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**ASSESSMENT REPORT**

describing

**INDUCED POLARIZATION SURVEY**

at the

**MINT PROPERTY**

MINT 1-36	YD57201-YD57236
37-52	YD99701- YD99716
53-104	YD27625- YD27654
107-114	YD27657- YD27664
115-212	YD110256-YD110352
BUND 1-4	YD27665- YD27668
11-12	YD27675- YD27676
31-50	YD27695- YD27714
SLAG 1-14	YC65500- YC65513

NTS 115F/15

Latitude 61°49'N; Longitude 140°53'W

located in the

Whitehorse Mining District  
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

For

**STRATEGIC METALS LTD.**

by

H. Smith, B.Sc. Geology, P.Geo.  
January 2012

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## **INTRODUCTION**

The Mint property covers an alkalic-type porphyry gold, copper and molybdenum prospect located in southwestern Yukon. It is owned 100% by Strategic Metals Ltd.

This report describes an induced polarization (IP) survey that was conducted on the Mint property between June 23 and July 12, 2011. The survey was conducted by Aurora Geosciences of Whitehorse from a temporary fly camp on the property. The author directed this project and her Statement of Qualifications appears in Appendix I.

## **PROPERTY LOCATION, CLAIM DATA AND ACCESS**

The Mint property consists of 250 contiguous mineral claims, which are located on NTS map sheet 115F/15 at latitude 61°49' north and longitude 140°53' west (Figure 1). The property covers an area of approximately 5000 ha (50 sq km). The claims are registered with the Whitehorse Mining Recorder in the name of Archer, Cathro & Associates (1981) Limited, 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.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date*</u>
MINT 1-36	YD57201-YD57236	April 15, 2015
37-52	YD99701- YD99716	April 15, 2015
53-104	YD27625- YD27654	April 15, 2015
107-114	YD27657- YD27664	April 15, 2015
115-212	YD110255-YD110352	April 15, 2016
BUND 1-4	YD27665- YD27668	April 15, 2016
11-12	YD27675- YD27676	April 15, 2016
31-50	YD27695- YD27714	April 15, 2016
SLAG 1-14	YC65500- YC65513	April 15, 2016

\* Expiry dates include 2011 work that has been filed for assessment credit but not yet accepted.

The Mint property is located 26 km southwest of the White River Lodge (WRL) at Mile 1129 on the Alaska Highway. In 2011, mobilization to the Mint property was by a Bell 206B Jet Ranger helicopter operated by Capital Helicopters (1995) Inc. from a temporary base at Rockhaven Resources Ltd.'s Klaza property located 170 km east of the WRL. Demobilization from the property was performed by a Bell 206B Jet Ranger helicopter operated by TransNorth Helicopters from its year-round base in Haines Junction, 215 km southeast of the WRL.

## **HISTORY AND PREVIOUS WORK**

Exploration in the White River area was first documented in 1905 when prospectors looking for placer gold found native copper in gravels of the White River. Further prospecting identified native copper and primary copper sulphide minerals filling fractures and vesicles in massive volcanic flows.

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FIGURE 1  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

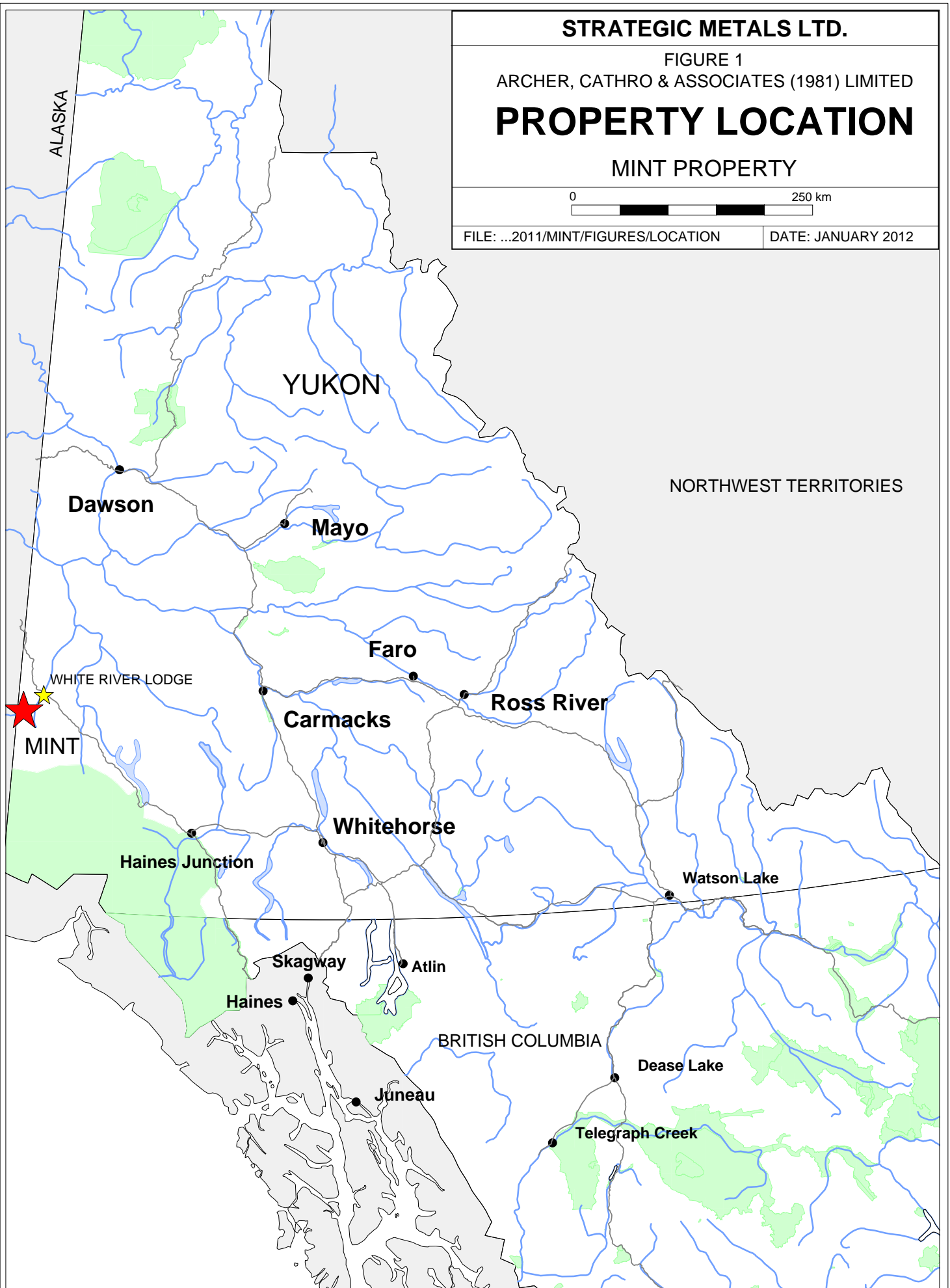
**PROPERTY LOCATION**

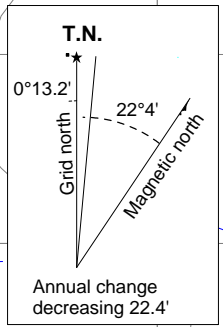
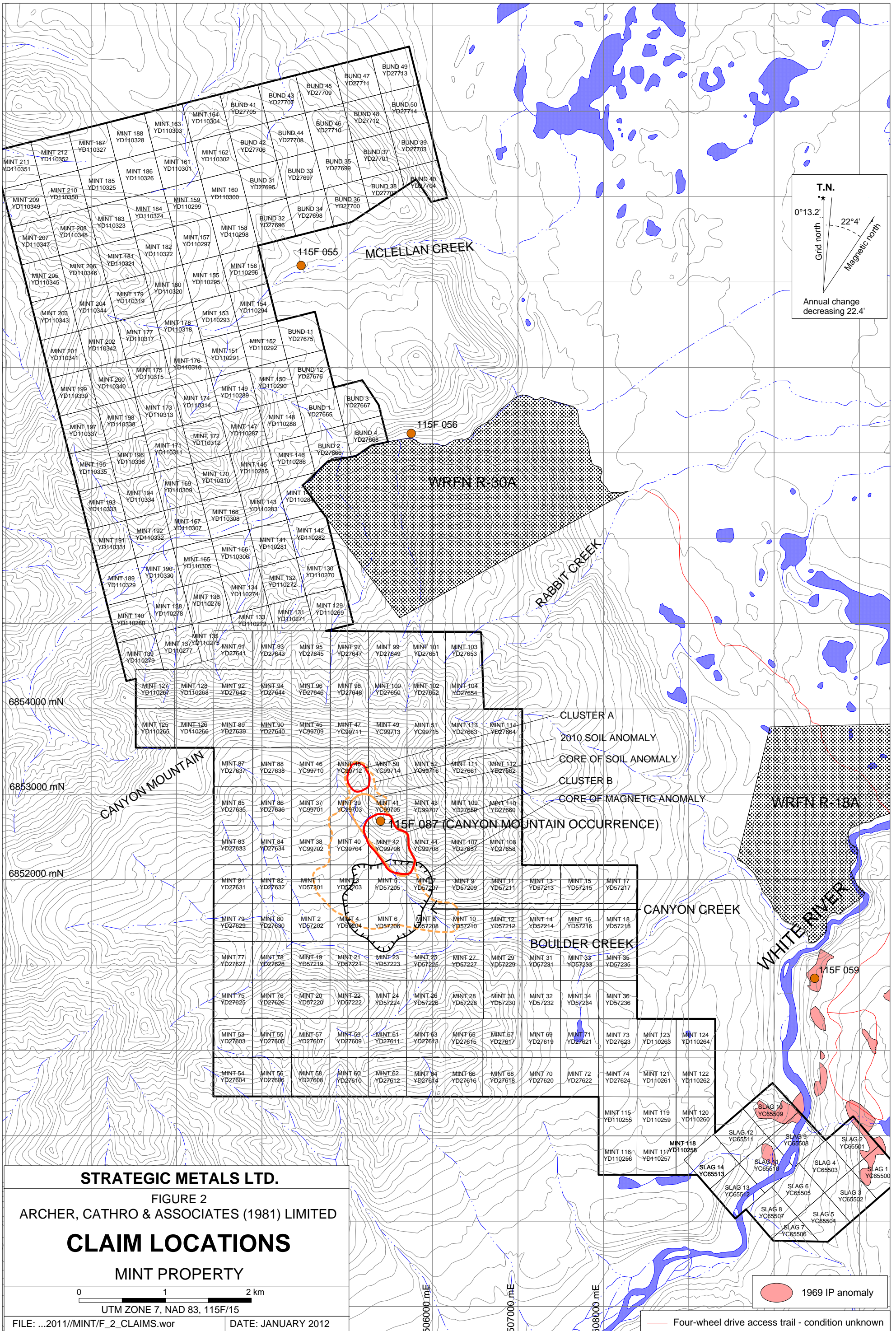
MINT PROPERTY



FILE: ...2011/MINT/FIGURES/LOCATION

DATE: JANUARY 2012





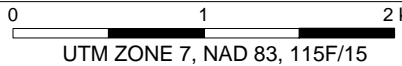
- CLUSTER A
- 2010 SOIL ANOMALY
- CORE OF SOIL ANOMALY
- CLUSTER B
- CORE OF MAGNETIC ANOMALY

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FIGURE 2  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**CLAIM LOCATIONS**

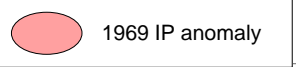
MINT PROPERTY



UTM ZONE 7, NAD 83, 115F/15

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DATE: JANUARY 2012



Four-wheel drive access trail - condition unknown

There are four Minfile occurrences in the vicinity of the Mint property (Deklerk and Traynor, 2005). Table I lists details for each of these occurrences, while their approximate locations are shown on Figure 2. These occurrences are described in the following paragraphs.

**Table I– Minfile Occurrences**

<b>Minfile</b>	<b>Occurrence</b>	<b>Commodity</b>	<b>Host</b>	<b>Location</b>
115F 055	McLellan	Coal	Sediments	600 m east of Mint 156
115F 056	Rabbit	Copper and silver	Shear zone	600 m east of Bund 4
115F 059	White River	Copper	Basalt	Partially covered by the Slag claims
115F 087	Canyon Mountain	Gold, copper and molybdenum	Intrusive	Mint property

### **McLellan Occurrence**

The Geological Survey of Canada (GSC) noted seams of lignite up to five centimetres thick within Paleogene Amphitheatre Formation, which was intruded by younger volcanic rocks. No follow up work has been reported.

### **Rabbit Occurrence**

The Rabbit Occurrence comprises pyrite, pyrrhotite, chalcopyrite and bornite, which were identified within a gossanous shear zone exposed along Rabbit Creek (Figure 2). It was first staked in 1907 by four independent prospectors. Between 1910 and 1917 three adits were driven to test for mineralization at depth. In 1913, a GSC geologist visited this occurrence and collected a chip sample from an adit that returned 0.85% copper over 1.07 m (Cathro, 1967a). No further work was performed.

The Rabbit Occurrence was restaked in 1944 (Pete claims) and 1966 (CC claims). The CC claims were explored in 1967 by Canyon City EL and work consisted of hand trenching, prospecting and sampling. Noteworthy results from this work include a sample of chalcopyrite-rich material that graded 4.51% copper and 8.2 g/t silver with trace gold and a chip sample from a trench adjacent to an adit that returned 1.02% copper over 9.4 m (Cathro, 1967a). In 1968, Canyon City conducted road building, soil sampling, mapping and an IP survey. A total of 1087 soil samples were collected and assayed. The background threshold for copper-in-soil was 50 ppm and the peak value was 3350 ppm. In general, the geophysical surveys were hindered by cold weather and frozen ground; however, one large and two small chargeability anomalies were identified. The large anomaly coincides with Rabbit Creek and was assumed to be related to a fault structure, while the two smaller anomalies roughly coincide with two showings of chalcopyrite (Cathro, 1968a).

In 1970, diamond drilling was completed to test an IP anomaly almost a kilometre east of the gossan. The best result from the drilling was 0.06% copper over 3.05 m (Grant, 1970). The CC claims were allowed to lapse following this work.

The Rabbit Occurrence was restaked in summer 2010 by an independent prospector.

### White River Copper Occurrence

From 1907 to 1916 a number of individuals from academia and industry investigated the White River Copper Occurrence. In 1907, Professor of Economic Geology at Yale University, J.D. Irving observed three flat slabs of native copper, confined to joint planes of basalt, in the face of a large cliff on the east side of the White River. A fourth slab weighing 1180 kg was removed from an adit and left beside a tree before being moved to the Whitehorse Mining Museum in 1958. In 1912, 4.5 tonnes of copper ore was shipped to the Tacoma Smelter from the property. No work was reported in the area from 1915 to 1943 (Deklerk and Traynor, 2005).

In 1944, additional claims were staked by two prospectors who rehabilitated old workings, performed some hand trenching and conducted airborne magnetometer and resistivity surveys before dropping the claims in 1954 (Deklerk and Traynor, 2005).

In 1962, the showing was restaked as the Kay, Slaggard and Goldenhorne claims by A. Rivers.

In 1966, Silver City Mines Limited staked the Marc claims to surround the Slaggard and Goldenhorne claims, which Silver City then optioned from Rivers (Baird, 1967). Table II below lists work performed by Silver City and various partners between 1967 and 1981.

