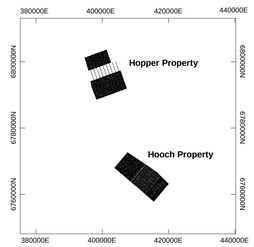

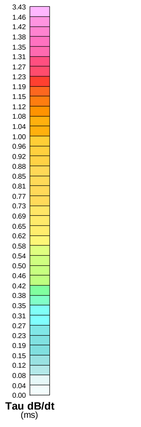

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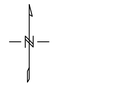

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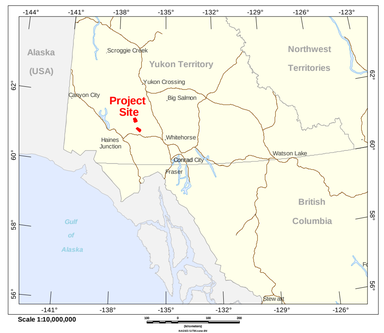
GEOTECH LTD.



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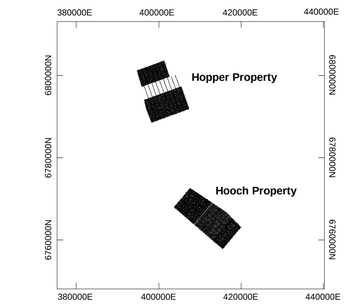

Profiles scale 1 mm = 0.02 (pV/A*m^4)

Linear between +/-0.05 (pV/A*m^4)
logarithmic above 0.05 (pV/A*m^4)

	0.220 ms
	0.253 ms
	0.290 ms
	0.333 ms
	0.383 ms
	0.440 ms
	0.505 ms
	0.580 ms
	0.667 ms
	0.766 ms
	0.880 ms
	1.010 ms
	1.161 ms
	1.333 ms
	1.531 ms
	1.760 ms
	2.021 ms
	2.323 ms
	2.667 ms
	3.063 ms
	3.521 ms
	4.042 ms
	4.641 ms
	5.333 ms
	6.125 ms
	7.036 ms

GEOLOGY LEGEND:

- Quartz monzonite/granite/aplite/pegmatite
- Mudstone/sandstone/conglomerate
- Marble
- Granodiorite/quartz monzonite/quartz diorite
- Bi-ms-qt-fp-schist/gt-quartzite/cl-bi-orthogneiss
- Silt/sand/gravel

TOPOGRAPHIC LEGEND:

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Scale 1:20000

250 0 250 500 750 1000

(meters)

NAD83 / UTM zone 8N

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Bonaparte Resources Inc.
Hopper Property
Haines Junction, Yukon Territory

