

Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

**Assessment Report
Title Page and Summary**

TYPE OF REPORT [type of survey(s)]: Analyses of digitized airborne magnetic data on the Kenco TOTAL COST: \$5,614.40

AUTHOR(S): Frederick A. Cook

SIGNATURE(S): Frederick A. Cook

Digitally signed by Frederick A. Cook
DN: cn=Frederick A. Cook, o=ou,
email=fcook@ucalgary.ca, c=CA
Date: 2020.05.09 10:07:09 -07'00'

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): _____ YEAR OF WORK: 2020

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): Event 5773848, Dates: January 13-16, 2020; Feb 3-5, 2020

PROPERTY NAME: Kenco

CLAIM NAME(S) (on which the work was done): Kenco 01-19 (Title No. 1062583), Kenco 02-19 (Title No. 1066463)

COMMODITIES SOUGHT: massive sulphides

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: _____

MINING DIVISION: Ft. Steele

NTS/BCGS: 082F

LATITUDE: 49 ° 07 ' 27.6 " LONGITUDE: 116 ° 03 ' 59.9 " (at centre of work)

OWNER(S):

1) D. E. LaVoie

2) _____

MAILING ADDRESS:

2290 DeWolfe Ave.

Kimberley, BC V1A1P5

OPERATOR(S) [who paid for the work]:

1) _____

2) _____

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Metasedimentary rock; Proterozoic; Middle Aldridge Formation, sedex deposits

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: Woodfill (24652); Gal and Weidner (26121);

Stevenson and Staargaard (07626A), Stephenson (20827)

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	_____	_____	_____
Photo interpretation	_____	_____	_____
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	_____	_____	_____
Electromagnetic	_____	_____	_____
Induced Polarization	_____	_____	_____
Radiometric	_____	_____	_____
Seismic	_____	_____	_____
Other Data Processing	_____	1062583, 1066443	2400.00
Airborne Digitization	_____	_____	214.40
GEOCHEMICAL (number of samples analysed for...)			
Soil	_____	_____	_____
Silt	_____	_____	_____
Rock	_____	_____	_____
Other	_____	_____	_____
DRILLING (total metres; number of holes, size)			
Core	_____	_____	_____
Non-core	_____	_____	_____
RELATED TECHNICAL			
Sampling/assaying	_____	_____	_____
Petrographic	_____	_____	_____
Mineralographic	_____	_____	_____
Metallurgic	_____	_____	_____
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)	_____	_____	_____
Topographic/Photogrammetric (scale, area)	_____	_____	_____
Legal surveys (scale, area)	_____	_____	_____
Road, local access (kilometres)/trail	_____	_____	_____
Trench (metres)	_____	_____	_____
Underground dev. (metres)	_____	_____	_____
Other Report	_____	_____	\$3,000.00
		TOTAL COST:	\$5,614.40

Assessment Report:

**Analyses of Digitized Airborne Magnetic Data on the Kenco
Property, Southeastern British Columbia**

MTO event 5773848

North 49° 07' 27.6"; West 116° 03' 59.9"

UTM Zone 11: 568300E, 5441700N, WGS84

NTS map sheet 82G

Fort Steele Mining Division

by

**F. A. Cook, Ph.D., P.Geo.
Salt Spring Imaging, Ltd.
128 Trincomali Heights
Salt Spring Island, B.C
for**

Property Owner/Operator:

**Darlene Lavoie
2290 DeWolfe Ave.
Kimberley, B.C. V1A1P5**

May, 2020

Table of Contents

1.0	Summary	3
2.0	Introduction	3
3.0	Property Description and Location	3
4.0	Geological Setting	5
5.0	Historical Development	7
6.0	Work Done in 2019	7
7.0	Data	8
	7.1 General	8
	7.2 Magnetic Data	9
8.0	Results: Magnetic Data	12
	8.1 Magnetic Data: General	12
	8.2 Magnetic Data: Regional Filter Results	12
	8.3 Magnetic Anomaly Data: Property Scale Results	14
	8.4 Magnetic Anomaly Data: Property Scale Results	20
9.0	Conclusions	24
10.0	References	24
11.0	Statement of Costs	25
12.0	Statement of Qualifications	26

Table

Table 1	Description of the Kenco mineral title	5
---------	--	---

List of Figures

Figure 1	Shaded relief map with claims	4
Figure 2	Geology map	6
Figure 3	Tenure maps	8
Figure 4a	Regional Magnetic Anomaly Map	10
Figure 4b	Regional Magnetic Anomaly Map With Digitized Area	11
Figure 5a	Magnetics - RTP	13
Figure 5b	Magnetics - Tilt	13
Figure 6a	Property Geology	15
Figure 6b	Property Geology with Soils (Zn)	15
Figure 7a	Property Geology with Magnetics-RTP	17
Figure 7b	Property Geology with Magnetics-Tilt	17
Figure 8a	Property Geology with Magnetics-Tilt	19
Figure 8b	Property Geology with Magnetics- NSTD3x3	19
Figure 9	Directional Filters	21
Figure 10	Generalized Derivative Operator by Azimuth	23

Appendix

Appendix 1	Magnetic Anomaly RTP Map	27
------------	--------------------------------	----

1.0 Summary

Application of modern data processing techniques to existing geophysical data on the Kenco property in southeastern British Columbia has provided new insights into structures delineated on aeromagnetic data. The results include identification and delineation of prominent magnetic features and truncations in anomaly trends that may be related to northwest-southeast oriented structures. In some cases these structures may have been used as fluid pathways for movement and deposition of metals.

2.0 Introduction

The purpose of this report is to describe the advanced processing and analysis of airborne magnetic data that were recorded 25 years ago and that were digitized to allow applications of digital filtering techniques. The objectives are to use these techniques to enhance our understanding of the geologic structure and distribution of metals in the near subsurface of the Kenco property in the Purcell anticlinorium of southeastern British Columbia (Figure 1). The approach here will be to outline the geological setting, and then to focus on the results from the geophysical data sets. Units used in this report are metric.

3.0 Property Description and Location

The Kenco Property ('the property') is located approximately 20-25 kilometres south of Moyie in the Fort Steele Mining Division of southeastern British Columbia (Figure 1). The two tenures (1062583 and 1066463; Table 1) cover an area of 422.8 hectares and are centred at approximate UTM coordinates 568300E, 5441700N, zone 11N WGS84, or 49° 07' 27.6" North Latitude; 116° 03' 49.9" West Longitude within map sheet 082G. Access to the property is via Highway 3 southwest of Moyie and then via the forest service roads about 3-4 km north of Yahk. Mineral cell titles were acquired online, and as such, there are no posts or lines marking the location of the property on the ground.

