

# KETCHAN NORTH PROPERTY REPORT

Geophysical Technical Report on  
Mineral Claim  
1024071

BC Geological Survey  
Assessment Report  
34674

Nicola Mining Division  
British Columbia  
Aspen Grove Area

Centre of Work  
UTM : 674851 E 5516900 N  
NTS Map Sheet 092H078 BCGS 092H088

March 13<sup>th</sup> 2014

Author Christopher Delorme

Owners

Christopher Delorme  
Steven Scott  
Brian Scott

Event Number 5480075

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## SUMMARY

Christopher and Guy Delorme completed 5.7 kilometers of magnetometer lines on mineral tenure 1024071 .The purpose of the program was to fill in an add lines to existing and current magnetometer programs .The 2013 work program was done between Dec 02 and Dec 05 consisting of 6 lines ground magnetometer survey using a, Scintrex Model MF-2 Fluxgate Magnetometer Serial number 002142 .The Lines were spaced 200 meters with 50 meter intervals in two different grid areas except for one line which was done individually to fill in an void .Each station was identified using a Magellan Triton 200 GPS receiver which was very accurate due to the flat terrain and no interfering mountains or valleys .Snowy conditions hindered and slowed the work program due to access and road condition problems .

The magnetometer results show an east west trending high magnetic signature on line 675300E and a slight NE SW trending mid-range anomaly magnetic signature on lines 674600E 674800E and a NW SE trending Magnetic high structured anomaly that is on lines 675300E 675500E and 675700E.

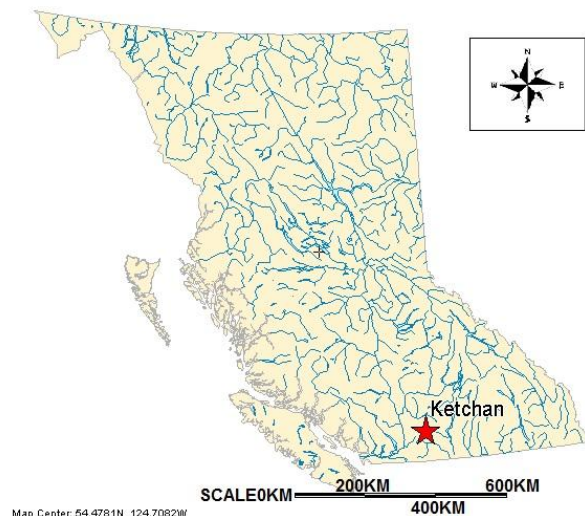


## LOCATION AND ACCESS

The Ketchan North Property is located in south-central British Columbia, 187 by air Kilometers north east of Vancouver and 2km west of Missezula Lake .The centre of the claim group coordinates are at an approximate geographic location UTM reading 10U 675170E 5518550N 120.56 longitude 49.79 latitude, on map sheet NTS 092H15E and BCGS Map 092H078 . The Ketchan North Claim Group is approximately 45 kilometers south of Merritt B.C.

