

**TECHNICAL REPORT ON  
THE SONORA GULCH PROJECT,  
WHITEHORSE MINING DIVISION,  
YUKON TERRITORY  
FOR  
NORTHERN TIGER RESOURCES INC.**

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## 1. SUMMARY

### Introduction

Watts, Griffiths and McOuat Limited ("**WGM**") was retained by Northern Tiger Resources ("**Northern Tiger**") to conduct a technical review of the Sonora Gulch property in the Dawson Range of the Whitehorse Mining Division, Yukon Territory, Canada, and prepare a National Instrument 43-101 ("NI 43-101") compliant report on project progress since the last 43-101 report on Sonora Gulch was filed by Firestone Ventures Inc. ("**Firestone**") in April 2008. That report reviewed historic exploration activities and Firestone's results from its 2006 and 2007 exploration programs on Sonora Gulch. This report includes the results of the 2008 through 2010 exploration programs carried out by Northern Tiger on Sonora Gulch.

For the purposes of this report, Robert H. Page, P.Geo., Senior Associate Geologist of WGM, visited the Sonora Gulch property on October 6, 2010. At the time of the visit the 2010 field program had concluded and the camp had been closed down for the year. Access was by helicopter and on the day of the visit fog and low clouds forced the site visit, for flying safety consideration, to be curtailed after 3 hours. As a result the visit was limited to a review of select sections of core and collection of 8 verification core duplicate samples. Northern Tiger provided WGM digital copies of technical information on the property covering geologic mapping, geochemical sampling, geophysical surveys, and the drill hole database.

### Property Location and Status

The Sonora Gulch Property (the "Property") is situated about 265 km north of Whitehorse, Yukon Territory and 110 km to the northwest of Carmacks, the nearest community to the property. There is no road access to the Property although the Property does lie on the winter road to Western Copper's Casino Project located 45 km west of Sonora Gulch. Access to the property during the summer field season is by helicopter with supplies ferried to the Property by helicopter from the end of the road at Minto Landing, 50 km to the east. The Property lies between about 700 m and 1220 m above sea level. The Sonora Gulch property, the subject of this report, consists of 295 contiguous unpatented Yukon quartz mining claims covering 5,995 ha (14,815 acres) within the Whitehorse Mining District. The property is centered at 62°39'N. Latitude, 138°02' W Longitude (UTM NAD 83 coordinates: 652300 E, 6950500N, Zone 7) in the central Yukon Territory, Canada. The property extends across the 138<sup>th</sup> meridian, thus extending across the border of UTM Zones 7 and 8. The property has not undergone a legal survey.

## **Geology and Mineralization**

The Sonora Gulch Property lies on the northern flank of the Dawson Range Batholith and is underlain primarily by gneisses and schists of the Devonian Wolverine Creek Formation. The regional northwest trending Big Creek Fault crosses the heart of the Property and the area of greatest alteration and geochemical anomalism. Coincidentally, this also occurs where the Big Creek Fault deflects to the west before continuing on to the large Casino porphyry 45 kilometres away.

The Wolverine Creek rocks have been intruded by two quartz feldspar to feldspar porphyries and peripheral dikes. The eastern of these porphyries, the Amadeus Porphyry is considerably argillized and hosts a poorly developed stock work of epithermal quartz veins. The entire body is anomalous in gold with drill intercepts generally above 100 ppb Au. It is also highly anomalous in silver and arsenic. A breccia zone along the contact with gneiss has produced the best intercept to date on the Property with 11.1 m of 8.01 g Au/t.

The western porphyry, the Gold Vein Zone porphyry, exhibits less intense alteration in the form of weak potassic to propylitic alteration. Wall rock Wolverine Creek rocks are more intensely altered with the rocks being logged as skarn. The background mineralization in the Gold Vein Zone, and adjacent target areas in the contact aureole, is anomalous in copper at 100 to 300 ppm Cu with local 5-10% pyrite. The highest grade gold mineralization occurs in cm thick quartz veins with sulfosalt selvages.

The overall model is for a porphyry copper-gold-molybdenum system with potential not just for porphyry style mineralization but also for structure and skarn hosted gold mineralization in the contact aureoles of the porphyries.

## **Targeting**

Substantial targeting work was completed prior to Northern Tiger's involvement in the Project starting with the 2008 field season. However, Northern Tiger has advanced understanding of the Project substantially through expanding soil sample coverage collecting nearly 2000 samples, flying a magnetic and radiometrics airborne over the entire property at 100 m line spacing in 2009, and completing 14.5 km of Titan 24 surveying over the Gold Vein Zone in 2010.

The soil sampling has now extended the area with 100 ppb Au soil samples to nearly 9 kilometres along the east-west strike of the system. However, the strongest anomalism is found along a 6 kilometre long zone extending from east of the Amadeus porphyry to west of the Gold Vein Zone porphyry. The airborne survey outlined, in the view of WGM, the limits of the porphyry complex which extends from southeast of the Amadeus porphyry to west of the Gold Vein Zone. The response from the radiometrics survey provides further support for this geologic model with elevated potassium response covering the same area. In sum, geochemical sampling and the 2009 airborne survey have delineated the limits of the porphyry complex showing it to be 4000 metres long and 1000 to 1500 metres wide.

The 2010 Quantec Titan 24 survey provided further insight into the distribution of mineralization in a 2000 metre long section of the larger airborne anomaly centered on the Gold Vein Zone porphyry. The five lines spaced at 400 metres apart show the response one would expect from a typical mineralized porphyry system with the chargeability response at plus 400 m showing a low chargeability core surrounded by a high chargeability halo. The 1000 m diameter anomaly is undrilled below 200 m.

## **Drilling**

Prior to Northern Tiger's involvement in the project Firestone Ventures drilled 22 holes in 2006-2007 mainly in testing the Amadeus Zone, with just 1 hole in each of the Nightmusic and Figaro Zones and 4 holes -in the Jupiter Zone all of which were lost at a shallow depth. These latter three anomalies all lie on the north and northeast sides of the Gold Vein Zone.

In 2008 Northern Tiger's initial 10 hole, 2223 metre drill program provided the first serious test of the Nightmusic and Jupiter Zones and provided one last attempt at tracking gold mineralization away from hole SG06-06 in the Amadeus Zone. The Jupiter and Amadeus work failed to produce compelling results, although hole SG08-27 in the Nightmusic Zone returned 46 m of 2.97 g Au/t near the hanging wall contact of Wolverine Creek gneisses with an ultramafic sill. Other holes in this zone also encountered anomalous gold in the hanging wall of the sill providing an exploration model that would guide the 2009 drill program.

The 12 hole, 2451 metre 2009 drill program focused on the hanging wall of the sill in Nightmusic zone and found the results of the 2008 drilling to have been fortuitous. The model did not hold up and there were no significant intercepts encountered in the 2009 program. It should be noted that virtually all the drilling in the Nightmusic Zone was done with holes oriented at 020° or 200° parallel to what could be an important set of mineralized veins in the zone. Some trenching over the better intercepts in the Nightmusic Zone could

address this concern, and possibly result in a decision to drill a few angle holes oriented to the southeast.

In 2010 Northern Tiger drilled another 12 holes and 2875 metres mostly around the limits of the Gold Vein Zone mainly in the Jupiter Zone with 3 holes in the Nightmusic Zone and one in the Gold Vein Zone. The Gold Vein Zone had not seen any drilling since the 1978-1984, a period that saw several groups focus on this zone drilling numerous shallow holes (<50 per hole). Detailed data are not available for these holes but summaries show 1-3 metre intercepts of 1-3 g Au/t.

Two of the 2010 holes returned significant anomalies. One, the lone hole Gold Vein Zone hole, SG10-55, encountered 4 metres of 11.3 g Au/t and 233 g Ag/t in porphyry cut by cm thick sulfosalt bearing quartz veins. In the Jupiter Zone hole SG10-53 intersected skarn with 16 metres of 1.88 g Au/t. Both of these intercepts deserve offsets.

### **QA/QC Programs**

Given the early exploration stage of the project Northern Tiger in general inserted more than a sufficient number of blanks, standards and core duplicates into the sample stream. However, the company did not routinely tabulate or graph results of these QA/QC samples and did not respond to standard or blank failures. Over the 3 year drill program there were 11 gold standard failures and 21 copper standard failures. Of these the gold failures are considered to be more significant in that gold is the primary metal of interest.

WGM recommends that Northern Tiger in future programs tabulate and plot results for all QA/QC samples appropriately to allow rapid response to the geochemical lab in the case of blank or standard failures. In addition, Northern Tiger should include a few Au-Ag standards as silver could be economically significant.

While the QA/QC program can be improved as noted above, it is WGM's opinion that the analytical results of the 2008-2010 drill programs can be relied upon with confidence in evaluating Sonora Gulch.

The results of duplicate samples, even though duplicates were of quarter core, are encouraging with few duplicate pairs returning dramatically different results. Equally satisfactory is the clear lack of sampling bias demonstrated by the duplicates.

## Conclusions

Northern Tiger's Sonora Gulch Project lies within the Tintina Gold Belt, a belt stretching from south western Alaska through the south central Yukon Territory to the British Columbia border and host to numerous important gold deposits related to granitic plutons. Gold mineralization at Sonora Gulch, and at nearby projects such as Western Copper's Casino, appears to be related to 75 m.y. quartz monzonite to granodiorite porphyry stocks and dikes and fit the gross intrusion related model for the Tintina Gold Belt.

While porphyry style alteration and mineralization are present at Sonora Gulch there is also a clear epithermal overprint at some of the prospects with fine grained silica stringers and a gold-silver-arsenic-antimony geochemical signature. Though not documented by any worker there is the possibility of orogenic type gold mineralization given the location on a major structure within an orogenic belt. However, based on information available to WGM, the working model applied here is that most if not all of the mineralization at Sonora Gulch is related to the various phases of a composite Late Cretaceous porphyry system and in particular to the Amadeus and Gold Vein Zone porphyries.

Geologic, geochemical, and geophysical data outline a 4 kilometre long area that appears to be underlain by the intrusive complex. Not coincidentally this anomaly and the immediately surrounding magnetic lows enclose most of the extensive gold in soil geochemical anomaly at Sonora Gulch (the 6 km long gold anomalous area referenced previously). The combination of mapped intrusives, the magnetic anomaly, and the geochemical anomaly, which includes gold copper and molybdenum, all fit with a porphyry model.

Though grossly fitting a porphyry model Sonora Gulch has failed to date to produce the sort of stock worked quartz veined intercepts expected from a productive porphyry system. Copper-molybdenum mineralization is weak within the porphyries as tested to date, but it is not inconsequential. There is ample room for better porphyry mineralization to be encountered. Supporting this assessment, several holes, particularly in the Amadeus porphyry, returned long intervals of porphyry gold style mineralization at levels of gold mineralization comparable to protore gold at the Casino deposit (0.1 to 0.25 g Au/t). The porphyry system was also strong enough to alter large volumes of wall rock gneiss and schist to skarn, argillically alter extensive portions of the porphyries, and produce local intervals of ore grade gold mineralization in the right setting.

Northern Tiger and its predecessor at Sonora Gulch, Firestone Ventures, drilled 58 holes from 2006 to 2010 with 4 of the 5 zones drilled producing at least one significant intercept. All of these intercepts, with the exceptions of the last two, those in hole SG10-53 in the Jupiter Zone and hole SG10-55 in the Gold Vein Zone, have been offset by several of holes to limit the size

of the mineralized zone encountered around these intercepts. However, even if none of these intercepts ends up being part of a significant deposit they confirm that the hydrothermal system at Sonora Gulch was capable of producing ore grade gold-silver mineralization.

Complicating the picture at Sonora Gulch, but probably improving its exploration potential, is the presence of multiple porphyries. There is not one simple zoning pattern around a lone center. The Amadeus porphyry, for example, exhibits more pervasive phyllic alteration than the GVZ porphyry, and overall has a more silver dominated background mineralization than the GVZ porphyry with similar copper values but much less molybdenum.

Of particular interest in the Amadeus porphyry is the gold-rich zone encountered in holes SG06-06 and SG07-12. This zone has a much lower silver to gold ratio than surrounding background porphyry mineralization and probably is related to slightly later crosscutting mineralization. This gold-rich zone is mostly closed off by drilling but remains open at depth.

The Gold Vein Zone porphyry is less well drilled, at least by the Firestone-Northern Tiger drill programs with only hole SG10-55 testing the zone (11 holes in 1978 drilled to an average depth of 44 m). There are numerous Northern Tiger holes around the margins of the Gold Vein Zone several of which intersected porphyry dikes or skarn giving evidence of proximity to the main intrusion. The Gold Vein Zone porphyry probably has a different chemistry than the Amadeus porphyry accounting for the different alteration-mineralization styles and ratios of silver to gold and copper to lead plus zinc.

Northern Tiger and its predecessors have carried out enough geochemical, geological, and geophysical work at Sonora Gulch to largely constrain the limits of possible economic precious and base metal mineralization. The overall geochemical anomaly around the porphyries has 6 kilometres of strike with peripheral anomalies adding another 3 km. Given the scale of the mineralized system and location in a productive gold belt WGM is of the opinion that Sonora Gulch remains underexplored despite the drilling completed to date. Potential remains highest for discovery of a structurally or lithologically controlled gold-silver deposit (e.g. skarn). Potential for discovery of a well mineralized large tonnage porphyry remains as well in both the near surface and at 400 to 500 metres depth. This latter target requires drilling deeper than any of the drilling completed to date.

## **Recommendations**

Further exploration is warranted at Sonora Gulch with the highest priority given to drilling in and adjacent to the porphyries. The entirety of this area of high potential has been extensively mapped, sampled, and surveyed geophysically (magnetic, radiometric, and IP). Given this targeting database, and the recommended focus on the porphyry centers, the only recommendations for this core area are for drilling. Four outlying gold anomalies, Concerto Creek east of Amadeus, Sonata west of Nightmusic and Bear Hill and Requiem in the far west of the project area, have seen no drilling and deserve testing as well. In each case minimal additional targeting work is recommended prior to drilling.

Within the core area the recommended drill program covers several target types. The first is offsetting existing intercepts and offers the greatest possibility of producing significant intercepts in the next drill phase. The remaining targets can be divided into testing for porphyry mineralization or for contact related mineralization around the porphyries (including skarn). These latter targets are each supported by some combination of geologic interpretation, geochemical anomalies, and geophysical anomalies.