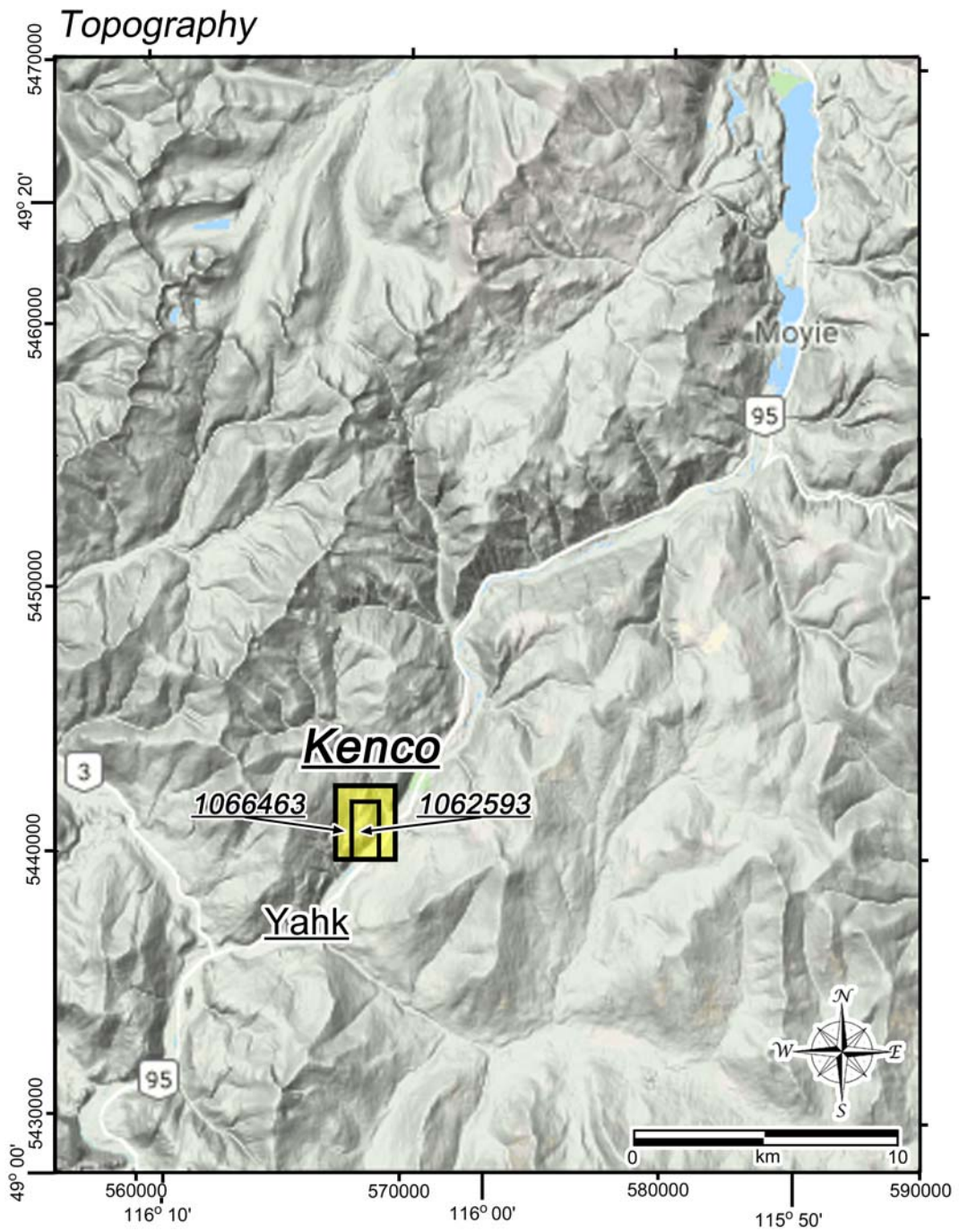


Figure 1. Shaded relief elevation map of the area near Moyie, British Columbia with the Kenco property indicated in yellow.

Title Number	Claim Name/Property	Issue Date	Good To Date	New Good To Date	# of Days Forward	Area in Ha	Applied Work Value	Submission Fee
1062583	KENCO 1-18	2018/AUG/24	2024/JAN/27	2024/JAN/27	0	169.13	\$ 0.00	\$ 0.00
1066463	KENCO 02-19	2019/FEB/12	2020/FEB/12	2023/Apr/30	1173	253.67	\$ 5608.65	\$ 0.00

Table 1. Description of Kenco property mineral titles.

4.0 Geological Setting

The geology in the vicinity of the Kenco property (Figure 2) consists primarily of the Mesoproterozoic (ca. 1.47 Ga) Aldridge Formation metasedimentary rocks and associated mafic sills (Moyie sills). These rocks were deposited in an extensional basin (Belt-Purcell basin) that was subsequently uplifted and arched into the Purcell anticlinorium during several stages of deformation. The anticlinorium consists of thrust sheets that produced uplift and deformation of the strata into regional anticlines (e.g., Moyie anticline) that strike north-northeast and plunge northward in Canada. The location of the property with respect to the geologic structure is in the foot wall of the Moyie thrust fault, an east-northeast directed oblique thrust fault that was active into the late Cretaceous.

Uplift of the anticlinorium probably began in the Mesoproterozoic, but the latest movement on the Moyie thrust was at least as late as the Cretaceous and that is probably when the final uplift of the Moyie anticline occurred as well. Uplift of the Moyie anticline as it is visible today was caused when the thick basinal sedimentary strata encroached upon and were thrust over a prominent west-facing ramp in the pre-Purcell cratonic basement. The property is situated in the vicinity of some of the stratigraphically deepest rocks of the Aldridge Formation that host the Sullivan deposit approximately 55 km to the north.

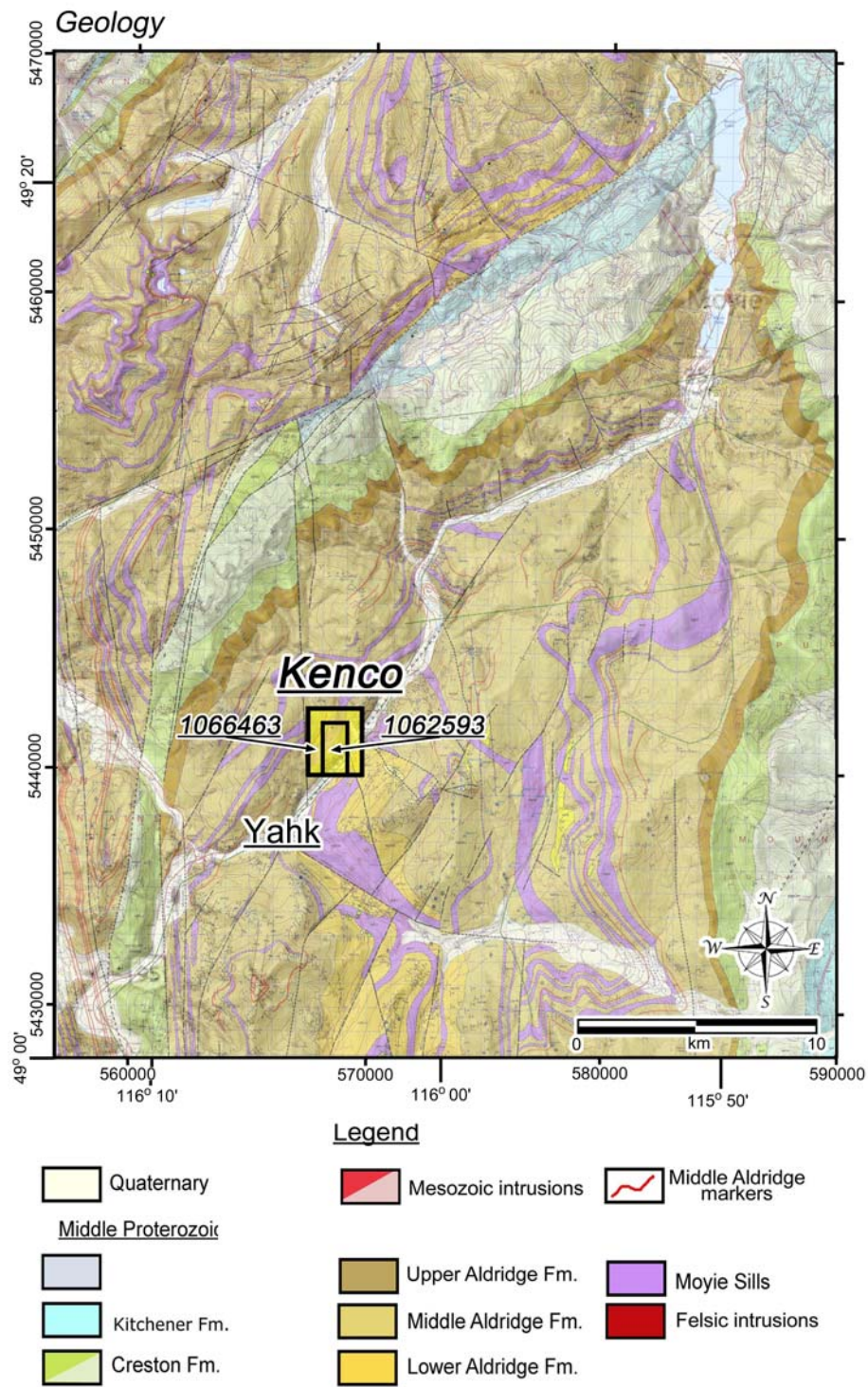


Figure 2. Geological map in the vicinity of the Kenco property (modified from Brown and Macleod, 1998). The property area is outlined by the black rectangles surrounding the yellow shading.