**Table II–White River Copper Property Exploration Programs**

Year (report)	Option Party	Work Performed	Results
1966 (061676)		Acquisition of claims, proposal for future work	n/a
1967 (060733)	Central Del-Rio Oil Ltd.	Geological mapping	Two possible styles of mineralization were identified: basalt-hosted copper, chalcocite, chalcopyrite and bornite and skarn formation associated with limestone.
1967 (060886)	Central Del-Rio Oil Ltd.	Bulldozer trenching, airstrip and tote road construction	Bulldozer trenching discovered a vertically dipping, structurally controlled deposit of chalcocite, native copper and bornite, which graded 3.53% copper and 6.86 g/t silver over 9.14 m.
1967 (061737)	Central Del-Rio Oil Ltd.	Geochemical sampling	Test pit excavations to determine soil profile. A copper-in-soil value near native copper slab returned 3400 ppm. Rock samples returned between 110 to 3100 ppm copper.
1968 (091317)	United Pemetex Ltd.	Progress update - bulldozer work	Completed construction of a 32.19 km tote trail along the east bank of White River before crossing a braided gravel bar to reach an airstrip located slightly north of property.
1968 (091318)	United Pemetex Ltd.	Diamond drilling (11 holes, 800.4 m)	Mineralization included native copper and chalcocite with minor chalcopyrite and pyrite. Amygdaloidal, fracture fillings and replacement style mineralization were present to depths of 51.8 m. Hole 1: 2.98% copper and 8.91 g/t silver over 4.72 m; and 2.30% copper and 7.20 g/t silver over 8.23 m. Hole 2: 9.02% copper and 14.7 g/t silver

			over 5.33 m; 7.46% copper and 12.7 g/t silver over 6.71 m; and 4.72% copper and 10.29 g/t silver over 11.89 m. Hole 5: 6.81% copper and 17.14 g/t silver over 1.62 m.
1969 (060732)		IP survey	An IP survey returned a number of areas that are thought to contain greater than 1% by volume of metallicly conducting material. These areas are scattered throughout the claim area (Figure 2).
1969 (019082)	United Pemetex Ltd.	Diamond drilling (one hole, 77.4 m and 44 holes, 3504.9 m)	Drilled an IP anomaly and intersected the best mineralization to date: 2.14% copper over 20.7 m. Following this result a 3050 m drill program was carried out to further test IP anomalies, but mineralization encountered occurred as narrow intervals with no apparent continuity along strike.
1970 (018930)	United Pemetex Ltd.	IP survey and portal excavation	General update on progress of portal excavation and sampling. Adit drifted at 2900 level. Numerous IP anomalies were identified north and south of the main zone.
1972 (019892)		Underground diamond drilling (20 holes, 888.2 m),	Drilling confirmed presence of irregular, but high grade copper zones. Highly fractured rocks inhibited drilling.
1973 (019891)		Drifted adit at 2800 level, and three other adits. Approximately 610 m of drilling at 2900 level. IP survey east of main zone.	The best drill result was from Hole 3B which returned 10.70% copper over 3.04 m. IP survey showed two, approximately parallel, north-south trending conductors that underlie the main zone.
1974 (061477)		Extension of 2800 level adit.	Conditions were difficult, but more work was recommended.

Mineralization at the White River Copper Occurrence consists of native copper, chalcocite, chalcopyrite, bornite, pyrite, covellite, cuprite and native silver hosted within basalt flows of the Upper Triassic Nikolai Assemblage, which includes basalt with porphyritic and amygdaloidal textures (Cathro, 1968b).

Silver City allowed the claims covering the White River Copper property to lapse around 1981. The property was restaked by an independent prospector in 1984 and trenching was conducted in 1984, 1985 and 1987, but the claims lapsed following this work. The core of the historical White River Copper property is currently covered by six claims owned by Shawn Ryan of Dawson City.

### **Canyon Mountain Occurrence**

Placer claims were staked on Boulder Creek prior to 1982, but no exploration or production was documented. In 1982, Homestake Mineral Development Company staked the CAN claims to cover a colour anomaly and anomalous steam sediment geochemical values from Canyon and Boulder creeks (Figure 2). Its 1983 work program on the CAN claims comprised 1:10,000 scale

geological mapping and limited rock, soil and stream sediment sampling. Values for rock samples taken by Homestake at the Canyon Mountain Occurrence ranged from background to spotty high values up to 0.24 g/t gold, 1.89% copper and 129 ppm molybdenum. Results from soil and stream sediment sampling yielded moderately to strongly anomalous values up to 970 ppb gold-in-soil and 240 ppb gold-in-silt, 194 ppm copper-in-soil and 219 ppm copper-in-silt, and 13 ppm molybdenum-in-soil and 17 ppm molybdenum-in-silt (Boyd and Flanagan, 1983). Rock samples collected did not adequately explain the anomalous soil and stream sediment values. Although Homestake recognized the porphyry potential, the CAN claims were allowed to lapse – likely because of a sharp economic downturn which led to the dismantling of that company's exploration team.

In 1985, the GSC conducted a low-density stream sediment and water sampling survey on NTS map sheet 115F (Friske et al., 1986). A sample from Boulder Creek returned 80<sup>th</sup> percentile values for gold (13 ppb), copper (75 ppm), molybdenum (1 ppm), lead (12 ppm) and zinc (106 ppm).

In July 2007, Strategic staked the Slag claims to cover chargeability anomalies identified during historical IP surveys performed by Silver City. In April 2010, Strategic staked its initial Mint claims to cover the anomalous samples collected by Homestake. Intermittently from June to December 2010, Strategic added claims to the Mint property to cover a series of small intrusive bodies that correlate with magnetic highs identified from a Yukon Geological Survey (YGS) geophysical survey. The Bund claims were staked in July 2010 to cover possible extensions of the mineralization identified on Rabbit Creek. In fall 2010 the Mint, Bund and Slag claims were connected to form the current Mint property.

In 2010, Strategic performed a two-phase program on the Mint property. Phase 1 comprised geochemical sampling done by Archer Cathro, and Phase 2 involved helicopter-borne magnetic and gamma-ray spectrometric geophysical surveys conducted by New-Sense Geophysics Limited of Markham, Ontario.

Positive results were obtained from Phase 1 in an area where high level plutons intrude volcanic rocks. Soil sampling identified a 400 by 1200 m core area (Figure 2) of strongly to very strongly anomalous gold values (100 to 3400 ppb), moderately to strongly anomalous copper values (100 to 1370 ppm) and moderately to strongly anomalous molybdenum values (5 to 150 ppm). Surrounding this core is an approximately 1000 by 2000 m area of moderately anomalous gold, copper and molybdenum values. Rock sampling at the Canyon Mountain Occurrence identified two clusters (Cluster A and B) of anomalous rock geochemistry (Figure 2). Cluster A hosts weakly to strongly anomalous copper values up to 1.27% and weakly to strongly anomalous molybdenum values up to 129 ppm. Gold values within Cluster A are typically background to weakly anomalous with one strongly anomalous value of 0.210 g/t gold. Cluster B is dominantly gold- and copper- rich with minor molybdenum. Gold values are background to strongly anomalous with a peak value of 0.874 g/t. Copper values are weakly to strongly anomalous with a peak value of 1.89%. Molybdenum values are background to moderately anomalous with a peak value of 77 ppm.

The New-Sense geophysical survey identified a 1500 m diameter anomaly that is cored by an area of high magnetic response. The core of the anomaly lies immediately south and west of Cluster B and coincides with part of the gold-copper-molybdenum soil anomaly. A smaller, magnetic high that lies three kilometres to the southeast may represent a smaller satellite pluton.

An 800 by 1200 m potassium radiometric anomaly lies about 500 m north of the core of the magnetic anomaly. It coincides with Cluster B and the strongest part of the soil anomaly. This feature likely represents potassium altered intrusive and volcanic rocks that have little or no overburden cover (Smith, 2011). The subdued radiometric response from the gentle slope west of the Canyon Mountain Occurrence is likely due to interference from thick overburden.

### **GEOMORPHOLOGY AND CLIMATE**

The Mint property is located within the Nutzotin Mountains, which lie in the northern part of the St. Elias Mountain Range, about 27 km southwest of the Shakwak Valley. The southeastern part of the property straddles the White River. Elevations range from 850 m at White River to 2150 m on the main ridge of Canyon Mountain (Figure 2).

The area has been affected by numerous glacial events. During the St. Elias Glacial Advance, the Klutlan Glacier almost reached the Shakwak Valley scouring a broad northwest trending valley to Tchawshamon Lake, which lies about four kilometres northeast of the Mint property. The post glacial uplift of the St. Elias Range coupled with rapid runoff resulting from glacial retreat caused the White River to swiftly cut its way down about 90 m to form Upper Canyon, which lies north of the Slag claims, on the White River (Cathro, 1967b). Local glacial features such as moraines are present on the property.

Volcanic ash is a significant component of the soil profile near the Mint property. It is believed that between 1450 and 1750 years ago an eruption occurred about 20 km southwest of the property and scattered pumice in two large fans (720 km east and 400 km north, respectively) by prevailing winds. The thickness of the pumice layer varies throughout the fan areas, but near the Mint property it is up to 60 cm thick. The pumice layer is often cemented by permafrost that is insulated by thick, widespread moss cover. The frozen pumice layer hinders conventional soil sampling techniques.

Vegetation at the Mint property consists of stunted black spruce, willow and birch with thick moss in valley bottoms and on lower slopes. Higher elevations are characterized by long, steep (about 30°) talus slopes. Outcrops occur near ridge crests, within talus slopes and along actively eroding creek cuts.

The climate in the Mint area is typical of northern continental regions with long, cold winters, truncated fall and spring seasons and short, mild summers. Although summers are relatively mild, arctic cold fronts sometimes cover the area and snowfall can occur in any month. The property is mostly snow free from late May to late September.

## REGIONAL GEOLOGY

The Mint property lies along the northeast edge of Wrangellia geological terrane (Figure 3), about 26 km southwest of the Denali Fault. Figure 4 illustrates 1:50,000 scale mapping compiled by Gordey and Makepeace (2003). The following lithological unit descriptions have been modified to incorporate recent work that was done in the area by Israel and Van Zeyl (2004).

### Skolai Assemblage

The oldest rocks in the project area belong to the 1000 m thick Pennsylvanian to Permian Skolai Assemblage (CPS). Station Creek Formation forms the lower part of this assemblage. It consists of augite-phyric basalt and andesitic volcanic flows that are succeeded upwards by fine- to medium-grained tuff. Volcanic agglomerate and breccia are locally present and discontinuous beds of limestone occur throughout. The upper 400 m of the formation is transitional with overlying Hasen Creek Formation, with the contact informally put at the cessation of pyroclastic deposition.

The Hasen Creek Formation forms the upper part of the Skolai Assemblage, attaining a maximum thickness of approximately 800 m. Stratigraphy consists of a fine grained clastic lower member composed of grey to black phyllite, cherty argillite, and siltstone that gives way gradationally upward to shaley limestone and buff coloured massive bioclastic limestone and calcarenite with discontinuous beds of reddish brown conglomerate, massive greywacke and sandstone. Thin basaltic flows, breccia and tuff are locally present.

### Nikolai Assemblage

The Middle to Late Triassic Nikolai Assemblage (uTrN) is a kilometre or more thick sequence of basalt flows with minor interbedded limestone that unconformably overlies the Skolai Assemblage rocks. Flows are thin (2 to 10 m), vesicular to amygdaloidal and locally hematitic, indicating shallow water to sub-aerial deposition.

### Amphitheatre Formation

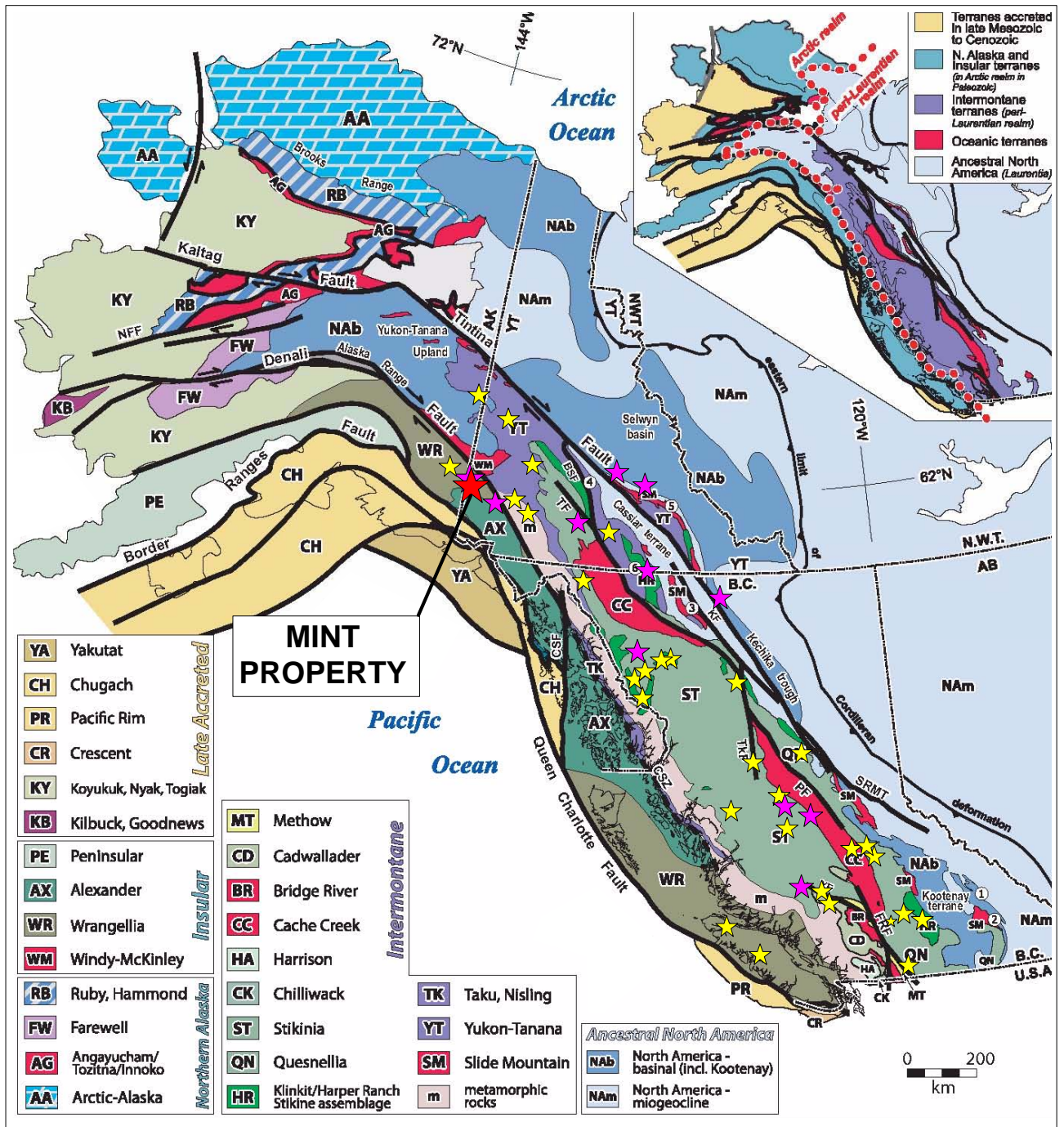
The Paleocene to Oligocene Amphitheatre Formation (OA) comprises yellow-buff to grey-buff sandstone, bebbly sandstone, polymictic conglomerate, siltstone, mudstone, minor brown-grey carbonaceous shale. In some areas OA disconformably overlies CPS.

### Wrangell Suite

The Mid to Late Miocene Wrangell Suite intrusions (MW) form a northwest trending belt of plugs and stocks. This suite is composed of: fine to medium grained, hornblende-biotite granodiorite and porphyritic potassium feldspar-hornblende granodiorite; medium grained biotite diorite and sub-volcanic hornblende-biotite rhyolite, rhyodacite, dacite and trachyte.

