

NTS: 02D/13

**National Instrument 43-101 Technical Report:**

**Compilation of Historical Geological,  
Geochemical and Geophysical Exploration Work  
Carried Out Over the  
Stony Lake East Epithermal Gold Project**

***Grand Falls-Bishops Falls Area,  
Central Newfoundland***

**Map Staked License No's.:**  
**24316M, 24543M, 24544M, 24546M, 24548M & 25834M**

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Effective Date:  
**September 18, 2018**



  
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## **1 EXECUTIVE SUMMARY**

This report summarizes all the known historical geological, geochemical and geophysical exploration work carried out over and adjacent to the Stony Lake East Gold Project by several exploration-mining companies as well as several junior exploration companies and prospectors during the previous ~30 years. The report provides a summary of all known exploration and development work performed, and results obtained, on the property, to date, with recommendations for future work, based on the property's perceived exploration gold potential. The report was prepared in compliance with the reporting standards as set forth under National Instrument Policy NI 43-101 – *Standards of Disclosure for Mineral Projects*.

This report has been prepared by Larry Pilgrim a “Qualified Person”, (the “author”) as prescribed under NI 43-101 policy, and is independent of Copper District Corp., as per policy Section 1.5. The author visited the property on September 15, 2018 and has reviewed the geological concepts and related styles of mineralization put forward in this report and accepts them as reasonable and consistent with his knowledge on the style of mineralization proposed for the property. This report is intended for use by District Copper Corp. to file as a Technical Report with Canadian Securities regulatory authorities pursuant to National Instrument 43-101.

The Project consists of 521 claims covering 13,025 hectares contained within 6 mineral licenses, located near Grand Falls-Bishops Falls in central Newfoundland. The Stony Lake East Property is being acquired by District Copper Corp. from 1174587 BC Ltd. a private British Columbia Corporation as per the terms of a mineral property purchase agreement.

The Project is contiguous to and about 2.5 km SW of Sokoman Iron Corp. high-grade, low-sulfidation, epithermal style Moosehead gold deposit where banded, comb-textured & crustiform quartz veining and stockworks hosting low amounts of sulfides and visible gold have yielded multiple grab sample values up to 149 to 442 g Au/t. Drill hole intersections of 170 g Au/t over 1.5 m, 14.1 g Au/t over 16.8 m and 6.6 g Au/t over 30.6 m have been recorded here. A June 2018 drill hole (MH-18-01) reported by Sokoman Iron Corp. intersected a new quartz vein over a 1.35 m width containing over 50 visible gold grains ranging from <1 mm to 2 mm in size. Assay results on July 24, 2018 for this interval averaged 386 g Au/t (11.3 oz Au/t) over 1.35 m; the entire mineralized vein system from 109.0 m to 120.9 m averaged 45 g Au/t (1.3 oz Au/t) over 11.9 m.

The Project is bounded by extensive claim holdings of Torq Resources Inc. (4,777 claims along ~130 km strike length; compiled and staked by Shaun Ryan) to the west and east and extensive claim holdings of Altius Minerals (~90 km strike length over 1,587 claims) optioned to Antler Gold to the west and ~8 km strike length over 28 claims optioned to Sokoman to the NE). The Project claims lie within and adjacent to an important regional structural zone striking through SW, Central and NE Newfoundland and comprised of the Cape Ray Fault, Valentine Lake Shear Zone, Rogerson Lake Structural Zone, beneath the Botwood Basin and the Projects claims and NE to Fogo, a total strike length of ~440 km. It is readily apparent that this regional structural zone controls the distribution of gold mineralization in the region as it is the host to Benton Res.-Matador Res. Cape Ray gold deposits, Quadro Resources Staghorn gold zones, Marathon's Valentine Lake gold camp, Antler Gold's recently discovered high-grade gold zones, the Twilight gold zone, Altius' very high-grade Moosehead gold deposit and very likely the Stony Lake Project gold showings. It is also apparent that this major structural zone and its gold deposits represent emerging frontiers for gold deposit exploration and development.

The Stony Lake Gold Project covers over 27-km of strike length of upper Silurian age sandstones-siltstones which host multiple and extensive gold geochemical anomalies and 18 gold occurrences in

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bedrock/sub outcrop zones. Adjacent Stony Lake Group felsic volcanic flows and intrusives have created a significant heat and epithermal environment which is reflected in:

- lower-grade (<4 g Au/t) auriferous alteration zones (argillic and silicification) and,
- linear quartz-rich zones with highly anomalous to ore-grade gold values (4.1, 5.8, 6.6 to 15.1 g Au/t).

Throughout the Project, numerous low-sulfidation, epithermal-style alteration areas host quartz veining, stockworks and quartz breccias exhibiting crustiform, cockscomb and chalcedonic banding with low levels of sulfide mineralization (total sulfide is generally <2-3%) including fine grained disseminated pyrite, arsenopyrite and sulfosalts (boulangerite & bournonite); ginguero-style fine banding has been observed at several localities with highly anomalous Au, Ag & Sb values. The silica-rich structures are located in elongate, linear zones with an apparent direct spatial relation to linear magnetic highs-lows.

The physical extent of the coincident geochemical gold anomalies and the numerous gold-in-rock showings over the Projects 27-km strike length and 3 to 5 km width could possibly represent several parallel epithermal-style horizons. Of the 440 historic rock grab samples taken throughout the Project area:

- 85 rock samples (19%) are in the >50 to 250 ppb Au range,
- 69 samples (16%) are in the >0.25 g Au/t to 1.0 g Au/t and
- 35 samples (8%) exceeded 1.0 g Au/t to a maximum of 15.1 g Au/t.
- The 12 highest rock samples ranged from: 1.8, 2.9, 3.4, 4.2, 5.1, 5.8, 6.3, 6.6 & 15.1 g Au/t from six separate zones along the Project strike length.

To date the property has only received preliminary regional geochemical sampling, cursory prospecting, no detailed industry geological mapping and no overburden trenching in or around the more anomalous and prospective gold areas. Less than 1/3 of the property has been covered with airborne magnetics-gradiometrics; the existing airborne gradiometrics appear to be very valuable in defining important gold-bearing targets along the contacts of magnetic highs & lows and adjacent to crosscutting magnetic features. No ground-based geophysics and no diamond drilling has been done outside of a small grid on the historic Flyers grid by Noranda and Cornerstone Res.

Most importantly the area has yet to have undergone a thorough geological evaluation as a gold deposit environment despite the numerous gold showings and highly anomalous gold geochemical results within and adjacent to the Project area. The extensive distribution of coincident geochemical anomalies and anomalous to high gold values in rock samples from over six separate zones attest to the quality of this underexplored and highly prospective Project. The results to date indicate a very high potential for a significant new gold discovery in an area with well-developed access and infrastructure in a mining friendly region.

A three-Phase exploration program is recommended for the Stony Lake East Project. Phase 1 is a detailed helicopter aero magnetic-gradiometric-radiometric and VLF-EM survey scheduled to begin in the fall 2018. Phase 2, scheduled for early summer 2019, would consist of geochemical sampling orientation and detailed prospecting, sampling and geological mapping using the results from the Phase 1 aerial geophysical surveys. Phases 2 and 3 are contingent on the exploration success of each preceding Phase. The three-phased program is designed to explore the entire property area in order to upgrade all existing gold occurrences and alteration zones, in addition to locating new target areas. Positive results in Phases 1 and 2 will lead to a trenching and diamond drill program in 2019. Total estimated costs of the entire 2018-2019 three-Phase exploration program are \$1,679,050.

**2 TABLE OF CONTENTS**

	Page
<b>1 EXECUTIVE SUMMARY</b> .....	i
<b>2 TABLE of CONTENTS</b> .....	iii
<b>3 INTRODUCTION and Terms of REFERENCE</b> .....	1
<b>4 RELIANCE ON OTHER EXPERTS</b> .....	2
<b>5 PROPERTY DESCRIPTION and LOCATION</b> .....	3
<b>6 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE &amp; PHYSIOGRAPHY</b>	4
Infrastructure .....	4
Physiography & Glaciation .....	4
<b>7 EXPLORATION HISTORY</b> .....	5
<b>8 GEOLOGICAL SETTING</b> .....	12
Tectonostratigraphic Setting .....	12
Regional Geology, Stratigraphic & Structural Setting .....	15
Property Geology .....	16
Structural Geology .....	18
Alteration and Quartz Veining .....	19
<b>9 DEPOSIT TYPES</b> .....	21
Conceptual Model for Low Sulfidation Epithermal Au & Ag Deposits .....	21
<b>10a MINERALIZATION</b> .....	25
Gold Mineralization and Epithermal Characteristics based on the Moosehead Zone .....	25
Epithermal Characteristics from the Flyers Grid .....	26
Adjacent Epithermal Gold Prospects (as models for the area) .....	26
Moosehead Zone: .....	27
Paradise Lake Area: .....	30
Rolling Pond Area: .....	32
<b>10b MINERALIZATION ON THE PROPERTY</b> .....	33
Stony Lake East Gold Project: Epithermal Prospects .....	33
Flyer's Area Au/Ag Prospect: .....	33
Rabbit Tracks Gold Prospects: .....	38
Moccasin Lake Prospects: .....	43
Island Pond Area: .....	44
Twin Ponds Area .....	45
Blueberry Ponds Area: .....	50
Bay d'Espoir Highway: .....	53
<b>11 EXPLORATION</b> .....	53
Geochemical Sampling .....	53
Lake Bottom Sediment Geochemical (Government) Sampling .....	54
Lake Bottom Sediment Geochemical (Industry) Sampling .....	54
Stream Silt Geochemical Sampling .....	54
Government Heavy Mineral Concentrate Till Sampling .....	54
Industry Heavy Mineral Concentrate Till Sampling .....	55
ODM (HMC) Till Sampling .....	55
B-Horizon Soil Sampling .....	55
Rock Sampling .....	55
Airborne Magnetics Interpretation .....	56
<b>12 DRILLING</b> .....	57
Diamond Drilling (Flyers Grid Only) .....	57
<b>13 SAMPLING METHOD and APPROACH</b> .....	58
<b>14 SAMPLE PREPARATION, ANALYSIS AND SECURITY</b> .....	58
<b>15 DATA VERIFICATION</b> .....	58

<b>16 ADJACENT PROPERTIES</b> .....	58
<b>17 MINERAL PROCESSING AND METALLURGICAL TESTING</b> .....	59
<b>18 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES</b> .....	59
<b>19 OTHER RELEVANT DATA AND INFORMATION</b> .....	59
<b>20 INTERPRETATION AND CONCLUSION</b> .....	59
<b>21 RECOMMENDATIONS</b> .....	60
Proposed Phase 1 Exploration Program for Fall 2018.....	60
Exploration Budget – Phase 1.....	60
Proposed Phase 2 Exploration Program for Spring & Summer 2019.....	60
Exploration Budget – Phase 2.....	61
Proposed Phase 3 Exploration Program for Summer & Fall 2019.....	62
Exploration Budget – Phase 3.....	62
<b>22 REFERENCES</b> .....	64
<b>23 DATE AND SIGNATURE PAGE</b> .....	69
<b>24 CERTIFICATE OF QUALIFIED PERSON</b> .....	70

### **List of Figures**

Figure 1: Location map of the Stony Lake East Gold Project, Grand Falls-Bishops Falls, Central Nfld.....	6
Figure 2: Claim map of the Stony Lake East Gold Project, Grand Falls-Bishops Falls, Central Nfld..	7
Figure 3: Tectonostratigraphic Zones in Newfoundland.....	14
Figure 4: Regional geological setting Stony Lake East Project, Central Newfoundland .....	17
Figure 5: Detailed property geology & gold mineralization, Stony Lake East Gold Project .....	20
Figure 6: Location map of gold prospects on the Stony Lake East Gold Project.....	36

### **List of Tables**

Table 1: Summary of Map Staked Licenses; Stony Lake East Gold Project, Grand Falls-Bishops Falls, Central Nfld.....	3
Table 2: Historical rock sample assays by Au grades for the Project areas. ....	56
Table 3: List of all Diamond Drill Holes drilled on the Stony Lake East Project, Central Nfld .....	58

### **List of Appendixes**

Appendix A: Epithermal Style Rock Photographs from Project & Area.....	71
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### **3 INTRODUCTION and TERMS of REFERENCE**

This technical report was prepared for District Copper Corp. by Larry Pilgrim, P. Geo. located in King's Point, NL. District Copper Corp. is a Canadian junior mineral exploration company who are also actively exploring for porphyry copper-gold-molybdenum deposits in Northern British Columbia. District Copper is headquartered in Vancouver, B.C. and is a publicly trading company listed on the TSX-Venture Exchange under the ticker DCOP-V. This 43-101 Technical Report is intended for use by District Copper Corp to file as a Technical Report with the Canadian Securities regulator and the TSX Venture Exchange authorities pursuant to National Instrument 43-101.

On August 15, 2018 District Copper Corp. announced that it had signed an agreement to acquire a 100% interest in the Stony Lake East Property located in Central Newfoundland and Labrador from 1174587 BC Ltd. (the "Vendor"). Under the terms of the agreement District Copper Corp. will issue 40,000,000 common shares of District Copper (to be distributed among the various six shareholders of the Vendor). The purchase is subject to the Vendor retaining a 2 % Net Smelter Royalty, if the price of gold is US\$2000/oz. or less, and a 3.0 % if the price of gold is above US\$2000/oz.

The report is intended to provide an independent assessment of the exploration potential on the Stony Lake East Property. The report serves to detail the physical aspects of the area underlying the property, the geological setting both regional and property scale, and outlines the historical exploration completed by previous explores in the area. The report details the known mineralization and anomalous geochemical samples defined by government reconnaissance surveys and previous explorers. The report also proposes a conceptual model for the style of mineralization that may occur on the property and is supported by the style of mineralization (Low Sulphidation Epithermal Gold) identified by previous exploration. The property is located in a structural zone that is host to numerous epithermal and mesothermal style mineralization that strikes for more than 300 kilometers across the Gander Zone one of four tectono-stratigraphic subdivisions that defines the geological setting in Newfoundland.

During 2017 & 2018 a detailed digital compilation was completed of all known historical geological, geochemical and geophysical exploration work done on and immediately adjacent to the Stony Lake East Gold Project of which this technical report was based on. This report summarizes all the historical exploration work completed on the Stony Lake East Gold Project area from 1989 to around 2018 by several exploration companies and that is available in the public domain. This work consisted of prospecting, rock sampling, lake sediment, stream silt and till sampling followed up with B-horizon soil sampling. Some airborne magnetics and EM surveys were carried out with only very local ground magnetics and VLF-EM surveys. Only limited diamond drilling (10 short holes totaling 1,142 m) have been completed over a small area on the Flyers grid. Recommendations for future exploration work on the property are based on results of the historical compilation and the perceived exploration potential to host economic gold deposits.

This report has been prepared by Larry Pilgrim, P. Geo. a "Qualified Person", as prescribed under NI 43-101 policy, and is independent of Copper District Corp., as per policy Section 1.5. On September 15, 2018 Larry Pilgrim visited the property and examined a number of the most important gold prospects and alteration zones. He has reviewed the geological concepts and related styles of mineralization put forward in the compilation report and accepts them as reasonable and consistent with his knowledge on the style of mineralization proposed for the property. The author has been involved in the past with other projects in the region that are currently being actively explored including the Marathon Gold "Valentine Lake Property" and the Great Atlantic Resources "Golden Promise Property". These properties occur along the regionally important structural zone striking through SW, Central and NE Newfoundland and comprised of the Cape Ray Fault, Valentine Lake Shear Zone, Rogerson Lake Structural Zone, and beneath the Botwood Basin. This structural zone is believed to underlie the Stony Lake East Property as well.

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District Copper Corp have yet to complete any formal exploration work on the Stony Lake East Property and therefore this project is considered early stage exploration. This report is based on the compilation of historical geoscientific data and therefore serves to act as a geological conceptual model that will help in future exploration over the property. The effective date of this Technical Report is September 18, 2018.

The units of measures used in this report conform to the metric system. A list of standard abbreviations used in this report can be found below.

### Abbreviations Used in this Report

Abbreviation	Term	Abbreviation	Term
DNR	Department of Natural Resources	P.Eng.	Professional Engineer
Au	Gold	P.Geo.	Professional Geologist
Ag	Silver	QA	Quality Assurance
Carb	Carbonate	QC	Quality Control
Congl	Conglomerate	Qtz	Quartz
Corp.	Corporation	UTM	Universal Transverse Mercator
Fe	Iron	UTME	UTM East
Inc.	Incorporated	UTMN	UTM North
Ltd.	Limited	%	Percent
NI 43-101	National Instrument 43-101	C	Celsius
NTS	National Topographic System	°	Degree
NSR	Net Smelter Royalty	ft.	Foot
NAD	North American Datum	g	Gram
oz.	Ounce	g/t	grams per tonne
ppb	Parts per billion	km	Kilometre
ppm	Parts per million	m	Metre
FA	Fire Assay	mm	Millimetre
AA	Atomic Absorption	m <sup>2</sup>	Square Metres

#### **4 RELIANCE on OTHER EXPERTS**

The principal sources of information for this report are:

- Claim status information as listed on the Newfoundland and Labrador Department of Natural Resources GeoScience Online Miriad claim system.
- Industry Assessment Reports, as submitted to the Newfoundland and Labrador Department of Natural Resources for maintenance of Mineral Licences — maintained under the government's Geofile database.
- Government Publications covering various aspects of the regional geology of central Newfoundland – namely studies/reports by the NL Geological Survey and the Geological Survey of Canada (GSC).
- Academic Studies/Journals.
- Recent and historical Press Releases obtained from the websites of companies who have completed exploration work in the area.
- Observations made by Charlie Dearn during property visits/assessments; in addition, Dearn's 2018 detailed compilation report on the Stony Lake East Project.
- The authors personal knowledge of gold occurrences and deposits throughout the area of interest covered in this report.

During the preparation of this report, the author relied mainly on the sources of information listed above.

## **5 PROPERTY DESCRIPTION and LOCATION**

The Project consists of 521 claims in six contiguous Map Staked Licenses totaling 13,025 hectares (130 km<sup>2</sup>) and include the following six Licenses: 24316M, 24543M, 24544M, 24546M, 24548M & 25834M. The Project area is ~27 km long and from 4 to 10 km wide (Figure 2).

The claims were originally staked and held by Charles Dearin and Dianne Dearin during October-November 2016 and February 2018, whom subsequently transferred their 100% interests, free and clear of any royalties and encumbrances to 1174587 BC Ltd. on August 8, 2018.

The Stony Lake Property is being acquired 100% by District Copper Corp. from 1174587 BC Ltd. a private British Columbia Corporation as per the terms of a Purchase Agreement announced on August 15, 2018 and pending registration with the Newfoundland and Labrador Department of Natural Resources. The terms of the agreement are:

- 40,000,000 common shares to be issued to 1174587 BC Ltd.
- A 2.0 % NSR royalty, if the price of gold is US\$2,000/oz. or less, and a 3.0% NSR if the price of gold is above US\$2,000/oz., retained by 1174587 BC Ltd.

Table 1 summarizes the respective License Issuance dates and the current exploration report due dates for the six Licenses. All claims are in good standing to January and February 2019 when a total of \$115,157 (includes a current credit of \$15,193) in exploration expenditures must be incurred and reported on. Cash payments in-lieu of exploration work can be made on each License; these payment deposits are fully refundable when a work report is subsequently filed with DNR.

The Crown holds all surface and timber rights; none of the property is encumbered in any way. The region has been a significant source of logging over the past 100 years, with most of the timber on the property having been logged a second time over the past 15 to 40 years. The area is not in an environmentally or archeologically sensitive zone. There is no history of current aboriginals in the area; hence aboriginal land claims are non-existent.

**Table 1: Summary of Map Staked Licenses; Stony Lake East Gold Project, Grand Falls-Bishops Falls, Central Newfoundland.**

License No.	No. Claims	Area (Hect.)	Issuance Date	Report Due Date	2018 Expenditure Required	Next Report Due Date
24316M	72	1,800	November 14, 2016	January 13, 2018	\$15,900	January 13, 2019
24543M	30	750	December 7, 2016	February 5, 2018	6,625	February 5, 2019
24544M	127	3,175	December 7, 2016	February 5, 2018	28,047	February 5, 2019
24546M	26	650	December 7, 2016	February 5, 2018	5,742	February 5, 2019
24548M	254	6,350	December 7, 2016	February 5, 2018	56,093	February 5, 2019
25834M	12	300	March 22, 2018	May 21, 2019	2,750	May 21, 2020
<b>TOTALS</b>	<b>521</b>	<b>13,025</b>			<b>\$115,157</b>	

In Newfoundland and Labrador, the Department of Natural Resources mineral claims are obtained by the GeoScience on-line Miriad map staking; all claim boundaries conform to UTM grid lines at 500 m intervals in the NAD 1927 grid system.

All known mineral occurrences within and adjacent to the Stony Lake Project are summarized below under 10a & 10b Mineralization and are shown on Figures 5 and 6. There are no defined mineral resources, reserves or former mines in the immediate area. There are no known environmental liabilities to which the property is subject to.

Mineral exploration permits are required from the Department of Natural Resources prior to advanced mineral exploration work being conducted (i.e. trenching, drilling, airborne geophysical

surveys, etc.). An exploration permit for 2018 has been approved and is awaiting the filing and registration of the District Copper Corp. Purchase Agreement.

## **6 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE and PHYSIOGRAPHY**

The Project is located immediately east of Grand Falls and south of Bishops Falls in central Newfoundland (Figure 1) with NTS 02D/13. The area is bounded by the Trans-Canada Highway to the west and six km to the north and the Bay d'Espoir Highway (Route 360) to the east. The claims are crossed by logging roads and skidder trails with access to most parts of the property being excellent.

The region has excellent spring-summer-fall weather conditions from early April to early December; winter conditions with moderate to heavy snowfalls usually begin in early to mid-December and remain until early to mid-April. Geophysics and diamond drilling can however be carried out year-round in the area.

### **Infrastructure**

Infrastructure in the area is well developed with paved roads and logging haul roads giving excellent access to all parts of the property. Hi-tension electrical lines pass adjacent to the western side and through the southern and central parts of the claims (Figures 1 & 2). The new trans-island Muskrat Falls hi-tension power lines pass from Grand Falls, west to east through the Project immediately south of Island Pond. The adjacent towns of Bishops Falls and Grand Falls have all amenities for exploration work including tractors, backhoes and diamond drills; experienced exploration and mining personnel live in a number of communities in the area. A regional hospital, as well schools and vocational colleges are located in Grand Falls while several hotels and motels, etc. are located in both Grand Falls and Bishops Falls. An assay lab and several drilling companies are located in Springdale some 120 road-km to the west. The region also has the nearby seaport in Botwood, 18 km to the north, Gander International Airport about 75 km to the east and Deer Lake Airport about 220 km to the west.

The region was developed based on forest and paper mill resources since the 1910-era and the former mining towns of Buchan's (Asarco) and Millertown (Teck's Duck Pond VMS mine) are located 90 and 70 km to the west and SW of the Project. The region welcomes resource development and mining.

### **Physiography & Glaciation**

The property is generally flat lying with less than 20 to 25 m topographic relief and is characterized by gently rolling topography, which comprises northeast trending ridges and valleys. This topography reflects both the regional northeast structural grain of the underlying bedrock and a north-to northeast-directed glaciation. Featureless, ridged and ribbed moraine covers most of the property making prospecting, mapping and soil sampling somewhat difficult. The area is almost entirely covered by vegetation consisting of mixed coniferous and deciduous young to mature trees, namely fir, spruce and birch, much of which has been cut and logged for a second time over the past 15 to 40 years. Drainage is generally towards the northeast, with streams and rivers paralleling NE-trending, undulating ridges. Most streams drain into Great Rattling Brook in the center of the property and then into the Exploits River.

Glacial till cover is extensive on the property, ranging from 1 m to 6 m thick and locally to over 10 m thick in places. A poorly developed B-horizon soil overlain with extensive tree cover, mostly new 15 to 25-year growth, covers around 50% of the area while wet bog lands cover the remaining ground. Outcrop is generally rare, being less than 1 to 2% over the project and usually occurs only along sections of rivers, on hilltop ridges, logging roads and Route 360. However numerous large angular boulders occur over the project area, and with digging and scraping along hill sides and breaks in

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slopes, rock types via the boulders, sub-outcrops and/or bedrock can commonly reveal the underlying geology. Many gold showings in the project area have also been discovered this way.

Batterson and Taylor (1998) note that the Grand Falls to Glenwood area was completely affected by glaciation during the late Wisconsinan (11,000 BP). They noted that the direction of ice movement was to the north and northeast although an earlier ice movement was easterly directed. The north to northeast event molded bedrock, dispersed surficial sediment and is the main event that must be considered by drift prospectors during till sampling.

## **7 EXPLORATION HISTORY**

Aside from the concentrated exploration effort by Altius/Sudbury Contact Mines at the Moosehead grid area from 2001 to 2003, all other exploration work for epithermal-style mineralization in the region has been very erratic and intermittent. Summarized below is a brief history of mineral exploration work carried out on and adjacent to the Stony Lake East Gold Project area.

**Pre-1988:** Prior to the mid 1980's there are no records of mineral exploration in the area. During the mid-1960's Asarco carried out reconnaissance prospecting south of the Project area.

- Between 1978 and 1982 the Nfld Dept. of Mines & Energy carried out 1:50,000 scale mapping of the 2D/13 and 14 map sheets (Blackwood, 1980 & 1982 and Kean & Mercer, 1981). No economic minerals were discussed in their reports/maps.
- The Dept. of Mines also carried out lake sediment surveys between 1984 and 1986 with the full survey results of NTS Maps 2D being released in early November 1988 (Davenport et al, 1988b).

**1988:** In early 1988 Noranda Exploration began an exploration program in the area with prospecting and regional till sampling; despite several tills with anomalous Au and As values, Noranda did no follow up work or claim staking.

- In November 1988 the Dept. of Mines released the results of the lake sediment survey which showed a significant number of highly anomalous Au, As, Sb, etc. in lake bottom sediments in the region (Davenport et al, 1988b). This resulted in a major staking rush between most of the major exploration companies on the island with Noranda acquiring ~437 claims (i.e. most of the claims staked).

**1989:** The lake sediment results showed a cluster of anomalous Au, As & Sb results in the ponds around the current Moosehead and Flyers grid showings; all this ground was staked by Noranda which in early 1989 carried out detailed winter lake sediment surveys followed up with detailed prospecting, rock sampling and till sampling. This resulted in the discovery during the summer 1989 of numerous high-grade quartz boulders hosting visible gold, with minor amounts of sphalerite, galena, lead-antimony sulfosalts (i.e. boulangerite) and minor cinnabar. The quartz vein & quartz breccia boulders textures, gold & sporadic high-Ag values combined with the sulfosalts and surrounding alteration indicated an epithermal (i.e. low sulfidation) style of mineralization. This area of gold values was named the "Moosehead Grid". The 485 soil samples collected in the grid area had 17 anomalous gold values (>20 ppb Au) with 2 samples at 180 & 190 ppb Au. These Au values and coincident As, Sb were located sporadically over the grid but did occur within 25 & 100 m of Au-bearing quartz float (Sparkes, 1989).

