

# **Farwell Property Updated Review**

## **Wawa Gold Camp**

**Pukaskwa River and Abbie Lake Areas  
Sault Ste. Marie District  
NORTHEAST ONTARIO, CANADA**

**Prepared for  
BOLD VENTURES INC.**

**- by -**

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**April 28, 2020**

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## **Wawa Gold Camp**

### **Project Highlights**

- Large road-accessible property in a proven gold camp
- Gold-bearing quartz veins in iron formation along the western extension of a major deformation zone
- Presence of deformed 'Timiskaming' style conglomerates along the gold mineralization trend (i.e. Kirkland Lake, Geraldton)
- Potential base metal VMS mineralization (Cu, Zn, Pb) related to mafic-felsic volcanic sequence
- Additional claims staked to cover remaining metavolcanics immediately north of the deformation zone

### **Property Location and Access**

The Farwell Property is located in the east Lake Superior region of Northeastern Ontario approximately 55 km northwest of Wawa (centered on UTM Zone 16, 608422E, 5335125N) (Figure 1). The Trans-Canada Highway 17 connects Wawa with Sault Ste. Marie to the south and the towns of White River and Marathon to the northwest. The property is accessible via the all-weather Paint Lake Road west from Trans-Canada Highway 17, approximately 45 km north of Wawa. The eastern boundary of the Farwell claim group can be accessed from logging roads at km 43 along the Paint Lake Road. Wesdome Gold Mines Eagle River complex is located at km 52 on the Paint Lake Road, approximately 5 km due south of the Farwell claims. As a result, the road is maintained all year to provide access to Wesdome's gold mining operations. Further all-weather access to this area is provided by logging activities south from White River, including roads that connect to the Paint Lake Road in the area of the Farwell Property. Additional infrastructure includes a 230 KV transmission line that crosses the area at km 36

on the Paint Lake Road. Support services (accommodations, supplies, etc.) are provided by the town of Wawa and the larger center of Sault Ste. Marie 200 km to the south.