### Wrangell Lavas

These Miocene to Pliocene and younger lavas (NW) are typically rusty red-brown, phyric and non-phyric basaltic andesite flows with minor pillow lavas, interbedded felsic tuff, volcanic sandstone and conglomerate. NW conformably overlies OA, and it is in part older or coeval with MW.



- ★ Mint property
- ★ Propphy target owned by Strategic
- ★ Propphy deposit owned by other operators

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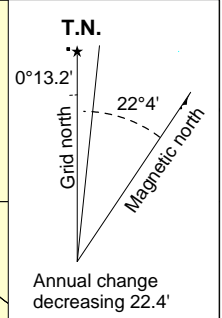
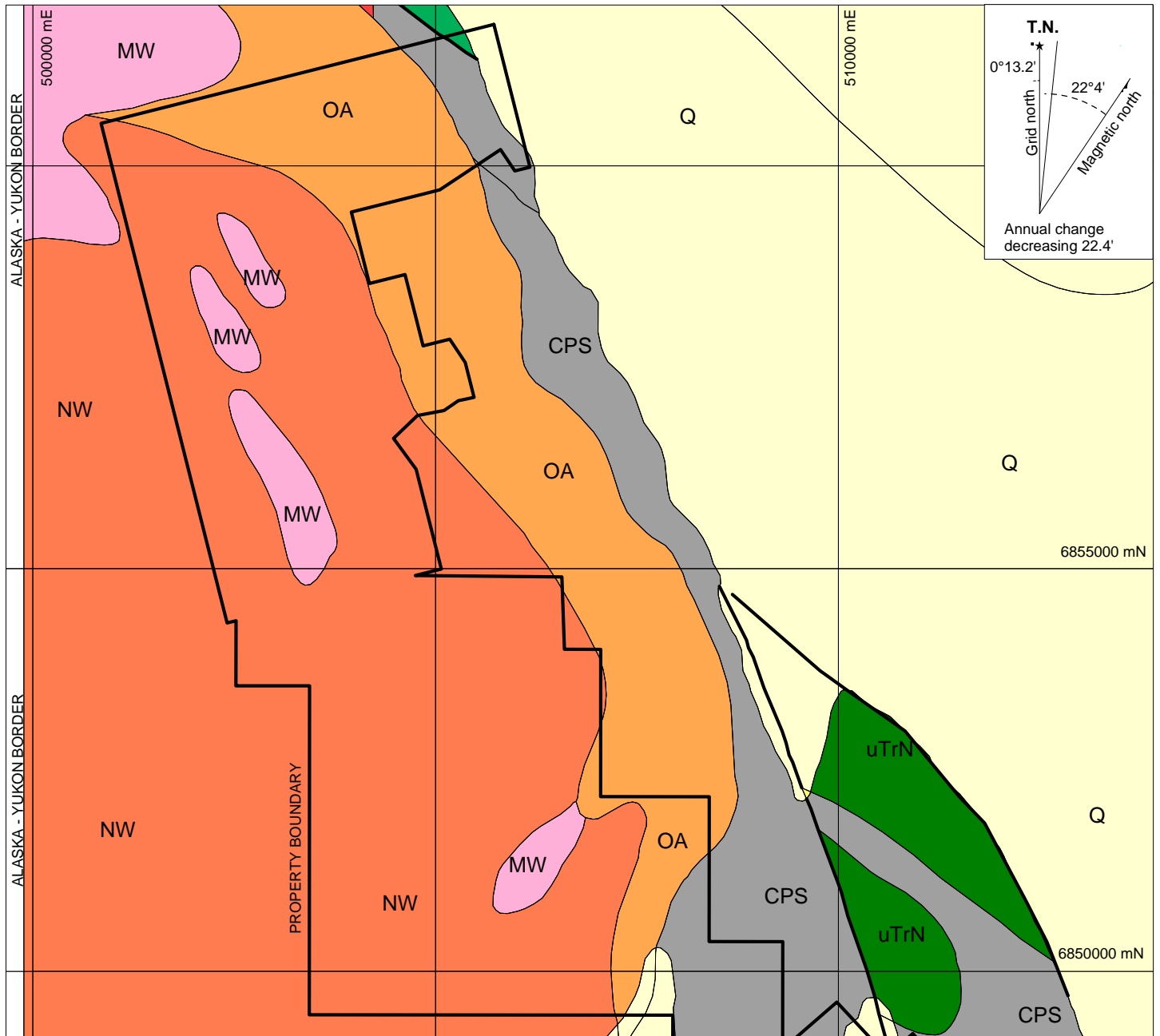
FIGURE 3  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**TECTONIC SETTING**

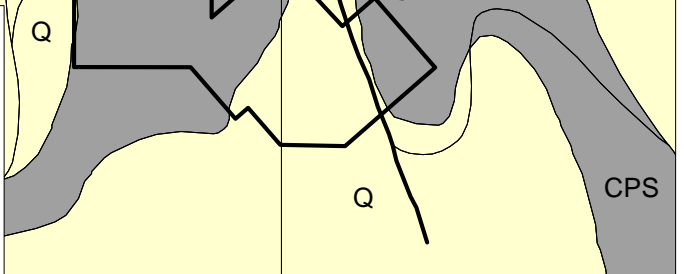
MINT PROPERTY

UTM ZONE 7, NAD 83, 115F/15

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- Q** QUATERNARY  
 Q: OVERBURDEN  
 unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluvial silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits.
  
- NW** MICOENE TO PLIOCENE AND YOUNGER  
 NW: WRANGELL LAVAS  
 Rusty red-brown, phytic and non-phyric basaltic andesite flows with minor pillow lavas, interbedded felsic tuff, volcanic sandstone and conglomerate.
  
- MW** MID TO LATE MIOCENE  
 MW: WRANGELL SUITE  
 Fine to medium grained, hornblende-biotite granodiorite and porphyritic potassium feldspar-hornblende granodiorite; medium grained biotite diorite and subvolcanic hornblende-biotite rhyolite, rhyodacite, dacite and trachyte.
  
- OA** PALEOCENE TO OGLIGOCENE  
 OA: AMPHITHEATRE  
 Yellow-buff to grey-buff sandstone, pebbly sandstone, polymictic conglomerate, siltstone, mudstone; minor brown-grey carbonaceous shale. Fluvial and lacustrine deposits.
  
- uTrN** UPPER TRIASSIC  
 uTrN: NICOLAI  
 Amygdoidal basaltic and andesitic flows with local tuff, breccia, shale and thin bedded bioclastic limestone; volcanic breccia, pillow lava and conglomerate at base.
  
- CPS** PENNSYLVANIAN TO LOWER PERMIAN  
 CPS1: SKOLAI  
 Tuff, breccia, argillite, agglomerate, andesitic flows (Station Creek Formation); succeeded by thin-bedded argillite, siltstone, greywacke, conglomerate and local thin basal flows (Hasen Creek Formation).

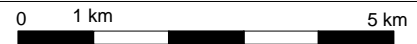


**STRATEGIC METALS LTD.**

**FIGURE 4**  
**ARCHER, CATHRO & ASSOCIATES (1981) LIMITED**

# REGIONAL GEOLOGY

**MINT PROPERTY**



UTM ZONE 7, NAD 83, 115F/15

## **PROPERTY GEOLOGY**

Two areas on the current Mint property have received property-scale mapping. Mapping was done in the area currently covered by the Slag claims between 1967 and 1974 as part of exploration programs completed on the White River Copper property. In 1983, mapping was done in the area of the Canyon Mountain Occurrence. Figure 5 illustrates property geology as previously mapped with interpretation to utilize modern lithological names.

The basement unit on the property is CPS, which is unconformably overlain by uTrN where exposed in the eastern part of the property. Both CPS and uTrN are locally overlain by small exposures of limestone. These exposures may belong to the Upper Triassic Chitstone Formation (uTrC) or could also represent discontinuous limestone beds within CPS or bioclastic limestone within uTrN.

Wrangell Suite intrusive rocks (MW) outcrop near the Canyon Mountain Occurrence. In fall 2010, an age date of  $26.2 \pm 0.2$  Ma. was determined for the hornblende-biotite granodiorite (Israel, pers. comm. 2010).

MW intrudes into and is overlain by NW suite lavas. NW has been separated into four sub-units. The basal sub-unit comprises basic to intermediate volcanic flows and pyroclastic rocks (Lv), which is successively overlain by: maroon intermediate pyroclastics (Mvp); olivine basalts, columnar and scoriaceous flows and minor pyroclastics (Uvb); and finally two small tear-shaped bodies of coarse conglomerate, grit and greywacke (Us). Bedding orientation striking  $030^\circ$  to  $060^\circ$  and dipping  $15^\circ$  north have been documented within Uvb.

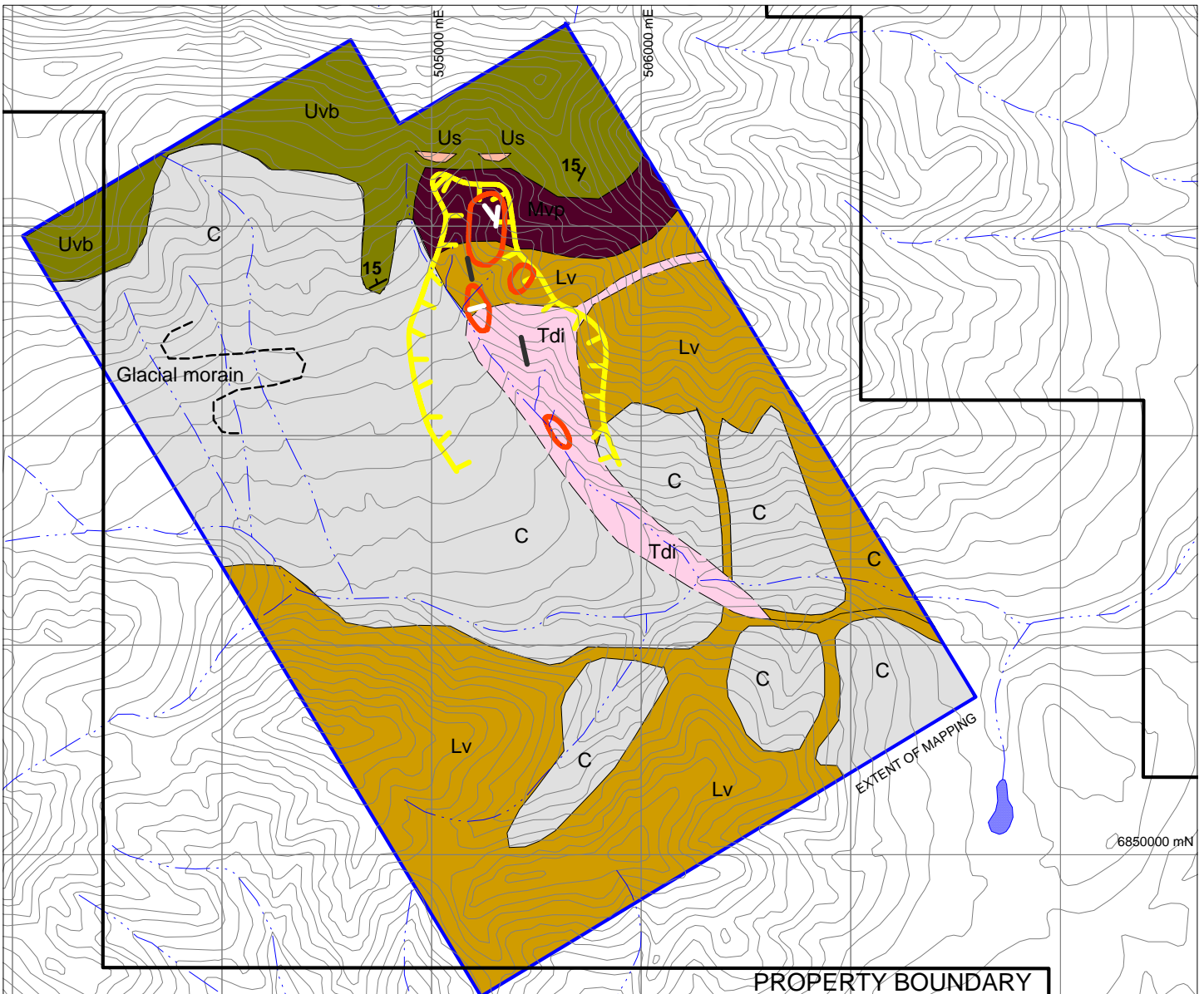
Zones of silicification, sericitization and pyritization have been observed within Lv and Mvp, while quartz veins and diabase dykes occur within MW, Lv and Mvp.

## **INDUCED POLARIZATION SURVEY**

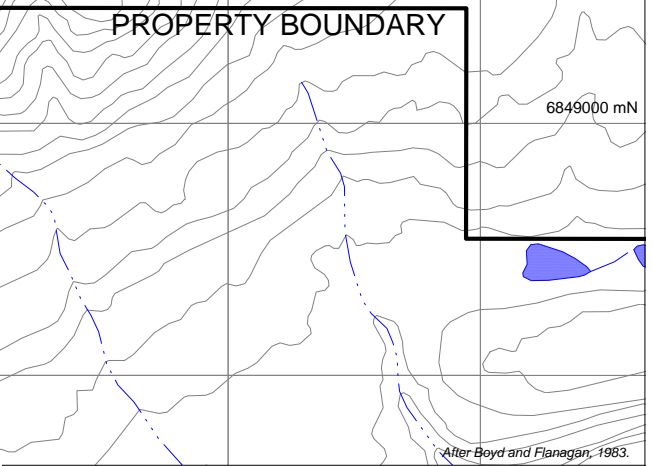
In 2011, an IP survey was contracted to Aurora Geosciences of Whitehorse. Interpretation of the IP data is being done by Condor Consulting Inc. of Lakewood, Colorado, but it is not complete at the time of this report.

A total of 13.4 line kilometres was surveyed on the Mint property (Figure 6). Appendix II contains a summary of equipment, procedures and preliminary results from Aurora. A compact disk containing digital survey data is also attached to this report.

The IP survey was initially designed to cover two main blocks. Survey Area A – the larger block was supposed to cover: Clusters A and B; the main magnetic anomaly from the 2010 New-Sense survey; and an overburden covered plateau that lies immediately west of these anomalies. Unfortunately the areas encompassing Clusters A and B were not tested during the 2011 program because the terrain was considered a safety hazard by the contractor. Survey Area B was designed as a one kilometre line over the smaller magnetic anomaly located three kilometres to the southeast. This line was not surveyed because the contractor deemed it inaccessible without helicopter support.