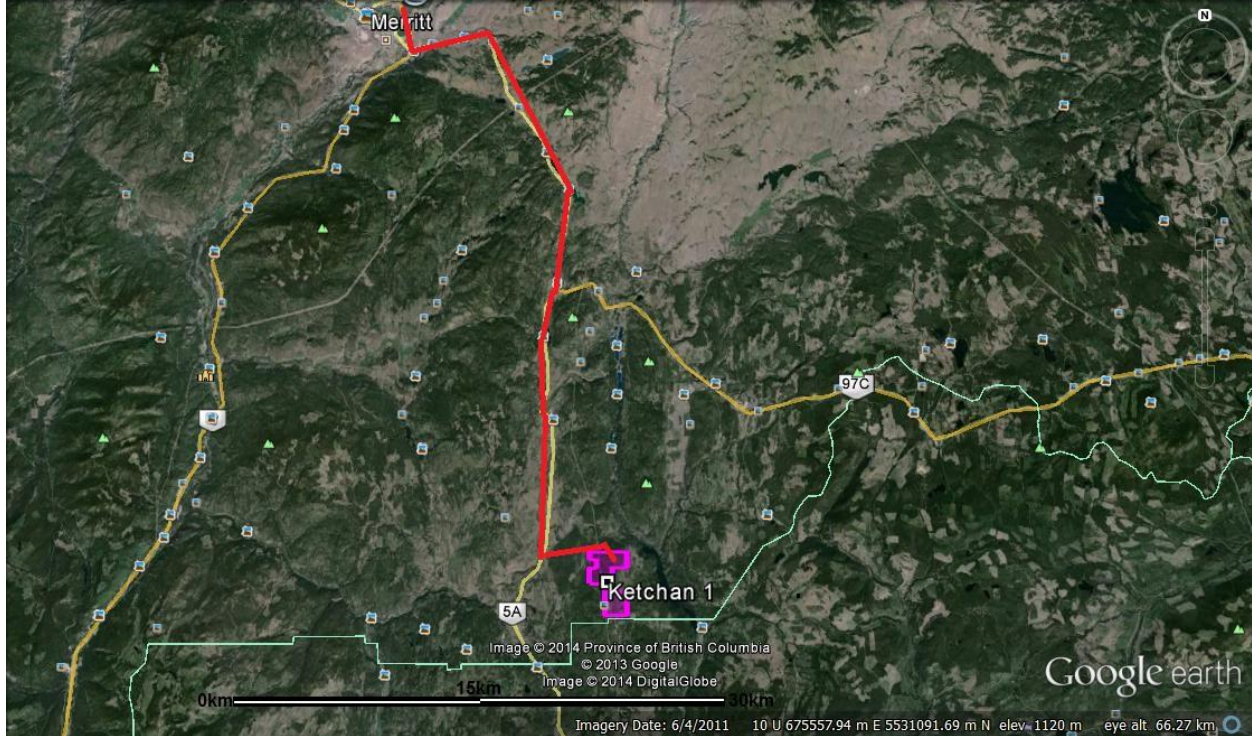
Access to the property is by taking highway 97 C from Merritt to Kelowna for a 25 km distance then turning south onto 5A towards Princeton BC for 14.8 km turning left onto Ketchan Lake forest service road for 6.05km to the most northern portion of the property and 9.85km to the most southern portion of the property via the same Ketchan forest lake service road also known as the dilliard creek road. Access to some of the Lines and grids are through various different branches of side gravel roads which are extensive but difficult to pass and access due to snow conditions.

Location Map



MAP - 1

## Ketchan North Location and Access Map -2



## PHYSIOGRAPHY

The mineral claims lie within the Thompson plateau area of the larger Interior plateau region. The physiographic setting of the area is defined as the Dry Interior and/or Sub-Alpine belt, depending on the local elevation within the property boundaries. The property covers low, rounded hilly terrain, exhibiting a north-south fabric about Ketchan Lake.

Patches of coniferous and deciduous trees interspersed with open range areas cover the property. The elevations of the claim area range from 1,265 metres (4,150 feet) to 1,433 metres (4,700 feet). The general area receives about 60-90 cm. (25"-35") of precipitation annually

depending mainly on local elevation, of which 20% may occur as a snow equivalent. The winter weather is generally moderately cold. The summer weather could be described as variable, but most often dry and fairly hot with squally precipitation.

## PROPERTY AND OWNERSHIP

OWNER	Tenure	Claim Name	Area in Hectares	Good to Date
Christopher Delorme 50%	1024071	Ketchan North	521.43	2015/Mar/07
Brian Scott 25%	1024071	Ketchan North	521.43	2015/Mar/07
Steven Scott 25%	1024071	Ketchan North	521.43	2015/Mar/07

The Ketchan North property comprises of on single tenure or claim totalling 521.43 hectares which are owned by three people. Christopher Delorme FMC 141575 Brian Scott FMC 124128 and Steven Scott FMC 219636. The Claims are located in the Nicola mining Division on Map sheet NTS 092H15E.

The 2013 assessment due on the Ketchan North property with the submission of a geophysical report is \$3250.02