There are 3 drill hole anomalies deserving offsets including the two noted above plus the 11.1 metre 8 g Au/t breccia hosted intercept in hole SG06-06. This intercept saw a significant number of offset holes in Firestone Ventures' 2007 program and Northern Tiger's 2008 program. That work may limit the opportunity to extend this high grade mineralization laterally but the zone is open at depth. This mineralization could improve in grade at depth given that gold mineralization improves towards the hole SG06-06 intercept from above. Hole SG07-07 had a 0.85 g Au/t interval in breccia 50 m above the hole SG06-06 intercept. WGM recommends stepping 50 metres to the north of the collar of SG06-06 and drilling a 450 metre hole at an azimuth of 180° and -60° to test for continuity of mineralization below the high grade intercept in SG06-06.

The other two holes requiring offsets both tested the Gold Vein Zone (hole SG10-55) or its margin (hole SG10-53) in the Jupiter Zone. Drill hole SG10-55 has the highest grade gold intercept at Sonora Gulch that has not been offset – 4 metres of 11.3 g Au/t and 233 g Ag/t starting at 115 metres. The 4 metre mineralized zone is logged as quartz feldspar porphyry with disseminated pyrite cut by cm thick veins of quartz-boulangerite-jamesonite (both Pb-Sb-As sulfosalts that can carry Au and Ag). Such veins are logged over the interval from 88.4 to 133 metres with the entire 44.6 metre interval averaging 1.14 g Au/t and 24 g Ag/t. WGM recommends 4 initial offsets of hole SG10-55 to determine if the zone shows continuity down dip or along strike and if so to provide a trend to test with further drilling. The 4 offsets will start with a hole drilled from the same site and same azimuth as hole SG10-55 but at a shallower angle. The second offset will be a scissor hole to hole SG10-55. The location,

azimuth, and dip for the next 2 offset holes, expected to be 50 m to the northwest and southeast, will be determined from results of the first two offsets.

The last hole deserving to be offset is SG10-53 drilled in the Jupiter Zone on the northeast flank of the Gold Vein Zone porphyry. Hole SG10-53 encountered increasing alteration and intensity of skarn development with depth and hosts the best grade skarn intercept yet at Sonora Gulch with 16 metres of 1.88 g Au/t starting at 194.5 metres. This intercept has been partially offset to the west and south and needs to be offset to the northwest, north and east.

WGM initially recommends 3 fairly large step out holes designed to test coincident geologic, geochemical and geophysical targets. These holes will bracket hole SG10-53 150 metres to the north, 200 metres to the northeast, and 300 metres to the east. (The intercept is already bracketed to the south and west.) The first hole, the 150m step out to the north, will drill back towards an IP high passing beneath a highly gold anomalous area including a rock chip with 1.7 g Au/t and pass ~50m west of the intercept in hole SG10-53. The hole to the northeast will drill to the southwest testing the eastern margin of magnetic low and pass ~90m east of hole SG10-53. The hole to the east will test an area of anomalous gold in soils, the edge of a magnetic high, and the eastern edge of the Gold Vein Zone porphyry as indicated by potassium radiometrics. These last two tests will hopefully catch the leading edge of the skarn around the porphyry where prograde mineralization would be expected to be the strongest.

Should the above tests around hole SG10-53 fail to encounter similar mineralization, Northern Tiger might consider 4 short holes immediately adjacent to hole SG10-53 starting with a scissor hole to guarantee not missing the zone. Three step outs at 50 m to north, east, and west of SG10-53 will follow with orientations determined by results of the scissor hole. Should the results of the close spaced step out holes be favourable it should be clear as to how to proceed with a second phase of drilling to delineate the zone.

Geophysical targets recommended for drilling are based primarily on interpretation of Titan 24 2D chargeability and resistivity inversions. This is not to ignore the magnetic or radiometric data but that data primarily serves to identify the area in which the Titan 24 was carried out as being the prime target area. Coincidentally this area also takes in the heart of the gold in soils anomaly some parts of which have not been tested.

There are two basic target types that will be tested with the recommended program:

1. potentially large tonnage copper-gold-molybdenum porphyries, and
2. peripheral skarn, breccias, and vein targets along the margins of porphyries.

Quantec's Titan 24 inversions show a deep chargeability low-resistivity high with a high chargeability-low resistivity halo as would be expected with a mineralized porphyry center under the Gold Vein Zone. WGM recommends 3 holes to test this model including a "center punch" and two holes drilled from the north and south flanks of the anomaly to cross the entire chargeability high into the edges of the interior resistivity high. The holes will be spaced approximately 500 metres apart on the fence with the outer two holes angled towards the hole in the center.

There is a deep east-west trending resistivity low feature that parallels the mapped ultramafic sill of the Nightmusic Zone on the north flank of the Gold Vein Zone. One hole is recommended to test this feature and the associated weak chargeability anomaly. If the resistivity high is caused by a silicified zone or a siliceous porphyry dike further testing would be advised even in the absence of a strong gold intercept. However, if related to unmineralized listwanitic alteration of peridotite no further testing would be required.

The next geophysical target of interest follows the south western contact of the GVZ porphyry and shows strong contrasts in chargeability, resistivity, potassium radiometrics, and total field magnetics. This 1600 metre long target also has consistently anomalous surface gold geochemistry and the lone hole in the target, hole SG10-55, had a significant intercept as noted previously. WGM recommends a minimum program of single holes drilled every 200 m along strike starting in the west on Titan 24 line 1E and extending to a final hole on line 4E. These 7 holes will be drilled parallel to the geophysical lines and will test the southern flank of modeled southwest dipping chargeability highs. All of the holes will be drilled to the north except for the hole on line 4E which will be drilled in the opposite direction to cross a possible structure before testing the IP high.

Even with the above two sets of holes drilled into the Gold Vein Zone porphyry large areas of the zone will remain untested. WGM recommends another 10 widely spaced holes to begin filling in these areas. Hole locations are based on gold in soil anomalies and geophysical anomalies

WGM also recommends 3 holes in the Figaro Zone which lies on the opposite side of Hayes Creek Valley from the Amadeus porphyry. The first hole drilled in the Firestone Ventures – Northern Tiger era was drilled in the Figaro Zone. It is impossible based on one hole to say much about the merits of Figaro but the lone hole is notable in having strongly anomalous molybdenum from top to bottom setting it apart from the Amadeus holes on the east side of Hayes Creek. Also, a location in the valley allows a deeper test of the Sonora system than will be accomplished from the holes discussed above drilled into the top of Gold Vein Zone. The three recommended holes will be spaced 400 m apart along the length of the zone starting in a magnetic "trough" connecting the Amadeus and Figaro Zones that is presumably caused

by alteration of the otherwise magnetic porphyries. The middle of these holes will drill to the east under Hayes Creek and test the eastern contact of the porphyry at Figaro or continuity with the Amadeus porphyry.

Lastly, there are 4 gold anomalies at Sonora Gulch (Concerto Creek, Sonata, Bear Hill, and Requiem) that have not been drilled and which deserve drill testing - but not before additional mapping and sampling has been carried out. The proposed drill program includes 3000 metres of drilling for these areas with the specifics to be determined the targeting yet to be carried out.

Helicopter supported diamond drilling programs in the Yukon have been estimated to cost on an all inclusive basis \$600 per metre drilled. On this basis the cost of the proposed 16,400 metre drill program will be on the order of \$10 million dollars.

## 2. INTRODUCTION

### 2.1 GENERAL

In September 2010, Northern Tiger Explorations Inc. ("**Northern Tiger**"), Northern Tiger Resources, 220 – 17010 103<sup>rd</sup> Ave, Edmonton, Alberta, T5S 1K7, retained Watts, Griffiths and McOuat Limited ("**WGM**") to conduct a technical review of the Sonora Gulch Project (the "Property") in the Whitehorse Mining Division, Yukon Territory, Canada, in which Northern Tiger holds a 100% interest, and to prepare a National Instrument 43-101 ("NI 43-101") compliant report. The purpose of the WGM independent review and NI 43-101 report have been to review the technical merits of the project, to identify fatal flaws, if any, carry out a program of independent check sampling, and make recommendation for future work on the project. Dr. Robert Page, WGM Senior Associate Geologist, visited the Property briefly on October 6, 2010. At the time of the visit the 2010 field program had concluded and the camp had been shut down for the winter season. Only 3 hours were available on site just allowing time to review minimal core and collect 8 verification duplicate samples of core. Technical discussions about the Property with Northern Tiger V.P. Exploration Dennis Ouellette were limited on site and most took place in Whitehorse or through subsequent communications.

There has been a significant amount of exploration at Sonora Gulch but to date all work would be classified as early stage targeting and target testing. At this stage there is insufficient information to permit a 43-101 resources estimate.

The opinions and conclusions presented in this report are based on information received from Northern Tiger. WGM received full cooperation and assistance from Northern Tiger during the site visit and during preparation of this report.

### 2.2 TERMS OF REFERENCE

This report is prepared in compliance with NI 43-101 and presents a review of the geology and Mineral Resources of the Sonora Gulch project in Dawson Range of the Yukon Territory. WGM did not review legal, environmental, political, surface rights, water rights or other non-technical matters which might indirectly relate to this report as Northern Tiger has retained legal counsel for these purposes.

It is Northern Tiger's intent to use this WGM report for filing on SEDAR, and in support of ongoing project financing.

## **2.3 SOURCES OF INFORMATION**

Technical information in this report is derived from a variety of sources, including:

- 1) assessment reports authored by Carl Schulze, P.Geol., and other technical information, housed in the files of the Yukon Territory government.
- 2) technical articles in scientific publications.
- 3) a 43-101 report titled *National Instrument 43-101 Report on the 2006 and 2007 Exploration Programs, Sonora Property Dawson Range – Yukon*, authored by Carl Schulze, P.Geol.
- 4) lithological and geotechnical drill logs prepared in 2006 and 2007 by Firestone Ventures, and from 2008 through 2010 by Northern Tiger.
- 5) other files, such as analytical certificates, provided to WGM by Northern Tiger.

Documents in items 1, 2, and 3 used in the preparation of this report, listed under "References", are available to the public.

Northern Tiger has reviewed a previous draft of this report. Nevertheless, this report is the responsibility of WGM which alone has been in charge of its overall presentation.

## **2.4 UNITS AND CURRENCY**

Throughout this report, common measurements are in metric units. Tonnages are shown as tonnes (1,000 kg), and million tonnes ("Mt"); other weights are in grams ("g"). Linear measurements are metres ("m") or kilometres ("km"). Metal contents are given as parts per million ("ppm"), or percent ("%"); precious metal values (gold and silver) as grams per tonne ("g Au/t" and "g Ag/t") or parts per billion ("ppb"). Areas are reported in hectares ("ha"). Volumetric measures are in millilitres ("mL").

All financial data are quoted in Canadian dollars ("C\$").

### 3. RELIANCE ON OTHER EXPERTS

WGM has not reviewed a copy of the agreement between Firestone Ventures ("Firestone"), the previous owner of the Sonora Gulch Property and Northern Tiger, by which Firestone transferred title to the Property to Northern Tiger. The transaction was approved by Canadian securities regulators and though presumed valid WGM cannot verify either the validity or the legality of the transfer. An underlying option between Firestone and two individuals covering the claim block at Sonora Gulch has now been exercised, as outlined in Section 4.3.

For this report, WGM has primarily relied on:

- 1) the 43-101 report authored by Carl Schulze: National Instrument 43-101 Report on the 2006 and 2007 Exploration Programs, Sonora Property Dawson Range - Yukon
- 2) the results of Firestone's 2006 and 2007 drilling programs contained in the Northern Tiger drill hole databases, as well as analytical spreadsheets.
- 3) the results of Northern Tiger's 2008, 2009 and 2010 exploration programs including soil sampling and geophysical program data sets and the results of the drilling programs during this period as contained in the Northern Tiger drill hole databases.

The 2008 and 2009 assessment reports authored by Carl Schulze for Northern Tiger and filed with the Yukon government.

All exploration programs carried out on the Property from 2006 through 2009 programs were carried out under the direction of the Qualified Person for Northern Tiger, Mr. Carl Schulze P.Geol. The 2010 program was carried out under the direction of Dennis Ouellette the qualified person for Northern Tiger.

## **4. PROPERTY DESCRIPTION AND LOCATION**

### **4.1 LOCATION**

The Sonora Gulch Project is in the Whitehorse Mining District of the Yukon Territory, located 265 km northwest of Whitehorse and 170 km southeast of Dawson City (Figure 1). The Project will be approximately 415 km from tidewater at Skagway, Alaska if and when road access is completed from site to the Klondike Highway.

The property is centered at 62° 39' N. Latitude, 138°02' W Longitude (UTM NAD 83 coordinates: 652300 E, 6950500N, Zone 7) in the central part of the Yukon Territory, Canada. The property extends across the 138<sup>th</sup> meridian, straddling the border of UTM Zones 7 and 8.

