

Ministry of Energy, Mines & Petroleum Resources Mining & Minerals Division BC Geological Survey



TOTAL COST: \$20,300.00

TYPE OF REPORT [type of survey(s)]: IP and Resistivity

16423, 25689, 27776, 28644, 29467, 34649, 35658

AUTHOR(S): David G Mark	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): n/a	YEAR OF WORK: 2017
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):	SOW # 5674454
PROPERTY NAME: Hixon Gold	
CLAIM NAME(S) (on which the work was done): 1011635, 1011717, 1	013050 1013060
1011000, 10111111, 1	013033, 1013000
COMMODITIES SOUGHT: silver and gold,	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 093G.015, 09	
MINERAL INVENTORT MINERE NOMBER(3), IF KNOWN. 093G.013, 09.	36.013, 0936.014
MINING DIVISION: Cariboo	NTS/BCGS: 093G/07 and 093G/08
LATITUDE: <u>53</u> ° <u>26</u> ' <u>36</u> " LONGITUDE: <u>122</u>	o 30 '43 " (at centre of work)
OWNER(S):	
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OPERATOR(S) [who paid for the work]:	
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Vancouver, BC, V7X 1A6	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure quartz, replacement, greenstone, tuff	, alteration, mineralization, size and attitude):
qualitz, replacement, greenstone, tun	
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT R	EPORT NUMBERS: #3384, 7787, 8343, 9322, 12129,

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Electromagnetic			
Induced Polarization 1,140) meters	1011635, 1011717, 1013059, 10130	\$20,300.00
Radiometric			
0 : :			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/			
Trench (metres)			
Underground dev. (metres)			
		TOTAL COST:	\$20,300.00
		101AE 0031.	Ψ20,000.00

BC Geological Survey Assessment Report 37278

GEOPHYSICAL REPORT

ON

IP and RESISTIVITY SURVEYS

ON THE

HIXON GOLD PROPERTY

HIXON CREEK, HIXON AREA

CARIBOO MINING DIVISION, BRITISH COLUMBIA

LOCATED: 3 km northeast of the settlement of Hixon, BC, and

43 km north of the town of Quesnel, BC

Center of property -

532000 easting and 5921800 northing (UTM zone 10) 53°26'39.3" N Latitude, and 122°31'05.6" W Longitude

NTS: 93G/07 and 08 BCGS: 093G.048

WRITTEN FOR: STANDARD DRILLING AND ENGINEERING LIMITED

(operator of this project)

P.O. Box 48778, Stn. Bentall Center Vancouver, British Columbia, V7X 1A6

WRITTEN BY: David G. Mark, P.Geo.

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DATED: May 15,2018

REVISED:



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	Pseudosection	Inversion Section		
Line 1	GP-1a	GP-1b		



1 **SUMMARY**

Induced polarization (IP) and resistivity surveys were completed in the fall of 2017 along a road on the north side of Hixon Creek within the southwestern part of the Hixon Gold Property. This property is located along Hixon Creek about 3 kilometres northeast of the settlement of Hixon (Figure 2) and 43 kilometers north of the town of Quesnel. The purpose of the work was to determine its effectiveness in responding to the mineralization of the Quesnelle Quartz Mine, the extent of the mineralization as well as to locate any unknown mineralization.

The resistivity and IP surveys were carried out using a BRGM Elrec Pro multi-channel receiver operating in the time-domain mode. The transmitter used was a BRGM VIP 4000 powered by a 6.5-kilowatt motor generator. The dipole length and reading interval chosen was 15 meters read up to 10 levels. One line of IP/resistivity surveying was completed along a road for a total survey length of 1,040 meters. The IP and resistivity results were plotted, both in pseudosection form, and contoured. A 2-D inversion interpretation using Geotomo software, a least squares method, was also carried out and the results plotted and contoured. Two maps for both the pseudosection and inversion results, respectively, were created.

2 CONCLUSIONS

- 1. The results of the IP and resistivity surveys are very encouraging. The IP survey revealed 4 anomalies with each one responding to known mineral zones of the Quesnelle Quartz Mine. All 4 extend to a minimum depth of 40 meters. The known geology of the area suggests a northwest strike to the mineralization.
- 2. Anomaly A is probably reflecting the mineralization at the Mason shaft. It occurs at the extreme eastern end of the survey line, appears to be vertically dipping, and averages about 20 meters in width.
- 3. Anomaly B is probably reflecting the Washburn mineral zone within the Quesnelle Quartz mine. It averages about 70 meters in width, is dipping vertically,
- 4. Anomaly C is very likely reflecting the Stewart mineral zone within the Quesnelle Quartz mine. It is about 110 meters in width and appears to be dipping vertically as well.
- 5. Anomaly D is probably reflecting the Morrison mineral zone. It is about 100 meters in width, and dips about -60° to the east.
- 6. The resistivity inversion section clearly shows a resistivity contact at the western third of the survey line with lower values to the west and higher values to the east. This is probably reflecting the northwest-striking fault-contact between volcaniclastic rocks of the Witch Lake Formation of the Takla Group to the west, and fine clastic sedimentary rocks of the Takla Group to the east. No IP anomalies occurred west of this resistivity-indicated contact.

3 RECOMMENDATIONS

The IP/resistivity results are very positive and with the strong exploration potential of the property definitely warrant a strong exploration program as follows:

- 1. Continue the IP and resistivity survey to the north, south, and east.
- 2. Carry out mobile metal ion (MMI) soil sampling over a grid at least a kilometer square. MMI has proven to be very effective within the Cariboo area, especially because of wide-spread overburden cover.
- 3. Prospect and geological map the area around the Quesnelle Quartz Mine. It is recognized that much of this has been done in the past, but none has been carried out recently and thus geological mapping needs to be brought up to date.
- 4. Diamond drill the resulting targets. Drilling could be carried out on the current IP targets, but the program as recommended above would optimize these targets far more effectively.

GEOPHYSICAL REPORT

ON

IP and RESISTIVITY SURVEYS

ON THE

HIXON GOLD PROPERTY

HIXON CREEK, HIXON AREA

CARIBOO MINING DIVISION, BRITISH COLUMBIA

4 INTRODUCTION AND GENERAL REMARKS

This report discusses survey procedure, compilation of data, interpretation methods, and the results of IP and resistivity surveys carried out on a road along Hixon Creek within the southern part of the western portion of the Hixon Gold Property. The property is located between the town of Quesnel and the city of Prince George just east of the village of Hixon within the Cariboo Mining Division, British Columbia.

The purpose of the work was to determine its effectiveness in responding to known mineralization on the property, specifically that of the Quesnelle Quartz mine, the width and depth extent of such mineralization, as well as to locate any unknown mineralization.

The operator for this project was Standard Drilling and Engineering Limited of Vancouver, BC.

The IP and resistivity surveys were carried out on the Hixon Gold Property by a Geotronics crew of five men under supervision of the writer, who formed part of the field crew, during the period of November 10th to 15th, 2017.