# HISTORY AND PREVIOUS WORK

## GENERAL

- 1979: Cominco Ltd. drilled 6 percussion holes in the central part of present claims, based on LP. Magnetic and geochemical surveys. Only two holes reached bedrock. One hole reportedly averaged 0.141% Cu over 32 metres. Further mapping and drilling were recommended (Mehner, 1979, Scott, 1979, Ostenko, 1979). There is no record of follow-up.
- 1985: Vanco Exploration carried out geochemical and geological mapping on central part of present claims. They also mapped and sampled the Shamrock prospect (Lisle, 1985). There is no record of follow-up exploration.
- 1988: Laramide Resources carried out a geochemical survey for gold in the northern part of the present claims (Watson, 1988).
- 1990: Mine quest Exploration carried out 56 kilometres of I.P.surveying on central part of present claims (Gourlay, 1990).
- 1991: Rayrock Yellowknife Mines drilled 9 percussion holes on the Mine quest property. No significant Cu or Au values are reported, but a significant, but untested, copper prospect on Zig 3 Claim was noted (Gourlay, 1991).
- 2004-2005: Copper Hill Exploration Corp. and Copper Belt Resources carried out geological and photo- geological mapping of the entire claim block, along with magnetometer and VLF surveying of one Mine quest 1990 IP anomaly area (Bergey, 2005).

Ketchan Lake Prospect

- 1962: Plateau Metals Ltd. staked the present Ketchan Lake prospect area. Later the same year, they carried out a magnetometer survey and completed 3 diamond drill holes (Minfile).
- 1966: Ademera Mining Ltd. optioned the property and carried out geological and geophysical surveys, along with trenching and 512 metres of diamond drilling (Lammle, 1966; Schurr, 1966).
- 1973: Bethlehem Copper Corporation staked Log Group of mineral claims following a large-scale regional exploration program.
- 1974: Bethlehem Copper carried out geological mapping and geochemical sampling, followed by drilling of 10 percussion holes (Nethery, 1974).
- 1975: Bethlehem Copper completed 351 metres of diamond drilling in 4 holes (Anderson, 1975; Anderson, 1976). Assay results from this drilling were not published.
- 1979: Bethlehem Copper completed 410 metres in 2 diamond drill holes to test the results of an LP. survey carried out earlier in the year (Anderson, 1979; Simpson, 1979,).
- 1991: Cominco Ltd. completed 15 percussion drill holes -- 1067 metres (Aulis, 1991).
- 1992: Cominco Ltd drilled 8 percussion holes — 640 metres (Aulis, 1992).
- 2005: Copper Belt Resources drilled 10 diamond drill holes -- 1210 metres (Thomson, 2006).



- 2006: Copper Belt Resources drilled 2 diamond drill holes - 485 metres (Thomson, 2007).
- 2007: Copper Belt Resources drilled 5 diamond drill holes - 931 metres (Thomson, 2007).

## REGIONAL GEOLOGY

The geological history of the underlying rocks in this area is thought to be representative of a northwest-southeast trending island arc depositional environment that is cut by steeply dipping north-south faults. The predominant lithology has the oldest rock units assigned to the Nicola Group of Upper Triassic to Lower Jurassic age. The Nicola Group (Nicola), in this general area has been divided into three distinct, adjacent, elongate (structurally controlled), volcano (igneous)-sedimentary assemblages or belts which are not considered to be of strictly contemporaneous age. These belts are defined as follows: the Central Belt is the oldest while the Eastern Belt is next oldest. Both are thought to be locally derived and are of alkalic igneous (some calcalkaline) composition, The youngest, Western Belt of the Nicola Group does not appear to be strictly, locally derived and are mainly of calcalkaline composition. The origin and composition of the Nicola (the three belts) from oldest to youngest are described as follows:

- a) Central Belt – sub aerial and submarine assemblages; pyroxene and plagioclase abundant andesitic to basaltic flows, breccia, conglomerate and lahar deposits; coeval intrusives mainly diorite and lesser syenite.
- b) Eastern Belt - submarine volcano-sedimentary units, lahars, basalt flows and high-level syenitic stocks.

