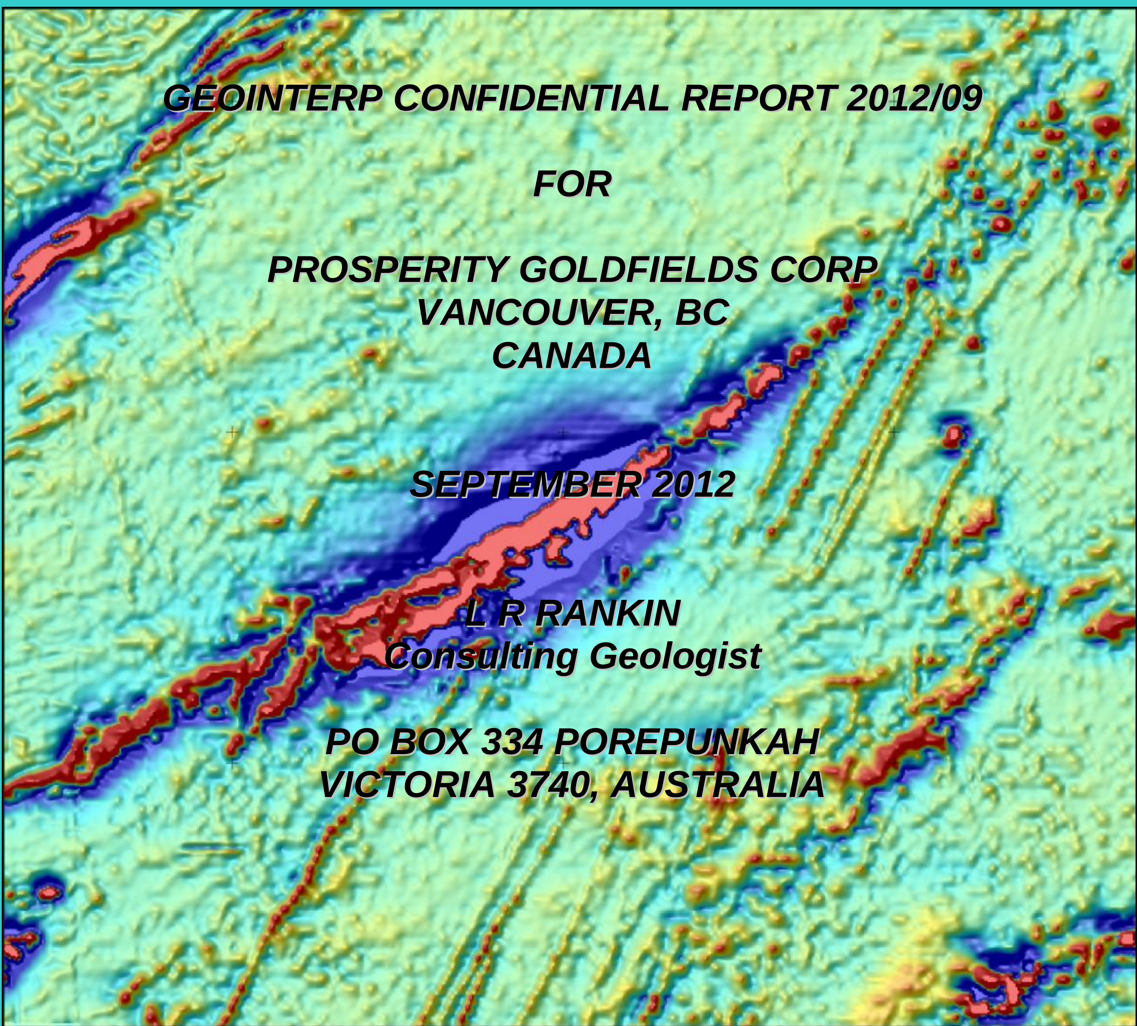
STRUCTURAL FRAMEWORK OF THE POORFISH – WINDY BELT (KIYUK LAKE DISTRICT, NUNAVUT) FROM DETAILED AIRBORNE GEOPHYSICAL DATA



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The Consultant has compiled this report and accompanying maps from data supplied by Prosperity Goldfields Corp & Revelation Geoscience Ltd, every effort has been made to carry out the work as diligently as possible, The Consultant accepts no responsibility for technical or business decisions arising from this report and accompanying data.

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September, 2012

TABLE OF CONTENTS

FIGURES

MAPS

1. Kiyuk Lake district. Observation layer from TMI-TD and TMI-1VD magnetic data. 1:50 000 scale. WGS84 UTM14N.

2. Kiyuk Lake district. Structural framework from TMI-TD and TMI-1VD magnetic data. 1:50 000 scale. WGS84 UTM14N.

3. Kiyuk Lake district. Principal tectonic elements from TMI magnetic and airborne gravity data. 1:50 000 scale. WGS84 UTM14N.

4. Kiyuk Lake district. Solid geology from TMI- magnetic data. 1:50 000 scale. WGS84 UTM14N.

5. Kiyuk Lake district. Observation layer from airborne gravity data (TZZ image). 1:50 000 scale. WGS84 UTM14N.

1. EXECUTIVE SUMMARY

A series of geological interpretation maps of the Kiyuk Lake area were compiled at 1:50 000 scale from historical semi-detailed airborne magnetic and gravity data. The area comprises Palaeoproterozoic sediments & volcanics within the NE-trending, NW-directed Poorfish – Windy fold / thrust belt of the Hearne domain (West Churchill Province), and hosts (IOCG-related) Au mineralisation.

Key findings of the study were:

- NE-trending, NW-directed fold / thrust geometry (the primary structural grain) may include an early phase of refolded NE-directed thrust / fold deformation. This would have developed variably NW- and SE- plunging F1 / L1 structures in F2 folds that could act as mineralised ore-shoot structures.

- The NE-trending structural grain of the belt is intersected by a series of quasi-regular spaced fault / fracture zones and broad structural corridors. These include NW- N-S, ENE- and E-W structures – probably reflecting deeper-seated faults within the thrust belt and / or underlying basement. These may have acted as subvertical conduits for flow / emplacement of alteration and (IOCG related?) Au-mineralising fluids.

- A subtly – expressed, broad subcircular subdomain is evident in the detailed gravity data – this may represent a regional metasomatic / hydrothermal alteration system.

- The numerous overprinting alteration phases within the area have produced a suite of (typically subtle) magnetic and gravity “anomalous” signatures. These include demagnetised zones (mt-destructive alteration), isolated magnetic highs and broader “patchy” magnetic zones, and annular magnetic structures (variable mt – additive / destructive alteration), plus occasional isolated gravity highs not associated with significant magnetite bodies (possible haematite breccia bodies?).

- The magnetic signature of the K1 mt-bearing conglomerates is highly variable – this may be due to both facies variations along strike and localised IOCG – related magnetite – haematite alteration overprinting the conglomerates. A broad ESE-trending structural corridor brackets the most enhanced magnetisation zones of the K1 conglomerates within the limbs of the main F2 NE-trending synform.

- Known Au mineralisation is concentrated within an arcuate belt to the east of the main F2 synform & Kiyuk Gp sediments – the mineralisation appears hosted in felsic volcanics (of currently ambiguous stratigraphic association) and Hurwitz Gp sediments. This main camp of showings appears controlled by both intersecting N-S, NNE- & NW- fault zones / structural corridors, plus the marginal “ring” structure associated with the gravity-defined subcircular subdomain in the east of the area.

- A series of 37 target zones have been highlighted based on a combination of possible alteration zones (from geophysical anomalism) and regional structural

complexity (potential for significant and complex fluid conduit systems). These include possible IOCG breccia / fault-controlled and strata-bound targets, plus possible mesothermal shear – hosted mineralisation within early (D1) thrust / fold structures within the main K1 magnetite-bearing conglomerates.

The targets have been prioritised individually based on a subjective assessment of structural complexity and style of geophysically-defined alteration. In addition, a series of 5 target "districts" have been highlighted. The highest priority "districts are:

a) Zone-1 - The gravity-defined subcircular subdomain (includes bulk of known showings), including both the arcuate marginal central zones.

b) Zone 2 - A major N-S structural corridor intersecting several large-scale geophysically – anomalous alteration zones.

A series of recommendations have been made, including:

a) Structural mapping traverses of the high-priority target zones, and compilation of interpretative cross sections.

b) Detailed soil / till sampling lines to be planned over the high-priority targets and the broader structural corridors associated with them.

c) Ground geophysics over the high-priority targets – including IP and ground magnetics.

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2. INTRODUCTION

2.1. Preamble

Prosperity Goldfields Corp. is currently exploring for IOCG – style Au mineralisation within the Kiyuk Lake area of Nunavut territory, Canada. Revelation Geoscience Ltd – a Vancouver-based geological consulting company – is currently providing exploration expertise and staff for the project.

To assist with further prospect scale field investigations and target identification, *Geointerp* was contracted by Revelation Geoscience Ltd on behalf of Prosperity Resources Corp. to compile a geological interpretation of historical semi-detailed airborne magnetic and gravity data.

The locations of the Kiyuk Lake tenements and geophysical interpretation area are shown in Figure 1 & Figure 2.

2.2. Aims & Strategy

The aims of the project were:

a) Review the structural geological setting of possible IOCG-related Au mineralisation within the Kiyuk Lake area from semi-detailed magnetic and gravity data, and;

b) Highlight potential target zones for more detailed ground investigations.

The following strategy was adopted:

a) Appropriate images of the magnetic and gravity data were selected from the series of Geotiff images provided by Revelation Geoscience, and plotted as hardcopy paper plots at 1:50 000 scale (~A1-size).

b) A series of geological interpretation layers were compiled as hand-drawn maps on stable-base polyester film. The interpretation methodology for the geophysical data followed that outlined by Isles & Rankin (2012a,b; in press) – this is based on a qualitative "air-photo geological" – style of interpretation. The interpretation layers compiled included:
    i. Observation layer - this highlights the position (in plan view) of all magnetic rock units (MRU's) (and more subtle magnetisation trends / zonation) evident in the data.
    ii. Structural framework – this outlines both the more obvious (objective) and interpretive (subjective) geological contacts, faults / shears and other structures. These features are strongly constrained by the geometry of the MRU's in the observation layer.

iii. Observation layer (gravity data) – this outlines the geological geometry evident from the distribution of gravity high and gravity low bodies and subdomains within the area.

iv. Solid geology – this outlines the surface to relatively shallow-level lithological and structural geological elements within the area (in this instance principally derived from the magnetic data).

v. Principal tectonic elements – this highlights the key 1st and 2nd order structural elements within the area This includes both narrow, well-defined structures and broader, subtly-expressed structural zones or corridors – the latter commonly highlight the presence and influence of deeper-seated fault / shear zones. The PTE layer combines structural elements from several datasets.

c) The interpretation maps were scanned using a bureau – service company (Plan Scan, Albury, Australia) using a large-format roller scanner. The maps were captured as 300-dpi colour JPEG files.

d) The interpretation map sans were geographically – registered (using Global Mapper v13.2) and exported as GEOTIFF files for display / manipulation in GIS software platforms.

e) A series of target zones were delineated from the geophysical interpretation maps (captured as MapInfo .tab files).

f) The key findings of the interpretation and description of the target zones were compiled (this report).

The interpretation project was conducted over 10 days in August / September 2012 in the Geointerp office (Porepunkah, Victoria, Australia).

2.3. Conventions / Datasets

The following conventions were used for the project.

Geographic Data

- Magnetic Inclination +82^{o}
- Magnetic Declination +6^{o}
- Map Projection WGS84 UTM14N

Geophysical & Geological Data

Magnetic Data

The magnetic data comprises 2 separate surveys:

a) Newmont 2007 data - Terraquest project B-227
   Flight line spacing - 150m (E-W)
   Nominal flying height - 70m

b) Evolving Gold Corp data – Terraquest project B-326
   Flight line spacing – 100m (N-S)
   Nominal flying height 70m

The outlines of the two surveys are shown in Figure 3.

The magnetic data were supplied as GEOTIFF images rather than grid files – this did not allow further geophysical or image processing by the author. In particular, all magnetic data images were provided using TMI data, rather than RTP data. Whilst conversion to RTP data at the high field inclination experienced in the Kiyuk Lake area would not alter the locations and geometry of the magnetic signatures significantly, it is still considered good practice by the author to compare the TMI and RTP datasets.

The following images were used for the interpretation:
a) TMI – 1VD (NW shade); colour, linear stretch.
b) TMI – tilt derivative; colour, linear stretch.
c) TMI – 1VD; greyscale, linear stretch.

The magnetic and gravity images are shown in Figure 4, Figure 5 & Figure 6.

Gravity Data

An AIR-FTG full tensor gravity gradiometer survey was acquired over the Kiyuk Lake area for Newmont in 2007 by Bell Geospace. The flight-line specifications of the dataset were not known to the author at the time of this report. However, a summary of the survey imagery and preliminary interpretation of gravity – base targets was compiled by Johnson (2012b) for revelation Geoscience.

The main images used for interpretation were:

a) TZZ gravity; colour, linear stretch
b) TZZ gravity; colour, linear stretch + TMI-1VD greyscale linear stretch (composite image).

Geological data

Field mapping data and maps were provided as Excel spreadsheet and ArcGIS .shp files.

Previous regional maps from Aspler *et al.* (2002) and mineralisation maps from Turner, 2010 were exported from PDF format into JPEG images and imported into MapInfo.

Software

The following software was utilised:

a) MapInfo / Discover v12 – image and GIS manipulation platform.

b) Global Mapper v13.2 – geographic registration of scanned maps and export to GEOTIFF format.

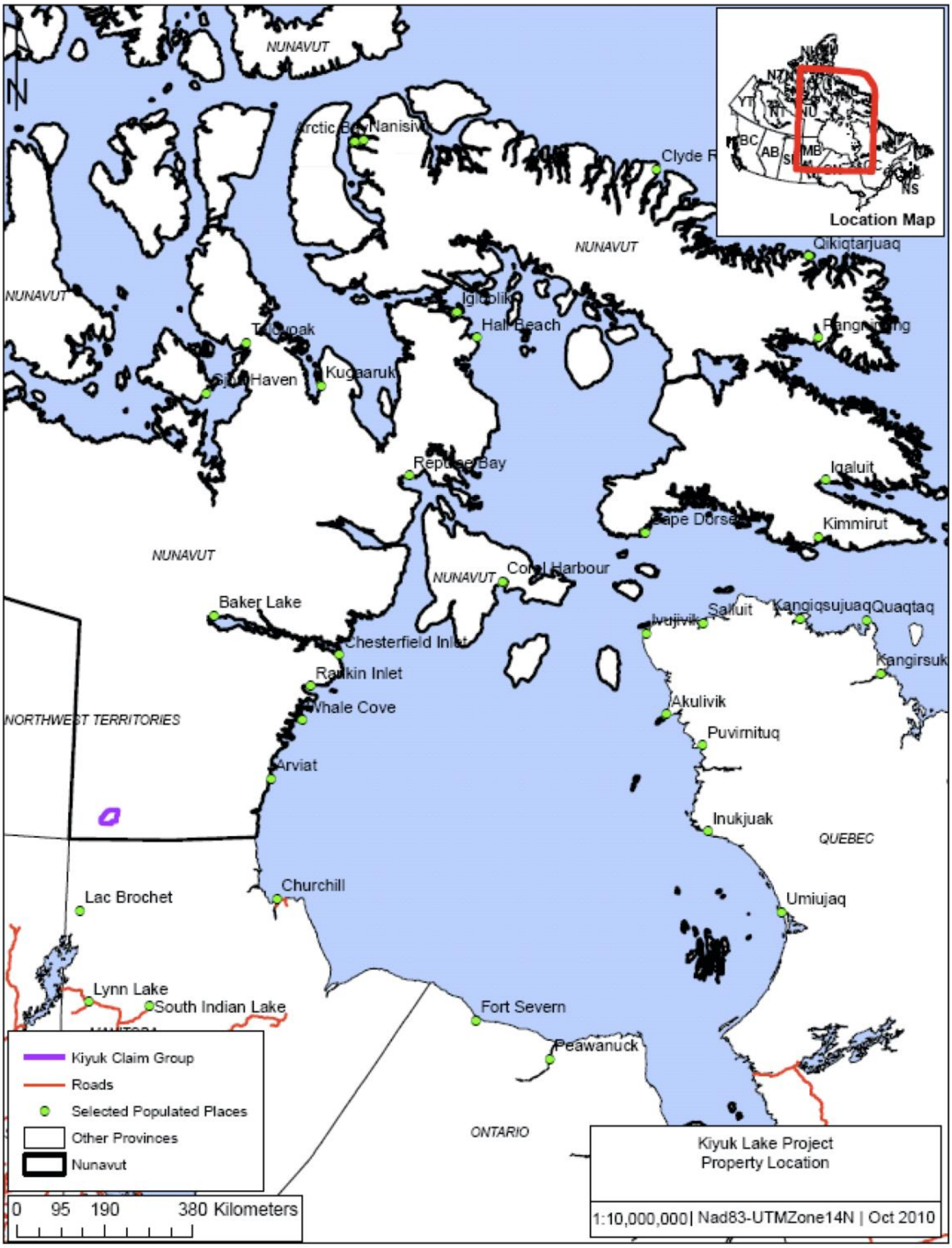

Figure 1. Location of Kiyuk Lake tenements (figure from Turner, 2010).

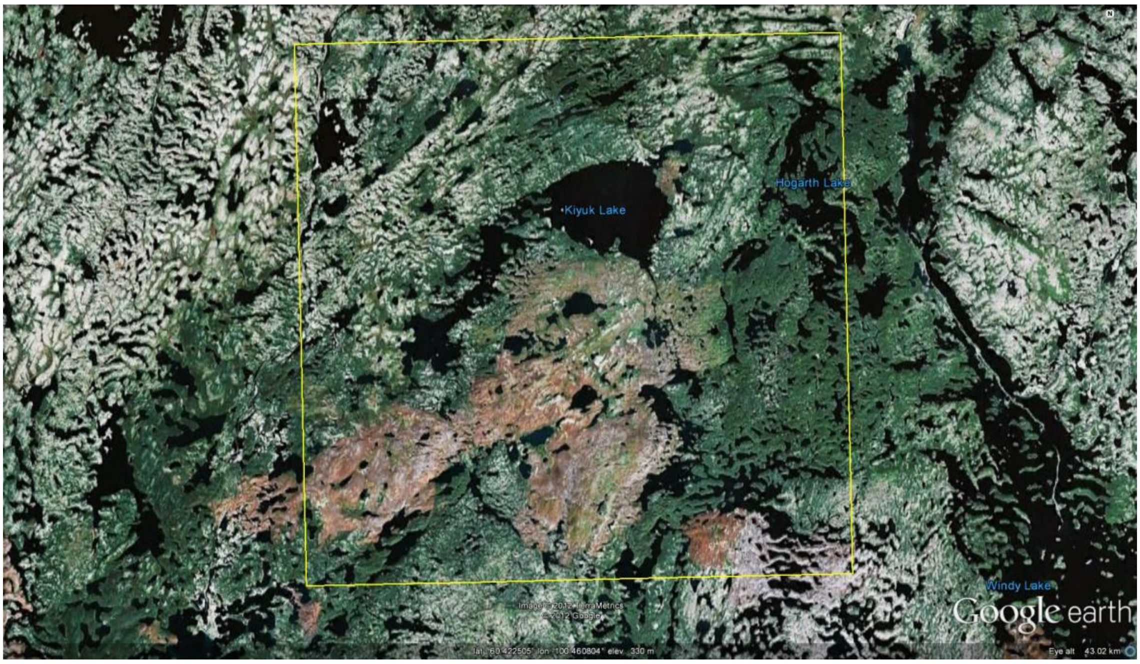

Figure 2. Close-up view of Kiyuk Lake magnetic / gravity interpretation area (imagery from GoogleEarth™).