5.0 Historical Development

The area of the Kenco property has been part of large-scale claim blocks in the past, most notably the Yak claim block (e.g., Woodfill, 1996). During a large-scale program exploring for massive sulphides, Kennco Explorations discovered stream sediment samples that showed elevated Zn, Pb and Cu which led to their discovery of a significant soil anomaly with anomalous Zn, Pb and Cu.(Stevenson and Staargaard, 1979). This work was followed up by a variety of geophysical EM techniques (White, 1979), and eventually, drilling. In 1990 Kokanee Exploration drilled two holes (90-1 and 90-2; Stephenson, 1990). Each was drilled at an angle from horizontal of 45° and an azimuth of 115°. This is important because this orientation does not appear to effectively test the soil anomalies, although some metals (Py, Po, Pb) are seen in the 90-1 drill hole. In 1996, Woodfill (1996) described an airborne magnetic survey of a large area that included all of the Kenco property. Analyses of these data provide the majority of the present study.

6.0 Work Done in 2019

Work completed on the Kenco property in 2019-2020 consisted of the analysis of digitized airborne magnetic data in an effort to delineate key structures that may be associated with metal deposits. The magnetic data were acquired in 1996 and reported in Woodfill (1996) in the form of scaled maps. As a result, the Total Field Magnetics, also known as the TMI (Total Magnetic Intensity) map could be digitized and then processed with additional methods that help to delineate structure.

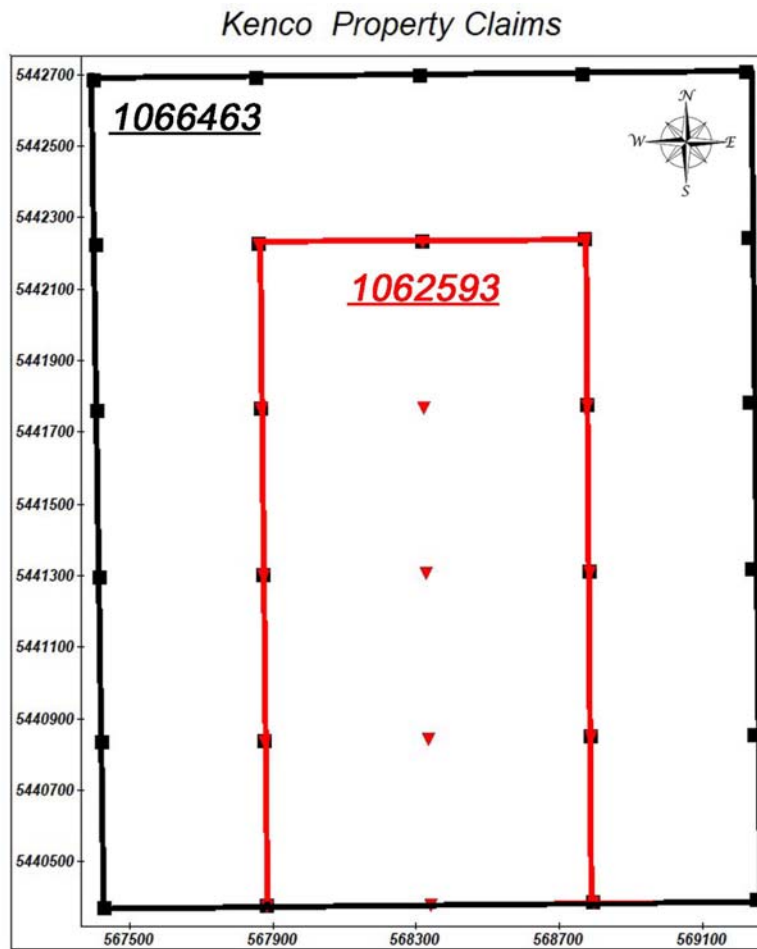


Figure 3. Map of the two Kenco tenures with the corners of each claim block indicated by dots.

7.0 Data

7.1 General

The magnetic data were presented as a large-scale map in Woodfill (1996) such that it could be digitized and regrided. The results of these efforts are the basis for further analyses of the data, including:

1. Removal of the IGRF (International Geomagnetic Reference Field);
2. Application of derivative – based analyses such as the tilt derivative and normalized standard deviation to delineate structure.

7.2 Magnetic Data

The magnetic data utilized here were recorded by High Sense Geophysics with much higher resolution (200m line spacing, allowing for 50m grid spacing; Woodfill, 1996) than the regional magnetic data from Natural Resources Canada (200m grid spacing). Contour maps are available in Woodfill (1996). In order to utilize these data for studies such as this one, and because the digital data were not available, the Total Field Magnetism (also known as the Total Magnetic Intensity, or TMI) map was hand digitized and re-gridded (again, with 50m grid spacing). Once the digitized data were obtained, the regional International Geomagnetic Reference Field (IGRF) was approximated and removed from the signal at each grid point.

Figure 4 shows the regional magnetic data from the area of the Kenco property. Figure 4a displays the regional magnetic data from Natural Resources Canada (<http://gdr.agg.nrcan.gc.ca/gdrdap/dap/search-eng.php>) with ~200m grid spacing. After digitization of the map in Woodfill (1996), Figure 4b is the same map as in Figure 4a with the high-resolution data superimposed. The results of the high resolution data analysis shown in Figure 4b include corrections for diurnal variations and the IGRF (International Geomagnetic Reference Field) and reduction to the North Pole (RTP). Corrections for the IGRF were made by taking the IGRF value for the central time of the survey (August 24 through September 1, 1996) at a number of points, contouring the values, and then subtracting from the measured values. Although not as accurate as calculating for each point during data acquisition, this approach does allow a regional trend of the IGRF to be removed.