- Noranda also gridded, and soil sampled the "Flyers grid", ~3.5 km SW of the Moosehead gold-bearing boulders (now part of District Copper's Stony Lake Project). Several "epithermal style" brecciated quartz boulders with weak mineralization returned anomalous Au & Ag values. Sixteen of 250 soils were significantly anomalous in Au (>20 ppb Au) with 2 samples >300 ppb and 1 sample at 425 ppb Au, with anomalous As (3,200 ppm), Sb (5.6 ppm) and

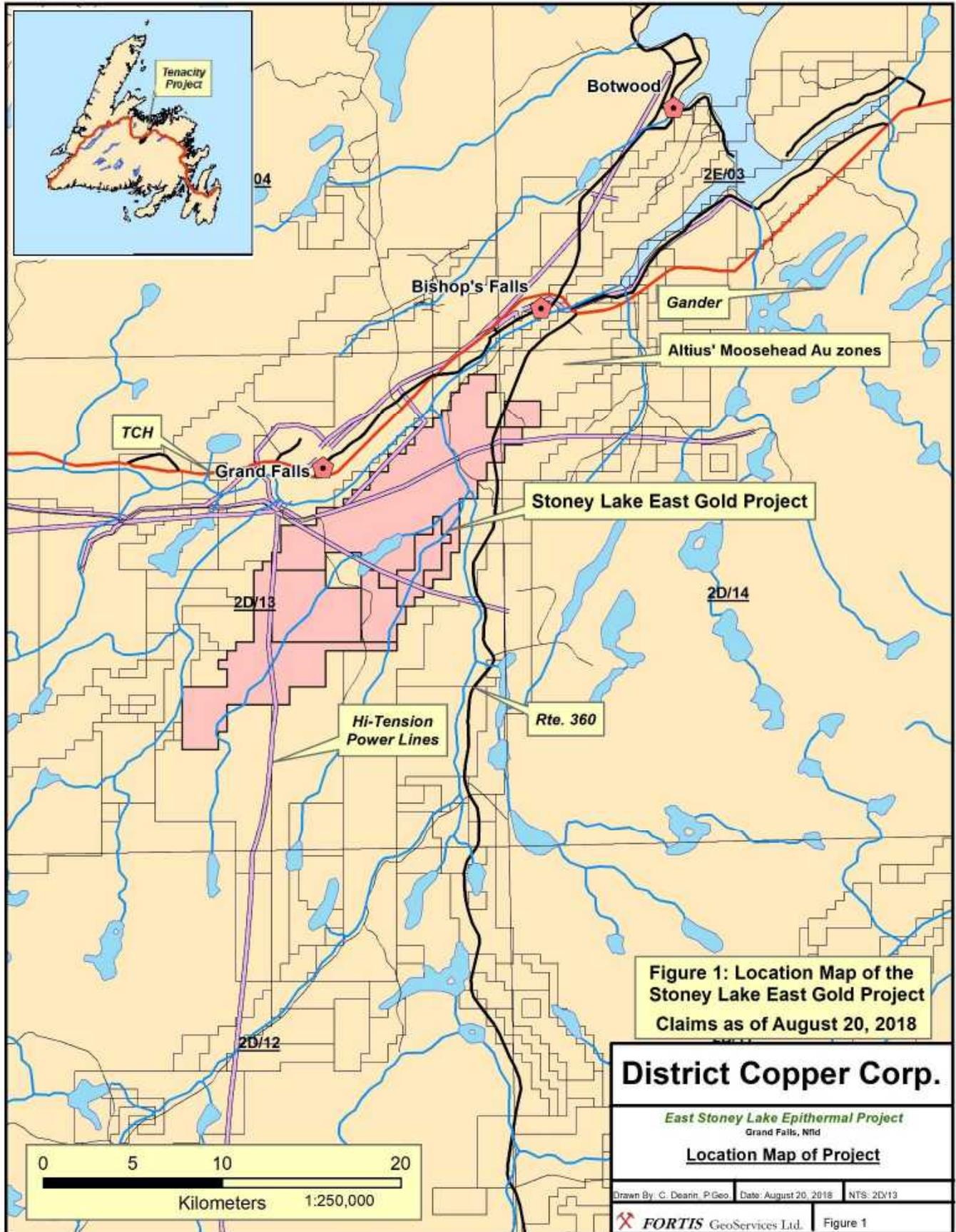


Figure 1: Location map of the Stony Lake East Gold Project, Grand Falls-Bishops Falls, Central Nfld.

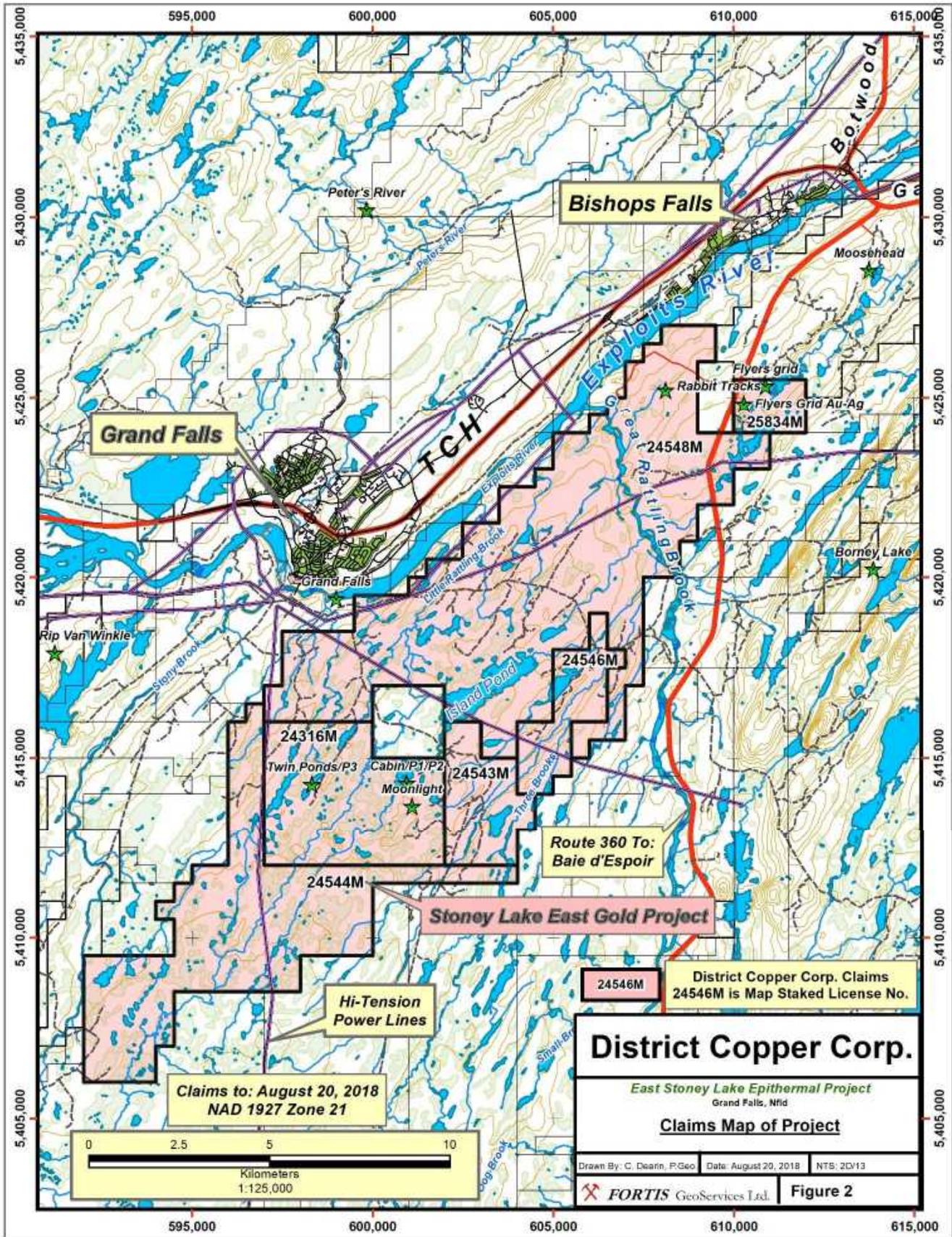


Figure 2: Claim map of the Stony Lake East Gold Project, Grand Falls-Bishops Falls, Central Nfld.

- Zn (95 ppm). The soils grid defined a discrete (100-200 m wide) by 2,000 m long multi-element anomaly striking directly into the Moosehead soil anomaly (Sparkes, 1989).
  - Noranda collected an additional 2,169 soils from 'recce' grid lines to the west & SW of the Flyers grid to evaluate lake sediment anomalies appearing to be controlled by prominent NE-trending structures; 26 samples were anomalous (>20 ppb Au) with a high value of 425 ppb Au (now part of District Copper's Lake Project). Several other co-incident multi-element anomalies (As to 2,200 ppm and Sb to 52 ppm) were never followed up.
  - Noranda also collected the following samples (Sparkes, 1989) (most now part of District Copper's Stony Lake Project):
    - 56 regional lake sediment samples with 15 anomalous values  $\geq 4$  ppb Au the highest being 9 ppb Au.
    - 53 orientation lake sediment samples collected at 25 m spacing on 100 m spaced lines in the numerous small ponds in the Moosehead grid area. Au anomalies were spotty with 17 samples  $\geq 5$  ppb Au and 8 samples at 10 ppb Au.
    - 58 stream silt samples which identified three areas with anomalous Au (to 65 ppb), As (to 1,200 ppm), Sb (32 ppm) & Zn (1,470 ppm).
    - 66 till samples collected adjacent to the roads and logging roads with four samples >100 ppb Au.
    - 40 till samples were collected by Overburden Drilling Management (ODM) on four lines spaced from 2,500 m to 4,000 m apart and from 2,500 m to 5,600 m long. All sample media had assorted anomalous Au, As & Sb. Twelve samples had >100 ppb Au and a high of 5,400 ppb Au; most samples had fine visible gold grains. Details and results are given below and on the included Maps of this report.
  - During June 1989, Teck carried out a brief program of stream silt, till, soil and rock sampling on claims to the south of Noranda around the Island Pond-Moccasin Lake area (now part of District Copper's Stony Lake Project). Results were favorable, especially in the till samples processed by ODM (Pickett, 1989). Despite the favorable results no follow-up work was done, and their claims lapsed.
  - During 1989 and 1990 Battle Mountain Inc. carried out a regional mapping, prospecting, stream and till surveys over the Stony Lake volcanic complex and eastwards to Miguel's Hill and Paradise Lake (some 9 km south of the Stony Lake Gold Project). Their exploration objective was epithermal precious metal deposits in the area (Cant, 1989). Mapping in the Stony Lake volcanics revealed extensive areas of finely disseminated pyrite, arsenopyrite and weak to moderate sericitization. The most heavily mineralized and altered area corresponds to a large lobe of flow-banded to brecciated, grey to pale green aphanitic, sericitized and pyritized rhyolites which outcrops adjacent to Stony Brook approximately 2.5 km north of Stony Lake (the Cliff Showing with up 40 ppb Au, 10,000 ppm As & 200 ppm Sb). Till sampling in this area identified two weakly anomalous dispersal trains, marked by elevated As, Sb and base metals. Seven of the till samples contained visible gold grains (Cant, 1989).
  - Battle Mountain also collected ten reconnaissance till samples a few km east of the Stony Lake volcanic complex, at 1 km intervals along the Paradise Lake road north of Paradise Brook. Six of the tills contained gold grains with four of the samples containing delicate grains. Battle Mountain reported that this area had the greatest potential for economic concentrations of gold mineralization (Cant, 1989).
  - 1990:** Noranda carried out local prospecting and rock sampling over the Moosehead grid and magnetics, VLF and IP surveys over the Flyers grid. One diamond drill hole (DDH) at 131 m length was drilled on the Moosehead grid and two DDH's (237 m) were drilled on the Flyers grid (Tallman & Sparkes, 1990). No further work was done by Noranda and all claims expired in May 1994.
  - During 1990 Battle Mountain followed up on the results of their previous work (Burns, 1990). Additional till samples were collected in the vicinity of the Stony Lake-Miguel Hill anomalies
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- and the Paradise Lake area. No significant values were obtained in the Miguel Hill area. In the Paradise Lake area, sampling duplicated 3 of the original till samples containing visible gold grains. Additional till and soil sampling was completed and the till samples showed a broad gold grain-in-till anomaly between Paradise Lake (up to 48 grains) and Loon Pond (West Pond) and to the north of Twin Ponds (up to 41 grains). Sampling also showed a northward decrease in base metal values and a slight increase in Sb. Based on their sampling program Battle Mountain concluded that the sporadic high-Au counts were the result of an increase in background levels over the central portion of the Paradise Lake claims (Burns, 1990). No further work was completed, and the claims lapsed.
- As an aside, eight years later in 1998, Altius initiated an exploration program targeting the unsourced gold-in-till and gold-in-soil anomalies identified by Battle Mountain (Churchill and Barbour, 1999). This work had very positive gold results; see below under 1998 work.
- 1994:** The Noranda Moosehead area claims came open in July 1994 and the mineralized areas were staked by prospector Paul Crocker of Cape Broyle Exploration/Deep Reach Exploration. Prospecting and sampling of recent clear-cut logging areas led to the discovery of numerous additional quartz boulders, some with fine visible gold. All of this work was completed on the Moosehead grid area, several km's north of District Copper's Flyers Grid within the Stony Lake East Project.
- 1996:** In May 1996, Crocker optioned the Moosehead claims to Royal Oak Mines Inc. Royal Oak carried out a brief program of prospecting and HMC till sampling on a 250 m spaced grid immediately NW of the Moosehead grid. Some 52 till samples were collected and showed weakly anomalous Au values immediately west of the Moosehead Ponds Au-bearing boulders; however, ~600 m further west of these ponds the till sampling showed a significant NNE trending, four contiguous samples along >2,000 m with values of 27, 113, 950 & 2,285 ppb Au. This anomalous trend remains open to the SW into the Flyers grid area and likely has a different source than the Moosehead-Flyers angular Au-bearing quartz boulders (Lendrum, 1996 & Mercer, 1996). Following this, Royal Oak drilled seven holes (652 m) on various anomalies, all on the Moosehead grid and none into the above mentioned till anomaly. DDH MH-96-05 intersected at 42 m depth a narrow quartz vein with ~5% finely disseminated boulangerite with ~15 finely disseminated specks of visible gold which assayed 259 g Au/t over 0.10 m; a second vein cut 5 m below this also carried ~5% boulangerite (?) but only assayed 2.8 g Au/t over 0.53 m. These veins were hosted in altered siltstones and sandstones with disseminated pyrite and quartz-carbonate stockwork with assays up to 511 ppb Au in the alteration. The remaining holes intersected zones of quartz-carbonate stockworks and breccias with carbonate, sericite, chlorite, epidotized and kaolinite alteration; a number of these sections assayed 218 ppb Au/0.58 m to 474 ppb Au/4.0 m and 2,390 ppb Au/0.2 m. A further exploration program of trenching and drilling was recommended for 1997 (Lendrum, 1997). Due to financial troubles Royal Oak terminated the option back to Deep Reach in early 1997. All this work was completed on the Moosehead grid area, several km's north of the Stony Lake East Project.
- 1997:** Altius acquired the Moosehead & Flyers grids property from Deep Reach Exploration and carried out excavator trenching (seven trenches) over the Moosehead grid. Angular, brecciated, weakly mineralized (<5% boulangerite, <0.5% pyrite, sphalerite, +/-malachite) quartz boulders were located in the basal tills up to 5 m deep in several trenches. Trench 1B exposed altered interbedded siltstone & sandstone cut by thin quartz-carbonate +/- pyrite veinlets striking Az. 95°, dipping 65°N and Az. 163°, dipping 75°W. Ten grab samples of weakly mineralized, large angular quartz boulders from Trench 1B had four low assays of 354 to 2,124 ppb Au and six samples assaying from 16.2 g Au/t up to 85.7 g Au/t with an average grade of 39.1 g Au/t (Hynes & Dalton, 1997). All this work was completed on the Moosehead grid area, several km's north of the Stony Lake East Project.
- 1998:** Altius carried out additional gridding, soil sampling, trenching and selected magnetics, VLF and IP surveys in the Paradise Lake area. Field work carried out in 1998 included detailed
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- mapping, prospecting and till (HMC), soil and rock sampling. Mapping/prospecting revealed the Paradise Lake area to be underlain by large, angular boulders of locally derived syenite and quartz syenite. In addition, prospecting led to the discovery of more significant epithermal quartz and quartz breccia boulders and altered felsic float with grab samples assaying up to 8.9 g Au/t. Altius described the epithermal boulders as being scattered along the NE and west sides of Paradise Lake, along the road north of Paradise Lake and west of Paradise Lake around South Twin Pond. The boulders comprised 10 cm to 2 m, scattered, dominantly angular, vuggy quartz breccia boulders containing strongly altered wall rock fragments. Altius also located several 'geyserite' egg boulders, a couple of boulders comprised of radiating quartz crystal (daisy rock) and a single boulder of lattice textured quartz found on the small peninsula at the northeast shore of Paradise Lake.
- In May 1998 T. Froude staked the Flyers grid area claims which had been open since 1996.
- 1999:** In early 1999 Teck signed an option agreement with Altius on the Moosehead property. Teck extended the Moosehead grid and covered it with IP surveying. Seven drill holes (757 m) were drilled on IP targets. DDH MH-99-02 intersected of 1.53 g/t Au over 0.93 m in a banded quartz vein within a quartz breccia zone. Teck dropped the option at the end of this program. All of this work was completed on the Moosehead grid area, several km's north of the Stony Lake East Project.
- 2000:** Altius did a minor amount of work on the historical drill core. During late 2000-early 2001 Altius entered into an option agreement with Sudbury Contact Mines (Agnico Eagle Mines) on the Moosehead property.
- 2001:** Altius/Sudbury Contact drilled 36 DDH's (3,192 m) on the Moosehead grid. The drilling was successful in identifying sub-cropping quartz veins, of sufficient size and tenor to have provided the type of mineralized float seen on the property and suggested that glacial transport of the boulders was minimal (generally less than 100 meters). Two high-grade vein intersections (DDH MH-01-23) assayed 170.31 g Au/t over 1.5 m and DDH MH-01-13 cut 96.72 g Au/t over 1.5 m; additional narrow vein intersections assayed between 10 and 40 g Au/t. The high-grade vein in DDH MH-01-13 is part of a major mineralized fault zone (core length 30.4 m), which assayed 11.05 g Au/t over a 17.1 m core length (Barbour et al, 2001).
- Cornerstone Resources optioned the Flyers grid from Froude (who renamed the property the "Island Pond property" in confusion to the actual Island Pond Claims some 15 km to the SW) and carried out an intermittent soils and ground mag surveys. Results were successful in outlining at least three zones of coincident rock geochemical, soil geochemical and geophysical anomalies strongly suggesting the presence of Moosehead type gold mineralization. The two occurrences of quartz boulders were located: several quartz sulfosalt boulders where grab samples returned values of up to 142 ppb Au, 0.27 % Pb, 171.2 g Ag/t and 0.59 % Sb. The other occurrence consisted of several angular frost-heaved blocks of vuggy quartz breccia from which grab samples returned values of up to 398 ppb Au and 1,201 ppm As (Froude, 2002).
- 2002:** Altius/Sudbury Contact carried out an MMI soil program over the Moosehead grid which appeared to work over previously defined B-horizon soil anomalies. This MMI survey was followed up with 165 reverse circulation overburden drill holes all of which were designed to stop after several feet of bedrock was cut. In addition, a total of 39 DDH's (3,833 m) were completed on the Moosehead grid area. Several good intersections were reported including DDH MH-02-38 (1,154 g Au/t over 0.18 m within a veined zone assaying 14.1 g Au/t over 16.8 m (Barbour, et al, 2002). All of this work was completed on the Moosehead grid area, several km's north of the Stony Lake East Project.
- Cornerstone Resources drilled eight DDH's (905 m) on the Flyers Grid property (now part of District Copper's Stoney Lake Project). Four of these intersected altered and sheared volcanic and sedimentary rocks with multi-stage quartz veining and brecciation containing sulfides and sulfosalt mineralization hosted by NW-trending structures, very similar to the Moosehead veining. Anomalous As (5,051 ppm) and Sb (45 ppm) are directly associated
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- with anomalous gold values (300-450-930 ppb Au) in cores. Thin section analysis indicated a low-temperature epithermal-style of alteration (illite-dickite). Two of the better intersections were 0.23 g Au/t over 5.4 m in DDH IP-02-07 and 0.25 g Au/t over 7.6 m in DDH IP-02-08 (Froude, 2003).
- Prospector Cyril Reid carried out prospecting, rock & some soil sampling near Tumbler Lake where he discovered pyrite and acicular arsenopyrite ( $\leq 10\%$ ) in narrow, cross-cutting quartz-carbonate veinlets cutting a fine-grained gabbro; adjacent host rocks of Botwood Gp. sandstones are carbonate altered. Grab samples with anomalous gold assayed from 1.4 to 2.4 g Au/t from the Cabin showing (Reid, 2003).
  - Two prospectors working south of Island Pond & Tumbler Lake discovered silicified and quartz veined gabbro hosting acicular arsenopyrite. Named the Moonlight showing, grab samples assayed up to 2.1 g Au/t. Further sampling done here showed similar but more extensive results (Lannon, 2002).
- 2003:** Altius/Sudbury Contact continued with a winter drill program of 11 DDH's (1,415 m) designed to follow-up on the high-grade intersection (14.1 g Au/t over 16.8 m) in DDH MH-02-38; the drilling did not intersect additional significant gold values (Barbour et al, 2003).
- In October 2002, Linear Gold Ltd. optioned the above-mentioned Cabin and Moonlight claims from Reid and Lannon (Linear Gold, 2003). During the summer 2003 Linear resampled both showings and confirmed the gold values in rock. Prospecting in this area, west of the Moonlight & Cabin showings, located several new gold showings in the 1 g Au/t range (P1 - P2 showings) and a quartz vein with up to 4.2 g Au/t and 105 g Ag/t with anomalous Cu, Pb, Zn & Sb (Twin Ponds showing). Disseminated pyrite (5-10%) and minor arsenopyrite was found in Fe-carbonate altered and silicified gabbro and sedimentary rocks exposed along Twin Pond and French Pond. Five grab samples of altered rock assayed from 246 to 444 to 546 ppb Au. A new zone of banded, cockscomb textured, vuggy quartz veined boulders in the vicinity of silicified rocks was located south near Blueberry Ponds, ~9 km SW of Twin Ponds. Linear carried out a detailed airborne magnetic & EM survey over the property which helped to define the NNE-NE trending magnetic highs which are likely related to mafic intrusive dikes and NW-trending features which are likely related to crosscutting faults; this is a similar situation as at the Moosehead Property (Smith, 2004).
- 2004:** A brief prospecting program was done by Cornerstone on the Flyers grid area with anomalous As, Cu, Pb & Zn samples (Hussey, 2004). No further work was done on the property and it reverted back to T. Froude.
- Linear Gold carried out a winter program of lake sediment sampling, collecting some 40 samples (~17 samples had insufficient material for analysis). Five areas had eight anomalous Au values ranging from 2 to 6 to 10 ppb Au. Summer prospecting located several areas with altered (sericite & silicification) sandstones and quartz veining (Linear Gold, 2004). Further work was recommended but Linear dropped the claims to move on to Mexico.
- 2005:** Prospector Cyril Reid prospected, and rock sampled a number of newly discovered alteration zones on the Rabbit Tracks prospect (Reid, 2006). A greenish altered 'porphyry' containing 1-3% arsenopyrite, quartz stockworks and quartz veining assayed consistently anomalous in Au & As with values generally  $\leq 1.5$  g Au/t. An epithermal-style, silica-rich, orbicular-textured rock hosting ~3% fine grained disseminated pyrite & arsenopyrite was located as large angular boulders adjacent to the 'porphyry body'; grab samples assayed highly anomalous and up to 2.5 g Au/t; latter grab sampling of this rock assayed up to 6.5 g Au/t.
- 2006 & 2007:** No recorded work was done in the region
- 2008:** Golden Dory Resources optioned 339 claims in the area from some eight prospectors. The company carried out an in-fill lake sediment survey collecting 29 samples, all of which were incorrectly analyzed by fire assay. Brief summer prospecting collected 13 rock samples; one sample of quartz breccia from Twin Ponds assayed 2.8 g Au/t. Some 24 till samples were collected and analyzed by ODM; 11 samples had between 1 and 5 gold grains. Details of the ODM assays and report were not filed (Evans et al, 2008).
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- 2009:** During the summer of 2009, prospecting by Golden Dory along new forest access roads to the west of Island Pond identified several strongly altered and quartz veined boulders containing disseminated arsenopyrite and pyrite which returned up to 2.7 g Au/t from grab samples. Test pitting failed to reach bedrock in the area of the boulders. A similar altered boulder located along the main road south of Island Pond assayed 1.2 g Au/t. A new showing was discovered on the east shore of Peddle Pond east of the Cabin gold showings. Grab samples from a quartz veined zone of Fe-carbonated sandstone assayed up to 1.1 g Au/t (Evans et al, 2009). No further work was done by Golden Dory and all claims lapsed over the next few years.
- 2011:** Prospector Cyril Reid prospected and sampled several altered and brecciated outcrops along Great Rattling Brook ~5 km SE of Island Pond. Called the Thunder showing, samples assayed up to 1 to 1.5 g Au/t (Reid, 2012)
- 2012:** Cyril Reid did some trenching in the Twin Pond areas and Tumbler Lake area; bedrock was not reached. Two boulder samples from trenches assayed 966 and 1,243 ppb Au (Reid, 2013).
- 2016:** Altius carried out trenching on the Moosehead prospect and found numerous float boulders in the overburden as well as pristine angular gold grains were panned from these trenches; the exact bedrock source of the boulders and gold grains remains unresolved. In addition, Altius carried out a down-the-hole tele viewer analysis of in-place bedrock around and in the DDH-intersected gold-rich quartz veins; this work has provided a new interpretation of the structures controlling mineralization which concluded that most historic drilling on the property did not adequately test the alleged NNW-trending mineralization.
- 2018:** In March 2018 Sokoman Iron optioned the Moosehead property from Altius Resources. Subsequent drilling by Sokoman targeted the up-dip extension of the previous gold vein intersections by Altius on the Moosehead showing. A press release by Sokoman in July 2018 reported high-grade intersections in quartz sulfide veins including a 11.90 metre intersection assaying 44.96 g/t gold. The release sparked increased interest in the area and a mini-staking rush ensued with more than 3,000 claims recorded at the Mines Branch, Mineral Lands office.

To date there has been no known further exploration work carried out anywhere on the Stony Lake East Project area.

There are no known mineral resources or reserves within the Stony Lake Project or on other adjacent properties. There has been no mineral production from the Project or adjacent properties.

## **8 GEOLOGICAL SETTING**

### **Tectonostratigraphic Setting**

The following is summarized and edited from Barbour & Churchill, 2003.

The island of Newfoundland presents a cross-section through the northern part of the Appalachian Orogen (Figure 3). Four major tectonostratigraphic zones have been identified, and termed from west to east, the Humber, Dunnage, Gander and Avalon zones (Williams, 1978a, b). These separate zones are classified on the basis of distinct structural, depositional, tectonic and volcanic-plutonic characteristics. Portions of the four zones were deformed during the Precambrian Avalonian Orogeny, the middle Ordovician Penobscot/Taconic Orogeny, the lower to middle Silurian Salinic Orogeny, the Devonian Acadian Orogeny, and finally during the Carboniferous Alleghenian Orogeny. These zones record the opening, closing and destruction of the Iapetus Ocean in the early- to mid-Paleozoic (Williams et. al., 1988).

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The Humber Zone represents the eastern margin of Laurentia and consists of Precambrian crystalline rocks overlain by Paleozoic shelf facies rocks. The Humber Zone records the development and subsequent destruction of an Atlantic-type passive continental margin on the southeast margin of Laurentia. This zone was a stable marine platform during Cambro-Ordovician time, characterized by shallow water deposition of platformal carbonates and siliciclastic rocks.

The Avalon Zone represents the western margin of Gondwana, comprising late Precambrian plutonic, volcanic and sedimentary rocks overlain by Paleozoic platformal sedimentary units. The rock record of the Avalon Zone relates to either rifting and subsequent opening of Iapetus during Precambrian times or to a subduction cycle that predated opening of the Iapetus.

Rocks of the Gander Zone record the development and destruction of a continental margin east of the Iapetus Ocean (McKerrow and Cocks, 1977, 1986; Wonderly and Neumann, 1984). These Gander Zone rocks record the development and destruction of a continental margin located to the east of the Iapetus Ocean and possessing Celtic affinities.

The Dunnage Zone represents vestiges of the Iapetus Ocean and later accreted island-arc systems and mélanges. The Dunnage Zone records pre-accretionary, Cambrian to middle Ordovician, island-arc and back-arc basin development, characterized by widespread volcanic and distal turbiditic units. Volcanism ceased in the middle-Ordovician, and was followed by black shale deposition, and then by flyschoid development within fault-bounded basins associated with continued closure of Iapetus (Williams, et al., 1988). Post-accretion, regional-scale transcurrent faults were re-activated to create pull-apart basins, within which fluvial to shallow marine sediments were deposited (Williams, 1967). Fault development was accompanied by crustal anatexis, resulting in widespread epicontinental-style volcanism (Coyle and Strong, 1987).

With the exception of the Gander-Avalon boundary, mélanges and ophiolite complexes characterize the boundaries between the other three zones. The Humber-Dunnage boundary is delineated by the Baie Verte - Brompton Line - Long Range Fault system along which ophiolitic slivers such as the Flatwater Pond Complex are found. The Gander River Complex separates the Gander and Avalon Zones. The Avalon - Gander boundary and the Dover Fault - Hermitage Flexure is delineated by subvertical to vertical faults that contain broad zones of ductile deformation. Seismic data for the Baie Verte - Brompton Line and the Gander River Complex show that these major breaks do not extend to deeper crustal levels reaffirming earlier suggestions that the Dunnage Zone may be allochthonous on Humber and Gander Zone basement rocks. In addition, major structures such as the Baie Verte-Brompton Line and Gander River Complex have shallowly dipping geometries consistent with ramp-flat style of deformation.

Within the Dunnage Zone volcanic, plutonic, and sedimentary rocks record the development and eventual destruction of the Iapetus Ocean during early to middle Paleozoic. The Dunnage Zone is divided into two subzones, the Notre Dame and Exploits subzones, separated by the regional Red Indian Line (a crustal-type suture) and believed to have formed on opposite sides of the Iapetus Ocean (Colman-Sadd et al., 1992). The NW section of the Dunnage Zone and the Notre Dame Subzone is underlain by a mixed volcanic-sedimentary package that was intruded by alkalic granitic bodies. The geometry of the Notre Dame Subzone is dominated by a NE-SW trending belt of predominantly Ordovician aged arc-related mafic to felsic volcanic rocks and subsidiary volcanoclastic to sedimentary lithologies.

