

**Assessment Report on the  
2015 Prospecting, Channel Sampling & Mapping Program  
Hawkins Gold Property, Hawkins Township**

Claims 4266186, 4266187, 4266188, 4266189, 4278951, 4283665  
G-2316, Hawkins Township, Sault Ste. Marie Mining Division  
UTM WGS84 Zone 16U 706208mE 5427977mN;  
Lat 48° 58' 10"N, Long 84° 11' 45"W;  
NTS 42C16 - Kabinakagami Lake

For:  
Pavey Ark Minerals Inc.  
Client number 411465

Prepared By:  
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December 28, 2015

## Executive Summary

This assessment report documents prospecting, channel sampling, and geological mapping carried out on the Hawkins Gold Property, Hawkins Township, Sault Ste. Marie Mining Division, Ontario. Field work for this report was carried out in June, August, and October, 2015. Total expenditures were \$23,466.

The Hawkins Gold Property is located 80 km south-southwest of Hearst, Ontario. The Property is road accessible by route 583 and the Caithness logging road system that extends south from the Trans-Canada Highway 11 at Hearst. The Hawkins Gold Property is comprised of six contiguous staked claims (4266186, 4266187, 4266188, 4266189, 4278951, and 4283665) covering 73 units (1,168 ha) owned by Pavey Ark Minerals Inc., a private Ontario company.

The Hawkins Gold Property is underlain by predominately Archean rocks of the Kabinakagami Lake greenstone belt. The Puskuta shear zone is a steeply dipping dextral, regional fault structure that bounds the north side of the property. The Hawkins Gold Property is centered on the Goldfield's showing that was discovered in 1989. Exploration activity in the area has been sporadic since gold was discovered by prospector G. Taylor in 1923 in Hawkins Township close to the ACR tracks. The past-producing Shenango Gold Mine operated in Hawkins Township from 1935 to 1941 and is located immediately east of the Hawkins Gold Property.

Sample preparation and analysis for this work was done at Accurassay Laboratories in Thunder Bay. A total of 78 samples, including 28 channel samples, were submitted for assay. All 78 samples were analyzed for gold by fire assay (FA) with an atomic absorption spectrometry (AAS) finish. Eight (8) samples with greater than 10 g/t Au were reanalyzed using a FA with a gravimetric finish. Thirty (30) samples were analyzed for 30 additional elements using a multi-acid digestion procedure and inductively coupled plasma-optical emission spectrometry (ICP-OES).

Significant gold assay results were obtained from the Goldfield's main showing including grab sample HA15-02 with 43.55 g/t Au. Grab samples at locations other than the Goldfield's main showing produced only weakly anomalous results for gold. Gold mineralization on the property is typically associated with anomalous Cu and Zn, low As, low Mo, and moderate Cr values. Channel sampling of the Goldfield's showing confirmed two significant gold mineralized intervals. These include 2.5 m at 18.45 g/t Au and 1.5 m at 21.12 g/t Au. Both intervals are associated with strongly silicified foliated amphibolite, disseminated pyrite-pyrrhotite, ductile folding and quartz veinlets in a west plunging fold structure.

Alteration styles on the property, including silica-pyrite (+/- pyrrhotite)-sericite and silica-pyrite (+/- pyrrhotite) associated with ductile deformation, suggest that the property may present a favourable environment for identification of additional gold mineralization. A follow up program of IP geophysics to target gold mineralization associated with disseminated sulphides is recommended.

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## **1.0 Introduction**

This assessment report documents prospecting, channel sampling, and geological mapping carried out on the Hawkins Gold Property, Hawkins Township, Sault Ste Marie Mining Division, Ontario. The work was carried out between June 17 and October 10, 2015. The exploration targets gold mineralization associated with the Puskuta deformation zone (Leclair et al. 1993).