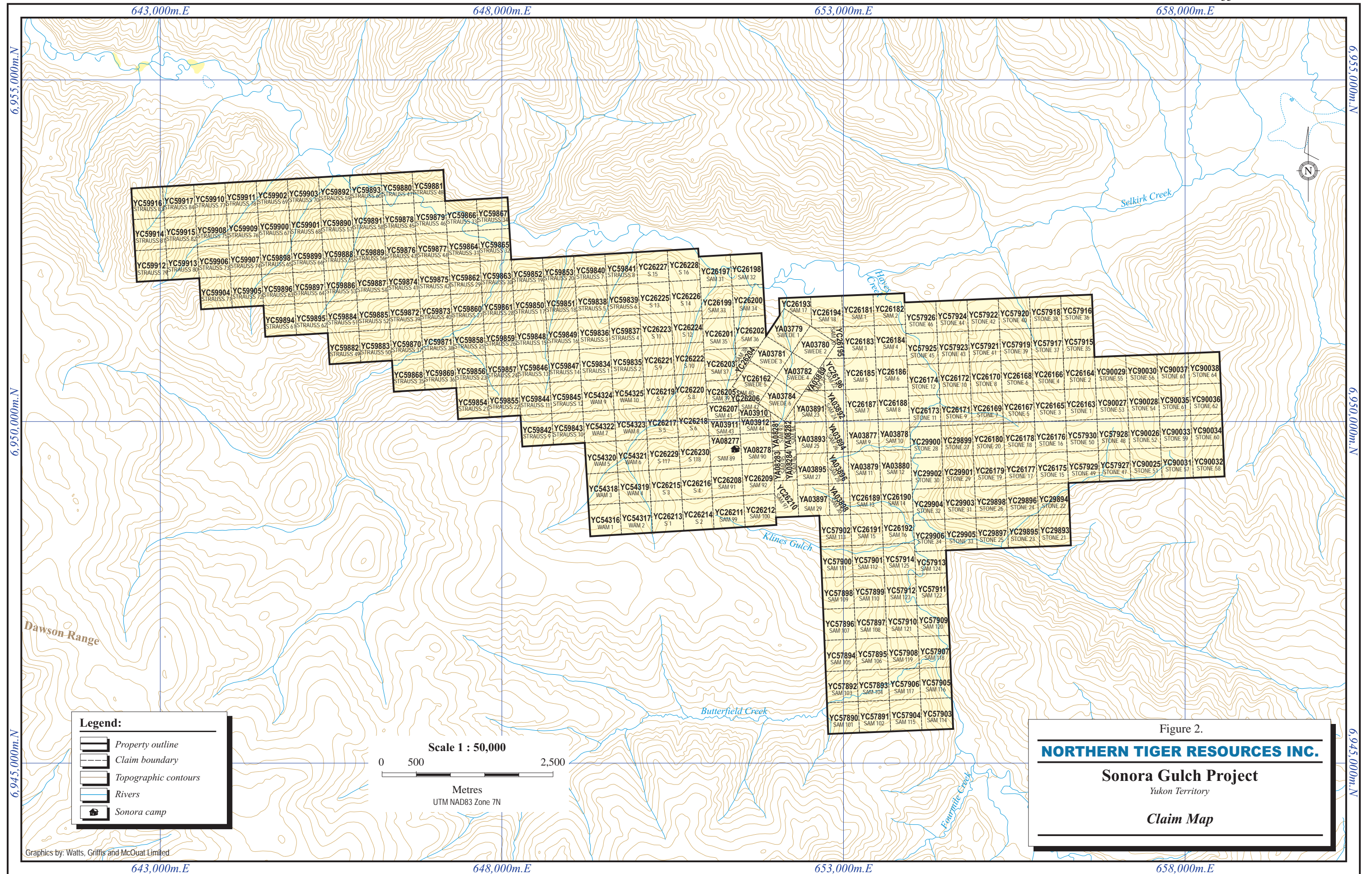
### **4.2 LAND STATUS**

The Sonora Gulch property that is the subject of this report consists of 295 contiguous unpatented Yukon quartz mining claims (see list in Appendix 1 for names, numbers, and expiry dates) covering 5,995 ha (14,815 acres) within the Whitehorse Mining District (Figure 2). The property includes the WAM 1-10 claims, added to the west side of the property in late October, 2006. An additional 125 claims, the STONE 35-50, SAM 101-125, and STRAUSS 1-84 claims were added in late January/early February 2007. The STONE block was extended further east to include an additional 14 claims, STONE 51-64, during the latter part of June, 2009. The most recent block of 36 claims, BACH 1-36, was adjoined to the west side of the property in June, 2010. The property has not undergone a legal survey.

### **4.3 NATURE OF NORTHERN TIGER'S INTEREST**

Northern Tiger acquired its interest in the Property from Firestone via an all share transaction on June 27, 2008. By way of that transaction Northern Tiger was assigned rights to claims held in the name of Firestone plus the rights and obligations defined under a single underlying agreement as described below. On Dec 8, 2003 Firestone entered into an option agreement to earn an 80% interest in the Sonora Gulch property from equal partners Jan Martensson of Whitehorse, Yukon and Alan McDiarmid of Mayo, Yukon. The 4 year option called for





Firestone to pay Martennsson and McDiarmid \$150,000 and 350,000 common shares of Firestone and spend \$900,000 on exploration to earn an 80% interest. This payment and expenditure requirement schedule was as follows:

Date	Payment	Shares	Expenditures
On signing	\$ 10,000	100,000	
31/12/2004	10,000	100,000	\$ 50,000
31/12/2005	20,000	50,000	100,000
31/12/2006	40,000	50,000	250,000
<u>31/12/2007</u>	<u>70,000</u>	<u>50,000</u>	<u>500,000</u>
<b>Total</b>	<b>\$ 150,000</b>	<b>350,000</b>	<b>\$ 900,000</b>

Firestone vested at 80% on December 5th, 2007 and immediately entered into a second agreement to acquire the remaining 20% interest and half of the 2% Net Smelter Returns Royalty ("NSR"). This second agreement called for Firestone to issue Martensson and McDiarmid another 250,000 common Firestone shares. A 1% NSR remains of which half may be purchased by Northern Tiger at any time for \$1,000,000 (SEDAR website, 2007).

#### **4.4 ENVIRONMENTAL AND SOCIOECONOMIC ISSUES**

Northern Tiger has a camp established on the edge of a now closed airstrip on the ridge at the head of Sonora Gulch (Figure 2). The existence and occupation of the camp falls within the criteria of the current Class 3 exploration permit (LQ00194) which is due to expire on the 7<sup>th</sup> of July, 2011. A new Class 3 permit application is in process. There are no outstanding issues with the current permit. Northern Tiger expects to use the Sonora Gulch camp in coming years as the base of its project activities. Unused consumables are left on site over the winter months including diesel and Jet-A fuel both of which are stored in 55 gallon drums in a fuel dump. Drill site remediation and camp clean-up are required by expiration of the existing permit (except as exempted in the case of the new permit being approved). Northern Tiger routinely cleans up all drill sites used each year except those expected to be re-occupied.

Northern Tiger has no formal agreement with any aboriginal group but has kept the Chief and Council of the Selkirk Band in Pelly Crossing apprised, via written communication and a presentation, of plans for each years exploration program. It is WGM's understanding that *"there are no pending or ongoing actions taken by or on behalf of any native persons*

*pursuant to the assertion of any land claims with respect to lands included in the Property"*  
However, WGM recommends that Northern Tiger enter formal discussions with the Selkirk Band, and any other appropriate aboriginal group, and enter into an MOU covering exploration work at Sonora Gulch.

#### **4.5 PERMITS**

The 2008 through 2010 drilling programs were carried out under an existing Class 3 Mining Land Use (MLU) Approval (LQ00194) which expires on July 7<sup>th</sup>, 2011. Activities on the property have not exceeded the minimum requirements of any other regulatory agency. Therefore, no other permits have been required. Amendments to the existing permit outlining current year proposed activities are submitted each spring in compliance with the requirements of the MLU permit. A new Class 3 Mining Land Use permit application is being prepared for submittal to the Yukon Environmental and Socio-economic Assessment Board at this time. A multi-year land use permit has been used for the past three years to transport drilling equipment and fuel to the property along the Casino Trail winter road. This permit is also to expire and will have to be renewed this year to allow access to the winter road.

## **5. ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **5.1 ACCESS**

There is no road access to Sonora Gulch during the summer months with the project serviced by helicopter from the Minto airstrip located 60 km to the east or from the driveable portion of the Casino Trail winter road that comes to within 30 km of the Sonora Gulch camp. A very short uphill landing strip at the Sonora Gulch camp proved unsafe and has been blocked off. There is a 300 metre landing strip in Hayes Creek maintained by Carmacks-based placer miner George Wilson, but it is little used by Northern Tiger.

The preferred route for supplies is the Casino Trail winter road, which is maintained to supply Western Copper's Casino Project, passes through the Sonora Gulch property. This trail starts at the end of the Freegold Road, a 69 kilometre long dirt road, which is maintained in the summer months from Carmacks to its terminus at the start of the Casino Trail. The first portion of the Casino Trail is passable in the summer with 4-wheel drive to within 30 km of Sonora Gulch. From here supplies can be moved by snow machines in the winter or ferried by helicopter in the summer. The winter road is generally not used until after the "Yukon Quest" dogsled run in February. As a result the winter road is open for use to supply exploration projects like Sonora Gulch for just 5-6 weeks starting in late February.

### **5.2 CLIMATE AND VEGETATION**

Sonora Gulch has a climate typical of west central Yukon Dawson Range with pleasant 15-20° daily highs from June through late August and severe cold in the winter with daily highs in the -15° to -20°C range. Precipitation is light but the Property is typically snow covered from early October to mid-May. The drilling season can start in early May and extend to mid October but mapping and geochemical sampling is best limited to late May through late September.

### **5.3 LOCAL RESOURCES**

Local resources available to the project are minimal. As discussed in the previous section all exploration work on site has to be helicopter supported, and those supplies that cannot be delivered by winter road having to come in by helicopter. The dependence on helicopters is likely to continue through the life of the exploration program. Should a discovery be made at Sonora Gulch it will have to be of sufficient grade and tonnage to support construction of 60 km road linking the project to the Freegold road and hence to the Klondike Highway at Carmacks. The project will also have to either fund a 45km power line to connect to the Yukon grid at the Minto Mine or an onsite diesel or gas fired power plant. Additionally, the site is remote enough from the nearest population center, Carmacks (pop. 350), that a mine would require a man camp of sufficient size to house all workers. Carmacks, which has basic services, is on the Klondike Highway, a major all-weather highway extending from Whitehorse to Dawson City, and by grid electric power from Whitehorse.

### **5.4 PHYSIOGRAPHY**

The Dawson Range has few high peaks but is generally characterized by widely spaced steep walled valleys with gentle slopes at higher elevations. The property is typical of this setting with the claims covering the southern flank and adjacent ridge of the Hayes Creek valley. Elevations range from 550 metres along Hayes Creek to 1,220 metres on the highest ridge line. Outcrop is sparse and despite the relief even trenching has generally failed to get through to bedrock. The depth of the clay and colluvium averages 6 – 10 metres both on hillsides and in the valley bottom. Permafrost is present but limited to north and northwest facing slopes, terraces below 900 meters and valley bottoms.

## **6. HISTORY**

The history of the Sonora Gulch property prior to the entry of Firestone and Northern Tiger has been covered by Davidson (2000) and by Schulze in the 2007 43-101 report. The account which follows comes is derived from the Schulze report.

### **6.1 PRE-2003**

In 1899 the Spruce Stake and Old Alex lode claims were staked in Klines Gulch a year after prospectors made the first placer discovery at Klines Gulch and first gold in outcrop discovery in a quartz vein in the same area. In 1900 an adit driven 30 m north of Klines Gulch is reported to have passed through a 2.5 m thick quartz vein with gold values up to 13.7 g Au/t. Over the next 70 years the Sonora Gulch area saw sporadic placer testing and mining with total production of at least 3,000 ounces from Sonora and Klines Gulches (Schulze 2007). The placers have not come far based on the morphology of gold grains, which have been described (Schulze 2007) as including dendritic, crystalline, wiry, and angular morphologies. This is further confirmed by the presence of gold-quartz and gold-tetradymite (a bismuth-tellurium sulphide) veins in both gulches. Heavy mineral separates from placer concentrates also contain scheelite, galena, sphalerite.

The region opened to large scale porphyry copper exploration programs in the 1960's during which period the Casino deposit was discovered (currently held by Western Copper and with a 43-101 Probable Reserve of 835 MMT @ 0.21% Cu, 0.25 g Au/t, and 0.024% Mo) and multiple mineral occurrences along the regional Big Creek Fault were identified. Schulze (2007) states that during a second wave of porphyry exploration in the 1980's and 1990's as many as 17 porphyry prospects, many with gold anomalies were investigated in the Dawson Range.

In 1965 Coranex, a joint venture between Inco, Dome Exploration, Denison Mines, and McIntyre Porcupine Mines, acquired claims at Sonora Gulch to cover a regional geochemical anomaly believed to be related to a mineralized porphyry copper deposit. That venture was short lived, but in 1969 the Dawson Range Joint Venture (Straus Exploration, Trojan Consolidated Mines, Great Plains Development Co. of Canada and Molybdenum Corp. of America) re-staked Sonora Gulch with the DP 1-24 claims. The joint venture carried out mapping and silt and soil geochemical and mechanized trenching over 2 field seasons but did not drill and the claims were allowed to lapse. In 1974 Dome returned in joint venture with Cominco Ltd. re-staking, mapping and sampling the Sonora Gulch area again. At the same

time prospectors Swede Martensson and Alan McDiamird while placer mining staked the Swede 1-6 claims at Sonora Gulch. Almost immediately, a joint venture between Hudson Bay Mining and Smelting, Tombill Mining Ltd. and Minorco Canada Ltd. entered into an option agreement with the prospectors on the Swede claims, and then added the Sam 1-86 claims and the Sam 87-98 claims. The joint venture over the next two years carried out mapping, geochemical sampling, bulldozer trenching and drilled 11 short diamond drill holes (490 metres total) mostly in what is now termed the Gold Vein Zone. In 1979 the joint venture dissolved with Hudson Bay continuing on its own and drilling 4 holes totalling 404 m in 1980 and another 6 holes totalling 812 m in 1981 with the drilling mostly on the north side of the Gold Vein Zone and in the Nightmusic Zone. Hudson Bay was sufficiently encouraged to add the Sam 99-128 claims in 1983. Gold values in the 300 to 1000 ppb Au range were returned over long intervals in several holes but intervals over 1 g Au/t were limited to narrow intervals in quartz feldspar porphyry:

- DDH 78- 2: 0.36 m @ 1.87 g Au/t and 36.0 g Ag/t;
- DDH 78- 5: 0.43 m @ 3.4 g Au/t and 1.4 g Ag/t;
- DDH 78- 7: 0.15 m @ 4.1 g Au/t and 12.6 g Ag/t;
- DDH 78-11: 1.07 m @ 1.23 g Au/t and 36.0 g Ag/t; and

from the Nightmusic Zone from which the following intercepts were reported:

- DDH 81-1: 0.15 m @ 3.9 g Au/t and ">2500 g Ag/t";
- DDH 81-3: 0.85 m @ 25.0 g Au/t and 39.0 g Ag/t;
- DDH 81-3: 2.44 m @ 5.13 g Au/t; and
- DDH 81-4: 1.22 m @ 15.8 g Au/t and 6.6 g Ag/t.

Hayes Resources Inc. acquired the Sonora Gulch claims briefly from Hudson Bay in 1984 and carried out a 5-hole, 695-metre core drilling program in the Nightmusic Zone without significant results. No further work was carried out until Hudson Bay returned the property to Martennson and McDiarmid in 1997 who then optioned the claim position to Selwyn Minerals. Selwyn, over 2 field seasons, conducted limited trenching and soil sampling along the Big Creek Fault and the Gold Vein Zone southeast of the current camp but did no drilling. The property was returned to Martensson and McDiarmid in 1999. The partners proceeded to expand the claim block to both the east and west staking the Stone 1-48 claims on the east boundary and the S 1-16 claims along the west boundary.

