EXPLORATION REPORT

on

IP and RESISTIVITY SURVEYS

and an

MMI SOIL GEOCHEMISTRY SURVEY

over a grid within the

LD PROPERTY

IRON MOUNTAIN, MERRITT AREA

NICOLA MINING DIVISION, BRITISH COLUMBIA

PROPERTY LOCATION:	On Iron Mountain 7 km SE of the town of Merritt, British Columbia 50° 3.5' N Latitude, 133° 44' W Longitude Mineral Titles Maps: M092I007 N.T.S 92I/2
WRITTEN FOR:	NORTH BLUFF EXPLORATION INC. 200 – 675 West Hastings Street Vancouver, B.C. V6B 1N2
WRITTEN BY:	David G. Mark, P.Geo. GEOTRONICS CONSULTING INC. 6204 – 125 th Street Surrey, British Columbia V3X 2E1
DATED:	July 25, 2008

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SUMMARY

An MMI soil sampling survey as well as induced polarization (IP), resistivity, and self potential (SP) geophysical surveys were carried out on the LD Showing Grid within the LD property. This property is located on Iron Mountain about 7 km southeast of the town of Merritt, within the Nicola Mining Division of B.C. The main purpose of the exploration program was to extend the known silver-lead-copper-zinc mineralization within the LD showing.

The MMI sampling consisted of 88 samples taken along four lines for a total survey length of 2200 meters. The samples were picked up every 25 meters where the sample was taken at a 10-to 25-cm depth and where a picket was placed with the grid coordinates marked on an aluminum tag. The samples were bagged and sent to SGS labs in Toronto and tested for 46 elements.

Nine elements were chosen, being copper, gold, silver, lead, zinc, cobalt, cadmium, cerium, and nickel, for further data reduction. Two stacked histograms of the results were made for each line to show the correlation of the results with each other. In addition, nine contour plan maps were made for the nine elements, respectively.

The IP and resistivity surveys were carried out using a BRGM Elrec-6 multi-channel receiver operating in the time-domain mode. The transmitter used was a BRGM VIP 4000 powered by a 6.5-kilowatt motor generator. The dipole length and reading interval chosen was 25 meters read up to 12 levels and carried out over one line and part of a second line for a total survey length of 1,350 meters. The IP and resistivity results were plotted in pseudosection form and contoured and the SP and results were profiled above the IP and resistivity pseudosections. In addition, inversion interpretation was carried out on line 4900E.

CONCLUSIONS

- 1. The MMI and IP surveys revealed two anomalous zones that have been labeled by the upper case letters A and B. Both anomalies appear to strike northeasterly and are anomalous in zinc, silver, lead, and cadmium that correlate with IP highs. A is also anomalous in copper.
- 2. Anomaly A is the main high containing the strongest IP and MMI results, especially zinc. This anomaly correlates with the LD showing, which has the same metals as the MMI anomaly has. The correlation therefore suggests that the mineralization extends in a northeast direction for a minimum 275 meters being open in both the northeast and southwest directions.
- 3. The IP indicates that anomaly A has two causative sources, that is, two zones of sulphide mineralization, a southern zone and a northern zone. The southern zone outcrops and is the one reflecting the LD showing. At depth, it increases in width to at least 115 meters. The northern zone does not outcrop and thus indicates a previously unknown zone of mineralization occurring at depth. Its width increases to a minimum 135 meters at about 75 meters depth.
- 4. Anomaly B appears to be parallel to anomaly having a similar strike length of 250 meters. The inversion IP anomaly barely outcrops at surface and therefore is probably reflecting previously unknown mineralization. This width of the mineralization also increases with depth reaching about 90 meters at a depth of 100 meters.
- 5. Both IP anomalies occur on the edge of, or adjacent to a resistivity high indicating that the mineralization may occur on a lithological contact. The resistivity high is probably reflecting a different rock-type, possibly a volcanic or intrusive.

RECOMMENDATIONS

The IP and MMI results are encouraging and therefore warrant further exploration appearing to indicate that the LD showing has greater strike length and greater width, especially at depth. Therefore, both MMI and IP surveys should be continued to the west, south, and east. The line spacing in the area of the anomaly should be reduced to 50 meters. This should more accurately determine the strike and the width of the anomaly, especially considering that the anomaly, at this point, appears to strike northeasterly across survey lines that run in a north direction. However, there is some indication that the anomaly may actually strike more easterly.

This work should result in drill targets. It appears there are drill targets at this point but further work as recommended above will optimize the locations of these drill targets.

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INTRODUCTION AND GENERAL REMARKS

This report discusses survey procedure, compilation of data, interpretation methods, and the results of MMI soil sampling and induced polarization (IP), resistivity, and self potential (SP) surveys carried out within a grid that covers the LD Showing.

The exploration work was carried out by a Geotronics crew of five men, during the period of December 1^{st} to 20^{th} , 2007. MMI soil sampling was started on the property but the digging was very hard due to the ground itself as well as thawing and freezing. Eventually it became next to impossible to dig, with tools being broken and bent. Thus the work was switched to IP/resistivity which was also quite difficult to do due to the hard and frozen ground.

The purpose of the exploration program on this property is to extend the know mineralization as occurs within the LD showing.

The purpose of the MMI soil sampling is to look for mineralization directly. MMI stands for mobile metal ions and describes ions, which have moved in the weathering zone and that are weakly or loosely attached to surface soil particles. MMI, which requires special sampling and testing techniques, are particularly useful in responding to mineralization at depth probably in excess of 700 meters. It also is not affected by glacial till, while standard soil sample techniques are. MMI is characterized in having a high signal to noise ratio and therefore can provide accurate drill targets. However, it may also move along fault lines and therefore could show the causative source to be laterally moved from where it actually is.

The general purpose of IP is to respond to sulphide mineralization especially that which occurs as fracture-filling and/or disseminated. The size of the IP anomaly is directly related to the surface area of the sulphides and thus fracture-filling and disseminated sulphides give a much higher anomalous reading than massive sulphides do. It was thus expected that the IP method would give the best results to the known mineralization on this property since it appears that much of the gold mineralization occurs as, or is associated with, disseminated or fracture-filling sulphides.

The purpose of the resistivity surveying was to reflect the mineral zones by responding as lows to any geological structure and/or alteration, or as highs to silicification and/or calcification any of which may be associated with mineralization. For geological mapping, the resistivity method is particularly adept at mapping lithology since all rock types have their own resistivities, i.e., intrusives usually respond as resistivity highs and argillites usually respond as resistivity lows. Also, as indicated above, the resistivity method is particularly proficient at mapping geologic structure.

Self potential, or SP, is essentially a by-product of carrying out IP/resistivity surveying. (It needs to be nulled out in order to measure the IP value.) Therefore it is not a prime exploration tool for this property. However, it is possible that it may respond to the mineralization and therefore prove to be quite useful. SP surveying usually has the best response to more massive sulphide mineralization such as vein-type.

PROPERTY AND OWNERSHIP

The property is comprised of 2 claims that are <u>not</u> contiguous and comprise an area of 767.5 ha. The claims occur within BC Mineral Title map sheet M092I007 within the Nicola Mining Division as shown on figure #3 and as described below:

Tenure Number	Туре	Claim Name	Expiry Date	Area (ha)
526832	Mineral	VOLLO	2009/09/30	41.471
548949	Mineral	LD	2011/02/01	726.023

The Vollo Claim occurs one cell distance to the north of the LD claim, which in this case is 464 meters.

The expiry date shown assumes that the work discussed within this report is accepted as submitted for assessment credits.

The property is owned by David Heyman and is being optioned to North Bluff Resources of Vancouver, BC.

LOCATION AND ACCESS

The Iron Mountain Property is located on the northeast, east and south flanks of Iron Mountain approximately 7 km southeast of Merritt, British Columbia.

The property is centered at geographic coordinates 50' 03" latitude and 122' 45'W in N.T.S. map sheet 92I/2 and BCGS map sheet 092I.007. The property occurs within UTM coordinates 660500E and 663600E and between coordinates 5546200N and 5549000N (or 5549900 if one is to include the northern claim).

Access to the property is via a well maintained road used for servicing a microwave installation at about 1,694 meters on Iron Mountain. This occurs via the Fox Farm road which branches off Highway 5 approximately 2 km east of Merritt or via the Godey Creek Road which branches from the Coldwater Road about 2 km south of highway 5. The Coquihalla Freeway cuts across the northwestern flank of Iron Mountain within 2 km of the northwest corner of the LD claim. This freeway allows a three-hour drive in access to the property from Vancouver and a one hour drive in access from Kamloops, British Columbia.

PHYSIOGRAPHY AND VEGETATION

The LD Property is found within the Thomson Plateau, which is a physiographic unit of the Interior Plateau System. The Thompson Plateau consists of gently rolling upland of low relief for the most part. On the LD Property the elevations vary from 970 meters (3180 feet) along the northeastern edge of the claim to 1660 meters (5,450 feet) at the southwestern corner of claim. Steep to moderate slopes to gently rolling hills with variable soil cover blanket much of the property. The steep slopes occur mostly within the southern part of the property.

The main water sources are Godey Creek, which flows northwesterly through the northeastern corner of the claim, and its tributaries, which, for the most part, flow northeasterly property.

Tree cover is generally that of open forest with grasslands as well as some thick second growth.

Glaciers occupied the Thompson Plateau and thus much of the claim area is covered by glacial drift, which can become quite deep over the flatter areas.

The climate in the Merritt area is semi-arid, and thus the precipitation is low, about 25 to 28 centimeters (10 to 11 inches). Temperatures vary from the high extreme in summer of around 40°C to the low in winter of around -30° C, though the usual temperature during the summer days would be 15°C to 25°C and that in winter would be -10° C to 5°C.

HISTORY OF PREVIOUS WORK

The most recent work of significance, as far as the writer is aware, was carried out in 1989 and reported on in a report by Peter Christopher, PhD, P.Eng. The work consisted of 12 km of magnetic and VLF-EM surveying and 498 soil samples taken in the B horizon. This work was a follow-up of 2 km of VLF-EM surveying carried out over the LD showing in 1987 that was reported on by Crooker.

GEOLOGY

(a) Regional

The Iron Mountain Property lies within the Intermontane Belt of the Canadian Cordillera and is underlain by marine and continental volcanic and sedimentary rocks of the Upper Triassic, Nicola Group. The Iron Mountain Property is underlain by rocks classified by Preto (1979) as part of the Western Belt of the Nicola Group which is situated west of the Allison Fault zone. Cretaceous Kingsvale Group volcanic and sedimentary rocks outcrop to the north and east of the property. The area is segmented by northeasterly-, northwesterly- and northerly-trending faults. The regional geology has been mapped by Cockfield (1939 - 1944, 1948), Schau (1968), Preto (1979) and Mc Millan (1977, 1978).

(b) **Property**

The description of the local geology of the Iron Mountain Property was summarized by Crooker (1987) as follows:

"The geology of Iron Mountain was mapped in detail by W.J. Mc Millan (Paper 79-1 p.34; reproduced as Figure 3) in 1978. A 5,000-meter thick section of Nicola Group is exposed on Iron Mountain. At the base of the section is a microdiorite of unknown thickness. The microdiorite is overlain by an approximately 1500-meter thick sequence of basaltic and andesitic flows. Flow breccias and andesitic volcanic breccias occur within the flows. Near the top of the flow unit, rhyolitic breccias and potassium- rich rhyolitic lavas become common with lesser chloritic fragment acid to andesitic breccias.

"The acid lava and breccia zone is overlain southward by basaltic to andesitic flows with contained argillaceous limestones indicating periods of quiescence, and felsic tuffs indicating periods of explosive volcanic activity. To the northeast, the basic flows pinch out and sandy to pebbly volcano-sedimentary rocks overlie the rhyolitic zone. Limestone breccias overlie the volcano-sedimentary rocks with a thin bed of impure limestone overlying the limestone breccia. Further northeast, the rhyolitic zone and overlying sedimentary rocks abut against a large, irregularly lensoid body of andesitic lapilli to bomb breccia. The thin, impure limestone unit also overlies the andesitic lapilli to bomb breccias, and volcanic breccias with mainly acidic clasts overlie the limestone.

"An 8 kilometer long marker unit is composed of feldspathic, often quartz bearing, red lapilli tuff. To the south it is overlain by limestone bodies and overlies basic volcanic rocks.

Northerly, it is overlain by andesitic to acidic volcano-sedimentary rocks and breccias. Fossiliferous limestone layers are found within the volcano- sedimentary rocks. A distinctive golden brown weathering argillite to sandstone succession ranging up to 10 meters in thickness forms the top of the sedimentary unit in the northeast.

"Lensy bodies of siliceous volcanic rocks overlie the sedimentary unit to the northeast, and occur within the limestones to the south. Dark green, massive to bedded fragmental plagioclase-bearing crystal lithic tuffs and flows inter finger with the dacite to the east of Iron Mountain peak. The feldspathic volcanics appear to be largely of pyroclastic origin and the variations in rock types resemble those of sub aerial cinder cones.

"Overlying the dacitic to feldspathic volcanics are red sandstones which are in turn overlain by red to purple volcanic breccias. A calcareous reefoid unit, in which calcareous organic remains occur in a dark hematitic red matrix, overlies the volcanic breccias. The reefoid unit has a strike length of approximately 4 kilometers and is of variable thickness. A mixed assemblage of acidic breccias, and andesitic breccias, flows and tuffs form the top of the section.

"Rock units strike northerly to northeasterly and have steep easterly dips. Limited evidence appears to indicate tops to the east. The area is dissected by northwest trending structures which control the location of Godey Creek and Kwinshatin Creek valleys. The northwest structure contains auriferous quartz veins on (the nearby Charmer Showing that is off of the LD Claim to its southwest). The northwest structures are cut and slightly offset in a right lateral direction by northerly to northeasterly structure that lies east of Iron Mountain."

(c) Mineralization

The following is taken from the government web site descriptions on the two Min file showings.

LD Showing

The LD showing is underlain by volcanic sandstone to siltstone and tuff. Bedding strikes northwest to northeast and dips steeply to the south. Old workings expose silver-lead-copper-zinc mineralization. Rock chip samples of baritic massive sulphide float and outcrop assayed copper ranging from 10 to 3240 parts per million, silver 0.4 to 59.4 parts per million and gold 1 to 2960 parts per billion (Assessment Report 16817).

Chatko Showing

The principal mineral showing consists of a semi-concordant, northeast trending skarn zone 65 by 35 metres. It is hosted by limestone and calc-silicate units and is underlain directly by rhyolitic pyroclastic rocks. Mineralization consists of massive and disseminated magnetite, with veins and seams of chalcopyrite and hematite.

Chalcopyrite occurs as blebs along contacts, in irregular magnetite masses, or disseminated in host rock adjacent to the veins. Other skarn minerals are epidote, specular hematite, pyrite, quartz and calcite.

Early trenches and an adit developed this showing. A major fault zone trends northwest along Godey Creek, 400 metres west of the Chatko showing. On the property, faulting, fracturing and silicification are evident.

GRID EMPLACEMENT

This grid was emplaced to cover the LD showing and occurs within the eastern part of the LD Claim as shown on figure #3. Four survey lines were emplaced every 100 meters in a due north direction, and along the survey lines, survey stations were marked by pickets every 25 meters. The pickets were tied with blaze orange flagging as well as blue flagging. A total of 2,200 meters of survey lines were put in.

