

# REPORT ON THE DAYOHESSARAH LAKE PROPERTY 2010 & 2011 EXPLORATION PROGRAMS SAULT STE. MARIE MINING DIVISION, ONTARIO

PREPARED ON BEHALF OF HARTE GOLD CORP.

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### SUMMARY

The Dayohessarah Lake Property is located equidistant from Sault Ste. Marie and Thunder Bay, Ontario, 60 km east of the Hemlo Gold Camp and approximately 25 km north of the town of White River, On. The property encompasses the entire Dayohessarah Greenstone Belt, including the Sugar Zone and the newly discovered Wolf Zone. The property consists of 413 mining contiguous mining claims comprised of 1,840 claim units. Most of the property is in the name of Harte Gold Corp., except for three claims, which are under option from Lloyd Halverson., and are subject to an option agreement. A large number of the claims, including those which cover the Sugar Zone and Wolf Zone areas, are subject to a 3.5% net smelter royalty. This report describes the exploration programs between August 2010 and December 2011.

Exploration for gold and base metals on the property began in 1969. After an initial exploration program by Canex Aerial Exploration Ltd., the property was not explored for over 10 years until 1983, after the discovery of the nearby Hemlo Gold Camp. The Sugar Zone was first discovered in 1991 by Hemlo Gold Mines Inc. There have been 7 diamond drill programs on the Sugar Zone between its discovery and the diamond drill program in the spring/summer of 2010. Most of the exploration on the property has consisted of geophysical surveys, diamond drilling and prospecting.

The Dayohessarah Greenstone belt is situated between the larger Hemlo Greenstone Belt to the west and the Kabinakagami Greenstone Belt to the east, which together make up the Schreiber-White River Belt of the Wawa Subprovince of the Superior Craton. The Late Archean Dayohessarah Greenstone Belt trends northwards and forms a narrow, eastward concave crescent. The belt is approximately 36 km in length and between 1.5 and 5.5 km in width. The belt mostly consists of moderately to highly deformed metamorphosed volcanics, volcanoclastics and sediments, which have been enclosed and intruded by tonalitic to granodioritic quartz-porphyry plutons.

The belt has been metamorphosed to upper greenschist to amphibolite facies. The belt has been strongly foliated and strained, caused by the emplacement of the Strickland Pluton. The main area of focus on the Belt is the gold bearing Sugar Zone.

A total of 20.475 km of line cutting, and ground IP/mag was completed over the newly discovered Wolf Zone in August, 2010. The geophysical survey outlined a number of potential targets, including the Wolf Zone. Two more grids totalling 60.8 km were completed over the Fold Nose area on the western and northern shores of Hambleton Lake, and



subsequent ground IP/mag surveys were completed. Several more geophysical anomalies were outlined on these grids. A fourth grid, totalling 5.2 km was completed near the Gossan Zone on the west side of Dayohessarah Lake. This grid outlined a couple of small, geophysical anomalies. Additional geophysical work done on the property included a Borehole Induced Polarization survey on 11 diamond drill holes intersecting the Sugar Zone, and an airborne VTEM survey over the central-northern portion of the property.

A small, two man prospecting program was undertaken on the property between May and October, 2011. The program focused on the Gossan Zone, the Boulder Train area and geophysical anomalies in the Fold Nose area. A total of 168 samples were taken, and highlights from the prospecting program were mostly samples taken from the Boulder Train area.

Between September and October 2010, a trenching program over geophysical anomalies on the Wolf Zone grid was undertaken, and totalled five surface trenches. The trenching was targeting potential source locations of the high grade peacock boulder, discovered during prospecting. One trench uncovered, and lead to the initial sampling and discovery of the Wolf Zone.

There were several diamond drill programs on the property over the Wolf Zone, Sugar Zone and Fold Nose Area. A total of 32 diamond drill holes were drilled into, and near the newly discovered Wolf Zone between October 17, 2010 and October 11, 2011. The drilling totalled 5,387.94 m over 4 mining claims. Drilling was successful in outlined, and defined the Sugar Zone. 27 diamond drill holes, totalling 7,885.74 m were completed on, and near the Sugar Zone between April 13 and November 24, 2011. The drill program was designed for infill drilling of the zone, and to test the width and grade of the zone below depths of 400 m. A total of 3,430.93 m of drilling was completed in 15 diamond drill holes in the Fold Nose area. The drill programs were designed to test geophysical anomalies with gold potential along strike of the Sugar and Wolf Zones. The fold nose drilling was unsuccessful in locating any significant gold mineralization.

Three main recommendations have been made for future exploration programs by Harte Gold. Additional drilling of the Wolf Zone, at depths of 300-600 vertical meters should be the main focus. An airborne VTEM survey should be completed on the rest of the property, to provide a conclusive geophysical image of the property, and to provide a geophysical signature of the Sugar Zone. Finally, a ground I.P. and magnetic survey should be completed over the Sugar Zone, and extent to the mafic volcanic-sedimentary contact near the eastern shore of Dayohessarah Lake.



### **1.0. INTRODUCTION**

### 1.1 GENERAL

In 1998, Harte Gold Corp. (Harte) entered into an option agreement on most of the unpatented mining claims comprising the Dayohessarah Lake Property, including the Sugar Zone. Harte Subsequently entered into a Joint Venture agreement with Corona Gold Corp.

The original claims are subject to 3.5% net smelter royalty ("NSR"). The Joint Venture participants, namely Corona (51%) and Harte (49%), have the option of acquiring 1.5% of the 3.5% NSR for \$1.5 million, in proportion to their respective interest and have, in addition, the right of first refusal on the remaining 2.0% NSR.

Harte and Corona entered into an Option Agreement (the "Corona Option") dated May 28, 2010, entitling Harte to acquire Corona's 51% interest in the Sugar Zone Joint Venture on completion of certain conditions. Effective March 10, 2010, Harte became the Operator of the Sugar Zone Joint Venture for as long as the Corona Option is in good standing.

On June 28, 2010, Harte entered into an Option Agreement to acquire three mining claims contiguous to the claims previously held. In November 2010, eighty-three unpatented mining claims were staked around the Sugar Zone Property in order to provide a buffer zone around the core mining claims. As of the date hereof, Harte holds a total of a total of 413 mining claims covering an area of approximately 28,600 hectares.

This report has been written to summarize the exploration program, and the results obtained from the field operations, by Harte Gold Corp. on the Dayohessarah Lake Property between September 2010 and December 2011.

### **1.2 SOURCES OF INFORMATION**



Documents used in the preparation of this report are listed under "References".

### 1.3 UNITS AND CURRENCY

Metric units are used throughout this report. Tonnages are shown as tonnes (1,000 kg), linear measurements as m ("m"), or kilometres ("km") and precious metal values as grams ("g"), grams of gold per tonne ("g/t Au").

Best drill hole gold assay intersections have been tabulated in metric units. Gold ("Au") is the principal mineral of economic interest. Any results from historic work, which is represented in imperial units, has been converted to metric units using the following conversions.

1.0 ounce per short ton (opt) = 34.2857 grams per metric tonne (g/t) 2.0 metric ton (1,000 kg) = tonne (T) = 0.90718474 short tons 1.0 metre = 3.28 feet

### 2.0. PROPERTY DESCRIPTION AND LOCATION

### 2.1 LOCATION AND ACCESS

The Dayohessarah Lake Property is situated approximately 25 km northeast of the Town of White River (Trans Canada Highway No. 17) and 60 km east of the Hemlo gold camp. The Property is approximately equidistant from Sault Ste. Marie to the east and Thunder Bay to the west (Figure 1). The overall Property encompasses NTS zones 42C/ 10, 11, 14 and 15 and the gold mineralized occurrences are exposed at Latitude 48°48' North, Longitude 85°10' West and covers portions of Odlum, Strickland, Gourlay, Tedder and Hambleton Townships, and falls within the Sault Ste. Marie Mining Division.

The Property can be accessed via a series of logging roads and drill trails extending north from the community of White River. Access is also available by way of float plane, based in White River via Dayohessarah Lake or Hambleton Lake, and by helicopter based in Wawa or Marathon.

# Figure 1. HARTE GOLD CORP. Dayohessarah Lake Property Hambleton Township, Ontario Location Map 64 50° QUEBEC Manitouwadge Nipigon Red Rock **Dayohessarah Lake** Schreiber Marathon **Property** CANADA U.S.A.

