

**GEOCHEMICAL REPORT**  
**ON AN**  
**MMI SOIL GEOCHEMISTRY**  
**SURVEY LINE (2007)**  
**WITHIN THE**  
**IVY GROUP MINERAL CLAIMS**  
**HULL HILL, AFTON MINES AREA**  
**KAMLOOPS MINING DIVISION, BRITISH COLUMBIA**

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BC Geological  
Survey  
Assessment Report  
30090

LOCATED: 17 km due west of the city of Kamloops  
50° 40' North Latitude, and 120°36' West Longitude  
NTS: 92I/10E

WRITTEN FOR: **DELORE MANAGEMENT**  
1756 246<sup>th</sup> Street  
Langley, B.C.  
V2Z 1G4

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DATED: July 18, 2008

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## **SUMMARY**

MMI (mobile metal ion) soil sampling along with grid emplacement was carried out during the exploration season of 2007 along one survey line within the northern part of the property. This is in addition to the sampling carried out in 2005. The Ivy Claim Group is located on Hull Hill about 15 km 150°E of the Afton Mine within the Kamloops Mining Division of B.C.

The main purpose of the soil sampling was to locate mineralization similar to that of the nearby Afton Mine, which occurs within the Iron Mask intrusive, as well as to locate any other possible deposits that may occur within other rock types. The Afton mineralization consists of disseminated native copper and copper sulphides as well as other disseminated sulphides with associated gold, silver, and palladium values.

The MMI survey consisted of 36 samples. These were bagged and sent to SGS Laboratories in Toronto, Ontario for analysis where they were tested for 47 elements. The results for nine of these from the two years (2005 and 2007 totaling 85 samples), namely copper, nickel, cobalt, silver, gold, molybdenum, lead, cerium, and zinc were divided by their respected mean background values to obtain a value called a response ratio. Four stacked histograms, two for each line, were then made of the response ratios.

## **CONCLUSIONS and RECOMMENDATIONS**

1. On line 000N, the MMI survey revealed two anomalies in silver values and correlating copper values. In addition, that part of the survey line between these two anomalies was contained higher than normal silver values. The survey line also contained two one-value highs that were highly anomalous in cobalt. One of these was also highly anomalous in copper.
2. The results along line 1600N revealed three one-value anomalies as follows: (a) a molybdenum/copper anomaly with very high values, (b) a gold/silver/copper anomaly, and (c) a copper anomaly. Each of the three anomalies occur within a cerium low possibly indicating the mineralization occurs within a non-acidic rock type within an acidic intrusive.
3. In order to properly test the property, MMI sampling should be continued in a reconnaissance manner, preferably every 50 meters on lines 200 meters apart. However, if the expense of MMI sampling is of concern at this time, then a reasonable option would be to carry out sampling on 400-meter spaced lines with samples picked up every 50 meters.
4. Induced polarization and resistivity surveying should be carried out across any anomalous responses. Geophysical surveying such as this will help determine depths as well as help define drill targets.

Note: The recommendations have not changed from the previous report since only one additional line of MMI sampling has been carried out.

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**INTRODUCTION AND GENERAL REMARKS**

This report discusses survey procedure, compilation of data, interpretation methods, and the results of a mobile metal ion (MMI) sampling carried out along a reconnaissance survey line within the northwestern part of the Ivy Group Mineral Claims belonging to Delore Management. This sampling is in addition to previous sampling carried out in 2005. The property is located on the north and east slopes of Hull Hill about 15 km 150°E of the Afton Mine within the Kamloops Mining Division, British Columbia.

The MMI survey was carried out by a Geotronics crew of four men, under supervision of the writer, during the exploration season of 2007.

The general purpose of exploration on this property is to locate sulphide mineralization similar to that of the nearby Afton Mine, which occurs within the Iron Mask intrusive, as well as to locate any other possible deposits that may occur within the Nicola volcanics. The Afton mineralization consists of disseminated native copper and copper sulphides as well as other disseminated sulphides with associated gold, silver, and palladium values.

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.

## **PROPERTY AND OWNERSHIP**

The Ivy Claim Group is comprised of 6 mineral claims covering a total area of 1,109.046 hectares described as follows and as shown on the Claim Map, fig. 2.

<b>Claim Name</b>	<b>Tenure #</b>	<b>Expiry Date</b>	<b>Area (ha)</b>
Ivy 1	506002	February 6,2009	513.53
Ivy 2	506003	February 6,2010	451.747
Ivy 3	516986	July 11 ,2009	20.544
Ivy 4	519609	September 1, 2010	41.06
Ivy 5	519611	September 1, 2009	41.079
Ivy 6	519612	September 1, 2009	41.086

\*The expiry date for the these claims assumes the assessment work that this report describes will be accepted for assessment credits

The property is owned by Delore Management of Langley, British Columbia.

## **LOCATION AND ACCESS**

The Ivy Claim Group occurs on top of Hull Hill as well as on its northern and eastern slopes. Its northern boundary is located 14 km 200°E of the downtown of the city of Kamloops.

The geographical coordinates for the center of the property are 50° 32.5' north latitude and 120° 23.5' west longitude with the UTM coordinates being 5602000 m N and 6846000 m E. The NTS index is 92I/9W, and the BCGS index is 092I058 and 092I059.

Access is gained by traveling about 7.5 km west from downtown Kamloops along Highway #1 to the Lac Le Jeune Road exit at the Petro Canada. One then travels westerly and then southerly for 15.6 km along the Lac Le Jeune Road to the Goose Lake Road where one turns east and then travels for 2.7 km. One then turns left (southeasterly?) through a gate for a further 2.2 km to a fork in the road taking the right fork. A further 2.2 km is traveled to a second fork taking the right fork again and then a further 4 km taking to a third fork taking the right fork. The top of Hull Hill is a further 1 km. The total distance from downtown Kamloops is 35.2 km.