MMI SOIL SAMPLING

(a) Sampling Procedure

The sampling procedure was to first remove the organic material from the sample site $(A_0 \text{ layer})$ and then dig a pit over 25 cm deep with a shovel. Sample material was then scraped from the sides of the pit over the measured depth interval of 10 centimeters to 25 centimeters. About 250 grams of sample material was collected and then placed into a plastic Zip-loc sandwich bag with the sample location marked thereon. The 111 samples were then packaged and sent to SGS Minerals located at 1885 Leslie Street, Toronto, Ontario. (This is only one of two labs in the world that do MMI analysis, the other being in Perth, Australia where the MMI method was developed.)

(b) Analytical Methods

At SGS Minerals, the testing procedure begins with weighing 50 grams of the sample into a plastic vial fitted with a screw cap. Next is added 50 ml of the MMI-M solution to the sample, which is then placed in trays and put into a shaker for 20 minutes. (The MMI-M solution is a neutral mixture of reagents that are used to detach loosely bound ions of any of the 46 elements from the soil substrate and formulated to keep the ions in solution.) These are allowed to sit overnight and subsequently centrifuged for 10 minutes. The solution is then diluted 20 times for a total dilution factor of 200 times and then transferred into plastic test tubes, which are then analyzed on ICP-MS instruments.

Results from the instruments for the 46 elements are processed automatically, loaded into the LIMS (laboratory information management system which is computer software used by laboratories) where the quality control parameters are checked before final reporting.

(c) Compilation of Data

Nine elements, or metals, were chosen out of the 46 reported on and these were copper, gold, silver, lead, zinc, cobalt, cadmium, cerium, and nickel. The mean background value was calculated for each of the nine metals and this number was then divided into the reported value for that metal to obtain a figure called the response ratio. Two stacked histograms were then made of the response ratios for each of the four lines of the nine metals as shown on figures #6 through to #13, inclusive. The first stacked histogram included copper, cadmium, gold, silver and cobalt, and the second one included copper, nickel, lead, zinc, and cerium. The calculated background values in parts per billion (ppb) are as follows:

Copper	Cadmium	Gold	Silver	Cobalt	Cerium	Nickel	Lead	Zinc
313	3.6	0.05	4.9	10.4	9.4	68	5.2	46

INDUCED POLARIZATION AND RESISTIVITY SURVEYS

(a) Instrumentation

The transmitter used was a BRGM model VIP 4000. It was powered by a Honda 6.5 kW motor generator. The receiver used was a six-channel BRGM model Elrec-6. This is state-of -the-art equipment, with software-controlled functions, programmable through a keyboard located on the front of the instrument. It can measure up to 6 chargeability windows and store up to 2,500 measurements within the internal memory.

(b) Theory

When a voltage is applied to the ground, electrical current flows, mainly in the electrolyte-filled capillaries within the rock. If the capillaries also contain certain mineral particles that transport current by electrons (mostly sulphides, some oxides and graphite), then the ionic charges build up at the particle-electrolyte interface, positive ones where the current enters the particle and negative ones where it leaves. This accumulation of charge creates a voltage that tends to oppose the current flow across the interface. When the current is switched off, the created voltage slowly decreases as the accumulated ions diffuse back into the electrolyte. This type of induced polarization phenomena is known as electrode polarization.

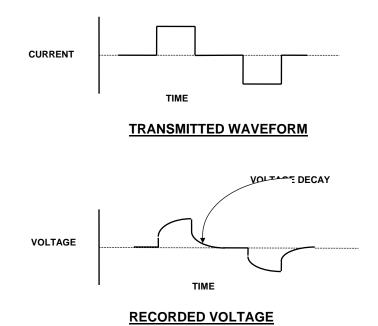
A similar effect occurs if clay particles are present in the conducting medium. Charged clay particles attract oppositely-charged ions from the surrounding electrolyte; when the current stops, the ions slowly diffuse back to their equilibrium state. This process is known as membrane polarization and gives rise to induced polarization effects even in the absence of metallic-type conductors.

Most IP surveys are carried out by taking measurements in the "time-domain", and some in the "frequency-domain".

Time-domain measurements involve sampling the waveform at intervals after the current is switched off, to derive a dimensionless parameter, the chargeability "M",

which is a measure of the strength of the induced polarization effect. Measurements in the frequency domain are based on the fact that the resistance produced at the electrolyte-charged particle interface decreases with increasing frequency. The difference between apparent resistivity readings at a high and low frequency is expressed as the percentage frequency effect, or "PFE".

The quantity, apparent resistivity, ρ_a , computed from electrical survey results is only the true earth resistivity in a homogenous sub-surface. When vertical (and lateral) variations in electrical properties occur, as they almost always will, the apparent resistivity will be influenced by the various layers, depending on their depth relative to the electrode spacing. A single reading, therefore, cannot be attributed to a particular depth.



The ability of the ground to transmit electricity is, in the absence of metallic-type conductors, almost completely dependent on the volume, nature and content of the pore space. Empirical relationships can be derived linking the formation resistivity to the pore water resistivity, as a function of porosity. Such a formula is Archie's Law, which states (assuming complete saturation) in clean formations:

$$R_o = O^{-2} R_w$$

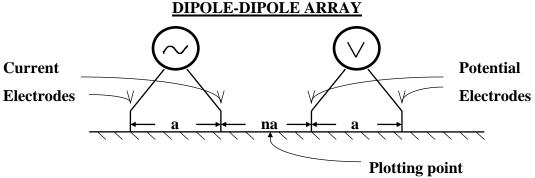
Where: R_o is formation resistivity R_w is pore water resistivity O is porosity

(c) Survey Procedure

Two IP/resistivity survey lines were carried out within the grid area along the emplaced MMI survey lines, one full line, being 4900E, and the start of a second line, being 4800E, which was stopped due to budget constraints.

The IP and resistivity measurements were taken in the time-domain mode using an 8second square wave charge cycle (2-seconds positive charge, 2-seconds off, 2-seconds negative charge, 2-seconds off). The delay time used after the charge shuts off was 80 milliseconds and the integration time used was 1,760 milliseconds divided into 10 windows.

The array chosen was the dipole-dipole, shown as follows:



The electrode separation, or 'a' spacing, and reading interval were chosen to be 25 meters read to 12 separations (which is the 'na' in the above diagram). The theoretical

depth penetration is about 115 meters, or 380 feet. Stainless steel stakes were used for current electrodes as well as for the potential electrodes.

]	Line Number	Survey Length	Pseudosection Figure #	Inversion Figure #
	4800N	325 m	GP - 2	GP-4
	4900N	1,025 m	GP – 1	GP – 3

The total amount of IP and resistivity surveying carried out was 1,350 meters.

(d) Compilation of Data

All data were reduced by a computer software program developed by Geosoft Inc. of Toronto, Ontario. Parts of this program have been modified by Geotronics Consulting Inc. for its own applications. The computerized data reduction included the resistivity calculations, pseudosection plotting, and contouring.

The chargeability (IP) values are read directly from the instrument and no data processing is therefore required prior to plotting. However, the data is edited for errors and for reliability. The reliability is usually dependent on the strength of the signal, which weakens at greater dipole separations and which also weakens in areas of lower resistivity.

The resistivity values are derived from current and voltage readings taken in the field. These values are combined with the geometrical factor appropriate for the dipoledipole array to compute the apparent resistivity.

All the data have been plotted in pseudosection form at a scale of 1:2,500. One map has been plotted for each of the two pseudosections, as shown on the above table and in the Table of Contents. The pseudosection is formed by each value being plotted at a point formed from the intersection of a line drawn from the mid-point of each of the two dipoles. The result of this method of plotting is that the farther the dipoles are separated, the deeper the reading is plotted. The resistivity pseudosection is plotted on the upper part of the map for each of the lines, and the chargeability pseudosection is plotted on the lower part.

All pseudosections were contoured at an interval of 5 milliseconds for the chargeability results, and at a logarithmic interval to the base 10 for the resistivity results.

The self-potential (SP) data from the IP and resistivity surveys were plotted and profiled above the resistivity pseudosection for each line at a scale of 1 cm = 100 millivolts with a base of zero millivolts. In addition, the magnetic data was profiled below the SP profile but above the resistivity pseudosection at a scale of 1 cm = 125 nT with a base of 57,200 nT.

A 2-D inversion interpretation was carried out on the IP and resistivity data using a computer program produced by Geotomo Software. The purpose of inversion interpretation is to eliminate the electrode effect that is endemic with IP and resistivity data and thus locate the causative sources more accurately. The Geotomo inversion is a rapid process (for inversion) that uses the least squares method. The results are shown in section format as shown in the above table and within the Table of Contents. For line 4800E, the data was very limited and thus the accuracy of the interpretation is less than that of line 4900E.

DISCUSSION OF RESULTS

The MMI and IP surveys have located two anomalies that consist of the correlation of IP and MMI results. These have been labeled by the writer with the upper case letters A and B. The IP results indicate sulphides and the MMI results indicate what the sulphides may consist of.

Each of the IP anomalies occurs adjacent to, or on the edge of resistivity highs. The high is probably caused by a different rock-type, perhaps an intrusive, or a different volcanic rock type. Thus the mineralization may occur on a lithological contact.

Anomaly A is the main anomaly and is also the strongest one in both MMI results and IP results. It correlates with the LD showing which is located on line 4800E at about 5000N. The anomaly strikes in a northeasterly direction for a distance of 275 meters being open both to the northeast and to the southwest, which suggests that the LD mineralization has this type of strike length.

The IP inversion section for line 4900E, as shown within fig. GP-3, indicates the overall width of the causative source to be about 350 meters. However, the inversion also suggests that the anomaly is composed of two parts, that is, a northern one and a southern one, and therefore is caused by two causative sources that are probably parallel. The southern one has a width of about 160 meters and the northern one, about 190 meters. If each of these parts strike northeasterly as the MMI results suggest, than these widths would be narrower, possibly down to 115 and 135 meters, respectively. (However, the IP results for line 4800E suggest that a northeast strike may not be the case. In other words, there is not enough IP surveying to define the extent of the anomaly more accurately.)

The MMI results indicate the mineralization to consist of zinc, lead, silver, copper, and cadmium which is what the LD mineralization consists mainly of. These results correlate mostly with the southern part of anomaly A, though there is also anomalous correlation with the northern part. The IP results indicate that the southern part of A occurs at depth and does not outcrop. This may explain the somewhat lower MMI results with the northern part.

There is also some correlation with cobalt which is often an indication of pyrite. This probably occurs with anomaly A, especially considering that cobalt correlates with the wider IP anomaly. This therefore would suggest that part of its causative source is pyrite.

The strongest part of the MMI anomaly is the zinc results. Zinc mineralization is usually sphalerite which is a non-conductor. Therefore it would not be part of the causative source of the IP anomaly. The IP anomaly is probably caused by copper and lead sulphides as well as pyrite, which the MMI results suggest. Cadmium is often a replacement element for zinc within sphalerite and therefore would not be part of the IP causative source.

Anomaly B occurs about 200 meters south of A and appears to be parallel to it, that is, striking in a northeast direction. Thus its strike length is similar at about 250 meters. The inversion IP indicates the causative mineralization to hardly show at surface and then increase to 90 meters wide at 100 meters depth.

The strongest MMI results are zinc with correlating anomalous values in lead, cadmium, and silver. Copper is almost non-existent, though anomaly B occurs at the southern edge of the survey area and thus additional sampling to the south may prove otherwise.

For the most part, anomaly B appears to be similar to anomaly A. Also it is probably reflecting unknown mineralization, though the writer is unaware of whether the LD workings extend this far south. Previous geology maps (Crooker, 1987 and Christopher, 1989) appear to show the LD showing is more localized.

Two easterly-trending nickel/cerium anomalies occur to the north of anomaly A. The causative source may be intrusive dykes. In addition a cerium anomaly occurs between anomalies A and B and may be due to an acidic intrusive.

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GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Surrey, in the Province of British Columbia, do hereby certify that:

I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I am a Consulting Geophysicist of Geotronics Consulting Inc, with offices at $6204 - 125^{\text{th}}$ Street, Surrey, British Columbia.

I further certify that:

- 1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
- 2. I have been practicing my profession for the past 40 years, and have been active in the mining industry for the past 43 years.
- 3. This report is compiled from data obtained from IP, resistivity, SP, and MMI soil sampling carried out within the LD Showing Grid within the LD Claim located on Iron Mountain to the immediate south of the town of Merritt within the Nicola Mining Division of British Columbia. The work was done during the period of December 1st to the 20th, 2007.
- 4. I do not hold any interest in North Bluff Exploration Inc, nor in the property discussed in this report, nor in any other property held by this company, nor do I expect to receive any interest as a result of writing this report.

David G. Mark, P.Geo. Geophysicist July 25, 2008

AFFIDAVIT OF EXPENSES

Grid emplacement as well as MMI soil sampling and IP, resistivity, and SP surveying was carried out over the LD Showing Grid, within the LD Property, which occurs on Iron Mountain to the immediate south of the town of Merritt, B.C. This work was done during the period of December 1st to December 20th 2007, and to the value of the following:

FIELD: Mob/demob fi

GRAND TOTAL		\$42,761.00
TOTAL	\$2,725.00	<u>\$2,725.00</u>
Senior Geophysicist, 35 hours @ \$60/hour	<u>\$1,500.00</u>	
Geophysical technician, 45 hours @ \$35/hour	\$1,225.00	
DATA REDUCTION and REPORT:		
TOTAL	\$3,235.00	\$4,931.00
Laboratory testing of 88 samples @ \$35/sample	<u>3,080.00</u>	
Courier costs for sample shipping	\$ 155.00	
LABORATORY:		
TOTAL	\$35,105.00	\$35,105.00
8 days @ \$2,750 per day	<u>22,000.00</u>	
IP/Resistivity Survey, 5-man crew,		
MMI Survey, 5-man crew, 5 days @ \$2,000/day	10,000.00	
Mob/demob from Vancouver-Merritt, rtn – 2 trips	\$ 3,105.00	

Note: The ground was extremely hard and thus production was very poor.

Respectfully submitted, Geotronics Consulting Inc.