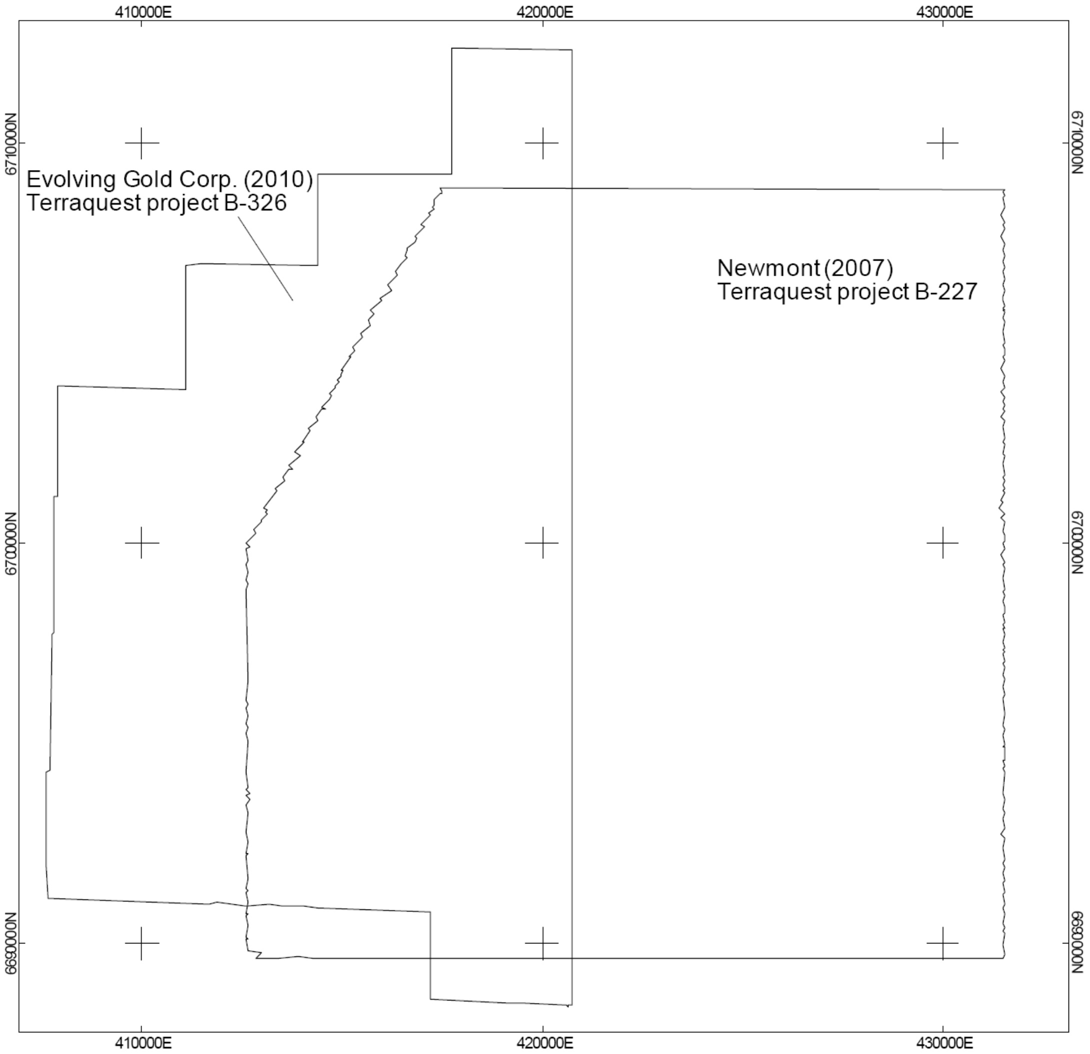

Figure 3. Outline of the two semi-detailed airborne magnetic surveys covering the Kiyuk Lake area. Diagram after Johnson, 2012a.

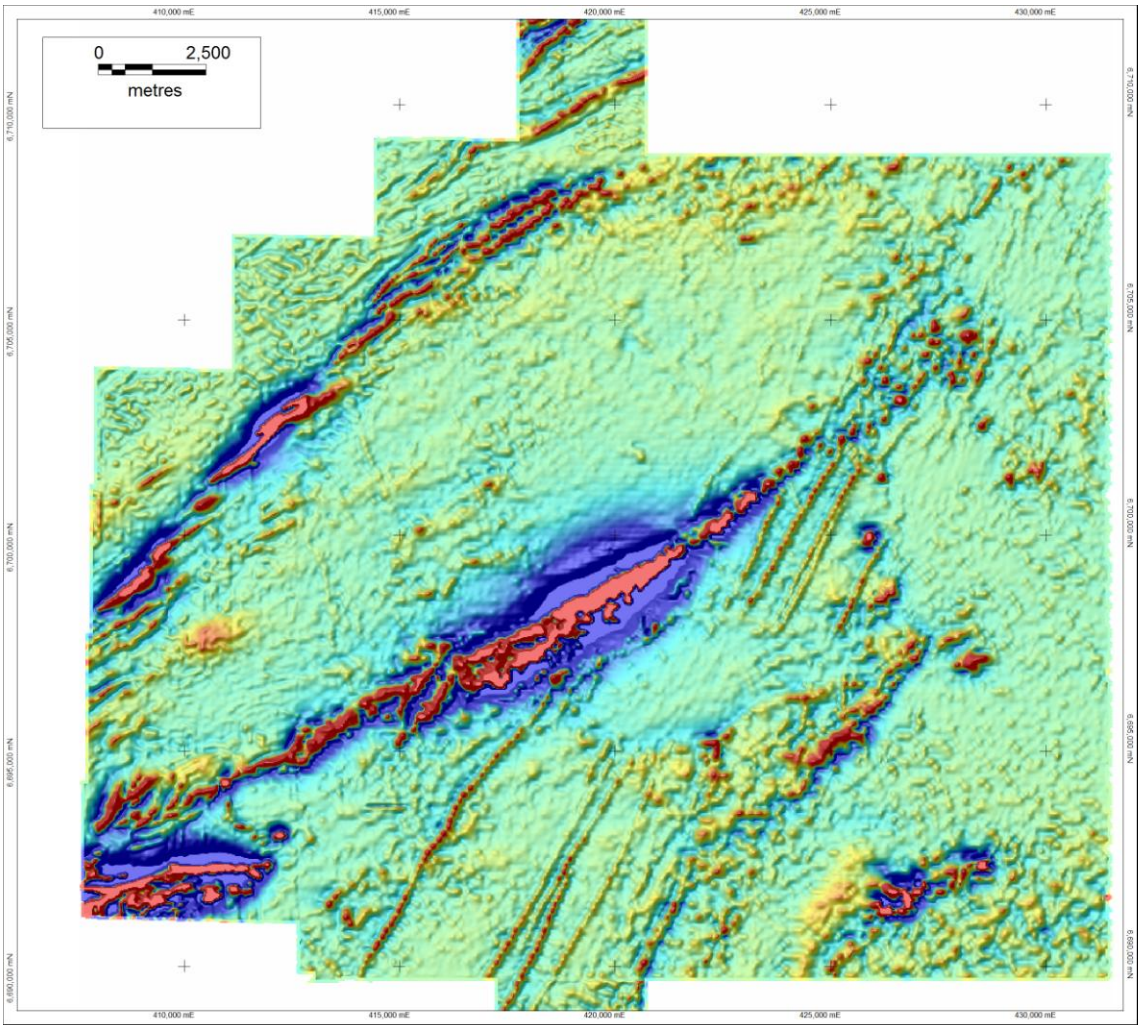

Figure 4. TMI-1VD colour (NE illumination).

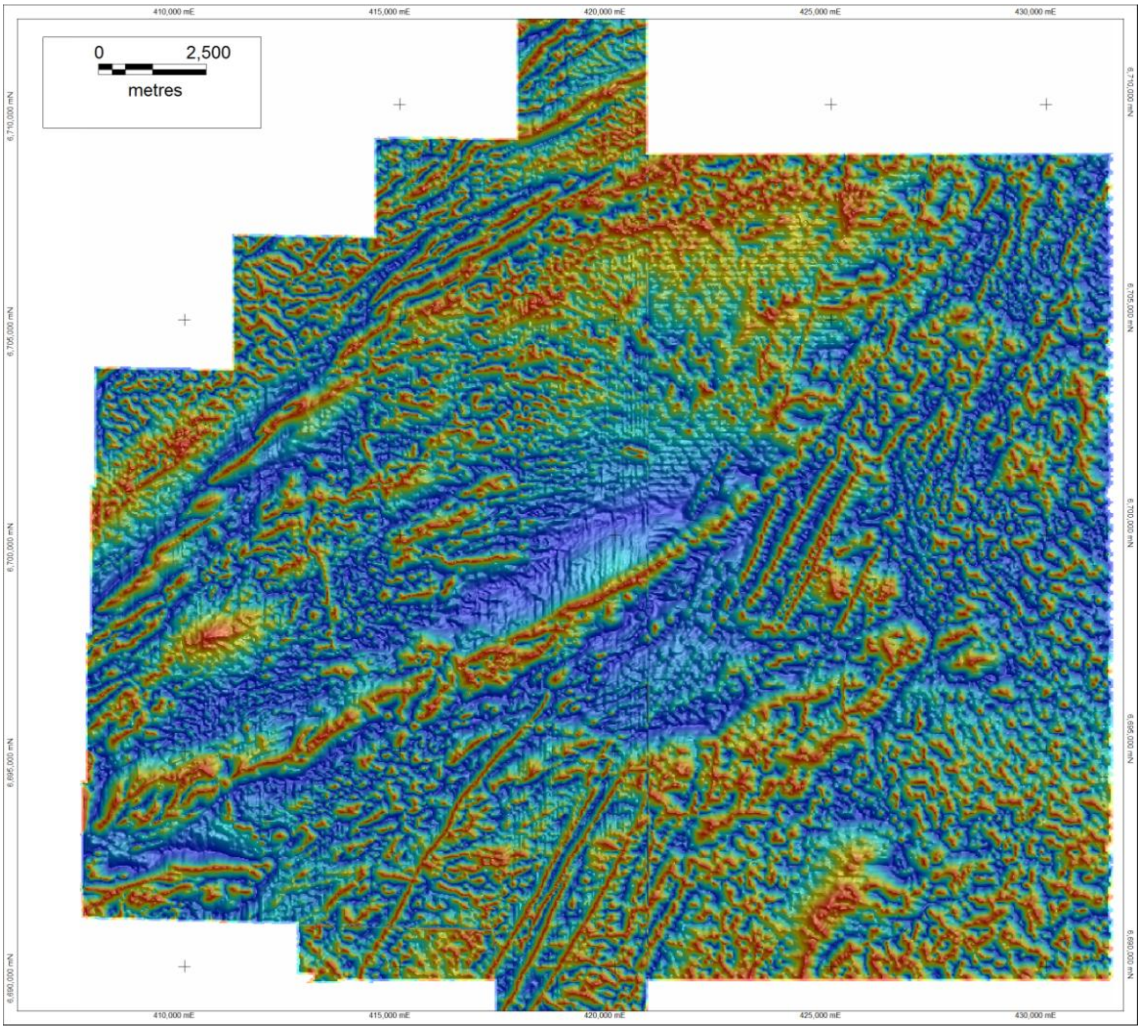

Figure 5. TMI - tilt derivative (NE illumination).

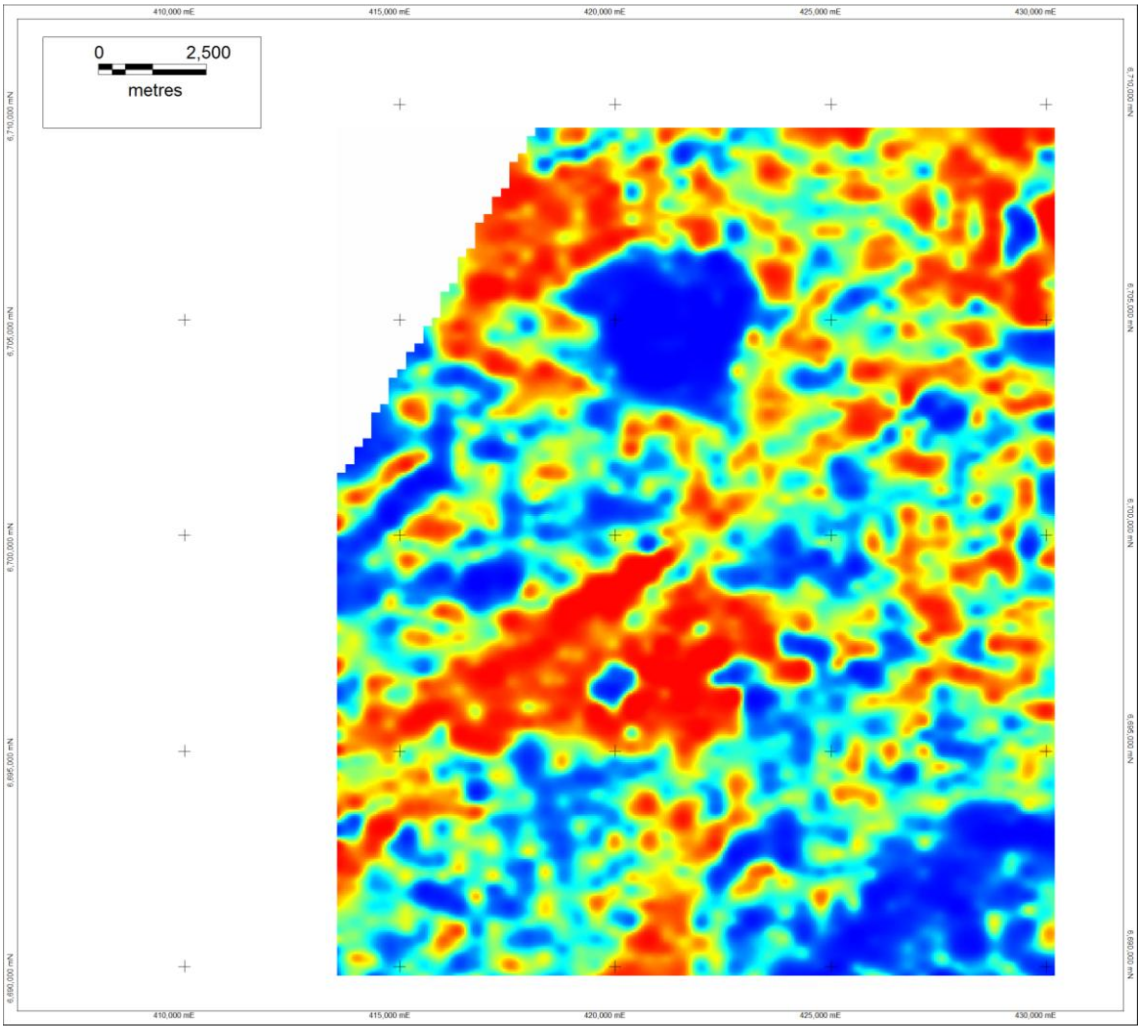

Figure 6. Airborne gradiometer gravity - TZZ image.

3. GEOLOGY – KIYUK LAKE AREA

3.1. Regional Setting & Previous Investigations

The Kiyuk Lake area lies within the Poorfish – Windy fold & thrust belt of the Hearne domain of the western Churchill Province. The Precambrian geology of this region has a strong NE-SW structural grain, parallel / sub-parallel to major crustal structures to the NW (including the Snowbird Tectonic Zone and (further afield) the Great Slave Shear Zone). Field investigations by Aspler *et al* (2002) indicate that the Poorfish – Windy fold / thrust belt is part of a major episode of NW-directed Palaeoproterozoic basement – cover infolding and thick-skinned thrusting within the Hearne domain. The regional geological setting of the Kiyuk Lake area (from Aspler *et al.,* 2002) is shown in Figure 7.

The Poorfish – Windy fold / thrust belt includes the following sequences:

a) Archaean basement rocks, including foliated felsic metasediments, felsic volcanics and volcaniclastics, immature siliciclastic and iron formation metasediments of the Ennadai – Rankin greenstone belt (Aspler *et al.*, 2002);

b) Continental siliciclastic and marine siliciclastic and carbonate sediments of the Palaeoproterozoic Hurwitz Group (~2.45 – 2.11Ga – see Aspler *et al.*, 2002), and;

c) Non-marine conglomerate, arkose and intraformational breccia of the Kiyuk Group (Aspler *et al.*, 2002) . The Kiyuk Group is subdivided further into:
    i. K1 – polymict, coarse conglomerates (locally with magnetite-rich matrix)
    ii. K2 – arkose, conglomerate and minor mudstone
    iii. K3 – Intraformational breccia of K2 clasts. Note that within the Kiyuk Lake area, this unit is alternately interpreted as a possible hydrothermal (IOCG-related?) breccia (Turner, 2010).

Aspler *et al*'s (2002) geological map of the Poorfish – Windy fold / thrust belt covering the Kiyuk Lake area is shown in Figure 8. The structure of the area within this interpretation is dominated by:

a) A series of NE-trending NW-vergent thrusts and high-angle reverse faults. These include early (folded) thrusts piggy-backing on later thrusts & high-angle reverse faults. The NE-trending high-angle reverse faults locally bend to N- to NNE- trending.

b) Several NNW- to NNE- trending normal faults.

c) A major NE-trending (& closing) synform (with associated minor 2nd order synforms / antiforms).

The thrust / high angle reverse faults and the major synformal folding are interpreted by Aspler *et al* (2002) as part of the same episode of NW-SE compression.

Both Aspler *et al* (2002) and Turner (2010) note that the Kiyuk Lake area has very limited outcrop – this suggests there may be areas where the previous interpretation can be significantly improved by integration of the geophysical data.