## **PHYSIOGRAPHY**

The Ivy Group 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 Ivy Property the elevations vary from 1240 meters (1600 feet) at the northeastern edge of the property near Anderson Creek to 1,440 meters (4,700 feet) at the top of Hull Hill within the southwest corner. Steep to moderate slopes to gently rolling hills with variable soil cover blanket much of the property. The steep slopes occur mostly within the north central part of the property.

The main water sources are Anderson Creek, which flows easterly through the northern part of the claims, and Menanteau Lake, which is located just off of the southeastern corner of the property. Also, small lakes are located throughout the southwestern part of the claims near the top of Hull Hill.

Tree cover is generally that of open forest with 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 Kamloops 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.

## **PREVIOUS WORK**

During the summer of 2005, MMI soil sampling was carried out along line 000N where 49 samples were picked up every 50 m along line 000N.

## **GEOLOGY**

The oldest rocks of the area are those on the property being of the Nicola Group, which is of Upper Triassic Age. This group occurs on the northern quarter of the property. The rock types composing this group are greenstone, andesite, basalt, agglomerate, breccia, tuff, minor argillite, limestone and conglomerate. At this point it is unknown which of these rocks occur on the Ivy claims.

The next rock group in decreasing age sequence is the Jurassic Coast Intrusives that outcrop throughout the Nicola volcanics. The rock types are granite, granodiorite, and gabbro; or syenite, monzonite, diorite, and gabbro of the Iron Mask Batholith. The Iron Mask Batholith trends northwesterly and occurs three km to the northeast of the property.

Tertiary volcanics, probably basalt, are the youngest rocks in the area, and from the government airborne magnetic survey, appear to cover the southern three quarters of the property.

## **Mineralization**

The many copper occurrences in the general area are found both within the Iron Mask Batholith and the older, intruded Nicola rocks close to the batholith. Generally, they occur with veins, impregnations, stockworks, and mineralized shear zones in the country rock with the principle copper minerals being chalcopyrite and bornite as well as some chalcocite, cuprite, azurite and malachite. Additional minerals that often occur with the copper are magnetite and pyrite. There have been shipments of ore, though small, from many of the prospects. The largest producer of these was the Iron Mask Mine, which shipped a total of 189,230 tons of ore. Another small producer was the Copper King, located about two kilometers north of the Beaton #1 Claim. Its values ran about 4.4 % copper and 0.8 oz/ton gold.

The area became the center of one of the hottest staking rushes in Canada when significant mineralization was discovered on the Afton property in the early '70's. Eventually, the discovery became an ore deposit that was mined from 1977 to 1988 by Teck. At the beginning of production, Afton had drill-proven ore reserves of 30.84 million tonnes grading 1.0% copper, 0.58 ppm gold, and 4.19 ppm silver. The main mineral form was native copper and chalcocite with minor covellite and chalcopyrite found within an intrusive breccia at the contact of the Nicola volcanics. The pit is located about 4 km east of the Beaton #2 Claim.

Currently, DRC Resources have discovered a new mineral body that has a combined size of measured and estimated 68.7 million tonnes, grading 1.68% copper equivalent using copper at \$0.85/lb, gold at \$375/oz, silver at \$5.25/oz, and palladium at \$200/oz, all US prices. The mineralization occurs below the old Afton Pit and extends in a southwesterly direction for over 1000 meters.

There is no known mineralization on the Ivy Claims.

## **MMI SOIL SAMPLING**

### **(a) Sampling Procedure**

The survey line, labeled 1600N and as shown on , was placed 1600 meters north of line 000N which is at UTM northing 560114 (NAD 83) with its zero point being at UTM easting 685164. The survey line then emplaced from this point 1,600 meters to the west and 800 meters to the east for a total distance of 2,400 meters.

The survey line was emplaced while the sampling was being carried out by blazing trees and by blaze orange flagging. Each sample spot was marked by a 60 cm wooden

picket with an aluminum tag stapled to it and the grid coordinates marked thereon. Samples were picked up every 50 meters. The MMI samples totaled 36.

The sampling procedure was to first remove the organic material from the sample site ( $A_0$  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 47 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 47 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**

The data from year 2007 along line 1600N was added to that from year 2005 which was along line 000N.

Nine elements, or metals, were chosen out of the 47 reported on and these were copper, nickel, cobalt, silver, gold, molybdenum, lead, cerium, and zinc. 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 nine metals for each of the two lines as shown on figures #4 to #7.

## **DISCUSSION OF RESULTS**

The two survey line will be discussed separately since they are 1600 meters apart.

On line 000N, the survey revealed two silver anomalies that are of exploration interest. One occurs at 200W and is a two-value anomaly with a silver response ratio (RR) up to 29. The other occurs at 750E, which is a one-value anomaly with a silver RR of 39. Both of these anomalies also are anomalous in copper. Between these two anomalies, the silver values are elevated compared to the rest of the survey line with the silver averaging an RR of 11 whereas the rest of the line averages an RR of less than 6. Correlating with the elevated silver values is one anomalous value in copper and some in zinc.

At 1350W, there is a one-value anomaly that is very anomalous in cobalt and in copper and somewhat anomalous in nickel. Another one-value high occurs at 1000W which is very anomalous in cobalt and weakly anomalous in gold.

There are a few high cerium anomalies across this line indicating acidic intrusives.