5 PROPERTY AND OWNERSHIP

The Hixon Gold Property presently consists of 15 contiguous mineral claims with a total area of 2,927.55 hectares, as listed in the table below.

TABLE OF HIXON GOLD PROPERTY CLAIMS			
Tenure Number	Claim Name	Good to Date	Area (ha)
1011635	HIXON GOLD	2018/OCT/15	250.3449
1011669	HIXON GOLD	2018/OCT/15	38.512
1011717	HIXON GOLD	2018/OCT/15	115.5591
1011719	HIXON GOLD	2018/OCT/15	57.7711
1013059	HIXON GOLD	2018/OCT/15	19.2627
1013060	HIXON GOLD	2018/OCT/15	19.2627
1021404	HIXON GOLD	2018/OCT/15	173.3533
1042906	HIXON GOLD	2018/OCT/15	96.2917
1045189	GOLD RIDGE 1	2018/OCT/15	269.62
1045190	GOLD RIDGE 2	2018/OCT/15	346.7168
1045191	GOLD RIDGE 3	2018/OCT/15	365.8933
1045192	GOLD RIDGE 4	2018/OCT/15	288.8597
1045193	GOLD RIDGE 5	2018/OCT/15	231.2073
1045195	GOLD RIDGE 6	2018/OCT/15	327.5554
1045196	GOLD RIDGE 7	2018/OCT/15	327.3396
		TOTAL AREA	2,927.55

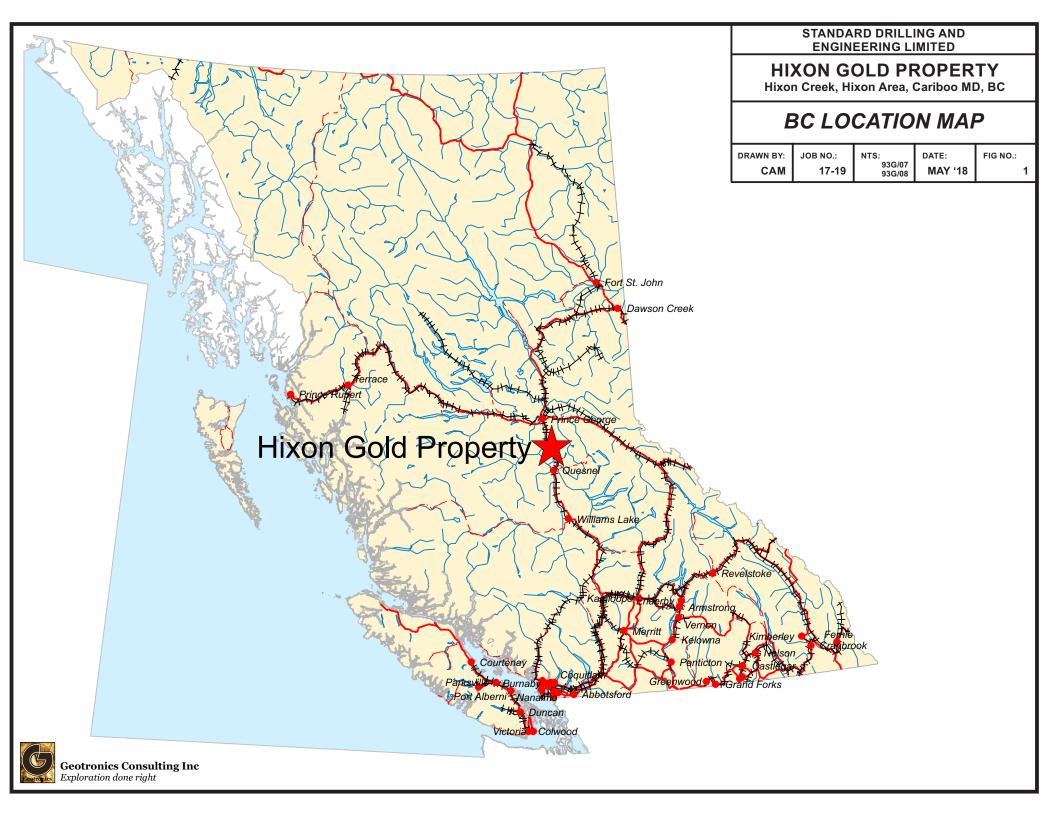
The "Good to Date" of October 15th, 2018 assumes that this report and the associated cost statement will be accepted by the BC Mineral Titles Office for assessment credits.

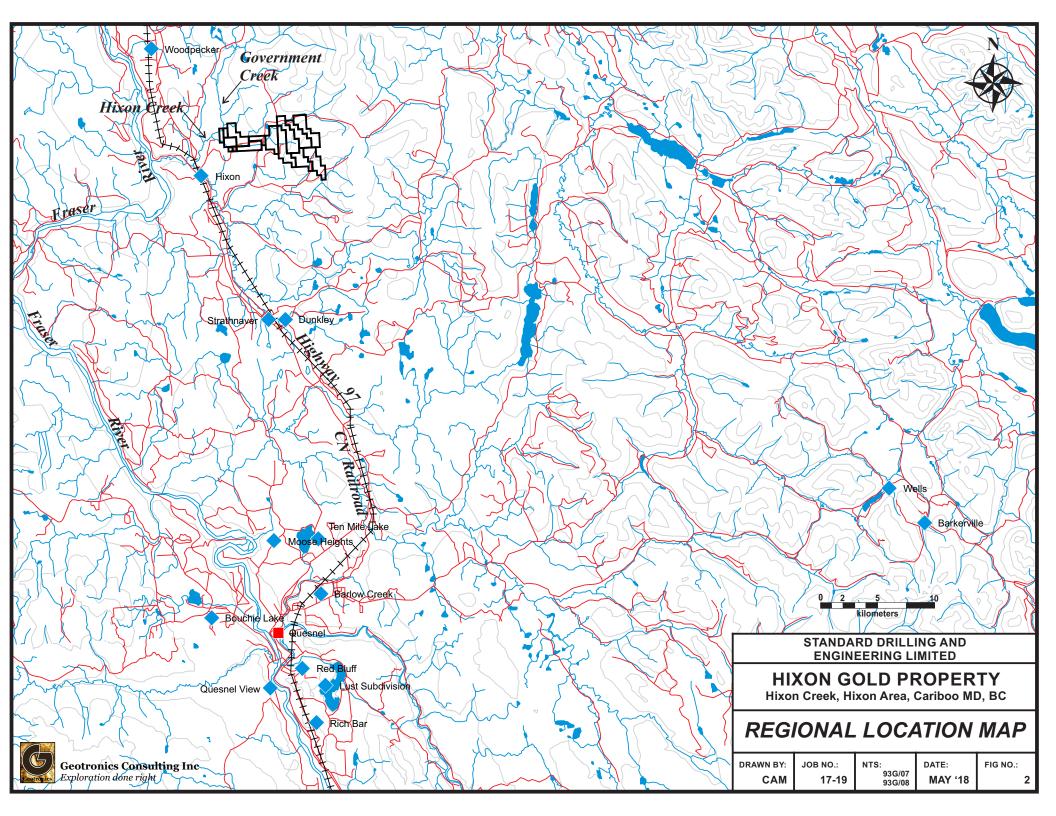
The claims are owned by Angelique Justason and Thomas Hatton, both of wells, BC, as to 50% each.

