43-101F1 Technical Report on the

Haultain Property

Haultain and Nicol Townships - Gowganda, Ontario

(NTS 41P10)

Prepared For
Transition Metals Corporation
By

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1.0 SUMMARY

Transition Metals Corp. (Transition Metals or the Company) is a private mineral exploration company registered under the corporations act in the Province of Ontario who owns or controls mining property in the Larder Lake mining District, Northeast Ontario, which it refers to as the Haultain Property. The company has engaged in early stage exploration work on the Property since it was acquired by means of an option agreement and staking in early July 2010. This work has resulted in the discovery of a new occurrence of gold outcropping at surface which the company has dubbed “the Annie’s Ladder Showing”. The discovery is located less than 1 kilometre west of historically exploited deposits of silver in Haultain and Nicol Townships, close to the town of Gowganda Ontario, approximately 115 kilometres southwest of Kirkland Lake.

Transition Metals considers this property to qualify as a “”Property of Merit” pursuant to the rules and policies of the TSX Venture Exchange (the "Exchange”). To establish this assertion, T.R. Hart P. Geo was engaged by the Company to prepare a technical report regarding the Haultain project compliant with the requirements of NI 43-101. The company intends to pursue a listing on the Toronto Venture Exchange, and conduct additional work on the Property based on the recommendations of this report. The Property consists entirely of unpatented mining claims registered 100% to Transition Metals which were either acquired pursuant to an option agreement with S. Swain dated July 1, 2010 or by staking. All claims are in good standing with the Ministry of Northern Development, Mines, and Forestry as of the effective date of this report.

The Property is situated around an inlier of Archean greenstone occurring south of the Round-Lake Batholith in the south-western part of the Abitibi greenstone belt. The Property is bordered and/or overlain in places by Proterozoic sediments of the Cobalt Embayment. The Abitibi greenstone belt is prospective for a number of metallic mineral deposit types including lode gold deposits, volcanogenic massive base metal sulphide deposits and magmatic sulphide (Ni-Cu) deposits.

Despite the proximity of the gold occurrences identified on the Property to areas of historical silver mining which followed the discovery of major deposits of silver in the Cobalt – Elk Lake – Gowganda around 1908, little record of exploration on the Property for gold could be identified. Work undertaken to date by the company has been very preliminary in nature, consisting of surface mapping, trenching, bedrock sampling, and two short diamond drill holes. This work has been successful in discovering previously unrecognized occurrences of gold mineralization exposed at surface in two areas on the Property, and has confirmed that the Property exhibits favourable structural and geological conditions for hosting economic deposits of gold.

Gold assay results it has obtained from the Annie’s Ladder Showing outline an approximate 60 m wide and up to 100 m long zone of gold mineralization exposed by stripping activities completed at Trench 3. The gold mineralization accompanies zones of increased pyrite content and can be observed in native form enveloping pyrite grains or as fine specs within and along the margins of quartz/carbonate veinlets associated with a swarm of medium to coarse-grained, massive to weakly foliated, syenite dykes and the adjacent highly altered and deformed metavolcanic rocks.

Values of up to 19.5 g/t gold have been obtained from grab samples and consecutive multi meter channel samples carrying gold values >3 g/t across the exposed outcrop have helped to establish some continuity in mineralization. Two shallow diamond drill holes totalling 165 meters were completed in November, 2010 to assess of the depth extent and continuity of gold mineralization associated with ladder vein structures associated with the Annie’s Ladder showing exposed at surface. Both holes encountered elevated gold values down-dip from mineralization exposed at surface. Values up to 20.2 g/t Au were returned from assays completed on the core. Visible gold was observed in core near the bottom of hole TMH-10-02, which yielded a length weighted composite gold average of 1.57 g/t Au over 11.69 meters between 40.31 to 52.00 meters down the hole including 4.72 g/t Au over 3.07 meters.

It is recommended that a grid should be cut over the Property to provide ground control and access to areas of the Property to facilitate systematic detailed geological mapping and prospecting, collect additional rock samples, and collect samples for submission for Soil Gas Hydrocarbon analysis. Additional stripping and trenching should be conducted between Trenches 1 and 3, and west of Trench 3 as an effective tool to identify additional strike extension to the exposed mineralization, and to better identify associated structure controls to assist drill targeting in the vicinity of Trench 3. This work should then be followed up by a short drill program in the vicinity of Trench 3 to further determine the extent of mineralization exposed at surface, at depth below the current exposure, and along strike. A Phase 1 budget of approximately $650,000 has been proposed to further assess the potential of the Property to host economic gold deposits. Contingent upon these results, an additional $350,000 of diamond drilling may be warranted.

2.0 INTRODUCTION

This technical report has been commissioned by the management of Transition Metals Corp. (Transition Metals, or the company) to document the results of trenching, channel sampling and diamond drilling completed by the company on the Haultain Property between July and November, 2010. The report was been prepared by Thomas Hart is a Qualified Person as per the definition of NI 43-101 in preparation for the company's intent to solicit an initial public offering on the Toronto Venture Exchange. Thomas Hart is an independent qualified person as per the regulations of the SEC and accepts responsibility for the entire report. The author is a registered Professional Geoscientists in Ontario (APGO) who has worked on the Property and is familiar with the data.

This report contains details of the land tenure, a summary of previous exploration and development work, a compilation and synthesis of geology, and geophysics data. The report also contains recommendations for further exploration and development of the Property. The author did not review legal, environmental, political, surface rights, water rights or other non-technical issues which might indirectly relate to this report relying on the information supplied by Transition Metals.

2.1 SOURCES OF INFORMATION

Technical information in this report is derived from a variety of sources, including technical articles in scientific publications, and other files. Other files refer to data from a variety of sources including laboratory certificates and analytical data. Most of the information necessary for reporting of the historical work completed on this property, and the adjacent area, was obtained from the assessment file report images (AFRI) records of the Ontario Ministry of Northern Development, Mines and Forestry (MNDMF). Additional information was obtained from the hardcopy files of the Resident Geologists' Office in Kirkland Lake. All documents used in the preparation of this report are listed at the end of the report (*see* 20. References), and assessment file records and scientific publications are available from public sources.

Greg Collins supervised the July 2010 trenching program, and the July and September 2010 channel sampling programs, as well as completing reconnaissance geological mapping of the Property (Collins 2010). On-site, and subsequent, discussions with Collins provided additional information on the 2010 exploration program.

Thomas R. Hart completed reconnaissance geological mapping of the Property in September 2010 and collected two channel samples to verify the initial sampling results in Trench 3. The author also supervised the November trenching and channel sampling program and logged and sampled the core from the diamond drilling program.

2.2 UNITS OF MEASURE

Some of the historical work on the showings on or near the Haultain Property were stated in Imperial Measurements, including feet (ft), ounces (oz), and ounces per short ton (oz Au / t). All measurements are reported in the units used in the original reports with equivalent metric measurements shown in brackets. The conversion for lengths was 1 inch equals 2.54 centimetres and 1 foot equals 0.3048 metres. The conversion used for imperial to metric gold values was 1 troy ounce per ton equals 31.10 grams per tonne.

Throughout this report, common measurements are in metric units, with linear measurements in millimetres (mm), centimetres (cm), metres (m) or kilometres (km). Metal contents are given as parts per billion (ppb), parts per million (ppm) or percent (%) and precious metal values (gold, platinum and palladium) as grams per tonne (e.g. g /t Au). Volumetric measures are in millilitres (mL), and mass measurements are in grams (g) and kilograms (kg). The conversion from ppm Au to g/t Au is 1 ppm Au equals 1 g/t Au.

3.0 RELIANCE ON OTHER EXPERTS

The geological information in this report is not reliant on individuals who are not qualified persons. Land tenure information for staked claims has been obtained from the MNDMF web site, which contains a disclaimer as to the validity of the provided information.

The author relied on the Company's (Transition Metals Corp.) counsel for the legal status of mineral tenure and environmental liability. The report is based upon information believed to be accurate at the time of certification, but which is not guaranteed.

4.0 PROPERTY LOCATION AND DESCRIPTION

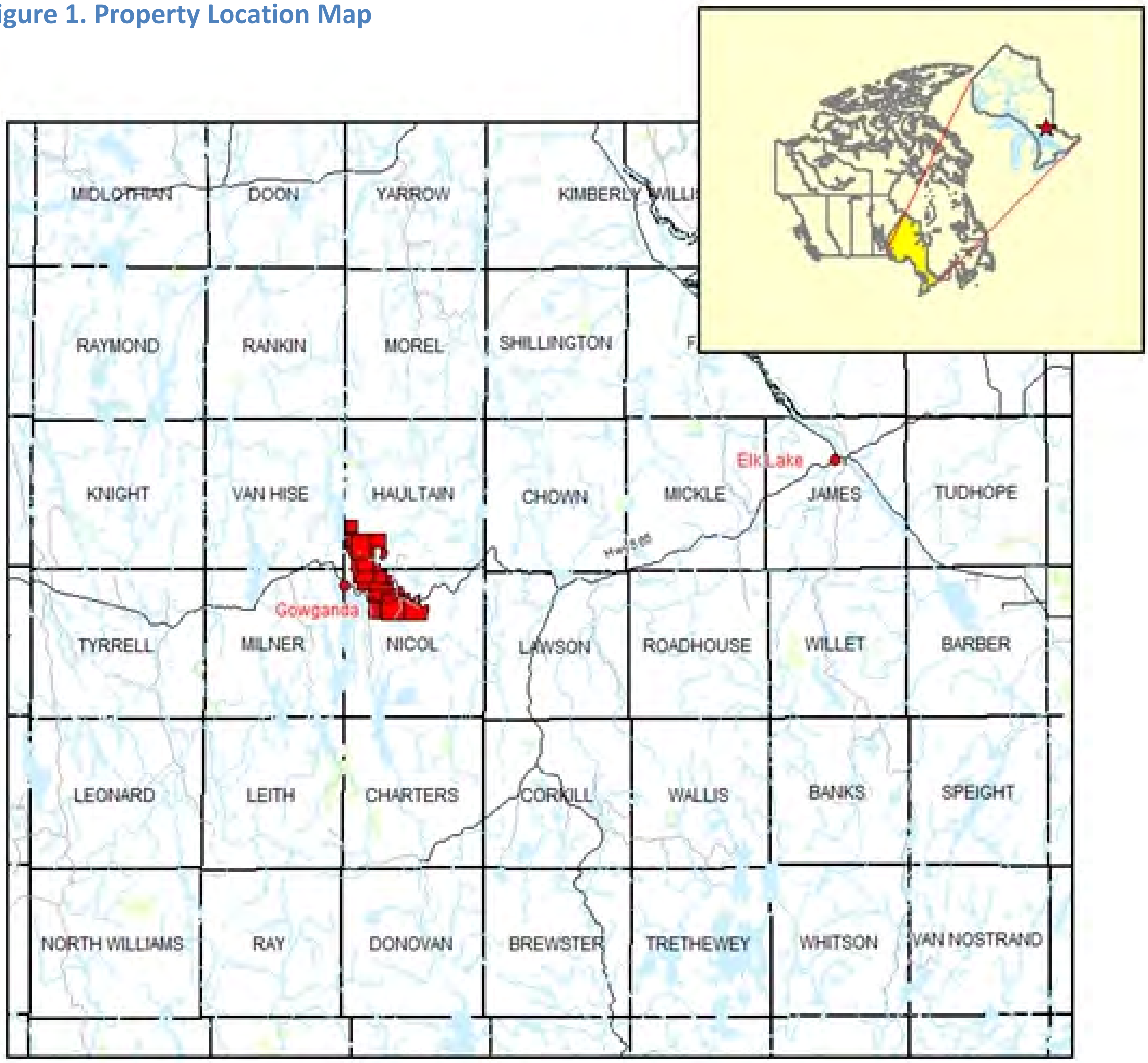
4.1 PROPERTY LOCATION

The Property consists of 20 contiguous unpatented mining claims comprising approximately 1,579 hectares centrally located about Hwy 560 adjacent to the unorganized municipality of Gowganda Ontario in Nicol and Haultain Townships, Larder Lake Mining District. The location of these claims is approximately as shown in Figure 1.

The center of the Property is located at 517,800 mE, 5,279,500 mN, UTM Zone 17. It is located approximately 34 kilometres west of Elk Lake (population 350), 33 kilometres southwest of Matachewan (population 450). It is centrally located between major mining centres in Timmins (235 kilometres to the northwest), Kirkland Lake (115 km to the north) and Sudbury (250 kilometres to the southwest). The closest major centre to Gowganda, is the city of Timiskaming Shores (amalgamation of New Liskeard, Cobalt and Haileybury) located 100 kilometres to the east, with a population of approximately 10,000. Most supply and service needs, including emergency medical attention, can be obtained in Timiskaming Shores.

The Property is located within the Montreal River drainage system, an area constituting part of a traditional land use area for the Matachewan First Nation. The Matachewan First Nations Indian Reserve is located approximately 45 kilometres northeast of the Property. The Property also lies within a traditional land use area designated by the Teme-Augama Anishnabai or Temagami First Nation (TAA). In 1973, The Teme-Augama Anishnabai exercised a land caution against mineral exploration and development on 10,000 square kilometres of Crown land surrounding most of the Temagami area. The Attorney-General of Ontario pursued legal action against the TAA for this caution. The TAA lost this court case in 1984 and preceded subsequent appeal to the Supreme Court. The TAA lost this appeal and eventually the caution was lifted in 1999.

Figure 1. Property Location Map



4.2 PROPERTY DESCRIPTION

4.2.1 Status

All properties are unsurveyed mining claims located in the Townships of Haultain and Nicol, Larder Lake Mining District. With the exception of claim 1227354, all claims are registered 100% to Transition Metals Corp. Table 1 presents a listing of claims associated with the Property, status and ownership in good standing as of the effective date of this report. Figure 2 depicts the approximate location of the Property as recorded by the MNDM.

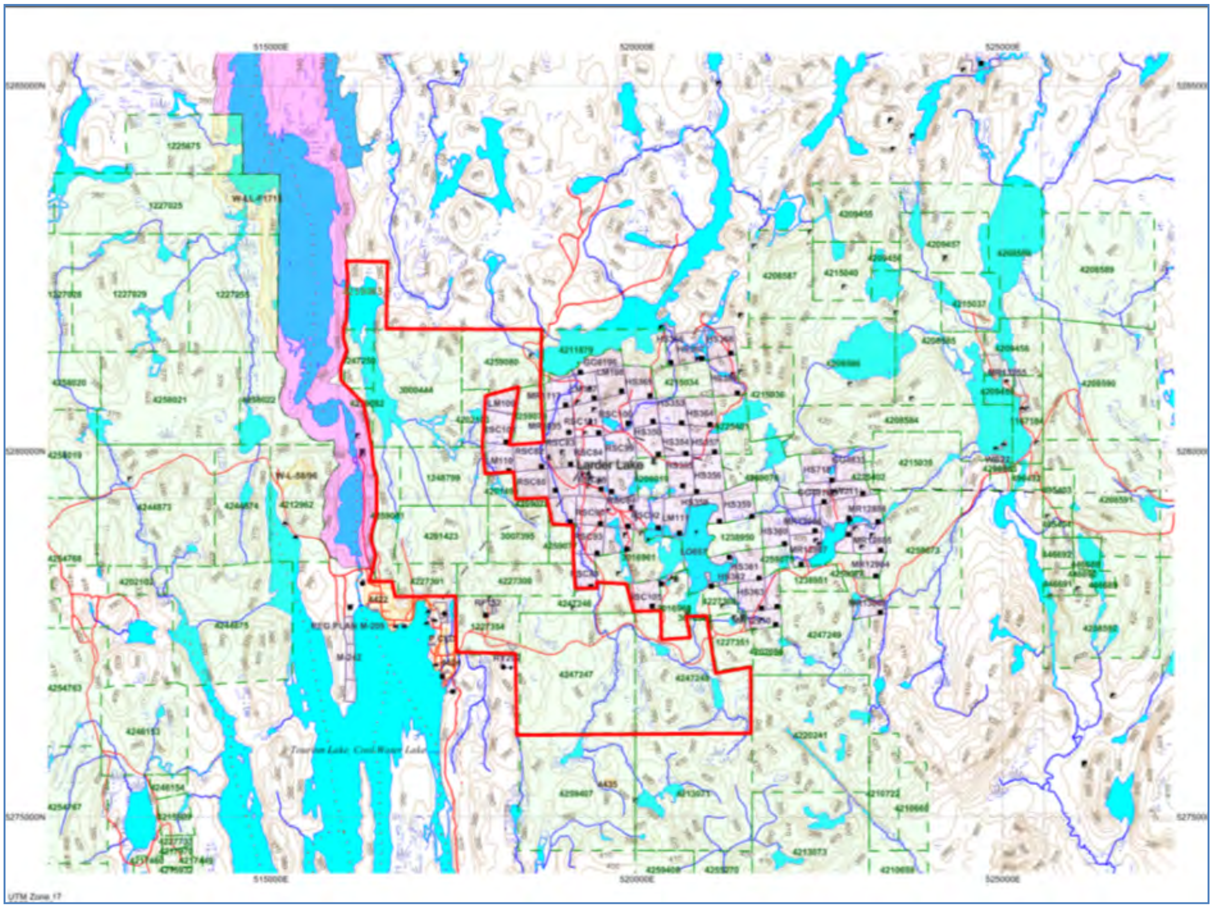
Table 1: List of claims comprising the Haultain Property

Township	Claim Number	Recording Date	Claim Due Date	Status	Percent Option	Units	Work Required	Total Applied	Total Reserve	Claim Bank
NICOL	4259083	2010-Nov-15	2012-Nov-15	A	100%	3	$1,200	$0	$0	$0
NICOL	4259082	2010-Nov-15	2012-Nov-15	A	100%	1	$400	$0	$0	$0
NICOL	4259081	2010-Nov-15	2012-Nov-15	A	100%	4	$1,600	$0	$0	$0
NICOL	4259080	2010-Nov-15	2012-Nov-15	A	100%	6	$2,400	$0	$0	$0
NICOL	4259079	2010-Nov-15	2012-Nov-15	A	100%	2	$800	$0	$0	$0
NICOL	4259078	2010-Nov-15	2012-Nov-15	A	100%	1	$400	$0	$0	$0
NICOL	4259077	2010-Nov-15	2012-Nov-15	A	100%	2	$800	$0	$0	$0
HAULTAIN	4247250	2010-Jul-13	2012-Jul-13	A	100%	2	$800	$0	$0	$0
NICOL	4247249	2010-Jul-13	2012-Jul-13	A	100%	10	$4,000	$0	$0	$0
NICOL	4247248	2010-Jul-13	2012-Jul-13	A	100%	13	$5,200	$0	$0	$0
NICOL	4247247	2010-Jul-13	2012-Jul-13	A	100%	16	$6,400	$0	$0	$0
NICOL	4247246	2010-Jul-13	2012-Jul-13	A	100%	3	$1,200	$0	$0	$0
NICOL	4227301*	2007-Nov-15	2012-Nov-15	A	100%	2	$800	$2,400	$0	$0
NICOL	4227300*	2007-Nov-15	2012-Nov-15	A	100%	4	$1,600	$4,800	$0	$0
HAULTAIN	4202103*	2006-Nov-17	2011-Nov-17	A	100%	2	$800	$2,400	$0	$0
HAULTAIN	4201494*	2006-Jul-24	2013-Jul-24	A	100%	1	$400	$2,000	$0	$0
NICOL	4201423*	2005-Nov-16	2012-Nov-16	A	100%	6	$2,400	$12,000	$0	$0
NICOL	3007395*	2007-Nov-15	2012-Nov-15	A	100%	4	$1,600	$4,800	$0	$0
HAULTAIN	3000444*	2005-Nov-02	2012-Nov-02	A	100%	12	$4,800	$24,000	$21,190	$0
HAULTAIN	1248799*	2004-Nov-17	2012-Nov-17	A	100%	6	$2,400	$14,400	$35,454	$0
NICOL	1227354**	1999-Aug-11	2001-Aug-11	A-P	100%	4	$1,600	$0	$0	$0

* Subject to terms of Option Agreement between Transition Metals Corp and Sherry Swain, dated July 1, 2010
** Pending Proceedings commenced December 21, 2000, Claim registered 100% in name of S. Swain, pursuant to July 1, 2010 Option Agreement with Transition Metals Corp

In Ontario, mining claims must be maintained by incurring and filing eligible exploration expenses equal to $400 per 16 hectare claim unit. Work filed in excess of this minimum requirement can be held in reserve for application at a later date, or distributed to contiguous claims. Based on work filed to date, sufficient banked credits exist to maintain the Property beyond 2013. Additionally, approximately $75,000 worth of additional work has been completed but not yet filed, which could be used to further extend the expiry dates of the claims for an additional one to two years once filed.