David G. Mark, P.Geo, Geophysicist

July 25th 2008

APPENDIX – GEOCHEMISTRY DATA

Line	Station	Ag	AI	As	Au	Ва	Bi	Са	Cd	Ce	Со	Cr	Cu	Dy	Er	Eu	Fe
DETECTION		1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1
Line 4700E																	
4700E	5050N	19	18	5	0.05	2870	0.5	630	16	44	12	50	590	34	16	9.2	17
4700E	5075N	13	20	10	0.2	3890	0.5	610	5	170	259	50	2410	28	15.6	9.1	33
4700E	5100N	22	12	5	0.1	5740	0.5	880	7	105	60	50	1440	104	50.9	25.3	13
4700E	5150N	19	6	5	0.2	2590	0.5	720	7	7	31	50	1420	6	3.2	1.5	10
4700E	5175N	5	15	5	0.05	3190	0.5	510	4	255	198	50	1130	25	12.7	7.6	40
4700E	5225N	5	79	5	0.05	4700	0.5	420	6	405	588	50	1490	62	35.8	15.7	129
4700E	5250N	3	34	5	0.05	3270	0.5	540	12	196	201	50	630	28	14.6	7.9	46
4700E	5275N	3	59	10	0.05	3100	0.5	430	3	200	312	50	1110	18	8.9	5.1	138
Line 4800E																	
4800E	4300N	8	6	5	0.05	620	0.5	240	10	2.5	19	50	1540	4	2.8	0.25	4
4800E	4325N	2	8	5	0.05	1260	0.5	620	20	5	15	50	380	4	3	0.6	7
4800E	4350N	6	13	5	0.05	2540	0.5	460	8	80	14	50	1070	16	8.4	4.4	21
4800E	4375N	7	7	5	0.05	810	0.5	400	3	2.5	20	50	2140	7	3.9	1.3	8
4800E	4400N	10	53	5	0.05	1220	0.5	360	8	87	7	50	280	15	7.8	3.8	35
4800E	4425N	13	33	5	0.05	1590	0.5	320	3	110	85	50	420	15	7.7	4.1	34
4800E	4450N	8	49	5	0.05	830	0.5	280	8	122	8	50	190	16	7.3	4.2	36
4800E	4475N	10	26	5	0.05	1220	0.5	400	7	35	7	50	250	8	3.8	1.9	21
4800E	4500N	11	25	5	0.05	1080	0.5	470	13	57	7	50	610	19	9.6	5.1	24
4800E	4525N	9	11	5	0.05	250	0.5	450	33	2.5	5	50	880	1	1	0.25	9
4800E	4550N	10	8	5	0.05	290	0.5	380	28	2.5	12	50	700	0.5	0.6	0.25	5
4800E	4575N	12	24	5	0.05	1020	0.5	310	6	106	77	50	830	21	10.7	5.9	30
4800E	4600N	12	40	5	0.05	1420	0.5	350	19	153	2.5	50	370	25	12.4	6.3	30
4800E	4625N	5	7	5	0.05	1610	0.5	630	18	8	13	50	1590	4	2.4	1	8
4800E	4650N	12	42	5	0.05	1220	0.5	340	4	139	15	50	750	28	14.5	6.7	37
4800E	4675N	17	5	5	0.05	1330	0.5	580	5	7	7	50	1850	12	5.8	2.8	9
4800E	4700N	26	15	5	0.05	1380	0.5	570	16	26	12	50	720	17	7.8	4.4	19
4800E	4725N	6	48	5	0.05	1190	0.5	320	22	284	17	50	420	64	32.2	16.7	46
4800E	4750N	9	10	5	0.05	2070	0.5	560	9	148	17	50	410	51	22.3	15.1	16
4800E	4775N	21	3	5	0.1	830	0.5	380	3	2.5	16	50	2970	0.5	0.7	0.25	3
4800E	4800N	30	5	5	0.05	680	0.5	440	52	2.5	15	50	1080	10	5.8	0.7	5
4800E	4825N	8	76	5	0.05	2640	0.5	340	18	145	108	50	360	23	9.8	7	44
4800E	4850N	14	60	5	0.05	5960	0.5	440	6	619	38	50	560	97	48	23.3	47
4800E	4900N	10	14	5	0.05	2330	0.5	380	5	539	457	50	3210	43	23.4	13.1	88
4800E	4925N	8	74	5	0.05	1150	0.5	180	7	56	220	50	1470	16	10.5	3.1	175
4800E	4950N	13	50	5	0.05	4010	0.5	490	6	506	40	50	1040	61	29.4	15.2	43
4800E	4975N	16	33	5	0.05	1560	0.5	450	39	246	15	50	1340	61	31	16.7	36
4800E	5000N	10	47	5	0.05	1440	0.5	360	22	239	15	50	400	28	14	7	46
4800E	5025N	11	58	5	0.05	1900	0.5	460	5	592	199	50	700	77	35.7	17.9	52
4800E	5050N	7	38	5	0.05	3060	0.5	290	8	222	265	50	590	20	10	5.6	56
4800E	5075N	11	14	5	0.05	3140	0.5	330	4	220	217	50	1020	17	8.6	4.5	50
4800E	5125N	6	48	5	0.05	5260	0.5	340	3	242	193	50	580	23	11	6.5	68
4800E	5150N	6	30	20	0.05	5790	0.5	280	3	682	223	50	1540	63	32.3	21.3	73
4800E	5175N	13	35	5	0.05	1710	0.5	320	7	65	7	50	640	21	10.8	5.3	29

Line	Station	Ag	Al	As	Au	Ва	Bi	Са	Cd	Ce	Со	Cr	Cu	Dy	Er	Eu	Fe
DETECTION		1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1
4800E	5200N	9	22	5	0.05	1310	0.5	290	5	187	10	50	500	42	20.3	11.1	30
4800E	5225N	15	13	5	0.05	4530	0.5	480	2	250	22	50	1300	93	46.4	23.9	13
4800E	5250N	12	6	5	0.2	5990	0.5	630	6	48	52	50	1380	33	15.8	7.5	6
4800E	5275N	11	32	5	0.05	1960	0.5	380	5	285	29	50	420	30	13.9	7.5	28
4800E	5300N	15	7	5	0.05	1590	0.5	400	2	25	11	50	430	11	5	2.9	14
Line 4900E																	
4900E	4650N	5	86	5	0.05	630	0.5	310	46	30	18	50	260	13	7.6	2.2	32
4900E	4725N	17	56	5	0.05	1860	0.5	410	10	202	68	50	310	24	12.3	5.9	51
4900E	4750N	10	119	10	0.05	2080	0.5	290	18	205	102	50	300	22	12.5	4.5	111
4900E	4775N	1	61	10	0.05	2140	0.5	400	20	261	115	50	160	36	19	7.8	76
4900E	4800N	2	3	5	0.2	420	0.5	150	3	7	198	50	1420	3	2	0.25	18
4900E	4825N	10	44	20	0.05	1570	0.5	260	3	493	409	50	1290	35	18	9.1	145
4900E	4900N	6	11	5	0.05	1840	0.5	430	5	160	301	50	1580	13	7.2	4	45
4900E	4925N	18	45	5	0.2	1930	0.5	320	4	99	15	50	450	45	22.5	11	28
4900E	4950N	13	18	5	0.05	1440	0.5	360	7	134	273	50	1470	13	7	3.5	55
4900E	4975N	28	19	5	0.05	1890	0.5	480	10	72	22	50	2520	48	28.2	11.3	17
4900E	5000N	3	21	5	0.05	730	0.5	350	20	13	65	50	1580	4	2.9	0.7	20
4900E	5025N	21	10	5	0.05	3460	0.5	540	17	44	93	50	1800	9	4.6	2.4	9
4900E	5050N	5	44	20	0.05	1530	0.5	300	8	256	392	50	1090	24	12.5	6.5	121
4900E	5075N	41	8	10	0.1	2380	0.5	500	68	2.5	21	50	1720	5	2.8	1	11
4900E	5100N	8	29	5	0.05	3100	0.5	310	8	270	128	50	600	25	13.2	6.9	38
4900E	5125N	10	3	10	0.7	1390	0.5	290	5	2.5	79	50	930	2	1.1	0.25	4
4900E	5150N	12	40	10	0.05	1580	0.5	340	8	123	36	50	280	20	9.9	5	32
4900E	5175N	13	53	5	0.05	2450	0.5	290	5	329	27	50	360	39	20	9.4	38
4900E	5200N	10	25	5	0.2	2330	0.5	350	4	409	345	50	3550	49	27.4	14.3	90
4900E	5225N	6	40	5	0.1	1230	0.5	320	7	359	72	50	540	59	30.5	15.6	48
4900E	5250N	14	40	5	0.05	920	0.5	330	8	63	12	50	290	16	8.2	3.9	29
4900E	5275N	13	24	5	0.05	1790	0.5	380	9	159	15	50	560	58	30.1	14.5	20
4900E	5300N	16	25	5	0.1	3650	0.5	490	7	291	43	50	1340	119	67.7	25.8	19
Line 5000E																	
5000E	4200N	20	7	5	0.2	1680	0.5	730	8	10	43	50	1350	10	5.5	2.2	10
5000E	4250N	6	4	5	1.3	2190	0.5	770	4	2.5	83	50	1490	1	0.8	0.25	7
5000E	4725N	13	84	5	0.05	3210	0.5	460	11	120	61	50	270	13	6.9	3.2	73
5000E	4750N	17	119	5		1290	0.5	350	33	239	41	50	600	47	24.9		79
5000E	4800N	9	29	5	0.05	2200	0.5	660	7	163	187	50	1450	22	11.5	7	34
5000E	4850N	6	24	5	0.05	1760	0.5	620		81	7	50	530	16	7.5	4.5	23
5000E	5000N	16	47	20		1900	0.5	420	4	169	199	50	730	14	6.7	3.7	114
5000E	5025N	18	66	5	0.05	2490	0.5	390	5	104	39	50	390	17	8.9	4.1	68
5000E	5050N	18		5		1810	0.5	320		69	31	50	140	13	6.7		71
5000E	5075N	24	20	10		1920	0.5	880		8	15	50	1070				
5000E	5125N	14	7	5		1630	0.5	650		2.5	15	50	740	3	1.6		
5000E	5150N	8	73	5		1680	0.5	400	24	202	43	50	340	31	16.2	7.3	
5000E	5175N	20	41	5		2500	0.5	430	6	169	28	50	310	26	12.5	6.3	
5000E	5200N	24	21	5	0.05	2430	0.5	460	10	209	173	50	1670	39	20.8	11.5	32

Line	Station	Ag	AI	As	Au	Ва	Bi	Са	Cd	Ce	Со	Cr	Cu	Dy	Er	Eu	Fe
DETECTION		1	1	10	0.1	10	1	10	1	5	5	100	10	1	0.5	0.5	1
5000E	5225N	17	43	5	0.05	1880	0.5	380	4	184	189	50	780	30	15.2	7.9	58
5000E	5250N	6	25	10	0.1	2630	0.5	360	4	305	342	50	1950	23	13	6.9	109
5000E	5275N	10	13	5	0.2	2390	0.5	730	7	76	22	50	1580	54	26.8	14.4	16
5000E	5300N	14	41	5	0.05	1770	0.5	410	6	228	215	50	1190	27	14.6	7.3	52

Line	Station	Gd	La	Li	Mg	Мо	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm	Sn
		1	1	5	1	5	0.5	1	5	10	1	1	1	5	1	5	1	1
Line 4700E																		
4700E	5050N	45	33	2.5	73	5	0.7	90	155	40	0.5	17	0.5	25	0.5	19	28	0.5
4700E	5075N	39	56	2.5	108	17	1.5	123	289	5	0.5	27	0.5	23	0.5	34	30	0.5
4700E	5100N	131	79	6	77	2.5	0.3	226	296	30	0.5	41	0.5	59	0.5	16	77	0.5
4700E	5150N	7	3	2.5	39	6	0.3	10	319	5	0.5	2	0.5	37	0.5	6	4	0.5
4700E	5175N	35	81	2.5	108	2.5	2.1	131	151	20	0.5	32	0.5	48	0.5	23	29	0.5
4700E	5225N	76	126	15	71	8	3.2	236	356	90	2	56	0.5	88	0.5	113	56	0.5
4700E	5250N	38	66	5	81	8	1.5	119	213	30	0.5	28	0.5	61	0.5	35	28	0.5
4700E	5275N	23	73	2.5	60	6	2.7	89	102	10	1	23	0.5	40	0.5	67	18	0.5
Line 4800E																		
4800E	4300N	2	0.5	2.5	116	7	0.3	2	180	5	0.5	0.5	0.5	23	0.5	7	0.5	0.5
4800E	4325N	3	2	2.5	138	7	0.3	4	151	20	0.5	0.5	0.5	31	0.5	8	2	0.5
4800E	4350N	22	40	2.5	72	2.5	0.8	76	125	5	0.5	15	0.5	61	0.5	15	19	0.5
4800E	4375N	8	2	13	65	15	0.3	9	177	5	0.5	1	0.5	14	0.5	7	4	0.5
4800E	4400N	19	26	2.5	54	7	1.1	56	84	50	0.5	11	0.5	75	0.5	20	15	0.5
4800E	4425N	20	39	2.5	67	6	1.5	71	50	30	0.5	15	0.5	35	0.5	25	17	0.5
4800E	4450N	20	33	2.5	44	6	1.6	68	85	50	0.5	14	0.5	54	0.5			0.5
4800E	4475N	10	17	2.5	71	2.5	1	34	71	20	0.5	7	0.5	64	0.5	16		0.5
4800E	4500N	27	35	2.5	57	2.5	0.9	79	170	10	0.5	15	0.5	63	0.5	13	22	0.5
4800E	4525N	0.5	0.5	2.5	23	7	0.3	0.5	197	5	0.5	0.5	0.5	52	0.5		0.5	0.5
4800E	4550N	0.5	0.5	9	53	8	0.3	0.5	200	5	0.5	0.5	0.5	50	0.5		0.5	0.5
4800E	4575N	30	54	2.5	40	5	1	108	101	5	0.5	22	0.5	44	0.5	20	26	0.5
4800E	4600N	31	46	2.5	53	2.5	0.8	100	120	20	0.5	20	0.5	80	0.5	26	26	0.5
4800E	4625N	5	4	9	60	5	0.3	12	145	5	0.5	2	0.5	27	0.5	8	4	0.5
4800E	4650N	34	53	2.5	44	2.5	1.6	105	61	30	0.5	21	0.5	65	0.5	31	27	0.5
4800E	4675N	15	9	2.5	62	8	0.3	30	95	5	0.5	5	0.5	24	0.5	9	10	0.5
4800E	4700N	22	21	2.5	40	2.5	0.9	56	125	10	0.5	10	0.5	50	0.5	12	17	0.5
4800E	4725N	82	93	8	52	7	1.3	230	192	80	0.5	44	0.5	50	0.5	48	66	0.5
4800E	4750N	69	63	7	70	7	0.3	173	172	20	0.5	30	0.5	43	0.5	17	53	0.5
4800E	4775N	0.5	0.5	47	58	2.5	0.3	0.5	132	5	0.5	0.5	0.5	26			0.5	0.5
4800E	4800N	6	0.5	9	21	7	0.3	0.5	135	20	0.5	0.5	0.5	34	0.5	8	1	0.5
4800E	4825N	29	51	8	45	2.5	2	89	25	40	0.5	19	0.5	43	0.5	41	24	0.5
4800E	4850N	114	204	14	55	2.5	1.7	361	135	80	0.5	76	0.5	64	0.5	112	94	0.5
4800E	4900N	62	203	10	81	15	3.3	292	185	5	0.5	67	0.5	24	0.5	63	60	0.5
4800E	4925N	15	19	7	25	9	1.5	41	57	20	0.5	8	0.5	48	0.5	56	12	0.5
4800E	4950N	73	168	7	52	6	1.1	256	69	50	0.5	55	0.5	31	0.5	71	63	0.5
4800E	4975N	81	113	8	59	2.5	0.8	245	187	40	0.5	47	0.5	53	0.5	39	65	0.5
4800E	5000N	35	62	8	46	6	1.4	114	112	60	0.5	24	0.5	88	0.5	40	29	0.5
4800E	5025N	85	179	12	104	2.5	1.4	265	193	70	0.5	58	0.5	23	0.5	98	69	0.5
4800E	5050N	24	71	10	74	5	2.1	101	91	20	0.5	23	0.5	40	0.5	41	22	0.5
4800E	5075N	22	76	9	70	7	2.5	99	94	20	0.5	23	0.5	20	0.5		21	0.5
4800E	5125N	29	100	7	39	2.5	1.4	124	44	40	0.5	29	0.5	50	0.5			0.5
4800E	5150N	90	247	6	60	7	2.2	389	124	5	0.5	84	0.5	38			85	
4800E	5175N	27	37	2.5		2.5	1.6	81		20	0.5	16	0.5		0.5			