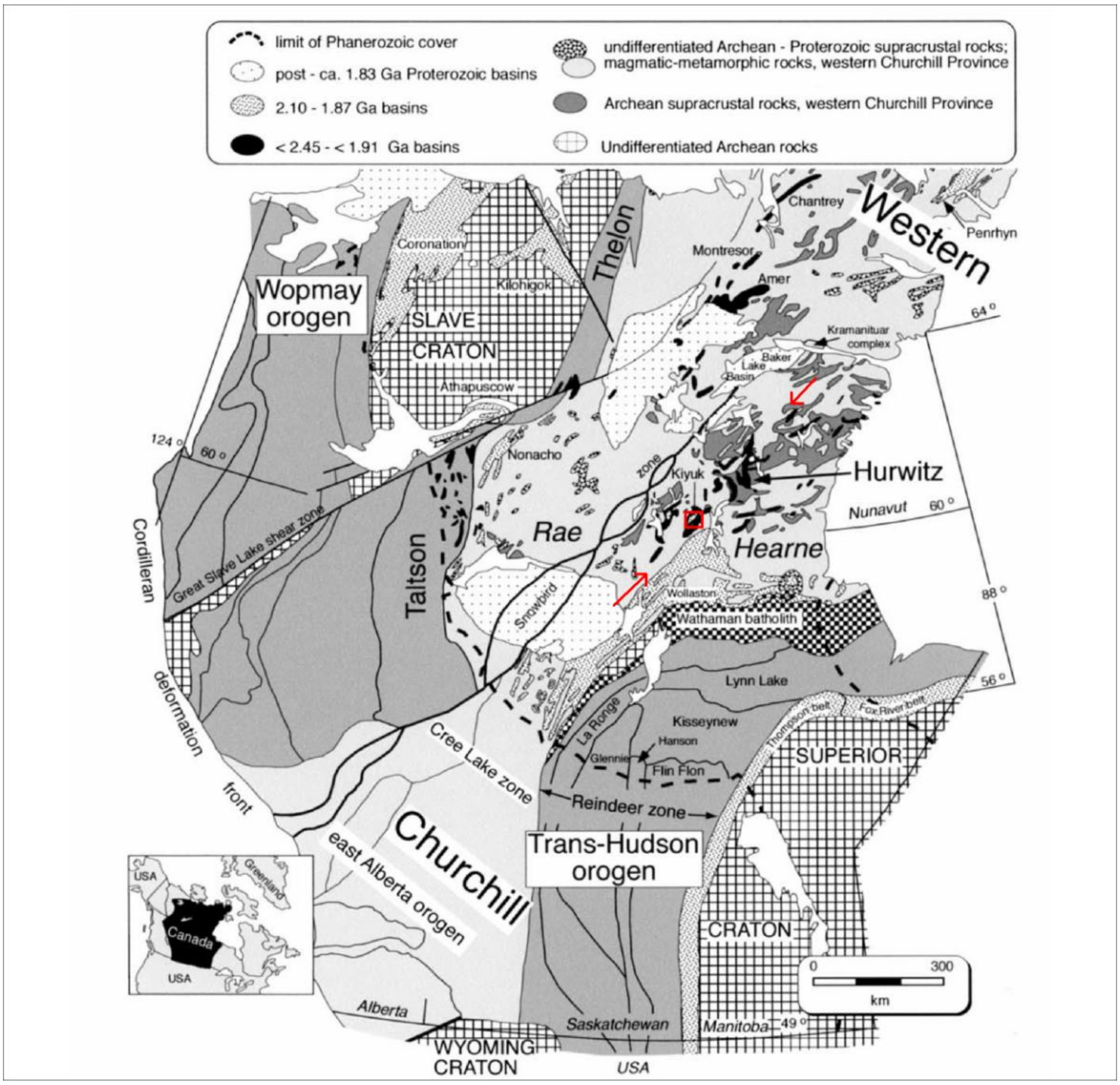

Figure 7. Regional setting of the Poorfish-Windy fold / thrust belt (from Aspler *et al.,* 2002) and Kiyuk Lake area (red polygon). Note strong NE-SW structural grain and regional structural lineament coincident with Kiyuk Lake area - red arrows (parallel to Snowbird Tectonic Zone to NW).

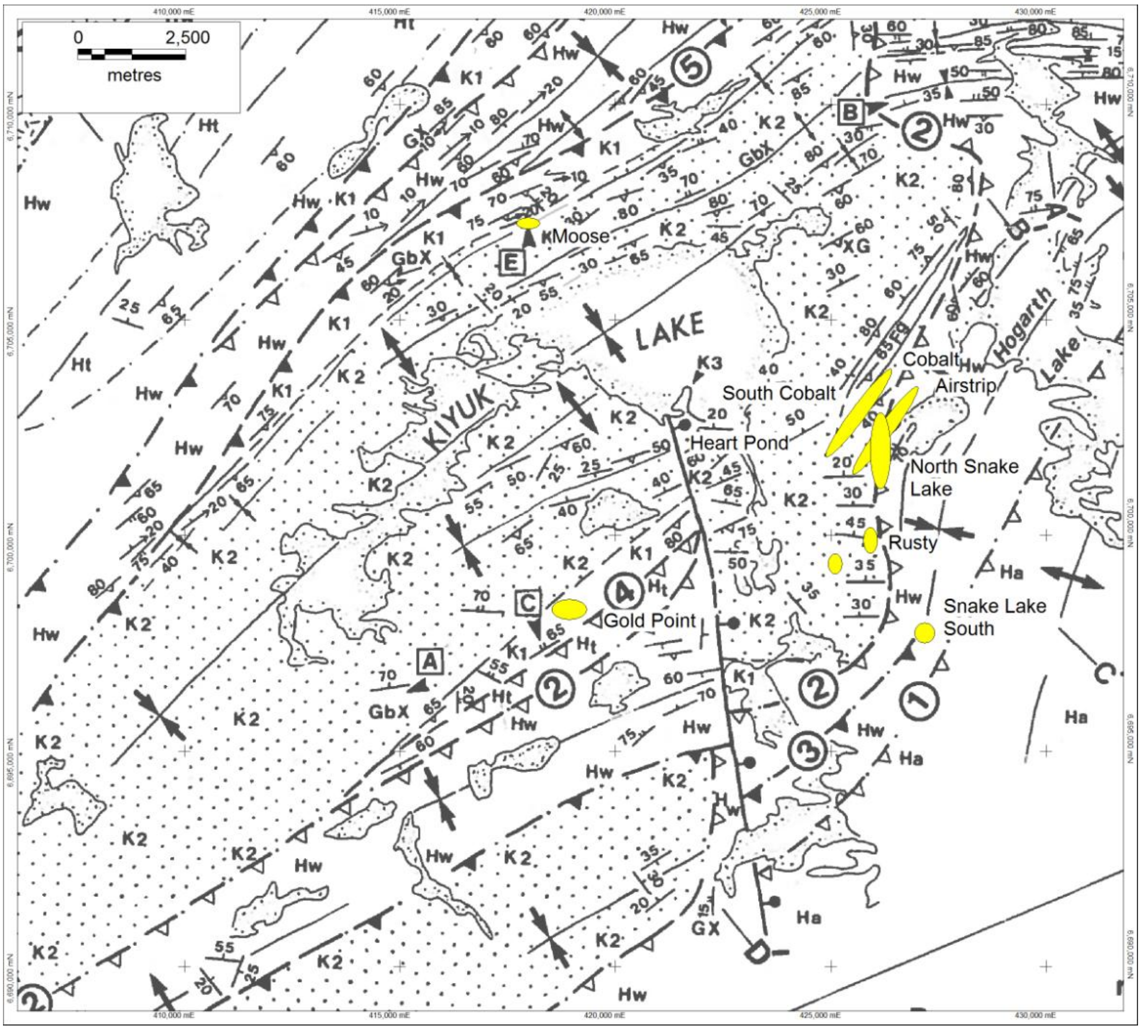

Figure 8. Geology of the Poorfish - Windy fold / thrust belt within the Kiyuk Lake geophysical interpretation area (after Aspler *et al.*, 2002). Locations of known Au showings are highlighted.

3.2. Local structure – from semi-detailed geophysical data

The geological interpretation maps were compiled from the magnetic and gravity data at 1:50 000 scale as several layers – these are shown in Appendix 1.

3.2.1. Principal structures

3.2.1.1. NE-SW structural grain (fold / thrust belt)

Both the magnetic and gravity data highlight the strong regional NE-SW structural grain associated with the Poorfish – Windy fold / thrust deformation. The most obvious features in the magnetic data are the variably – magnetic basalt conglomerates of the Kiyuk Group within the NW and SE limbs of the 1st order NE-closing synform.

The NE-SW trending thrust faults are subdivided in this interpretation into two sets:

a) An early (D1) series of inferred NE-directed thrusts with associated early recumbent folds (Figure 9), and;

b) A later (D2) series of NW-directed thrusts (associated with the main NE-SW folding) - Figure 10.

The original and post-D2 geometry of D1 structural elements are highlighted in Figure 11.

D1 thrusts

The base of the Kiyuk Gp K1 variably-magnetic conglomerates is interpreted here as a major D1 thrust (possibly out of sequence?) – there are significant zones of discontinuity in structural trends between the main synformally-folded sequence of Kiyuk Gp sediments and the underlying felsic volcanics and Hurwitz Gp sediments.

Minor apparent dextral and sinistral listric faults on the SE and NW limbs of the main synform respectively are suggestive of 2nd order thrust duplexes developed during NE-directed thrusting. A significant NE-trending, apparent Z-vergent fold in the SE limb of the main synform is opposed to the S-vergent parasitic folds expected for simple folding – this minor fold is interpreted here as an early recumbent fold (NE-directed) re-folded by the F2 synform event. These folds would therefore plunge steeply to the NW in this area.

In the far SW of the area there is another subdomain of potentially thrust / fold repeated magnetic conglomerates, trending ENE, and appear truncated abruptly at their ENE extent by a NE-trending fault. This belt is interpreted here as either:

a) The SE limb of a D2 antiform, or;

b) A NE-directed recumbent fold / nappe of the Kiyuk conglomerate.

A grey-green greywacke of (currently) undefined stratigraphic position has been mapped between the two main belts of K1 conglomerate in the SW of the area (field mapping 2012 – Revelation Geoscience Ltd.). This may represent either a localised basal unit of the Kiyuk Gp exposed in a localised D2 antiform core, or a younger unit thrust over by Kiyuk Gp sediments during D1.

Interpreted thrust repetition of the conglomerates in the NW limb of the synform may be due to either the D1 NE-directed thrust development, or the later D2 thrust event. In either case, this subdomain appears bounded to the NE and SW by thrust ramps (either frontal or lateral).

Moderate to steeply-plunging (refolded) F1 recumbent fold axes and axial planes may have acted as local fluid conduits during later metasomatic / hydrothermal alteration episodes – the potential for variably – NW- and SE- plunging ore-shoot orientations should be considered.

D2 thrusts / folds

The main series of NE- trending folds and thrusts were developed during the main episode of NW-SE compression and NW-directed (thick-skinned) thrusting described by Aspler *et al* (2002) – and here ascribed to D2.

There are 4 main T-2 thrusts interpreted from the magnetic data:

T2-a :- This lies in the NW of the area, and separates a SW-closing synform(?) of Kiyuk Gp sediments in the NW from SE-dipping sediments of the Hurwitz Gp to the SE – this thrust therefore separates an apparently minor NE-trending synform from the main NE-closing synform that dominates the Kiyuk Lake area.

T2-b :- This fault separates the south-eastern belt of felsic volcanics from the main belt of Hurwitz Gp sediments to the SSE – it also truncates the south-western belt of K1 magnetic conglomerates from the Hurwitz Gp in the far SW of the area. The thrust is overall parallel to the SE limb of the regional NE-trending synform, but forms a major structural dislocation between NE structural grain in the main synform with ENE-structural grain within the folded / thrust Hurwitz Gp to the SE.

T2-c :- this is a more irregular (shallower-dipping) inferred thrust within the Hurwitz Gp sediments in the SE / east of the area. The thrust is interpreted from a discordance between domains with subtly-different magnetic character in the south of the area. The thrust has an overall NNE- trend in the south, but becomes N-S in the central / eastern sector – this is in part coincident with a broader N-S structural corridor (see Section 3.2.2.2 below). In the north of the area, the thrust sheet may cross a NW- transfer (lateral ramp) fault and extend further to the NW – there is no evidence of this in the magnetic data, but matches with a high-angle reverse fault interpreted by Aspler *et al* (2002).

T2-d :- this final structure lies in the SE corner of the Kiyuk Lake area; it separates Hurwitz Gp sediments in the west / northwest from foliated felsic metasediments in the southeast (Archaean basement?). The contact is irregular (possibly weakly folded), and trends N- to ENE-. The dip and nature of the contact is ambiguous at this stage; the contact could be:

a) A preserved unconformable contact between the Archaean basement and the overlying Hurwitz Gp;

b) An out-of-sequence thrust between the Archaean basement and Hurwitz Gp (Hurwitz Gp thrust along detachment surface between Archaean basement and overlying basin), or;

c) A NE- (D1) or NW- (D2) directed thrust of Archaean basement over the Hurwitz Gp sediments.

There are numerous small-scale, fault / fracture trends parallel / sub-parallel to the main NE- fold axial trend. These probably represent axial-planar high-angle reverse fault and fracture zones developed during F2 folding.

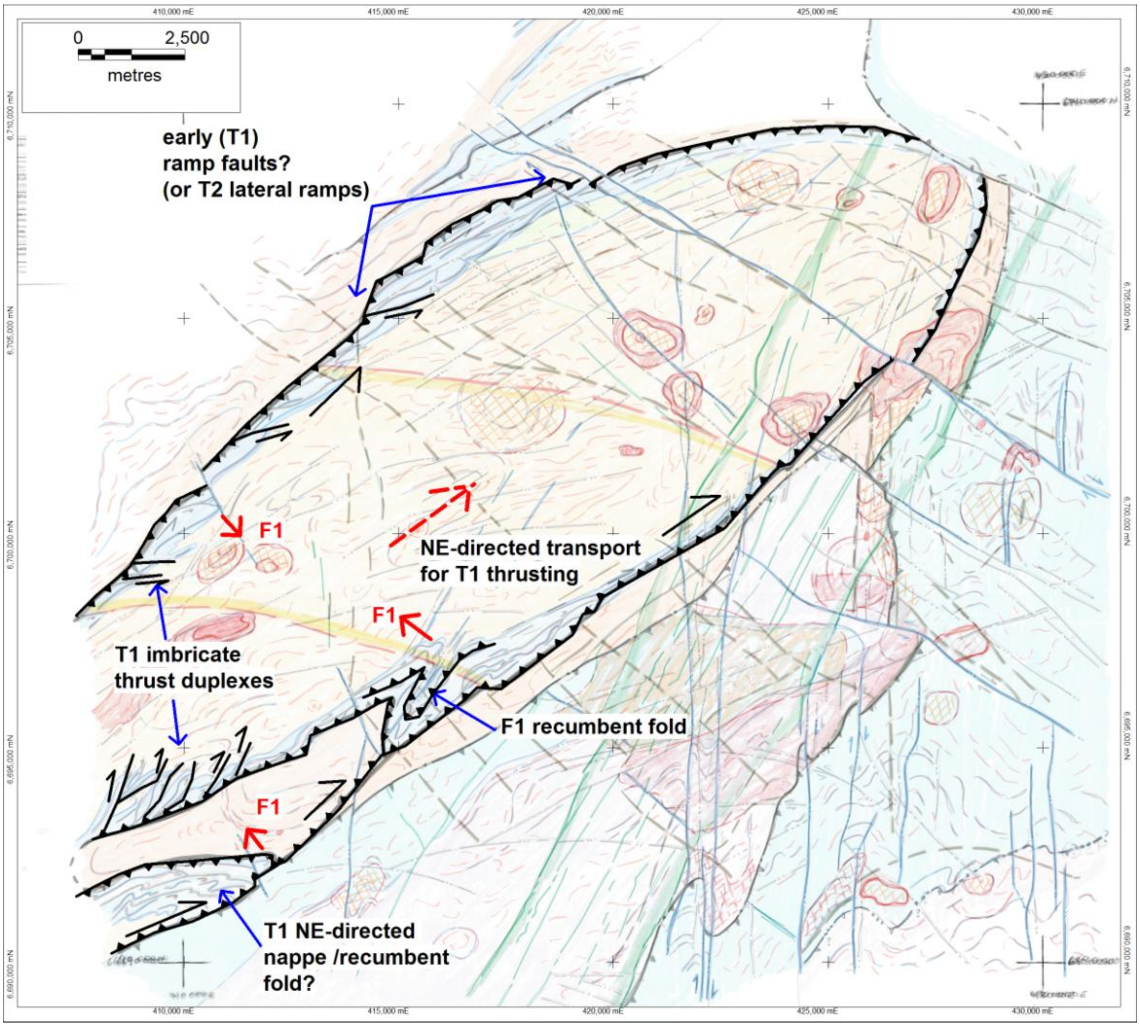

Figure 9. Interpreted D1 NE-directed thrust / recumbent fold structures. Thrusts and folds refolded by F2 synform (F1 fold axis & intersection lineations with variable NW- and SE plunges). Note 2nd order imbricate thrust duplexes in SW of area, plus recumbent fold / nappe of previously-unrecognised K1 conglomerates in SW. T1 thrusts probably locally reactivated by T2 thrust deformation.

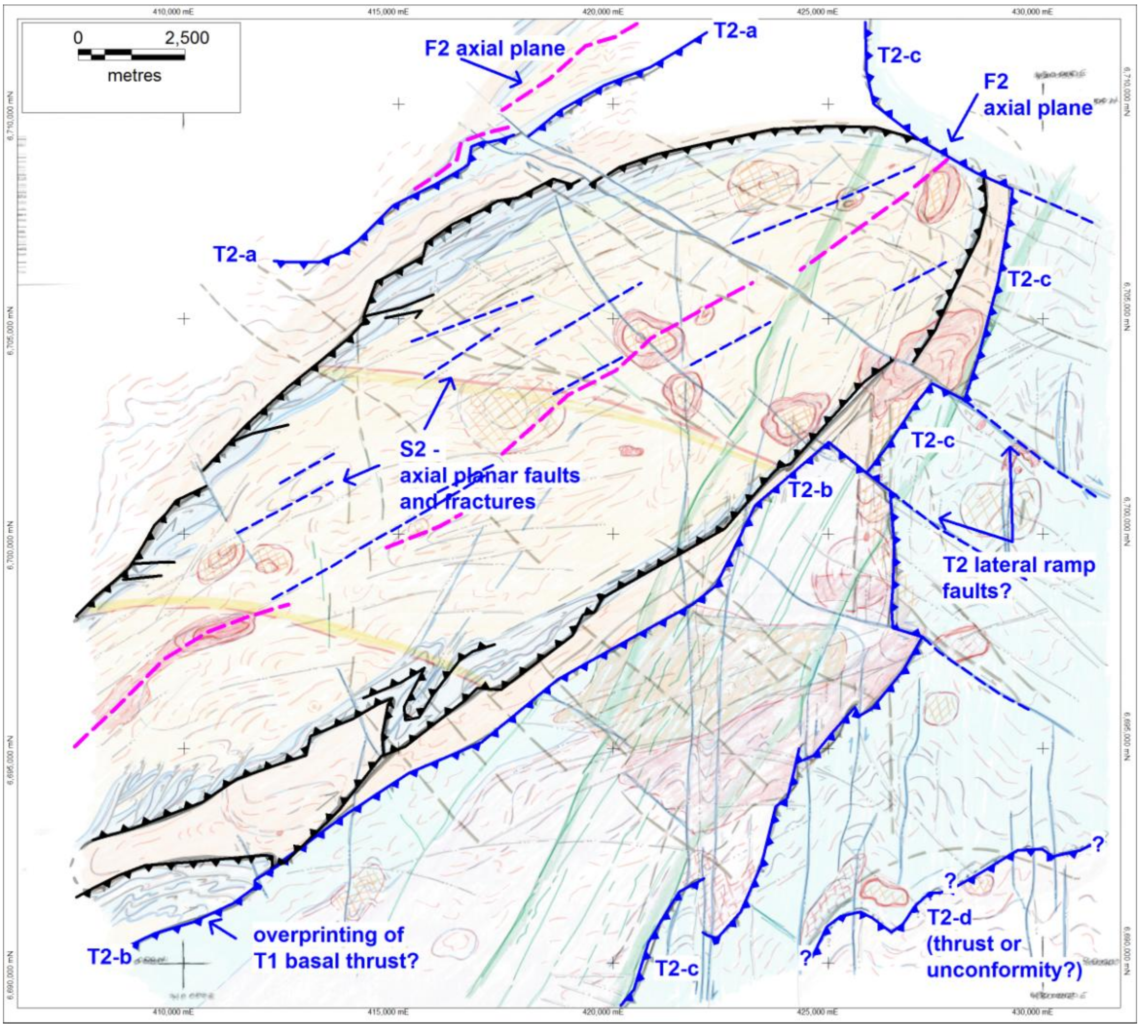

Figure 10. D2 NW-directed thrust / high-angle reverse fault and fold structures. Note inferred reactivation of T1 thrusts in SW of area. The T2-b thrust is interpreted here to emplace Hurwitz Gp sediments over the synformally-folded Kiyuk Gp sediment plus felsic volcanics (of unknown stratigraphic association).