Figure 2: Haultain Project Claim Location Map (project boundary outlined in red)



4.2.2 Nature of Transition Metals Corp's Interest

The Property is registered to Transition Metals Corp (Client 407930) with portions of the Property subject to an option agreement between Transition Metals (defined in paragraph 1) and prospector Sherry Swain dated July 1, 2010. According to the terms of the Agreement, Transition Metals retains the right to earn a 100% interest in the Property by making cash payments totalling $35,000 and incurring work expenditures of $250,000 by July 1, 2015. Additionally, Swain retains a 2% NSR, of which 50% can be purchased by Transition Metals at any time for the aggregate sum of $1,000,000. Pursuant to the terms of the option agreement, Transition Metals retains the right to earn a 100% interest in the optioner's interest in Claim 1227354. Claim 1227354 is registered 100% in the name of Sherry Swain subject to proceedings commenced by a third party in December 2000. Once proceedings are resolved, Transition Metals would be entitled upon fulfilling the terms of its option agreement with Sherry Swain to 100% of Swain's retained interest. Portions of the Property not subject to this agreement consist of staked claims on crown land owned 100% by Transition Metals.

4.2.3 Environment and Permitting

During the early stage of exploration currently being conducted on the Property, there is no permitting required under the Mining Act to conduct the exploration programs being proposed or just completed. If the Company undertakes work activities closer than 60 meters from a watercourse, makes improvements to the access trail, or expands proposed stripping trenching activities to include the collection of a bulk sample, additional permits may be required. Under the Occupational Health and Safety Act & Regulation for Mine and Mining Plants, notification of diamond drilling must be provided to the Ministry of Labour prior to commencement of work. The Property is not subject to any known environmental or other liabilities.

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The Property is centrally crosscut by Hwy 560, the main access route between Hwy 144 west of Shining Tree, Gowganda, and Hwy 65 at Elk Lake. The Property is centrally located to the north and east of the community of Gowganda. Most areas of the Property can be accessed via 4 wheel drive truck or ATV off a network of logging roads and hunting trails. The areas of recent mechanical stripping can be easily accessed by truck via an unused former logging road heading west from Everett's Lake Road, approximately 1km north of its intersection with Highway 560.

5.2 CLIMATE

The area experiences four main seasons: spring, summer, fall and winter. Spring conditions occur between the months of April and June and consist of warming temperatures that see freezing conditions at night, and melting conditions in the daytime resulting in melt water run-off of the winter snowpack. Summer brings on extended periods of warmer temperatures with variable amounts of precipitation in the form of rainfall. When rainfall is scarce, extreme fire conditions can result in orders from the Ministry of Natural Resources to cease many forms of bush work. Precipitation in the fall typically increases as temperatures drop below zero in the evenings resulting in the accumulation of snow as early as late October. Temperatures in the winter average -25 degrees centigrade with an average snow pack of 1m (the average is normal). Comparatively, Gowganda typically receives less snowfall than locations further south, due to colder and dryer conditions and lack of lake effect snow.

Vegetation is typical of the southern boundary of the boreal forest range, consisting of white spruce, black spruce, white pine, red pine, jack pine, poplar, white birch and, maple. Alder, cedar and swamp maple grow in the lower wet areas.

5.3 INFRASTRUCTURE

Gowganda is an unincorporated community located on the shores of Gowganda Lake in the Timiskaming District. Services available include meals and lodgings, outfitting, and purchase of basic supplies including fuel. The town was founded after a major discovery of silver was made following the discoveries in Cobalt and Elk Lake in 1908. By 1910, 7 silver mines were in operation in Gowganda and the population of the town had reached approximately 5,000. A fire destroyed most of the community in

1911. The last silver mine closed in 1972, with the exception of a short period of silver production from the Castle Mine in the early 1980's. Since then the population has dwindled. Current population is approximately 100. Many unused structures remain in Gowanda that could be utilized for accommodations and or office space.

Gowganda is located approximately 34km west of Elk Lake (population 350), 33 kilometres southwest of Matachewan (population 450). It is centrally located between major mining centres in Timmins (235 kilometres to the northwest), Kirkland Lake (115 km to the north) and Sudbury (250 kilometres to the southwest). The closest major centre to Gowganda, is the city of Timiskaming Shores (amalgamation of New Liskeard, Cobalt and Haileybury), with a population of approximately 10,000. Most supply and service needs, including emergency medical attention, can be obtained in Timiskaming Shores. Commercial air travel, from domestic and international destinations, is available to Timmins and Sudbury. Charter air service can be obtained to the nearby communities of Earlton and Kirkland Lake. Drive time from Toronto to Gowganda is approximately 8 hours.

The power line servicing Gowganda crosses the center of the Property. Power to the area is currently supplied by a 7200 volt 3 phase service, but the transmission capacity of the service line running from Elk Lake is suitable to tie into 44 kV transmission if required. Potential nearby sources of ground and surface water are abundant. Historically utilized tailings fields associated with the past producing silver operations occur on adjacent properties, within 1km of the current property boundary. Several gold milling facilities are in operation within a 150 km radius of the Property. A new milling operation, to be operated by Northgate Minerals in Matachewan, is under construction approximately 75 km to the northeast along existing paved roads. This facility is expected to be operational by early 2012 (Northgate Minerals Corp. 2010; press release dated September 10, 2010).

5.4 PHYSIOGRAPHY

The topography of the area consists of flat topped ridges, rolling hills, lakes, and several expansive low, marshy, areas with elevations ranging from 330 metres (1,082 feet) to 430 metres (1,410 feet) above sea level. Flat lying Huronian metasedimentary rocks and Nipissing gabbro sills overlie deformed Archean greenstones and granite, forming peneplane erosional caps. The margins of these vegetation clad, butte-like features frequently form cliffs or very steep debris slopes.

6.0 HISTORY

Despite a remarkable history of silver exploration and development near Gowganda in the 20th century, no record of past exploration on the Property specifically for gold has been identified. This history is summarized adeptly in a report prepared for the Ontario Geological Survey by McIlwaine (1978). Much of the information contained in this section was derived from this report, Much of the work in the area concentrated on the exploration for silver hosted by the Nipissing gabbro (Area shown in purple in Figure 3).There are numerous undocumented trenches, pits, and small shafts located on the Property, but the bulk of the silver production in the Gowganda silver camp was concentrated approximately 1km east of the north eastern boundary of the Property. Very little exploration effort however, was expended on the underlying Archean volcanics of the area, despite prospective indications of gold associated with Archean rocks in other exposed greenstones south of the Round Lake Batholith, both to the west in Tyrrell Twp, and to east into Tudhope and Bryce Townships.

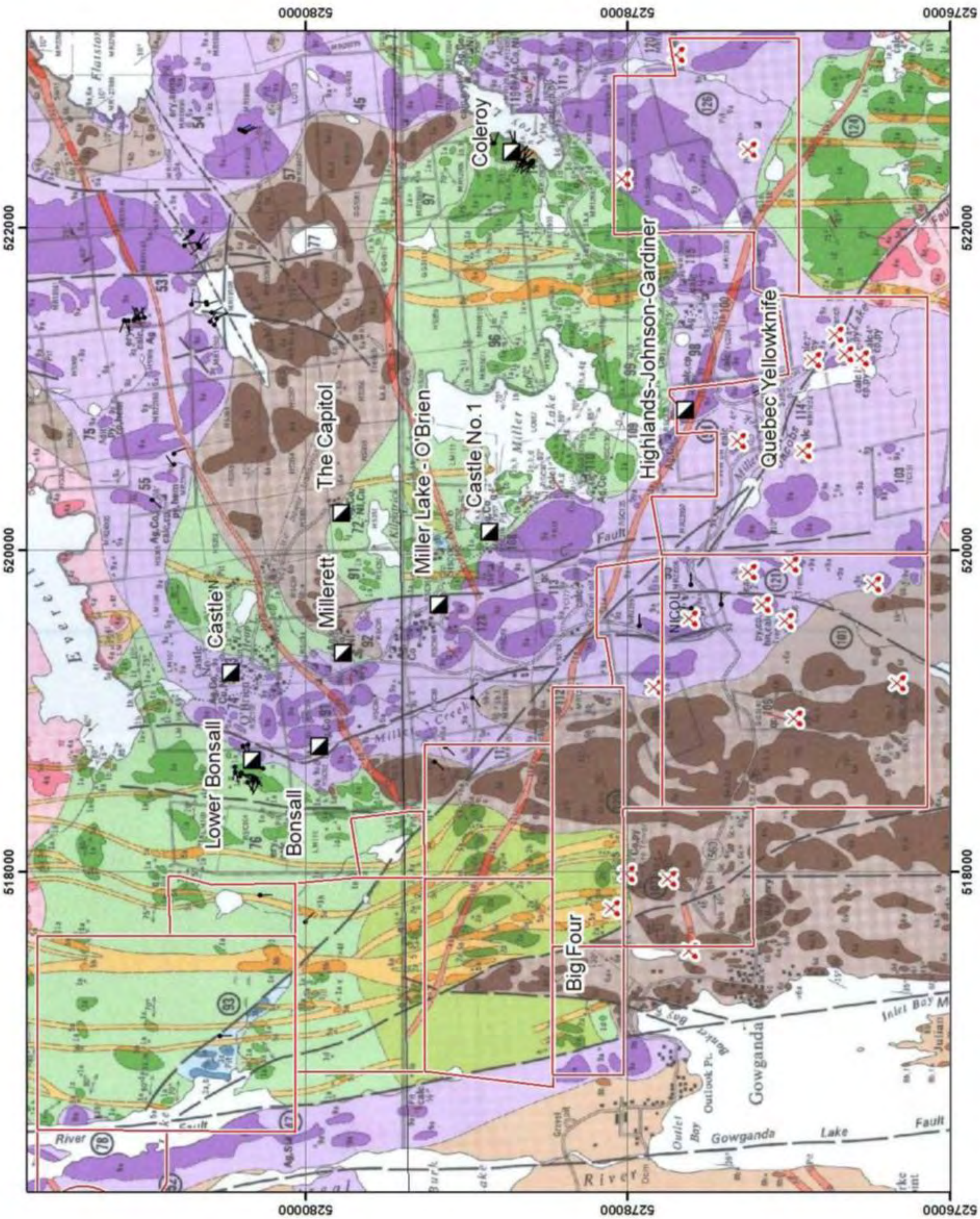


Figure 3: Former Producing Silver Mines near the Haultain Property (outline in red) - Geology from McIlwaine 1978

The history of mineral rights ownership in the area since 1907 indicates that the Property has been consecutively held by various corporations engaged in the exploration and exploitation of silver associated with calcite veins in, or very close to the upper contact of flat lying Nipissing gabbro exposed on the Nicol Township portion of the Property.

By 1926, property ownership in the area was held fractiously by a number of parties. An amalgamation of Capitol Silver Mines and Trethewey Silver and Cobalt Mines Ltd in 1929 resulted in the formation of a consolidated silver company called Castle Trethewey Mines Ltd which held ground now constituting part of the Haultain Property. Production activities of the adjacent Castle Trethewey mine ceased around 1931 and were not renewed until 1948.

The south-central part of the Property covers a portion of the former Hylands-Johnson-Gardiner property located near the upper contact of the Nipissing gabbro in the Miller Lake basin. Work started in 1925 with stripping followed by 30.5 m (100 ft) shaft (McIlwaine 1978). In 1926, the operation was taken over by Plata Mines Limited, a subsidiary of Noranda Mines Ltd., and when the mine was closed in April 1927 the shaft had been deepened to 87 m with a total of 850 m (2,800 feet) of crosscutting and drifting. In 1952, the property was optioned by the Gardiner-Johnson Property Syndicate and work included dewatering the shaft, sampling, and diamond drilling before work was suspended.

A number of claims located in the south central portion of the current property were the focus of exploration by Quebec Yellowknife Gold Mines Ltd. in 1947. Between 1947 and 1950, the company completed geological mapping, trenching, and 3 diamond drill holes (Quebec Yellowknife 1950, 1951). Mapping and trenching delineated several vein systems and one sample returned 8.41 oz Ag/t and 14.29 % copper. Other mineralization noted on the property in the assessment files includes cobaltite, bismuthinite, and chalcopyrite.

In 1951, Indore Gold Mines Limited held claims located in the southern portion of the current property. Two diamond drill holes were completed in 1951 with an additional 3 holes in 1953 (McIlwaine 1978). One hole intersected an 18 cm (0.6 foot) interval containing 30 percent chalcopyrite that returned 10.25 % copper and 0.68 oz/t silver. Several pits are located in the area south of highway 560, with associated rubble piles containing carbonate-quartz veins with bornite, chalcopyrite, and pyrite.

The Big Four showing, also historically referred to as the Banker Bay occurrence, is located in the southwest portion of the current property and was historically held by Tego Silver-Cobalt Mines Ltd. This showing includes a series of trenches and pits, and a 25 ft (7.6 m) deep shaft located on the north side of the radio tower hill, north of highway 560. In the area of the shaft and main pit, a northeast-trending, 5-6 in. (12.7 -15.2 cm) carbonate-quartz vein containing arsenopyrite, cobaltite, pyrites, and galena cuts Archean iron formation. A pyritic/sulphide iron formation with an Archean quartz porphyry footwall is located east of the shaft, and the 6 ft (1.83 m) wide sulphide iron formation becomes leaner, grading into siliceous iron formation to the north. Assay results from assessment filed by R. McDougall in 1968 returned 40.6 % sulphur and up to 10.8 oz Ag/t (336 g Ag). A total of 7 diamond drill holes totalling 214 m (705.5 feet) were completed by Caesar Mineral Ltd. in 1961 in the area east of the trenching and pitting in an attempt to trace the iron formation under the Huronian sediments. (Thoday 1961)

The consolidated Castle Trethewey property was taken over by McIntyre Porcupine Mines in 1959 and silver mining activity in the area adjacent to the Property continued until 1966. The Castle Trethway property was optioned to United Siscoe Mines in 1967, and mining was resumed in the vicinity of the Capital workings. In 1967, Siscoe Mines conducted a soil sampling program covering a large portion of the current property, then referred to as the Roy Ten Claim Group (Benjelloun 1968). Samples were collected on a sampling density of approximately 1 sample of the “B” soil horizon every 100x200’ (30.5 x 61.0 m) and analysed for silver, mercury and cobalt. Several silver anomalies were identified close to the known silver workings east of the current property, but no follow-up work was proposed. In 1972 Siscoe Mines ceased production activities in the Gowganda area and returned the property to McIntyre Porcupine Mines. (McIlwaine 1978)

In 1971, Raylloyd Mines acquired portions of the current property from P. Mclean who had previously acquired the ground east of the past producing silver claims from McIntyre Porcupine Mines referred to by Siscoe as the Roy Ten Group (Raylloyd Mines 1972). Raylloyd completed 3 drills holes into magnetic and IP targets believed to be prospective for hosting nickel (Raylloyd Mines 1972). This work was successful in confirming the presence of a large peridotite/dunite body located in the northwest portion of the property, however no prospective indications for nickel were observed.

In 1973, The Teme-Augama Anishnabai first nation (TAA) exercised a land caution against development on the Crown land of 10,000 square kilometres, most of the Temagami area. The Attorney General of Ontario pursued legal action against the Band for this caution. From 1973 to the date the caution was lifted in 1998, exploration activities in the area were curtailed by the uncertainty regarding land tenure. (Ministry of Aboriginal Affairs, Ontario 2011)

In 1979, the remaining Castle Trethewey Mines Ltd property, located adjacent to the Haultain Property, was optioned by Agnico Eagle Mines Ltd. and some ore was extracted from the area of the Castle No. 3 shaft. Between 1979 and 1989 a total of 101,024 tonnes were milled in the Cobalt mill producing 91,421,294 grams silver (2.67 million ounces of silver), 34,597 kilograms cobalt and 10,180 kg copper (Kirkland Lake Resident Geologists Office).

In 2006, Temex Resources completed a purchase of the Miller Lake O’Brien Silver Property, located adjacent and to the east of the Haultain Property, and related assets and facilities from Sandy K Mines. The property includes former past producing Miller Lake O'Brien Mine with historical production of 40.7 million ounces of silver at an average grade of 22 ounces of silver per ton (Temex 2010). Since 2006, Temex has conducted preliminary assessments of the exploration potential of the property and has investigated the revenue potential from processing tailings containing a 43-101 non-compliant resource estimate of 1.87 million tons grading 1.43 ounces silver per ton.

The adjacent Castle Trethewey Mines Ltd property was acquired by Gold Bullion Development Corp. who completed preliminary metallurgical testing on a grab composite sample of silver tailings material extracted from the tailings pond in 2008. A concentrate was produced containing 8408.75 grams per tonne silver (245.25 ounces per ton silver) 2.12% cobalt and 12.64% arsenic.

From 1999 to 2009, a property position roughly similar to Siscoe’s Roy Ten claim grouping was staked and worked by Gowganda based prospector, Sherry Swain. Prospecting work undertaken by Swain on claim 1248799 in 2006 resulted in the identification of anomalous gold values associated with prospectively altered and deformed Archean greenstones located west of the historical silver workings. Subsequent small scale stripping around prospectively altered looking exposures on the property between 2006 and 2008 resulted in the identification of several additional zones of anomalous gold mineralization. In 2008, a grab sample containing 15.6 g/t Au was obtained on claim 1248799 by the property owner from a piece of glacial derived float rock (Swain 2009). In 2008, the property was briefly optioned by Norcanex Resources Ltd. who undertook a high resolution airborne magnetic survey covering the property, but returned the property to the owner without completing any physical work on the property.

In July of 2010, the claims owned by S. Swain were optioned by Transition Metals, and areas peripheral to the Swain claims were staked to complement the existing property position. To date, work completed by Transition Metals includes trenching, stripping, mapping, diamond drilling and sampling, the results of which are detailed in the following sections.

7. GEOLOGICAL SETTING

7.1 REGIONAL GEOLOGY

The following description of the Abitibi greenstone belt is from Ayer et al. (2002, 2005) and Thurston et al. (2008) and on the references found in those papers. The Abitibi greenstone belt is composed of east-trending synclines of mainly volcanic rocks and intervening domes cored by synvolcanic and/or syntectonic plutonic rocks (gabbro-diorite, tonalite, and granite) alternating with east-trending bands of turbiditic wackes (Figure 4). Most of the volcanic and sedimentary rock dip vertically and are generally separated by east-trending faults with variable dips. Some of these faults, such as the Porcupine-Destor fault, display evidence for overprinting deformation events including early thrusting, later strike-slip and extension events. There are two ages of unconformable successor basins, early, widely distributed “Porcupine-style” basins of fine-grained clastic rocks, followed by later “Timiskaming-style” basins of coarser clastic and minor volcanic rocks which are largely proximal to major strike-slip faults (e.g. Porcupine-Destor, Larder-Cadillac). Numerous late-tectonic plutons from syenite and gabbro to granite with lesser dikes of lamprophyre and carbonatite cut the belt.

Metavolcanic and metasedimentary rocks of the Abitibi greenstone belt have been subdivided into a series of assemblages. The Pacaud assemblage is the oldest supracrustal unit in the southern Abitibi, with rhyolites ranging from 2747 to 2736 Ma. It occurs on the flanks of the Round Lake batholith with a basal intrusive contact with granitoid units (Figure 4). The thickest remnant of the Pacaud assemblage occurs in the Shining Tree area where it is represented by tholeiitic mafic volcanic rocks with lesser komatiite and calc-alkaline intermediate to felsic volcanic rocks. Units of the 2730 to 2724 Ma Deloro assemblage occur as homoclinal panels underlain by the Pacaud assemblage on the northeastern flank of the Round Lake batholith, and on the northern flank of the Ramsey-Algoma batholith in the Shining Tree and Swayze areas. The Deloro assemblage is composed of calc-alkaline flows and pyroclastic rocks capped by a sedimentary interface zone consisting of a regionally extensive iron formation and related hydrothermal breccias and debris flows. The 2723 to 2720 Ma Stoughton-Roquemaure assemblage, characterised by broad regions of tholeiitic basalts, komatiitic basalts, and komatiites with several relatively minor felsic volcanic centers, is located on the southeast flank of the Round Lake batholiths. Units of the Kidd-Munro assemblage have been subdivided into the 2719–2717 Ma lower part consisting of dominantly intermediate to felsic calc-alkaline volcanic rocks, and the 2717–2711 Ma upper part consisting of tholeiitic and komatiitic units with graphitic metasedimentary rocks and localized felsic volcanic centers. In the Shining Tree area, 2717 Ma rocks of this assemblage occur in Tyrrell Township. The 2710 to 2706 Ma lower Tisdale assemblage consists of mafic tholeiitic flows with locally developed komatiite and intermediate to felsic calc-alkaline volcanic rocks and iron formation and has been correlated with 2707 Ma rocks in the northwest portion of the Shining Tree area. Calc-alkaline intermediate to felsic volcanic rocks of the 2701 to 2696 Ma upper Blake River assemblage occur in the Kirkland Lake and central Swayze areas.

