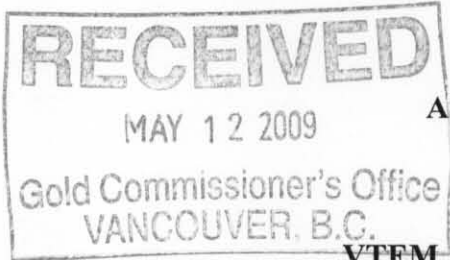


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ASSESSMENT REPORT

**BC Geological Survey
Assessment Report
30802**

describing

VTEM AND MAGNETIC SURVEYS

at the

GK PROPERTY

GK 1 509147
GK 2 509206
GK 3 509207
GK 4 513799

NTS 104G/14W
Latitude 57°54'N; Longitude 131°25'W

in

Northern British Columbia

prepared by

Archer, Cathro & Associates (1981) Limited

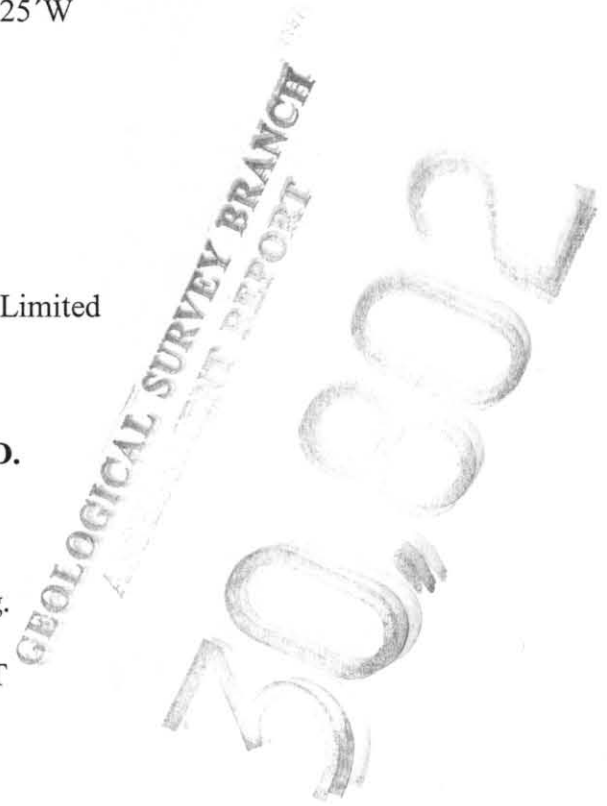
for

STRATEGIC METALS LTD.

by

W. A. Wengzynowski, P. Eng.
and
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March 2009



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INTRODUCTION

The GK property hosts a copper-gold prospect located in northern British Columbia. It comprises four contiguous mineral tenures owned by Strategic Metal Ltd.

This report describes helicopter-borne magnetic and versatile time domain electromagnetic (VTEM) geophysical surveys conducted on August 1 and 2, 2008 by Geotech Ltd. on behalf of Strategic Metals. The author has compiled data from these surveys together with previously obtained geochemical and geological data collected by Strategic Metals and other operators. Their Statements of Qualifications appear in Appendix I while a Statement of Costs is in Appendix II.

PROPERTY LOCATION, MINERAL TENURE DATA AND ACCESS

The GK property lies approximately 15 km west of the community of Telegraph Creek. It is centred at latitude 57°54' north and longitude 137°25' west on NTS map sheet 104G/14W (Figure 1).

The property is comprised of four contiguous mineral tenures that are registered in the name of Archer, Cathro & Associates (1981) Limited, which holds them in trust for Strategic Metals. Details concerning individual tenures are tabulated below while their locations are shown on Figure 2.

Table I - Mineral Tenure Information

<u>Tenure Name</u>	<u>Tenure Number</u>	<u>Expiry Date*</u>
GK 1	509147	March 17, 2011
GK 2	509206	March 17, 2011
GK 3	509207	March 17, 2011
GK 4	513799	March 17, 2011

* Expiry date includes 2008 work that has been filed for assessment credit but not yet accepted.

Access to the property is normally by helicopter from a gravel airstrip at Telegraph Creek. Telegraph Creek is located 150 km from Dease Lake via a narrow, steep, gravel road that is maintained by the government. A government maintained, four wheel drive road extends westerly from Telegraph Creek along the north side of the Stikine River. The GK property lies five kilometres up the Winter Creek Valley from that road.

The 2008 helicopter-borne geophysical surveys were flown from Dease Lake with intraday refuelling at the Telegraph Creek airstrip.

HISTORY AND PREVIOUS WORK

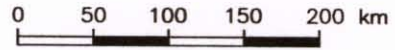
In 1917, copper-gold-silver mineralization was discovered on the south facing slope of the Winter Creek Valley (Figure 2). The Winter Creek Showing is hosted in altered volcanic rocks

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FIGURE 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY LOCATION GK PROPERTY

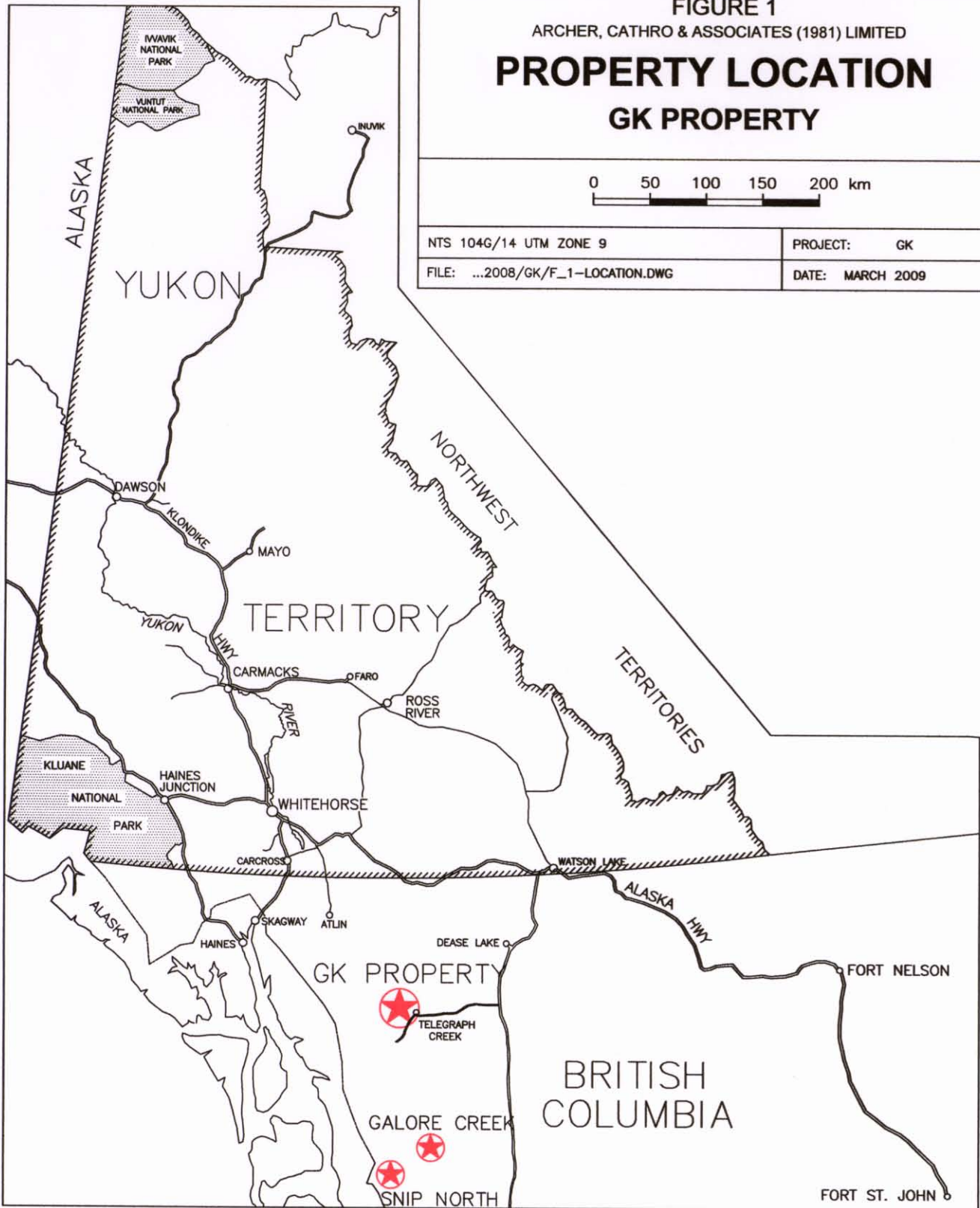


NTS 104G/14 UTM ZONE 9

PROJECT: GK

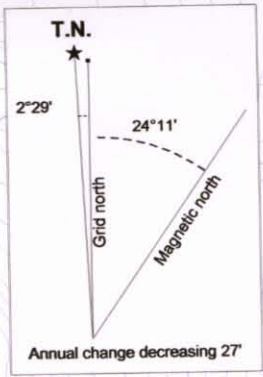
FILE: ...2008/GK/F_1-LOCATION.DWG

DATE: MARCH 2009



356000 mE

357000 mE



GK 4
513799

GK 3
509207

GRASS MOUNTAIN

6000'

5500'

GK 2
509206

4500'

GK 1
509147



WINTER CREEK SHOWING

6422000 mN

6421000 mN

PROPERTY BOUNDARY

WINTER CREEK

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FIGURE 2
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
**MINERAL TENURE
LOCATIONS**
GK PROPERTY

0 250 500 750 1000 m

UTM ZONE 9, NAD 83, 104G 14

FILE: ...2008/GK/F_2-Cu.WOR

DATE: MARCH 2009

and comprises lenticular replacement mineralization forming lenses of pyrrhotite and chalcopyrite mixed with quartz and calcite (Mandy, 1930). Claims covering the showing were staked and abandoned intermittently from 1929 to 1973, but no significant work was reported.

In 1974, Ecstall Mining Ltd. staked the Kit 1 to 26 claims based on anomalous results from a line of nine fine talus samples that it had collected near the Winter Creek Showing. The subsequent work program consisted of geological mapping and geochemical sampling. An additional 80 samples of fine talus material were collected from two more contour lines spaced about 350 m apart. The lower of these lines was positioned topographically below the showing and the upper line above it. Both lines returned many moderately to strongly anomalous copper and molybdenum values (Pearse, 1974).

In 1976, Texasgulf Canada Ltd. performed 37 m of blast trenching near some of the anomalous fine talus sample sites. The trenching entailed drilling a series of 75 cm deep holes with an Atlas Copco drill, charging the holes with 70% Forcite and setting the blasts. Contiguous chip samples taken from the trenches returned generally disappointing results (Donnelly and Peatfield, 1976).

In 1983, Orofino Resources Limited restaked the property and continued exploration. It focused on mapping and chip sampling in an area west of the Texasgulf trenches, where an extensive gossanous tuff is cut by two lamprophyre dykes. Chip sampling yielded low to moderate results; however, three silt samples collected upstream from the gossan returned highly anomalous values that were not explained (Graf, 1983).

In 1988 Teck Corporation performed geological mapping, prospecting and silt sampling in the vicinity of the historical showings plus additional assessment west and north of Grass Mountain. Results from rock sampling identified three areas of anomalous copper and gold mineralization which coincide with the western limit of the current claim block. The largest of these anomalous areas is described to be approximately 900 m long and related to strong carbonate alteration. Talus samples collected from the eastern end of the anomalous area reportedly yielded up to 6.9% Cu, 48 g/t and Ag (Betmanis, 1989). Material from a similarly described zone 1 km to the northwest returned up to 1.0% Cu, 5 g/t Au and 7 g/t Ag. No additional follow-up work was done.

In 2005, Strategic Metal staked the GK 1 to 4 mineral claims. Work that year was limited to a one day prospecting and silt sampling program. Three drainages were sampled and returned promising results.

GEOMORPHOLOGY

The GK property is approximately centred on Grass Mountain. Two main ridges extend outward from the peak to the east and north. The local geomorphological setting is alpine to sub-alpine with elevations ranging from 1220 to 1950 m. Outcrop on the property is mostly found above 1380 m.

The upper slopes feature cliffs, steep unstable talus and deeply incised gullies. Lower elevations are characterized by moderately steep slopes with thick brushy vegetation composed of spruce,

alpine fir, balsam and willow. There is abundant evidence of recent glaciation including cirques and moraines. Ridge tops are windswept and are sparsely vegetated with grass and moss. Soil development is immature, especially at higher elevations.

There are four distinct drainages on the property, each hosting multiple tributary creeks. All of the drainages flow into either Taltan River or Winter Creek, and from there into the Stikine River and ultimately into the Pacific Ocean.

REGIONAL GEOLOGY

The GK property is located on the eastern edge of the Coast Mountain Range in the Stikine Terrane (Stikina). Stikinia is an exotic terrane accreted to the ancestral North American continent in the Early Mesozoic. Rocks making up this terrane are almost exclusively of intra-oceanic island arc affinity (Anderson, 1993). The region was mapped at 1:250,000 scale by the Geological Survey of Canada (GSC) in 1971 (Souther, 1972).

The basement of Stikinia consists of Permian, Mississippian and Devonian aged calc-alkaline bimodal flows and volcanoclastics, interbedded carbonate, minor shale and chert. Unconformably overlying this package is a succession of Upper Triassic sedimentary and volcanic rocks belonging to the Stuhini Group (uTrS) and Jurassic sub-aerial volcanic and sedimentary rocks belonging to the Hazelton Group. In the vicinity of the GK property, geology primarily comprises several subunits of uTrS (Figure 3).

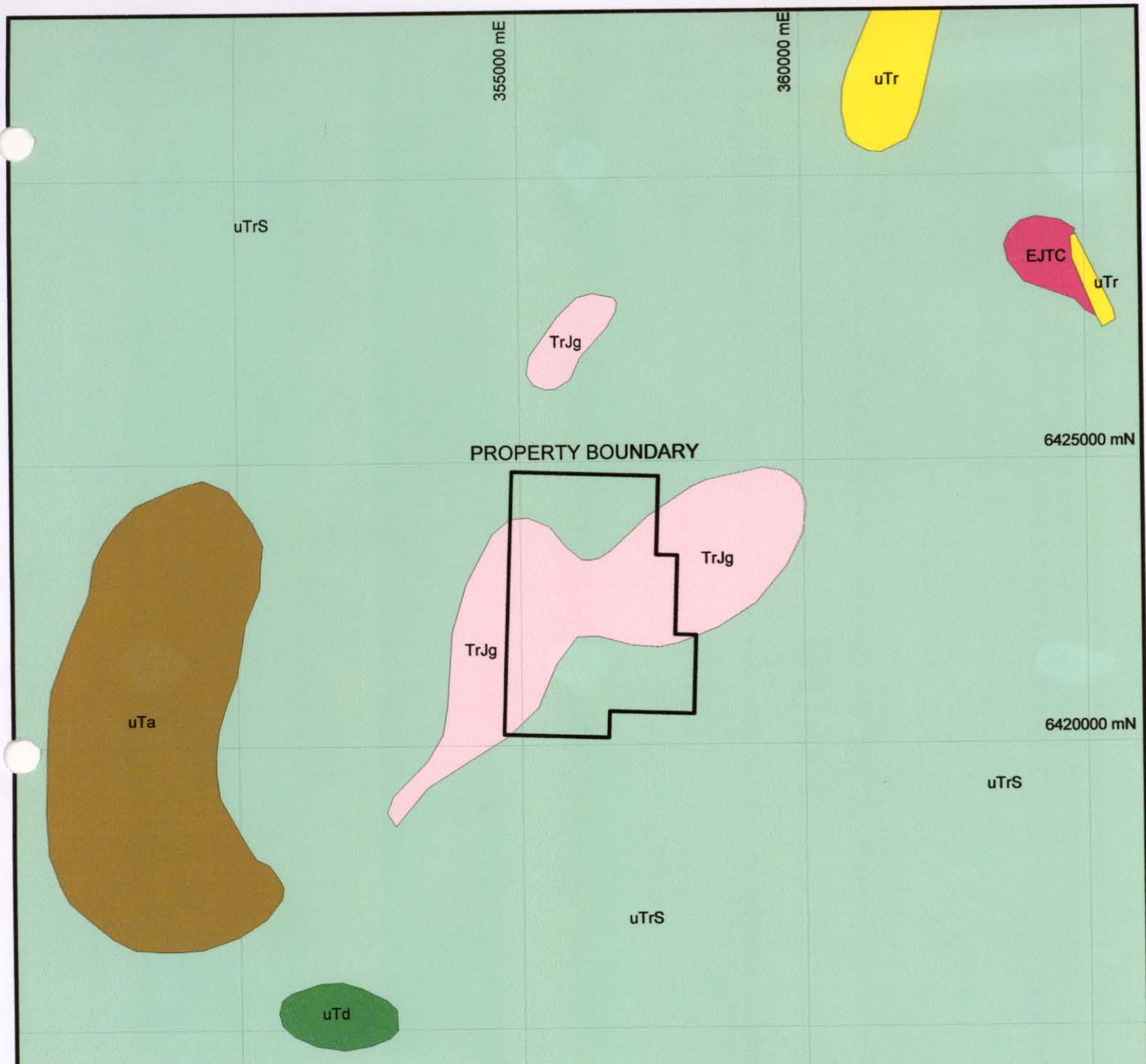
More than seven plutonic episodes have affected Stikinia. They occurred in Devonian, Middle to Late Triassic, Late Triassic to Early Jurassic, Late Early Jurassic, Middle Jurassic, Jurassic to Cretaceous and Paleogene. There are two main intrusive suites in the vicinity of the GK property. The first is an Early Jurassic stock belonging to the Texas Creek Plutonic Suite (EJTC). This stock lies ten kilometres northeast of the GK property. The second suite comprises undifferentiated and unnamed Triassic to Jurassic felsic intrusions. It includes a small plug about two kilometres north of the property and a northeast elongate, double lobed stock that bisects the property.

There are no major regional faults in the vicinity of the property.

PROPERTY GEOLOGY

No property-scale mapping has been completed by Strategic Metals. The following geological descriptions are based on detailed mapping done by Pearse (1974), Donnelly and Peatfield (1976) and Graf (1983). The mapped area includes most of tenure GK 1 and the easternmost part of GK 2 (Figure 4).

The country rock on the property comprises uTrS rocks. This unit is composed of volcanic and sedimentary rocks including augite porphyry, feldspar porphyry, rhyolite-dacite tuff, minor argillite, greywacke, limestone, calcareous shale and siltstone. Unit uTrS underlies about 60% of the property and nearly all of the mapped area. Two subunits of uTrS, which have been differentiated on the property (uTrSsv and uTrSvt) are described in the following paragraphs.