On line 1600N, there occurs three anomalies, mainly one-value highs as follows:

- a) A very high, one-sample copper (35 RR) and molybdenum (119 RR) anomaly at 1050W.
- b) A high copper anomaly (24 RR) at 50W.
- c) A gold (38 RR), silver (24 RR), copper(13 RR) anomaly at 200E.

Cerium is significantly high across this line indicating the rock-type may be an acidic intrusive, though the geologic map shows the main rock-type to be an amphibolite/kyanite metamorphic rock. However, an acidic intrusive does occur nearby to the west of the property.

Nevertheless, all three anomalies occur within a cerium low suggesting that they reflect mineralization within a non-acidic rock-type, perhaps a basic intrusive, or the amphibolite/kyanite metamorphic rock.

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Northcote, K.E., Geology of the Iron Mask Batholith, Ministry of Mines and Pet. Res., Preliminary Map No. 26, 1977

## **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<sup>th</sup> 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 MMI soil sample surveying along with grid emplacement carried out by a crew of Geotronics Consulting under my supervision along a line within the Ivy Claim Group during the exploration season of 2007.
4. I do not hold any interest in Delore Management, nor in the property discussed in this report, nor in any other property held by Delore Management, nor do I expect to receive any interest as a result of writing this report.

David G. Mark, P.Geo.  
Geophysicist

July 18, 2008

## AFFIDAVIT OF EXPENSES

Reconnaissance MMI soil sample surveying along one survey line was carried out within the northern portion of Ivy Claim Group, which occurs on Hull Hill located 14 km south-southwest of the city of Kamloops, B.C, during the exploration season of 2007 to the value of the following:

<b><u>MOB/DEMOB:(at cost)</u></b>		
Crew wages	\$800.00	
Truck rental and gas	...350.00	
Room and board	240.00	
<b>TOTAL</b>	<b>\$1,390.00</b>	<b>\$1,390.00</b>
<b><u>FIELD:</u></b>		
MMI Sampling and Grid Emplacement,		
4-man crew, all-inclusive, 1 day @ \$1,700/day	\$1,700.00	
Shipping costs	.....125.00	
<b>TOTAL</b>	<b>\$1,825.00</b>	<b>\$1,825.00</b>
<b><u>LABORATORY:</u></b>		
Testing of 36 samples @ \$35/sample	\$1,260.00	\$1,260.00
<b><u>DATA REDUCTION and REPORT:</u></b>		
Senior Geophysicist, 25 hours @ \$60/hour	\$1,500.00	-
Report compilation, photocopying, etc	100.00	
<b>TOTAL</b>	<b>\$1,600.00</b>	<b>\$1,600.00</b>
<b>GRAND TOTAL</b>		<b>\$6,075.00</b>

Respectfully submitted,  
Geotronics Consulting Inc.

David G. Mark, P.Geo,  
Geophysicist

July 18, 2008

## **APPENDIX –GEOCHEMISTRY DATA**





ANALYTE		U	W	Y	Yb	Zn	Zr
DETECTION(ppb)		1	1	5	1	20	5
1600W	000N	0.5	<1	9	2	230	<5
1550W	000N	6	<1	169	12	600	92
1500W	000N	4	<1	37	3	1610	33
1450W	000N	6	<1	94	8	300	118
1400W	000N	10	<1	544	40	30	117
1350W	000N	6	<1	123	27	60	33
1300W	000N	4	<1	56	5	900	117
1250W	000N	4	<1	73	5	160	68
1200W	000N	1	<1	26	7	130	<5
1150W	000N	0.5	<1	90	12	1100	<5
1100W	000N	1	<1	187	39	80	7
1050W	000N	4	<1	92	6	350	92
1000W	000N	0.5	<1	19	5	10	5
950W	000N	1	<1	128	32	540	<5
900W	000N	0.5	<1	32	7	670	<5
850W	000N	0.5	<1	156	28	80	<5
800W	000N	2	<1	131	24	90	11
750W	000N	6	<1	230	16	480	115
700W	000N	7	<1	162	10	80	71
650W	000N	0.5	<1	104	30	50	<5
600W	000N	2	<1	268	49	270	<5
550W	000N	2	<1	149	29	130	<5
500W	000N	7	<1	290	18	70	79
450W	000N	1	<1	96	20	240	<5
400W	000N	2	<1	125	22	390	7
350W	000N	3	<1	52	15	330	7
300W	000N	6	<1	120	10	510	51
250W	000N	3	<1	118	34	120	7
200W	000N	4	<1	101	34	40	5
150W	000N	5	<1	56	14	60	<5
100W	000N	0.5	<1	111	24	210	<5
50W	000N	0.5	<1	35	8	1270	<5
0	000N	6	<1	42	8	230	<5
50E	000N	6	<1	84	7	2420	99
100E	000N	1	<1	31	6	340	<5
150E	000N	1	<1	76	16	960	<5
200E	000N	5	<1	89	18	370	6
250E	000N	1	<1	159	34	280	<5
300E	000N	2	<1	87	18	200	<5
350E	000N	5	<1	85	14	240	<5
400E	000N	1	<1	75	23	120	<5
450E	000N	15	<1	52	10	40	<5
500E	000N	6	<1	51	13	290	22
550E	000N	7	<1	237	50	180	<5
600E	000N	2	<1	322	30	80	23







