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April 2022



Assessment Report

High-Resolution Mag Survey Garnet Lake property

Uchi Sub-province, Red Lake District, Northwestern Ontario, NTS 52K14 and 52N02



Arrow Zone section (-250), Garnet Lake property

Michel Boily, PhD., P. geo.



CERTIFICATE OF QUALIFICATIONS DATE AND SIGNATURE

I, Michel Boily, Ph.D., P. Geo. HEREBY CERTIFY THAT:

I am a Canadian citizen residing at 2121 de Romagne, Laval, Québec, Canada.

I obtained a PhD. in geology from the Université de Montréal in 1988.

I am a registered Professional Geologist in good standing with l'Ordre des Géologues du Québec (OGQ; permit # 1097). I have praticed the profession of geologist for the last 44 years.

I had the following work experience:

From 1986 to 1987: Research Associate in Cosmochemistry at the University of Chicago, Chicago, Illinois, USA.

From 1988 to 1992: Researcher at **IREM-MERI/McGill University**, Montréal, Québec as a coordinator and scientific investigator in the high technology metals project undertaken in the Abitibi greenstone belt and Labrador.

From 1992 to present: Geology consultant with **Geon Ltée**, Montréal, Québec. Consultant for several mining companies. I participated, as a geochemist, in two of the most important geological and m etallogenic studies accomplished by the Ministère des Richesses naturelles du Québec (MRNQ) in the James Bay area and the Far North of Québec (1998-2005). I am a specialist of granitoid-hosted precious and rare metal deposits and of the stratigraphy and geochemistry of Archean greenstone belts.

I have gathered field experience in the following regions : James Bay, Quebec; Strange Lake, Labrador/Quebec; Val d'Or and Rouyn-Noranda, Quebec; Grenville (Saguenay and Gatineau area); Cadillac, Quebec; Otish Mountains, Quebec, Lower North Shore, Quebec, Sinaloa, Sonora and Chihuahua states, Mexico, Marrakech and Ouarzazate, Morocco, San Juan, Argentina and Nicaragua

I am the author of the assessment report entitled : "High-Resolution Mag Survey, Garnet Lake property, Uchi Sub-province, Red Lake District, Northwestern Ontario, NTS 52K14 and 52N02" written for IMAGINE LITHIUM CORP.

The Qualified Person, Michel Boily is responsible for the content of this report.

Jul M

Michel Boily, PhD, P. Geo April 14, 2022



DATE AND SIGNATURE	ii
TABLE OF CONTENTS	iii
1- SUMMARY	1
2- PROPERTY DESCRIPTION AND LOCATION	2
3- ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE	
AND PHYSIOGRAPHY	5
3.1- Access	5
3.2- Climate	5
3.3- Flora and Fauna	7
3.4- Physiography	7
3.5- Local Resources and Infrastructure	8
4- HISTORY	9
5- GEOLOGICAL SETTING AND MINERALIZATION	18
5.1- The Superior Province of Ontario	18
5.2- Geology and Structure of The Birch-Uchi Greenstone Belt	19
5.3- Volcanosedimentary Assemblages of the Birch-Uchi Greenstone Belt	21
5.4- Geology of the Garnet Lake Property	23
5.5- Mineralization and Alteration	26
6- HIGH-RESOLUTION HELIBORNE SURVEY	27
6.1-Logistics	27
6.2- Interpretation	29
7- CONCLUSIONS AND RECOMMANDATIONS	31
8- REFERENCES	31

LIST OF FIGURES

Figure 1. Localization of the Garnet Lake property, Northwestern Ontario, Canada.	3
Figure 2. General geology and claim location of the Garnet property. The localization	
of the main Cu-Zn±Ag mineralized bodies are reported on the map.	4
Figure 3. Access to the Garnet Lake property by road from the town of Red Lake,	
Northwestern Ontario.	6
Figure 4. Location of historical DDHs within the Garnet Lake. Note the concentration of	
drillholes defining the Arrow Zone.	11
Figure 5. Geology of the Superior Province of Ontario showing the Archean plutonic,	
volcanoplutonic, metasedimentary and high-grade gneiss subprovinces. The Garnet Lake	
property is located in the volcanoplutonic Birch-Uchi Sub-province.	20
Figure 6. Simplified geological map of the Birch-Uchi and English River sub-provinces	
showing the location of the Garnet Lake property and sites of different base and precious	
metals mineralization.	22
Figure 7. Detailed geology of the Arrow Zone (Garnet Lake property) showing the	
mineralized sulphide-rich zones and widespread alteration of felsic volcanic rocks.	25
Figure 8. Schematic representation of the Arrow Zone topography	28
Figure 9. Total Magnetic Intensity (TMI) contour map generated by the high-resolution	
MAG survey conducted in 2021 on the Garnet Lake property. The EM conductance	
anomalies resulting from a 2016 VTEM survey flown by GEOTECH are reported	
on the map.	30
Figure 10. Localization of the rock samples (principally channel) samples collected in	
2021 in the vicinity of the main zone drilled in 2017-2018.	32

LIST OF TABLES

Table 1. Significant historical drill intersections	Arrow Zone, Garnet	property. 10
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APPENDIX

Appendix 1. Claim status as of April 12, 2022, Garnet Lake property	38
Appendix 2. Claim map, Garnet Lake property, Imagine Lithium Inc.	41
Appendix 3. Report NOVATEM	42
Appendix 4. Geophysical contour maps, NOVATEM	70
Appendix 5. Structural interpretation of airborne geophysical surveys over the Garnet	
Lake, Ontario.	79

1-SUMMARY

A high-resolution airborne MAG survey was completed on the Garnet Lake Zn-Cu property located in in northwestern Ontario, 70 km west of Red Lake. The Garnet Lake, owned 100% by Pegasus Resources Inc., is within NTS map sheets 52K14 and 52N02. It consists of 150 contiguous mineral claims (cells) for a total area 28.16 km².

The Garnet Lake property is located within the Archean Birch-Uchi Sub-province. Geological mapping defined three major volcanosedimentary cycles or assemblages: Balmer, Woman Lake and Confederation Lake. Most of the volcanosedimentary lithologies exposed on the Garnet Lake property belong to the youngest Confederation Lake assemblage mainly the Agnew sequence. The latter, dated at 2744 Ma, represents the most fertile sequence for VMS deposits. Most of the Garnet Lake property exposes felsic volcanic rocks, mainly rhyolitic flows, associated with quartz felspar-porphyry units of tholeiitic affinity.

Geophysical surveys and extensive diamond drilling performed on the Garnet Lake property during the 1990s to early 2000s periodunearthed a moderate size Zn-rich VMS body, the Arrow Zone, generating a 2017 Historic Inferred Resources of 2.10 Mt @ 0.72% copper, 5.78% zinc, 0.60 g/t gold, 19.5 g/t silver using a 3% zinc equivalent cutoff (Carter and Bowdidge, 2017).* The Arrow Zone thus represents the most important VMS mineralization found to date within the western confines of the Archean Confederation Lake assemblage of the Birch-Uchi greenstone belt.

*The Resources Estimates presented are treated as historic information and have not been verified or relied upon for economic evaluation by the Issuer or the writers. These are considered Historical Mineral Resources and do not refer to any category of sections 1.2 and 1.3 of the NI-43-101 Instrument such as Mineral Resources or Mineral Reserves as stated in the 2010 CIM Definition Standards on Mineral Resources and Mineral Reserves. The Issuer has not done sufficient work yet to classify the historical estimates as current Mineral Resources or Mineral Reserves. Therefore, the Issuer is in the opinion that the above quoted resources for the Garnet Lake-Arrow Zone is historical in nature.

A high-resolution MAG survey was conducted by NOVATEM INC. for a total of 545 linear kilometers. The survey was carried out following the lowest possible flight surface

1

above the vegetation. The median height above the ground is about 30 m. The helicopter flew alongflightlinesoriented0° and spaced by 25 m. Controllines were spaced by 250 m and oriented 90°.

Geophysical and structural interpretation of the survey indicates most first order structures run NE-SW, parallel to the strike of the volcanic assemblages. They are particularly prominent north of the Arrow zone and south of the contact zone in the TMI (Total Magnetic Intensity) contour map. The northern structure extents to the SW of the property and several of the magnetic and conductive zones in this area were investigated by drilling, albeit in a non-systematic way. The southernmost structure marks the contact of the mineralized/altered volcanic rock assemblages. These three main structures overlap the zones of high conductance detected by a VTEM survey flown over the property in 2016. Several second order NNE/SSW-oriented structures are comprised between the northern and southern first order network. They may define a secondary network representing suitable targets for gold mineralization. The three main massive sulphide lenses (Arrow, Garnet, and South Contact zones) are associated with magnetic highs defined by the FVG (First Vertical Gradient) contour map.

2- PROPERTY DESCRIPTION AND LOCATION

The Garnet Lake property is in northwestern Ontario, incorporated in the Bowerman and Belanger townships within NTS map sheets 52K14 and 52N02. Red Lake (pop 4,117) is situated 70 km west from Garnet Lake as crows fly. Ear Falls (pop. 995) is the nearest settlement connected to the property by Highway 105 south and the South Bay gravel road. The Garnet Lake property consists of 150 contiguous mineral claims (cells) for a total area of 2,812 hectares or 28.21 km² (Figures 1, 2). It is divided into 26 boundary cell sand 124 single cells. The claim block is centered at coordinates -92.238830° W Long. and 50.986° N. Lat. or UTM coordinates 511925 mE and 5648300 mN (NAD83; Zone 15N), with the details of the titles (including type of tenure, expiration date and extent of the titles) given in Appendix 1 and the claim map provided in Appendix 2.



Figure 1. Localization of the Garnet Lake property, Northwestern Ontario, Canada.



Figure 2. General geology and claim location of the Garnet property. The localization of the main Cu-Zn±Ag mineralized bodies are reported on the map.

3- ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

3.1-Access

The best access route to the Garnet Lake property begins from the city of Red Lake, the economic hub of northwestern Ontario. First, we need to travel southeastward for 57 km on Road 105 to the town of Ear Falls. From there, we travel for 85 km northeastward by truck on an all-weather gravel road leading to the former South Bay Mine (South Bay Road). There, we find the intersection with a dirt road on the southern flank of South Bay Road which will lead for 7 km to the main clearing where most of the core drilled since the 90's is stacked. The road can be travelled by a 4 X 4 truck (Figure 3). There used to be a pontoon spanning a stream flowing from Elbow Lake to connect the road leading to the main drilling sites. Nowadays one needs to cross the stream by foot. There are a few drill trails extending up to 3 km toward the southwest starting from Elbow Lake.

3.2- Climate

The area surrounding Garnet Lake property belongs to the English River climatic region and is characterized by a continental climate with typically hot, dry summers and cold, clear winters. The climate is controlled by three major continental air masses: the very cold arctic air mass located over the ice cap regions, the cold polar air mass located over the territories, and the dry Prairie air mass originating in the foothills of the Canadian Rocky Mountains. Winters in the Red Lake area are cold and clear. Average minimum and maximum temperatures during a typical winter are -25°C and -14°C in January, respectively. Winter persists from October through May with average snow precipitations of 186 cm. Summers are short and last from late May to early October. Average minimum and maximum temperatures for July are 12.3°C and 23.2°C, respectively. Rain precipitations during the summer months (April to October) average



Figure 3. Access to the Garnet Lake property by road from the town of Red Lake, Northwestern Ontario.

458 mm.

3.3- Fauna and Flora

Vegetation found within the Red Lake region is representative of the SouthernBoreal Forest Region; however, the hot, dry climate, thin soils and relative proximity to the Prairies combine to produce a unique 'Prairie-Boreal' ecology. The boreal forest contains hundreds of species of plants such as ferns, mosses, fungi, shrubs, and herbs. The main conifer species are black and white spruce, jack pine, balsam fir, tamarack, and eastern white cedar. The predominant deciduous (hardwood) species are poplar and white birch. Species typical of the dry Prairie regions make up the largest non-boreal floral element. Typical boreal fauna species include large mammals such as woodland caribou, moose, and black bear, as well as furbearers such as beaver, otter, mink, muskrat, fisher, marten, weasel, lynx, fox, and timber wolf. Bird species found are also typical of the boreal forest. The bald eagle is abundant in all areas. Other bird species include the belted kingfisher, great blue heron, double-crested cormorant, osprey, great gray owl, merlin, common nighthawk, five species of woodpecker and a diverse array of waterfowls and passerines.

3.4- Physiography

The physiography of the terrain is typical of the Canadian Shield. Relief is dominated by NE/SW-oriented ridges and valleys that follow the trend of the bedrock geology as well as the ice direction of the last glacial period. The land surface was heavily carved by successive glaciation occurring for the last 2.5 Ma. Relief is low and covered by a thick overburden. It extends from a low of 398 m to a high of 439 m (ASL), with most local relief being in the 15 to 20 m range. The sector of the Garnet Lake property is characterized by a moderate degree of bedrock exposures. The soils, glacial features and

drainage patterns at the site are the result of the Late Wisconsinian glacial period (75,000-11,000 years ago). The influence of the glacial Lake Agassiz is manifested by lacustrine and fluvial deposits of sand, silt and clay, wave-cut beach terraces. Other glacial remnants are in the form of till, and numerous small kames, cross-valley moraine, and ground. There are several post-glacial muskegs and swamps.