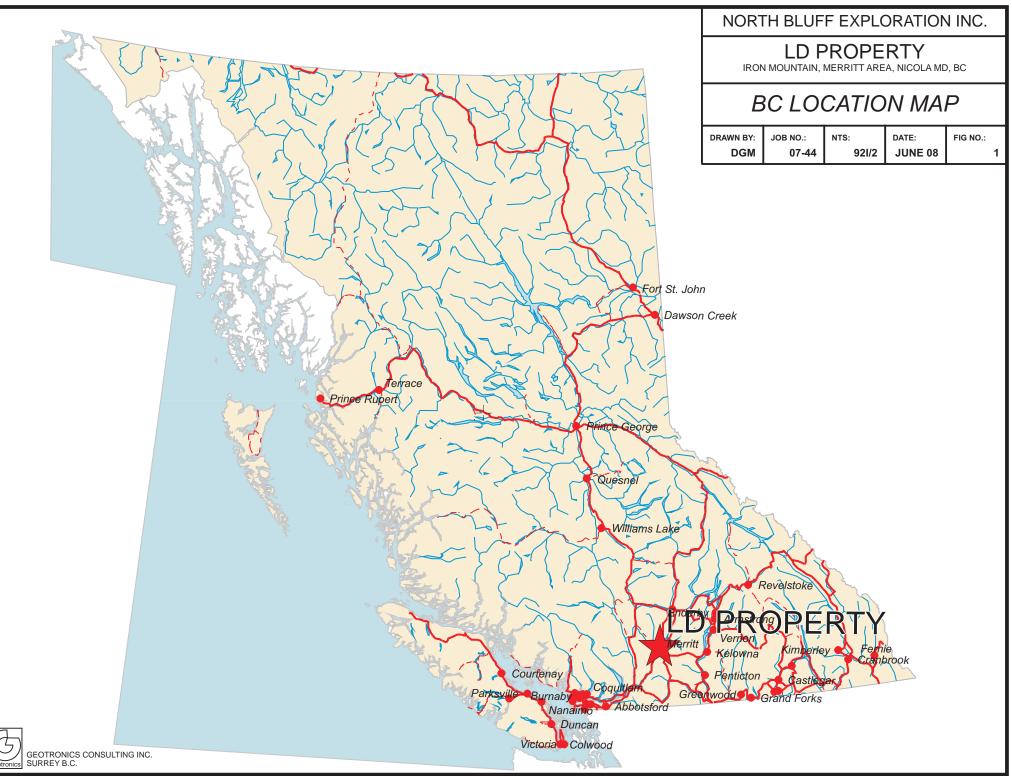
Line	Station	Gd	La	Li	Mg	Мо	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm	Sn
		1	1	5	1	5	0.5	1	5	10	1	1	1	5	1	5	1	1
4800E	5200N	55	86	5	53	2.5	0.9	175	87	10	0.5	34	0.5	41	0.5	25	45	0.5
4800E	5225N	126	149	7	126	2.5	0.9	335	214	30	0.5	61	0.5	63	0.5	24	97	0.5
4800E	5250N	41	26	15	66	2.5	0.8	80	199	10	0.5	13	0.5	8	0.5	8	29	0.5
4800E	5275N	38	79	6	96	2.5	1.6	127	89	30	0.5	28	0.5	42	0.5	27	32	0.5
4800E	5300N	15	25	2.5	61	2.5	2.2	45	39	5	0.5	9	0.5	11	0.5	12	12	0.5
Line 4900E																		
4900E	4650N	11	9	2.5	28	2.5	1.7	24	85	70	0.5	5	0.5	74	0.5	14	8	0.5
4900E	4725N	29	58	2.5	76	2.5	2.8	94	133	80	0.5	21	0.5	62	0.5	39	24	0.5
4900E	4750N	22	44	5	64	7	5.7	69	171	140	0.5	17	0.5	24	0.5	66	18	0.5
4900E	4775N	39	68	6	65	9	3.5	121	101	100	0.5	27	0.5	72	0.5	48	32	0.5
4900E	4800N	3	2	6	19	10	1.2	6	114	10	0.5	1	0.5	10	1	2.5	2	0.5
4900E	4825N	44	145	2.5	40	8	4.9	193	115	40	0.5	47	0.5	55	0.5	73	41	0.5
4900E	4900N	18	47	2.5	54	15	3.2	75	194	20	0.5	17	0.5	45	0.5		17	0.5
4900E	4925N	54	58	2.5	56	2.5	1.5	136	46	40	0.5	26	0.5	48	0.5	24	40	0.5
4900E	4950N	17	38	2.5	46	16	2.4	68	196	20	0.5	15	0.5	34	0.5		16	
4900E	4975N	50	37	2.5	74	2.5	1.2	100	80	40	0.5	18	0.5	44	0.5		33	
4900E	5000N	4	5	2.5	35	2.5	1.4	10	57	40	0.5	2	0.5	95	0.5			
4900E	5025N	11	18	2.5	73	8	1.4	37	162	5	0.5	8	0.5	29	0.5		10	
4900E	5050N	30	71	2.5	62	11	3.4	114	125	80	0.5	27	0.5	26	0.5		26	
4900E	5075N	5	4	7	65	10	0.3	11	103	70	0.5	2	0.5	29	0.5		4	0.5
4900E	5100N	33	84	2.5	47	2.5	1.5	124	110	30	0.5	29	0.5	39	0.5	26	29	0.5
4900E	5125N	2	1	6	22	2.5	0.3	3	85	5	0.5	0.5	0.5	17	0.5	2.5	1	0.5
4900E	5150N	24	44	2.5	40	6	2.2	80	92	50	0.5	17	0.5	69	0.5	25	20	0.5
4900E	5175N	45	91	2.5	29	2.5	1.7	155	133	50	0.5	35	0.5	67	0.5			
4900E	5200N	68	172	2.5	58	10	2.2	284	321	20	0.5	63	0.5	32	0.5	40	61	0.5
4900E	5225N	77	125	6	84	2.5	1.5	243	215	70	0.5	51	0.5	36	0.5	39	65	0.5
4900E	5250N	20	27	2.5	47	2.5	1.2	57	73	40	0.5	12	0.5	53	0.5	15	16	0.5
4900E	5275N	75	101	2.5	63	7	0.9	224	167	30	0.5	44	0.5	36	0.5	19	62	0.5
4900E	5300N	141	158	9	88	2.5	0.7	346	465	60	0.5	67	0.5	45	0.5	18	103	0.5
Line 5000E																		
5000E	4200N	12	3	2.5	57	7	0.3	15	314	5	0.5	2	0.5	37	0.5	6	6	0.5
5000E	4250N	0.5	0.5	11	64	2.5	0.3	0.5	214	5	0.5	0.5	0.5	2.5	0.5	6	0.5	0.5
5000E	4725N	14	29	2.5	84	11	2.5	42	150	90	0.5	10	0.5	93	0.5	52	10	0.5
5000E	4750N	52	48	6	53	6	2	124	233	190	1	26	0.5	107	0.5	73	35	0.5
5000E	4800N	32	61	2.5	56	14	1.4	118	256	5	0.5	27	0.5	20	0.5	16	26	0.5
5000E	4850N	23	32	2.5	67	2.5	0.6	65	102	5	0.5	15	0.5	95	0.5	10	16	0.5
5000E	5000N	17	49	2.5	60	7	3.4	63	88	40	1	16	0.5	27	0.5	42	13	0.5
5000E	5025N	19	34	2.5	82	2.5	2.5	57	90	90	1	14	0.5	52	0.5	43	14	0.5
5000E	5050N	13	22	2.5	46	2.5	2.9	37	69	90	1	9	0.5	80	0.5	37	10	0.5
5000E	5075N	4	4	2.5	30	11	1	8		30	0.5	2	0.5	78	0.5			
5000E	5125N	3	0.5	8	70	10	0.3	4		60	0.5	0.5	0.5	18	0.5			
5000E	5150N	36	47	5		2.5	1.8	96		100	1	22	0.5	57	0.5			
5000E	5175N	31	53	2.5	62	2.5	1.6	91	136	60	1	21	0.5	57	0.5			
5000E	5200N	54	87	2.5		10	1.4	171	177	5	0.5	38	0.5	42	0.5		41	

Line	Station	Gd	La	Li	Mg	Мо	Nb	Nd	Ni	Pb	Pd	Pr	Pt	Rb	Sb	Sc	Sm	Sn
		1	1	5	1	5	0.5	1	5	10	1	1	1	5	1	5	1	1
5000E	5225N	38	69	2.5	48	2.5	2.2	129	122	20	1	30	0.5	63	0.5	32	30	0.5
5000E	5250N	32	80	2.5	54	18	4.3	131	153	10	2	33	0.5	45	0.5	57	26	0.5
5000E	5275N	78	63	9	106	6	0.6	175	436	10	0.5	33	0.5	23	0.5	11	51	0.5
5000E	5300N	36	70	2.5	41	6	1.8	130	132	10	1	31	0.5	51	0.5	32	29	0.5

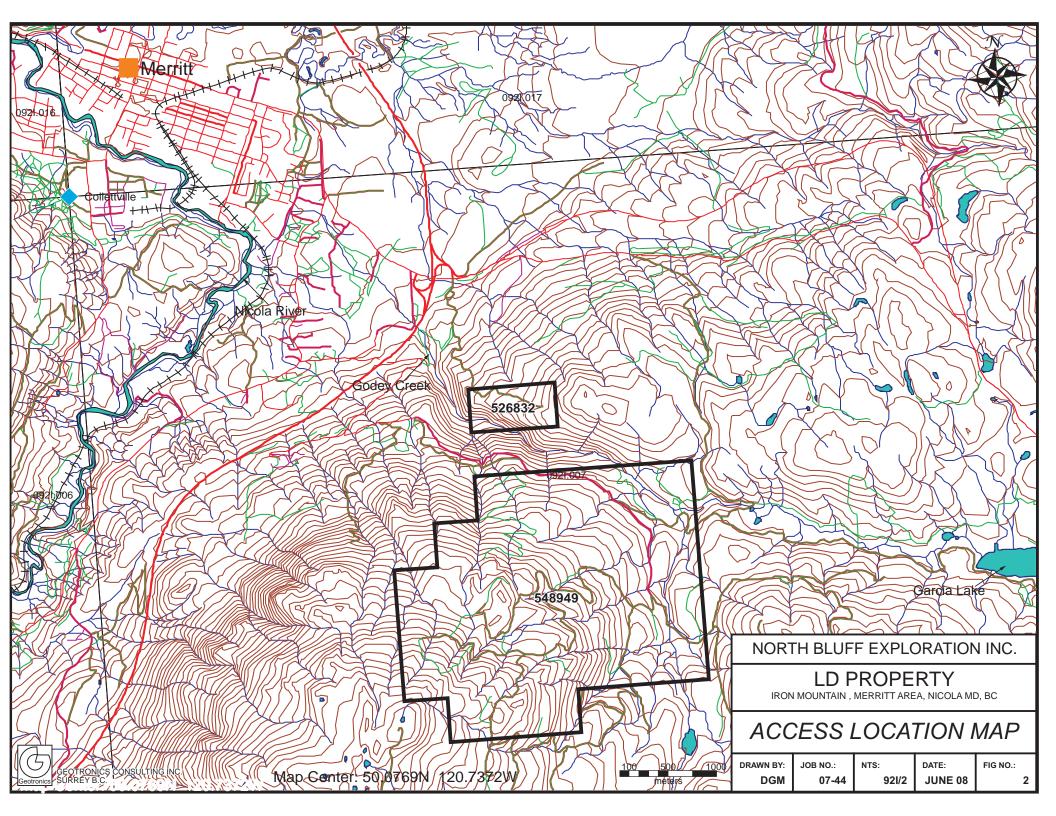
Line	Station	Sr	Та	Tb	Те	Th	Ti	Tİ	U	W	Y	Yb	Zn	Zr
		10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
Line 4700E														
4700E	5050N	2340	0.5	6	5	4.7	60	0.25	8	0.5	182	11	610	34
4700E	5075N	2600	0.5	5	5	15	41	0.25	12	0.5	160	13	60	60
4700E	5100N	3810	0.5	18	5	15	19	0.25	2	0.5	544	33	60	30
4700E	5150N	2890	0.5	0.5	5	1.9	20	0.25	1	0.5	38	3	40	11
4700E	5175N	5210	0.5	5	5	17	74	0.25	3	0.5	129	10	60	70
4700E	5225N	2270	0.5	11	5	29	274	0.25	11	0.5	332	29	160	163
4700E	5250N	3270	0.5	5	5	12	87	0.25	6	0.5	153	11	270	43
4700E	5275N	2290	0.5	3	5	16	227	0.25	10	0.5	91	7	230	101
Line 4800E											-			
4800E	4300N	2300	0.5	0.5	5	0.3	10	0.25	4	0.5	28	2	60	7
4800E	4325N	3520	0.5	0.5	5	0.8	11	0.25	12	0.5	27	2	30	7
4800E	4350N	2620	0.5	3	5	11	33	0.25		0.5	99	6	20	52
4800E	4375N	2610	0.5	1	5	0.3	8	0.25	3	0.5	48	3	10	9
4800E	4400N	2010	0.5	3	5	4.7	68	0.25	5	0.5	88	6	80	48
4800E	4425N	2090	0.5	3	5	7.3	106	0.25	7	0.5	81	6	90	70
4800E	4450N	1690	0.5	3	5	6.2	168	0.25	4	0.5	85	6	420	66
4800E	4475N	2320	0.5	1	5	3.3	70	0.25	4	0.5	43	3	210	32
4800E	4500N	2010	0.5	4	5	4	117	0.25	5	0.5	116	7	300	27
4800E	4525N	1190	0.5	0.5	5	0.3	8	0.25	2	0.5	11	1	40	2.5
4800E	4550N	1260	0.5	0.5	5	0.3	5	0.25	4	0.5		0.5	170	2.5
4800E	4575N	1410	0.5	4	5	7.6	53	0.25	. 7	0.5	123	8	60	59
4800E	4600N	1870	0.5	5	5	5.3	43	0.25	6	0.5	136	9	440	46
4800E	4625N	2410	0.5	0.5	5	1.1	15	0.25	3	0.5	30	2	220	8
4800E	4650N	1620	0.5	5	5	8.6	82	0.25	5	0.5	153	11	190	89
4800E	4675N	2020	0.5	2	5	1.7	19	0.25	5	0.5	75	4	30	14
4800E	4700N	2030	0.5	3	5	2.2	36	0.25	8	0.5	96	6	480	25
4800E	4725N	1520	0.5	12	5	8.1	127	0.25	7	0.5	375	23	430	82
4800E	4750N	2050	0.5	10		7	20	0.25	6	0.5	284	16	90	32
4800E	4775N	1400	0.5	0.5	5		7	0.25		0.5		0.5	10	6
4800E	4800N	1120	0.5	1	5		1.5	0.25		0.5		4	160	5
4800E	4825N	1150	0.5	4	5	6.5	128	0.25	6	0.5	115	7	260	73
4800E	4850N	2690	0.5	17	5	16	100	0.25	23	0.5	508	37	250	180
4800E	4900N	1690	0.5	9	5	19	117	0.25	19	1	275	19	40	148
4800E	4925N	1010	0.5	3	5	5.8	290	0.25	10	0.5	103	9	370	90
4800E	4950N	2640	0.5	11	5	9.6	46	0.25	18	0.5	330	21	240	102
4800E	4975N	1940	0.5	11	5	10	36	0.25	11	0.5	368	23	1700	56
4800E	5000N	1400	0.5	5	5		91	0.25	6		157	10	840	57
4800E	5025N	2680	0.5	14	5		119	0.25	16	0.5	400	25	290	130
4800E	5050N	1720	0.5	4	5		117	0.25			112	8	290	81
4800E	5075N	1910	0.5	3	5	14	85	0.25		0.5			150	129
4800E	5125N	2260	0.5	4	5		73	0.25			128	8	90	95
4800E	5150N	1840	0.5	12	5			0.25	13	1	392	24	60	88
4800E	5175N	1810	0.5	4	5		110	0.25			118			67