Watts, Griffis and McOuat



The western and southern portions of the Property are accessible via a series of logging roads controlled by White River Forest Products Limited. Road No. 100 extends north from the western end of White River. Road No. 200 intersects Road No. 100 20 km from Highway 17 and provides access to the western and southern portions of the property. Road No. 300 intersects Road No. 100 36 km from Highway 17 and provides access to the very northern portion of the Property. Road No. 300 6 km from Road No. 100 and provides access to northern and eastern parts of the Property. Road access to within 400 m of the Sugar Zone is available via a small road heading south and southwest from Road No. 305 for 8.8 km. From there, access to the Sugar Zone is available via all-terrain or tracked vehicles in the summer, and snowmobiles, tracked vehicles and trucks in the winter. The distance from White River to the Sugar Zone is approximately 60 km by road.

Areas surrounding Dayohessarah, Hambleton, Strickland and Pike Lakes are designated by the Ontario Ministry of Natural Resources as 'Restricted Access'. Locked gates on Road No. 200 and Road No. 305 control vehicular access in order to prevent access to remote lodge operations on two lakes. Permits are required for road access to most of the Sugar Zone property for mineral exploration purposes.

### 2.2 DESCRIPTION OF MINING CLAIMS

The Dayohessarah Lake Property consists of 413 unpatented, unsurveyed, contiguous mining claims comprising 1,840 claim units, and covering approximately 28,600 hectares. All claims are held in the name of Harte Gold Corp., except for SSM 4228496, 4228497 and 4228499, which are held in the name of Lloyd Joseph Halverson and are subject to an option agreement. The Property boundaries are marked by claim lines but have not been surveyed (Figure 2).

There are two mining alienations which border parts of Harte's current claim block. The largest (W-LL-C1521) lies to the east of the current claim area and shortly borders claim 4260617 on the east, and Hwy 631 on the west. The second alienation (No. 2847) lies completely within Harte's current claim block, west of Dayohessarah Lake. Surface rights are held by the Crown and timber cutting rights are held by White River Forest Products Ltd.







The Property comprises the following unpatented mining claims: SSM 937765 – 768, SSM 937770 – 772, SSM 1043698, SSM 1043701 – 712, SSM 1043715 – 717, SSM 1043803, SSM 1043806 – 812, SSM 1043814 – 828, SSM 1044094 – 097, SSM 1044100 – 103, SSM 1055500 – 543, SSM 1055576 – 589, SSM 1069100, SSM 1069120 and 121, SSM 1069186 – 194, SSM 1069196 – 199, SSM 1069300 – 350, SSM 1069352 – 376, SSM 1069378 – 391, SSM 1078243 – 259, SSM 1078265 – 277, SSM 1078314 – 319, SSM 1135498 and 499, SSM 1140638 – 649, SSM 1140658 – 660, SSM 1174765 – 766, SSM 1182993 and 994, SSM 1183012 – 021, SSM 1194337, SSM 1194339 and 340, SSM 1232640 and 641, SSM 1235594 and 595, SSM 3012217 – 218, SSM 3018389 – 393, SSM 4201064 – 067, SSM 4201069 – 071, SSM 4201074 – 081, SSM 4201082 – 093, SSM 4228496 and 497, SSM 4228499, 4260601 – 683, and SSM 4267212. All claims are within the Sault Ste Marie Mining Division of Ontario.

### **3.0. PHYSIOGRAPHY AND VEGETATION**

The climate is northern boreal, with short hot summers and cold, snowy winters. Some field operations, such as drilling, can be carried out year-round while other operations, such as prospecting and mapping, can only be carried out during the late spring, summer and early autumn months.

The temperatures can range from -35°C in the winter to +30°C in the summer; though the mean temperatures are around -21°C to +20°C. Rainfall is about 727 mm annual average, with the wettest month being September (120 mm average). Snow is abundant, often reaching several metres with December and January having the heaviest snowfall (about 80 cm). Snow is on the ground by late October and the ice begins to thaw on the lakes by April.

The topography on the Property varies from moderate to rugged, with lake levels generally at 390 m above sea level, and occasional hills up to 480 m elevation. The overburden is generally between 0 to 20 m deep on the Property, with occasional bouldered terrain, and normally approximately 2 to 3 m overlying the Sugar Zone. Vegetation is boreal, with jack pine, fir, poplar and birch occupying dry uplands and cedar, tamarack and spruce growth on more poorly drained terrain.

### 4.0. HISTORY

Exploration for gold and base metals has been conducted on the Dayohessarah Greenstone Belt property since 1969. After over 10 years of very little work, exploration started to pick up on the



property again in 1983, after the discovery of the Hemlo Gold camp. A complete timeline of mineral exploration on the Dayohessarah Greenstone Belt is presented below.

- 1969 Canex Aerial Exploration Ltd. drilled three diamond drill holes in the vicinity of the mafic/ultramafic intrusives and flows near the north end of Dayohessarah Lake. Results include an intersection of 0.326% Ni and 0.08% Cu over 5 ft. in metagabbroic rocks.
- 1983-1986 Pezamerica Resources Limited conducted an exploration program which included an airborne Mag and EM survey that outlined thirty-one (31) geophysical anomalies in the area. Twenty-four (24) of these anomalies were investigated by Teck Exploration on behalf of Pezamerica. Teck Exploration drilled nine airborne geophysical targets based on coincidental soil gold anomaly trends. In all cases, the airborne anomalies were explained by pyrite/pyrrhotite rich horizons within felsic volcanics. Hole PZ-6 returned appreciable amounts of sphalerite mineralization (0.47% Zn over 2.8 feet). None of the assayed core returned significant gold values.
- 1990 Most of the Dayohessarah Greenstone Belt is staked by a prospecting syndicate.
- 1991 The Property is optioned from the prospectors by Hemlo Gold Mines Inc. Initial prospecting uncovered the gold-bearing Sugar Zone deposit. Based on bedrock exposure and trenching, the Sugar Zone was traced for 750 m, and a ground IP survey outlined the Sugar Zone structure extending for 1,500m.
- Hemlo Gold conducted a preliminary diamond drill program to test the Sugar Zone for economic gold mineralization. A grid was cut with a 6 km baseline and tie-lines ranging in spacing between 100 m and 1,000 m. Six diamond drill holes were completed totalling 800 m. All drill holes intersected significant gold mineralization in the Sugar Zone. A small trenching program is initiated on the Sugar Zone.
- Hemlo Gold proceeds with initial geological mapping, prospecting and a follow-up drill program. Fifteen diamond drill holes are completed on the Property, totalling 2,416 m. Eight of the drill holes intersected the Sugar Zone. An I.P. survey is completed over the southern portion of the Property, and a Mag survey is completed over the entire grid. After the exploration program, the Property was returned to the prospecting syndicate who initially staked the ground, due to legal reasons.



1998-1999 Most of the Property is optioned from the prospectors syndicate. The mining claims were subject to a Joint Venture agreement between Corona Gold Corporation (51%) and Harte Gold Corp. (49%). Corona was the operator. The initial 313 claims are subject to a 3.5% net smelter royalty ("NSR"), and the Joint Venture participants have the option to acquire 1.5% of the 3.5% NSR for \$1.5 million, and have the right of first refusal on the remaining 2.0% NSR.

Corona carries out an extensive exploration program. The existing grid was rehabilitated and new grid lines established east of Dayohessarah Lake. In total, 96.1 km of grid lines with 100 m spacing oriented at 320° azimuth are cut over the Sugar Zone area. An oriented soil sampling program is carried out on the grid, as well as mapping and sampling. Prospecting was limited to the Sugar Zone and extensions of the Sugar Zone to the south and to the north. A surface power trenching program is conducted on parts of the Sugar Zone and six trenches were excavated, washed, channel sampled and mapped in detail. A detailed Mag-VLF and reconnaissance gradient I.P. survey is performed on the Property.

A diamond drilling program totalling 9,937 m of NQ core in 53 holes is completed, mostly into and around the Sugar Zone. The drill holes cover 3 km of strike length, and intersect the zone at approximately 50 m spacing at shallow depths. A secondary purpose of the program was to follow-up low grade mineralization encountered in previous drilling by Hemlo Gold and to test previously untested/poorly tested I.P. anomalies west of the Sugar Zone and east of Dayohessarah Lake.