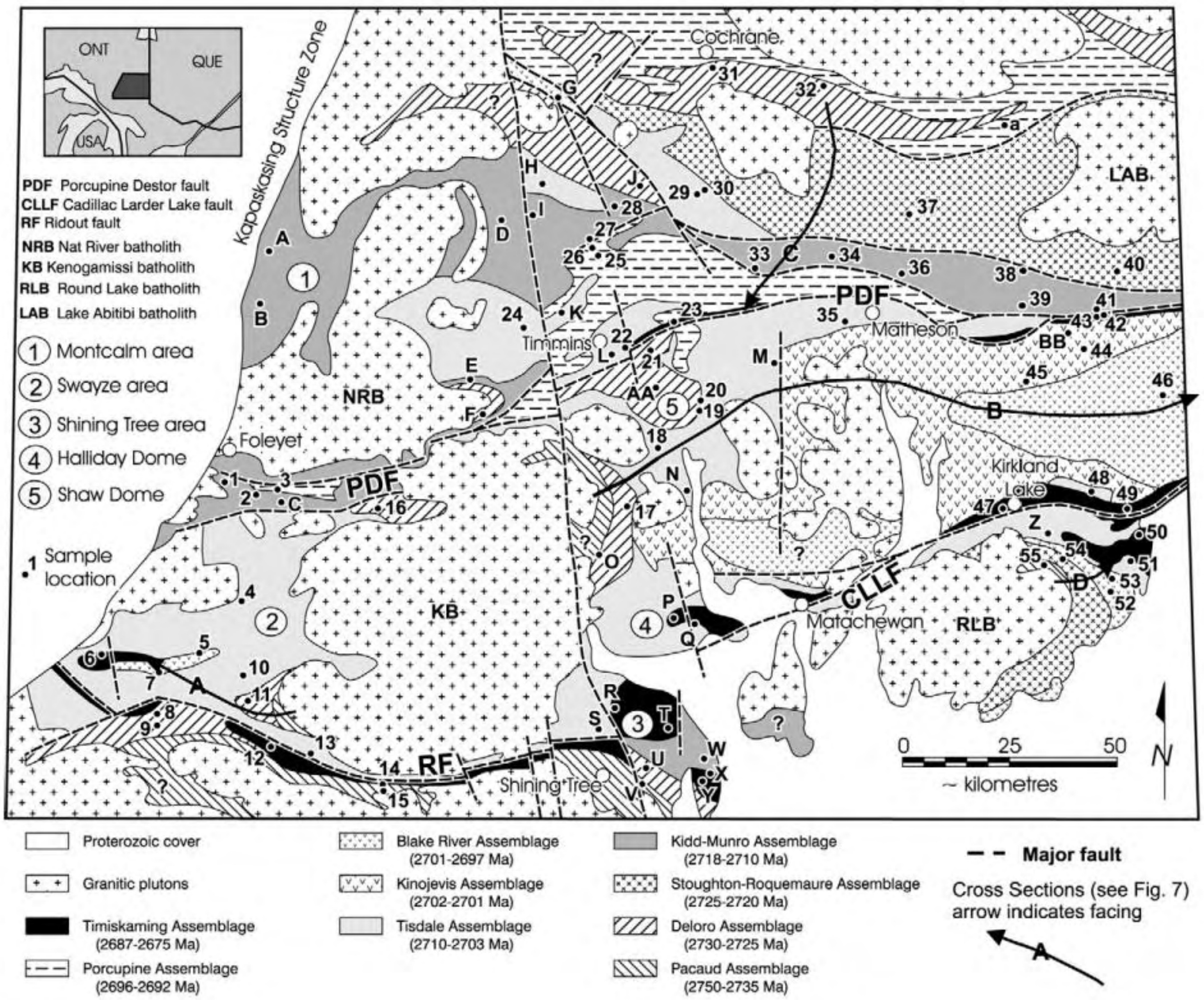


Figure 4: Regional geology of the southern Abitibi greenstone belt (Ayer et al. 2002)

There are two types of successor basins are present in the Abitibi greenstone belt: early Porcupine assemblage and the late Timiskaming assemblage. The 2690 to 2685 Ma age Porcupine-type basins form wacke-dominated, kilometre-scale sequences unconformably overlying the metavolcanic and sedimentary rocks and are transitional into much more extensive basins (e.g. Pontiac subprovince). In the northern Shining Tree area, the 2687 Ma Natal Group consists of proximal volcanic flows and breccias of shoshonitic affinity in the southeast grading to fine-grained volcaniclastic rocks and turbidites. The 2677 to 2670 Ma Timiskaming assemblage includes alluvial-fluvial conglomerates, sandstones, turbidites, and alkalic to calc-alkaline volcanic rocks that unconformably overlie metavolcanic rocks and/or Porcupine assemblage units.

The Indian Lake Group, in the Shining Tree area, consists of 2740 and 2702 Ma immature, coarse-grained, quartz-rich, lithic arenites and conglomerates locally with 2688 Ma felsic volcanic rocks. The volcanic rocks and coeval plutons range from ultrapotassic to shoshonitic and closely resemble potassic-rich rocks.

The plutonic rocks of the Abitibi greenstone belt were subdivided by Ayer et al. (2005) into synvolcanic, syn-tectonic and post-tectonic intrusions. The synvolcanic intrusions were further subdivided in to felsic to intermediate and mafic to ultramafic intrusions. Felsic to intermediate synvolcanic intrusions range in age from about 2745 to 2696 Ma and are coeval with, and geochemically similar to, the volcanic assemblages. These intrusions predate significant compressional strain, are typically foliated tonalite to granodiorite, and are found predominantly within the larger granitic complexes (e.g. Ramsey–Algoma, Round Lake) batholiths. Mafic to ultramafic synvolcanic intrusions range from approximately 2740 to 2700 Ma and mainly occur as peridotite to gabbro and diorite sills or lenticular units that cut stratigraphy at a low angle. Syn-tectonic plutons range may be related to the deformational events and can be subdivided into early and late series. Early 2695 to 2685 Ma tonalite, granodiorite, diorite and feldspar±quartz porphyries with adakitic geochemistry similar and coeval to the Porcupine assemblage volcanic rocks occur as stocks within the greenstone belt and as major portions of the surrounding batholithic complexes. Late 2680 to 2672 Ma syntectonic intrusions are broadly coeval with the Timiskaming assemblage, and are relatively small, occurring in close proximity to the main faults (e.g. Larder Lake - Cadillac deformation zone). These intrusions are typically alkalic, consisting of monzonite, syenite and albitite with the more mafic phases including diorite, gabbro, clinopyroxenite, hornblendite and lamprophyre. Late-tectonic intrusions range in age from about 2670 to 2660 Ma and are typically massive and occur within batholiths and the greenstones. They consist of “Algoman” biotite granite, pegmatite and biotite-muscovite S-type granite.

A number of mafic dykes swarms cut the rocks of the Abitibi greenstone belt (Osmani 1991). The 2454 Ma Matachewan dykes are north-trending, vertical to sub-vertical and composed of quartz diabase and commonly contain plagioclase phenocrysts up to 20 cm in length. West to northwest-trending, vertical dykes of the 1238 Ma Sudbury dyke swarm are generally medium to coarse-grained with ophitic to subophitic textures olivine tholeiites. The 1140 Ma east to northeast-trending olivine gabbro to monzodiorite dykes of the Abitibi dyke swarm may be related to the Keewanawan Midcontinent Rift event.

The Archean rocks are unconformably overlain by Paleoproterozoic rocks of the Huronian Supergroup, which were deposited in a north-trending graben referred to as the Cobalt Embayment in the area overlying the Abitibi greenstone belt. Four formations, the Gowganda, Lorrain, Gordon Lake, and Bar River, were deposited in the Embayment and form the upper most sedimentary cycle of the Huronian Supergroup collectively referred to as the Cobalt Group (Bennett et al. 1991). The Gowganda Formation has been subdivided in to the lower Coleman Member consisting of clast and matrix supported conglomerate, and the upper Firstbrook Member consisting of pebbly wacke, wacke, siltstone, mudstone, and arenite. The Coleman Member conglomerates have been interpreted to have been glacial or alternatively debris flows or turbidity currents. The finer sediments of the Firstbrook Member have been interpreted to have been deposited in a deltaic environment. Lorrain Formation arkose and quartz arenite conformably overly the Gowganda Formation and sedimentary structures found in this formation would support either a shallow marine or fluviatile depositional environment.

Gabbroic rocks of the Nipissing Intrusive event intrude all older rocks of the Cobalt Embayment forming sills, dykes and undulating sheets up to a few hundred metres thick (Bennett et al. 1991). A two pyroxene gabbro is the most common lithology in the Nipissing but olivine gabbro, hornblende gabbro, feldspathic pyroxenite, leucogabbro, and granophyric gabbro and granophyres are also present. The 2219 Ma Nipissing gabbro may have originated from a radiating dike swarm related to the 2217-2210 Ma Ungava magmatic event located under the Labrador Trough fed via the 2216 Ma Senneterre dykes which form part of the radiating dike swarm (Ernst 2007). Locally, emplacement of the Nipissing appears to have been controlled by pre-existing structures in the Huronian and Archean basement rocks.

Supracrustal units in the Abitibi greenstone belt are dominated by east-west striking volcanic and sedimentary assemblages and east-trending Archean deformation zones and folds. Larger batholithic complexes external to the supracrustal rocks (e.g. Round Lake) represent centres of structural domes. The intervening areas define belt-scale synclinoria that deformed during a number of distinct periods. This pattern is interrupted by the trends of Porcupine and Timiskaming assemblage rocks which unconformably overlie the older assemblage. Older syntectonic intrusions (2695–2685 Ma) may be related to the compressive stresses that induced early folding and faulting related to the onset of continental collision between the Abitibi and older sub provinces to the north. Younger syntectonic intrusions (2680–2670 Ma) are coeval with the Timiskaming assemblage and are spatially associated with the Porcupine Destor and Larder Lake Cadillac deformation zones. The late tectonic intrusions (2670–2660 Ma) are possibly synchronous with D4 folding within the Timiskaming assemblage rocks in the Timmins area and represent the final stage in transpressional deformation along the Porcupine Destor deformation zone and may be correlative with the D2 event identified in the Kirkland Lake–Larder Lake area. The regional deformation zones commonly occur at assemblage boundaries and are spatially closely associated with long linear belts representing the sedimentary assemblages (i.e., Porcupine and Timiskaming). It has been proposed that the regional association of the Porcupine Destor and Larder Lake Cadillac deformation zones and major assemblage boundaries are proximal to the locus of early synvolcanic extensional faults.

7.2 PROPERTY GEOLOGY

An inlier of Archean rocks located in the northwestern portion of the Property, centered in western Haultain Township, consists of predominately of ultramafic, mafic, and intermediate to felsic volcaniclastic metavolcanic rocks interbedded chemical chert-magnetite oxide facies iron formation and clastic metasedimentary rocks (Figure 5) (Collins 2010). A series of syn-tectonic gabbro, lamprophyre, and syenite dykes cross cut the metavolcanic and appear to be restricted to the area of the Jacobs Lake Fault. An intermediate to felsic body intrudes the southern portion of the inlier, and intermediate to felsic plutonic rocks of the Round Lake Batholith intrude the metavolcanic rocks along the north edge of the Property. North to northwest-trending Matachewan diabase dyke swarm cut all younger units, and several northeast-trending Abitibi diabase dykes cross the Property. The Archean rocks are variably deformed and folded and cut by the northwest-trending Jacobs Lake fault. Regional metamorphism reached lower to middle greenschist facies.

In the southeastern portion of the Property, mainly in Nicol Township, the Archean rocks are overlain by Proterozoic age Huronian Supergroup intruded by sills of Nipissing Gabbro (Collins 2010). The Cobalt Formation of the Huronian Supergroup consists of feldspathic arenite, feldspathic greywacke, and paraconglomerate of the Gowganda Formation and feldspathic and micaceous sandstones of the Lorrain Formation. Nipissing Gabbro sills are mainly composed of pyroxene gabbro with limited subophitic textures and occasional granophyric phases in the upper portions.

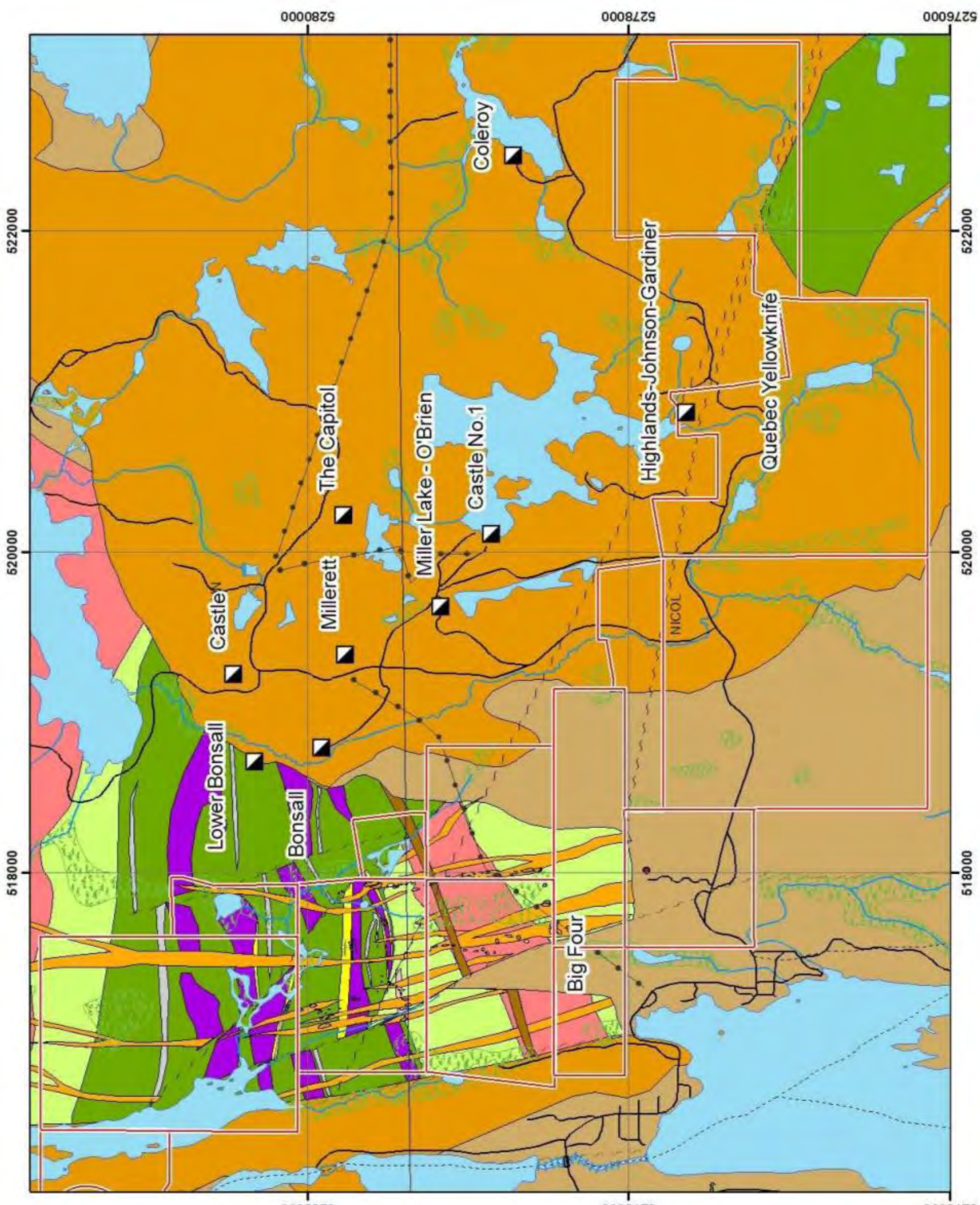


Figure 5: Local geology of the Haultain Property (outline in red) – Collins 2010 (after McIlwaine 1978)

7.2.1 METAVOLCANIC ROCKS

7.2.1.1 Ultramafic to Mafic Metavolcanic Rocks

Classification of the metavolcanic rocks is based on colour index and textures and the ultramafic to mafic metavolcanic rock are interpreted to dominate the volcanic sequence north from the area of the exploration trenches to the north edge of the Property. Many of the units have been referred to as massive flows, but in most cases are moderate to well foliated units that may have a flow or volcaniclastic origin. These units are fine- to medium-grained, medium to dark green to green grey with pale green mica and moderate to strongly carbonatized. A number of poorly exposed outcrops located along a west to northwest strike with, and about 100 m from, Trench 3 have an alteration style similar to units classified as ultramafic rocks during trench mapping. A spinifex-textured flow was intersected in drill hole TMH10-01 in the lower half of the hole and would project to surface in the area south of Trench 3. Two units located along the trench access trail, on the east side of the Property, are massive to weakly foliated, medium-grained, dark green, and strongly magnetic and tentatively identified as ultramafic in composition.

Several units were classified as tuffaceous based on a schistose to bedded appearance, and one example appeared to be <1.0 m in thickness. In the northern portion of the Property, east of Dinny Lake, and along the stream northwest of Trench 4, the mafic tuffs have a well developed, west-trending cleavage and fine bedding with interbedded with occasional <0.5 m thick, more massive units. As a result of the well developed cleavage, these tuffs resemble siltstones and may be comparable to the narrow sedimentary units, composed mainly of quartzite, noted east of Miller Lake by McIlwaine (1978).

Two types of coarse volcaniclastic units were observed, a monolithic, moderately well foliated mafic lapilli tuff or debris flow and a heterolithic, weakly foliated to massive debris flow. The heterolithic debris flow contained clasts with spinifex-like textures and, depending on the composition of the matrix, may be more properly classified as ultramafic rather than mafic units. A good example of the heterolithic debris flow is exposed in the north-central portion of Trench 3 and 2.

7.2.1.2 Felsic to Intermediate Metavolcanic Rocks

The felsic to intermediate metavolcanic rocks consist of massive and volcaniclastic units interbedded with ultramafic to mafic metavolcanic rocks south of the exploration trenches. The massive units are fine- to medium-grained, massive to weakly foliated, medium grey to grey-pink and variably porphyritic with quartz and feldspar phenocrysts and could be intrusive in origin. Examples of more massive porphyritic units are exposed in the area close to the town of Gowganda and along the north side of Tower Hill, and in the area south of the trenches. A number of units in the area south of the trenches are coarse volcaniclastics composed of predominately pebble to cobble-size, rounded to subrounded dacite clasts with occasional quartz porphyritic rhyolite clasts and occasional mafic, chlorite-rich clasts in a dacitic tuffaceous matrix. A similar unit was intersected in the lower portion of drill hole TMH10-01 interbedded with the ultramafic to mafic volcanic rocks. The volcaniclastic rocks occur as metre scale units interlayered with the mafic volcanic and tuffaceous rocks. The mixture of clast compositions suggests that the volcaniclastic units are debris flows or volcanic sediments. McIlwaine (1978) described the felsic to intermediate metavolcanic rocks in thin sections as being composed of phenocrysts of plagioclase (oligoclase) and quartz in a groundmass composed of a mosaic of quartz, feldspar, secondary white mica, and lesser amounts of carbonate and secondary amphibole.

7.2.2 METASEDIMENTARY ROCKS

7.2.2.1 Chemical Metasedimentary Rocks

A thin-bedded chert-magnetite, oxide facies iron formation outcrops on the north side of the radio tower hill, east of Gowganda and north of the highway. The iron formation appears to be over 2 m thick, but is complexly folded hindering the identification of the original thickness. The unit strikes west with a steep north dip and is in contact with a quartz porphyritic felsic flow, or possible sill, to the south. Outcropping of the iron formation in two locations approximately 50 m apart, north-south, may indicate the presence of more than one iron formation, or a structural offset of one unit. A portion of the iron formation, located to the east of the Big Four shaft, is composed of massive to bedded pyrite which was described by McIlwaine (1978) as grading laterally into oxide facies iron formation.

7.2.2.2 Clastic Metasedimentary Rocks

Clastic metasedimentary rocks consist of mudstones and argillites exposed in the old trench located south of Trench 3, and as siltstone in the south end of trench 2 and along the trail to the east. The mudstones are very thin-bedded to laminated, black units forming a horizon <5 m thick interbedded with ultramafic to mafic metavolcanic rocks. The siltstones are thin-bedded, light green grey to grey units and appear to be located near the south edge of the Jacobs Lake fault zone. Beds are generally massive, but rare graded beds suggest an overturned, north dipping orientation. The age of these units is not clear but they are considered to be Archean as they are interbedded with the Archean metavolcanic rocks and lack the immature alkali feldspar clasts common in Timiskaming-type sedimentary rocks.