The southeastern part of the Dunnage Zone, the Exploits Subzone, is characterized by deep marine sedimentary rocks of Ordovician age and Silurian shallow marine to fluvial sedimentary rocks and subaerial volcanic units that have subsequently been intruded by Siluro-Devonian gabbroid and granitoid rocks.

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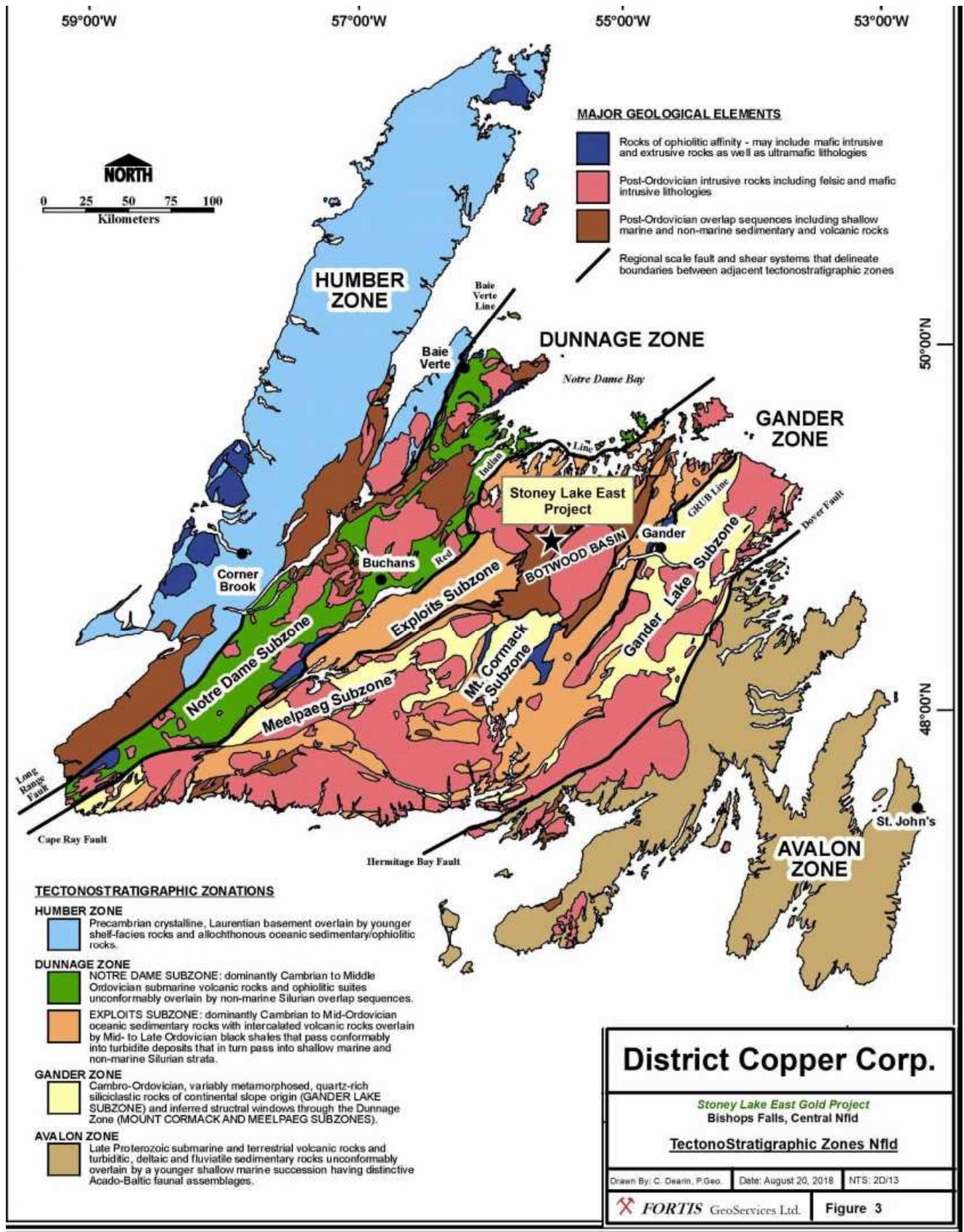


Figure 3: Tectonostratigraphic Zones in Newfoundland.

The boundary between the Exploits and Notre Dame Subzones is delineated by a late rectilinear fault or fault system termed the Red Indian Line which, in some areas, is manifested as a mylonitic zone locally punctuated by intrusions.

The Stony Lake East Gold Project is located mostly within the Botwood Group and only partially within the Badger Group of the Exploits Subzone of the Dunnage tectonostratigraphic zone; geological details are given below.

### **Regional Geology, Stratigraphic & Structural Setting**

The Stony Lake East Gold Project area is located within the western portion of the informally named Botwood Basin within the Exploits Subzone of the Dunnage Zone, consisting of sequences of late Ordovician to Silurian sedimentary and volcanic rocks, mainly of terrestrial origin, which wrap around a western side of a large mafic to felsic igneous complex known as the Mount Peyton Intrusive Suite (Figure 4). More recent geological work has suggested the Exploits Subzone is actually part of the western margin of the Gander Zone (van Staal, et. al., 2014); this hypothesis should be further researched for future exploration work as it could have implications for advanced gold exploration in the Basin.

From youngest to oldest these rock units have been mapped as the Mount Peyton Intrusive Suite (granite and gabbro), the Botwood Group (sandstone and volcanics) and the Badger Group (greywacke). Stratigraphically the rock units occur as follows from youngest (Early Devonian) to oldest (Late Ordovician):

The Mount Peyton Intrusive Suite consists dominantly of fine-grained, equigranular, massive to locally layered gabbro. The gabbro is intruded by buff to pink, leucocratic biotite granite. The Mount Peyton Intrusive Suite has been geophysically modeled as a number of inwardly dipping blocks that extend downward for five kilometres. It clearly intrudes rocks of the Point Leamington Fm (upper Badger Group rocks) but has not been seen in contact with the Botwood Group. Layered gabbro, in the south part of the Mount Peyton Intrusive Suite, has been dated at 424 +/-2 Ma (U-Pb zircon, Dunning, 1992).

The late Silurian Botwood Group consists of an upper Wigwam Fm and a lower Lawrenceton Fm. The Wigwam Fm, which underlies nearly 100% of the Stony Lake Project, is interpreted as a terrestrial sequence dominated by fluvial sedimentation (Dickson, 1994). It is subdivided into an upper and lower unit, (Colman-Sadd, 1994; Dickson, 1994). The lower unit is dominated by thick-bedded, variably colored (red, green, beige) sandstone. Thin-bedded siltstone and sandstone, and thick-bedded conglomerate are also present. Sedimentary features include parallel and cross laminations, graded bedding, mud cracks, rippled surfaces, and soft-sediment deformation features. White mica is a prominent detrital component of the unit. The lower unit of the Wigwam Fm is in stratigraphic contact with the Lawrenceton Fm, and in thrust contact with the upper unit of the Wigwam Fm (Dickson, 1994). A single fossil location, within the upper unit of the Wigwam Fm, indicates a Ludlovian to Gedinnian age (412-423 Ma) (Boyce and Ash, 1994; Tucker and McKerrow, 1995). In total the Wigwam Fm ranges from 431 to 418 Ma.

The Lawrenceton Fm comprises several mafic and felsic subaerial volcanic flows, and volcanic conglomerate and breccia units. Mafic volcanics are commonly plagioclase-porphyrific. The volcanic rocks have been variably mapped as being in conformable stratigraphic contact, or in fault contact with the younger Wigwam Fm

The Badger Group are the oldest rocks (Late Ordovician to early Silurian i.e. 452 to 431 Ma) in the Basin and consist of the upper Point Leamington Fm, a turbidite sequence consisting of medium to thick-bedded siltstone and sandstone, with local medium to thick-bedded conglomerate.

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Sedimentary structures include graded beds, parallel and cross laminations, scours in the coarser sediments, parallel lamination and poorly developed grading in shale and siltstone. The formation has been hornfelsed, and locally migmatized, along its contact with the Mount Peyton Intrusive Suite to the east. The west contact of the formation is a steeply SE-dipping thrust fault, which juxtaposes it against younger Lawrenceton Fm and locally Wigwam Fm rocks of the Botwood Group. Fossils constrain the age of the Point Leamington Fm to the late Llandovery (Boyce and Ash, 1994; Llandovery defined as 443-428 Ma, Tucker and McKerrow, 1995).

Numerous mafic dikes and sills occur in the central and southern parts (and presumably the northern parts) of the Project area and cut the local stratigraphy. These dikes have been seen in outcrops up to 10 m wide (Pickett, 1989), trenches and boulders and inferred from the airborne magnetic surveys (Smith, 2004). The dikes are mainly gabbroic in composition and vary in size from <1 m to several meters. South of Island Pond other dikes have been described as syenites to quartz syenites and resemble definite syenite dikes in and around Paradise Lake (Barbour et al, 2003) some 9 km south of the Project. Alteration and mineralization (iron carbonate, sericite, disseminated pyrite and acicular arsenopyrite) that post-date the dikes, is variably weak to strong and appears concentrated along the dike contacts. This variation in alteration causes the dikes to appear variably magnetic and discontinuous on the magnetic maps. The age and affinity of the dikes is unknown.

### **Property Geology**

It appears that nearly 100% of the Stony Lake East Gold Project is underlain by rocks of the Wigwam Fm of the Botwood Group (Figures 4 & 5). Due to poor outcrop exposures the geological setting is incompletely known. From north to south on the property the sandstones-siltstones generally strike NNE to NE with variable but steep east & west dips (50° to 75°). The best description of these Wigwam Fm rocks is taken and edited from Barbour & Churchill, 2003 as follows:

#### Wigwam Fm Sandstones

In the Project area, the Wigwam Fm consist of variably gray, to green-gray, to green, to red, to beige/tan colored fine-grained sandstones, siltstones and lesser argillites. The color variation in these rocks is partly a function of alteration. The red hematitic sediments are gradational into pale colors of red, green and beige due to destruction of hematite during alteration. The rocks are generally thin-bedded, but local areas of thick-bedded gray sandstone are present. Parallel laminations, ripple marks, cross laminations, mud-cracks, worm burrows, load casts and syn-sedimentary micro-faults are common features. Iron-carbonate alteration is pervasive, with local small areas of limey sandstone and siltstone representing presumed original protoliths, e.g. west of South Pond (DDH's MH-01-28, 29 and 30 on the Moosehead grid).

#### Gabbroic Dikes

Wigwam Fm sediments are locally cut by fine-grained, moderately to strongly magnetic mafic (gabbroic) dikes that generally trend NE; the dip of the dikes is variable. The dikes are calcite- and leucoxene-rich and often calcite amygdaloidal with well-chilled contacts. Large volumes of the dikes are strongly altered to a pale beige-gray mixture of clay minerals, iron carbonate, sericite, leucoxene and pyrite, with original intrusive textures preserved. Both calcite and magnetite are completely destroyed in the altered areas. Alteration is focused along contacts, fractures and faults, and along iron carbonate-quartz veinlets. They have not been observed to cut red hematitic sediments; this is probably a function of alteration of the red sediments adjacent to the dikes.

#### Quartz-Feldspar Porphyries

In the northern area of the Stony Lake Project at the Rabbit Tracks Au showings, a series of prominent quartz-feldspar porphyry dikes occur in outcrop as well as large (2 to >50 tonne) boulders, sub outcrop and likely bedrock outcrop. Contacts with Wigwam Fm sandstones are not evident due to overburden relationships. These felsic 'intrusives' were observed by the writer during field visits and prospecting during 2017. The porphyry consists of a pervasive, pale greenish-yellowish sericitic alteration of the matrix and hosting very notable euhedral quartz eyes (phyric) (0.5 to ~>2 mm) and

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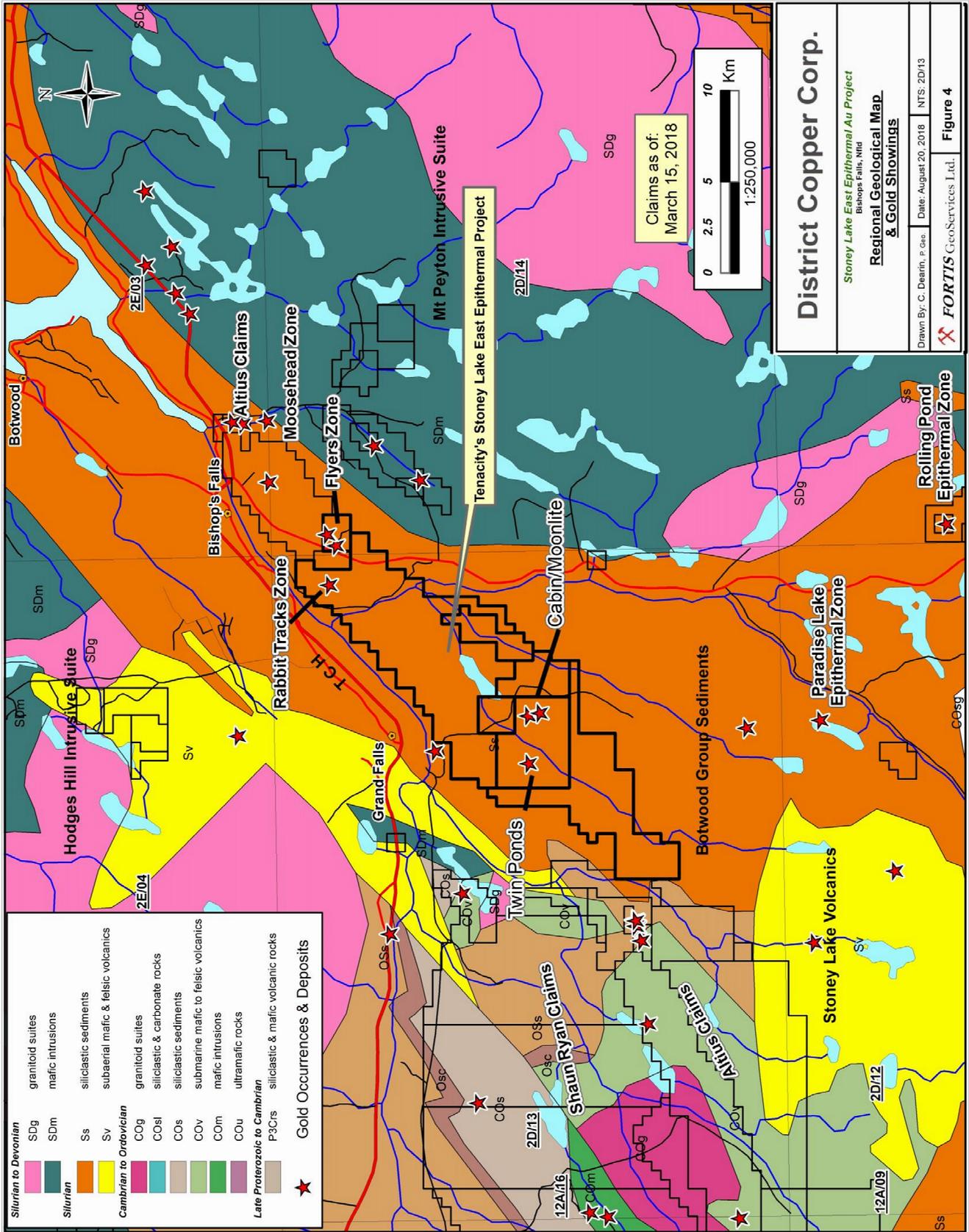


Figure 4: Regional geological setting Stony Lake East Project, Central Newfoundland.

whiteish (altered) euhedral laths of feldspar (1-2 mm long). Ubiquitous, very fine grained, disseminated, 2 to 5% pyrite and arsenopyrite (some being ~1-2 mm acicular) occur in most of these dikes. Rock grab and chip samples from numerous localities over several km are usually anomalous in Au (i.e. 300 to 500 and up to 6.6 g Au/t) and As (100 to 1,000 and >2,200 ppm As) with the higher gold values usually containing high Ag values (up to 110 g Ag/t), anomalous Zn and Pb but generally low in Sb. The porphyry units have been traced intermittently through bogs and heavily wooded areas along strike for >2,000 m and across strike (likely several separate zones) for ~300 to >500 m (see Maps 1 & 4); they may likely be a series of parallel porphyry units in the Rabbit Tracks zone.

These porphyries also have a unique vesicular ('orbicular'), ball-like feature which range in size from 2-10 mm and up to 3 cm. The vesicles are usually filled or near filled with chalcedonic quartz, often leaving a central vuggy cavity. This unusual texture appears to be ubiquitous in most of the porphyries observed in the Rabbit Tracks area. The presence of these vesicles suggest a near surface intrusion or extrusion relation to the host rock 'porphyry'. Several flat, sheet like layers of 2-4 mm diameter silica 'gel' nodules occur in these 'porphyries' as well, again suggesting a surface to very near surface deposition, somewhat akin to a boiling, steam generated feature.

### Syenites

Reddish brown, porphyritic syenite and quartz-syenite intrusions and dikes are known in the area around Paradise Lake, ~9 km south of the Project area. Prospectors have also described syenite dikes in several ponds half way from Paradise Lake and the project and possibly within the southern area of the Project. Along the eastern shore of Paradise Lake, the writer has observed narrow (1 to 5 cm wide) and banded quartz veining and quartz stockworks cutting angular boulders of quartz syenites.

### **Structural Geology**

Rocks of the Point Leamington Fm and the Botwood Group are folded into a series of regional, gently to moderately SW-plunging, asymmetric folds (Dickson, 1993, 1994; Colman-Sadd, 1994). The folds have an associated steep axial planar cleavage. Local variations in plunge of the folds, and in cleavage orientation, imply possible polyphase folding or other structural complications. To the NE of the property area, O'Brien (1993) noted evidence of polyphase folding. Faulting is evident as regional scale NE trending thrust faults, commonly defining boundaries between major lithologic units. Narrow zones of fault gouge indicate late, less significant fault displacements, with unknown movement histories. Detailed magnetic data would certainly better define the intrusive dikes and fault zones as well as disruptions in stratigraphy.

The folds have an asymmetric distribution in the area along the Exploits River and the Baie d'Espoir highway, and a symmetric distribution near the Moosehead grid area. This geometry suggests that the folds are parasitic on a larger-scale anticline that has its hinge near the Moosehead grid area. The axes of the above folds are locally rotated to a very shallow NE plunge, suggesting the presence of a later NW-striking gentle folding event.

The Moosehead grid area displays abundant evidence of faulting. Prominent NE trending topographic linears are probably attributable to regional thrusting, with subsequent strike-slip reactivation. Along the Exploits River, juxtaposition of hinge and limb domains of folds indicates the presence of NW-striking faults with tens of metres of offset. In the Moosehead grid area, three main episodes of fault movement are recorded in the drill cores. Abundant bedding-parallel, slickensided fractures reflect flexural slip during the folding event. Another period of early faulting is represented by zones of annealed fault breccia, which grade into sheared and boudinaged zones. The dominant clast component of these breccias is quartz vein material, although host rock clasts are important as well.

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These faults have a spatial association with N-NW trending magnetic linears which are noticeable on airborne magnetic survey results and VLF EM conductors. The faults strike N-NW to N, and dip moderately to the NE and east. Abundant seams of soft fault gouge, and fine breccia with gouge matrix evidence the latest faulting. The seams are typically 0.1 to 1 cm thick but are locally up to 25 cm thick. The late fault gouge zones are commonly superimposed on the early fault breccias. The kinematics of the latter two faulting episodes have not been determined, but slickenside data suggest both sinistral and dextral strike-slip components for the N-NW set and both strike-slip and sub-vertical movements for the late gouge zones.

### **Alteration and Quartz Veining**

The best descriptions of quartz veining and alteration around gold zones is from the Moosehead grid area due to the significant amount of work completed there to date. Most, if not all, of the gold showings on the Stony Lake East Project are poorly exposed but would fall into a Moosehead-style of gold occurrence. The following descriptions are edited from Barbour et al, 2002 & 2003.

Lithologies within the Moosehead grid area have been affected by a very widespread and pervasive iron carbonate, sericite and clay mineral alteration event, which is presumably associated with the gold mineralizing event. The alteration is not visually pronounced in the host sediments, except where it can be seen as a gradational bleaching (hematite destruction) of red hematitic sediments. Normally, the alteration is evident by a complete absence of calcite, and by the presence of variable amounts of quartz-iron carbonate veining. Local small areas of sediments contain limey sandstone beds and probably represent the unaltered protolith. The alteration is very striking when affecting fine-grained gabbroic dikes that intrude the sediments. Fresh sections of dikes are dark green-gray, calcite-rich, locally calcite amygdaloidal and strongly magnetic. Altered sections are pale gray, and consist of a mixture of iron carbonate, clay minerals, sericite and leucoxene, with complete replacement of calcite and magnetite. Pyrite commonly occurs as up to 8-millimetre sized spots of very fine-grained material; disseminated euhedral arsenopyrite is locally present. Original equigranular intrusive texture is preserved, and visually enhanced by the alteration process. Alteration of the dikes is controlled by fractures and faults and is typically accompanied by variable amounts of quartz-iron carbonate veining and by elevated gold values (up to 4 g Au/t).

Rock units on the Moosehead property are cut by several episodes of veining. An early, pervasive episode of thin quartz-iron carbonate veinlets has several orientations. These orientations suggest that the veins are filling a-c joints, b-c joints and conjugate sets of hybrid fractures related to the regional folding event. These veinlets are commonly zoned, with iron carbonate at the margins and quartz in the center. Accessory minerals include pyrite, galena, arsenopyrite, and traces of chalcopyrite. Analytical data indicates that the veinlets are locally anomalous in gold and may contain traces of sulfosalts (i.e. boulangerite). Thin, banded shear veinlets, which are typically, but not always, bedding-parallel, may be co-genetic with the above veinlets.

There are two phases of late veinlets:

The first set consists of thin, irregularly shaped veinlets filled with pale yellow-green iron carbonate and white kaolinite, with minor galena, red-orange translucent sphalerite, chalcopyrite and sulfosalts. These veinlets crosscut both of the above types. They are commonly associated with millimetre to tens of cm-thick zones of fine-grained breccia (hydrobreccia?). The matrix to the breccias is partly the yellow-green iron carbonate. This phase of veining is highly anomalous in mercury and silver relative to the other generations. Thin, vuggy veinlets of pale pink, ferroan dolomite and clear quartz probably represent the youngest phase of veining. Crystals of pyrite, chalcopyrite, and the red-orange translucent sphalerite grow from the dolomite crystals into the open spaces. These veinlets crosscut the first two types; their relationship to the kaolinite-bearing veinlets is uncertain.

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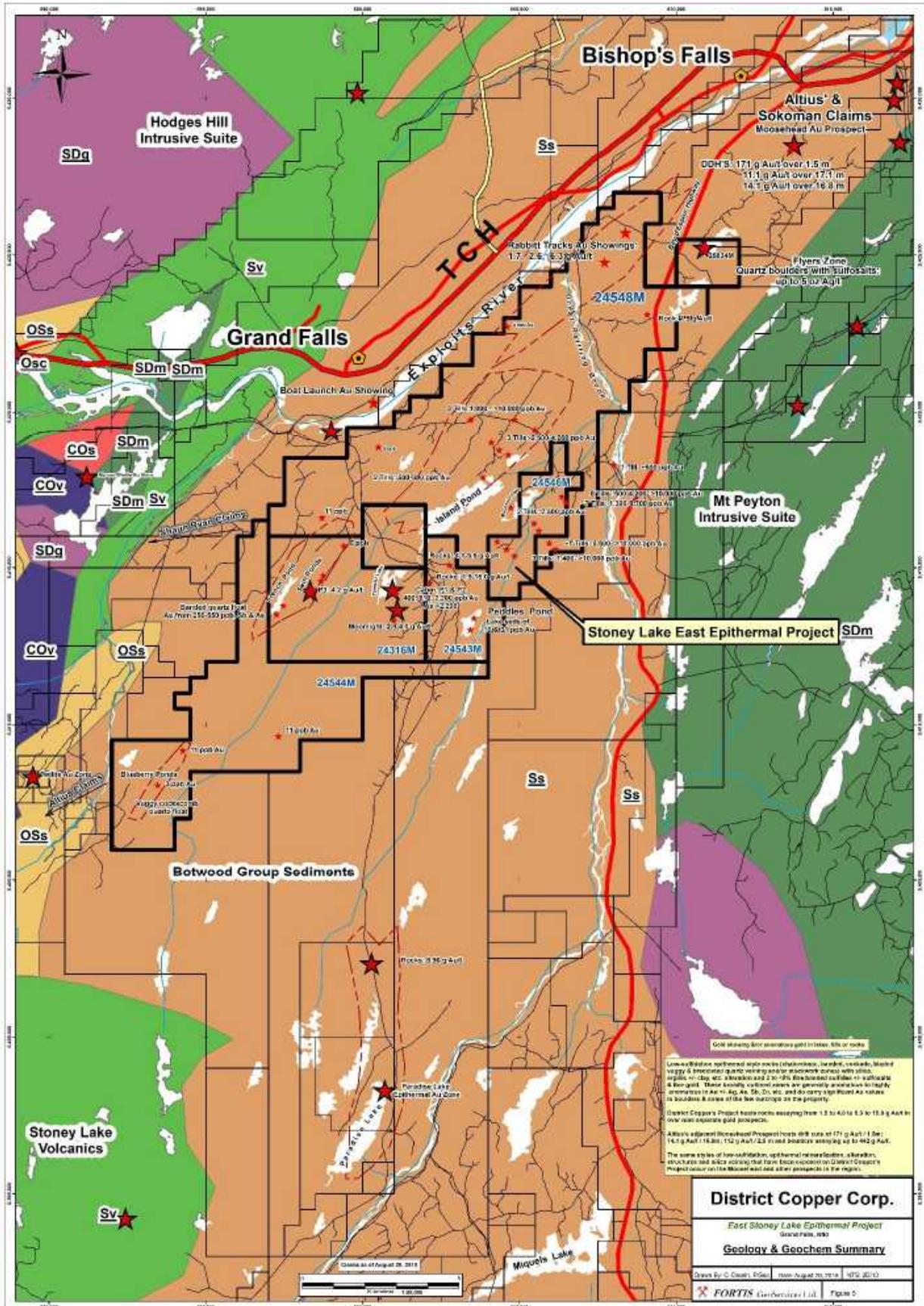


Figure 5: Detailed property geology & gold mineralization, Stony Lake East Gold Project.

A second set of veins are represented by substantially larger, well banded to massive veins, that vary from less than 1 cm to greater than 1 m in thickness. The veins are comprised of very fine-grained, generally milky quartz, with much less iron carbonate than in the above veinlets and show evidence of multiple phases of growth. They locally contain small vugs, with tiny clear quartz crystals growing into the vugs. Very thin, dark, planar bands consist of dark silica, very fine-grained pyrite and sulfosalts and are likely epithermal-related 'ginguro' bands. The bands are oriented parallel to vein margins, and may be symmetrically distributed within the vein, or occur mainly along its lower section with banded vein grading upward into massive vein. Dark stylolitic fractures, very likely related to the ginguro bands, comprising dark silica, pyrite and minor sulfosalts, are also common within the veins. These fractures sometimes become sufficiently abundant that the vein grades into a quartz breccia. Irregularly shaped fractures filled with very fine-grained pyrite are also abundant. The veins contain disseminated galena and brown sphalerite. Fine-grained visible gold is locally present in the quartz, especially in areas of good banding, or along the margins of the pyrite-filled fractures. These veins are the main gold bearing phase on the Moosehead gold zones; their relationship to the above thin veinlets is uncertain (Barbour, et al, 2003).

Local sites were noted of thin, white, iron carbonate veinlets, containing coarse bladed textures indicative of boiling in a hydrothermal system.

## **9 DEPOSIT TYPES**

The focus of exploration on the Stony Lake East Project is for low-sulfidation epithermal gold-silver deposit.

Central Newfoundland was affected by two major orogenic events. The first was the early Ordovician Taconian/Penobscot Orogeny (~500 to 440 MA) which produced ophiolite obduction onto opposing continental margins of the Iapetus (Colman-Sadd et al., 1992). The second event was the Upper Silurian Salinic Orogeny which produced regional deformation along with widespread metamorphism, plutonism and subaerial volcanism (Dunning et al., 1990). Gold mineralization throughout central Newfoundland is interpreted to have formed during syn- to post Salinic time (~423 to 420 MA), based on the association with late regionally extensive structures and host rocks that are Siluro-Devonian age (~420 to ~390 MA). In these environments both near surface epithermal gold mineralization and much deeper orogenic (mesothermal) gold mineralization is easily possible.