Preliminary Mineral Resource estimates of the Sugar Zone mineralization in the 12000 N to 13100 N area were prepared, based on the drilling program noted above. Another estimate was made, using revised and refined criteria and polygonal methods, in the spring 1999, following additional data evaluation (Hunt and Drost, 1999).

2003-2004 Corona conducts a diamond drilling program totalling 7,100 m in 26 holes. The drill program mostly intersects the Sugar Zone and is successful in its purpose of expanding the strike and dip extent of the zone, as well as increasing the level of confidence in the continuity of mineralization by in-fill drilling.



- 2004 Corona conducts another diamond drilling program totalling 3,588 m in 11 holes. The program is successful in increasing the mineralization extent of the Sugar Zone, as well as increasing the defined Sugar Zone depth to a vertical depth of 300 m. A new Mineral Resource estimate was completed.
- A helicopter airborne geophysical survey was flown over the Property by Fugro Airborne Surveys Corp., under contract from Corona. The survey used a DIGHEM multi-coil, multi-frequency electromagnetic system along with a high sensitivity cesium magnetometer. A total of 1,917 line km were flown. It was recommended by Hunt that compilation of historic exploration data on the remainder of the Property be followed by a program of reconnaissance mapping and prospecting to evaluate the Fugro airborne conductor axes on the ground, as well as to identify additional target areas extending both north and south of existing Sugar Zone mineralization and elsewhere on the property.
- 2009 During March, Corona undertook a drilling program totalling 2,020 m in 10 holes. The purpose of the program was to test airborne electromagnetic conductors, magnetic anomalies, induced polarization chargeability anomalies and geologically defined possible extensions to the north and the south of the known Sugar Zone mineralization.

During July to September, a prospecting, reconnaissance geological mapping and channel sampling program was undertaken on geophysical targets outlined by the Fugro airborne geophysical anomalies. Highlights included sampling of a float rock returning a value of 87.80 g/t Au, as well as grab samples from quartz veining east of the Sugar Zone returning values of 30.40 and 9.04 g/t Au.

2010 Harte Gold Corp. initiates it first drilling program. During March, a diamond drill program totalling 2,097.31 m in 12 holes, two of which were aborted before reaching the Sugar Zone. The program was successful in locating a high grade area of the Sugar Zone located near surface and directly under a series of surface trenches. The drill program was also successful in determining that the Sugar Zone has significant mineralization below 300 m depth.



### **5.0. GEOLOGICAL SETTING**

### 5.1 REGIONAL GEOLOGY

The Dayohessarah Greenstone Belt is situated between two larger greenstone belts; the Hemlo Greenstone Belt to the west and the Kabinakagami Greenstone Belt to the east. These greenstone belts are part of the larger, east trending Schrieber-White River Belt of the Wawa Subprovince of the Superior Craton (Figure 3). The Late Archean Dayohessarah Greenstone Belt trends northwest and forms a narrow, eastward concave crescent (Figure 4). The belt is approximately 36 km in length and varies in width from 1.5 to 5.5 km. Principal lithologies in the belt are moderately to highly deformed metamorphosed volcanics, volcanoclastics and sediments that have been enclosed and intruded by tonalitic to granodioritic quartz-porphyry plutons.

The greenstone belt is bordered to the east by the Strickland Pluton and to the west by the Black Pic Batholith. The Danny Lake Stock borders the south western edge of the Dayohessarah Greenstone Belt. The Strickland Pluton is characterized by a granodioritic composition, quartz phenocrysts, fine grained titanite, and hematitic fractures. The Black Pic Batholith is similar to the Strickland Pluton, but locally more pottasic. The Black Pic Batholith also contains interlayers of monzogranite. The Danny Lake Stock is characterized by hornblende porphyritic quartz monzonite to quartz monzodiorite (G. M. Stott, 1999).

The Dayohessarah Greenstone Belt has been metamorphosed to upper greenschist to amphibolite facies. The Strickland Pluton seems to have squeezed the greenstone belt and imposed upon it a thermal metamorphism. Most of the mafic volcanics are composed primarily of plagioclase and hornblende. Almandine garnets are widely observed in the clastic metasediments and locally, along with pyrope garnets, in the mafic volcanics (G.M. Stott, 1996).

Alteration throughout the belt consists of diopsidation, albatization, weak magnesium biotization, weak carbonatization and moderate to strong silicification which accompanied the emplacement of the porphyry dykes/sills and quartz veining.

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The belt has been strongly foliated, flattened and strained. Deformation seen in the supracrustal rocks has been interpreted to be related to the emplacement of the Strickland Pluton. Strongly developed metamorphic mineral lineations in the supracrustal rocks closely compare with the orientations of the quartz phenocryst lineations seen in the Strickland Pluton. This probably reflects a constant strain aureole imposed by the pluton upon the belt (G.M. Stott, 1996). The strain fabric is best observed a few hundred meters from the Strickland Pluton in the Sugar Zone, which has been characterized as the most severely strained part of the belt. The Sugar Zone is defined by sets of parallel mineralized quartz veining, quartz flooding of strongly altered wallrock, thin intermediate porphyry lenses and dykes/sills parallel to stratigraphy and foliation, and gold mineralization.

Foliations and numerous top indicators define a synclinal fold in the central portion of the belt. The synclinal fold has been strongly flattened and stands upright with the fold hinge open to the south and centred along Dayohessarah Lake.

### 5.2 PROPERTY GEOLOGY

Near Dayohessarah Lake, the belt is dominated by a basal sequence of massive to pillowed mafic volcanics, commonly with ellipsoidal, bleached alteration pods, overlain by intermediate tuff and lapilli tuff. The tuffaceous units rapidly grade upwards to a sedimentary sequence consisting of greywacke and conglomerates derived from volcanics, sediments and felsic intrusive sources (G. M. Stott, 1996). Several thin, continuous cherty sulphide facies iron formations are found in the mafic volcanic sequence. Spinifex textured komatilitic flows stratigraphically underlie the main sedimentary sequence and can be traced around the north end of Dayohessarah Lake. Also at the north end of Dayohessarah Lake, mafic and ultramafic sills and stocks underlie the komatilites (Figure 4).

Several fine to medium grained, intermediate feldspar porphyry dykes/sills have intruded and swarmed the belt. Swarming of the intermediate porphyry dykes is more intense east of Dayohessarah Lake. Stott has interpreted the porphyry sills and associated porphyry bodies to be related to the Strickland Pluton. A smaller granitic quartz porphyry body containing some sulphide mineralization is located northwest of Dayohessarah Lake. The porphyritic texture of the dykes/sills is often nearly, or completely, obliterated by the degree of foliation in the greenstone belt, or by the degree of shear in the Sugar Zone. These intermediate dykes/sills vary in abundance across the Property, but increase in regularity within, and around, the Sugar Zone. There is also a consistent, weak pervasive silicic



alteration in the intermediate intrusives, as well as consistently trace amounts of very fine grained disseminated pyrite.

The major linear structure recognized on the Property is the Sugar Deformation Zone (SDZ), which trends northwest-southeast for approximately 3.5 km and dips southwest between 65° and 75°. The SDZ appears to be spatially related to the Strickland Pluton and is a complex system with strain intensities varying from strongly deformed-pillow mafic volcanics to undeformed massive mafic flows to anastomosing linear areas. Stratigraphically-conformable porphyritic intermediate intrusions swarm through the SDZ. Both the mafic volcanics and the intermediate intrusives exhibit moderate linear fabrics along with hydrothermal alteration (i.e., silicification).

In general, the north-westerly striking, south-westerly dipping stratigraphy hosting the gold mineralized portions of the Sugar Zone can be subdivided into the following units:

- Hanging Wall Volcanics;
- Upper Zone (Sugar Zone mineralization);
- Interzone Volcanics;
- Lower Zone (Sugar Zone mineralization);
- Footwall Volcanics.

The Hanging Wall, Interzone and Footwall volcanic horizons consist predominantly of massive and pillowed basalt flows generally striking northwest and dipping at an average angle of 64° to the southwest. Coarse to very coarse grained, locally gabbroic-textured phases form a significant component of the Hanging Wall mafic volcanic package. It is believed that these phases represent thick, slowly-cooled portions of the massive mafic flows, as they commonly grade into finer grained, more recognizable basaltic flows, and eventually even pillow flows. In much of the area which drilling on the Sugar Zone was carried out, a distinctive, very coarse grained mafic volcanic flow was observed consistently about 15 m stratigraphically above the Upper Zone. Other than this unit, specific mafic flows, as well as intermediate porphyry units, are nearly impossible to interpret/distinguish between holes.