DELORE MANAGEMENT

IVY PROPERTY

HULL HILL, AFTON MINES AREA, KAMLOOPS MD, BC

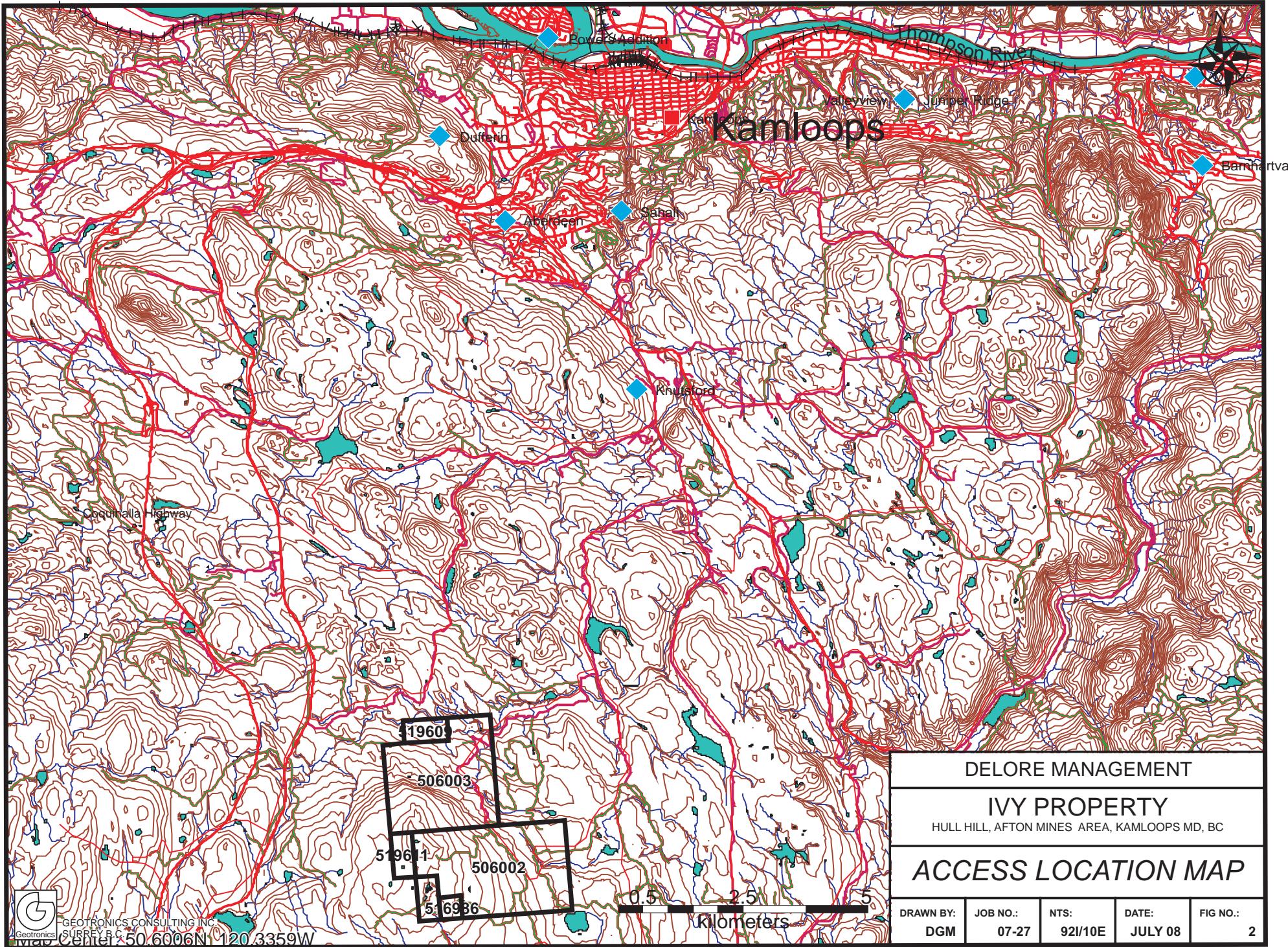
BC LOCATION MAP

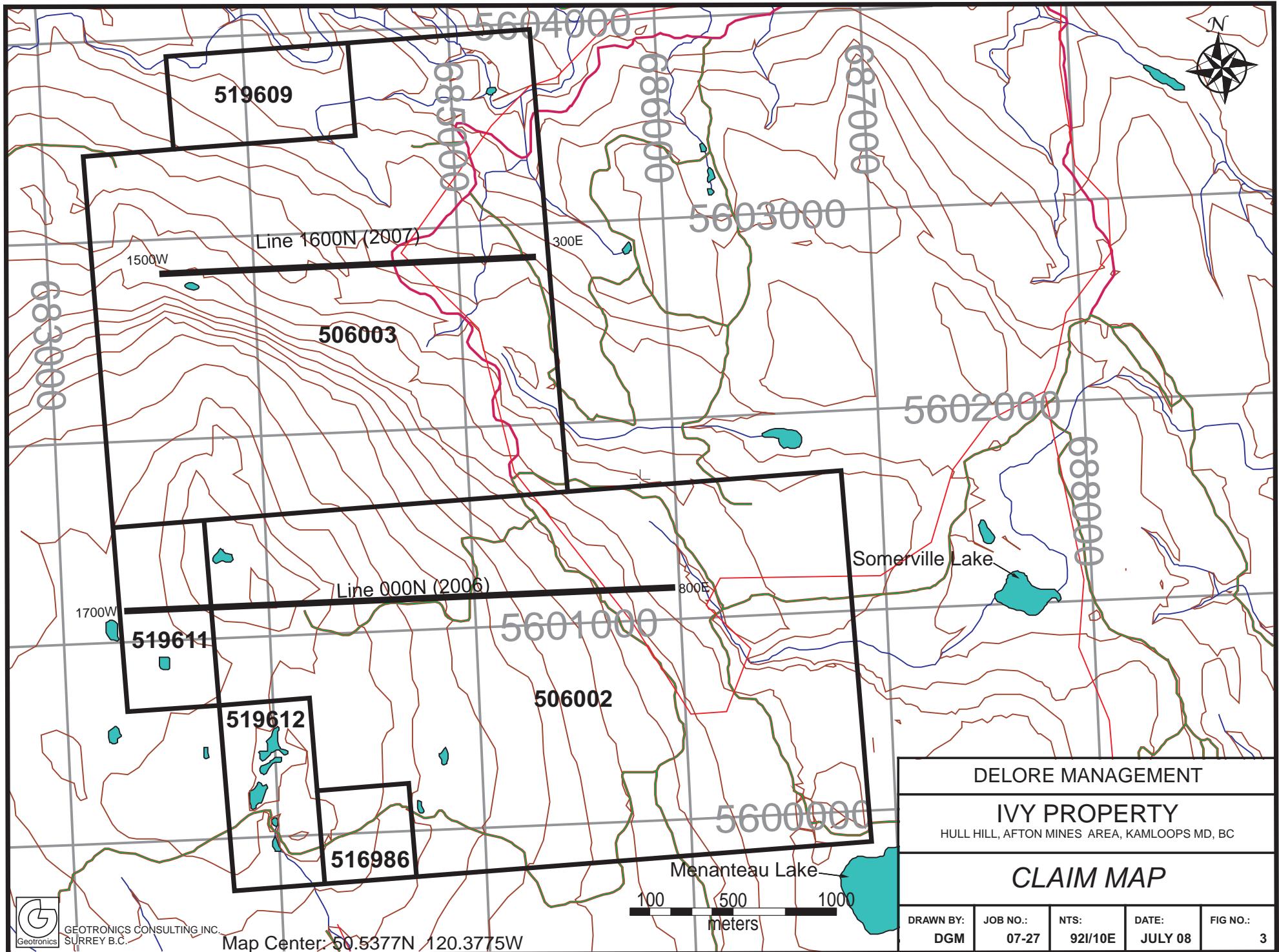