Within the Dunnage Zone of central Newfoundland, epigenetic gold occurrences define a widespread mineralization style that tends to occur in areas of structural complexity characterized by regionally extensive faults and terrane bounding structures, that are capable of tapping deep fluid sources. In addition, younger felsic volcanism and related intrusive source rocks likely played a role in generating shallow, near surface, heated fluids to generate epithermal gold-silver mineralization. In the case of the Stony Lake Project environment the regionally extensive, deep tapping Cape Ray fault-shear-Valentine Lake shear-Rogerson Lake structural zone passes through or adjacent to both the Stony Lake felsic volcanics and the proximal Botwood Basin. Both geological features could readily generate a major heat and auriferous mineralization to form both orogenic and epithermal style alteration and mineralization

### **Conceptual Model for Low Sulfidation Epithermal Au & Ag Deposits**

The following is taken from low-sulfidation epithermal Au & Ag deposit descriptions and models by Greg Corbett and Terry Leach (Corbett, G., and Leach, T., 1998; Corbett, G., 2002a and Corbett, G., 2002b).

Epithermal gold ( $\pm$  Cu & Ag) deposits form at shallower crustal levels than porphyry Cu-Au systems and are primarily distinguished as low and high sulfidation using criteria of varying gangue and ore mineralogy, deposited by the interaction of different ore fluids with host rocks and groundwaters.

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Low sulfidation epithermal Au-Ag deposits are distinguished from high sulfidation deposits primarily by the different sulphide mineralogy (pyrite, sphalerite, galena, chalcocopyrite) typically within quartz veins with local carbonate, and associated near neutral wall rock alteration (illite clays), deposited from dilute hydrothermal fluids (Corbett and Leach, 1998). Many low sulfidation veins are well banded and each band represents a separate episode of hydrothermal mineral deposition. Consequently, recent thinking separates varying styles of rising hydrothermal fluids (figure A) which contribute towards low sulfidation vein formation as:

- Meteoric dominated waters commonly form shallow circulating cells and deposit clean quartz, which has not come in contact with buried intrusion sources for metals and so are commonly barren.
- Magmatic-meteoric waters developed where meteoric waters circulate to sufficiently deep crustal levels to come in contact with magmatic sources for metals and so contain low grade mineralisation within disseminated sulphides.
- Magmatic dominant waters have been derived from intrusion sources for metals at depth and so contain highest precious metal values associated with sulphides.

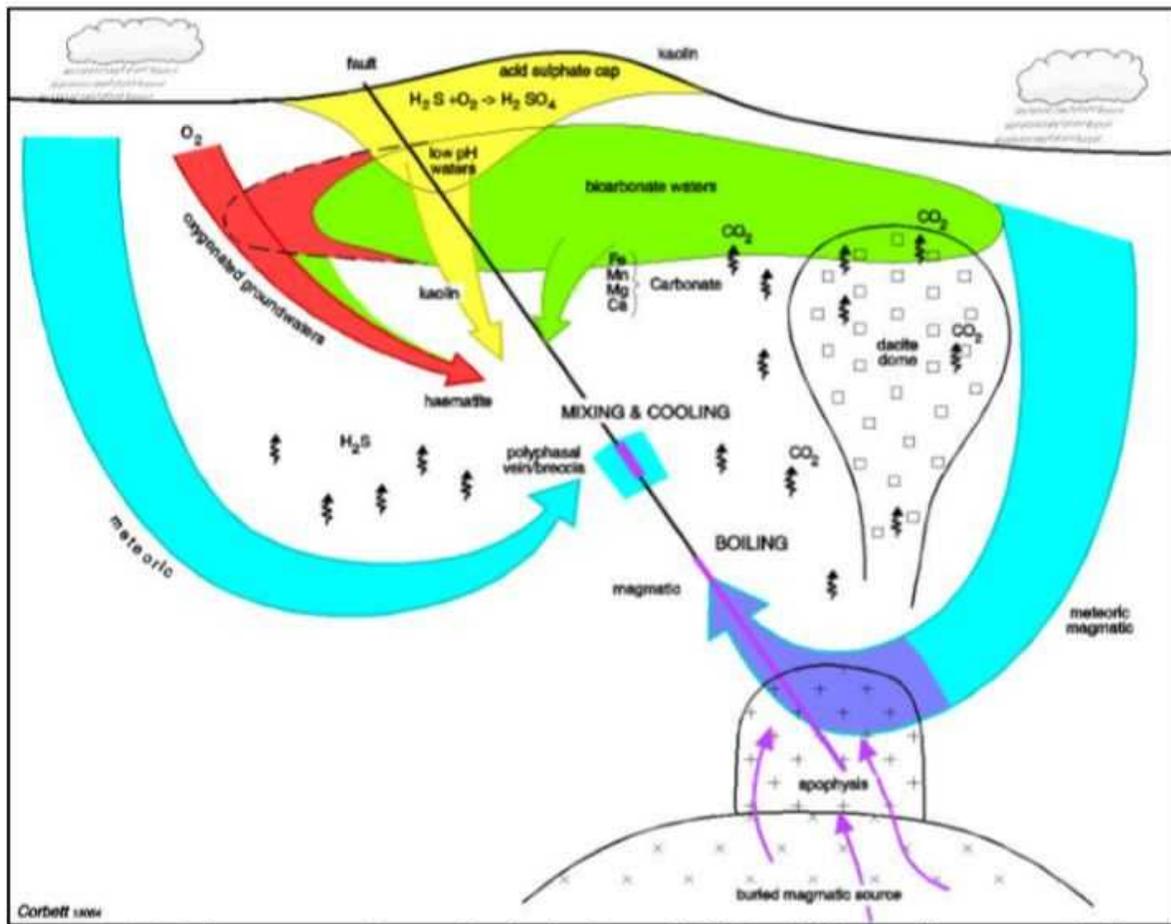


Figure A: Model to account for varying hydrothermal fluids which contribute towards the development of banded low sulfidation epithermal Au-Ag veins containing many varied vein elements (Corbett, G., 2002a).

Quality low sulfidation epithermal Au-Ag mineralisation is best developed in settings where many of the following controls are active as:

- Lithological control occurs mainly as competent or brittle host rocks which develop through going fractures as vein hosts, although permeability is locally important. In interlayered

volcanic sequences epithermal veins may be confined to only the competent rocks while the intervening less competent sequences host only fault structures.

- **Structures** act as fluid channel ways and more dilational portions of the host structures may represent sites of enhanced fluid flow and so promote the development of ore shoots which host most mineralisation in many low sulfidation vein systems (Corbett 2002a). Elsewhere fault intersections host ore shoots at sites of fluid mixing. Several structural settings provide ore shoots of varying orientations (Figure B). Steep dipping strike-slip structures provide vertical ore shoots in flexures and fault jogs. Tension veins and dilatant sheeted veins dominate in the latter setting. Normal, and in particular listric faults, in extensional settings host wider and higher grade veins as flat ore shoots in steep dipping vein portions. In compressional settings reverse faults host flat plunging ore shoots in reverse faults.

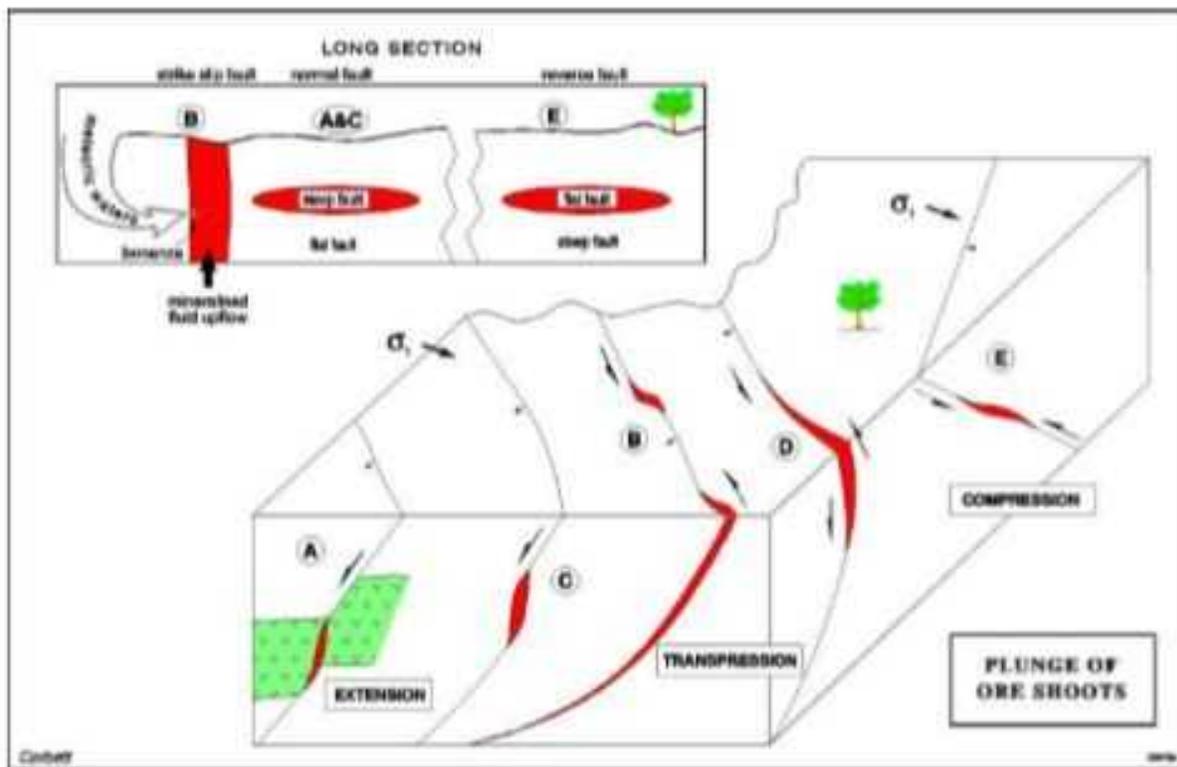


Figure B. Illustration of the structural control to ore shoot formation in different structural environments and associated ore shoot orientations (Corbett, G., 2002a).

Styles of low sulfidation Au are distinguished (Corbett and Leach, 1998; Corbett 2002b, 2004, 2005) according to mineralogy and relation to intrusion source rocks and influence precious metal grade, Ag: Au ratio, metallurgy and Au distribution (Figure C).

- *Quartz-sulphide Au + Cu mineralisation* is characterised by quartz and pyrite as the main sulphide, although lower temperature marcasite, and higher temperature pyrrhotite and chalcopyrite are also recognised (Nolan's, Adelong, Mineral Hill, Round Mountain, Emperor). Quenched very fine pyrite is commonly arsenian and locally displays difficult metallurgy (Lihir), while coarser sulphides are typically associated with near surficial supergene Au enrichment.
- *Carbonate-base metal Au deposits* overprint quartz-sulphide Au display higher Au contents, increased Ag: Au ratios, with additional sphalerite greater than galena, and an important carbonate component, described below (Cowan, Porgera, Kelian, Acupan, Antamok). These deposits are the most prolific Au producers in the SW Pacific rim, although with locally quite irregular Au distribution, commonly as stock work and sheeted veins or breccia matrix, including in association with phreatomagmatic breccias.

- *Polymetallic Ag-Au deposits* dominate in the Americas as fissure vein Ag-rich equivalents to carbonate-base metal Au deposits (Fresnillo, Palmarejo). In dilational structural settings these pass upwards to chalcedony-ginguro deposits.
- *Epithermal quartz Au-Ag deposits* are characterised as Ag-poor often bonanza Au grades, developed greatest distances from magmatic source rocks, in association with only minor quartz, illite, chlorite and local pyrite gangue, and so can be difficult to identify. They contribute to irregular Au distribution in overprinted carbonate-base metal and quartz-sulphide Au deposits (Porgera Zone VII, Emperor).
- *Chalcedony-ginguro epithermal Au-Ag deposits* commonly display bonanza Au grades and occur as generally Ag-rich banded veins comprising chalcedony, adularia, quartz pseudomorphing platy calcite and ginguro black sulphidic material described by 19th century Japanese miners. While much of the gangue may be deposited from boiling meteoric dominant waters most high grade Au mineralisation occurs in the magmatically-derived ginguro bands deposited from rapidly cooling fluids, locally aided by mixing with ground waters.

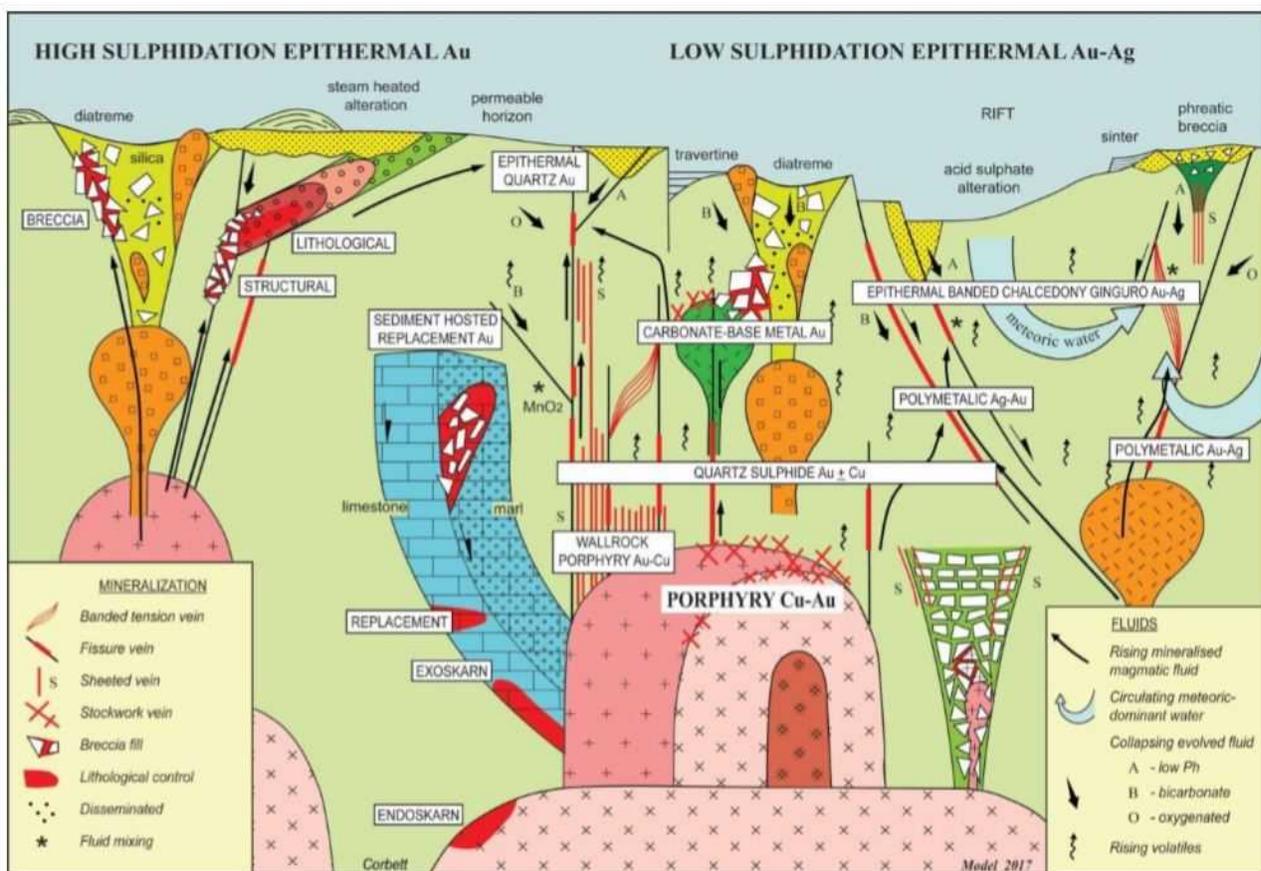


Figure C: Conceptual model for styles of magmatic arc epithermal Au-Ag and porphyry Au-Cu mineralization (Corbett, 2002a).

Mechanisms of Au deposition have a profound effect upon Au grade varying from:

- *Cooling* in the case of many coarse sulphides with low grade Au contents.
- *Rapid cooling* promoted by quenched magmatic fluids evidenced by fine sulfides, or by mixing of ore fluids with deep circulating meteoric waters, commonly recognised in high precious metal polymetallic vein deposits where low temperature quartz (opal) is in contact with high temperature sulfides.

- While *boiling fluids* deposit much of the gangue (adularia, quartz pseudo-morphing platy calcite and local chalcedony), in epithermal veins and some Au other mechanisms are preferred to account for elevated Au grades.
- *Mixing of oxygenated ground waters* with ore fluids at elevated crustal settings produces elevated Au grades and is evidenced by hypogene haematite in the ore assemblage.
- *Mixing of bicarbonate waters* derived from the condensation of CO<sub>2</sub> volatiles released from cooling intrusions is responsible for the development of higher Au grades as the carbonate-base metal group of low sulfidation Au deposits. •
- *Mixing of low pH waters*, developed by the condensation of H<sub>2</sub>S volatiles above the water table, and responsible for the development of near surficial acid sulphate caps, provide the highest Au grades and is evidenced by the presence of hypogene kaolin including halloysite within the ore assemblage

## **10a MINERALIZATION**

### **Gold Mineralization and Epithermal Characteristics based on the Moosehead Zone**

The Moosehead Prospect owned by Altius/Sokoman is the best known and tested gold mineralized zone in the area. It has been variably classified as low-sulfidation epithermal style gold mineralization as well as an orogenic style (mesothermal) gold mineralization (Altius 2000 reports and Sokoman 2018 news releases).

The Moosehead auriferous quartz veins are hosted within a widespread, pervasive zone of iron carbonate, sericite and clay mineral alteration, which is particularly notable where it affects gabbroic dikes that cut the host sediments. Gold mineralization shows a strong spatial association with NW-trending magnetic linears, which represent NW-trending and NE-dipping faults. These NW-trending faults displace the ubiquitous NE-trending magnetic features over the Botwood Group sediments. It is possible that the better mineralization may occur in shoots defined by the intersection of the two linears. Gold mineralization also seems to have some spatial affinity for altered mafic dikes.

Current evidence suggests two episodes of gold deposition, which may be separate phases of a single prolonged epithermal event (Barbour, et al, 2002 & 2003).

- The **low-grade gold** mineralization is generally hosted by altered and veined mafic dikes that contain disseminated arsenopyrite, and by fault zones that contain boudinaged quartz veins and vein fragments. Low-grade gold values (up to 4 g Au/t) are generally associated with elevated arsenic values, although there is still a poor correlation between actual values of gold and arsenic, and high arsenic is not always accompanied by elevated gold. This mineralization has some association with the thin quartz-iron carbonate veinlets, especially within altered gabbro dikes. Gold bearing veins of this set commonly have acicular arsenopyrite adjacent to vein margins, both within the vein and the host rock. Gold may also be present within the altered host rock. The arsenopyrite occurs as both fine-grained cubic and acicular needles disseminated, and in small clusters in both weak quartz-stockworks and altered rock, especially within altered gabbro dikes. There is little evidence of a sulfosalt association with this mineralization. The exact association of gold in this mineralization is difficult to determine, as similar looking material may contain several grams of gold per tonne or nothing. As well, there seems to be no correlation between gold content and amount of vein material present. It may be that gold is present in sporadically distributed thin veinlets that are part of the high-grade set, but which are difficult to visually differentiate from earlier barren quartz-iron carbonate veins.
  - **High-grade gold** is confined to sets of banded to massive quartz veins and quartz breccias and stockworks. These veins differ from the above in that they are quartz-rich and iron carbonate-poor, they contain brown transparent sphalerite as opposed to the red-orange
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translucent sphalerite, and they contain significant sulfosalt minerals (up to 1% bournonite and possible boulangerite). Fine-grained visible gold is locally present and is a prerequisite to high-grade values, otherwise gold intersection values are minor. Gold shows a strong positive correlation with mercury and antimony (sulfosalts). Up to 0.5% arsenic is present in these veins but has a negative correlation with gold. The high-grade veins are generally contained within larger zones of low-grade arsenic-related gold.

### **Epithermal Characteristics from the Flyers Grid**

Petrographic examination, scanning electron microprobe and X-ray diffraction analysis combined with fluid inclusion analysis on seven quartz vein samples obtained from local boulders on the Flyers grid area was carried out by Dr. Derek Wilton (2002) for Cornerstone Capital Res. Inc. Results showed the quartz vein samples hosted weak mineralization identified as pyrite, arsenopyrite etc. and 1-3% bournonite ( $\text{PbCuSbS}_3$ ) in several samples as 1 mm long grains intergrown with pyrite and associated but lesser tetrahedrite ( $\text{Cu}_{12}\text{Sb}_4\text{S}_{13}$ ); several other Pb-Sb-S sulfosalt minerals were also identified (possibly semseyite, fuloppite, plagionite, heteromorphite or rayite (a Ag-Tl-Sb sulfosalt)). His other findings were:

- Fluid inclusion work on some 44 samples determined that  $\text{CO}_2$  was not present in the inclusions;  $\text{CO}_2$  is a diagnostic feature of mesothermal gold systems.
- Homogenization temperature from 44 fluid inclusions show a range in temperatures from 218° to 280° C which may indicate an increasing paleo depth below the boiling level.
- There is a significant range in temperatures for two quartz vein samples which may be indicative of two or more different veining periods, not at all unusual in epithermal deposits.
- Six of the samples fluid characteristics indicate origins from a 'common system'; if so, then there is likely a zonation developed in the mineralogy from pyrite-arsenopyrite to sulfosalts and temperatures from 218° to 280° C.
- The Flyers grid (i.e. West Jumpers Brook Pond) features resemble well-known adularia-sericite epithermal Au-Ag systems (Corbett & Leach, 1998 and Heald, et.al, 1987) including:
  - Fluid temperatures of less than 300° C,
  - The presence of sulfosalts (i.e. bournonite, tetrahedrite, etc.),
  - Low Ag:Au ratios (i.e. 1:20 to 1:50),
  - Low salinity (non- $\text{CO}_2$ -bearing) fluid inclusions,
  - Multiple vein events and brecciation.
- Wilton concluded: the submitted quartz vein samples are generally sedimentary-hosted vein systems apparently controlled by regional structures, typical of adularia-sericite epithermal Au-Ag systems as opposed to volcanic-hosted lithologies and structures in a boiling-related magmatic water system typical of porphyry-related epithermal systems. He also thought that samples IPR-40 to 42 appeared to be from deeper in the system and away from any potential auriferous zones (i.e. higher temperatures from 257° to 307° C).
- Wilton recommended that further work on the property should be directed toward lower temperature regions of the alteration-mineralization system. Also, that detailed examination of samples for Ag and Au-bearing sulfosalts and electrum should be carried out in the vicinity of samples IPR-34 & IPR-39 (temperatures of 219° and 135°C).

### **Adjacent Epithermal Gold Prospects (as models for the area)**

There have been significant gold discovery results from past intermittent exploration work on the current Stony Lake East Project area. This prospecting work has shown that the same styles of low-sulfidation mineralization and alteration, all hosting very anomalous to high-grade gold values in tills, soils and rocks occur on District Copper's Project.

Highly significant siliceous rock types and alteration patterns with low-sulfidation epithermal characteristics on the Moosehead property, Flyers Grid, Paradise Lake, Rolling Pond and other

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showings on District Copper's Project, all hosting highly anomalous to high gold values certainly provide the impetus for the continuation of more detailed and concentrated exploration work in the area.

**All of the exploration work and results to date from the Stony Lake East Project and adjacent areas are historical in nature and the reliability of the historical assessment reports and contained data cannot be confirmed by the author.**

**The author has been unable to verify the reliability of the information as described above and below and this information is not necessarily indicative of mineralization on the property that is the subject of this technical report.**

#### **Moosehead Zone:**

The Moosehead property has seen more than 25 years of sporadic exploration, with discoveries of angular, epithermal-style auriferous quartz vein boulders assaying up to **442 g Au/t (13 oz Au/t) and drill intersections of up to 171 g Au/t (5 oz Au/t) over 1.5 m, 14.1 g Au/t over 16.8 m and 112.0 g Au/t over 2.0 m**. The WNW-trending linears that intersect with the NNW-trending faults are spatially associated with significant gold mineralization on the Moosehead property.

Prospecting south of the TCH near Bishops Falls by Noranda in 1989 discovered abundant mineralized gold-bearing float with grab samples assaying between 5.4 and 17.5 g Au/t and base metal assays up to 0.8% Zn, 0.26% Pb, 56.3 g Ag/t & 800 ppm Cu. Several hundred metres to the NE of these discovery boulders another block of quartz vein float with Fe-carbonate veining and weak sulfides assayed 19.0, 20.3, 32.2, 40.2 & 149.0 g Au/t. Additional quartz float assayed in the 10's of grams Au. The prospect was named the Moosehead Zone and to date this is the most significant gold bearing epithermal-style zone located in the region. Of 485 soils collected in 1989 on the Moosehead grid over 50% showed no Au, 17 were >20 ppb Au, and the two highest soil values were only 180 & 190 ppb Au, all with coincident anomalous As & Sb (Sparkes, 1989).

In 1990 Noranda carried out brief prospecting, magnetics, VLF & IP surveys and a three-hole diamond drill program. Four grab samples were collected with one boulder of quartz veining from the Moosehead Grid assayed 7.3 g Au/t; two boulders of sericitic alteration with fine disseminated pyrite and arsenopyrite in wallrock adjacent to the quartz vein material assayed 1.4 and 2.2 g Au/t indicating some potential for width continuity. One DDH was drilled into the Moosehead prospect with the best result being 0.7 g Au/t over 1.0 m from a moderately sericitized gabbro with minor pyrite and arsenopyrite. The other 2 holes were drilled on the adjacent Flyers Grid with somewhat better assays (notably Ag) in similar style quartz vein/ breccia zones (Tallman & Sparkes, 1990). No further work was done by Noranda and the claims expired in mid-1994.

The Moosehead ground was immediately staked in 1994 by prospector Paul Crocker who carried out prospecting and soil sampling over the newly logged Moosehead grid area. More than 100 large angular, low sulfide, quartz vein-breccia boulders were located, and grab samples of quartz-rich float assayed up to 149 g Au/t and 442 g Au/t. Visible gold was noted in several boulders. High Au values appeared to be associated with comb-textured quartz containing sandstone fragments. These angular boulders were located within an area measuring 300 m by 700 m which Noranda soil sampling (485 soils) showed was anomalous in Au, Sb & As. Two adjacent ponds with numerous quartz float boulders along the northern shores, had lake sediment values of 4.2 and 7.0 ppb Au (Dalton, 1995).

The property was optioned to Royal Oak Mines in 1996 which carried out a brief program of prospecting and HMC till sampling on a 250 m spaced grid immediately NW of the Moosehead grid. Some 52 till samples were collected and showed weakly anomalous Au values immediately west of the Moosehead Ponds Au-bearing boulders; however, ~600 m further west of these ponds the till

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sampling showed a significant NNE trending, four contiguous samples along >2,000 m with values of 27, 113, 950 & 2,285 ppb Au (Maps 1 & 4). This anomalous trend remains open to the SW into the Flyers grid area and likely has a different source than the Moosehead-Flyers angular Au-bearing quartz boulders (Lendrum, 1996 & Mercer, 1996). Seven holes (652 m) were drilled with the most significant result in DDH MH 96-05 being **7.57 oz Au/t (259.7 g Au/t) (at a depth of ~40 m) over a 0.10-metre wide quartz vein** which contained 15 specks of visible gold and fine grained, but weak sulfides and sulfosalts; the vein occurred within a structural zone marked by moderate to strong argillic and illitic alteration (sericite-carbonate (ankerite)-pyrite). Further soil & till geochem was done which enhanced the location of additional gold potential but due to financial issues Royal Oak dropped the option in 1997.

In 1997 the Property was optioned to Altius Minerals with additional till work and assaying of grab samples in boulders being done. In 1999 Teck optioned the property from Altius and carried out detailed IP surveying & reinterpretation and drilled seven holes (757 m). The most significant intersection was in DDH MH-99-02 which assayed **1.5 g Au/t over 0.93 m** in a quartz vein hosting banded, weakly mineralized (<1%) pyrite, arsenopyrite, sulfosalts and visible gold within a quartz breccia zone over 0.93 m wide. The boulangerite, banding and quartz adularia within this hole support an epithermal origin for veins. Teck dropped the option in 1999.

In 2001 Sudbury Contact Mines (Agnico Eagle Mines) partnered with Altius and began a round of drilling that targeted newly defined NW-trending structures. The 2001 drilling program was successful in identifying sub-cropping quartz veins, of sufficient size and tenor to have provided the type of mineralized float seen on the property. These veins are suitably located to explain some of the known concentrations of boulders and suggest that glacial transport of the boulders was minimal (generally less than 100 metres). Some of the boulder concentrations, and gold-in-till anomalies, were not explained by the newly discovered veins. This drilling consisted of 36 diamond drill holes, totaling 3,192 m, and was designed to locate the bedrock source for the high-grade Au-bearing quartz float. The drilling program was successful in identifying sub-cropping quartz veins of sufficient size and tenor to have provided the type of mineralized float seen on the property. All details below are summarized from Barbour, et al, 2001.