7.2.3 SYNVOLCANIC INTERMEDIATE TO FELSIC INTRUSIVE ROCKS

Medium to coarse-grained porphyritic units are exposed in the area south of the trenches and the southwest part of the Property. A lack of contact relationships means that these units could be either extrusive or intrusive. Their position within the metavolcanic rocks suggests that if intrusive in origin, that they are subvolcanic in nature.

7.2.4 SYN-TECTONIC ULTRAMAFIC TO MAFIC INTRUSIVE ROCKS

A series of ultramafic intrusive bodies were emplaced along a westerly trend extending from Miller Lake in the east to Dinny Lake to the west. Although classified as peridotites during the 2010 fall field season, McIlwaine (1978) referred to these bodies as being composed of serpentinized dunite. The peridotites are medium- to coarse-grained, massive, dark green to dark grey green with some outcrops displaying a polygonal texture suggesting a chill margin as in the old trench west of trench 2 and along the northwest shore of Miller Lake. Some fractures contain a very coarse-grained, serpentine group minerals including crysotile asbestos, as observed in a boulder located in the sediment trench located west of trench 2. McIlwaine (1978) reported that these rocks are composed of 50 to 80 % serpentine, 7 to 40 % magnetite, 5 to 40 % chlorite, trace to 15% talc, 2 to 3 % sulphide minerals, and traces of biotite, carbonate, and pyroxene.

A fine- to medium-grained, massive, dark green to grey green gabbro was observed on the north side of the chain of swamps draining northwest into Dinny Lake. The unit appeared to be weakly to moderately altered, and hornblende-rich. Close to the old silver exploration pit, the gabbro contained trace to 1%, medium-grained, disseminated, subhedral pyrite. McIlwaine (1978) reported that in thin section the gabbro consists of 40 to 50 % saussuritized plagioclase, 40 to 50 % uralitized pyroxene, less common are 5 to 15% chlorite, 2 to 3% sulphide minerals, and traces of apatite and quartz.

The ultramafic and mafic intrusive rocks are intruded by 2450 Ma Matachewan diabase dykes and appear to be overlain by sediments of the Huronian Gowganda Formation indicating that they are late Archean or early Proterozoic age. McIlwaine (1978) suggested that the gabbro may surround the ultramafic rocks forming a zoned ultramafic intrusion, but no evidence was noted to support this interpretation. Alternately, the gabbro could form part of a thick flow, as McIlwaine (1978) observed similar coarse-grained cores to thick flows to the west of the Property, near the north end of Firth Lake to the west of the Property.

7.2.5 SYN-TECTONIC INTERMEDIATE TO FELSIC INTRUSIVE ROCKS

A swarm of medium to coarse-grained, massive to weakly foliated, intermediate to felsic dykes, ranging from grey green to reddy brown, intrude the highly altered and deformed metavolcanic rocks within the Jacobs Lake fault zone. The dykes trend west to northwest, and appear to dip steeply north. There appears to have been at least two generations of dykes as the older dykes and gold mineralized quartz-carbonate veins are cut by younger dykes. The grey green dykes are interpreted to be unaltered, with the various shades of pink to reddy brown representing varying degrees of potassic and or hematite alteration, which appears to have affected the older and younger dykes equally. Fresh samples consist of approximately 60% alkali feldspar, 30% plagioclase, 5% biotite/augite and a variable amount of dolomitic/iron carbonates. The dykes, classified as syenites based on their field and whole rock geochemical characteristics, are variably hematite and silica altered. All the dykes are altered to varying degrees resulting in a weathered to a rusty/leached rind ranging from 1 to 10 cm on all exposed bedrock surfaces.

The older dykes are generally a few metres to tens of metres thick but vary in width along strike. Contacts between dykes are not always obvious, due to the patchy nature of the alteration. Irregularly distributed areas within the dykes contain a highly variable percentage of subangular to irregularly shaped up to 3.5 cm, dark green to black, chlorite fragments, medium to coarse-grained green mica, and subrounded up to 1 cm chert/quartz fragments and rare up to 20 cm rounded granite fragments. The fragment content is highly irregular and some older dykes contain predominately clots of green mica with a little or none of the other fragment types.

The younger dykes are generally less than a metre thick with chloritic chill margins when intruding the ultramafic to mafic metavolcanic units. Spherulitic textures are common and thought to be the result of quenching during emplacement, but may disappear along the length of a dyke. Some of the less altered dykes have a mafic appearance and further geochemical and petrographic work is required to properly distinguish the types of dykes present on the Property.

7.2.6 LAMPROPHYRE DYKES

Dark brown, fine to medium grain biotite-rich dykes cut all older metavolcanic and intrusive units and quartz-carbonate veining. The biotite varies from fine-grained in the chill margins to coarse-grained in the core of the dykes. Relict olivine phenocrysts up to 1cm in diameter were also observed.

7.2.7 MATACHEWAN DIABASE DYKES

The north-to northwest-trending, 3 to 120 m wide dykes cut the Archean units, but not the Huronian sediments or Nipissing Gabbro sills. Bifurcation results in some wider exposures of dyke and localized areas with west-trending contacts. The dykes are massive in texture, composed of fine to medium grained, medium grey feldspar and dark grey to black pyroxene with aphanitic chilled margins. Locally, the dykes are feldspar porphyritic, with tabular to subrounded phenocrysts up to 4 cm in length that are either randomly oriented or occasionally aligned sub-parallel to the dyke margins. Although the magnetic character of the dykes means they are easily traced using magnetic surveys, a complex branching is evident during detailed mapping on the Property.

7.2.8 HURONIAN SUPERGROUP

Rocks of the Gowganda Formation of the Cobalt Group are exposed in Nicol Twp, within the southwest portion of the Property unconformably overlying the Archean rocks. The dominate units are conglomerates of the Coleman Member which consist of sand-sized, rounded to sub-rounded, quartz and feldspar grains in a muddy siliceous and chloritic matrix containing pebble to boulder sized clasts of rounded to sub-rounded, granitic with lesser amounts of gabbro and metavolcanics. Clast density varies over short distances from small and densely packed pebbles to larger isolated cobbles and boulders.

7.2.9 NIPISSING GABBRO (DIABASE) SILLS

Diabase sills are present in the east and west portions of the Property intruding Gowganda Formation and Archean metavolcanic rocks. The sills are grey to brown, fine to coarse grained, massive pyroxene or amphibole gabbro. A medium-grained, massive, gabbro containing light pink feldspar phenocrysts collected from the southwest edge of the Property may represent a granophyre phase occasionally reported in the sills. The sills may be up to 150 m thick and were emplaced as shallowly dipping undulating sheets intruding both Huronian sediments and Archean rocks. McIlwaine (1978) reports that the diabase is composed of 40 to 56% saussuritized plagioclase (calcic andesine to sodic labradorite), up to 45% augitic pyroxene or amphibole, with minor quartz, chlorite, biotite and magnetite.

7.2.10 ABITIBI DIABASE DYKES

Several northeast-trending, vertically dipping quartz diabase dykes up to 30 m thick interpreted to be part of the Abitibi dyke swarm cross the central portion of the Property. The dikes are massive, equigranular, medium-grained dark green to greenish grey quartz diabase.

7.2.11 SUDBURY DIABASE DYKE

A northwest-trending, approximately 30 m thick olivine diabase dyke interpreted to be related to the Sudbury dyke swarm crosses the central portion of the Property. The dyke is a fine- to medium-grained, grey to black, and locally porphyritic with plagioclase phenocrysts are up to 5 cm in length.

7.2.12 STRUCTURE

The Archean rocks in the north portion of the Property have west-trending foliations with vertical to sub-vertical dips, with foliation trends to the southwest to southeast in the central and southern portions of the Property suggesting the presence of regional folding. The Huronian sediments are generally flat-lying unconformably overlying the Archean rocks. Undulations in the Nipissing gabbro are considered primary and are probably the result of local variations in stress at the time of sill emplacement similar to the mechanisms proposed for the undulating sills of the Nipigon Embayment (Hart and MacDonald 2007).

Two fault orientations, northwest and north-northeast-trending, have been observed on the Property, but McIlwaine (1978) also noted the presence of northeast and east-trending faults in the areas bounding the Property. The potential for these other faults is noted but have not been observed to date. The northwest-trending Jacobs Lake fault crosses through the centre of the Property and hosts the syenite dykes and altered metavolcanic rocks currently being explored for gold mineralization. In the area of the 2010 exploration trenches, the fault zone forms the boundary between the northeast-trending metavolcanic rocks to the south and the west-trending metavolcanic rocks to the north. Within the fault zone, the moderate to highly deformed metavolcanic rocks have northwest to west-trending foliations and shearing, and the syenite dykes intrude along this foliation. A highly sheared, graphitic clastic metasedimentary unit appears to occur along the south side of the fault, as exposed in the exploration trenches.

Carbonatization and quartz veining is common in most units within the fault zone. McIlwaine (1978) found evidence of an about 30 m (100 feet) of right-hand displacement of Matachewan-type diabase dikes in the eastern portion of the Property, and carbonatization and shearing in the cliffs along Jacobs Lake, southeast of the Property, A sub-parallel structure was interpreted by McIlwaine (1978) to trend south from Dinny Lake through the area of the Big Four showing.

Although the Jacobs Lake fault has been included as part of the Lake Timiskaming Rift Valley as an en echelon extension of the Net Lake fault (e.g. McIlwaine 1978), the present of Archean intrusive rocks within the fault suggest that the Jacobs Lake fault is an Archean aged structure. North to northeast-trending faults with offsets of up to a few metres were observed during the mapping of Trench 3. These faults appear to be late structures offsetting all lithologies present in the trench, and may be related to the late north-trending faults that offset mineralization in the silver mines to the east of the Property, such as the C fault in the Siscoe Mine and the No.6 fault in the Castle Tretheway Mine (Moore 1955).

8. MINERAL DEPOSIT TYPE

8.1 LODE GOLD MINERALIZATION

The primary exploration target on the Property is lode gold mineralization hosted by Archean intrusive and metavolcanic rocks which outcrop and are interpreted to extend beneath bounding exposures of Huronian metasediments and Nipissing gabbro. The Abitibi greenstone belt is known to host numerous world class economic lode gold deposits that have produced in excess of 60 million oz of gold to date (e.g. Dome, Sigma, Macassa). Within this general class of deposits, there are features of a number of different gold deposit models that appear to apply to the gold mineralization on the Haultain Property, including the greenstone-hosted quartz-carbonate vein deposit type of Dubé and Gosselin (2007), the syenite-associated disseminated gold deposit type of Robert (2001), and the gold and copper-gold porphyry deposit type of Sinclair (2007) that may be important guides for exploration on this property.

8.1.1 Greenstone-hosted quartz-carbonate vein deposits

Gold mineralization on the Haultain Property is in many respects consistent with the greenstone-hosted quartz-carbonate vein deposit type, which is a subtype of lode gold deposits, also known as mesothermal, orogenic, lode gold, shear-zone-related quartz-carbonate or gold-only deposits (Dubé and Gosselin 2007). This style of mineralization consists of simple to complex networks of gold-bearing, laminated quartz-carbonate fault-fill veins in moderately to steeply dipping, compressional brittle-ductile shear zones and faults, with locally associated extensional veins and hydrothermal breccias. Gold is mainly confined to the vein networks but may also be present in significant amounts in iron-rich sulphidized wall rock selvages or within silicified and arsenopyrite-rich replacement zones. The host rocks are dominantly mafic rocks of greenschist to locally lower amphibolites facies, but may include a wide variety of rock types including mafic and ultramafic volcanic rocks, competent iron-rich differentiated tholeiitic gabbroic sills, granitoid intrusions, porphyry stocks and dykes and clastic sedimentary rocks. Mineralization is syn- to late-deformation and typically post-peak greenschist-facies or syn-peak amphibolites facies metamorphism and generally formed at 5-10 km depth.

This type of deposit is distributed along major compressional to transpressional crustal-scale fault zones in deformed greenstone terranes Dubé and Gosselin (2007). Generally gold mineralization is associated with second and third order compressional reverse-oblique to oblique brittle-ductile high-angle shear and high-strain zones commonly located within 5 km of the first order fault. However, brittle faults associated with Timiskaming-like regional unconformities may also be the main host to gold mineralization as present along the Kirkland Lake Main Break. Structural traps, such as fold hinges or dilational jogs along faults or shear zones, may be important in locating the orebodies.

The proximal alteration haloes are typically zoned and the mineral assemblages vary with metamorphic grade, and reflect the depth of formation. At greenschist facies, iron-carbonatization and sericitization, with sulphidation of the immediate vein selvages (mainly pyrite, less commonly arsenopyrite) is reflected by enrichments in CO_2, K_2O, and S, and leaching of Na_2O. Haloes to the vein, consisting of various amounts of chlorite and calcite and locally magnetite, vary in size depending on the composition of the host rocks and may entirely envelope deposits hosted by mafic and ultramafic rocks. Pervasive chromium- or vanadium-rich green micas and ankerite with zones of quartz-carbonate stockworks are common in sheared ultramafic rocks. At amphibolites facies, the common hydrothermal alteration assemblages include biotite, amphibole, pyrite, pyrrhotite, and arsenopyrite, and, at higher grades, biotite/phlogopite, diopside, garnet, pyrrhotite and/or with variable proportions of feldspar, calcite, and clinozoisite.

8.1.2 Syenite-associated disseminated gold deposits

A key characteristic of the gold mineralization observed on the Property is its close apparent relationship to late syntectonic potassic altered syenite dykes. A group of Archean gold deposits spatially associated with quartz-monzonite to syenite stocks and dikes that occur mainly along major fault zones (e.g. Duparquet, Matachewan, Harker-Holloway, Ross) was described by Robert (2001) as syenite-associated disseminated gold deposits. Gold mineralization is associated with disseminated sulphide replacement zones with variably developed stockworks of quartz-carbonate+/-K-feldspar veinlets, within zones of carbonate, albite, K-feldspar, and sericite alteration that occur within composite syenitic stocks or along their margins, along satellite dikes and sills, and along faults and lithologic contacts away from intrusions. The syenitic intrusions are broadly contemporaneous with deposition of Timiskaming sedimentary rocks which have been overprinted by subsequent regional folding and related penetrative cleavage. These gold deposits are considered distinct from quartz-carbonate vein deposits, which can also be hosted by pre-Timiskaming syenitic intrusions

The intrusions associated with these deposits range in composition from quartz-monzonite to syenite, form small stocks, commonly elongated subparallel to the overall structural trend, and are generally surrounded by numerous satellite dykes. In some deposits (e.g. Holt-McDermott), only dykes are exposed and no related stocks have been identified. The stocks are composite, multiphase intrusions and the presence of several textural types of dikes in some deposits ranging from equigranular to porphyritic, with K-feldspar phenocrysts in a fine-grained to aphanitic groundmass. Overprinting fault and shear zones are also common in these deposits and range from relatively ductile shear zones to narrow brittle faults.

Orebodies consist of zones of disseminated sulphides with variably developed stockworks characterized by an increase in sulphide content, gold grades, and intensity of stockwork fracturing. An abundance of microveinlet stockworking and fracturing may result in a breccia appearance. The orebodies represent replacement zones that lack through-going, tens of meters long quartz-carbonate veins typically present in greenstone hosted quartz-carbonate vein gold deposits. The morphology of the deposits ranges from tabular to pipe-like, although many have rather irregular outlines generally steeply dipping and/or steeply plunging; however shallower dipping orebodies are also known.

The total sulphide mineral content of the orebodies is typically less than 10% by volume, and commonly consists of only a few percent fine to very fine-grained of pyrite, with significant arsenopyrite in a few deposits. Stockworks consist of millimetre to centimetre thick veinlets of gray to cherty quartz containing subordinate amounts of carbonate (Fe-dolomite and calcite), albite, and pyrite. Other ore-related minerals include minor to trace amounts of chalcopyrite and hematite, telluride minerals, molybdenite, and magnetite. Accordingly, orebodies are generally enriched in Cu, As, and Te, with common, but variable, enrichments in Pb, Mo, W, Zn, and locally Sb. The gold:silver ratios of the ores generally range from about 1:1 to 5:1. Anhydrite, fluorite, tourmaline, and scheelite are also common. In nearly all examined deposits, barren, shallowly dipping, milky quartz-calcite extensional veins overprint the ore-related stockworks and disseminated mineralization.

Zones of hydrothermal alteration are spatially coincident with zones of disseminated sulphide minerals and veinlet stockworks, with the most intense alteration generally corresponding to economic gold mineralization. Carbonatization and albitization are significant alteration types at nearly all deposits; K-feldspar alteration and sericitization are also present in several deposits, whereas silicification is less frequently important. Carbonatization is the most extensive type of alteration and displays a zonal distribution, from peripheral calcite, to dolomite or Fe-dolomite within mineralized zones. K-feldspar alteration seems to be restricted to orebodies hosted within, or along the margins of, composite syenitic stocks. Albitization is most intense in orebodies associated with satellite dikes.

Gold mineralization in nearby Tyrrell, Natal, Knight and Macmurchy townships, to the west of the Haultain Property, is spatially associated with syenite stocks and dykes and intense carbonate alteration along north-northwest-trending faults and northwest-trending cross faults (Johns and Amelin 1999).

8.1.3 Gold and Copper-Gold Porphyry Deposits

A third mineral deposit model to consider at Haultain is gold and copper-gold porphyry deposits. Porphyry deposits are large, low- to medium-grade deposits, with primary ore minerals dominantly structurally controlled and spatially and genetically related to felsic to intermediate porphyritic intrusions (Sinclair 2007). Mineralization in these deposits is hosted by large, structurally controlled stockworks, veins, vein sets, fractures, and breccias spatially associated with intrusions that may be the source of the magmatic hydrothermal fluids. Mineralized stockworks may occur within the carapace of the intrusion and immediately adjacent portions of the country rock. Sinclair (2007) described the hydrothermal alteration as typically zoned on a deposit scale as well as around individual veins and fractures. The typical deposit scale alteration zones consist of an inner potassic zone characterized by K-feldspar and/or biotite and an outer propylitic zone consisting of quartz, chlorite, epidote, calcite and, locally, albite. Phyllic (quartz + sericite + pyrite) and argillic (quartz + illite + pyrite ± kaolinite ± smectite ± montmorillonite ± calcite) zones may occur between the potassic and propylitic zones, or as younger irregular or tabular zones superimposed on older alteration and sulphide assemblages. However, phyllic alteration is not always present, and in many deposits is superimposed on earlier potassic alteration. Alteration mineralogy is controlled by the composition of the host rocks and the mineralizing system. Alteration in mafic host rocks with significant Fe and Mg contain biotite (± minor hornblende) in the potassic alteration zone, and felsic rocks are dominated by K-feldspar.

Economic sulphide zones are most closely associated with potassic alteration. The main ore minerals in Cu-Au porphyries as summarized by Sinclair (2007) are chalcopyrite, bornite, chalcocite, tennantite, native Au, electrum, and tellurides, with associated minerals that may include pyrite, arsenopyrite, and magnetite. Au porphyry deposits are mainly native Au and electrum with minor amounts of chalcopyrite, bornite, and molybdenite and associated minerals that may include pyrite and magnetite. More oxidized environments contain pyrite, magnetite (± hematite), and reduced environments contain pyrrhotite.

There are few Archean gold deposits that can be definitively classified as porphyries, and identification of these deposits is often based on the presence of mineralization with an age similar to the age of the intrusion, such as Troilus and Lamaque (e.g. Beakhouse 2007) and the McIntrye Mine (e.g. Ayer et al. 2005). In the case of Troilus, potassic, propylitic, and phyllic alteration styles are associated with gold mineralization, and a porphyry model is being applied to exploration (Evans 2006).

8.2 FIVE ELEMENT: AG-NI-CO-AS-BI VEINS

The widespread occurrence of silver cobalt bearing five element veins as evidenced by past silver production on adjacent properties, and the presence of a Nipissing gabbro sill with carbonate-quartz veins suggests the potential for native silver mineralization on the Haultain Property must be considered. The five-element deposits consist of epigenetic veins containing silver, nickel, cobalt, arsenic, bismuth in predominately arsenide, sulpharsenide and native forms (Ruzicka and Thorpe 1996). The following description is base on the work of Ruzicka and Thorpe (1996) and Kissin (1993). The host rocks are the Nipissing gabbro/diabase sills and dykes and the Precambrian metasedimentary and metavolcanic rocks that they intrude. Most of the past-producing silver deposits in the Gowganda area are hosted within the upper portion of the sills but deposits in the Cobalt area are hosted along the lower contacts of the diabase and the adjacent shale-rich sections of the Coleman Formation and underlying Archean basement. Distribution of the veins is structurally controlled by regional fault systems and by the contact zones between the Nipissing gabbro and specific Huronian sedimentary or Archean rocks.