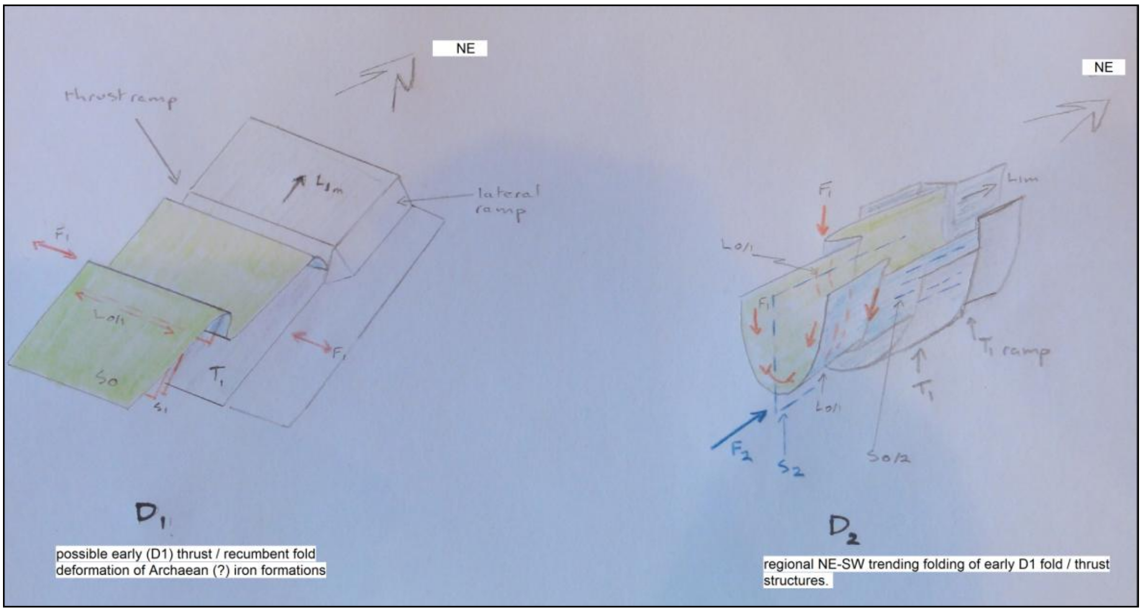

Figure 11. Simplified sketch of idealised geometry of D1 and D2 structures.

3.2.1.2. N-S fault / fracture corridors

There are several broad zones or corridors of ~N-S trending faults / fractures evident throughout the area. These are particularly well developed in the eastern half of the area, where the more well-developed structural corridors have a quasi-regular spacing of ~ 2.5 – 3km (see Figure 12).

Subtle trends in TMI-1VD and TMI-TD datasets suggest the fault / fracture zones are associated with / axial-planar to a series of relatively broad N-S wrap-style folds. Several of the fault zones have apparent dextral displacement associated with apparent Z-vergent folds.

In the north of the area the fault corridors may bend to the NNE, following in part the broad structural corridor associated with the later-stage mafic dykes (see Section 3.2.1.5. below). The region associated with the change in nature / orientation of these structures is broadly coincident with a cluster of possible alteration zones / hydrothermal breccia bodies.

The NNE- bends along several of the individual fault strands, combined with local evidence of (apparent) N-S dextral wrench suggests that there may be localised NNE- to NE- trending dilation jog / accommodation zones developed between adjacent / overstepping fault strands. These could have acted as locally significant loci for Au-mineralising fluids.

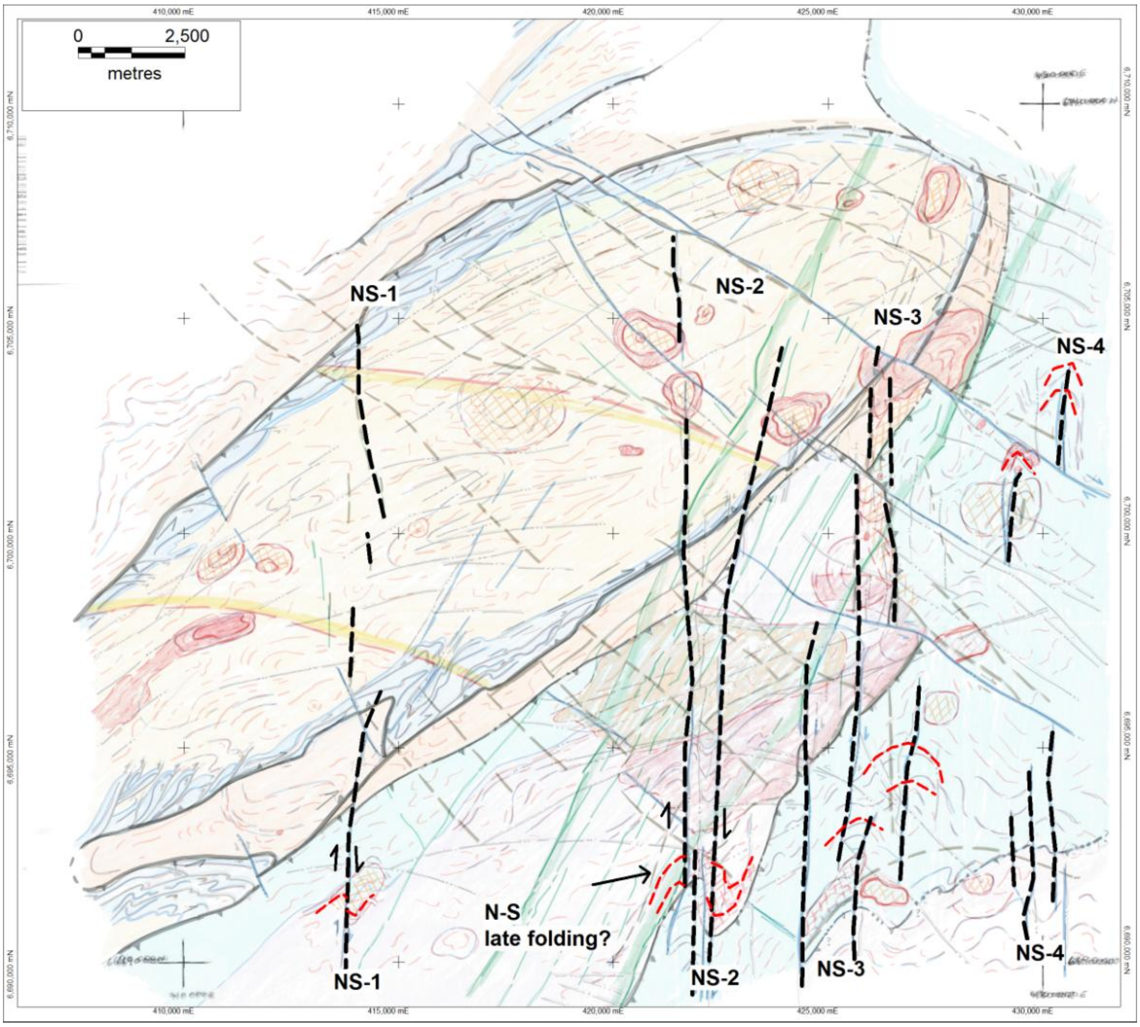

Figure 12. Quasi-regular-spaced N-S fault / fracture zones / structural corridors. Several of these appear to have apparent dextral displacement, and are axial planar to weak N-S warp – folds.

3.2.1.3. NW-SE fault / fracture corridors

Several NW-trending faults (and / or broader zones or corridors) intersect the NE-trending fold / thrust belt. Five relatively significant fault zones / corridors are highlighted in Figure 13. At least two of the faults show apparent dextral displacement – the NW-1 FZ in the NE of the area has a consistent apparent movement of ~500m dextral on both limbs of the main synform, suggesting this is a true strike-slip fault. Many of the other NW- trending structures have little or no consistent displacement across the folded thrust sequences – these may be:

a) Faults / fracture zones with small-scale displacements only(possibly dip-slip dominated), and may in some instances reflect the presence of deeper-seated basement faults below the main fold / thrust complex;

b) Possible lateral ramp faults within the D2 NW-directed thrust belt (with later-stage reactivation as fault / fracture corridors). Several NW-trending faults within the Hurwitz Gp sediments to the east of the main synform may represent lateral thrust ramp faults.

The detailed gravity data also highlights the presence of significant NW-trending structures both in the near-surface geology and at depth. Several of these structures are coincident / near coincident with faults defined by the magnetic data (e.g. – the NW-1 FZ). In the south of the area, numerous NW-trending 2nd order faults appear to underpin the NE-trending Hurwitz Gp sediments – these have a quasi-regular spacing of 1 – 1.5km.

The more continuous, deeper-seated NW-trending faults may represent both:

a) Lateral ramp faults within the D2 thrust / fold belt (and therefore would have acted in part as normal fault fluid conduits during NW-SE compression), and;

b) Reactivated Archaean basement faults.

These structures therefore may have acted as locally significant fluid conduits during hydrothermal fluid emplacement / IOCG – style alteration and Au-mineralisation.

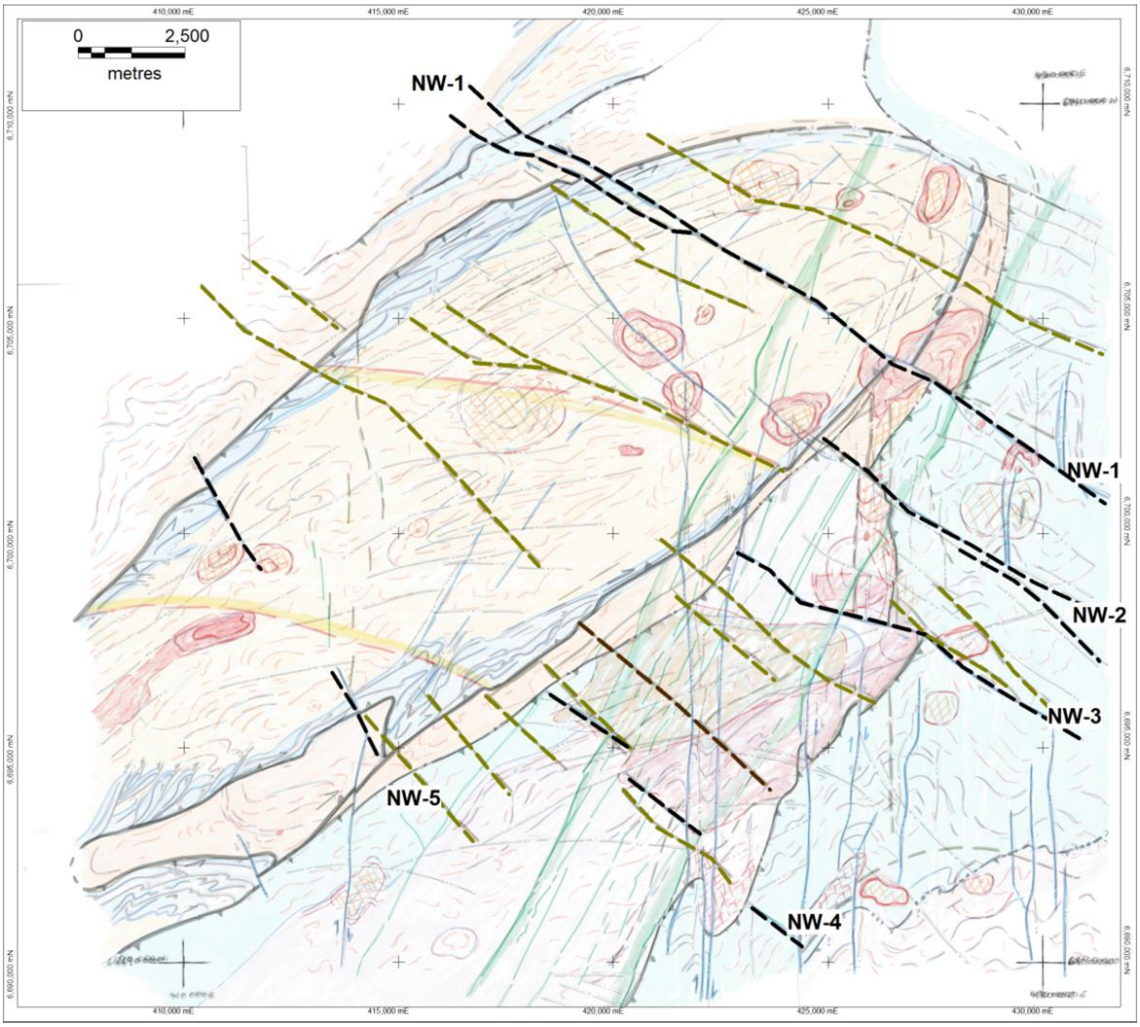

Figure 13. NW-trending fault / fracture zones and broader (subtly-expressed) structural corridors. Magnetically-defined structures – black. Gravity-defined structures – brown.

3.2.1.4. ENE- WNW fault / fracture corridors

Minor ENE-trending fault / fracture trends with variable strike length also intersect the area, (particularly in the southern half). Two significant ENE-trending structural corridors are evident (Figure 14):

a) ENE-1. This lies near the centre of the study area, and is broadly coincident with several irregular zones of possible magnetite alteration (both addition & destruction). This structural corridor is also coincident with a structural lineament previously extended from the NE end of magnetic K1 conglomerates in the SE limb of the major synform (within area of known Au mineralisation).

b) ENE-2. This lies roughly 5km south of the ENE-1 structural corridor. It is defined by:
    i. A series of strike-limited fault / fracture zones;
    ii. Alignment of the axial – planar trend of a possible F1 nappe / recumbent fold within the Kiyuk Gp sediments in the SW and a broad roughly elliptical zone of subdued magnetisation associated (or coincident) with a (broad fold-related?) lobe of Watterson Fm sediments within the Hurwitz Gp.

The precise nature of these structures is ambiguous at this stage – however, it is possible that they are associated with late-stage warp-style folding across the fold / thrust belt (tentative interpretation at this stage).

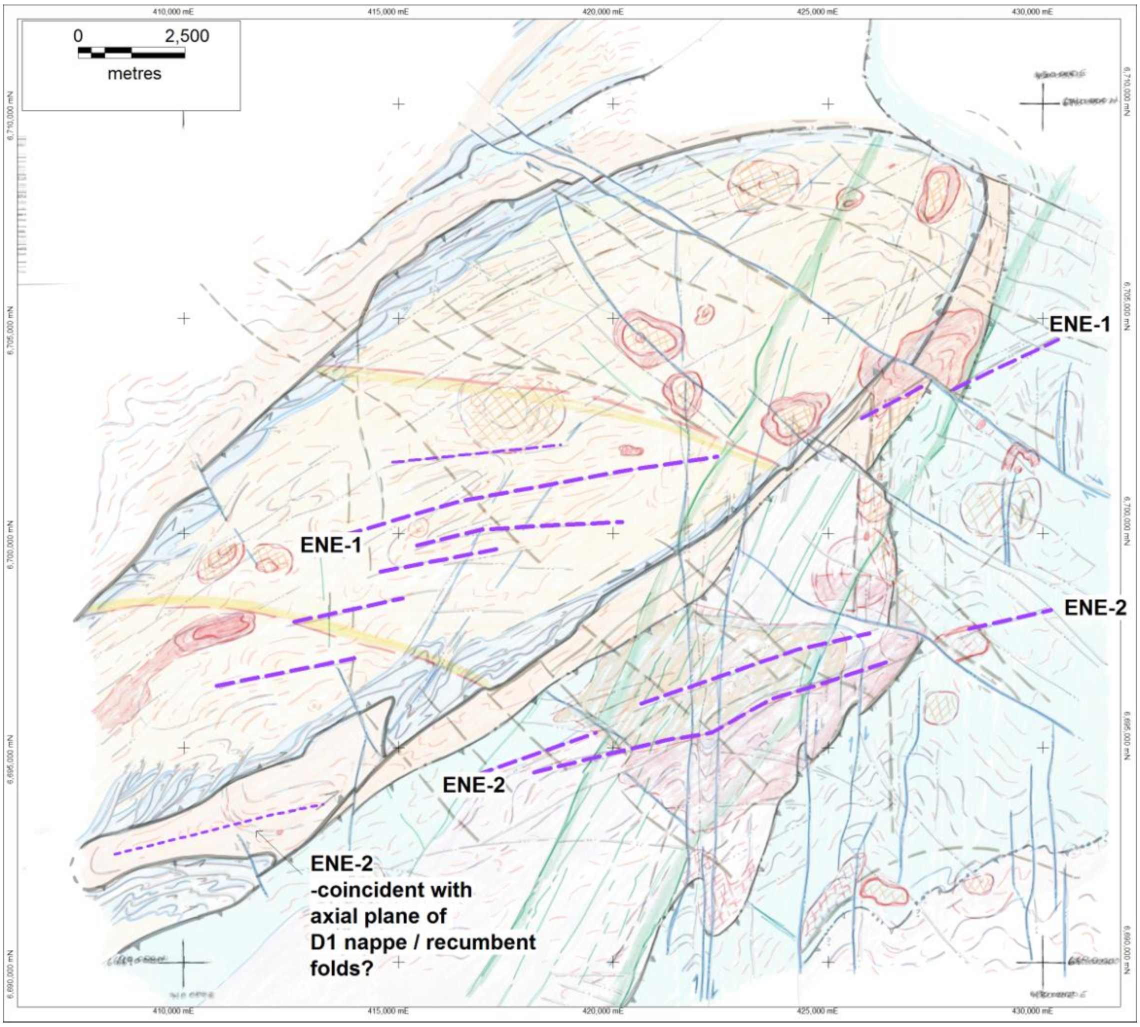

Figure 14. Subtly - expressed ENE structural corridors. Note that these appear parallel to broad ENE- folds / alteration zones evident in a) the SW of the folded Kiyuk Gp and b) Hurwitz Gp sediments to east of the main synform.

3.2.1.5. NNE-trending mafic dykes

The magnetic data highlights a series of variable strike-length, narrow mafic dykes trending NNE-, with weakly to moderate positive magnetic signatures. The vast majority of the dykes occur within a roughly 4-5km wide NNE-trending structural corridor that intersects the main regional F2 synform in the north of the area (Figure 15).