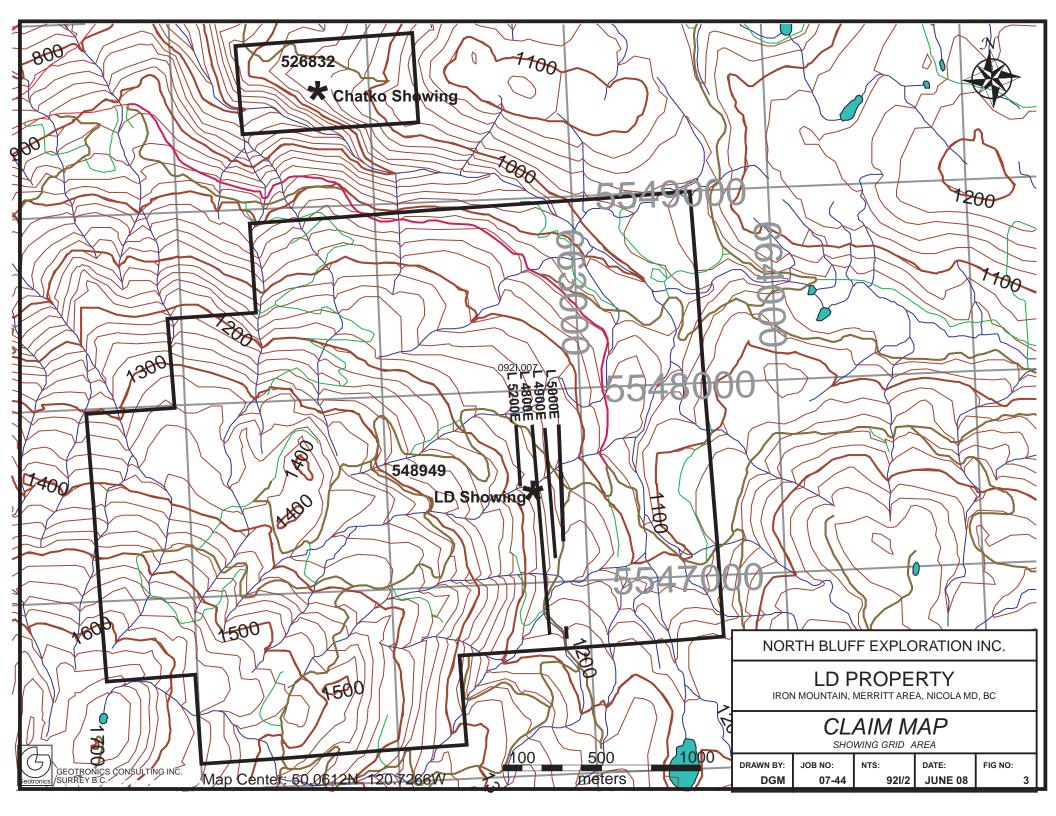
Line	Station	Sr	Та	Tb	Те	Th	Ti	Tİ	U	W	Y	Yb	Zn	Zr
		10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
4800E	5200N	1800	0.5	8	5	11	67	0.25	5	0.5	228	15	220	51
4800E	5225N	4990	0.5	18	5	19	19	0.6	27	1	529	33	30	81
4800E	5250N	4630	0.5	6	5	12	6	0.6	4	1	157	11	30	20
4800E	5275N	3660	0.5	6	5	13	49	0.9	10	2	153	10	370	63
4800E	5300N	2330	2	2	10	6.1	29	1.5	9	5	62	3	70	23
Line 4900E						-			-		-			
4900E	4650N	1020	0.5	2	5	3.7	179	0.25	7	0.5	72	6	1900	52
4900E	4725N	1880	0.5	4	5	13	315	0.25	9	0.5	124	10	510	104
4900E	4750N	1670	0.5	4	5	22	787	0.25	8	0.5	111	11	1600	186
4900E	4775N	1650	0.5	6	5	15	620	0.25	7	0.5	180	16	1420	111
4900E	4800N	650	0.5	0.5	5	1.8	16	0.25	6	0.5	16	2	100	8
4900E	4825N	1410	0.5	7	5	27	447	0.25	11	1	183	14	150	226
4900E	4900N	2410	0.5	, 3	5	14	85	0.25	9	0.5	78	6	100	59
4900E	4925N	1970	0.5	8	5	5.8	86	0.25	10	0.5	235	16	210	87
4900E	4950N	1810	0.5	2	5	9.7	74	0.25	6	0.5	75	6	130	59
4900E	4975N	2440	0.5	8	5	5.7	17	0.25	9	0.5	272	23	350	56
4900E 4900E		1830	0.5	0.5	5	1.4	80	0.25	9 4	0.5	272	3	400	35
4900E 4900E	5000N			0.5	5				4	0.5	25 49	3		
	5025N	3320	0.5	2 5	5 5	5.6	20	0.25					420	26
4900E	5050N	1390	0.5		5	14	246	0.25	8	0.5	129	10	500	114
4900E	5075N	1440	0.5	0.5		1.4	17	0.25	2	0.5	34	2	2490	7
4900E	5100N	1800	0.5	5	5 5	14	80	0.25	8	0.5	135	11	170	82
4900E	5125N	2090	0.5	0.5	5	1	4	0.25	1	1	12	1	60	2.5
4900E	5150N	2080	0.5	4		10	251	0.25	7	0.5	102	8	430	116
4900E	5175N	1460	0.5	7	5	17	151	0.25	9	0.5	191	15	120	116
4900E	5200N	2300	0.5	9	5	22	66	0.25	4		312	23	50	99
4900E	5225N	2110	0.5	11	5	23	184	0.25	4	0.5	324	24	150	87
4900E	5250N	2840	0.5	3	5	5.9	100	0.25	6	0.5	84	6	240	51
4900E	5275N	3100	0.5	11	5		56	0.25	14	0.5	317	22	480	77
4900E	5300N	4590	0.5	21	5	16	17	0.25	23	0.5	691	53	180	70
Line 5000E														
5000E	4200N	2310	0.5	2	5	3.4	17	0.25		0.5		4	80	17
5000E	4250N	3540	0.5	0.5	5		5	0.25		0.5	6		60	2.5
5000E	4725N	2810	0.5	2	5	16	351	0.25		0.5		6		86
5000E	4750N	1400	0.5	8	5	13	376	0.25			231	19	2140	125
5000E	4800N	2200	0.5	4	5	13	35	0.25				10	60	44
5000E	4850N	2260	0.5	3	5	6.6	49	0.25	4	0.5	83	6	130	29
5000E	5000N	1850	0.5	2	5	16	314	0.25		0.5	67	6	450	144
5000E	5025N	1800	0.5	3	5	11	278	0.25		0.5	86		330	140
5000E	5050N	1280	0.5	2	5	11	486	0.25	6	0.5	63	6	440	143
5000E	5075N	2130	0.5	0.5	5		27	0.25	15	0.5	18	1	670	10
5000E	5125N	1650	0.5	0.5	5	0.6	17	0.6	6	0.5	20	1	4600	2.5
5000E	5150N	2010	0.5	5	5	13	215	0.25	5	0.5	139	13	3150	133
5000E	5175N	2630	0.5	5	5	11	172	0.25	8	0.5	117	10	460	109
5000E	5200N	3150	0.5	7	5	14	51	0.25	13	0.5	213	17	190	70

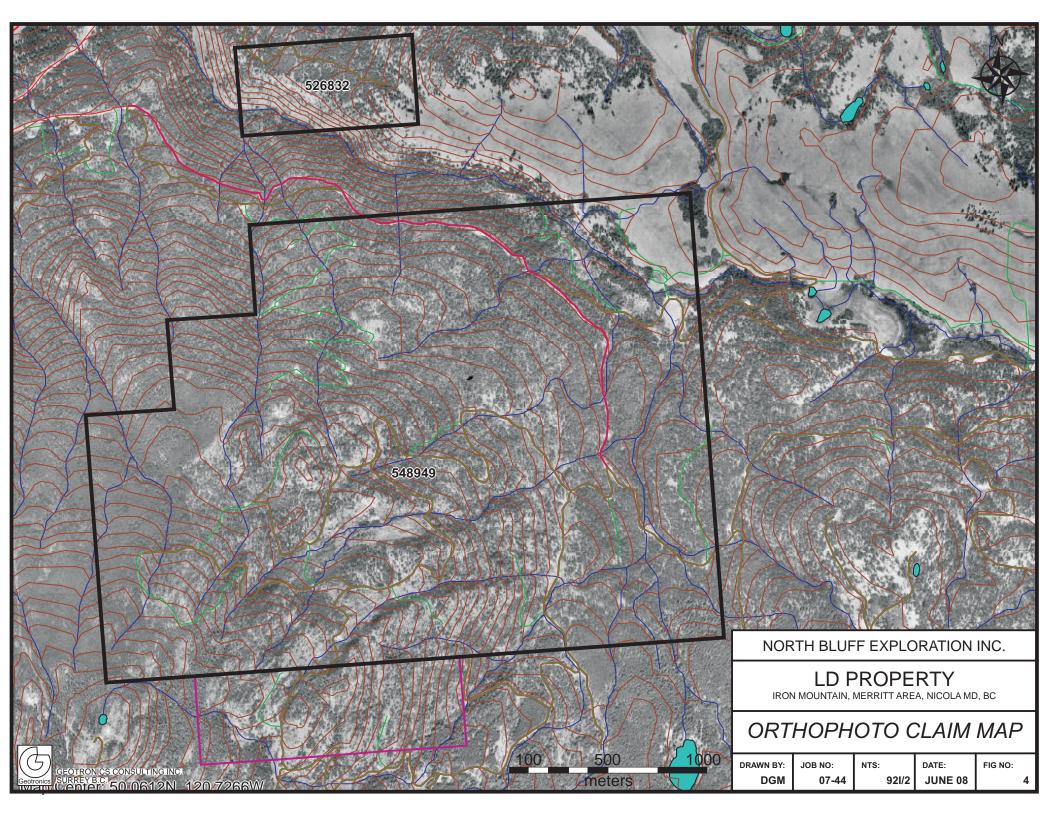
Line	Station	Sr	Та	Tb	Те	Th	Ti	Tİ	U	W	Y	Yb	Zn	Zr
		10	1	1	10	0.5	3	0.5	1	1	5	1	20	5
5000E	5225N	2240	0.5	5	5	10	148	0.25	13	0.5	149	13	240	131
5000E	5250N	2870	0.5	5	5	15	260	0.25	13	0.5	123	11	190	145
5000E	5275N	4010	0.5	10	5	12	22	0.25	5	0.5	293	19	230	24
5000E	5300N	3120	0.5	5	5	11	71	0.25	16	0.5	134	12	110	106