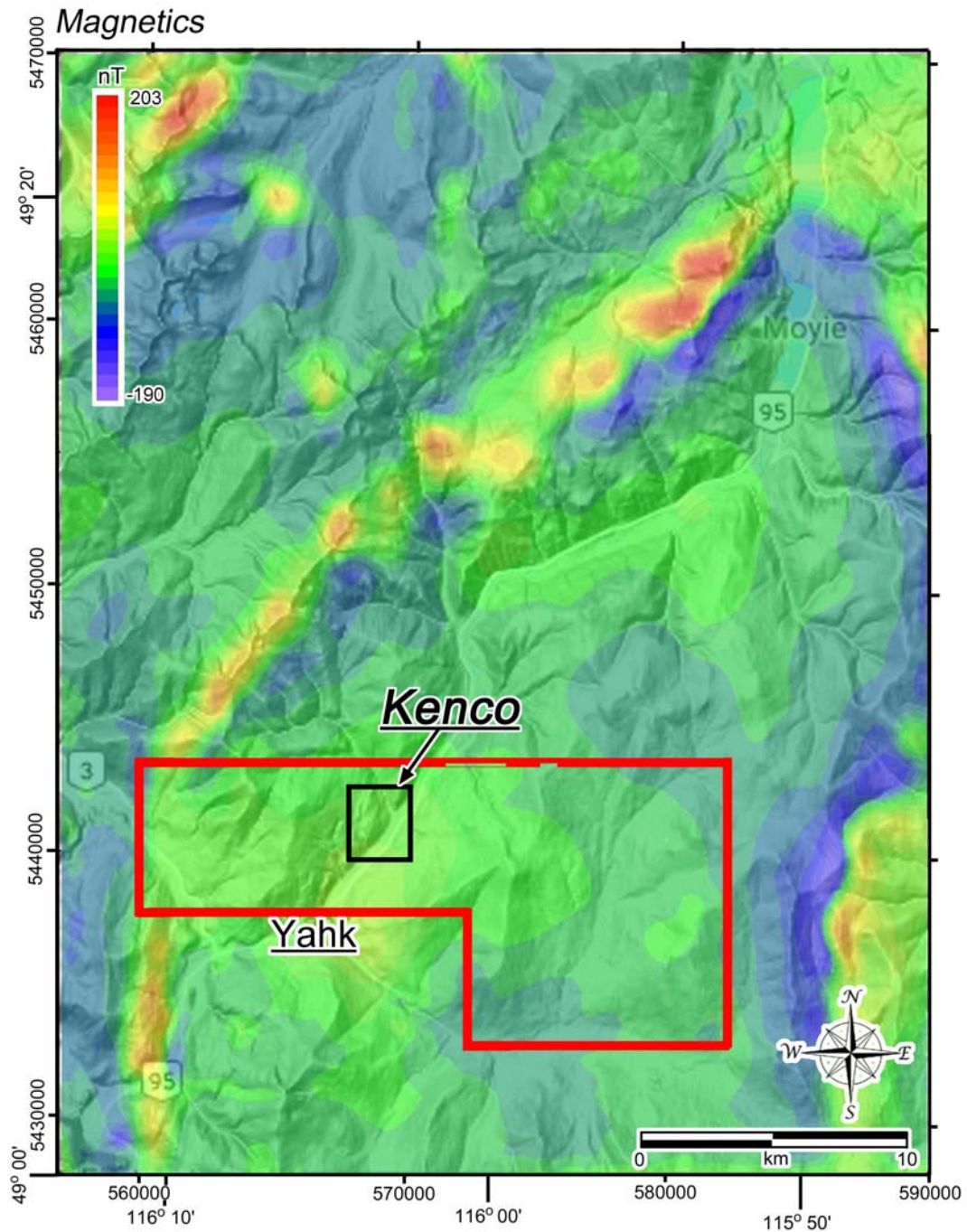


Figure 4a. Regional aeromagnetic map (200m grid spacing) from Natural Resources Canada (data available from <http://gdr.aggr.nrcan.gc.ca/gdrdap/dap/search-eng.php>). The black rectangle outlines the Kenco property and the red outlines the area of the digitized magnetic data from Woodfill (1996).

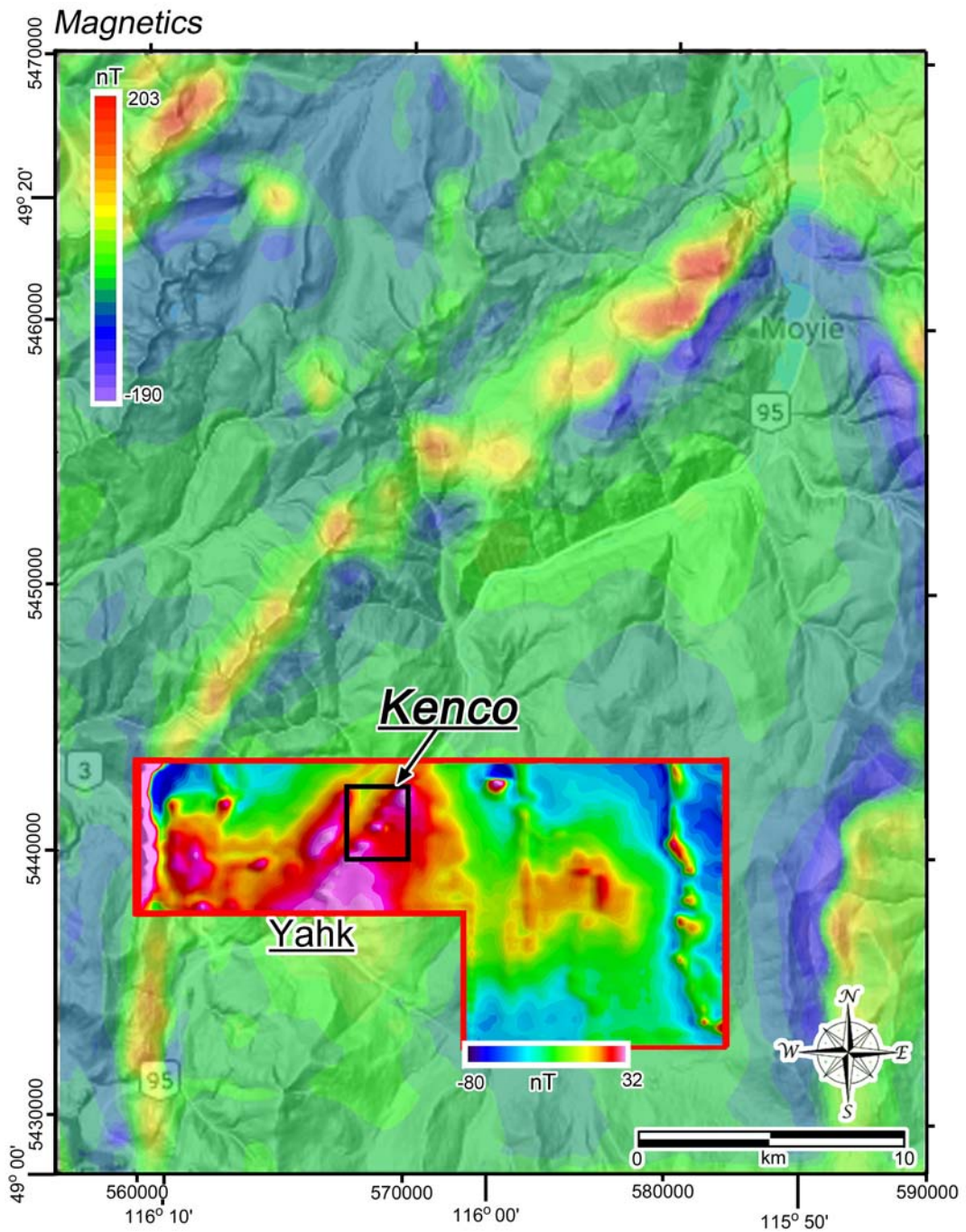


Figure 4b. Regional aeromagnetic map from Figure 4a with the newly digitized data within the red outline. Note that the colour scales are different between the regional and the local data sets.

8.0 Results: Magnetic Data

8.1 Magnetic Data: General

Analyses of the magnetic data were undertaken to delineate structural features in the data. The data were analysed for structural variations that could be related to the known geology in order to identify and map features that may not be visible in the geological mapping. To accomplish these objectives, and following reduction of the magnetic data by removing the IGRF signal and reduction to the North Pole, a series of gradient-based filters (e.g., tilt angle, Generalized Derivative Operator, etc.) were applied and the results were compared with the geological mapping.

8.2 Magnetic Data: Regional Filter Results

Filtering is the process of modifying the data set to either enhance desirable signal, or to attenuate undesirable noise. For these data, several different approaches were taken in order to obtain as much information as possible. These include the tilt angle (Miller and Singh, 1994), the Generalized Derivative Operator (GDO; Cooper and Cowan, 2011) and the Normalized Standard Deviation (Cooper and Cowan, 2008).

Figure 5a shows the digitized data after gridding (50m), removal of the (approximate) IGRF, and reduction to the North Pole. This is the same result as displayed in the inset in Figure 4b and it is clear the digitized map provides significantly higher resolution results than the regional NRCan data set (~200m grid spacing). Application of the tilt angle (Figure 5b) provides a first look at geometry. The tilt angle tends to equalize amplitudes such that low-amplitude anomalies on the reduced-to-pole version appear as anomalies that are nearly equivalent (in amplitude) to those of the prominent anomalies because calculation of the tilt angle depends on the gradients of the anomalies, rather than the amplitudes. In addition, the tilt angle can be effective for identifying the map locations of the magnetic sources.

Magnetics: IGRF-RTP

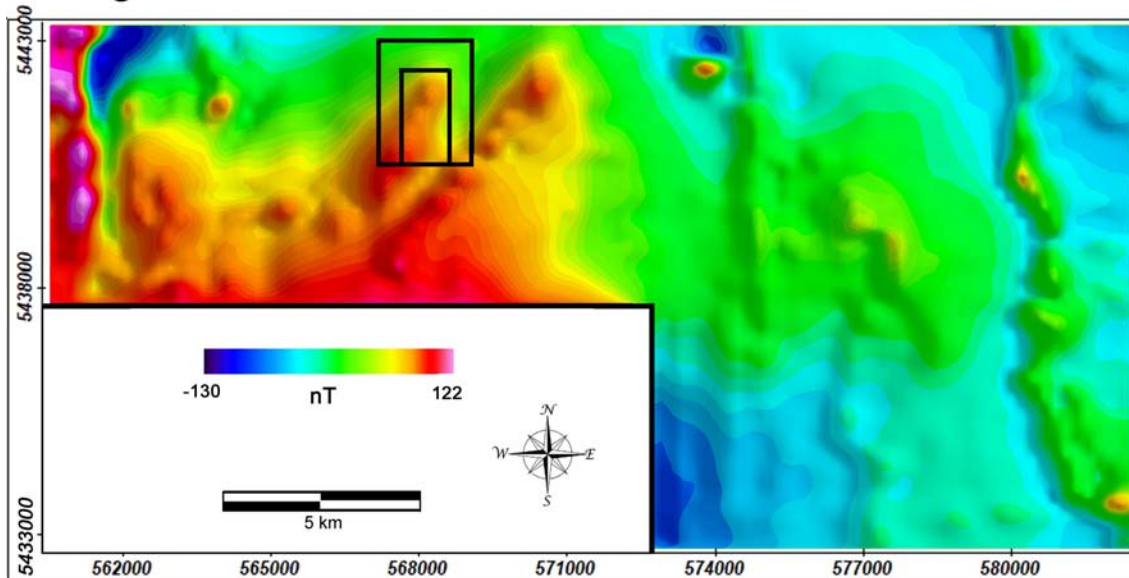


Figure 5a. Map of digitized magnetic data after removal of the (approximated) IGRF and reduction to the pole. The locations of the Kenco tenures are shown by the outlines. This map forms the basis for the structural analyses as well as the anomaly-based analyses.