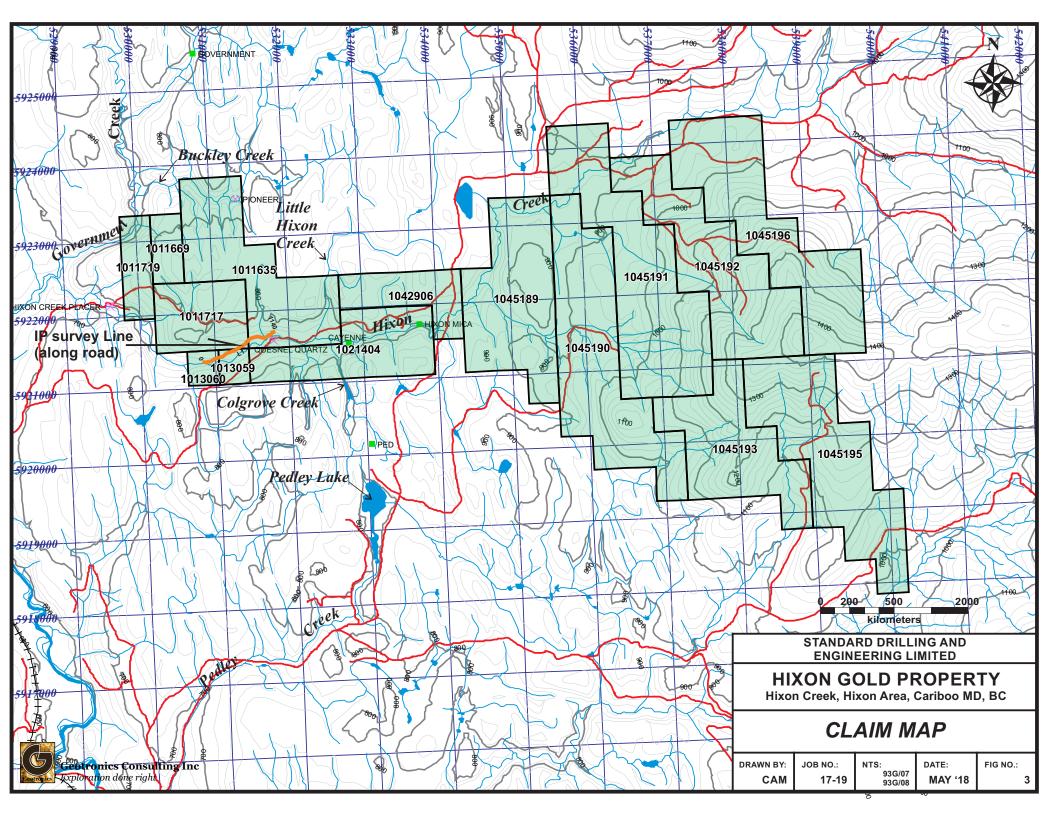
6 LOCATION AND ACCESS

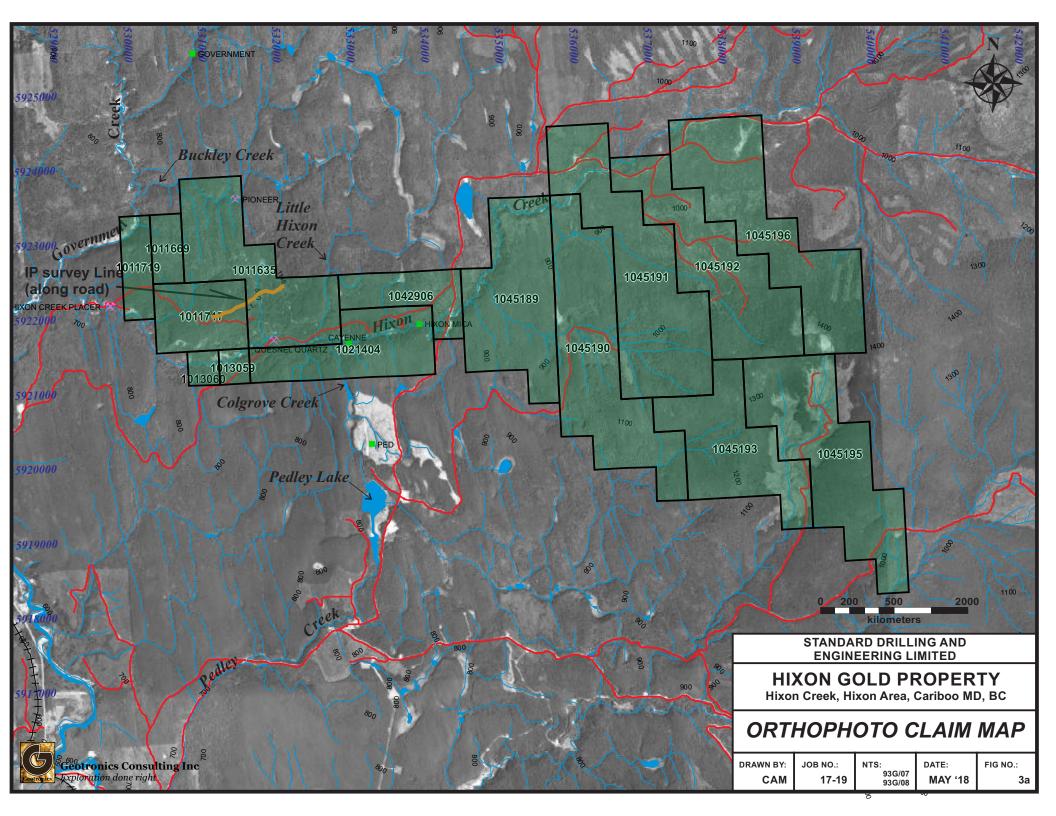
The Hixon Gold Property is situated in the Cariboo Mining Division in central British Columbia, 3 kilometres northeast of the settlement of Hixon (Figure 2) and 43 kilometers north of the town of Quesnel. The property is located on both NTS mapsheets 93G/07 and '08 and on BCGS mapsheet 93G.048. The UTM coordinates for the center of the property is the northing 5921800 and the easting 532000 as shown on figure 3. The latitude is 53°26'39.3" N and longitude, 122°31'05.6" W.

Access to the property is gained by travelling 59 km north along Highway 97 from the town of Quesnel to the easterly-trending Lake Creek Road, which is 3 km south of the settlement









of Hixon, and 65 km south of the city of Prince George. One then travels for 1.6 km to the Pedley Lake Pit Road which veers off to the left from the Lake Creek Road, and then for 10 km to a road that turns off to the west. Along this road, one then travels for 5.5 km to a road that turns off to the south. This road runs for about 1 km to Hixon Creek where the IP line was put in along a road that runs along the creek. Much of the property is easily accessible since logging roads occur throughout.