The auriferous quartz veins are hosted within a widespread, pervasive zone of iron carbonate, sericite and clay mineral alteration, which is particularly notable where it affects gabbroic dikes that cut the host sediments. Evidence suggests two phases of gold mineralization. Low-grade gold (up to 4 g/t Au) is closely associated with arsenic, occurring both in quartz-iron carbonate veins, and in altered host rock (particularly in altered gabbro). High-grade gold is contained in well banded to massive, sulfosalt-bearing quartz veins, with a strong positive correlation between gold, mercury and antimony, and a negative correlation between gold and arsenic. The high-grade veins are generally contained within larger zones of low-grade arsenic-related gold. Gold mineralization shows a strong spatial association with northwest-trending magnetic linears, which represent northwest-trending and northeast-dipping faults (Map 4).

Highlights of the 2001 drilling included two high-grade vein intersections ~130 m apart and along strike plus several other narrow vein intersections assaying between 10 and 40 g Au/t.

- DDH MH-01-23: **170.3 g Au/t over 1.5 m** of banded quartz vein at 14.2 m below surface and is the highest grade-thickness intersection to date. This interval contained numerous specks of fine grained visible gold. This intersection is located ~50 m north and up-dip of the Royal Oak DDH-MH 96-05 intersection of 259.7 g Au/t over 10 cm.
  - DDH MH-01-13: Intersected a spectacular **6.6 g Au/t over 30.6 m** of mineralized fault zone (from 33.9 m to 64.5 m); the uppermost section of vein and wall rock assayed **11.1 g Au/t over 17.1 m** (from 38.0 m to 55.1 m). The high-grade vein in drill hole MH-01-13 is part of a major
-

mineralized fault zone (core length 30.4 m) which assayed 11.05 g Au/t over a 17.1 m core length.

- The highest gold grades are carried in two major quartz veins with the top vein assaying **96.7 g Au/t over 1.5 m** (38.0 m to 39.5m) and a lower vein/breccia assaying **4.1 g Au/t over 10.0 m** (45.1 m to 55.1 m). The zone consists of a mixture of massive to banded quartz veins, quartz breccias, lithons of brecciated to fractured and veined host sediments, early annealed fault breccia and narrow seams of late fault gouge and breccia. Quartz veins contain sulfosalts as disseminations and in thin bands. Very fine-grained pyrite is present in thin bands with the sulfosalts, as fracture fillings, and in stylolitic fractures; these are likely epithermal-style 'ginguro bands'. Also present are disseminated brown sphalerite and abundant fine visible gold. The veins locally grade into quartz breccias, which show evidence of two or more episodes of brecciation and rehealing. Early fault breccias contain quartz vein fragments. Gold grades in this intersection show a strong correlation with mercury and antimony; arsenic is weakly elevated throughout the section but does not correlate with gold tenor.

Other notable 2001 DDH intersections include

- DDH MH-01-18: cut **1.0 g Au/t over 32.0 m** (8.4 m to 40.4 m); higher-grade intervals within this intersection include **11.7 g Au/t over 0.34 m** and **11.8 g Au/t over 0.64 m**.
- DDH MH-01-19: collared in the bottom part of the above DDH's mineralized zone, cut **6.5 g Au/t over 5.2 m** (6.18 m to 11.37m). This interval included higher-grade sections of **34.7 g Au/t over 0.59 m**, **23 g Au/t over 0.17 m** and **7.8 g Au/t over 0.54 m**.
- DDH MH-01-07: cut a mineralized zone of 287 ppb Au over 17.8 m from surface to 21.8 m depth. This zone hosted a banded quartz vein, with approximately 0.5% sulfosalts, 1% brown sphalerite and three specks of visible gold which assayed **13.5 g Au/t over 0.34 m**.
- DDH MH-01-08: intersected 7.5 m of the mineralized zone, that assayed 460 ppb gold. Included in this is an interval of 1,859 ppb gold over 1.1 m, with a high of 4.2 g Au/t over 0.23 m. Gold is again closely associated with arsenic, with only traces of sulfosalts.
- DDH MH-01-34: intersected **2.2 g Au/t over 5.7 m** (from 57.3 m to 63.0 m) of a mineralized fault zone. This zone includes a 1.25 m thick section containing 9 cm and 24 cm banded quartz veins, that assayed **8.7 g Au/t over 1.25 m**. Below the fault is a section of banded quartz vein and pseudo-breccia that assayed **7.1 g Au/t over 1.1 m** (from 79.0 m to 80.0 m) which contained high-grade of **28.6 g Au/t over 0.22 m**. Below this is a zone containing 10% quartz-iron carbonate veinlets, and seams of fine grained breccia (hydrobreccia?) which assayed 553 ppb Au over 7.39 metres (83.6 m to 90.99m).

Results of the 2001 program advanced the potential for an economic discovery. Most of the mineralized zones are open in all directions, with unsourced boulders and gold-in-till anomalies suggesting that more mineralized zones remain to be found. Low-grade bedrock gold values, and geochemical anomalies, are known to occur up to 3 kms from the detailed work area, implying potential over a widespread area.

During 2002 Altius and partner Sudbury Contact Mines (Agnico Eagle) carried out further exploration including VLF, aero magnetics/gradiometrics and a DDH program of 6 holes totalling 597 m followed by an additional 33 drill holes totalling 3,236 m (Barbour et. al., 2002). All 39 drill holes cut anomalous gold values (380 to 1,000 ppb over 0.5 to several metres) with a number cutting very high gold values over mineable widths. Some of the better holes include:

- DDH MH-02-03: cut **2.4 g Au/t over 3.9 m** (140.8 m deep) with a best assay of 4.1 g Au/t over 1 m within a basal 26 m thick anomalous section at the bottom of the hole.
- DDH MH-02-06: cut **3.2 g Au/t over an 8 cm** thickness, within a well banded, sulfosalt and brown sphalerite bearing quartz vein at 93.3 m below surface.
- DDH MH-02-07 to 12: were drilled on 15 m spacings around the high-grade quartz vein of MH-01-23 (170.3 g Au/t over 1.5 m). DDH MH-02-09, 11 & 12 intersected quartz veins that possibly

correlate with the MH-01-23 vein, with assay values of **222.8 g Au/t over 0.14 m**, **8.3 g Au/t over 1.05 m** and **36.7 g Au/t over 0.37 m** respectively.

- DDH MH-02-15: cut **29.2 g Au/t over 0.16 m**.
- DDH MH-02-16: cut **87.2 g Au/t over 0.47 m**.
- DDH MH-02-30: intersected a 5.2 m thick deformed zone from 18.3 m to 23.5 m that is anomalous in gold, including a quartz vein that assayed **4.8 g Au/t over 1.1 m**.
- DDH MH-02-31: intersected a faulted section from 10.3 m to 19.6 m that assayed **1.4 g Au/t over 9.3 m**.
- DDH MH-02-34: intersected a 30 m wide zone of brecciation, faulting, veining and mafic dikes from 56.8 m to 86.9 m. The zone is elevated in gold, with a 5.5 m section assaying 4.2 g Au/t (best section **18.3 g Au/t over 1.05 m**). This section contains some thin quartz veins with several specks of visible gold.
- DDH MH-02-38: intersected a deformed zone from 74.4 m to 91.2 m underlain by an altered mafic dike to 92.7 m. The deformed zone contains zones of fault breccia and frequent quartz veins, including sulfosalt-rich veins and averaged **14.1 g Au/t over 16.8 m**.
  - The section from 85.5 m to 88.2 m averaged **83.5 g Au/t over 2.7 m**. Several of the veins contain visible gold, with one spectacular vein assaying **1,154 g Au/t (33.7 oz Au/t) over 18 cm** at 86.90 m to 87.08 m.
  - Another high-grade interval averaged **8.2 g Au/t over 0.76 m** (77.66 m to 78.42 m).

During 2003 Altius & Sudbury Contact drilled eleven drill holes (1,415 m); all holes cut anomalous gold with values up to 1,342 ppb Au over 1.8 m; 1,035 ppb Au over 4.7 m; 1,893 ppb Au over 1 m; 2,585 ppb Au over 1.3 m, etc.

Sokoman Iron Corp. optioned the Moosehead Property from Altius Resources in March 2018. Subsequent diamond drilling by Sokoman, targeting the up dip extension of the gold intersections reported by Altius in their 2003 drilling, intersected broad high grade mineralized quartz/sulfide veins. Highlights of the 2018 drilling include:

- MH-18-01 from 109.00 m to 120.00 m, 11.90 meters of 44.96 g Au/t. More than 50 specs of visible gold were noted in the cored intersection.
- MH-18-02 from 48.35 m to 51.65 m, 3.30 meters of 6.76 g Au/t.
- MH-18-03 from 18.65 m to 25.07 m, .42 meters of 8.18 g Au/t.

The new drilling by Sokoman set off a renewed interest in gold exploration in the area and a mini-claim staking rush ensued with more than 3,000 mineral claims recorded at the Department of Natural Resources, Mineral Lands Office.

The potential for an economic gold deposit on the Moosehead property remains high. Opportunities remain along the three mineralized fault structures in the center of the property in addition to other NW trending linears both on the Moosehead property and for some 30 to 50 km to the south throughout District Copper's Stony Lake Gold Project.

### **Paradise Lake Area:**

In 1989 Battle Mountain Inc., following up on grassroots work in 1988, identified several areas with epithermal gold potential in the Stony Lake & Paradise Lake areas, approximately 9 km south of District Copper's Project. During 1989 and 1990 Battle Mountain Inc. carried out a regional mapping, prospecting, stream and till surveys over the Stony Lake volcanic complex and eastwards to Miguel's Hill and Paradise Lake. Their exploration objective was epithermal precious metal deposits in the area (Cant, 1989). Mapping in the Stony Lake volcanics revealed extensive areas of finely disseminated pyrite, arsenopyrite and weak to moderate sericitization. The most heavily mineralized and altered area corresponds to a large lobe of flow-banded to brecciated, grey to pale green aphanitic, sericitized and pyritized rhyolites which outcrops adjacent to Stony Brook approximately

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2.5 km north of Stony Lake (i.e. the Cliff Showing with up 40 ppb Au, 10,000 ppm As & 200 ppm Sb). Till sampling in this area identified two weakly anomalous dispersal trains, marked by elevated As, Sb and base metals. Seven of the till samples contained visible gold grains (Cant, 1989).

Battle Mountain also collected ten reconnaissance till samples a few km east of the Stony Lake volcanic complex, at 1 km intervals along the Paradise Lake road north of Paradise Brook. Six of the tills contained gold grains with four of the samples containing delicate grains. Epithermal style breccia boulders containing cockade-textures, banded quartz and 'geyserite eggs' silica layers were first identified in the Paradise Lake area during this work. Stream sampling proved ineffective, but the mapping and prospecting revealed extensive areas of finely disseminated pyrite, arsenopyrite and weak to moderate sericitization. Mapping & prospecting along the Paradise Lake road for several kms located epithermal float and significant widespread blocks of intense silica-altered and chalcedonic-quartz vein material with epithermal characteristics. Battle Mountain reported that this area had the greatest potential for economic concentrations of gold mineralization (Cant, 1989).

During 1990 Battle Mountain followed up on the results of their previous work (Burns, 1990). Additional till samples were collected in the vicinity of the Stony Lake-Miguel Hill anomalies and the Paradise Lake area. No significant values were obtained in the Miguel Hill area. In the Paradise Lake area, sampling duplicated 3 of the original till samples containing visible gold grains. Additional till and soil sampling were completed, and the till samples showed a broad gold grain-in-till anomaly between Paradise Lake (up to 48 grains) and Loon Pond (West Pond) and to the north of Twin Ponds (up to 41 grains). Sampling also showed a northward decrease in base metal values and a slight increase in Sb. Based on their sampling program Battle Mountain concluded that the sporadic high-Au counts were the result of an increase in background levels over the central portion of the Paradise Lake claims (Burns, 1990). This conclusion is now known to have been erroneous. No further work was completed, and the claims lapsed.

Eight years later in 1998, Altius initiated an exploration program targeting the unsourced gold-in-till and gold-in-soil anomalies identified by Battle Mountain (Churchill and Barbour, 1999). Field work carried out in 1998 included detailed mapping, prospecting and till (HMC), soil and rock sampling. Work by Altius personnel lead to the discovery of additional, more significant epithermal and altered felsic float with grab samples of the float assaying up to 8.9 g Au/t. Altius described the epithermal boulders as being scattered along the NE and west sides of Paradise Lake; along the road north of Paradise Lake and west of Paradise Lake around south Twin Pond. The boulders comprised scattered, 10 cm to 2 m, dominantly angular, vuggy quartz breccia boulders containing strongly altered wall rock fragments. Altius also located several 'geyserite egg' boulders, a couple of boulders comprised of radiating quartz crystal (daisy rock) and a single boulder of lattice textured quartz found on the small peninsula at the northeast shore of Paradise Lake. Prospecting of the epithermal boulders revealed that quartz occurred as large quartz-breccia boulders and boulders of syenite cut by quartz veining. The syenitic boulders were discovered all around Paradise Lake and more recently at Twin Ponds immediately to the NNW.

The topographic linear defined by Paradise Lake is overlain by a 500 m wide band of fine grained syenitic boulders which may indicate that a syenite sill underlies Paradise Lake. The epithermal boulders around Paradise Lake mimic the trend of the syenite suggesting a similar source area. A similar linear trend of monzogabbro to monzodiorite boulders with recently located boulders of syenite occurs along Twin Ponds. East of Paradise Lake cleaved, gray to green-gray to slightly reddish siltstone outcrops along the Paradise Lake road.

In 2002, Altius carried out further geological mapping, prospecting and an airborne magnetic survey over the Paradise Lake property (Barbour et. al, 2003). The airborne survey lines were flown east-west at a line spacing of 200 and an elevation of 80 m. Magnetic anomalies underlying Paradise Lake and Twin Ponds coincide with the syenite and monzogabbro/monzodiorite boulder fields

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identified in the 1998 field program and were interpreted to be sills. Altius reported the epithermal breccias to be spatially associated with the syenite. The airborne also identified several NW-striking linears including one which terminates the NE end of the syenite and another which marks the NE margin of the monzogabbro. Trenching, which was planned to test the NW-trending structure interpreted to terminate the syenite, was never completed. Altius indicated that this structure could be the source of the epithermal boulders (Churchill, 2004).

In 2003, Altius targeted the area of anomalous gold grains in tills lying to the north of Paradise Lake (Churchill, 2004). A total of 164 soil samples were collected from two recce grids and analyzed using the MMI technique. However, the MMI survey covered only the southern portion of the Au-in-till anomaly and did not test the area where a quartz boulder that assayed 8.9 g/t Au had been found 3 km north of Paradise Lake.

Exploration work has outlined an extensive zone of boulders adjacent to Paradise Lake and Twin Ponds. The quartz breccias are interpreted to be hosted by syenite as many of the breccia boulders contain altered syenite fragments; recent discoveries of syenite boulders cut by quartz veinlets/stockworks further prove this geological setting. Magnetic surveys have outlined two crescent-shaped anomalies that correspond to the area of syenite float at Paradise Lake and monzogabbro float at Twin Pond. Several NW-trending features, which are interpreted to be faults, are discernible in the magnetics. Till geochemistry has outlined several significant gold anomalies. No trenching or diamond drilling has been completed on any of the Paradise Lake property to date.

Altius interpreted the overall lack of significant gold values in the epithermal boulders to represent the near surface expression of an epithermal system. An expanded MMI survey and a basal till sampling program was recommended but were never implemented. In 2006 the Paradise Lake claims reverted to Crown Land and the area was staked by a group of local prospectors several times over the next 4 to 5 years. To date no further work has been done on this prospect.

#### **Rolling Pond Area:**

Discovered by Noranda in ~1990 the Rolling Pond epithermal zone occurs approximately 40 km south of the Moosehead prospect and ~25 km SSE of District Copper's Project. At Rolling Pond an extensive arcuate zone of epithermal breccia and quartz vein boulders is exposed over a width of 60 m and a strike length of 1,100 m; it is visible on Google Earth. The boulders exhibit vuggy textures with very large radiating quartz crystals (daisy textures). Drilling on the system has intersected extensive clay alteration. The zone strikes NW and dips steeply NE. Boulders from near the southern end of the zone have assayed up to 2.7 g Au/t. Very little recent exploration work has been done on this prospect.

**All of the exploration work and results to date from the Stony Lake East Project and adjacent areas are historical in nature and the reliability of the historical assessment reports and contained data cannot be confirmed by the author.**

**The author has been unable to verify the reliability of the information as described above and below and this information is not necessarily indicative of mineralization on the property that is the subject of this technical report.**

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## **10b MINERALIZATION ON THE PROPERTY**

### **Stony Lake East Gold Project: Epithermal Prospects**

Summarized below are brief descriptions of the various ~18 gold prospects located on the Stony Lake East Gold Project. The most advanced exploration work to date on this project has been partial coverages of airborne magnetics, lake sediment sampling, tills, silt sampling, rocks and some soil sampling. There has been only very limited follow up work, no systematic and planned trenching and only very restricted prospecting and rock sampling. Only ten short diamond drill holes totalling 1,142 m have been completed, all within a confined area on the Flyers grid. Figure 6 shows the location of the various prospects on the Stony lake East Gold Project as described below.

**All of the exploration work and results to date from the Stony Lake East Project and adjacent areas are historical in nature and the reliability of the historical assessment reports and contained data cannot be confirmed by the author.**

**The author has been unable to verify the reliability of the information as described above and below and this information is not necessarily indicative of mineralization on the property that is the subject of this technical report.**

### **Flyer's Area Au/Ag Prospect:**

The Flyer's area covers approximately 11 km<sup>2</sup>; some 24 km<sup>2</sup> of area within and adjacent to the Flyers area claims were selected for geochemical analysis purposes (Figure 6). At least two gold prospects (via concentrations of angular quartz boulders) occur on the claims. The Flyers grid area anomalies were discovered by Noranda in 1989 with anomalous lake sediment sampling, prospecting and 252 B-horizon soils with 16 anomalous values >20 ppb Au and 2 soils assaying >300 ppb (highest value of 425 ppb with 3,200 ppm As, 5.6 ppm Sb & 95 ppm Zn). The soils defined a discrete 100 m to 200 m wide by 2,000 m long, NNE-trending multi-element anomaly striking directly into the Moosehead soil anomaly (Sparkes, 1989). At West Jumpers Pond, several "epithermal style" brecciated quartz boulders and strongly silicified sandstones with weak mineralization returned anomalous Au & Ag values (up to 0.58 g Au/t). The Flyers grid prospect lies ~3.5 km SW of and along strike with the Moosehead Zone.

During 1990 Noranda carried out a local ground magnetics & VLF-EM survey (15.5 km of lines) and a gradient IP survey (11.4 km of lines) over the soil geochem anomalies in the vicinity of the quartz breccia boulders around West Jumpers Pond. This was followed up with two short DDH's (237 m) which tested gradient IP chargeability highs over anomalous soils coincident with magnetic breaks and VLF conductors. DDH GRB-90-02 cut anomalous chlorite breccia with carbonate veining assaying 188 ppb Au over 2.1 m at ~38 m depth and a carbonate altered, brecciated siltstone at 89 m depth which assayed 359 ppb Au over 2.5 m (Tallman & Sparkes, 1990).

No further work was completed by Noranda and the ground was dropped and restaked in 1998 by T. Froude. Intermittent prospecting over the next two years located several angular weakly mineralized quartz breccia boulders; grab samples of the float which exhibited quartz brecciation with associated disseminated pyrite, arsenopyrite and sulfosalt minerals.

In 2001 the property was optioned to Cornerstone Minerals and joint ventured with Candente Resources. Initial prospecting work discovered two discrete clusters of mineralized float (Froude, 2002). The two occurrences are located in the north-eastern portion of the Flyers grid area, proximal to West Jumpers Pond. One occurrence consists of several quartz sulfosalt boulders where grab samples returned values of up to 142 ppb Au, 0.27 % Pb, 171.2 g/t Ag and 0.59 % Sb. The other occurrence consists of several angular frost-heaved blocks of vuggy quartz breccia from which grab samples returned values of up to 398 ppb Au and 1201 ppm As.

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During 2002, ground geophysical surveys outlined several NW trending structures. A shallow eight-hole diamond drill program (905 m) tested the structures and successfully intersected multistage quartz veining, brecciation and associated sulphide and sulfosalt mineralization hosted by late, NW-trending geophysical-defined structures in four of the holes. Narrow pink carbonate veins carrying 1-3% pyrite and trace chalcopyrite and sphalerite were also noted in one of the mineralized sections. The zones assayed up to 0.25 g Au/t, 5,081 ppm As and 45 ppm Sb.

Two of the better intersections were: DDH IP-02-07 cut 0.233 g/t Au over 5.40 m and DDH IP-02-08 cut 0.247 g/t Au over 7.60 m (Froude, 2003). Over 10 rock grab samples of angular boulders of silicified & carbonatized brecciated sandstone with minor quartz veining were anomalous in gold (123, 260 to 398 ppb Au), in silver (9.6, 32.9 up to 142.0 ppm Ag), in As (304 to 2,049 ppm As), in Sb (900, 2,300 to 5,900 ppm Sb) and in Pb (1,138 to 2,700 ppm Pb).

The claims languished over the next 10 to 15 years with little meaningful work completed to date. The ground came open for staking in February 2018 and was immediately staked by C. Dearin and now forms part of the Stony Lake Gold Project.

#### Flyers Area Lake Sediment Geochem

In 1988 the Nfld Dept. of Natural Resources released the lake-bottom sediment geochemical results for NTS 02D; details are summarized below under Geochemical Sampling, page 49. Some 64 samples lie within and adjacent (~1 to 2 km buffer) to the Stony Lake Project area; geochemical results of these 64 samples are given below.

<b>Government Lake Seds 1988</b>							
<b>Entire Project area +-1-2 km</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	64	64	64	64	64	64	64
Minimum:	1	0.2	0.1	0.02	2	1	6
Maximum:	9	1110	0.3	5.45	50	22	185
Sum:	127	2,905	9.3	51.4	969	386	3580
Mean:	2.0	45	0.1	0.8	15	6	56
Standard Deviation:	1.8	139	0.1	1.0	8	5	37
Nulls:	0	0	0	0	0	0	0

Five of these lake sed samples came from the Flyers area with elevated Au, etc. values.

<b>Government Lake Seds 1988</b>							
<b>Flyers Area</b>							
	Au ppb	As1 ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	5	5	5	5	5	5	5
Minimum:	1	19	0.1	1.1	9	1	6
Maximum:	9	107	0.2	5.5	27	7	73
Sum:	13	231	0.6	16.1	82	19	241
Mean:	2.6	46	0.12	3.2	16	4	48
Standard Deviation:	3.2	31	0.04	1.5	6	2	24

An additional 11 to 10 samples were collected from the Flyers area by industry. Au & As mean values are significantly higher than the above.

<b>Industry Lake Seds Flyers Area</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	11	10	10	10	10	10	10
Minimum:	1	11	0.1	0.1	8	1	23
Maximum:	10	580	0.1	9.4	28	9	145
Sum:	42	1088	10	15.5	176	40	709
Mean:	3.8	107	0.1	1.4	15	3.6	63
Standard Deviation:	2.9	163	0	4.2	8.9	4.6	44
# Anomalies	5	1					

### Flyers Area Stream Silts Geochem

Nine stream silt samples collected by industry did not show helpful geochemical results. This is likely a reflection of poor, sluggish streams developed in the area. All samples were collected as -80 mesh silts; perhaps a finer, clay rich silt in the -140 or -200 mesh may be a better scavenger for the key elements. This is discussed below under Geochemical Sampling, page 53.

<b>Industry Stream Silts Flyers Area</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	9	9	9	9	9	9	9
Minimum:	3	14	0.2	0.4	1	1	21
Maximum:	3	560	0.3	2.8	9	9	184
Sum:	27	1090	1.9	14.8	36	37	594
Mean:	3	121	0.21	1.6	4	4.1	66
Standard Deviation:		174	0.03	1	2.7	2.4	47
# Anomalies	0						

### Flyers Area Till Geochem

In 1997 the Nfld Dept. of Natural Resources released the results of a regional till survey over the NTS 02D; details are summarized below under Geochemical Sampling, page 49. The table below include 227 tills within and adjacent to (~5 to 10 km) the Stony Lake Project area.

<b>Government Regional Tills 1997 Entire Project area +-5-10 km buffer</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	227	227	227	227	227	227	227
Minimum:	0.5	3	0.025	0.3	1	4	18
Maximum:	125	470	0.3	130	77	76	177
Sum:	1233	6594	35.4	725	3739	3095	11047
Mean:	5.4	29	0.16	3.2	16.5	13.6	48.7
Standard Deviation:	13.3	61	0.06	9.9	11.3	7.1	18.5
# Anomalies	7	8	-				

Below are the results of 13 government till samples located within the Flyers area.

<b>Government Regional Tills 1997 Flyers Area</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	13	13	13	13	13	13	13
Minimum:	1	4	0.1	1.3	7	10	24
Maximum:	52	470	0.2	11	35	16	80
Sum:	123	1406	1.5	54	227	168	682
Mean:	9.5	108	0.11	4.1	18	13	53
Standard Deviation:	14.1	154	0.04	2.8	8	2	16
# Anomalies	3	5		3			

There were no tills collected by industry within the Flyers area.

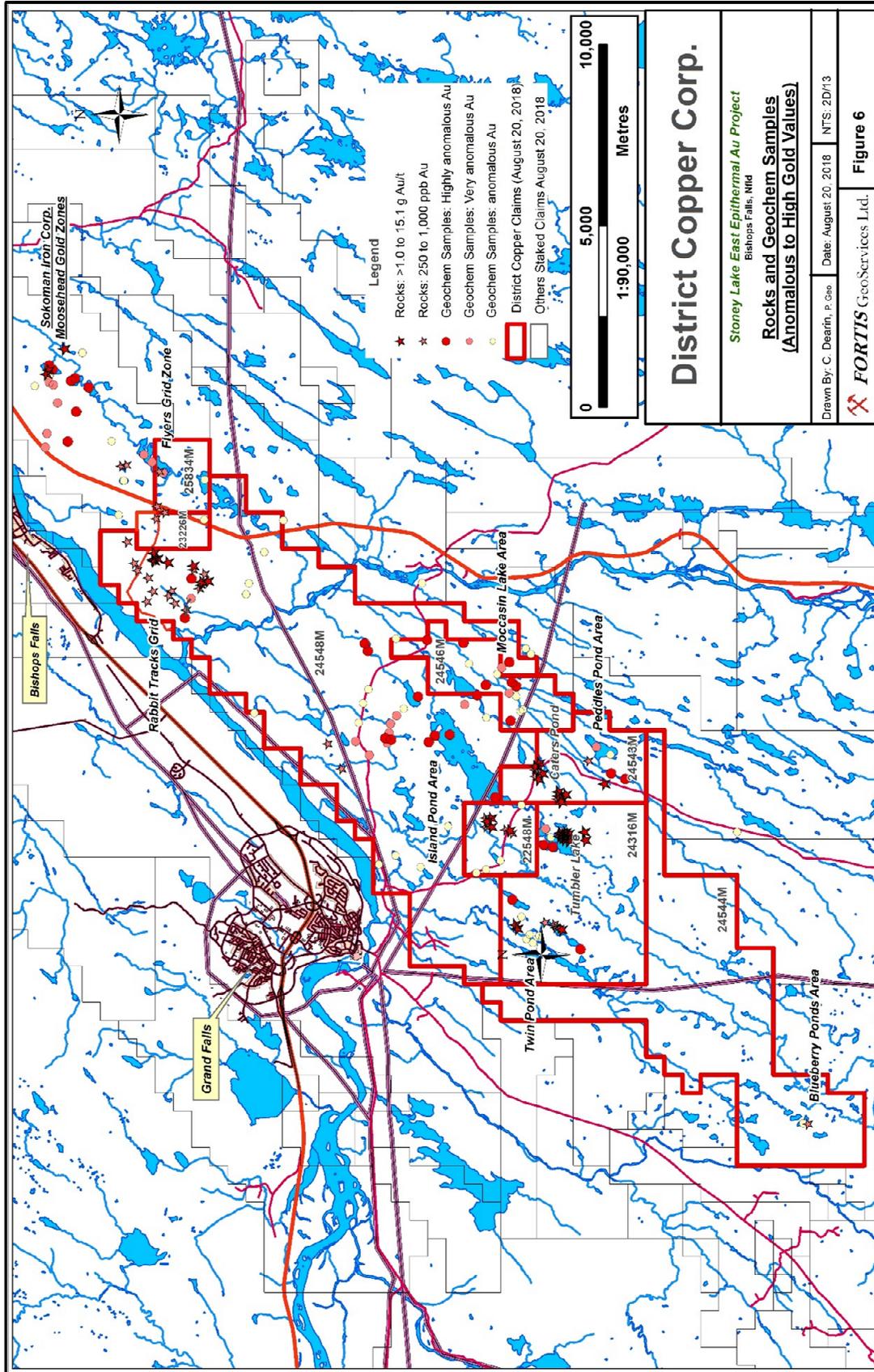


Figure 6: Location map of gold prospects on the Stony Lake East Gold Project.