## 6.2 FIRESTONE VENTURES 2003-2007

In December 2003 Firestone entered into the option agreement with Martensson and McDiarmid to earn an 80% interest in the Sonora Gulch property. Firestone initially focused in on what they termed the K-467 anomaly at the confluence of Little Klines Gulch and Hayes Creek. However, focus shifted when a single reconnaissance-style soil geochemical traverse on the opposite side of Hayes Creek picked up a strong gold-in-soil anomaly which eventually was expanded and named the Amadeus Zone. Follow-up mapping, soil sampling starting at the end of the 2005 field season and continuing into the 2006 season showed the Amadeus Zone to be centered on a feldspar porphyry. These early field programs also extended the K-467 anomaly to the north to form the Figaro Zone along the west side of Hayes Creek and identified a new gold anomaly, the Jupiter Zone, above and to the west of the Figaro Zone.

**TABLE 1.**  
**SIGNIFICANT DRILL RESULTS FROM 2006 DRILL PROGRAM (VALUES IN PPM)**

Zone	Hole	E.O.H.	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Figaro	SG06-01	22.2	0.0	22.2	22.2	porphyry	0.040	4	99	76	369	6.30	49
	SG06-01A	251.5	138.3	151.5	13.2	porphyry	0.105	5	49	505	377	1.50	15
Amadeus	SG06-02	47.2	0.0	47.2	47.2	porphyry	no significant anomaly						
	SG06-02A	213.4	0.0	213.4	213.4	porphyry	0.118	11	96	78	265	0.44	4
	SG06-03	185.2	14.2	42.6	28.4	breccia	0.173	11	61	92	126	0.27	2
			42.6	86.9	44.3	porphyry	0.118	2	15	107	53	0.23	2
			86.9	87.2	0.3	fault zone	0.160	40	251	104	150	0.27	4
			87.2	185.2	98.0	porphyry	0.101	3	30	271	32	0.07	1
	SG06-04	218.8	29.7	33.1	3.4	gneiss	1.130	45	40	5084	118	0.02	1
	SG06-05	176.8	19.4	23.1	3.7	gneiss	1.520	7	4	1595	95	0.15	1
			67.2	69.6	2.4	gneiss	1.130	92	80	2310	1394	0.34	6
			69.6	176.8	107.2	porphyry	0.100	7	72	894	44	0.04	1
	SG06-06	219.4	2.4	193.3	190.9	porphyry	0.205	5	20	87	47	0.12	1
			193.3	208.3	15.0	fault zone	0.570	12	20	60	97	0.14	9
			208.3	219.4	11.1	breccia	8.010	3	0.38	54	53	0.43	4
	SG06-07	227.1	4.4	62.5	58.1	porphyry	0.260	3	9.5	125	106	0.57	1
			120.7	121.3	0.6	vein	0.270	87	322	97	798	0.07	32
	SG06-08	158.5	0.0	158.5	158.5	gneiss	no significant anomaly						
Jupiter	SG06-09	44.8	0.0	44.8	44.8	gneiss	no significant anomaly						
	SG06-10	53.0	0.0	53.0	53.0	gneiss	no significant anomaly						

In 2006 Firestone carried out a 10 hole, 1,821 m, diamond drilling program, primarily on the Amadeus Zone and producing what is still the best gold intercept at Sonora Gulch (Table 1). Hole SG06-06 intersected 8.01 g Au/t gold across 11.1 metres of breccia along a porphyry-gneiss contact. The subsequent 2007 drill program (2025 m) again focussed on the Amadeus Zone. That program produced two gold intercepts, both in hole SG07-12, one of 88 m with 0.85 g Au/t and one of 11 m with 1.05 g Au/t (Table 2). This hole was collared 50 m south of hole SG06-06 and drilled at about the same angle and azimuth placing the upper broad low grade anomaly in hole SG07-12 above the high grade interval in hole SG06-06.

**TABLE 2.**  
**SIGNIFICANT RESULTS FROM THE 2007 DRILL CAMPAIGN (VALUES IN PPM)**

Zone	Hole	E.O.H.	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Amadeus	SG07-11	204.5	9.1	128.2	119.2	porph/bx	0.286	5.2	18	2092	60	0.05	1
	SG07-12	272.5	0.0	56.0	56.0	porphyry	0.104	1.5	14	51	40	0.12	1
			56.0	144.0	88.0	breccia	0.851	5.8	7	45	38	0.09	2
			144.0	208.0	64.0	porphyry	0.111	4.5	41	22	47	0.15	1
			205.0	219.0	14.0	gneiss	1.050	1.2	1	25	21	0.14	2
			219.0	272.8	53.8	gneiss	0.263	10.0	38	91	407	1.00	1
	SG07-13	266.7	140.0	266.7	126.7	porphyry	0.177	7.0	42	54	78	0.14	4
	SG07-14	262.1	57.6	262.1	204.5	porphyry	0.145	4.5	31	379	72	0.16	1
	SG07-15	230.1	135.0	142.7	7.7	porphyry	0.325	4.3	13	1180	76	0.11	1
	SG07-16	254.5	65.5	241.9	176.4	breccias	0.145	11.6	81	42	187	0.19	1
	SG07-17	239.3	0.0	35.1	35.1	porphyry	0.150	7.6	51	59	173	0.22	2
Jupiter	SG07-18	53.3	0.0	4.6	53.3	diorite	no significant anomaly						
	SG07-19	45.3	0.0	45.3	45.3	diorite	no significant anomaly						
	SG07-20	19.8	0.0	19.8	19.8	diorite	no significant anomaly						
	SG07-21	24.4	0.0	24.4	35.0	diorite	no significant anomaly						
Nightmusic	SG07-22	138.0	6.1	14.5	8.4	fault	0.375	2.8	1	130	120	0.75	2

The 2007 program also saw 4 holes drilled at the Jupiter Zone. However, all 4 were lost in broken ground at depths of 20 to 55 m returning poor results over the short intervals covered. One hole was drilled in 2007 into a strong gold anomaly coincident with the hanging wall contact of a peridotite sill in the newly identified Nightmusic Zone northwest of the Jupiter Zone. This lone hole, hole SG07-22, encountered 8.4 m of 0.38 g Au/t just above the sill.

## **7. GEOLOGICAL SETTING**

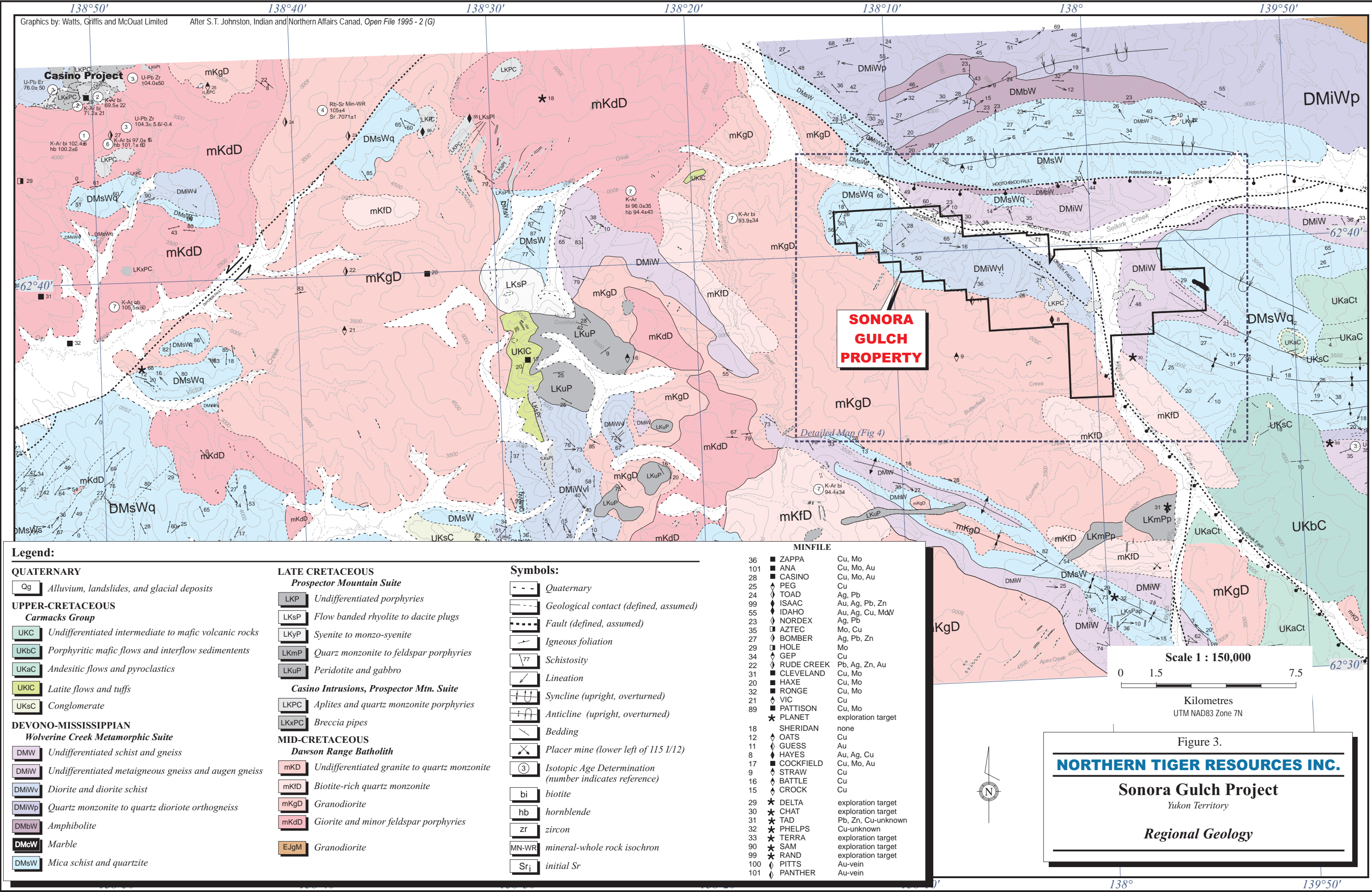
### **7.1 REGIONAL/LOCAL GEOLOGY AND MINERALIZATION**

The following is derived from Schulze (2007) which in turn is largely after Davidson (2000). The Sonora Gulch property and the Dawson Range lie within the Yukon-Tanana Terrane (YTT), a broad sequence of highly deformed metamorphic rocks accreted on N. America along the northwest-southeast trending Tintina Fault. This major break separates YTT metamorphic rocks from shelf sediments to the northeast. Devonian-Mississippian metamorphic rocks making up the YTT consist mainly of metavolcanics with lesser metasediments. The sub-parallel Denali (Shakwak) Fault 140 km to the southwest forms the south western boundary of the YTT, separating it from the younger accreted terrane to the southwest.

Metavolcanic sequences making up the basement of the region include quartz-mica schist and quartz-feldspar to dioritic gneisses. These basement rocks have been intruded by the Cretaceous Dawson Range Batholith which intrudes the YTT over large areas of the Dawson Range (Figure 3). The batholith is made up of large quartz monzonite to granodiorite plutons with lesser high-level felsic porphyry plugs and sills. Locally, small Upper Cretaceous ultramafic sills are emplaced adjacent to major structures. Late Cretaceous Mount Nansen Group volcanic and hypabyssal igneous rocks are present as sills, dykes and flows overlain by mafic flows and pyroclastics of the early Tertiary Carmacks Group.

The Dawson Range is traversed by several regional-scale crustal breaks including the northwest-southeast trending Big Creek Fault. This fault extends northwest from the Freegold Mountain area 40 km southeast of Sonora Gulch and continues on the northwest trend until it reaches Sonora Gulch. Here, under Hayes Creek Valley on the north side of the Property, the fault deflects to the west and continues on towards Casino.

Mineralized zones in this part of the Dawson Range have an affinity for the Big Creek Fault which seems to have had some control on the location of significant prospects such Sonora Gulch, Freegold Mountain and the porphyry system at Casino. The gold endowment of the trend is attested to by the significant placer development along drainages including Hayes Creek, Sonora Gulch and Klines Gulch on the Property.



## **7.2 PROPERTY GEOLOGY**

### **7.2.1 LITHOLOGIC UNITS**

Lithological units within the Sonora property are based on the original work of Davidson (2000) and updated by Schulze (2007) from which the following section is derived.

#### **7.2.1.1 MID-LATE CRETACEOUS AND EARLY TERTIARY**

**Mount Nansen and Carmacks Groups:** Rocks of these groups consist of undeformed felsic to mafic volcanic rocks and hypabyssal sills, dykes and flows. In the Project area basalt flows, porphyries and breccias from these units outcrop on the north side of Hayes Creek. Based on recent age dating (Bennett 2010) the main porphyries at Sonora Gulch, the Amadeus Zone porphyry and the Gold Vein Zone ("GVZ") porphyry, are 75 m.y. old which would place them in the Mount Nansen – Carmack igneous event not the slightly older Prospector Mountain Suite as believed prior to the dating. The porphyries are variably argillically to propylitically altered and locally weakly stock worked with quartz veins. The source pluton for these porphyries may have caused local uplift at Sonora Gulch exposing a deeper section of stratigraphy (Davidson, 2000) than seen in the surrounding area.

**Prospector Mountain Plutonic Suite:** this suite is characterized by quartz-feldspar porphyries and feldspar porphyries, both with magmatic biotite, occurring as stocks dykes and breccias. This description correlates well with the description of the two major porphyry bodies at Sonora Gulch, the Amadeus porphyry east of Hayes creek and the Gold Vein Zone porphyry to the west, explaining their having been mapped as Prospector Mountain Suite stocks. A small unit of unfoliated diorite or gabbro occurs southwest of the main stock.

**Ultramafic Sills:** These consist largely of pyroxenite, commonly serpentized, with lesser gabbro, and locally display strong silicification and quartz +/- carbonate veining and magnetite enrichment.

#### **7.2.1.2 MID-CRETACEOUS**

**Dawson Range Batholith:** The batholith is composed of large bodies of unaltered coarse grained quartz-hornblende-biotite granodiorite, quartz monzonite and quartz diorite to granite.

### 7.2.1.3            DEVONO-MISSISSIPPIAN

**Wolverine Creek Metamorphic Suite:** The Wolverine Suite is characterized by meta-igneous, and minor metasedimentary, quartz-muscovite, quartz-biotite, and hornblende schists along with gneissic equivalents. There are minor tuffaceous sandstones, quartzites and argillites. The Wolverine Creek has been subdivided into 3 units in the Sonora Gulch area (Schultze 2007).