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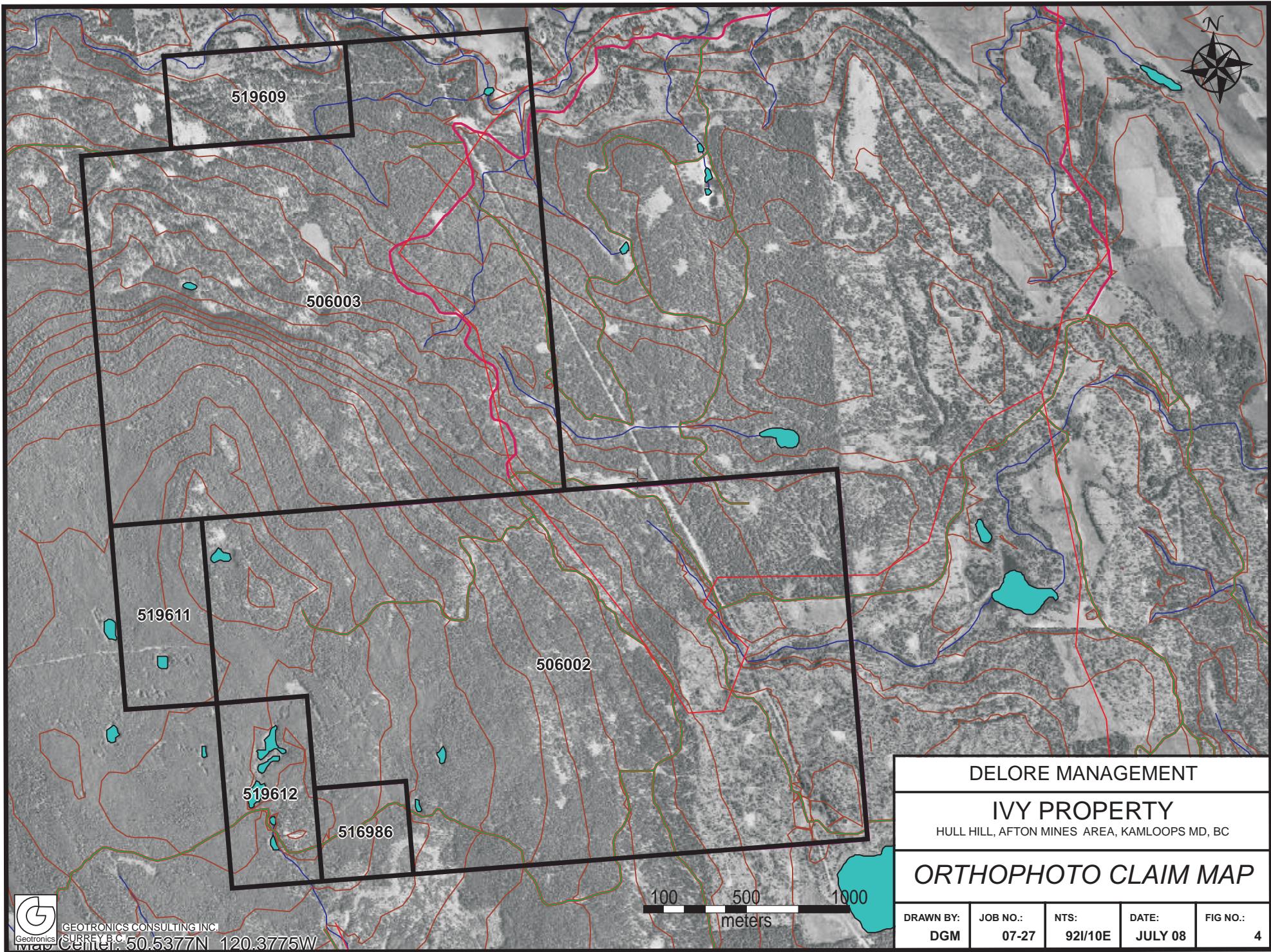


GEOTRONICS CONSULTING INC.  
SURREY B.C.