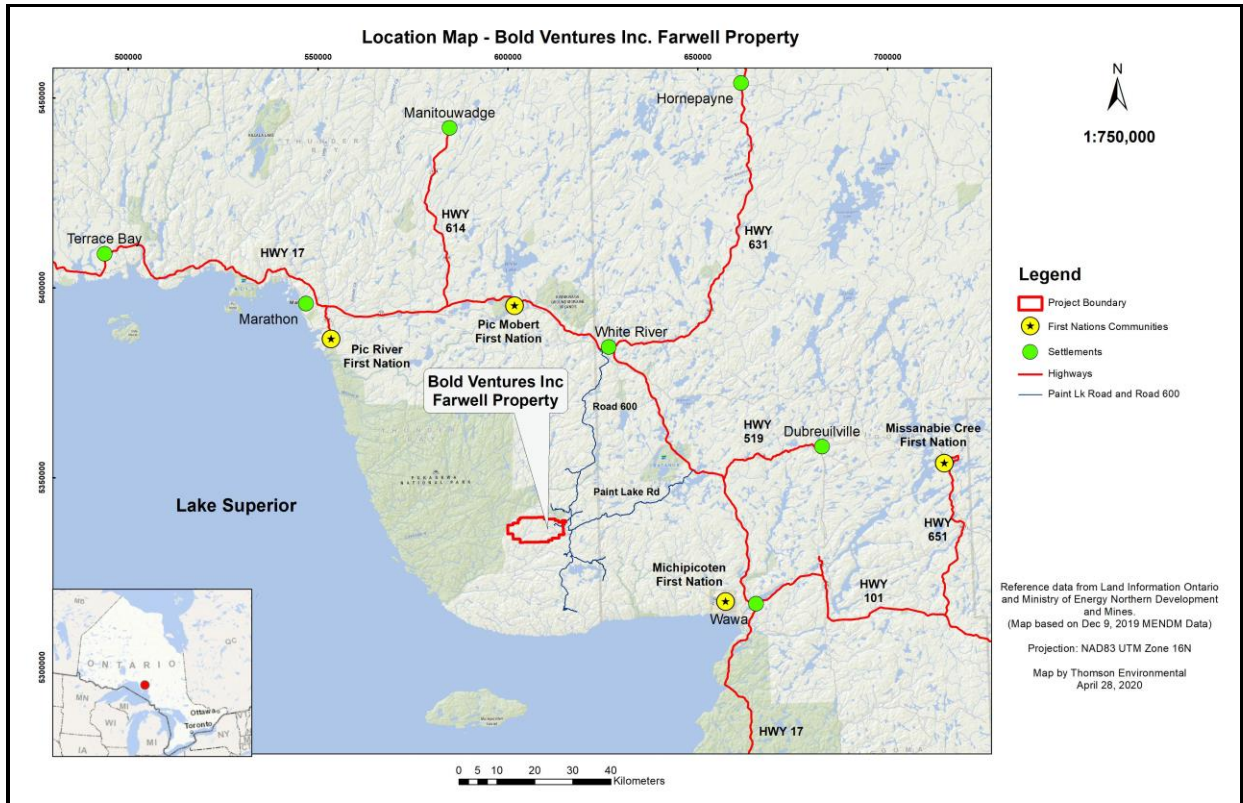


Figure 1. Location Map, Bold Ventures Inc. Farwell Property

## Property Description

The Farwell Property consists of 113 Cell claims, 18 Multi-Cell claims and 6 Boundary claims (7770 ha or 19,200 acres) along a westerly trend occupying the southern and central portions of the adjoining Pukaskwa River and Abbie Lake claim map areas (Figure 2). The eastern boundary of the property is contiguous with Argo Gold's Abbie Lake Property.

## Regional Geology

The claim group lies on the southwestern extension of the Michipicoten Greenstone Belt (MGB), which is part of the Wawa-Abitibi Terrane, well known

for its mineral endowment (Figure 3). The Island Gold Mine, operated by Alamos Gold, is also located in the MGB roughly 80 km east northeast of the Farwell Property. Wesdome Gold Mines Mishi Open Pit operation, part of the larger Eagle River Complex that includes the Eagle River underground Mine, lies 5 km south of the Farwell claims. The Eagle River Mine is situated approximately 25 km to the south of the subject claims.