There are a few minor mafic dykes outside of the dyke swarm with N- and NW- trends – these are considered part of the same mafic dyke swarm.

Within the main dyke swarm, the magnetic signature of the dykes appears diminished within the ENE-trending elliptical zone of possible alteration within the Watterson Fm sediments (see section 3.2.2.).

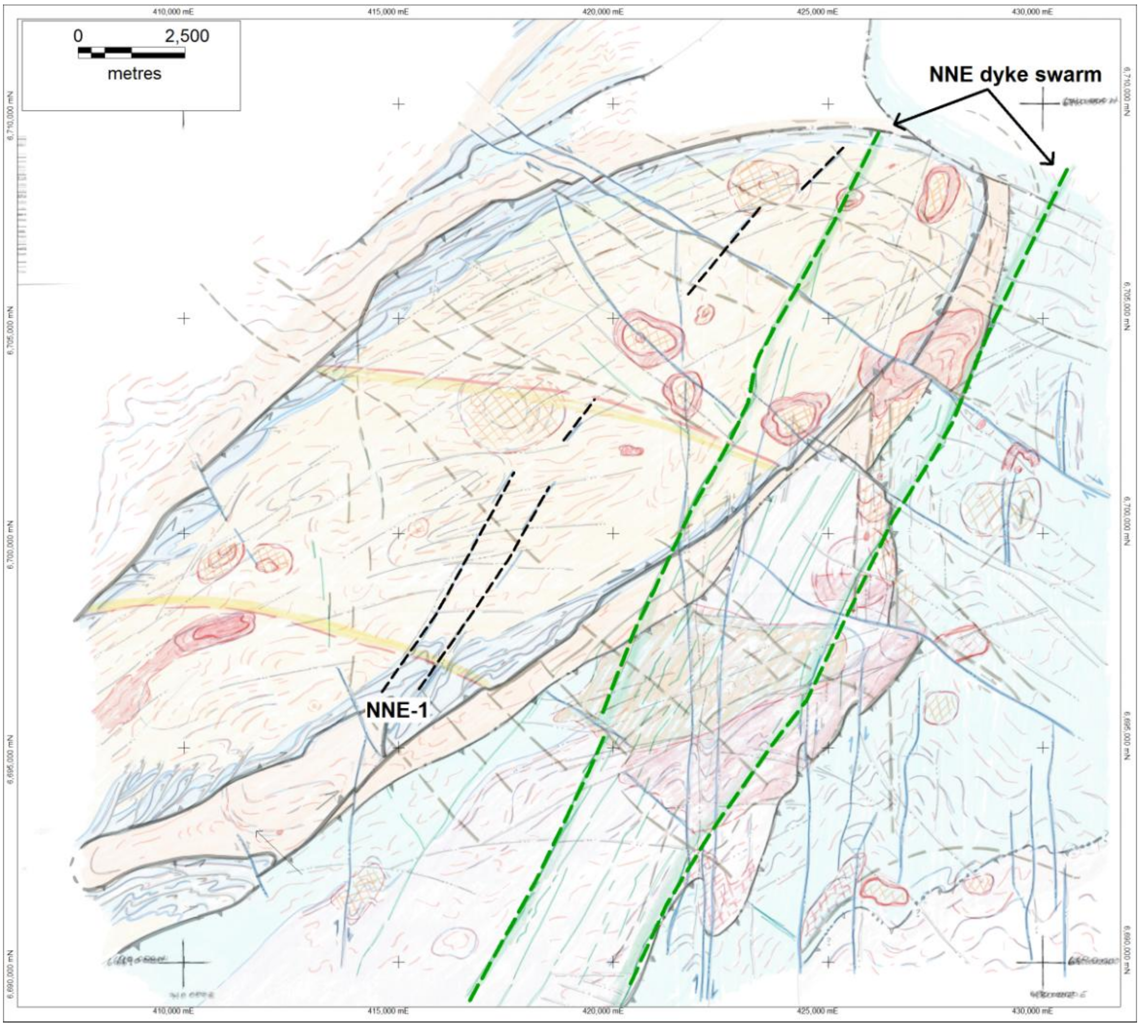

Figure 15. Location of main NNE- dyke swarm (green) and associated faults.

3.2.2. Alteration

Turner (2010) summarises the presence of several different phases of magmatic / hydrothermal alteration within the Kiyuk Lake area, including:

a) Albitisation (with possible 2 phases – see Hauseux, 2007) – this has locally produced magnetite destruction (haematisation), including within the K1 magnetite iron formation conglomerate clasts. Intense albitisation is associated with Au mineralisation in the Gold Point and Cobalt Showings.

b) Sulphidation – with development of pyrite, pyrrhotite, arsenopyrite assemblages. This would also have produced magnetite – destructive alteration features within the magnetic data. Sulphidation alteration is apparently more strongly correlated with Au mineralisation than albite alteration (Turner, 2010).

c) Magnetite – calcite breccia (metasomatic IOCG – style magnetite addition?).

d) Actinolite – tremolite alteration within calcareous units.

e) Chlorite alteration.

f) Tourmaline alteration (2 phases).

It is evident that the numerous overprinting phases of alteration is likely to have produced numerous irregular and variable styles of magnetite destruction and addition throughout the volcano-sedimentary belt. It is therefore unlikely that there will be any one consistent style of magnetic signature associated with Au-mineralised zones.

A series of possible alteration-related magnetically-defined zones or bodies have been highlighted (Figure 16). These include:

a) An irregular but roughly NE-trending elliptical zone of patchy (magnetite-additive) alteration (intersected by the NW-1 dextral fault). Another subcircular zone of patchy magnetisation (a') lies within the K2 sediments near the axis of the main F2 synform.

b) Several subtly – expressed, very weak annular-style magnetic zones within the Kiyuk Gp sediments. Three of these zones lie along a broad NW-trending structural corridor (and at least partly by a major N-S structural corridor). The central of these 3 zones is coincident with the "K3" – breccia body on the shoreline of Kiyuk Lake.

c) Weak, subtly-expressed zones of magnetite – destructive alteration (zones of 'flat' or subdued response).

d) A large-scale 6x4km wide elliptical zone of subdued / 'flat' magnetisation within the Hurwitz Gp sediments east of the main synform (coincident with a mapped 'lobe' of Watterson Fm sediments). This zone lies along the ENE-2 structural corridor, and may be associated with late stage warp-folding. A magnetite-destructive alteration cause for the zone (rather than simply lithologically-related) is suggested by the subdued magnetic signature of NNE-trending mafic dykes where they intersect the zone. This also dates this phase of alteration as post-dyke emplacement.

e) A broad, roughly ENE- trending zone of enhanced magnetisation within the Hurwitz Gp sediments in a (folded?) trend marginal to the ENE- magnetite-destructive zone. This may be a lithological feature, or weak, in part strata-bound magnetite-additive alteration.

f) Weak magnetite-additive alteration associated with possible N-S faults and associated weak folding within Hurwitz Gp sediments. Alteration in these zones may be localised within 2nd order fold hinge zones.

g) An elliptical to irregular, concealed magnetite body within the axial keel of the main synform (Kiyuk Gp sediments). The magnetic anomaly associated with the body has moderately broad gradients, indicating the body does not occur in the near-surface geology.

h) Minor annular magnetic structures within the Hurwitz Gp sediments, with moderate to strongly magnetic “ring” anomalies. These include:
   i. A roughly E-W-trending, strongly magnetic “ring” in the SE of the area - within Hurwitz Gp sediments, close to the contact with the basement Archaean metasediments. The magnetic ‘ring’ is well-defined, with narrow magnetic gradients. At present this is interpreted as a possible alteration feature, but may also be a localised intrusive.
   ii. A NNE-trending magnetic ring associated with the N-S 1 fault zone in the west of the area.
   iii. A NE-trending “ring” / patchy alteration zone ENE of the larger-scale zone of “flat” magnetite destructive alteration (d), and possibly associated with the ENE-2 structural corridor.

In addition to these irregular zones of inferred alteration, the variable intensity of magnetisation along the strike length of the K1 magnetite-bearing conglomerates may also reflect IOCG – style alteration overprinting within strata-bound sediment-related magnetite. Metasomatic fluid flow would have been enhanced within this sequence by the presence of both T1 and T2 thrust faults (forming enhanced fluid conduits). Map 3 (Principal Tectonic Elements) highlights a broad ESE – trending structural corridor across the main synform that brackets zones of enhanced magnetisation within the conglomerates within both synform limbs (see Figure 17). The stronger magnetisation within this corridor may reflect both increased magnetite content, and coarser secondary recrystallisation of pre-existing magnetite during alteration (see Isles & Rankin, 2012a, in press).

Another potential large – scale alteration zone lies in the north of the area – this comprises a subcircular magnetic high with very broad gradients. This represents a subcircular (?) magnetic body at depth – which could be either a magnetic intrusive stock, or an IOCG – related magnetite alteration zone (possible breccia body). This is highlighted as Zone (3) in Figure 17.

Two relatively isolated gravity high anomalies are also highlighted in Figure 16; neither of these is directly associated with a magnetic high body, and therefore may reflect the presence of localised (IOCG-related?) haematite alteration.

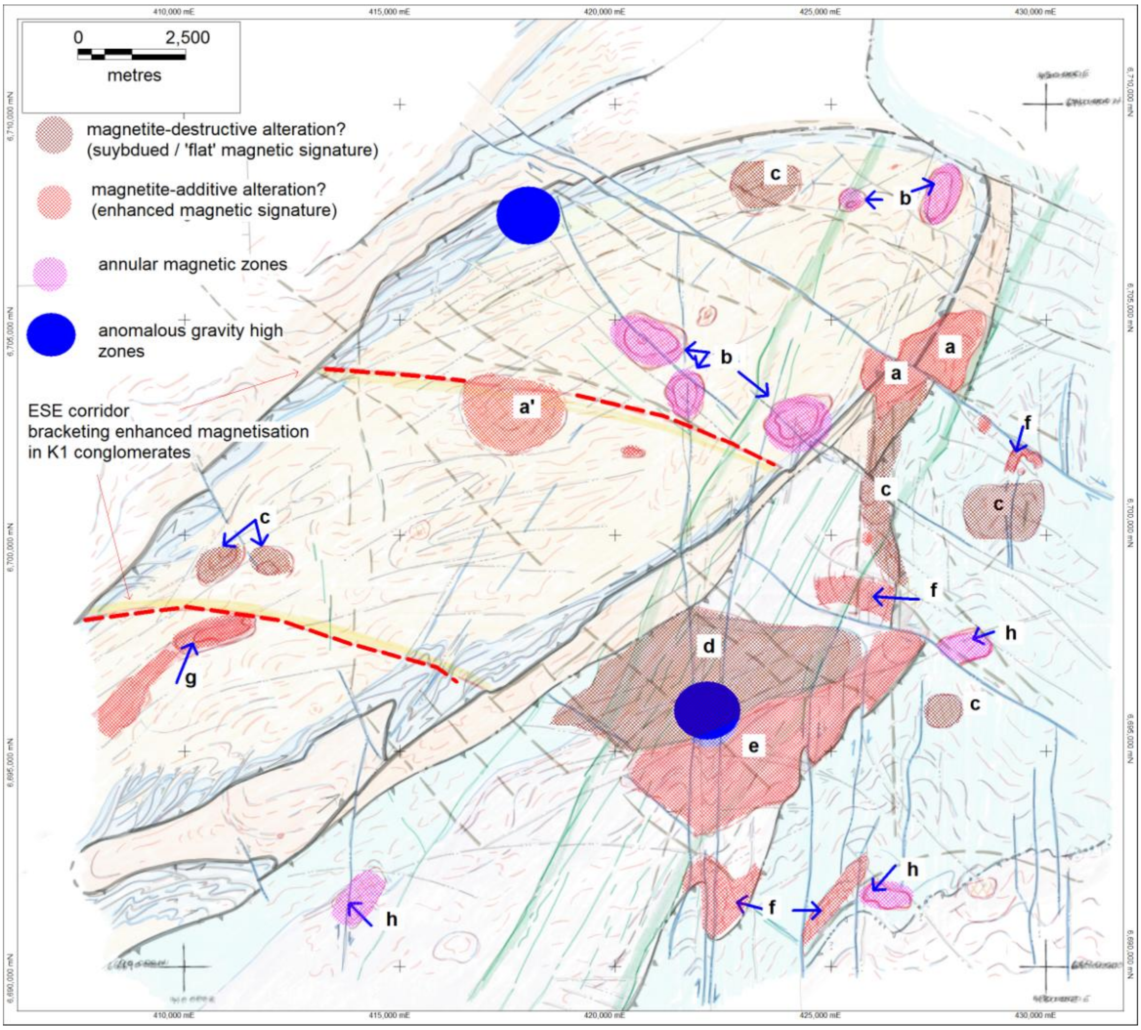

Figure 16. Localised zones of possible alteration defined by enhanced and / or subdued magnetisation, and localised gravity high anomalies.

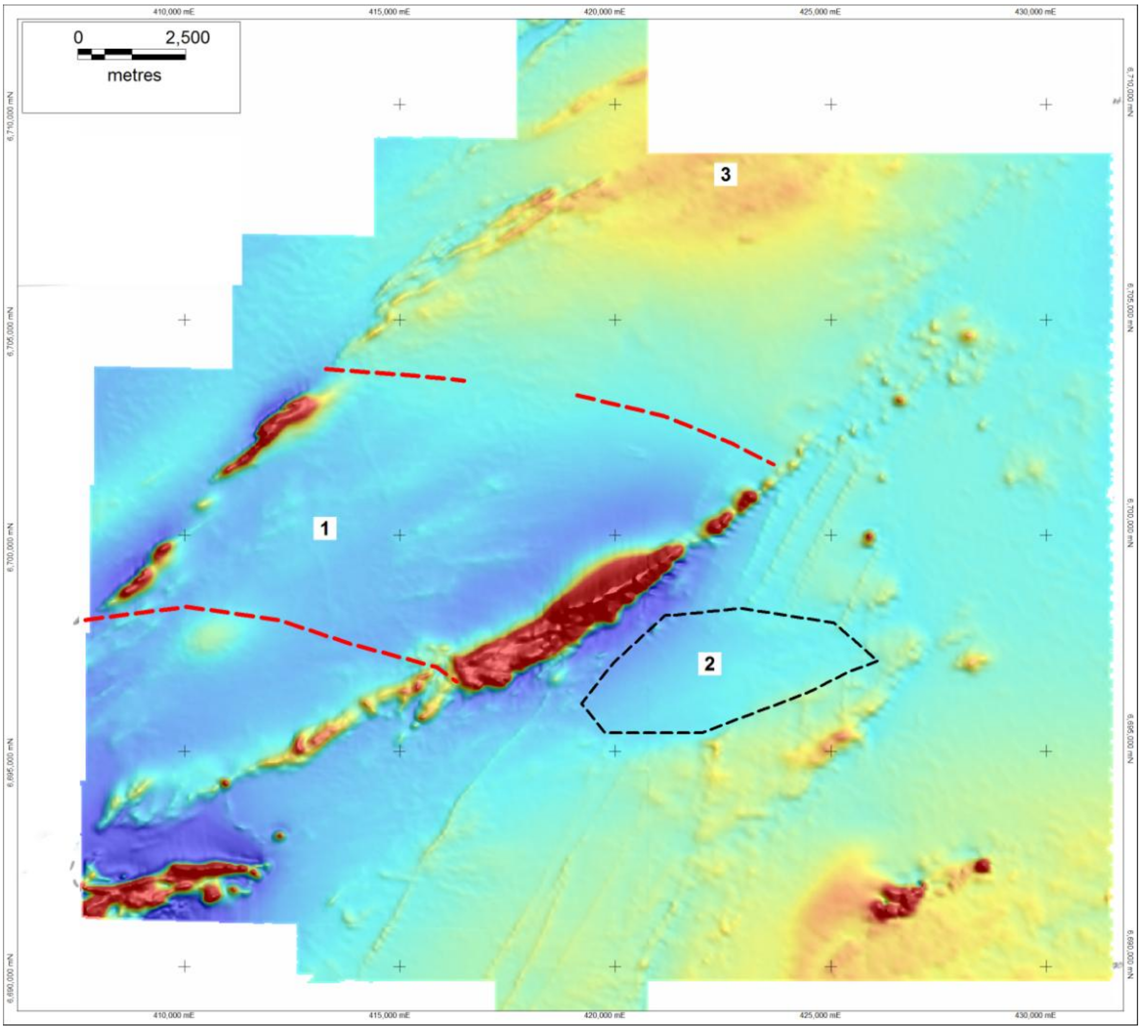

Figure 17. Broad-scale alteration zones: (1) ESE corridor of enhanced magnetisation within K1 conglomerates; (2) ENE-trending zone of magnetite-destructive alteration (post – mafic dykes – the magnetic signatures of the dykes are evident in this zone, but significantly subdued); (3) broad magnetic high (magnetic body / alteration at depth – this may be either a concealed intrusive or deep-seated IOCG mt-additive alteration zone).

3.3. Deformation history

The current interpretation has highlighted several possible phases of deformation not outlined in previous work (e.g. Aspler *et al*, 2002). The interpreted deformation sequence is outlined below.

a) D1 – NE-SW compression. NE-directed thrust / recumbent fold development. F1 fold axes trend NW-SE (subhorizontal). Possible NW-SE trending frontal ramp, and NE-SW lateral ramp structures.

b) D2 – NW-SE compression. NW-directed thrust / high angle reverse faults (SE-dip). Upright to overturned NE-trending folds (NW-directed). F2 fold axes plunge subhorizontal to shallow (NE / SW). Possible NE-trending frontal ramp and NW-trending lateral ramp structures. Refolding of F1 / T1 structures (moderate / steep NW / SE plunge of F1). Possible reactivation of T1 thrusts.

c) D3– NNW-SSE compression. Broad ENE-trending warp-style folds (evident in data as broad structural corridors).

d) D4 – E-W to NNE-SSW compression. Development of N-S high-angle reverse to oblique dextral faults, and associated weak N-S-trending folds (variable plunge).

e) NNE-SSW compression / ESE-WNW extension. Emplacement of NNE-trending mafic dyke swarm.

f) Alteration - multiple phases over prolonged period (overlap with several phases of deformation). At least one major phase of mt-destructive alteration post-dates mafic dyke emplacement.

4. KNOWN MINERALISATION & TARGETING

4.1. Known Mineralisation

Figure 18 (after Turner, 2010) highlights the location of the main Au showings mapped within the Kiyuk area (post-2010 results not included). The generalised trends of the showings is also highlighted on the current structural framework interpretation in Figure 19.

Mineralisation and alteration within the area have been compared to IOCG- style mineralisation, with complex poly-phase metasomatic / hydrothermal alteration (including albitisation) evident. Localised breccia bodies, including the K3 breccias of the Kiyuk Gp sediments have been potentially re-interpreted as alteration – related rather than intraformational sedimentary breccias (Turner, 2010).

The majority of the known showings cluster within a NE- to N-S belt to the SE of the K1 magnetite-bearing conglomerates – the majority of showings are hosted within Hurwitz Gp sediments and (structurally – underlying?) felsic volcanics (volcanics recognised in 2012 mapping by Revelation Geoscience Ltd – Mackie, pers Comm, 2012).