3.5- Infrastructures

The nearest major town from the property is Red Lake (pop. 4,117) which is the hub of one of the most prolific gold camps in Canada. The city harbors a hospital, commerce, restaurants, hotels, and an airport. An airway company takes advantage of Red Lake's proximity to the northern communities and establishes connections to the cities of Winnipeg, MB, Thunder Bay, and Toronto, ON. The main economic activities are support services for the numerous mines surrounding the town, small scale logging and a tourismsector specializing in hunting and fishing. Red Lake can provide all the technical necessary expertise, workforce, and resources necessary for the development of a mining property. Hydro One maintains a 115 kV transmission powerline along South Bay Road that is located less than 7 km from the core of the Garnet Lake property. There are also numerous lakes, rivers, and streams from which to extract water for drilling purposes. There are no mineral resources or mineral reserves on the Garnet Lake property according to the 2005 CIM Definition Standards. There are no existing mine workings, tailing ponds, waste deposits and important natural features and improvements relative to the outside property boundaries. However, the property contains mineralized zones manifested by remnants of drill pads. Most of the core material extracted since the 70's is lying on the ground or stored in partially disassembled core racks lying in a clearing now invaded by vegetation. There is sufficient unused land within the Garnet Lake claim blocks for waste and tailing disposal and the construction of a mine and milling installations. The optimum length of the operating season in the Red Lake area ranges from mid-May to mid-October, when mining companies usually conduct their field work such as geological mapping, drilling, overburden stripping, trenching, soil survey and

sampling. However, except for radiometric surveys, airborne, and ground-based geophysical surveys and drilling can be carried out during the winter.

4- HISTORY

The Garnet Lake property underwent extensive exploration during the middle 90's to the early 2000's dominated by diamond drilling to define massive sulphide bodies. The drilling campaigns were principally completed by Noranda Exploration, Tribute Minerals and Copper Lode Mines. A summary of the best Zn, Cu, and Ag intersections revealed by these historical DDH is provided in Table 1. Figure 4 illustrates the localization of most historical drillholes collared on the Garnet Lake property.

The Birch-Uchi Greenstone Belt located southeast of the Red Lake Greenstone Belt constitutes a volcanogenic massive sulphide (VMS) camp, host to the past-producing South Bay Mine (Atkinson et al., 1990). The discovery of South Bay led to a period of highly active exploration by junior and major mining companies. During the 1970's and 1990's, the Confederation Lake volcanic assemblage was deemed favorable for base metal sulphide mineralization. Several occurrences were then investigated the most significant being the Copperlode "A" or Fredart "A" deposit and the Garnet or Arrow Zone.

?- Noranda Exploration Inc. 1'':1,320' geological maps of the Horseshoe property, with UTEM and magnetometer survey maps.

1969- Malouf et al. (1969). Copper Lode Mines Ltd. Logs of 6 DDHs totaling 966 m of core and collared in the southwestern end of the Garnet Lake property. Assessment report 52K15NW0017.

1972- Wierzbicki (1971). South Bay Mines Ltd. DDH log of one hole collared in the core

DDH_ID	From	-	Core Length	True width	Horizontal		7 () 0()			- ·
	(m)	10 (m)	(m)	(m)	width (m)	Cu (wt. %)	Zn (wt. %)	Ag (g/t)	Au (g/t)	Zn eq. [*]
GL1997-02C	451.8	456.1	4.30	3.51	3.69	3.07	27.16	50.4	0.21	34.82
GL1997-04	469.0	474.8	5.80	4.25	4.46	1.61	9.36	37.0	0.82	14.55
GL1997-07	448.8	459.3	10.45	6.98	7.33	0.52	7.77	8.4	0.29	9.41
GL1997-08	456.1	460.6	4.50	2.97	3.12	0.09	0.67	11.4	3.39	5.80
GL1997-08	417.8	422.1	4.30	2.84	2.98	0.48	1.50	10.3	0.07	2.80
GL1997-09	531.3	539.5	8.20	5.67	5.95	0.61	1.41	7.2	0.46	3.48
GL1997-10	403.1	407.4	4.38	3.00	3.15	0.04	1.26	4.8	0.02	1.46
GL1997-12	371.9	378.3	6.40	4.60	4.83	1.22	2.67	11.1	0.81	6.56
GL1997-19	448.2	454.1	5.95	3.67	3.85	0.58	2.10	14.5	0.34	4.06
GL1997-20A	446.0	453.0	7.00	3.02	3.17	0.01	1.75	11.9	0.00	1.98
GL1997-21	549.0	554.0	5.00	2.99	3.14	0.21	1.73	5.3	0.00	2.26
GL1997-24	590.0	595.1	5.10	3.59	3.77	0.24	0.43	6.4	0.02	1.09
GL2004-03	578.5	586.0	7.50	5.75	6.04	1.26	2.05	17.9	1.03	6.45
GL2004-04	414.0	425.8	11.75	9.85	10.34	0.33	7.18	14.1	0.24	8.47
GL2004-05	649.0	653.4	4.40	3.27	3.43	0.30	0.71	3.9	0.15	1.62
GL2004-08	325.0	335.2	10.20	7.13	7.49	0.95	8.50	25.3	1.02	12.37
GL2004-09	256.5	265.0	8.50	6.29	6.60	0.42	4.10	11.9	0.35	5.67
GL2005-10	346.5	350.6	4.10	2.94	3.09	0.17	1.53	5.1	0.05	2.04
GL2005-13	196.7	201.0	4.30	3.09	3.24	0.08	0.78	2.7	0.03	1.03
GL2005-17	766.0	779.6	13.60	2.95	3.10	0.50	0.35	2.1	0.35	1.93
GL2006-18	513.5	518.9	5.40	3.84	4.03	0.66	18.71	25.6	0.45	21.17
GL2006-20	523.2	534.4	11.20	7.58	7.96	0.35	4.42	38.2	0.41	6.41
GL2006-21	4/4.5	4/8.9	4.44	3.00	3.15	1.05	5.58	23.9	1.43	10.21
GL2006-23B	587.4	591.0	3.60	3.11	3.27	0.10	1.36	5.3	0.05	1.74
GL2006-24A	548.0	553.5	5.50	3.37	3.54	0.57	4.77	26.1	0.27	6.80
GL2006-25	465.5	4/1.0	5.50	3.40	3.57	0.18	3.10	12.4	0.25	4.04
GL2006-26	291.5	302.0	10.50	5.75	6.04	0.28	8.89	33.3	0.27	10.45
GL2006-26	317.0	323.0	6.00	3.29	3.45	0.33	5.62	23.7	1.37	8.6/
GL2006-27	304.9	309.1	4.15	3.20	3.36	0.59	10.59	19.6	0.73	13.21
GL2006-28	289.9	294.2	4.25	3.00	3.15	0.44	3.32	18.9	0.21	4.86
GL2006-30	228.0	252.5	4.50	3.01	3.10	0.08	0.//	3.5	0.05	1.06
GL2006-33	44/.9	451.9	4.03	3.00	3.15	0.03	1.09	2.5	0.01	1.20
GL2006-34	383.3	389.1	3.62	3.00	3.15	0.10	1.13	0.0	0.03	1.49
GL2006-35	021.0	023.3	3.92	3.00	3.15	0.39	3.40	10.1	0.13	4.58
GL2006-37	282.0	$\frac{302.1}{242.1}$	20.10	2.00	2 15	0.33	1.23	8.3	0.62	$\frac{3.3}{21.91}$
GL2000-39	546.0	552.0	4.27	3.00	3.13	0.21	18.34	0.2	0.41	4.59
GL2007-40	202.0	406.6	0.10 8.60	4.08	4.20	0.21	3.70	12.9	0.14	4.30
GL2007-47	200.0	204.5	<u>8.00</u> 4.50	2.19	2.24	0.00	2.09	12.7	0.71	2.04
GL2007-48	<u> </u>	194.5	4.50	0.41	0.99	0.39	2.08	27.6	0.37	10.20
GL2007-49	<u>4/3.4</u> 526.5	527.6	12.30	7.00	9.00	0.98	2.45	15.1	0.81	5 35
GL2007-50 GL2007-51	247.2	250.7	2 20	2.00	3.15	0.92	2.43	10.0	0.30	1 22
GL2007-51 GL2007-53	<u>247.5</u> 560.4	250.7	3.39	5.00	5.66	1.20	3.37	25.4	0.04	4.23
GL2007-55	524.5	529.5	7.03	2.17	3.00	0.00	4.28	23.4	0.85	1.42
GL2007-54	5450	549.0	3 00	3.17	3.33	0.09	0.90	3.0	0.10	1.45
GL2007-55	586.2	500 2	<u> </u>	3.01	3.10	0.39	1.24	3.0	0.21	1.39
GL2007-57	552 1	556.1	3 72	3.00	3.15	0.03	1.24	22.0	0.04	2 70
GL2007-58	421.4	425.2	3.72	3.60	3.15	0.05	2 45	33	0.21	2.13
GL2007-01	612.7	618 /	5 70	3/18	3.70	0.05	0.50	80	0.05	1 42
GL 2007-05	266.2	269.9	3.66	3.00	3.05	0.20	1.62	26.2	0.00	3.02
GL2008-08	442.2	447.0	4 79	3.00	3.15	0.23	1.02	3.0	0.02	1.35
UA-12	28.5	33.0	4.45	3.83	4.02	0.09	1.48	0.0	0.00	1.67

Table 1. Significant historical drill intersections, Arrow Zone, Garnet property.

*The zinc equivalent (Zneq) grade was determined using generalized 2017 prices in US\$ for zinc (1.23/lb), copper (2.60/lb), gold (1.20/lb), gold (1.



Figure 4. Location of historical DDHs within the Garnet Lake. Note the concentration of drillholes defining the Arrow Zone.

of the Arrow Lake deposit (198.4 m). Assessment report 2007745[#].

1984- Noranda Mining and Exploration Inc (1984). Geological maps and rock sample location in the northeastern segment of the Garnet Lake property. Assessment report 52N02SE0081.

1984- Holroyd (1984). Cominco Inc. A magnetometer survey was carried out over the Garnet Lake claims to trace a mineralized horizon along strike and to identify any geological structures on the property. The general NE-SW strike direction of the stratigraphy is quite apparent from the magnetic contour map. There are several sub-parallel narrow units of high magnetic values which can be traced over the length of all claims. Assessment report 2008880.

1991- Lewis (1991). Minnova Inc. Geological mapping and lithogeochemical sampling were completed to determine the physical volcanology of the Elbow Lake (Garnet Lake) property and attempt to identify and define hydrothermal alteration which is commonly associated with massive sulfide accumulation. Mapping was achieved on a scale of 1:1000. During the mapping program a total of 81 lithogeochemical samples were collected and analyzed for a suite of 15 major and trace elements. Assessment report 52N02SW8905.

1993- Bertrand and Lewis (1993). In 1991, Crone Geophysics of Toronto conducted a program of surface Pulse EM on Minnova Inc's Confederation Lake project. A total of 100.8 km of surface profiling was completed on two separate grids. The Elbow Lakegrid (Garnet Lake) showed two major linear and parallel conductors across the survey area. The conductors show variable conductivity-thickness and depth along their extension. Assessment report 52NO2SE9972.

1995- MacDougall (1995). A work program consisting of line cutting and ground geophysical surveys (Mag, HLEM. Surface Deep EM) was completed on parts of the

Garnet Lake property by Noranda Mining Exploration. The surveys were designed to evaluate historic AEM conductive trends that are associated with near surface Zn-rich sulphide mineralization for potential extensions at depth below the -200 m level. The surveys identified several conductive trends which were recommended for evaluation at moderate depths by diamond drilling. Assessment report 52N02SW0001.

1996- Harper (1996). Noranda Mining and Exploration Inc. A work program involving geophysics, geological mapping, lithogeochemical sampling was completed. A three-hole drill program was performed and yielded 1149.1 m of core material. The program successfully outlined a time break in the regional stratigraphy coincident with a conductive horizon. Widespread hydrothermal alteration was encountered in the footwall package associated with a synvolcanic quartz feldspar porphyry intrusive. Assessment report 52NO2SE0032.

1997- Barr and MacDougall (1997). Noranda Exploration Inc. Logs of three DDHs totaling 803.1 m of core and collared on the southwestern sector of the Garnet Lake property. Assessment report 52K15NW0021.

1999- King (1999). Noranda Mining and Exploration undertook a diamond drilling program consisting of 8 holes and deepening 1 existing hole, for a total of 3,745 m on the southwestern extension of the Arrow zone. Lithogeochemical sampling of the core material helped identify element enrichment/depletion trends typical of hydrothermal alteration associated with volcanogenic massive sulphide deposits. The enrichment trends are manifested by alteration mineral assemblages such as silicification, chloritization (MgO, FeO), and sulphidization (FeO, Cu, Zn, Ag) associated with a depletion of the highly mobile alkalis (Na₂O, CaO) due to hydrothermal leaching. Borehole time domain electromagnetic surveys (BHPEM) were conducted on all the diamond drill holes on the Copper Lode property from 1995 to 1998. Assessment report 52K15NW2002.

2000- Smith (2000). Noranda Inc. Diamond drilling completed on the Garnet Lake

Property between in 1997 and 1998. A total of 14,867.5 m of core material was extracted distributed in 28 holes. Diamond drilling successfully intersected significant stringers to massive sulphides of the Arrow Zone over an approximately 1.4 km strike length at a vertical depth between -320m and -800m. Assessment report 52N02SW2005.

2004- Davison (2004). Tribute Minerals completed line cutting, detailed GPS surveys, and Quantec Titan-24 geophysical surveys on the central portion of the Garnet Lake property. Assessment Report 52N02SW2012.

2004- Coulson (2004). Quantec Geosciences on behalf of Tribute Minerals. Borehole TEM surveys were performed in 5 diamond drill holes within the Garnet Lake Property. The results of the surveys have been forwarded and inverse modeled using Maxwell algorithm to provide a better understanding of borehole anomaly responses and to better define dimensions of anomaly sources. Assessment report 20002624.