Magnetics: IGRF-RTP-TILT

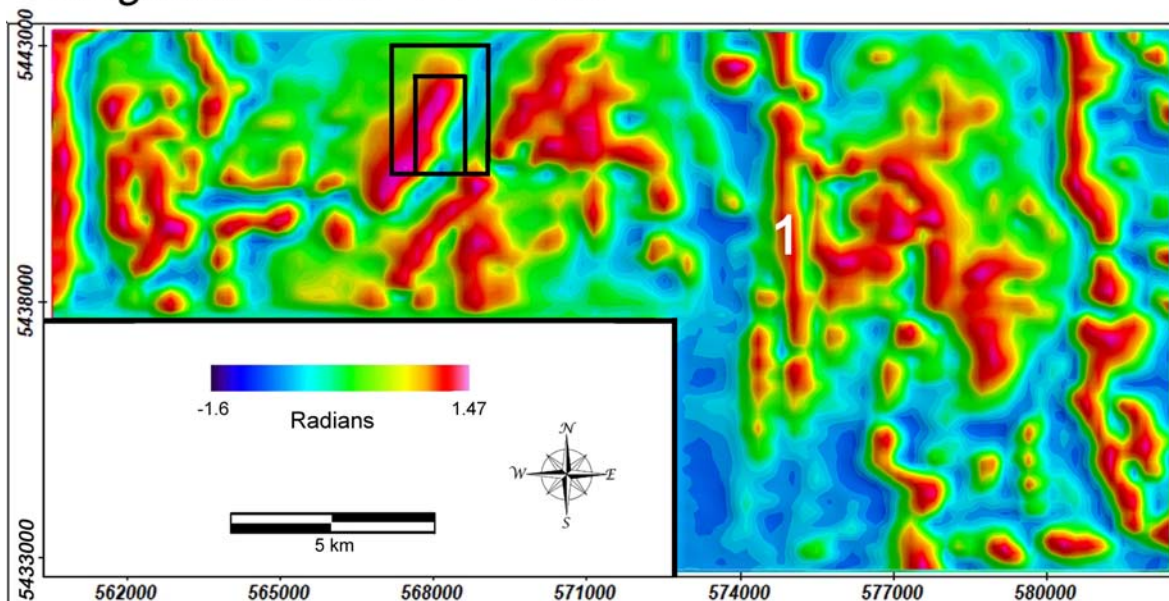


Figure 5b. Same map as in Figure 5a after application of the tilt angle.

The effect of applying gradient-based filters is to minimize the significance of amplitude variations and to enhance the variations in geometry (structure). In Figure 5b, for example, anomaly 1 is a long (7-8 km) north-south anomaly that is barely visible on the reduced-to-pole version (Figure 5a). This anomaly corresponds to a north-south mafic dyke that may be associated with the ca. 1468 Ma Moyie intrusions. Perhaps significantly, there appears to be another, similar north-south linear anomaly about 1 km west of the southern part of anomaly 1. This appears to be a second dyke.

8.3 Magnetic Anomaly Data: Property Scale Results

In order to assess the magnetic anomalies and their relationship(s) to the known geology, a map of the geology area in the vicinity of the Kenco property is enlarged in Figure 6a. In this area west of the axis of the Moyie anticline, there is a series of sills that trend north south. In addition, the location of the Kenco property is along the northwest projection of a recently interpreted high-order basin that may be associated with the Ramparts facies near the Lower Aldridge – Middle Aldridge transition.

Figure 6b shows the same map as in Figure 6a with the colour-contoured values for Zn in soils. For this map, the values of Zn greater than 250 ppm are shown in red, with the largest values exceeding 1000 ppm. Note that the main linear part of the soil anomaly is located along the western margin of the major sill. Note also, as noted previously, that the drill holes (90-1 and 90-2) do not appear to have tested the subsurface beneath the soil anomaly.

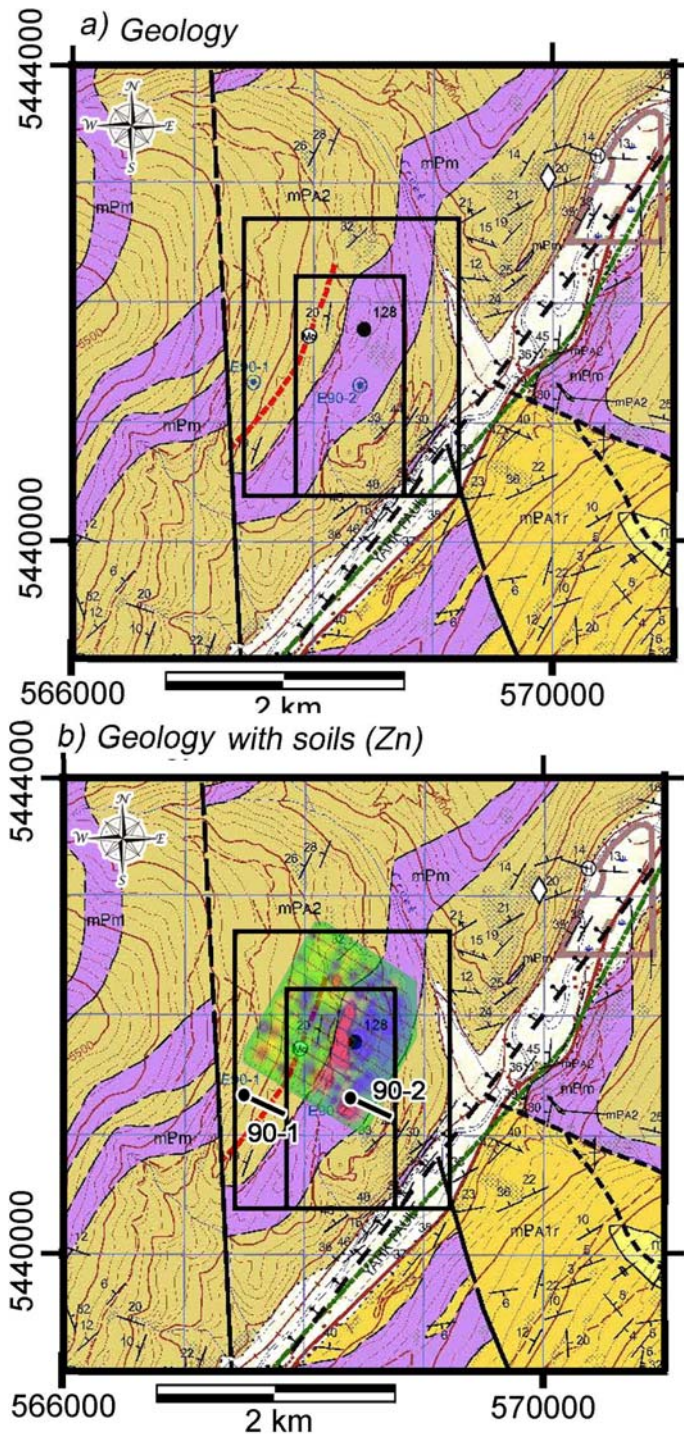


Figure 6. a) Map of geology in the vicinity of the Kenco property with the location of the property outlined. **b)** Same map as in a) with the colour contoured Zn soil concentrations overlain (from Stevenson and Staarsgaard, 1979). Red contours indicate >250ppm Zn. Also shown are the trajectories of the two drill holes 90-1 and 90-2.