The Upper and Lower zones range in thickness from 1.5 to 10 m, strike at  $140^{\circ}$  and dip between  $65^{\circ}$  and  $75^{\circ}$  with minor undulations.

The auriferous Wolf Zone lies in the northern extent of the SDZ, but drilling between the two zones indicates that the zones are complexly separate from each other. Like the Sugar Zone, the Wolf Zone



is north-north-westerly striking, and south-westerly dipping. Unlike the Sugar Zone, there is only one gold mineralized zone, and not two or more parallel zones.

A northerly-striking, sub-vertically dipping, dark grey-black, diabase dyke intrudes the older rock types in the greenstone belt, and cuts across the SDZ. The diabase obliterates the SDZ when it is encountered. The diabase dyke is aphenetic around the edges and, where thick enough to do so, grades to a coarse grained euhedral rock in the middle of the dyke. The dyke exhibits very coarse grained greenish quartz-epidote phenocrysts up to 3 cm across throughout. The dyke is weakly pervasively magnetic. A very small amount of lateral movement of the zones has been interpreted locally on either side of the dyke, suggesting that very minor dyke-related faulting has occurred. There are at least two more diabase dykes on the property. They strike at 35 degrees across the northern portion of the belt. These dykes are up to 40 m across, and are similar in appearance and mineralogy to the dyke that cuts through the Sugar Zone.

Other than the diabase, the youngest intrusive rocks observed on the Property are white to pale grey, fine grained to medium grained and occasionally pegmatitic felsite dykes. The dykes generally consist of varying amounts of plagioclase, quartz and muscovite. These generally thin dykes strike northeast and where they intersect the SDZ, they completely wipe out the zone. These dykes are undeformed and clearly postdate the mineralization and deformation events.

### 6.0. MINERALIZATION

### 6.1 SUGAR ZONE

The auriferous Upper and Lower zones of the Sugar Zone lie within the SDZ. They are defined as highly strained packages consisting of variously altered mafic volcanic flows, intermediate porphyritic intrusions and boudinaged auriferous quartz veins. The two zones range in true thickness from about 1.5 to 10 m, and are separated by 20 to 30 m of barren volcanics.

Each zone is made up of one or more porphyritic intrusions, flanked by altered basalt and hosting stratigraphically conformable quartz veins. Alteration within the mafic volcanic potions of the zones consists primarily of silicification (both pervasive and as quartz veining), diopsidation and biotization. The porphyry units of the zones exhibit biotite and silica alteration as well, but no diopside alteration.



The Upper and Lower zones appear geologically consistent both down dip and along strike. The Lower Zone has consistently larger widths, as well as mostly consistently higher grades of gold mineralization, however both the width, and the gold grade within each zone seem to follow the same trends across the zone. That is to say, that where the Upper Zone exhibits larger widths and higher gold grades, the Lower Zone also exhibits larger widths and higher gold grades. The zones are observed on surface to pinch and swell over distances of 50 m or more.

Gold mineralization mostly occurs in quartz veins, stringers and quartz flooded zones predominantly associated with porphyry zones, porphyry contact zones, hydrothermally altered basalts and, rarely, weakly altered or unaltered basalt within the Upper and Lower zones.

Fine to coarse grained specks and blebs of visible gold are common in the Sugar Zone quartz veins, usually occurring within marginal, laminated or refractured portions of the veins. The visible gold itself is often observed to be concentrated within thin fractures, indicating some degree of remobilization. Quartz veins and floods also contain varying amounts of pyrrhotite, pyrite, chalcopyrite, galena, sphalerite, molybdenite and arsenopyrite. The presence of galena, sphalerite and/or arsenopyrite is a strong indicator of the presence of visible gold. Pyrite, chalcopyrite and, rarely, molybdenite form a minor component of total sulphides and do not appear to be directly related to the presence of gold mineralization.

Other mineralized zones have been observed between, above and below the Sugar Zone Upper and Lower zones, in diamond drilling. Most of these intercepts are believed to be quartz veining originating in either the Upper or Lower zone, that have been diverted from the sheared part of the zone, up to 30 m from the main bodies of mineralization. One of these zones is the historically discovered Zoe Zone, which has been recently renamed the Lynx Zone, which lies east of the southern end of the Sugar Zone.

### 6.2 WOLF ZONE

The auriferous Wolf Zone lies along strike of the Sugar Zone, and may represent the northern extension of the SDZ. It is defined as highly strained packages consisting of variously altered mafic volcanic flows and gabbros. The zone ranges in true thickness from 0.5 to 8 m.

The zone is made up of highly sheared mafic volcanics, and a network of intrusive, intermediate quartz-feldspar porphyry dykes/sills. Alteration in the mafic volcanic and gabbro units consists mainly



of silicification (both pervasive and quartz veining), diopside alteration and magnesium rich, brown biotite alteration. Alteration within the intermediate porphyry units consist of mostly silicification, with small amounts of magnesium-rich brown biotite, and no diopside. The zone is observed in trenches to pinch and swell over 30 m.

Gold mineralization mostly occurs in quartz veins, stringers and quartz flooded zones predominantly associated with porphyry zones, and hydrothermally altered basalts and gabbros.

Fine grained specks of visible gold are occasionally observed in the Wolf Zone quartz veins. The visible gold itself is often observed to be concentrated within thin fractures, indicating some degree of remobilization. Quartz veins and floods also contain varying amounts of pyrrhotite, pyrite and occasional galena. The presence of galena is a strong indicator of the presence of visible gold. Pyrite and pyrrhotite form most of the total sulphides, but do not appear to be directly related to the presence of gold mineralization.

### 7.0. GEOPHYSICS

### 7.1. WOLF ZONE GRID

In July and August of 2010, Harte Gold contracted Dan Patrie Exploration to cut a grid along the northeastern edge, and around the northern edge of Dayohessarah Lake, totalling 20,475 m. Ground magnetic and I.P. surveys were conducted on the grid by Dan Patrie Exploration for Harte immediately following completion of the grid. The Geophysics was reinterpreted by JVX Ltd. in April 2011.

The geophysical survey was successful in outlining several lineal chargeable features striking parallel to the regional foliation. The chargeability results, along with the magnetic and conductivity results, were used to create targets for prospecting, as well as exploration drilling. The main target areas were the geophysical anomalies up ice of the newly discovered peacock boulders (See Section 9.0.). A moderately high chargeability anomaly 250 m up-ice lead to the discovery of the gold bearing Wolf Zone. The chargeability map, showing the location of all of the grid based ground geophysics, is presented in Figure 5. The full maps, in greater detail, are available in the back pocket.





### 7.2. FOLD NOSE GRIDS

During May and June 2011, two grids totalling 60,800 m was completed over the 'Fold Nose' area on the northern part of the greenstone belt. The grids were labelled the Hambleton East and Hambleton North Grids. Ground IP and Magnetic surveys were completed over this grid by JVX Geophysical Surveys and Consulting.

The geophysical survey was successful in outlining several lineal chargeable features striking parallel to the regional foliation. The chargeability results, along with the magnetic and conductivity results, were used to create targets for prospecting, as well as exploration drilling (HG holes). Overburden was generally too thick to do any detailed prospecting work on specific geophysical targets. The drilling defined most of the chargeability high zones as iron formations, or interlayered sedimentary packages, and did not return significant gold values (see section 10.4.). The chargeability map for all of the grid based ground geophysics is presented in Figure 5. The full maps are available in the back pocket.

### 7.3. GOSSAN ZONE GRID

The Gossan Zone refers to two strongly sulphidized gossans near the west side of Lake Dayohessarah, and is described more completely in section 8.0. A small, five-line grid was completed 1.2 km south of the Gossan Zone in August, 2011. The grid totalled 5,200 m running at approximately 60°. The three lines in the middle are all 1,000 m long and spaced at 100 m. The two lines on the north and south ends of the grid are 1,000 m long (north line) and 1,200 m long (south line) and are spaced at 200 m from the other lines. There is no base line in the grid. Prospecting was performed over the grid in chargeability anomalies and sampling mostly consisted of large amounts of fine grained disseminated pyrite and pyrrhotite in a strongly silicified sedimentary unit. Prospecting on the Gossan Grid returned values up to 1.1 g/t Au. The chargeability map for all of the grid based ground geophysics is presented in Figure 5. The full maps are available in the back pocket.