Flyers Area ODM Till Geochem

A total of 11 tills were collected within the Flyers area by Overburden Drilling Management (ODM) on behalf of Noranda Exploration in 1989. These tills were processed by a jigs table for purposes of collecting gold grains; the calculated Au values are based on the number of gold grains and their dimensions under a microscope and are not related to assays. Nevertheless, a number of such samples are significantly anomalous and have yet to be followed up.

<b>Overburden Mgmt. Tills Flyers Area</b>		
	Au grains	Calc. Au
Count:	11	11
Minimum:	0	0
Maximum:	2	5400
Sum:	5	7191
Mean:	0.5	654
Standard Deviation:	0.7	1557
# Anomalies	1	2

Flyers Area Rock Sample Geochem

From 1989 to mid-2000's there were only 12 rock chip/grab samples collected by industry on the Flyers grid. This low number is a direct reflection of the total lack of outcrop; all samples were quartz related angular boulders with proportional numbers of boulders found on the adjacent Moosehead Grid. Only Au was assayed for; four were anomalous. An additional 40 rocks collected by Cornerstone/Froude in 2001 had 11 with Au values >50 ppb Au with three rocks >250 ppb Au ranging up to 398 ppb Au with significantly anomalous Ag (9.6 to 171 ppm), As (1,201 ppm), Pb (2,700 ppm) & Sb (5,900 ppm) (Froude, 2002).

<b>Industry Rock Samples Flyers Area</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	12	na	na	na	na	na	na
Minimum:	4	na	na	na	na	na	na
Maximum:	580	na	na	na	na	na	na
Sum:	1744	na	na	na	na	na	na
Mean:	145	na	na	na	na	na	na
Standard Deviation:	198	na	na	na	na	na	na
Anomalous >150	>150 ppb	>100 ppm	>3 ppm	>5 ppm	>15 ppm	>50 ppm	>50 ppm
# Anomalies	4						

The table below lists the rock assays by intervals; the five highest rock assays range from 140 to 580 ppb Au mostly around the quartz boulders at West Jumpers Pond. An additional seven samples adjacent to the Flyers area are included here.

Prospect	Sample Media	No. Samples/assays	Au ppb >3 to 50	Au ppb >50 to 250	Au ppb >250 to 1,000	Au ppb >1,000	5 Highest Au
Flyers	Rock chips /grabs	19	12	4	3	0	140; 160; 293; 523; 580

Flyers Area B-Soils Geochem

A total of 1,097 B-horizon soil samples were collected, mostly by Noranda in 1998; all samples below indicate several areas requiring follow up work. An additional 619 soils were collected by Cornerstone in 2001 on a grid directly south of the Noranda Flyers grid. Some 21 soils were anomalous in gold (maximum value of 188 ppb Au) with coincident As & Sb values. Although Cornerstone drilled eight drill holes mostly around these anomalies, the area should be carefully reevaluated using this data and future detailed geophysical data.

<b>B-Horizon Soils Flyers Area</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb2 ppm	Zn3 ppm
Count:	1097	1097	1096	1093	1094	1097	1096
Minimum:	1	1	0.1	0.2	1	1	2
Maximum:	425	3200	1.3	52	68	49	1090
Sum:	6769	87926	245	1974	10862	5666	45344
Mean:	6.2	80	0.22	1.8	9.9	5.2	41
Standard Deviation:	17.9	216	0.09	2.8	7.9	4	42
# Anomalous soils	12	26		16	33	18	12

### Flyers Area Magnetic Total Field Results

In 2002, Altius had the Moosehead grid property flown with airborne magnetics. Details of this survey are given below under section Airborne Magnetic Interpretation, page 51. The magnetic survey stopped along the north boundary of the Flyers grid. However, the survey did reveal a strong, NE-trending, >1,500 m long by 600 m wide magnetic high (~125 nT) striking into the Flyers grid area; this is likely a mafic dike or basalt flows likely part of the Lawrenceton Fm volcanics underlying the Wigwam Fm sandstones. Otherwise the magnetics generally show a strong mag-low likely reflecting a prominent structural feature and an area of magnetite destruction possibly via carbonate-sericite alteration; this low feature strikes NE into the Moosehead grid area and high-grade gold mineralization.

### Flyers Area Magnetic Vertical Gradient Results

The 2002 Altius magnetic survey also produced a calculated magnetic vertical gradient plot. This gradient map shows the NE-trending, prominent magnetic highs and lows and subtle, yet likely important NW trending breaks and magnetic lows cross cutting the NE trends. Apparently, the NW trending magnetic lows are important controls on the Moosehead high-grade gold-quartz veining.

### Flyers Area Recommended Work

The Flyers area property requires a close spaced, detailed magnetic and VLF-EM survey (using a controlled VLF source if necessary) as part of a regional magnetic survey over the entire Project area. Careful and detailed boulder prospecting, utilizing detailed government digital aerial photography should be done on and adjacent to the Flyers area.

### Rabbit Tracks Gold Prospects:

The Rabbit Tracks area covers approximately 25 km<sup>2</sup> and has at least 6 gold prospects over the claims (Figure 6). During 1989 & 1990 Noranda carried out recce soil sampling two km west of the Flyers grid in following up on several government lake sediment anomalies (9 & 5 ppb Au) and anomalous stream samples. Prospecting in 1989 located boulders of banded quartz veins with assays of 200 and 880 ppb Au and several tills with gold grains and assays up to 387 ppb Au. Initial soil sampling located 3 anomalous soils (up to 120 ppb Au and 1,300 ppm As). Known as the Rabbit Tracks grid, weak Au and related As, Sb, etc. soil anomalies were identified. Further work was recommended by Noranda (Sparkes, 1989) but the property reverted to the crown in 1991.

The grid area essentially sat idle until ~2005 when prospector Cyril Reid prospected, and rock sampled a number of newly discovered alteration zones on the Rabbit Tracks prospect (Reid, 2006). This discovery consisted of an extensive belt of large, angular epithermal, 'orbicular' textured siliceous rock which in places appeared to be sub outcrop sitting adjacent to a greenish altered 'porphyry'. The 'porphyry' contains 1 to 5% fine pyrite with 1-3% fine arsenopyrite in quartz stockworks and quartz veining and within the altered matrix and assayed consistently anomalous in Au & As with values generally  $\leq 1.5$  g Au/t. The epithermal-style, silica-rich, 'orbicular' textured rock hosting fine grained euhedral pyrite and clusters of fine grained acicular arsenopyrite has consistent

anomalous gold assays; grab samples assayed highly anomalous from 1,574 to 6,333 ppb Au at 2 locations spaced ~1,500 m apart; latter grab sampling of one huge local boulder/sub outcrop assayed up to 6.5 g Au/t (Reid, 2006).

During 2009 Golden Dory carried out two NNE-trending, recce lines of B-horizon soil samples; with a number of anomalies up to 26 ppb Au. This work was haphazardly carried out and was generally meaningless to the property valuation. No further work has been carried out in the Rabbit Tracks grid area. The last claims here expired in 2013 and the ground remained open until October 2016 when C. Dearin staked the area which now forms part of the Stony Lake Gold Project.

On September 15, 2018 the author visited the Rabbit Track prospect area with Cyril Reid and can confirm the presence of epithermal-style, silica-rich, 'orbicular' textured rock hosting fine grained euhedral pyrite and clusters of fine grained acicular arsenopyrite.

#### Rabbit Tracks Area Lake Sed Geochem

In 1988 the Nfld Dept. of Natural Resources released the lake-bottom sediment geochemical results for NTS 02D; details are summarized below under Geochemical Sampling, page 49. Some 64 samples lie within and adjacent (~1 to 2 km buffer) to the Stony Lake Project area; geochemical results of these 64 samples are given below.

<b>Government Lake Seds 1988 Entire Project area +-1-2 km</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	64	64	64	64	64	64	64
Minimum:	1	0.2	0.1	0.02	2	1	6
Maximum:	9	1110	0.3	5.45	50	22	185
Sum:	127	2,905	9.3	51.4	969	386	3580
Mean:	2.0	45	0.1	0.8	15	6	56
Standard Deviation:	1.8	139	0.1	1.0	8	5	37

Four of these lake sed samples came from the Flyers area with elevated Au, etc. values.

<b>Government Lake Seds 1988 Rabbit Tracks Area</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	4	4	4	4	4	4	4
Minimum:	1	2	0.1	0.16	9	3	10
Maximum:	7	37	0.1	1.7	24	23	61
Sum:	13	75	0.4	2.7	55	6	154
Mean:	3.2	19	0.1	0.7	14	3	38
Standard Deviation:	2.5	14	0	0.6	6	5	22

In 1989 Noranda collected 6 lake sed samples of which 3 lakes have elevated to anomalous in Au. Only 3 samples were analyzed for base metals.

<b>Industry Lake Sed Samples Rabbit Tracks Area</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	6	3	3	3	3	3	3
Minimum:	2	10	0.1	0.1	14	1	15
Maximum:	9	43	0.1	0.1	19	10	57
Sum:	25	73					
Mean:	4.0	24	0.1	0.1			
Standard Deviation:	2.4	20					
# Anomalies	3	1					

### Rabbit Tracks Area Stream Silts Geochem

Only 2 stream silts were collected by Noranda. No other silt sampling was done by industry. Sampling techniques should be reviewed as detailed below under Geochemical Sampling, page 49.

<b>Industry Stream Silts Rabbit Tracks Areas</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	2	2	2	2	2	2	2
Minimum:	3	10	0.2	0.6	7	5	42
Maximum:	3	17	0.2	5.6	18	39	82
Sum:							
Mean:							
Standard Deviation:							
# Anomalies	-						

### Rabbit Tracks Area Till Geochem

In 1997 the Nfld Dept. of Natural Resources released the results of a regional till survey over the NTS 02D; details are summarized below under Geochemical Sampling, page 49. The table below include 227 tills within and adjacent to (~5 to 10 km) the Stony Lake Project area.

<b>Government Regional Tills 1997 Entire Project area +-5-10 km buffer</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	227	227	227	227	227	227	227
Minimum:	0.5	3	0.025	0.3	1	4	18
Maximum:	125	470	0.3	130	77	76	177
Sum:	1233	6594	35.4	725	3739	3095	11047
Mean:	5.4	29	0.16	3.2	16.5	13.6	48.7
Standard Deviation:	13.3	61	0.06	9.9	11.3	7.1	18.5
# Anomalies	7	8	-				

Some 8 till samples were collected from the Rabbit Tracks area by government in 1997 as part of their regional till sampling program in the area. Gold results for the Rabbit tracks area were over twice the mean values (12 vs 5.4 ppb Au) compared to the Project area samples.

<b>Government Regional Tills 1997 Rabbit Tracks Area</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	8	8	8	8	8	8	8
Minimum:	1	9	0.1	1.5	1	10	29
Maximum:	77	37	0.2	9.2	50	16	108
Sum:	99	166	1	22	129	105	482
Mean:	12	21	0.1	2.7	16	13	60
Standard Deviation:	24	9.7	0.04	2.5	16	2	24
# Anomalies	1			1			

There were only 10 tills ever collected by industry or prospectors over the Rabbit Tracks area. Four of these samples were anomalous with up to 43 ppb Au.

<b>Industry Tills Rabbit Tracks Areas</b>		
	Au grains	Au_ppb
Count:	na	10
Minimum:	na	3
Maximum:	na	43
Sum:	na	157
Mean:	na	15.7
Standard Deviation:	na	14.8
# Anomalies		4

#### Rabbit Tracks Area ODM Till Geochem

There were 10 tills collected by ODM in 1989 on behalf of Noranda adjacent to logging roads. Three of these tills had visible gold grains with up to 4 grains in 2 samples. Calculated Au grades for these samples ranged from 357 to 3,281 ppb Au. These samples are concentrates after tabling and Au values cannot be compared to government tills. The ODM sample results are a prime prospecting tool.

<b>Overburden Mgmt. Tills Rabbit Tracks Areas</b>		
	Au grains	Calc. Au
Count:	10	10
Minimum:	0	0
Maximum:	4	3281
Sum:	9	3767
Mean:	0.9	377
Standard Deviation:	1.6	974
# Anomalies	3	3

#### Rabbit Tracks Area Rock Sample Geochem

A total of 165 rock samples have been taken mostly by prospectors over the Rabbit Tracks area. Some 10 separate areas have anomalous to ore grade rock (chips & grabs) samples grading up to 6.6 g Au/t (see Map 1). As shown below 54 rocks assayed between 50 and 250 ppb Au, 35 rocks between 250 and 1,000 ppb and 8 rocks are >1,000 ppb. Five of the highest rocks ranged from ~2,000 to 6,600 ppb Au. All samples had <1 to <2% sulfides (pyrite and arsenopyrite). The mean value of all 165 rocks is 271 ppb Au. Taking all values >100 ppb Au these 77 rocks average 564 ppb Au. Taking all 49 rock values >200 ppb Au gives an average of 804 ppb Au. Most of these rock samples were 'porphyry' style with generally <3% pyrite and arsenopyrite. In terms of silver values, several rocks assayed >3 g Ag/t and up to 8.2 g Ag/t with a few others assaying >2,000 ppm Cu, Pb or Zn.

Industry Rock Samples Rabbit Tracks Areas							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	165	21	21	21	21	21	21
Minimum:	1	5	0.2	5	4	5	13
Maximum:	6600	4700	8.2	95	2095	2300	2300
Sum:	45319						
Mean:	271						
Standard Deviation:	775						
Anomalous >150	>150 ppb	>100 ppm	>3 ppm	>5 ppm	>15 ppm	>50 ppm	>50 ppm
# Anomalies	61	15	2	5	4	5	16

Prospect	Sample Media	No. Samples/assays	Au ppb >3 to 50	Au ppb >50 to 250	Au ppb >250 to 1,000	Au ppb >1,000	5 Highest
Rabbit Tracks	Rock chips /grabs	165	68	54	35	8	1,790; 2,186; 2,583; 6,333; 6,600

The mean value of all 165 rock samples was 271 ppb Au; this is the highest average mean Au grade for the five various prospect areas. Averaging only samples between 3 and <500 ppb Au (leaving out all 26 high values from 550 to 6,600 ppm Au) so the standard deviation (SD) is close to the mean, gives an average grade of 112 ppb Au with a SD of 126 ppb Au; the 26 high samples average 1,736 ppb Au with a SD of 1,836 ppb Au.

#### Rabbit Tracks Area B-Soils Geochem

A total of 727 soil samples were mostly collected in 1989 by Noranda. With a mean value of 4.4 ppb Au any value over ~20 ppb Au can be considered anomalous. The highest soil value for the Rabbit Tracks is 315 ppb Au with adjacent elevated Au values. Anomalies are erratic but do occur in a number of clusters, similar to the 1989 Noranda soils and Altius soils taken in the Moosehead area. The Rabbit Tracks area has significantly higher till values, corresponding to the higher soil values, than the other areas within the Project area. The soil collection techniques are suspect and likely a finer grained, clay enhanced soil collected with appropriate sieves and analyzed by ICP-MS may be a much better technique for geochemical prospecting.

B-Horizon Soils Rabbit Tracks Area							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	727	727	727	727	727	726	726
Minimum:	1	1	0.2	0.1	1	1	2
Maximum:	315	1300	1.3	22	65	64	245
Sum:	3188	21210	205	886	5447	5056	26377
Mean:	4.4	29	0.28	1.2	7	7	36
Standard Deviation:	12.8	94	0.14	1.5	6	6	26
# Anomalous soils	21	14	7	9	22	16	30

#### Rabbit Tracks Area Magnetic Total Field Results

In 2002, Altius had the Moosehead grid property flown with airborne magnetics. Details of this survey are given below under section Airborne Magnetics Interpretation page 51. This magnetic survey covers ~1,500 m onto the northern section of the Rabbit Tracks area. The survey shows a prominent NE-trending, multi-km long by ~400 to ~1,300 m wide magnetic high (~25 to 50 nT) striking into the Rabbit Tracks area; the tip of another mag high occurs on the southernmost base of the mag survey. Both quartz boulders (with up to 880 ppb Au) and quartz feldspar 'porphyry'/orbicular textured rock occur within and adjacent to this mag feature on the Project. In addition, a second mag high (~75

nT) occurs immediately along the west side of the northern section of the Rabbit Track claims. These mag features are likely a reflection of an underlying 'porphyry' as seen over the Rabbit Tracks area.

#### Rabbit Tracks Area Magnetic Vertical Gradient Results

The calculated vertical gradient shows in greater detail the magnetic features of the above two mag highs on the northerly Rabbit Tracks area. Anomalous rock samples of quartz and 'porphyry' occur along the mag-low edges; this feature demonstrates the importance of detailed magnetic surveying over the entire Project area.

#### Rabbit Tracks Area Recommended Work

The Rabbit Tracks area shows very significant promise for a new gold discovery. Future exploration requires a close spaced, detailed magnetic and VLF-EM survey (using a controlled VLF source transmitter if necessary) as part of a regional magnetic survey over the entire Project area; multiple components should be generated including vertical gradients and derivative magnetic plots. Careful and detailed boulder prospecting and geological mapping with a significant component of rock sampling, utilizing detailed government digital aerial photography should be done on and adjacent to the Rabbit Tracks area.

#### Moccasin Lake Prospects:

The Moccasin Lake area covers approximately 50 km<sup>2</sup>. No rock-hosted gold mineralization are known to date on the claims, however a large number of coincident geochemical samples are highly anomalous in gold over the 50 km<sup>2</sup> area (Figure 6). The lack of gold-bearing rock is a function of the near total lack of prospecting to date. In 1989 Noranda collected several till samples near the main logging road north of Moccasin Lake with gold assays up to 850 ppb Au. In 1989 ODM also collected till samples along this road with multiple anomalous tills having gold grain counts of 2 to 4 grains and calculated Au grades of 277 to 19,500 ppb Au. This work was done immediately north of Teck's claims.

Delicate gold grains in till samples and anomalous Au in soils were first located by Teck during 1989 following up on a government anomalous lake sediment sample in the Moccasin Lake area, ~1 km east of Island Pond. Initial exploration work by Teck in 1989 including prospecting, till, stream silt, & recce soils sampling all of which indicated anomalous Au, As & Sb values with three areas of interest north of and NE of Island Pond, between Moccasin Lake & Island Pond and for a ~4.5 km strike length NE and SE of Moccasin Lake. Regional and local till sampling for 1 to 3 km NW, NE, east & SE of Moccasin Lake produced highly anomalous gold values as follows:

- 1 to 3 km NW of Moccasin Lake & 1 km north of Island Pond: 8 till samples ranging from 500, 1,000 to 4,200 to >10,000 ppb Au. Recce soil samples showed several anomalous areas; one in the vicinity of the west side of Island Pond with 15 ppb Au, 2,050 ppm As, 31 ppm Sb, 1 ppm Ag. An additional 9 soils in this area were also anomalous in As, Sb & Ag. A soil collected SE of Moccasin Lake assayed 45 ppb Au. Another 5 or more soil samples had anomalous Au.
  - 55 tills were collected with 17 containing >1 Au grain and 4 with >3 Au grains. Immediately SE and south of Moccasin Lake are a series of anomalous till samples (1 to 3 to 5 gold grains; some delicate) with high assays of 5,742, 8,028, 12,754 and up to 14,092 ppb Au and coincident anomalous stream silts with gold values of 5, 10 & 11 ppb Au, most of which are also anomalous in As & Zn.
  - 1-2 km east & SE of Moccasin Lake: 10 till samples ranging from 1,330 to 8,500 and 4 samples with >10,000 ppb Au.
  - West shore area of Moccasin Lake: 2 tills of 2,500 ppb Au.
  - Some 48 stream silts were collected and showed a number of other areas anomalous in Au, As, Sb, Mo.
-

All of these anomalous areas are within District Copper's current Project.

Some 20 till samples had delicate fine gold grains; in a number of cases these visible gold bearing tills assayed <20 ppb Au. A number of the tills and stream silts had coincident, highly anomalous As, Sb, Ag & Zn values; up to 2,050 ppm As, 31 ppm Sb and 1 ppm Ag (Pickett, 1989; see Maps 2 & 5). Despite these coincident gold anomalies and recommendations for follow up work, Teck did no further work and the claims lapsed in 1994. Although the area was restaked by a number of prospectors up to 2007 very little if any prospecting has completed in any of these areas to date.

#### Moccasin Lake Geochemistry Sampling

All geochemical sampling results for the Island Pond and Moccasin Lake areas are summarized as one contiguous area under Island Pond Area below (pages 38 to 46).

#### Moccasin Lake Area: Magnetic Total Field/Vertical Gradient Results

To date there have been no airborne or ground magnetic surveys nor EM or IP surveys in the Moccasin or Island Pond areas.

#### Moccasin Lake Area Recommended Work

The Moccasin Lake area (~50 km<sup>2</sup>) hosts the most concentrated number of anomalous to very anomalous gold samples in lake sediments (govt. to 6 ppb Au; industry to 9 ppb Au), stream samples (up to 10 & 11 ppb Au), govt. & industry till samples (25 to 51 ppb Au and 100 to 850 ppb Au respectively), ODM tills (40 samples taken: 12 samples with 1 to 5 VG grains and 9 calculated Au assays >1,400 ppb Au to a maximum of 95,700 ppb Au and 17 non-mag samples with assays >500 ppb Au to 10,000 ppb Au. To date very little prospecting follow up work has been done in the area. These results clearly indicate a program of dedicated and careful prospecting and mapping with intensive rock sampling is required. This work should be initiated immediately following a detailed airborne magnetic survey and a thorough review of government digital aerial photographs.

#### Island Pond Area:

The Island Pond area covers approximately 70 km<sup>2</sup>. Approximately 9 gold zones have been located in angular quartz boulders, sub outcrop and highly altered sediments and intrusive dikes (Figure 6). Very little exploration was conducted in the area south of Island Pond during the 1989 to 2002 period.

In 1998 Altius optioned several small claim areas immediately south of Island Pond and collected two HMC-till samples from a reddish-brown till directly above a gabbro dike, ~1.5 km south of Island Pond, which returned gold values of 1.9 g Au/t and 15.1 g Au/t. Altius reported that the property exhibited features similar to its Moosehead property that were indicative of low-sulfidation epithermal-style gold mineralization with banded quartz veins exhibiting a bladed appearance indicative of calcite replacement by silica. The veins commonly hosted disseminated, fine-grained pyrite (+/-sulfosalts). Although additional exploration was recommended no further work was done by Altius. The ground was later staked by several prospectors and during 2002 & 2003 a series of new gold prospects were located in the Island Pond area as follows.

North of Island Pond Anomalies: ~1,500 m north of Island Pond is an area of three highly anomalous lake sediments (3, 5 & 8 ppb Au) and coincident ODM tills with 2 to 6 gold grains and assays of 2,528, 5,056, 6,407, 11,787 and 19,502 ppb Au. This area has not been followed up to date and requires detailed trenching.

West of Island Pond Anomalies: ~700 m west of the west end of Island Pond are a cluster of angular quartz breccia boulders with grab samples of 894, 1,274, 2,116 and up to 2,664 ppb Au. Further south several similar boulders assayed 822 to 2,682 ppb Au. These showings are held by a local prospector and are not within the Stony Lake Project area; the claims are available for option.

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Tumbler Lake Showings: In 1989 Noranda staked a claim block near the south end of Teck's Moccasin Lake-Island Pond claims described above to cover several anomalous lake sediments (6.4 & 6 ppb Au) immediately south of Island Pond. Several stream silts had anomalous Zn (1,770 ppm), As (1,200 ppm) & Sb (25 ppm). Brief prospecting by Noranda in 1990 turned up anomalous gold in altered rocks, but no further work was done.

In 2002 & 2003 local prospectors staked claims to cover a government lake sediment anomalous sample of 6 ppb Au. Prospecting resulted in the discovery of several pyrite-arsenopyrite rich, highly altered (sericitic & silicified) boulders/sub outcrop near the eastern shore of Tumbler Lake about ~1.5 km SW of Island Pond; grab samples of this altered gabbro assayed consistently high in As and Au (1,500, 2,380 & up to 2,440 ppb Au) in six rock samples (the P1 & P2 Cabin showing). Latter prospecting ~600 m south to the P1/P2 showings located similar altered gabbro's hosting quartz veining/stockworks containing pyrite and arsenopyrite with gold values of 883, 1,020 and up to 2,093 ppb Au (Moonlight showing) (see Maps 2 & 5). A government lake sed sample from Tumbler Lake assayed 6 ppb Au; 2004 lake sed sampling by Linear Gold had multiple anomalous samples from 2, 4, 6 & 9 ppb Au with anomalous As (101, 326 & 596 ppm As) in all samples.

In 2003 Linear Gold optioned these prospectors claims, staked additional claims and carried out prospecting and geochemical sampling with anomalous Au results. Rock sampling at the Cabin and Moonlight showings confirmed the Au-As values in altered and quartz veined gabbro's hosting up to 10% (locally to 25%) fine cubic pyrite and acicular arsenopyrite occurring as disseminated and fracture fillings in altered (silicified, iron carbonatized) sedimentary rocks and/or gabbro dikes units with samples assaying from 200 ppb Au to 2-3 g Au/t with a high value of 4 g Au/t. Gold values are invariably accompanied by high As values, although the reverse is not necessarily true. Local soil sampling immediately east of Tumbler Lake showed a strong As anomaly (<2,200 ppm As) but no gold values (Linear, 2003).

During late 2003 Linear carried out a detailed airborne magnetics & EM survey over the property which defined NE-trending linears and also NW-trending breaks in the magnetics; in hind sight these magnetics gave a similar magnetic picture as that at Altius' Moosehead property.

In the winter of 2004, Linear Gold collected 57 lake-bottom sediment samples from their Project area. This survey identified five areas with anomalous Au values. Lake sediment sampling at Tumbler Lake returned 9 ppb Au, 596 ppm As, 2.4 ppm Sb, 11 ppm Mo & 2,000 ppm Ba which corresponds to a govt lake sediment value of 6 ppb Au. Further prospecting located a series of new gold showings in the Island Pond-Tumbler Lake area as follows:

Twin Pond area: lies ~2,200 m west of the Tumbler Lake area (Figure 6). Prospecting here located several NNE trending silicified-carbonate boulder fields of sandstones and gabbro cut by extensive quartz veining & stockworks. Prospecting here turned up low sulfidation style epithermal quartz vein float with narrow bands of sulfides including sphalerite, galena and a grey mineral thought to be bournonite or enargite (unlikely); the banding appears to be ginguro style banding. Most rock samples from the eastern shore of Twin Ponds are significantly anomalous in gold (225 to >550 ppb Au and higher) some of which assayed up to 4.2 g/t Au, 103 g/t Ag, 0.5% Pb & Zn, 0.2% Cu, 0.15% Sb and minor As (<220 ppm) despite the low amounts of sulfides in rocks (generally <1%) in the Twin Ponds zone (aka P3 showing). The Sb association and minor As indicates a different style of mineralization from the Cabin-Moonlight area. Disseminated pyrite (5-10%) and minor arsenopyrite was found in Fe-carbonate altered and silicified gabbro and sedimentary rocks with extensive quartz veining/stockworks exposed along Twin Pond and the adjacent French Pond. The Twin Pond-French Pond area is also marked by northeast-trending magnetic and resistivity anomalies. A purple coloured mineral (erythrite-cobalt bloom?) was noted in the altered mafic units along Twin Ponds

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and green mica (fuchsite?) is noted associated with the altered gabbro's in the Twin Ponds area (Linear Gold, 2004).

The 2004 Linear Gold lake sediments in the Twin Pond and the adjacent French Pond yielded values of 2 ppb Au and 3 ppb Au, 1.1 ppm Sb & 8.8 ppm Mo respectively. Govt lake sediments in the north Twin Pond assayed 5 ppb Au. Another small pond ~2 km NE of French Pond yielded a high Au value (11? ppb).

In 2013 Cyril Reid did some trenching in the Twin Pond areas. Although bedrock was not reached two local sub outcrop samples within the trenches assayed 966 and 1,243 ppb Au (Reid, 2013). No follow up work in any of this area has yet to be done.

North French Pond Area: About 600 m NW of Twin Ponds are a series of anomalous stream silt samples with all at 5 ppb Au and As at 271, 391 & 628 ppm As. Another ~600 m NNE of these stream silts, at the end of a logging road, are a series of angular quartz boulders which assayed from 2,894 to 3,386 ppb Au. Only minor prospecting work has been done here since 2004.

Caters Pond: Located ~2,000 m SW of Moccasin Lake and from 1,200 and 2,000 m east of Tumbler lake are two separate zones with anomalous tills, soils and rock samples (grab samples assayed from 1,055, 1,912, 4,195 and up to 5,824 ppb Au. In 1998 Altius carried out an MMI soils survey over the two anomalous quartz boulder zones; positive results showed Au anomalies coincident with the Au-bearing angular boulder zones. No further work has been recorded here to date.