2005- Davison (2005). Tribute Minerals Corp. Tribute implemented a diamond drilling program on the Garnet Lake property totaling 2,280 m of core material over four holes. The primary objectives of the program were to drill test favorable geophysical signatures obtained from the Titan-24 survey completed on the property and to follow-up the drilling with BHTEM surveys of the holes in order to define additional favorable conductors potentially associated with base metal sulphides. Assessment report 20001726.

2006- Coulson (2006). Quantec Geosciences on behalf of Tribute Minerals. Borehole TEM surveys were performed in 3 diamond drill holes over the Garnet Lake Property. Measurements were made at both 30 Hz and 3 Hz to cover both poor and excellent quality conductors. Assessment report 20002626.

2006- Boyd (2006). Tribute Minerals Corp. Examination and sampling of core from previous Noranda drilling, and Quantec borehole TEM geophysical surveys on eight

DDHs carried out on the central portion of the Garnet Lake property. A new diamond drill program entailed fourteen holes totaling 6,350 m. Assessment Report 2002624.

2007- Boyd (2007a). Tribute Minerals Corp. A diamond drill program consisted of 7 seven holes totaling 4,100 m. The objective of the drilling program was to follow-up the results of the previous winter programs, and to test new drill targets generated from the re-examination of data from previous BHPEM surveys of the 97-98 drilling (Noranda), plus new BHPEM surveys of previous Tribute Minerals drilling. Assessment report 2003836.

2007- Boyd (2007b). Tribute Minerals Corp. Diamond drill program consisting of six successful holes totaling 2,304 m of core material. The objective of the drilling program was to follow-up on the results of successful drilling of the Arrow Zone during the winters of 2004-2005 and 2005-2006 which included drill holes results from holes GL-2004-08 (13.9% Zn, 1.11% Cu, 1.12 g/t Au, 37 g/t Ag and 57 g/t Indium over 5.8 m) and GL-2004-18 (18.5% Zn, 0.66% Cu, 0.46 g/t Au, 25.7 g/t Ag and 81.2 g/t Indium over 5.4 m). The objective was to extend the Arrow Zone to the east and up-plunge directions and along strike to the west in the vicinity of Elbow Lake. Assessment report 2004689.

2007- Boyd (2007c). Tribute Minerals Corp. This exploration assessment report covers a follow-up diamond drilling of the Tribute Minerals Inc. 2006 drill program on the Garnet Lake property. Three successful DDHs totaling 1,332.8 m of core material were collared in the western area of the property. Assessment report 2005152.

2007- Carter (2007). Tribute Minerals Corp. 43-101 Technical report on the evaluation of Resources at the Garnet Lake property. 80 holes have been drilled on the property of which 27 intersected potentially economic grades and widths of zinc-copper-gold-silver bearing polymetallic sulphides which make up the Arrow Zone. Based on these

intersections a preliminary estimate of the size of the resources has been completed. The total Indicated Resource of the Arrow Zone for the 3% zinc equivalent cut-off is 2.07 Mt @ 5.92% Zn, 0.75% Cu, 0.58 g/t Au and 21.1 g/t Ag*. 19 out of 24 holes analyzed for indium contain an average value of 34.6 g/t. The total Indicated Resource for the 5% zinc equivalent cut-off is 1.76Mt @ 6.75% zinc, 0.79% Cu, 0.61 g/t Au and 22.3 g/t Ag* with 18 out of 23 holes analyzed for indium containing an average value of 28.7 g/t. The zinc equivalency "Zn (eq.)" cut-off was based on a historical price relationship between zinc and copper of 1:2.4 such that Zn (eq.) = Zn (wt. %) + 2.4 Cu (wt. %).

2009- Boyd (2009). Tribute Minerals Corp. Drill hole (599 m) completed to test the gold potential of the property on the northern part of the Garnet Lake property. The objective of the drilling program was to test the hanging wall of the Garnet Lake area geological sequence for the presence of possible gold mineralization with pyrite hosted in quartz veins. Assessment report 2006522.

2010- Boyd (2010a). Tribute Minerals Corp. One DDH totaling 692 m of core material. The objective of the drilling program was to follow-up on the results of successful drilling of the Arrow Zone in the winters of 2004-2005, 2005-2006 and 2006-2007 and extend the Arrow Zone at depth. Assessment report [#].

2010- Boyd (2010b). Tribute Minerals Corp. A diamond drill program was conducted in 2008 and comprised 13 drill holes totaling 6,214 m of core material. The objective of the drilling program was to follow-up on the results of successful drilling of the Arrow Zone from 2004 to 2007. The objective was to extend the Arrow Zone to the east and upplunge directions towards the surface and down-plunge along strike to the west in the vicinity of Elbow Lake. The drill results indicated that the long axis of the Arrow Zone continues along strike and down plunges to the west, however, the favorable horizon appears to both widen and weaken in strength. Sphalerite and chalcopyrite mineralization persist in the extended zone to the west. Assessment report 2007977.

2017- Carter and Bowdidge (2017). Pistol Bay Mining Inc. 43-101 Technical report on the Mineral Resources estimate on the Garnet Lake property. The Mineral Resource Estimate used the centers of mineralized drill intercepts of the Arrow Zone. Grades and true widths for each intercept were derived using cutoff grades of 3%, 5% and 10% zinc equivalent. Zinc equivalents were calculated using zinc at US\$1.20 per pound, copper at US\$2.60 per pound, and gold at US\$1,225 per troy ounce. Minimum true widths of 3 m were used for the 3% zinc equivalent cut-off, and 1.8 m for the 5% cut-off. The polygonal method was used to derive areas of influence around each drill hole pierce point. Areas of influence were converted to tonnages to result in Mineral Resource Estimates. The Inferred Mineral Resource at a 3% zinc equivalent cut-off grades provided Inferred Resources of: 1.08 Mt @ 1.02% copper, 10.19% zinc, 0.81 g/t Au and 26.9 g/t Ag*. The authors believed the Arrow Zone has the potential for ultimate economic extraction.

*The resources estimates presented are treated as historic information and have not been verified or relied upon for economic evaluation by the Issuer or the writers. These are considered Historical Mineral Resources and do not refer to any category of sections 1.2 and 1.3 of the NI-43-101 Instrument such as Mineral Resources or Mineral Reserves as stated in the 2010 CIM Definition Standards on Mineral Resources and Mineral Reserves. The Issuer has not done sufficient work yet to classify the historical estimates as current Mineral Resources or Mineral Reserves. Therefore, the Issuer is in the opinion that the above quoted resources for the Garnet Lake-Arrow Zone are historical in nature.

2017- Hewitt and Wade (2017). Pistol Bay Mining Ltd. contracted GEOTECH Airborne Geophysical Surveys to carry out a heliborne versatile time domain electromagnetic (VTEM+) and horizontal magnetic gradiometer geophysical survey. The 2,100 line-km survey covers the eastern two-thirds (40 km in length) of Pistol Bay properties in the Confederation Lake greenstone belt that included the Garnet Lake property. Initial interpretation of the resulting data indicated conductive responses at all historic showings, zones, and mineralized drill intersections. Furthermore, there are conductive extensions of several known zones, beyond sections that have been drilled in the past and numerous IP effect anomalies have been identified.

2020- Pistol Bay Mining Inc. reports it has agreed to grant an exclusive option to Infinite Lithium Corp (currently Infinite Ore Corp.) to acquire up to an undivided 80% interest in and to the rights, title, and interests of the "Arrow Lake-Garnet Lake" mining claims in the Red Lake Mining District of northwestern Ontario. Canada.

5- GEOLOGICAL SETTING AND MINERALIZATION

5.1- The Superior Province of Ontario

In the Superior geologic Province of Ontario, Archean terranes and domains, containing greenstone belts and plutonic rocks hundreds of km long, can be distinguished from adjacent ones by lithologies, age, isotopic character, geochemistry, and bounding faults (Boily et al. 2009; Percival et al., 2006; Rayner and Stott 2005). In Ontario, two sialic terranes, the Hudson Bay, and the North Caribou Terrane (NCT) each have complex, but distinct, episodic magmatic and tectonic histories: the Hudson Bay terrane contains zircons, some inherited, from the Paleo- to Neoarchean; the North Caribou terrane from the Meso- to Neoarchean.

The Uchi domain forms the southern margin of the North Caribou terrane where magmatic U/Pb zircon ages and Nd model ages indicate widespread presence of 2.8 to 2.9 Ga old crust. The Uchi domain includes volcanic assemblages older than 2.8 Ga, indicating Mesoarchean crust is preserved locally. Neoarchean tectonic assemblages, forming the core of the Uchi domain, appear to have built on or adjacent to this Mesoarchean crust to the southern edge of the NCT.

The Uchi Domain encompass the Garnet Lake property within the Birch-Uchi Sub-

province. The latter is a tabular, eastward-trending region of metavolcanic and lesser metasedimentary rocks forming a semi continuous supracrustal network composed of submarine calc-alkaline, island-arc volcanic rocks around granitoid batholithsand plutons (Stott and Corfu, 1991). It is bounded to the north by the Berens River (plutonic belt) Sub-province and to the south by the English River Sub-province, each striking eastward (Figure 5).

5.2- Geology and Structure of The Birch-Uchi Greenstone Belt

The Uchi Sub-province exposes two significant greenstone belts and granitoid rocks. The western portion is occupied by the Red Lake Greenstone Belt with a 300 Ma magmatic activity (3.0-2.7 Ga) showing evidence of several episodes of intense hydrothermal alteration, deformation, metamorphism, and gold mineralization (Sanborn-Barrie et al., 2001). To the northeast, the Birch-Uchi Greenstone Belt is dominated by Neoarchean (2.73 Ga) volcanosedimentary and plutonic units, some of which are associated with VMS mineralization. These volcanosedimentary belts evolved on the southern flanks of the 3.0 Ga North Caribou Terrane by eruption and deposition of 2.99-2.85 Ga volcanosedimentary sequences in a continental margin setting followed by a 2.75-2.73 subduction-related arc volcanism manifested by the Berens River arc plutonic complex.

The Uchi Sub-province forms the eastward-trending southern flank of a tectonic block that includes the Berens River and Sachigo sub-provinces as defined by Card and Ciesielski (1986). The southern boundary is sharply defined by the east-trending Sydney Lake-Lake St. Joseph Fault. Supracrustal belts and the structural grain of intrusions trend to the east in the southern part of the Uchi Sub-province. Northern parts of the Subprovince feature northwest- and northeast-trending belts that appear to discontinuously merge into greenstone belts of the southern Sachigo Sub-province (Stone, 1990). In the Confederation Lake area, the volcanosedimentary and plutonic rocks have been affected by polyphase deformation, folding, faulting, and shearing as well as greenschist to locally amphibolite facies regional metamorphism during the Kenoran orogeny at approximately



Figure 5. Geology of the Superior Province of Ontario showing the Archean plutonic, volcanoplutonic, metasedimentary and high-grade gneiss subprovinces. The Garnet Lake property is located in the volcanoplutonic Birch-Uchi Sub-province.

2.72 Ga (Figure 6).

5.3- Volcanosedimentary Assemblages of the Birch-Uchi Greenstone Belt

Geological mapping of the Birch-Uchi Greenstone belt completed by Thurston (1985) revealed three main volcanosedimentary cycles. The youngest, cycle 3 (Confederation Lake) defines the core of a complex synclinorium. The oldest, cycle 1 (Balmer), forms the flanks of the synclinorium. Cycle 2 (Woman) is host to several gold occurrences and deposits, while the base metal massive sulphide occurrences and deposits are found principally in Cycle 3. Volcanic and sedimentary rocks were intruded by late granitic rocks and gabbros in the core of the synclinal belt as well as syn-volcanic Quartz-Feldspar Porphyry (QFP).

Nowadays, the notion of cycles is replaced by volcanosedimentary assemblages (see Sanborn Barrie et al., 2004). The Balmer assemblage (2.99-2.958 Ga) constitutes the oldest in the Birch-Uchi Greenstone Belt and is intruded by the Trout Lake batholith. It is dominated by mafic volcanic units made of massive to pillowed tholeiitic basaltic sequences at its base and overlain by a thick sequence of massive (non-pillowed) calcalkaline volcanic rocks, spanning in composition from basaltic andesite to rhyolite interlayered with volcanogenic siltstones. Rogers et al. (2000) surmised the Balmer assemblage within the Confederation Lake area was emergent; probably the result of their deposition on thicker continental crust.

The Woman assemblage (2870 Ma) defines a band of bimodal rocks cropping along the western edge of Woman Lake within the Birch-Uchi Belt. The assemblage overlies the Narrow Lake assemblage, with the boundary marked by interbedded iron formations and siltstones of the Medicine Rock assemblage. The Woman assemblage is composed of mafic to felsic volcanic sequences typically with chemical and tuffaceous metasedimentary rocks at the top. These cycles comprise lower units of tholeiitic basalts and minor basaltic andesites; and upper units of calc- alkalic pyroclastic deposits and



property and sites of different base and precious metals mineralization.

22

local flows (Thurston, 1985). The Woman assemblage contains arc-like type tholeiitic and calc-alkaline mafic volcanic rocks with the eastern part of the Birch-Uchi belt dominated by sub-aerial to very shallow marine welded felsic tuffs. Stromatolitic marble demarcates the top of the of the Woman assemblage.

The Birch-Uchi Greenstone Belt exposes the Narrow Lake assemblage (>2780 to <2975 Ma) composed of eastward-younging mafic volcanic units appearing to unconformably overlie the Balmer assemblage and underlie the 2.87 Ga Woman assemblage (Rogers, 2002). Each tholeiitic basaltic sequence consists principally of pillowed basaltic flows with minor clastic sedimentary rocks. The assemblage is cut by numerous synvolcanic gabbroic sills.