### 7.4. SUGAR ZONE BORE HOLE SURVEY

A Borehole Induced Polarization (BHIP) survey was conducted on the Sugar Zone by JVX Geophysical Surveys and Consulting between August  $2^{nd}$  and  $19^{th}$ , 2011 using a Tx II – 3600 W Model Induced Polarization Transmitter. The survey was done over three mining claims (1182994, 1135499



and 1135498). The survey looked at eleven drill holes, each penetrating the Sugar Zone, and all spread apart along the zone, and a BHIP 3D direction array (gradient) was carried out on each hole. The Survey moderately outlined the Sugar Zone, and may have outlined a large, high conductor zone at a depth of 600 m. Drill has not yet tested this zone. The JVX report for the survey is presented in Appendix V.

### 7.5. AIRBOURNE VTEM SURVEY

Between August 30 and September 1 of 2011 a helicopter-borne VTEM survey was flown of the central-northern portion of the current property by Geotech Ltd. (245 Industrial Parkway North, Aurora, On.) using a Geotech Time-Domain EM (VTEM Plus) System. The survey was conducted over 73 east-west traverse lines and 4 north-south ti-lines totalling 312.2 line kilometres and covered 26.77 km<sup>2</sup>. The survey outlines 5 moderate to strong, large conductive areas. The moderate conductive zones seem to follow the two large diabase dykes cutting across the northern end of the property at 35 degrees, as mentioned in section 5.2. Some of the high conductive areas are explained by the presence of komatilitic flow volcanics along the northern edge of Dayohessarah Lake, as well as strongly sulphidized sedimentary zones inter-layered in the mafic volcanics north of Dayohessarah Lake, striking north-south. The complete report from Geotech Ltd. is presented in Appendix IV.

### 8.0. PROSPECTING PROGRAM

Prospecting on the Dayohessarah Greenstone belt was mostly conducted by Terry Halverson and Tim Sauriol and focused on several areas of interest across the property. A total of 168 samples were taken between May 17, 2011 and August 25, 2011. The sample descriptions are located in Appendix II.

Prospecting focused on three main areas. The first area of focus was the Gossan Zone on the west side of Dayohessarah Lake. Initial prospecting, based on old reports of a gold bearing gossan zone uncovered two large gossan zones. The zones were characterized as a quartz-sericite-muscovite schist with up to 3% fine grained disseminated pyrite and 2-5% quartz veining. The Gossan Zones were easily identifiable by their rusty weathered colour. Sampling only returned values up to 169 ppb Au.

The next area of focus was the Boulder Train area on the east and north east side of Dayohessarah Lake. Sampling focused on a couple lines of auriferous boulders trending mostly north-south about 500m to 1000m east of Dayohessarah Lake. The boulders do not appear to be related to the Sugar



Zone, and instead are believed to come from the Mafic Volcanic - Sediment boundary just west of the Boulder Train. Several of the boulders appear to be sedimentary in origin. They were mostly classified as dark rusty brown weathered surface, mafic volcanics with 3-5% disseminated pyrite and 2-3% rusty coloured quartz veining. Sampling returned values up to 10.4 g/t Au. The significant results are present in Table 1 below.

The final area of focus for prospecting was within the Hambleton East and Hambleton North Grids, along geophysical targets, specifically chargeability high anomalies. Sampling only returned intermittent anomalous gold values up to 15 ppb Au, and regularly <5 ppb Au. A 1:25,000 scale map of the 2011 prospecting program tracks and samples is presented in Map 7.

TABLE 1.HIGHLIGHTS OF 2011 PROSPECTING PROGRAM						
SAMPLE #	Easting	Northing	Zone	Gold		
				v alue		
				(g/t)		
875476	645216	5407591	Boulder Train	7.08		
659418	645214	5407631	Boulder Train	10.4		
659419	645225	5407672	Boulder Train	3.44		
659420	645234	5407675	Boulder Train	2.41		
659422	645293	5407810	Boulder Train	9.63		
659426	645216	5407591	Boulder Train	5.91		
659427	645216	5407591	Boulder Train	1.63		

### 9.0. WOLF ZONE TRENCHING PROGRAM

Between September 6th and October 29th, 2011 five trenches were made on several IP chargeability anomalies on and around the Wolf Zone. The trenching was initiated after the discovery of the Peacock boulder, which is actually two boulders discovered during a small 2010 prospecting program. The boulders are partially rounded, strongly silicified and altered with rusty weathered surfaces and up to 15% pyrite and sphalerite mineralization. They are believed to be of sedimentary origin. When sampled, the Peacock boulders returned gold results of 87.30 g/t Au, 52.80 g/t Au and 37.30 g/t Au.

The first trench was completed directly under the Peacock Boulders, and is referred to as the Peacock Trench. The trench uncovered a small (10-50 cm) undulating shear zone with small quartz veining, but



no significant gold mineralization. The next four trenches were completed to the north and north-east of the Peacock Boulders (Up-Ice), on small to medium sized Chargeability anomalies. The fourth trench, now called the Wolf Zone Trench, uncovered the Wolf Zone, and significant gold mineralization from within the shear zone and quartz veining. (For more details on the Wolf Zone, refer to section 6.2). Initial grab sample assays returned values of up to 6.53 and 5.97 g/t Au. This discovery lead to the drilling of the Wolf Zone in Section 10.3. The other three trenches have since been renamed Trench 1, Trench 2 and Trench 3, based on the order in which they were created. Table 2 outlines the size and location of each trench. A blow-up of the 2010 Wolf Zone Trenching Program is presented in Map 7.

SUMMARY OF 2010 WOLF ZONE TRENCHING							
Trench	Area (m <sup>2</sup> )	Easting	Northing	Claim Number			
Peacock Trench	567	644967	5408756	1069322			
Wolf Zone Trench	448	645052	5409021	1069325			
Trench 1	256	644686	5408907	1069326			
Trench 2	289	644806	5409016	1069325			
Trench 3	328	644605	5408700	1069326			

### TABLE 2.

### 10.0. 2010-2011 DIAMOND DRILLING PROGRAM

#### 10.1 SAMPLING PROCEDURE

#### 10.1.1. SAMPLE COLLECTION, PREPERATION, ANALYSIS AND SECURITY

All diamond drill holes were NQ in diameter. The core is placed in wooden core boxes by the drillers. The boxes are sealed by the drillers at the drill site and delivered to the core logging facility in White River, ON, at the end of every drill shift.

The core logging protocol by Harte geologists is summarized as follows:



- A geotechnician orients the core in the core box and measures the core marking 1.0 m intervals with a green China marker; these are measured against the depth blocks inserted by the drillers at the end of every run. The core is re-measured by the geologist that also checks that the drillers' metre blocks are correctly placed and labelled. The meterage at the start and end of each box is also recorded on the core using a green China marker. Any lost or ground core, zones of poor RQD (i.e. <75%) or reaming are noted within the drill log;
- After being measured, and before being logged, the core is photographed using a digital camera, in three or four box pictures, except at the end of the hole when there are less boxes available. The pictures are then copied onto the office computer, and labelled accordingly. In each picture, the hole number, meterage and box numbers are recorded on a dry erase board centred below the bottom box of core;
- The core boxes are then labelled using a metal dymo tag, which is stapled onto the left end of the box. The dymo tag label has a record of the drill hole number, box number and meterage; and

The core is logged in detail and recorded in a digital format using a Microsoft Excel spreadsheet. Core displaying obvious mineralization and preferable alteration is sampled. Depending on the lithology, alteration and mineralization, the sample widths taken are predominantly between 0.2 m to 1.1 m in length.

The samples are entered on the drill logs and for each sample the percentage of quartz- carbonate veining and sulphide mineralization are estimated and entered on the log. Other noticeable features, such as degree of alteration, magnetism, foliation and shearing, are also recorded in the log. The samples are then cut in half by a Harte geotechnician using a Vancor diamond core saw. Any visible gold is circled using a red China. Half the core is placed in a plastic bag with a sample ticket, displaying only the sample number, and the other half is put back in the box with a duplicate sample ticket, displaying the metre interval and sample number. The bagged samples are placed in rice bags and are delivered via Greyhound bus shipping, or delivered in person by one of the Harte staff, to Actlabs in Thunder Bay. The leftover core is then stored in the fenced core yard behind the core logging facility in White River, ON.