**DMiW:** Granite gneiss with quartz-feldspar "augen" textures, well developed foliation and foliation parallel quartz veining. The rock is commonly bleached.

**DMiWb:** Metabasalt – metagabbro mafic gneiss possibly including basaltic tuffs.

**DMiWv:** Meta-andesite to metabasalt with a strongly foliated gneissic fabric and common sericite and/or silica alteration.

### 7.2.2            STRUCTURE

The following is largely taken from Davidson (2000) and Schulz (2007).

The YTT terrane was accreted onto North America during the Jurassic Period with the northern margin along the Tintina Fault, a prominent northwest-southeast trending regional structure located 100 km northeast of Sonora Gulch. The YTT's south western boundary is along the Denali Fault and is located 140 km to the southwest of the Project. The Big Creek Fault, which traverses the Property, is a significant WNW trending dextral structure that developed during the collision event with up to 14 km of displacement. There has also been some minor post collision movement along the Big Creek Fault as evidenced by the 400 to 800 m of displacement of Cretaceous age intrusives along it. Owing to overburden the Big Creek fault is not seen in outcrop at Sonora Gulch.

On the Sonora Gulch property porphyry style mineralization is associated with quartz-feldspar and feldspar porphyries. These important 75 m.y. porphyries were emplaced along the northwest-southeast trending Big Creek Fault and the margins of the Dawson Range batholith. Intrusion was followed by late stage introduction of galena bearing mesothermal quartz veins along northwest-southeast trending faults. Reactivation along faults is evidenced by slickensides and brecciation found within many of these larger veins.

The 2004 and 2006 mapping programs showed the Big Creek Fault to project along the "Tetradymite Vein Zone" north of the GVZ quartz-feldspar porphyry stock. The northwest-southeast orientation of this fault is consistent with the dominant structural trend in the

property area. The Big Creek Fault extends through the area where Firestone's 2004 sampling confirmed earlier high grade gold mineralization near the intrusive margin, returning a value of 10.1 g/t across 0.7 m from Trench T84-14 (Schulze, 2007).

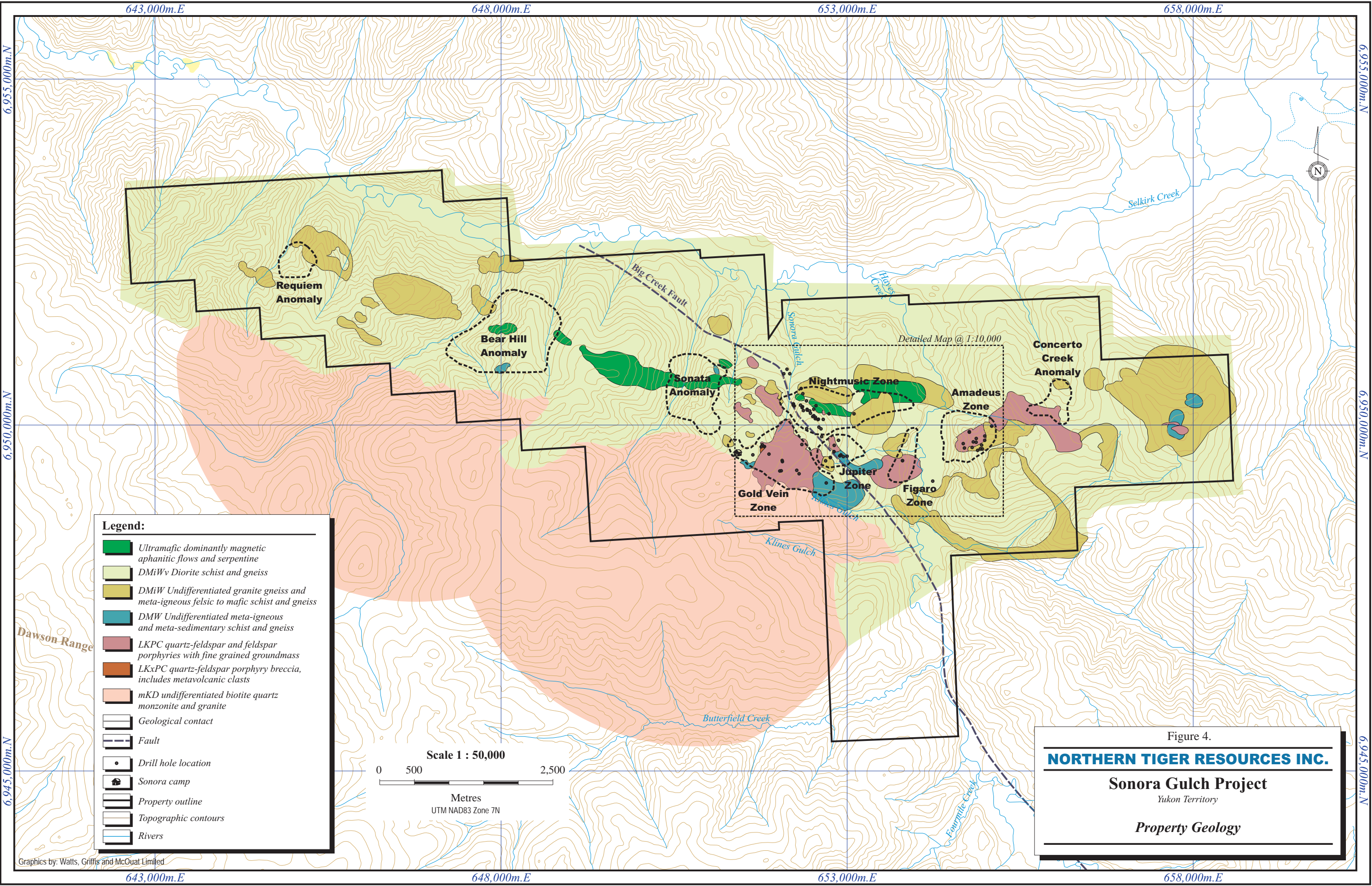
Although no direct evidence has been found for a major fault zone extending north-south along Hayes Creek, where it runs south to north on the west side of the Amadeus Zone, there appears to be sinistral shear with northward displacement of one to two kilometres along the east side. Igneous units east of Hayes Creek have developed a strong gneissic fabric on approach to the valley while no such phenomenon is seen in rocks on the west side of Hayes Creek. In the eastern part of the Property three foliation orientations are present; one strikes east-west with a moderate dip to the south roughly parallel to stratigraphy. A second trend, which is particularly well developed near Hayes Creek, strikes north-south and has associated quartz veining with both foliation and veining dipping steeply to the east or west. The third foliation is likely related to movement on the Big Creek Fault and strikes northwest-southeast with steep dips to the southwest and northeast.

### 7.2.3 PROPERTY GEOLOGY

The following is largely taken from Davidson (2000) and Schulz (2007).

The western portions of the Property, which would be everything west of a line roughly 1 km west of Hayes Creek, is underlain by Wolverine Creek metavolcanic and metasedimentary quartz-muscovite, biotite schist, hornblende schist and gneissic equivalents (Figure 4). The felsic metavolcanics include light brown weathering felsic tuffs, which are now quartz muscovite schist, with boudinaged quartz veins and patchy sulphide blebs. Thin and less common metasedimentary units are now melanocratic schists with a strong northwest trending foliation that parallels stratigraphy.

The Wolverine Creek rocks were first intruded by Cretaceous east-west trending pyroxenite to gabbro sills of varying widths with the largest shown by regional airborne magnetics to have at least a 5 km strike. Along contacts the sills exhibit intense listwanitic alteration with quartz carbonate veining and abundant magnetite. The main intrusive event of the Cretaceous in the region was the intrusion of the coarse grained Dawson Range Batholith. This composite intrusion, where it underlies the south western portion of the Property, is described as a coarse grained, buff to pink granite.



While emplacement of the Dawson Range Batholith was the intrusive event of the region emplacement of the later quartz-feldspar and feldspar porphyries is of potentially much greater economic significance. This event is either part of the Late Cretaceous Prospector Mountain Intrusive event or the subsequent Mt. Nansen-Carmacks igneous event. The monzonite to quartz monzonite porphyry stocks have intruded the Wolverine Creek sequence along the northern boundary of the Dawson Range Batholith with the GVZ porphyry exposed over an 800 by 800 metre area, a porphyry in the Figaro Zone exposed over a 450 by 450 metre area, and the Amadeus porphyry exposed over a 200 by 500 metre area. The airborne magnetic data indicate that an area 4500 metres long by up to 1500 metres wide running from 700 metres east of the Amadeus Zone to 500 metres west of the GVZ is underlain by the intrusive complex. All the porphyries have pronounced northwest-southeast trending fractures presumably related to the west northwest trending Big Creek Fault.

The quartz feldspar porphyry stock of the GVZ area west of Hayes Creek has weak argillic to propylitic alteration and hosts grey to white quartz veining with minor amounts of chalcopyrite and molybdenite. Wolverine Creek metavolcanics in contact with the porphyry are silicified or altered calc-silicate skarn but retain a well developed north dipping foliation giving the rocks the appearance of having a thinly bedded fabric. On the north side of the stock a zone of silicification and calc-silicate alteration extends up to 150 m into the metavolcanics giving way to 200 metres of phyllic to argillic altered metavolcanics. Further away from the stock there is only background propylitic alteration of the metamorphic rocks.

Mapping east of Hayes Creek led to identification of the east-west trending Amadeus feldspar porphyry stock, which exhibits moderate to strong argillic and phyllic alteration and supergene leaching. Surrounding Wolverine Creek granite gneiss has seen moderate silicification to phyllic alteration, with intercalated metavolcanics seeing less quartz veining.

The Amadeus feldspar porphyry has a lesser quartz phenocryst content than the texturally similar quartz-feldspar porphyritic monzonite west of Hayes Creek. The rock is also better quartz veined than the western porphyries and more strongly pyritized with abundant fine grained disseminated pyrite.

Limited mapping has been carried out west of the GVZ but the work indicates that much of this 8 by 2.5 kilometre long section of the property is underlain by Wolverine Creek granite gneiss. No porphyries have been encountered although there is local calc-silicate alteration which suggests there could be some dikes or sills.

Another quartz-feldspar porphyry stock was identified roughly 800 metres northeast of the eastern limit of mapping. This porphyry has undergone moderate phyllic alteration and has minor quartz veining and 1% disseminated pyrite. Surrounding Wolverine Creek basaltic rocks have been quartz flooded with some quartz-carbonate alteration in breccias. The area exhibits a strongly elevated arsenic and gold geochemical signature centred on the northern contact of the stock.

## 8. DEPOSIT TYPE

The Tintina Gold Belt is an arcuate belt of mid to late Cretaceous intrusive-related hydrothermal deposits starting in southwest Alaska and extending across the width of Alaska into central Yukon and down to the Yukon-British Columbia border. This belt hosts some of the world's largest gold districts including the Donlin Creek and Fairbanks Alaska districts and the Klondike district in the Yukon. The Tintina Belt is also host to mineralized porphyries (generally with significant gold as at Casino), endoskarns, exoskarns, replacement deposits, epithermal gold deposits; and vein-style lead-zinc-silver deposits.

At Sonora Gulch the presence of altered porphyries and the Cu-Mo-Au geochemical signature to long porphyry intercepts argues for a standard porphyry copper setting. However, drilling to date has yet to deliver the long intercepts of plus 0.1% Cu that should be present in a well mineralized porphyry setting. This could, however, be attributed to the shallow depth of drilling to date, particularly in the GVZ porphyry where there is still ample room for a significant porphyry discovery. In addition, there is significant potential for economic gold mineralization in breccia bodies, contact skarns and epithermal stock works (as evidenced by high arsenic-antimony values with some mineralization – which could also be orogenic). Another alternative (Schulze, 2007) is for Brewery Creek type mineralization characterized by quartz stock works and disseminated pyrite with sub-micron gold in pyrite.

If the mineralized zones at Sonora are typical of a Cu-Au porphyry system, something that would fit regionally given proximity to the billion ton Casino deposit, one would expect:

- Large areas with stock work quartz veining and fracturing;
- Strong metal zoning with copper-molybdenum-gold (ultimately needs to show some combination of >0.1% Cu plus or minus > 0.01% Mo and >100 ppb Au) in the center going outwards to a zinc-lead-silver anomaly;
- Immense volumes of hydrothermally altered rock including at a minimum zoned potassic and propylitic alteration zones. The former is characterized by secondary potassium feldspar and biotite (minimum of total replacement of hornblende) zoning outwards to the latter which is characterized by chlorite and epidote development. In some systems there is a late phyllic alteration stage which will partially to completely overprint the early potassic event; and
- Lastly, porphyry systems have "pyrite halos", with high pyrite to chalcopyrite ratios, surrounding a lower sulfide zone with low pyrite to chalcopyrite ratios. The pyrite halo generally lies within the propylitic and phyllic zones.

The conclusion based on drill results to date is that Sonora Gulch at a minimum has two porphyry Cu-Mo-Au centers. However, a well mineralized center has yet to be encountered.

The strongest gold anomaly at Sonora Gulch is in the heart of the Amadeus Zone, but the gold in soil anomaly extends from 1500 metres east of Amadeus for 9 kilometres to the west. Schulze (2007) sees the gold being related to quartz pyrite stringer zones emplaced along steeply south-dipping breccias within porphyries or along porphyry – gneiss contacts. This gold dominated mineralization could be epithermal in origin and either post date the porphyries or be high level mineralization above a porphyry.

Exoskarn occurrences have been identified in the Jupiter and Nightmusic Zones north and east of the GVZ quartz feldspar porphyry. At Nightmusic, north of the GVZ, some gold mineralization is emplaced along the hanging wall of a west northwest striking ultramafic sill. The sill appears to have acted as a barrier to hydrothermal solutions allowing for the intense fluid – rock interaction required to convert a metavolcanic rock to skarn.

Both the classic porphyry and the Brewery Creek type deposits have relatively large "footprints" and present targets with low grade but large tonnage potential. The other occurrence types, whether breccia, skarn, epithermal or orogenic, while not precluded from ultimately being very large, present smaller but much higher grade gold-silver targets.

## 9. MINERALIZATION

There is little question that the bulk of the alteration and mineralization seen to date at Sonora Gulch is related to emplacement of the various feldspar and quartz feldspar porphyries. However, there remains the possibility, given the high arsenic signature of the area and the tectonic setting, that some of the mineralization on the Property is either epithermal (Bennett et al, 2010) or orogenic in nature. Regardless of the model employed there are several distinct metal assemblages seen across the area drill tested. The principal types are discussed below.

