

### **STATEMENT OF QUALIFICATIONS.**

I, Gordon G Richards, with business address at 6410 Holly Park Drive, B.C., V4K 4W6, do hereby certify that:

1. I am a Professional Engineer, registration number 11,411 with the Association of Professional Engineers and Geoscientists of British Columbia.
2. I hold a B.A.Sc. (1968) in Geology from The University of British Columbia, and an M.A.Sc. (1974) in Geology from The University of British Columbia.
3. I have been practicing my profession as a geologist for over 40 years and as a consulting geological engineer since 1985. I have work experience in western areas of the United States, Alaska, Canada, Mexico and Africa.
4. I have based this report on my field work and supervision of field work by Jeff Mieras during the period of June 11 to 17, 2015 and on the results generated by that field work.

Respectfully submitted,

Gordon G Richards, P.Eng.

**STATEMENT OF COSTS**  
**2015 WILLOW Property**

Note: Of 331 MMI samples 87 or 26.3% were collected on the claims.  
Of 68 Twig samples 41 or 60.3% were collected on the claims.  
These %ages have been applied to some costs as indicated.  
Of all 399 MMI and Twig samples 128 or 32.1% were collected on the claims.  
This %age has been applied to some costs as indicated.

Trans North Helicopters:		
#57541 Jun 11. Mob. Mayo to Property.		\$1861.34
#57543 Jun 18. Demob.		1985.42
Truck: Whs-Mayo-Whs. 900 km @ \$0.62/km		558.00
Mob/Demob time:		
G Richards June 25, 26 days @ \$500/day		1000.00
J Mieras June 25, 26 days @ \$300/day		600.00
<b>SUB TOTAL MOB COSTS</b>		<b>6004.76</b>
Wages:		
Jeff Mieras Jun 11-17: 7 days @ \$300/day x <b>32.1%</b>		674.10
Gord Richards Jun 11-17: 7 days @ \$500/day x <b>32.1%</b>		1123.50
Living Allowance: sample bags, food, sat phone, radios, flagging, etc		
18 man days @ \$100/man day x <b>32.1%</b>		577.80
Geochem:		
SGS 10887539 MMI 3282.93 x <b>26.3%</b>		863.41
SGS 10884255 MMI 3363.99 x <b>26.3%</b>		884.73
SGS 10884228 MMI 3404.52 x <b>26.3%</b>		895.39
SGS 10884227 MMI 3404.52 x <b>26.3%</b>		895.39
B Veritas 1231857 Twigs 2191.61 x <b>60.3%</b>		1321.54
B Veritas 1234028 Silts off claims 126.32 x 0%		
B Veritas 1233739 Rocks all on claims		79.16
Canadian Freight: MMI samples to Vancouver 297.36 x <b>32.1%</b>		95.45
<b>SUB TOTAL</b>		<b>7410.47</b>
Report: 10% of above costs	(\$ 13,415.23)	<b><u>1341.52</u></b>
	<b>TOTAL</b>	<b>\$14,756.75</b>

Two zones of anomalous Zn in the samples occur over lengths of 2 km and 1.2 km on either side of the ridgeline on the property. The easterly zone contains zones of anomalous Pb over 700 m, Ag over 700 m, and Au over 600 m. Many anomalous As MMI samples occur on this Zn anomalous zone. The westerly Zn zone contains smaller zones of anomalous Ag and Cu. These two Zn zones with their accompanying anomalous zones of other metals could be occurring on the same stratigraphic horizon making the intervening ground prospective for containing VMS mineralization.

A second target two km southeast of camp is a Pb and Cu anomaly about one km long and 300m wide with the Cu anomaly offset somewhat to the north.

A third target a km south of camp is a zone about 800 m long of weaker anomalous Pb and spotty anomalous Zn. A silt sample collected downstream along the creek draining the area is highly anomalous for Cu, Zn, Ag, Au, Ba, As, Sb, and Bi.

The present survey was conducted on widely spaced lines so that much of the property has not been evaluated.

## **RECOMMENDATIONS.**

It is recommended that:

- i) Additional detailed soil sampling be conducted over the identified zones of anomalous metal values and in the headwaters of the drainage south of camp sampled by stream sediment sample Q170.
- ii) Additional recce soil sampling be conducted over ground to the east where there is a low residual aeromagnetic signature and RGS encouragement.
- iii) Ground and/or airborne EM/mag surveys be considered to search for VMS mineralization.