A new magmatic stage recorded in the Confederation Lake assemblage followed a 100 Ma hiatus in volcanic activity (Stott and Corfu, 1991). This assemblage features several mafic to felsic volcanic cycles (Thurston, 1985). In the Birch-Uchi Belt, three volcanic sequences are distinguished. From west to east these are the Knott, Agnew and Earngey sequences. The Knott sequence presents an arc-like signature ranging from island arc tholeiites at the base, to calc-alkaline mafic volcanic towards the summit. Associated felsic volcanic rocks include ignimbrites dated at 2742 Ma. The Agnew sequence is dominantly tholeiitic in affinity and contains basaltic rocks and fertile FIII-type rhyolitic rocks dated at 2744-2738 Ma which hosted the past-producing South Bay VMS mine. The Earngey sequence (2742-2735 Ma) is dominated by calc-alkaline intermediate to felsic volcanic rocks. The volcanic sequences of the Confederation Lake assemblage are interpreted to be separated from each other by eastward dipping thrust or high-angle reverses faults (Rogers, 2002). Moreover, the boundary between the Confederation and Woman assemblages may be a paraconformity in some places and a fault in others (Stott and Corfu, 1991).

5.4- Geology of the Garnet Lake Property

There are few published geological maps and descriptions of the lithological units of the

Garnet Lake property. The known geology was principally deciphered by the logs of the numerous drillholes which location are centered around Elbow Lake where the main VMS lenses were discovered. A 1:250,000 scale compilation map of the East Uchi Subprovince established by Sanborn-Barrie et al. (2004) indicates the property exposes felsic volcanic rocks, mainly rhyolitic flows, associated with quartz felspar-porphyry units of tholeiitic affinity (type III). The felsic rocks dated at 2744 Ma belong to the Agnew sequence of the Confederation Lake assemblage, considered representing the most fertile sequence for VMS deposits. Associated with the rhyolites, is a suite of poorly sorted beds of polymict conglomerates containing pebble to boulder-size clasts of volcanic and chemical sedimentary rocks, porphyries and quartz veins associated with thickly bedded arenites and lenses of wacke and siltstones. The upper crustal assemblages are intruded by massive to weakly foliated tonalite to trondhjemite. At a lower scale (1:10,000), Lewis (1991) provided a detailed geological and structural map of the Garnet property around the Arrow Lake zone. The volcanic and sedimentary rock layers are northwest-facing and dip to the NW $(65^{\circ}-75^{\circ})$. From east to west, the exposed lithologies were described as follows: a) A Quartz-Phyric Rhyolite (QPR) containing 2% sub-3 mmsized quartz eyes and finely disseminated biotite-rich horizons. A narrow zone of schistose QPR altered in sericite could represent a fault along the southeast boundary of the property, b) Garnitiferous narrow metasedimentary beds are observed at or near the contact with and overlying QFP flow. The 2 m-thick beds have been traced along strike (outcrop and drill hole intersections) for 1 km. The sediments are well-bedded and garnetrich revealing up to 10%, sub 1 cm garnet porphyroblasts. Biotite is also a major constituent and is pervasive and fine grained, c) A Quartz-Feldspar Porphyry unit (QPF) extending all along the property from 150 m in the area of Elbow Lake to 450 m in the eastern portion of the property (Figure 7). On a regional scale this unit can be further traced along the south shore of Elbow Lake to Horseshoe Lake, in the northeast for 6 km. The QPF body extends past the Garnet Lake property to the northeast reaching a total length of over 10 km and with a thickness of up to 1 km. The QFP seems to intrude the volcanic rocks. However, it probably emerged onto the seafloor (Thurston, 1985). A cherty-argillite \pm magnetite \pm sulphides unit lies directly on top of the QFP but is also truncated by what appear to be lobes of porphyritic rocks that broke through the paleo-



Figure 7. Detailed geology of the Arrow Zone (Garnet Lake property) showing the mineralized sulphide-rich zones and widespread alteration of felsic volcanic rocks.

surface and thus partially defined the paleo- topography (Carter and Bowdidge, 2017). This sub- volcanic to rhyolite flow is composed of 20% of sub 5 mm quartz and feldspar phenocrysts incorporated in a fine-grained felsic groundmass. A relatively thin mafic flow occurs above the cherty argillite unit overlying the Arrow Zone, d) The summit of the QPF unit is overlain by semi-massive to massive sulfides and intercalated with fine-grained tuffaceous sediments. This layer is not exposed but indicated by geophysical surveys and drill holeintersections. The mixed banded sulfides and felsic tuff layers range in thickness from 0.2 to 5.0 m and contains up to 20 % pyrite, pyrrhotite, sphalerite and minor chalcopyrite, f) Clastic sediments also overlie the QPF unit in few areas, having a thickness of 500 m. This a medium to a dark grey, fine grained and relatively massive unit. The sediment comprises 10% fine, pervasive biotite in a sugary quartz - feldspathic matrix.

Lewis (1991) mapped two phases of intrusive rocks. The property is underlain by a massive to slightly foliated, medium grained, white to pink granite (tonalite-trondhjemite?). The felsic intrusive contains sugary quartz and feldspar with minor muscovite and pale green wispy sericite parallel to foliation. Coarse grained, dark green and massive gabbroic intrusive bodies occur in the southern portion of the property and intrudethe quartz-phyric rhyolites.

5.5- Mineralization and Alteration

The Arrow Zone mineralization generally strikes of 62° and dip 72° to the northnorthwest. The mineralization above the cutoff grade of 3% Zn equivalent over a minimum true width of 3 m forms an elongated lens with a west-southwest plunge of 35°, a length of 750 m and a width of up to 150 m (Carter and Bowdidge, 2017). The Arrow Zone VMS mineralization is hosted within a layer of magnetite-rich interflow chloritite sediments surrounded by chlorite-anthophyllite-garnet-andalusite-staurolite altered felsic tuff volcanic rocks (Pettigrew, 2015). The host rocks overlie a sericitized QPF unit forming a dome footwall. Intermediate and felsic ash and fragmental tuffs form the hanging wall. The thickest and richest "core" of the Arrow Zone occupies a depression in the top surface of the emergent QFP (Carter and Bowdidge, 2017) (Figure 8). The mineralization consists of massive or near-massive sulphides with variable proportions of pyrite, pyrrhotite, sphalerite, chalcopyrite, and magnetite. The sphalerite is a deep brown to black variety and is presumed to have a significant iron content. In addition to zinc and copper, the sulphide zones contain silver and gold. Grain size is typically in the 1 to 3 mm range. Banding is pervasive, reflecting a primary layering parallel to the upper and lower contacts of the sulphide mineralization. The core of the Arrow Zone is 3 to 12 m thick, and the massive sulphides taper off towards the edges of the zone and interfinger with a cherty argillite rich in magnetite. Further away from the core zone, lesser amounts of disseminated sulphides (sphalerite or chalcopyrite) form bands within the cherty argillite (Carter and Bowdidge, 2017).

There is an important hydrothermal alteration at Garnet Lake. It forms a transgressive pipe cutting through the QFP and extends laterally along the cherty argillite unit. Alteration minerals include chlorite, sericite, and alusite, garnet, staurolite and anthophyllite. Massive black chlorite occurs along the cherty argillite horizon, and in the footwall of the massive sulphide body (Pettigrew, 2015; Lewis, 1991) (Figure 7).

There is another sulphide zone on the Garnet property referred to as the South Contact Zone and corresponding to an EM conductor (Figure 7). Shallow DDHs intersected a massive pyrite zone with minimal values in copper and zinc.

6- HIGH-RESOLUTION HELIBORNE SURVEY

6.1-Logistics

The high-resolution MAG survey was conducted by NOVATEM INC. between April 16th and 19th 2021 on a total of 545 linear kilometers. The helicopter completed all of its flights from the Red Lake Airport.





Figure 8, Schematic representation of the Arrow Zone topography

Novatem implemented its very-high resolution helicopter-borne system, using two laser optically pumped sensors providing 1000 measurements per second (1000 Hz) mounted at the front of a Guimbal G2 light helicopter. The instrumentation included: a) A "stinger", mounted at the front of the helicopter, b) A miniaturized magnetometer using two laser optically pumping sensors, c) A multi-frequency GNSS sensor positioning system capable of receiving the GPS, Glonass, Galileo and BeiDou constellations, d) A laser altimeter manufactured by MDL, e) A compensation system developed by Novatem for very high resolution, using an inertial unit and a three-component fluxgate magnetometer and high-performance inversion algorithms for the calculation of the coefficients and f), A navigation system developed by NOVATEM to minimize the deviations at the intersections of the flight lines and tie-lines. Synergy Aviation based in Edmonton (Alberta) supplied the helicopter, pilots, and mechanics.

The survey was carried out following the lowest possible flight surface above the vegetation. The median height above the ground is about 30 m. The helicopter flew along flight lines oriented 0° and spaced by 25 m. Control lines were spaced by 250 m and oriented 90°. The full description of the logistics involved in the survey and the instruments and aircraft deployed are provided in the NOVATEM report (Appendix 3), whereas Appendix 4 provides all the contour maps generated by the survey results.

6.2- Interpretation

Most first order structures run NE-SW, parallel to the strike of the volcanic assemblages. They are particularly prominent north of the Arrow zone and south of the contact zone in the TMI (Total Magnetic Intensity) contour map (Figure 9). The northern structure extents to the SW of the property and several of the magnetic and conductive zones in this area were investigated by drilling, albeit in a non-systematic way. The southernmost structure marks the contact of the mineralized/altered volcanic rock assemblages. These three main structures overlap the zones of high conductance detected by a VTEM survey flown over the property in 2016 (Boivin, 2021; Appendix 5). Several second order NNE/SSW- oriented structures are comprised between the northern and southern first order network. They may define secondary structures representing suitable targets for gold



Figure 9. Total Magnetic Intensity (TMI) contour map generated by the high-resolution MAG survey conducted in 2021 on the Garnet Lake property. The EM conductance anomalies resulting from a 2016 VTEM survey flown by GEOTECH are reported on the map.

mineralization. Note the three main massive sulphide lenses are associated with magnetic highs defined by the FVG (First Vertical Gradient) contour map (Figure 10). All the maps produced by NOVATEM are presented in Appendix 3, whereas the Boivin memo interpreting the structural make-up from the NOVATEM survey is reproduced in Appendix 4.

7- CONCLUSIONS AND RECOMMANDATIONS

Results of the recent High-Resolution Mag survey conducted over the principal VMS zones identified on the Garnet Lake property and their potential southwestern extensions will help defined new drill targets and precise the collar locations proposed by Boily (2021) in a recent 43-101 technical Report.

8- REFERENCES

Barr, C., MacDougall, M.L.W. 1997. DDHs logs, Noranda Mining and Exploration Inc.; 120 pp. Assessment report 52K15NW0021.

Bertrand, P., Lewis, P. 1993. Logistical report on In-Loop pulse EM survey, Confederation Lake project, Mitchell Township; 742 pp. Assessment report 52N02SE9972.

Boily, M. 2021. The VMS Garnet Lake property, Uchi Sub-province, Red Lake District, Northwestern Ontario, NTS 52K14 and 52N02. 43-101 technical report written for Infinite Ore Corp.; 65 pp.

Boily, M., Leclair, A., Maurice, C., Bédard, J.H., David, J. 2009. Paleo- to Mesoarchean basement recycling and terrane definition in the Northeastern Superior Province, Québec, Canada, Precambrian Research, v.168; p. 23-44.


Figure 10.First Vertical Gradient (FVG) contour map generated by the high-resolution MAG survey conducted in 2021 on the Garnet Lake property. The EM conductance anomalies resulting from a 2016 VTEM survey flown by GEOTECH are reported on the map.

Boivin, M. 2021. Structural interpretation of airborne geophysical surveys over the garnet Lake property, Ontario. Memorandum for Infinite Ore Corp. ; 4 pp.

Boyd, T. 2010a.Tribute Minerals Corp. report on diamond drilling, Garnet Lake property Belanger and Bowerman Townships, (G-3742 and 3744), Red Lake Mining Division, Northwestern Ontario; 29 pp. Assessment report 20007961.

Boyd, T. 2010b. Tribute minerals Corp. report on diamond drilling, Garnet Lake property, Belanger, and Bowerman Townships (G-3742 & 3744), Red Lake Mining Division, Northwestern Ontario; 166 pp. Assessment report 20007977.

Boyd, T. 2009. Report on diamond drilling, Garnet Lake Property-Garnet Lake North, Belanger, and Bowerman Townships (G-3742 and 3744), Red Lake Mining Division, Northwestern Ontario; 21 pp. Assessment report 20006522.

Boyd, T. 2007a. Tribute Minerals Corp. Report on Phase 4 exploration program, diamond drilling, Garnet Lake property-Arrow Zone, Belanger and Bowerman Townships, (G-3742 and 3744), Red Lake Mining Division, Northwestern Ontario; 146 pp. Assessment report 20003836.

Boyd, T. 2007b. Tribute Minerals Corp. Report on diamond drilling, Garnet Lake property, Belanger, and Bowerman Townships (G-3742 and 3744), December, 2007, Red Lake Mining Division, Northwestern Ontario; 733 pp. Assessment report 20004689.

Boyd, T. 2007c. Tribute Minerals Corp. Report on diamond drilling, Garnet Lake property-Garnet Lake west, Belanger and Bowerman Townships (G-3742 and 3744), Red Lake Mining Division, Northwestern Ontario; 60 pp. Assessment report 20005152.

Boyd, T. 2006. Tribute Minerals Corp. report on Phase 3 exploration program diamond drilling, core examination and sampling and borehole geophysical surveys, Garnet Lake property-Arrow Zone, April 25, 2006, Belanger and Bowerman Townships (G-3742 and

3744), Red Lake Mining Division, Northwestern Ontario; 163 pp. Assessment report 20002624.