Veins are open-space filling, with little to no replacement of wall rock, that pinch and swell from centimetre to metre scale thickness, and mineable ores frequently occur generally as less than 100 m long steeply dipping ore shoots separated by narrow veins that become barren with depth. An idealized and complete paragenetic sequence of the mineral assemblages consists of: 1) early barren quartz, sometimes with minor base metal sulphides (pyrite, sphalerite, galena); 2) uraninite-quartz which is completely absent in the Cobalt-Gowganda; 3) native silver in intimate with Ni-Co arsenide minerals (cobaltite, rammelsbergite, safflorite, niccolite, cloanthite, maucherite), and occasionally native bismuth, usually in a dolomite or calcite gangue; 4) pyrite, sphalerite, galena, chalcopyrite and other copper sulphides with native silver and argentite and occasionally native arsenic and antimony in predominantly calcite gangue with quartz, fluorite and barite, and this stage is gradational from the Ni-Co arsenide mineralogy and may contain sulpharsenides, such as arsenopyrite, and Sb-As-Ag sulphosalts; 5) late stage calcite deposited at low temperatures, occasionally accompanied by significant barite or fluorite. This sequence of mineral assemblages appears to represent the evolution of the ore forming solution over time, but interpretations but some workers of extensive replacement could place the sulphide stage prior to Ni-Co arsenide stage. Alteration haloes are developed in the wall rocks along the veins as narrow (less than 10 cm) zones of calcite, chlorite, epidote, K-feldspar, muscovite, and anatase. Chlorite occurs locally in spots, 1 to 5 mm in diameter.

In the Cobalt area, it has been proposed that the veins were derived either from mineralized brines leaching precious and base metals from underlying Archean sedimentary beds, with minor contributions from certain volcanic flows, or from the formational brines of the Archean carbonaceous, pyritic tuffs or their clastic derivatives in the Proterozoic sedimentary sequence. The latter hypothesis is supported by fluid inclusion and oxygen isotopic data, and a conceptual model is that metalliferous highly saline brines had a long residence time in the sulphide-bearing rocks, but were released into tensional fractures upon intrusion of the Nipissing diabase sheet. This sudden release of pressure caused rapid precipitation of the ore-forming minerals in fractures at the diabase contacts at temperatures between 130°C and 254°C by hydrothermal solutions of high pH and low Eh.

8.3 DISCUSSION OF DEPOSIT MODELS

The current focus of exploration by the company is concentrating on determining the potential economic for gold mineralization on the Property. The geology of the Property and observed mineralization has characteristics commonly associated with the greenstone-hosted quartz-carbonate vein deposit type of Dubé and Gosselin (2007). However, some features of the mineralization on the Haultain Property, including the association with syenite dykes, means that some characteristics of the syenite-associated disseminated gold deposit type of Robert (2001) may also be applicable. The presence of shallowly dipping extensional quartz-carbonate veins with large mariolitic cavities (see 8.1.1. Mineralization - Trench 3) suggests that the syenite dykes may have been at a shallower depth than a typical Archean mesothermal gold mineralizing system and some aspects of the gold and copper-gold porphyry deposit model of Sinclair (2007) may be applicable.

Although, the structural controls, and alteration and mineralization styles associated with quartz-carbonated vein gold deposits are probably the best guides for the current exploration program, other deposit models may become important guides to future exploration as additional information is gathered on the mineralization on this property.

Alternately, work on the Property should not overlook the potential for the discovery of high grade silver-cobalt veining. Significant portions of the Property are overlain by rocks suitable for hosting 5 element Ag-Ni-Co-As-Bi veining associated with a Nipissing gabbro sill. Historical silver production is estimated to have been approximately 60 million oz of silver, mainly coming from a cluster of deposits located near the upper contact of the sill. The lower contact of the sill is only known to have supported production from one deposit (the Lower Bonsall). The lower contact of this sill is extensively exposed on the Haultain Property and it has been much less explored. Links between Archean basement metallic sources for the mineralized brines that formed the 5 element deposits have been proposed (Ruzicka and Thorpe 1996). The identification and tracing of potential metal sources in the Archean in should be investigated as a means to generate new targets for the occurrence of 5-element vein systems in the overlying Nipissing gabbro.

9. MINERALIZATION

Mineralization on the Property is characterized by the presence of elevated gold values (>0.2 ppm) associated with surface exposures of quartz/carbonate veining and disseminated sulphides hosted by deformed Archean metavolcanic, metasedimentary and late syenite intrusive rocks. Elevated gold values have been detected in a number of locations on the Property, with the best results to date coming from the vicinity of Trench 3, located in the north-central portion of the Property.

Historical exploration and mining activity on portions of the Property has identified occurrences quartz/calcite vein hosted silver-nickel-cobalt arsenides, chalcopyrite, bismuthinite and native silver infilling late brittle faults developed in Nipissing gabbro intruding the early Proterozoic Huronian Supergroup. Grab samples have returned elevated values of Ag, Cu, As and Co.

9.1 GREENSTONE-HOSTED QUARTZ-CARBONATE VEIN GOLD MINERALIZATION

9.1.1 Trench 3

An approximate 60 meter wide zone of gold mineralization was discovered associated with a swarm of medium to coarse-grained, massive to weakly foliated, syenite dykes that intrude highly altered and deformed metavolcanic rocks within the Jacobs Lake fault zone (Collins 2010). This trench is located approximately 400 m west of the eastern boundary of claim 1248799 at about 517540E/5279935N. Mineralization is observed associated with dykes trending west to northwest, dipping steeply north, that are overprinted by a series of north to northeast-trending, steeply east dipping quartz-carbonate tension veins and rare very shallowly north dipping veins. In addition to the tension filling veins, elevated gold values were obtained from deformed quartz/carbonate veining developed along dyke contacts and in deformed metavolcanics near syenite dyke contacts. All of the veins have similar compositions, accessory mineral populations, and host gold mineralization, but the relationship between the vein sets is not clear.

The quartz-carbonate veins range from hairline fracture fillings up to 7 cm in width and are composed of white to light grey quartz and ivory iron carbonate with chlorite being a common accessory mineral. Sulphides consist of 3-5% fine to medium-grained anhedral to subhedral pyrite and minor anhedral chalcopyrite. Very fine-grained black needles of tourmaline are common in veins hosting gold mineralization, and generally occur as radial clusters near the vein margins. The shallowly dipping veins commonly have mariolitic cavities that may be up to 1 m in length, lined with quartz crystals up to 3 cm in diameter and 15 cm in length and filled with a fine-grained massive, light grey green, chlorite, mica, quartz material that weathers recessively. Occasionally the northeast-trending veins host mariolitic cavities up to 10 cm in length with medium to coarse-grained quartz crystals and filled with a similar chlorite-mica-quartz material. Occasionally, angular fragments of highly altered syenite wallrock are present in the veins.

The dykes hosting the veins are generally light pinkish green to reddy brown which has been interpreted to be related to a potassic and/or iron enrichment, possibly hematization or iron carbonate alteration, with a high variable population of fragments. Initial whole rock geochemistry indicates that these dykes are syenite in composition (Collins 2010). The syenite generally contains trace to 2% disseminated fine to coarse-grained subhedral pyrite, and occasionally the syenite next to the veins may be intensely altered to a darker reddy brown with up to 10% pyrite over widths of up to 3 cm. In some areas, the syenite may have a nearly porphyritic appearance, with reddy brown phenocrysts of feldspar in a dark green highly chloritized groundmass which may be the origin of some of the spherulitic textures observed in the large dykes. Quartz veining appears to be restricted to an early generation of syenite dykes as a series of narrow dykes, generally a few metres to tens of metres in thickness, cut but the veins and the earlier dykes.

The ultramafic to mafic metavolcanic rocks that host the syenite dykes include massive and spinifex textured flows, heterolithic volcaniclastic flows, and strongly sheared, talc-carbonate altered, variably quartz veined units with no recognizable primary textures. The strong quartz/carbonate and fuchsite altered units host 1-3% fine grained disseminated pyrite and up to 15% quartz-carbonate veining. These units are in contact with more massive gabbroic units that may be either coarse flows or sills.

A total of 203 samples, including 170 channel samples totalling 148 meters metres of channel sampling), were completed on the Property between July and November 2010. The best individual sample results included 14.05 g/t Au over 1.54 m in a sample containing a number of northeast-trending quartz veins hosted by highly altered syenite and 8.53 g/t Au over 1.47 m in one of the shallowly north dipping veins also hosted by syenite. Elevated gold values associated with potassic altered syenite and late tension filling quartz/carbonate veining are observed along the 100 meter by 15 meter limited exposure afforded by the trench. The best result associated with the adjacent mafic rocks was a grab sample of chloritic gabbro containing coarse euhedral pyrite from the south end of the trench that returned 19.5 g/t Au, but individual samples within the channels through these units did contain up to 0.9 g/t Au.

9.1.2 Trench 1

Strongly talc-carbonate-fuchsite altered, sheared and variably quartz veined ultramafic units were encountered in contact to the north with a series of syenite dykes (Collins 2010). This trench is located approximately 65 m west of the eastern boundary of claim 1248799 at about 517910E/5279705N. Initial channel sampling returned only anomalous gold values, less than 0.68 g/t Au, but a later grab sample of chloritic rock comparable to the unit in the south end of Trench 3 hosting 19.5 g/t Au returned 2.52 g/t Au. Trench 1 is located approximately 400 metres east along a southwest apparent strike from Trench 3, probably representing the trace of the Jacobs Lake fault zone.

9.1.3 Trench 2

A total of 34 samples including 29 channel samples totalling 43.8 meters were collected and submitted for assay from Trench 2. This trench is located approximately 270 m west of the eastern boundary of claim 1248799 at about 517705E/5279540N. Trench 2 is located south of the main swarm of syenite dykes, along the south side of the fault zone. A series of narrow syenite dykes intrude ultramafic to mafic metavolcanic rocks in the south end of the trench and is in contact with a chaotic breccia unit to the north that may represent a fault breccia. The highest assay value returned from this area was from a 2.0 meter channel sample grading 0.45 g/t Au. A siltstone and graphitic mudstone are exposed in the north end of the trench, and the mudstone contains occasional disseminated lenses and pods of semi-massive to massive pyrite-pyrrhotite. Assay results were only weakly anomalous but the mudstone is located about 100 m southeast of a grab sample collected by the S. Swain, the original property owner, that returned 0.94 g Au (Swain 2009).

9.1.4 Northwest

A grab sample collected by the S. Swain, the original property owner, from the area approximately 90 m southwest of Trench 4 returned 0.96 g Au (Swain 2009). Located at 517101E/ 5280049N close to the claim boundary between 1248799 and 3000444, the sample was described as a siliceous rock in the assessment report. The location of this sample suggests that it is with the Jacobs Lake Fault and could correlate along strike to the southeast with the mineralization observed in Trench 3.

9.1.5 Big Four

The Big Four showing is located in the southwest portion of the current property, on the north side of the radio tower hill, north of highway 560. This trench is located approximately 485 m east of the western boundary of claim 1227354 at about 518015E/5277915N. This showing includes a series of trenches and pits, and a 25 ft (7.6 m) deep shaft. The showing is underlain by intermediate to felsic metavolcanic rocks and sulphide to oxide facies iron formation cut by Matachewan and Abitibi dikes and is overlain by conglomerate, feldspathic sandstone, and feldspathic greywacke of the rocks of the Coleman Member of the Gowganda Formation (McIlwaine 1978). In the area of the shaft and main pit, a northeast-trending, 5-6 in. (12.7 -15.2 cm) carbonate-quartz vein containing arsenopyrite, cobaltite, pyrites, and galena cuts the iron formation. A 6 ft (1.83 m) wide sulphide iron formation pyritic/sulphide iron formation, with a quartz porphyry footwall, is located east of the shaft, and grades into siliceous iron formation to the north. A sample of cobaltite-rich carbonate material was collected from the waste pile north of the shaft. The high weathered sample had a texture resembling amygdaloidal basalt with 2-3 mm spherical white calcite in a medium grey brown matrix containing 15-20% cobaltite (sample H344643). This sample returned 1.83 g Au, 17.3 g Ag, 3.03% Co, 4.65 % As, and 10.6% S. A sample of highly fractured oxide facies iron formation with 5-10% fine-grained pyrite and chalcopyrite fractured fillings was also collected from the waste pile. This sample (H344642) returned 0.02 g Au, 12.2 g Ag, 1.49 % Cu, and 4420 ppm Zn. Although discussed as part of the group of occurrences related to gold mineralization hosted by greenstone-hosted quartz-carbonate veins, the Big Four and the follow Southeast occurrence, have some of the features of the Ag-Ni-Co-As-Bi deposits generally hosted by the Nipissing gabbro.

9.2 FIVE ELEMENT VEIN SILVER MINERALIZATION

9.2.1 Southeast

A grab sample of calcite-quartz vein was collected from the rubble from a small pit located along the southeast shore of an unnamed lake located about 1 km south of highway 560 and 5 km southeast of Trench 3 (I528639: 521173E /5276568N). This pit is located approximately 400 m west of the eastern boundary of claim 4247248. This vein contained trace to 2% medium to coarse-grained pyrite and chalcopyrite is hosted by Nipissing gabbro. The sample returned 0.44 ppm Au and 3.8 ppm Ag and 1.54% Cu. A sample of similar vein material from a second pit located 50 to the north returned 0.18 ppm Au, 4.9 ppm Ag and 3.72% Cu. There is little historical data on the gold content of the Ag-bearing calcite veins of the Gowganda area, but this sample is located close to the proposed trace of the Jacobs Lake Fault.

10. EXPLORATION

Three phases of field work were undertaken following the acquisition and consolidation of the Property by Transition Metals since July, 2010. The first program conducted in July, involved a property scale reconnaissance mapping, followed by the excavation of four trenches over the known showings and areas considered favourable for the presence of gold based on the preliminary evaluation of the Property. Trenched exposures were then washed with high pressure water hoses, mapped in detail and channel sampled in areas appearing prospectively altered and/or mineralized (Collins 2010). Following receipt of assays and a review of results from the work completed in July, a second program of mapping and channel sampling was undertaken in late September (Collins 2010). A third phase of mechanical stripping, channel sampling, mapping and drilling of two holes totalling 165 metres was completed in November (Collins and Hart 2011).

Field work was performed and supervised by personnel under contract to perform services to Transition Metals. The program was planned and supervised by Greg Collins, P.Geo, assisted in the field by geologist Tom Hart, P.Geo of Sudbury Ontario, and Kevin Collins of Dwight Ontario. Excavation and Hydraulic stripping was performed by personnel supplied by Elk Lake Enterprises of Elk Lake Ontario. Figure 6 depicts the locations of the trenching work and an interpretation of the geology based on property scale reconnaissance mapping, trench mapping, and available historical mapping (G. Collins 2010).

10.1 BEDROCK MAPPING

Preliminary reconnaissance mapping was undertaken by G. Collins, P.Geo. from July 17th to July 20th, 2010 and T. Hart, P.Geo. completed a second mapping program between September the 20th September 29th, 2010. This work consisted of traverses targeting areas of known exposure and investigating the geology in the vicinity of known showings and areas of historical silver workings.

A total of 27 reconnaissance samples were submitted for assay from scattered locations on the Property from a variety of rock types. Most of the samples returned background levels of gold, with the only notable exception being a sample from the Big Four showing and from the south-central part of the Property (Table 2; Figure 6). However, a number of samples that did not have anomalous Au returned anomalous levels of Ag, As, Cu, and/or Co. In addition, 17 samples were submitted for Whole Rock analysis. The samples were collected from exposures of rock interpreted to be associated with a suite of late syntectonic intrusions observed in close proximity to alteration and observed gold mineralization. Occurrences of variably altered syenite similar in appearance and chemistry to those observed mineralized in Trench 3 were identified along strike 400m to the east and approximately 400m west of Trench 3, and along a northern roughly parallel trend approximately 400m north of Trench 3.

Table 2: Highlight gold assays and geochemical results for grab samples from the reconnaissance mapping program

sample	Au	Ag	As	As	Cu	Co	Mo	Pb	S	S	Zn	Easting	Northing
	ppm	ppm	ppm	%	%	%	ppm	ppm	%	%	ppm		
H344636	0.045	2.5	11		1.94		3	19	1.86		32	519965	5276939
H344637	0.037	2.5	16		1.13		32	10	1.51		39	520122	5277284
H344642	0.021	12.2	307		1.485		11	1585	4.62		4420	517896	5277965
H344643	1.83	17.3	>10000	4.65		3.03	1000	1215	>10.0	10.6	93	517896	5277965
I528637	0.177	4.9	22		3.72		<1	402	2.81		1120	521186	5276618
I528639	0.441	3.8	29		1.535		<1	28	1.51		53	521173	5276568

10.1.1 Big Four

Sample H344643 returned 1.83 ppm Au, 17.3 ppm Ag, 3.03% Co and 1000 ppm Mo from a piece collected from the rubble pile containing cobaltite in a grey matrix with texture resembling an amygdaloidal basalt with 2-3 mm spherical white calcite (Figure 6 ; Table 2). This sample may be similar to a carbonate-quartz vein containing arsenopyrite, cobaltite, pyrites, and galena cutting the iron formation that is described by McIlwaine (1978). A sample of highly fractured oxide facies iron formation with 5-10% fine-grained pyrite and chalcopyrite fractured fillings was also collected from the waste pile. This sample (H344642) returned 0.02 g Au, 12.2 g Ag, 1.49 % Cu, and 4420 ppm Zn. The Archean rocks in this area appear to trending towards the west and are different from the lithologies observed in the exploration trenches located about 1.5 km to the north.

10.1.2 Southeast

A sample from along the shore of an unnamed lake located about 1 km south of highway 560 and 5 km southeast of Trench 3 (I528639: 521173E /5276568N) returned 0.44 ppm Au and 3.8 ppm Ag and 1.54% Cu (Figure 6; Table 2). The sample was a grab from the calcite-quartz vein material containing trace to 2% medium to coarse-grained pyrite and chalcopyrite hosted by Nipissing gabbro in the rubble from a small pit. A sample of similar vein material from a second pit located 50 to the north returned 0.18 ppm Au, 4.9 ppm Ag and 3.72% Cu. There is little historical data on the gold content of the Ag-bearing calcite veins of the Gowganda area but this area was examined due to the proximity to the proposed trace of the Jacobs Lake Fault.

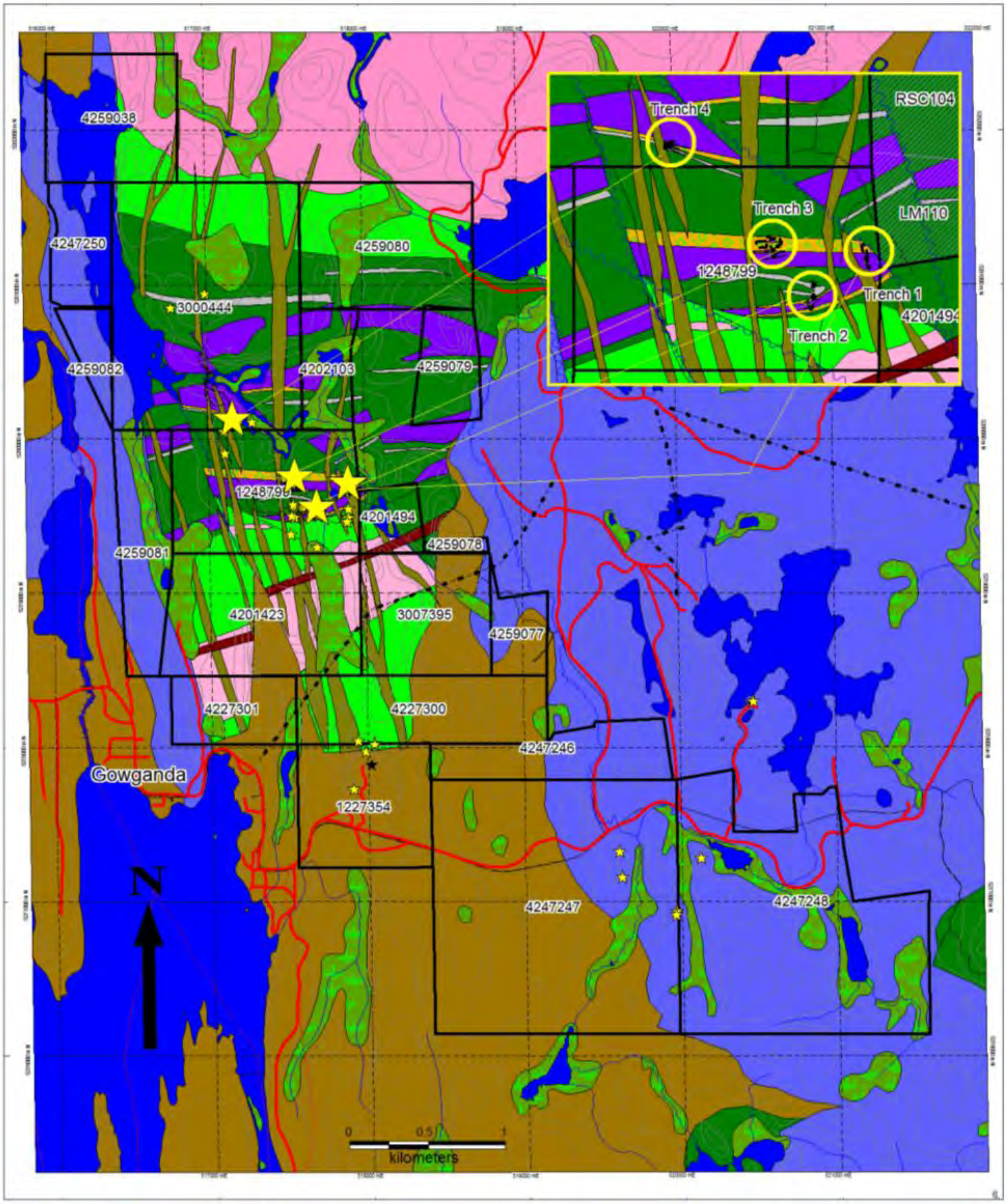


Figure 6: Location of Transition Metals 2010 Trenches and Grab Samples

10.2 MECHANICAL TRENCHING, MAPPING AND SAMPLING (PHASE 1 AND 2)

Approximately 3,500 square metres were stripped in four trenches in different locations on the Property (Figure 6), by a tracked Komatsu swing hoe. The trenches were washed with high pressure hoses to fully expose the bedrock. Detailed mapping of the trenches was completed by G. Collins, P.Geo from July 21 to August 3, 2010, and Sept 27 to 29, 2010. A total of 240 metres of channel samples were cut, resulting in the collection of 172 individual samples which were submitted for gold and multi element assay (Collins 2010). In addition, 57 grab samples were submitted for gold and multi element analysis.