EARLY JURASSIC

EJTC Texas Creek Plutonic Suite-
fine- to medium-grained porphyritic intrusive

TRIASSIC TO JURASSIC

TrJg Unnamed and undivided intrusive rocks-
dominantly granodiorite, quartz diorite, diorite and leucogranite

UPPER TRIASSIC

uTrS Stuhini Group-
undifferentiated volcanic and sedimentary rocks

uTd Stuhini Group-
Dacite: massive, aphyritic flows and felsic fragmental unit

uTr Stuhini Group-
Rhyolite flows and dykes: white to blue-green, massive to bedded

uTa Stuhini Group-
Andesite: plagioclase-phyric flows, massive to brecciated, maroon to green

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FIGURE 3
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

REGIONAL GEOLOGY

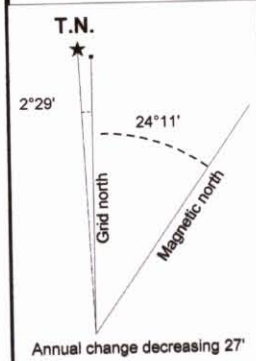
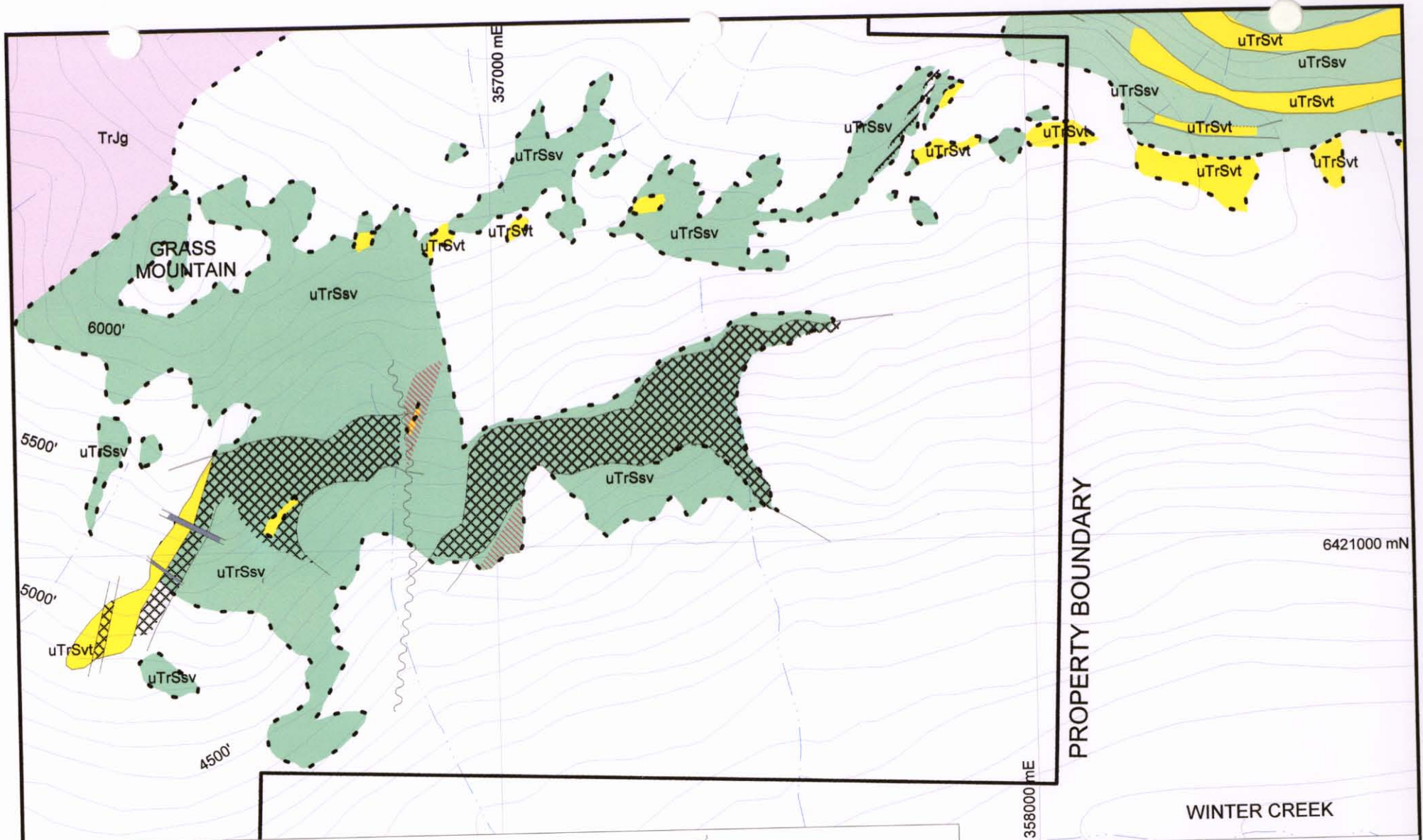
GK PROPERTY

0 1000 2000 4000 5000 m

UTM ZONE 9, NAD 83, 104G/14W

FILE: ...2008/GK/F_3-REG.WOR

DATE: MARCH 2009



- UNDATED**
- Lamprophyre dyke
- TRIASSIC TO JURASSIC**
- TrJg Unnamed intrusive suite-monzonite predominantly
- UPPER TRIASSIC STUHINI GROUP**
- uTrSvt Rhyolite-dacite tuff
 - uTrSsv Undifferentiated augite and feldspar porphyry

- Fault
 - Extent of mapping
 - Shear zone
 - Gossan
- * After Pearse (1974), Donnelly and Peatfield (1976) and Graf (1983). See text for unit descriptions.

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FIGURE 4
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

PROPERTY GEOLOGY

GK PROPERTY

0 100 200 300 400 500 m
UTM ZONE 7, NAD 83, 116B 08

FILE: ...2008/GK/F_4-PROP.WOR DATE: MARCH 2009

Subunit uTrSsv comprises augite and feldspar porphyries. Both are medium to dark grey, porphyritic andesites with varying textures. They are distinguished based on dominant phenocryst assemblages. The augite porphyry exhibits crowded porphyry textures with centimetre euhedral augite, minor euhedral plagioclase and rare blebs of pyrite in aphanitic matrix. The feldspar porphyry features varying concentrations of fine to medium grained euhedral plagioclase phenocrysts in an aphanitic matrix. Bedding within uTrSsv generally strikes 050 to 090° and dips 45 to 75° to the south.

The second subunit is composed of rhyolite-dacite tuff (uTrSvt). Within the mapped area, it is represented by two narrow horizons that appear intermittently within uTrSsv. Where exposed, one uTrSvt horizon strikes easterly and dips vertically, while the other strikes northeasterly and dips steeply. In the northeast corner of the map area (just east of the property), uTrSvt is more abundant and forms several laterally continuous exposures that are interlayered with uTrSsv. This sequence appears to have been folded around a north trending fold axis that plunges 20 to 40° toward the south.

Small associated faults with brecciation and slickensides are common throughout the entire uTrS sequence.

The uTrS sequence has been intruded by an elongate northeast trending TrJg stock. TrJg can include granodiorite, quartz diorite, leucogranite and migmatite; but locally, it is described as a fine grained, equigranular monzonite with 10% quartz, 10 to 15% hornblende and 75 to 90% potassium feldspar and plagioclase. The monzonite is fresh in appearance, except for minor bleaching on weathered surfaces. The mapped area includes only a small part of the TrJg stock, which outcrops atop Grass Mountain. The TrJg-uTrS contact is abrupt, showing little contact metamorphism.

Two sub-parallel, undated, fine grained lamprophyre dykes cut uTrSvt and uTrSsv in the western part of the mapped area. These dykes are between two and five metres wide, trend southeast and have vertical dips.

Alteration primarily occurs within uTrS in areas that have been heavily influenced by faults and shears or intruded by lamprophyre dykes. Alteration related to faults and shears typically exhibit chloritization and serpentinization with minor epidote and gypsum. Serpentine development occurs solely on sheared surfaces. Alteration adjacent to lamprophyre dykes consists of weak to moderate quartz-carbonate alteration in narrow envelopes.

A 1500 by 200 m, west trending area of extensive gossan approximately coincides with mapped alteration. The gossanous rocks exhibit intensely oxidized disseminated pyrite and minor boxwork limonite. Small felsic stringers of unknown affinity penetrate fractures within the gossan. These types of stringers have not been reported in fresh uTrS.

MINERALIZATION AND FINE TALUS GEOCHEMISTRY

Prospecting and fine talus geochemical sampling performed in 1974, 1976 and 1983 have identified three occurrences within the Winter Creek Showing (WC 1, WC 2 and WC 3). These

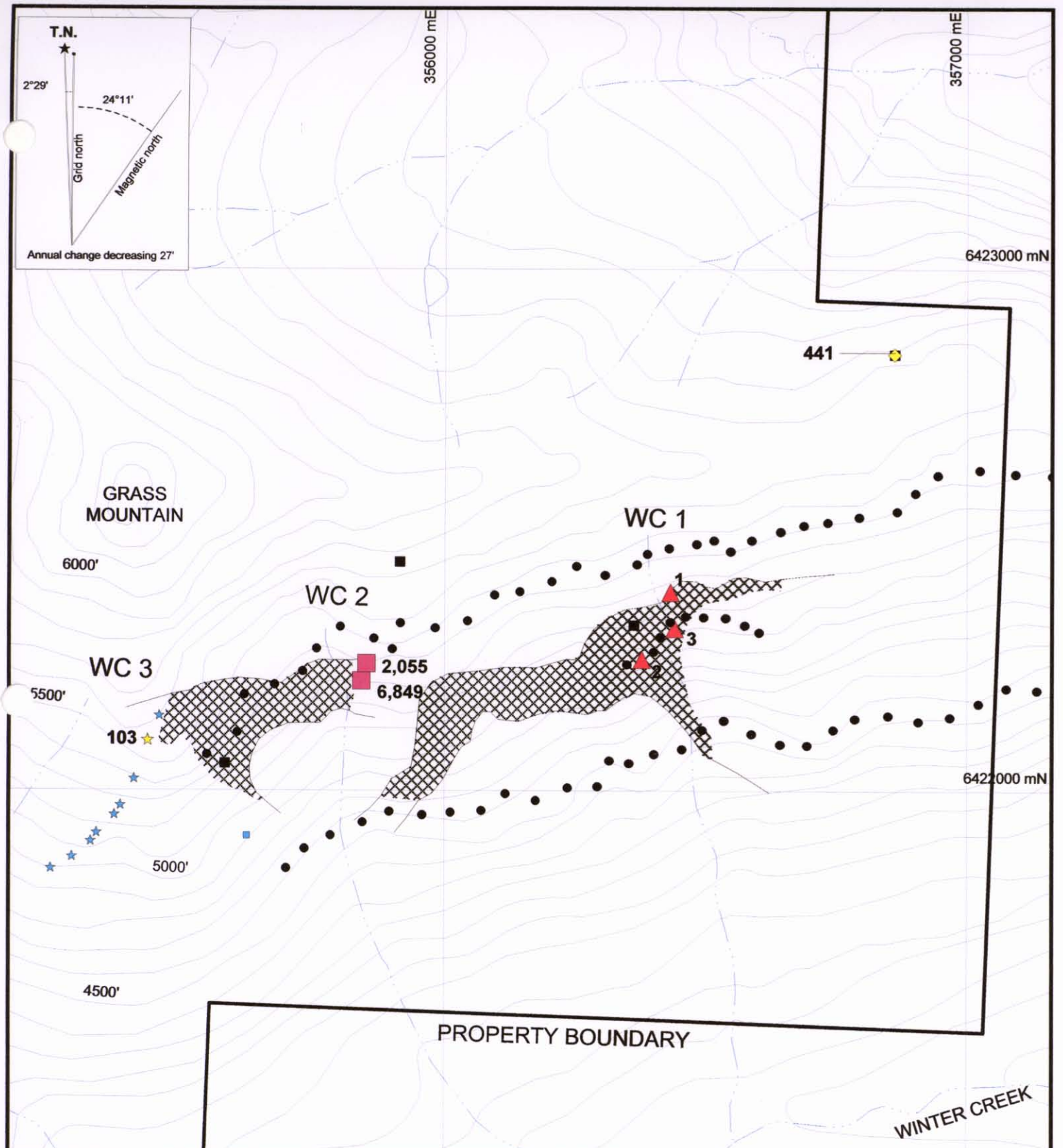
occurrences lie within an approximately 1.75 km long area. Mineralization is structurally controlled and occurs within uTrS. Typical sulphide assemblage is pyrite-chalcopyrite-pyrrhotite with secondary malachite and limonite. All analyses from these programs were done prior to the advent of multi-element techniques and the analyzed elements varied from program to program. Sampling and Analytical Procedures are described in Appendix III. Figures 5, 6, 7 and 8 illustrate thematic data for gold, copper, silver and molybdenum from rock and fine talus samples, respectively. Each of the three occurrences is described in detail below.

WC 1 is the easternmost occurrence and is located at approximately 1550 m elevation. It is hosted in altered uTrSsv and consists of lenticular replacement-style mineralization with massive sulphide lenses of pyrrhotite and chalcopyrite intermixed with quartz-calcite veins. Mineralized zones strike 040°, dip 80°W and reach a maximum width of 1.21 m. A 0.90 m sample of massive pyrrhotite with interstitial chalcopyrite reportedly yielded 9.7% copper, 10.97 g/t gold and 72 g/t silver (Mandy, 1930). The footwall hosts a 0.15 m wide brecciated calcareous gangue. In 1976, three blast trenches tested this occurrence. The first two trenches cut moderately to strongly disseminated pyrite with rare chalcopyrite, samples from which yielded weakly anomalous gold values. The third trench exposed the same type of material plus a 0.3 m wide by 2 m long massive sulphide lens containing chalcopyrite, pyrite and pyrrhotite. Assay results from this trench were more encouraging, although still sub-economic (Donnelly and Peatfield, 1976). Assay data from all three trenches is summarized in the following table.

Table II - Blast Trench Data

Trench	Marker (m to NE)	Width (m)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)
TR-76-1	3	3.0	0.02	0.686	0.69	30
	6	3.0	0.06	0.686	1.03	18
	9	3.0	0.03	0.650	0.69	18
	12	3.0	0.04	0.650	0.69	30
TR-76-2	3	3.0	0.03	0.650	0.69	18
	6	3.0	0.02	0.686	0.69	18
TR-76-2A	3	3.0	0.03	0.650	0.69	18
	6	3.0	0.02	0.686	0.69	30
TR-76-3	0	0.5	0.55	0.137	2.74	30
	2	0.5	0.21	0.103	4.11	30
	4	0.5	0.37	0.343	1.03	36
	5	0.5	3.05	2.060	21.26	36
	6	0.5	1.25	1.030	9.60	18
	8	0.5	0.24	0.103	0.06	18
	10	0.5	0.17	0.240	0.06	18
Perpendicular branch at 6 m marker		3.0	0.08	0.650	4.11	30

Fine talus sampling near WC 1 returned only weak to moderate results near the trenches but samples taken about 200 m to the east yielded strongly anomalous values. Two samples taken about 50 m apart returned 2700 ppm copper with 25 ppm molybdenum and 1700 ppm copper with 27 ppm molybdenum (these samples were not analyzed for gold or silver). Samples taken



1990 Gold (ppb)

◆ ≥100 <1000

1983 Gold (ppb)

★ ≥100 <1000

★ ≥0 <100

1974 Gold (ppb)

■ ≥1,000

■ Value not reported

● 1974 fine talus sample location, gold value not reported

▲ 1976 trench area, see Table II in text for rock sample values

▨ Gossan

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FIGURE 5
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**GOLD ROCK
GEOCHEMISTRY
GK PROPERTY**

0 100 200 300 400 500 m

UTM ZONE 9, NAD 83, 104G 14

FILE: ...2008/GK/F_Au_rocks.WOR

DATE: MARCH 2009

1974 Rocks (ppm)

- ≥5,000
- ≥1,000 <5,000
- ≥500 <1,000
- ≥200 <500
- ≥0 <200

1974 Talus Fines (ppm)

- ≥1,000
- ≥500 <1,000
- ≥200 <500
- ≥0 <200

1990 Rocks (ppm)

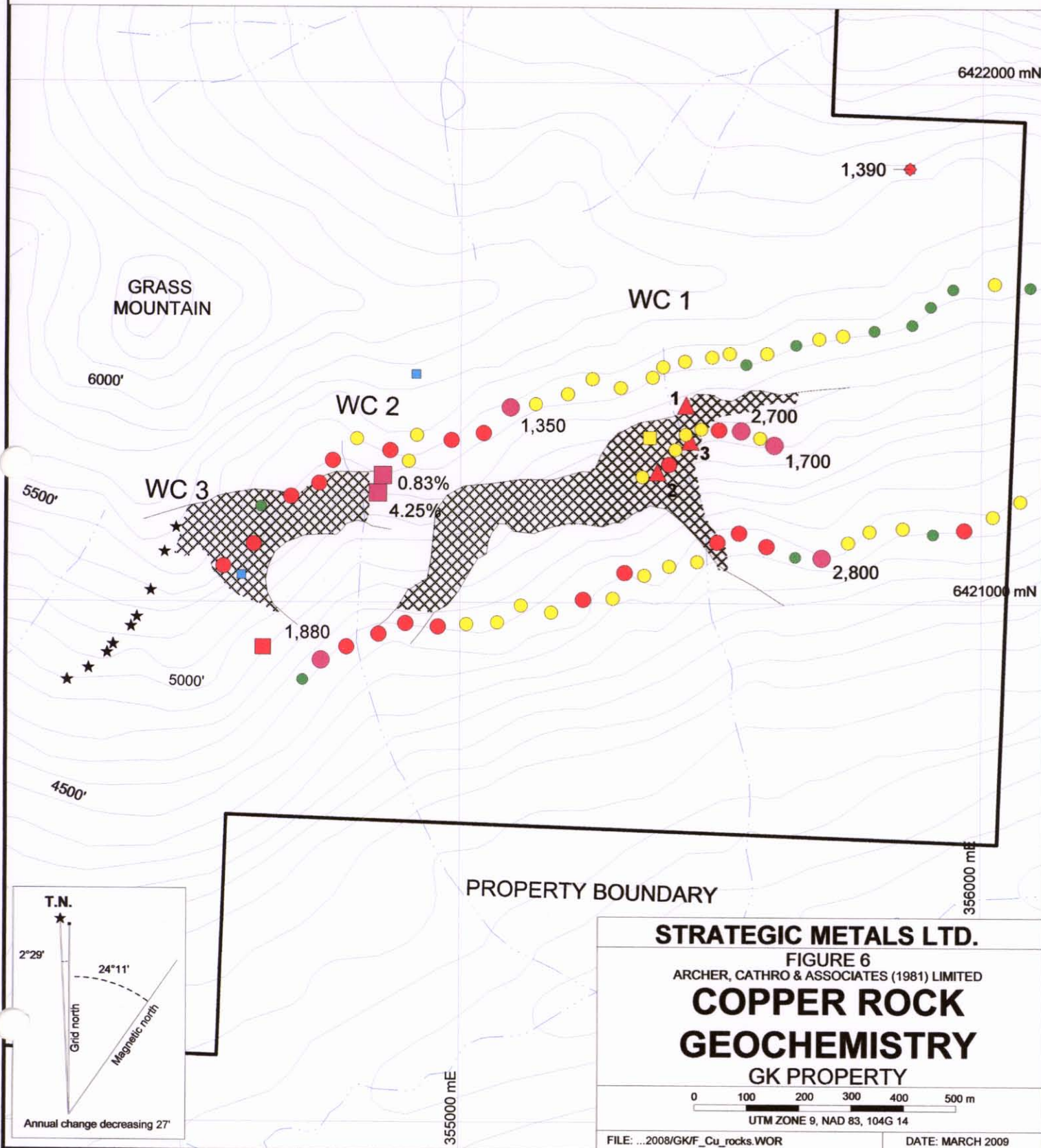
- ◆ ≥1,000 <5,000

1983 Rocks (ppm)

- ★ Value not reported

▲ 1976 trench area, see Table II in text for rock sample values

⊗ Gossan



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FIGURE 6
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**COPPER ROCK
GEOCHEMISTRY**