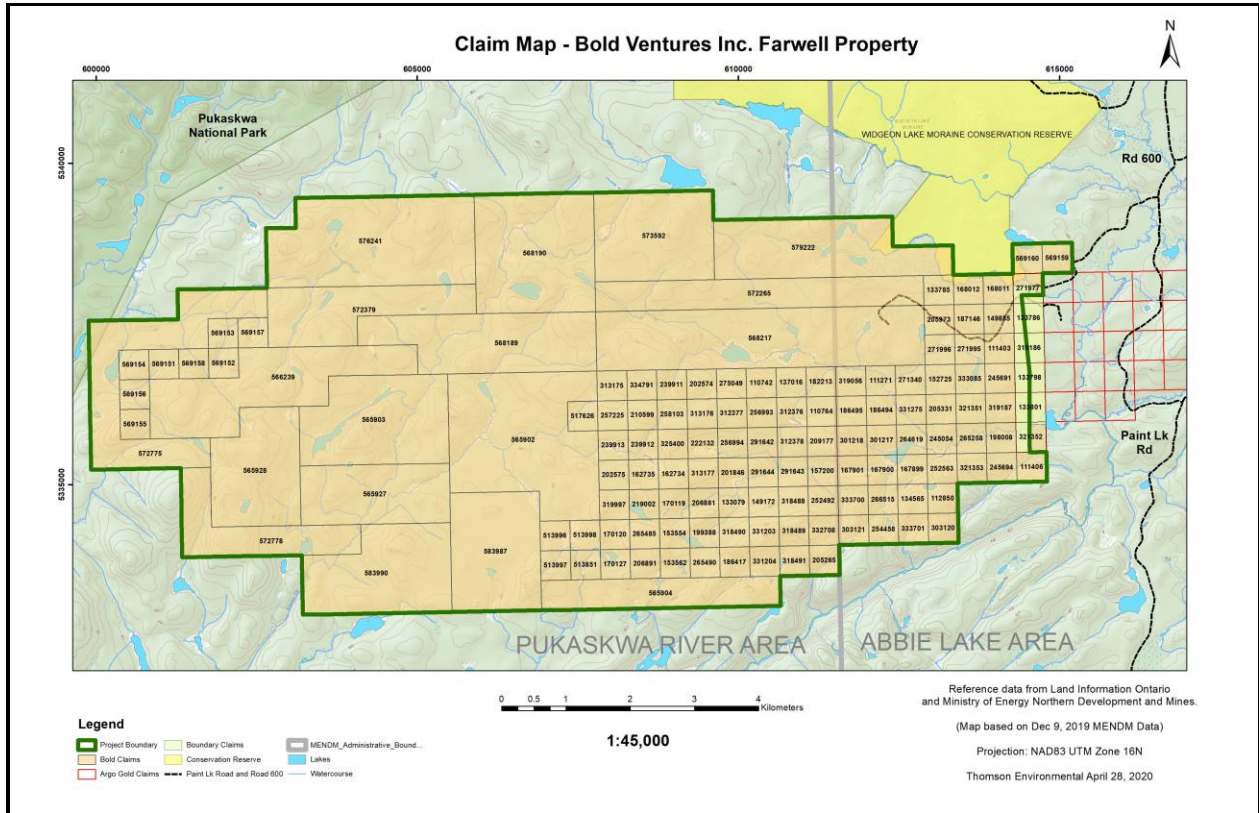


Figure 2. Claim Map, Bold Ventures Inc. Farwell Property

Historical exploration work and mapping by Reilly (1991) of the Ontario Geological Survey (OGS) identified a prominent deformation zone that tracks the partially exposed iron formation unit along a west-southwest trend east of the Farwell Property. Reilly (1991) determined the Iron Lake Deformation Zone (ILDZ) to be 500 m wide and extending for at least 30 km west from a point east of Iron Lake. The southwest extension of the ILDZ is the centerpiece of Argo Gold’s Abbie Lake property that adjoins the Farwell claim block on the east side. The Abbie Lake Property and the Farwell claims area were the focus of exploration work by Tundra Gold Mines Ltd. from 1983 to 1988. This included extensive prospecting, detailed geological mapping, stripping and sampling,

diamond drilling and ground and airborne geophysical surveys. Results from Tundra’s exploration program at Abbie Lake identified a mineralized zone about 2 km in length and 50 to 100 m in width, consisting of a series of sub-parallel quartz-carbonate-tourmaline veins contained in a quartz-sericite-chlorite schist. Sample results obtained by Tundra Gold assayed up to 1.14 oz/t Au. Grab samples collected by Argo Gold returned assay values up to 0.82 oz/t Au (Company Online Report 2016). The mineralization is contained within the western extension of the ILDZ which can be traced for roughly 5 km southwest from Abbie Lake. The high strain zone occupies the contact between mafic to felsic metavolcanics to the north and metasediments (primarily conglomerates) to the south (Argo Gold Inc. Summary Report 2019).