Results from channel and grab samples in Trenches 1, 2, and 3 have confirmed the presence of elevated gold in bedrock in a number of structurally controlled and stratigraphic positions. No significant gold values were detected in Trench 4 (Collins 2010).

In Trench 3, a widespread zone of gold mineralization was identified that crosscuts the strike of structure and stratigraphy over an approximate 60 meter width. Of the 65 metres of channel sampling conducted over this zone, the length weighted gold concentration averaged 1.64 g/t Au. Several localized channel and grab samples contained higher concentrations of gold (Figure 8) and Table 3 and 4 contain highlights of these individual channel sample intervals. Table 4 presents a number of anomalous gold values obtained from grab samples collected in or near the trenches.

Table 3. Highlight gold assays by channel sampling within Trenches

Location	Channel	Sample	Length (m)	avg. Au (ppm)
Trench 1	T1C8		2.79	0.4
Trench 3	T3C1	I803078	1.52	0.81
Trench 3	T3C2		4.6	0.65
Trench 3	T3C8	I803107	1.54	8.38
Trench 3	T3C9	I803108	1.47	4.3
Trench 3	T3C9B	I803206	1.5	8.2
Trench 3	T3C13		2.3	0.63
Trench 3	T3C14		2.9	6.96
Trench 3	T3C15		3.41	4.85
Trench 3	T3C16		4.65	3.18

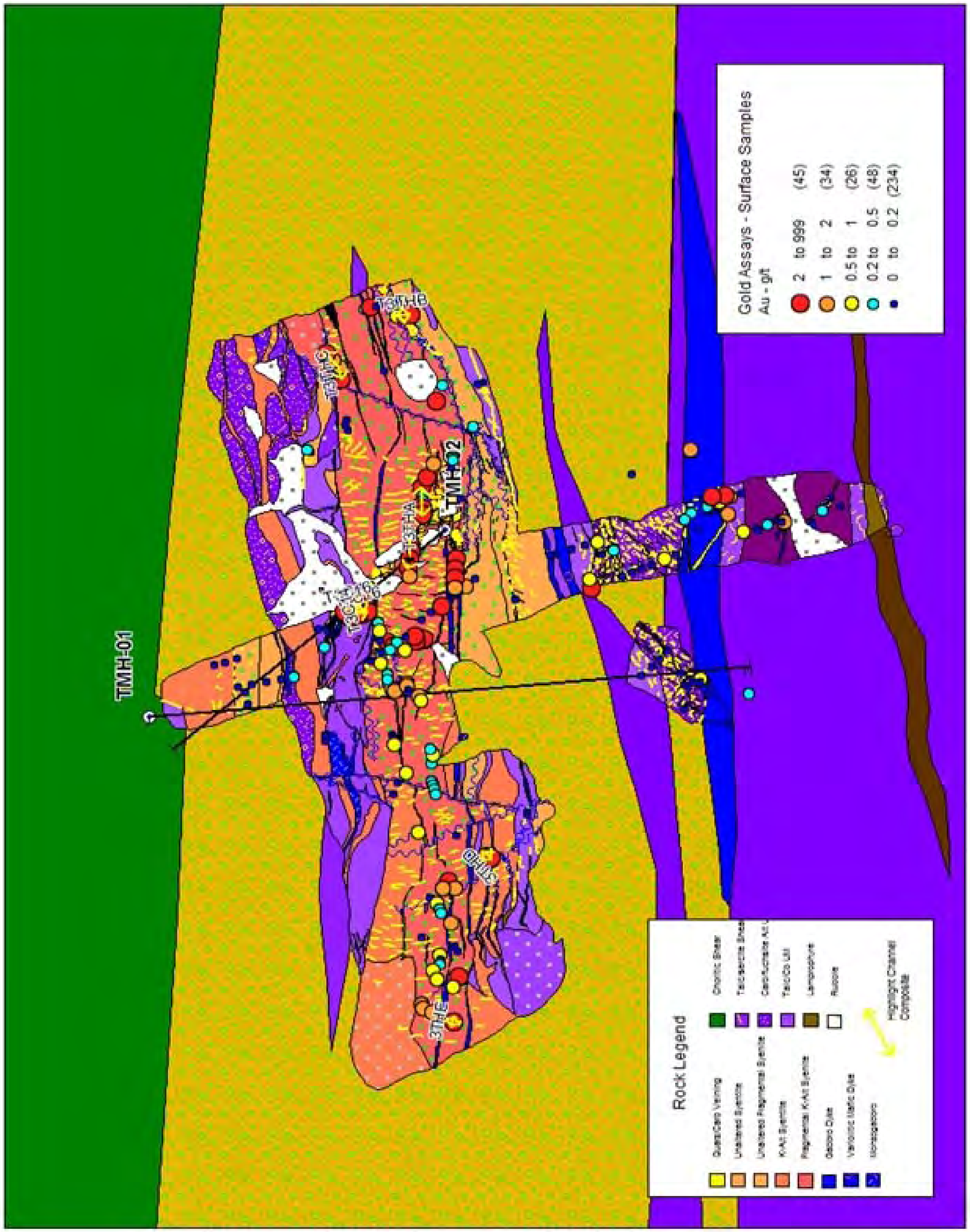


Figure 7: Highlights of channel sample results from Trench 3 and Drill plan for the 2010 Program

Table 4. Highlight gold assays from grab samples within Trenches

Location	Sample	Easting	Northing	Au (ppm)	Details
Trench 1	I803163	517909	5279708	2.52	Disseminated sulphides in sheared gabbro - 400 metres east along strike from Trench 3
Trench 3	I803172	517554	5279721	19.50	Disseminated sulphides in gabbro
Trench 3	I803189	517537	5279757	3.77	From Annie's Ladder discovery outcrop
Trench 3	H344630	517536	5279759	7.65	From Annie's Ladder discovery outcrop
Trench 3	H344631	517536	5279760	7.24	From Annie's Ladder discovery outcrop
Trench 3	H344632	517537	5279756	2.62	
Trench 3	H344633	517540	5279764	3.75	Shallow north-dipping quartz vein
Trench 3	H344634	517540	5279764	8.75	Shallow north-dipping quartz vein
Trench 3	I803179	517543	5279736	2.99	quartz/carbonate veining in altered komatiites near south contact
Trench 3	I803171	517554	5279720	2.38	quartz/carbonate in shear at south contact

Of particular interest in Trench 3 was a 20m wide section occupied by a swarm of potassic altered pyritiferous syenite dykes. These dykes were observed to be crosscut by a series of thin veinlets infilling tension gashes running perpendicular to the strike of the dykes. In addition to pyrite, these veinlets were observed to host disseminations of very fine-grained needles or rutile or tourmaline, chalcopyrite, galena, and fine-grained specks of visible gold. Due to the ladder like appearance of the veining, the showing was dubbed the "Annie's Ladder" showing. The swarm of syenite dykes had a northwest-trend extending beyond the limits of the original trenching.

Of note, one grab sample returned 19.5 g/t Au (sample I803172). This value is associated with a chloritic rock hosting coarse euhedral pyrite near a strongly sheared and carbonate altered contact between the syenite and altered komatiites near the southern end of Trench 3. Approximately 400 metres to the east along the apparent strike of this occurrence in a poorly exposed portion of Trench 1, sample I803163 returned a value of 2.52 g/t Au associated with a similar style mineralization. It is interpreted that the two samples are in the same stratigraphic position and could be related.

A number of elevated gold values were obtained previously by the former property holder from the area surrounding Trench 2. Channels and grabs collected during the course of the program in the vicinity of Trench 2 returned only marginally elevated values of gold. Maps of all the trenches, depicting the detailed geology and location and values of all samples, are provided contained in Collins (2010)

A total of 17 samples were submitted for whole rock geochemical analysis. These samples were collected from exposures of rock interpreted to be associated with a suite of late syntectonic intrusions observed in close proximity to alteration and observed gold mineralization. Based on visual observations these rocks were interpreted to be syenodiorite – syenites (Figure 9) but they appear to exhibit a much wider range of compositions than evident in the field.

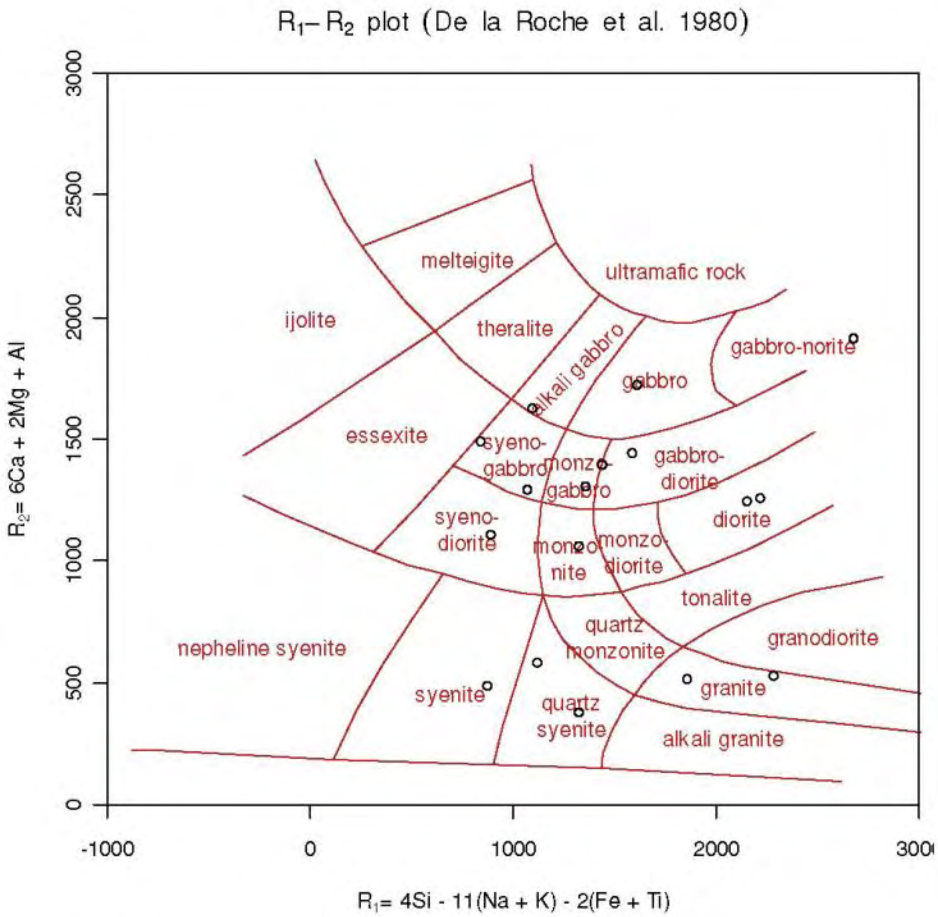


Figure 8: Classification of late intrusive rocks base on whole rock geochemistry (de la Roche et al 1980)

10.3 MECHANICAL TRENCHING, MAPPING AND SAMPLING (PHASE 3)

In response to favourable results from Phase 1 and 2, an additional 1,900 square metres of stripping was completed to expose the west to northwest-trending strike extension of the mineralized syenites dykes encountered in the north part of Trench 3 (Figure 8) (Collins and Hart 2011). The additional stripped area was washed with high pressure hoses to fully expose the bedrock. Detailed mapping of the new trench area was completed T. Hart from November 1 to 8, 2010. Approximately 58 metres of channel samples were cut, resulting in the collection of 105 additional samples which were submitted for gold and multi element assay (Collins and Hart 2011). The channels formed a roughly west-trending fence along the length of the expanded trench. A number of solitary and contiguous sample intervals returned anomalous gold values. Highlights of this sampling program are shown in Table 5 (Figure 8) with sample I803340 representing the more westerly sample in the trench and I803394 located approximately 85 m to the east.

Table 5. Highlight gold assays by channel sampling (east to west down the table)

Location		Length (m)	Au (g/t)
T3TRHB	average	2.44	2.57
T3THC	average	3.87	1.56
T3THA	average	10.75	2.07
T3THD		1.05	3.231
T3THE		0.40	15.95

The photograph in Figure 7 shows a specimen of native gold taken from the occurrence from channel sample I803374 (The speck of gold is highlighted by the yellow circle). Assay results from this sample returned a gold value of 7.76 g/t Au. Numerous samples containing specks of visible gold were encountered during the channel sampling programs in Trench 3.

Figure 9. Specimen hosting Visible Gold from Channel Sample I803374

10.4 DISCUSSION

The 2010 trenching and channel sampling program was successful in identifying a new gold occurrence on the Property and demonstrating the continuity of the gold mineralization both across and along the strike of the syenite dykes across the breadth of the exposed outcrop. Reconnaissance mapping identified syenite dykes up to 425 m along strike with the syenites in Trench 3. In addition, sampling of the highly altered and deformed metavolcanic rocks intruded by the syenite dykes also hosts gold mineralization. Gold mineralization has been identified in similar units present in Trenches 1 and 3, a potential strike length of 400 m. Further work is required to investigate the potential of both of these gold-bearing environments.

11. DRILLING

11.1 2010 DIAMOND DRILL PROGRAM

Two NQ-size diamond drill holes totalling 165 meters were completed in November 2010 (Table 6; Figure 8) (Collins and Hart 2011). The first hole (TMH10-01) was designed to intersect and obtain a continuous sample at shallow depths of altered and mineralized structures and stratigraphy beneath the exposed central portion of Trench 3 and to further establish the dip of the formations mapped at surface. The second hole (TMH10-02) was designed to assess of the depth extent and continuity of gold mineralization associated with ladder vein structures associated with the Annie's Ladder showing.

The drilling was completed by Foraco Canada Ltd. of North Bay, Ontario using a Boyles 25A unitized diesel powered diamond drill rig and ancillary equipment. The rig and equipment sloop were moved between drill sites by a skidder. The drill sites are accessible by truck along a network of bush roads. The drill program was supervised by T. R. Hart, P.Geo.

Table 6. 2010 drill hole program collar locations (NAD83, Zone 17)

Drill Hole	Easting	Northing	Azimuth	Inclination	Total Depth (m)
TMH10-01	517527	5279788	175	-45	101.0
TMH10-02	517550	5279753	320	-50	65.0
				Total (m)	166.0

The azimuth and inclination of all drill holes were measured using a Reflex multi-shot down hole survey instrument supplied by Foraco. Measurements were made just below the casing, at the bottom of each drill hole, and at intervals of approximately 50 m . The Reflex survey data is summarized in the header section on each of the drill hole logs.

The location of each drill hole was recorded by an averaged GPS reading and tied into the detailed geological mapping completed in the vicinity of the drilling (Figure 8). Based on this control, accuracy of hole positioning is estimated to be less than 5 meters from the averaged GPS reading. The casing for each drill hole was removed and a flagged picket placed in the resulting hole. All provided coordinates are in Universal Transverse Mercator (UTM) projection using the North American Datum (NAD) 83 in Zone 17.

The entire core was sampled during this drill program, and a total of 227 samples were analysed for gold by fire assay with an inductively coupled plasma (ICP) –atomic emission spectroscopy finish completed by ALS-Chemex (Collins and Hart 2011). All samples were also analyzed by a multi-element ICP-aqua regia digestion package which included Ag, Cu, Ni, Pb and Zn. Information concerning the lithology, structure, alteration and mineralization was logged and entered into an access drill hole database. All intervals of core were digitally photographed.

A summary of results for averaged intervals or individual samples containing > 0.50 ppm Au are presented in Table 7. All intervals presented in the table are length weighted averages of core intervals, as there is insufficient information regarding the orientation and continuity of mineralization to imply true widths.

Table 7. Gold assay results from diamond drilling.

Drill hole	sample	from (m)	to (m)	Length (m)	Au (ppm)
TMH10-01	I803415	8.24	8.76	0.52	0.779
	I803426	18.10	19.45	1.35	0.503
	avg.	29.16	31.59	2.43	0.73
	avg.	38.30	41.80	3.50	1.72
	avg.	56.53	59.47	2.94	1.67
TMH10-02	avg.	2	5.3	3.3	1.46
	I528529	7.5	8	0.5	0.758
	avg.	23.22	25.39	2.17	3.29
	I528563	26.88	27.22	0.34	0.832
	avg.	40.31	52	11.69	1.57
	including	40.31	43.38	3.07	4.72
	avg.	52.39	55.15	2.76	0.80

11.2 Discussion of Drill Results

Hole TMH10-01 intersected a sequence of variably silicified, carbonatized and fuchsite altered komatiitic volcanic rocks, intruded by polyphase alkali gabbros, syenites and lamprophyre dykes (Fig. 8 and 10). Extensive quartz/carbonate (ankerite) veining was observed in deformed volcanic rocks near the contacts with the dykes as well as later tensional filling features developed within the dyke sequence. As observed at surface, elevated gold values were detected within potassic altered sections of a fragment-bearing syenite dyke intersected between 1.00 and 34.88 meters down hole, and associated with quartz/carbonate veining located near the lower/southern contact between 39.30 and 43.30 meters. A mafic dyke hosting 3-5% coarse euhedral pyrite returned 1.67 g/t Au over 2.94 meters between 56.53 and 59.47 metres and includes a 0.5 m interval which returned an assay value of 3.6 g/t Au (Table 7).

Based on an interpretation which extends contacts mapped on surface in Trench 3 with contacts identified in TMH10-01 in a planar fashion, the dip of the major formations appears to be approximately 50 degrees to the north. The apparent thickness of the exposed gold bearing formations based on this observation is approximately 60 meters. The mineralized mafic dyke occurs in a stratigraphic position interpreted to be approximately 50 meters down dip and 25 meters west of a surface grab sample which returned 19.5 g/t Au and 400 meters west of a grab sample located in Trench 1 which returned 2.52 g/t Au.

Hole TMH10-02 intersected a variably potassic altered, fragment-bearing syenite overprinted by fracture filling quartz/ankerite veining hosting trace amounts of a fine acicular mineral interpreted to be either rutile or tourmaline, disseminated pyrite and locally, trace amounts of fine-grained visible gold (Figure 8 and 10). At 65.0 meters, the hole passed into altered ultramafic to mafic metavolcanic rocks at 57.60 meters. Assay results from this hole returned several intervals of elevated gold values including; 3.30 meters grading 1.46 g/t Au from 2.00 to 5.30 meters, 2.17 meters grading 3.29 g/t Au from 23.53 to 25.39 meters, and 11.69 meters grading 1.58 g/t Au from 40.31 to 52.00 meters that includes 3.07 meters grading 4.72 g/t Au (Table 7). Elevated gold values appear to be associated with a late phase of fracture controlled to pervasive potassic alteration which can be visually distinguished due to the red colour it induces in the core and on fresh surfaces (Figure 11). Strong potassic alteration is also occasionally well developed around the margins of quartz/ankerite veins (Figure 11).