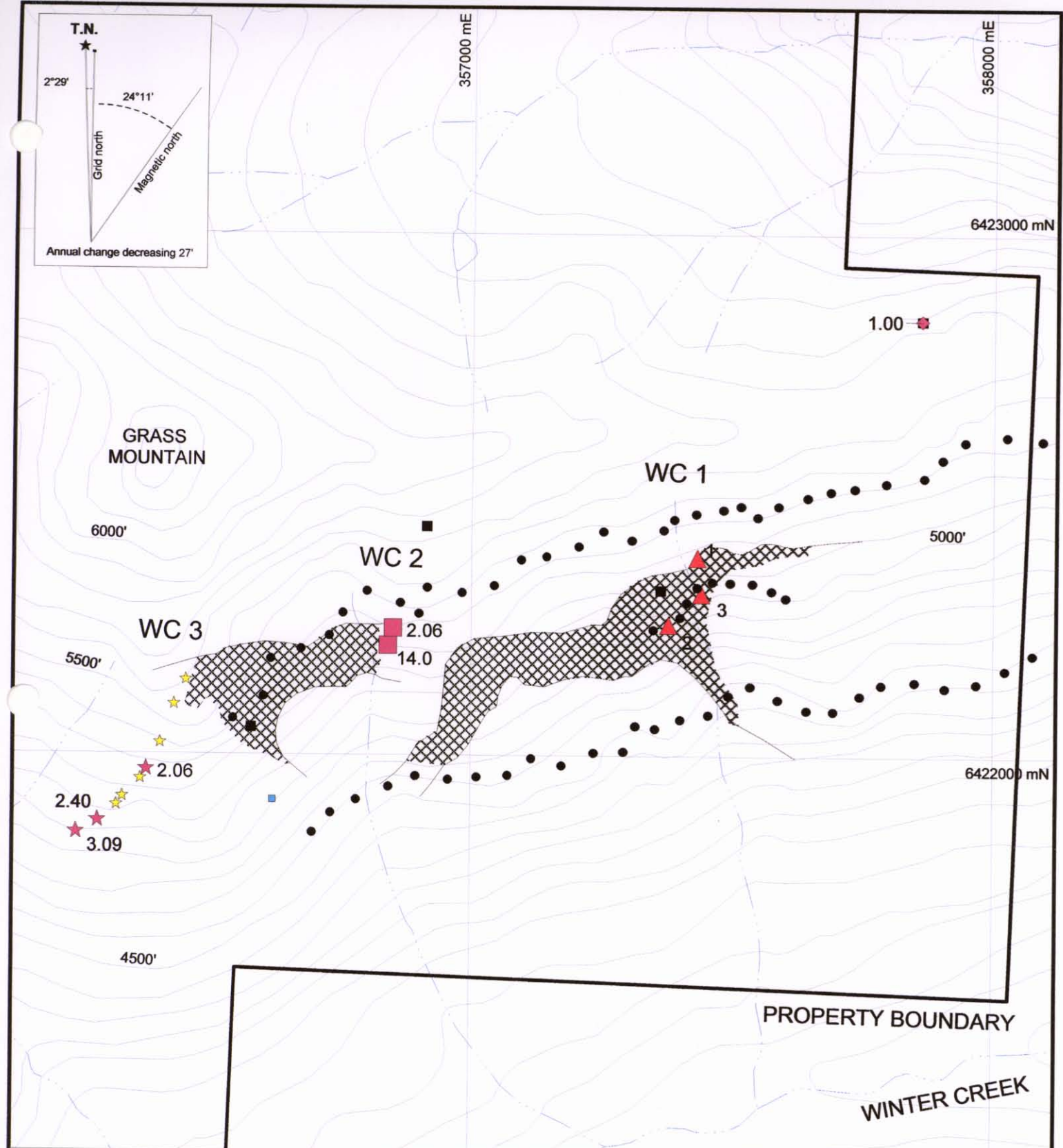
GK PROPERTY

0 100 200 300 400 500 m

UTM ZONE 9, NAD 83, 104G 14

FILE: ...2008/GK/F_Cu_rocks.WOR

DATE: MARCH 2009

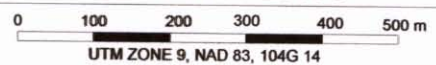


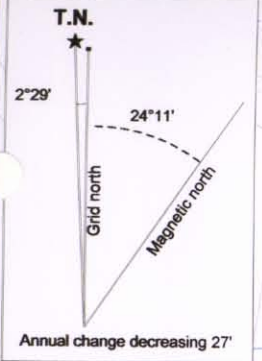
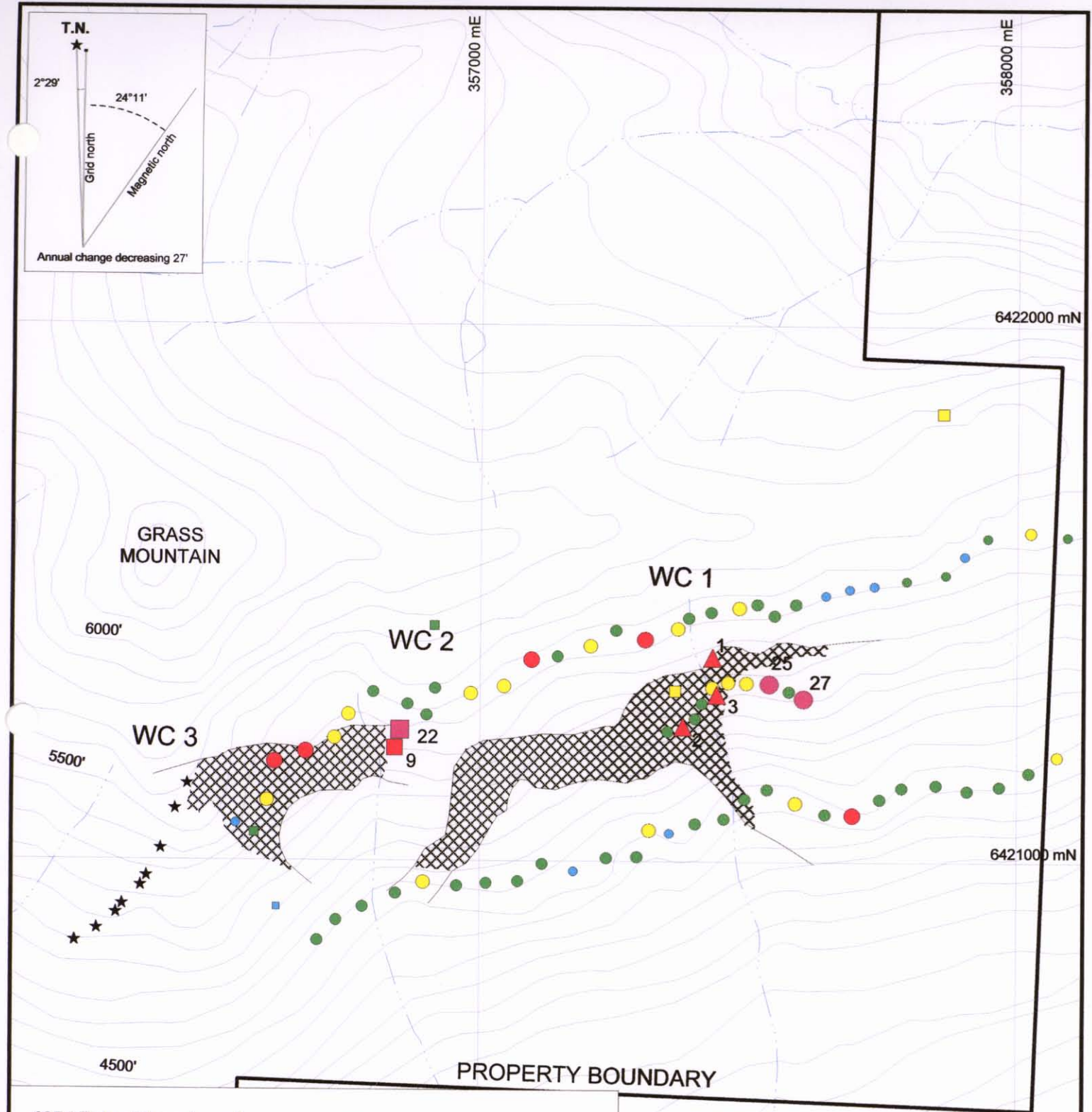
1990 Silver (g/t)	1983 Silver (g/t)	1974 Silver (g/t)
◆ ≥1	★ ≥1	■ ≥1
	★ ≥0 <1	■ ≥0 <1
		■ Value not reported
● 1974 fine talus sample location, gold value not reported		▨ Gossan
▲ 1976 trench area, see Table II in text for rock sample values		

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FIGURE 7
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**SILVER ROCK
GEOCHEMISTRY
GK PROPERTY**





1974 Talus Fines (ppm)

- ≥20
- ≥10 <20
- ≥5 <10
- ≥2 <5
- ≥0 <2

1974 Rocks (ppm)

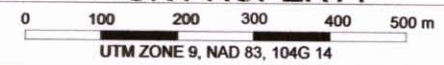
- ≥10
- ≥5 <10
- ≥2 <5
- ≥1 <2
- ≥0 <1

- ★ 1983 rock sample location, molybdenum value not reported
- ▲ 1976 trench area, see Table II in text for rock sample values
- 1974 fine talus sample location, gold value not reported



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FIGURE 8
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
MOLYBDENUM ROCK
GEOCHEMISTRY
GK PROPERTY



uphill from the showing returned moderate values, while those taken downhill returned moderately and strongly anomalous results. The area of strongly anomalous values is about 250 m wide. Most of the anomalous rock and fine talus samples were collected within the gossan.

WC 2 is located 600 m west of WC 1. Mineralization comprises disseminated and blebby chalcopyrite with weak to moderate malachite, which occur along faults, shear zones and prominent fractures. Serpentinized shear surfaces host most of the observed mineralization. A mineralized shear that was exposed over a length of 30 m was sampled in two locations. One rock sample returned 4.25% copper, 6.85 g/t gold and 14.0 g/t silver and the other yielded 0.83% copper, 2.06 g/t gold and 2.05 g/t silver (Pearse, 1974).

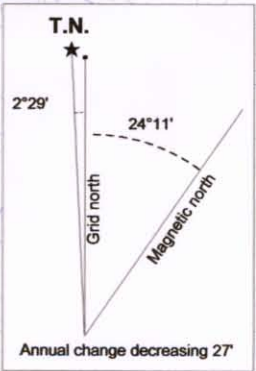
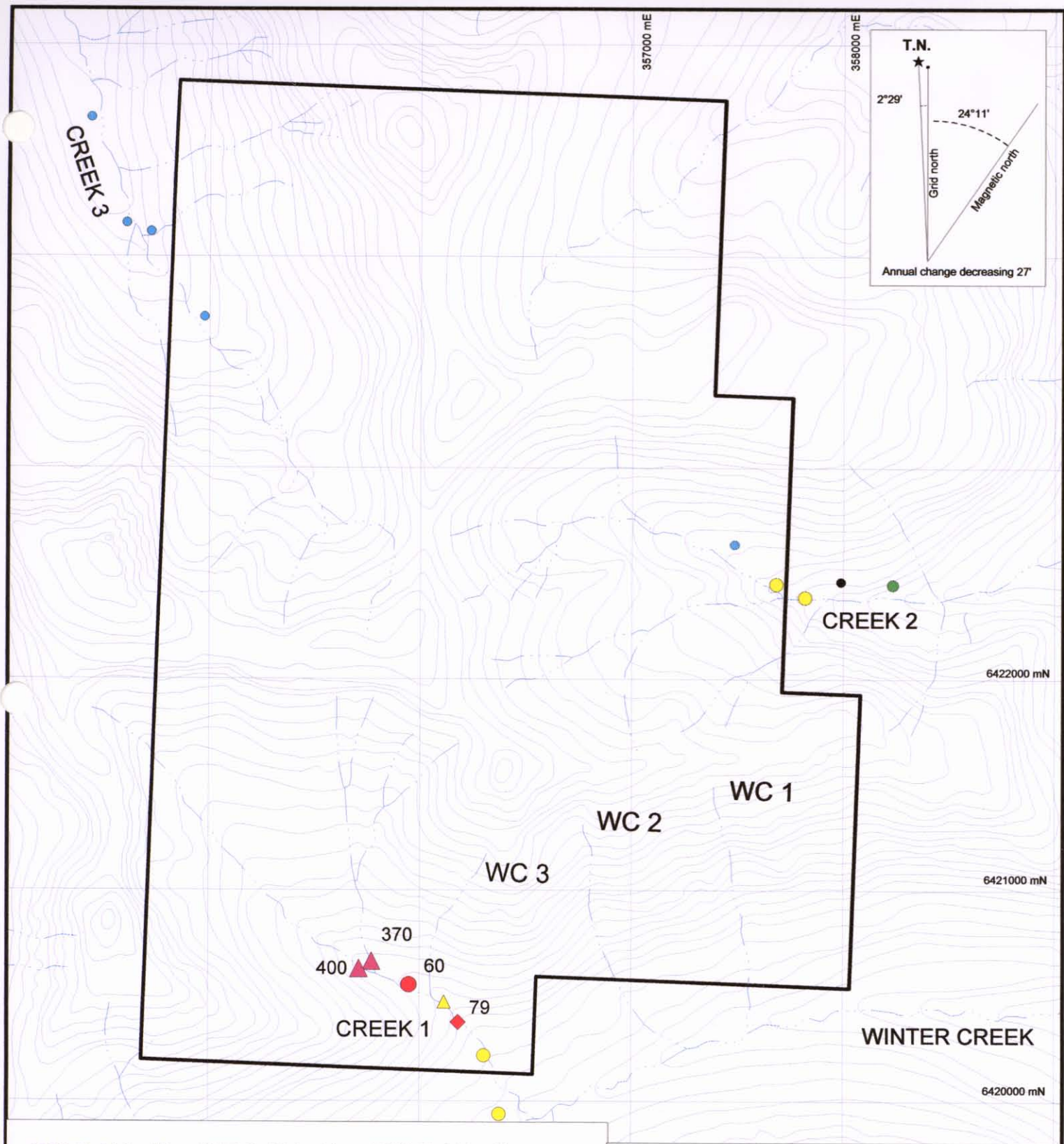
WC 3 is the westernmost occurrence and is located 500 m southwest of WC 2. In 1983, WC 3 was mapped and sampled. Geology comprises a pyritiferous uTrSvt horizon cut by two, 2 to 5 m wide lamprophyre dykes. The uTrSvt sequence is offset by faults, which are marked by gouge and brecciation. Mineralization is dominantly pyrite, which occurs as finely disseminated grains comprising about 2.5% of the rock and in numerous 2 mm to 1 cm wide fractures. The fractures are developed in at least three orientations and are spaced 5 to 15 cm apart. Samples returned relatively low values for copper, silver and gold. The best mineralized samples were collected immediately adjacent to dykes (Graf, 1983).

An unnamed occurrence approximately 1500 m west northwest of W3 was identified by Teck in 1988. Mineralized and altered volcanic talus returned up to 6.9% copper, 48 g/t gold and 8 g/t silver. This area was described as the eastern end of a 900 m long anomalous zone. Another unnamed occurrence situated approximately 1500 m northeast of W3 was described as mineralized diorite talus, samples of which yielded 1.02% copper, 5.2 g/t gold and 7.0 g/t silver.

Fine talus samples taken near WC 2 and WC 3 returned many moderately to strongly anomalous results. The upper line produced a semi-continuous, 650 m long string of values exceeding 500 ppm copper. The highest value (1,350 ppm) from this line lies between WC 1 and WC 2. Molybdenum values from the upper line are weakly to moderately anomalous. The lower contour line yielded a shorter string of moderately to strongly anomalous copper values with low molybdenum values. The anomalous results came from samples taken both within and outside the gossan, and on most of them cannot be attributed to dispersion from known occurrences.

STREAM SEDIMENT GEOCHEMISTRY

Stream sediment sampling programs were conducted on creeks draining the GK property in 1983, 1987 and 2005. Sampled creeks have been labelled Creeks 1, 2 and 3 for the purpose of this report. In 1983, Orofino performed the first reported stream sediment sampling in Creek 1, upstream from their work at WC 3. In 1987, the GSC conducted a regional stream sediment survey that collected one sample from Creek 1. In 2005, Creeks 1, 2 and 3 were sampled by Strategic Metals. Sampling and Analytical Procedures are described in Appendix III. Gold and copper results are illustrated thematically on Figures 9 and 10. The following table lists the threshold values used for stream sediment samples.



1983 Gold (ppb) 1987 Gold (ppb) 2005 Gold (ppb)

- ▲ ≥100 ◆ ≥100 ● ≥100
- ▲ ≥50 <100 ◆ ≥50 <100 ● ≥50 <100
- ▲ ≥20 <50 ◆ ≥20 <50 ● ≥20 <50
- ▲ ≥10 <20 ◆ ≥10 <20 ● ≥10 <20
- ▲ ≥0 <10 ◆ ≥0 <10 ● ≥0 <10

● If sample is black no value reported for this element

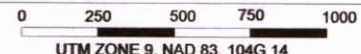
STRATEGIC METALS LTD.

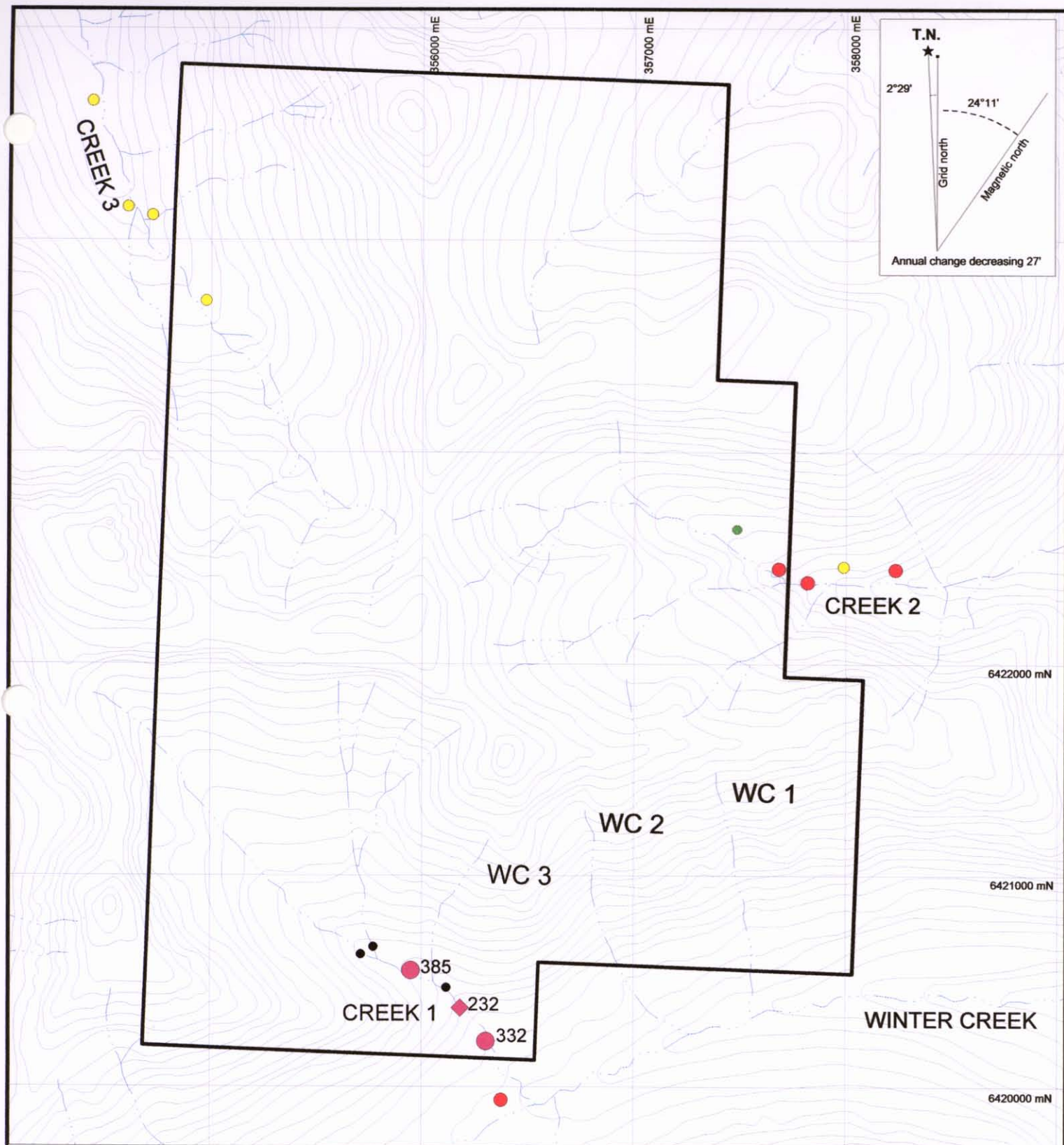
FIGURE 9

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GOLD SILT GEOCHEMISTRY

GK PROPERTY





1987 Copper (ppm)

- ◆ ≥200 <232
- ◆ ≥100 <200
- ◆ ≥50 <100
- ◆ ≥0 <50

2005 Copper (ppm)

- ≥200 <385
- ≥100 <200
- ≥50 <100
- ≥0 <50

● 1983 stream sediment sample, no copper value reported

STRATEGIC METALS LTD.