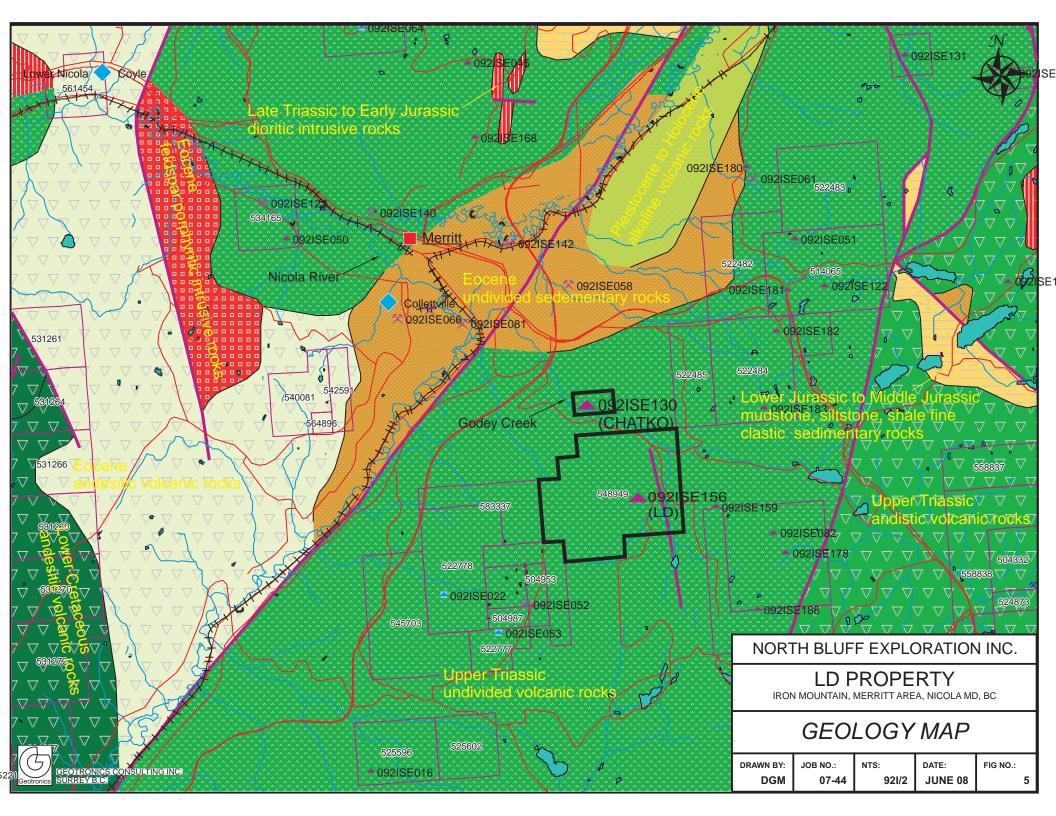


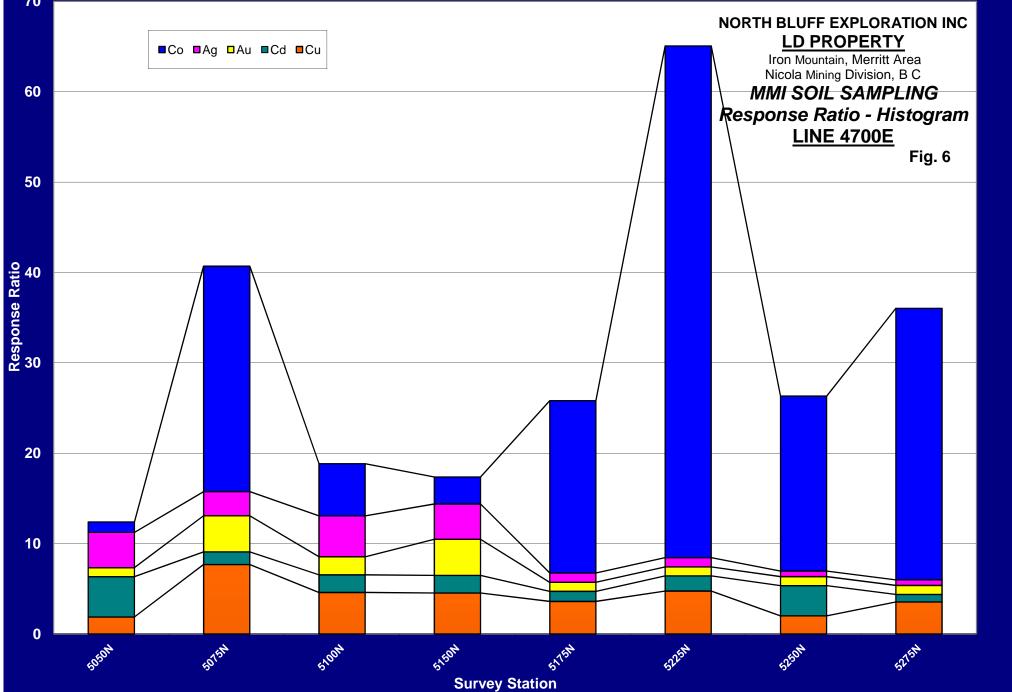
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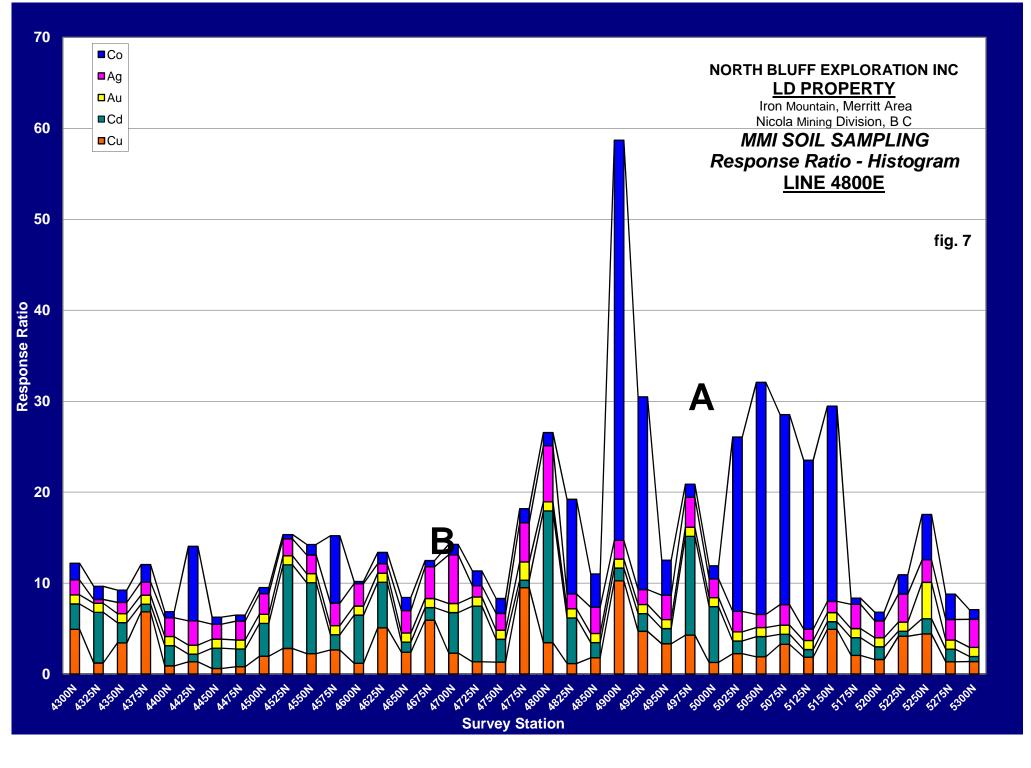


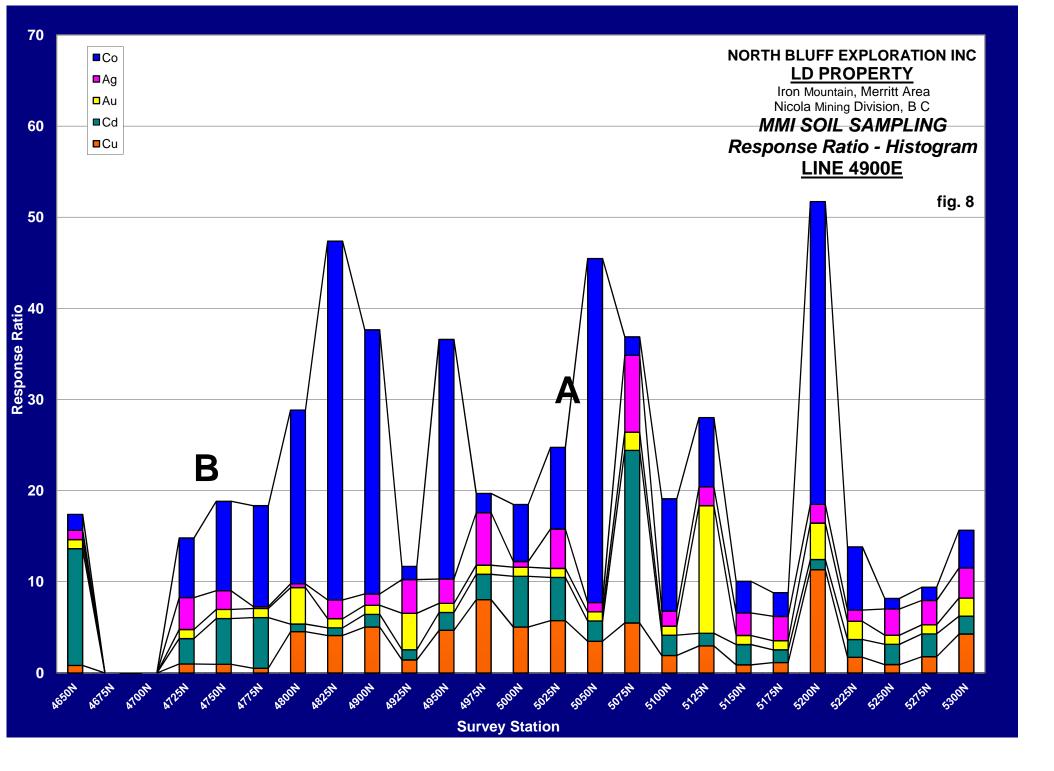


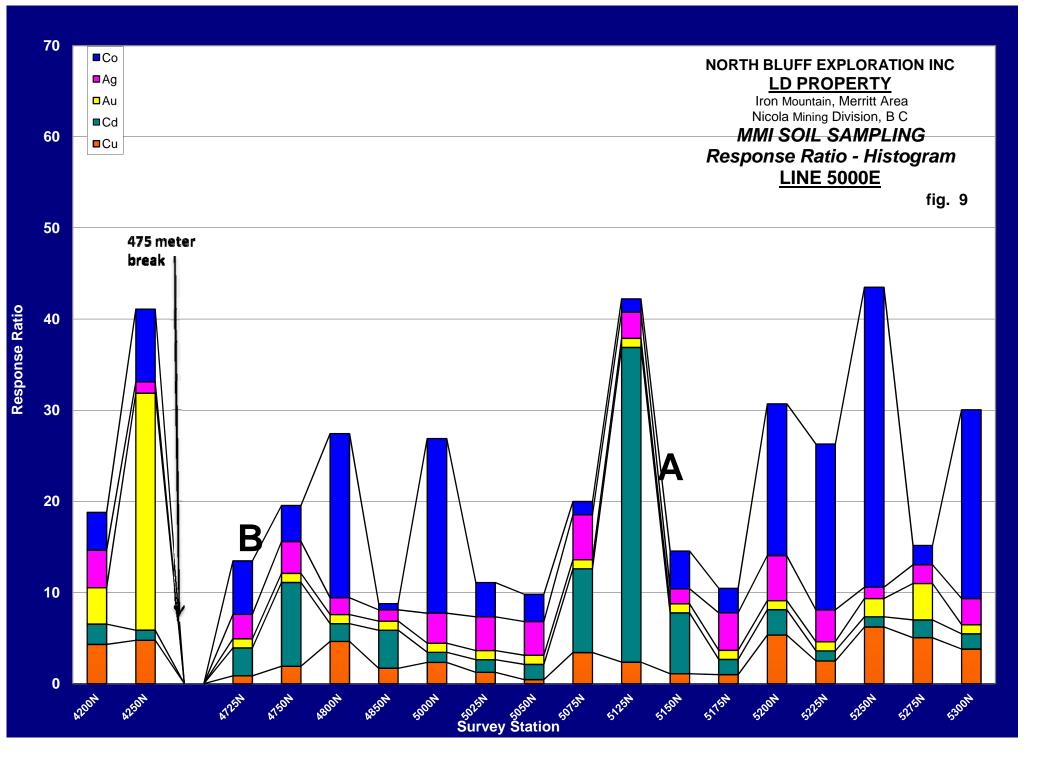


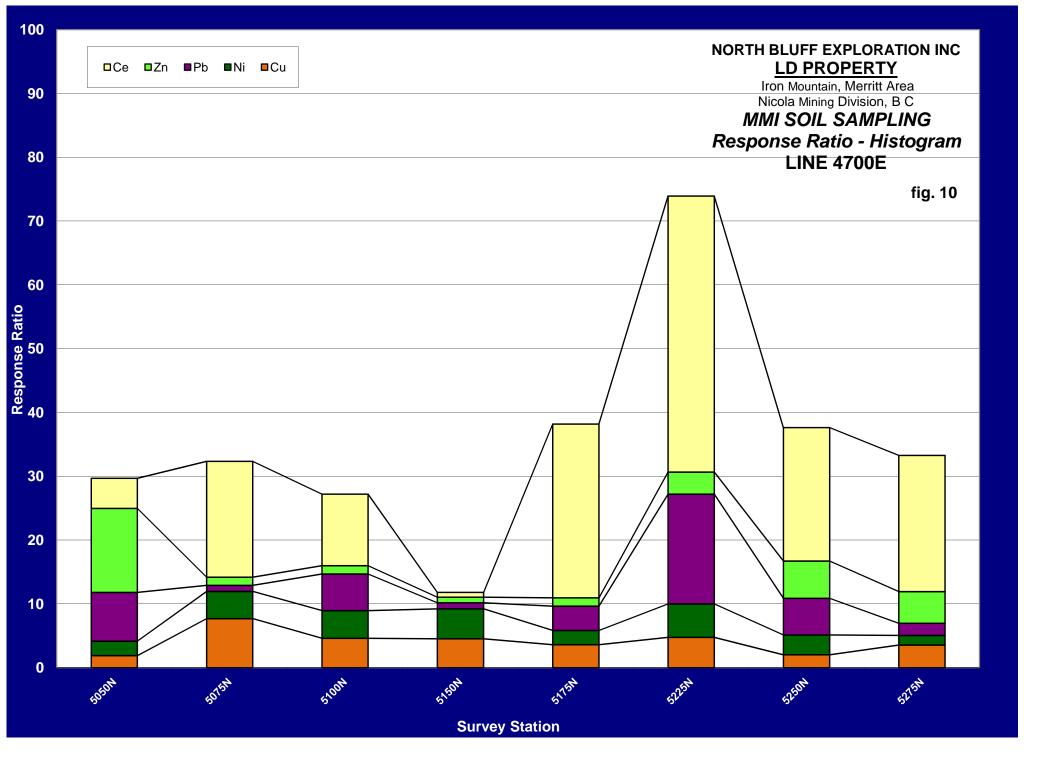


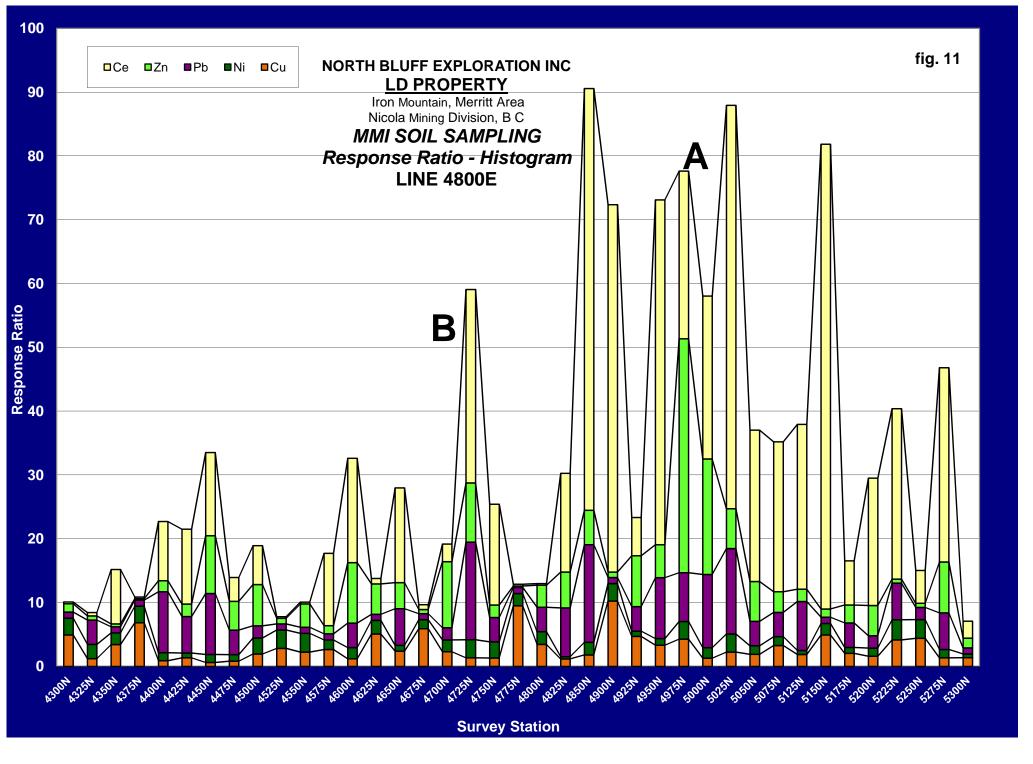
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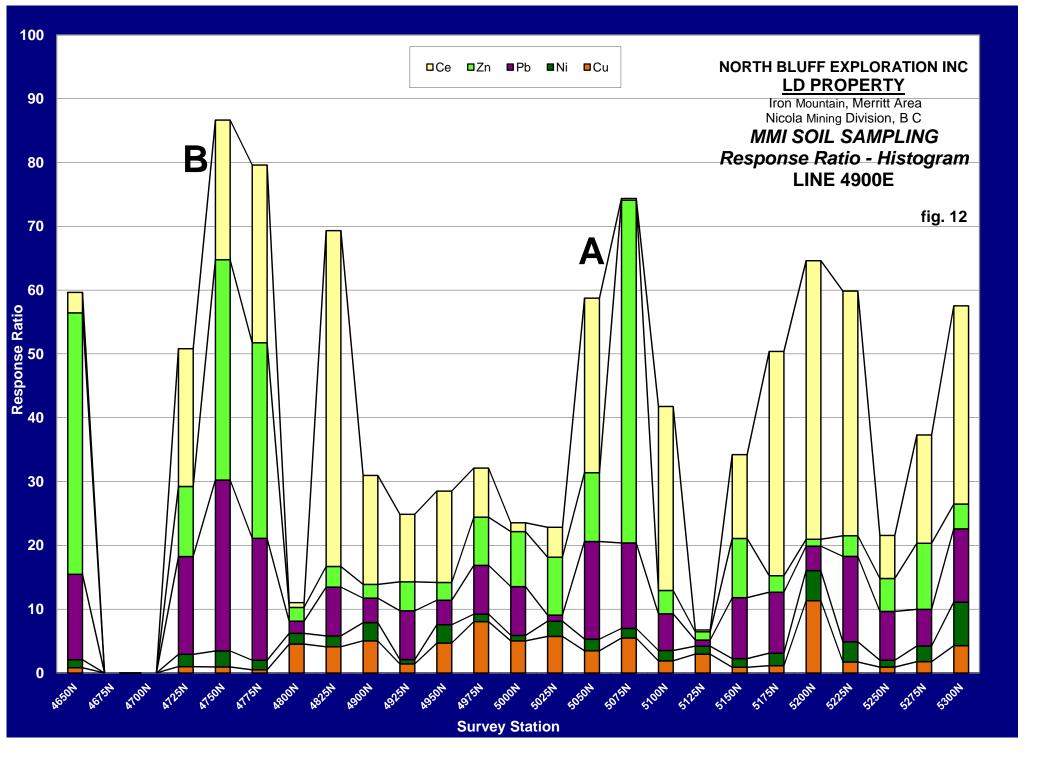