Visible gold was identified in the core at 53.23 and 55.80 meters within an interval which returned assay values averaging 0.83 g/t Au. The nugget effect for gold observed in the core has also been observed in the channel samples, and appears to be a contributing factor to high variability in gold values observed in duplicate assays. As a result of the nugget effect, the representivity of individual assay values is considered to be poor. More gold assay data must be accumulated to better understand the gold grade and grain size distribution associated with this mineralization.

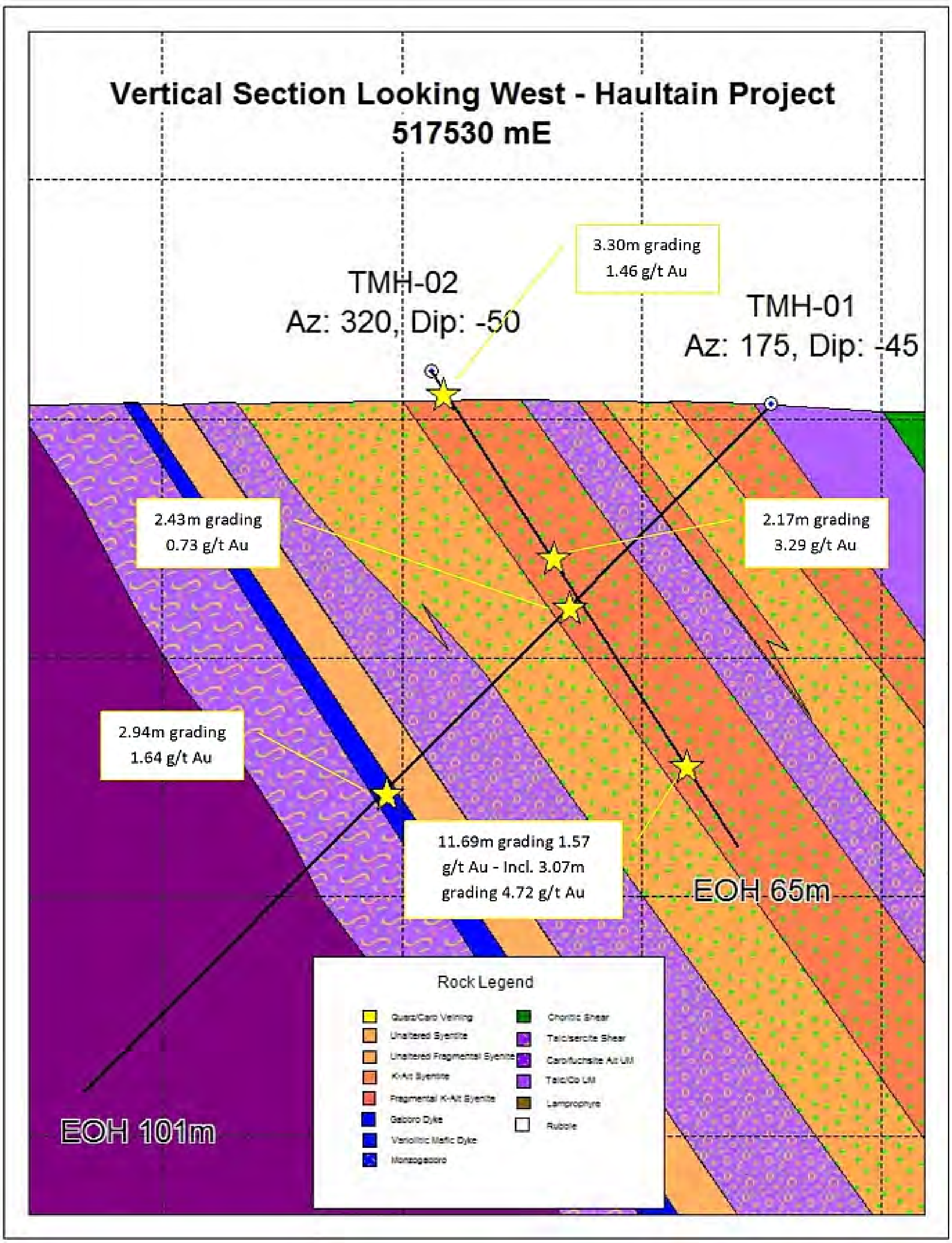


Figure 10: Schematic vertical cross section looking west at 517530 m E

Figure 11: Photo of potassic altered syenite in hole TMH10-02

12. SAMPLE METHOD AND APPROACH

12.1 BEDROCK CHANNEL SAMPLING

Four areas (Trenches 1, 2, 3, and 4) were mechanically stripped of overburden and washed clean with high pressure water pumps to expose the bedrock surface. The bedrock was mapped at a 1:1,000 scale to identify the controls on mineralization, including structure and lithology, and alteration. Three phases of channel sampling were completed, the first phase after the completion of the initial stripping program, the second as a follow up to the first phase and the third phase following the second stripping program.

Based on the mapping completed after the first stripping program, a series of channel samples were laid out roughly perpendicular to structures and veins to test the different various lithologies, styles of alteration, veining, and mineralization. The channels were positioned to approximate a single section along the length of each trench with each channel composed of multiple samples. Individual channel samples, and some grab samples, were also collected to test mineralization or features of interest that were separate from the main trend or separated from the other samples by irregularities in the bedrock exposure.

The second phase of channel sampling was laid out both perpendicular to the quartz-carbonate vein sets and sub-parallel to the channels from the first phase of channel sampling that returned the best gold assay results. The channels were composed of multiple samples with sample lengths of no less than 0.30 m and not more than 1.5 m. Channels were also cut immediately adjacent to the two channels that returned the best gold assay results in Trench 3 to independently test the initial assay results with channels composed of samples with a shorter length.

A third phase of channel sampling was completed following the completion of the second phase of stripping on Trench 3. A series of channels were positioning in a staggered arrange along a westerly trend to test the north-trending quartz-carbonate veins hosted by the variably potassic altered syenite dykes. The staggered channels form a nearly continuous section across the newly exposed bedrock, and consisted of individual and multiple samples of lengths no less than 0.3 m and not more than 1.5 m.

The channel samples were cut using a gas-powered Husqvarna 750 gas powered masonry/rock saw with a diamond blade, and consist of two parallel cuts about 2 cm apart and 2-3 cm deep. Occasionally, samples could not be cut to the appropriate depth due to the topography of the bedrock surface and the resulting samples were lighter in weight than planned. Although material was left in some of the channels, none of the samples were notably underweight compared to the channel length, and the problem appears to be evenly distributed between mineralized and unmineralized material. However, it was noted that the quartz-carbonate veins tended to shattered during removal of the material from the channels and there is the possibility that the vein material may be slightly under-represented in the sample.

12.2 CORE LOGGING

During the 2010 drill program, all core logging and sampling was done in the garages located next to the post office in the community of Gowganda. The garages are located adjacent to the residence of D. Bullock, the owner of the buildings and the core cutter for the drill program, and the house rented by Transition Metals Corp. for their exploration personnel.

12.2.1 Geotechnical Logging

The rock quality designation (RQD), and level of core recovery for both drill holes was recorded prior to the lithologic logging. Core was re-assembled in core boxes to best fit by the geologist logging the hole and marked at 1 m intervals. The length of core between drillers' blocks, a 3 m interval, was measured to determine core recovery. An RQD was determined over the interval by measuring the cumulative length of pieces of competent core which were 10 cm or greater in length as a percentage of the total length. Core recovery was generally > 95% with the exception of a few highly fractured zones. The geotechnical information was entered into the Gemslogger core logging software along with the lithologic information.

12.2.2 Core Logging and Sampling

The drill core was descriptively logged on paper, and photographed (three boxes at a time). The descriptive logs recorded the different lithologies; alteration types and relationships; mineralization types and relationships, position and orientations of veins, fractures and other structures. This information was transferred on site to the Gemslogger software, based on an Access database, which also included the sample numbers and intervals.

The sampling protocol was that the sample widths would be appropriate for the width of the mineralogy, lithology, vein, structure, or alteration zone within the limits of a maximum sample length of 1.5 m and a minimum sample length of 0.3 m. Samples did not cross lithologic contacts, changes in structural style, veins/vein sets, or strong alteration zones unless the lithology, structure, vein or alteration is less than 0.3 m in width, and then only to meet the 0.3 m minimum. An example would be a vein less than 0.3 m wide can be combined with adjacent veins of similar composition, or combined with associated wallrock alteration, to obtain the minimum sample width. Changes in structural style are changes in structural fabric of a lithology and include shears, fault zones, as from massive to well foliated fabrics. Alteration may have indistinct boundaries and may include unaltered intervals if the contacts are indistinct or very gradual.

The entire drill core was sampled with each interval recorded in the drill log. A removable portion of that sample's tag was removed from the sample tag book and placed into a sample bag inscribed with that number. The end of each sample interval was marked on the core with a china marker along with the last 3 digits of the sample number. The core was sawn in half with a core saw using a diamond blade with half of the core placed into the numbered bag with the sample tag, and the remaining core placed in the core box. Sample numbers and corresponding intervals were recorded on paper and transferred on site to the Gemslogger software. The core for drill hole TMH10-01 is currently stored in a cross pile beside the garage used for core cutting in Gowganda. Core for hole TMH10-02 was transported to Lakefield, Ontario for storage and to allow ease of access.

12.3.3 Discussion

Core recovery was generally > 95% except for the first few metres of a hole or if major structure was intersected. In general, there was less than 10% error in sampling of the core with errors be related to the sampling of the few intervals with <95% core recovery. The highly broken character of the core in these intervals, and the loss of core in some instances, means that the samples over these intervals may not be representative of the original bedrock structure. However, this type of problem does not appear to have occurred in intervals that are considered to be favourable for gold mineralization so impact on the testing of the economic potential of this property is considered to be minimal.

There are initial indications that the gold on this property has an erratic distribution (*see* 13.3.2. Pulp Re-Analysis) possibly related to the presence of a coarse-grained gold population that is difficult to identify using standard assay techniques. The large sample size afforded by the NQ core and the short sample length of many of the core samples, with 112 samples in a 65 m hole, combined with a 50 g aliquot for gold assays, versus the standard 30 g, provide a better chance of identifying any nugget problems in the analytical results.

13. SAMPLE PREPARATION, ANALYSES AND SECURITY

Geochemical, and assay samples were not prepared for analysis in any way on site and no sample preparation was conducted by an employee, officer, director or associate of Transition Metals Corp. All 2010 analytical work on grab, channel and core samples was conducted at ALS-Chemex with sample preparation completed in Sudbury, Ontario and analyses completed in North Vancouver, B.C. The quality system used by ALS-Chemex complies with international standards ISO 9001:2000 and ISO 17025:2005.

13.1 BEDROCK ANALYSES

The bedrock channel and grab samples were transported from the field to the living accommodations located in Gowganda and placed in polypropylene rice bags that were securely closed. The bags were individually labelled for shipping and temporarily stored at the living accommodations. Samples from the first phase of channel sampling were transported directly to the ALS-Chemex facility in Sudbury by G. Collins and K. Collins. Samples from the second phase of channel sampling were transported directly to ALS-Chemex by K. Collins. Samples from the third phase of channel sampling, channel samples collected as check samples from Trench 3, and grab samples from scattered locations on the Property were transported by T. Hart directly to ALS Chemex.

At ALS Chemex, the samples were dried as required, and crushed to 70% less than 2 mm or better using a jaw and/or roller crusher. The crushed sample was split using a riffle splitter and an approximately 250 g split was pulverized to 85% less than 75 microns or better using a ring and puck grinding mill. The pulverized splits of the samples were transported by ALS-Chemex to their facility in North Vancouver for analyses. All samples were analysed by fire assay for gold and for multiple elements from an aqua regia leach. A set of grab samples selected as representative lithologic samples were analysed for the major element oxide concentrations, plus BaO, Cr_2O_3, and SrO and an extended suite of trace and rare earth elements. The following method descriptions were supplied by ALS-Chemex.

Channel and grab samples from the first and second phase of sampling were analysed by the fire assay, Au-ICP21, technique that requires a 30 g aliquot be fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver. The resulting lead button is cupelled to remove the lead and yield a precious metal bead. The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. Then 0.5 mL concentrated hydrochloric acid is added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by inductively coupled plasma-atomic emission spectrometry (ICP-AES) against matrix-matched standards. The upper and lower limits for gold by this method are 10.0 and 0.001 ppm respectively.

Channel samples from the third phase of sampling were analysed by the fire assay, Au-ICP22, technique that requires a 50 g aliquot but otherwise follows the same procedure as the preceding description with adjustment to reagent weights and measures to properly process the larger sample aliquot. The upper and lower limits for gold by this method are the same as the AU-ICP21, or 10.0 and 0.001 ppm respectively

Any samples that exceeded the upper limits of the AU-ICP21 or AU_ICP22 method for the fire assay gold analyses were re-analysed using a gravimetric finish, Au-GRA21 method. A gravimetric finish involves the bead that is produced by fire assay fusion and cupelling being placed in dilute nitric acid which dissolves the silver and leaves a bead of gold. The gold bead is weighed, and this weight is then used to determine the original grade of the sample. The upper and lower limits for gold detection by this method are 10,000 and 5 ppm respectively.

Channel and grab samples from all 3 phases of sampling were submitted for a multi-element analysis by the ME-ICP41 technique which involved the prepared sample being digested with aqua regia in a graphite heating block. After cooling, the resulting solution is diluted to 12.5 mL with deionised water, mixed and analyzed by ICP-AES. The analytical results are corrected for inter element spectral interferences. Detection limits for this method are contained in Table A1 (Appendix A), and it should be noted that in the majority of geological matrices, data reported from an aqua regia leach should be considered as representing only the leachable portion of the particular analyte.

Samples that returned values greater than upper limits for the ME-ICP41 method were re-analysed using the ME-OG46 method for that individual element. A prepared sample is digested in hydrobromic, nitric and hydrochloric acids for a total period of 70 minutes. After cooling, the resulting solution is diluted to 100 mL with de-ionized water, mixed and then analyzed by ICP-AES. Although ICP-AES is the default finish technique for ME-OG46, under some conditions and at the discretion of the laboratory an AA finish may be substituted and this substitution will clearly reflected on the certificate. The upper and lower limits for zinc are 30 and 0.01%, for copper, 40 and 0.01%, for silver 1,500 and 1 ppm, for arsenic: 30 and 0.01%, for cobalt: 20 and 0.01%.

Samples that returned values greater than upper limits for the ME-ICP41 method for S were re-analysed using the IR08 method. The IR08 method for total S is determined by heating 0.01 to 0.1 g of sample to approximately 1,350 °C in an induction furnace while passing a stream of oxygen through the sample. The sulphur dioxide released from the sample is measured by an IR detection system, Leco sulphur analyzer. The upper and lower limits for this method are 0.01 and 50%.

A set of grab samples selected as representative lithologic samples were analysed for the major element oxide concentrations, plus BaO, Cr_2O_3, and SrO by the ME-ICP06 methods, and an extended suite of trace and rare earth elements by the ME-MS81 method. The ME-ICP06 method involves 0.20 g of prepared sample added to 0.90 g of lithium metaborate/lithium tetraborate flux, mixed well and fused in a furnace at 1000°C. The resulting melt is then cooled and dissolved in 100 mL of 4% nitric acid/2% hydrochloric acid. This solution is then analyzed by ICP-AES and the results are corrected for spectral inter-element interferences. Oxide concentrations are calculated from the determined elemental concentration and the result is reported in that format. The upper and lower limits for these elements, in percentages, are 0.01 and 100.

The trace and rare earth (REE) elements were analysed by the ME-MS81 method which involved mixing 0.20 g of sample with 0.90 g of lithium metaborate flux. This mixture is fused in a furnace at 1000°C, cooled, and dissolved in 100 mL of 4% HNO_3 / 2% HCl solution. The resulting solution is then analyzed by ICP-mass spectrometer (MS). Detection limits for this method are contained in Table A2 (Appendix A). Some base metal oxides and sulphides, indicated by the asterisk in Table A2, may not be completely decomposed by the lithium borate fusion, and results for Ag, Co, Cu, Mo, Ni, Pb, and Zn will not likely be quantitative by this method.

13.2 DRILL CORE ANALYSES

The core was processed at secure garages located next to the post office in the community of Gowganda, adjacent to the house rented by Transition Metals Corp. for their exploration personnel. Core samples were placed in placed in polypropylene rice bags and were securely closed with zip lock ties. The bags were individually labelled for shipping and stored at the core cutting facility until shipped. The samples were transport from Gowganda to the ALS-Chemex in Sudbury, Ontario for sample preparation by T. Hart.

The samples were prepared as described previously (*see* 13.1. Bedrock Analyses), and transported by ALS-Chemex to their facility in North Vancouver for analyses. Analyses for gold used the fire assay method, Au-ICP23 and analyses for trace elements used the multi-element ME-MS41 method (*see* 13.1. Bedrock Analyses). Any samples that returned greater than the upper limit for their respective analytical method were re-analysed using the methods described in section 13.1. Bedrock Analyses.

13.3 QA/QC PROGRAM

13.3.1 Drilling Program Reference Material

Reference material was routinely inserted by Transition Metals into the core sample sequence approximately every 25^{th} sample. The material was reference material SJ53 prepared by Rocklabs Ltd. (Auckland, New Zealand), and is described as feldspar minerals, basalt, and iron pyrite with minor quantities of finely divided gold-containing minerals that have been screened to ensure there is no gold nugget effect. This reference material has been analysed at 43 commercial laboratories to obtain an average gold content of 2.637 g/t. The standard material was purchased in a 2.5 kg wide mouth jar and packets containing about 50 g were prepared by T. Hart for submission to ALS Chemex.

A total of 7 analyses were completed on the reference material by ALS-Chemex (Table 8). Although a small sample population, the results demonstrate a good level of laboratory accuracy with no appreciable variation in the two sample batches containing the diamond drill core.

Table 8. Summary of fire assay results for SJ53 from the drill program.

Material	Recommended value (ppm Au)	Number of Samples Analysed	Average	Median	Standard deviation
SJ-53	2.637	7	2.604	2.605	0.072

A blank material was also submitted into the core sample sequence approximately every 50th sample. The blank material was an approximately 0.5 kg portion of a paving brick. A total of 5 analyses of the blank were completed by ALS-Chemex (Table 9). The results demonstrate that were a lack of contamination of the samples during sample handling, preparation, and analysis.

Table 9. Summary of fire assay results for the blank material from the drill program

Material	Recommended value (ppm Au)	Number of Samples Analysed	Average	Median	Standard deviation
blank		5	0.004	0.004	0.001

13.3.2 Pulp Re-Analysis

As a result of the detection of visible gold in some of the channel samples, a set of 6 samples were re-analysed from the original pulp. The results of these re-analyses did not agree well with the initial assays, so these samples were submitted for a screen/metallic assay at ALS-Chemex involving a 1,000 g screen fire assay – AA with duplicate assays on the undersize fraction and an assay of the entire oversize fraction. The total combined assay is then calculated from the individual assays normalized to the weight of that size fraction. The results of the screen analyses were mixed with some confirming the initial assay results but others returned both higher and lower values than the original assays (Table 10). The screen analyses did identify the presence of a coarse gold fraction that can result in a nugget effect controlling the results of the initial and check assay results based on a 30 g sample aliquot. As a result of these analyses, the analyses for the third phase of channel sampling and the diamond drill program were changes to the AU-ICP22 with the 50 g sample aliquot.

Table 10. Screen fire assay results from second phase channel sampling program

sample		Au Initial	Au re-assay	Au re-assay	Au Total Combined Screen	Au (+) Fraction	Au (-) Total Fraction	Au (-) 1	Au (-) 2
Units		ppm	ppm	ppm	ppm	Ppm	ppm	ppm	ppm
Detection Limit		0.001	0.001	5	0.05	0.05	0.05	0.01	0.01
I803025		0.536	0.405		0.50	0.36	0.51	0.58	0.43
I803080		0.934	0.863		0.72	1.16	0.68	0.63	0.73
I803086		0.535	0.812		0.78	12.40	0.75	0.85	0.65
I803100		1.085	0.823		0.79	0.68	0.79	0.78	0.80
I803107	VG	8.380	>10.0	14.05	4.35	28.30	3.78	3.85	3.70
I803108	VG	4.300	8.530		4.68	18.95	4.38	4.22	4.53
I803136		0.345			0.25	0.38	0.24	0.24	0.23

13.3.3 Duplicate Channel Samples

In the second phase of channel sampling, two samples from Trench 3 returned anomalous gold values over lengths of about 1.5 m. Sample I803107, channel #8, returned 8.38 ppm Au over 1.54 m containing north-trending, northeast dipping quartz veins up to 3.0 cm wide cutting altered syenite. Sample I803108, channel #9, returned 4.3 ppm Au over 1.47 m in a very shallowly northeast dipping quartz vein with about 40 cm of highly altered syenite in the central portion of the channel. Duplicate channels subdivide into shorter sample lengths were cut adjacent to the original channels to check the initial assay and to determine if gold is restricted to specific portions of the original sample.