7 PHYSIOGRAPHY

The Hixon Gold Property is found on the Fraser Plateau, which is a physiographic unit of the Interior Plateau System. The Fraser Plateau consists of flat and gently rolling country with large areas of undissected upland.

The elevations vary from 710 meters at the western edge of the property on Hixon Creek, to 1,460 meters at the eastern edge of the property on the top of a small mountain resulting in an elevation difference of 750 meters. Most of the property is composed of gently to moderately rolling hillside. The exceptions are along Hixon Creek where there are a number of steep-sided slopes, and on the eastern mountain, also with steep-sided slopes.

The vegetation of the property is forest-covered that varies from dense second growth evergreen forests, mostly pine trees, to clear-cut areas. However, the area was affected by the pine beetle infestation and thus many of the pine trees are dead. Much of the Hixon Gold claims have been logged and, therefore, are in various stages of re-forestation resulting in dense second growth.

The main water source is Hixon Creek and its tributaries. It flows westerly and southwesterly through the northeastern part of the property, and mostly westerly through the western part of the property. Buckley Creek and its tributaries occur within the northwestern part of the property.

The climate in the Hixon area varies from a high in summer of around 30°C to a low in winter of around -20°C. Annual rainfall is 377 mm, with a high of 59 mm in July and a low of 6 mm in January. The area experiences snowfall about half the year, peaking in December and January at about 54 mm and falling to 5 mm in October and April on either tail-end.

8 HISTORY

This was taken from Angelique Justason's 2016 report on a reconnaissance SP survey on the property which is ARIS report number 36159.

Mineral exploration and development at the Hixon Gold property has been intermittent since quartz excitement was first reported in 1865 when men working on the ditch here reported visible gold in quartz. The following synopsis offers only a brief and partial account of hard rock exploration and mining activities at the heart of the property, the area nearest the Quesnelle Gold Quartz Mine, since first discovered in 1865.

The first recorded prospecting party to visit the property with specific intent of inspecting the newly-discovered lode gold mineralization was reported in late spring of 1866. Mr JF Hixon and his prospecting party set out for the creek on May 9, 1866 and returned to report to Mr WR Spalding on June 14, 1866. (Cariboo Sentinel, July 9, 1866 and The British Colonist, June 21, 1866).

By September 1866, shafts are reported to have been sunk on the Stewart and Washburn Locations (Cariboo Sentinel, Sept 24, 1866) and the first arrastras were reported to be built onsite(?) by a Mexican man, familiar with their function, in 1867. Reports indicate gold was often panned from the oxidized rock near and at surface.

By Russell and Bowman's inspection of the property in 1878, 1885 and 1886, numerous developments had been made at various locations within the Crown Granted Mineral Claims located along a series of auriferous ledges as shown on the snapshot of his map.

Development activities on the quartz continued on and off over the years until 1933 when the Quesnelle Gold Quartz Mining Company Ltd (NPL) continued more active development on the property before finally erecting a 25 ton/day cyanide test plant in winter of 1938. The mill had a capacity to crush up to 50 ton/day. Over 4,000 feet of tunneling was reported here (this number has yet to be confirmed against the mine plans and survey data). MinFile records indicate that 207oz gold and 275oz silver was produced from 2,257 tons of rock. Drilling, geology, muck sampling, assay records of muck and rock are noted in text of some documents, but detailed map records are sporadic and incomplete for this five-year period of development. The location of replacement ore is of specific interest as it is known to exist at the property and was observed onsite by the present owners in 2013. More details may come available as additional resources are located and digital records are updated on the internet or found in publicly accessible archives. As these details are located, they will be added to the 3D model and database as an ongoing project and reported in near future with a more thorough geological report on the property.

UPDATE: Geological, mining development and production records from the Quesnelle Quartz Mining Company via the estate of Newton J. Ker, previous President of the QQM Co., have recently been located! Careful review and compilation of the data is in progress.

Early development here met many difficulties including the management of a surplus of groundwater, access to rail for supplies and heavy equipment, access to a qualified assayer and, later on, access to Barkerville/Richfield, political debate (and denied requests) about engineering roads from Barkerville to the mines at Hixon Creek, posting then pricey bonds for mining roads, paying insurance premiums, locating and keeping quality employees/management, as well as the other numerous issues most mines faced then (and now) including all the wartime hardships. The Quesnelle Gold Quartz Mine temporally shut down the mill in March 1939 after completing its first bulk sampling activities on 4 levels but additional development work, including drilling of the lower levels, was planned to continue

(The Prince George Citizen, March 30, 1939). Unfortunately, by July of the same year the Company was liquidating its assets (The Prince George Citizen, July 6, 1939: page 6).

More recent mineral exploration at the property has been recorded in various reports including regional geological surveys and more detailed works which are recorded in the provincial government Assessment Report Indexing System (ARIS). Select highlights are mentioned hereafter.

In the early 1970's, Bethlehem Copper Corporation conducted geological mapping, geochemical surveys (579 soil samples of select elements) and surface four drill holes totaling 450 meters. In 1979, Esperanza Explorations optioned the ground from Vic Guinet and Andrew Harman. Limited geological investigations were made and select rock samples were assayed (ARIS 7787).

By 1983, Golden Rule Resources continued on with geological mapping, geophysical surveys, geochemical surveys and 4 drill holes totaling 354 meters.

In 2000, reclamation work was completed near the Briscoe Pit and at the Quesnelle Gold Quartz Mine and Mill Site. It was carried out under Section 17 of the Mines Act at a cost of \$5,900 paid for under the consolidated revenue fund. The contract was awarded to Lawayne Musselwhite and basic report provided by Brian McBride, Inspector of Mines for the 24th Annual BC Mine Reclamation Symposium in Williams Lake in 2000.

From 2004-2008, Cayenne Gold Mines Ltd conducted exploration at their property which included the present claim group and ground near Pedley Lake. 8 drill holes were recorded with a total length of 1452 meters and the majority of the drill logs and assays are recorded in the present database but not otherwise discussed in this report. Additional recorded work includes trenching, geochemical surveys and geologic mapping.

In August 2012, the property was allowed to lapse, and the present owners acquired a portion of the forfeited ground which included the main historical workings of the Quesnelle Gold Quartz Mine, Washburn Ledge, Stewart Ledge, Morrison Ledge and the Pioneer Mine.

In August 2013, additional contiguous mineral rights were acquired to the east and included the Cayenne and Mica showings. Grassroots exploration and detailed research are ongoing.

In 2012 and 2013, 3.14-line km self-potential geophysical surveying was conducted, and strong correlations were made to known mineralized zones where gold and silver mining was previously conducted. The northern extension of the conductive anomalies is defined (so far) 500m to the northwest of the historical mine site, highlighting additional mineral potential here, and is open to the northwest and to the southeast.