Card, K. D., Ciesielski, A. 1986. Subdivisions of the Superior Province of the Canadian Shield. Geoscience Canada, volume 13, no. 1; p. 5-13.

Carter, G.S. 2007. Technical report on the Resources at Garnet Lake property, Confederation Lake belt, Red Lake, Ontario, Canada on behalf of Tribute Minerals Inc. NI43-101 Technical report; 38 pp.

Carter, G.S., Bowdidge, C. 2017. NI43-101 Technical Report and Mineral Resources Estimate on the Garnet Lake property, Confederation Lake Belt, District of Kenora, Red Lake Mining Division, Ontario, Canada for Pistol Bay Mining Inc.; 78 pp.

Coulson., S. T. 2006. Geophysical Survey Interpretation Report Regarding Transient EM 3D borehole Surveys over the Garnet Lake Property near Ear Falls, ON behalf of Tribute Minerals Inc., Toronto, ON; 79 pp. Assessment report 20002625.

Coulson, S.T. 2004. Quantec Geoscience Inc., Geophysical Survey Interpretation Report Regarding Transient Electromagnetic Borehole Surveys over the Dixie and garnet Lake Properties near Ear Falls, ON, on behalf of TRIBUTE MINERALS INC., Toronto, ON; 70 pp. Assessment report 20002626.

Davison, J.G. 2005. Tribute Minerals Corp. Report on Phase 2 exploration program, diamond drilling and downhole geophysics, Garnet Lake property-Arrow Zone, Belanger and Bowerman Townships, (G-3742 & 3744), April 18, 2005, Red Lake Mining Division, Northwestern Ontario; 301 pp. Assessment report 20001726.

Davison, J.G. 2004. Tribute Minerals Corp. report on Phase I exploration program, line cutting, ground geophysics and high-resolution GPS surveys, Garnet Lake property-

Arrow Zone, Belanger and Bowerman Townships, (G-3742 and 3744), Red Lake Mining Division, Northwestern Ontario; 141 pp. Assessment report 52N02SW2012.

Harper, J. 1996. Noranda Mining and Exploration Inc. report on geological mapping-1995, ground geophysics-1995-1996, diamond drilling-1996, Meyer-Horseshoe Lake option, N.T.S. 52K/15, 52K/2, NW Ontario, Western Canada Region; 239 pp. Assessment report 52N02SE0032.

Hewitt, S.L., Wade, T. 2017. Report on a Helicopter-Borne versatile Time Domain Electromagnetic (VTEMTM plus) and Horizontal Magnetic gradiometer Geophysical Survey, Confederation Lake Project. GEOTECH Airborne geophysical Surveys; 56 pp.

Holroyd, R. W. 1984. Cominco Ltd. Exploration, eastern district, Horseshoe Lake, Ontario, NTS: 52K-15/N2; 19 pp. Assessment report 20008880.

King, D. 1999. Noranda Inc. Report on diamond drilling and borehole pulse electromagnetic surveys (BHPEM)-1997/1998, Copperlode property, Belanger Twp., Fredart Lake area (M_1868), NW Ontario, N.T.S. 52K15, 52N2, Western Canada Region; 201pp. Assessment report 52K15NW2002.

Lewis, P. 1991. Inmet Mining, Elbow Lake property, geological survey, Belanger Township, Ontario, NTS52N/2; 40 pp. Assessment report 52N02SW8905.

MacDougall, C. 1995. Noranda Mining and Exploration Inc., Report on geophysical surveying (Mag, HLEM, DEEP EM)-1995 INMET-Garnet Lake option; 92 pp. Assessment report 52N02SW0001.

Malouf, S. E., Larson, R., Amendolagine, E., Gamey, C.E., Archibald, C. W., Albarracin,L. 1970. DDHs logs, Copper Lode Mines Ltd.; 197 pp. Assessment report52K15NW0017.

Mouge, P. 2021. Technical report. NOVATEM G2 Very High resolution Heliborne Magnetic Survey on the Fredart and garnet Like projects, On. for Infinite Ore Corp.; 28 pp.

Noranda Exploration Inc. 1'':1,320' geological maps of the Horseshoe property, with UTEM and magnetometer survey maps, District of Kenora, NTS 52K/14 and NTS 52N/02; 17 pp. Assessment report 52N02SE0081.

Percival, J.A., Sanborn-Barrie, M., Skulski, T., Stott, G.M., Helmstaedt, H., White, D.J. 2006. Tectonic evolution of the western Superior Province from NATMAP and Lithoprobe studies; Canadian Journal of Earth Sciences, v.43; p.1085-1117.

Pettigrew, T. 2015. Mineral Deposit Inventory for Ontario, Ministry of Energy, Northern Development and Mines, Deposit: 52K15NW00017.

Rayner, N., Stott, G.M. 2005. Discrimination of Archean domains in the Sachigo Subprovince: a progress report on the geochronology; *In* Summary of Field Work and Other Activities 2005, Ontario Geological Survey, Open File Report 6172; p.10-1 to 10-21.

Rogers, N. 2002. Geology, Confederation Lake, Ontario. Geological Survey of Canada, Open File 4265; Scale 1: 50,000.

Rogers, N., McNicoll, V., van Staal, C.R., Tomlinson, K.Y. 2000. Lithogeochemical studies in the Uchi-Confederation greenstone belt, northwestern Ontario: implications for Archean tectonics. *In* Current research 2000-C16, Geological Survey of Canada; 11 pp.

Sanborn-Barrie, M., Rogers, N., Skulski, T., Parker, J., McNicoll, V., Devaney, J., 2004. Geology and Tectonostratigraphic Assemblages, East Uchi Subprovince, Red Lake and Birch-Uchi belts. Geol. Surv. of Canada, Open File 4256, Preliminary Map P3460, 1:250,000. Sanborn Barrie, M., Skulski, T., Parker. J. 2001. 300 m.y. of tectonic history recorded by the Red Lake greenstone belt, Ontario. In Current Research 2001-C19, Geological Survey of Canada; 14 pp.

Smith, A. 2000. Noranda Inc., report on diamond drilling 1997-1998, INMET-Garnet Lake option. N.T.S. 52K15, 52N/2; 379 pp. Assessment report 52N02SW2005.

Stone, D. 1990. Geology of the Red Lake and Varveclay-Favourable-Whiteloon areas, northwestern Ontario. *In* Summary of Field Work and Other Activities 1990, Ontario Geological Survey, Miscellaneous Paper 151; p. 5-17.

Thurston, P.C., 1985. Physical Volcanology and Stratigraphy of the Confederation Lake Area. Ont. Geol. Surv. Rpt. 236, with Map M2498.

Wierzbicki, V. 1972. South Bay Mines Ltd. DDH logs, Arrow East grid; 18 pp. Assessment report 20007745.

Appendix 1. Claim status as of	April 12, 2022, Garnet Lake property.

Tenure Id	Township / Area	Tenure Type	Area (Ha)	Anniversary Date	Tenure Status	Holder
129528	Belanger	Boundary Cell	15.49	2023-01-31	Active	Pegasus Resources Inc. (100%)
133234	Belanger	Boundary Cell	0.08	2023-08-12	Active	Pegasus Resources Inc. (100%)
153951	Bowerman	Boundary Cell	8.66	2023-06-27	Active	Pegasus Resources Inc. (100%)
179846	Belanger	Boundary Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
179867	Bowerman	Boundary Cell	10.39	2023-06-27	Active	Pegasus Resources Inc. (100%)
179887	Belanger	Boundary Cell	8.31	2023-11-30	Active	Pegasus Resources Inc. (100%)
185885	Belanger	Boundary Cell	3.83	2023-05-22	Active	Pegasus Resources Inc. (100%)
185907	Bowerman	Boundary Cell	0.30	2023-06-27	Active	Pegasus Resources Inc. (100%)
185923	Bowerman	Boundary Cell	14.64	2023-06-27	Active	Pegasus Resources Inc. (100%)
185928	Belanger	Boundary Cell	20.33	2023-11-30	Active	Pegasus Resources Inc. (100%)
185930	Belanger	Boundary Cell	8.26	2023-11-30	Active	Pegasus Resources Inc. (100%)
187214	Bowerman	Boundary Cell	8.91	2023-06-27	Active	Pegasus Resources Inc. (100%)
195132	Belanger	Boundary Cell	15.76	2023-11-30	Active	Pegasus Resources Inc. (100%)
195133	Belanger	Boundary Cell	15.85	2023-11-30	Active	Pegasus Resources Inc. (100%)
195134	Belanger	Boundary Cell	6.96	2023-11-30	Active	Pegasus Resources Inc. (100%)
199066	Belanger	Boundary Cell	12.62	2023-10-25	Active	Pegasus Resources Inc. (100%)
212312	Belanger	Boundary Cell	14.32	2023-11-30	Active	Pegasus Resources Inc. (100%)
242229	Belanger	Boundary Cell	7.30	2023-11-30	Active	Pegasus Resources Inc. (100%)
245651	Belanger	Boundary Cell	6.96	2023-01-31	Active	Pegasus Resources Inc. (100%)
250233	Belanger	Boundary Cell	9.70	2023-11-30	Active	Pegasus Resources Inc. (100%)
252067	Belanger,Bowerman	Boundary Cell	14.69	2023-06-27	Active	Pegasus Resources Inc. (100%)
289801	Bowerman	Boundary Cell	19.65	2023-06-27	Active	Pegasus Resources Inc. (100%)
297374	Belanger	Boundary Cell	20.35	2023-11-30	Active	Pegasus Resources Inc. (100%)
321945	Bowerman	Boundary Cell	6.80	2023-06-27	Active	Pegasus Resources Inc. (100%)
328973	Belanger	Boundary Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
333851	Belanger	Boundary Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
105400	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
107567	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
108801	Belanger	Single Cell	20.35	2023-01-31	Active	Pegasus Resources Inc. (100%)
112699	Belanger	Single Cell	20.35	2023-06-27	Active	Pegasus Resources Inc. (100%)
115340	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
121915	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
122996	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
122997	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
132879	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
132903	Belanger	Single Cell	20.35	2023-05-22	Active	Pegasus Resources Inc. (100%)
133233	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
133620	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
135486	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
137285	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
141525	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
141526	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
141852	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
141853	Bowerman	Single Cell	21.42	2023-06-27	Active	Pegasus Resources Inc. (100%)
148830	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
150489	Belanger	Single Cell	20.35	2023-06-27	Active	Pegasus Resources Inc. (100%)
150/13	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
153207	Belanger	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
153952	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
155458	Delanger,Bowerman	Single Cell	20.35	2023-06-27	Active	Pegasus Resources Inc. (100%)
160397	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
160398	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
100418	Belanger Belanger	Single Cell	20.33	2023-05-22	Active	Pegasus Resources Inc. (100%)
100433	Delanger	Single Cell	20.34	2023-03-22	Active	Pegasus Resources Inc. (100%)
1/0012	Delanger	Single Cell	20.33	2023-08-31	Active	Pegasus Resources Inc. (100%)
100000	Delanger	Single Cell	20.33	2023-08-12	Active	Pegasus Resources Inc. (100%)
101103	Delanger	Single Cell	20.34	2023-07-09	Active	regasus Resources Inc. (100%)

Appendix 1. Claim status as of	April 12, 2022,	Garnet Lake property.
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Tenure Id	Township / Area	Tenure Type	Area (Ha)	Anniversary Date	Tenure Status	Holder
184499	Belanger	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
184898	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
185750	Belanger	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
185931	Belanger	Single Cell	20.34	2023-11-30	Active	Pegasus Resources Inc. (100%)
186533	Belanger	Single Cell	20.34	2023-11-30	Active	Pegasus Resources Inc. (100%)
186910	Belanger	Single Cell	20.35	2023-01-31	Active	Pegasus Resources Inc. (100%)
187215	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
189306	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
189637	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
189638	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
189639	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
196538	Belanger,Bowerman	Single Cell	20.20	2023-07-09	Active	Pegasus Resources Inc. (100%)
199664	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
199665	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
200565	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
201825	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
206051	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
206391	Belanger	Single Cell	20.34	2023-01-31	Active	Pegasus Resources Inc. (100%)
206785	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
200780	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
209149	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
212308	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
213200	Dowerman	Single Cell	20.34	2023-00-27	Active	Pegasus Resources Inc. (100%)
210300	Belanger	Single Cell	20.34	2023-03-22	Active	Pegasus Resources Inc. (100%)
210037	Belanger	Single Cell	20.35	2023-06-12	Active	Pegasus Resources Inc. (100%)
217515	Belanger	Single Cell	20.33	2023-07-09	Active	Pegasus Resources Inc. (100%)
231063	Belanger	Single Cell	20.34	2023-07-09	Active	Pagasus Resources Inc. (100%)
231903	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
235275	Belanger	Single Cell	20.33	2023-08-12	Active	Pegasus Resources Inc. (100%)
236586	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
238723	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
243343	Belanger	Single Cell	20.35	2023-08-31	Active	Pegasus Resources Inc. (100%)
244114	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
247439	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
252052	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
252053	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
253720	Belanger	Single Cell	21.72	2023-10-25	Active	Pegasus Resources Inc. (100%)
253808	Belanger	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
254249	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
255966	Belanger	Single Cell	20.35	2023-07-09	Active	Pegasus Resources Inc. (100%)
264108	Belanger	Single Cell	20.35	2023-07-09	Active	Pegasus Resources Inc. (100%)
265331	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
265713	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
265714	Belanger	Single Cell	20.35	2023-10-25	Active	Pegasus Resources Inc. (100%)
267332	Belanger,Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
267333	Bowerman	Single Cell	20.35	2023-06-27	Active	Pegasus Resources Inc. (100%)
271148	Bowerman	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
271417	Belanger	Single Cell	20.35	2023-07-09	Active	Pegasus Resources Inc. (100%)
272781	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
274548	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
278779	Belanger	Single Cell	20.35	2023-11-30	Active	Pegasus Resources Inc. (100%)
279220	Belanger	Single Cell	20.35	2023-08-31	Active	Pegasus Resources Inc. (100%)
279974	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
281724	Belanger	Single Cell	20.33	2023-11-30	Active	Pegasus Resources Inc. (100%)
283278	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
283279	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)