FIGURE 10
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

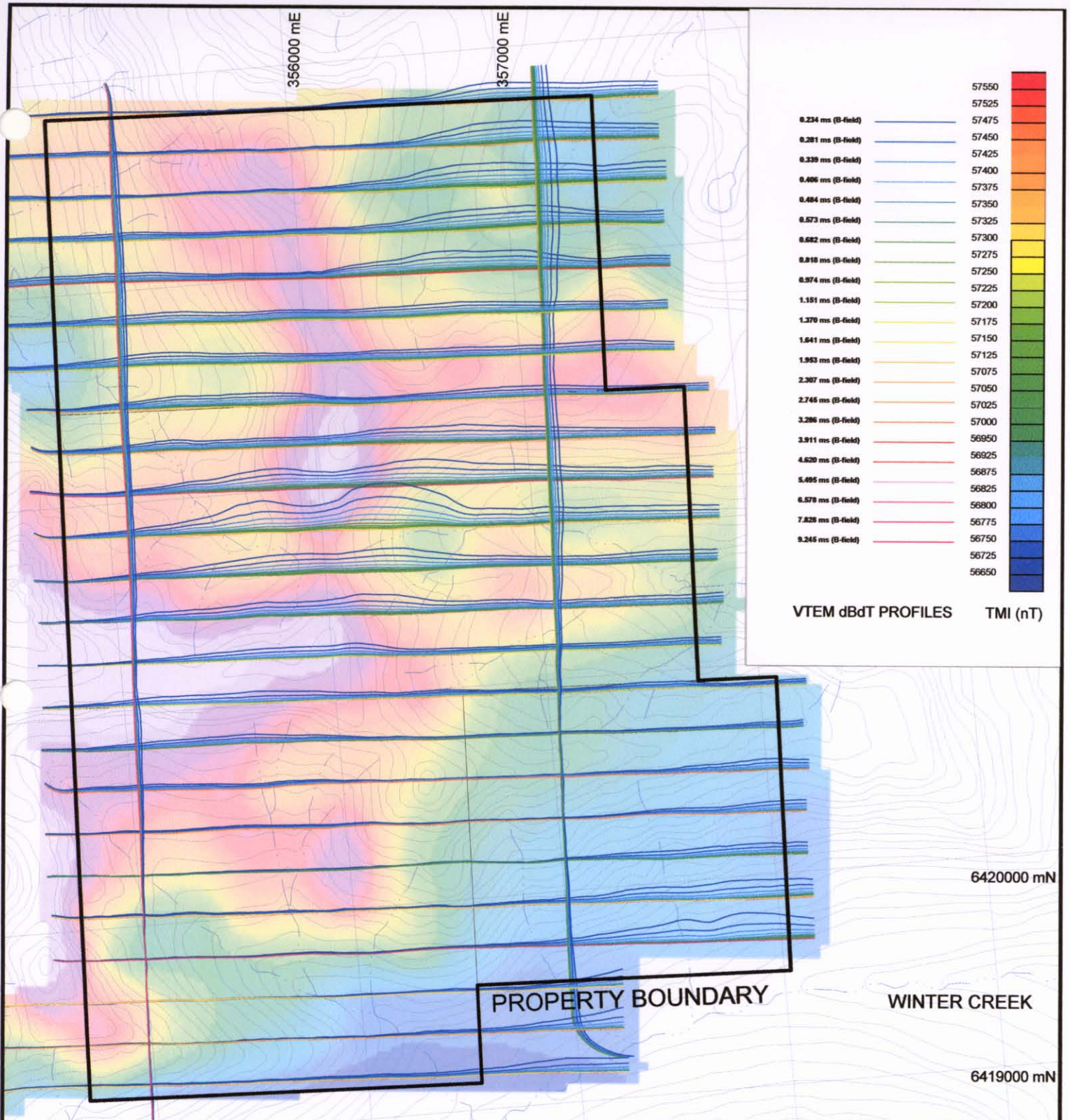
**COPPER SILT
GEOCHEMISTRY
GK PROPERTY**

0 250 500 750 1000

UTM ZONE 9, NAD 83, 104G 14

FILE: ...2008/GK/F_9_Cu_SILT.WOR

DATE: MARCH 2009

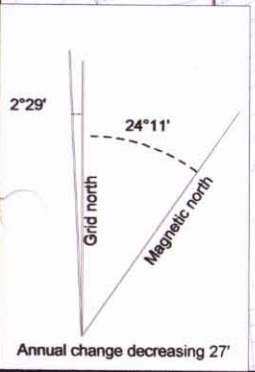


0.234 ms (B-field)	57550
0.281 ms (B-field)	57525
0.339 ms (B-field)	57475
0.406 ms (B-field)	57450
0.484 ms (B-field)	57425
0.573 ms (B-field)	57400
0.682 ms (B-field)	57375
0.818 ms (B-field)	57350
0.974 ms (B-field)	57325
1.151 ms (B-field)	57300
1.370 ms (B-field)	57275
1.641 ms (B-field)	57250
1.953 ms (B-field)	57225
2.307 ms (B-field)	57200
2.745 ms (B-field)	57175
3.286 ms (B-field)	57150
3.911 ms (B-field)	57125
4.620 ms (B-field)	57075
5.495 ms (B-field)	57050
6.578 ms (B-field)	57025
7.828 ms (B-field)	57000
9.245 ms (B-field)	56950
	56925
	56875
	56825
	56800
	56775
	56750
	56725
	56650

VTEM dBdT PROFILES TMI (nT)

PROPERTY BOUNDARY

WINTER CREEK



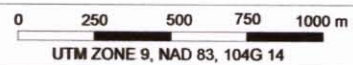
STRATEGIC METALS LTD.

FIGURE 11

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOPHYSICAL COMPILATION

GK PROPERTY



FILE: ...2008/GK/F_11_GEOP.WOR

DATE: MARCH 2009

Table III – Geochemical Data for Stream Sediment Samples

Element	Anomalous Thresholds			Peak Value
	Weak	Moderate	Strong	
Gold (ppb)	≥ 20 < 50	≥ 50 < 100	≥ 100	400
Copper (ppm)	≥ 50 < 100	≥ 100 < 200	≥ 200	385

Creek 1 is moderately and strongly anomalous for gold and copper, especially the uppermost tributaries which drain areas where no detailed mapping or sampling has been reported. The 1983 results includes 370 and 400 ppb gold. No copper values were reported for these samples. In 1987, GSC sampling on the main stream reported 79 ppb gold and 232 ppm copper, which represent the 95th and 99th percentile values for the district. The 2005 sampling returned 60 ppb gold and 385 ppm copper from a site in the upper part of the drainage.

Creeks 2 and 3 returned weak to moderate values for gold and copper.

2008 VTEM AND MAGNETIC GEOPHYSICAL SURVEYS

Helicopter-borne VTEM and magnetic surveys were conducted on August 1 and 2, 2008 by Geotech Ltd. of Aurora, Ontario, using an Astar B3 helicopter operated by TRK Helicopters Ltd. Survey equipment and techniques are described in a report contained in Appendix IV. Digital geophysical data is available on a CD attached to Geotech's report. Key geophysical data are compiled on Figure 11.

The geophysical results have not yet been fully interpreted; however, preliminary analysis of magnetic data shows that most areas of elevated magnetic response are topographic highs. This could be due to variations in equipment height relative to the ground but the highs are also mostly underlain by the TrJg stock. Rocks belonging to uTrS generally have a subdued magnetic signature; however, there is a pronounced, unexplained, oval shaped magnetic high located 300 m west of WC 3 within one of the most geochemically anomalous drainages.

Electromagnetic B-field profiles are relatively subdued and broad, suggesting that they are caused by large-scale lithological variations. A possible exception is multi-line anomaly that coincides with a large saddle on a ridge immediately north of Grass Mountain. This anomaly is underlain by TrJg and could mark the trace of a fault.

DEPOSIT TYPE

In northern British Columbia, the potential for copper-gold deposits is high, specifically in areas where Triassic and Lower Jurassic silica saturated plutons have intruded coeval oceanic island arcs (Burgoyne, 2008). Good examples of this style of mineralization occur at the Galore Creek and Snip North deposits. Both of these deposits lie within Stikinia.

Galore Creek is a copper-gold porphyry deposit located 80 km south of the GK property. It has a NI 43-101 reserve estimate of 785.7 million tonnes of Measured and Indicated Mineral Resource (at a 0.21% copper equivalent cut-off grade) assaying 0.52% copper, 0.37 g/t gold and 4.4 g/t

silver (Francis, 2008). The Galore Creek property features a series of orthoclase-porphyry intrusions that intrude coeval uTrS volcanic rocks and related sediments. Close to the intrusive complex the sedimentary and volcanic rocks are severely folded, sheared, faulted and brecciated. The deposit is hosted by uTrS rocks with mineralization consisting primarily of chalcopyrite, pyrite and magnetite with lesser bornite and chalcocite. Pyrite is less abundant than chalcopyrite and rare minerals include galena, sphalerite, tellurides, tetrahedrite, gold and silver (Francis, 2008).

Snip North is a copper-gold-molybdenum deposit located on the bank of the Iskut River, 135 km southwest of the GK property. As of February 15, 2008 no NI 43-101 compliant resource estimate had been completed for the deposit. Geology at Snip North comprises Upper Triassic undifferentiated andesitic volcanics, tuffs and fine grained clastic sedimentary rocks, belonging to uTrS. The rocks are strongly sheared throughout the property. Porphyry copper-gold-molybdenum mineralization is found exclusively in this unit (Burgoyne, 2008). Mineralization at Snip North comprises pyrite, chalcopyrite, molybdenite, magnetite, calcite, chlorite and quartz in veins, fractures, stockworks, minor breccias and as disseminations. Pyrite concentration can vary from 1 to 10% where present. The prominent style of mineralization is associated with quartz-carbonate and quartz, veins and veinlets. Abundant limonite and manganese oxides are found in near surface fault zones. Porphyry style mineralization is reportedly enveloped by a broad pyrite halo, which features a distinct change marking the transition from disseminated pyrite mineralization to mineralized shear zones carrying quartz and sulphide veins. Copper and gold grades vary proportionally with degree of silicification and the amount of quartz-pyrite-chalcopyrite veining (Burgoyne, 2008).

DISCUSSION AND CONCLUSIONS

The GK property lies within Stikinia, a terrane that contains advanced copper-gold deposits hosted in uTrS volcanic and sedimentary rocks that are cut by younger intrusive bodies.

Only a small portion of the GK property has received systematic mapping and sampling. Occurrences on the property exhibit mineralization hosted within uTrS in areas that have been affected by varying degrees and styles of structural deformation. Primary sulphides are pyrite with lesser chalcopyrite and pyrrhotite, with secondary limonite and malachite. Only limited sampling has been done for gold and silver, but where available, results are mostly favourable.

Current geochemical data is limited; however, sample results include a high proportion of moderately to strongly anomalous values. Elevated rock and fine talus results have mostly been obtained from within a large gossan that approximately coincides with an area of known alteration. Stream sediment sampling has returned very strong values in an area that lies outside of the gossan. Those anomalous results have not received any systematic follow up.

Magnetic data has identified an interesting anomaly west of WC 3, in one of the drainages that produced the strongest gold values from stream sediment sampling. This anomaly may mark the source of the anomalous values. Porphyry copper-gold deposits in the area often contain magnetite; and thus, this target deserves priority follow up.

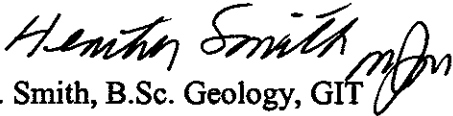
The GK property definitely warrants additional work to better define the areas of known mineralization and to explore for new discoveries. Work should consist of additional closer spaced, fine talus sample lines near the Winter Creek Showing and within the geochemical anomalous drainages to the west. Mapping and prospecting should be extended westerly to encompass all areas covered by fine talus geochemistry and the anomalous samples collected by Teck.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



W. A. Wengzynowski, P. Eng.



H. Smith, B.Sc. Geology, GIT

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APPENDIX I
STATEMENTS OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, William A. Wengzynowski, geological engineer, with business addresses in Vancouver, British Columbia and Whitehorse, Yukon Territory and residential address at 301 Fairway Drive, North Vancouver, British Columbia, V7G 1L4 do hereby certify that:

1. I am President of Archer, Cathro & Associates (1981) Limited.
2. I graduated from the University of British Columbia in 1993 with a B.A.Sc in Geological Engineering, Option I, mineral and fuel exploration.
3. I registered as a Professional Engineer in the Province of British Columbia on December 12, 1998 (Licence Number 24119).
4. From 1983 to present, I have been actively engaged in mineral exploration in the Yukon Territory, Northwest Territories, northern British Columbia and Mexico.
5. I have personally interpreted all data resulting from this work.



William A. Wengzynowski, P. Eng.

STATEMENT OF QUALIFICATIONS

I, Heather Smith, geologist, with business addresses in Vancouver, British Columbia and Whitehorse, Yukon Territory and residential address at #604-175 West 1 Street, North Vancouver, British Columbia, V7M 3N9 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 Geoscientist in Training (GIT) with the Association of Professional Engineers and Geoscientists of British Columbia (Member Number 150000).
4. I have personally interpreted all data resulting from this work.



Heather Smith, B.Sc. Geology, GIT

APPENDIX II
STATEMENT OF COSTS

Statement of Costs
Mineral Tenures 509147, 509206, 509207, 513799 – GK Project
December 10, 2008

Expenses

Geotech Ltd.	\$23,183.34
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APPENDIX III
SAMPLE AND ANALYTICAL PROCEDURES

SAMPLE AND ANALYTICAL PROCEDURES

In 1974, approximately four tablespoons of the finest talus material were collected at each site. Each sample was put in a numbered Kraft envelope and shipped to Bondar-Clegg and Company Ltd. Laboratory in North Vancouver, British Columbia. All samples were analyzed for copper and molybdenum by separating to a -80 mesh fraction. Combined metal was extracted from a weighted sample of this fraction with Le Fort aqua regia. The resulting solutions were bulked to a 20% acid concentration and analyzed by atomic absorption spectrophotometry. Results are expressed in parts per million contained metal (Pearse, 1974).

In 1976, all samples were sent to Bondar-Clegg and analyzed for total and soluble copper, molybdenum, gold and silver. Analytical technique used was not specified.

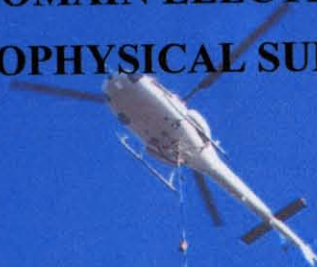
In 1983, all samples were sent to Bondar-Clegg. The rock samples were analyzed for gold and copper while only gold values were reported for silt samples. Analytical technique used was not specified.

In 2005, silt samples were analyzed at ALS Chemex Ltd. in North Vancouver, British Columbia. Sample techniques used entailed specimens being dried and sieved to -80 mesh before a split was dissolved in aqua regia and analyzed for 34 elements (ME-ICP41) and PGM-ICP23 (platinum, palladium and gold 30 g FA ICP).

APPENDIX IV

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

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



**GK Project
Telegraph Creek, British Columbia**

For:

ARCHER CATHRO & ASSOCIATES LTD.

By

Geotech Ltd.

**245 Industrial Parkway North
Aurora, Ont., CANADA, L4G 4C4**

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Email: info@geotech.ca

Survey flown during August, 2008

Project 8077

November, 2008

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REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC SURVEY

GK Project
Telegraph Creek, British Columbia

Executive Summary

During August 1st to August 2nd, 2008 Geotech Ltd. carried out a helicopter-borne geophysical survey for Archer Cathro & Associates Ltd. over one (1) block of the GK Project situated near Telegraph Creek, British Columbia, Canada.

Principal geophysical sensors included a versatile time domain electromagnetic (VTEM) system, and a caesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 83 line-kilometres were flown.

The survey operations were based out of Dease Lake, British Columbia. 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 electromagnetic stacked profiles, and as a colour grid of the B-field EM late time channels and total magnetic intensity.

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

The survey report describes the procedures for data acquisition, processing, final image presentation and the specifications for the digital data set. No formal interpretation is included.

1. INTRODUCTION

1.1 General Considerations

These services are the result of the Agreement made between Geotech Ltd. and Archer Cathro & Associates Ltd. to perform a helicopter-borne geophysical survey one (1) block on the GK property located near Telegraph Creek, British Columbia, Canada (Figure 1).

Matthew Dumala acted on behalf of Archer Cathro & Associates Ltd. 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 and aeromagnetics using a caesium magnetometer. A total of 83 line-km of geophysical data were acquired during the survey. The survey area is shown in Figure 2.

The crew was based out of Dease Lake, British Columbia for the acquisition phase of the survey. Survey flying started on August 1st and was completed on August 2nd, 2008

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 November, 2008.



Figure 1 - Property Location

1.2 Survey Location and Specifications

The GK block (57°55'34.27"N, 131°25'28.64"W) is located approximately 102 kilometres south-west of Dease Lake, British Columbia, the base of operations for the survey.

The survey block was flown in a direction of N 88° E with a traverse line spacing of 200 metres, as depicted in Figure 2. Tie lines were flown perpendicular to the traverse lines at a spacing of 2000 metres in the direction of N 178° E. For more detailed information on the flight spacing and direction see Table 1.

1.3 Topographic Relief and Cultural Features

Topographically, the property exhibits high relief, with elevations ranging from 1015 to 2073 metres above sea level (see Figure 2). There are a number of small rivers and streams that run throughout the block. There are no roads leading to the block, making it accessible only by air. The survey block is covered by NTS (National Topographic Survey) of Canada sheet 104G14.