- Quartz vein
  - Diabase dyke
  - Zone of silicification
  - Zone of sericitization and pyritization
  - Covered areas
- WRANGELL LAVAS**  
MIOCENE TO PLIOCENE AND YOUNGER
- Us Coarse conglomerate, grit and greywacke
  - Uvb Olivine basalts; columnar and scoriaceous flows and minor pyroclastics
  - Mvp Maroon coloured intermediate pyroclastics
  - Lv Basic to intermediate volcanic flows and pyroclastic rocks
- WRANGELL SUITE**  
MID TO LATE MIOCENE
- Tdi Fine to medium grained granodiorite to plagioclase porphyry



**STRATEGIC METALS LTD.**

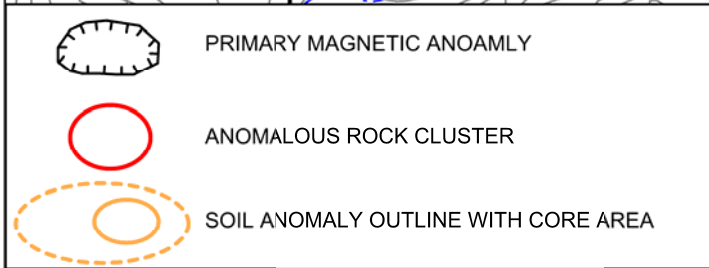
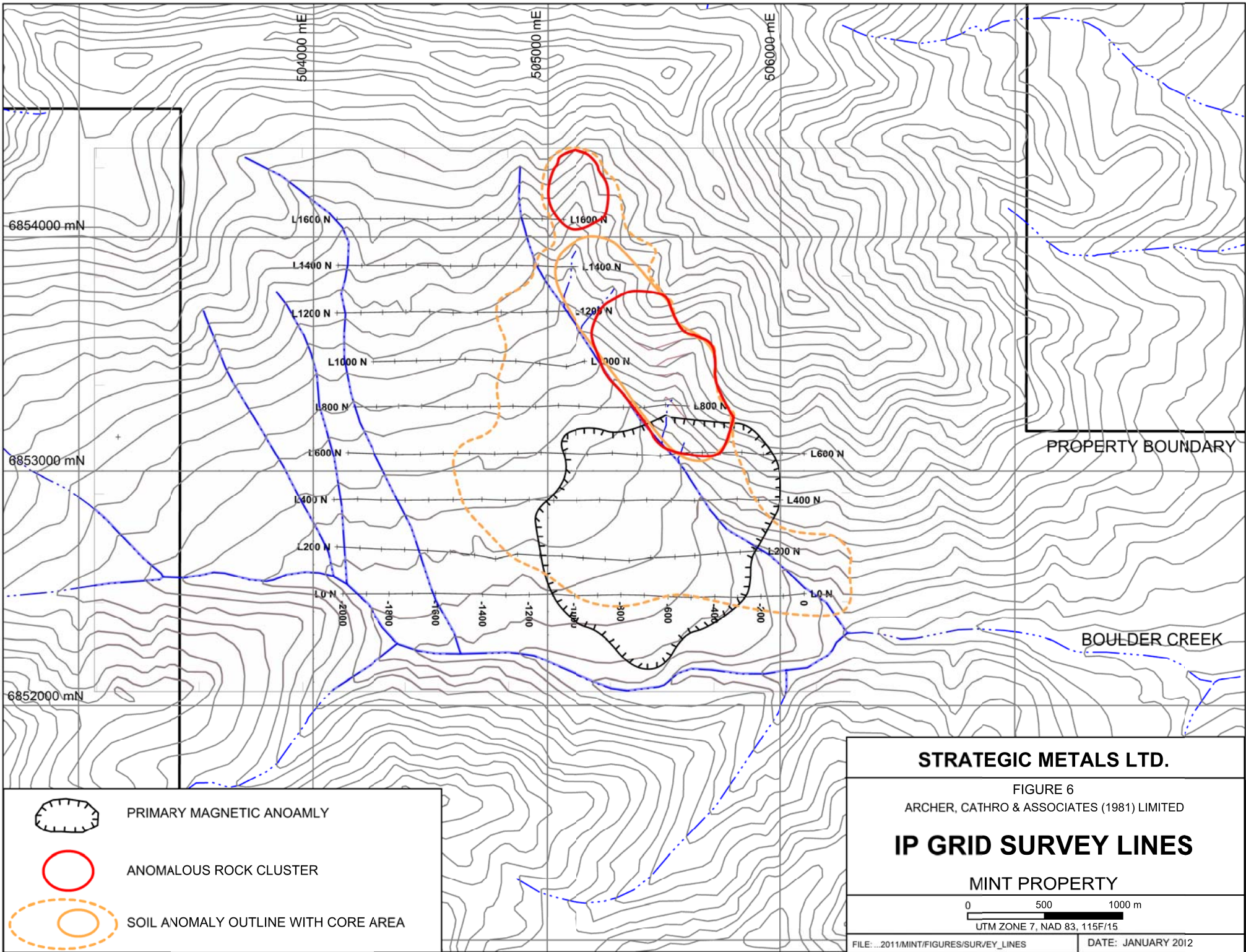
FIGURE 5  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**PROPERTY GEOLOGY**

MINT PROPERTY

UTM ZONE 7, NAD 83, 115F/15

FILE: ...2011\MINT\FIGURES\PROPERTY_GEOLOGY	DATE: JANUARY 2012
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**STRATEGIC METALS LTD.**

FIGURE 6  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**IP GRID SURVEY LINES**

MINT PROPERTY

0      500      1000 m  
UTM ZONE 7, NAD 83, 115F/15

FILE: ...2011\MINT\FIGURES\SURVEY\_LINES      DATE: JANUARY 2012

## **DEPOSIT TYPE**

The Mint property is known to host mineralization associated with two distinct deposit types. The first is alkalic-type porphyry style mineralization and the second is volcanic-hosted copper mineralization.

The age of the Mint porphyry places it in a unique group of young, mineralized intrusions along the western edge of the Canadian Cordilleran. There are two other, porphyry related intrusions known to be approximately this age. They are Catface (48±12 Ma.) on Vancouver Island and the Cork (26±3 Ma), which lies about 90 km southeast of the Mint property. The Catface has an indicated ore reserve of 56,000,000 tonnes at 0.40% copper and an inferred reserve of 263,000,000 tonnes at 0.38% copper (Chapman, 2009). The Cork porphyry was discovered in the late 1960s and is currently being explored by Strategic.

The Slag claims have potential for a fracture-hosted or replacement-style copper deposit. Historical work performed on the nearby White River Copper property identified extensive copper mineralization within amygdaloidal basalts of the Nikolai Assemblage. The 1969 IP survey identified a number of chargeability anomalies on the White River Copper and Slag claims (Figure 2). The anomalies on the Slag property have not been drill tested. The targets are blind zones below limestone cap rocks.

Exploration at the Slag claims is also modelled on the Kennecott Deposit in Alaska, which lies 115 km west-southwest of the Mint property. The Kennecott Deposit was mined from 1911 to 1938 and produced 4.2 million tonnes at 13% copper. It has been described as a low temperature hydrothermal replacement deposit with complex mineralization, mainly chalcocite. Mineralization occurred in gently dipping Triassic dolomitic limestone overlying basalt. Only a small portion of ore outcropped at surface. Four mines (Bonanza, Glacier, Jumbo and Mother Lode), each with distinct types of ore, comprised the Kennecott Deposit. The Bonanza Mine hosted wide replacement veins striking normal to bedding. These veins were widest at the base and pinched out 150 to 300 m above. The Glacier Mine hosted ore within lateral moraine ground out of the Bonanza deposit. The Jumbo Mine hosted an ore body 25 by 45 by 120 m in size with an average grade of 60% copper. The Mother Lode deposit hosted tabular or flat replacements localized by fissures in certain beds (Bateman, 1942). If Kennecott-type mineralization is present on the Slag claims, it would likely occur near the limestone-volcanic contact.

## **DISCUSSION AND CONCLUSIONS**

The Mint property lies within the Wrangellia geological terrane, which hosts a number of alkalic porphyry deposits and fracture-hosted and replacement-style copper deposits. Its position within Wrangellia, proximity to large structural features and known mineral occurrences enhance the potential for exploration success on the property.

Results from 2010 soil sampling at the Mint property were encouraging and confirm the potential for a porphyry target associated with high level MW plutons. The presence of strongly anomalous gold, copper and molybdenum soil values that partially correlate with magnetic and potassium radiometric highs is very encouraging.

The interpretation of IP results by Condor has not yet been completed, but review of preliminary data is positive with two areas of high chargeability and resistivity. Once Condor's interpretation is complete, a drill program will be designed to test prospective sites with coincident geochemical and geophysical response.

Reconnaissance work should be done elsewhere on the property, including mapping, prospecting and soil geochemical sampling in the vicinity of the plutons mapped by the YGS north of the Canyon Mountain Occurrence. Consideration for future work should be given to: completing IP surveys at the Canyon Mountain Occurrence; conducting IP surveys on the Slag claims; and flying additional helicopter-borne magnetic and radiometric surveys over the remainder of the Mint claims.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

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

**REFERENCES**

- Bateman, A.M.  
1942 Discussion of Kennecott Deposit, Alaska in Economic Mineral Deposits, John Wiley and Sons, NY. Page 916.
- Baird, J.G.  
1967 Recommended Exploration Program on the Marc Claim Group. Silver City Mines Ltd., Upper White River District Yukon; Assessment Report 060733.
- Baird, J.G.  
1968 Report on Induced Polarization Survey on the Canyon City Exploration Property of White River Area, Yukon on Behalf of Archer, Cathro & Associates Ltd.; Assessment Report 019076.
- Boyd, R.T. and Flanagan, M.  
1983 Geological and Geochemical Investigations of the Rabbit-Canyon Mountain Claim Group; Assessment Report 091499.
- Cathro, R.J.  
1966 Proposed Exploration on the Marc Property, Upper White River District Yukon. Report prepared for Silver City Mines Ltd; Assessment Report 061676.
- Cathro, R.J.  
1967a Rabbit Creek Copper Property, Kluane District, Yukon. Report prepared for Pacific Giant Steel Ores Ltd.; Assessment Report 019079.
- Cathro, R.J.  
1967b Progress Report on the White River Copper Property. Report prepared for Silver City Mines Ltd; Assessment Report 060886.
- Cathro, R.J.  
1967c Results of Preliminary Exploration Program on the White River Copper Property. Report prepared for Silver City Mines Ltd; Assessment Report 061737.
- Cathro, R.J.  
1968a A Report on an Induced Polarization Survey for Canyon City Explorations Ltd. Vancouver, BC; Assessment Report 019070.
- Cathro, R.J.  
1968b Progress Report on the White River Copper Property. Report prepared for Silver City Mines Ltd; Assessment Report 091317.
- Cathro, R.J.  
1969 Summary Report on Surface Drilling at the White River, Y.T. Property of Silver Mines Ltd; Assessment Report 0190282.

- Chapman, J.  
2009 Selkirk Metals Corp. 43-101 Mineral Resource Estimate for Catface Copper Project. [www.selkirkmetals.com](http://www.selkirkmetals.com) or [www.imperialmetals.com](http://www.imperialmetals.com)
- Deklerk, R. and Traynor, S. (compilers)  
2005 Yukon MINFILE – a database of mineral occurrences (Map 106C); Yukon Geological Survey website.
- Friske, P.W.B., Hornbrook, E.H.W., Lynch, J.J., McCurdy, M.W., Gross, H., Galletta, A.C. and Durham, C.C.  
1986 Regional stream sediment and water geochemical reconnaissance data (115F); Geological Survey of Canada, Open File 1362.
- Grant, G.W.  
1970 Diamond Drill Record for Canyon City Exploration Ltd. Canyon City Group. Rabbit Creek Area; Assessment Report 091320.
- 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).
- Israel, S.  
2010 Personal communication for age date of intrusion at Mint Property.
- Israel, S. and Van Zeyl,  
2004 Preliminary Geological Map of the Quill Creek Area, southwest Yukon. Yukon Geological Survey, Open File 2004-20.
- Nelson, J.L. and Colpron, M.  
2007 Tectonics and metallogeny of the Canadian and Alaskan Cordillera, 1.8 Ga to present; *in* Mineral Deposits of Canada: A Synthesis of Major Deposit Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods; W.D. Goodfellow (ed.), Mineral Deposit Division, Geological Association of Canada, Special Publication 5, p. 755-791. Available at: [http://gsc.nrcan.gc.ca/mindep/synth\\_prov/cord/pdf/nelson\\_colpron\\_cordillera\\_n\\_metallogeny.pdf](http://gsc.nrcan.gc.ca/mindep/synth_prov/cord/pdf/nelson_colpron_cordillera_n_metallogeny.pdf)
- Smith, H.  
2011 Report on Geochemical Sampling and Airborne Geophysical Surveys on the Mint Property; Assessment Report prepared for Strategic Metals Ltd.
- Smitheringale, W.V.  
1970 Progress Report on the White River Property, Yukon. Report prepared for Silver City Mines Ltd; Assessment Report 018930.

Smitheringale, W.V.

1972 Silver City Mines Ltd. Report White River Property Yukon Territory;  
Assessment Report 019892.

Smitheringale, W.V.

1973 Report on IP Survey and Diamond Drilling at the White River Property, Yukon  
Territory; Assessment Report 019891.

Smitheringale, W.V.

1974 Report on IP Survey and Diamond Drilling at the White River Property, Yukon  
Territory; Assessment Report 061477.

Tempelman-Kluit, D.J.

1984 Reconnaissance Geology of Lake Laberge (105E) and Carmacks (115I), Yukon  
Territory; Geological Survey of Canada Open File 1101.

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

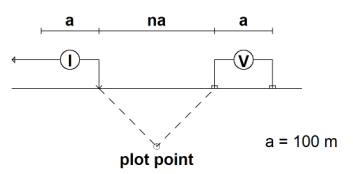
Heather Smith, B.Sc., P.Geo.

**APPENDIX II**  
**INDUCED POLARIZATION SURVEY**



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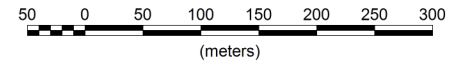
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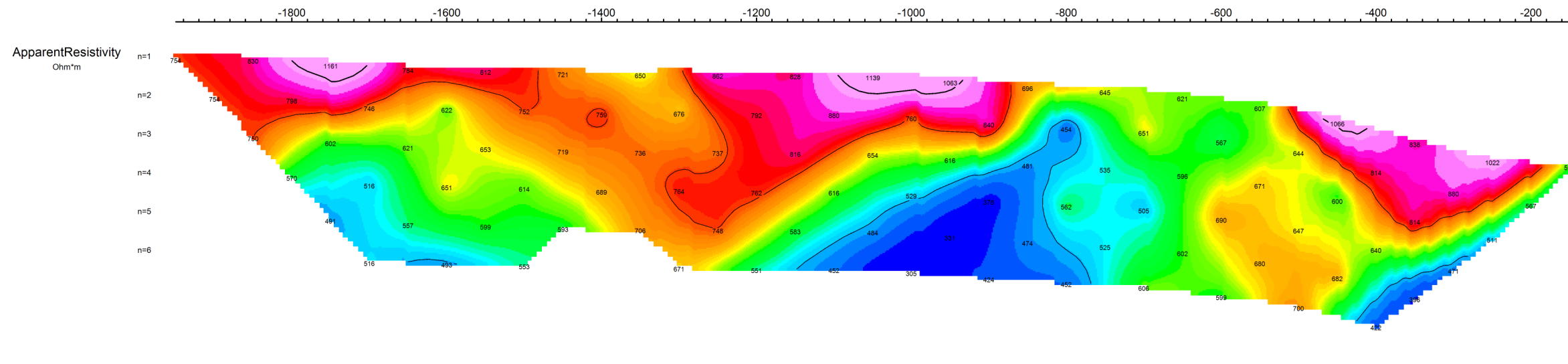
STRATEGIC METALS LTD.