In 2014, nine rock samples were taken from the vicinity of the Quesnelle Quartz Mine and adjacent reverted Crown granted mineral claims. Weakly calcareous rock (possible

replacement) with 30-50% sulphides were assayed and returned anomalous values up to 7.25g/t gold and 30.7g/t silver.

In late 2015, the Cottonwood and Cottonwood Fraction Crown granted mineral claims were cancelled and reverted back to the Crown, giving 100% mineral rights in that area to the overlapping Hixon Gold claim group owners via BC Mineral Titles.

In March 2016, additional ground was staked, and a 2.5-line km self-potential geophysical survey was conducted, the main subject of this report.

In 2016, exploration was conducted by Tenorex GeoServices and included preparing 3.5-line kilometers of road for a self-potential geophysical survey. The purpose of the survey was to highlight possible mineralized rock or veins, faults or contact zones which may be buried under glacial till and overburden of unknown depths, and to determine if the mineralization of the Quesnelle Quartz Mine could be highlighted by the self-potential survey data. The strike of the road made for a good reconnaissance survey as it crosses the target areas nearly perpendicular to the strike of the regional geological contacts, faults and strike veins. A total of 2.5 line-kilometers of the prepared 3.5 line-kilometers was surveyed and provided favourable results.

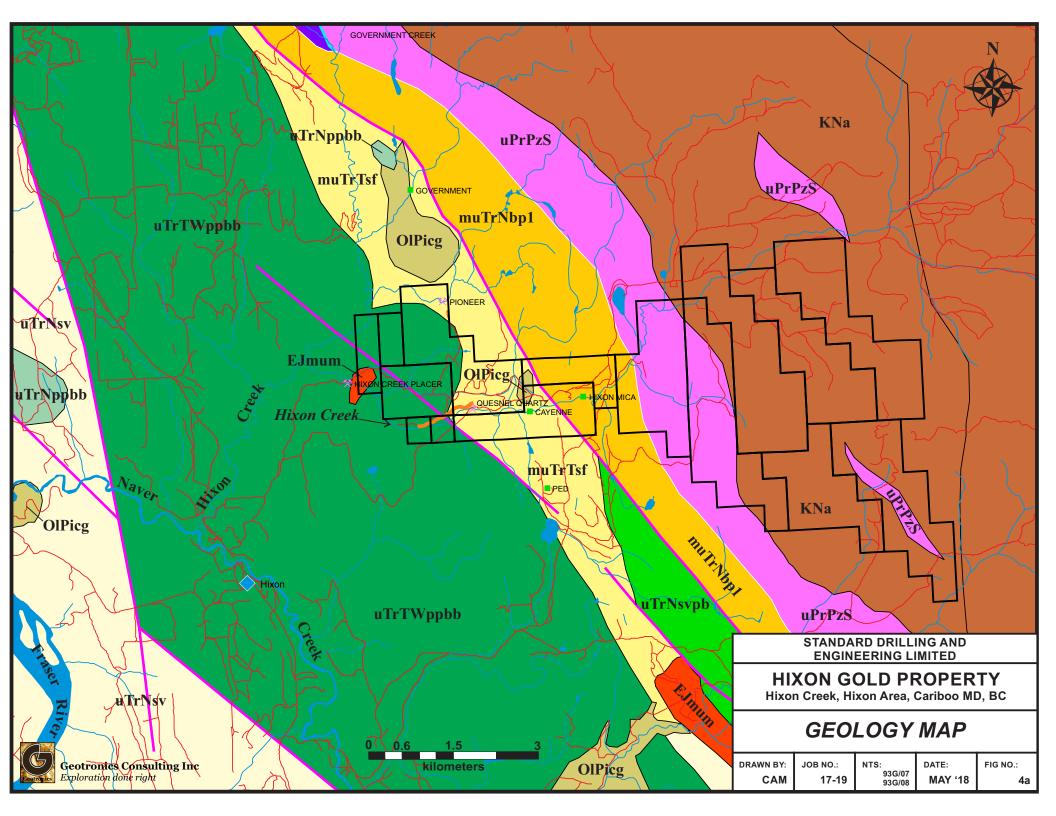
9 GEOLOGICAL SETTING

9.1 REGIONAL GEOLOGY

This was taken from Angelique Justason's 2016 report on a reconnaissance SP survey on the property which is ARIS report number 36159.

Justason extracted it from Thomas, 2009, Open File 6225.

The area is underlain mainly by rocks of the Quesnel Terrane, but significant areas are underlain by the Slide Mountain and Barkerville Terrane. The most prominent geological feature of the area is the roughly pear-shaped Cretaceous Naver pluton, which is almost completely surrounded by Proterozoic(?) to Palaeozoic(?) rocks belonging to the Snowshoe Group. The southern tip of the pluton invades Middle -Upper Triassic rocks of the Nicola Group. The Barkerville Terrane is formed of Proterozoic(?) to Palaeozoic(?) metasedimentary rocks of the Snowshoe Group bounded on its western and northern margins and along most of its eastern margin by a single continuous thrust, the Eureka thrust. The terrane and the Naver pluton, together, are believed to form the core of a broad northwestward plunging arch, around which the thrust is folded (Struik et al., 1990). On the western, northern, northeastern and southeastern margins of the Naver pluton, the Snowshoe Group is represented by schistose quartzite, schist, phyllite, marble, amphibolite, siltite and minor quartzite, whereas along the eastern margin of the Barkerville Terrane the group includes orthoquartzite, schistose quartzite, schist and phyllite (Struik et al., 1990).





SNOWSHOE GROUP Upper Proterozoic to Paleozoic metasediments



NICOLA GROUP Middle to Upper Triassic undivided sedimentary rocks



TAKLA GROUP Middle to Upper Triassic mudstone, siltstone, shale fine clastic sedimentary rocks



NICOLA GROUP Upper Triassic undivided sedimentary rocks



NICOLA GROUP Late Triassic basaltic volcanic rocks



NICOLA GROUP Late Triassic basaltic volcanic rocks



TAKLA GROUP - WITCH LAKE FORMATION Upper Triassic to Lower Jurassic volcaniclastic rocks



POLARIS ULTRAMAFIC SUITE Late Triassic to Early Jurassic mafic to ultramafic rocks



BAYONNE PLUTONIC SUITE Mid-Cretaceous granite, alkali feldspar granite intrusive rocks



UNNAMED Oligocene to Pliocene conglomerate, coarse clastic sedimentary rocks



Contact



Fault

STANDARD DRILLING AND ENGINEERING LIMITED

HIXON GOLD PROPERTY

Hixon Creek, Hixon Area, Cariboo MD, BC

GEOLOGY LEGEND

DRAWN BY:

JOB NO.: 17-19

S: 93G/07 93G/08 DATE:
MAY '18

FIG NO.:



The Mississippian-Permian Crooked Amphibolite of the Slide Mountain Terrane occurs in discontinuous narrow units along the Eureka thrust west of the Naver pluton. The unit includes serpentinite, sheared ultramafic rocks, amphibolite and talc (Struik et al., 1990).