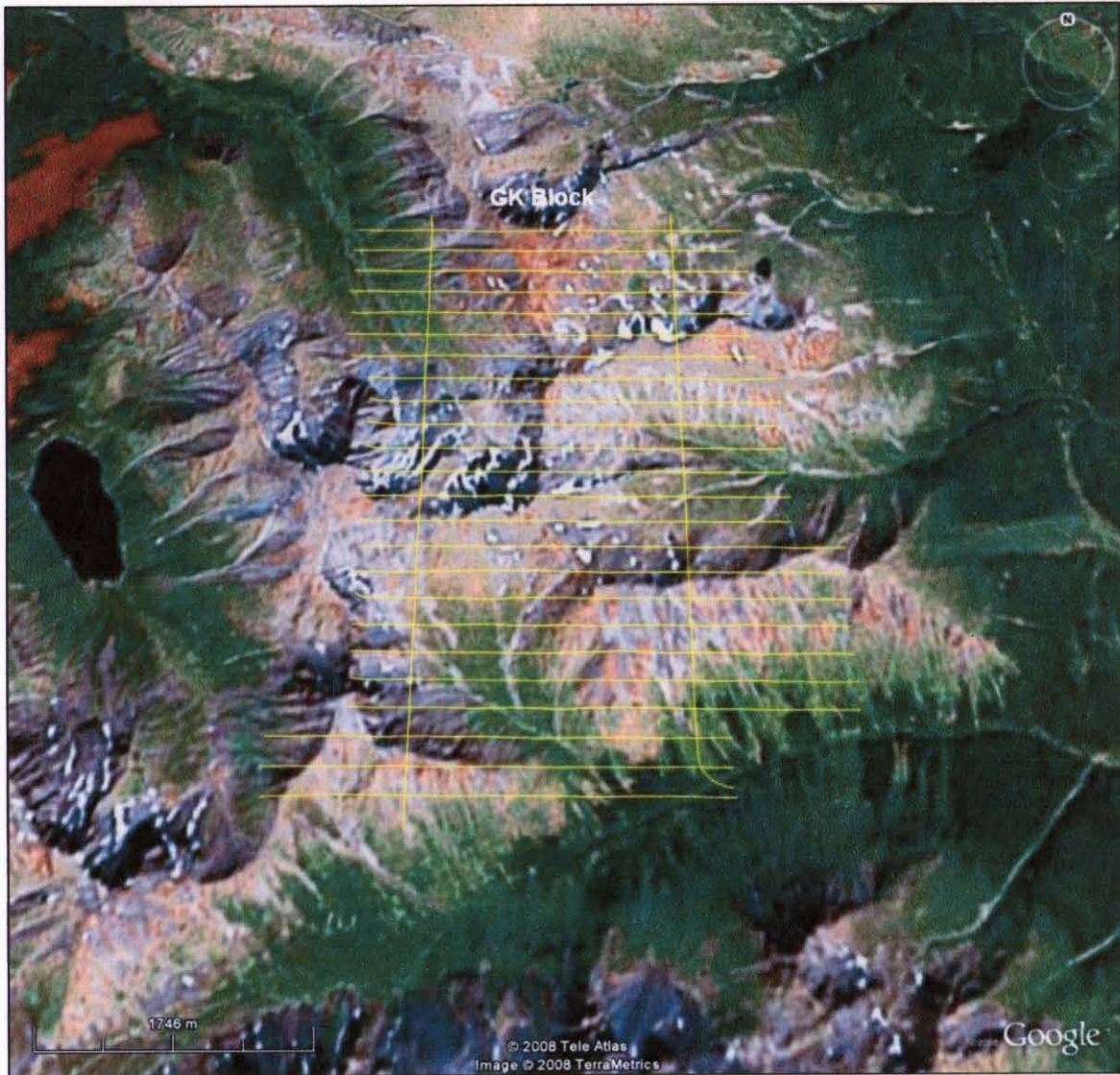


Figure 2 - Google Earth Image with Flight Paths

2. DATA ACQUISITION

2.1 Survey Area

The survey block (see Location map, Figure 2) and general flight specifications are as follows:

Table 1 - Survey blocks

Survey block	Line spacing (m)	Area (Km ²)	Planned Line-km	Actual Line-km ¹	Flight direction	Line number
GK	Traverse: 200	15	74	80	N 88°E	L8010 – L8240
	Tie: 2000		9	10	N 178°E	T8910 – T8920
TOTAL		15	83	90		

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

2.2 Survey Operations

Survey operations were based out of Telegraph Creek and Dease Lake, British Columbia from August 1st to August 2nd, 2008. The following table summarizes the timing and daily progress of the survey.

Table 2 - Survey schedule

Date	Flight #	Flown km	Block	Crew location	Comments
01-Aug-08	69	19	GK	Telegraph Creek, BC	Production aborted - rain
02-Aug-08	70 - 71	60	GK	Dease Lake, BC	Production and mobilization to Vanderhoof.

¹NOTE: Actual line-km represents the total line-km contained in the final databases. These line-km normally exceed the Planned line-km, as indicated in the survey NAV files.

2.3 Flight Specifications

The helicopter maintained a mean height of 72 metres above the ground with a nominal survey speed of 80 km/hour. This allowed for a nominal EM sensor terrain clearance of 36 metres and a magnetic sensor clearance of 59 metres. The data recording rates of the data acquisition was 0.1 second for electromagnetics, magnetometer and 0.2 second for altimeter and GPS. This translates to a geophysical reading about every 2 metres along flight track. Navigation was assisted by a CDGPS receiver and data acquisition system, which reports GPS co-ordinates as latitude/longitude and directs the pilot over a pre-programmed survey grid.

The operator was responsible for monitoring of 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 feature.

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, operating remotely.

2.4 Aircraft and Equipment

2.4.1 Survey Aircraft

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

2.4.2 Electromagnetic System

The electromagnetic system was a Geotech Time Domain EM (VTEM) system. The configuration is as indicated in Figure 3 below.

Receiver and transmitter coils are concentric and Z-direction oriented. The coils were towed at a mean distance of 35 metres below the aircraft as shown in Figure 5. The receiver decay recording scheme is shown diagrammatically in Figure 4.

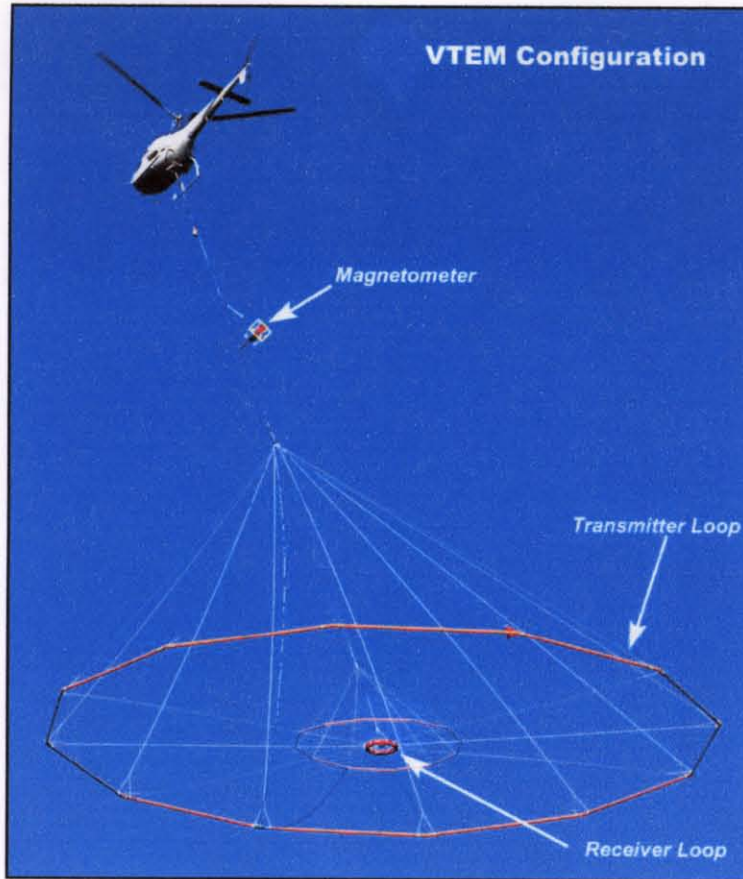


Figure 3 - VTEM Configuration

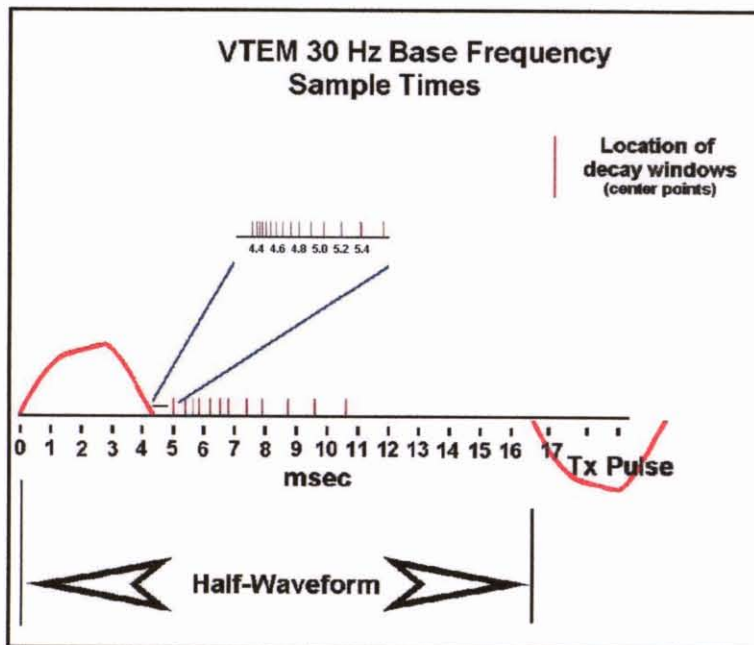


Figure 4 – VTEM Short Pulse Waveform & Sample Times

The VTEM decay sampling scheme is shown in Table 3 below. Twenty six measurement gates (ch 10-35) were used for the final data processing in the range from 120 ms to 9245ms, as shown in Table 5.

Table 3 – Decay Sampling Scheme

VTEM Decay Sampling scheme				
Array Index	(Microseconds)			
	Time Gate	Start	End	Width
0	0			
1	10	10	21	11
2	21	16	26	11
3	31	26	37	11
4	42	37	47	11
5	52	47	57	10
6	62	57	68	11
7	73	68	78	11
8	83	78	91	13
9	99	91	110	19
10	120	110	131	21
11	141	131	154	24
12	167	154	183	29
13	198	183	216	34
14	234	216	258	42
15	281	258	310	53
16	339	310	373	63
17	406	373	445	73
18	484	445	529	84
19	573	529	628	99
20	682	628	750	123
21	818	750	896	146
22	974	896	1063	167
23	1151	1063	1261	198
24	1370	1261	1506	245
25	1641	1506	1797	292
26	1953	1797	2130	333
27	2307	2130	2526	396
28	2745	2526	3016	490
29	3286	3016	3599	583
30	3911	3599	4266	667
31	4620	4266	5058	792
32	5495	5058	6037	979
33	6578	6037	7203	1167
34	7828	7203	8537	1334
35	9245	8537	10120	1584

VTEM system parameters:

Transmitter Section

- Transmitter coil diameter: 26 m
- Number of turns: 4
- Transmitter base frequency: 30 Hz
- Peak current: 262 A
- Pulse width: 4.2 ms
- Pulse width: Duty cycle: 25%
- Peak dipole moment: 556,400 nIA
- Nominal terrain clearance: 36 m

Receiver Section

- Receiver coil diameter: 1.2 m
- Number of turns: 100.
- Effective coil area: 113.1 m²
- Wave form shape: trapezoid
- Power Line Monitor: 60 Hz

Magnetometer

- Nominal terrain clearance: 59 m

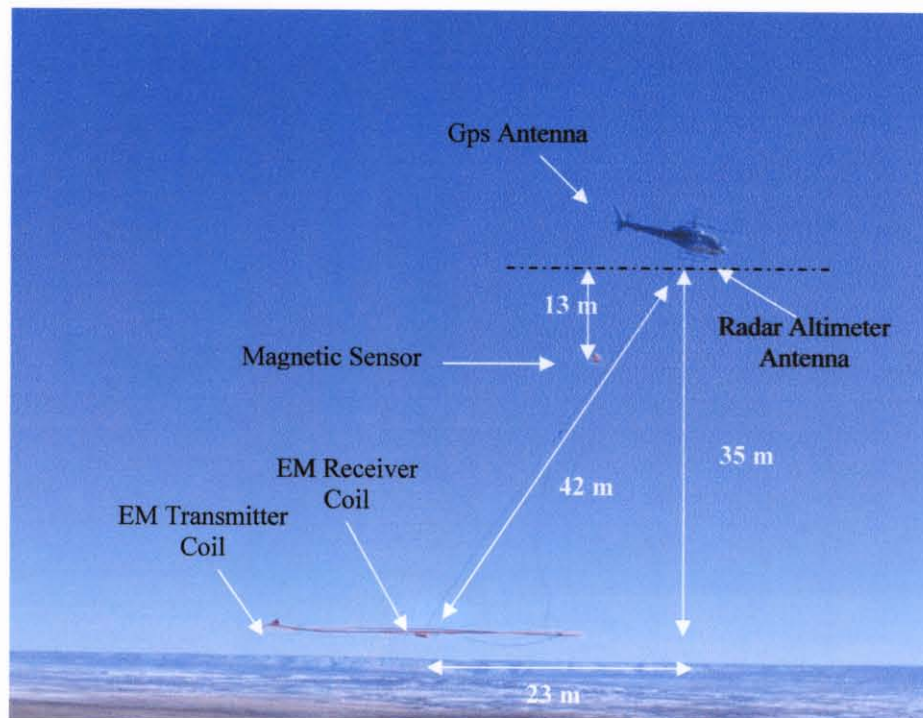


Figure 5 - VTEM system configuration

2.4.3 Airborne magnetometer

The magnetic sensor utilized for the survey was a Geometrics optically pumped caesium vapour magnetic field sensor, mounted in a separate bird, 13 metres below the helicopter, as shown in Figure 5. The sensitivity of the magnetic sensor is 0.02 nanoTesla (nT) at a sampling interval of 0.1 seconds. The magnetometer sends the measured magnetic field strength as nanoTesla to the data acquisition system via the RS-232 port.

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 5).

2.4.5 GPS Navigation System

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's CDGPS (Canada-Wide Differential Global Positioning System Correction Service) 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 5). As many as 11 GPS and two CDGPS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m, with CDGPS 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

2.4.7 Base Station

A combined magnetometer/GPS base station was utilized on this project. A Geometrics Caesium 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 in an isolated area, 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:	Les Moschuk (office)
Data QC/QA:	Nick Venter (office)
Crew chief:	Ryan MacIver
System Operator:	Jason McKinnon

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – TRK Helicopters Ltd.

Pilot:	Roy Stevenson
Mechanical Engineer:	Chris Ward

Office:

Preliminary Data Processing:	Nick Venter
Final Data Processing:	Neil Fiset
Mapping/Reporting:	Kyle Orłowski

Data acquisition phase was carried out under the supervision of Andrei Bagrianski, P. Geo, Surveys Manager. Processing phase was carried out under the supervision of Jean Legault, P. Geo, Manager of Processing and Interpretation. The overall contract management and customer relations were by Paolo Berardelli.

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 filter used was a 16 point non-linear filter.

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 both B-field and dB/dt response. B-field time channel recorded at 0.573 milliseconds after the termination of the impulse is also presented as contour colour image.

Graphical representations of the VTEM transmitter current waveform output voltage of the receiver coil are shown in Appendix C.

Generalized modeling results of VTEM data, written by consultant Roger Barlow and Nasreddine Bournas, P. Geo., are shown in Appendix E.

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 0.2 cm 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. The coordinate/projection system used was NAD 83, UTM Zone 8 North. All maps show the 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 color magnetic TMI contour maps. The following maps are presented on paper;

- VTEM B-field profiles, Time Gates 0.234 – 9.245 ms in linear - logarithmic scale over total magnetic intensity colour grid and.
- VTEM dB/dt profiles, Time Gates 0.234 – 9.245 ms in linear – logarithmic scale.
- VTEM B-field late time, Time Gate 0.573 ms colour image.
- Total magnetic intensity (TMI) colour image and contours.

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.

There are two (2) main directories;

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	Description
X:	X positional data (metres – NAD83, UTM zone 8 north)
Y:	Y positional data (metres – NAD83, UTM zone 8 north)
Z:	GPS antenna elevation (metres - ASL)
Lon:	Longitude data (degree – NAD83)
Lat:	Latitude data (degree – NAD83)
Date:	Flight Date (DD/MM/YYYY)
FltNo	Flight Number
Radar:	Helicopter terrain clearance from radar altimeter (metres - AGL)
RadarB:	EM Bird terrain clearance from radar altimeter (metres - AGL)
DEM:	Digital elevation model (metres)
Gtime:	GPS time (seconds of the day)
Mag1:	Raw Total Magnetic field data (nT)
Basemag:	Magnetic diurnal variation data (nT)
Mag2	Total Magnetic field diurnal variation corrected data (nT)
Mag3	Total Magnetic field final microlevelled data (nT)
SF[10]:	dB/dt 120 microsecond time channel $pV/(A \cdot m^4)$
SF[11]:	dB/dt 141 microsecond time channel $pV/(A \cdot m^4)$
SF[12]:	dB/dt 167 microsecond time channel $pV/(A \cdot m^4)$
SF[13]:	dB/dt 198 microsecond time channel $pV/(A \cdot m^4)$
SF[14]:	dB/dt 234 microsecond time channel $pV/(A \cdot m^4)$
SF[15]:	dB/dt 281 microsecond time channel $pV/(A \cdot m^4)$
SF[16]:	dB/dt 339 microsecond time channel $pV/(A \cdot m^4)$
SF[17]:	dB/dt 406 microsecond time channel $pV/(A \cdot m^4)$
SF[18]:	dB/dt 484 microsecond time channel $pV/(A \cdot m^4)$
SF[19]:	dB/dt 573 microsecond time channel $pV/(A \cdot m^4)$
SF[20]:	dB/dt 682 microsecond time channel $pV/(A \cdot m^4)$
SF[21]:	dB/dt 818 microsecond time channel $pV/(A \cdot m^4)$
SF[22]:	dB/dt 974 microsecond time channel $pV/(A \cdot m^4)$
SF[23]:	dB/dt 1151 microsecond time channel $pV/(A \cdot m^4)$
SF[24]:	dB/dt 1370 microsecond time channel $pV/(A \cdot m^4)$
SF[25]:	dB/dt 1641 microsecond time channel $pV/(A \cdot m^4)$
SF[26]:	dB/dt 1953 microsecond time channel $pV/(A \cdot m^4)$
SF[27]:	dB/dt 2307 microsecond time channel $pV/(A \cdot m^4)$
SF[28]:	dB/dt 2745 microsecond time channel $pV/(A \cdot m^4)$
SF[29]:	dB/dt 3286 microsecond time channel $pV/(A \cdot m^4)$
SF[30]:	dB/dt 3911 microsecond time channel $pV/(A \cdot m^4)$
SF[31]:	dB/dt 4620 microsecond time channel $pV/(A \cdot m^4)$

Channel Name	Description
SF[32]:	dB/dt 5495 microsecond time channel $pV/(A \cdot m^4)$
SF[33]:	dB/dt 6578 microsecond time channel $pV/(A \cdot m^4)$
SF[34]:	dB/dt 7828 microsecond time channel $pV/(A \cdot m^4)$
SF[35]:	dB/dt 9245 microsecond time channel $pV/(A \cdot m^4)$
BF[10]:	B-field 120 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[11]:	B-field 141 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[12]:	B-field 167 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[13]:	B-field 198 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[14]:	B-field 234 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[15]:	B-field 281 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[16]:	B-field 339 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[17]:	B-field 406 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[18]:	B-field 484 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[19]:	B-field 573 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[20]:	B-field 682 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[21]:	B-field 818 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[22]:	B-field 974 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[23]:	B-field 1151 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[24]:	B-field 1370 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[25]:	B-field 1641 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[26]:	B-field 1953 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[27]:	B-field 2307 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[28]:	B-field 2745 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[29]:	B-field 3286 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[30]:	B-field 3911 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[31]:	B-field 4620 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[32]:	B-field 5495 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[33]:	B-field 6578 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[34]:	B-field 7828 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
BF[35]:	B-field 9245 microsecond time channel $(pV \cdot ms)/(A \cdot m^4)$
PLM:	Power Line monitor (60Hz)

Electromagnetic B-field and dB/dt data is found in array channel format between indexes 10 – 35, as described above.

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

Time: Sampling rate interval, 10.416 microseconds
 Rx_Volt: Output voltage of the receiver coil (Volt)
 Tx_Curr: Output current of the transmitter (Amp)

- Grids in Geosoft GRD format, as follows:

BF19_GK: B-Field Channel 19 (Time Gate 0.573 ms)
 Mag3_GK: Total magnetic intensity (nT)

A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 50 metres was used.

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

8077_Bfield_GK: B-field profiles, Time Gates 0.234 – 9.245 ms in linear logarithmic scale over TMI.
 8077_dBdt_GK: dB/dt profiles, Time Gates 0.234 – 9.245 ms in linear logarithmic scale.
 8077_BF19_GK: B-field Time Gate 0.573 ms colour image.
 8077_TMI_GK: Total magnetic intensity colour image and contours.

Maps are also presented in PDF and MapInfo format.