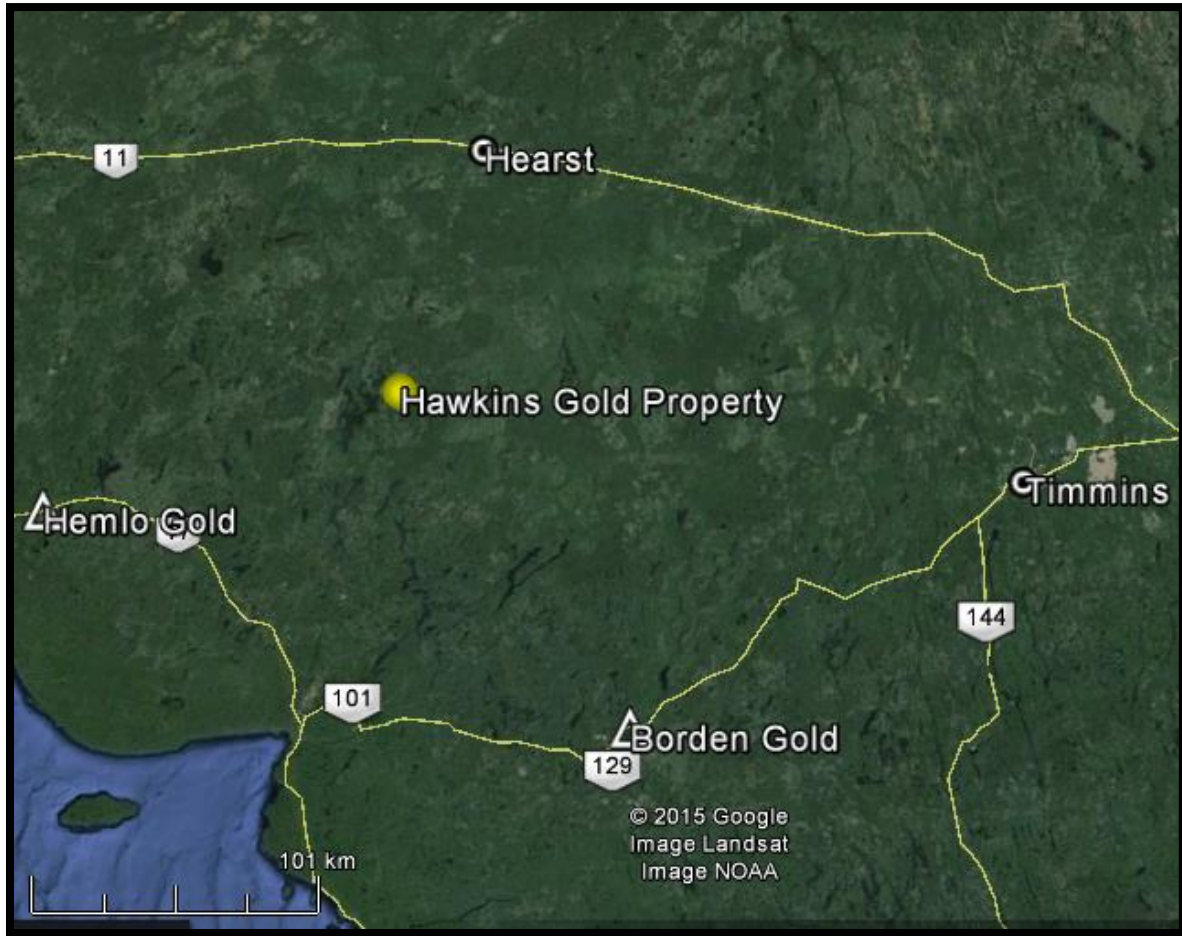
Geological mapping and sampling for this report was done by R.H. Sutcliffe on June 17, 18, August 18 to 22, and October 9, 10, 2015. Alex Pleson and Benjamin MacAdam completed prospecting and channel sampling on August 18 to 25, 2015. All assays were done by Accurassay Laboratories, Thunder Bay, Ontario between July and November 2015. Reporting was completed by R.H. Sutcliffe on December 20 to 28, 2015.

## **2.0 Location and Access**

The Hawkins Gold Property is 80 km south-southwest of Hearst, Ontario (Figure 1). The Property is directly accessed by route 583 and the Caithness logging road system that extends south from the Trans-Canada Highway 11 at Hearst.

To access the property, at Hearst, Ontario, turn south from highway 11 onto route 583. Approximately 10.5 km south of Hearst on route 583, turn left onto the Caithness Road. At approximately 70 km south on the Caithness Road turn right on the Oba Road. Continue west on Oba Road for 26.1 km past junction with Oba South branch road to intersection with Irving Road and turn left (south) on Irving Road. Continue on Irving road for 3.2 km past CNR tracks, to junction with Poulin road. Take Poulin road toward west for 7.4 km, past ACR tracks and across Oba River to junction with "Road 4". Turn right (west) on Road 4 for approximately 2.5 km to center of claim group. Total road distance from highway 11 at Hearst to the property on 583/Caithness/Oba/Irving/Poulin/Road 4 is 119 km.

**Figure 1. Hawkins Gold Property Location**



*Source: Google Earth 2015*

### **3.0 Claim Holdings and Property Disposition**

The Hawkins Gold Property is comprised of six contiguous staked claims (4266186, 4266187, 4266188, 4266189, 4278951, and 4283665) covering 73 units (1,168 ha) (Table 1). Claims are 100% owned by Pavey Ark Minerals Inc., a private Ontario company. Four claims were staked in 2013 and 2 claims were staked during the current work program. A claim map is provided as Map 1.

**Table 1. List of staked claims comprising the Hawkins Gold Property.**

**SAULT STE. MARIE Mining Division - 411465 - PAVEY ARK MINERALS INC.**

Township/Area	Claim Number	Recording Date	Claim Due Date	Status	Percent Option	Work Required	Total Applied	Total Reserve	Claim Bank
HAWKINS	<a href="#">4266186</a>	2013-Oct-30	2016-Jan-04	A	100 %	\$ 6,400	\$ 0	\$ 0	\$ 0
HAWKINS	<a href="#">4266187</a>	2013-Oct-30	2016-Jan-04	A	100 %	\$ 6,000	\$ 0	\$ 0	\$ 0
HAWKINS	<a href="#">4266188</a>	2013-Oct-30	2016-Jan-04	A	100 %	\$ 6,000	\$ 0	\$ 0	\$ 0
HAWKINS	<a href="#">4266189</a>	2013-Oct-30	2016-Jan-04	A	100 %	\$ 4,800	\$ 0	\$ 0	\$ 0
HAWKINS	<a href="#">4278951</a>	2015-Sep-22	2017-Sep-22	A	100 %	\$ 3,600	\$ 0	\$ 0	\$ 0
HAWKINS	<a href="#">4283665</a>	2015-Sep-08	2017-Sep-08	A	100 %	\$ 2,400	\$ 0	\$ 0	\$ 0

**4.0 Previous Work**

Exploration activity in the area has been sporadic since gold was discovered by prospector G. Taylor in 1923 in Hawkins Township close to the ACR tracks. A summary of exploration on the Hawkins Gold Property is provided in Table 2.