Pb, Se, Hg, and Ba, with significant support from other elements for these same samples and from lower threshold values in other samples.

The Willow Area was glaciated by pre-Reid glaciations (500 to 700 ka J. Bond, personal communication) and lies largely above Glacial Lake Coldspring to the west and just west of the Reid glacial extent. Pre-Reid glaciation was towards 300\* and Reid Glaciation towards the north based on Google Earth images and government data. A blanket of McConnell aged loess covers the area and has been removed on steeper slopes.

Aeromagnetic maps provided little encouragement other than dividing the volcanoclastics into low and high magnetic susceptibility domains. The separation is roughly parallel to schistosity shown on Geoscience Map 7 and thus may reflect distinct units. A pattern of residual aeromagnetic low extends to the east of the property to the limits of the Reid Lakes Complex volcanics suggesting that the rhyolite found on the property may extend a similar distance. This is important for extending further prospecting in this formation.

The area has a low number of MinFile occurrences and claims well removed from the property. This low occurrence in the general area could reflect low prospectivity or simply underexplored terrain. Recent YGS/GSC bedrock and surficial geological mapping, government sponsored aeromagnetic surveys, and reanalyses of RGS data has helped provide encouragement for prospecting in the area.

The Willow 1-40 quartz claims were recorded on June 10, 2015. Richards and Mieras spent 7 days in the field collecting **331 MMI** soil samples, **68 Black Spruce Twig** samples, **4 stream sediment** samples, and **3 rock** samples during the period June 11 to June 17.

Results of that work found several zones of anomalous metal values for Pb, Zn, Cu, Au, and Ag within and around the claim block. All outcrops were massive rhyolite sandstones with a limonitic/hematitic surface colour. Fine-grained hematite fractures and lesser limonitic fractures were often widely spaced (10 cm to 1 m) in outcrop. Areas of breccia occur as irregular shapes usually measuring a metre or so in width and traceable for several metres across outcrops. These breccias often displayed a richer hematite colour. Breccia fragments are generally less than 5 cm diameter and are made of similar rhyolite sandstones.

A km south of camp is a zone of weaker Pb anomalies with spotty anomalous Zn displayed in both MMI and twig samples. These anomalies extend over about 800 m.

Three rock samples collected north of camp from hematitic rhyolite contained no anomalous values. Table 4.

Four stream sediment samples were collected on the property, three collected from creeks draining the large anomaly east of camp and one from a creek draining the Pb anomalous zones southwest of camp. Using the recalculated thresholds for RGS samples in the selected pre-Reid area of 115P, the three silt samples east of camp (Q85, Q89, and Q136) provide the following analysis listed from north (Q85) to south (Q136); Pb (90, 98, 98%tile), Zn (<70, 70, <70 %tile), Au (95, <70, <70 %tile), As (70, 80, 80 %tile), Sb (80, 80, 80 %tile), Bi (80, 80, 80 %tile). These results support the anomalous zones described except for Zn which is surprisingly weak in the stream sediment results.

The stream sediment sample collected southwest of camp from the southwest flowing creek is anomalous for Cu (80%tile), Pb (98 %tile), Zn (98 %tile), Au (98 %tile), As (95 %tile), Sb (90%tile), Bi (98 %tile), and Ba (80 %tile). Only Pb and perhaps Zn results in the silt sample can be explained by results of soil samples collected upstream of the silt sample. Another source of metals in this drainage may exist in order to explain the anomalous values in the silt sample.

## **CONCLUSIONS**

The property is underlain by massive rhyolite of the Early Mississippian Reid Lakes Complex. Rocks of the Complex, both the volcanics that the rhyolite belongs to and the underlying batholith, have U-Pb ages identical to the rhyolite-bound Wolverine VMS deposit of the Finlayson Lake District. With the approximate 560 km of post Eocene strike-slip movement along the Tintina Fault restored the Willow Project Area sits adjacent to the Finlayson Lake District. This juxtaposition of the Wolverine deposit and the Willow Project Area along with the similarities of rock type and ages, the RGS data, and the results of the present survey gives the Willow Property a high potential for finding VMS mineralization.

RGS geochemical responses from creeks draining the target area have numerous re-calculated threshold values of 90%, 95%, and 98% for each of Ag,

compilation map also shows three RGS samples with their high Pb values that were collected from creeks draining the claim block.