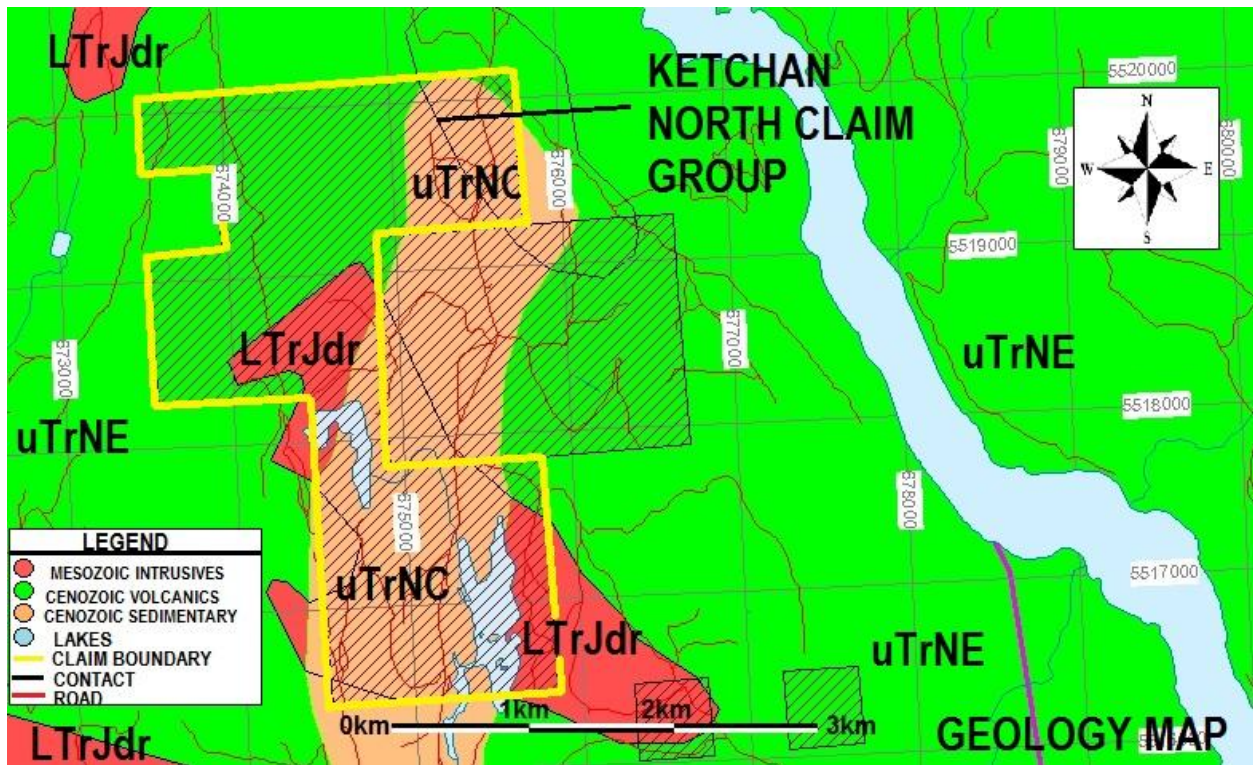
c) Western Belt - flow and pyroclastic rocks ranging in composition from andesite to rhyolite and interbedded sediments as limestone, volcanic conglomerate and sandstone (fossiliferous). The Nicola and its' equivalent form an elongated belt of eugeosynclinal rocks which are observed from near the 49°1' parallel, trending northward for over 240 kilometres (150 miles) and possibly beyond to northern British Columbia and the Yukon Territory for a possible total distance of 1,300 km (800 miles). The width of the Nicola locally approaches 50 km (30 miles) in places and is often bound on its' east margin by Jurassic or later intrusives and volcanics and on the west by Jurassic/Tertiary aged intrusives and Carboniferous to Tertiary volcanics. The next oldest rocks in the general area are non-correlated sediments thought to 'be of Lower Jurassic to Lower Cretaceous age. The next youngest units are variable units of igneous and sedimentary rocks assigned to the Kingsvale Group of Lower Cretaceous age. The next youngest units are a variety of well-rounded, boulder conglomerates of post Lower Cretaceous age. The next youngest rocks observed in the general area are the more acidic, talc-alkaline intrusive rocks which are seen to range in composition from granite through quartz diorite, these units have been assigned an Upper Cretaceous or Lower Tertiary age. The youngest rocks observed in the general area are those of the Princeton Group, assigned a Tertiary age and comprised of a lower volcanic unit of andesite or basalt and an upper sedimentary unit composed of shale, sandstone, conglomerate which are sometimes seen to contain economic occurrences of coal. The lower Princeton Group volcanics have been observed, in places to lay, uncomfortably over portions of the Upper Triassic aged Copper Mountain intrusions that are thought to be coeval with the Nicola volcanic rocks of the area .The Nicola is found

in places to have been cut by small stocks and dykes of ages varying from late Triassic into the Tertiary. The general area has also experienced widespread faulting which display an east-west and north easterly trend that in turn have sometimes been cut by younger northerly trending faults, For example in the Copper Mountain-Ingerbelle Mine area, in the southern portion of the Nicola, the western boundary of the Copper Mountain Stock is truncated by the north trending, west dipping "Boundary Fault". East of the Boundary Fault, faulting is generally east-west, northwesterly and north easterly. The connection, if there is one between the Boundary Fault on the south and Fault(s) on the north side of the Town of Princeton, BC is masked by the large, Tertiary aged Princeton Basin. These faults may have affected the ore control which poses the possibility of much younger hydrothermal sources of mineralization, possibly Tertiary? Within the major southeastern lobe of the Nicola Group some 39 km. east-southeast of Princeton, B.C. occurs the famous lode gold mines of the Hedley area. These deposits are found to occur within metamorphosed limestone units (skarns) of the Nicola near diorite gabbro intrusive contacts.