INDUCED POLARIZATION SURVEY  
 MINT PROPERTY  
 PSEUDOSECTION PLOTS L200

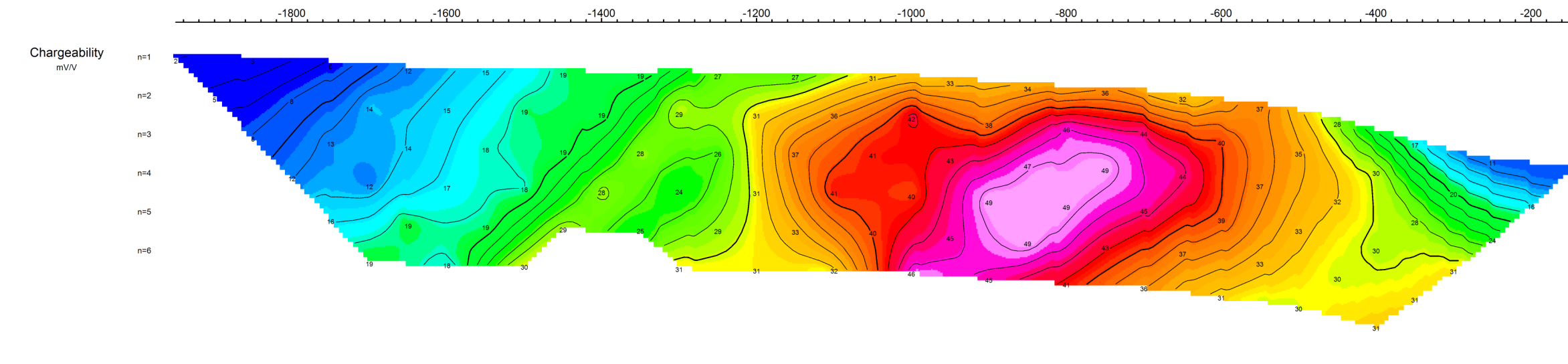
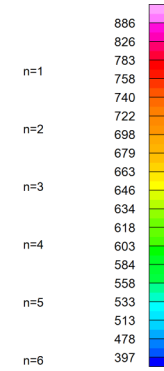
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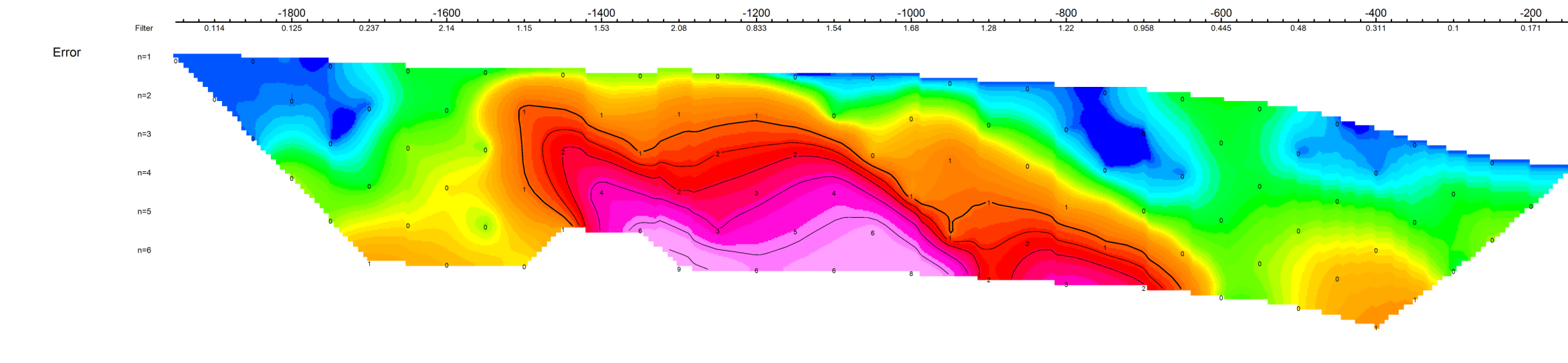
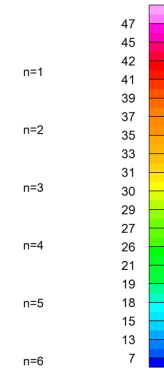
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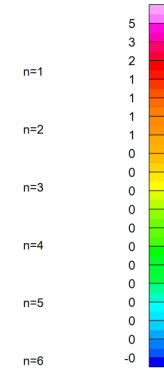
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Chargeability  
mV/V

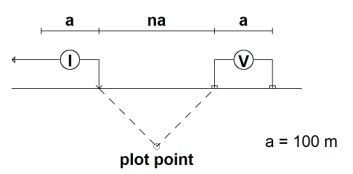


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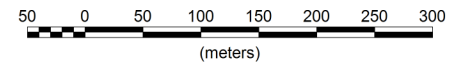
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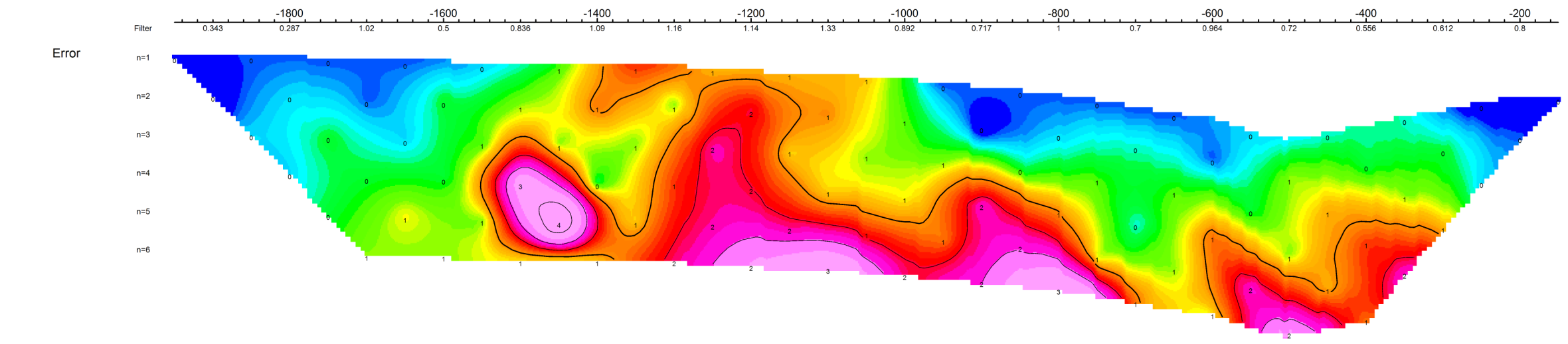
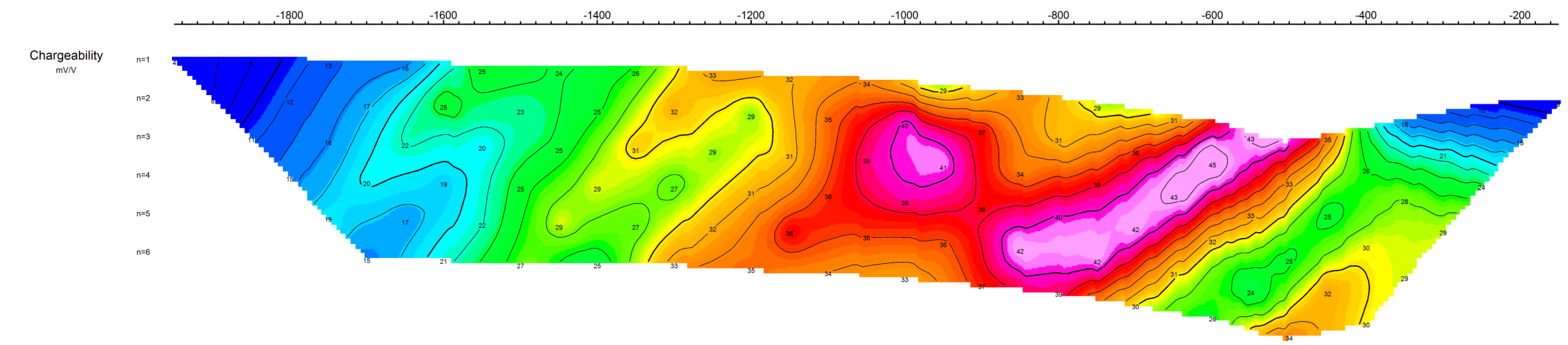
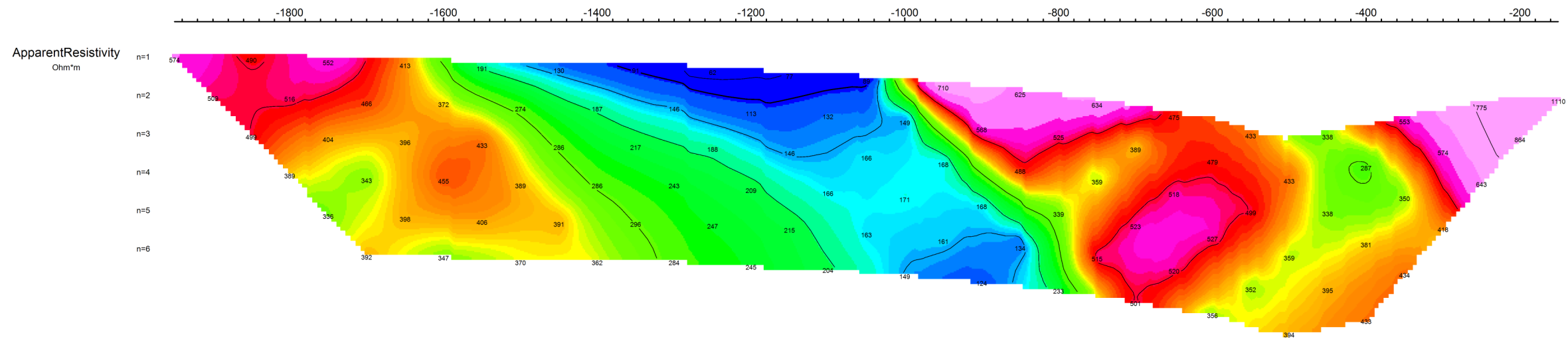
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INDUCED POLARIZATION SURVEY  
 MINT PROPERTY  
 PSEUDOSECTION PLOTS L400