### 10.1.2. HARTE QUALITY ASSURANCE AND QUALITY CONTROL



A Certified Gold Reference Standards and Gold Blank is inserted into the sample stream at frequencies of one control sample every 25<sup>th</sup> regular/routine sample. Blanks Samples are made up of granite from near the intersection of Road 100 and Highway 17. The granite Blank was originally assayed by sending 20 samples to Actlabs and 20 samples to SGS Labs, Toronto, ON. All of the sampled Blanks returned assay values less than the detection limit of 5 ppb Au. These Blanks are inserted after samples that are expected to have the highest gold values; which is determined visually during logging. The Certified Gold Reference Standards are mostly OREAS 10C (certified gold value of 6.60 g/t Au) and OREAS 16A (certified gold value of 1.81 g/t Au).

### 10.1.3 SAMPLE PREPERATION AND PROCEDURE

Sample preparation and gold analysis procedure at Actlabs are as follows:

### **Sample Preparation**

Once the samples have been received and sorted, they are given an Actlabs reference number in a file batch. The samples are then checked for dryness prior to any sample preparation and dried if needed. The samples are then crushed to 70% passing 10 mesh (2 mm) and then split into 250 g sub-sample size using a Jones Riffle Splitter. These sub-samples are then pulverized (using rings and pucks to 90% passing 200 mesh (0.075 mm)) and homogenized prior to analysis. Compressed air is used to clean crushers, riffles and pans between each sample to prevent any cross contamination. Random screen analysis is performed daily to check for attainable mesh size.

### **Gold Analysis**

All routine gold analysis is performed using a 30 g charge by Fire Assay using lead collection with a silver inquart. The detection limit is 5 ppb Au. The beads are then digested and an Atomic Absorption finish is used. The gravimetric finish was performed for all samples which originally assayed over 3.0 g/t. The metallic screen assaying was performed on all samples which originally assayed over 10.0 g/t Au, or when there was too much of a discrepancy between the original fire assay value and the gravimetric fire assay value.

### **Gold Gravimetric Analysis**

For a gravimetric fire assay at Actlabs a sample size of 30 g is used. The sample is mixed with fire assay fluxes (borax, soda ash, silica, litharge); the flux is free of silver. The mixture is placed in a fire clay crucible, is preheated at 850° C, intermediate at 950° C and is finished at 1060° C; the entire fusion process lasts 60 minutes. The crucibles are then removed from the assay furnace and the molten slag is



carefully poured from the crucible into a mould, leaving a lead button at the base of the mould. The lead button is then placed in a preheated cupel which absorbs the lead when cupelled at 950° C to recover the Ag and Au. The cupellation bead is controlled in the final point by the volatile of the silver. Au is separated from the Ag in the dore bead by parting with nitric acid. The gold flake remaining is weighed gravimetrically on a microbalance.

### **Gold Pulp Metallic Analysis**

For the metallic screen fire assay at Actlabs, a representative 500 g split is sieved at 100 mesh with fire assays performed on the entire +100 mesh, and 2 splits on the -100 mesh fraction. The total amount of the sample and the +100 mesh and -100 mesh fraction is weighed for assay reconciliation. Measured amounts of cleaner sand is used between samples and saved as gold may plate on the mill. The entire metallic screen is mixed with fire assay fluxes (borax, soda ash, silica, litharge) and with Ag added as a collector, and the mixture is placed in a fire clay crucible, preheated at 850° C, intermediate at 950° C and finished at 1060° C; the entire fusion process lasts 60 minutes. The crucibles are then removed from the assay furnace and the molten slag is carefully poured from the crucible into a mould, leaving a lead button at the base of the mould. The lead button is then placed in a preheated cupel which absorbs the lead when cupelled at 950° C to recover the Ag and Au. The cupellation bead is controlled in the final point by the volatile of the silver. Au is separated from the Ag in the dore bead by parting with nitric acid. The gold flake remaining is weighed gravimetrically on a microbalance. Two splits on the -100 mesh fraction is weighed and analyzed by fire assay with a gravimetric finish. A final assay is calculated based on the weight of each separated fraction and the values.

### **10.2.** WOLF ZONE DRILLING

The Wolf Zone drilling was done in two phases. Most of the drilling was done late in 2010, and well defined the Wolf Zone. A few more holes were put in between the Sugar Zone and Wolf Zone, as well as one more into the Wolf Zone in 2011. The two drill programs are described below.

During the period of October 17 to December 12, 2010, 5,387.94 m of diamond drilling was completed in 33 diamond drill holes targeting the newly discovered Wolf Zone. The drilling was carried out by drilling contractors More Core and Ed Core. The drill program was supervised by George Flach, P. Geo., Vice-President of Exploration of Harte, and David Power-Fardy, P. Geo., Senior Geologist of WGM.



The purpose of the program was to locate the source of the recently discovered Peacock Boulder Showing, and eventually to further explore and define the newly discovered Wolf Zone. Six (6) diamond drill holes were originally drilled (NZ10-01 to NZ10-06) in an attempt to locate the source of the Peacock Boulders. NZ10-02 intersected what is now referred to as the Wolf Zone, and the hole was renamed WZ10-01. An additional 27 holes (WZ10-02 to WZ10-28) were drilled, all targeting the Wolf Zone.

Diamond drilling returned significant gold results in the middle of the zone, but drilling at depth, and to the northern and southern edges of the zone had less promising results. Table 3 summarizes the significant results from the 2010 Wolf Zone drilling program.

TABLE 3.

WOLF ZONE SIGNIFICANT DRILLHOLE RESULTS							
Hole Number	From (m)	To (m)	Width (m)	Grade (g/t Au)			
NZ-10-02	22.0	29.5	7.5	9.5			
Including	23.0	26.0	3.0	22.9			
Including	25.0	25.5	0.5	111			
WZ-10-03	87.0	99.0	12.0	2.25			
Including	88.5	93.5	5.0	4.3			
Including	90.0	91.0	1.0	13.6			
WZ-10-06	78.6	81.1	2.5	8.81			
WZ-10-08	27.5	45.0	17.5	2.1			
Including	37.0	45.0	8.0	3.1			
Including	37.0	38.0	1.0	8.1			
WZ-10-16	123.8	125.14	1.34	7.33			
Including	124.2	124.65	0.45	21.6			
WZ10-18	140.5	145.5	5.0	4.8			
Including	144	145.5	1.5	15.4			
Including	144.5	145.0	0.5	35.1			

During the period of September 11, 2011 to October 11, 2011 another 1,197.39 m of diamond drilling was completed in four diamond drill holes. This drill program was supervised by Greg McKay. The first three holes (WZ-11-29 to WZ-11-31) were drilled between the Sugar Zone and the Wolf Zone and intercepted no significant gold mineralization. The last hole (WZ11-32) targeted the north end of the Wolf Zone, and intercepted no significant gold mineralization. The full diamond drill logs are



II.ala Naushan	Northing		Elevetion		Callar Dir	Dareth
Hole Number	Northing	Easting	Elevation	Azimuth	Collar Dip	Depth
	(Nad 83)	(Nad 83)	(M.A.S.L.)	(Degrees)	(Degrees)	(Meters)
WZ-10-01	5409014.322	645034.050	424.238	95	-45	47.85
WZ-10-02	5409014.322	645034.050	424.238	95	-55	78.33
WZ-10-03	5408931.311	645015.864	415.910	90	-60	108.20
WZ-10-04	5408931.311	645015.864	415.910	90	75	135.33
WZ-10-05	5408931.311	645015.864	415.910	90	-75	185.01
WZ-10-06	5408931.311	645015.864	415.910	45	-45	108.51
WZ-10-07	5408931.311	645015.864	415.910	45	-60	133.50
WZ-10-08	5408945.122	645064.416	415.862	90	-60	68.58
WZ-10-09	5409013.783	644983.899	422.736	90	-45	94.80
WZ-10-10	5409013.783	644983.899	422.736	90	-65	137.40
WZ-10-11	5409013.783	644983.899	422.736	50	-45	82.90
WZ-10-12	5409013.783	644983.899	422.736	50	-65	92.60
WZ-10-13	5408879.195	645098.362	410.077	65	-45	96.32
WZ-10-14	5408879.195	645098.362	410.077	65	-65	111.88
WZ-10-15	5409088.750	644889.653	419.607	55	-45	137.50
WZ-10-16	5409088.750	644889.653	419.607	55	-65	204.00
WZ-10-17	5408840.545	645054.031	409.159	65	-65	153.30
WZ-10-18	5408739.270	645105.142	409.244	50	-45	190.50
WZ-10-19	5408739.270	645105.142	409.244	50	-65	239.88
WZ-10-20	5408790.012	645157.134	407.477	50	-45	109.73
WZ-10-21	5408958.681	644902.963	423.563	50	-45	215.50
WZ-10-22	5408958.681	644902.963	423.563	50	-50	194.50
WZ-10-23	5408746.213	645181.795	410.406	75	-45	120.70
WZ-10-24	5408703.953	645137.542	408.066	50	-45	251.76
WZ-10-25	5408788.596	644977.664	413.114	50	-45	236.52
WZ-10-26	5408788.596	644977.664	413.114	60	-60	309.98
WZ-10-27	5409326.121	644859.267	425.568	65	-45	242.50
WZ-10-28	5408870.658	644938.198	417.919	50	-60	267.31
WZ-11-29	5408156.141	645154.900	404.552	50	-50	535.67
WZ-11-30	5408620.467	645219.837	405.425	50	-50	264.26
WZ-11-31	5408622.558	645219.911	405.022	90	-50	242.93
WZ-11-32	5409116.065	644820.427	418.110	50	-45	154.53