Map Center: 53.8597N 122.4705W







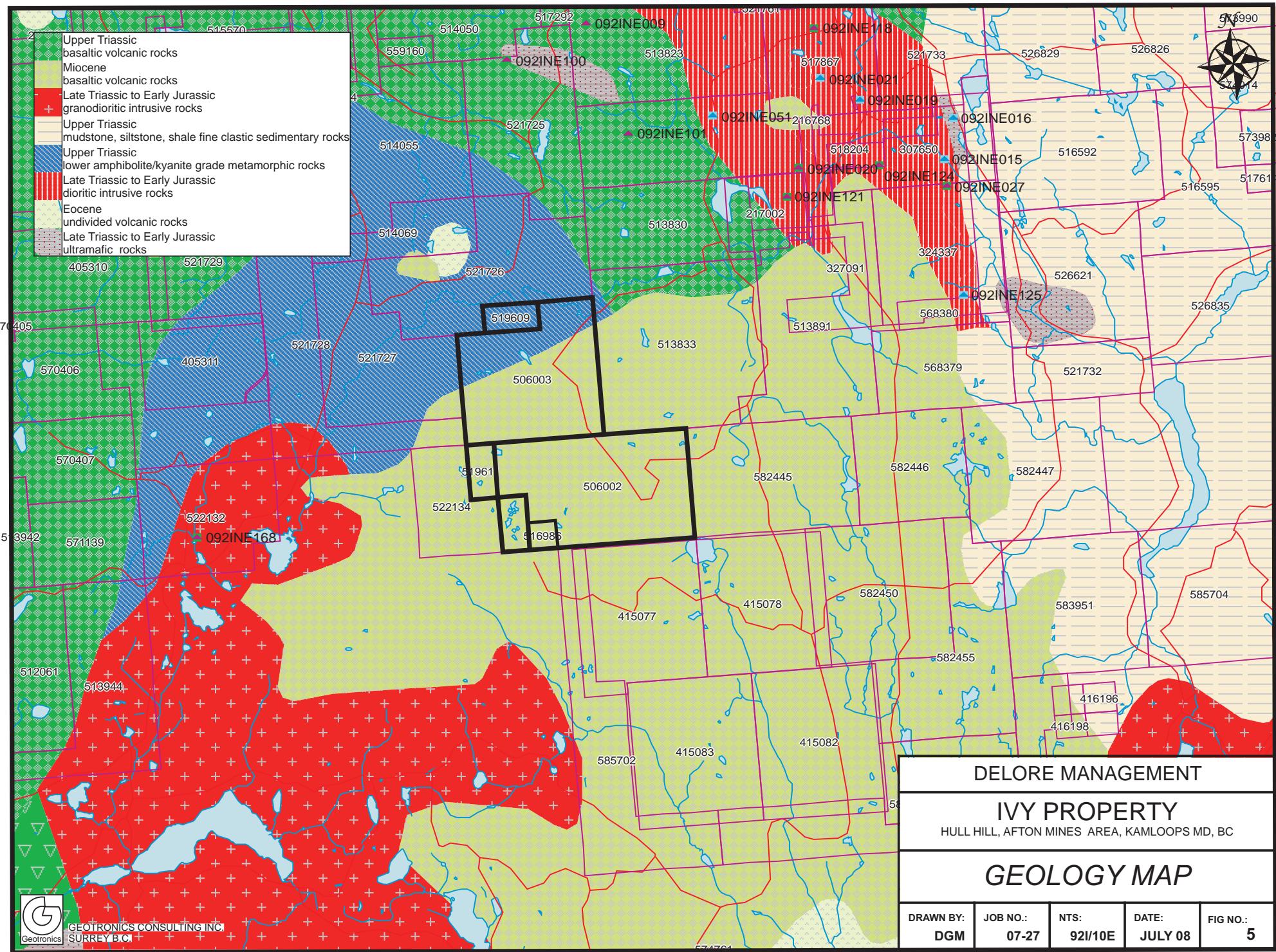
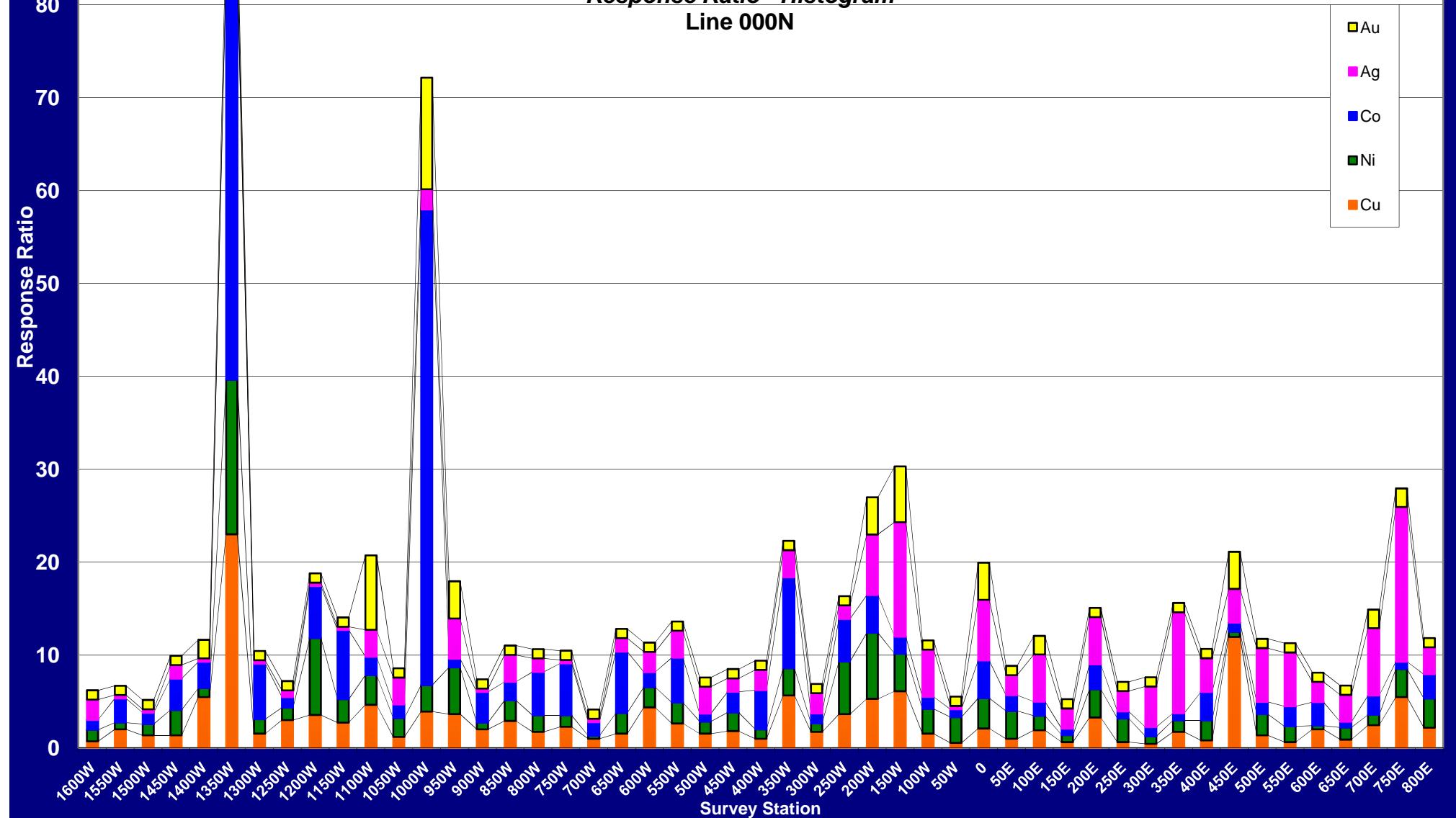