When superimposed with the geophysical interpretation, the main showings (including Cobalt, South Cobalt, Heart Pond, North Snake Lake, & Rusty) appear to be strongly controlled by:

a) The NS-3 fault corridor;

b) ENE- faults/ fractures within the main NNE-trending mafic dyke corridor;

c) Locally coincident with NW-trending faults, and (for the main Cobalt, Airstrip, South Cobalt and Heart Pond showings) bounded by two major NW-trending faults, and;

d) In part coincident with the ENE-1 structural corridor.

The main showings are generally coincident with weak zones of magnetite-destructive alteration (albitisation and / or sulphidation); however the Cobalt and Airstrip zones are in part coincident with the elliptical zone of patchy magnetite-additive alteration that straddles the K1 conglomerate and felsic volcanics in the vicinity of the NW-1 fault zone.

A more regional view of the gravity data suggests the presence of a circular complex ~10 – 15km wide in the east of the area, with the main showings (plus Snake Lake South) lying along a ring structure on the margin of the complex (Figure 20). This is suggestive of a deep-seated, steeply-plunging(?) alteration source, with migration of mineralising fluids upward along the main fault corridors, but with Au-mineralising conditions occurring at a roughly 5km radius from the central source of the alteration fluids (concealed intrusive?).

The Gold Point and Moose showings are both associated with NE-trending K1 magnetite-bearing conglomerate within T1/T2 thrust duplexes. The Gold Point showing is localised at the intersection of:

a) Imbricate 2nd order thrusts (including local thrust ramp structures), and;

b) A significant gravity-defined NW-trending fault.

The smaller-scale Moose showing (NW synformal limb) is near-coincident with a series of small-scale NW faults, and is also coincident with an anomalous gravity high body.

Neither the Gold Point nor Moose showings are associated with any obvious magnetically-defined alteration zones at the current scale of interpretation.

In summary, current field work shows a preponderance of Au mineralisation in the east of the area (within Hurwitz Gp sediments and felsic volcanics), associated with variable and overprinting alteration fluids (including development of magnetite additive and magnetite destructive zones), and with strong regional control by several fault trends (N-S, NNE-, ENE- and NW-). The presence of a deep-seated source of alteration forming a regional sub-circular alteration system in the near surface and intersecting the main fault trends is suggested by a circular gravity ‘ring’ complex centred roughly 5kms SE of the Cobalt / Airstrip showings. The Gold Point and Moose showings are more related to the intersection of the folded / thrust K1 mt-bearing conglomerates by 2nd order NW fault / fracture zones.

The potential relationship of the Au mineralisation in the Kiyuk Lake area is discussed by Turner (2010), with reference to Hitzman’s (2006) comments after a field visit to the Kiyuk Lake area suggesting IOCG – affinities. Hitzman (2006) also discussed the common association of IOCG mineralisation with major (crustal-scale) shear zones. It should be noted that no crustal-scale fault / shear zone has been identified within the Kiyuk Lake tenement district by mapping at this stage. The overall NW-directed fold / thrust belt tectonics interpreted by Aspler *et al* (2002), and further supported by the current geophysical interpretation, would suggest that any deep-rooted locus of the thick-skinned thrust belt would lie further to the SE of the Kiyuk Lake area.

It should be noted that the currently – known distribution of Au mineralisation is heavily biased due to the very limited nature of outcrop within this area. This may in turn provide a strong bias to the interpreted association of particular structures and structural orientations with mineralisation.

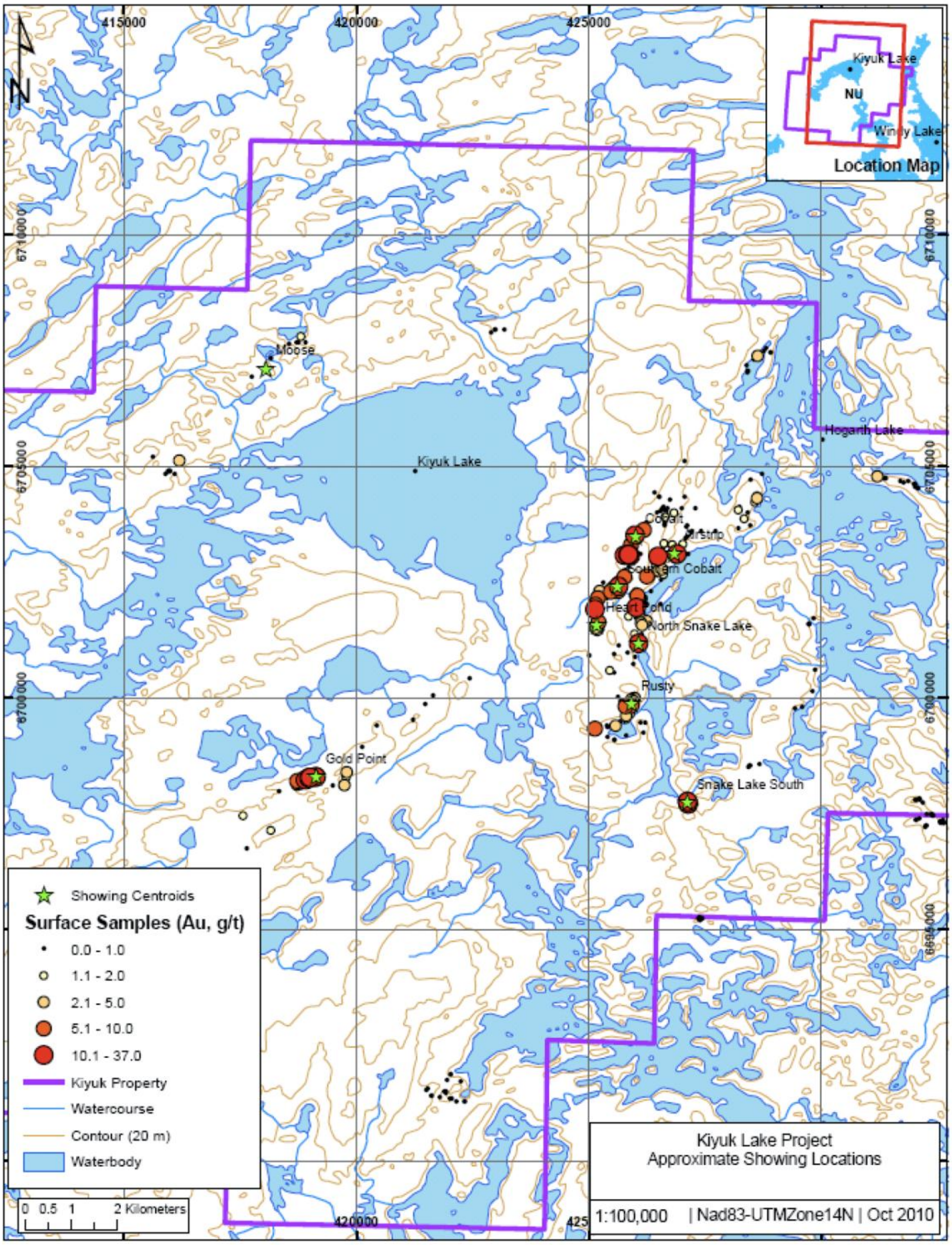

Figure 18. Approximate point locations for Au showings, with Au from surface samples underlain (from Turner, 2010).

Figure 19. Simplified map of known gold showings (trends) superimposed on composite solid geology / principal tectonic elements map.

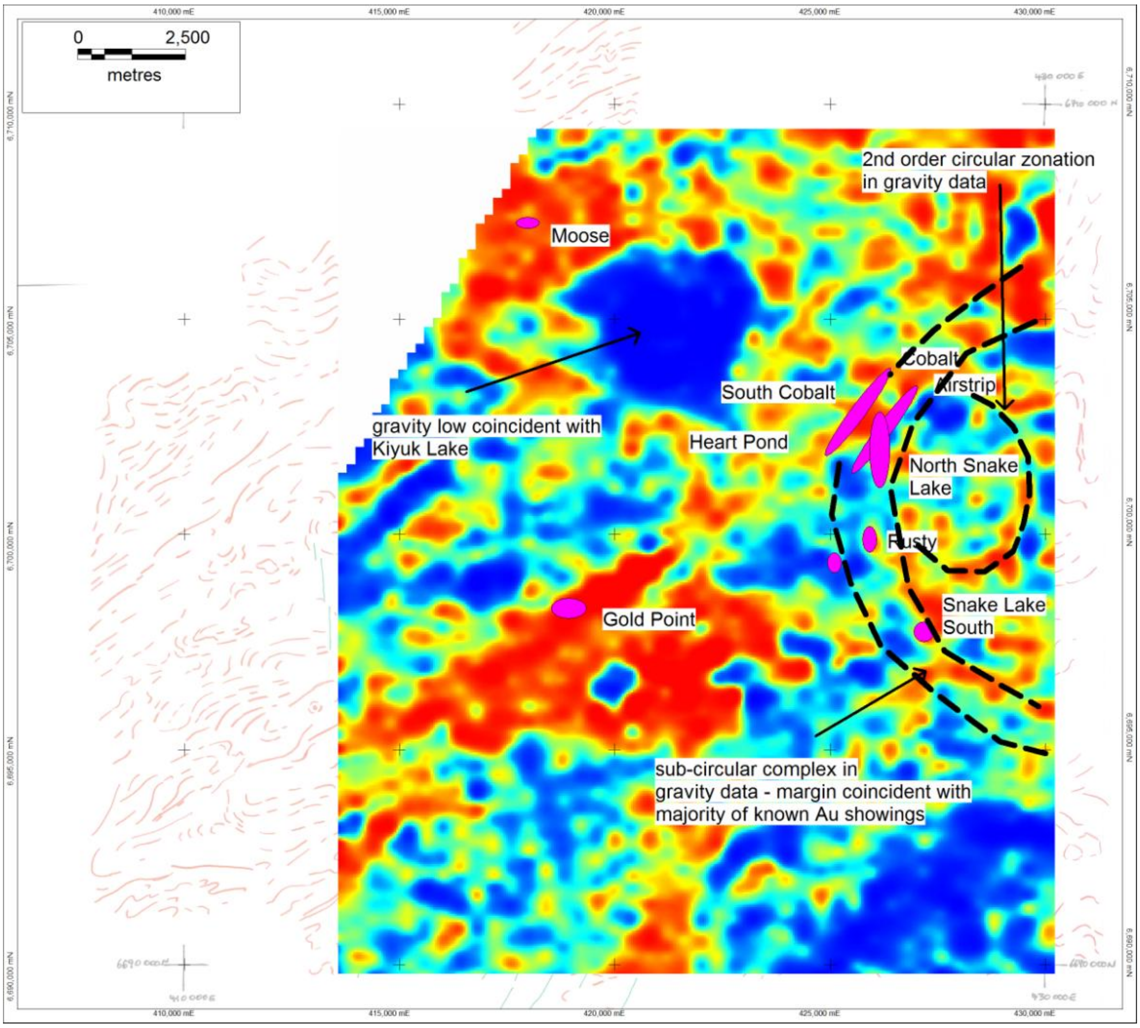

Figure 20. Known gold occurrences superimposed on TZZ gravity image. The majority of occurrences lie on the margin of a subtle, ~10-15km wide subdomain / complex evident in the gravity data. The circular structure may be associated with regional hydrothermal alteration complex.

4.2. Targeting

The current structural framework interpretation of the geophysical data has highlighted several families of structures with differing orientations, spacings and geometries. In addition, potential zones of alteration have been outlined associated with zones of:

a) Demagnetisation (magnetite-destructive alteration?);

b) Enhanced magnetisation (magnetite – additive alteration);

c) ‘Mixed’ irregular magnetic signatures (e.g. annular magnetic zones with both possible additive and destructive magnetite alteration), and;

d) Anomalous gravity high bodies (possible IOCG – style mt–hm alteration bodies).

A series of 37 target zones have been highlighted from the geophysical data, based on a combination of both structural and / or alteration characteristics (see Figure 21). The target descriptions are compiled in Appendix 2.

Two main classes of target have been outlined:

a) Potentially IOCG – related targets associated with interaction of intersecting 1st and / or 2nd order structures, plus geophysically-defined zones of alteration, and;

b) Potential mesothermal / vein-related Au mineralisation associated with zones of structural complexity within or marginal to the main mt-bearing conglomerates of the K1 Formation. The complexity of imbricate 2nd-order (early?) thrusting was a significant factor in target selection for these zones.

A simple (preliminary) 4-level prioritisation has been given to the targets based on both the level of structural complexity and the degree of coincident alteration signatures. The prioritisation at this stage is relatively subjective.

The most significant structures potentially influencing emplacement of Au-mineralising fluids are:

a) NS-2, -3 & -4 (the latter to a lesser extent);

b) NW – fault corridors, and in particular NW-1, -2 & -4;

c) The NNE mafic dyke corridor.

The two most significant geophysically-defined alteration complexes are:

a) A series of magnetic high and magnetic low zones marginal to and (in one instance), central to a roughly 10-15km-wide gravity – defined subcircular ‘ring’ structure in the far east of the area (this is coincident with the bulk of the currently know Au showings), and;

b) Paired zones of weakly enhanced (mt-additive) and subdued (mt-destructive) magnetisation associated with a possible broad ENE-trending warp-style fold, and centred on an anomalous gravity high body (possible mt-hm alteration breccia?).

Other targets (priority 4) associated with relatively isolated, and small-scale, geophysically-defined "alteration" are considered lower – priority targets, and not considered worthy of follow-up at this stage.

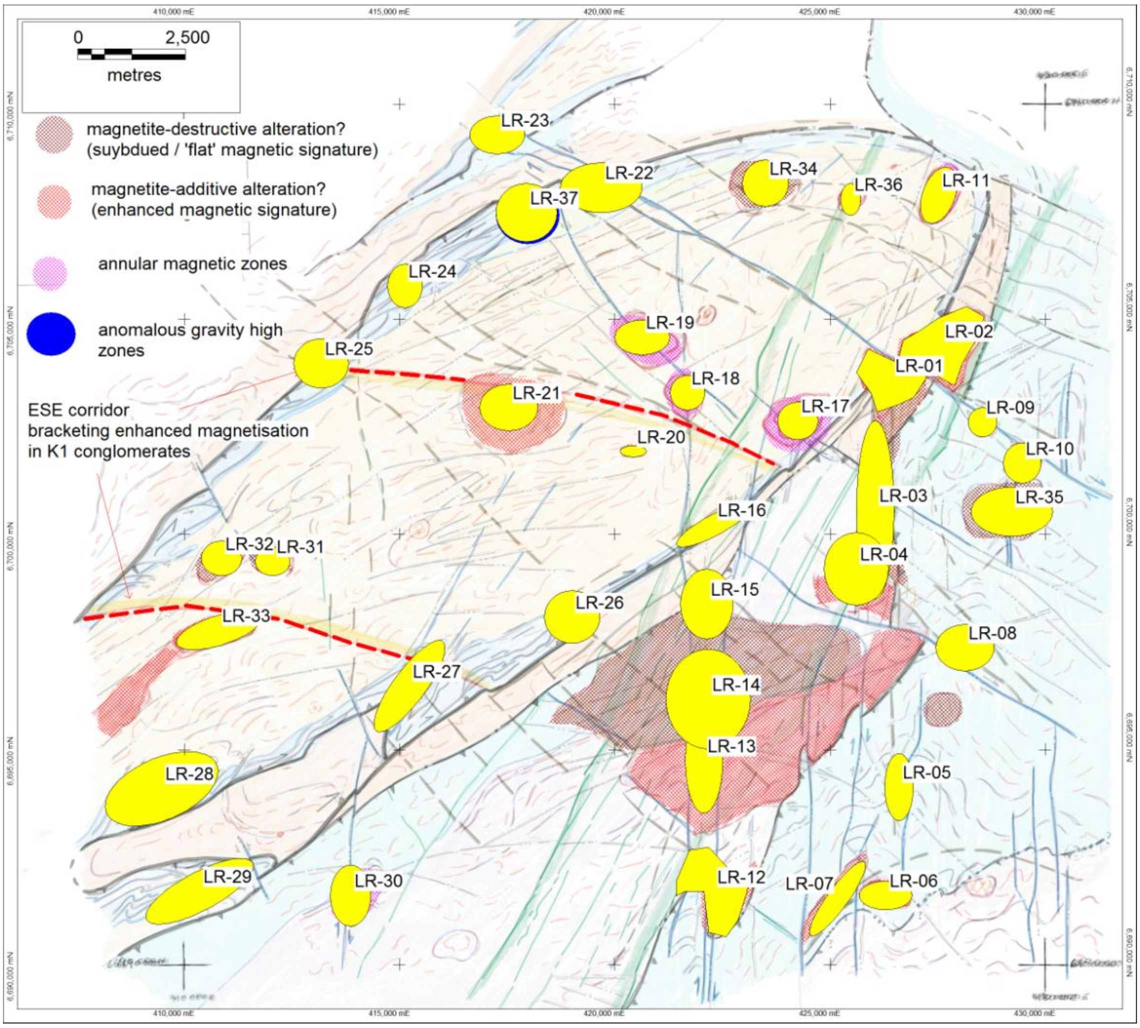

Figure 21. Preliminary target zones - based on a combination of geophysical anomalism and / or structural complexity (based on intersecting / proximal fault / structural corridors).

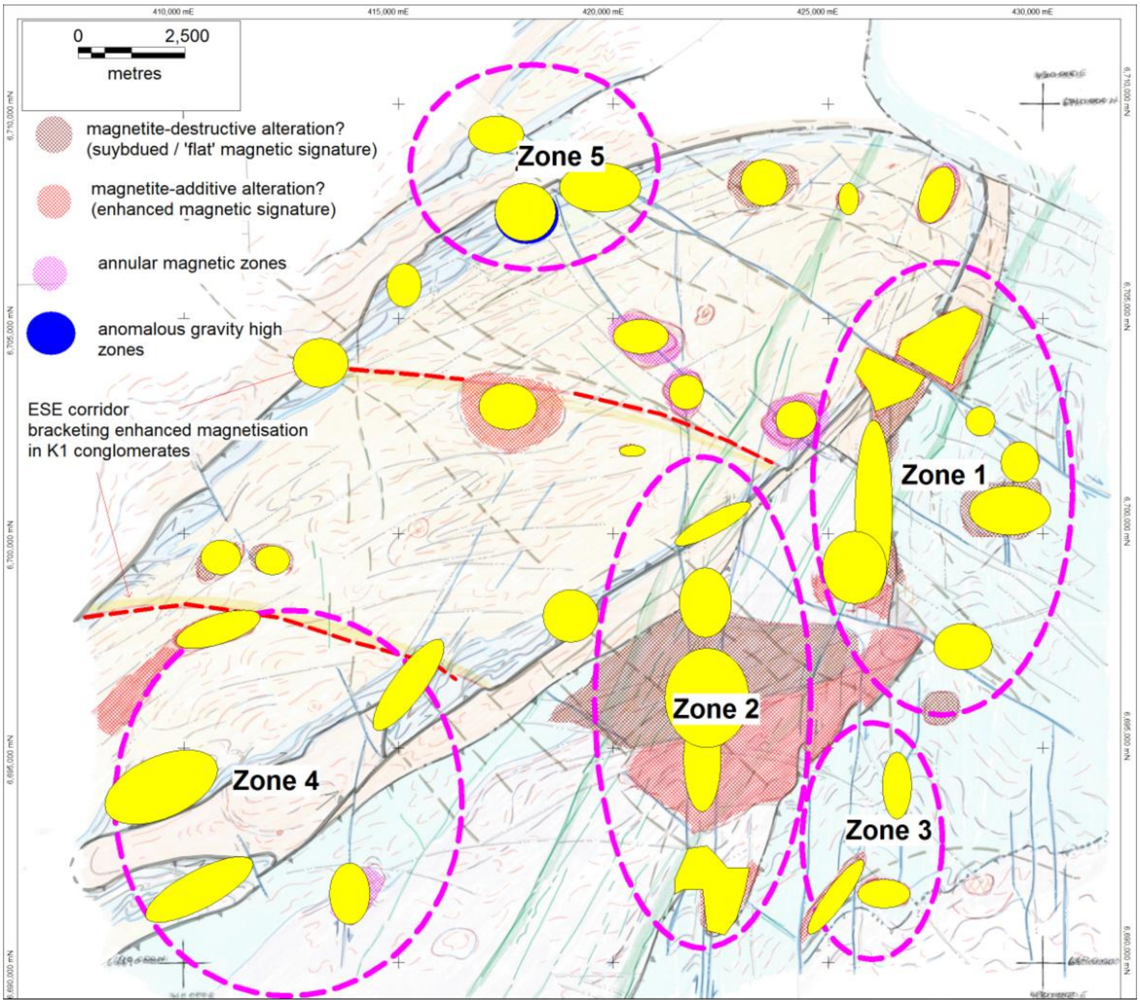

Figure 22. Target zones clustered into 5 principal "districts". These are numbered in order of a more regional-scale priority (over-riding large-scale structural / subdomain trends).