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

- Google Earth files *8077_GK_fltpath.kml* showing the flight path of each block. Free versions of Google Earth software from: <http://earth.google.com/download-earth.html>

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

A helicopter-borne versatile time domain electromagnetic (VTEM) geophysical survey has been completed over the GK Project near Telegraph Creek, British Columbia, Canada.

The total area coverage is 15 km². Total survey line coverage is 83 line kilometres. The principal sensors included a Time Domain EM system and a magnetometer. Results have been presented as stacked profiles and contour colour images at a scale of 1:20,000. No formal interpretation is included in this report.

6.2 Recommendations

Based on the geophysical results obtained, a number of interesting EM and magnetic anomaly groupings were identified across the property. We therefore recommend a detailed interpretation of the EM and magnetic data, in conjunction with the known geology, including EM anomaly picking, as well as 3D inversion and modelling techniques to further characterize the observed anomalies and to more accurately determine their parameters (depth, conductance, dip, etc.) prior to ground follow up and drill testing.

Respectfully submitted⁶,

Kyle Orłowski
Geotech Ltd.

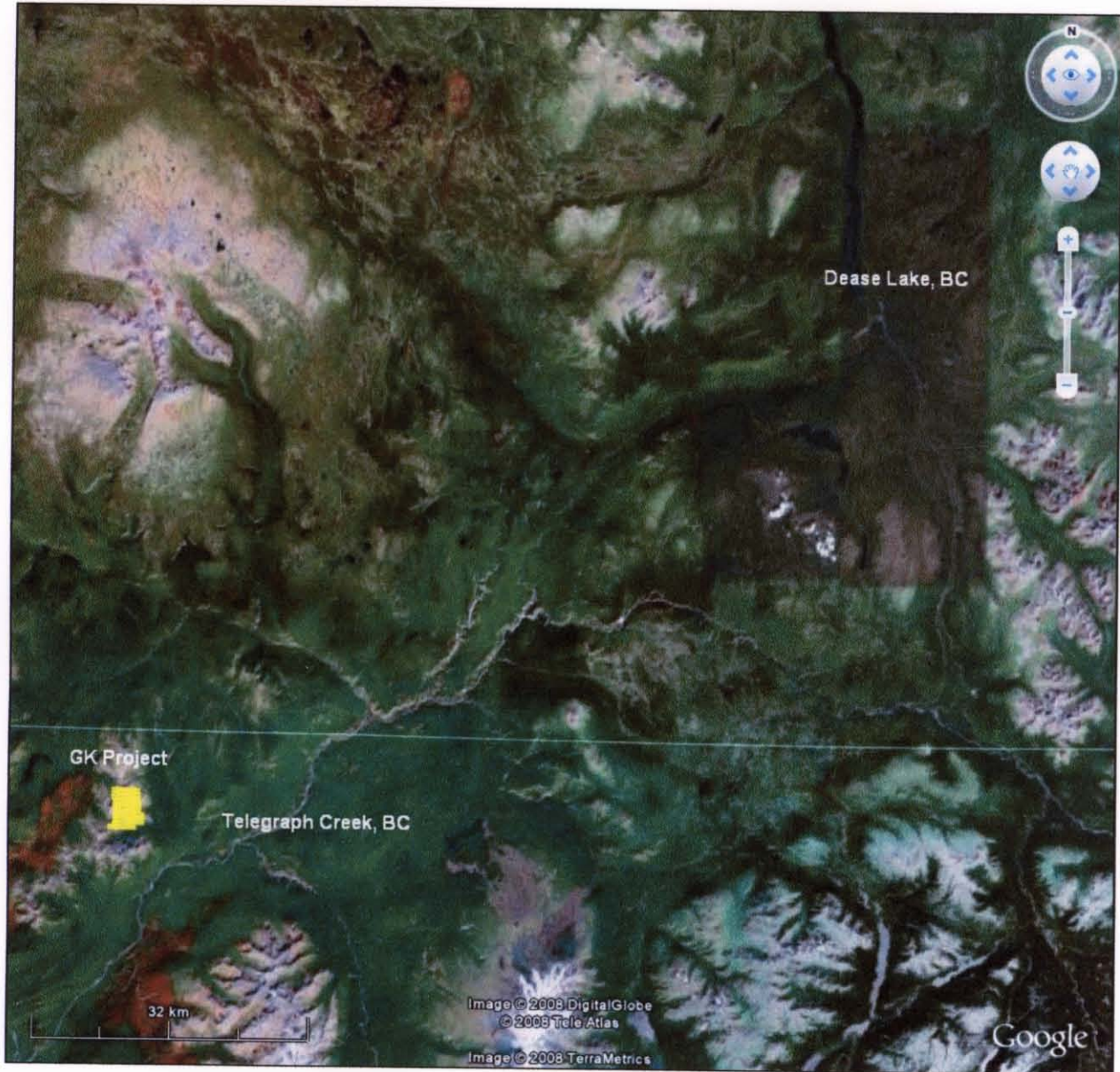
Jean Legault, P. Geo, P. Eng
Geotech Ltd.

Neil Fiset
Geotech Ltd.

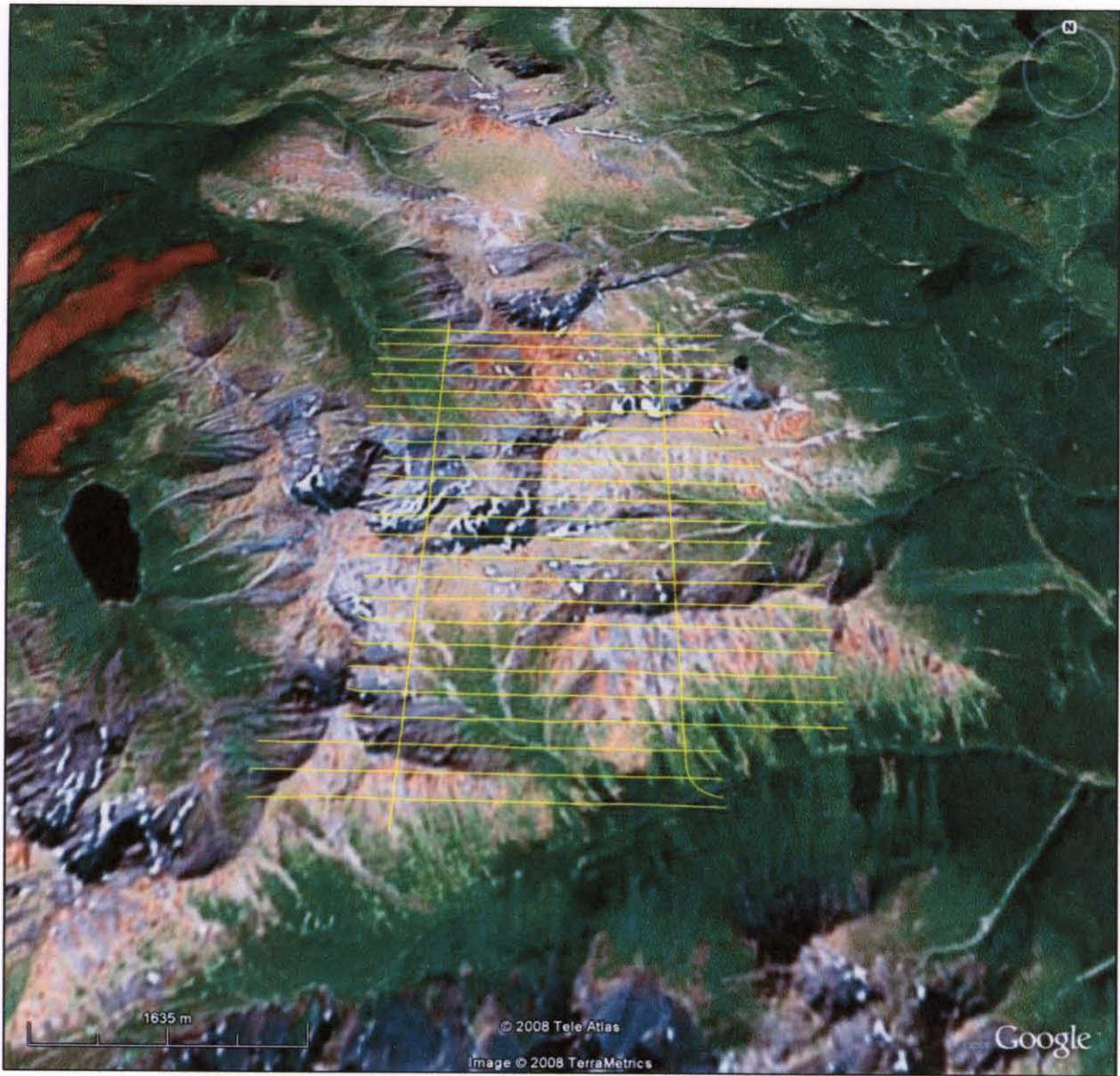
November 2008

⁶Final data processing and interpretation of the EM and magnetic data were carried out by Neil Fiset, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Jean Legault, P. Geo, Manager of Data Processing and Interpretation.

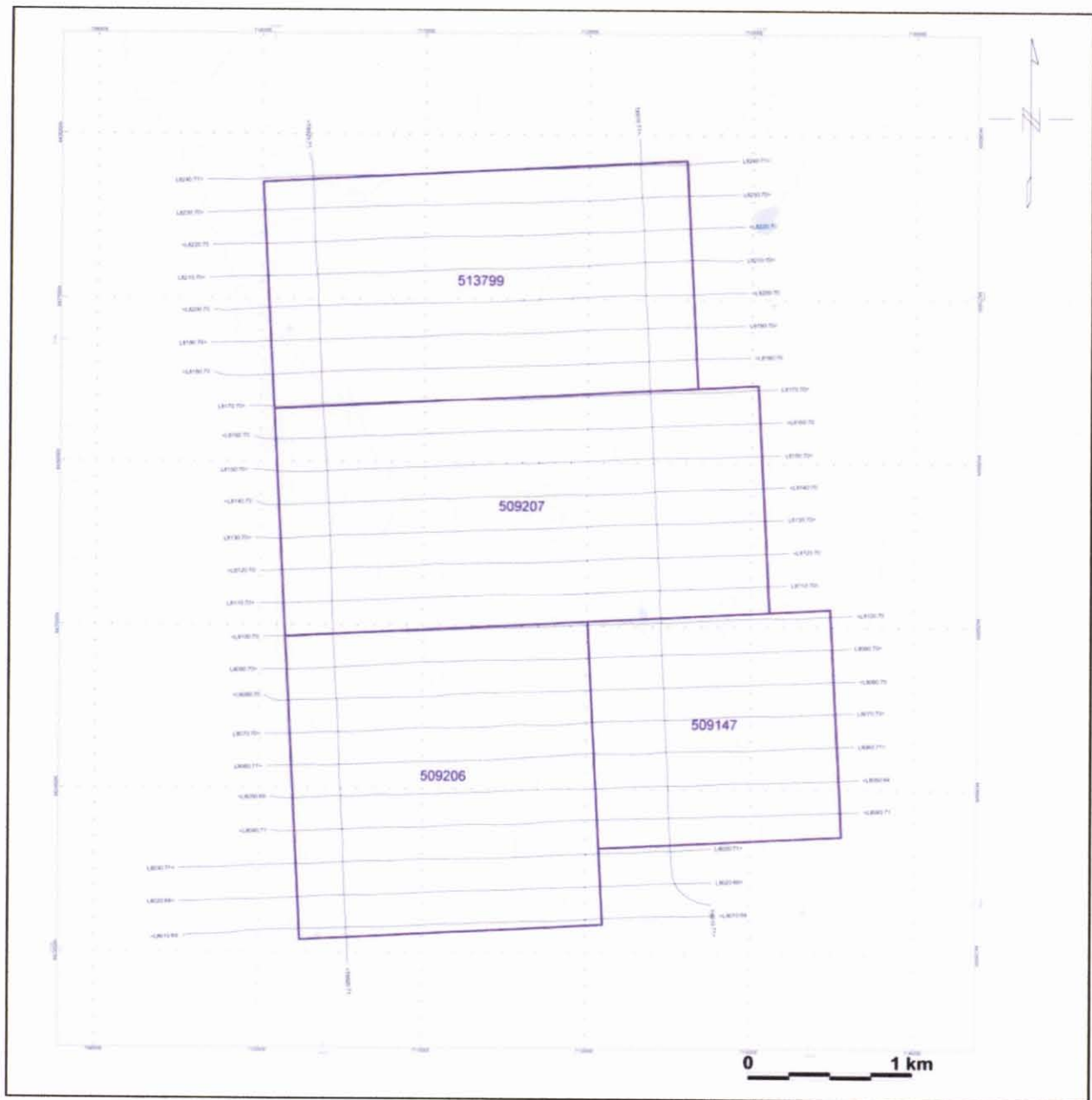
APPENDIX A
SURVEY BLOCK LOCATION MAPS



Google Earth Image: GK Project



Google Earth Image: GK Block



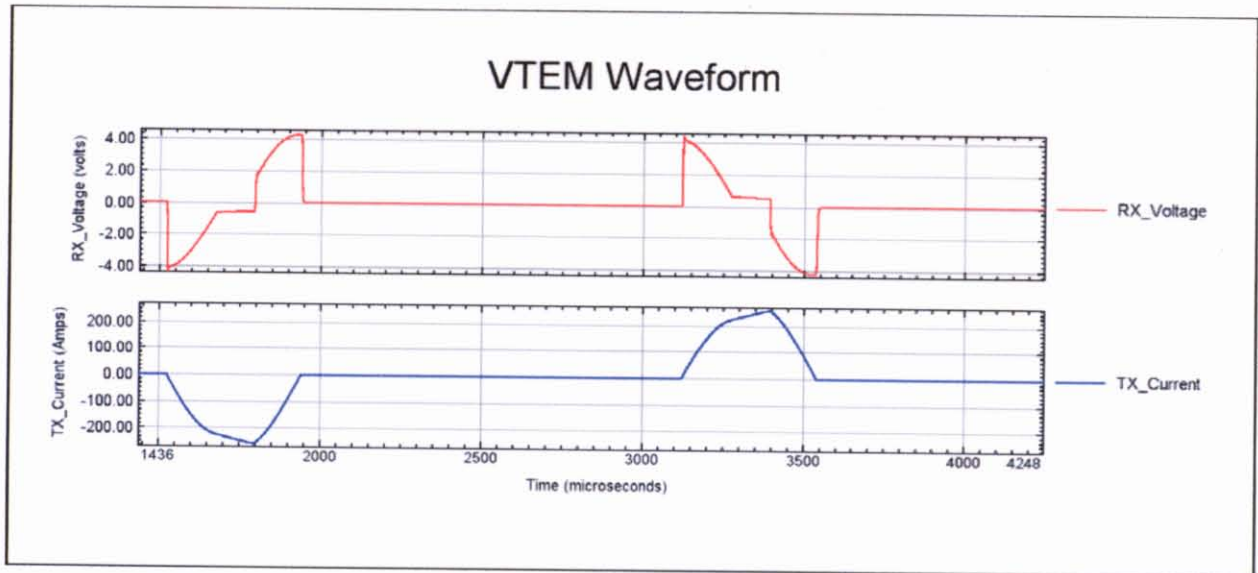
Mining Claims Map: GK Block

APPENDIX B

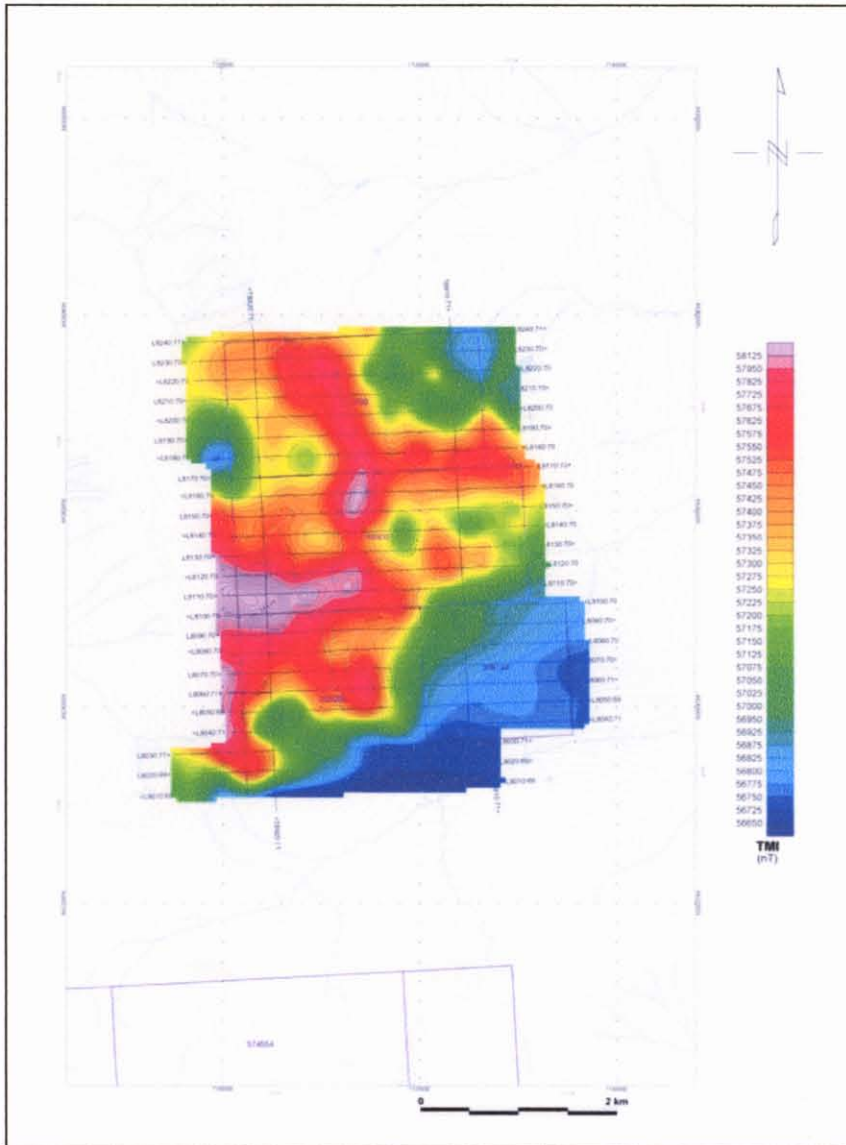
SURVEY BLOCK COORDINATES (NAD83, UTM Zone 8 North)

GK	
X	Y
710014	6427731
710240	6423093
712099	6423174
712080	6423643
713534	6423715
713470	6425131
713102	6425103
713032	6426487
712655.1	6426473
712582	6427832