Northeast of camp toward the base of slope on a northeast facing hillside is a zone of somewhat discontinuously anomalous Zn about two kilometres long. Within this Zn zone are smaller zones of discontinuously anomalous Pb seen in the twig samples over a length of 700 m, of anomalous Ag seen in twig samples over a length of 700 m, and of Au seen in twig samples over a length of 600 m. Some anomalous As occurs in the MMI samples throughout this Zn anomaly. The Pb, Ag, and Au anomalous zones all occur in the same area although the anomalous Au values extend slightly south of the Pb and Ag zones. Small zones of anomalous Cu and Pb occur in twig samples on the hillside above this Zn anomaly.

Northwest of camp on a west facing slope is another zone of nearly continuously anomalous Zn about 1200 m long. It appears to extend downslope about 700 m to the lower sample line in this area. Some anomalous As occurs throughout this Zn anomaly. Two samples at the north end of this anomaly are anomalous for Cu and Ag and three twig samples in the centre of the anomalous Zn zone are anomalous for Ag as well. This Zn anomaly occurs at the same elevation as the first Zn anomaly described above and may represent the same stratigraphic horizon making the ground between these two anomalies an excellent target for locating VMS mineralization at depth. There were no bedding attitudes seen in the massive rhyolite outcrops between the anomalies but gentle to moderate dips to the south are common on the Reid project area four km north. One bedding attitude southeast of camp has a 29\* dip to the north.

Two km east of camp is an interesting Cu and Pb anomaly. Both metals form anomalous zones shown to be about two km long as defined from two sample lines. Width of the anomalies is about 300 m. The Cu anomalous zone is offset somewhat to the north of the Pb anomalous zone. Two adjacent samples are anomalous for Zn on the more easterly line within the anomalous zones. On the easterly sample line within the anomalous zones there was fairly common angular rhyolite float with irregular quartz veins to 3 cm wide over a 100 m length.

twig diameter is 4–5mm. This diameter is quite critical because many trace elements concentrate in the bark part of the twig, whereas the woody tissue (the cortex) has lower concentrations of most elements. Consequently, unless there is a consistency in the diameters of the twigs that are collected, any analysis of twig tissue can result in variability among samples simply because of the differing ratios of woody tissue to twig bark. About ten black spruce twigs with needles were placed into porous polypropylene bags ('Hubco' Inc.'s Sentry II). The use of plastic bags was avoided to minimize the chance of moulds forming and thereby losing sample integrity.

Analysis of the black spruce twig samples was carried out at Bureau Veritas (name changed from Acme Analytical Laboratories Ltd. Vancouver) using their VG101-EXT method. In the laboratory, twig samples were thoroughly dried at 60°C in an oven with a forced-air fan for 24 hours to remove moisture. The needles could then be separated from the twigs. In preparation for chemical analysis, each twig sample was then milled to a powder using a Wiley mill. A 1 g split of milled material was digested in nitric acid then aqua-regia digestion, and analyzed by ICP-MS ultralow detection limits for 53 elements and selected REE.

Absolute values of Cu, Pb, Zn, Ag, Mn, Au, Ca, Mg, and Ba are provided on Table 3. Results for all of these elements are plotted on Figures 9 to 15. Values of other elements were also plotted but lack of discernible patterns made presenting their results of no usefulness.

Three rock and four stream sediment samples were also collected.

### **Survey Results.**

Results for all samples are provided in Appendices. Response ratios for selected elements of MMI soil samples and values for selected elements of black spruce twig samples are provided in Tables 2 and 3 along with UTM NAD83 coordinates. Rock and stream sediment results for selected elements are provided in Table 4 along with UTM NAD83 coordinates. Results are plotted on Figures 9 to 15 for Pb, Zn, Cu, Ag, Au, As, and Ca. Figure 16 is a compilation of anomalous metal values shown in the above figures. The compilation map also plots As results for black spruce twig samples to show that these results are uniformly low and of no use in evaluating mineral potential with this element. The

of 10 to 20 cm below the top of true soil, placed in a pre-numbered ziplock baggie and placed in an 11 inch by 20 inch 2 mil plastic bag. Loess was present at nearly all sample sites and was the sample medium for most samples with a minor contribution from underlying colluvium or till in some samples. Samples were kept cool until they were shipped to SGS Minerals Services in Vancouver for analyses.