The Hawkins Gold Property is centered on the Goldfield’s showing that was discovered in 1989. Channel sample assays from the showing in 1989 included: 1.31 oz./ton over 3 ft.; 0.74 oz/ton over 5 ft.; 0.42 oz/ton over 2 ft.; 0.40 oz/ton over 2 ft.; 0.21 oz/ton over 5 ft.; 0.11 oz/ton over 2 ft. The Johnstone-Barnes occurrence discovered in the 1920’s is located at western end of the Hawkins Property. The surface value reported at this showing is 0.24 oz/t over 35 feet. These results are reported by Lahti (1989).

Subsequent to the discovery of the Goldfield’s surface showing, Aurlot Exploration Ltd. under an agreement with Goldfield’s completed geological mapping, sampling, soil geochemistry, IP geophysics, and diamond drilling (13 holes for 1,780 ft). The best drill result was HK89-01 that intersected 3.8 g/t Au over 1.2 m (Lahti (1989) AFRI 42C16NE8216).

The Shenango Gold Mine (1935-1941) operated in Hawkins Township and is currently on property owned by Canadian Orebodies. Boissanault (2004) reports that the Shenango Mine produced 66.2 ounces from 2,430 tons of mineralization. The Shenango Mine is located immediately east of the Hawkins Gold Property.

**Table 2. Previous work on Hawkins Gold Property**

Date	Work Performed By:	Work Performed	Results
1920’s	Johnstone and Barnes	Trenching, sampling, presently claim 4266186	Gold occurrence discovered, reported assay of 0.24 oz./ton over 35 ft.
1975	Rio Tinto Canada	Ground geophysics, diamond drilling (2 holes;	No reported results

		902 ft.), presently claim 4266186, 87	
1984-1988	Golden Range Resources	Geology, geochemistry, ground and airborne geophysics, diamond drilling (8 holes; 813 ft.), presently claim 4266186, 87	No available results
1986-1989	Goldfields Canadian Mining Ltd.	Geology, stripping, trenching, sampling, presently claims 4266186,87,88	Channel sample assays; 1.31 oz./ton over 3 ft; 0.74 oz./ton over 5 ft; 0.42 oz./ton over 2 ft; 0.40 oz./ton over 2 ft; 0.21 oz./ton over 5 ft; 0.11 oz./ton over 2 ft.
1989	Aurlot Exploration Ltd. (under agreement with Goldfields)	Geology, sampling, geochemistry, IP geophysics, drilling (13 holes; 1780 ft.)	Several IP chargeability anomalies, best intersection HK89-01 with 3.8 g/t over 1.2 m

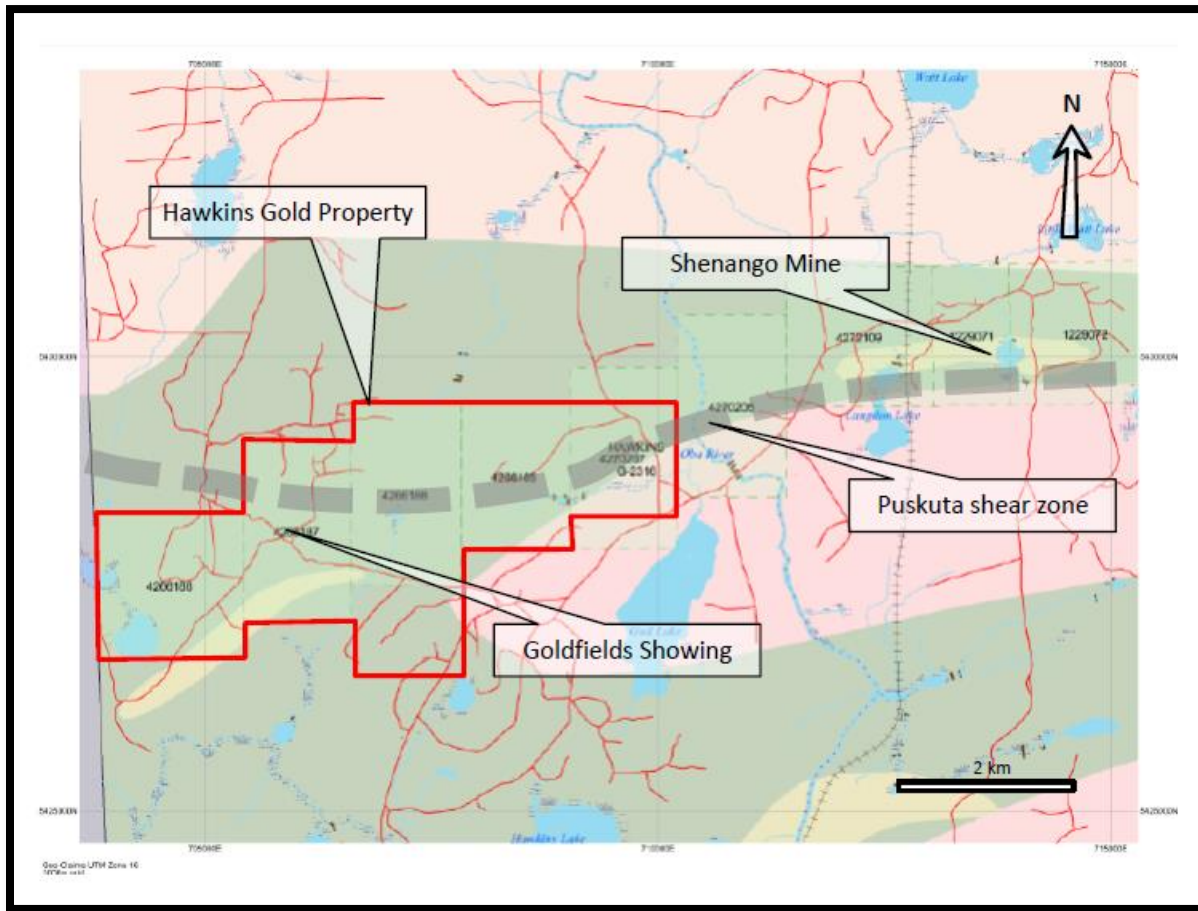
Source: Lahti (1989) AFRI 42C16NE8216.