In channel 8, the original sample length was subdivided into to roughly 4 equal lengths with each sample containing quartz-carbonate stringers and veinlets cutting pinkish grey, moderately potassic altered syenite (Table 11). Visible gold was noted in sample H344630 in a quartz-carbonate vein with trace pyrite and trace very fine-grained needles thought to be tourmaline. Although similar veins were present in the other samples, no other visible gold was noted. The average of the 4 samples was 4.61 ppm Au over 1.5 m. Although the average is less than the value returned by the original assay of 8.38 ppm Au, the two central samples returned assays greater than 7 ppm Au, and much of the difference between the original assay and average could be the result of the nugget effect of a coarse grain gold fraction as discussion in section 13.3.2. Pulp Re-analysis.

Table 11. Duplicate channel samples from Trench 3

sample	length	Au ppm	Au avg.	note
I803107	1.54	8.38		
H344629	0.40	1.595		
H344630	0.40	7.65		visible gold
H344631	0.30	7.24		
H344632	0.40	2.62		
total length	1.50		4.61	
I803108	1.47	4.3		
H344633	0.60	3.75		
H344634	0.40	8.75		visible gold
H344635	0.50	0.98		
total length	1.50		4.16	

In channel 9, the original sample length was subdivided into to roughly 3 lengths with the end samples consisting of predominately quartz-carbonate vein with trace pyrite and minor fragments of altered syenite. The central sample consisted of reddish brown, potassic altered syenite with quartz-carbonate veins up to 3 cm wide containing pyrite and trace very fine-grained needles of tourmaline. Visible gold was noted in sample H344634 in a quartz-carbonate vein similar to the veins bordering this sample. The average of the 3 samples was 4.16 ppm Au over 1.5 m which is comparable to the original assay of 4.3 ppm Au. The central sample returned much higher than the average sample correlating with the presence of the observed gold grains. Sample H344633 returned a value close to that of the original sample, but the continuation of the same vein in sample H344635 returned only 0.98 ppm Au. The difference in gold values between the first and third sample is probably the result of the nugget effect of a coarse grain gold fraction as discussion in section 13.3.2. Pulp Re-analysis.

13.3.4 Discussion

The results of the QAQC reference material submitted by Transition Metals appear to be precise and reasonably accurate, displaying a good degree of repeatability. Results of the analyses on the blank material submitted by Transition Metals, and the results of the laboratory duplicates, suggests that contamination during sample handling, cutting and laboratory preparation and analyses was insignificant.

Variability displayed by the results of the screen assays suggest that there is a nugget effect related to coarse size fraction gold grains. The nugget effect in assay samples can be minimized to some degree by smaller/shorter rather than larger/longer sample sizes so that more of the samples if pulped and the aliquot analysed is more representative of the whole sample. However, the shorter sample length does not guarantee that the gold grain will be included in the aliquot analysed as the same vein sampled in two different locations may return different gold values (Table 11, samples H344633 and H344635) as there may be other factors, such as the presence of syenite fragments, that may be important in controlling the presence of gold. So, there was a change from the 30 g to the 50 g sample aliquot for the gold analyses, to obtain a more representative assay, for the third phase of channel sampling and the diamond drill program. Initial work suggests that Ag could be an indicator of the presence of gold allowing identification of potential problems resulting from the nugget effect for gold, but further work is required to assess this idea.

14. DATA VERIFICATION

Analytical results for all assays greater than 0.500 ppm Au were compared against the signed digital laboratory certificates. The assay results matched the results used in the drill logs, drill sections, channel maps, and tables of results. In addition, the received sample weights compared well with the length of the core interval from the drill logs and the sample lengths in the channels.

15. ADJACENT PROPERTIES

The Haultain Property is adjacent to the past-producing silver mines of the Gowganda area that produced over 60,000,000 ounces of silver with two thirds of this coming from the Miller Lake O'Brien Mine (McIlwaine 1978). The bulk of the silver production in the Gowganda silver camp was concentrated approximately 1km east of the north eastern boundary of the Property. These mines are hosted near the upper contact of the Nipissing gabbro/ diabase sills within carbonate veins containing native silver with associated cobalt-nickel-iron arsenides. However, the Property is underlain by only minor portions of the lower sill contact along this eastern boundary.

The southeast parts of the Property are underlain more extensively by Nipissing gabbro and there are numerous trenches, pits, and shafts in those areas testament to extensive past surface exploration. The only mineralization explored along the lower contact of the Nipissing gabbro sill in the Gowganda area is in the Lower Bonsall. There is little information available for this property, which was part of the larger

United Siscoe Mines property and included the Millerett and Upper Bonsall Mines and the Roy-Ten group (McIlwaine 1978). Very little production is recorded from the Lower Bonsall, but McIlwaine (1978) reported that all of the ore mined in 1968 was at the lower contact of the Nipissing gabbro along an axis which plunged gently to the southeast. New ore was not encountered along this axis and underground operations were suspended in 1969.

This information is not necessarily indicative of the mineralization on the Property that is the subject of the current technical report.

16. MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing has been conducted on this Property.

17. MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

No mineral resource or mineral reserve estimates have been reported.

18. OTHER RELEVANT DATA AND INFORMATION

No other relevant data or information is known that may make this technical report understandable.

19. INTERPRETATION AND CONCLUSIONS

Despite the history of exploration and mining in the Gowganda silver camp, there is no documentation of gold exploration of the underlying and adjacent exposures of Archean greenstone in the camp. It appears as if the potential for the Archean rocks on the Property to host gold mineralization had not been identified nor investigated by previous explorationists, due to a focus on silver exploration from the younger formations of Proterozoic rocks by companies active in the area.

Work undertaken on the Property by Transition Metals to date has been preliminary in nature, consisting of surface mapping, trenching, and bedrock sampling. This work has been successful in discovering previously unrecognized occurrences of gold mineralization exposed at surface in two areas on the Property, and has confirmed that the Property exhibits favourable structural and geological conditions for hosting economic deposits of gold.

19.1 TRENCH 3

An approximate 60 m wide and up to 100 m long zone of gold mineralization has been exposed by stripping activities completed to date at Trench 3. The gold mineralization is associated with a swarm of medium to coarse-grained, massive to weakly foliated, syenite dykes and the adjacent highly altered and deformed metavolcanic rocks within the Jacobs Lake fault zone. The results of the trenching sampling program evidence a continuity of the gold mineralization both across and along the strike of the exposed syenite dykes. Reconnaissance mapping has traced strike extensions to the syenite dykes in Trench 3 up to 425 m along strike to the east and to the west. Additional outcrops of similarly altered looking syenite were also identified during reconnaissance mapping approximately 400 m north of the trend identified in Trench 3 which should be further exposed and systematically sampled.

Three styles of mineralization are identified at Trench 3. The most consistent mineralization is associated with the dykes that trend west to northwest, dipping steeply north, and host a series of north to northeast-trending, steeply east dipping quartz-carbonate tension veins and rare very shallowly north dipping veins. Both sets of veins have similar compositions, accessory mineral populations, and host visible gold mineralization, but the relationship between the veins of the two orientations is not clear. Auriferous quartz/carbonate veining at Trench 3 has also been identified near the sheared contacts between the syenite dykes and deformed metavolcanics. Additionally, a chloritic gabbro unit located near the southern contact of the syenite dykes and metavolcanics hosting coarse disseminated euhedral pyrite has been identified that returned up to 19.5 g/t Au. A similar style of mineralization was identified at what is interpreted to be a strike extension of this contact 400 meters to the east in Trench 1 which returned an assay value of 2.52 g/t Au.

Only two diamond drill holes totalling 165 meters have been completed on the Property by Transition Metals, and both are located in Trench 3. Both holes intersected a variably potassic altered, fragment-bearing syenite overprinted by fracture filling quartz/ankerite veining with the best intervals intersected in hole TMH10-02 including 1.46 g/t Au from 2.00 to 5.30 meters, 3.29 g/t Au from 23.53 to 25.39 meters, and 1.58 g/t Au from 40.31 to 52.00 meters including 3.07 meters grading 4.72 g/t Au. Elevated gold values appear to be associated with a late phase of fracture controlled to pervasive potassic alteration which can be visually distinguished due to the red colour it induces in the core and on fresh surfaces. Strong potassic alteration is also occasionally well developed around the margins of quartz/ankerite veins. Anomalous concentrations of gold were detected in TMH10-01 associated with similar contact environments exposed in the trench. Correlations between the trench mapping and hole TMH10-01 indicate that units dip approximately 50^{o} north with the apparent thickness of the gold-bearing formations being approximately 60 meters. A mafic dyke in the lower portion of drill hole TMH10-01 returned 1.67 g/t Au over 2.94 meters, including 3.6 g/t Au over 0.5 m. This mafic dyke is lithologically similar and 50 meters down dip from a grab sample that returned 19.5 g/t Au.

Results from the work completed at Trench 3 indicates that, although the main zone of gold mineralization appears to be associated with the syenite dykes, there may be a second environment for gold mineralization associated with the deformed and altered ultramafic to mafic metavolcanic and intrusive rocks cut by the syenite dykes. Some of these deformed metavolcanic rocks are strongly sheared, talc-carbonate altered, with variably quartz veined units and no recognizable primary textures resembling the green carbonate alteration of the Kirkland Lake area. The carbonate-fuchsite-altered meta-ultramafic rocks (green carbonate ore) hosts native gold-bearing quartz stockworks and ranks second in gold production in the Larder Lake – Virginatown gold deposits (e.g. Ayer et al. 2005; Isopolatov et al. 2008). Therefore, the structural controls, and alteration and mineralization styles associated with both the quartz-carbonated vein gold and the disseminated gold deposit models are probably the best guides for the current exploration program. However, further work is required to investigate the potential of both of these gold-bearing environments in the vicinity of Trench 3 and elsewhere on the Property.

19.2 BIG FOUR

The Big Four showing, located in the southwest portion of the current Property north of the radio tower hill, is underlain by Archean intermediate to felsic metavolcanic rocks and sulphide to oxide facies iron formation cut by Matachewan and Abitibi dikes. A northeast-trending carbonate-quartz vein containing arsenopyrite, cobaltite, pyrites, and galena cuts the iron formation. There is little known of the mineralization in this area other than the description presented by McIlwaine (1978) and an assessment file available in the Kirkland Lake Resident Geologists Office (McDougald 1968). Neither of these sources mention a potential for gold mineralization although diamond drilling completed in 1961 attempted to trace the extension of this iron formation to the east (Thoday 1961) but did not submit any samples for analysis.

A sample of cobaltite-rich carbonate material collected from the waste pile returned 1.83 g Au, 17.3 g Ag, 3.03% Co, 4.65 % As, and 10.6% S (H344643). A sample of highly fractured oxide facies iron formation with pyrite and chalcopyrite fractured fillings, also collected from the waste pile, returned 0.02 g Au, 12.2 g Ag, 1.49 % Cu, and 4420 ppm Zn (H344642). The presence of the iron formation provides an iron-rich source for a gold-bearing hydrothermal fluid to react and deposit gold as proposed by Dubé and Gosselin (2007) in the greenstone-hosted quartz-carbonate vein lode gold deposit model. Although, the high Co value in sample H344643 differs from the typical lode gold deposit model, and may suggest some connection to the Ag-Ni-Co-As-Bi five element deposits of the Gowganda area. A lack of past exploration records hinders any detailed interpretation of the mineralization in this showing. Additional exploration in the vicinity of this occurrence is recommended. This work should include geological mapping and prospecting, as well as a ground magnetic survey to assist in tracing the iron formation along strike beneath the Huronian sediments.

20. RECOMMENDATIONS

The geology of the Property appears favourable for the hosting of additional and/or potentially economical deposits of gold in a manner consistent to those deposits associated with other major gold camps in the Abitibi (Timmins, Kirkland Lake, Larder Lake, Val D'Or). Additional work to further assess the economic characteristics of the known gold occurrences, along with a more integrated property scale exploration program to evaluate occurrences of altered syenite and volcanics for the potential to host additional deposits of gold is strongly recommended.

20.1 PROPOSED 2011 EXPLORATION PROGRAM:

Additional stripping and trenching conducted between Trenches 1 and 3, and west of Trench 3 could be an effective approach to evaluate potential strike extension to the exposed mineralization, and to better identify associated structure controls to assist drill targeting in the vicinity of Trench 3. This work should be followed up by additional drilling in the vicinity of Trench 3 to further determine the extent of mineralization exposed at surface, at depth below the current exposure, and a long strike.

Portions of the Property underlain by Archean bedrock should be covered by a cut grid at a minimum line spacing of no greater than 100 meters. The purpose of establishing this grid would be to provide ground control and access to areas of the Property on a systematic basis, to collect additional samples of soil and rock, and facilitate systematic detailed geological mapping and prospecting.

Portions of this grid should be used to facilitate the collection of overburden and rock samples for submission for Soil Gas Hydrocarbon analysis. Soil Gas Hydrocarbon (SGH) analysis is recognized technology available to assist in determining the potential for buried deposits of metallic and non-metallic minerals. SGH is capable of analyzing soil, peat, vegetation, submerged lake sediment, and even rock and core (after milling) from a variety of climates. A properly designed SGH survey can provide precise target vectoring information to assist the identification of buried deposits. Due to the shallow depths of overburden cover observed on the Property, it is expected that most prospective target features identified, could be investigated by mechanical stripping.

Table 12 summarizes the type and quantity of work associated with the recommended work program. An estimated breakdown of each activity which includes associated transportation, accommodation, and salary related costs is also provided. It should be noted that this program constitutes what would be considered an initial program of exploration investigation on the Property.

Table 12. Proposed budget for the 2011 exploration program

Recommended Phase-1 Program	Quantity	Estimated Cost	
Line Cutting	40km	$	30,000.00
Soil Gas Survey	1,000 samples	$	92,500.00
Mapping	Property Coverage	$	90,000.00
Trenching/Channel Sampling	60 days	$	105,000.00
Phase 1Drilling	2,000 m	$	250,000.00
Contingency (15%)		$	85,125.00
Total:		**$**	**652,625.00**

Subject to favourable results from the Phase 1 drilling program, additional diamond drilling to determine the extent of mineralization discovered during the Phase 1 program could be warranted.

Table 13. Proposed Phase 2 budget for the 2011 exploration program

Recommended Phase-2 Program	Quantity	Estimated Cost	
Phase 2 Drilling	2,500 m	$	325,000.00
Contingency (15%)		$	48,750
Total:		**$**	**373,750.00**

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22. STATEMENT OF THE QUALIFIED PERSONS

I, Thomas R. Hart do hereby certify that:

1) I reside at 2404 Algonquin Road, Sudbury, Ontario P3E 5V1,

2) I graduated with an H.B.Sc. (Geology) degree in 1980 from the University of Western Ontario, and with a M.Sc. (Geology) degree in 1984 from the University of Toronto.

3) I have been practicing my profession in Canada since 1984, as an exploration geologist (an employee and independent consultant) on lode gold and base metal projects with exploration/mining companies in Canada at both a grass roots and advanced exploration stage, and as a mapping geologist with the Ontario Geological Survey.

4) I am a member of the Association of Professional Geoscientists of Ontario, the Prospectors and Developers Association of Canada, the Society of Economic Geologists, and the Geological Association of Canada.

5) I have read the definition of "Qualified Person" set out in National Instrument 43-101and certify that by reason of my education, affiliation with a professional association(as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.

6) I have prepared this report titled '43-101F1 Technical Report on the Haultain Property Haultain and Nicol Townships - Gowganda, Ontario (NTS 41P10); For Transition Metals Corp.', dated January 13, 2011.

7) I had no prior involvement with the Property, and this report is based on reconnaissance geological mapping of the property and collection of two channel samples to verify the initial sampling results in trench 3 completed from September 20 to 29, 2010; supervision of the November trenching and channel sampling program October 25 to November 7, 2010, and logging the core from the diamond drilling program from November 8 to November 12, 2010.

8) I have not earned the majority of my income during the preceding three years from Transition Metals Corp., or any associated or any affiliated companies.

9) I do not own, directly or indirectly, any interest in the properties or securities of Transition Metals Corp., or any associated or affiliated companies.

10) I am independent of the issuer applying all of the tests in section 3.5 of the Companion Policy of National Instrument 43-101.

11) I have read National Instrument 43-101 and Form 43-101F1 and have prepared this report in compliance with the Instrument and Form; as of the date of the certificate, to the best of my knowledge, information and belief, this report contains all the scientific and technical information required to be disclosed to make this report not misleading, and I am not aware of any material fact or material change with regard to the Property that would make the report misleading.

Signed and sealed this 13th day of January, 2011 in the City of Sudbury, Ontario

{signed and sealed}

Thomas R. Hart, M. Sc., P. Geo.

APPENDIX A

Analytical

Table D1: List of elements and detection limits for the Aqua Regia –ICP-AES analyses: ME-ICP41

Element	Symbol	Units	Lower Limit	Upper Limit
Silver	Ag	ppm	0.2	100
Aluminum	Al	%	0.01	25
Arsenic	As	ppm	2	10000
Boron	B	ppm	10	10000
Barium	Ba	ppm	10	10000
Beryllium	Be	ppm	0.5	1000
Bismuth	Bi	ppm	2	10000
Calcium	Ca	%	0.01	25
Cadmium	Cd	ppm	0.5	1000
Cobalt	Co	ppm	1	10000
Chromium	Cr	ppm	1	10000
Copper	Cu	ppm	1	10000
Iron	Fe	%	0.01	50
Gallium	Ga	ppm	10	10000
Mercury	Hg	ppm	1	10000
Potassium	K	%	0.01	10
Lanthanum	La	ppm	10	10000
Magnesium	Mg	%	0.01	25
Manganese	Mn	ppm	5	50000
Molybdenum	Mo	ppm	1	10000
Sodium	Na	%	0.01	10
Nickel	Ni	ppm	1	10000
Phosphorus	P	ppm	10	10000
Lead	Pb	ppm	2	10000
Sulfur	S	%	0.01	10
Antimony	Sb	ppm	2	10000
Scandium	Sc	ppm	1	10000
Strontium	Sr	ppm	1	10000
Thorium	Th	ppm	20	10000
Titanium	Ti	%	0.01	10
Thallium	Tl	ppm	10	10000
Uranium	U	ppm	10	10000
Vanadium	V	ppm	1	10000
Tungsten	W	ppm	10	10000
Zinc	Zn	ppm	2	10000

Table D2: List of elements and detection limits for the Fusion –ICP-AES analyses: ME-MS81

Element	Symbol	Units	Lower Limit	Upper Limit
Silver*	Ag	ppm	1	1000
Barium	Ba	ppm	0.5	10000
Cerium	Ce	ppm	0.5	10000
Cobalt*	Co	ppm	0.5	10000
Chromium	Cr	ppm	10	10000
Cesium	Cs	ppm	0.01	10000
Copper*	Cu	ppm	5	10000
Dysprosium	Dy	ppm	0.05	1000
Erbium	Er	ppm	0.03	1000
Europium	Eu	ppm	0.03	1000
Gallium	Ga	ppm	0.1	1000
Gadolinium	Gd	ppm	0.05	1000
Hafnium	Hf	ppm	0.2	10000
Holmium	Ho	ppm	0.01	1000
Lanthanum	La	ppm	0.5	10000
Lutetium	Lu	ppm	0.01	1000
Molybdenum*	Mo	ppm	2	10000
Niobium	Nb	ppm	0.2	10000
Neodymium	Nd	ppm	0.1	10000
Nickel*	Ni	ppm	5	10000
Lead*	Pb	ppm	5	10000
Praseodymium	Pr	ppm	0.03	1000
Rubidium	Rb	ppm	0.2	10000
Samarium	Sm	ppm	0.03	1000
Tin	Sn	ppm	1	10000
Strontium	Sr	ppm	0.1	10000
Tantalum	Ta	ppm	0.1	10000
Terbium	Tb	ppm	0.01	1000
Thorium	Th	ppm	0.05	1000
Thallium	Tl	ppm	0.5	1000
Thulium	Tm	ppm	0.01	1000
Uranium	U	ppm	0.05	1000
Vanadium	V	ppm	5	10000
Tungsten	W	ppm	1	10000
Yttrium	Y	ppm	0.5	10000
Ytterbium	Yb	ppm	0.03	1000

Element	Symbol	Units	Lower Limit	Upper Limit
Zinc*	Zn	ppm	5	10000
Zirconium	Zr	ppm	2	10000