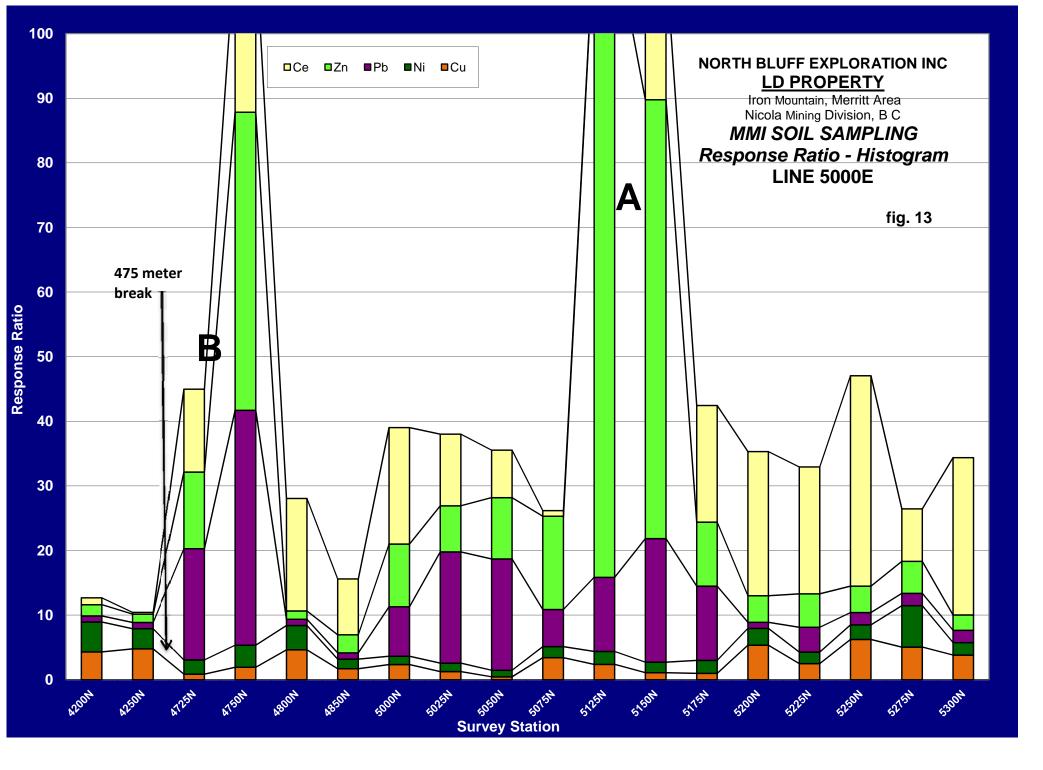


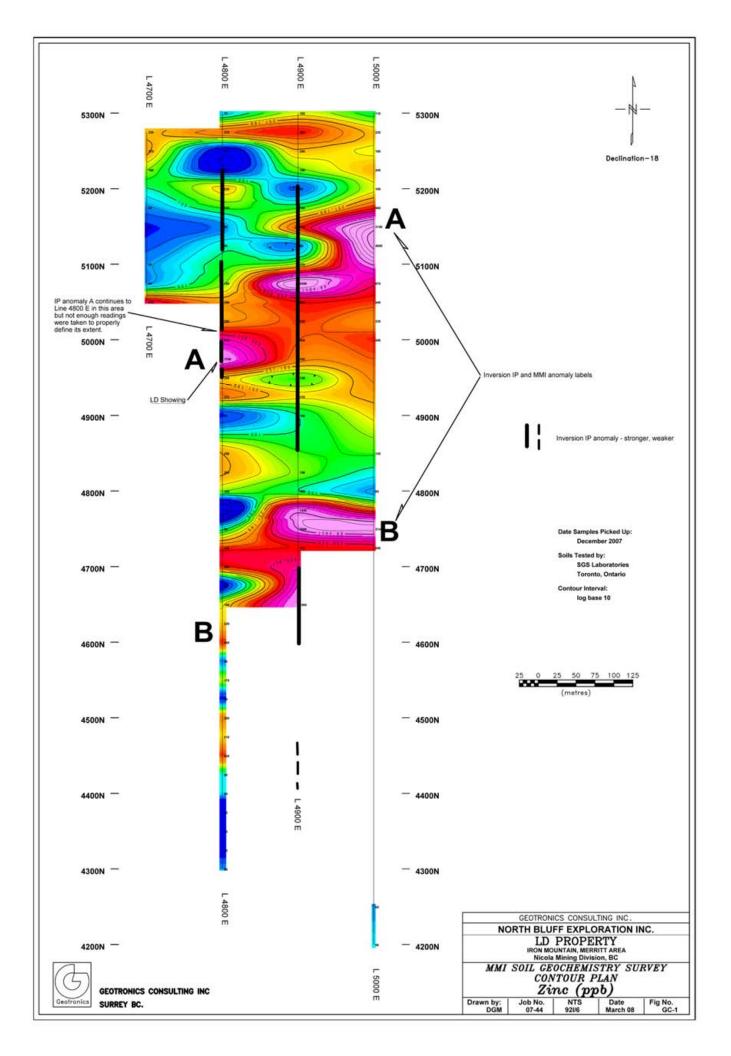


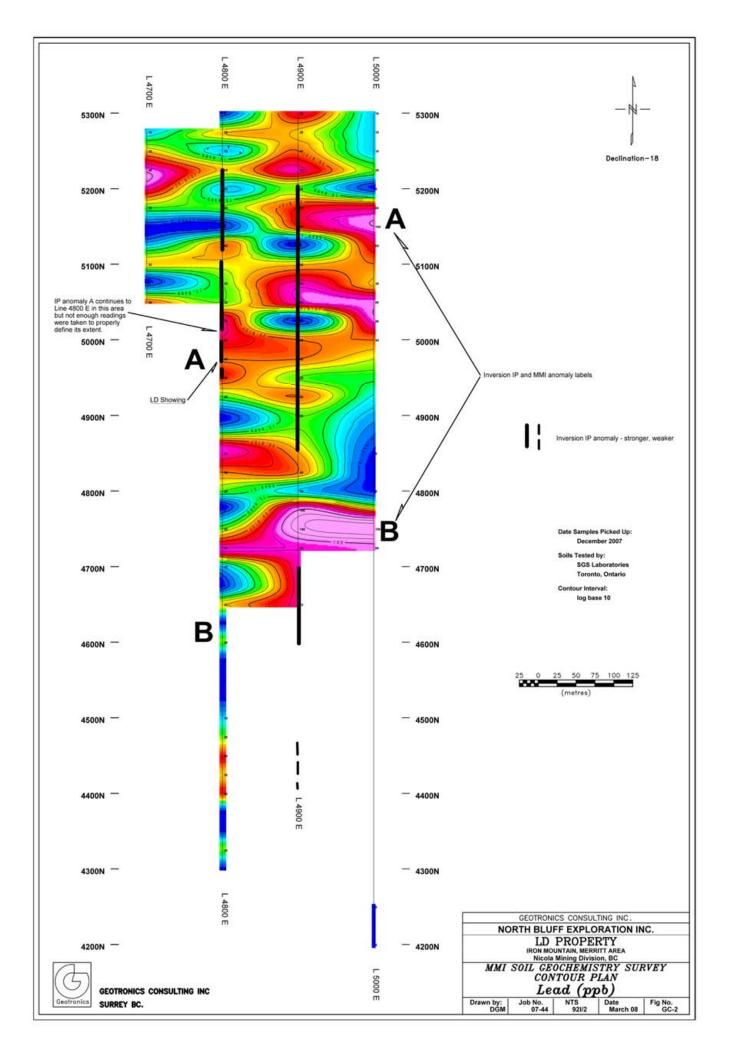


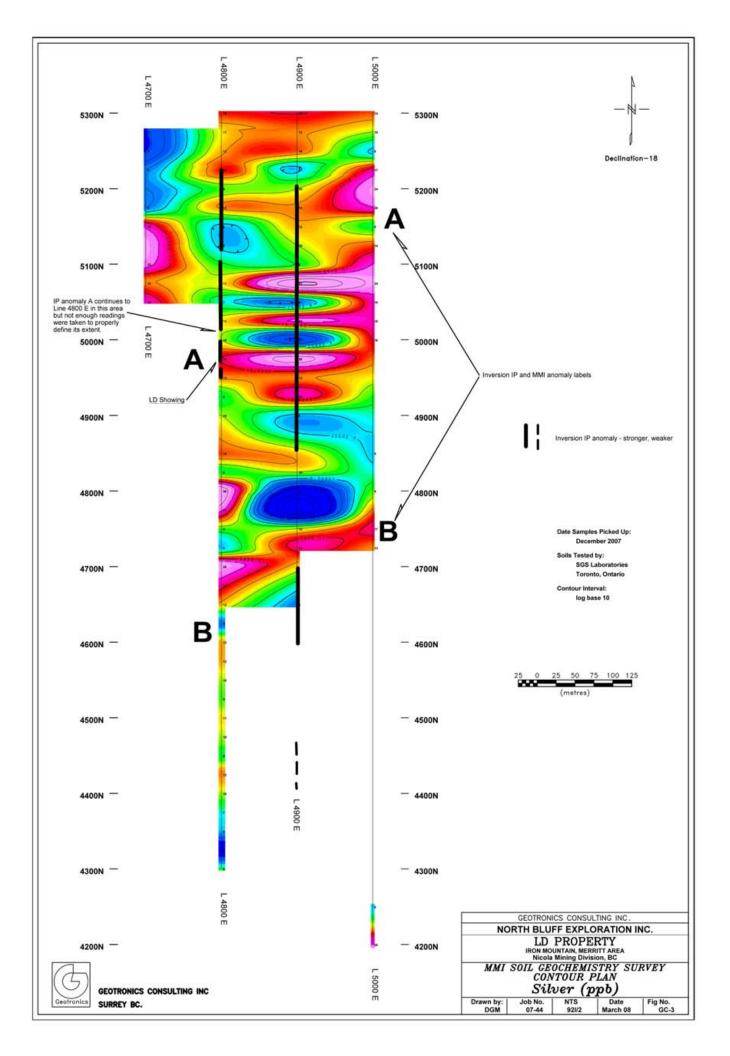


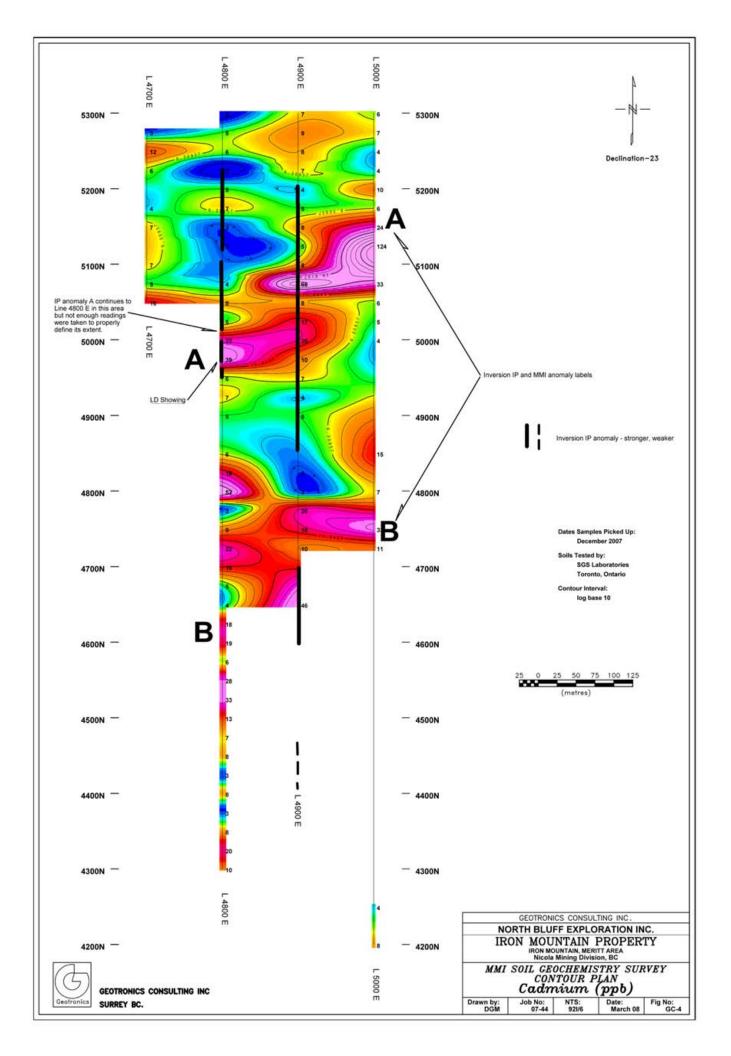


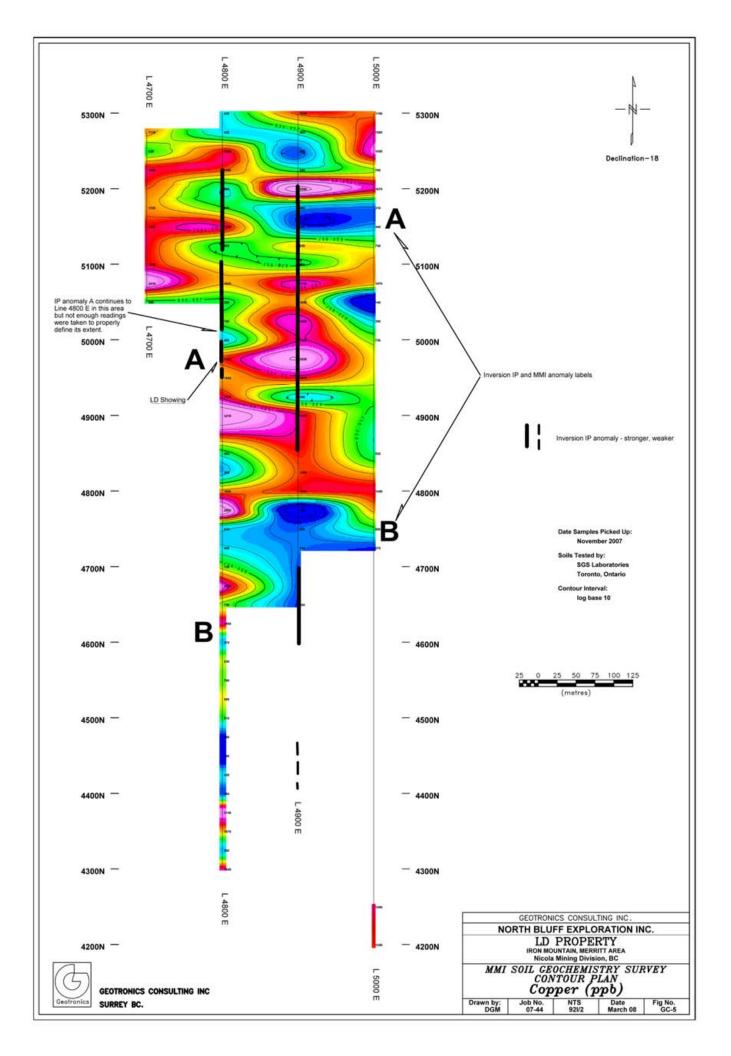


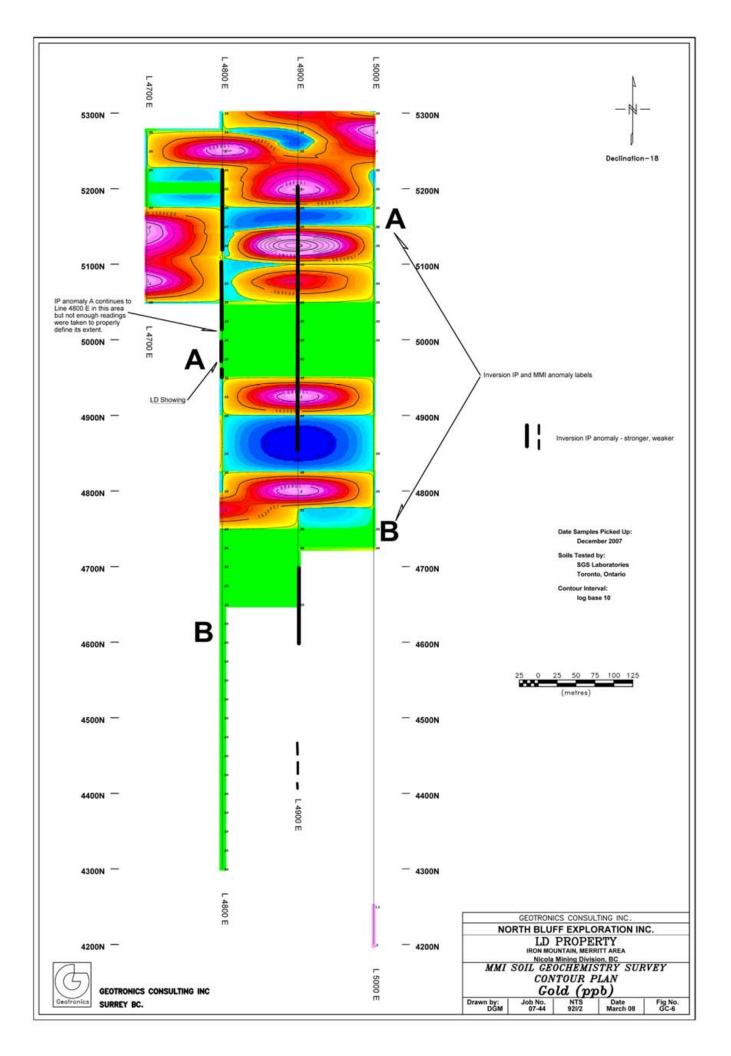