TABLE 4.WOLF ZONE DRILL HOLE SURVEY DATA



presented in Appendix I. The Drill Sections are presented in Appendix VII and the Plan Section is presented in Appendix VI.

### **10.3.** SUGAR ZONE DRILLING

During the periods of February 11 to April 13, 2011 and July 17, 2011 to November 24, 2011, a total of 7,885.74 m of drilling was completed in 27 holes which targeted and intersected the Sugar Zone. The drilling was carried out by Blackhawk Diamond Drilling Ltd., Smithers, B.C. The drill program was supervised by Roland Landry, P. Geo., and Gregory McKay. Some of the drilling was helicopter supported.

The purpose of the program for the first 21 holes (SZ-11-01 to SZ-11-21) was to expand on the current Mineral Resource estimate of the Sugar Zone for both the Upper and Lower zones, and to test the continuity of the Sugar Zone at vertical depths of between 300 and 600 m. Table 4 summarizes the significant results from the 2012 Sugar Zone program. Four diamond drill holes (SZ-11-22 to SZ-11-25) were designed to target both the southern extent of the Sugar Zone as well as the Lynx Zone. Two additional holes (SZ-11-26 to SZ-11-27) were drilled into an IP chargeability anomaly 100 m east of the Sugar Zone, called the Sugar Zone East. The Sugar Zone continued to return significant gold mineralization, mostly in the Lower Zone, but also to a lesser extent in the Upper Zone.

The Sugar Zone East did not return any significant mineralization, and the Lynx Zone returned gold grades up to 1.58 g/t Au. The full diamond drill logs are presented in Appendix I. The Plan Section is presented in Appendix VI and the Diamond Drill Sections are presented in Appendix VIII.

TABLE 5. SUGAR ZONE SIGNIFICANT DRILLHOLE RESULTS						
Hole Number	Zone	From (m)	To (m)	Width (m)	Grade (g/t Au)	
SZ-11-01	Upper Zone	52.50	54.00	1.50	8.76	
including		53.00	53.50	0.50	26.0	
SZ-11-01	Lower Zone	57.00	61.50	4.50	2.57	
including		58.00	59.00	1.00	9.53	
including		58.00	58.50	0.50	18.7	
SZ-11-02	Lower Zone	75.64	78.71	3.07	6.65	
including		76.02	76.58	0.56	31.4	
SZ-11-03	Lower Zone	196.43	200.65	4.22	4.65	
including		197.61	199.40	1.79	10.58	
including		198.56	199.40	0.80	19.4	

					GOLD CORP
Hole Number	Zone	From (m)	To (m)	Width (m)	Grade (g/t Au)
SZ-11-04	Lower Zone	242.80	243.84	1.04	10.55
including		243.19	243.37	0.18	58.7
SZ-11-05	Lower Zone	76.77	78.75	1.98	13.05
including		77.55	78.75	1.20	19.34
including		77.55	77.8	0.25	54.8
SZ-11-06	Lower Zone	299.00	300.48	1.48	7.05
including		299.76	300.48	0.72	17.9
SZ-11-08	Lower Zone	149.35	150.58	1.23	18.68
including		149.94	150.25	0.31	72.3
SZ-11-10	Upper Zone	51.18	53.82	2.64	5.61
including		52.54	53.82	1.28	11.39
including		52.54	52.94	0.40	33.80
SZ-11-11	Lower Zone	199.19	199.52	0.33	6.58
SZ-11-12	Upper Zone	187.22	190.77	3.55	1.60
including		189.65	190.34	0.69	4.69
SZ-11-14	Upper Zone	697.69	698.42	0.73	20.27
SZ-11-14	Lower Zone	707.07	707.82	0.75	10.50
SZ-11-15	Lower Zone	311.94	317.20	5.26	17.60
including		314.70	316.45	1.75	52.84
including		315.11	315.52	0.40	204.0
SZ-11-16	Lower Zone	216.35	218.10	1.75	5.90
including		216.70	218.10	1.40	7.33
including		216.70	217.44	0.70	13.10
SZ-11-17	Lower Zone	266.77	268.00	1.23	46.49
including		266.77	267.50	0.73	78.20
SZ-11-18	Lower Zone	416.00	418.50	2.50	6.60
including		416.94	417.43	0.50	19.60
SZ-11-20	Lower Zone	541.69	547.69	6.00	3.51
Including		541.69	542.00	0.31	14.10
SZ-11-21	Lower Zone	328.57	331.61	3.04	13.54
including		328.57	330.06	1.49	27.27
including		328.57	328.84	0.27	111.0
SZ-11-23	Lower Zone	44.05	44.67	0.62	6.95
including		44.35	44.67	0.32	13.20



	SUGAR ZONE DRILL HOLE SURVEY DATA						
Hole Number	Northing	Easting	Elevation	Azimuth	Collar Dip	Depth	
	(Nad 83)	(Nad 83)	(M.A.S.L.)	(Degrees)	(Degrees)	(Meters)	
SZ-11-01	5407508.160	645924.862	409.861	50	-70	114.91	
SZ-11-02	5407450.789	645979.033	421.950	50	-50	105.77	
SZ-11-03	5407425.888	645895.428	419.407	50	-70	221.59	
SZ-11-04	5407442.434	645763.261	402.385	50	-50	291.08	
SZ-11-05	5407373.354	646056.168	452.012	50	-45	90.24	
SZ-11-06	5407032.656	646033.401	430.853	50	-58	367.89	
SZ-11-07	5407208.741	646166.901	452.326	50	-50	252.13	
SZ-11-08	5407048.274	646218.091	443.651	50	-50	160.32	
SZ-11-09	5407039.586	645749.486	421.306	50	-70	791.76	
SZ-11-10	5407153.295	646257.678	453.071	50	-45	62.80	
SZ-11-11	5407164.492	646047.826	439.226	50	-55	233.23	
SZ-11-12	5407164.052	646047.361	439.151	50	-70	273.78	
SZ-11-13	5407207.622	645938.730	427.576	50	-55	270.43	
SZ-11-14	5406766.190	645889.803	425.308	50	-70	747.02	
SZ-11-15	5407207.415	645938.499	427.537	50	-70	334.37	
SZ-11-16	5407306.954	645893.985	415.685	50	-60	224.49	
SZ-11-17	5406943.473	646162.412	435.165	50	-55	297.29	
SZ-11-18	5407220.237	645787.616	406.518	50	-70	444.09	
SZ-11-19	5406886.891	645877.847	436.699	50	-70	624.09	
SZ-11-20	5407212.077	645712.417	408.667	45	-70	612.57	
SZ-11-21	5407254.210	645820.810	410.873	50	-50	348.69	
SZ-11-22	5406824.357	646478.254	463.597	50	-50	245.36	
SZ-11-23	5406782.341	646518.695	461.613	50	-55	208.79	
SZ-11-24	5406725.280	646451.890	451.076	50	-55	195.42	
SZ-11-25	5406856.802	646442.349	467.384	50	-50	117.65	
SZ-11-26	646477.141	5407327.117	456.005	60	-45	218.54	
SZ-11-27	646599.162	5407150.414	450.172	60	-45	155.75	

# TABLE 6.SUGAR ZONE DRILL HOLE SURVEY DATA



#### FOLD NOSE DRILLING 10.4.

A total of 3,430.93 m of NQ diamond drilling was completed in 15 diamond drill holes over two drill programs from April 6 to April 23, and October 12 to December 7, 2011. The last 11 holes were not drilled all together, but instead with some Sugar Zone and some Wolf Zone drilling between them. The drill programs were supervised by George Flach, P.Geo and Greg McKay.