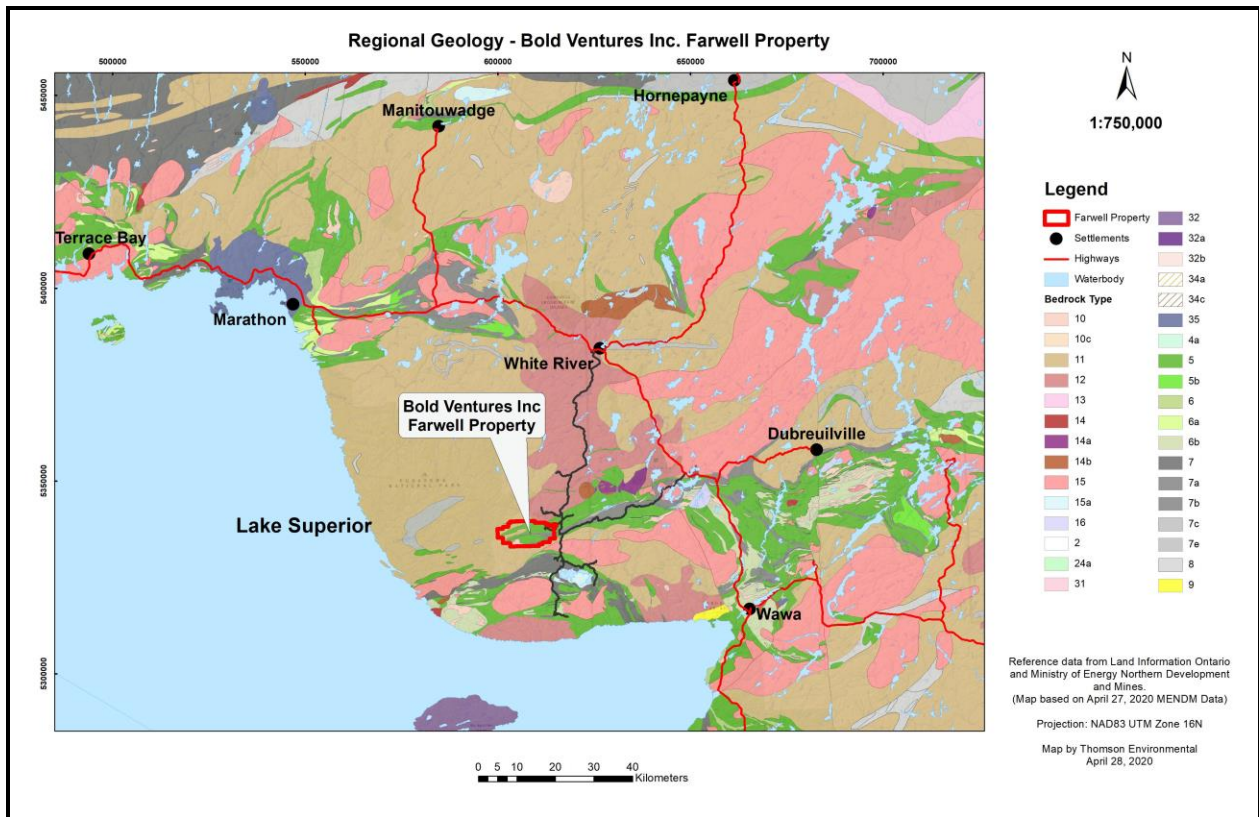


Figure 3. Regional Geology Map, Farwell Property.

The mineralized shear zone on Argo Gold’s Abbie Lake Property lies within 3 km of the eastern boundary of the Farwell claim block (Figure 4). The Wawa Area airborne geophysical survey flown by the OGS in 1987 (Maps 81012 and 81013), shows a prominent magnetic signature and coincident electromagnetic anomalies that indicate the possible extension of the iron formation and



associated shear zone through the central portion of the Farwell Property to the west. Historical sampling by Tundra Gold Mines (1985) in the eastern portion of the Farwell claims returned values of 1.6% Cu and 7.5 g/t Au.