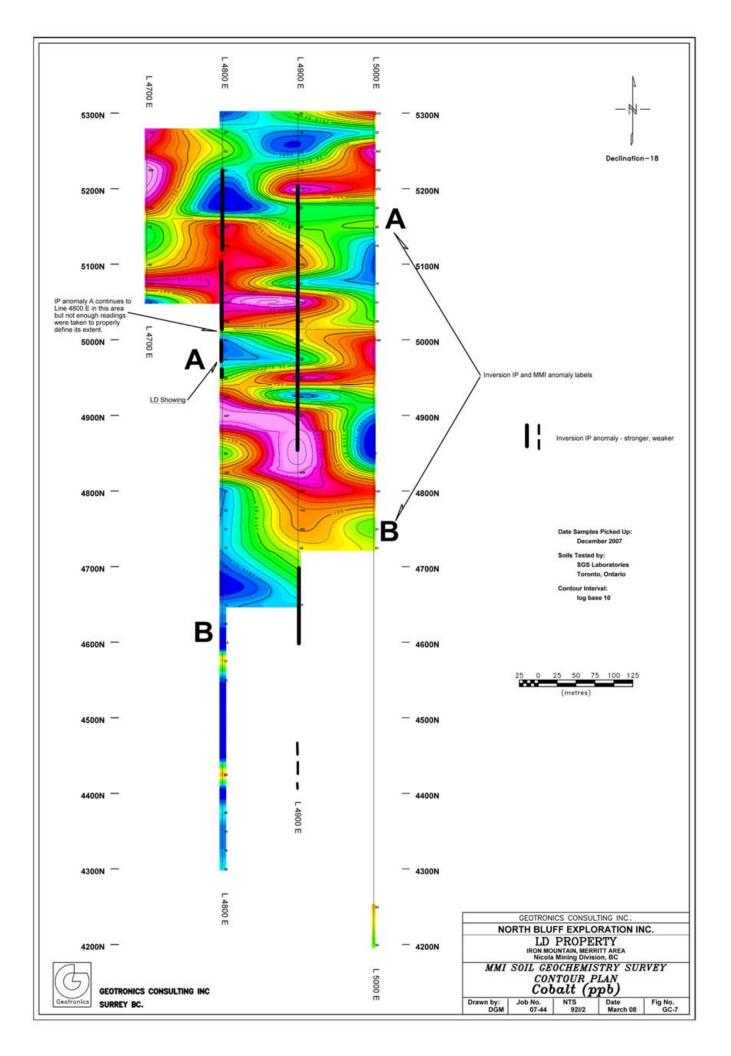


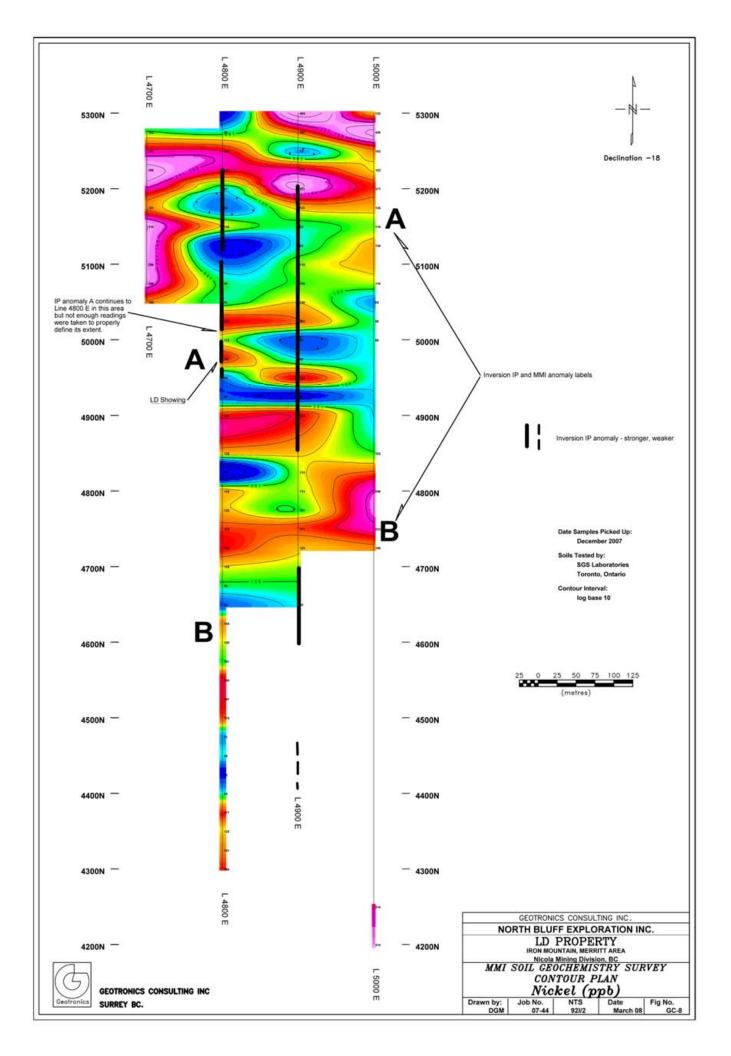


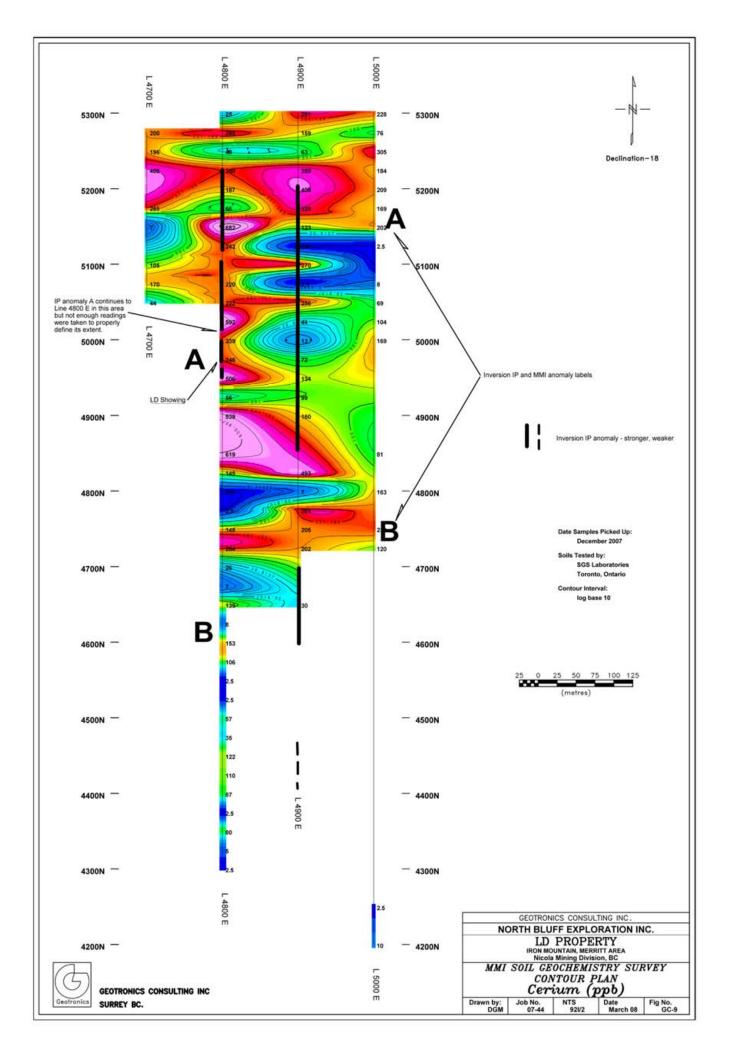


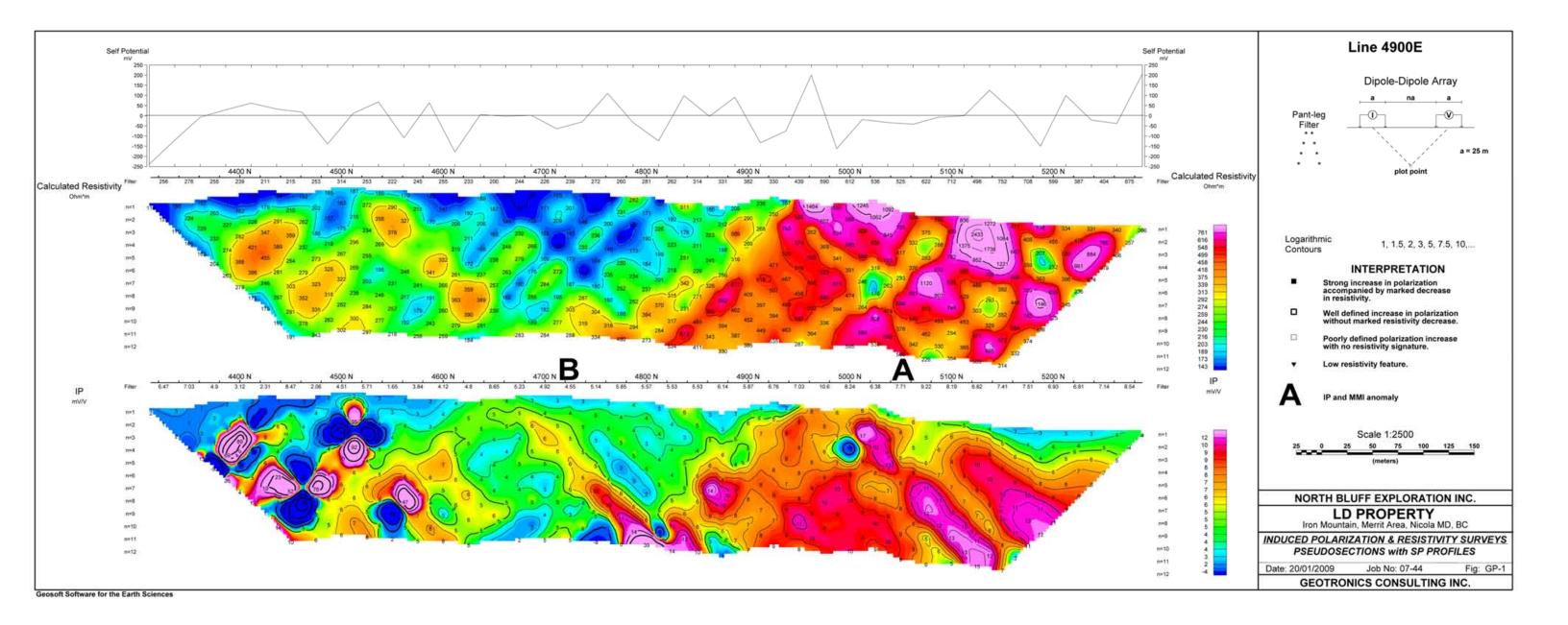


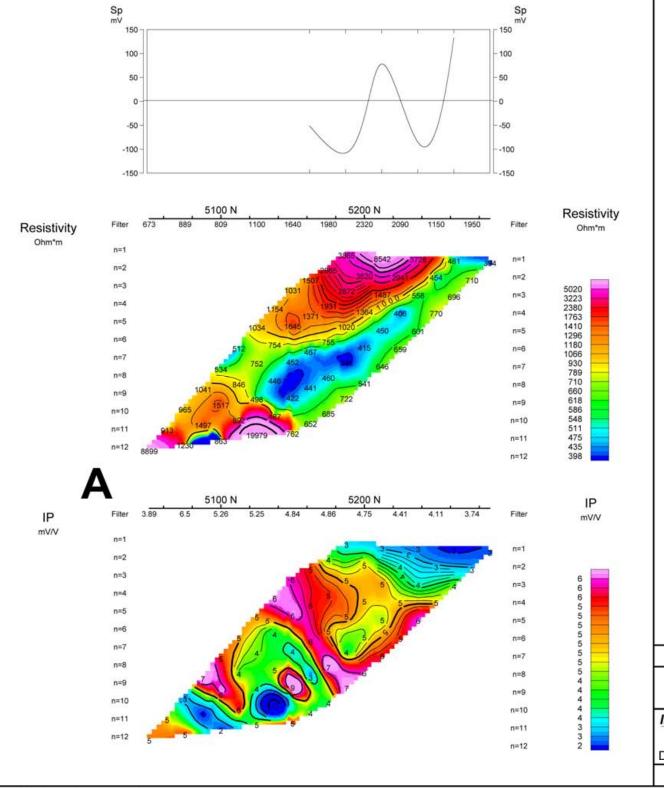


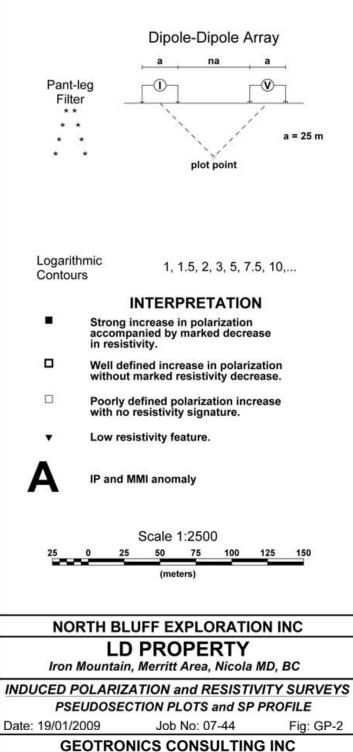












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