### 9.1 METAL ASSEMBLAGE TYPES

#### 9.1.1 HIGH SILVER TO GOLD RATIO

No matter the gold values in an intercept if the silver to gold ratio goes above 100 at a minimum the interval is in a silver dominated zone of the mineralized system. Potentially the system as a whole is silver dominated (this applies in either the porphyry or epithermal environment). Intervals with such extreme silver ratios are rare but present at Sonora Gulch (Table 3), particularly in the Amadeus Zone.

**TABLE 3.**  
**HIGH SILVER TO GOLD RATIOS IN SELECT AMADEUS ZONE DRILL INTERCEPTS**  
(values in ppm)

Zone	Hole	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Amadeus	SG06-02A	79.3	208.5	129.2	porphyry	0.12	16	<b>134</b>	87	334	0.59	4.0
	SG06-03	86.9	87.2	0.3	fault	0.16	40	<b>251</b>	104	150	0.27	4.0
	SG06-07	120.7	121.3	0.6	vein	0.27	87	<b>322</b>	97	798	0.07	32.0
	SG08-30	280.0	294.0	14.0	porphyry	0.14	18	<b>127</b>	46	320	0.37	1.4
	SG08-31	197.0	315.0	118.0	porphyry	0.09	13	<b>154</b>	42	224	0.36	5.0
	SG08-32	129.0	139.0	10.0	gneiss	0.09	22	<b>240</b>	131	686	0.11	14.0
Nightmusic	SG09-34	164.3	165.4	1.1	fault	0.22	3290	<b>15300</b>	75	9280	257	0.2
	SG10-54	133.0	135.0	2.0	skarn	0.12	45	<b>364</b>	715	2130	0.62	2.0
Jupiter	SG10-47	245.26	245.32	0.1	vein	14.05	2120	<b>151</b>	>10000	6300	0.05	80.0
	SG10-50	264.8	276.8	12.0	gneiss	0.40	59	<b>145</b>	3985	203	0.08	38.0

There are narrow intervals that occur within specific veins or fault gouge zones (holes 3, 7, 34, and 47) that can be very high in silver. There are also longer intervals, at lower overall silver values, within the Amadeus porphyry. The porphyry or epithermal alteration cell at Amadeus appears to be silver dominated with the exception of one breccias body as will be

addressed in the next section. In the Amadeus Zone copper values are anomalously high giving the impression that the porphyry hosts weakly developed copper porphyry mineralization with a strong (potentially epithermal) silver overprint. A typical porphyry copper would average less than 2 g Ag/t. However, it is clear from the low copper to lead+zinc ratio that the area drilled at Amadeus is not into the copper core of a mineralized porphyry system. Under either the epithermal or porphyry model the Amadeus Zone would have to be drilled more deeply to test for a copper-gold porphyry.

#### 9.1.2 HIGH GOLD TO SILVER RATIO

Silver to gold ratios below 10 are indicative of a gold system or a gold dominated zone within a larger system that may have substantial silver. Table 4 shows all significant intervals in drill holes at Sonora Gulch with silver to gold ratios below 10. In the Amadeus Zone intercepts with low silver to gold ratios are confined to hole SG06-06 and adjacent holes drilled to follow up on results from that hole. Otherwise, Amadeus is dominated by high silver to gold ratio mineralization. The suggestion is that the timing of high grade gold mineralization in hole SG06-06 was different than in the surrounding porphyry.

In contrast the GVZ, Jupiter, and Nightmusic Zones are characterized by intercepts with low silver to gold ratios. Relative to the Amadeus Zone these zones on the west side of Hays Creek Valley have low silver to gold ratios and as noted previously have seen less phyllic and argillic alteration. This alteration is better developed in the Amadeus Zone bringing up the possibility that late phyllic overprinting and high silver to gold ratios go together.

**TABLE 4.**  
**DRILL HOLE INTERSECTIONS AT SONORA GULCH WITH AG/AU <10**  
**(values in ppm)**

Zone	Hole	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Amadeus	SG06-05	19.4	23.1	3.7	gneiss	1.52	6.6	<b>4.0</b>	1595	95	0.15	0.6
	SG06-06	218.6	219.4	0.8	breccia	8.01	3.0	<b>0.4</b>	54	53	0.43	4.0
	SG06-07	47.2	62.5	15.3	porphyry	0.26	2.5	<b>9.5</b>	125	106	0.57	1.2
	SG07-11	120.3	128.2	7.9	gneiss	0.54	4.0	<b>7.0</b>	4026	16	0.02	0.6
	SG07-12	112.0	144.0	32.0	breccia	1.21	7.0	<b>6.0</b>	45	38	0.09	1.7
		205.0	219.0	14.0	gneiss	1.05	1.2	<b>1.0</b>	25	21	0.14	2.3
	SG08-30	210.0	234.5	24.5	gneiss	0.13	0.6	<b>4.7</b>	13	35	3.00	2.0
Nightmusic	SG08-31	155.1	197.0	41.9	porphyry	0.49	4.0	<b>8.5</b>	88	70	0.30	1.3
	SG08-22	12.2	14.5	2.3	fault	0.38	2.8	<b>1.0</b>	130	120	0.75	2.4
	SG08-23	59.9	64.3	4.4	mylonite	0.59	5.2	<b>9.0</b>	4048	153	0.20	30.0
	SG08-24	72.0	101.5	29.5	porphyry	0.59	6.0	<b>10.0</b>	706	366	0.20	1.0
		51.7	53.7	2.0	gneiss	1.41	2.0	<b>0.1</b>	1055	72	2.20	128.0
	SG08-25	112.0	117.0	5.0	gneiss	2.13	18.0	<b>8.5</b>		6805	38.00	2.5
		70.0	116.0	46.0	gneiss	2.97	9.0	<b>3.0</b>	531	1712	5.10	6.0
	SG09-33	91.0	93.9	2.9	gneiss	3.70	2.2	<b>0.6</b>	1273	274	4.00	40.0
		127.1	128.5	1.4	gneiss	5.25	7.4	<b>1.4</b>	36	64	0.83	0.2
		200.2	200.9	0.7	gneiss	1.19	9.6	<b>8.0</b>	2350	669	1.81	0.2
	SG09-35	126.8	129.1	2.3	porphyry	0.92	2.0	<b>2.0</b>	4500	244	1.90	0.2
	SG09-39	45.2	47.2	2.0	gneiss	1.04	0.9	<b>0.9</b>	218	110	1.50	2.0
		85.4	85.9	0.5	gneiss	63.80	47.0	<b>0.7</b>	>10000	589	0.73	0.2
	SG09-40	197.7	202.1	4.4	gneiss	0.71	5.2	<b>7.5</b>	160	1664	8.00	0.2
	SG09-41	13.7	18.8	5.1	gneiss	1.59	1.7	<b>1.1</b>	366	207	1.00	11.0
		178.8	183.1	4.3	gneiss	0.49	4.0	<b>8.0</b>	5912	416	2.10	139.0
	SG10-43	53.8	102.1	48.3	gneiss	0.20	1.9	<b>9.8</b>	1135	230	0.89	1.5
		106.4	106.8	0.4	skarn	7.87	67.0	<b>8.4</b>	1135	2020	0.60	2.0
		130.9	134.6	3.7	skarn	1.00	9.7	<b>9.7</b>	823	1292	0.04	0.3
Jupiter	SG08-26	88.1	90.1	2.0	gneiss	0.27	2.5	<b>9.0</b>	1445	196	0.09	19.0
	SG10-46	37.2	39.2	2.0	monzonite	1.10	1.3	<b>1.2</b>	15	212	7.00	38.0
	SG10-48	177.0	178.0	1.0	hornfels	5.65	33.0	<b>5.8</b>	>10000	124	0.02	86.0
	SG10-50	134.8	136.8	2.0	porphyry	1.01	2.5	<b>2.5</b>	1105	161	2.60	36.0
	SG10-53	194.5	210.5	16.0	skarn	1.88	6.1	<b>3.3</b>	4013	255	1.90	13.0
GVZ	SG10-55	2.7	53.7	51.0	porphyry	0.18	0.8	<b>4.4</b>	130	132	1.60	2.6
		53.7	53.8	0.1	porphyry	9.16	89.0	<b>9.7</b>	>10000	203	0.04	2.0
		117.0	119.0	2.0	porphyry	7.40	13.0	<b>1.7</b>	>10000	341	1.60	2.7

### 9.1.3 HIGH COPPER

With the exception of the pure gold or pure molybdenum porphyry end members, mineralized porphyries should have large zones of copper dominated base metal mineralization with drill holes encountering 100 metre plus widths of plus 0.1% copper. The best copper intervals, not limited to a few metres, are compiled in Table 5.

**TABLE 5.**  
**COPPER-RICH INTERVALS ENCOUNTERED IN SONORA GULCH DRILL HOLES**  
(all values in ppm)

Zone	Hole	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Figaro	<b>SG06-1</b>	<b>0.0</b>	<b>22.0</b>	<b>22.0</b>	<b>porphyry</b>	<b>0.040</b>	<b>3.9</b>	<b>99.0</b>	<b>76</b>	<b>369</b>	<b>6.3</b>	<b>49</b>
	SG06-1A	97.3	251.5	154.2	porphyry	0.073	3.1	43.0	508	<b>359</b>	1.4	24
Amadeus	SG06-02A	1.5	213.4	211.9	porphyry	0.118	11.4	96.0	78	<b>265</b>	0.4	3
	SG07-16	104.0	241.9	137.9	breccias	0.147	12.2	83.0	35	<b>200</b>	0.3	1
	SG07-17	35.0	239.3	204.3	breccias	0.025	1.0	38.0	9	<b>201</b>	1.9	40
	SG08-31	0.0	335.5	335.5	porphyry	0.223	6.8	29.0	74	<b>130</b>	0.4	3
	SG08-32	0.0	329.2	329.2	porphyry	0.100	3.7	37.0	40	<b>137</b>	0.3	4
Nightmusic	SG09-24	0.0	116.4	116.4	porphyry	0.444	4.5	10.0	948	<b>314</b>	0.3	31
	SG09-25	4.0	181.4	177.4	gneiss-um	0.161	2.8	17.6	315	<b>405</b>	0.9	6
	<i>includes</i>	<b>112.0</b>	<b>117.0</b>	<b>5.0</b>	<b>gneiss</b>	<b>2.130</b>	<b>18.0</b>	<b>8.5</b>		<b>6805</b>	<b>38.0</b>	<b>3</b>
	SG09-27	0.0	214.9	214.9	gneiss-um	0.667	2.3	3.5	341	<b>419</b>	2.7	11
	<i>includes</i>	<b>70.0</b>	<b>116.0</b>	<b>46.0</b>	<b>gneiss</b>	<b>2.970</b>	<b>9.0</b>	<b>3.0</b>	<b>531</b>	<b>1712</b>	<b>5.1</b>	<b>6</b>
	SG09-28	0.0	228.6	228.6	gneiss	0.193	3.5	18.3	238	<b>550</b>	1.0	15
	<i>includes</i>	<b>111.4</b>	<b>129.0</b>	<b>17.6</b>	<b>gneiss</b>	<b>1.570</b>	<b>29.0</b>	<b>29.0</b>	<b>117</b>	<b>5900</b>	<b>11.1</b>	<b>9</b>
	SG10-51	0.0	288.0	288.0	skarn	0.028	1.0	36.0	173	<b>299</b>	1.9	23
	SG10-52	2.2	288.2	286.0	skarn	0.057	1.6	27.0	423	<b>241</b>	0.8	7
	SG10-54	2.9	213.4	210.5	skarn	0.017	1.0	57.0	144	<b>249</b>	2.9	9
Jupiter	SG09-26	6.0	224.5	218.5	monzonite	0.031	0.8	27.0	128	<b>205</b>	1.7	37
	SG10-53	2.5	280.4	277.9	skarn	0.131	1.0	7.5	285	<b>221</b>	2.1	29
GVS	<b>SG10-56</b>	<b>3.2</b>	<b>292.6</b>	<b>289.4</b>	<b>porphyry</b>	<b>0.019</b>	<b>0.6</b>	<b>32.0</b>	<b>86</b>	<b>256</b>	<b>4.8</b>	<b>9</b>

All of the target areas at Sonora Gulch have produced long 100 to 200 ppm copper anomalies, however, only the GVZ, Figaro, and Nightmusic, zones have produced copper intercepts with the high copper/lead+zinc ratios indicative of being in the copper zone of a porphyry system.

Additionally, molybdenum numbers should go up towards the center of a porphyry system with molybdenum zone showing an overlap with the copper zone. At Sonora Gulch, molybdenum values are for the most part low in the Amadeus Zone and variable in the Nightmusic and GVS Zones. However, highest molybdenum values are in the Jupiter and Figaro zones and in a ratio to copper that one would expect in a porphyry Cu-Mo deposit.

## **9.2 MINERALIZATION IN THE MAIN TARGET AREAS**

Schulze (2007, 2008, 2009) discussed multiple mineralized zones at Sonora Gulch:

1. The "Gold Vein System" - a zone originally distinguished by a 1.5 km long gold in soil anomaly along the southwestern contact of the GVZ porphyry. This zone has been expanded here to cover the entirety of the GVZ stock south of the Big Creek Fault.
2. The Amadeus Zone - a strong gold-in-soil anomaly, centered on the Amadeus porphyry, that started as a single-line anomaly east of Hayes Creek in 2004.

3. The Figaro Zone - a copper-molybdenum-gold zone along the western side of Hayes Creek opposite the Amadeus Zone.
4. The Jupiter Zone - a copper-gold soil anomaly along the northeast side of the GVZ stock and the Big Creek Fault.
5. The Nightmusic Zone – a gold anomaly lying mostly north of the GVZ and the Big Creek Fault that follows a west northwest striking pyroxenite sill.
6. The Concerto Creek anomaly, located 1.5 km east of the Amadeus Zone, was identified in the 2007 geochemical survey. Detailed soil sampling expanded the zone returning silver dominated values to 33 g Ag/t (plus 0.334 g Au/t) along with elevated arsenic, lead and antimony. The anomaly occurs primarily in silicified, to phyllic altered, fine metasediments with alteration-mineralization likely related to small bodies of feldspar porphyry. Samples from the porphyry itself were barren. The anomaly has not been drilled and deserves testing.
7. The Sonata anomaly, identified through 2008 soil sampling, lies approximately one kilometre to the west of the Nightmusic Zone on the south side of the Big Creek Fault. Relative to the Nightmusic Zone surface gold geochemistry on the Sonata anomaly is less consistent and lower grade with values ranging from 0.021 to 0.109 ppm Au. As with Nightmusic the gold anomaly is associated with ultramafic rocks as indicated by chrome in soil and the airborne magnetic data. The anomaly has not been drilled and deserves to be tested.