Application of the filtering techniques at the property-scale produced two significant results. After application of the tilt angle, the results were overlain on the geology (Figure 7a) and the patterns indicate the following. First, although the magnetic anomalies are dominated by northeast trending features similar to the orientation of the sills, in detail the magnetic anomalies do not correlate well with the sills. For example, near location (568500E, 5441800N), there is a magnetic high on the west side of the sill, but not over much of the rest of the sill. This location is where the soil anomaly is on the west side of the sill. In contrast, farther south (near 567500E, 5440600N), the magnetic anomaly is centred on the sill where the sill appears to be truncated along a north-south fault (Figure 7a).

A second feature on this image is that there appears to be a weak, linear magnetic anomaly that is oriented northwest-southeast (arrows in Figure 7b). This will be addressed further in the next section, but it may be important to note that this northwest-southeast feature is located at the southern end of the soil anomaly (Figure 6b).

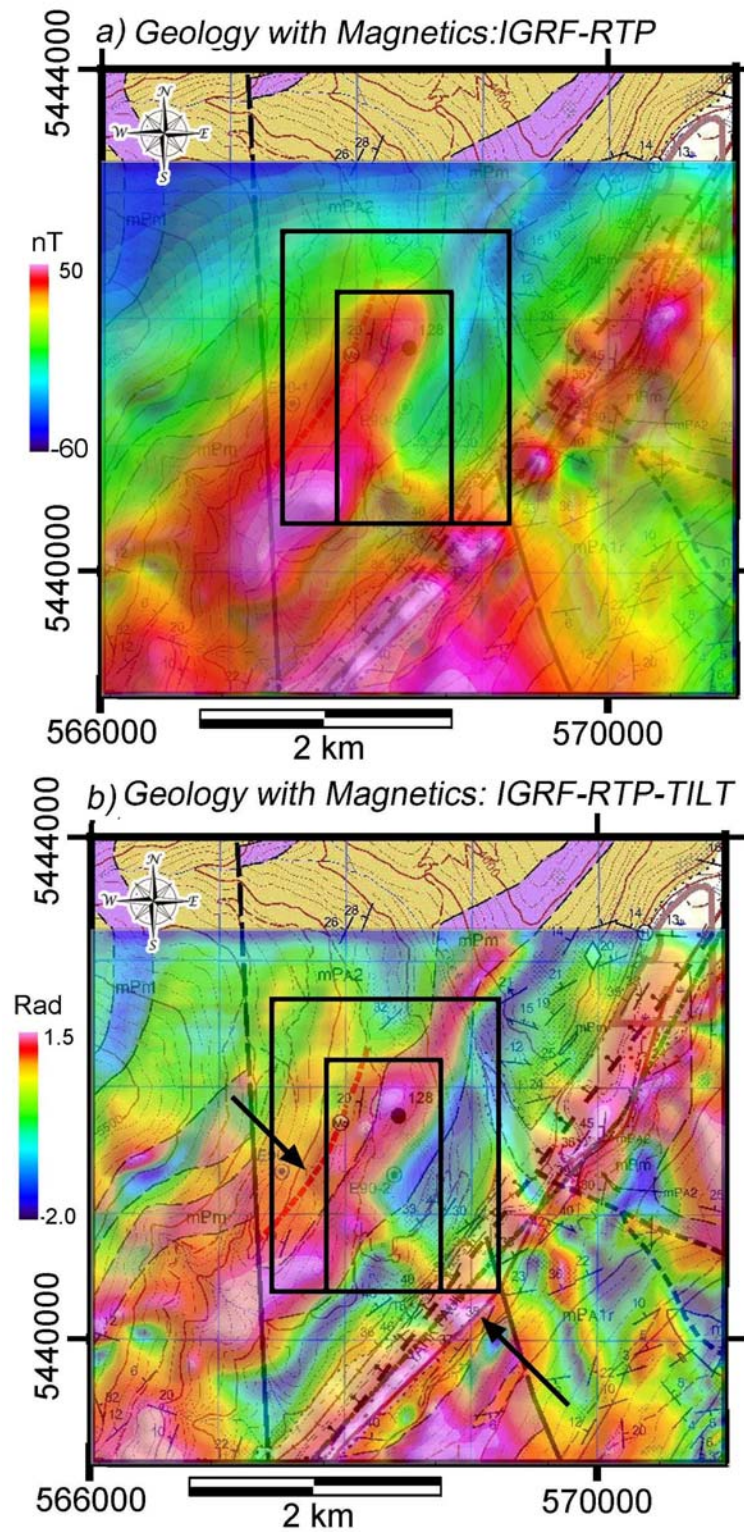


Figure 7. a) Same map as Figure 6a with the location of the property outlined. **b)** Same map as in (a) with the tilt angle version of the magnetic data overlain.

A relatively new method that is effective for delineating structural variations is the Normalized Standard Deviation (NSTD) of the data (Cooper and Cowan, 2008). This technique effectively identifies the anomaly edges. For comparison, Figure 8a shows the same map of the tilt angle as in Figure 7b and Figure 8b shows the NSTD version of the data. Note that, in the vicinity of the northwest-southeast linear feature highlighted by the arrows in Figure 8a, the long, linear NSTD feature in Figure 8b appears to exhibit a ‘kink’ or short bend. Note also that the long linear, ‘kinked’ anomaly is located over the centre of the sill north of the kink, but is on the southeast edge of the sill south of the kink. Taken together, these observations suggest that the magnetic anomalies are not likely due to the magnetic characteristics of the mafic lithology of the sill, but may be associated with post-intrusion alteration due to fluid migration and alteration.

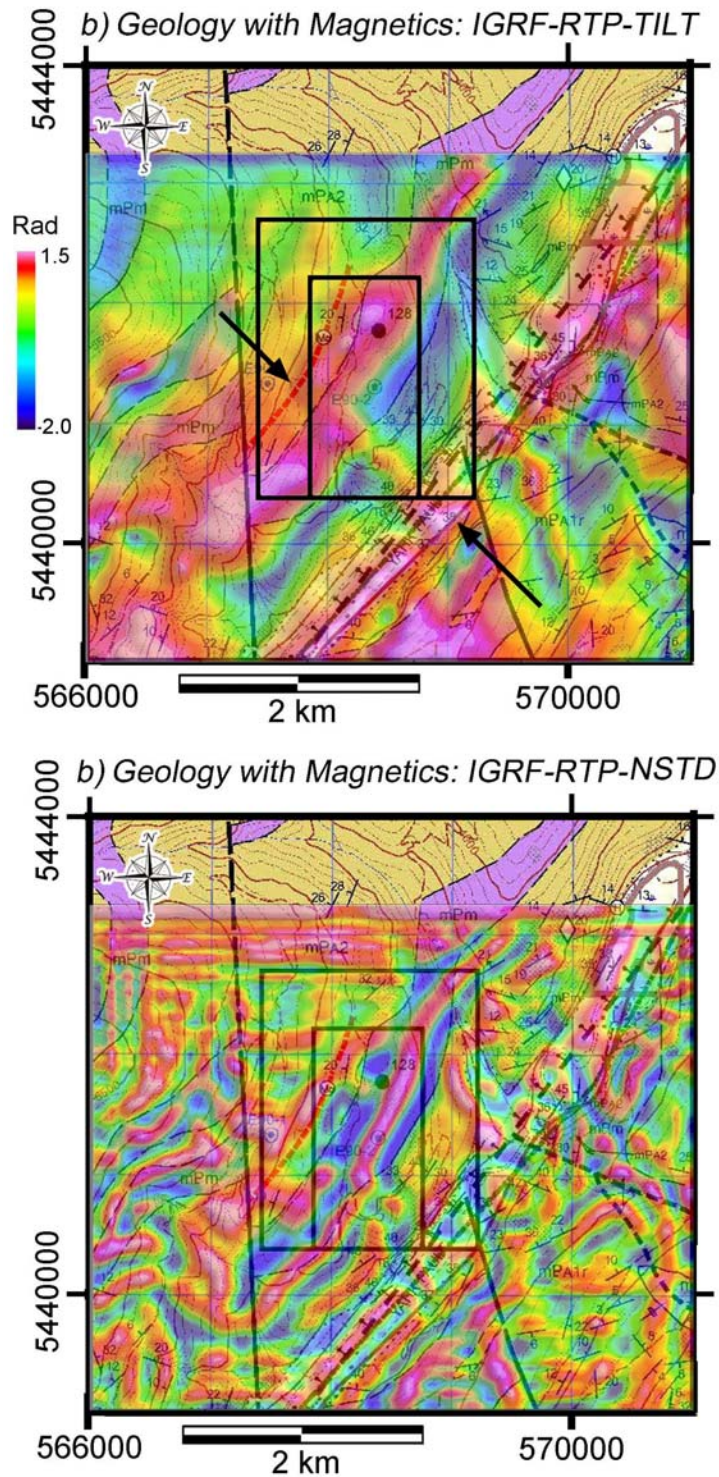


Figure 8. a) Same map as in Figure 7b with arrows to show the northwest-southeast feature. b) Same map as in (a) with the NSTD version of the data overlain. The horizontal lines at the top of the magnetics are edge effects caused by the windowing operator in the NSTD procedure.