Geotech VTEM System

VTEM dB/dt Z Component Profiles
Time Gate 0.220 - 7.036 ms
over Geology

Flown and processed by Geotech Ltd.
245 Industrial Parkway North,
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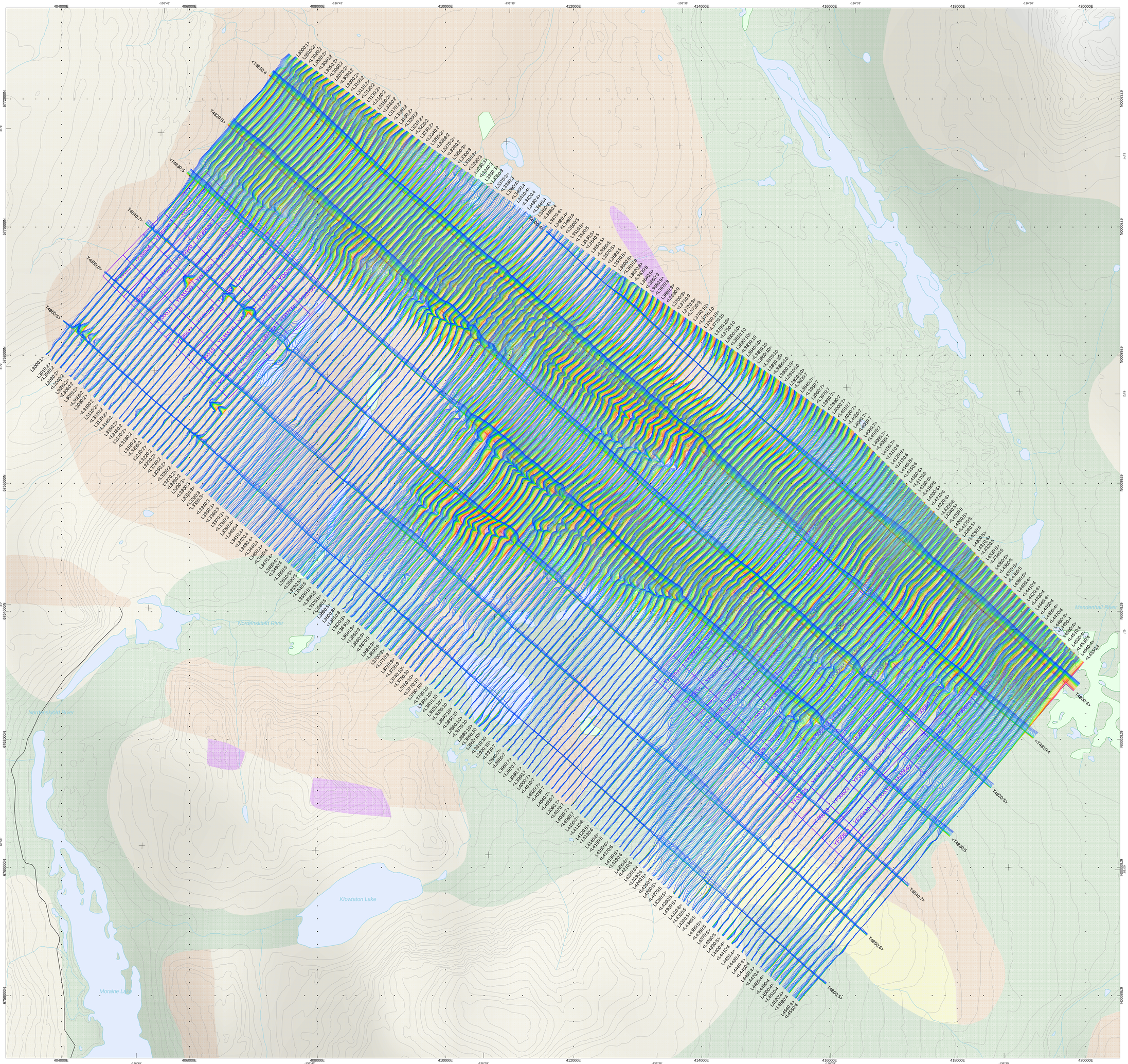
www.geotech.ca

January 2012

Geotech Project # 11354



GEOTECH LTD.

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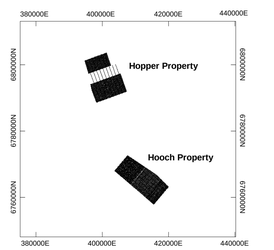

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N

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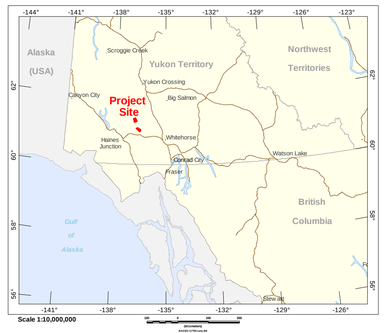

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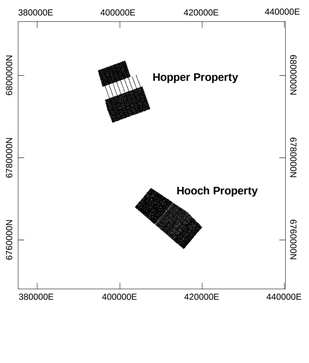

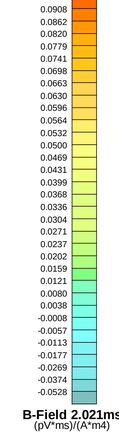

B-Field 2.021ms
(pV*ms)/(A*m4)

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Geotech VTEM System

VTEM B-Field Z Component
Channel 36, Time Gate 2.021 ms

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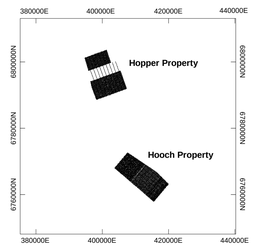
- Magnetic Sensor: Towed at a mean distance of 13 meters below the Helicopter