MapPlace shows the Quesnel Terrane to consist mainly of volcanic, volcaniclastic and sedimentary rocks belonging to either the Takla Group (north of latitude 53°N) or the Nicola Group (south of 53°N). In essence the groups represent the same stratigraphic interval; the arbitrary change in name at 53°N is presumably an artifact of mapping in different areas by different geologists. In this report, Nicola Group is adopted for this stratigraphic interval following the usage of Struik et al. (1990), who assign a Middle to Upper Triassic age. Volcanic and volcaniclastic rocks of this group are present west of the Naver pluton, in contact along the Spanish thrust with a narrow development of Nicola Group sedimentary rocks, which is separated from the pluton by a narrow belt of sedimentary rocks of the Snowshoe Group. The contact between the two sedimentary units is the Eureka thrust (Struik et al., 1990). Enigmatically, mapping by Moynihan and Logan (2009) failed to reveal evidence for thrust- sense shearing along the contact. They concluded that a large contrast in metamorphic grade between the units and the presence of normal-sense kinematic indicators near the contact were indicative of a normal fault or shear zone.

Struik et al. (1990) describe volcanic/volcaniclastic rocks of the Nicola Group west of the Naver pluton as augite porphyry basalt tuff, breccia, minor flows and tuffaceous argillite and siltite, together with local andesitic basalt. Sedimentary rocks of the group west, north and immediately east of the pluton include slate, argillite, phyllite, fine-grained and minor coarse-grained greywacke, and lesser amounts of tuff and tuffaceous siltite and argillite. In this area (near X on the regional geology map) Moynihan and Logan (2009) mapped the subunit as a black phyllite unit. Also present in the Quesnel Terrane are scattered small developments of Oligocene-Pliocene conglomerate and coarse clastic sedimentary rocks, and small areas of Miocene-Pleistocene basaltic volcanic rocks belonging to the Chilcotin Group (Fraser Bend or Alexandria Formation).

The earliest intrusion in the survey area is a very small Early Jurassic syenitic-monzonitic intrusion within volcanic/volcaniclastic rocks of the Nicola Group just west of the Spanish thrust.

The largest intrusion in the survey area, and the most prominent geological feature, is the pear-shaped Early Cretaceous Naver pluton. It comprises mainly granite and granodiorite and has yielded a U-Pb age of 113 ±1Ma (Struik et al., 1992). It intrudes mainly the Barkerville Terrane.

9.2 PROPERTY GEOLOGY

The property, as shown in figure 4, occurs along north-northwesterly-striking bands of different rock groups, some separated by faults striking northwesterly and north-northwesterly.

The western-most part of the property is underlain by Upper Triassic to Lower Jurassic volcaniclastic rocks of the Witch Lake Formation which is of the Takla Group. Intruding into this formation on the western edge of the property is a plug of Polaris Ultramafic Suite which consists of Late Triassic to Early Jurassic mafic to ultramafic rocks.

The next band consists of Middle to Upper Triassic mudstone, siltstone, shale fine clastic sedimentary rocks, also of the Takla Group. Nicola Group rocks comprise the next, which is through the center of the property, and these consist of undivided sedimentary rocks of Middle to Upper Triassic age.

Upper Proterozoic to Paleozoic metasediments of the Snowshoe Group comprise the last band which strikes through the eastern central part of the property. The eastern third of the property is entirely underlain by Mid-Cretaceous granite and alkali feldspar granite intrusive rocks of the Bayonne Plutonic Suite.

9.3 MINERALIZATION

(partly extracted from Thomas, 2009, Open File 6225)

Metalliferous bedrock past producers in the survey area include the Pioneer and Quesnelle Gold Quartz properties located within sedimentary rocks of the Nicola Group, close to the boundary with volcanic/volcaniclastic rocks of the Nicola Group to the west. The Pioneer mineralization is within carbonaceous shale and consists mainly of argentiferous galena and sphalerite within a quartz vein, which also yielded anomalous gold values. In 1927 four tonnes of ore was mined producing 809 grams of silver, 126 kilograms of lead and 2 kilograms of zinc. In spite of its location within sedimentary rocks of the Nicola Group, the Quesnelle Gold Quartz deposit is reported to be associated with a highly-sheared and hydrothermally altered zone within which greenstones contact quartz sericite schists. Steeply dipping, fairly closely spaced quartz veins, a few centimeters to about 1.8 m wide, occur in the greenstone near the contact. Gold mineralization occurs in the veins and the country rock. Mineralization includes native gold, native silver, galena, sphalerite, chalcopyrite, molybdenite, arsenopyrite, pyrrhotite and pyrite.

The Cayenne showing, containing gold and silver and lying just west of the Naver pluton, is also located on a metasedimentary subunit of the Nicola Group. It includes a 0.6 to 1.2 m wide quartz vein and several smaller quartz stringers cutting highly altered and weathered quartz sericite schist.

An industrial mineral showing of mica is located within the Barkerville Terrane near the east end of the property straddling both sides of Hixon Creek. (Minfile, 2008.) (Refer to Figure 2 and Table 2 on pages 5 and 6.)

10 INDUCED POLARIZATION AND RESISTIVITY SURVEYS

10.1 Instrumentation

The transmitter used was a BRGM model VIP 4000. It was powered by a Honda 6.5 kW motor generator. The receiver used was a six-channel BRGM model Elrec-PRO. This is state-of -the-art equipment, with software-controlled functions, programmable through a keyboard located on the front of the instrument. It can measure up to 10 chargeability windows and store up to 2,500 measurements within the internal memory. Vexatious

10.2 THEORY

When a voltage is applied to the ground, electrical current flows, mainly in the electrolyte-filled capillaries within the rock. If the capillaries also contain certain mineral particles that transport current by electrons (mostly sulphides, some oxides and graphite), then the ionic charges build up at the particle-electrolyte interface, positive ones where the current enters the particle and negative ones where it leaves. This accumulation of charge creates a voltage that tends to oppose the current flow across the interface. When the current is switched off, the created voltage slowly decreases as the accumulated ions diffuse back into the electrolyte. This type of induced polarization phenomena is known as electrode polarization.

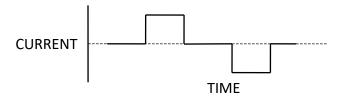
A similar effect occurs if clay particles are present in the conducting medium. Charged clay particles attract oppositely-charged ions from the surrounding electrolyte; when the current stops, the ions slowly diffuse back to their equilibrium state. This process is known as membrane polarization and gives rise to induced polarization effects even in the absence of metallic-type conductors.

Most IP surveys are carried out by taking measurements in the "time-domain" or the "frequency-domain".

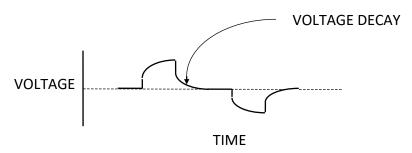
Time-domain measurements involve sampling the waveform at intervals after the current is switched off, to derive a dimensionless parameter, the chargeability "M", which is a measure of the strength of the induced polarization effect. Measurements in the frequency domain are based on the fact that the resistance produced at the electrolyte-charged particle interface decreases with increasing frequency. The difference between apparent resistivity readings at a high and low frequency is expressed as the percentage frequency effect, or "PFE".