The Ontario Geological Survey (2015) released results of a helicopter mounted Geotech VTEM plus magnetic and electromagnetic surveys flown at 200 m line spacing that covered Hawkins Township and adjacent townships.

## 5.0 Geology

The Hawkins Gold Property is underlain by predominately Archean rocks of the Kabinakagami Lake greenstone belt (Figure 2). The greenstone belt is intruded by Archean granodiorite to tonalite plutons and by Proterozoic diabase dikes. The area was originally mapped by Maynard (1929) with more recent mapping by Wilson (1993). The 1 km wide Puskuta shear zone is a steeply dipping dextral, transcurrent structure that on a regional scale bounds the south side of the Kabinakagami Lake greenstone belt and extends for approximately 60 km to the southeast through Walls, Minnipuka and Puskuta Townships (Leclair, 1990; Wilson, 1993).

**Figure 2. Hawkins Gold Property Geology**



*Base map source: OGS Claimaps 2015*

Wilson (1993) describes mafic to intermediate metavolcanic rocks as the dominant rock type in the Kabinakagami greenstone belt. In Hawkins Township, these rocks are strongly foliated and of amphibolite metamorphic grade. Felsic metavolcanic rocks are locally observed in Hawkins Township. Wilson (1993) describes quartz porphyry, and to a lesser extent, quartz-feldspar porphyry, sills and dikes as a prominent feature in western Hawkins Township. The dikes and sills are light grey to white on their weathered surfaces and contain up to 15 percent, 5 mm to 15 mm opalescent quartz eyes in a siliceous fine grained groundmass.

The tonalite mapped by Wilson (1993) in central Hawkins Township is described as sheared, light grey to white, with a cataclastic texture. This tonalite separates the two units of metavolcanic rocks in Hawkins Township and occurs along the south side of the Puskuta shear zone. Clots of sulphides (pyrite and chalcopyrite) and quartz are prominent within the tonalite in the 500 m to 1000 m wide deformed zone.

In central Hawkins Township, Wilson (1993) describes the gold showings as occurring in quartz veins at the strongly sheared northern contact of the tonalite intrusion with mafic metavolcanic



rocks. Wilson (1993) did not describe the Goldfields showing that was discovered in 1989 at about the same time as Wilson's mapping program.

## **6.0 Prospecting Program**

Prospecting was conducted by Alex Pleson and Benjamin MacAdam on August 18 to 25, 2015. Richard Sutcliffe completed additional sampling on June 17, 18, August 18 to 22, and October 9, 10, 2015 as part of the geological mapping. All sample locations were recorded by a hand held GPS receiver.

Sample preparation and analysis was done at Accurassay Laboratories in Thunder Bay. A total of 78 samples, including 28 channel samples, were submitted for assay. All samples were dried, crushed, split and pulverized. All 78 samples were analyzed for gold by fire assay (FA) using 30 g aliquots with an atomic absorption spectrometry (AAS) finish. Eight (8) samples with greater than 10 g/t Au were reanalyzed using a FA with a gravimetric finish. Thirty (30) samples were analyzed for 30 additional elements using a multi-acid digestion procedure and inductively coupled plasma-optical emission spectrometry (ICP-OES). Sample locations are provided on Map 2. Assay certificates are attached as appendix 2.

Significant gold assay results were obtained from the Goldfield's main showing including grab sample HA15-02 with 43.55 g/t Au, the highest gold value obtained in the program.

Grab samples at locations other than the Goldfield's main showing produced only weakly anomalous results for gold. These included:

- Sample HA15-29 with 0.019 g/t Au from a pyritic silicified amphibolite in a pit near the east boundary of claim 4266189; and
- Sample 258496 with 0.019 g/t Au from folded quartz veins in foliated amphibolite with minor sulphide 300 m west of the Goldfield's showing.

The Johnstone Barnes occurrence was not located during the present work.

Samples analyzed for the 30 element ICP-OES package indicate that gold mineralization is typically associated with anomalous Cu and Zn, low As, low Mo, and moderate Cr values. For example HA15-02 (43.55 g/t Au) has 1,041 ppm Zn, 193 ppm Cu, <2 ppm As, 3 ppm Mo, and 115 ppm Cr. The moderate Cr values support a mafic origin for the mineralized silicified amphibolite.

## **7.0 Channel Sampling Program**

Channel sampling using a gas powered portable diamond saw was conducted by Benjamin MacAdam and Alex Pleson on August 20 to 22, 2015. Twenty eight (28) channel samples were cut including 22 samples from the main Goldfield's showing. All channel samples were marked by an aluminum tag on the outcrop.

The 22 samples from the main Goldfield's showing are each 0.5 m long and form an 11.0 m long continuous channel. The location of the Goldfield's showing channel and adjacent grab samples relative to the outcrop geology is shown on Map 3.

Channel sampling of the Goldfield's showing confirmed two significant gold mineralized intervals. These include:

- 2.5 m at 18.454 g/t Au from sample 258465 to 69;
- 1.5 m at 21.120 g/t Au from sample 258480 to 82.