## LOCAL GEOLOGY

The property area being discussed in this report is underlain by interlayered flows and volcanic clastics that have been assigned to the Central Belt of the Nicola Group and by intrusive crystalline and brecciated rock units that have been assigned an Upper Triassic-Lower

Cretaceous age.

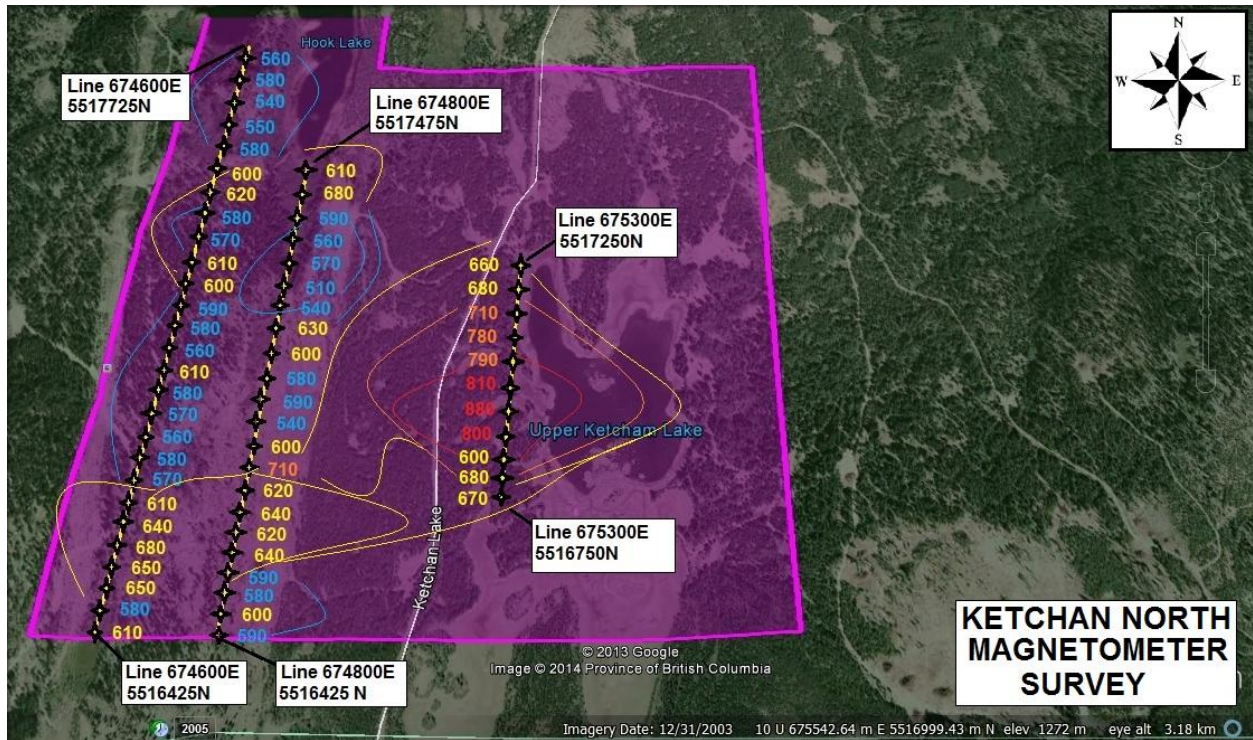


MAP-3

## GROUND GEOPHYSICS WORK PROGRAM

Christopher and Guy Delorme completed 5.7 kilometers of ground magnetometer survey to fill in and complete previous work programs done by the author from assessment report #27086. Field Crew consisted of a two person crew for a total of 4 days, one day was lost due to being stuck in the road from excessive snow conditions and not having chains. The 2013 exploration work program consisted of 6 lines north-south grid lines, spaced 200 meters apart with recording stations spaced 50 meters. The Crew utilized a Magellan Triton 200 GPS receiver and a Scintrex Model MF-2 Fluxgate Magnetometer.