5. SUMMARY & RECOMMENDATIONS

5.1 Summary & Conclusions

The Palaeoproterozoic sediments and volcanics of the Poorfish – Windy fold / thrust belt in the Kiyuk Lake area have undergone possibly 2 phases of early fold / thrust deformation:

a) D1 – NE-directed thrusting with recumbent folding;

b) D2 – NW-directed thrusting / high-angle reverse faulting and upright to overturned folding.

The geometry of fold / thrust structures in the area is likely to be more complicated than the relatively simple single deformation thick-skinned thrust model of Aspler *et al* (2002). The stratigraphic position of recently-mapped felsic volcanics in the area is ambiguous – determining the relative ages of the sediments and volcanics would assist in reconstructing the 3-D geometry of the thrust belt in this area.

Later ENE- and N-S broad – scale warp-style folding may also occur throughout the area (hinted at by the magnetic data).

The structural grain of the area is dominated by:

a) NE-SW folding and thrust / high-angle reverse faults;
b) A series of quasi-regular spaced fault zones / structural corridors in several orientations. These possibly reflect the presence of deeper-seated subvertical faults within the thrust belt (and possibly underlying basement). The principal structural corridors trend NW-, NNE-, ENE- and N-S.

A roughly 5km wide swarm of thin, magnetic mafic dykes forms a significant NNE-structural corridor in the east of the area.

The sediments and volcanics are variably overprinted by several hydrothermal / metasomatic alteration systems (with IOCG affinities). Numerous (typically subtly-expressed) zones of “anomalous“ magnetisation (plus relatively isolated gravity high anomalies) are highlighted in the interpretation – these are interpreted as geophysical expressions of the variably – overprinting alteration systems.

Known Au mineralisation is associated with both albitisation and sulphidation alteration. The bulk of the mineralisation lies within an arcuate structural trend in the east of the area straddling the felsic volcanics and western sector of the eastern Hurwitz Gp thrust sheet(s). These occurrences are associated with intersecting N-S, NNE- and NW- fault corridors, and are marginal to a possible 10-15km wide subcircular subdomain evident in the gravity data (regional alteration complex?). In addition, the known mineralisation appears in part controlled by (commonly intersecting) fault / fracture corridors. To date, only minor Au occurrences have been identified associated with the main NE-trending, variably magnetic belts of mt-bearing conglomerates in the basal Kiyuk Gp.

5.2. Recommendations

- Field investigations of high-priority targets should concentrate at this stage in the Zone 1 & Zone 2 target districts.

- Detailed soil / till(?) geochemical sampling should be concentrated:
  a) along the continuations of the subcircular (gravity-defined) ring structure in the east of the area (coincident in part with the bulk of the known showings), and;
  b) Along the N-S structural corridor within the Zone 2 district.

- Soil / till sampling lines should also be planned across the structurally – complex thrust duplex / F1 fold trends in the SW of the main synform (Zone-4 district targets).

- A series of ground – geophysical survey lines (IP?) should be acquired across the N-S corridor in Zone 2 – and in particular across the magnetic / gravity target (LR-14).

- Detailed structural mapping traverses should be made across each of the high-priority targets, with emphasis on compiling interpretive cross-sections including both dip/strike and fold / lineation plunge data. The potential for moderate to steeply-plunging F1 structures within the folded K1 magnetite – bearing conglomerates should be investigated in field mapping.

- Targets within the K2 sediments (within the main synform) are considered low priority at this stage, with no further follow-up recommended (apart from opportunistic filed – checking if access and outcrop permit).

- The magnetic data should be reprocessed by excision of the intense magnetic highs associated with the mt-bearing conglomerates and re-gridded to accentuate the lower and median – intensity magnetic signatures. This will aid in better delineation of detailed structure in the more magnetically-quiet zones.

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APPENDIX 1 - INTERPRETATION MAPS

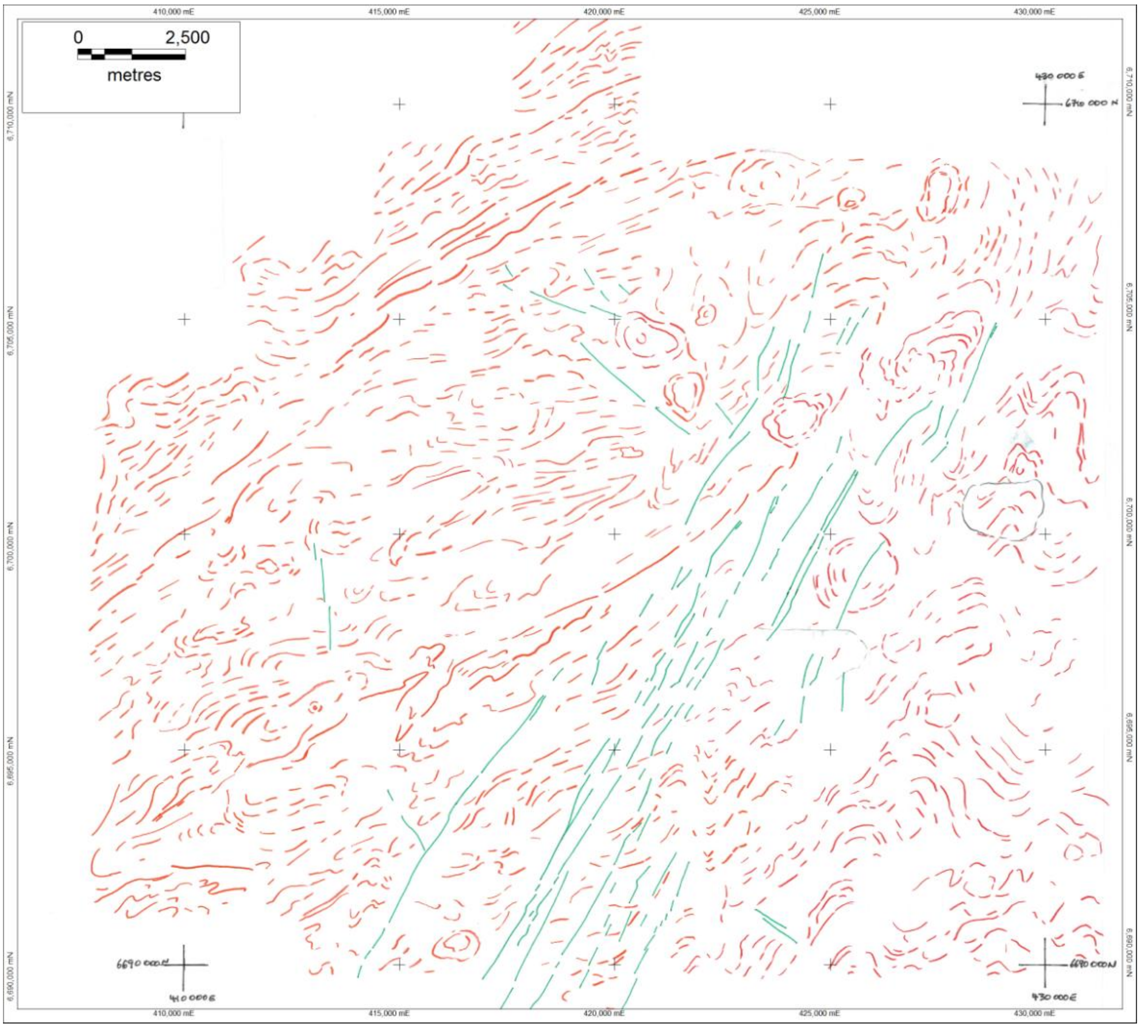

Figure 23. Map 1 - observation layer from TMI - 1VD & TMI - tilt derivative data.

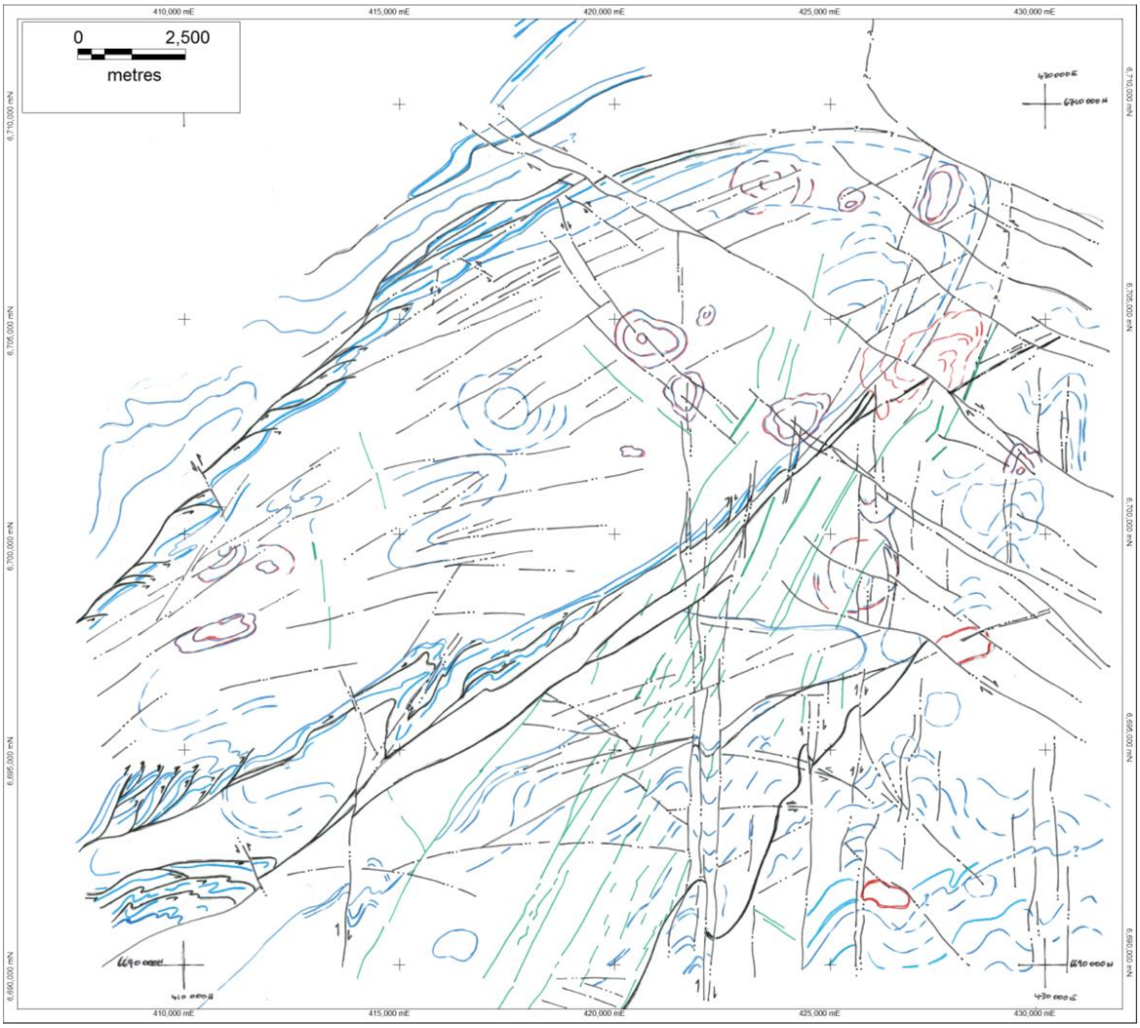

Figure 24. Map 2 - structural framework from magnetic data.

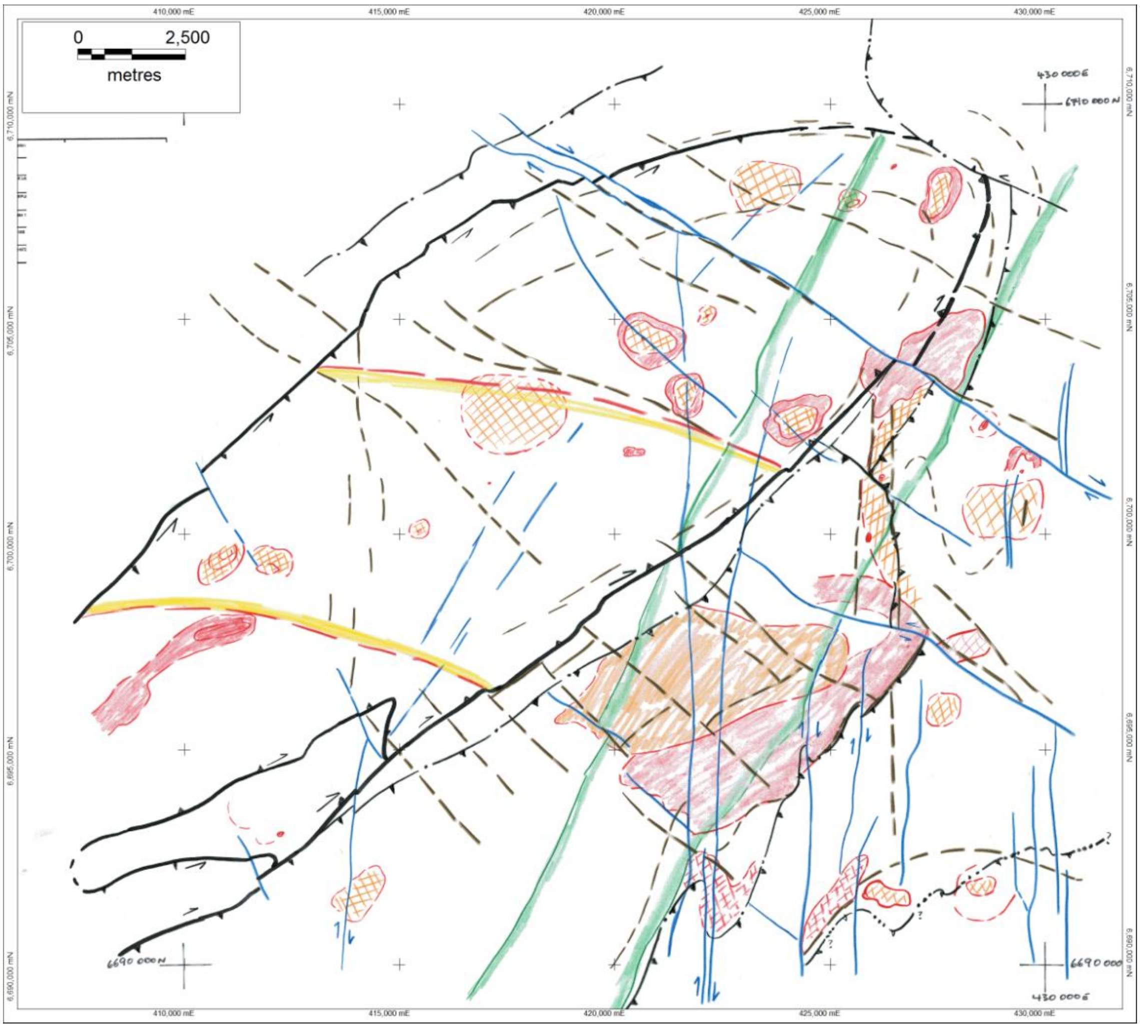

Figure 25. Map 3 - principal tectonic elements from magnetic and gravity data.

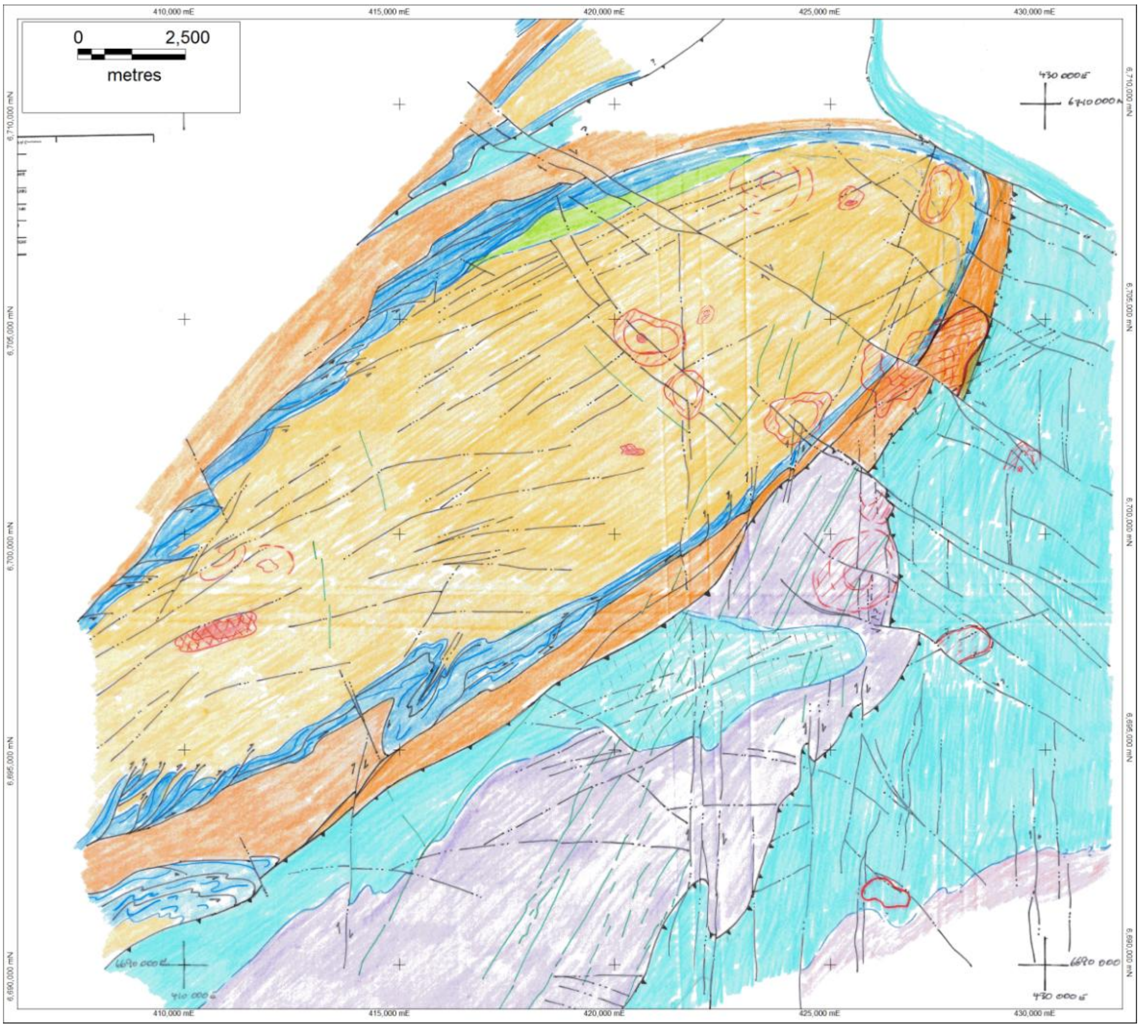

Figure 26. Map 4 - solid geology from magnetic data.