In the SGS Lab, samples are not dried or prepared in any way. The MMI process includes analyses of an unscreened 50-g sample using multi-component extractants. Metals are determined by ICP-MS in the parts per billion range.

Response Ratios were calculated for Pb, Zn, Cu, Co, Ba, Ag, Au, As, Sb, Bi, Ca, Mg, Ni, Fe, and Mn and provided on Table 2. In calculating response ratios the average value for results of the lower quartile was calculated for each element. One-half of detection limit was used for those samples with values reported as less than detection limit. Then each result was divided by the lower quartile average and rounded to the nearest integer to obtain its response ratio. A response ratio of 10 or more is considered very significant for indicating underlying mineralization. Lesser values of 5 to 10 can also be important particularly where more than one element has such a value. Response ratios can best be thought of as a multiple of background in interpreting results. Response ratios for Pb, Zn, Cu, Ag, Au, As, and Ca have been plotted on Figures 9 to 15. A Compilation map showing zones of anomalous metal values is provided as Figure 16.

The following description of twig sampling that was used in the present survey is taken from: *Heberlein, D.R., Dunn, C.E. and Macfarlane, W. (2013): Use of organic media in the geochemical detection of blind porphyry copper-gold mineralization in the Woodjam property area, south-central British Columbia (NTS 093A/03, /06); in Geoscience BC Summary of Activities 2012, Geoscience BC, Report 2013-1, p. 47–62.*

Samples of black spruce twigs comprising the most recent two years of growth were snipped from around the circumference of a single tree. Black spruce was easily identified by observing with aid of a hand lens minute red hairs on the circumference of twigs of the past few years growth. In central Yukon, this amount of growth is typically about a hand-span in length, at which point, the



metals (not provided) show the Willow claims to have a high prospectivity for VMS mineralization.

### **AEROMAG.**

Figure 6 is a residual aeromagnetic map showing a general high magnetic response to the west and north of a general low magnetic response over the claims area. This could be indicative of more basic volcanics to the west as was confirmed further north over the YMEP Reid Project area.

### **GEOCHEMICAL SURVEY.**

#### **Survey Methods.**

J. Mieras and G. Richards flew from Mayo to the property on June 11 to conduct MMI soil sampling and where soils were unobtainable vegetative samples across the property. Fourteen man days (7 days) were spent by Mieras and Richards from June 11 to June 17 collecting **331 MMI soil samples, 68 black spruce twig samples, 4 stream sediment samples and 3 rock samples**. Where possible MMI soil samples were collected at a 50 m sample interval on sample lines positioned as shown on Figures 9 to 16. Wherever MMI soil samples could not be collected due to rocky terrane or shallow frozen ground black spruce twig samples were collected.

MMI analysis uses a weak partial extraction to improve the conventional geochemical response over buried ore deposits. The process measures the mobile metal ions from mineralization, which have moved toward the surface and are loosely attached to the surfaces of soil particles. Its effectiveness has been documented in over 1000 case histories on six continents and includes numerous commercial successes. The anomalies are sharply bounded and in most cases directly overlie and define the extent of the surface projection of buried primary mineralized zones. The MMI process is a proprietary method developed by Wamtech of Australia. SGS Minerals Services in Toronto purchased all rights to the method and provides analyses in Canada.

Watch and ring were removed prior to sampling. Pits were dug by shovel to a depth of 20 cm in order to expose the soil profile for sampling. The profile was scraped clean with a plastic scoop to remove any metal effect from the digging shovel. A continuous strip of soil was collected by plastic scoop over the interval

Glaciation on the property is pre-Reid in age possibly older than 500,000 years (Jeff Bond, personal communication, 2012). Direction of the last pre-Reid glaciation, taken from Google Earth, is toward the northwest. Glacial lake Coldspring formed in Lake Creek drainage to the west of the property during pre-Reid glaciations by ice dams in lower Lake Creek and near present day Willow Lake. Glaciolacustrine sediment remains on the hillsides up to an elevation of 1100 m as shown on Figures 6 to 16. Because of their age considerable erosion of pre-Reid aged tills have probably taken place since their deposition leaving a thinner till cover and thus making geochemical prospecting more effective.

Reid glaciation began 200,000 years ago and ended about 50,000 years ago. Reid Glaciation occurred immediately east of the property in a northerly direction. The area of interest straddles the ridgeline of Willow Hills above the glaciolacustrine sediments to the west and Reid Glaciation tills to the east.