APPENDIX C
VTEM WAVEFORM

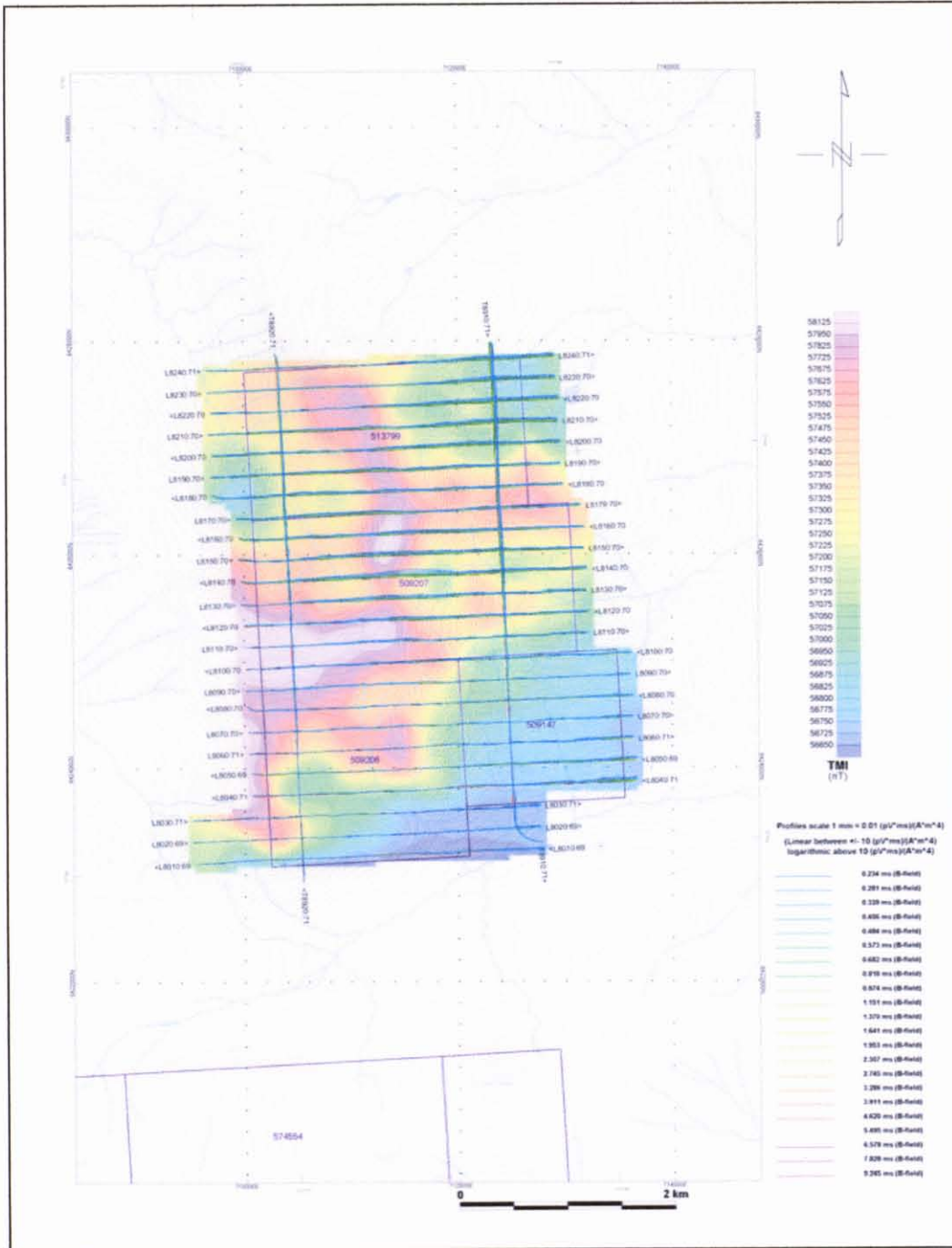


APPENDIX D
GEOPHYSICAL MAPS¹

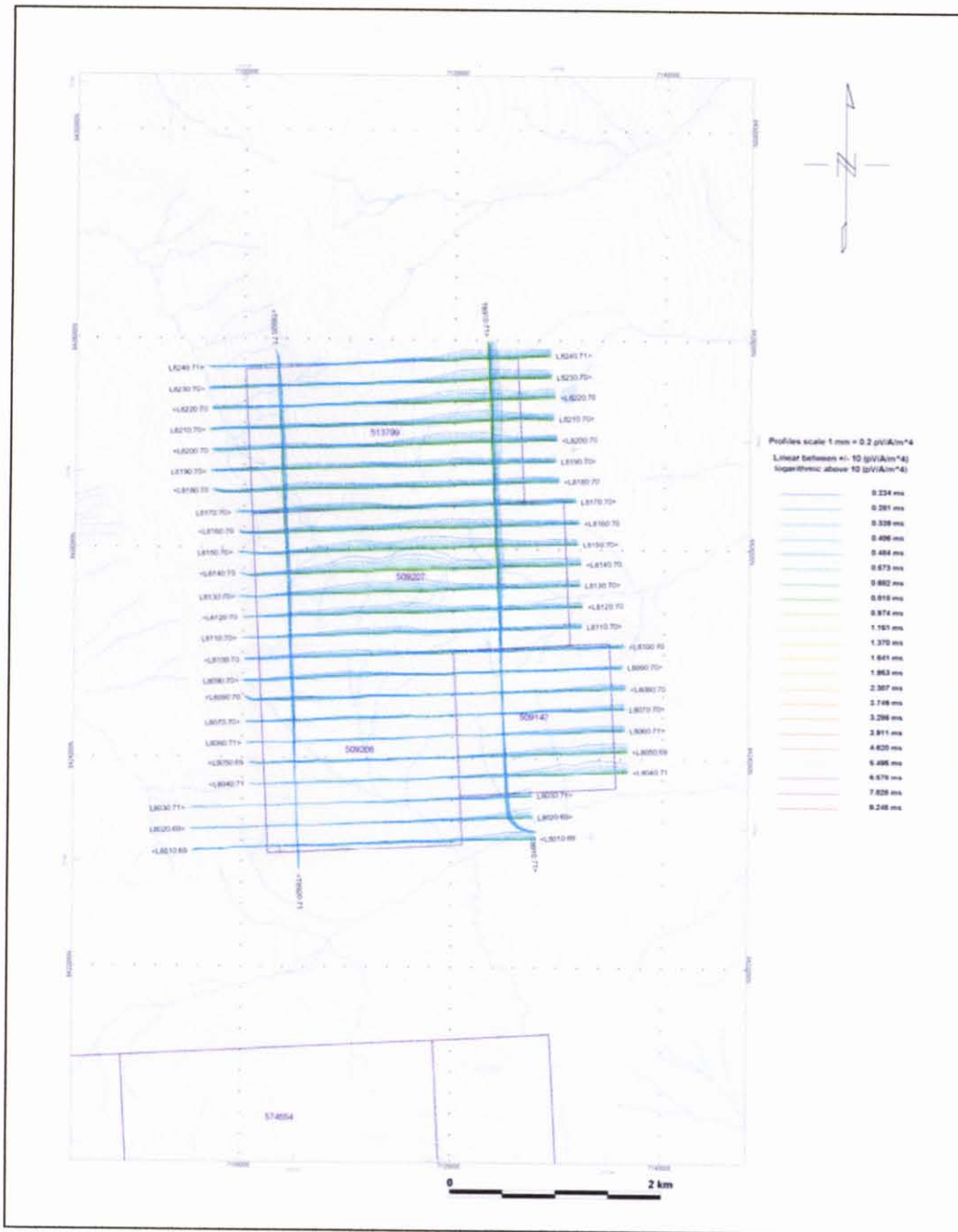


GK Property: Total Magnetic Intensity (TMI)

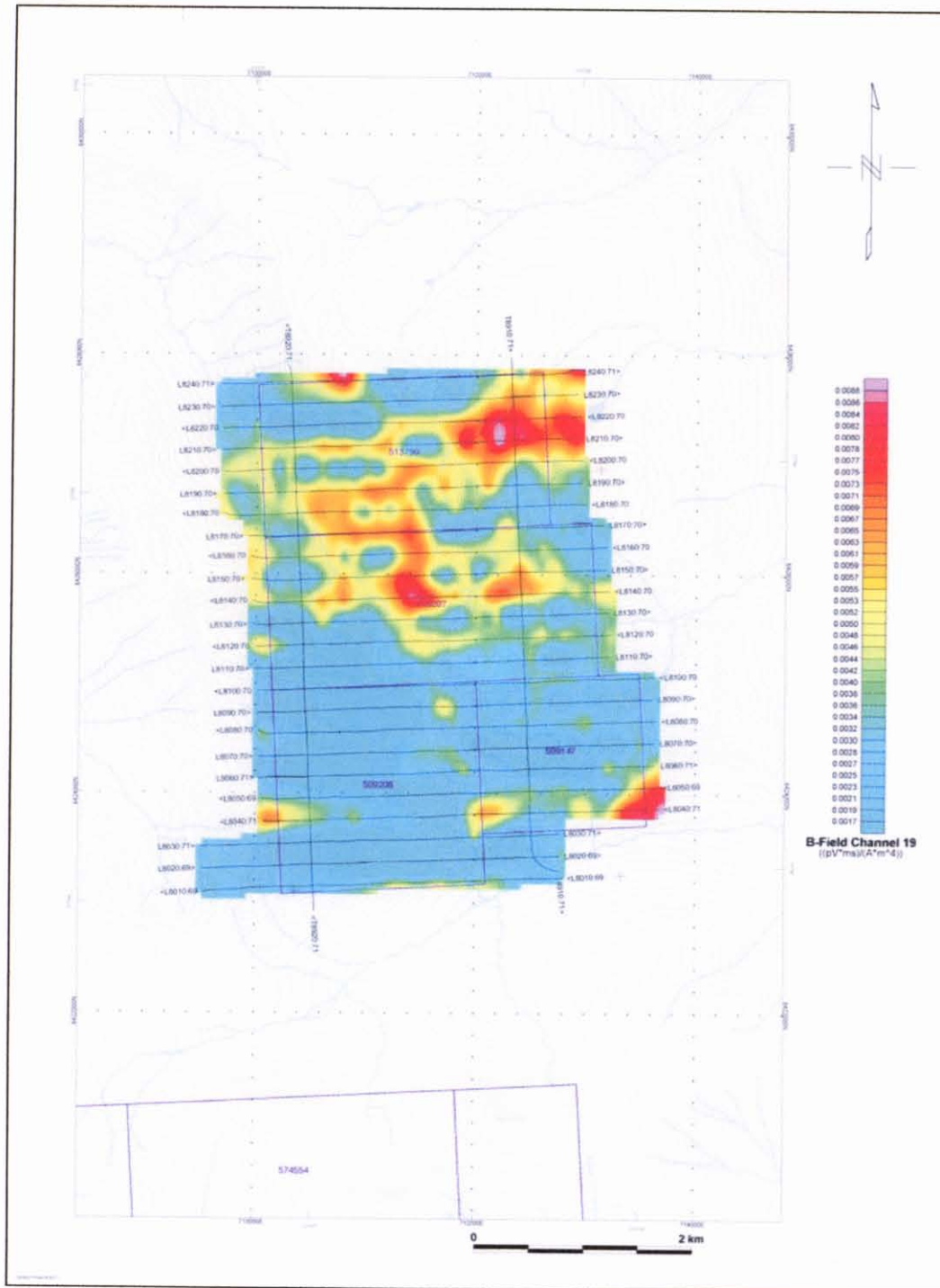
1 Note: Present maps are a selection of the final geophysical maps. Full size geophysical maps are also available in PDF format on the final DVD.



**GK Property: VTEM B-Field Profiles
 – Time Gates 0.234 to 9.245 ms, over TMI**



**GK Property: VTEM dB/dt Profiles
 - Time Gates 0.234 to 9.245 ms**



**GK Property: VTEM B-Field Contours
- Time Gate 0.573 ms**

APPENDIX E

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 26.1 metres diameter transmitter loop that produces a dipole moment up to 384,000 nIA at peak current. The wave form is a bi-polar, modified square wave with a turn-on and turn-off at each end. With a base frequency of 30 Hz, the duration of each pulse is approximately 7.4 milliseconds followed by an off time where no primary field is present.

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.

Measurements are made during the on and off-time, when only the secondary field (representing the conductive targets encountered in the ground) is present.

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.

General Modeling Concepts

A set of models has been produced for the Geotech VTEM® system with explanation notes (see models C1 to C18). 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.

When producing these models, a few key points were observed and are worth noting as follows:

- For near vertical and vertical plate models, the top of the conductor is always located directly under the centre low point between the two shoulders in the classic M shaped response.

- As the plate is positioned at an increasing depth to the top, the shoulders of the **M** shaped response, have a greater separation distance.
- When faced with choosing between a flat lying plate and a prism model to represent the target (broad response) some ambiguity is present and caution should be exercised.
- With the concentric loop system and Z-component receiver coil, virtually all types of conductors and most geometries are most always well coupled and a response is generated (see model H). Only concentric loop systems can map this type of target.

The Maxwell TM modeling program (Fullagar and Reid, 2001) used to generate the following responses assumes a resistive half-space.

Variation of Plate Depth

Geometries represented by plates of different strike length, depth extent, dip, plunge and depth below surface can be varied with characteristic parameters like conductance of the target, conductance of the host and conductivity/thickness and thickness of the overburden layer.

Diagrammatic models for a vertical plate are shown in Figures C-1 & C-2 and C-5 & C-6 at two different depths, all other parameters remaining constant. With this transmitter-receiver geometry, the classic **M** shaped response is generated. Figures C-1 and C-2 show a plate where the top is near surface. Here, amplitudes of the dual peaks are higher and symmetrical with the zero centre positioned directly above the plate. Most important is the separation distance of the peaks. This distance is small when the plate is near surface and widens with a linear relationship as the plate (depth to top) increases. Figures C-5 and C-6 show a much deeper plate where the separation distance of the peaks is much wider and the amplitudes of the channels have decreased.

Variation of Plate Dip

As the plate dips and departs from the vertical position, the peaks become asymmetrical. Figures C-3 & C-4 and C-7 and C-8 show a near surface plate dipping 80° at two different depths. Note that the direction of dip is toward the high shoulder of the response and the top of the plate remains under the centre minimum.

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 90° to about 30°. The method is not sensitive enough where dips are less than about 30°. For example, for a plate dipping 45°, the minimum shoulder

starts to vanish. In Figures C-9 & C-10 and C-11 & C-12, a flat lying plate is shown, relatively near surface. Note that the twin peak anomaly has been replaced by a symmetrical shape with large, bell shaped, channel amplitudes which decay relative to the conductance of the plate.

In the special case where two plates are positioned to represent a synclinal structure. Note that the main characteristic is that the centre amplitudes are higher (approximately double) compared to the high shoulder of a single plate. This model is very representative of tightly folded formations where the conductors were once flat lying.

Variation of Prism Dip

Finally, with thicker, prism models, another algorithm is required to represent current on the plate. A plate model is considered to be infinitely thin with respect to thickness and incapable of representing the current in the thickness dimension. A prism model is constructed to deal with this problem, thereby, representing the thickness of the body more accurately.

Figures C-13 & C-14 and C-15 & C-16 show the same prism at the same depths with variable dips. Aside from the expected differences asymmetry prism anomalies show a characteristic change from a double-peaked anomaly to single peak signatures.

I. THIN PLATE

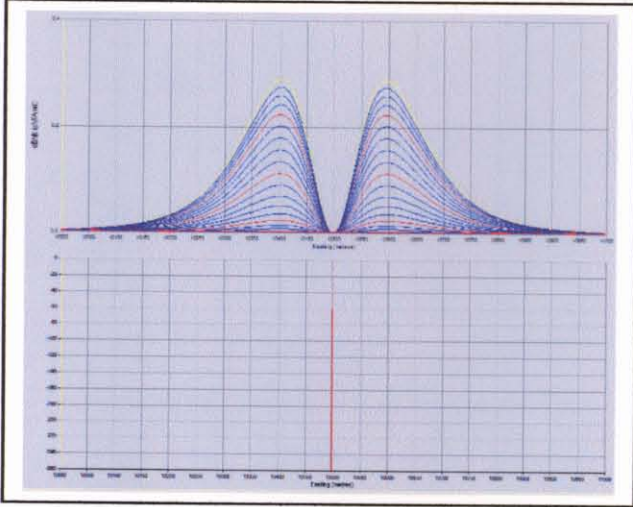


Figure C-1: dB/dt response of a shallow vertical thin plate. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment and the Rx area.

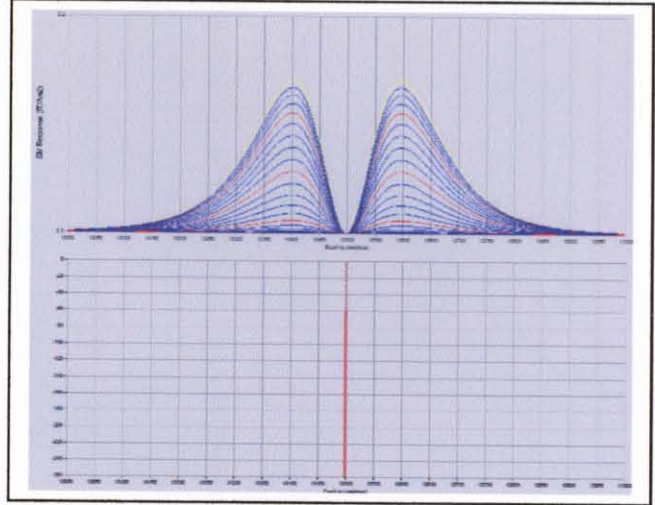


Figure C-2: B-field response of a shallow vertical thin plate. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment.

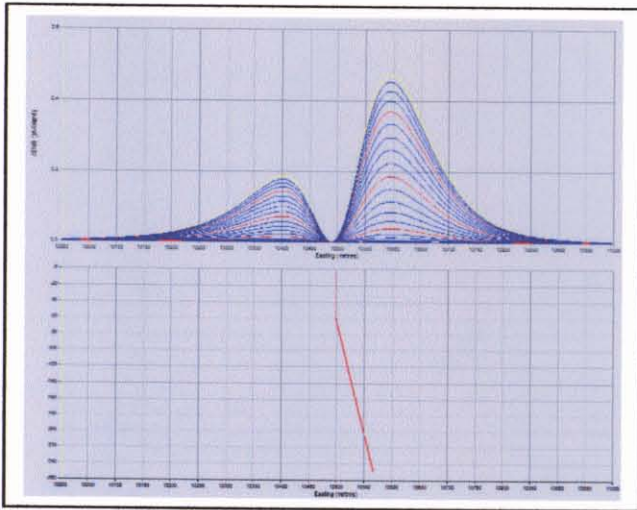


Figure C-3: dB/dt response of a shallow skewed thin plate. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment and the Rx area.

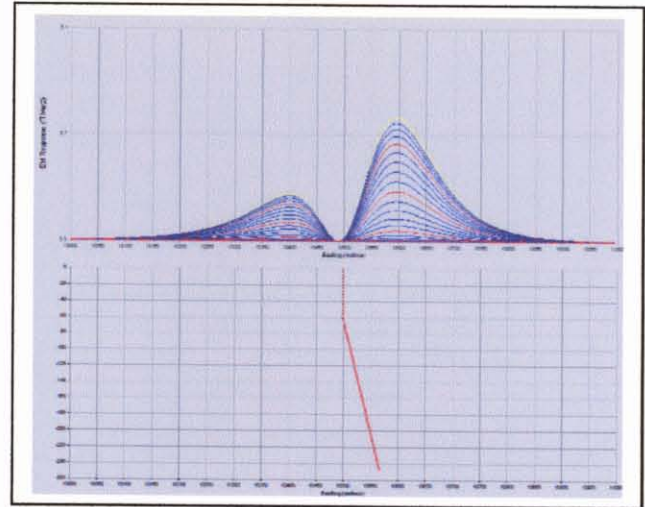


Figure C-4: B-field response of a shallow skewed thin plate. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment.

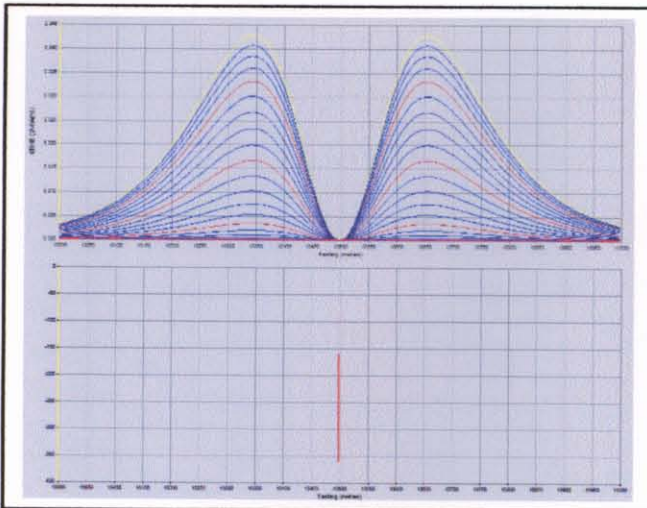


Figure C-5: dB/dt response of a deep vertical thin plate. Depth=200 m, CT=20 S. The EM response is normalized by the dipole moment and the Rx area.