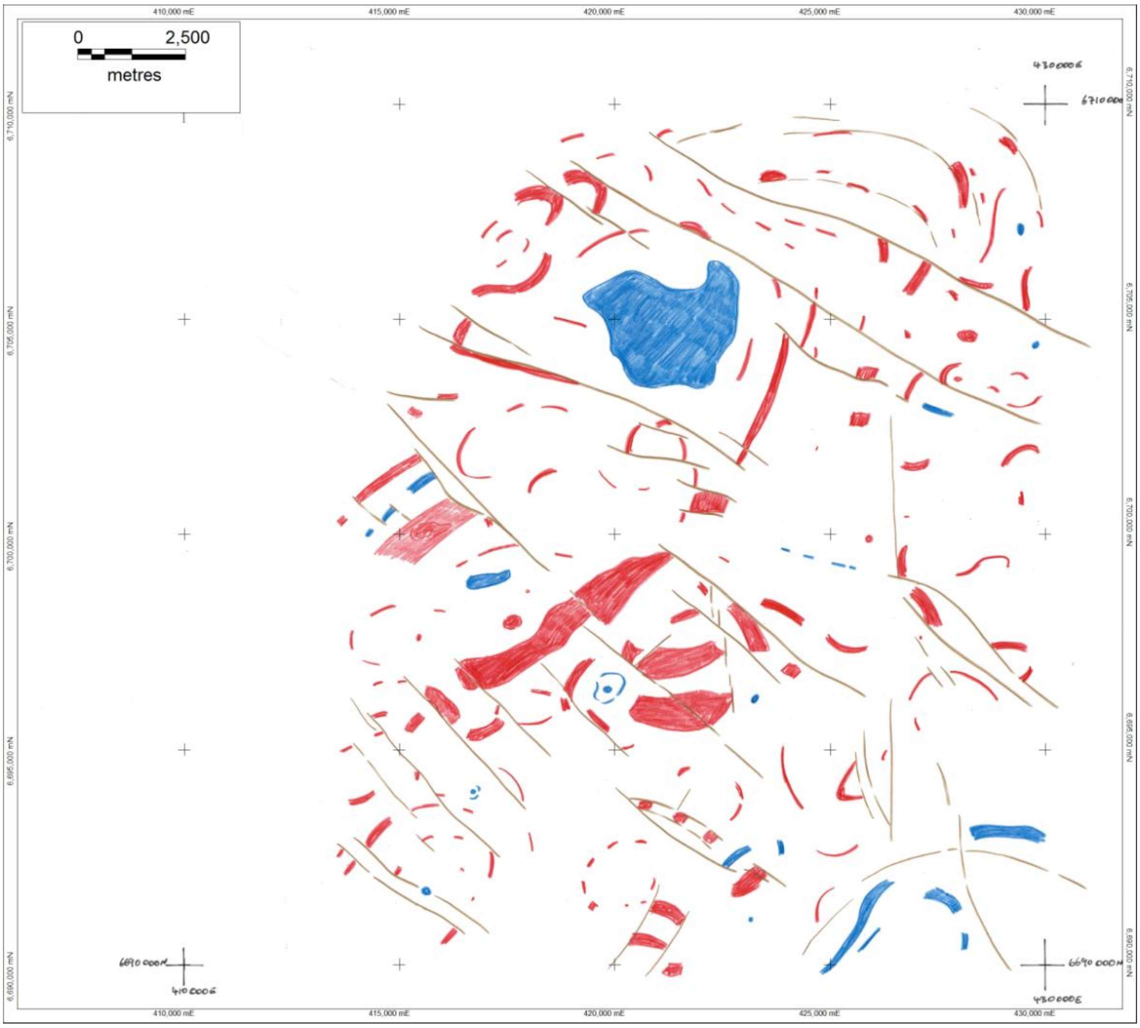

Figure 27. Observation layer from TZZ gravity data.

Figure 28. Maps 1+2+4 composite geology (from magnetic data).

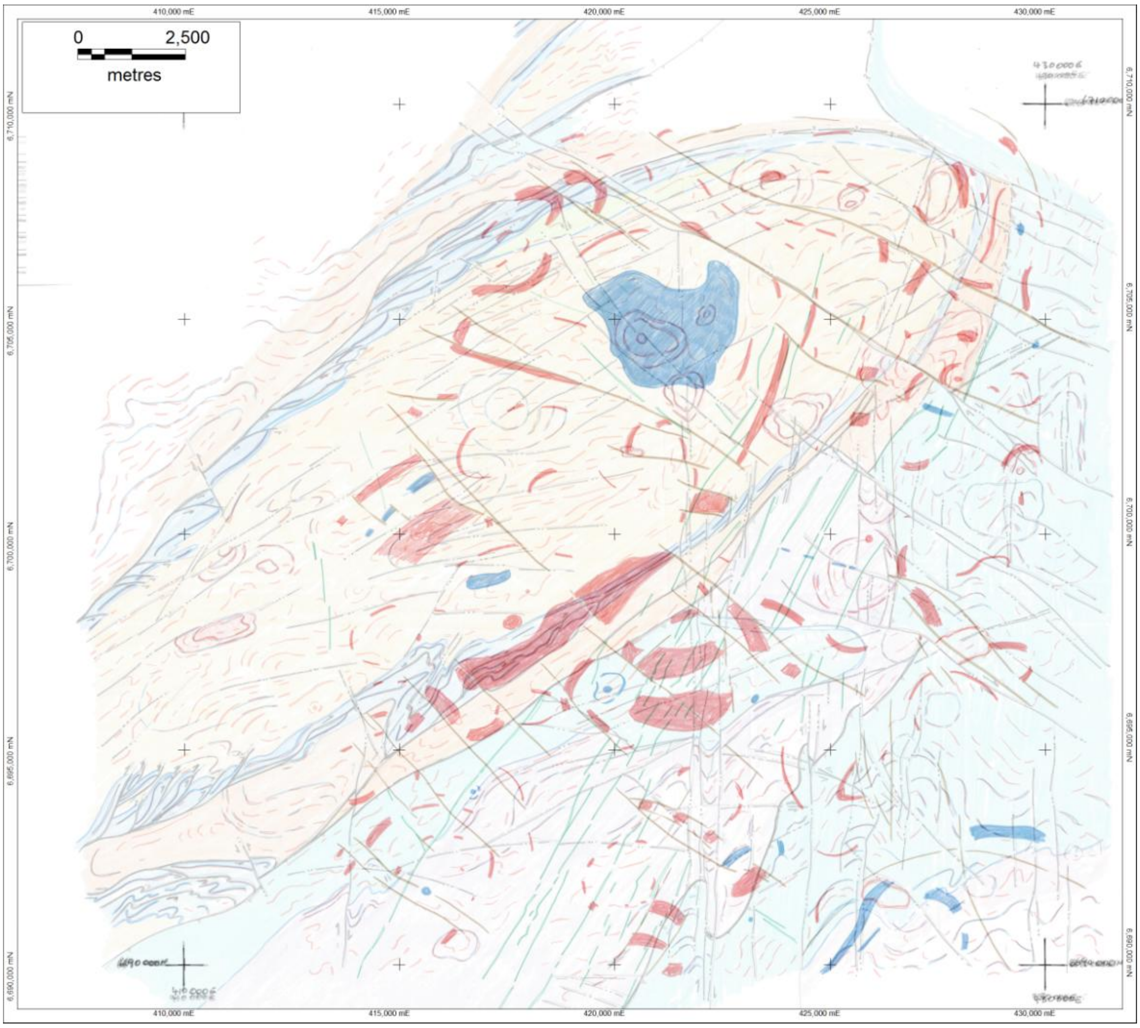

Figure 29. Maps 1+2+4+5 composite geology (from magnetic & gravity data).

APPENDIX 2 - TARGET ZONE DESCRIPTIONS

Target ID	Easting	Northing	Priority	Geophysical signature	Structure
LR-01	426435	6703575	1	Southern sector of elliptical "patchy" magnetic zone (irregular magnetite additive alteration?)	Coincident with Cobalt Au showings. Intersection of NW-1, NS-3, ENE-1 structural corridors and T1 / T2 thrusts. North termination of NS-3 structure - possible NNE-bend (dilation accommodation of dextral N-S wrench?). Lies within NNE dyke swarm.
LR-02	427593	6704376	1	Northern sector of elliptical "patchy" magnetic zone (irregular magnetite additive alteration?)	Potential dextral offset zone of Cobalt prospect? Intersection of NW-1, NS-3, ENE-1 structural corridors and T1 / T2 thrusts. North termination of NS-3 structure - possible NNE-bend (dilation accommodation of dextral N-S wrench?). Within NNE dyke swarm
LR-03	426061	6700561	1	Weak arcuate zone (~N-S) of subdued magnetisation (mt-destruction) + localised minor magnetic high stocks / pipes?	Coincident with NS-3 structural corridor. Intersected by NW-2 fault zone (possible continuation of broad ESE-structural corridor bracketing enhanced mt-mineralisation within the K1 conglomerates). Lies within NNE dyke swarm corridor.
LR-04	425618	6699198	1	Arcuate belt of enhanced magnetisation (mt-additive alteration or lithological signature?).	Possible ENE- fold hinge marginal to anomalous mt-destructive alteration zone to WSW. Coincident with intersection of NS-3 structural corridor and gravity-defined (deeper-seated?) NW faults. Immediately north of intersection of NW-3 & ENE-2.
LR-05	426606	6694123	2	No noticeable anomalism in magnetics or gravity.	Potential NNE- overstepping zone between fault strands within NS-3 structural corridor (potential dilation accommodation zone associated with late N-S dextral wrench?
LR-06	426299	6691603	1	E-W annular magnetic zone with strongly magnetic ring (intrusive or hydrothermal breccia pipe?)	Lies within southern end of NS-4 structural corridor, close to contact between Palaeoproterozoic and Archaean sequences (thrust or unconformity?). Magnetic body could be hydrothermal alteration pipe or localised intrusive.
LR-07	425175	6691535	2	NNE zone of enhanced magnetisation (possible concealed magnetic zone).	Lies within NS-3 structural corridor, and possibly forms dilation overstep between two primary fault strands. Adjacent to Palaeoproterozoic / Archaean contact (and arcuate gravity -defined contact). Immediately north of intersection of NS-3 and NW-4.
LR-08	428138	6697359	1	Annular magnetic zone?? (faulted) - or offset hinge of ESE fold? Irregular magnetic signature.	Lies along NW-2 fault corridor (includes belt of gravity-defined faults). This lies along a broad circular 'ring' of targets and alteration zones coincident with a broad gravity - defined circular structure (regional alteration complex).
LR-09	428547	6702604	3	Minor magnetic high (localised mt-additive alteration pipe or intrusive stock?)	This lies along the main NW-1 fault zone (also gravity-defined fault)., and close to the ENE-1 structural corridor. Small-scale body only.
LR-10	429467	6701651	1	Minor mt-additive zone – strata-bound in minor N-S fold hinge?	Lies along poorly-defined NS-4 fault corridor, immediately south of NW-1 fault zone. Also immediately north of vague zone of mt-destructive alteration. Possible 2nd order fold hinge.. Near centre of subcircular gravity complex.
LR-11	427525	6707884	4	Poorly-defined NNE-trending weak annular magnetic zone.	Lies along primary F2 synformal hinge zone within K2 sediments. Proximal to NW-trending lateral fault ramp / high angle reverse fault. Lies within NNE dyke swarm corridor.
LR-12	422297	6691688	2	Weak magnetite-additive alteration (?) within possible N-S 2nd order fold hinges.	N-S fold hinge zones coincident with (dextral / high-angle reverse fault?) NS-2 fault corridor. Coincident with intersection of NW-4 fault corridor.
LR-13	422076	6694737	1	Lies within broad ENE zone of possible magnetite additive alteration, south of anomalous magnetite-destructive alteration zone	Intersection of NS-2, ENE-2 and gravity-defined NW- fault corridors. Lies within NNE dyke swarm corridor.
LR-14	422178	6696167	1	Central zone of anomalous ENE-trending magnetite-destructive alteration zone. Includes anomalous gravity high zone.	Intersection of NS-2, ENE-2 and gravity-defined NW- fault corridors. Lies within NNE dyke swarm corridor.
LR-15	422144	6698381	2	North margin of large-scale mt-destructive zone.	Intersection of NS-2 and gravity-defined NW fault corridors. Lies within NNE dyke swarm corridor. Marginal to anomalous ENE-trending zone of magnetite-destructive alteration.
LR-16	422314	6700220	1	Within strike - extensive zone of enhanced magnetisation of K1 conglomerate.	K1 mt-bearing conglomerate, with early thrust fault complexity. Intersection with NW-2, ENE-1 , NS-2 fault corridors and NNE dyke swarm.
LR-17	424255	6702638	3	Weak, poorly-defined annular magnetic zone - localised breccia alteration? - or weak facies variation?	Proximal to intersection of NW-2, ENE-1 & NS-2 fault corridors. Possibly similar breccia body to Kiyuk Lake shore-side K3 "breccia". Lies along NW trend of 3 inferred annular magnetic alteration / breccia zones.
LR-18	421701	6703286	3	Weak, poorly defined annular magnetic zone - localised breccia alteration? - or weak facies variation?	Coincident with K3 breccia on shore of Kiyuk Lake. Coincident with intersection of NS-2, NW-2 fault corridors. Also marginal to broad ESE structural subdomain in Kiyuk Gp synform. Lies along NW trend of 3 inferred annular magnetic alteration/breccia
LR-19	420645	6704580	3	Lies along NW trend of 3 inferred annular magnetic alteration / breccia zones. Very poorly-defined, weak annular / disrupted zone.	Lies along intersection of NNE-1 and NW-2 structural corridors. Lies along NW trend of 3 inferred annular magnetic alteration / breccia zones.
LR-20	420441	6701923	3	Minor magnetic body - mt-alteration breccia or small-scale intrusive?	Within ENE-1 broad structural corridor.
LR-21	417546	6702945	3	Broad, poorly-defined sub-circular zone of "patchy / noisy" magnetisation – possible patchy mt-alteration?	Lies within broad ESE-structural corridor, and close to main F2 synform axis. Proximal to intersection of ENE-1 & NNE-1 structural corridors.

LR-22	419691	6708054	2	NW-end of mt-rich section of linear K1 conglomerate beds.	K1 mt-bearing conglomerates within T1 / T2 thrust complex - NW limb of main F2 synform. Intersection of T1/T2 thrust with NW-1 fault corridor.
LR-23	417273	6709280	2	Linear magnetic high - coincident with linear mt-rich K1 conglomerate?	Inferred K1 mt-bearing conglomerate within 2nd-order NE-trending fold - adjacent to T2-1 thrust / high-angle reverse fault. Intersection with NW-1 fault zone.
LR-24	415127	6705772	2	Proximal to weak zone of disrupted linear magnetic grain in K2 sediments.	K1 mt-bearing conglomerate within T1 / T2 thrust duplex (close to lateral ramp structure?). Intersection of T1 / T2 thrusts & gravity-defined faults within NW-2 fault corridor.
LR-25	413186	6703967	2	NE end of zone of enhanced magnetisation within K1 conglomerates.	Intersection of T1/T2 thrust, ESE- structural corridor and NS-1 and NW (gravity-defined) fault zones.
LR-26	419010	6698074	2	Part of NE gravity high belt (associated with mt-bearing K1 conglomerates).	Intersection of T1 thrust & NW-gravity-defined faults (NW-4 fault corridor). Contact of K1 conglomerates and felsic volcanics.
LR-27	415230	6696474	2	NE alignment of linear magnetic breccias.	Intersection of NW-5, NS-1 and NNE-1 fault corridors. Lies along early f1 fold hinge (F1 plunges to NW?).
LR-28	409474	6694090	2	Variable - intensity linear magnetic units in K1 conglomerate. Minor zones of subdued magnetisation (mt-destructive alteration?)	T1 NE-directed imbricate thrust duplex within mt-bearing K1 conglomerates - potential for mesothermal / vein style alteration / Au-mineralisation. Parallel to ENE-2 structural corridor.
LR-29	410359	6691705	2	Linear magnetic highs - part of K1 magnetite conglomerates.	T1 NE-directed imbricate thrust duplex within mt-bearing K1 conglomerates - potential for mesothermal / vein style alteration / Au-mineralisation. Parallel to ENE-2 structural corridor.
LR-30	413867	6691603	3	Elliptical annular magnetic zone (weak).	Possible minor N-S folding associated with NS-1 fault zone. Possible breccia body within 2nd order fold hinges?
LR-31	412062	6699369	4	Minor sub-circular zone of weak demagnetisation.	Coincident / offset from LR-33 by NW-5 fault zone.
LR-32	410870	6699437	4	Minor sub-circular zone of weak demagnetisation.	Coincident / offset from LR-32 by NW-5 fault zone.
LR-33	410802	6697768	3	Elongate NE-trending magnetic body (concealed) - mt-additive alteration or intrusive?	Lies along main F2 synform axis.
LR-34	423506	6708156	2	Poorly-defined zone of weak magnetite destruction (subcircular).	Intersection of NNE-1 structural corridor and gravity-defined NW- fault.
LR-35	429228	6700527	1	Elliptical zone of subtly - expressed mt-destructive alteration (weak demagnetisation)?	Coincident with NS-5 structural corridor, and bracketed by NW-1 & NW-2 fault zones. Lies in centre of regional circular gravity -defined structure (~10km diameter) - possible central zone of deep-seated alteration system?
LR-36	425482	6707782	4	Small-scale subcircular zone of weak demagnetisation.	Proximal to intersection of NNE dyke swarm (western margin) & gravity-defined NW- fault. Very small-scale zone (low priority).
LR-37	417954	6707475	2	Anomalous gravity-high body (hm-alteration?) Overlaps NE-trending magnetic highs associated with K1 mt-bearing conglomerate.	Gravity high body - coincident with Moose Prospect - NW limb of main F2 synform. Lies within T1 / T2 thrust duplex of K1 conglomerate - proximal to NW-1 fault corridor and coincident with possible lateral thrust ramp.

Note – geographic coordinates within the target table are automatically-generated coordinates for the centre of the digitised target polygon – consequently these do not represent accurate “drillable” targets.