Peddles Pond: The 2004 Linear Gold lake sediments in the Peddles Pond area (aka East Fault), located ~2,800 m south of Island Pond and 3,500 m east of Tumbler Lake gave anomalous values of 3, 6 & 10 ppb Au with 1.7 ppm Sb & 19.1 ppm Sc. Only one day of prospecting in 2008 located and Fe-carbonate altered sandstone cut by quartz veining/stockwork; 11 rock grab samples were all anomalous with high values of 800 & 1,121 ppb Au. There has been no detailed follow up prospecting done here to date. In addition, two government till samples taken 2,000 m & 3,000 m east of Peddles Pond had gold values of 51 & 18 ppb Au; no follow up prospecting has been done in these areas.

Work in 2009 by Golden Dory prospectors along new forest access roads to the west of Island Pond located several strongly altered and quartz veined boulders containing disseminated arsenopyrite and pyrite which returned up to 2.7 g Au/t from grab samples. Test pitting failed to reach bedrock in this area. A similar altered boulder located along the main road south of Island Pond assayed 1.2 g Au/t. No further work was done by Golden Dory and all of their claims lapsed over the next few years.

Thunder Showing: In 2011 prospector Cyril Reid discovered several carbonate altered and brecciated outcrops along Great Rattling Brook ~ 5 km SE of Island Pond. Grab samples assayed in the 1 to 1.5 g Au/t range. These showings are not part of the Project area.

The Island Pond and Moccasin Lake areas and surrounding 1 to 3 km buffer to the east covers ~120 km<sup>2</sup>. The geochemical data and statistics for both areas are summarized below.

#### Island Pond-Twin Ponds-Moccasin Lake Area: Lake Sed Geochem

In 1988 the Nfld Dept. of Natural Resources released the lake-bottom sediment geochemical results for NTS 02D; details are summarized below under Geochemical Sampling, page 48. Some 64 samples lie within and adjacent (~1 to 2 km buffer) to the Stony Lake Project area; geochemical results of these 64 samples are given below.

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<b>Government Lake Seds 1988</b> <b>Entire Project area +/-1-2 km</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	64	64	64	64	64	64	64
Minimum:	1	0.2	0.1	0.02	2	1	6
Maximum:	9	1110	0.3	5.45	50	22	185
Sum:	127	2,905	9.3	51.4	969	386	3580
Mean:	2.0	45	0.1	0.8	15	6	56
Standard Deviation:	1.8	139	0.1	1.0	8	5	37

Twenty-six of these govt. lake sed samples were taken over the 120 km<sup>2</sup> area of Island Pond-Twin Ponds-Moccasin Lake. Analysis for these elements were very similar to the Project area except for lower As average and higher Zn average for the Island Pond-Moccasin Lake area.

<b>Government Lake Seds 1988</b> <b>Island-Twin Ponds- Moccasin Lake Region</b>							
	Au ppb	As1 ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	26	26	26	26	26	26	26
Minimum:	1	0.2	0.1	0.09	8	2	25
Maximum:	6	145	0.3	1.4	40	13	460
Sum:	60	638	3.7	15.4	462	152	2724
Mean:	2.3	25	0.14	0.6	18	6	105
Standard Deviation:	1.9	31	0.06	0.3	7	3	87

Some 52 lake sed samples were collected by industry during 1989 to ~2004. Mean gold grade was 2.6 ppb, with ~3 anomalous lakes and eight anomalous As values.

<b>Industry Lake Seds</b> <b>Island-Twin Ponds- Moccasin Lake Region</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	52	33	33	7		11	11
Minimum:	1	5	0.1	1		1	28
Maximum:	10	596	0.5	2.4		12	138
Sum:	134						
Mean:	2.6						
Standard Deviation:	2.2						
# Anomalies	3	8					

All lakes with anomalous Au and or As-Sb etc. have significant epithermal-style quartz veining with alteration and gold values >2 and up to 15 g Au/t.

#### Island Pond-Twin Ponds-Moccasin Lake Area: Stream Silts Geochem

A total of 74 stream silts were collected by industry between 1989 & 2004. Several areas with elevated to anomalous Au or As in stream silts can be related to nearby gold mineralization. All gold showings in the Island Pond-Moccasin Lake area can be attributable to anomalous lake seds and/or coincident anomalous stream silts with follow up prospecting.

<b>Industry Stream Silts</b> <b>Island-Twin Ponds- Moccasin Lake Region</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	74	70	69	69	69	69	69
Minimum:	3	7	0.2	0.2	2	3	52
Maximum:	11	1200	0.5	5	30	52	1470
Sum:	267	10088		74		840	10929
Mean:	3.6	136	0.2	0.4	12	12	158
Standard Deviation:	1.4	231	0.2	3			
# Anomalies	2	6					8

#### Island Pond-Twin Ponds-Moccasin Lake Area: Till Geochem

In 1997 the Nfld Dept. of Natural Resources released the results of a regional till survey over the NTS 02D; details are summarized below under Geochemical Sampling, page 48. The table below include 227 tills within and adjacent to (~5 to 10 km) the Stony Lake Project area.

<b>Government Regional Tills 1997 Entire Project area +-5-10 km buffer</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	227	227	227	227	227	227	227
Minimum:	0.5	3	0.025	0.3	1	4	18
Maximum:	125	470	0.3	130	77	76	177
Sum:	1233	6594	35.4	725	3739	3095	11047
Mean:	5.4	29	0.16	3.2	16.5	13.6	48.7
Standard Deviation:	13.3	61	0.06	9.9	11.3	7.1	18.5
# Anomalies	7	8	-				

Approximately 44 of these govt. tills were within the Island Pond-Moccasin Lake areas. The mean value for Au is identical (5.4 ppb Au) within this area as for the entire 2D NTS; 20 tills were anomalous in Au up to 51 ppb Au.

<b>Government Regional Tills 1997 Island-Twin Ponds- Moccasin Lake Region</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	44	44	44	44	44	44	44
Minimum:	1	5	0.1	0.9	1	7	25
Maximum:	51	92	0.2	23	36	30	124
Sum:	238	765	7.7	111	575	666	2124
Mean:	5.4	17	0.18	2.5	13	15	48
Standard Deviation:	9.1	17	0.04	3.3	8	4	19
# Anomalies	20	3		2			

Eighty-five tills were collected by industry between 1989 and 2004 within the Island Pond-Moccasin Lake areas. Ten tills were anomalous with up to 850 ppb Au. No other elements were analyzed for.

<b>Industry Tills Island-Twin Ponds- Moccasin Lake Region</b>		
	Au grains	Au_ppb
Count:	na	85
Minimum:	na	3
Maximum:	na	850
Sum:	na	1955
Mean:	na	23
Standard Deviation:	na	93
# Anomalies		10

#### Island Pond-Twin Ponds-Moccasin Lake Area: ODM Till Geochem

Eight-nine tills were collected by ODM on behalf of industry between 1989 and 2009. All samples were tabled for concentration and gold grain picks. Some 15 samples contained from 1 to 10 gold grains with calculated gold grades up to 95,700 ppb Au (~3 oz Au/t). Many of these are within a 50 to 250 m to anomalous tills by govt. and industry. Thirty-six samples had anomalous values >250 ppb Au in the non-magnetic HMC fraction with five samples >~10,000 ppb Au. A large number of these tills have yet to be followed up.

<b>Overburden Mgmt. Tills</b>		
<b>Island-Twin Ponds- Moccasin Lake Region</b>		
	Au grains	Calc. Au
Count:	89	65
Minimum:	0	0
Maximum:	10	95700
Sum:	80	
Mean:	0.9	
Standard Deviation:	1.7	
# Anomalies	15	16

### Island Pond-Twin Ponds-Moccasin Lake Area: Rock Sample Geochem

Of the ~232 rock samples collected from 1989 to ~2012, 66 were anomalous with Au >150 ppb, grading up to 15.1 g Au/t. Most rocks were also anomalous in As, Ag, Sb & Zn, etc.

<b>Industry Rock Samples</b>							
<b>Island-Twin Ponds- Moccasin Lake region</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb3_ppm	Zn3_ppm
Count:	232	176	166	176	171	170	171
Minimum:	3	3	0.2	1	1	2	2
Maximum:	15055	10000	497	1400	2005	11900	7400
Sum:	101155	121263	938	7617	8282	36525	37855
Mean:	436	688	5.6	43	48	216	221
Standard Deviation:	1301						
Anomalous >150	>150 ppb	>100 ppm	>6 ppm	>10 ppm	>50 ppm	>50 ppm	>50 ppm
# Anomalies	66	85	26	19	16	18	100

Fifty-seven rocks were anomalous ranging from >50 to 1,000 ppb Au plus another 25 rocks assayed >1,000 up to 15,055 ppb Au with the five highest grading from 4.1 g Au/t to 15.1 g Au/t.

Prospect	Sample type	No. Samples	Au ppb >3 to 50	Au ppb >50 to 250	Au ppb >250 to 1,000	Au ppb >1,000 to 15,055	5 Highest
Island Pond	Rock chips /grabs	186	105	25	31	25	4,186; 4,195; 5,075; 5,825; 15,055
Moccasin Lake	Rock chips /grabs	46	45	1	0	0	100
	Totals	232	150	26	31	25	

### Island Pond-Twin Ponds-Moccasin Lake Area: B-Soils Geochem

A total of 794 B-horizon soils were collected from several small local grids. Another ~400 soils were collected adjacent to the east side of Tumbler Lake; none of these samples had anomalous Au although As was considerably anomalous. B-Horizon soils do not appear to work effectively in the Stony Lake Project area; this is very similar to the Moosehead gold areas where soils only gave anomalous values in the immediate vicinity (i.e. within 10 to 15 m) of high-grade gold quartz boulders but were not effective in locating in-situ gold-rich veins in bedrock.

<b>B-Horizon Soils</b>							
<b>Island-Twin Ponds- Moccasin Lake region</b>							
	Au_ppb	As_ppm	Ag_ppm	Sb_ppm	Cu_ppm	Pb2_ppm	Zn3_ppm
Count:	794	728	728	728	728	728	728
Minimum:	1	1	0.2	0.2	1	1	2
Maximum:	149	2050	3	31	58	66	168
Sum:	3286	17090	186	747	7170	4310	27759
Mean:	4.1	23	0.26	1	9.9	5.9	38
Standard Deviation:	6.6	90	1.2	2	7.5	5.1	23
# Anomalous soils	13	10	1	6	25	14	19

### Island Pond Area: Total Field Magnetic Results

In October-November 2003, Linear Resources completed a detailed Fugro airborne magnetic & EM survey over lands south of Twin Ponds-Tumbler Lake and Peddles Pond for a distance of ~ 11 km to the SW covering the Blueberry Ponds area (Linear, 2004). Details of this survey are given below under section Airborne Magnetism Interpretation, page 51.

The total field magnetic component shows a very quiet magnetic response (~20 to 40 nT) from east to west up to the Twin Ponds NNE linear. Along the Twin Pond linear a series of prominent NNE trending magnetic highs (~200 nT) parallel the Twin Pond and French Pond topographic linears. On the ground, along these two linears are boulder fields of altered sediments, gabbro's and significant amounts of angular blocks of quartz vein, quartz breccias and stockwork hosting classic epithermal textures (cockscomb, crustiform & banded and chalcedonic quartz with possibly ginguero banding). Mafic intrusives possibly beneath the series of linear ponds are the likely cause of the narrow but prominent magnetic linears. Another parallel but weaker NNE trending mag high occurs through Tumbler Lake.

The above NNE trending mag highs are greatly amplified and show finer details of lows within the magnetic highs. Subtle, but likely important, NW trending magnetic features show up in the reduced to pole magnetic component. This magnetic component would be very useful for detailed prospecting and sampling.

### Island Pond Area: Calculated Vertical Magnetic Gradient Results

This component clearly details the magnetic highs and lows and especially NW trending and possible cross cutting features. This magnetic component would also be very useful for detailed prospecting and sampling.

### Island Pond Area: Recommended Work

This portion of the Stony Lake Project (~70 km<sup>2</sup>) hosts at least 9 main epithermal-style gold targets, all partially defined by elongate, NE trending magnetic features hosting large, angular boulders/sub outcrop of quartz veins, breccias and quartz stockworks with anomalous to ore grade gold (to 15.1 g Au/t) values as well as altered sediments and intrusive dike rocks hosting anomalous to high gold values.

To date limited prospecting and rock sampling has clearly shown this area has a high potential to host significant epithermal gold mineralization. Very little follow up work has been done in the area. These results clearly indicate a program of dedicated and careful prospecting and mapping with intensive rock sampling is required. This work should be initiated immediately following a detailed airborne magnetic survey and a thorough review of government digital aerial photographs.

**Blueberry Ponds Area:** This area covers ~75 km<sup>2</sup> with one cluster of classic epithermal-style quartz boulders at Blueberry Ponds, approximately 9 km SW of and directly along strike from the Twin Pond and French Pond gold zones (Figure 6). To date, there are no other known gold prospects within this important trend, most likely due to the total lack of prospecting here and poor outcrop. Prospecting near the southwest corner of the claim group near Blueberry Pond led to the discovery of banded, cockscomb-textured, vuggy quartz vein float; one day of cursory prospecting/grab sampling of the highly altered rocks yielded anomalous Ag, Pb & Zn (Linear Gold, 2004). The 2004 Linear Gold lake sediments in the Blueberry Pond area yielded values of 2 & 3 ppb Au. Linear's aeromagnetic survey has revealed significant details of the NE trending and NNW crosscutting magnetic features which will prove very useful in delineating targets. There has been no follow up in this area since the initial 2004 prospecting.

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SW to Blueberry Ponds Area: Lake Sed Geochem

In 1988 the Nfld Dept. of Natural Resources released the lake-bottom sediment geochemical results for NTS 02D; details are summarized below under Geochemical Sampling, page 48. Twenty samples were collected from the area of Twin Ponds and for ~12 km to the SW into Blueberry Ponds. Mean results for Au was 1.4 ppb Au; the southernmost Blueberry Pond lake sed was 4 ppb Au.

<b>Government Lake Seds 1988</b>							
<b>SW Property (Twin-French Ponds to Blueberry Ponds: Lic 24316M &amp; 24544M)</b>							
	Au ppb	As1 ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	20	20	20	20	20	20	20
Minimum:	1	3.6	0.1	0.02	3	1	25
Maximum:	4	175	0.3	1.9	50	22	160
Sum:	27	742	3.1	11.0	271	162	1106
Mean:	1.4	37	0.16	0.6	14	8	55
Standard Deviation:	0.9	44	0.07	0.4	10	6	43

Between 1989 and 2004 industry collected 44 lake sediment samples with a mean value of 1.3 ppb Au. Four lake sediment samples taken from the Blueberry Ponds (adjacent to the govt. 4 ppb sample) were anomalous in Au (3 ppb Au).

<b>Industry Lake Seds</b>							
<b>SW Property (Twin-French Ponds to Blueberry Ponds: Lic 24316M &amp; 24544M)</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	44	40	40	40	na	na	na
Minimum:	1	3	0.5	0.2	na	na	na
Maximum:	3	80	0.5	1.1	na	na	na
Sum:	57	776		22.2	na	na	na
Mean:	1.3	19	0.5	0.6	na	na	na
Standard Deviation:	0.6				na	na	na
# Anomalies	4	12		3			

SW to Blueberry Ponds Area: Stream Silts Geochem

No stream silt samples were taken by industry over this area of ground.

SW to Blueberry Ponds Area: Till Geochem

Twenty-one till samples were collected by government in 1988. Mean value was 4 ppb Au; ~ 7 of these tills had anomalous Au with up to 20 ppb Au. Four widely spaced anomalous tills around Blueberry Ponds have anomalous Au between 5 and 7 ppb Au; these mostly occur along a 5,500 m long NNE trending linear about 1,500 m east of the Blueberry Ponds linear.

<b>Government Regional Tills 1997</b>							
<b>SW Property (Twin-French Ponds to Blueberry Ponds: Lic 24316M &amp; 24544M)</b>							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb2 ppm	Zn3 ppm
Count:	21	21	21	21	21	21	21
Minimum:	1	7	0.1	1.4	1	7	29
Maximum:	20	120	0.2	7.1	77	42	117
Sum:	80	388	3.9	48	273	369	1085
Mean:	4	18	0.19	2.3	13	18	52
Standard Deviation:	5	23	0.03	1.2	15	8	23
# Anomalies	7	4		2	1	1	2

No till samples were taken by industry over this area.

SW to Blueberry Ponds Area: ODM Till Geochem

No till samples were taken by ODM over this area.

SW to Blueberry Ponds Area: Rock Sample Geochem

Some 31 rock samples were taken by prospectors between 2003 and 2009. Most of these rocks came from the French Pond NE trending linear with two samples grading 2.9 & 3.4 g Au/t and at the adjacent Twin Pond prospect samples assayed up to 4.2 g Au/t, 103 g Ag/t with low As and 0.15% Sb plus 0.5% Pb & Zn. Along strike to the SW at Blueberry Ponds, one grab sample of silicified sandstone cut by epithermal style, banded and cockscomb textured, vuggy quartz float assayed 0.9 g Ag/t with 1,720 ppm & 2,400 ppm Zn with background Au, As & Sb. No follow up has yet to be done here.

Industry Rock Samples							
SW Property (Twin-French Ponds to Blueberry Ponds: Lic 24316M & 24544M)							
	Au ppb	As ppm	Ag ppm	Sb ppm	Cu ppm	Pb3 ppm	Zn3 ppm
Count:	31	31	31	31	29	29	29
Minimum:	5	5	0.4	5	1	5	2
Maximum:	4189	446	103	1400	2005	5300	4600
Sum:	4898	2451	118	1568	2643	7682	10124
Mean:	158	79	3.8	51	91	265	349
Standard Deviation:	742	106	18	246			
Anomalous >150	>150 ppb	>100 ppm	>3 ppm	>5 ppm	>15 ppm	>50 ppm	>50 ppm
# Anomalies	2	9	2	1	7	6	16

SW to Blueberry Ponds Area: B-Soils Geochem

No soil samples have been taken over this area.

SW to Blueberry Ponds Area: Total Field Magnetic Results

In October-November 2003, Linear Resources completed a detailed Fugro airborne magnetic & EM survey over lands south of Twin Ponds-Tumbler Lake and Peddles Pond for a distance of ~ 11 km to the SW covering the Blueberry Ponds area (Linear, 2004)). Details of this survey are given below under section Airborne Magnetics Interpretation page 51. The total field magnetic component shows a very quiet magnetic response (~20 to 40 nT) cut by small semi-rounded knobs of mag-highs. The westerly highs trend SW for ~10 km into the Blueberry Ponds area. Here the Blueberry Ponds linear, underlain by an extensive mag low with a slight mag high, narrow feature, are flanked by two distinct mag highs (~50 to 100 to 200 nT).

The total field magnetic (reduced to pole) component clearly shows the geometry of the lows and highs. There is a very close spatial relationship with the Blueberry Ponds linear cut by a very narrow, weak mag high within the series of ponds. Here there are subtle, but distinct NW trending features. The anomalous tills described above appear to be adjacent to the edges of a prominent mag high and a mag low. This type of feature seems to be prevalent with anomalous gold in rocks, silts and tills within the Project.

The Blueberry Ponds magnetic features line up along a NE trend into the French Ponds-Twin Pond magnetic linears.

SW to Blueberry Ponds Area: Calculated Vertical Magnetic Gradient Results

The magnetic gradient results clearly show a series of well defined, parallel magnetic highs generally flanking the NE trending, weak high in the Blueberry Ponds linear. These mag high features are likely mafic (& felsic) dikes probably offshoots of the intrusive source beneath the adjacent Stony Lake volcanics. This interesting feature, on its own, should be carefully prospected for gold mineralization and/or alteration.

The vertical gradient clearly shows the NW trending features in the Blueberry Ponds linear.

### SW to Blueberry Ponds Area: Recommended Work

This portion of the Stony Lake Project area (~75 km<sup>2</sup>) is host to a possible significant epithermal zone at Blueberry Ponds which trends for ~11 km into the French Pond-Twin Pond linears where significant Au values have been obtained. The area has only had a day or so of prospecting but holds a very interesting potential for new gold discoveries.

A new magnetic survey should be flown to cover the entire claim package with a 1 to 2 km buffer coverage. Government digital, aerial orthophotographs should be acquired and thoroughly evaluated for potential structures and outcrops and boulder fields. These orthophotos have a very high resolution of ~0.5 to <1 m, are digitally corrected for true scale and are also georeferenced for extreme accuracy in a GIS system. This would be followed by detailed prospecting, sampling and mapping.

**Bay d'Espoir Highway:** In 1989 Noranda sampled an angular and altered boulder adjacent to the west side of the Bay D'Espoir Highway about ~3 km SW of the Flyers Area Prospect which assayed 1,900 ppb Au. In addition, a significant number of lake sed samples and various till samples to the east of the Baie d'Espoir Highway are anomalous in Au, etc. No further follow up prospecting of these areas has been recorded.

## **11 EXPLORATION**

There has been no exploration work conducted by, or on behalf of District Copper Corp., on the Stony Lake East property. Summarized below are details of all previous exploration work carried out by industry and prospectors on the Project area. Additional details of this work are summarized above under Sections 7 HISTORY and 10b MINERALIZATION on the PROPERTY

### **Geochemical Sampling**

No historical sampling over the Project area was ever properly digitized into a useable format. During 2017 and 2018 all historical reports and maps for all exploration work carried out over the Project area from 1989 to recently were compiled. All sample maps were digitally registered into ArcMap GIS (v. 10.5) software and grids and sample locations were digitized as shapefiles.

All geochemical analysis from the reports were simultaneously entered into Excel worksheets for each of the six sample media (i.e. Rocks, Lake Bottom Sediments, B-horizon Soils, Stream Silts, Tills, ODM Tills, etc.). Once completed the UTM coordinates were extracted from the various media shapefiles and transposed into the appropriate Excel spreadsheets. The spreadsheets were then edited, cleaned up and then converted to .dbf files and then into shapefiles. These files were then compiled on various maps after statistical analysis were calculated for Au, Ag, As, Sb, Cu, Pb & Zn for each sample media. All statistics are included and summarized within this report for each of the five selected areas within the Project.

The historical geochemical data as summarized under Section IV readily show extensive anomalous gold-enriched areas throughout the Project area with coincident anomalous As, Sb, etc. in particular areas. These anomalous areas generally have anomalous to 'ore-grade' Au values in angular boulders and sub outcrops and have spatial relations with the historic magnetic and gradiometer surveys.

This collection of geochemical data and partial magnetic-gradiometric coverage has shown that the Project area is a gold enriched area and requires a thorough prospecting, geological and geophysical evaluation.

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### **Lake Bottom Sediment Geochemical (Government) Sampling**

During 1988 the Dept. of Mines released the results of lake bottom sediment sampling over the entire 02D NTS map sheet (Davenport, et al, 1988). A total of 1,185 samples were collected at an average density of ~1 sample per 14 km<sup>2</sup> for NTS 02D map sheet. There were 64 samples collected from within and for ~1 to 2 km around the current Stony Lake Gold Project area (~240 km<sup>2</sup> or ~1 sample per ~4 km<sup>2</sup>). The Au results show one of the larger lake sediment anomalies in Nfld in a >20 km long, NE striking zone. This anomalous zone also shows, in order of strength (visually) anomalous Sb & Ba, and to a lesser extent anomalous in Cu, Pb, As, Zn & Ag.

Visual examination of the distribution of the Mn geochemical values from within the belt shows no strong correlation between this element and those other elements mentioned here. This suggests that the anomalies are real and not the effect of Mn scavenging. Statistics for each element are given above under pages 33 to 53.

### **Lake Bottom Sediment Geochemical (Industry) Sampling**

Since 1989 up to 2004, two companies (Noranda (63) & Linear Resources (56)) collected a total of 119 lake sediment samples over the Project area; however, an additional 53 samples were taken from 3-4 small ponds at Noranda's Moosehead prospect. All gold analysis were by Neutron Activation; most were analyzed for base metals etc. by AA and or ICP-AES techniques.

### **Stream Silt Geochemical Sampling**

From 1989 to 2003 a total of 119 stream sediment samples were collected from the Project area by three exploration companies (Noranda (55), Teck (48) and Linear Resources (8)). Generally, the minus 80 mesh fraction was collected with gold determined by fire assay & AA finish and the usual range of base metals analyzed by AA or ICP-AES methods. Streams in the Project area are mostly slow, sluggish moving with a poor silt media for collection; Au would not be conducive to this sample media however base metals would be, and this is reflected in the analysis for these metals.

Unfortunately, for the most part, proper heavy mineral concentrate samples would be a poor sampling media due to the mature, sluggish nature of the majority of streams in the area. However future testing of larger and much finer grained (-140 to -200 mesh) stream silt samples should be tried with ICP-MS analysis (on >5 to 20 gram samples) in several of the better areas with anomalous Au, As, etc. values; the Moccasin Lake area would be a likely trial candidate area. A finer -200 mesh fraction would be a clay-rich concentration which may more readily absorb more gold than the usual minus 80 mesh fraction.

### **Government Heavy Mineral Concentrate Till Sampling**

In 1999 the Nfld Dept. of Natural Resources released the results of a regional till survey over three NTS sheets including 2D/13 (Batterson, et. al., 1998). Approximately 850 till samples were collected; diamicton was the sample medium mostly collected below the B-horizon (i.e. BC or C-horizons) where possible. Diamicton is a descriptive term referring to an overburden deposit that is usually massive and poorly sorted, containing clasts ranging in size from clay to boulders and which are of varying compositions of many sizes; the term is most commonly applied to unsorted glacial deposits (i.e., glacial till). Sample spacing was 1 sample per ~2.3 km<sup>2</sup> in areas of good access and 1 sample per 4 km<sup>2</sup> in helicopter support areas. There were 227 government till samples collected from within and for ~4 to ~10 km around the current Stony Lake Gold Project area (~400 km<sup>2</sup> or ~1 sample per 1.8 km<sup>2</sup>).

Samples were sieved at the government laboratory in St. John's with the finer than 0.063 mm fraction (i.e. <63 um or 250 mesh (Tyler) retained for geochemical analysis. Statistics for each element per the five main areas in the Project are given above under pages 33 to 53.

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### **Industry Heavy Mineral Concentrate Till Sampling**

From 1989 to 2003 a total of 171 heavy mineral concentrate (HMC) overburden till samples were collected by industry within and adjacent to (~5 to 10 km) the Stony Lake Project area by three exploration companies (Noranda (66), Royal Oak (64) and Altius (37) and a prospector (4).

Numerous tills were anomalous to highly anomalous in gold plus As, etc. Statistics for each element for the five main areas in the Project are given above under pages 33 to 53.

### **ODM (HMC) Till Sampling**

Between 1989 and 2008 Overburden Drill Management Ltd. of Ottawa, Ontario collected some 117 till samples on behalf of three companies (Noranda (40), Teck (53) and Golden Dory (24)). Tills were sporadically collected at 200 to 500 m spacings along lines ranging from 2,500 to 6,000 m long and spaced from 500 to 3,000 m apart; only 3 to 4 lines across certain areas of the Property were done on Noranda's and Teck's historical claims. The Noranda tills were collected from two lines on the Rabbit Tracks (with anomalous Au results), the Flyers grid and east (with anomalous Au results) and north of Island Pond (with anomalous Au results). The Teck tills were collected from three 1,000 spaced lines in the Moccasin lake and Island Pond area (with anomalous Au results). The Golden Dory sampling was only done along one old logging road about 1,000 m SE of Tumbler Lake at 100 to 200 m sample spacing along 2,000 m. No ODM report was included and only gold grain counts per sample (several with 3 to 5 Au grains) were given in the Golden Dory report (Evans, 2009).

Statistics for each element for two of the areas in the Project are given above under pages 33 to 53.

### **B-Horizon Soil Sampling**

From 1989 to 2008 approximately 3,375 B-horizon were collected by several companies. In 1989 Noranda collected 2,634 soils, mostly from the Moosehead and Flyers grid areas in addition to 212 soils from the northern Rabbit Tracks. Teck collected 68 soils along two prospecting lines at Moccasin Lake and Island Pond with a number of anomalous Au As & Sb results. Teck also collected 131 soils at the Moosehead grid. In 2004 Linear Resources collected 210 soils at the Cabin showing on Tumbler Lake; all soils assayed at 5 ppb Au with a large number anomalous in As. Golden Dory collected 265 soils on old logging roads and adjacent to the Baie d'Espoir Highway on the Rabbit Tracks area as well as west of Tumbler Lake. These soils were collected haphazardly and along strike of geological trends. Although a number were anomalous in Au, the results are suspect.

Sporadic anomalous Au, Ag, As & Sb and minor base metal values were located over all grids; Statistics for each element for the various areas in the Project are given above under pages 33 to 53.