The quantity, apparent resistivity, ρ_a , computed from electrical survey results is only the true earth resistivity in a homogenous sub-surface. When vertical (and lateral) variations in electrical properties occur, as they almost always will, the apparent

resistivity will be influenced by the various layers, depending on their depth relative to the electrode spacing. A single reading, therefore, cannot be attributed to a particular depth.



TRANSMITTED WAVEFORM



RECORDED VOLTAGE

The ability of the ground to transmit electricity is, in the absence of metallic-type conductors, almost completely dependent on the volume, nature and content of the pore space. Empirical relationships can be derived linking the formation resistivity to the pore water resistivity, as a function of porosity. Such a formula is Archie's Law, which states (assuming complete saturation) in clean formations:

$$R_o = O^{-2} R_w$$

Where: R_o is formation resistivity

R_w is pore water resistivity

O is porosity

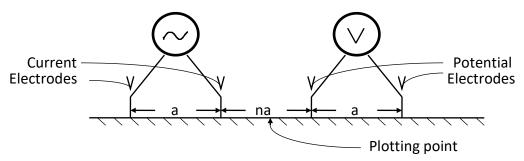
10.3 SURVEY PROCEDURE

The IP-resistivity surveying was carried out along a road to the immediate north of Hixon Creek within the southwest part of the property. The total survey length consisted of 1,040 meters.

The IP and resistivity measurements were taken in the time-domain mode using an 8-second square wave charge cycle (2-seconds positive charge, 2-seconds off, 2-seconds negative charge, 2-seconds off). The delay time used after the charge shuts off was 80 milliseconds and the integration time used was 1,760 milliseconds divided into 10 windows.

The array chosen was the dipole-dipole, shown as follows:

DIPOLE-DIPOLE ARRAY



The electrode separation, or 'a' spacing, and reading interval was chosen to be 15 meters read to 10 separations, which is the 'na' in the above diagram, for the three lines. The 10 separations give a theoretical depth penetration of about 90 meters, or 300 feet.

Stainless steel stakes were used for current electrodes as well as for the potential electrodes.

10.4 COMPILATION OF DATA

All the data were reduced by a computer software program developed by Geosoft Inc. of Toronto, Ontario. Parts of this program have been modified by Geotronics Consulting Inc. for its own applications. The computerized data reduction included the resistivity calculations, pseudosection plotting, survey plan plotting and contouring.

The chargeability (IP) values are read directly from the instrument and no data processing is therefore required prior to plotting. However, the data is edited for errors and for reliability. The reliability is usually dependent on the strength of the signal, which weakens at greater dipole separations. Since only six separations were done, the chargeability data was very reliable.

The resistivity values are derived from current and voltage readings taken in the field. These values are combined with the geometrical factor appropriate for the dipole-dipole array to compute the apparent resistivity. The resistivity data was very reliable for all 10 separations.

All the data have been plotted in pseudosection form with one map being plotted for each of the three lines, as shown in the Table of Contents. The pseudosection is formed by each value being plotted at a point formed from the intersection of a line drawn from the mid-point of each of the two dipoles. The result of this method of plotting is that the farther the dipoles are separated, the deeper the reading is plotted. The resistivity pseudosection is plotted on the upper part of the map for each of the lines, and the chargeability pseudosection is plotted on the lower part.

The chargeability and resistivity pseudosections were contoured at a logarithmic interval to the base 10.

The self-potential (SP) data from the IP and resistivity surveys were plotted and profiled above the two pseudosections for each line at a scale of 1 cm = 100 millivolts with a base of zero millivolts. It is not expected that the SP data will be important in the exploration of the property, especially with the dipole length used, but considering that the data was taken, it was plotted and profiled for its possible usefulness.

10.5 Inversion Interpretation

A 2-D inversion interpretation was carried out on the IP and resistivity data using computer software produced by Geotomo Software. The purpose of inversion interpretation is to eliminate the electrode effect that is endemic with IP and resistivity data and thus locate the causative sources more accurately. The Geotomo inversion is a rapid method that uses the least squares interpretation. The IP and resistivity inversion sections for the one road line are shown on three section maps, respectively, labelled GP-1b to GP-3b. The IP anomalies were determined from the three inversion sections and these have been plotted on the MMI plan maps, as well.

11 DISCUSSION OF RESULTS

The resistivity inversion section clearly shows a resistivity contact at about station 330E with low values to the west, mostly below 60 ohm-meters and higher values to the east, mostly above 100 ohm-meters. The attached geology map suggests that it may be reflecting the northwest-striking fault-contact between volcaniclastic rocks of the Witch Lake Formation of the Takla Group to the west, and fine clastic sedimentary rocks of the Takla Group to the east. However, as given above, the geological description of the host rock of the Quesnelle Quartz deposit is described as highly sheared and hydrothermally altered greenstone of the Takla Group. In the writer's opinion, this would fit more with the resistivity results. Furthermore, the actual location of the fault-contact, as shown on the geological map, is more in the center of the survey line and thus, perhaps, it is being reflected by the lineal-shaped low at 470E between two resistivity highs. This low also reflects an IP contact between the low IP readings to the west and the higher ones to the east.

The IP results, as shown on the inversion section, are fairly flat within the western Witch Lake Formation, but four strong anomalies occur within the eastern Takla Group greenstone/sedimentary rocks to the east. These have been labelled A to D, inclusive. All four correlate mostly with resistivity highs, say above 500 ohm-meters but all four also correlate partly with resistivity lows. The IP highs are very likely reflecting sulphides that may be associated with gold mineralization as occurs within the Quesnelle Quartz deposit. In addition, the correlating resistivity highs indicate the suggested mineralization may be occurring within a silicified rock-type. The associated resistivity lows suggest hydrothermal alteration.

The IP and resistivity results were discussed with Angelique Justason who is one of the property owners and who knows the geology of the property very well. According to

historical maps, especially of the Quesnelle Quartz mine, all four anomalies are reflecting known mineralization.

Anomaly A occurs at the extreme eastern end of the survey line at station 1090E, appears to be vertically dipping, and averages about 20 meters in width. This is probably reflecting the mineralization at the Mason shaft.

Anomaly B is centered at about 980E, averages about 70 meters in width, is dipping vertically, and appears to consist of two parts. Either one of these parts, or both, are probably reflecting the Washburn mineral zone within the Quesnelle Quartz mine. In addition, the IP and resistivity inversion sections suggest a thrust fault dipping at a shallow angle to the west through the mineralization.

Anomaly C is centered at 780E, is about 110 meters in width and appears to be dipping vertically as well. This anomaly is very likely reflecting the Stewart mineral zone within the Quesnelle Quartz mine.

Anomaly D is centered at 520E, is about 100 meters in width, and dips about -60° to the east. It is probably reflecting the Morrison mineral zone.