Schulze discusses several other anomalies (2007, 2008, and 2009) which in the current report have either been included within the above named zones or have seen little work beyond surface sampling and are not covered in detail. For reference these other anomalies and zones referred to in previous Sonora Gulch reports include:

8. The "Tetradymite Vein System" (the "TVS") is located several hundred metres north of the GVZ and is characterized by gold-quartz- tetradymite veins. The TVS is not exposed but based on trenching and drilling appears to follow the Big Creek Fault. It is a zone that figures prominently in previous reports but which has yet to produce a significant gold intercept. The zone is not recognized as a specific target in this report with the area it covered now taken in by the Jupiter and Nightmusic Zones.
9. The K-467 Zone lies in and around a small porphyry stock on the west side of Hayes Creek. Alteration-mineralization includes skarn with local semi-massive pyrite, intense silicification, and zones of argillic to phyllic alteration. In this report the K-467 zone has

been merged with the Figaro Zone to form an 800 long N-S trending geochemically anomalous area of skarn and porphyry along the west side of Hayes Creek.

10. The "Wolfgang Anomaly" is a gold anomaly on the northeast side of the Amadeus Zone. Wolfgang came out of 2006 soil sampling which returned up to 2.34 ppm Au. Prospecting and sampling in this area in 2010 exposed hematite and silica altered metasedimentary rocks which did not return anomalous precious metal values. The Wolfgang Anomaly may be the result of sampler contamination. A new set of soils samples should be collected in 2011 to confirm or refute the previous strongly anomalous results. Based on geology and proximity it has been merged in this report with the Amadeus Zone.
11. The Bear Hill anomaly is located approximately 7 km west of the GVZ and came out of 2007 work following-up to a 1999 Au-As-Sb silt anomaly. Reconnaissance mapping showed the anomaly to be related to chalcedonic quartz veining in granite gneiss and skarn in limestones lenses. The anomaly ranks low relative to others at Sonora Gulch and has seen little work since 2007. However, it is possible more detail mapping and sampling could upgrade Bear Hill.
12. The last anomaly, the Requiem Anomaly located at the far western end of the claim block in Wolverine Creek gneisses, is the least well defined anomaly at Sonora Gulch. The anomaly is so far defined by 4 closely spaced soil samples with plus 100 ppb Au. As with Bear Hill, more mapping and sampling are needed to determine if drilling is warranted.

### 9.2.1 GOLD VEIN ZONE

The quartz-feldspar porphyry hosted GVZ is mineralized with up to 10% pyrite with minor chalcopyrite. While mineralization is found throughout the porphyry the best mineralization occurs along northwest-southeast trending faults and northeast-southwest trending shear zones and surrounding fractures (Schulze 2007). The porphyry hosts variable silicic, argillic and phyllic alteration with oxidation extending to a depth of 80 metres. The underlying protore zone is characterized by disseminated pyrite, gold-bearing quartz-arsenopyrite-sphalerite-galena-stibnite veins, and gold-silver rich cm thick quartz-boulangerite-jamesonite veins. These thin veins and lesser shear hosted mesothermal quartz veins tend to follow the northwest strike of the Big Creek Fault. The exception are the gold-silver sulfosalt veins noted above which tend to trend northeast and probably account for narrow high grade intervals as in hole SG10-55:

115-117 m @ 15.2 g Au/t, 452 g Ag/t, 2.99% Pb, and >1% As

This is part of a 44.6 m interval at 1.14 g Au/t and 24 g Ag/t where the bulk of the mineralization is somewhat less silver and lead dominated but still highly arsenical.

The GVZ saw extensive testing in shallow holes in the 1978-1984 period but in the 5 drill campaigns since 2006 the only holes drilled in the GVZ were the final 3 holes of 2010. Based on this limited data it appears the GVZ has an overall stronger gold over silver signature than the porphyry style mineralization in the Amadeus Zone.

The GVZ encompasses a 1500 by 600 m gold-silver-lead anomaly with gold values in soils up to 5.5 ppm. The anomaly has a sharp southern margin that both Titan 24 data and airborne data indicate is the faulted contact of porphyry or metavolcanics of the Wolverine Creek group with the Dawson Range Batholith. The GVZ zone extends throughout the stock and to both the northwest and southeast into Wolverine Creek metamorphic rocks.

The 2009 program focused on mapping and sampling the western and northern portions of the GVZ extending into the Dawson Range Batholith on the south. Results confirmed and further delineated the plus 0.1 ppm gold and plus 100 ppm copper soil anomaly.

In 2010 Northern Tiger contracted Quantec Geoscience to carry out a Titan 24 survey. Quantec ran six 2.4 km long NNE trending lines, spaced 400 metres apart across the entirety of the GVZ, Nightmusic and Jupiter Zones and a portion of the Figaro Zone. Given the high pyrite content seen at surface and in the 3 GVZ drill holes it unsurprising to see a strong polarization response on every line over the GVZ. Near surface the IP high forms an elongate northwest trending "ridge" that follows the long axis of the GVZ Zone for the full length of its southern margin open to both the northwest and southeast. At a depth of 500 metres Quantec's inversions show a slightly different pattern with a concentric low 600 metres in diameter taking in part of the north side of the GVZ. The signature is compatible with the presence of a 500 metre plus diameter porphyry plug with a pyrite halo.

### 9.2.2 AMADEUS ZONE

The Amadeus Zone is hosted by a composite quartz-feldspar and feldspar porphyry stock exhibiting argillic alteration at surface. Below the oxidized zone fine grained disseminated euhedral pyrite occurs throughout. Chalcopyrite is best developed in bands of silicification along the western side of the zone but only at trace levels well below 0.1% Cu. Gold and silver produce strong surface anomalies with silver in the 1-10 ppm range and gold in the 0.1 to 1 ppm range.

Firestone's 2006-2007 drill campaigns concentrated on the Amadeus Zone (see Tables 1 and 2 for highlights) and showed the zone to host two significant but different types of mineralization. Porphyry style silver dominated mineralization has been encountered over 200 metre intervals and is the most widespread mineralization type. In sharp contrast is the economically more interesting gold-dominated, breccia and porphyry hosted, mineralization of holes SG06-06 and SG07-12. The silver to gold ratios in this zone are among the lowest at Sonora Gulch (Table 3). The gold dominated mineralization, low in copper and molybdenum, is presumed to be epithermal in origin with Schulze (2009) seeing all mineralization at Amadeus being epithermal. The view here is that it is possible that only the silver dominated type is epithermal. However, with the relatively high copper - molybdenum content of hole SG07-17 the more likely scenario is that silver came in during a late epithermal overprint of the porphyry. If correct, gold, copper, and molybdenum values might go up with depth in the Amadeus porphyry.

#### 9.2.3 FIGARO ZONE

The Figaro Zone lies along the west side of Hayes Creek both to the south and north of the east-west trending contact between feldspar porphyry and metavolcanics. Near Hayes Creek, the stock hosts centimeter-thick quartz veins, some with chalcopyrite and molybdenite (up to 0.47% Mo in a grab sample), that comprise up to 5% of rock mass – more veining than seen with any other porphyry exposures on the Property. Gold and silver values are also present and define a strong N-S anomaly along the west side of the Hayes Creek Valley.

The first hole completed on the Property, SG06-01A (SG06-01 was lost at 22 m) remains the only hole completed in the Figaro Zone. While poorly mineralized with gold and silver, the hole cut various porphyry phases over its length and bottomed at 251.5 m in quartz stock worked k-feldspar porphyry breccia. This hole appears to provide one of the best examples at Sonora Gulch of porphyry style mineralization. Grades need to increase by an order of magnitude, but the ratios of gold, copper, and molybdenum are typical of what would be seen in a productive Cu-Au-Mo porphyry deposit.

#### 9.2.4 JUPITER ZONE

The Jupiter Zone, hosted by various Wolverine Creek gneisses and lesser porphyry dikes, is a 600 m long Cu-Au anomaly sitting between the GVZ and the west side of the Figaro Zone. During the 2006 and 2007 drill programs Firestone started 6 holes in the Jupiter Zone and all were lost in the top 55 metres. In 2008, hole SG-08-26 was completed to 225 m with weakly

anomalous gold, silver, and copper in porphyry dikes and adjacent gneisses. All of the lost 2006-2007 holes and the 2008 hole are consistently anomalous in molybdenum in the 20 to 50 ppm range.

No further significant work was done on Jupiter until the 2010 season Quantec carried out the Titan 24 survey and Northern Tiger drilled 7 holes in the zone. The best result was in hole SG10-53 which intersected 16 metres of 1.88 g Au/t. Strongly anomalous nature of molybdenum continued throughout all 7 of these holes.

#### 9.2.5 NIGHTMUSIC ZONE

The Nightmusic Zone, roughly follows the hanging wall contact of an east-west striking sill located north of the GVZ porphyry and mostly north of the Big Creek Fault. Mineralization was originally thought to be related to the hanging wall contact of the sill – a contact which could be followed through the magnetic survey and an east-west trending Au-Ag-As-Te-Bi soil anomaly. All drilling to date at Nightmusic is north of the Big Creek Fault even though the soil anomaly and the Titan 24 survey show that the zone extends south of the fault. The Nightmusic Zone lies on the north flank of a northwest trending chargeability high the peak of which lies between Nightmusic and GVZ. The indication is that Nightmusic Zone lies on the north flank of the GVZ porphyry system.

Nightmusic mineralization is characterized by quartz-sulphide veins in gneiss and porphyry, sulphide-rich skarn, and sulphidic shear zone breccias and gouge. High silver values are locally present, particularly with quartz-arsenic bearing veins and fault zones, but the Nightmusic Zone tends to be gold and copper dominated with low silver/gold and high copper/lead+zinc ratios. Through 2007, surface sampling and drill data indicated a spatial correlation between the ultramafic sill, generally with strong but unmineralized listwanitic alteration along its contacts, and better zones of Au-Ag-Cu mineralization above the contact. The subsequent six holes drilled at Nightmusic in 2008, however, produced only short intercepts most of which showed no spatial relation to the sill with one important exception. Hole SG08-27, starting at 70 m, intersected 46 m of 2.97 g Au/t, 9 g Ag/t, and 0.17% Cu ending 24 m above the sill. In 2009 drilling continued to focus on Nightmusic with all 12 holes drilled into the zone. Results failed to show continuity around the hole SG08-27 intercept. Following this program it became clear that the gneiss-ultramafic sill contact plays only local role in focussing mineralization and is probably no more important than other contacts.

Schulze (2009) sees the mineralization model at Nightmusic being epithermal with mineralization developed in fracturing and shearing along the Big Creek Fault. This could well be the case given the setting relative to the GVZ porphyry, however, with sulfidized skarns encountered in holes east of the Big Creek Fault if mineralization is epithermal it would have to be an overprint over this earlier porphyry related alteration. Lastly, with the structural setting, low Ag/Au metal ratios, shear hosted gold-pyrite-arsenopyrite veins, and carbonate alteration, an orogenic model could also apply at Nightmusic.

## **10. EXPLORATION**

Discussion below on the 2008 and 2009 programs draws heavily from the 2008 and 2009 annual assessment reports filed with the Yukon Government and authored by Schulze. No assessment report is available covering 2010 work with the discussion below derived from review of drill data and the Quantec Geoscience report on the Titan 24 survey carried out in June 2010.

### **10.1 2007 AND EARLIER PROGRAMS**

Firestone Ventures carried out extensive mapping, sampling, trenching, drilling, and geophysical work between 2003 and 2007. Results of this work have been compiled in the Schulze 43-101 report on Sonora Gulch (2007). The reader is referred to that report for full descriptions of Firestone's programs and their results.

### **10.2 2008 PROGRAM**

In 2008 Northern Tiger took over the Sonora Gulch project and continued with both targeting and drilling. The program consisted of collecting:

- 64 silt samples,
- 898 soil samples,
- 59 rock samples,
- 42 line kilometres of ground magnetic survey data, and
- 2238 metres of NQ core in 10 holes.

#### **10.2.1 2008 SILT AND SOIL SAMPLING PROGRAM**

The 2008 surface geochemical exploration program delineated several strong gold-in-soil anomalies, most notably in the Nightmusic and Concerto Creek areas. The program also identified a new anomaly, the Sonata Anomaly, located 1 km west northwest of the Nightmusic Zone. The work also began to identify additional gold in soil anomalies extending west for several kilometres from the Sonata Anomaly.

The Nightmusic Zone came out of 2006 soil sampling but the full extent was not delineated until 2008. The 2008 work extended the gold anomaly, with many samples above

100 ppb Au, from west of Sonora Gulch Creek eastward for 2.8 km nearly to Hayes Creek. Schulze (2008) notes the presence of a chrome in soil anomaly running parallel to the gold anomaly some 50-100 metres to the north. This anomaly is mapping the east-west striking ultramafic sill and was seen as evidence of a link between the hanging wall contact of the sill and mineralization.

In 2008 the soil sample grid was also extended east of the Amadeus Zone to cover a reconnaissance gold in soil anomaly at Concerto Creek. This anomaly, with numerous values above 100 ppb Au, was expanded but not closed off to the northeast and southeast. Silver, copper, arsenic, and lead are all anomalous in the Concerto Creek Anomaly.

In the west the new anomaly, Sonata, was located through silt and soil sampling a kilometre west of the Nightmusic Zone. The Sonata anomaly is not as strong or consistent in gold or other metal values as the anomalies to the core area but has produced 100 ppb gold samples. There is little correlation with copper except on the east side of the anomaly and no correlation with silver or lead. The only consistent correlation with gold is in nickel and chrome which is to be expected with Sonata hosting the western projection of the Nightmusic ultramafic sill.

Soil sampling in 2008 also picked up several gold anomalies that were too dispersed to define any additional cluster that could be looked at as a new target area. For details on these lesser anomalous areas the reader is referred to Schulze 2008 assessment report.