The observation of the magnetic anomalies at the sill margin or crossing the sill can be explained in a number of possible ways. These include:

1. The sill could vary in magnetic susceptibility due to magmatic separation during cooling and solidification,
2. The sill may be non-magnetic, but may have intruded into a magnetic country rock, and,
3. Fluids could have migrated along the sill-metasedimentary rock contact some time after intrusion. Such migration could enhance oxidation of Fe-bearing minerals and deposition along permeability barriers, such as sills.

Fluid flow may cause significant oxidation of sulphide minerals, including Fe-sulphides. Hence, where fluids may be channelled, for example along permeability contrasts (e.g. sills to quartzites), it is likely that changing conditions (temperature, pressure) could have encouraged the precipitation of iron oxides, which in turn are often magnetic. In short, the simple observation that the magnetic anomaly is located in some areas along the margin of the sill, and in other areas is located within the sill, may be evidence of significant fluid flow and associated oxidation after the sill was intruded.

8.4 Magnetic Anomaly Data: Directional Filtering Results

Two filtering approaches were used to analyse directional characteristics of the data. They are: directional filtering and the Generalized Derivative operator. Directional filtering is a spatial filtering technique that seeks to enhance anomalies in certain directions by removing or suppressing features in other directions. The technique can cause (or enhance) linear noise features, so it should be used with some caution. Nevertheless, it can be effective in delineating important directional trends. In order to be as complete as possible, it is often better to illustrate a series of directionally filtered versions of the data according to azimuth.

Accordingly, Figure 9 shows a series of filtered versions of the reduced-to-pole magnetic anomaly map with filters in different directions. The most notable one is in the upper left where the northwest-southeast feature is enhanced (arrows in Figure 9). Note also the enhancement of NW-SE oriented noise that shows as low amplitude 'bands'.

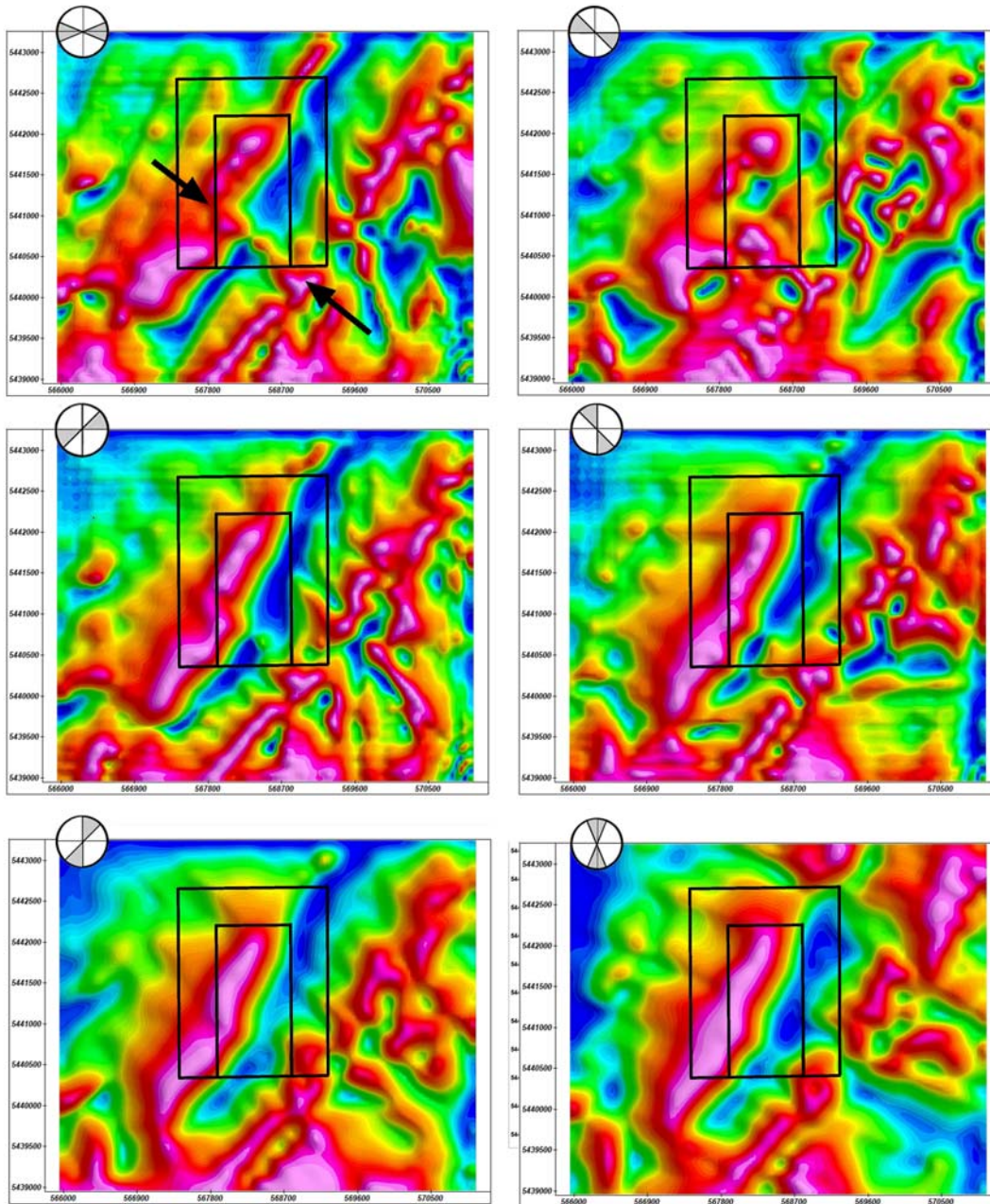


Figure 9. Directional filters applied to the reduced-to-pole data shown in Figure 7a. The small circles represent the filter parameters (shaded = removed by filter) in Kx-Ky space. Note that in the upper left version, the linear northwest-southeast feature shown in Figure 8a is slightly enhanced.

An approach that is similar to the tilt gradient in a more generally applicable technique is the Generalized Derivative Operator (GDO; Cooper and Cowan, 2011). The GDO can be considered as the tilt angle with an azimuthal component. Thus, to present the results of the GDO, maps of the GDO for a series of azimuths are shown in Figure 10. In a manner similar to directional filtering, the illumination is controlled by two parameters, the azimuth, or angle from north, and the elevation, or inclination. For each of the azimuths shown in Figure 7 (0° , 45° , 90° , 135° , ..., 315°) the inclination of the illuminating source was taken to be 30° . Thus, for the map in the top centre of Figure 9, the azimuth was 0° (north) and the illumination inclination was 30° from horizontal.

This approach can enhance features by both the gradient amplitudes as well as illumination inclination. For example, when the illumination is from the northeast (45°) or southwest (225°) with a low inclination angle, features that are oriented northwest-southeast will tend to be enhanced. Taken together with the other observations, this analysis affirms the interpretation of the NW-SE linear anomaly as a buried structure such as a fault or a shear zone.