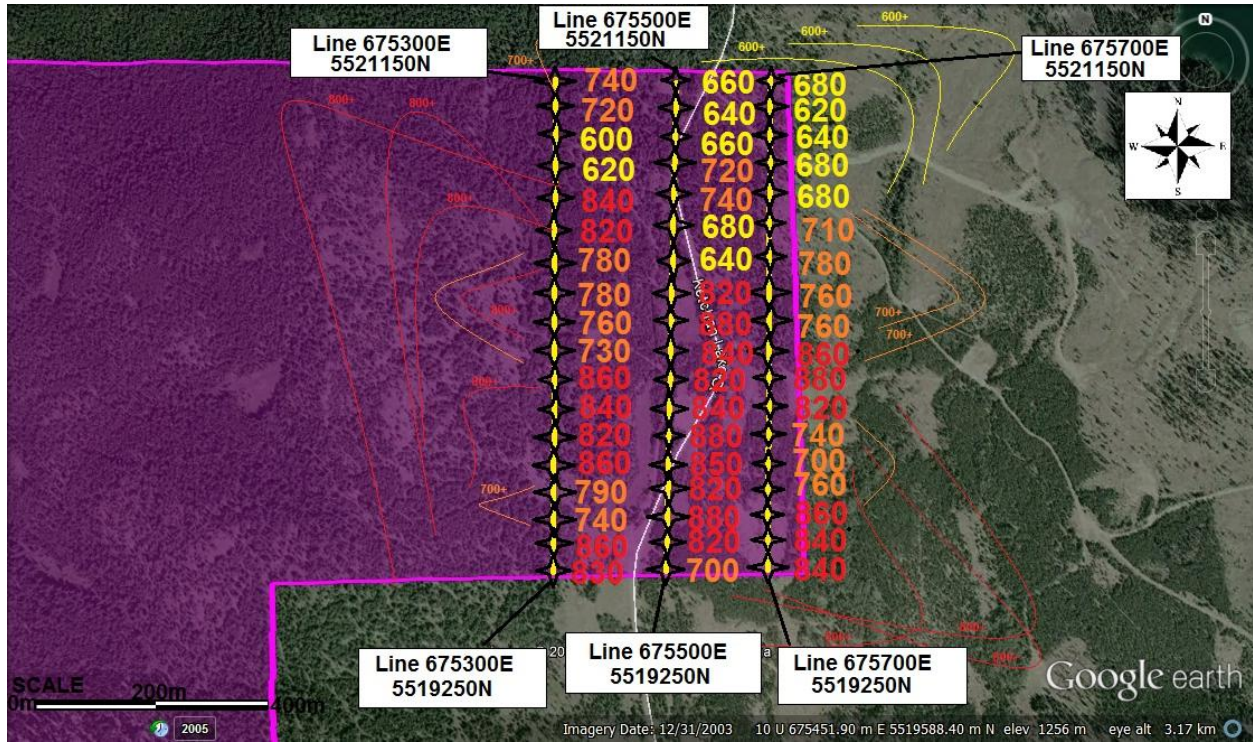
MAP-4



Spreadsheet Table 1

LINE 674600E	STATION	READING	LINE 674800E	STATION	READING	LINE 675300E	STATION	READING
5516423N	00E+00N	610	5516425N	200E+00N	590	5516750N	700E+00N	670
5516476N	00E+50N	580	5516475N	200E+50N	600	5516802N	700E+50N	680
5516525N	00E+100N	650	5516524N	200E+100N	580	5516851N	700E+100N	600
5516575N	00E+150N	650	5516576N	200E+150N	590	5516903N	700E+150N	800
5516622N	00E+200N	680	5516624N	200E+200N	640	5516954N	700E+200N	880
5516674N	00E+250N	640	5516675N	200E+250N	620	5517000N	700E+250N	810
5516723N	00E+300N	610	5516724N	200E+300N	640	5517051N	700E+300N	790
5516775N	00E+350N	570	5516776N	200E+350N	620	5517102N	700E+350N	780
5516826N	00E+400N	580	5516825N	200E+400N	710	5517148N	700E+400N	710
5516878N	00E+450N	560	5516877N	200E+450N	600	5517198N	700E+450N	680
5516924N	00E+500N	570	5516925N	200E+500N	600	5517253N	700E+500N	660
5516975N	00E+550N	580	5516977N	200E+550N	540			
5517025N	00E+600N	610	5517025N	200E+600N	590			
5517075N	00E+650N	560	5517076N	200E+650N	580			
5517125N	00E+700N	580	5517125N	200E+700N	600			
5517176N	00E+750N	590	5517175N	200E+750N	630			
5517226N	00E+800N	600	5517224N	200E+800N	540			
5517274N	00E+850N	610	5517275N	200E+850N	510			
5517321N	00E+900N	570	5517326N	200E+900N	570			
5517375N	00E+950N	580	5517375N	200E+950N	560			
5517425N	00E+1000N	620	5517425N	200E+1000N	590			
5517476N	00E+1050N	600	5517476N	200E+1050N	680			
5517525N	00E+1100N	580	5517525N	200E+1100N	610			
5517576N	00E+1150N	550						
5517625N	00E+1200N	540						
5517674N	00E+1250N	580						
5517725N	00E+1300N	560						

### Map-5



LINE 675300E	STATION	READING	LINE 675500E	STATION	READING	LINE 675700E	STATION	READING
5519250N	0E+00N	830	5519250N	200E+00N	700	5519250N	400E+00N	840
5519302N	0E+50N	860	5519301N	200E+50N	820	5519302N	400E+50N	840
5519351N	0E+100N	740	5519350N	200E+100N	880	5519352N	400E+100N	860
5519403N	0E+150N	790	5519401N	200E+150N	820	5519403N	400E+150N	760
5519450N	0E+200N	860	5519450N	200E+200N	850	5519449N	400E+200N	700
5519500N	0E+250N	820	5519498N	200E+250N	880	5519499N	400E+250N	740
5519548N	0E+300N	840	5519548N	200E+300N	840	5519551N	400E+300N	820