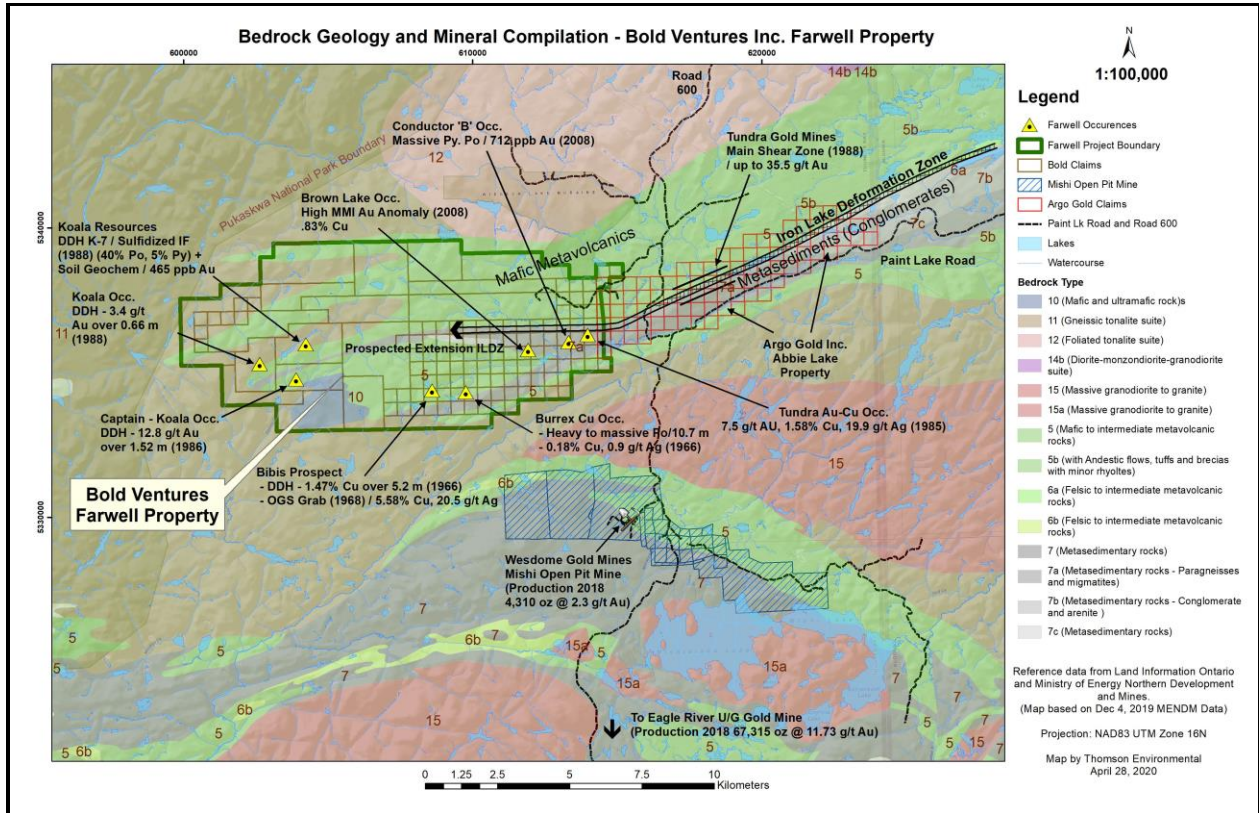


Figure 4. Bedrock Geology of the Farwell Property area showing significant exploration and mining activity.

## Key Property Showings

- **Tundra Au-Cu Occurrence**

Prospecting by Tundra Gold Mines Ltd. in 1985 uncovered the Tundra Au-Cu Occurrence, which was again examined and sampled by Precambrian Ventures Ltd. in 2008. The showing consists of a sulphide facies iron formation hosted in a sheared, high siliceous, mafic metavolcanic schist. Grab samples collected by Tundra Gold Mines graded up to 7.5 g/t Au, 1.58% Cu and 19.9 g/t Ag (Campbell 2010).

The high coincident EM and magnetic anomalies observed from the 1987 OGS airborne survey extending from the Tundra Gold Au-Cu Occurrence west

through the Conductor 'B' showing and the Brown Lake Occurrence, host significant gold values (Figure 4). This may indicate a potential gold bearing horizon of over 2.5 km strike length.

- **Conductor 'B' Occurrence**

During the 2008 exploration program, Precambrian Ventures Ltd. obtained a gold assay value of 712 ppb from a grab sample collected at the Conductor 'B' Occurrence. The zone, located 700 m west of the Tundra Au-Cu Occurrence, consists of irregular patchy white sugary quartz, in places associated with semi-massive to massive pyrite and pyrrhotite. The zone is coincident with strong multiple AEM anomalies (Campbell 2010).

- **Brown Lake Occurrence**

The Brown Lake Occurrence area yielded highly anomalous gold and copper MMI soil sample results. These appear to be closely associated with AEM conductors resulting from conformable units of semi-massive to massive pyrite-pyrrhotite-magnetite. A high contrast Mobile Metal Ion (MMI) anomaly in this area occurs over a unit of sulphide and oxide facies iron formation that hosts high background gold values averaging 100-300 ppb (Campbell 2010).

- **Bibis Copper and Burex Massive Sulphide Occurrences**

Although the area was initially explored for its iron potential (specifically the Iron Lake area) in the late 1800's, it wasn't until the mid 1930's that prospecting uncovered gold in quartz veins north of Mishibishu Lake on what is now Wesdome's Eagle River Property. The search for base metals in the 1960's led to the discovery of 2 copper occurrences in the south central portion of the Farwell claim group (the Bibis Prospect and the Burrex Occurrence) with assay results up to 1.47% Cu over 5.2 m in diamond drill core (Bennett and Thurston 1977). Mineralization included chalcopyrite, bornite and sphalerite in highly sheared and silicified mafic metavolcanics.