All of the holes targeted north striking IP chargeability moderate to high anomalies to the west and north-west of Hambleton Lake. The anomalies were along strike of the Sugar and Wolf Zones. The drill holes intercepted several sedimentary packages, with up to 10% pyrrhotite, as well as occasional iron formations. No significant gold mineralization was observed. The full diamond drill logs are presented in Appendix I. The Plan Section is presented in Appendix VI. No diamond drill sections were created for the Fold Nose (HG) Drilling.

FOLD NOSE DRILL HOLE SURVEY DATA						
Hole Number	Northing	Easting	Elevation	Azimuth	Collar Dip	Depth
	(Nad 83)	(Nad 83)	(M.A.S.L.)	(Degrees)	(Degrees)	(Meters)
HG-11-01	5413463.500	643617.339	417.792	90	-50	404.47
HG-11-02	5413385.398	643284.193	422.261	90	-50	224.64
HG-11-03	5413287.436	642460.730	397.829	90	-50	288.65
HG-11-04	5413295.705	642470.074	397.941	270	-45	352.35
HG-11-05	5414476.245	643507.587	419.451	60	-50	212.75
HG-11-06	5413649.398	643651.585	420.148	90	-50	185.01
HG-11-07	5413422.070	642810.879	416.400	70	-50	212.14
HG-11-08	5413132.443	643620.080	436.924	90	-50	248.71
HG-11-09	5412174.442	643750.089	412.906	60	-50	252.07
HG-11-10	5412562.160	643644.546	434.478	90	-45	279.50
HG-11-11	5412977.708	643559.818	443.954	90	-50	288.65
HG-11-12	5413131.022	643622.692	435.703	90	-70	142.34
HG-11-13	5414140.983	642806.877	425.154	120	-50	181.97
HG-11-14	5414104.240	642751.157	428.070	120	-50	102.72
HG-11-15	5414242.415	642829.631	416.990	120	-50	117.96

TABLE 7.



### **11.0 DISCUSSION AND CONCLUSIONS**

### 11.1. DISCUSSION

Exploration via geophysics, prospecting, trenching and drilling has led to the discovery of the gold bearing Wolf Zone. Initial drilling of the Wolf Zone was very encouraging, including sampling of up to 5.26 meters grading 17.6 g/t Au. Diamond drilling has defined gold mineralization through the zone over a strike length of 500 m. Most of the high grade gold mineralization seems to be near the surface, and centred in the zone, and the grade and width decline towards depth, and to the northern and southern extents of drilling.

While the Wolf Zone was originally discovered by trenching and sampling the closest geophysical target up-ice of the peacock boulders, visual inspection cut slabs of the Wolf Zone, and the Peacock Boulders has determined that the Wolf Zone is not the source of the Boulders. This suggests that the Peacock Boulder source has yet to be discovered.

Diamond drilling on the Fold Nose area has not provided any encouraging results. All of the diamond drilling focused on geophysical targets, especially those resembling the Wolf Zone chargeability signature. The drilling was mostly along strike of the Sugar Zone, and Wolf Zone. The moderate chargeability zones were mostly explained by small iron formations in the mafic volcanics, parallel to the foliation. Chargeability high zones were mostly shown to be parallel sedimentary packages up to 30 m across with 10-15% pyrrhotite mineralization. No significant gold values were sampled in the HG diamond drill holes.

Diamond drilling on the Sugar Zone has continued to provide encouraging results. The diamond drill program was designed to provide some in-fill drilling as well as to test the Sugar Zone at depths below 400 m. The best gold mineralization, as well as all of the occurrences of visible gold, occurs within quartz veining in the Upper and Lower Zones. Drilling at depth has provided grades of up to 6.60 g/t Au over 2.5 m in hole SZ-11-18 and 3.51 g/t Au over 6.0 m in holes SZ-11-20. The Sugar Zone displays some pinching-and-swelling.

Sampling of the Gossan Zone has shown that there are small amounts of gold mineralization on the western side of Dayohessarah Lake. Most of the samples with gold mineralization were taken from



sulphidized sedimentary rocks with rusty weathered surfaces. There is currently not enough exploration in the area.

The gold bearing samples from the Boulder Train area provide some of the greatest excitement heading into the 2012 field program. The samples appear to be strongly silicified mafic volcanics, and sediments, suggesting that they may have originated from the mafic volcanic-sedimentary boundary near the eastern shore of Dayohessarah Lake. This area has been strongly under-explored in the past.

### 11.2. CONCLUSIONS

The 2010 and 2011 exploration program was successful in locating and defining the gold bearing Wolf Zone, as well as describing the nature of gold mineralization. Drilling on the Wolf Zone has outlined the edges, and shown a decline in the gold mineralization at depths.

Drilling on the Sugar Zone was successful in providing infill drilling for further definition of the zone, as well as showing significant gold mineralization at depths below 400 m. Further drilling at depth has already been planned for the 2012 program.

Prospecting on the west side of Dayohessarah Lake has discovered a small amount of gold mineralization in two Gossan Zones, but further prospecting, targeting conductive or chargeability high zones is warranted. Prospecting on the east side of Dayohessarah Lake has shown considerable gold mineralization in a train of boulders running north-south. Only a small amount of samples were taken before the winter season, and further prospecting in the area is strongly warranted.

In conclusion the Dayohessarah Greenstone Belt has been shown to exhibit a high potential for the mineralization of gold. The Sugar Zone and the Wolf Zone already show that isothermal gold deposits can and have formed within the belt. Prospecting samples from the east and west sides of Dayohessarah Lake, as well as the discovery of the Peacock Boulder demonstrate that gold mineralization is not confined to the Sugar and Wolf Zones, and that further exploration of the property, especially around Dayohessarah Lake are strongly warranted.

### **12.0. RECOMMENDATIONS**



The primary recommendation for the property is further drilling of the Sugar Zone at depths of 300-600 vertical meters. The drilling pierce points should be no more than 50 m apart. One (or two if warranted) diamond drill holes should be drilled at depths of 600-800 vertical meters to test the further width and gold grade consistencies of the Sugar Zones Upper and Lower Zones, as well as to potentially test the anomaly defined in the JVX Borehole Induced Polarization survey.

A second recommendation is to conduct an airborne VTEM survey over most of the property, to define points of interest for a 2012 prospecting program, as well as to provide a geophysical signature for the Sugar Zone to compare against other geophysical anomalies of interest.

A final recommendation is for a ground I.P. and magnetic survey over the Sugar Zone, and extending west to the eastern shore of Dayohessarah Lake. This survey will provide another geophysical signature of the Sugar Zone, as well as provide relatively defined geophysical maps of the Boulder Train area, and the mafic volcanic-sedimentary contact near the lake.



### **13.0. STATEMENT OF QUALIFICATIONS**

I, Greg McKay, do hereby certify that:

1. I am a Geologist.

2. I reside at: 128 Bronte Rd. Apt#202, Oakville ON. L6L 3C2

3. I have approximately 4 years work related experience exploration for gold mineralization in the Beardmore-Geraldton and Dayohessarah Greenstone Belts of Northwestern Ontario; programs such as geological mapping, prospecting and the design and running of diamond drilling programs.

4. I graduated from Carleton University, Ottawa, Ontario, in 2009 with the degree of B.Sc. (Earth Science and Physical Geography).

5. I am responsible for the preparation of this report.

### SIGNATURE (GREG MCKAY)

DATE

Dreg Mekay

Mar 31, 2012



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### APPENDIX I DIAMOND DRILL HOLE LOGS



APPENDIX II PROSPECTING SAMPLE DESCRIPTIONS



APPENDIX III SAMPLE ASSAY CERTIFICATES



APPENDIX IV BOREHOLE INDUCED POLARIZATION REPORT



### APPENDIX V AIRBORNE VTEM SURVEY REPORT







APPENDIX VII WOLF ZONE DIAMOND DRILL SECTIONS



### APPENDIX VIII SUGAR ZONE DIAMOND DRILL SECTIONS