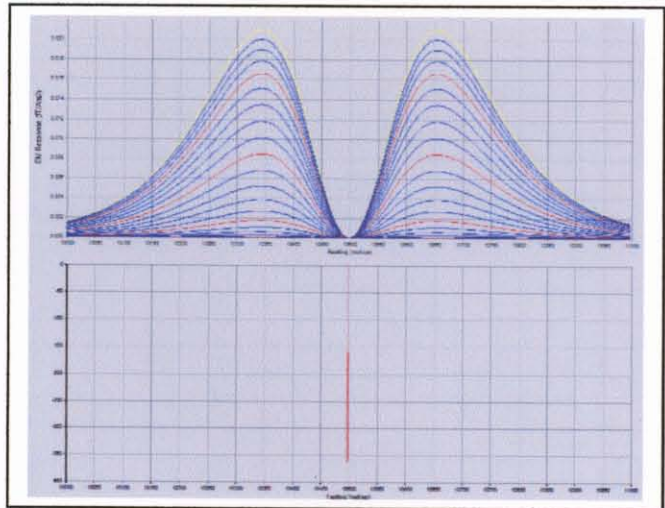


Figure C-6: B-Field response of a deep vertical thin plate. Depth=200 m, CT=20 S. The EM response is normalized by the dipole moment.

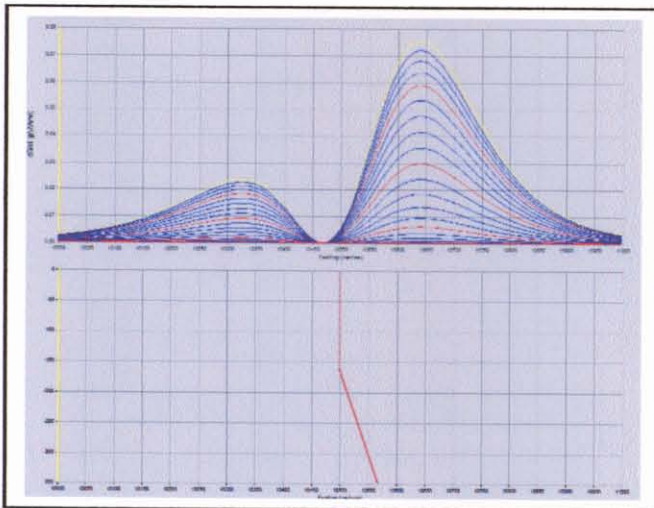


Figure C-7: dB/dt response of a deep skewed thin plate. Depth=200 m, CT=20 S. The EM response is normalized by the dipole moment and the Rx area.

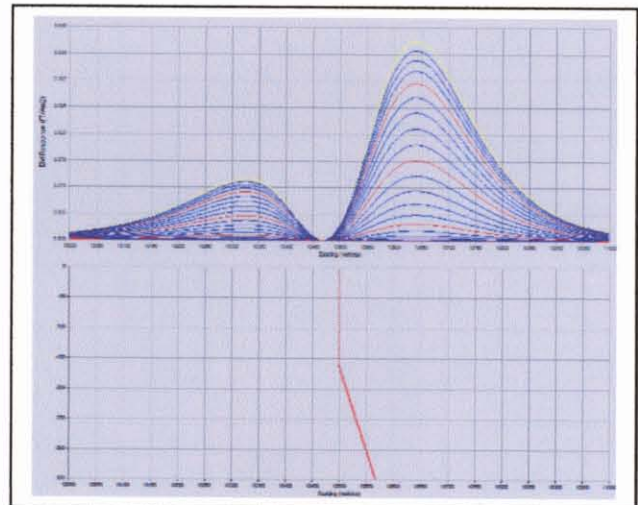


Figure C-8: B-Field response of a deep skewed thin plate. Depth=200 m, CT=20 S. The EM response is normalized by the dipole moment.

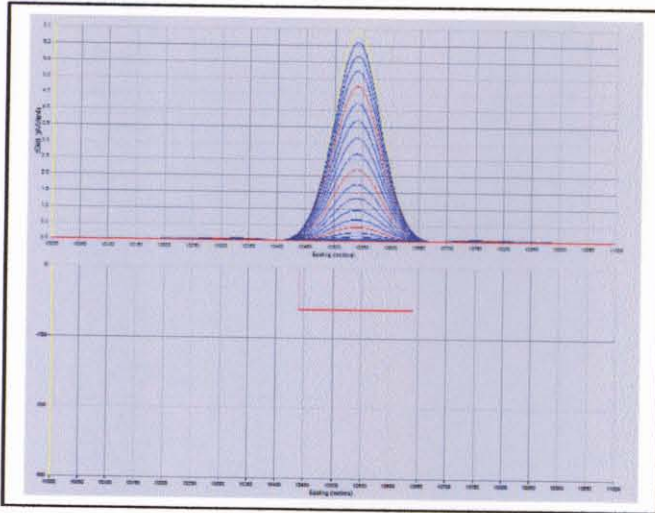


Figure C-9: dB/dt response of a shallow horizontal thin plate. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment and the Rx area.

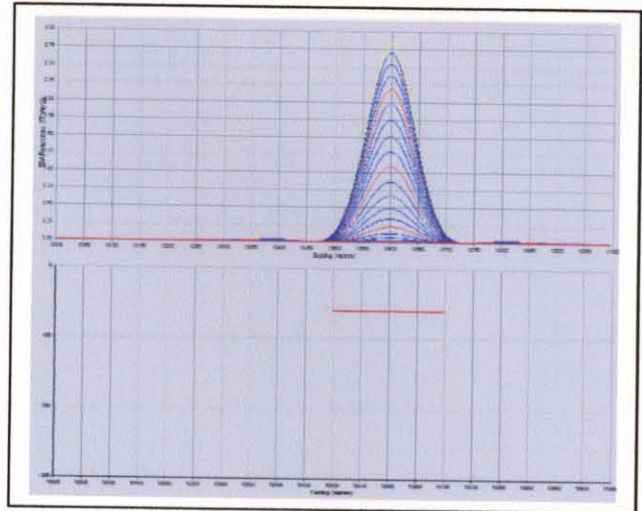


Figure C-10: B-Field response of a shallow horizontal thin plate. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment.

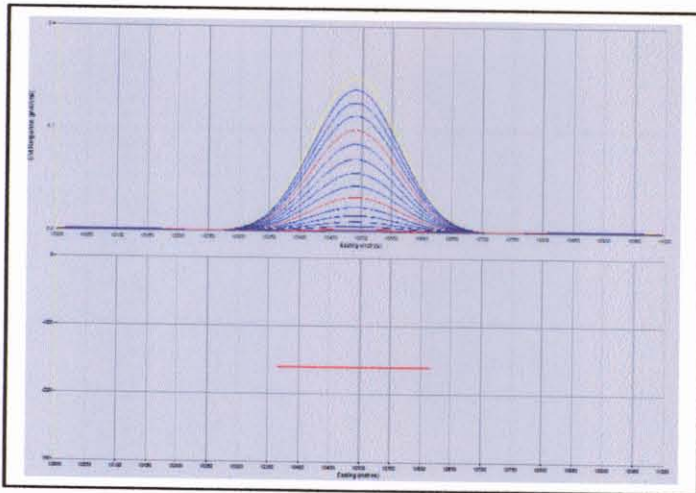


Figure C-11: dB/dt response of a deep horizontal thin plate. Depth=200 m, CT=20 S. The EM response is normalized by the dipole moment and the Rx area.

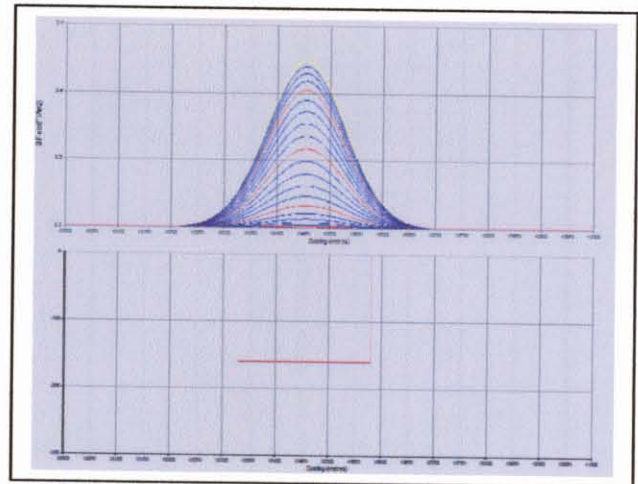


Figure C-12: B-Field response of a deep horizontal thin plate. Depth=200 m, CT=20 S. The EM response is normalized by the dipole moment.

II. THICK PLATE

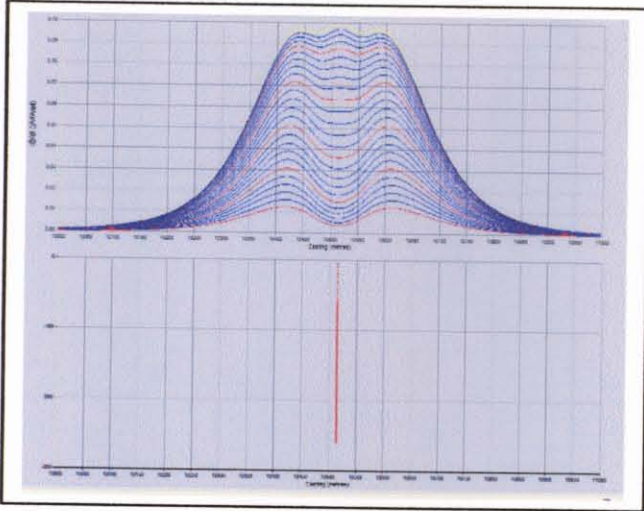


Figure C-13: dB/dt response of a shallow vertical thick plate. Depth=100 m, $C=12$ S/m, thickness=20 m. The EM response is normalized by the dipole moment and the Rx area.

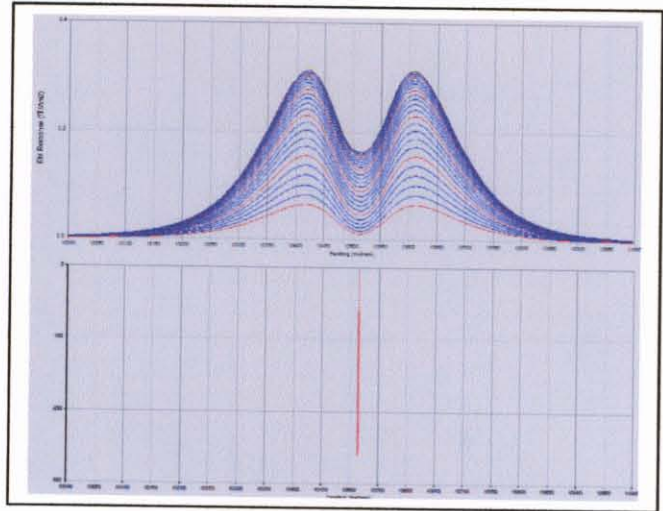


Figure C-14: B-Field response of a shallow vertical thick plate. Depth=100 m, $C=12$ S/m, thickness=20 m. The EM response is normalized by the dipole moment.

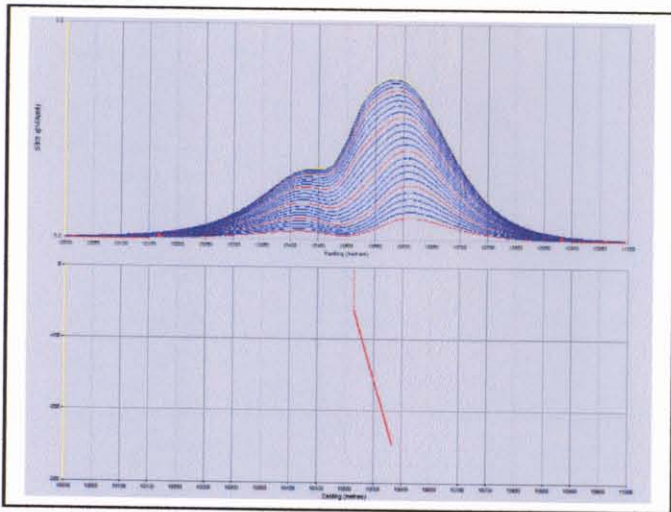


Figure C-15: dB/dt response of a shallow skewed thick plate. Depth=100 m, $C=12$ S/m, thickness=20 m. The EM response is normalized by the dipole moment and the Rx area.

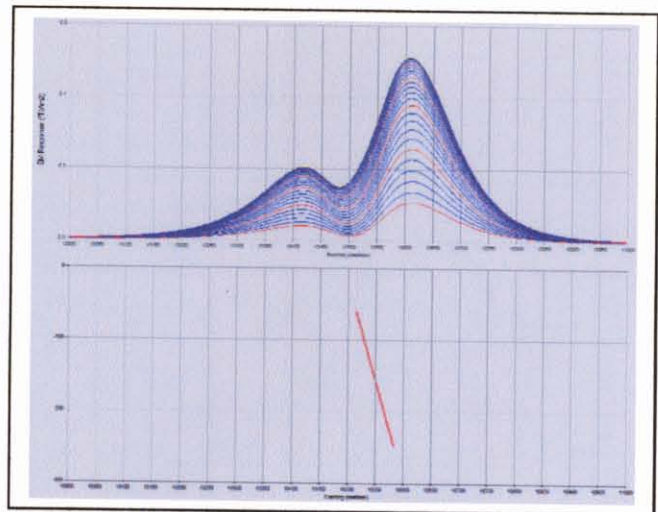


Figure C-16: B-Field response of a shallow skewed thick plate. Depth=100 m, $C=12$ S/m, thickness=20 m. The EM response is normalized by the dipole moment.

III. MULTIPLE THIN PLATES

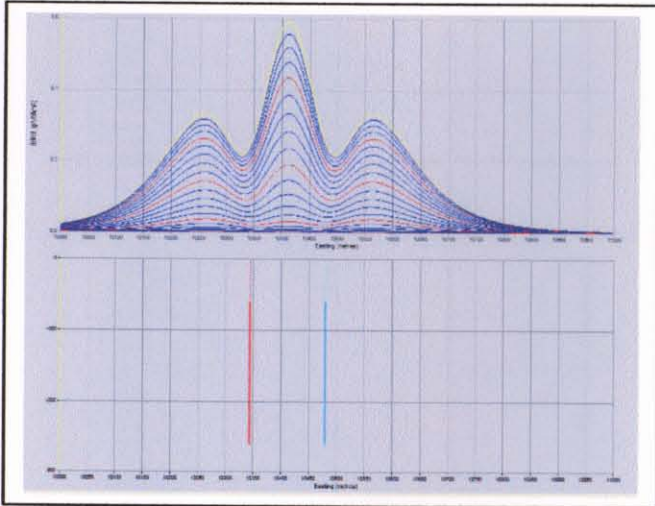


Figure C-17: dB/dt response of two vertical thin plates. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment and the Rx area.

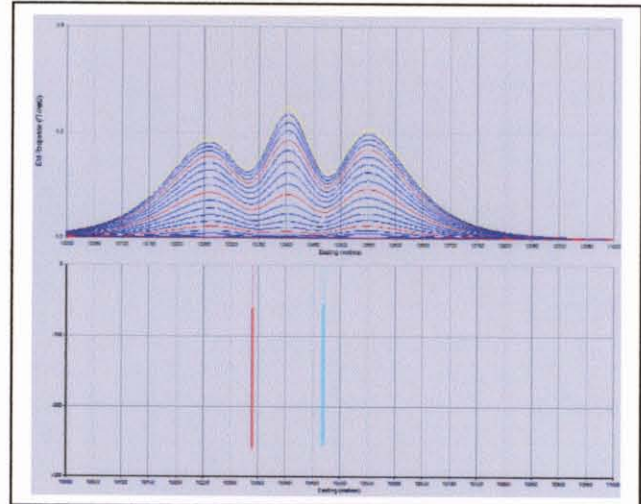


Figure C-18: B-Field response of two vertical thin plates. Depth=100 m, CT=20 S. The EM response is normalized by the dipole moment.

General Interpretation Principals

Magnetics

The total magnetic intensity responses reflect major changes in the magnetite and/or other magnetic minerals content in the underlying rocks and unconsolidated overburden. Precambrian rocks have often been subjected to intense heat and pressure during structural and metamorphic events in their history. Original signatures imprinted on these rocks at the time of formation have, in most cases, been modified, resulting in low magnetic susceptibility values.

The amplitude of magnetic anomalies, relative to the regional background, helps to assist in identifying specific magnetic and non-magnetic rock units (and conductors) related to, for example, mafic flows, mafic to ultramafic intrusives, felsic intrusives, felsic volcanics and/or sediments etc. Obviously, several geological sources can produce the same magnetic response. These ambiguities can be reduced considerably if basic geological information on the area is available to the geophysical interpreter.

In addition to simple amplitude variations, the shape of the response expressed in the wave length and the symmetry or asymmetry, is used to estimate the depth, geometric parameters and magnetization of the anomaly. For example, long narrow magnetic linears usually reflect mafic flows or intrusive dyke features. Large areas with complex magnetic patterns may be produced by intrusive bodies with significant magnetization, flat lying magnetic sills or sedimentary iron formation. Local isolated circular magnetic patterns often represent plug-like igneous intrusives such as kimberlites, pegmatites or volcanic vent areas.

Because the total magnetic intensity (TMI) responses may represent two or more closely spaced bodies within a response, the second derivative of the TMI response may be helpful for distinguishing these complexities. The second derivative is most useful in mapping near surface linears and other subtle magnetic structures that are partially masked by nearby higher amplitude magnetic features. The broad zones of higher magnetic amplitude, however, are severely attenuated in the vertical derivative results. These higher amplitude zones reflect rock units having strong magnetic susceptibility signatures. For this reason, both the TMI and the second derivative maps should be evaluated together.

Theoretically, the second derivative, zero contour or color delineates the contacts or limits of large sources with near vertical dip and shallow depth to the top. The vertical gradient map also aids in determining contact zones between rocks with a susceptibility contrast, however, different, more complicated rules of thumb apply.

Concentric Loop EM Systems

Concentric systems with horizontal transmitter and receiver antennae produce much larger responses for flat lying conductors as contrasted with vertical plate-like conductors. The amount of current developing on the flat upper surface of targets having a substantial area in this dimension, are the direct result of the effective coupling angle, between the primary magnetic field and the flat surface area. One therefore, must not compare the amplitude/conductance of responses generated from flat lying bodies with those derived from near vertical plates; their ratios will be quite different for similar conductances.

Determining dip angle is very accurate for plates with dip angles greater than 30°. For angles less than 30° to 0°, the sensitivity is low and dips can not be distinguished accurately in the presence of normal survey noise levels.

A plate like body that has near vertical position will display a two shoulder, classic M shaped response with a distinctive separation distance between peaks for a given depth to top.

It is sometimes difficult to distinguish between responses associated with the edge effects of flat lying conductors and poorly conductive bedrock conductors. Poorly conductive bedrock conductors having low dip angles will also exhibit responses that may be interpreted as surficial overburden conductors. In some situations, the conductive response has line to line continuity and some magnetic correlation providing possible evidence that the response is related to an actual bedrock source.

The EM interpretation process used, places considerable emphasis on determining an understanding of the general conductive patterns in the area of interest. Each area has different characteristics and these can effectively guide the detailed process used.

The first stage is to determine which time gates are most descriptive of the overall conductance patterns. Maps of the time gates that represent the range of responses can be very informative.

Next, stacking the relevant channels as profiles on the flight path together with the second vertical derivative of the TMI is very helpful in revealing correlations between the EM and Magnetics.

Next, key lines can be profiled as single lines to emphasize specific characteristics of a conductor or the relationship of one conductor to another on the same line. Resistivity Depth sections can be constructed to show the relationship of conductive overburden or conductive bedrock with the conductive anomaly.

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