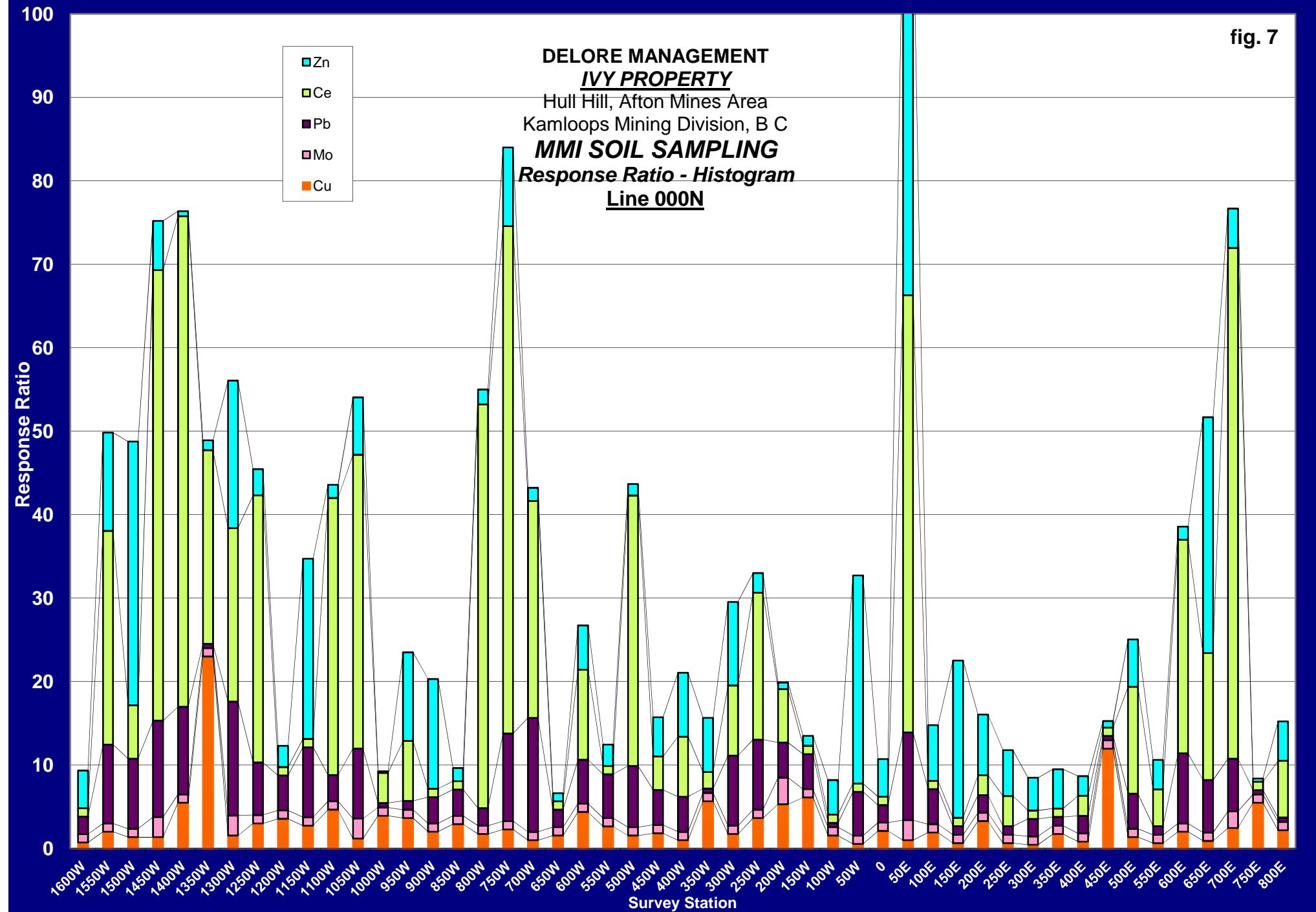
fig. 6

**DELORE MANAGEMENT  
IVY PROPERTY**  
Hull Hill, Afton Mines Area  
Kamloops Mining Division, B C  
**MMI SOIL SAMPLING**  
**Response Ratio - Histogram**  
Line 000N



Data Reduced by: GEOTRONICS SURVEY LTD.

fig. 7



Data Reduced by: GEOTRONICS SURVEY LTD.

fig. 8

**DELORE MANAGEMENT  
IVY PROPERTY**  