Note: Mobile Metal Ion (MMI) copper anomalies obtained from the survey conducted by Precambrian Ventures Ltd. in 2008 are coincident with the highly conductive magnetic horizon observed on the 1987 OGS airborne survey map 81012.

## **Exploration History**

**1899-1904:** In the search for Iron deposits, most of the iron formations in the Wawa area, including Iron Lake, were discovered and thoroughly prospected during this period.

**1904:** J.M. Bell of the Ontario Bureau of Mines completed the first comprehensive map of the Wawa area covering 4100 km<sup>2</sup> including the Farwell Property.

**1934-1936:** First discovery of gold-bearing quartz veins by prospectors north of Mishibishu Lake (area west of Wawa)

**1937:** Hollinger Consolidated Gold Mines and Erie Canadian Mines Limited acquired property in the north Mishibishu Lake area and conducted extensive exploration. Assays up to 0.82 oz/t Au were obtained from a 90 m wide by 840 m long zone of highly sheared mafic to intermediate metavolcanics and quartz porphyry hosting numerous gold-bearing quartz veins. Associated mineralization includes pyrite with lesser chalcopyrite, galena and sphalerite (Bennett and Thurston 1977).

Macassa Mines Limited also uncovered heavily carbonated, mineralized quartz veins containing gold, pyrite, chalcopyrite and galena during this same period on what would later become the Magnacon deposit.

**1946-1952:** Bishu Mines Limited completed 3000 m of diamond drilling on the Macassa Mines property. In 1963 Magnacon Mines and Oils Limited took over the Bishu Mines property.

**1949:** Amichi Gold Mines Limited discovered gold-bearing quartz veins 300 m north of Mishibishu Lake. Gold assay results averaged 0.87 oz/t Au over an average width of 86 cm (Bennett and Thurston 1977).

**1966:** International Bibis Tin Mines Limited optioned a property in the south-central portion of the Farwell claims and completed ground geophysical surveys and 7 diamond drill holes totalling 682 m. The best assay returned 1.47% Cu over 5.2 m (Bennett and Thurston 1977).



**Burrex Mines Prospecting Syndicate completed trenching over a ground geophysical anomaly located approximately 1 km southeast of the Bibis Occurrence. A zone of heavy to massive pyrrhotite up to 10.7 m wide was uncovered. Assay results from grab samples returned up to 0.18% Cu and 0.03 oz/t Ag (Bennett and Thurston 1977).**

**1968: Bennett and Thurston (1977) of the OGS completed detailed geological mapping in the Pukaskwa River and Mishibishu Lake areas. On the Farwell Property, grab samples collected from the Bibis Prospect during the mapping program assayed as high as 5.58% Cu and 0.66 oz/t Ag.**

**1969: King Island Mines Limited acquired claims covering both the Bibis and Burrex occurrences. Geophysical work resulted in the discovery of a mineralized zone 3 to 4.5 m wide by 120 m long consisting of highly sheared, silicified and carbonatized mafic metavolcanics. Mineralization included pyrite, chalcopyrite, possible bornite and sphalerite (Bennett and Thurston 1977).**

**1983-1988: Tundra Gold Mines Ltd. conducted an integrated exploration program during this period which included extensive prospecting, detailed geological mapping, stripping and sampling, diamond drilling and ground and airborne geophysical surveys. A mineralized zone approximately 50 to 100 m wide and 2 km long consisting of a series of sub-parallel quartz-carbonate-tourmaline veins contained in a quartz-sericite-chlorite schist, was identified. The company obtained assays up to 1.14 oz/t Au. This shear horizon is contained within the western extension of the Iron Lake Deformation Zone and currently (2019) part of Argo Gold's main zone.**

**1986: Captain Consolidated Resources Ltd. and Koala Resources Ltd. completed a VLF-EM survey, geological mapping and sampling, a soil geochemical survey and 9 diamond drill holes, totalling 703 m. Significant results include DDH No. H-4, 12.8 g/t Au over 1.52 m (5 ft) and DDH No. H-5, 3.4 g/t Au over 1.52 m (White 1987). This work area is encompassed by the Farwell Property.**

**1987: Ontario Geological Survey completed a regional airborne geophysical survey in the Wawa area covering the Michipicoten and Mishibishu Greenstone Belts. Maps 81012 and 81013 (OGS 1987) covering the Farwell Property, show a prominent band of coincident high magnetometer and EM anomalies extending westward from the ILDZ on the adjacent Argo Gold's Abbie Lake property.**

**1988:** Koala Resources Ltd. completed a soil geochemical survey, ground EM and magnetometer survey and 10 diamond drill holes (totalling 1324 m) to investigate potential gold and base metal targets. Results from DDH No. K-4 returned 3.4 g/t over 0.66 m. Highlights of the soil geochemical survey returned values up to 496 ppb and 557 ppb Au (Henriksen 1988).