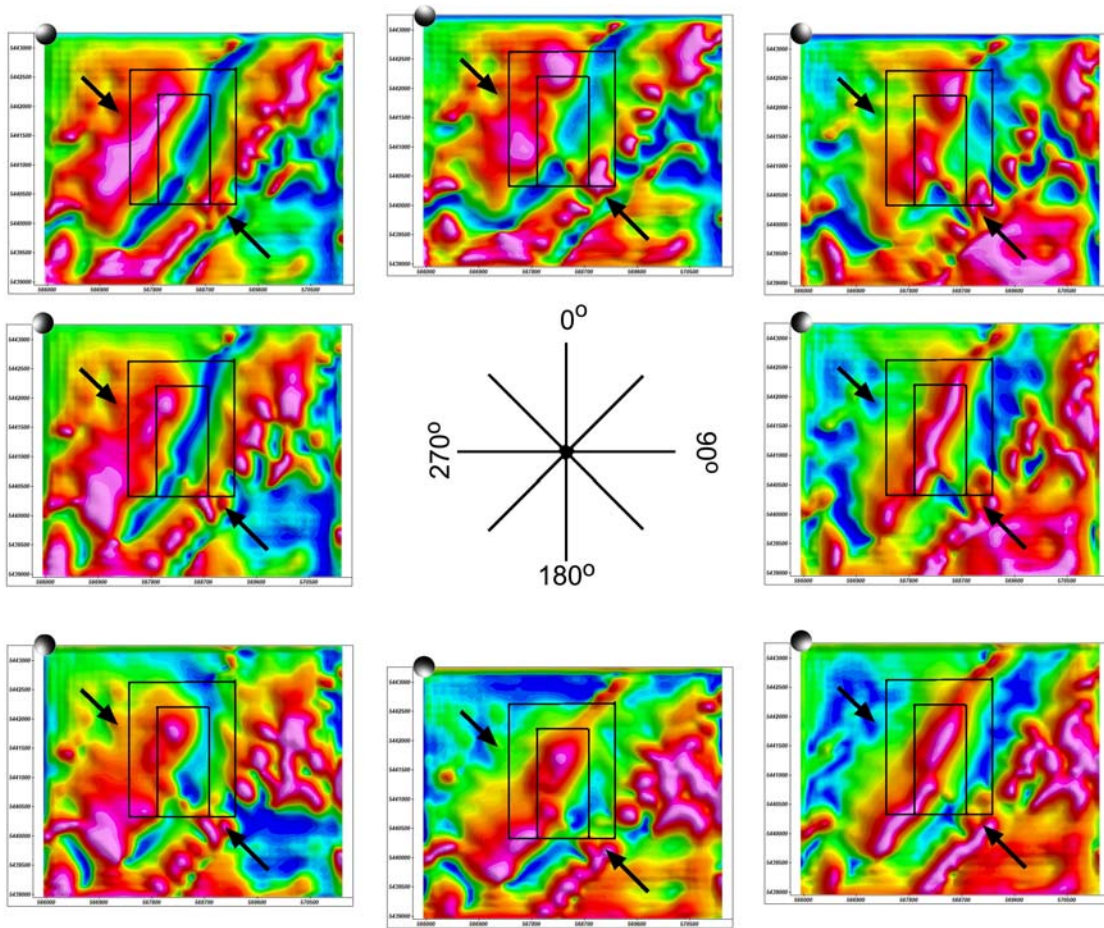


Figure 10. Application of the GDO to the reduced-to-pole magnetic anomaly data in Figure 7a.

9.0 Conclusions

Analyses of the digitized magnetic data from the Kenco property has lead to the following findings:

1. A linear northwest-southeast magnetic anomaly has been found that projects into the region where a major soil anomaly (Zn, Pb, Cu) was discovered in 1979;
2. Where the linear anomaly intersects a more prominent northeast-southwest anomaly, there is apparently a kink in the prominent NE-SW anomaly;
3. This 'kink' geometry may be indicative of a structure in the subsurface that is not exposed, and,
4. The spatial correlation of the NW-SE linear feature with the south end of the known soils anomaly can be interpreted to indicate a genetic relationship, i.e., that the metals found in the soils may have migrated from depth through structures toward the surface.

10.0 References

- Brown, D. A. and Macleod, R. F. 2011. Geology, Yahk River, British Columbia, Geological Survey of Canada, Open File 6304, scale 1:50,000.
- Cooper, G. R. J., and Cowan, D. R. 2008. Edge enhancement of potential field data using normalized statistics, *Geophysics*, v. 73, p. 111-114.
- Cooper, G. R. J., and Cowan, D. R. 2011. A generalized derivative operator for potential field data, *Geophysical Prospecting*, v. 59. p. 188-104.
- Gal, L. and Weidner, S. 1999. 1999 Geological evaluation of the Yahk property, British Columbia Ministry of Energy and Mines, Assessment Report 26121.
- Stevenson, R. W. and C. F. Staargaard, 1979. Report on Geochemical Survey, Yahk Group, British Columbia Ministry of Energy and Mines, Assessment Report 7626A, 17pp.
- Stephenson, L. 1990. Report on diamond drill holes E90-1 and 2, Eng property, British Columbia Ministry of Energy and Mines, Assessment Report 20827, 36pp.
- Woodfill, R., 1996. Assessment Report on Geophysics. Yak, Tour and Cold Claims, Yahk area, British Columbia Ministry of Energy and Mines, Assessment Report 24652, 97pp.
- Miller, H. G., and Singh, V. 1994. Potential field tilt – A new concept for location of potential field sources, *J. Applied Geophysics*, v. 32, p. 213-217.

11.0 Statement of Costs***Property: Kenco***

Date		Amount (days)	Rate	Total	Notes	Totals
3. Airborne Magnetic Data Reprocessing - Digitize TMI Map from AR 26452					(1)	
13-Jan-2020	Fred	1	800	53.60	(2)	
13-Jan-2020	Fred	1	800	53.60	(2)	
13-Jan-2020	Fred	1	800	53.60	(2)	
13-Jan-2020	Fred	1	800	53.60	(2)	
				214.40		\$214.40
4. Airborne Magnetic Data Reprocessing - Gradient Analyses/Structure					(1)	
03-Feb-20	Fred	1	800	800.00	(1)	
03-Feb-20	Fred	1	800	800.00	(1)	
03-Feb-20	Fred	1	800	800.00	(1)	
				2400.00		\$2,400.00
5. Report						\$3,000.00
TOTAL						\$5,614.40

Note (1): Work done on tenures 1062583 and 1066463

Note (2) Amount prorated (6.7%) to Kenco area

12.0 Statements of Qualifications

I, Frederick A. Cook do hereby certify that:

- 1) I attained the degree of Doctor of Philosophy (Ph.D.) in geophysics from Cornell University in Ithaca, New York in 1981.
- 2) I have a B.Sc. in geology (1973) and an MSc. in Geophysics (1975) from the University of Wyoming in Laramie, Wyoming.
- 3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (P. Geo. 2009). Previously, from 1984-2009, I was registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta as both a P. Geol. and a P. Goph.
- 4) I am a member of the American Geophysical Union and the Geological Society of America.
- 5) I have worked as a geophysicist/geologist for a total of 38 years since my graduation from university.
- 6) I have worked for the Continental Oil Company (1975-1977) and the University of Calgary (1982-2010).
- 7) I was the Director of the Lithoprobe Seismic Processing Facility at the University of Calgary from 1987-2003.
- 8) I have recently (2011) been appointed an International Consultant for the Chinese SinoProbe project.
- 9) I have a thorough knowledge of the geology of southern British Columbia based on extensive geological and geophysical field work since 1980.
- 10) I have authored more than 125 scholarly publications in peer-reviewed journals and books.
- 11) I was retained to undertake analyses of the geophysical data in the vicinity of the property.
- 12) I am the author of this report.
- 13) I am not aware of any material fact or material change with respect to the subject matter of this report, which is not reflected in this report.

“signed and sealed” at Salt Spring Island, B.C.

Frederick A. Cook, P. Geo.
Salt Spring Imaging, Ltd
128 Trincomali Heights
Salt Spring Island, B.C.

Dated at Salt Spring Island, B.C. this 6th day of May, 2020
Registration License No. 34585

Association of Professional Engineers and Geoscientists of British Columbia

Appendix 1: Magnetic Anomaly Map RTP
Scale 1:10000

Magnetics: IGRF-RTP