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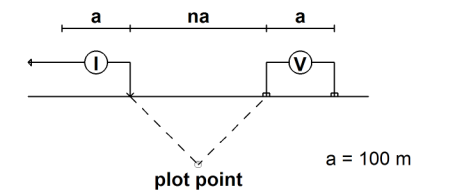
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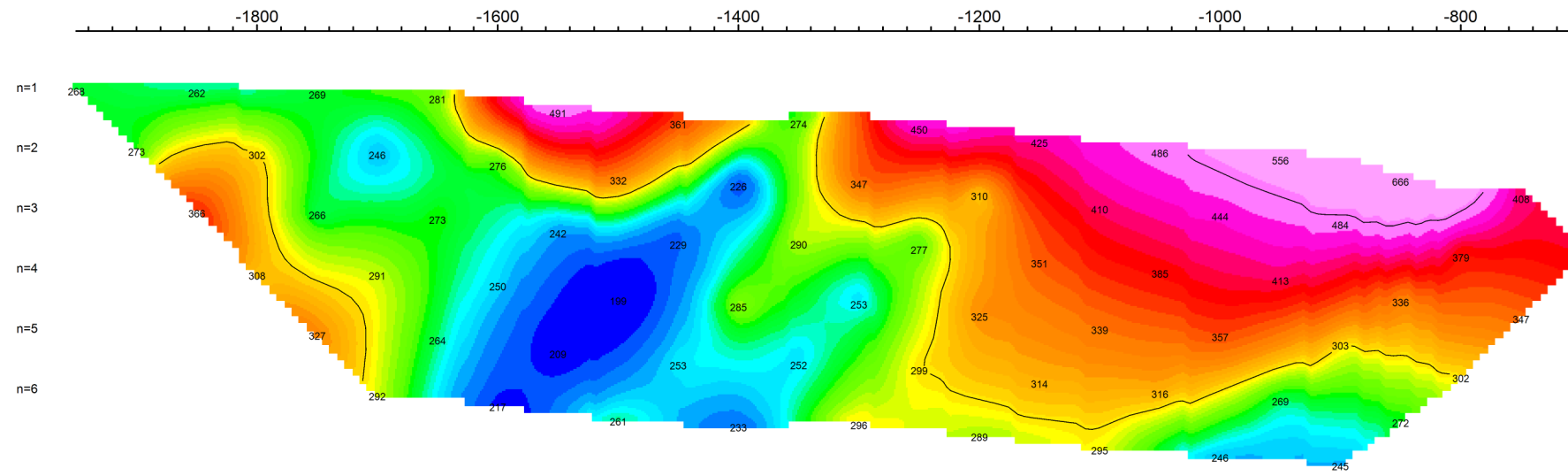
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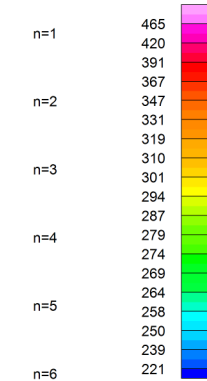
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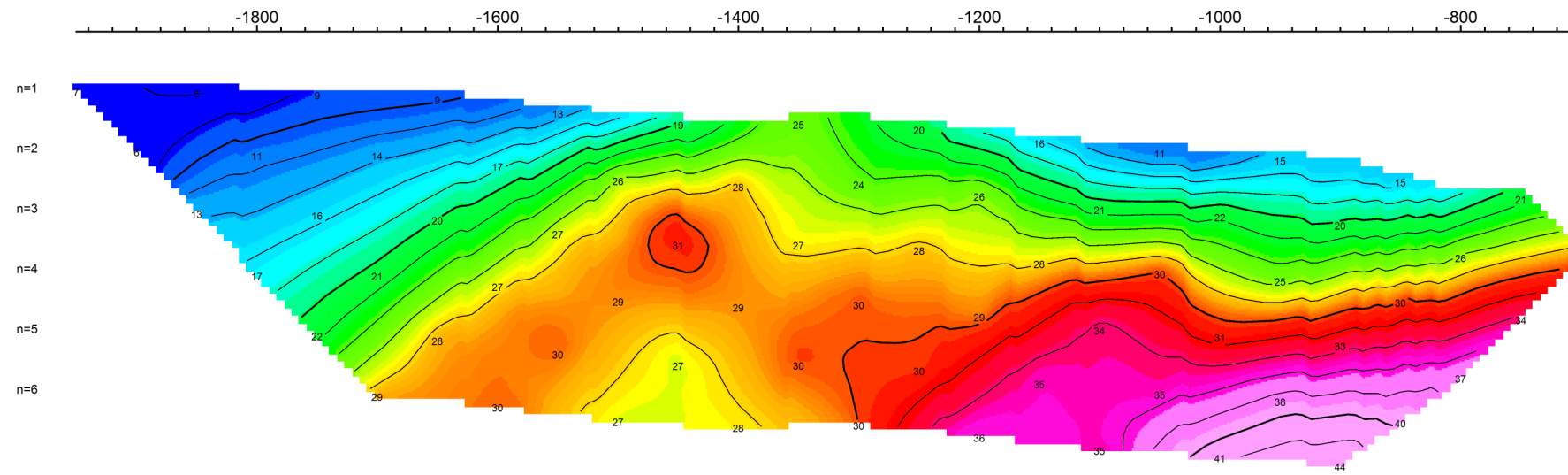
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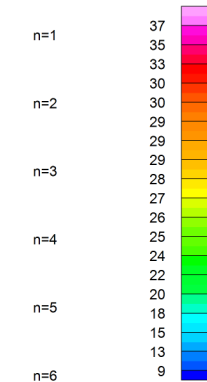
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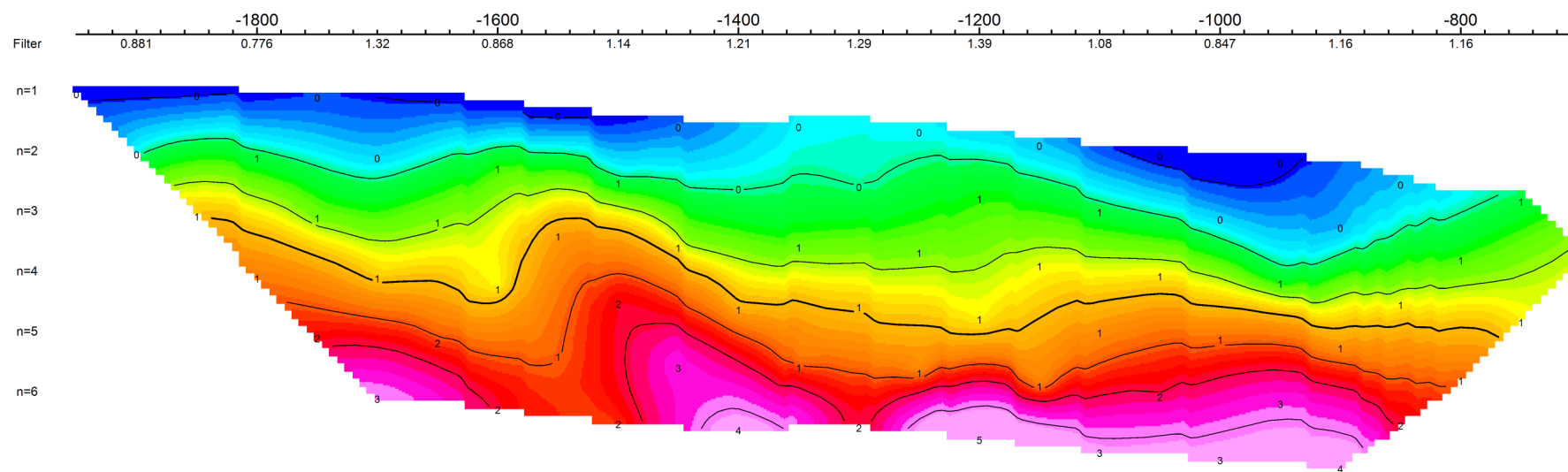
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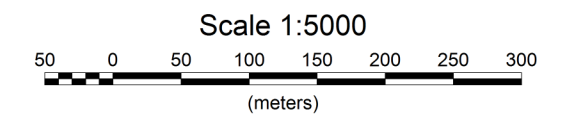
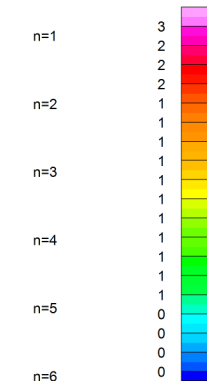
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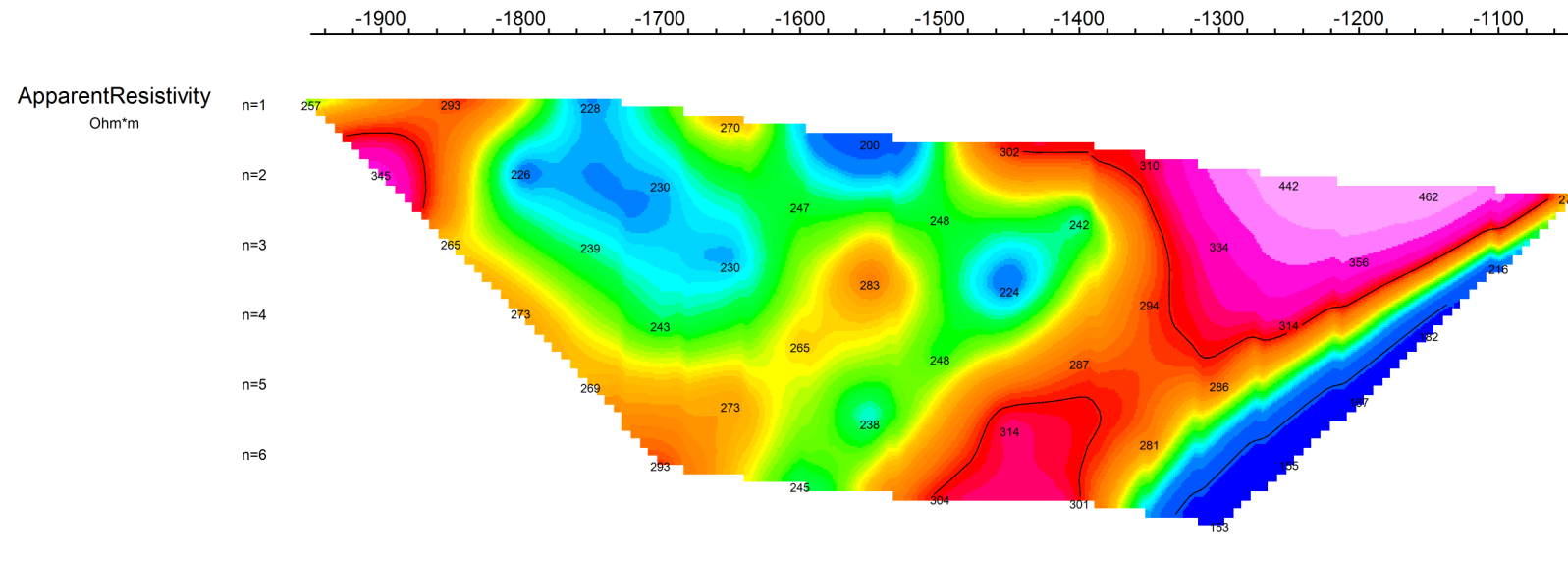
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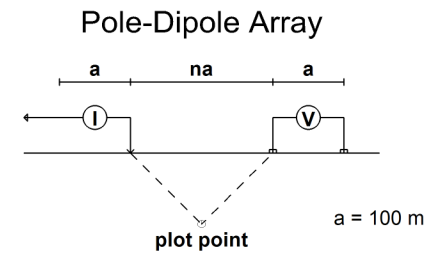
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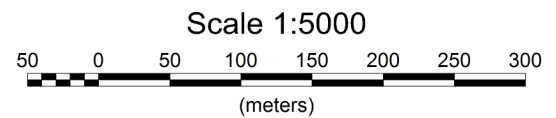
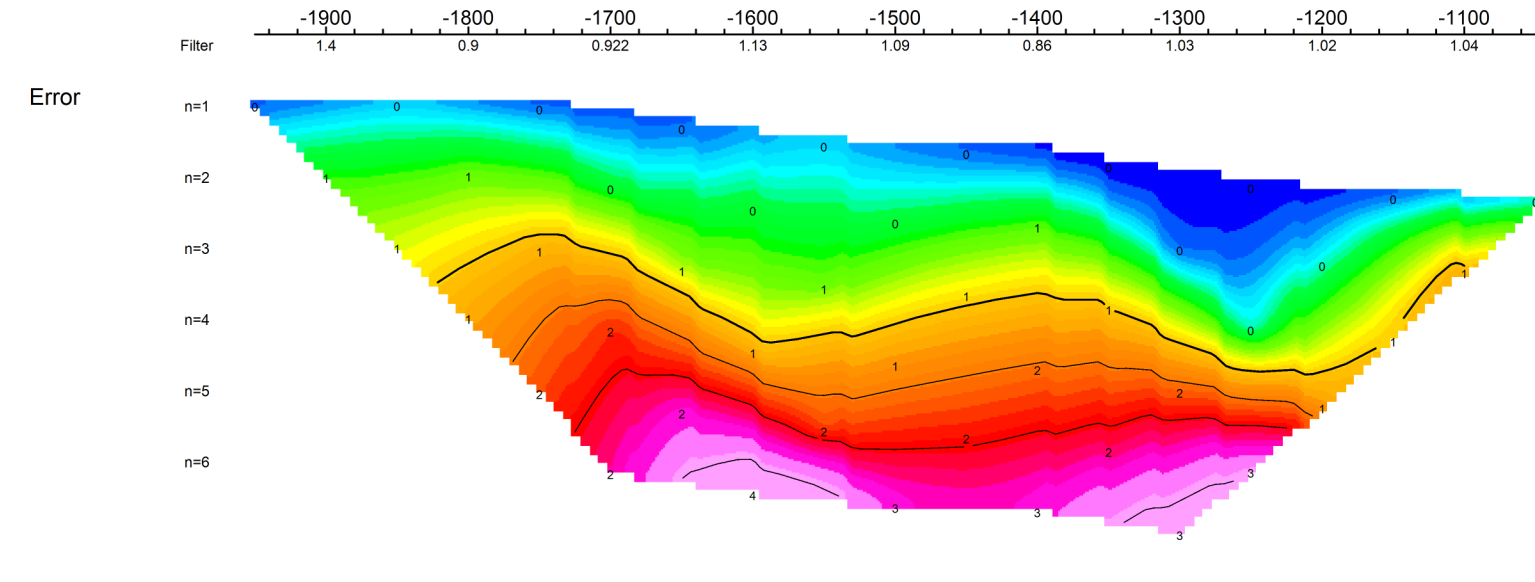
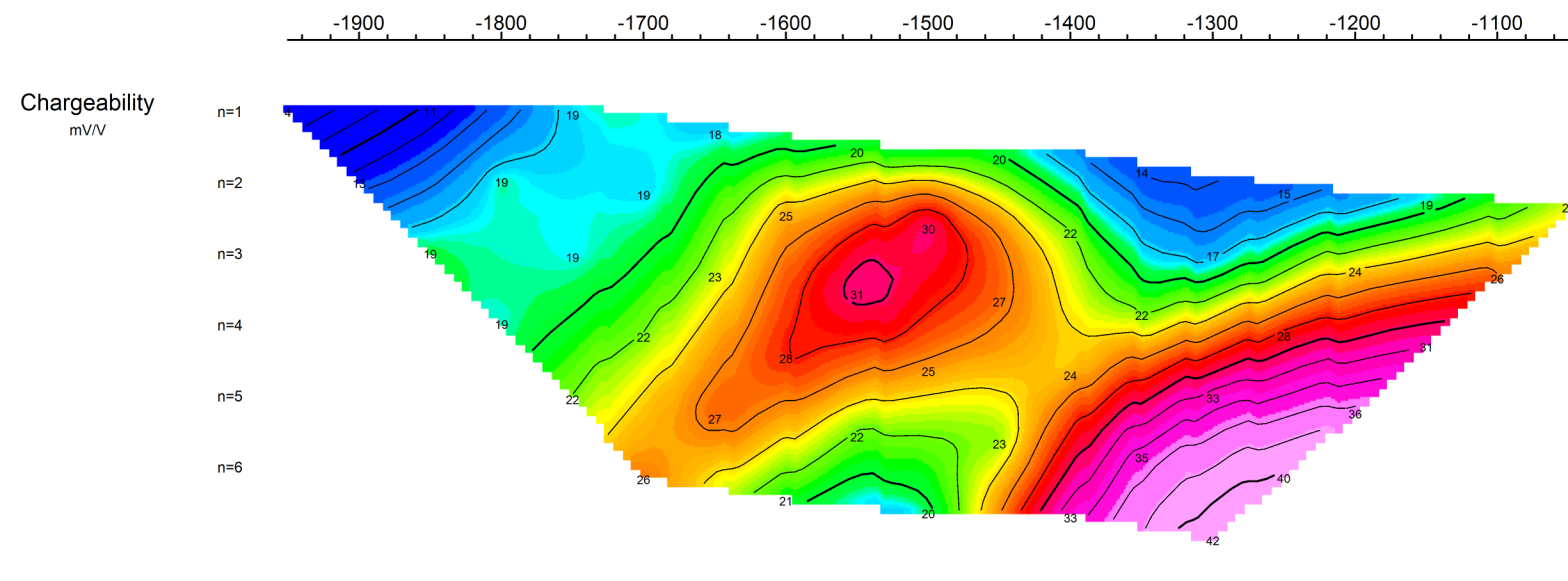


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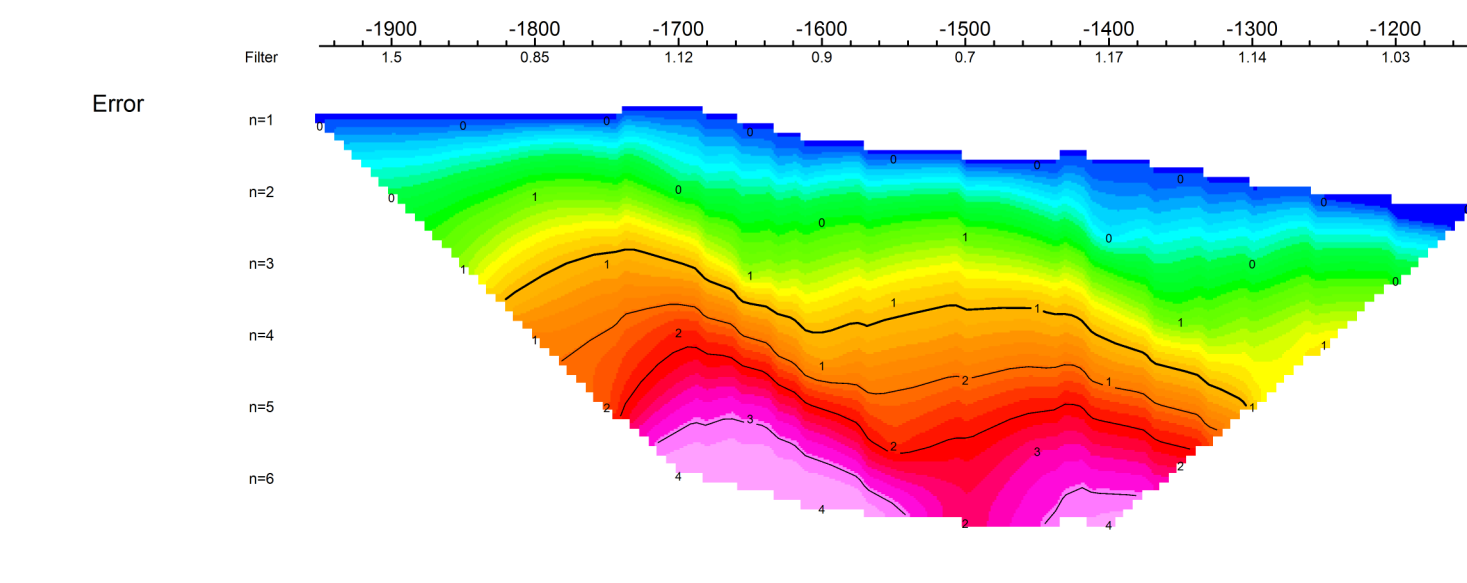
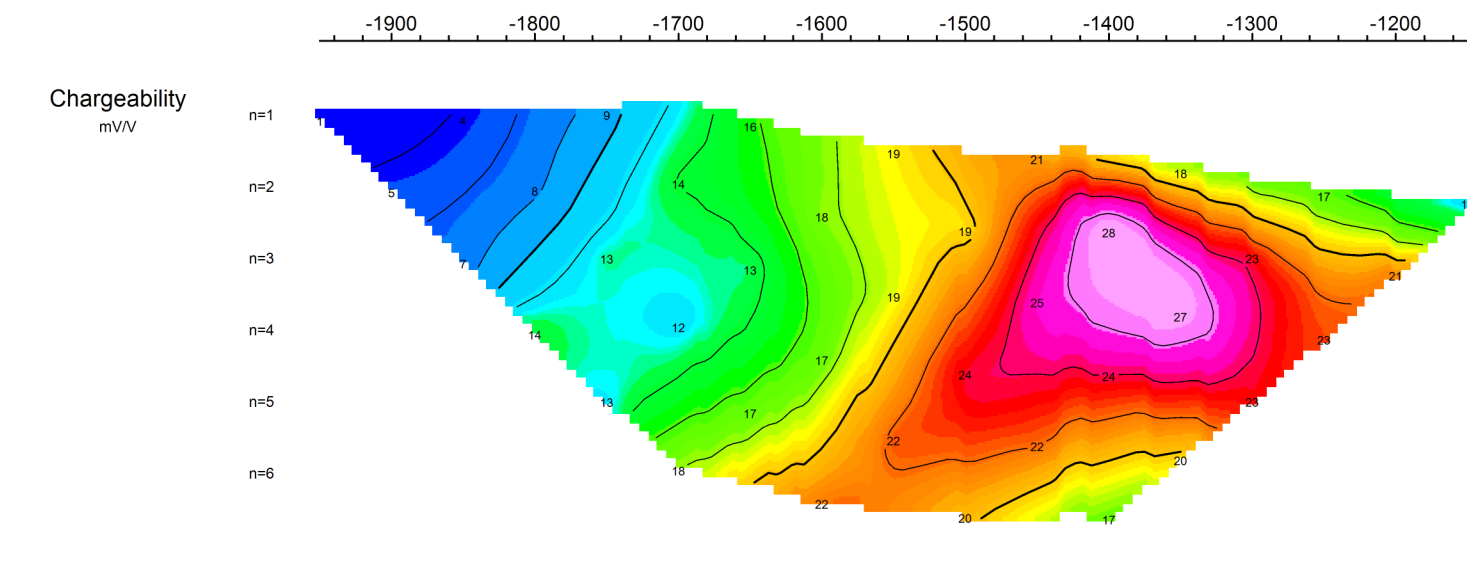
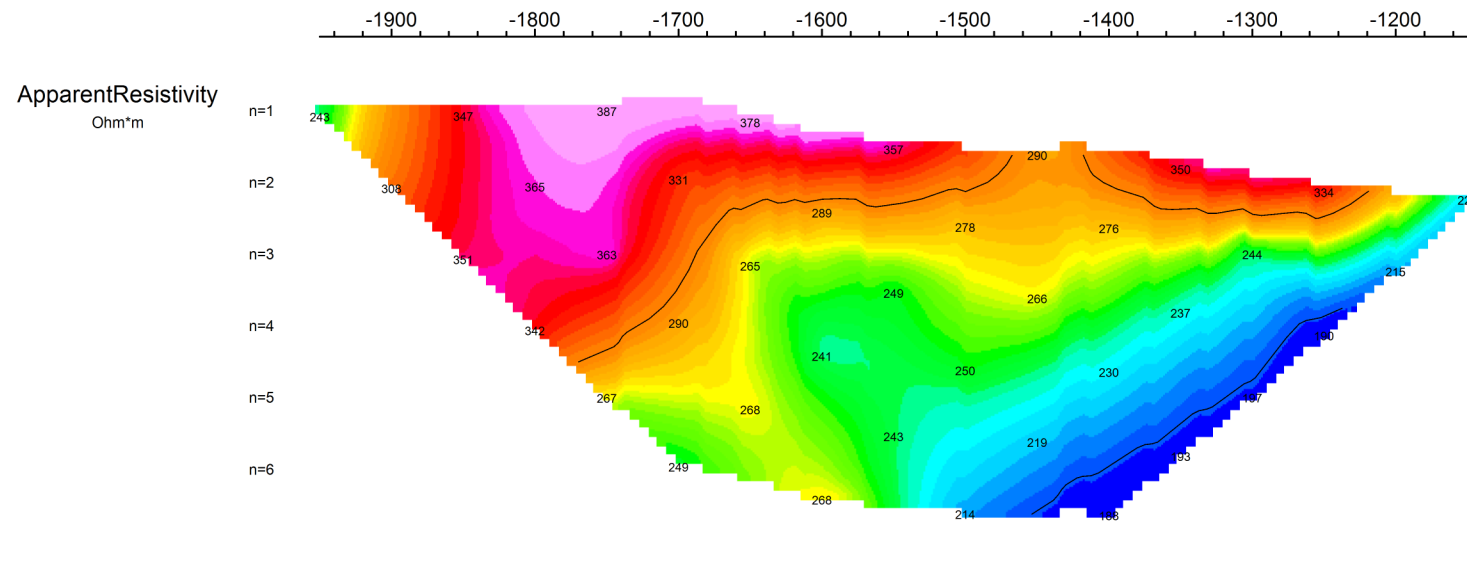