The IP inversion section shows all four mineral zones extend to a minimum 40 meters deep being open to depth. In addition, the widths of the anomalies given above are probably close to true width since the historical maps show a northwest strike to the mineralization and the average direction of the line was east-northeasterly.

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13 GEOPHYSICIST'S CERTIFICATE

I, DAVID G. MARK, of the City of Surrey, in the Province of British Columbia, do hereby certify that:

I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I am a Consulting Geophysicist of Geotronics Consulting Inc., with offices at 6204 – 125th Street, Surrey, British Columbia.

I further certify that:

- 1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
- 2. I have been practicing my profession for the past 50 years and have been active in the mining industry for the past 53 years.
- 3. This report is compiled from data obtained from IP and resistivity surveys carried out within the period of November 10th to the 15th, 2017 within the southwestern part of the Hixon Gold Property by a 5-man crew under my direction.
- 4. I do not hold any interest in Standard Drilling and Engineering Ltd. nor in any of its properties, nor do I expect to receive any interest in as a result of writing this report.

David G. Mark, P.Geo. Geophysicist May 15, 2018



14 AFFIDAVIT OF EXPENSES

The IP/resistivity survey was carried out along Hixon Creek within the southern part of the Hixon Property, which occurs on Hixon Creek, located 5 km 060°E of the settlement of Hixon, B.C, and 55 km north of the town of Quesnel, during the period of November 10th to November 15th, 2017, to the value of the following:

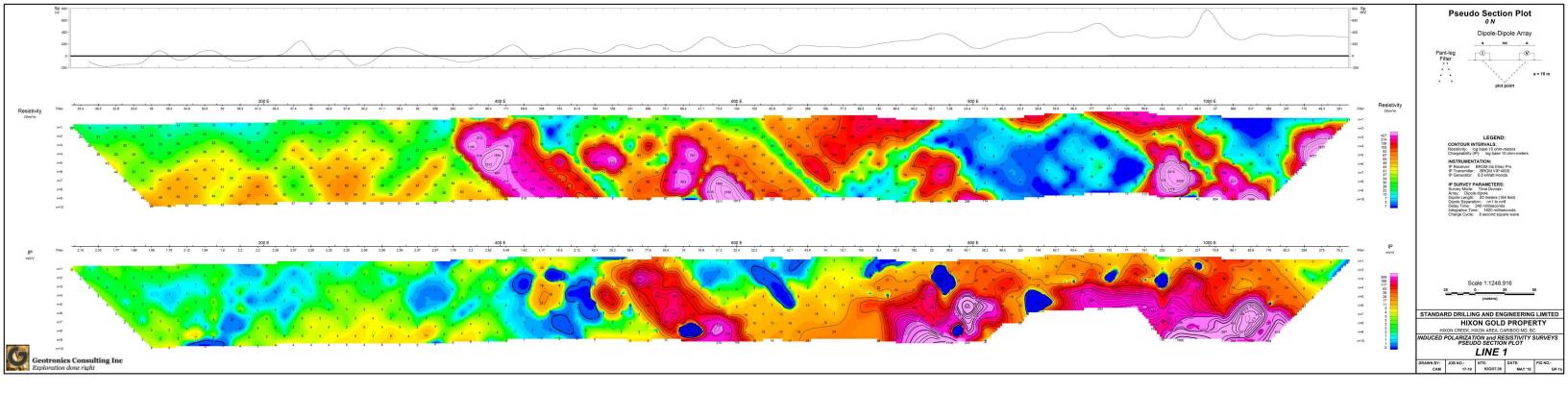
MOD/DEMOD.		
MOB/DEMOB:		
Senior geophysicist, 1 days @ \$1,000/day	\$1,000.00	\$1,000.00
FIELD:		
IP/resistivity survey, 5-man crew, 4 days @ \$3,950/day	\$15,800.00	\$15,800.00
REPORT and DATA REDUCTION:		
Data organizing and reduction	\$1,500.00	
	40.000	
Interpretive report	\$2,000.00	
TOTAL	\$3,500.00	\$3,500.00
		400 000 00
GRAND TOTAL		\$20,300.00

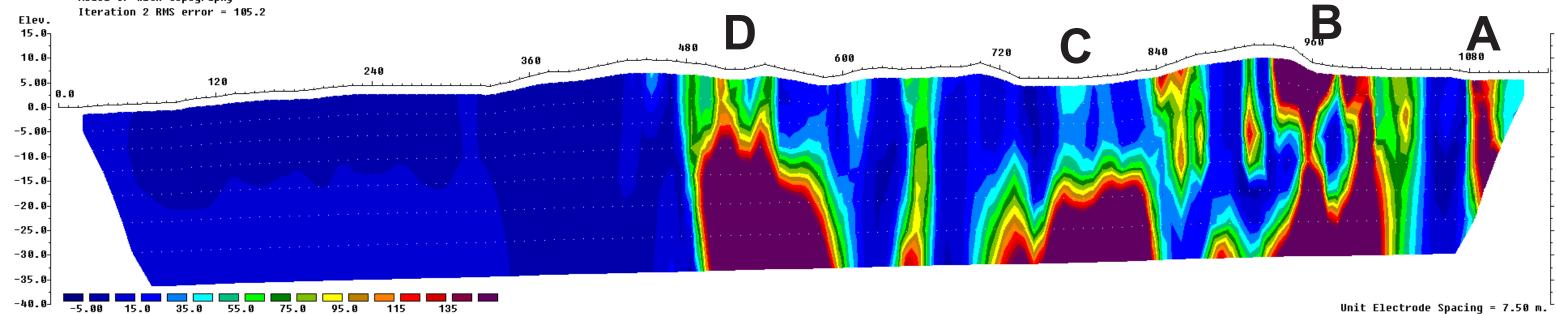
Respectfully submitted, Geotronics Consulting Inc.

David G. Mark, P.Geo, Geophysicist

May 15, 2018







Horizontal scale is 12.11 pixels per unit spacing Vertical exaggeration in model section display = 3.76 First electrode is located at 0.0 m. Last electrode is located at 1140.0 m.

Chargeability in mU/V

INSTRUMENTATION:

IP Receiver: BRGM IRIS ELREC PRO
IP Transmitter: BRGM VIP 4000
IP Generator: HONDA ES 6500

IP SURVEY PARAMETERS

Survey Mode: Time Domain Array: Dipole-Dipole

Dipole Length: 50 meters (164 feet)
Dipole Separation: n=1 to n=10
Delay Time: 240 milliseconds
Integration: 1600 milliseconds
Charge Cycle: 8 second square wave

STANDARD DRILLING AND ENGINEERING LIMITED

HIXON GOLD PROPERTY

Hixon Creek, Hixon Area, Cariboo MD, BC

INDUCED POLARIZATION and RESISTIVITY SURVEYS 2-D GEOTOMO INVERSION

LINE 1

 DRAWN BY:
 JOB NO.:
 NTS:
 DATE:
 FIG NO.:

 CAM
 17-19
 93G/07,08
 MAY '18
 GP-1b