Reilly of the OGS mapped the Iron Lake Area and identified the Iron Lake Deformation Zone extending for 30 km along a southwest trend. The main mineralized shear zone on to the current day Argo Gold property is located along the western extension of this major structure (ILDZ).

**1995:** Wesdome's Eagle River underground mine opened and began production in 1996. Production for 2018 included 67,315 ounces at a grade of 11.73 g/t Au (van Hees et al. 2019). The Eagle River Mine is located approximately 15 km south of the Mishi Open Pit Mine.

**2002:** As part of the Eagle River complex, production from Wesdome Gold Mines Mishi Open Pit Mine north of Mishibishu Lake was initiated. Gold mineralization is associated with pyrite-bearing quartz veins in a major regional scale shear zone called the Mishibishu Lake Deformation Zone (MLDZ). Production for 2018 included 4310 ounces at a grade of 2.3 g/t Au (van Hees et al. 2019).

**2008-2009:** Precambrian Ventures Ltd. conducted an MMI Soil Geochemical Survey, prospecting and rock sampling on a property in the Farwell Creek area. The highest value obtained from the MMI survey was 712 ppb Au and is located at the Conductor B Occurrence. This showing is located on strike with the Tundra Cu-Au Occurrence 700 m east, in a highly siliceous zone within a chlorite-rich mafic schist unit. Grab samples of up to 1.91% Cu and 278 ppb gold were obtained from this siliceous zone which has some similarities to base metal VMS systems (Campbell 2010). Both these showings appear to be located in the main shear zone along the western extension of the ILDZ. The company also collected grab samples at the Bibis Cu Occurrence with assays ranging up to 2.2% Cu.

**2010-2014:** Upper Canada Giyani Gold and Canoe Mining Ventures completed separate exploration programs over the Abbie Lake main zone area. All confirmed the gold-bearing nature of the deformation zone.

**2015-2016: Argo Gold Inc. acquired the Abbie Lake Property and completed a detailed compilation of all previous exploration in the area. In April 2018, the property was re-staked under the new cell-claim system.**

## **Mineralization and Economic Potential**

**The Farwell Property is located within the southwest extension of the Michipicoten Greenstone Belt (MGB), the largest greenstone belt in the Wawa Subprovince. The Wawa – Abitibi Terrane of the Canadian Shield in Ontario, has produced close to 150 million ounces of gold since gold mining began in 1896 (van Hees et al. 2019, Chadwick et al. 2019, Puumala et al. 2019). Many of the significant gold deposits are associated with regional scale deformation zones, such those associated with Barrick Gold’s Hemlo deposit, Newmont Goldcorp’s Borden Gold Mine, as well as the major gold deposits in the Kirkland Lake and Timmins area.**

**The Farwell claims appear to lie on the southwest extension of the Iron Lake Deformation Zone, a high strain shear structure identified by OGS mapping (Reilly 1991) along a 30 km trend in the Iron Lake area (Figure 3). The southwest extension of the ILDZ has been identified on Argo Gold’s Abbie Lake Property, which is contiguous to the eastern boundary of the Farwell claims. Significant gold mineralization has been uncovered on the property from past exploration work by Tundra Gold Mine (1980’s) and recent sampling by Argo Gold. Argo Gold states (Company Website Report, 2016):**

*“From the northeast end of Abbie Lake for a distance of 5 km southwest, the high strain zone contains a series of sub-parallel quartz-carbonate-tourmaline veins and is characterized by the transformation of mafic and felsic metavolcanics into chlorite schists and quartz-sericite+/-chlorite schist, along with strong elongation of metaconglomerate clasts. Sampling of rocks along this high strain zone has identified anomalous gold assays ranging from 0.01 oz/t up to 0.82 oz/t.*