Tenure Id	Township / Area	Tenure Type	Area (Ha)	Anniversary Date	Tenure Status	Holder
284173	Belanger	Single Cell	20.35	2023-07-09	Active	Pegasus Resources Inc. (100%)
284916	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
285104	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
285105	Belanger	Single Cell	20.35	2023-07-09	Active	Pegasus Resources Inc. (100%)
289802	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
289805	Belanger	Single Cell	20.33	2023-11-30	Active	Pegasus Resources Inc. (100%)
289806	Belanger	Single Cell	20.33	2023-11-30	Active	Pegasus Resources Inc. (100%)
289807	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
290207	Belanger	Single Cell	20.35	2023-01-31	Active	Pegasus Resources Inc. (100%)
293846	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
297373	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
298647	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
298726	Belanger	Single Cell	20.35	2023-01-31	Active	Pegasus Resources Inc. (100%)
301764	Belanger	Single Cell	20.34	2023-11-30	Active	Pegasus Resources Inc. (100%)
301765	Belanger	Single Cell	20.34	2023-11-30	Active	Pegasus Resources Inc. (100%)
303291	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
303292	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
303293	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
303454	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
303455	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
305038	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
305039	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
307279	Belanger	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
312351	Bowerman	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
312352	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)
316316	Belanger	Single Cell	20.35	2023-11-30	Active	Pegasus Resources Inc. (100%)
319823	Belanger	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
320353	Belanger	Single Cell	20.35	2023-01-05	Active	Pegasus Resources Inc. (100%)
322474	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
323869	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
333069	Belanger	Single Cell	20.35	2023-07-09	Active	Pegasus Resources Inc. (100%)
333850	Belanger	Single Cell	20.34	2023-08-12	Active	Pegasus Resources Inc. (100%)
341383	Belanger, Bowerman	Single Cell	20.34	2023-07-09	Active	Pegasus Resources Inc. (100%)
342158	Belanger	Single Cell	20.34	2023-05-22	Active	Pegasus Resources Inc. (100%)
342219	Belanger	Single Cell	20.35	2023-08-12	Active	Pegasus Resources Inc. (100%)
343829	Bowerman	Single Cell	20.34	2023-06-27	Active	Pegasus Resources Inc. (100%)

Appendix 1. Claim status as of April 12, 2022, Garnet Lake property.



Appendix 2. Claim map, Garnet Lake property, Imagine Lithium Inc.



TECHNICAL REPORT

NOVATEM G2 VERY HIGH RESOLUTION HELIBORNE MAGNETIC SURVEY ON THE FREDART AND GARNET PROJECTS, ON

for

INFINITE ORE CORP.



INFINITE ORE Corp.

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Period of the survey: 2021, April Data and report delivery date: 2021, May

SUMMARY

<u>1.</u>	INTRODUCTION		3
<u>2.</u>	SURVEY SPECIFICATIONS		4
2.1.	SURVEY LOCATION	4	
2.2.	SURVEY AREA	6	
2.3.	DATA ACQUISITION PARAMETERS	6	
2.3	3.1. SPACING AND ORIENTATION OF FLIGHT LINES	6	
2.3	3.2. FLIGHT HEIGHT ABOVE THE WATER AND	6	
GR	OUND	6	
2.	3.3. SPEED 3.4. TOLERANCES ON NAVIGATION	6 6	
2.3	3.5. TOLERANCE ON THE NOISE LEVEL OF THE MEASUREMENTS	6	
2.3	3.6. TOLERANCE ON TEMPORAL VARIATIONS OF THE MAGNETIC FIELD (DIURNAL AND SPHERICAL)	7	
2.4.	MILEAGE	7	
2.5.	FLIGHT LINES	8	
<u>3.</u>	TESTS AND CALIBRATIONS		9
3.1.	TESTS AND CALIBRATIONS OF MAGNETIC MEASUREMENT INSTRUMENTS	9	
<u>4.</u>	LOGISTICS		11
4.1.	GEOPHYSICAL AND LOGISTICS SERVICES	11	
4.2.	BASE OF OPERATION AND PROJECT ORGANIZATION	11	
4.3.	HUMAN RESOURCES ASSIGNED TO GEOPHYSICAL WORK	12	
4.4.	HUMAN RESOURCES ASSIGNED TO THE HELICOPTER	12	
4.5.	WORK SCHEDULE	12	
<u>5.</u>	INSTRUMENTATION		13
5.1.	HELICOPTER	13	
5.2.	Magnetometers	15	
5.2	2.1. MINIATURIZED SCALAR MAGNETOMETER	15	
5.2	2.2. VECTORIAL MAGNETOMETER	15	
5.3.	MULTI-BAND GNSS POSITIONING SYSTEM IN FLIGHT	16	
5.4.		16	
5.5.		17	
5.6.	IMU ('INERTIAL MEASUREMENT UNIT')	18	
5.7.		18	
5.8.		18	
5.9.	COMPUTERS	18	
5.10	D. SPARE PARTS	18	
<u>6.</u>	DATA QUALITY CONTROLS		19
6.1.	FLIGHT SPECIFICATION CHECK	19	
7.	DATA PROCESSING		20

7.1. DIFFERENTIAL POSITIONING CORRECTIONS	20
7.2. MAGNETIC DATA PROCESSING	20
7.2.1. SUMMARY OF MAGNETIC DATA PROCESSING	20
7.2.2. COMPENSATION	20
7.2.3. CORRECTION OF TEMPORAL VARIATIONS (DIURNAL)	20
7.2.4. CORRECTION OF INSTRUMENTAL DELAY (LAG)	21
7.2.5. LEVELLING	21
7.2.6. IGRF	21
7.2.7. ANOMALIES AND REDUCTION TO THE POLE	21
7.2.8. DERIVATIVE MAPS	21
8. FINAL DATA	22
8.1. PRODUCTS DELIVERED	22
8.2. MAGNETIC DATA BASE	23
10. ATTESTATION OF QUALIFICATION	25
APPENDICES	26
APPENDICE A : GEODESIC PARAMETERS USED IN PROJECTIONS	26
APPENDICE B : GRID PARAMETERS	26

LIST OF FIGURES

FIGURE 1 : HELICOPTER IN FLIGHT	3
FIGURE 2 : LOCATION OF THE FREDART AND GARNET PROJECTS, 60 KM EAST OF THE RED LAKE AIRPORT, IN	
ONTARIO.	4
FIGURE 3 : ZOOM ON THE LOCATION OF THE FREDART AND GARNET PROJECTS,	5
FIGURE 4 : LINES FLOWN (PROJECTED IN UTM 15N).	8
FIGURE 5 : DIMENSIONS OF THE G2 HELICOPTER	13
FIGURE 6 : ACQUISITION AND NAVIGATION SYSTEM (SAMM) INSTALLED IN THE HELICOPTER	17

LIST OF TABLES

TABLE 1 : PERIMETER AND AREA OF THE BLOCKS	6
TABLE 2 : FLIGHT PARAMETERS USED	6
TABLE 3 : ESTIMATED AND MEASURED MILEAGE OF FLOWN LINES, IN UTM RECTANGULAR COORDINATES	7
TABLE 4 : NOVATEM'S SUPPLEMENTAL TYPE CERTIFICATE	13
TABLE 5 : IN FLIGHT MAGNETOMETER SPECIFICATIONS	15
TABLE 6 : FLUXGATE VECTOR MAGNETOMETER SPECIFICATIONS	15
TABLE 7 : POSITIONING SYSTEM SPECIFICATIONS	16
TABLE 8 : MAGNETOMETER BASE STATION SPECIFICATIONS	16
TABLE 9 : IMU SPECIFICATIONS	18
TABLE 10 : LASER ALTIMETER SPECIFICATIONS	18
TABLE 11 : DELIVERED PRODUCTS	22
TABLE 12 : CONTENT OF THE MAGNETIC DATABASE	23
TABLE 13 : GEODETIC PARAMETERS USED IN PLANE PROJECTIONS	26
TABLE 14 : GRID PARAMETERS	27

1. INTRODUCTION

Novatem Inc. has been mandated by Infinite Ore to carry out a very high resolution helicopter-borne magnetic survey on the Fredart and Garnet projects located about 60 kilometres East of the Red Lake Airport in Ontario. Novatem carried out the surveys between the 2021 April 16th and April 19th. This report describes the completion of the survey which totals 804 linear kilometres.

Novatem implemented its very-high resolution helicopter-borne system, using two laser optically pumped sensors providing 1000 measurements per second (1000 Hz) mounted at the front of a Guimbal G2 light helicopter. The instrumentation included:

- A "stinger", mounted at the front of the helicopter, designed and certified by Novatem in Canada;

- A miniaturized magnetometer using two laser optically pumping sensors;

- A multi-frequency GNSS sensor positioning system capable of receiving the GPS, Glonass, Galileo and BeiDou constellations;

- A laser altimeter manufactured by MDL measuring the height of the helicopter above the ground with centimeter precision;

- A compensation system developed by Novatem for very high resolution, using an inertial unit and a three-component fluxgate magnetometer manufactured by Billingsley and high-performance inversion algorithms for the calculation of the coefficients;

- A navigation system developed by Novatem to minimize the deviations at the intersections of the flight lines and tie-lines.

Novatem was associated for this project with the company Synergy Aviation based in Edmonton (Alberta) who supplied the helicopter, pilots and mechanics.

This report describes the operations during the survey, the equipment used, the operating methods for acquisition and data processing.



Figure 1 : Helicopter in flight



2. SURVEY SPECIFICATIONS

2.1. SURVEY LOCATION

The Fredart and Garnet projects are located about 60 km East of the Red Lake Airport, in Ontario.



Figure 2 : Location of the Fredart and Garnet projects, 60 km East of the Red Lake Airport, in Ontario.





Figure 3 : Zoom on the location of the Fredart and Garnet projects, about 60 km East of the Red Lake Airport.



Very high resolution helicopter-borne magnetic survey on the Fredart and Garnet projects

2.2. SURVEY AREA

The extent of the project is summarized here using the perimeter and area, measured in geographic coordinates, converted from UTM coordinates provided by Infinite Ore:

Bloc	Perimeter	Area
Fredart	13,4 km	$5,87 \text{ km}^2 = 587 \text{ hectares}$
Garnet	19,3 km	$12,36 \text{ km}^2 = 1236 \text{ hectares}$

Table 1 : Perimeter and area of the blocks

2.3. DATA ACQUISITION PARAMETERS

2.3.1. SPACING AND ORIENTATION OF FLIGHT LINES

The flight parameters used for the project are summarized in the following table.

Project	Flight Lines Azimuth	Control Lines Azimut	Flight Line Spacing	Control Line Spacing	Sensor Height Above Ground
Fredart and Garnet	NO	N90	25 m	250 m	Rase-mottes (as low as possible)

Table 2 : Flight parameters used

2.3.2. FLIGHT HEIGHT ABOVE THE WATER AND GROUND

The survey was carried out following the lowest possible flight surface above the vegetation. The median height above the ground is about 30 m.

2.3.3. Speed

The average speed of the helicopter, measured over the entire survey, was 69kts (Fredart) and 61kts(Garnet), or 127 km/h and 113 km/h.

The pilot tried to follow the specs to the best of his ability. These parameters may have varied temporarily, depending on local flight conditions (mainly lakes, vegetation, topography and air currents).

2.3.4. TOLERANCES ON NAVIGATION

The maximum deviation, measured in the horizontal plane is about 5m. However, these values may have been locally exceeded depending on the vegetation, homes, power lines, etc.

2.3.5. TOLERANCE ON THE NOISE LEVEL OF THE MEASUREMENTS

The noise level of the raw magnetic data, measured on the standard deviation of the normalized fourth difference of the compensated magnetic field is approximately 0.001 nT for the entire survey.



2.3.6. TOLERANCE ON TEMPORAL VARIATIONS OF THE MAGNETIC FIELD (DIURNAL AND SPHERICAL)

The maximum deviation at the base station over time variations of the magnetic field has always been less than 1 nT peak to peak over a one minute period and 0.5 nT peak to peak over a 15 second period. The measurements were made continuously, at the rate of one measurement per second, with an extension of at least one hour of measurement before and after each flight.

2.4. MILEAGE

The following table gives the mileage measured on the completed flight path (measured on the projected plane coordinates).

Bloc	Fredart	Garnet	Total km
Lines km	237	495.5	732.5
Tie-lines km	22	49.5	71.5
Total	259	545.0	804.0

Table 3 : Estimated and measured mileage of flown lines, in UTM rectangular coordinates



2.5. FLIGHT LINES

Figure 4 shows the lines flown, spaced 25m in the N0 direction and 250m in the N90 direction. Deviations from the flight plan results from the presence of taller trees.



Figure 4 : Lines flown (projected in UTM 15N).



3. TESTS AND CALIBRATIONS

All instruments, including spare ones, were tested and calibrated prior to mobilization. The configuration was then tested at the location of the survey. The following tests were completed before the start of the work.

3.1. TESTS AND CALIBRATIONS OF MAGNETIC MEASUREMENT INSTRUMENTS

3.1.1. Static test of magnetic stations and GPS positioning

Ground and flight magnetometers recordings were made for at least 20 minutes. Magnetic data was recorded simultaneously by the base station magnetometers and the onboard magnetometers in the helicopter, while the helicopter was stationary on the ground, and the station was close to the helicopter.