 Hull Hill, Afton Mines Area  
 Kamloops Mining Division, B C  
**MMI SOIL SAMPLING**  
*Response Ratio - Histogram*  
Line 1600N

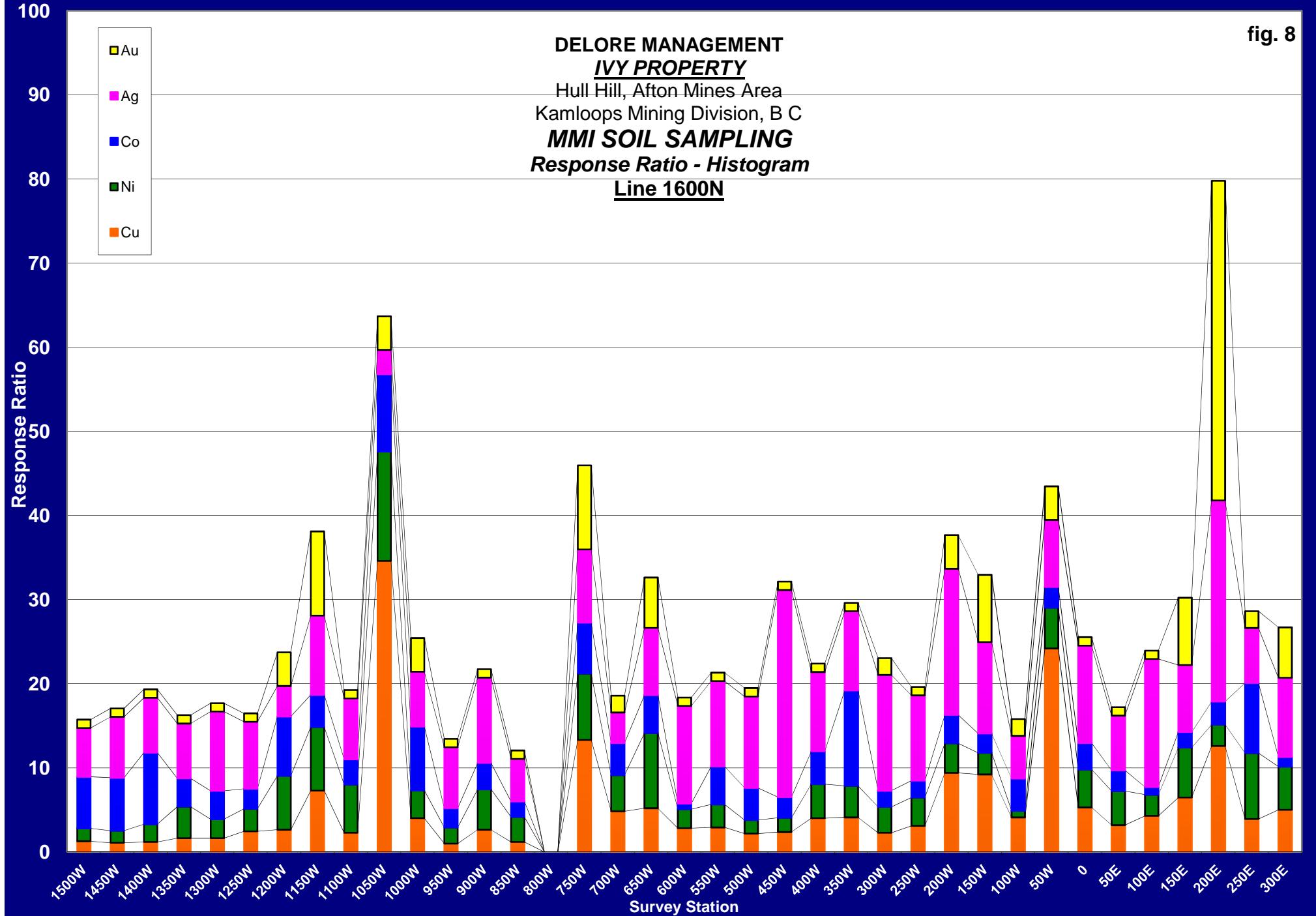


fig. 9

**DELORE MANAGEMENT  
IVY PROPERTY**  
 Hull Hill, Afton Mines Area  
 Kamloops Mining Division, B C  
**MMI SOIL SAMPLING**  
*Response Ratio - Histogram*  
 Line 1600N