Both intervals are associated with strongly silicified foliated amphibolite, disseminated pyrite-pyrrhotite, ductile folding and quartz veinlets. The channel sampling confirmed that the Goldfield's showing mineralization is associated with a steep, west-plunging antiformal structure. The antiformal fold limits the extent of mineralization to the west. Aurlot drill holes HK89-01 and -02 that tested this mineralization returned only modest values with the best value of being 3.8 g/t Au over 1.2 m in HK89-01 (Lahti (1989) AFRI 42C16NE8216). Further efforts should be focused on tracing the mineralization to the east.

## **8.0 Mapping Program**

Geological mapping was conducted by R.H. Sutcliffe over a period of 9 days between June and October 2015. Mapping was done both along former forestry roads and trails and by traverses through the bush. Outcrop exposure has been frequently enhanced along the sides of former forestry roads due to excavation of ditches that has removed overburden over bedrock. Outcrops were located by a handheld Garmin Etrex GPS receiver and plotted on a digital map base map downloaded from the MNDM CLAIMaps application.

<http://www.geologyontario.mndmf.gov.on.ca/website/claimapsiii/viewer.asp>

Thirty (30) grab samples with the HA- prefix were collected during the mapping program. All samples were analyzed for Au by FA and an additional 30 elements by ICP-OES. Results were previously discussed in section 6.0.

### 8.1 Metavolcanic Rocks

Metavolcanic rocks on the Property are dominantly amphibolite metamorphic facies mafic metavolcanics that are strongly foliated to banded. Banded amphibolites are characterized by mm to cm scale feldspathic layers alternating with more mafic layers. The author believes that these textures are probably metamorphic, but banded amphibolites have been mapped as mafic tuffs by previous workers. Local preservation of pillow structures confirms that the mafic rocks have a volcanic origin. Pillow selvages are defined by distinct darker colour from concentration of amphibole.

### 8.2 Felsic to Intermediate Metavolcanic Rocks

Intermediate to felsic lapilli tuff occurs at the south west corner of the property. This lithological unit contains cm scale felsic-intermediate fragment in an intermediate matrix.

### 8.3 Felsite, Quartz Porphyry, Sericite Schist

A distinctive feature of the property is the presence of numerous cm to m scale sills of felsite, quartz porphyry and tonalite that intrude the mafic metavolcanics. The felsite is fine grained, equigranular and white to grey. Locally the felsite grades to quartz porphyry with 2 to 3 mm opalescent quartz eyes.

A cm to meter scale units of sericite schist are associated with the amphibolite in the north east portion of the property. Locally these rocks are medium grained pyrite-quartz-sericite schist. Historical exploration pits that tested the sericite unit were mapped near the east and west boundaries of claim 4266189.

### 8.4 Felsic Intrusive Rocks

Foliated, medium-grained, equigranular biotite tonalite forms an intrusive unit in the southeast part of the property. The tonalite locally contains inclusions of fine-grained felsite and intermediate rock. The northern contact of the tonalite with mafic metavolcanics is not well defined on the property as it is interpreted to occur in a low lying swampy area with no outcrop.

### 8.5 Diabase Dikes

Medium-grained diabase dikes intrude the mafic metavolcanic rocks. The dikes are weakly magnetic and equigranular. The mapped dikes have orientations of approximately 060° and 140°.

### 8.6 Metamorphism and Alteration

The metavolcanic rocks are characterized by amphibolite facies metamorphism with mafic amphibolite being the dominate lithology.

Alteration associated with gold mineralization includes silicification, sericitization, and sulphidization. These features are well defined at the Goldfield's main showing where the highest gold grades are associated with strong silicification and pyrite mineralization in the mafic metavolcanic host. In the northeast part of the claim group there is a prominent band of felsite with sericite alteration. These occurrences have been explored by historical exploration pits that have exposed the sericite unit.

### 8.7 Structure

The metavolcanic rocks are characterized by strong penetrative fabrics and ductile deformation. Primary volcanic textures such as pillows and pillow breccia are locally preserved despite amphibolite facies metamorphism and deformation. A distinctive feature of the metavolcanic rocks in the central part of the claim group is the presence of numerous cm to m scale sills of felsite, with local quartz porphyry, that intrude parallel to the amphibolite fabric. Locally the felsite sills have been folded. The large outcrop at the Goldfield's main showing has good examples of relict pillow textures, ductile deformation, and folding of felsite sills.

North of the tonalite intrusion, microbreccias with angular cm scale metavolcanic fragments in a feldspathic matrix provide evidence of late brittle deformation.

Foliations in the metavolcanic rocks in the central part of the claim group, north and northwest of the biotite tonalite intrusion, are east-west to east-northeast striking with moderate to steep north dips. There is a pronounced west plunging lineation that is associated with the west end of the biotite tonalite intrusion that is present in both the intrusion and mafic metavolcanic rocks. A lineation defined by minor folds at the Goldfield's main showing has a similar west plunging orientation.

The Puskuta Deformation Zone occurs in the northern part of the claim group and the approximate southern boundary of the deformation zone as defined by outcrops with features of high strain is indicated on Map 4. Typical high strain textures include protomylonite fabric with quartz ribbons, rootless "hook shaped" minor folds, boudinage, and augen or flaser-type textures with clasts of less deformed rock in strongly deformed matrix. Foliation in the Puskuta deformation zone is characterized by a broadly east-west to east-northeast striking and near-vertically dipping orientation. Minor folds typically have a "Z" asymmetry suggesting a dextral displacement. This is consistent with LeClair et al.'s (1993) interpretation of dextral movement. The northern limit of the Puskuta Deformation Zone is poorly exposed, covered by low lying swampy land, and was not identified in the present work.