### **Rock Sampling**

From 1989 to ~2010 approximately 441 rock samples have been taken for assay throughout the Project, not including an additional 34 rocks from the Moosehead showings. Table 2 below summarizes the rock samples by one of the five defined areas within the Stony Lake Project by gold grades. For statistical purposes:

- assays of >50 to 250 ppb Au are anomalous; 85 (19%) rocks are in this range.
  - Samples >250 to 1,000 ppb Au are significantly anomalous; 69 rocks or 16% of all samples are in this range.
  - Samples >1,000 ppb Au are highly anomalous; 35 rocks (8%) of all rocks taken to date exceed 1 g Au/t. The five highest rock assays were: 5,075, 5,825, 6,333, 6,600 & 15,055 ppb Au.
-

**Table 2: Historical rock sample assays by Au grades for the Project area.**

Prospect	Sample Media	No. Samples	Au ppb >3 to 50	Au ppb >50 to 250	Au ppb >250 to 1,000	Au ppb >1,000 to 15,055	5 Highest (g Au/t)
Rabbit Tracks	Rock chips /grabs	165	68	54	35	8	1,790; 2,186; 2,583; 6,333; 6,600
Flyers	Rock chips /grabs	19	12	4	3	0	140; 160; 293; 523; 580
Island Pond	Rock chips /grabs	186	105	25	31	25	4,186; 4,195; 5,075; 5,825; 15,055
Moccasin Lake	Rock chips /grabs	46	45	1	0	0	100
SW to Blueberry Ponds	Rock chips /grabs	25	22	1	0	2	2,894; 3,386
	Totals	441	252	85	69	35	

### Airborne Magnetics Interpretation

To date only two airborne magnetic-gradient surveys have been flown over or adjacent to the Project area. Less than 33% of the Project area has been covered with airborne magnetics & gradiometrics.

In August 2002 Altius commissioned Goldak Exploration of Saskatchewan to complete a fixed-wing, high-resolution magnetic gradiometer survey using their proprietary three-axis, Tri-Maxial System (Goldak, 2002). This survey, totalling 553 line-km was part of an 1,861 line-km survey over 5 separate projects. Aircraft height was ~80 m above ground level and lines were flown at 100 m spacings at an azimuth of 90°–270°. Details of the equipment and survey can be found in the Goldak report. This survey ended at the south boundary of the Moosehead claims or immediately north of the Flyers grid area and just covered the northern ~1,200 m of the Rabbit Tracks property area. Descriptions of the magnetic and gradiometer features on the Rabbit Tracks are given above on page 42.

During October-November 2003 Linear Resources commissioned Fugro Airborne Surveys Corp. to complete an airborne magnetics, gradiometer and EM survey over the southern portion of the current Project area (Linear Resources, 2004 and Smith, 2004). The survey utilized a Dighem V-DSP system, consisting of an orthogonal, three-coil, three-frequency EM system and dual Cesium-sensor horizontal gradient magnetometers. Lines were flown in a north-south direction at 75 metre line spacing with an EM and magnetometer sensor height of ~30 m above ground level; aircraft speed was 120 km/hr. Multiple map products were produced by Fugro including, total field magnetics, horizontal gradient and calculated magnetic gradient, reduced to pole components, apparent resistivity and resistivity depth-sections, digital elevation maps, etc.

The airborne magnetics interpretation indicates a sharply defined contact between the Botwood Group sediments and the Mount Peyton contact metamorphic aureole along the southeast side of the property; this contact is interpreted as a structural contact. The magnetics also define the volcanic terranes in the northeast and southwest parts of the property. A number of thin magnetic highs are interpreted to be mafic dikes cutting the Botwood Group sediments. Offsets in these magnetic linears indicate north to northwest trending faults.

Results of the magnetic surveys compilation show two important magnetic features. The first are a series of very prominent broad magnetic highs along the southeast edge of the Flyers grid. The sharp boundary between the magnetically high domain to the southeast and the magnetically low domain to the northwest is believed to represent the northwest boundary of the Lawrenceton Fm mafic volcanics as defined by a regional thrust fault. Drill hole GRB90-03 on the Flyers grid, collared within this area of magnetic highs, intersected intercalated mafic flows and agglomerates cut by gabbro dikes. Rare outcrop in this region show variably fine to medium-grained, feldspar porphyritic, magnetic, massive basalt (Sparkes, 1989).

The second important magnetic feature are the numerous weak magnetic linears that trend Az. 45° to 60° on both the southern and northern areas of the Project (Smith, 2004 and Goldak Exploration, 2002). From minor outcrops, trenching and drill intersections these linears appear to represent small gabbro dikes cross-cutting the regional trend of the sediments. The gabbro dikes vary in thickness from 1 to 10 metres. Due to local intense carbonatization the magnetic signatures along some of these dikes is not continuous. The alteration within the dikes changes the magnetite into pyrite thus losing the high magnetic signature. Detailed analysis of the magnetic linears in known dike areas should be able to pinpoint mag linears dying out and reoccurring further along strike. Such areas are likely zones of variable alteration within dikes and surrounding sedimentary rocks and would be important exploration targets. NW-trending structures have been detected in areas of known epithermal-style quartz veining and alteration (i.e. the Cabin showings at Tumbler lake and the gold-rich quartz veining at Twin Ponds and French Ponds). These features are similar to the subtle NW-trending breaks around the Moosehead gold showings.

## **12 DRILLING**

### **Diamond Drilling (Flyers Grid Only)**

No drilling of any kind has been carried out by District Copper on the Stony Lake East Project.

With the exception of the Flyers grid area no diamond drilling has been carried out anywhere on the Project.

In 1990 Noranda drilled three reconnaissance, short diamond drill holes along the west side of West Jumpers Pond, two of which were drilled on the Flyers grid within the current Property area and totaled 237 m. The holes were drilled to test an area of Au-in-soil anomalies and angular boulders of quartz veining and quartz breccias with highly anomalous Au, Ag, As & Sb coincident with gradient-IP chargeability highs and magnetic breaks and VLF conductors. DDH GRB-90-02 cut anomalous chlorite breccia with carbonate veining assaying 188 ppb Au over 2.1 m at ~38 m depth and a carbonate altered, brecciated siltstone at 89 m depth which assayed 359 ppb Au over 2.5 m. (Tallman & Sparkes, 1990). No further work was done in the entire region by Noranda.

Another eight short diamond drill holes totaling 905 m were drilled by Cornerstone Minerals in 2002. These holes were drilled immediately south and SW of West Jumpers Pond to test coincident soil anomalies and a number of NW-trending structures. A number of holes successfully intersected multistage quartz veining, brecciation and associated sulphide and sulfosalt mineralization hosted by late, NW-trending geophysical-defined structures in four of the holes. Narrow pink carbonate veins carrying 1-3% pyrite and trace chalcopyrite and sphalerite were also noted in one of the mineralized sections. The zones assayed up to 0.25 g Au/t, 5,081 ppm As and 45 ppm Sb. Two of the better intersections were: DDH IP-02-07 cut 0.233 g/t Au over 5.40 m and DDH IP-02-08 cut 0.247 g/t Au over 7.60 m (Froude, 2003).

Summarized below in Table 3 are details of the 10 holes drilled on the Flyers grid.

**Table 3: List of all Diamond Drill Holes drilled on the Stony Lake East Project, Central Nfld**

DDH No.	Grid Drilled	Company	Grid North	Grid East	North UTM 2	East UTM 2	Elev ASL	Azimuth	Dip	Length metres	Intersection				Geology
											From	To	Length	g Au/t	
GRB-90-02	Flyers Grid	Noranda	20040	21000				320	-45	105.8	89.2	92.5	3.2	0.297	In a 39 m pervasive carb alter. & py.
GRB-90-03	Flyers Grid	Noranda	19815	19800				140	-45	131.1				anom	
IP-02-01	Flyers Grid	Cornerstone	4900	5400	5,425,285	611,141		225	-45	99.7	39.4	44.7	5.3	anom	Anomalous alterat. zone
IP-02-02	Flyers Grid	Cornerstone	5000	5225	5,425,394	610,989		225	-45	92.4	21.4	26.2	4.8	0.175	
IP-02-03	Flyers Grid	Cornerstone	4990	4937	5,425,402	610,701		225	-45	93.0				anom	
IP-02-04	Flyers Grid	Cornerstone	4700	5225	5,425,092	610,983		225	-45	93.0				anom	
IP-02-05	Flyers Grid	Cornerstone	4601	4924	5,425,003	610,689		45	-45	91.4				anom	
IP-02-06	Flyers Grid	Cornerstone	4600	4575	5,425,015	610,340		45	-45	98.5				anom	
IP-02-07	Flyers Grid	Cornerstone	4400	4525	5,424,816	610,293		45	-45	91.4	63.8	69.2	5.4	0.233	
IP-02-08	Flyers Grid	Cornerstone	4115	4810	5,424,506	610,572		225	-45	245.4	49.0	56.6	7.6	0.247	
										1,142					

### **13 SAMPLING METHOD AND APPROACH**

No rock or geochemical sampling of any kind has been carried out by District Copper, on the Stony Lake East Project. All rock and geochemical sampling and results on the Project are historical in nature and the reliability of the collection and analytical techniques cannot be confirmed by the author. Collection techniques are generally summarized in some of the historical reports and appear to have been done reliably. Sample locations were taken from Maps included in historical reports and in some cases from UTM coordinates posted on sample summary sheets within the historical reports. Reliability of these sample locations cannot be confirmed by the author.

Additional details of all known historical sampling methods are summarized above in Sections 7 HISTORY and 11 EXPLORATION.

### **14 SAMPLE PREPARATION, ANALYSIS AND SECURITY**

No rock or geochemical sampling or analysis of any kind has been carried out by District Copper, on the Stony Lake East Project. All rock and geochemical sampling and results on the Project are historical in nature and the reliability of the sample collection and preparation, analytical techniques and analysis and security protocols cannot be confirmed by the author.

Similarly, historical sample preparation, assaying and geochemical analysis techniques and sample security protocols are, at best, weakly summarized in assessment reports and variable at the various labs. Copies of all signed analytical certificates were included in most assessment reports. Reliability of these sample results, etc. cannot be confirmed by the author.

### **15 DATA VERIFICATION**

District Copper, has yet to carry out any exploration work on the Stony Lake East Project, and hence has generated no data for the Project. All such existing exploration data is historical in nature. All historical assessment reports have been obtained from the DNR Geoscience website. Most of this assessment work appears to be useful and valid for grassroots exploration. The data has been compiled into an extensive series of digital databases.

All of the exploration work and results from the Stony Lake Project to date are historical in nature and the reliability of the historical assessment reports and contained data cannot be confirmed by the author.

### **16 ADJACENT PROPERTIES**

There are a number of adjacent properties to the Stony Lake East Project which have generated interesting gold results from historical grassroots exploration programs as well as diamond drilling

results from the adjacent Moosehead Zone held by Altius Minerals Ltd. and Sokoman Iron Corp. All results are discussed above under Sections 7 HISTORY and 10a MINERALIZATION.

All information related to these adjacent properties is publicly available as assessment reports on the DNR GeoScience website and the websites of Altius Minerals Ltd. and Sokoman Iron Corp. The author was not involved in any of these historical exploration programs or assessment reports nor did he have any ownership or interests in any of these properties.

All of the exploration work and results from the Stony Lake East Project to date are historical in nature and the reliability of the historical assessment reports and contained data cannot be confirmed by the author.

**The author has been unable to verify the reliability of the information as described above and this information is not necessarily indicative of mineralization on the property that is the subject of this technical report.**

## **17 MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing or metallurgical studies have been undertaken by District Copper on any known mineralization within the Stony Lake East property and no historic studies are known to the author.

## **18 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES**

No mineral resource or mineral reserve estimates have been undertaken by District Copper on any known mineralization within the Stony Lake East property and no historic studies are known to the author.

## **19 OTHER RELEVANT DATA AND INFORMATION**

There are no other relevant data or information to report at this time on the Stony Lake East Project.

## **20 INTERPRETATION AND CONCLUSION**

The Stony Lake East Epithermal Gold Project is a previously unrecognized, under explored epithermal-style gold project with extensive gold anomalies throughout its 27-km strike length. There are over 18 gold showings and epithermal-style quartz veined zones, none of which have yet to be seriously tested; a total of only 10 drill holes (1,142 m) have been drilled in a small area within the Flyers prospect. In addition, numerous untested anomalous to highly anomalous lake sediment, till and rock samples have received little to no follow up prospecting, stripping or trenching. The two historical airborne magnetic surveys only cover approximately 1/3 of the property but the results of this work imply a very useful and important prospecting and geological mapping tool. Geological mapping is restricted to government 1:50,000 scale; no industry mapping has yet to be done.

The Project requires a dedicated and serious exploration company with the funding and perseverance for applied exploration work. With the existing access and proximity to good infrastructure an effective prospecting and sampling program can be executed quickly and relatively cost effective during summer & fall 2018.

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## **21 RECOMMENDATIONS**

A three-Phase exploration program is recommended for the Stony Lake East Project. Phases 2 and 3 are contingent on the exploration success of each preceding Phase. The three-phased program is designed to explore the entire property area in order to upgrade all existing gold occurrences and alteration zones, in addition to locating new target areas. Positive results in Phases 1 and 2 will lead to a trenching and diamond drill program in 2019. Total estimated costs of the entire 2018-2019 three-Phase exploration program are \$1,679,050.

### **Proposed Phase 1 Exploration Program for Fall 2018**

A fall-season 2018 exploration program is recommended and should consist of the following:

1. Airborne Geophysics: The entire Project area should be flown with detailed helicopter supported aerial magnetics, gradiometrics, VLF-EM and radiometrics (for alteration mapping). Electromagnetic (EM) mapping has not proven useful in the Linear Resources 2004 aerial survey and is not recommended. Line spacing should be at 75 metres. Approximately 2,162 line-km (1,968 km of flight lines + 194 km tie lines) of airborne geophysics will cover the entire Project area. The entire survey is expected to be completed within 10 days and final maps and logistical report within two to three months.
2. GIS & Orthophoto Imagery: Obtain all digital orthophoto imagery for the Project area and for several km around the project. Immediately commence construction of detailed base maps into ArcGIS for very controlled prospecting and sampling and geological mapping during 2019.

### **Exploration Budget – Phase 1**

The above fall 2018 recommended exploration program could be completed at an estimated cost of \$451,300 as detailed below.

#### Airborne Geophysics:

Total Project area = ~6.5 km wide & 27 km long @ 75 m line spacing (~2,162-line km):

- Helicopter magnetics, gradiometrics & radiometrics: 2,162-line km @ \$80/km = .. \$173,000
  - VLF-EM (with controlled source VLF signal): 2,162-line km @ \$3/km = ..... 6,500
  - Calibration, standby/downtime, weather etc. (4 days @.\$3,500/day)..... 14,000
  - Mobe & demobe: ..... 19,500
- Subtotal..... \$213,000**

#### GIS & Orthophoto Imagery:

Total Project area + 2 km buffer = ~275 km<sup>2</sup>:

- Orthophoto's: 10 images @ \$140 each = ..... \$1,400
  - Conversion into ArcGIS: 3 days @ \$900/day = ..... 2,700
  - Maps: = ..... 1,500
- Subtotal..... \$5,600**

#### Project Manager:

- Project Manager/Geologist: 7 Days @ \$750/day = ..... \$5,250
  - Travel, etc. expenses: 20% = ..... 1,050
- Subtotal..... \$6,300**

**Total Phase 1 Estimated Costs ..... \$224,900**

### **Proposed Phase 2 Exploration Program for Spring & Summer 2019**

A Phase 2 program should begin in early spring and would be approximately 60 days long finishing up in early July 2019 and should consist of the following exploration work:

3. Geochemical Testing: Orientation geochemical sampling should begin prior to the prospecting and geological mapping and should consist of the following exploration test work.

- B-horizon soil orientation-test sampling using several screen mesh sizes from ~-80 to -120 to -200 mesh should be done over and adjacent to three known gold zones. Each site would have 3 lines at 500 m long, spaced at 200 m apart and sample site spacing of 25 m for 180 separate sample sites; each site would be screened into 3 mesh sizes for ~540 samples.
  - Stream silt sampling orientation-test sampling using several screen mesh sizes from ~-80 to -120 to -200 mesh should be done in at least 3 areas with anomalous Au values in streams and within and downstream of several known gold zones. Samples would be taken at 250 m spacings along 4 kms of streams per area for a total of 48 sample sites with 3 mesh size fractions collected per site for 144 silt samples.
  - Till sampling should be re-examined in three areas where anomalous tills are known relatively close to known gold showings. Ideally, multiple horizons would be better exposed with an excavator if trenching work is to be done on the Project. Samples would be spaced at 250 m apart on 3 lines, each ~2 km long, and spaced 500 m apart for a total of 24 sample sites per area or 72 samples total.
  - All geochemical samples should be analyzed by ICP-MS. Required sample weight after screening & drying is 25 grams.
  - Two experienced prospectors and two helpers would be needed for ~2 weeks.
- 4 Prospecting & Sampling: Detailed prospecting-sampling and mapping should commence immediately following the geochemical orientation sampling, using the orthophoto imagery in conjunction with the results of the detailed aerial geophysical surveys. Priority areas would be around all pond/lake shorelines and at higher elevations near linears. The magnetic and gradient survey data should prove very helpful in locating probable epithermal related magnetic features and trends and the radiometrics should be very helpful in defining alteration systems and patterns. Emphasis here would be on highly structured and organized rock sampling and observational and recording techniques.
- Two experienced prospectors and two helpers would be needed for ~6 weeks.
  - All rock samples should be assayed for Au by fire assay plus a sample split by ICP-MS.
- 5 Geological Mapping: Two geologists would be required to carry out geological and structural mapping and Project supervision; ~8 weeks work is required.

### Exploration Budget – Phase 2

The above spring-early summer 2019 recommended exploration program could be completed at an estimated cost of \$326,650 as detailed below.

#### Geochemical Testing: May 1 – May 15, 2019

- Soils, silts & tills: 750 samples @ \$25/sample (ICP-MS analysis) = ..... \$18,750
  - Rocks: 500 rock samples at \$50/assay+ICP-MS = ..... 25,000
- Subtotal..... \$43,750**

#### Prospecting & Sampling: May 1 – June 30, 2019

- 2 Prospectors & 2 helpers: 2 crews @ 60 days @ \$750/crew/day = ..... **\$90,000**

#### Geological Mapping: May 1 – June 30, 2019

- 2 Geologists: 2 men @ 60 days @ \$650/day = ..... **\$78,000**

#### Project Manager: May 1 – June 30, 2019

- Project Manager/Geologist: 12 Days @ \$750/day = ..... \$9,000
  - Travel, etc. expenses: 20% = ..... 1,800
- Subtotal..... \$10,800**

Vehicles, accommodations & additional costs: May 1 – June 30, 2019

House/cabin rental: 2 months @ \$3,000/month = .....	\$6,000
Cook/camp man: 1 cook @ 60 days @ \$350/day = .....	21,000
Food & supplies: 7 men @ 60 days x \$50/day = .....	21,000
Field Supplies: 6 men @ 60 days x \$25/day = .....	9,000
Field equipment: computer, software, printer, GPS's, etc. = .....	7,000
Truck rentals, gas, etc.: 2 trucks @ 60 days @ \$150/day = .....	18,000
ATV rentals, gas, etc.: 3 ATV's @ 60 days @ \$70/day = .....	12,600
Contingency: 10% = .....	9,500
<b>Subtotal.....</b>	<b>\$104,100</b>

**Total Phase 2 Estimated Costs ..... \$326,650**

**Proposed Phase 3 Exploration Program for Summer & Fall 2019**

A Phase 3 program should begin near the completion of the Phase 2 program and would be contingent on positive results from Phase 2. Starting around mid-July, the trenching could be completed by mid-September with diamond drilling beginning in early September and finishing by mid-November and would consist of the following exploration work:

**6 Trenching:** There are numerous areas where stripping and trenching by excavator could begin in mid-July to take advantage of dry weather conditions. At least 50 trenches using a deep-reach (minimum 5 metres) excavator could be done over a 60-day period.

- Three men and the excavator operator would be required.
- A water pump would be required.
- All rock samples should be assayed for Au by fire assay plus a sample split by ICP-MS.

**7 Diamond Drilling:** Thirty diamond drill holes totaling 4,500 metres could be drilled to test some 6 to 10 separate gold prospects. Work should begin in early September near the completion of and overlapping the trenching program. The program should be complete mid-November, 2019.

- The drill would operate on two 12-hour shifts/day.
- All drilling would be excavator supported.
- One geologist and a prospector would supervise the drilling and perform all core handling and logging.

**Exploration Budget – Phase 3**

The above summer & fall 2019 recommended exploration program could be completed at an estimated cost of \$1,127,500 as detailed below.

Trenching: (July 15 – September 15, 2019)

- |   |                  |
|---|------------------|
| • Excavator: (machine + fuel + operator) 60 days @ 10 hrs/day @ \$165/hr. = .....                 | \$99,000         |
| • Mobe & demobe: = .....  | 1,500            |
| • Rock chip-channels assays: 50 trenches @ 15/trench = 350 samples<br>@ \$50/assay+ICP-MS = ..... | 37,500           |
| • Geologist & prospector: 60 days @ \$1,075/day = .....   | 64,500           |
| <b>Subtotal.....</b>  | <b>\$202,500</b> |

Diamond Drilling: (September 1 – November 15, 2019)

- |  |           |
|--|-----------|
| • Drill footage: 30 Drill holes @ 4,500 metres @ \$150/metre all in = .....                | \$675,000 |
| • Mobe & demobe: = .....   | 2,000     |
| • Excavator rental: 30 moves @ 4 hrs/setup-move @ \$165/hr = .....                         | 19,800    |
| • Core sample assays: 30 DDH @ 15 samples/DDH = 450 samples<br>@ \$50/assay+ICP-MS = ..... | 22,500    |

- Geologist & prospector: 60 days @ \$1,075/day = ..... 64,500  
**Subtotal..... \$783,800**

Project Manager: July 15 – November 15, 2019

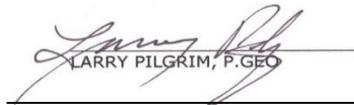
- Project Manager/Geologist: 24 Days @ \$750/day = ..... \$18,000
- Travel, etc. expenses: 20% = ..... 3,600  
**Subtotal..... \$21,600**

Vehicles, accommodations & additional costs: July 15 – Nov. 15, 2019

- House/cabin rental: 4 months @ \$3,000/month = ..... \$12,000
- Cook/camp man: 1 cook @ 120 days @ \$350/day = ..... 42,000
- Food & supplies: 7 men @ 120 days x \$50/day = ..... 42,000
- Field Supplies: 2 men @ 120 days x \$25/day = ..... 6,000
- Truck rentals, gas, etc.: 1 trucks @ 120 days @ \$150/day = ..... 18,000
- ATV rentals, gas, etc.: 1 ATV @ 120 days @ \$70/day = ..... 8,400
- Contingency: 10% = ..... 12,800  
**Subtotal..... \$141,200**

**Total Phase 2 Estimated Costs ..... \$1,127,500**

**Total Phase 1 to 3 Estimated Costs ..... \$1,679,050**

  
 LARRY PILGRIM, P.GEO



Signed By: Larry Pilgrim, P. Geo.

Effective Date: September 18, 2018

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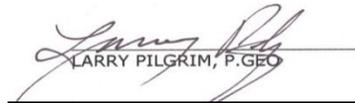
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**23 DATE AND SIGNATURE PAGE**

The undersigned prepared this Technical Report, titled “**National Instrument 43-101 Technical Report: Digital Compilation of Historical Geological, Geochemical and Geophysical Exploration Work Carried Out Over the Stony Lake East Epithermal Gold Project, Grand Falls-Bishops Falls, Newfoundland**”; dated September 18, 2018.

The format and content of the report are intended to conform to Form 43-101F1 of National Instrument 43-101 (NI 43-101) of the Canadian Securities Administrators.

  
LARRY PILGRIM, P.GEO

**Signed and Sealed: Larry Pilgrim, P. Geo.**



Dated: September 18, 2018

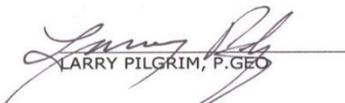
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**24 CERTIFICATE OF THE QUALIFIED PERSON**

I, Larry R. Pilgrim P. Geo., a geological consultant residing at 10 Witchazel Lane, King's Point, Newfoundland and Labrador, A0J 1H0, hereby certify that:

1. I personally reviewed all sections of this technical report.
2. I am a graduate of the Memorial University of Newfoundland, St. John's, NL with a B.Sc. degree in Geology (1980).
3. I am a Professional Geoscientist (P. Geo.) registered with the Professional Engineers and Geoscientists of Newfoundland and Labrador (Registration No. 03154) and have been a member in good standing since 1993.
4. I have been employed in the mineral exploration and mining industry for 38 years, and have explored for gold, base metals, uranium, and oil in Canada for both senior and junior mining companies.
5. I have read the definition of 'Qualified Person' set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional organization, I meet the requirements of an Independent Qualified Person as defined in National Instrument 43-101.
6. I visited the Stony Lake East Project on September 15, 2018.
7. I am responsible for all sections of the technical report entitled "**National Instrument 43-101 Technical Report: Digital Compilation of Historical Geological, Geochemical and Geophysical Exploration Work Carried Out Over the Stony Lake East Epithermal Gold Project, Grand Falls-Bishops Falls, Newfoundland**" with an Effective Date of September 18, 2018.
8. I am considered independent of District Copper Corp. applying the test outlined in section 1.4 of National Instrument 43-101. I am not an employee, insider or director nor do I hold securities, directly or indirectly, of District Copper Corp. or of a party related to the issuer; nor do I, or expect to, hold securities, directly or indirectly, in another issuer that has a direct or indirect interest in the property that is the subject of this technical report. I have not received the majority of my income, directly or indirectly in the three years preceding the date of the technical report from the issuer or a related party of the issuer. I, therefore, am considered independent of District Copper Corp. in respect of this report.
9. I am not aware of any material fact or material change with respect to the subject matter of the report that is not disclosed in the report which, by its omission, would make the report misleading.
10. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the report not misleading.
11. I have read National Instrument 43-101 and Form 43-101F, and the technical report has been prepared in compliance with that Instrument and Form 43-101F.
12. I do have an interest in a property that may be considered "adjacent". The "adjacent" property for which I have an interest is located within 1 km west of the Stony Lake Property and may have geological characteristics similar to the property being reported on in this technical report.
13. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible to the public

Dated this 18th day of September, 2018

  
LARRY PILGRIM, P.GEO.

Larry Pilgrim, P. Geo.



**APPENDIX A**

**Epithermal Style Rock Photographs from Project & Area**

**Stony Lake East Epithermal Gold Project**

**Bishops Falls Area, Central Newfoundland**

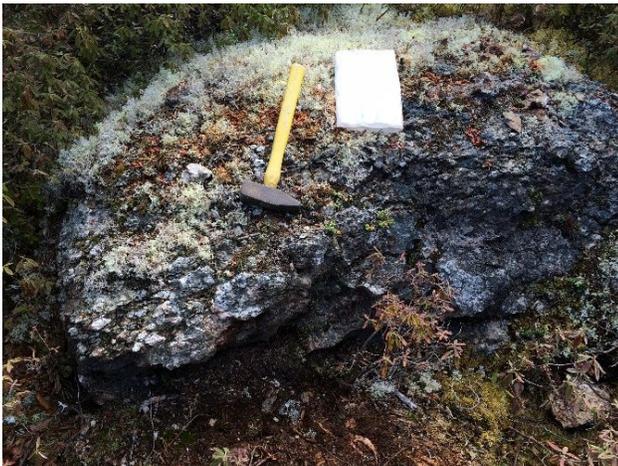
**Epithermal Style Rock Photographs from Project & Area**



**Rabbit Tracks:** Silica vuggy zone & quartz veining.



**Rabbit Tracks:** Orbicular textured vuggy silica nodules; to 6.6 g Au/t.



**Rabbit Tracks:** Quartz filled vesicular QFP 2% py & asp  
~300-500 ppb Au.



**Twin Ponds:** Sericite & silicified altered sandstones adjacent  
to strong qtz rich linear zone (100's ppb Au).



**Twin Ponds:** Qtz breccia cut by stockwork veining.





Sub-outcropping quartz vein



Possible bladed textured quartz vein



Cockade textured hydrothermal quartz breccia.



Quartz stockwork breccia



Quartz stockwork in highly sericitized silicified sandstone



Chalcedonic alteration with quartz stockwork



Cockade textured quartz breccia cut by latter veining



Cockade textured silica rich hydrothermal breccia



Vuggy quartz breccia



Paradise Lake: Quartz breccia with syenite fragments.



Paradise Lake: rimmed by syenite boulders.



Pistol Lake: Quartz breccia large vugs; 3 specks VG in sample assayed to 3.5 g Au/t.



Loon Pond: Mineralized quartz vein/stockwork/breccia.



Loon Pond: Quartz-chlorite stockwork cutting sericitized-silicified sandstones



Loon Pond: Fine grained, well mineralized (py) silicified 'rock'.