**Argo Gold also indicates the “Iron Lake Deformation Zone has close similarities with the Mishibishu Lake Deformation Zone that hosts the Mishi Mine and the past producing Magnacon Mine.” These deposits are located 5 km south of the Farwell claim block.**

**In 1988 the Ontario Geological Survey released the results of a large airborne EM and magnetometer survey covering the entire Michipicoten and Mishibishu Greenstone Belts. The area of interest shows prominent magnetic and coincident electromagnetic anomalies that indicate the possible extension of the iron formation and associated shear zone through the central portion of the Farwell Property to the west. Also as determined from detailed OGS mapping by Bennet and Thurston (1977) and more recent exploration work conducted by Precambrian Ventures Ltd in 2009, the same stratigraphic sequence is observed on the Farwell Property. The iron formation and shear zone occupy the contact between mafic to felsic volcanic rocks to the north and metasedimentary rocks, primarily conglomerates, to the south. In addition, the presence of possible Timiskaming-style conglomerates and the known association with gold mineralization in other camps across Ontario (Geraldton, Timmins, Kirkland Lake areas), further enhances the economic potential of the property.**

## **Summary**

**Known gold occurrences, some along the projected western extension of the ILDZ, indicates a high potential for iron formation-related gold mineralization on the Farwell Property. The planned detailed airborne geophysical survey will help define this zone and associated iron formation and target specific areas for further work. The base metal VMS potential also exists in those areas hosting massive sulphide mineralization related to the mafic-felsic volcanic sequence. These areas have been identified by OGS mapping and from historic exploration work conducted on the Farwell Property.**

**During the early months of 2020, Bold Ventures staked 2 additional cell claims groups contiguous with the main Farwell Property. One area lies along the northern boundary and was acquired to encompass the remaining mafic to felsic volcanic rocks immediately north of the western projection of the ILDZ. The other area is located in the southwest and was staked to capture a mafic to ultramafic intrusive body mapped by Bennett and Thurston (1977) of the OGS.**

## Recommendations

The 1987 OGS DIGHEM airborne electromagnetic and magnetic survey covering the Farwell Property, had a depth penetration from 60 to 80 m. In comparison, the modern day airborne VTEM (Versatile Time Domain Electromagnetic) and magnetic geophysical survey planned for Bold Ventures Farwell Property has much greater sensitivity and can penetrate depths 3 to 4 times deeper.

Depending on budgetary constraints, using 100 m or 200 m line spacing would result in further delineation of the electromagnetic conductors and magnetic signatures across the claim group. All these factors would potentially increase the detail of known conductors and locate additional deep-seated targets.

Tighter line spacing (100 m) over the property would provide greater definition to any EM and magnetic anomalies.

### Phase 1 Program:

Two options are proposed for the airborne geophysical survey on the Farwell Property (Geotech Ltd., Dec. 16, 2019):

#### 1. Option A

The survey will be flown at 100 m line spacing and will comprise approximately 935 line-kilometers

Mob/demob:	\$27,000
Survey and compilation (935 km @ \$155/km)	\$144,925
Fuel costs	\$16,200
Total	<u>\$188,125</u>

#### 2. Option B

The survey will be flown at 200 m line spacing and will comprise approximately 270 line-kilometers.

Mob/demob:	\$27,000
Survey and compilation (467 km @ \$160/km)	\$74,720



<b>Fuel costs</b>	<b>\$8,200</b>
<b>Total</b>	<b><u>\$109,920</u></b>

**Local weather permitting, it is anticipated the airborne survey should be completed within 7 days. Depending on the results, ground follow up could include prospecting, mapping, sampling and/or additional geophysical/geochemical surveys. Digitizing and integration of all historical data with the airborne survey results, would assist in planning future work.**

### **Phase 2 Program:**

**There may be situations where the new information gathered provides obvious drill targets in some areas (i.e. VMS or massive sulphide targets). Elsewhere, ground examinations through detailed prospecting and mapping will be necessary before any further work is carried out. Cost estimates for this portion of the program are given below:**

- **Prospecting, mapping and sampling: 2 men for 20 days and all support costs including contingency: \$33,500**

**NB: To date (April 30, 2020) no field visit has been conducted to the Farwell Property.**

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