3.1.2. Dynamic testing of embedded systems

The helicopter flew a single line for at least 50 km and the data was compared to ensure that all systems produced similar results. This comparison line was taken at the start of the survey and repeated each time modifications were made to the helicopter.

3.1.3 Calibration of on-board magnetometers (Morewood test)

The on-board magnetometer calibration was performed at the new CGC calibration base in Morewood, Ontario, at the start and end of operations.

This calibration included in particular a measurement of the heading error. The helicopter made at least two passes in each direction north, south, east and west.

The results of these tests are archived in the same graphic format as that used during the production of the survey, and in the digital format intended to archive the data. The same precision (two decimal places) is used for both presentations. The test results, as well as the video coverage of the flight path, were validated before going to the survey area.

The total magnetic field values recorded at the Ottawa Observatory (Ontario) were used as a reference during the duration of these calibration flights.

3.1.4. Electronic navigation test (done with the Morewood test)

Simultaneously, an electronic navigation test was carried out. The quality of the DGPS positioning measurements of the on-board system was validated by comparison of the measurements overflown above a measurement point established on the ground.

3.1.5. Parallax test

The time synchronization and recording systems were checked before operations began by flying over an intense, isolated magnetic source (a metal hangar) in opposite directions and at the nominal height of the survey. This delay, if observed, would then be corrected during data processing. No delay was observed here.



3.1.6. Calibrating the altimeter

The laser altimeter used for this survey does not require any calibration other than that carried out in the laboratory before leaving for the survey. The heights above the ground provided by the instrument are therefore absolute measurements, requiring no other processing than the separation of the two pulses, reflected respectively by the ground and by the tops of trees.

3.1.7. Helicopter magnetic disturbance calibration flights at high altitude (FOM)

The helicopter's FOM was flown as the weather conditions were favorable, at high altitude, over an area of low magnetic gradient. The FOM included 3 rolls of \pm 10 °; 3 pitches of \pm 5 °; 3 yaws of \pm 5 ° in each direction of the survey flight lines (N0, N90, N180, N270). Each maneuver was performed over a period of at least 45 seconds.



4. Logistics

4.1. GEOPHYSICAL AND LOGISTICS SERVICES

Novatem Inc. took charge of the following elements of the project:

- Obtaining flight authorizations
- Provision of qualified personnel necessary for the smooth running of the survey until its completion
- Supply of the necessary technical equipment as well as spare parts to carry out the survey as soon as possible
- Supply of the helicopter and fuel
- Provision of board and lodging for employees
- Maintenance and supervision of the proper functioning of the helicopter
- Preliminary processing and quality control of geophysical data on the site
- Preparation and supply of preliminary and final products

4.2. BASE OF OPERATION AND PROJECT ORGANIZATION

The helicopter completed all of its flights from the Red Lake Airport.

A base of operations has been set up at Rade Lake. This base was equipped with an internet connection. A telephone link was available throughout the survey with the chef de mission on one hand and by radio telecommunication with the pilot on the other. The helicopter was also equipped with a Spidertracks communication and tracking system. All the equipment necessary for data preprocessing were available on site.

A magnetic and GPS base station was installed far from the roadhouse, isolated from human disturbances. The technical manager of Novatem collected the data every day. The location was chosen according to Novatem's specifications: location far from anthropogenic disturbances and a weak local gradient in particular. These validation measurements were performed using the ground station (GSM 19).

The geographical coordinates of the magnetic and GPS base station, as well as the base average are as follows:

Longitude: 93° 47' 40'' West Latitude: 51° 04' 15'' North Average measured during the survey time: 56 860 nT



4.3. HUMAN RESOURCES ASSIGNED TO GEOPHYSICAL WORK

The following personnel were assigned to preprocessing, quality control and final processing of the geophysical data:

Project manager: Pascal Mouge, Geo., Ph. D. Member of the Ordre des Géologues du Québec.

Responsible for data acquisition and quality controls in the field: Pascal Mouge, Geo., Ph. D. Member of the Ordre des Géologues du Québec.

Field Equipment Manager: Morten Skovgaard, M.Sc.

4.4. HUMAN RESOURCES ASSIGNED TO THE HELICOPTER

The pilot who worked on this project hold a valid commercial license for Guimbal G2 helicopters, issued by Transport Canada.

Each instrument was scanned in real time using quality indices: if the value of one of these indices fell below the specifications, the corresponding indicator changed from green to red on the pilot's screen, who immediately stopped its flight and returned to his base. No incident occurred during this project.

The list of pilots for this project was as follows:

- Clint Monson, Captain for Synergy Aviation Ltd.

4.5. WORK SCHEDULE

Production on the Fredart and Garnet project began on the 2021 April 16th and ended on 2021 April 19th. Preliminary data was produced in the field as the work progressed. All phases of the survey, in particular planning and production flights, were coordinated with the Infinite Ore Project Manager.



5. INSTRUMENTATION

5.1. HELICOPTER

A **Guimbal G2** helicopter was used to complete this project. The helicopter was equipped with a magnetometer ("stinger") designed by Novatem, validated by an STC issued by Transport Canada.

NOVATEM's Supplemental Type Certificate		
Approval to	NOVATEM Inc.	
STC Number	SH20-14	
Approval Date	May 01, 2020	
Issue Date	May 01, 2020	
Fleet Eligibility List		
Aircraft Type or Model	Hélicoptères Guimbal Cabri G2	
Canadian type Certificate or Equivalent	H-113 (S/N 2 and subsequent)	
Type Design change	Stinger installation – Structural Provisions	

Table 4 : Novatem's Supplemental Type Certificate

It is important to mention that Novatem benefited for these developments from the support of the Guimbal company and of its founder in particular (Bruno Guimbal) who personally ensured the supervision.



Figure 5 : Dimensions of the G2 helicopter



The geophysical measurement equipment mounted on board of the helicopter for this campaign mainly included:

- Two very high resolution laser optically pumped scalar magnetic sensors, mounted at the front of the magnetometer stinger.
- A real-time multi-frequency GNSS and RTK sensor positioning system capable of receiving the GPS, Glonass, Galileo and BeiDou constellations.
- A very high resolution fluxgate vector magnetic sensor, manufactured by Billingsley, also mounted on the end of the magnetometer pole.
- An attitude angle measurement system (Inertial Measurement Unit), manufactured by Microstrain, for magnetic compensation;
- A "draped" acquisition and navigation system (SAMM) developed by Novatem, making it possible to follow a continuous flight surface, calculated in advance, and therefore to minimize deviations at intersections of lines and tie-lines;
- A compensation system developed by Novatem for very high resolution using jointly the components provided by the fluxgate vector magnetometer, the angles measured by the attitude center, and inversion algorithms optimized for the calculation of the coefficients;

Prior to the start of operations, the equipment was tested on the ground to ensure that the acquisition parameters were within contract specifications. Throughout the project, quality checks were carried out on the data on a daily basis.



5.2. MAGNETOMETERS

5.2.1. MINIATURIZED SCALAR MAGNETOMETER

The magnetometer boom ('stinger') was equipped with two classified scalar vapor laser optical pumping (non-radioactive) sensors, measuring the total field with a sensitivity of 0.005 nT / \sqrt{Hz} .

Specifications		
Maximum sampling	1000 Hz	
Precision	0.1 nT	
Sensitivity	0.005 nT/√Hz	
Resolution	0.001nT	
Operation	20 000 à 100 000 nT	
'Heading error' maximum	5 nT	
Sensor dimensions	2 x (23,5 x 34 x 24,2) mm	
Sensor volume	15 cm ³	
Dimensions of electronics	120 x 22 x 53 mm	
Volume	200 cm ³	
Power consumption	5 W	
Dead zone	one only, polar ± 25°	

Table 5 : In flight magnetometer specifications

The magnetometer comprises two sensors that can be arranged parallel to each other for greater sensitivity or perpendicular to each other in order to eliminate the dead zone specific to the optically pumped sensors.

5.2.2. VECTORIAL MAGNETOMETER

A vectorial magnetic sensor manufactured by Billingsley, measuring the three components of the total magnetic field was mounted on the end of the magnetometer pole. This latest generation of fluxgate magnetometer is the most efficient of the existing vector magnetometers.

Specifications		
Samplig rate	125 Hz	
Axis orthogonality	Better than 0.2 degree	
Accuracy	0.1 nT	
Sensibility	< 0.3 nT	
Resolution	0.1nT	
Range	> 65 000 nT	
'Heading error'	± 1 nT	

Table 6 : Fluxgate	Vector Magnetometer	specifications



5.3. MULTI-BAND GNSS POSITIONING SYSTEM IN FLIGHT

A real-time multi-frequency GNSS positioning system was used for flight positioning. This receiver uses GPS, Glonass, Galileo and BeiDou constellations.

Specifications		
Sampling rate	10 Hz	
Precision	1 cm	
Precision with RTK corrections	1 mm	
GNSS bands	L1A/A, L1OF, B1I, E1B/C, L2OF, L2C, B2I, E5b	
RTK	Oui	
Antenna	ANN-MB multi-band	
Time precision	20 ns	
Temperatures	-40°C à +85 °C	

Table 7 : Positioning system specifications

5.4. MAGNETIC BASE STATION

A GEM GSM19 magnetic base station, equipped with an acquisition card and a GPS antenna, recorded the variations of the external magnetic field during the entire period of the survey. The station was left fixed throughout the duration of the works (reference station). The station was equipped with a battery resistant to very low temperatures.

Specifications	
Sampling rate	1 Hz
Accuracy	0.2 nT
Resolution	0.01 nT

Table 8 : Magnetometer base station specifications



5.5. NAVIGATION AND DATA ACQUISITION SYSTEM

A navigation and data acquisition system (SAMM, *Système d'Acquisition de Mesures Magnétiques*) developed by Novatem, specifically for very high resolution helicopter-borne geophysical surveys, was used. The pilot has in front of him all the information necessary to follow his flight lines and his draped surface. The system also provides the pilot with flags on the quality of the measurements: if at least one of these alarm turns red, the pilot immediately ceases his flight and returns to his base.



Figure 6 : Acquisition and navigation system (SAMM) installed in the helicopter

The helicopter was also tracked in real time both from the operational base and from the Synergy Aviation base using a Spidertracks satellite positioning system.

All data were synchronized in real time with the PPS signal of the GNSS receiver. The following data were recorded:

- Line number
- GNSS time
- Fiduce
- DGPS quality factors (HDOP, etc.)
- Latitude, longitude, DGPS altitude (WGS84)
- Laser height
- Attitude angles (roll, pitch, yaw)
- Components of the magnetic field (X, Y, Z) measured by the fluxgate
- Total magnetic field measurements for the Laser cesium sensors

The measurements of the ground station and of the rectangular coordinates (UTM) were integrated during the preliminary processing.



5.6. IMU ('INERTIAL MEASUREMENT UNIT')

A Microstrain Inertial Measurements Unit was used to measure the attitude angles (roll, pitch and yaw) required to correct the magnetic gradients. The three attitude angles were measured with a very high sampling speed (between 100 and 600Hz) and then reduced at the same rate as the other measurements (10Hz).

Specifications		
Sampling	10 Hz (600Hz max)	
Accuracy (Roll, Picth, Yaw)	0.001 degree	

Table 9 : IMU specifications

5.7. BAROMETRIC PROBE

The helicopter was fitted with a temperature and pressure probe manufactured by Honeywell having a resolution of 0.1°C and 0.1 mbar, respectively.

5.8. LASER ALTIMETER

The helicopter was equipped with a laser altimeter manufactured by MDL, digitally interfaced with the acquisition system and the inertial positioning system. This altimeter was placed directly under the frame of the device for optimum vertical positioning. The absolute precision of the model used is 1cm. It does not require any calibration.

Specifications		
Sampling rate	10 Hz (100 Hz max)	
Accuracy	1 cm	
Resolution	1 mm	
Color	904 nm (IR)	
Divergence	0.3°	
Divergence	0.30	

Table 10 : Laser altimeter specifications

5.9. COMPUTERS

Two computers (Apple and Toshiba) dedicated to field measurements were used for data quality analysis, navigation plotting and raw measurements as well as for archiving immediately after flights. Quality control was done daily and the progress and production report was updated with the latest data. At the end of the checks, the preliminary grids were recalculated and then a plot was produced at the compilation scale in order to ensure the quality of the magnetic and positioning data.

5.10. SPARE PARTS

A normal set of spare parts and instrumentation necessary for the proper functioning and verification of the devices was available in the field. A complete set of spare parts was available at Novatem's facilities in Mont-Saint-Hilaire.



6. DATA QUALITY CONTROLS

During the survey, data quality control was performed by the Head of Field Operations. Data quality controls were built into the normal acquisition process and began with the establishment of flight paths and end with the delivery of finished products to the customer.

Before the survey, the checks serve to ensure in particular that:

- The specifications are appropriate for the targets considered

- Specifications are safe for personnel and equipment
- Navigation is safe given the topography and local weather conditions
- Equipment and instruments comply with the specifications (including software)

- Spare parts and instrumentation are in sufficient quantity to carry out the survey within the expected deadlines

- Maintenance tools and spare parts for the helicopter are available
- Aircraft maintenance will be done in safe conditions and as soon as possible

In flight, the data were analyzed in real time. The pilot was informed by flags of the proper functioning of instruments so that he can suspend his flight and return to base if necessary, where the appropriate modifications can be made.