**STRATEGIC METALS LTD.**

**INDUCED POLARIZATION SURVEY  
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PSEUDOSECTION PLOTS L1000**

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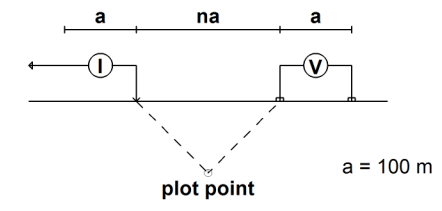
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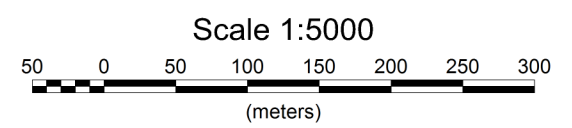
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Pole-Dipole Array



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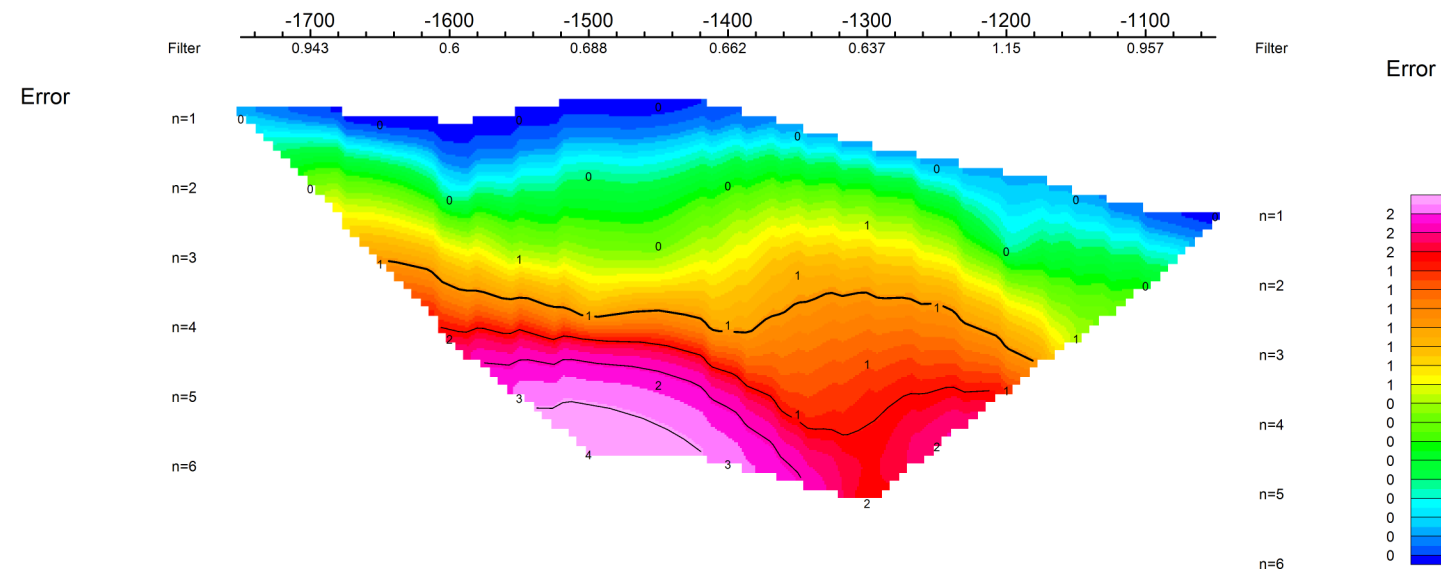
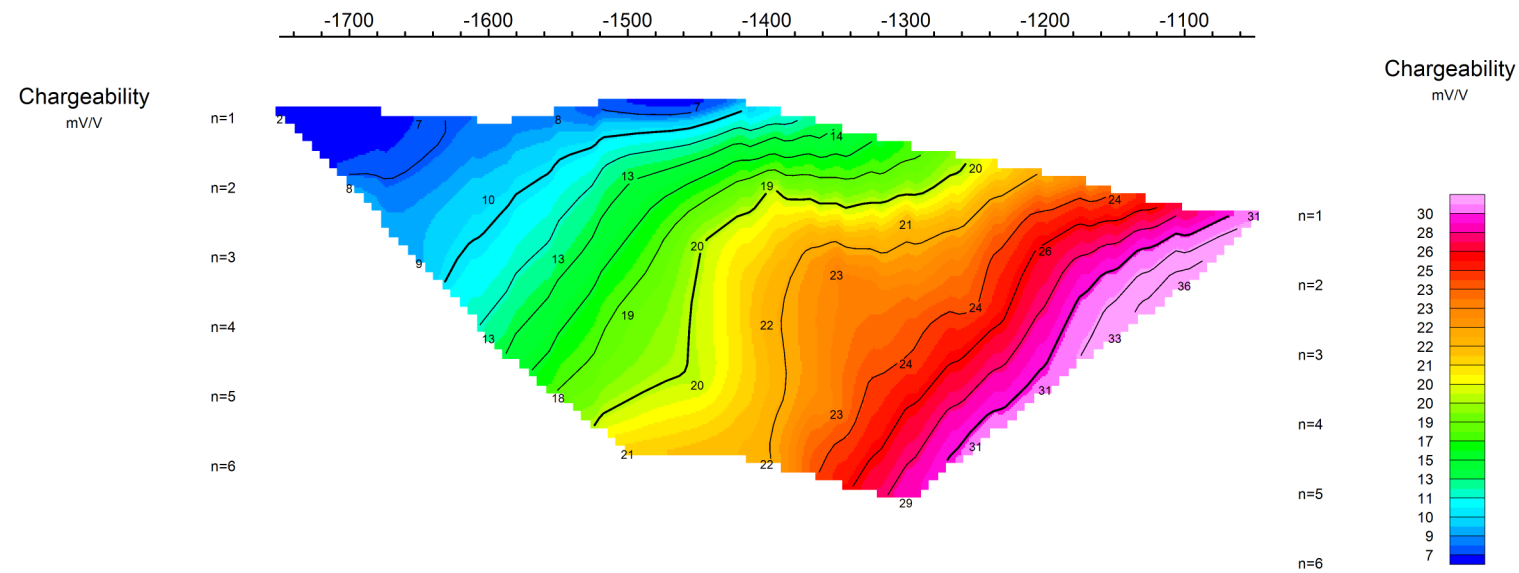
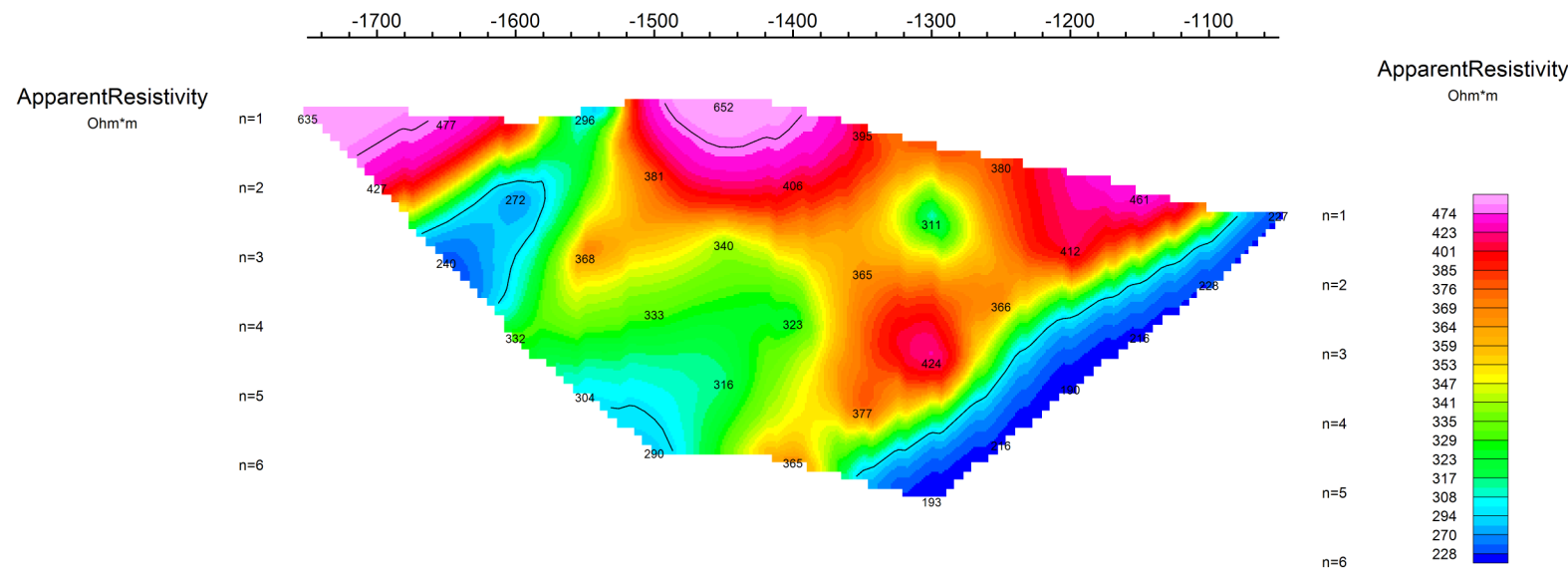
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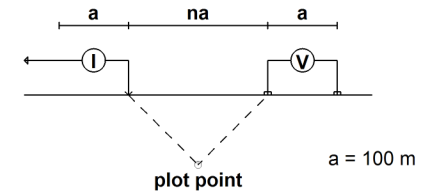
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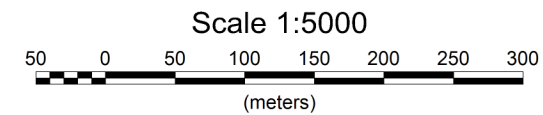
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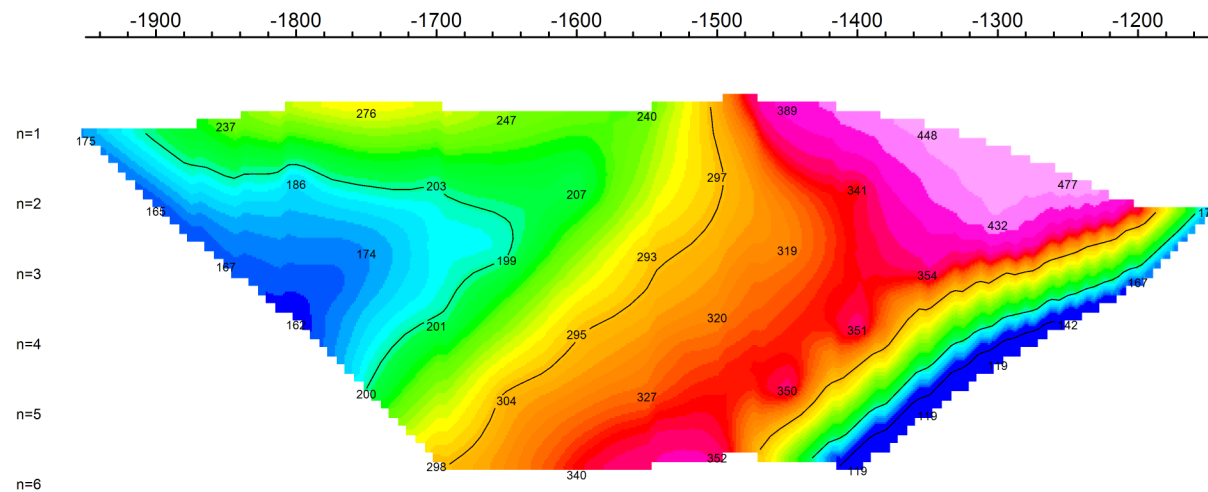
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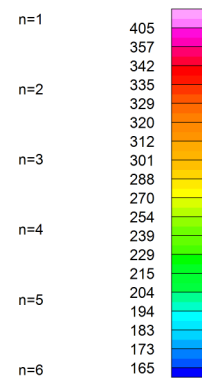
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**AURORA GEOSCIENCES LTD.**