Drying conditions of the last glacial period, McConnell Glaciation ca.22 ka has deposited a 10 to 20 cm loess blanket across the area of the property. This loess has been the principal sample medium for the majority of the MMI samples collected. Till was commonly found beneath the loess. Angular pebbles and grit are very common in the loess samples. Tills with no or only minor loess were the sampling medium in about a quarter of the samples collected. These samples were at lower elevations and could be re-worked tills from higher elevations as loess was generally absent on many of these samples. Much of the till found in the claims area is believed to be re-worked till and older loess deposits from the steeper slopes with some admixed colluvium.

#### **RGS DATA.**

Results of reanalysis of RGS samples collected in 1986 (OF 1650) using more sophisticated analytical techniques was conducted in 2011 and released as Open File 2012-09. Geochemical data from 278 selected samples that are lying only within the pre-Reid glaciated area within Yukon Tanana Terrain were used to recalculate thresholds for 70<sup>th</sup>, 80<sup>th</sup>, 90<sup>th</sup>, 95<sup>th</sup> and 98<sup>th</sup> percentiles for a number of elements. It was believed that this data would provide a more representative data-set on which to evaluate exploration potential for the area. Recalculated threshold values  $\geq 70\%$  for Se, Ag, and Pb from around the Willow Property are plotted on Figures 6 to 8 respectively and together with several other anomalous

## **GEOLOGY.**

Bedrock geology is best described on Canadian Geoscience Map 7 of *Southwestern McQuesten and Parts of Northern Carmacks* by Ryan, J.J., Colpron, M., and Hayward, N., 2010. See Figures 3 and 4. The claims area is underlain by Early Mississippian Reid Lakes Complex andesite to rhyolite volcanic rocks sitting on Early Mississippian Reid Lakes Complex compositionally monotonous, coarse-grained, massive, quartz-phyric, biotite monzogranite that form part of the Yukon Tanana Terrain.

Volcaniclastic rocks of the Reid Lakes Complex have been shown by U-Pb dating to be Early Mississippian age identical to the rocks enclosing the Wolverine deposit. The volcaniclastics on the property are massive rhyolite. The Wolverine VMS Deposit occurs in rhyolites within the Finlayson Lake District. With the approximate 560 km of post Eocene strike-slip movement along the Tintina Fault restored the Willow Project Area sits adjacent to the Finlayson Lake District.

Numerous outcrops were visited during the sampling program and many more were visible from the ground and from the air. All were massive rhyolite sandstones with a limonitic/hematitic surface colour. Fragments of rhyolite and other pale-coloured volcanic fragments, quartz and rare mafic fragments measured less than 5 mm. Fine-grained hematite fractures and lesser limonitic fractures were often widely spaced (10 cm to 1 m) in outcrop. Areas of breccia occur as irregular shapes usually measuring a metre or so in width and traceable for several metres across outcrops. These breccias often displayed a richer hematite colour. Breccia fragments are generally less than 5 cm diameter and are composed of massive rhyolite like the enclosing rock. Fracture epidote occurs locally in some outcrops. Prominent jointing occurs in most of the outcrops on the two hilltops in the centre of the claims with northerly attitudes and very steep westerly dips. Rock chips R167, R168, and R169 are samples of hematite fractured and brecciated rhyolite. Geochemical analysis show no anomalous metal values or explanation for the limonite/hematite. See Table 4. Angular rubble on the flat ridgetop from soil samples Q27 to Q29 is rhyolite with irregular white quartz veinlets to 3 cm wide. The only bedding attitude was near Q30 where a rhyolite tuff strikes 064\* and dips 29\*N.

**Quartz Claims.**

No claims occur in the target area or are known to have been staked previously. See Figure 1.

The closest claims are the Rose Claim Group (98 claims) owned 100% by Goldspike Exploration, staked in June 2010 and the Summit Claim Group (165 claims) owned by 45127 Yukon Inc and Ryan Gold Corp, staked June 2007 and later. Nothing is known about these claims but they occur within metamorphic rocks beyond the Reid Lakes Complex so they have more limited VMS potential than the target area.

The Spec claims to the west are owned by the writer and cover epithermal gold targets within Snowcap Assemblage quartzites.

The Chances Claims also to the west are owned by Goldstrike Resources and cover a ridgeline with RGS samples anomalous for gold and pathfinder elements collected from streams draining the ridge.