6.1. FLIGHT SPECIFICATION CHECK

After each flight, the raw data is inspected to ensure, on the one hand, the quality of the data and, on the other hand, that all the expected data is present, then saved on an independent and secure medium. For each flight, the following treatments are carried out on the field:

- Reconstruction of the trajectory of the aircraft
- Control of the flight path compared to the theoretical path
- Determination of lines to fly
- Checking the raw data of the reference DGPS station

The checks are then carried out as a priority, to ensure:

- The spacing between the measurement points (helicopter speed)
- The deviation on either side of the flight lines
- The deviation of the flight lines at altitude
- Continuity of profiles
- The level of data noise

In particular, it is ensured that each flight line intersects at least two control lines and that any sections meet at a low angle, without discontinuity.

All digital data is merged into a Geosoft format file. The profiles are then edited to ensure that all the expected data is present and that its quality meets demand. The data is finally archived, processed and then delivered to a database compatible with the client's software (Geosoft).



7. DATA PROCESSING

7.1. DIFFERENTIAL POSITIONING CORRECTIONS

The successive positions provided by the GDSS and RTK system in geographical coordinates are first converted to rectangular UTM coordinates during preprocessing in order to carry out navigation control.

At the end of the survey, the first phase of processing is to calculate the differential corrections using data from the reference station or local stations when available.

Differential GNSS corrections are calculated using Novatel's Waypoint software. The helicopter's positions were recalculated using data from the GPS base station. In addition, precise ephemeris and clock data was downloaded for the entire survey period to improve the accuracy of the recalculated position data.

7.2. MAGNETIC DATA PROCESSING

7.2.1. SUMMARY OF MAGNETIC DATA PROCESSING

The data measured in flight are edited daily and then archived in a Geosoft Oasis Montaj database. The profiles are then drawn and checked. The magnetic measurements are then corrected for disturbances due to the helicopter (compensation) using vector information supplied by the Fluxgate and inertial information supplied by the IMU. The compensated measurements are then corrected for variations in the external magnetic field (mainly diurnal variations and pulsations) using measurements from the magnetometric base station. The residual intrinsic directional error of each magnetometer ("heading error") is very precisely recalculated and subtracted from the measurements for each direction of flight. Finally, an iterative leveling procedure is applied, first on the control lines, then on the regular lines, in order to eliminate the residual errors caused mainly by the variations in height of the helicopter.

7.2.2. COMPENSATION

The helicopter's magnetic noises (induced, permanent magnetization and eddy currents) are estimated from a model whose coefficients are calculated using a calibration flight, along a precise and reproducible geometry (FOM), carried out in clear weather without wind at very high altitude, far from the magnetic disturbances generated by the earth's crust. The coefficients are calculated by inversion, based on the physical model of the helicopter's magnetic disturbances. This model is a linear combination of 18 terms, constructed from the direction cosines of the orientation angles between the helicopter and the earth's magnetic field. The inversion is done on each of the 4 cardinal directions used for the survey (the 2 directions of the lines, plus the two directions of the tie-lines). The coefficients are then used to reconstruct the helicopter's magnetic disturbance field using the attitude angles provided by the inertial unit and the Fluxgate magnetometer.

7.2.3. CORRECTION OF TEMPORAL VARIATIONS (DIURNAL)

The data measured at the base station (1Hz) were edited then archived in an ASCII file, then linearly interpolated at the instants of the acquisition in flight (10Hz). Since the base station is fixed and far from any artificial parasitic variations, the variations recorded are assumed to be temporal variations due to solar activity (diurnal variation, pulsations, etc.).

The magnetic constant of the place, estimated with the average of all the recordings over the entire duration of the project, serves as a reference level. This constant is then subtracted from all of the ground station measurements to obtain the variations due to the external magnetic field.



7.2.4. CORRECTION OF INSTRUMENTAL DELAY (LAG)

Residual positioning errors, mainly caused by the "time delay" (lag) between the moment the position is measured and the one where it is assigned to the magnetometer can cause a systematic shift in each direction of flight. As the GNSS antenna is located very close to the magnetic sensors (38 cm), this delay is insignificant, ie. less than a fiduce (less than 0.1s).

7.2.5. LEVELLING

A leveling procedure, based on the differences observed at the intersection of lines and tie lines, was applied, first on the tie-lines and then on the lines. This procedure is then recursively repeated until the convergence of the levelling. This 'final' field thus obtained represents the Intensity of the Total Magnetic Field.

7.2.6. IGRF

The IGRF-13 coefficients, i.e. the coefficients of 13th generation of the International Geomagnetic Reference Field (IGRF) model have been used for the calculation of the main magnetic field.

7.2.7. ANOMALIES AND REDUCTION TO THE POLE

Anomalies of the total magnetic field intensity were calculated by subtracting the IGRF2020 model from the leveled total magnetic field intensity (TMI). The reduction to the pole was then calculated on the anomalies using the inclination and declination obtained from the IGRF2020 model, i.e.:

Fredart:

- Dec = 0,89 degrees
- Inc = 75,38 degrees
- Garnet:
 - Dec = 1,02 degrees
 - Inc = 75,39 degrees
 - -

The same direction of magnetization was used for the main field and for the inductive field. In other words, it was assumed that all anomalies were the result of induced magnetization.

7.2.8. DERIVATIVE MAPS

All the derivative maps (Gradients, Tilt derivative, Analytical Signal, Reduction To Pole) were calculated by transforming all the data in Fourier space using the LEMM proprietary program from NOVATEM.



8. FINAL DATA

8.1. PRODUCTS DELIVERED

The final products delivered are summarized in the following table:

Produits	Nom du produit	Données
Database of processed measurements, in the Geosoft *.gdb format	- FREDART.gdb - GARNET.gdb	Final data
Grids of processed and derivative measurements, in Geosoft *.grd format	- TMI.grd - anomalies.grd - reduction_to_pole.grd - VG1.grd - VG2.grd - AS.grd - TILT.grd	 Total Magnetic Intensity (TMI) field Anomalies of the TMI field Reduction of Anomalies to the Pole 1th vertical derivative (GV1) 2nd vertical derivative (GV2) Analytic Signal Tilt derivative
Maps of processed and derivative measurements, in jpeg format	- TMI.jpg - anomalies.jpg - reduction_to_pole.grd - VG1.grd - VG2.grd - AS.jpg - TILT.jpg	 Total Magnetic Intensity (TMI) Field Anomalies of the TMI Field Reduction of Anomalies to the Pole 1th vertical derivative (GV1) 2nd vertical derivative (GV2) Analytic Signal Tilt derivative
Maps of processed and derivative measurements, in Geotiff format	- TMI.tif - anomalies.tif - reduction_to_pole.tif - VG1.grd - VG2.grd - AS.tif - TILT.tif	 Total Magnetic Intensity (TMI) field Anomalies of the TMI Field Reduction of Anomalies to the Pole 1th vertical derivative (GV1) 2nd vertical derivative (GV2) Analytic Signal Tilt derivative
Report (pdf file)		Logistics, processing and product documentation

Table 11 : Delivered products



8.2. MAGNETIC DATA BASE

The data were archived in Geosoft Oasis Montaj format (* .gdb file).

The channels in the database are as follows:

	Nom du champ	Description	Unité
1	DATE	Local date	AAAA/MM/JJ
2	TIME_UTC	UTC time	HH :MM :SS.SS
3	TIME_GPS	GPS time	S
4	DATETIME	Date and decimal hour	S
5	LON	Longitude GPS NAD83	Decimal degre
6	LAT	Latitude GPS NAD83	Decimal degre
7	Х	X UTM 18N, NAD83	m
8	Υ	Y UTM 18N, NAD83	m
9	SPEED_KTS	Ground speed	kts
10	COG	Course Over Ground (direction cardinale)	Decimal degre
11	HDOP	Horizontal Dilution Of Precision	
12	nSAT	Number of Satellites used in the calculation of positioning	
13	ALT	GNSS Altitude	m ASL
14	H_GEOID	Geoid Height	m
15	GC	Laser Ground Clearance, ie Height above the ground	m
16	DEM	Digital Elevation Model (ALT - GC)	m
17	ТМІ	Intensity of the Compensated total magnetic field for (corrected for the magnetic noise due to the manoeuvres of the helicopter and for the external magnetic field)	nT
18	IGRF	Main magnetic field at the survey time and location, calculated using the last IGRF2020 model	nT
19	INC	Inclination of the main magnetic field using the last IGRF2020 model	nT
20	DEC	Declination of the main magnetic field using the last IGRF2020 model	nT
21	Anomalies	Anomalies of the Total Magnetic Field Intensity (TMI - IGRF)	nT
22	VG1	First Vertical Gradient (First Derivative of ANO)	nT/m
23	VG2	Second Vertical Gradient (Second Derivative of ANO)	nT / m2
24	AS	Analytic Signal	nT/m
25	TILT	Phase (Tilt Derivative) = Arctan (vertical gradient / horizontal gradient)	radian

Table 12 : Content of the magnetic database



9. **REFERENCES**

Client	
Projects	Fredart and Garnet
Adress	Infinite Ore Corp.
	1240-789 W Pender St., Vancouver, BC,
	Canada V6C 1H2
Project manager	Michel Boily
E.mail	geon@videotron.ca
Phone number	+1 647 296 9871
Novatem	
Contract	C21144
Adress	1087 Chemin de la Montagne
	Mont-Saint-Hilaire, Québec, Canada, J3G 4S6
Froject manager	
E.Mali	
	+1 514 966 8000
Projet	
Location	60km West of the Red Lake Airport in Ontario
Method	NOVATEM G2 - Very high resolution helicopter borne magnetic survey
Dates	2021, April 16 to 19
Data and report delivery	2021, May
Project manager, data quality manager and controller	Pascal Mouge, Ph.D., Géo.numéro 1727
<i>Responsible for the acquisition and equipment in the field</i>	Morten Skovgaard, M.Sc.
Helicopter pilot	Clint Monson, Commandant



10. ATTESTATION OF QUALIFICATION

I, the undersigned Pascal Mouge, certify that:

- I am a member in good standing of the Order of Geologists of Quebec

- I have a doctorate in geophysics, issued by the Institut de Physique du Globe de Paris

- I am working in the field of geophysics since 1985

- I am currently President of the company Novatem

- I have supervised and actively contributed to the work described in this report and declare that it was carried out according to industry rules and practices.



Pascal Mouge, Ph.D., Géo. numéro 1727




APPENDICES

APPENDICE A : GEODESIC PARAMETERS USED IN PROJECTIONS

The following table summarizes the geodesic parameters used for the plane projection. These settings have been applied to all coordinate transformations.

FREDART and GARNET projects:

Local reference system	WGS84
Ellipsoïd	WGS84
Projection	UTM
Zone:	15 N
Lat0, Lon0 (natural origin)	0, - 93
Coordinates of X origin (False easting)	500 000
Coordinates of Y origin (False northing)	0
Scale factor of natural origin	0.9996
Major axis radius	6 378 137
Inverse flattening	298.25772
Prime meridian	0

Table 13 : Geodetic parameters used in plane projections

APPENDICE B : GRID PARAMETERS

The following table summarizes the grid parameters:

FREDART project:

Туре	DOUBLE
Separation between two points along the X axis, in m	5
Separation between two points along the Y axis, in m	5
Number of points along the X axis	921
Number of points along the Y axis	443
Grid origin (min X, min Y), in m	X = 499 985 Y = 5 645 965
Plane coordinate system	WGS 84 / UTM zone 15 N
Azimut	0



GARNET project:

Туре	DOUBLE
Separation between two points along the X axis, in m	5
Separation between two points along the Y axis, in m	5
Number of points along the X axis	1 059
Number of points along the Y axis	882
Grid origin (min X, min Y), in m	X = 508 765 Y = 5 646 570
Plane coordinate system	WGS 84 / UTM zone 15 N
Azimut	0

Table 14 : Grid parameters





















Appendix 5

MEMORANDUM

To: Infinite Ore Corporation

- From : Marc Boivin, P.Geo.
- Object : Structural interpretation of airborne geophysical surveys over the Garnet Lake property, Ontario.
- Date : June 2021

At the request of Infinite Ore Corporation, a geophysically driven structural interpretation was completed by MB Geosolutions. This memorandum summarizes the results.

Generalities

Between 2017 and 2021, two airborne geophysical surveys were carried out over the Garnet Lake property, a Geotech VTEM and a NOVATEM high resolution helicopter-borne MAG. The area covered by both surveys outlines this studied area (fig1).



Figure 1

Structural interpretation

A geophysically driven structural interpretation was completed using both magnetic data set.

As a first step, the NOVATEM magnetic data was processed to generate grey-shaded magnetic images to enhance subsurface features like geological contacts, structural lineaments or fractures. A grey-shaded first vertical derivative

(VG1) image was mainly used for this job. Based on the grey-shaded image, magnetic ridges were extracted and used as the basis of a magnetic lineament study. Figure 1 shows the result of the magnetic ridges interpretation.



Figure 2

A structural interpretation was achieved on the basis of spatial relationships between magnetic ridges such as truncation and/or displacement of magnetic units, change in the magnetic texture. Figure 2 shows an example of criteria used for the structural interpretation.



Figure 3

The use of the VTEM MAG data (considered as a lower resolution MAG) was useful for discrimination of large/major interpreted structures (first order structure) and small/limited extent structures (second order structure). In the same path, the use of colour TMI images was a support for structure classification (figure 4).



Figure 4

Finally, a preliminary EM interpretation of the VTEM survey was added to the working layers. Extended EM axis can be directly or indirectly associated structures.

Because such an interpretation relies mainly only on magnetic contrast, it is not possible to see all the geological structures, so a geological based structural interpretation should add to generate a more complete structural image. Figure 5 shows the final results of the structural interpretation.



PDF final maps and GIS (raster and vector) files are provided with this memorandum.

Respectfully submitted,

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Marka