## **9.0 Conclusions and Recommendations**

The program confirmed significant gold values at the Goldfield's showing including channel samples with 2.5 m and 18.45 g/t Au and 1.5 m at 21.12 g/t Au that are associated with silicified amphibolite and pyrite-pyrrhotite mineralization. The mineralization at the Goldfield's showing appears to be associated with ductile deformation in a west plunging fold structure that limits the western extent of mineralization. The Goldfield's showing gold mineralization is associated with elevated Zn and anomalous Cu.

Grab samples at locations other than the Goldfield's main showing produced only weakly anomalous results for gold. However, alteration styles on the property including silica-pyrite (+/- pyrrhotite)-sericite and silica-pyrite (+/- pyrrhotite) associated with ductile deformation suggest that the property may present favourable environments for gold mineralization.

A follow up program of IP geophysics to target gold mineralization associated with disseminated sulphides is recommended. A review of the data from the Aurlot 1989 IP survey should first be completed, as Aurlot identified several IP chargeability anomalies. A new IP survey program should cover the area from the Goldfield's showing to the east claim boundary and from the southern limit of the Puskuta Deformation Zone to the south property boundary. The survey should target the northern boundary of the tonalite intrusion with mafic metavolcanics and the band of sericite/felsite occurrences with historical exploration pits. IP chargeability responses should then be investigated with additional surface trenching and or drilling as warranted.

## **10.0 References**

Boissoneault, J.R., 2004, Technical Report on the Don McKinnon Property, for Baltic Resources Inc., August 17, 2004, 25 p.

Lahti, H. R. 1989, Report on the Hawkins Property, Hawkins Township, Ontario, for Aurlot Exploration Ltd., November 15, 1989, AFRI 42C16NE8216.

Leclair, A.D., Ernst, R.E., and Hattori, K. 1993. Crustal scale auriferous shear zones in the central Superior province, Canada. *Geology*, v. 21, pp. 399-402.

Maynard, J.E. 1929, Oba Area, District of Algoma, Ontario Department of Mines, Annual Report 1929, v. 38, pt. 6, pp. 114-125.

Ontario Geological Survey, 2015. Airborne magnetic and electromagnetic surveys, colour-filled contours of the residual magnetic field and electromagnetic anomalies, Kabinakagami Lake area; Ontario, Geological Survey, Map 82 754, scale 1:50 000.

Wilson, A.C., 1993, Geology of the Kabinakagami Lake Greenstone Belt, Ontario Geological Survey, Open File Report 5787, 80 p.

## 11.0 Statement of Qualifications

I, Richard H. Sutcliffe, of 100 Broadleaf Crescent, Ancaster, Ontario, do hereby certify that:

I am a graduate of University of Toronto (B.Sc. Geology, 1977, M.Sc Geology 1980), and a graduate of University of Western Ontario (Ph.D. Geology, 1986) and I have been practising my profession as a geologist since.

I am a member with the Association of Professional Geoscientists of Ontario (#852).

I have direct knowledge of the exploration work performed for this assessment and I am indirectly the owner of the claims on which the work was performed.

*Signed*

*"R.H. Sutcliffe"*

Richard H. Sutcliffe, Ph.D., P.Geo.

December 28, 2015

Ancaster, Ontario

## Appendix 1. Sample Locations and Descriptions

Sample ID	Sampler	Wpt/ Name	To: (m)	From: (m)	Easting	Northing	Description
258451	AP	29			706243	5428214	silicified mafic metavolcanic, green tinge, slightly foliated, 1% py stringers, fine grained, <1% po in py stringers, f.g. tr. Disseminated py (groundmas is fine grained)
258452	AP	30			706226	5428331	dark grey foliated amphibolite w/ 1-4mm wide quartz-rich layers (bands) w/ rusty to greenish white qtz. Tr. Fine grained diss py, slightly magnetic
258453	AP	31			706271	5428467	milky white rusty quartz vein fracture controlled py. Up to 6cm wide (pinch-swell), sample is portion of a quartz vein stockwork. 269°/87° to 85°
258454	AP	31			706271	5428467	wallrock of vein rusty blebs throughout outcrop fracture controlled py <1% f.g not magnetic, fine grained dark greyish groundmass w/ w.k. foliation and DPO grains parallel with overall shear
258455	AP	33			706643	5428748	foliated m.mvol 091°/75° silicified dark grey blueish tinge v.f. f.g. folded white-to-rusty white qtz veins, possible crenulations to foliation or possibly primary flow texture? Outcrop is 10m x 25m
258456	AP	34			706654	5428740	Selected chip of rusty qtz veins from outcrop from previous sample
258457	AP	34			706654	5428740	contact to tectonic breccia/amphibolite with 10-20cm to large sections of less altered "massive amphibolite clasts" dark black groundmass, 0.5%py in fractures, non magnetic
258458	AP	35			706159	5428012	main showing southwest corner, silicified mafic meta-vol with bands of quartz and chlorite or amphibole 3-4% py massive blebs, not magnetic
258459	AP	36			706152	5427965	sil. Folded mafic metavol amphibolite, 3% py stringers and very rusty weather surface, tightly folded
258460	AP	37			706148	5427886	wk foliated mafic metavol (amphibolite) v.fine grained with alte stage qtz veins 2mm wide, <1% to trace diss py, not magnetic
258461	AP	38			706130	5427822	fine grained amphibolite (massive) 0.5% py diss, (mafic metavol)/amphibolite dark grey slight greenish tinge groundmass
258462	AP	CH1-1	0	0.5	706215	5428014	channel azimuth (220), foliated qtz rich/silicified amphibolite, bands of alt black rich to green/white layers w/ quartz eyes tr py, <1% diss po, magnetics fine grains