The RGS claims to the northwest are owned by the writer and cover soil geochemical patterns believed to represent underlying porphyry style mineralization.

**Placer Claims.**

No placer leases or claims exist along any creeks of the immediate area. Pre-Reid glaciers may have removed by scouring any placer gold that ever existed. Or thick till, glaciolacustrine, glaciofluvial, and colluvium could have made discovery of placer gold lying on bedrock too difficult and expensive to explore. Placer claims are shown to be have been staked in 1981 by J. Carson over a five mile length on the small creek near Minfile 115P038 sampled by RGS sample 3231. No production is recorded and the claims lapsed by 1985.

**CLAIMS.**

The Willow Property is comprised of 40 quartz claims, the Willow 1-40, grant numbers YF47011-YF47050. The claims lie in the Dawson Mining District. Claims were staked June 9, and recorded June 10, 2015. The work described in this report was largely funded by YMEP grant, 15-008 awarded to Gordon Richards. A few additional costs were paid for by Richards. The Registered Owner is Gordon G Richards. Title expiry dates will be extended by filing the work described in this report as representation work.

## HISTORY.

Figure 1 shows all nearby Minfile occurrences and quartz and placer claims. Descriptions are described below.

### **Minfile Occurrences.**

115P 019. ROSEBUD. Fibres of chrysotile asbestos were found on the west side of a serpentinite body that outcrops near the summit of the White Mountains. Property was staked mapped and sampled in 1988.

115P 049. PIRATE. Staked in 1985 by Miramar Energy Corp, which performed mapping, soil sampling and test pitting in 1986. Coarse gold was found in quartz fragments in a test pit but no source was located. *“The gold was extremely angular, occasionally crystalline, and associated with quartz vein material. They were, however, located in or on a thick blanket of Tertiary alluvium, consisting of mature mixed sand and gravel layers. In this type of environment, one would not expect to find such coarse rough-edged gold nuggets. Additionally the small amount of fine gold recovered was scaly in nature, indicating a considerable distance of transport.”* (Assessment Report 091847, p 5, 1985 Summary Report on the Pirate Mineral Claims, D.A. Caulfield, C.K. Ikona). The coarse gold found here that initiated the exploration is down ice (pre-Reid age) from the project area. However the gold-quartz was found on the surface and thus may be dropstones from Glacial Lake Coldspring making its source location more enigmatic. Placer claims were also staked over adjacent creeks but no production or testing results, if conducted, are recorded other than small placer tests conducted by shoveling.

115P 038. FIRESTONE. Claims were staked in this area from 1980 to 1987 by J. Carson who conducted hand trenching from 1982 to 1988 in search for gold. No mineralization was found. Claims cover contact between Cretaceous granite [probably unmetamorphosed Early Mississippian Reid Lake Batholith] and quartz mica schist. Carson also staked and presumably tested placer gold in a small creek flowing nearby.

the west and just west of the Reid glacial extent. Prospecting could eventually lead into these more difficult to prospect areas. Pre-Reid glaciation was towards 300\* and Reid Glaciation towards the north based on Google Earth images and government data. Pre-Reid tills have been largely removed by weathering because of the age of pre-Reid glaciations and steep to moderate slopes. This partial removal of pre-Reid tills makes geochemical sampling more effective in evaluating and locating mineralization. A blanket of McConnell aged loess covers the area and has been removed on steeper slopes.

Aeromagnetic maps provided little encouragement other than dividing the volcanoclastics into low and high magnetic susceptibility domains. The separation is roughly parallel to schistosity shown on Geoscience Map 7 and thus may reflect distinct units.

The area has a low number of MinFile occurrences and quartz claims well removed from the area of interest. This low occurrence in the general area could reflect low prospectivity or simply underexplored terrain. Recent YGS/GSC bedrock and surficial geological mapping, government sponsored aeromagnetic surveys, and reanalyses of RGS data has helped provide encouragement for prospecting in the area.

Immediately following the recording on June 10 of the Willow 1-40 quartz claims, Richards and Mieras spent 7 days in the field collecting **331 MMI** soil samples, **68 Black Spruce Twig** samples, **4 stream sediment** samples, and **3 rock** samples during the period June 11 to June 17.