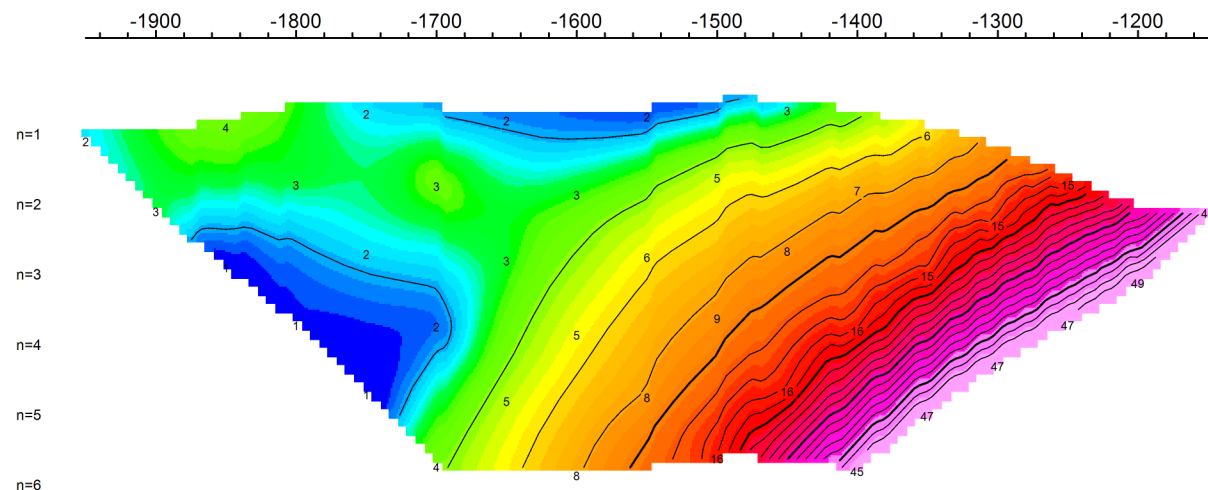
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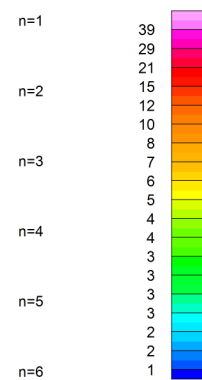
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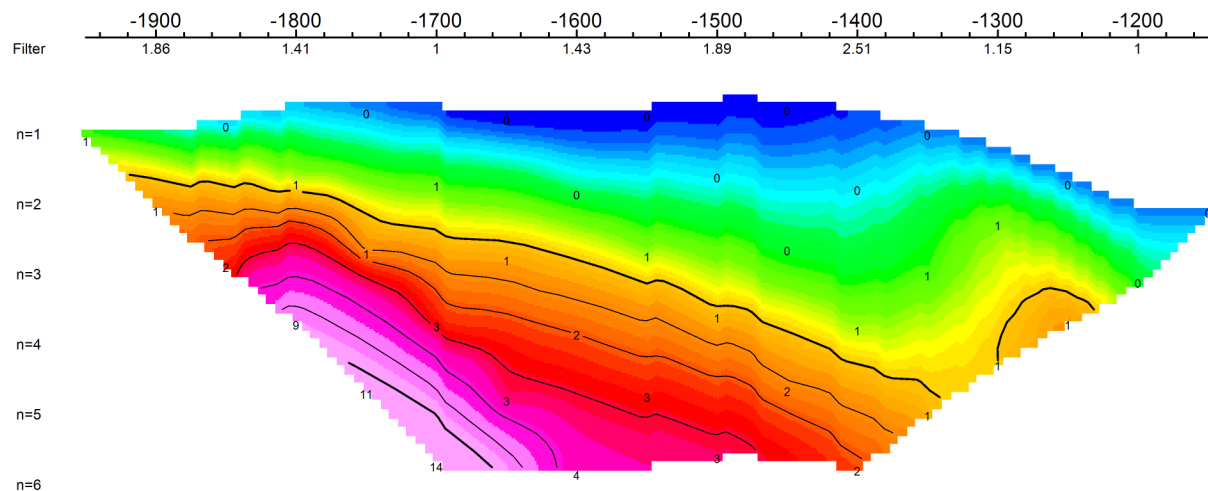
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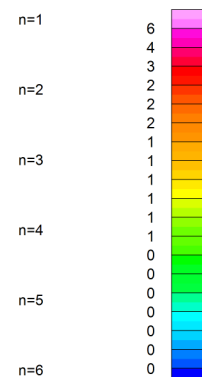
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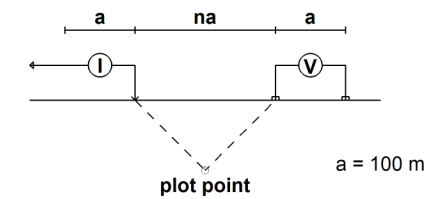
Error



# PSEUDOSECTION PLOTS

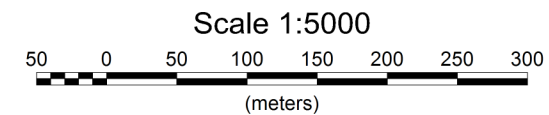
L1600

Pole-Dipole Array



Receiver: Iris Elrec6  
Transmitter: GDD Tx-II 3.6kW  
Data File: MINT IP.xyz  
Dates Surveyed : July, 2011

**FIELD**



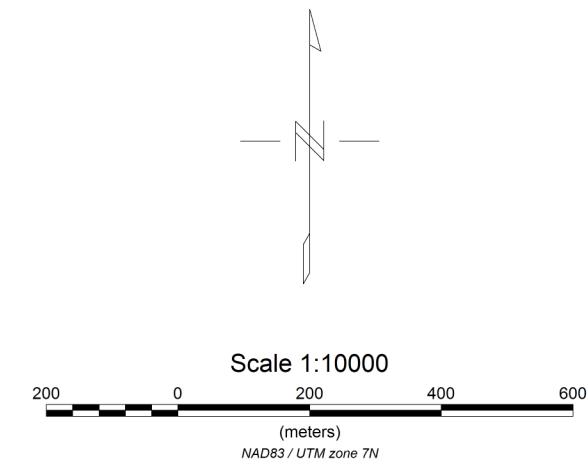
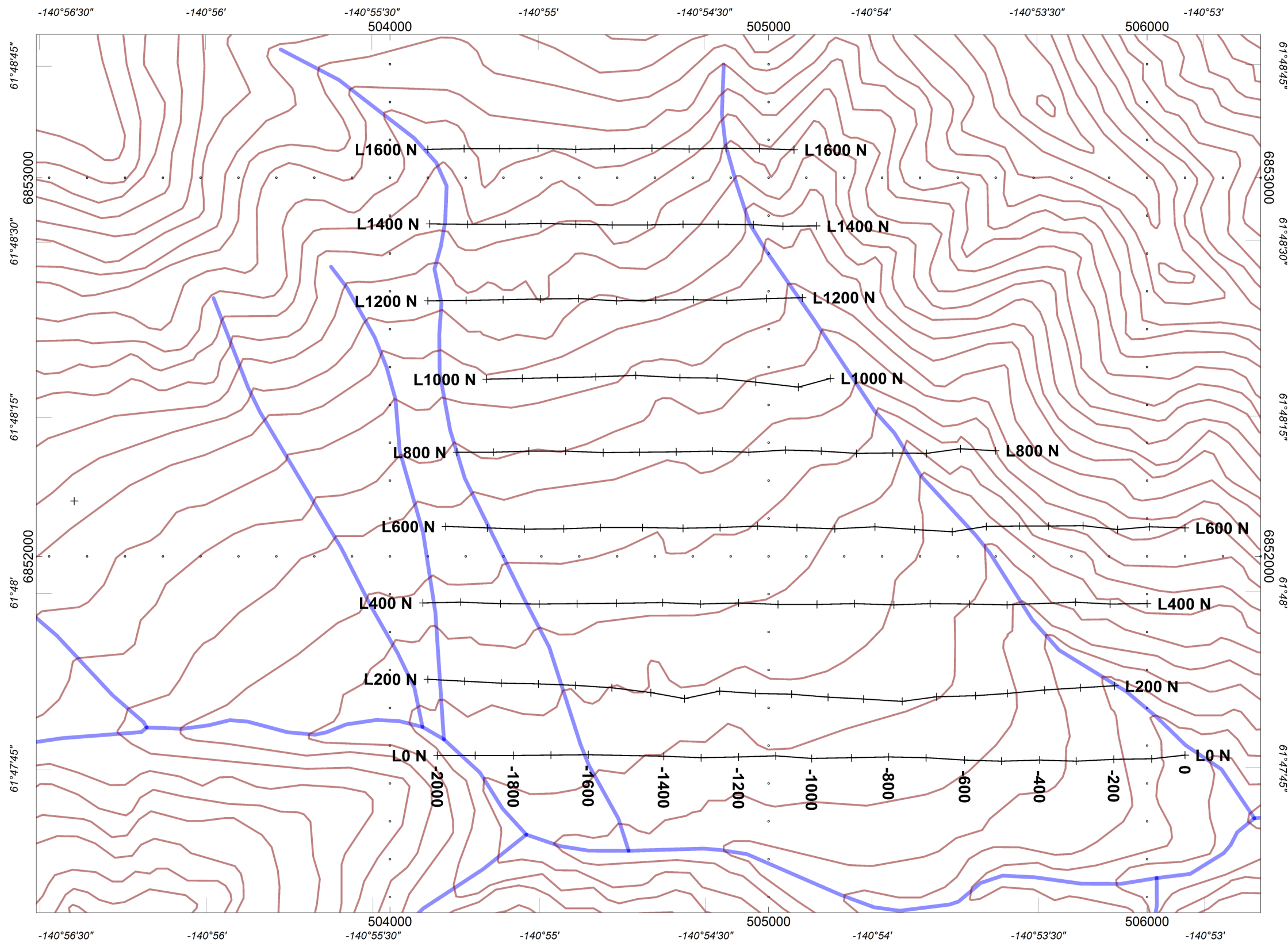
STRATEGIC METALS LTD.

INDUCED POLARIZATION SURVEY  
MINT PROPERTY  
PSEUDOSECTION PLOTS L1600

Date: July, 2011  
NTS: 115 F/15

Job: SMD-11520-YT  
Drawn by: FD

AURORA GEOSCIENCES LTD.



<b>STRATEGIC METALS LTD.</b>	
<b>MINT IP SURVEY GRID</b>	
Loc:YT	Dates Surveyed: July, 2011
Datum:NAD 83	Proj: UTM Zone 7N
NTS Map Sheet:115F15	Grid:Local
Date: July, 2011	Job:SMD-11520-YT
<b>AURORA GEOSCIENCES LTD.</b>	



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**MEMORANDUM**

**To:** Doug Eaton **Date:** July 13, 2011  
**From:** Tim Stewart  
**Re:** MINT Induced Polarization Survey

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This memorandum is a field report describing the induced polarization geophysical survey conducted on the MINT property located in the Yukon Territory.

The program consisted of surveying nine lines using a pole-dipole array. In total 14.3 km of grid was installed, this included 0.9 km of line cutting. From this the crew was able to perform the survey on 13.40 km of the grid. The survey was conducted between June 23, 2011 and July 12, 2011.

In order to maximize the depth of investigation 100 meter stations were used and six potential electrodes. In general, signal to noise ratio was good over the entire grid.

The original program included one single line of 1 km on a magnetic high that was not surveyed. The decision was made to not survey this line because the access to it was limited without helicopter support. On the main grid the most northern line was not surveyed due to rocky bluffs taking up most of the line. Also, five of the remaining lines were cut short due to difficult terrain that proved to be a safety hazard.

The crew stayed on the grid in a fly camp. Trans North Helicopter was the helicopter service provider.

A full survey log describing day by day operations is attached to this report.

### **a.Crew and equipment.**

The survey was conducted by the following personnel:

Tim Stewart	Crew chief	June 23 <sup>rd</sup> – July 12 <sup>th</sup> 2011
Sam Peak	Helper	June 23 <sup>rd</sup> – July 12 <sup>th</sup> 2011
JP Lemier	LC/Helper	June 23 <sup>rd</sup> – June 30 <sup>th</sup> 2011
Aaron Russ	Helper	June 23 <sup>rd</sup> – June 30 <sup>th</sup> 2011
Daniel MacKenzie	Helper	June 30 <sup>th</sup> – July 12 <sup>th</sup> 2011
Jessie Wilson	Helper	June 30 <sup>th</sup> – July 12 <sup>th</sup> 2011
Shawn Crawford	Helper	July 6 <sup>th</sup> – July 12 <sup>th</sup> 2011

The crew was equipped with the following instruments and equipment:

IP receiver	1	Iris Elrec Pro / Elrec 6
IP transmitter	1	GDD TxII 3.6 kW
Generator	1	Honda 5kW generator
IP equipment	1	Repair tools & spare IP parts
	8 km	14 gauge wire
	5	VHF handheld radios
		Georeels & spools ,and stainless steel electrodes
Other	1	Pick up truck
	1	Laptop with Geosoft IP package
	1	Sat phone

## **b. Survey specifications.**

The pole-dipole surveys were conducted according to the following specifications:

Array	pole-dipole
Dipole spacing	100m
Dipoles Read	6
Tx	Time domain, 50% duty cycle, reversing polarity, 0.125 Hz.
Stacks	Minimum 15
Rx error	5 mV/V or less, otherwise repeated several times until repeatability assured.
Grid registration	Handheld GPS points at line ends and every station minimum averaged 60 s or until estimated accuracy < 10 m, whichever was longer. All coordinates in NAD83 UTM Zone 7N.

## **c. Data Processing.**

Data was downloaded nightly from the receiver and imported into Geosoft Oasis Montaj IP package. Every reading was inspected and readings which did not repeat were rejected from the database.

The daily databases contain all of the data, including data that were rejected from the final database. The final database contains all the final data.

GPS points were dumped from the handheld units and the coordinates for the electrode locations and plotting points determined by linear interpolation between the recorded GPS data.

Pseudosections of apparent resistivity, chargeability, and chargeability error, draped over topography, were produced with Geosoft IP software package.

#### **d.Products.**

The following files are appended to the digital version of this report:

Figures, as pdf files	Mint IP Survey Grid Map Pseudosections
Final Data	Final IP data files in Geosoft gdb format Final GPS files in ASCII format. All coordinates in NAD83 UTM zone 7N
Raw	A folder with all the raw instrument dump files
SMD-11520-YT IP Field Report.pdf	This report in PDF format
SMD-11520-YT surveylog.pdf	Survey Log

Respectfully submitted,

Tim Stewart  
AURORA GEOSCIENCES LTD.

Statement of Expenditures  
Mint 1-104, 107-114 Mineral Claims  
April 12, 2011

Geochemical Surveys

Expenses

Oceanview Helicopters	\$13,994.40
ALS Chemex	<u>12,017.72</u>
	<u>26,012.12</u>

Total of 522 samples = \$49.83/sample

Contract ZTEM Survey

New-Sense Geophysics	<u>23,571.77</u>
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Flew over 112 claims = \$210.46/claim

Total	<u>\$49,583.89</u>
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Statement of Expenditures  
Mint 1-212 Mineral Claims  
July 29, 2011

Ground Geophysical Survey and Support (including management)

Aurora Geosciences Ltd.  
Capital Helicopters (1995) Inc.



\$60,104.83  
16,389.14  
\$76,493.97