							throughout dark green and black layers
258463	AP	CH1-2	0.5	1			similar to 462, with alternating 1-4cm wide banded of foliated qtz and amphibole rich layers up to 1% py diss throughout not magnetic, layers are intermediate in composition
258464	AP	CH1-3	1	1.5			similar to 463, w/ folded 1-2cm wide qtz rich zones and greenish mafic m.mvol, tr diss py, slightly magnetic in dark black/green layers
258465	AP	CH1-4	1.5	2			rusty quartz layers with dark chlorite, fractures fills includes portions of amphibolite rusty sheared contact between the two, tr po, tr py
258466	AP	CH1-5	2	2.5			same as 462 but up to 1% py along foliation wk. magnetic, tr po
258467	AP	CH1-6	2.5	3			foliated qtz rich/silicified amphibolite with 1% po diss w/ minor blebs of 1% py in quartz rich "layers"
258468	AP	CH1-7	3	3.5			foliated silicified amp, tr po, <1%py diss f.g.
258469	AP	CH1-8	3.5	4			foliated silicified amp, tr po, <1%py diss f.g., s-folded to stylolitic 1-5mm wide milky white quartz veins
258470	AP	CH1-9	4	4.5			foliated silicified amp, tr po, <1%py diss f.g.
258471	AP	CH1-10	4.5	5			strongly/tightly folded "microfolding" alternating layers of amph (dark green) and brownish/black within folding, stringers of po up to 3mm wide throughout, also folded/deformed to same degree as groundmass
258472	AP	CH1-11	5	5.5			similar deformation and groundmass comp to previous sample (71) but stronger sulphide association, 2-3% po and 2% py blebs medium grained and 1% combined po/py f.g diss
258473	AP	CH1-12	5.5	6			same as 472
258474	AP	CH1-13	6	6.5			same as 472
258475	AP	CH1-14	6.5	7			same as 472
258476	AP	CH1-15	7	7.5			transition from strong folding of the altered mmvol/amphibolite, to more brittle deformation, increase in brittle fracturing with quartz veinlets up to 5mm wide.
258477	AP	CH1-	7.5	8			same as 476



		16					
258478	AP	CH1-17	8	8.5			strongly fractured with qtz and calc? fracture fills co-existing with similar style of py-stringers throughout up to 3%. Very siliceous, review assay as this sample is far less folded
258479	AP	CH1-18	8.5	9			contact to cherty unit/silicified brown/grey unit, coarse grain blebs of po, strongly magnetic,
258480	AP	CH1-19	9	9.5			massive amphibolite with tight foliation, and ~1% combined diss py/po, w/ 9cm wide rusty brownish white quartz vein (tr py in vein itself)
258481	AP	CH1-20	9.5	10			quartz rich intersection, quartz eyes throughout up to 2-4mm in size, on contact to amphibolite, pervasive (entire sample has) blebs of po/py up to 1.5-2%
258482	AP	CH1-21	10	10.5			Rusty fine grained amphibolite (massive texture) 1% po f.g to v.f.g diss and 1% py blebs throughout m.g
258483	AP	CH1-22	10.5	11			same as 482
258484	AP				706183	5427979	Rusty amphibolite with mod foliation and quartz rich layers, possibly relic qtz veins. 5%po f.g. to m.g. blebs, magnetic and v.f.g 1% py, sampled on southern extent of mainshowing outcrop right beside tree line
258485	AP	CH2-1	0	0.5	705150	5427220	East road, Azimuth 060°, fine grained amphibolite, strongly foliated, 322°/84° (slight dip to the east) 2% py blebs m.g, tr po
258486	AP	Ch2-2	0.5	1			East road, same as previous except strgoner brittle-ductile deformation with foliation and fractures parallel to foliation, tr py within quartz veins
258487	AP	Ch2-3	1	1.5			East Road, fine grained amphibolite, strongly foliated, 322°/84° (slight dip to the east) 2% py blebs m.g, tr po
258488	AP	Ch3-1	0	0.25	705198	5427256	East road (select chip/channel) rusty foliated amphibolite, wk. silicified 320°/86°, 2% py, tr po
258489	AP	42			707716	5428464	sheared rusty felsite on contact to wk. to mod. Foliated amphibolite (dark green to black) mod. Silicified
258490	AP	42			707716	5428464	sheared and foliated amphibolite. ~1% diss f.g. py, not magnetic
258491	AP	42			707716	5428464	massive felsite dike, greyish to sligth brown in colour, fine grained matrix, lacking foliation, margins are slightly deformed due to deformation of surrounding foliation amphibolite, v.f.g diss py (0.5% to trace)