Results of that work found several zones of anomalous metal values for Pb, Zn, Cu, and Ag within and around the claim block. Numerous outcrops visited and visible from the ground and air are massive rhyolite with only one bedding attitude found. The rhyolite outcrops have a variable limonitic/hematitic colour caused by fracture hematite and hematitic breccias. No sulphide was discernible in any of the outcrops visited.

All garbage was removed from camp and taken to Mayo for disposal.

## INTRODUCTION

Work described in this report was conducted under an YMEP Focused Regional Grant, Hardrock Type. YMEP 15-008 awarded to Gord Richards.

The following is an historical account of events on this project:

**June 8.** Bought supplies in Whitehorse and drove to Mayo.

**June 9.** Richards and Mieras flew from Mayo onto property and staked Willow 1-40. Flew out to Stewart and drove to Dawson.

**June 10.** Recorded Willow 1-40, bought food for camp and drove to Mayo.

**June 11.** Flew to property and dropped off camp. Got dropped at south end of property and started prospecting and collection of MMI samples.

**June 12-17.** Prospected and collected MMI samples.

**June 18.** Flew out.

**June 25.** Drove Stewart-Mayo-Whitehorse

**June 26.** Sorted gear, returned radios, dropped samples, shipped samples.

The claims are located along the ridgeline of Willow Hills 16 km southwest of Stewart Crossing on NTS Map Sheet 115P02. The target area occurs in the underexplored pre-Reid glaciated terrain west of Stewart Crossing within the Reid Lakes Batholith Complex.

The area was selected for VMS mineralization for the following reasons. Volcaniclastic rocks of the Reid Lakes Complex have been shown by U-Pb dating to be Early Mississippian age identical to the rocks enclosing the Wolverine deposit. The volcaniclastics include rhyolite that appeared to form a linear pattern along Willow Hills on images from Google Earth. Rhyolite is a common rock type at Wolverine. The Wolverine VMS Deposit has a similar age and occurs in rhyolites within the Finlayson Lake District. With the approximate 560 km of post Eocene strike-slip movement along the Tintina Fault restored the Willow Project Area sits adjacent to the Finlayson Lake District.

RGS geochemical responses from creeks draining the target area have numerous re-calculated threshold values of 90%, 95%, or 98% for each of Ag, Pb, Se, Hg, and Ba, with significant support from other elements for these same samples and from lower threshold values of metals in other samples.

The Willow Area was glaciated by pre-Reid glaciations (500 to 700 ka J. Bond, personal communication) and lies largely above Glacial Lake Coldspring to

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**Table 1. Legend for Figure 5.**

**Table 2. MMI Soil Sample Response Ratios.**

**Table 3. Black Spruce Twig Sample Values.**

### FIGURES at back of report

**Figure 1. Location Map of the Willow Property.**

**Figure 2. Claim map WILLOW 1-40.**

**Figure 3. Terrane Map of Yukon.**

**Figure 4. Simplified Geology Map of Southwest McQuesten.**

**Figure 5. Geology of Prospect Area.**

**Figure 6. Aeromagnetic Map with RGS Selenium.**

**Figure 7. Ag RGS Results.**

**Figure 8. Pb RGS Results.**

**Figure 9. Pb MMI Response Ratios and Black Spruce Twig Values.**

**Figure 10. Zn MMI Response Ratios and Black Spruce Twig Values.**

**Figure 11. Cu MMI Response Ratios and Black Spruce Twig Values.**

**Figure 12. Ag MMI Response Ratios and Black Spruce Twig Values.**

**Figure 13. Au MMI Response Ratios and Black Spruce Twig Values.**

**Figure 14. As MMI Response Ratios.**

**Figure 15. Ca MMI Response Ratios and Black Spruce Twig Values.**

**Figure 16. Compilation Map of Anomalous Metal Values.**

**Appendices: Geochemical Results.**



**A Geochemical Report on the WILLOW Property**  
submitted as Representation Work  
on the following quartz claims

Claims:

WILLOW 1-40: Grants YF47011-YF47050

Total 40 quartz claims in the Dawson Mining District

All claims recorded June 10, 2015

Owner: Gordon Richards

Location

115P/02

Camp in centre of claims at

UTM 409,460E, 7,011,860N, Elev 1318 m

UTM Zone 8, NAD 83

Field work performed by

Gordon Richards & Jeff Mieras

during the period June 11 to June 17, 2014

Report written by Gordon Richards

September 20, 2015