INSTRUMENTS

- Geotech Time Domain Electromagnetic System (VTEM)
- Concentric RxTx Geometry
- Transmitter Loop: Diameter 17.6 Meters,Base Frequency 30 Hz
- Dipole Moment: 253,016 nIA
- Transmitter Wave Form: Trapezoid, Pulse Width 3.40 ms.
- Geometrics High Sensitivity Cesium Magnetometer
- Mag Resolution: 0.02 nT at 10 samples/sec

MAP PROJECTION

- Datum: NAD83
- Projection: Universal Transverse Mercator
- Central Meridian: 135°W (Zone 8)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000mN/0m
- Major Axis: 6378137.000
- Eccentricity: 0.081819191
- NTS: 115H01, 115H02, 115H07, 115A15 & 115H16



B-Field 2.021ms
(pV*ms)/(A*m4)

TOPOGRAPHIC LEGEND:

- Roads
- Streams / Rivers
- Contours
- Lakes / Ponds
- Wetlands
- Mining Claims

Scale 1:20000

250 0 250 500 750 1000
(meters)
NAD83 / UTM zone 8N

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(www.geocomm.com)(www.geogratis.ca)(http://www.geomaticsyukon.ca)

Bonaparte Resources Inc.
Hooch Property
Haines Junction, Yukon Territory

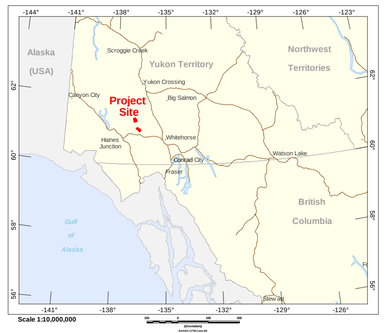
Geotech VTEM System
VTEM B-Field Z Component
Channel 36, Time Gate 2.021 ms

Flown and processed by Geotech Ltd.
245 Industrial Parkway North,
Aurora, Ontario, Canada L4G 4C4
www.geotech.ca

January 2012

Geotech Project # 11354

GEOTECH LTD.



SURVEY SPECIFICATIONS:

- Survey Date: November 22nd, 2011 to January 12th, 2012
- Survey Base: Haines Junction, Yukon Territory
- Aircraft: Aerospatiale A-Star 350 B3 (C-GTEQ)
- Nominal Survey Line Spacing: 100 Meters
- Nominal Survey Line Direction: N 70° E / N 250° E
- Nominal Tie Line Spacing: 1000 Meters
- Nominal Tie Line Direction: N 160° E / N 340° E
- Nominal Terrain Clearance: 76 Meters
- EM Loop: Towed at a mean distance of 35 meters below the Helicopter
- Magnetic Sensor: Towed at a mean distance of 13 meters below the Helicopter

INSTRUMENTS

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- Dipole Moment: 253,016 nIA
- Transmitter Wave Form: Trapezoid, Pulse Width 3.40 ms.
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- Mag Resolution: 0.02 nT at 10 samples/sec

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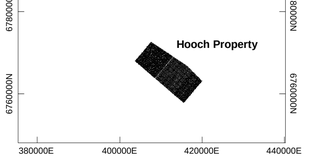

Profiles scale 1 mm = 0.01 (pV*ms)/(A*m^4)

Linear between +/-0.05 (pV*ms)/(A*m^4)
logarithmic above 0.05 (pV*ms)/(A*m^4)

0.220 ms (B-field)	57562
0.253 ms (B-field)	57386
0.290 ms (B-field)	57292
0.333 ms (B-field)	57230
0.383 ms (B-field)	57178
0.440 ms (B-field)	57124
0.505 ms (B-field)	57092
0.580 ms (B-field)	57072
0.667 ms (B-field)	57058
0.766 ms (B-field)	57046
0.880 ms (B-field)	57038
1.010 ms (B-field)	57028
1.161 ms (B-field)	57020
1.333 ms (B-field)	57012
1.531 ms (B-field)	57006
1.760 ms (B-field)	57002
2.021 ms (B-field)	56996
2.323 ms (B-field)	56992
2.667 ms (B-field)	56988
3.063 ms (B-field)	56984
3.521 ms (B-field)	56980
4.042 ms (B-field)	56976
4.641 ms (B-field)	56974
5.333 ms (B-field)	56970
6.125 ms (B-field)	56966
7.036 ms (B-field)	56964
	56960
	56956
	56952
	56948
	56942
	56934
	56926
	56916
	56902
	56868
	56830
	56772

TMI
(nT)

TOPOGRAPHIC LEGEND:

- Roads
- Power Line
- Streams / Rivers
- Contours
- Lakes / Ponds
- Wetlands
- Mining Claims

Scale 1:20000

250 0 250 500 750 1000
(meters)
NAD83 / UTM zone 8N

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Hopper Property
Haines Junction, Yukon Territory

Geotech VTEM System

VTEM B-Field Z Component Profiles
Time Gate 0.220 - 7.036 ms
over Total Magnetic Intensity

Flown and processed by Geotech Ltd.
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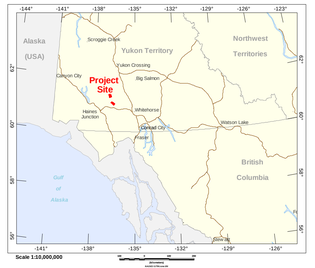
www.geotech.ca

January 2012

Geotech Project # 11354

GEOTECH LTD.



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- Nominal Tie Line Spacing: 1000 Meters
- Nominal Tie Line Direction: N 130° E / N 310° E
- Nominal Terrain Clearance: 76 Meters
- EM Loop: Towed at a mean distance of 35 meters below the Helicopter
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INSTRUMENTS

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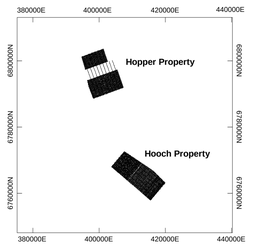

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0.440 ms (B-field)	57028
0.505 ms (B-field)	56990
0.580 ms (B-field)	56956
0.667 ms (B-field)	56928
0.766 ms (B-field)	56912
0.880 ms (B-field)	56904
1.010 ms (B-field)	56896
1.161 ms (B-field)	56890
1.333 ms (B-field)	56882
1.531 ms (B-field)	56876
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4.641 ms (B-field)	56844
5.333 ms (B-field)	56838
6.125 ms (B-field)	56832
7.036 ms (B-field)	56824
	56816
	56808
	56798
	56786
	56772
	56758
	56742
	56728
	56714
	56696
	56672
	56640

TMI
(nT)

TOPOGRAPHIC LEGEND:

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250 0 250 500 750 1000
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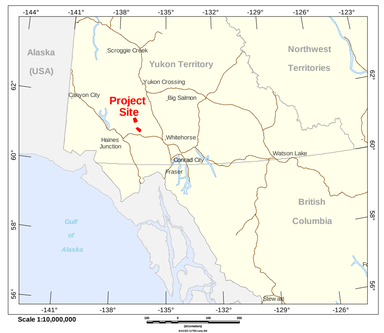
GEOTECH LTD.



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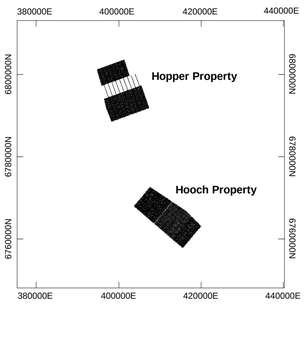

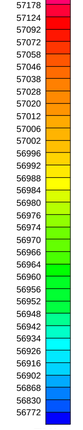

TMI Contour Intervals:

- 10 nT
- 50 nT
- 250 nT

TOPOGRAPHIC LEGEND:

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- Contours
- Lakes / Ponds
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Scale 1:20000

250 0 250 500 750 1000

(meters)

NAD83 / UTM zone 8N

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Bonaparte Resources Inc.
Hopper Property
Haines Junction, Yukon Territory

Geotech VTEM System

Total Magnetic Intensity (TMI)

Flown and processed by Geotech Ltd.
245 Industrial Parkway North,
Aurora, Ontario, Canada L4G 4C4
www.geotech.ca

January 2012

Geotech Project # 11354

096042

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 – 510 West Hastings Street
Vancouver, B.C. V6B 1L8
Telephone: 604-688-2568 Fax: 604-688-2578

AFFIDAVIT

I, Joan Mariacher, of Vancouver, B.C. make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Hooch 1-30 mineral claims on claim sheet 115H/12 is accurate.

Joan Mariacher

Sworn before me at Vancouver, B.C.

this 15th day of February 2012.

Barrister & Solicitor

IAN J. TALBOT
Barrister & Solicitor
281 East 5th Street
North Vancouver
British Columbia
Canada V7L 1L9

096042

Statement of Expenditures
Hooch 1-30 Mineral Claims
February 14, 2012

Contract VTEM Survey

Geotech Ltd.	$58,117.29