5519603N	0E+350N	860	5519600N	200E+350N	820	5519598N	400E+350N	880
5519650N	0E+400N	730	5519651N	200E+400N	840	5519648N	400E+400N	860
5519701N	0E+450N	760	5519700N	200E+450N	880	5519701N	400E+450N	760
5519750N	0E+500N	780	5519752N	200E+500N	820	5519750N	400E+500N	760
5519802N	0E+550N	780	5519800N	200E+550N	640	5519799N	400E+550N	780
5519850N	0E+600N	820	5519851N	200E+600N	680	5519852N	400E+600N	710
5519902N	0E+650N	840	5519900N	200E+650N	740	5519903N	400E+650N	680
5519951N	0E+700N	620	5519953N	200E+700N	720	5519952N	400E+700N	680
5520000N	0E+750N	600	5520002N	200E+750N	660	5520003N	400E+750N	640
552052N	0E+800N	720	5520050N	200E+800N	640	5520051N	400E+800N	620
552100N	0E+850N	740	5520101N	200E+850N	660	5520102N	400E+850N	680

## CONCLUSIONS

The 2013 work program delineated one major structure on the north grid survey and a slight magnetic high on the southern grid near the western portion of the lake. Further fill in lines are needed to establish the continuity of the elevated high magnetometer values on the northern grid. When the Lake is frozen a survey on top of Ketchan Lake will also help in identifying possible drill targets through a magnetometer survey. High copper values and mineralization are associated with highly magnetic rocks in this area so the magnetometer is very useful for identifying possible drill targets.

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## 2013 COST STATEMENT

<u>Labour Costs</u>	<u>Days</u>	<u>Daily Rate</u>	<u>Total</u>
Chris Delorme	3	\$300	\$900
Guy Delorme	3	\$300	\$900
<u>Lodging Food Gas</u>	<u>Days</u>	<u>Daily Rate</u>	<u>Total</u>
Lodging	3	\$68	\$204
Food	3	\$40	\$120
Gas	3	\$40	\$120
Misc	3		\$56.02
<u>Report Costs</u>	<u>Days</u>	<u>Daily Rate</u>	<u>Total</u>
Christopher Delorme	4	\$250	\$1000
Total Cost of work program			\$3300.02
Total applied value of work			\$3250.02

# Authors Qualifications

I Christopher Delorme have been actively involved exploration mining since the age of 16.From staking mineral properties to drilling conducting different various forms of geophysics, prospecting, research on the computer as well as mapping.