258492	AP	48			707797	5428574	sheared amphibolite "on contact to felsite dike", tr. Diss py, rusty stringers of quartz (roughly parallel to foliation),
258493	AP	54			706279	5428036	massive amphibolite, w/ 5% massive to blebby medium to fine grains of pyrite. No po,
258494	AP	61			705114	5428110	S-fabric folding in strongly silicified amphibolite, S-folds are 10-15mm of quartz rich white matrix (relic quartz veins?) sample is select chip from multiple micro-fold "hinges" with 1% py diss (fine grained)
258495	AP	Ch4-1			705823	5427990	campsite, up to 35cm wide felsite dike (255°/80°), rusty surface, upon cutting channel only tr to <1% fine grained diss pyrite is visible in a grey quartz rich groundmass with 5-10% variable sizes grains/quartz eyes,
258496	AP	Ch5-1			705823	5427990	campsite, deformed, foliated amphibolite (230°/80°), see picture for folded/deformed quartz veins within the dark grey - black matrix, 1%py diss throughout, weakly magnetic grains, f.g. as well, appear to be po, but possibly only py as they are slightly rusty, blade wore out on Channel saw so not cut very far past weathered surface
HA13-01	RHS	16			706210	5428007	Rusty, silicified mafic schist with sulphides and quartz stringers from deformed zone near channel samples, Goldfields main showing
HA13-02	RHS	16			706210	5428007	Felsic, sericitic schist with sulphide from deformed zone near channel samples
HA15-01	RHS	396			707898	5427478	Biotite tonalite
HA15-02	RHS	443			706217	5428012	Recrystallized quartz with sulphide
HA15-03	RHS	443			706217	5428012	Silicified banded grey with sulphide
HA15-04	RHS	443			706217	5428012	Silicified with sulphides
HA15-05	RHS	443			706217	5428012	Silicified banded grey with sulphide
HA15-06	RHS	454			707557	5428706	Ampibolite, minor silicification, pyrite
HA15-07	RHS	396			707898	5427478	Felsite inclusion with minor pyrite in tonalite
HA15-08	RHS	477			708911	5429030	15 cm quartz vein, sugary
HA15-09	RHS	478			708889	5428990	Foliated/schistose felsite float, flaggy, sericite alteration, minor pyrite
HA15-10	RHS	484			708544	5428728	Foliated felsite, sericite alteration, minor py (oxidized)

HA15-11	RHS	485			708511	5428723	quartz vein 6 cm, sugary, slips of amphib host in vein
HA15-12	RHS	492			707719	5428466	Chips of foliated felsite, rusty, minor sericite, no hand sample retained
HA15-13	RHS	494			707768	5428520	Quartz vein 60 cm, coarse sugary, sericite slips
HA15-14	RHS	494			707768	5428520	Foliated amphibolite, from wall of vein, sulphides py, poss cpy
HA15-15	RHS	499			708025	5428844	Foliated felsite, minor sericite, rusty
HA15-16	RHS	518			705155	5427217	chips from old channel sample, silicified amphibolite with py, qtz veinlets, no hand sample retained
HA15-21	RHS	807			707809	5426834	Felsite/tonalite with quartz veinlets, tr py
HA15-22	RHS	811			707427	5426194	White pink QV with coarse pyrite
HA15-23	RHS	827			706242	5428004	Silicified mafic volcanic with minor pyrite, no hand sample retained
HA15-24	RHS	828			706243	5428004	White clay altered felsite with blue QV
HA15-25	RHS	828			706243	5428004	White clay altered Felsite with blue QV
HA15-26	RHS	829			706243	5428005	Altered mafic metavolcanic, silicified, tr py, south side of zone, photo 2706
HA15-27	RHS	842			708998	5429024	Silicified mafic schist with sulphides, old trench
HA15-28	RHS	843			708998	5429023	Sericite schist, minor py, muck at old trench
HA15-29	RHS	845			709017	5429027	Pit 5+ feet deep, muck sample, silicified amphibolite with 5% pyrite, photos 2717/18
HA15-30	RHS	846			709016	5429026	Waxy sericite schist with minor py from South face of pit
HA15-31	RHS	847			709017	5429026	Pit muck, quartz vein and silicified host with pyrite
HA15-32	RHS	851			709046	5429033	Quartz sericite schist, trace fuchsite, py possible tr arsenopyrite, muck from trench sample

## **Appendix 2. Assay Certificates**

See attachments

### Appendix 3. Expenditures

Item	Units	Unit Cost	HST	Total
<b>Prospector and assistant</b>				
Pleson Geoscience, Alex Pleson and Benjamin MacAdam plus travel, equipment and food, August 18 to 25, 2015	7 days		\$633.43	\$6,042.73
<b>Geologist – R. Sutcliffe</b>				
Field work – June 17, 18, August 18, 19, 20, 21, 22, October 9, 10, 2015	9 days	\$650/day	\$760.50	\$6,610.50
Reporting – 4 days, Dec 20 to 23, 2015	4 days	\$650/day	\$338.00	\$2,938.00
<b>Analytical - Accurassay</b>				
Dry, crush, split, pulp,	78	6.95		
Au (FA/AAS 30g)	78	11.25		
Multi-acid digestion, ICP-OES	30	11.55		
Additional - gravimetric	8	15.00		
Total			\$245.20	\$2,131.30
<b>Travel</b>				
Personal Vehicle – 3 trips Ancaster/Hearst/Ancaster	3 x 1,992 km	\$0.55/km		\$3,286.80
Hearst/Hawkins Twp/Hearst	6 x 238	\$0.55/km		\$785.40
<b>Food and Accommodation</b>				
Food	9 days	\$35/day		\$315.00
Accommodation Hearst – 2 nights, October 2015, Companion Motel & Queens Motel			\$25.19	\$218.99
<b>Office Supplies &amp; Field consumables</b>				
Canadian Tire – batteries, flagging tape			5.65	49.10
Staples – memory stick, scanning			3.36	29.19
Staples - Copying			11.19	93.92
<b>Communication</b>				
Roadpost - Satellite Phone rental and airtime			\$111.07	\$965.44
<b>TOTAL EXPENDITURES</b>				<b>\$23,466.37</b>