#### 10.2.2 2008 INDUCED POLARIZATION SURVEY

Induced Polarization surveying in 2008 was carried out by TerraNotes along an east-west trending line through the Amadeus Zone near the projection of hole SG06-06. The survey picked up a zone of high resistivity, below 150 m depth that roughly coincides with the 133 m 0.49 g Au/t intercept in hole SG08-31. A second line 50 metres to the south shows the resistivity high continuing but at lower contrast to the surrounding rocks. This zone was tested by hole SG08-30 which had a much weaker gold intercept.

The hole SG06-06 gold intercept also appears to correlate with a high resistivity zone. This zone is distinct from the hole SG08-31 zone, dips to the south and has not been well tested by holes which appear to be located too far to the north.

### 10.2.3            2008 GROUND MAGNETIC SURVEY

Ground magnetic surveying was conducted from the eastern side of the Amadeus Zone east to the Concerto Creek area, and from 500 metres west of Sonora Gulch east to 500 metres west of Hayes Creek. Neither this survey nor the preceding ground surveys were carried out in sufficient detail over a large enough area to provide data to successfully impact targeting.

## 10.3            2009 PROGRAM

In 2009 Northern Tiger continued refining target areas through more surface sampling and carried out additional drilling. The program consisted of taking:

- 1077 soil samples
- 140 rock chip samples,
- 2454.6 metres of NQ core in 12 holes, and

353 line kilometres of airborne magnetics and radiometrics surveying

The soil geochemical program returned strong gold anomalies in the western portion of the GVZ, copper-gold anomalies in the Nightmusic Zone, and anomalous gold values in the Concerto Creek area. The airborne survey for the first time provided a complete high resolution magnetic base map over the entire property.

### 10.3.1            2009 ROCK CHIP SAMPLING PROGRAM

Rock sampling in 2009 focused on new exposures in the western Nightmusic Zone area, new GVZ Zone trenches and grab sampling at Concerto Creek.

The highlight at Nightmusic was a 10.0-metre chip-channel across a zone of gougy decrepitated quartz veining which returned 0.705 g Au/t and 10.7 g Ag/t. The southern portion of this interval had well developed skarn mineralization, and 0.121% Cu over 2.0 m.

Rock sampling at the Concerto Creek area returned several anomalous, and coincident, gold-silver values, but no ore grade numbers and nothing from the new STONE 51-64 claims. In the GVZ area only background values were obtained from new trenches. A grab sample northwest of camp returned 0.282 g Au/t and 130 ppm Cu providing confirmation of the gold in soil anomaly in this part of the GVZ Zone.

### 10.3.2 2009 SOIL SAMPLING PROGRAM

Soil sampling west of camp extended the overall gold anomaly at plus 100 ppb Au with a high of 1 ppm Au on a ridgeline. The elevated gold values are associated with copper anomalies to 754 ppm increasing towards Peter's Gulch west of the camp.

The work also picked up a north-south trending gold anomaly west of Peter's Gulch with 200 ppb gold over 400 metres. A second area of anomalous gold in the Peter's Gulch area is found along the northern end of the area sampled and nearly merging with the western side of the Sonata Anomaly. Gold values in this area go up to 200 ppb Au. Several values exceeding 100 ppb Au with anomalous As, Pb and Zn have been returned in an area 2-2.5 km west-northwest of the Peter's Gulch.

Southeast of the GVZ the 2009 sampling returned two samples with 1.2 ppm Au 300 metres south of the head of Little Kline's Gulch extending the GVZ to the southeast.

Sampling carried out to the east of the Concerto Creek Anomaly failed to return significant gold or copper anomalies.

### 10.3.3 AIRBORNE MAGNETICS AND RADIOMETRICS SURVEY

Precision GeoSurveys flew a 353 line kilometre, helicopter borne, magnetic and radiometrics survey over the Property between August 25 and 27, 2009. Lines were flown with a northeast-southwest orientation (20°/200°) at 100 m spacing and draped at 41 m above ground. Tie lines were flown perpendicular at 1000 m spacing.

The principal feature seen on the total field magnetic plot is a large high that is probably related to a buried pluton on the east side of the Big Creek fault and southeast of the Figaro and Amadeus Zones. The intrusive body or porphyry complex, if that is the case, producing this anomaly appears to have once extended across these two zones and westward through the Jupiter and GVZ Zones before terminating just inside the eastern limit of the Sonata Anomaly for a total of 4500 metres of strike. The intrusion of multiple porphyries, and magnetite destructive alteration related to the known porphyries, has resulted in the variable but elevated magnetic response pattern seen. That is, a strong and coherent anomaly in the southeast, where there is no alteration, and a subdued high, pockmarked with magnetic lows, in the north and west. The strongest of these lows occurs over the combined Figaro-Amadeus Zone with lesser lows over the Jupiter, GVZ, and Sonata zones. The other strong magnetic feature observed is a narrow magnetic high that starts under Hayes Creek and extends for 6 km to the

west interrupted only by the Big Creek Fault. This high is related to the ultramafic sill seen in the Nightmusic Zone.

The Big Creek Fault as mapped lines up well with breaks in the magnetic data. The southern contact between of the GVZ porphyry and Wolverine metamorphic rocks with the Dawson Range Batholith is also clearly marked by a deep magnetic low along the contact that may or may not be faulted.

The potassium radiometric data show many of the same patterns seen in the magnetic data. In particular, the porphyry bodies, or conceivably, zones of potassic alteration, show up as potassium highs. The GVZ porphyry stands out particularly well with the associated potassium anomaly covering a 700 by 600 m area. There is only one post 2000 drill hole in this anomaly, SG10-55 (there are 10 shallow historic holes of less than 55 m each). Slightly surprising is the strong potassium response from the Nightmusic Zone which appears to host more dikes or small porphyry plugs than would be expected from mapping.

## **10.4                    2010 PROGRAM**

Northern Tiger's 2010 program was primarily oriented towards focused ground geophysics and drilling. The program included:

- 2875.3 metres of NWT core drilling in 12 holes, and
- 14.4 line kilometres, divided equally between 6 lines, of Titan 24 DC-IP surveying.

Northern Tiger contracted Quantec Geoscience to carry out the Titan 24 survey west of Hayes Creek to cover the GVZ-Jupiter-Nightmusic zones. The Titan 24 survey was carried out between June 15 and June 24, 2010 and preliminary results were available to Northern Tiger prior to starting the drill program on July 3. Drilling finished on August 26, 2010.

### **10.4.1                2010 TITAN 24 SURVEY**

The main conclusions drawn from the Titan 24 survey (Verweerd, 2010) are outlined below:

- The overall data quality was high, except for data obtained from the northern current extensions. These data were of the lowest quality due to the conductive nature of the subsurface below the current extensions.

- Three fault contacts were identified in the resistivity models,
  - in the southern portion of the lines a steeply south dipping conductor occurs with the Dawson Range Batholith – GVZ porphyry contact,
  - towards the center of the lines the Big Creek fault appears as a steeply south dipping feature, and
  - a third unnamed fault with a NE-SW strike was identified on the eastern side of the survey area.
- A deep chargeable zone is observed along the contact of the Dawson Range Batholith across the southern portion of the surveyed area.
- Two main chargeable zones were identified between the Dawson Range Batholith contact and the Big Creek fault.
- A band of high chargeability is seen on the southwestern side of the Big Creek fault.
- Quantec recommended twenty-nine drill holes based on correlation between conductive and chargeable signatures with fourteen classified as high priority.

WGM sees an overall 3D pattern consistent with a low sulfide porphyry center in the middle of the survey area and topping out at 400 m depth. The chargeability low associated with this center is surrounded by a chargeability high which is consistent with some combination of a pyrite halo and high sulfide skarn around the porphyry center. A similar but less well defined zoning pattern is seen over the Jupiter Zone.

## 11. DRILLING

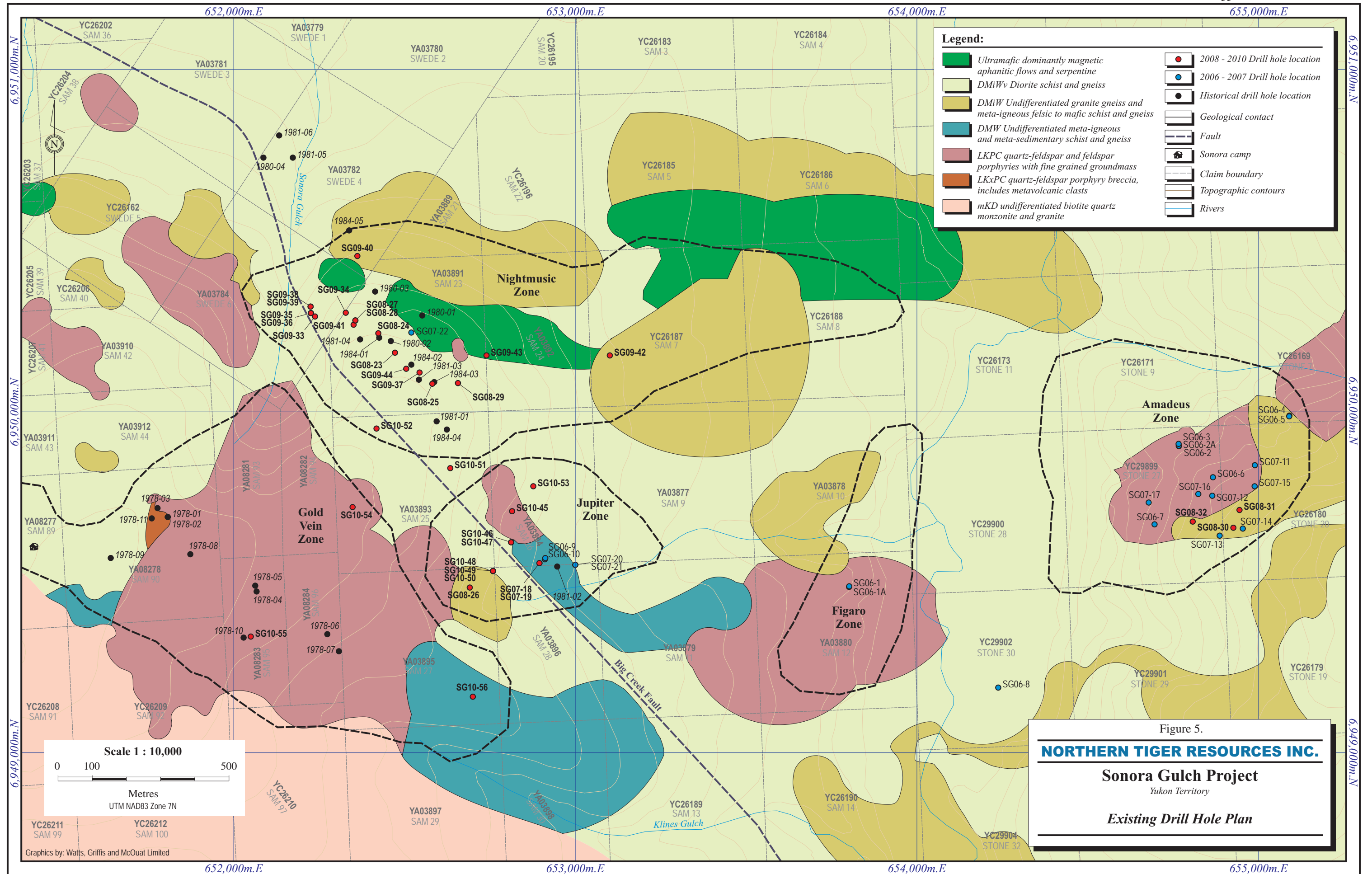
### 11.1 2008 PROGRAM

In 2008 Kluane Drilling Ltd., supported by Heli-Dynamics, drilled 10 NTW diamond drill holes for a total of 2238 metres for Northern Tiger at Sonora Gulch. Highlights of the program are provided in Table 6 below (locations of collars are shown in Figure 5).

**TABLE 6.**  
**2008 DRILL HIGHLIGHTS AT SONORA GULCH**  
(values for all metals in ppm)

Zone	Hole	E.O.H.	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Nightmusic	SG08-23	122.5	59.9	64.3	4.4	mylonite	0.585	5.2	9	4048	153	0.20	30
			113.3	115.3	2.0	fault	5.090	1.2	2.4	321	249	3.70	2
	SG08-24	116.4	0.0	37.0	37.0	gneiss	0.300	2.6	8.6	929	265	1.40	83
			47.1	51.4	4.3	porphyry	0.470	5.7	12	2989	87	0.10	13
			72.0	101.5	29.5	porphyry	0.588	6.0	10	706	366	0.20	1
	SG08-25	181.4	51.7	53.7	2.0	gneiss	1.410	2.0	0.14	1055	72	2.20	128
			95.0	112.0	17.0	gneiss	0.330	9.0	28	1128	245	0.30	2
			117.0	122.2	5.2	gneiss	2.130	18.0	8.5		6805	38.00	3
Jupiter	SG08-26	224.9	88.1	90.1	2.0	gneiss	0.270	2.5	9	1445	196	0.09	19
			216.5	218.5	2.0	gneiss	1.180	81.0	69	7420	317	0.40	17
Nightmusic	SG08-27	214.9	70.0	116.0	46.0	gneiss, bx	2.970	9.0	3	531	1712	5.10	6
	SG08-28	228.6	111.4	129.0	17.6	gneiss	1.570	29.0	29	117	5900	11.10	9
			164.0	166.0	2.0	gneiss	1.010	75.0	71	1820	1441	0.38	1
			223.0	228.6	5.6	ultramafic	0.790	6.2	7.9	1250	131	0.05	1
	SG08-29	130.0	30.5	40.6	10.1	porphyry	0.190	2.7	14	162	133	0.90	1
Amadeus	SG08-30	339.9	210.0	234.5	24.5	gneiss	0.130	0.6	4.7	13	35	3.00	2
			280.0	294.0	14.0	porphyry	0.139	18.0	127	46	320	0.37	1
			310.0	339.9	29.9	porphyry	0.260	3.5	13	67	311	3.00	6
	SG08-31	335.5	64.0	197.0	133.0	porphyry	0.478	4.0	8.5	88	70	0.30	1
	SG08-32	329.2	0.0	75.8	75.8	porphyry	0.212	0.5	2.5	31	12	0.10	1
			129.0	139.0	10.0	gneiss	0.090	22.3	240	131	686	0.11	14

The final 3 holes drilled to date on the Amadeus Zone were the final 3 holes drilled on the south side of zone in 2008. These holes were drilled to follow-up the hole SG06-06 intercept and the long low grade gold intercepts in holes SG07-13 (267 m of 0.18 g Au/t) and SG07-14 (204 m of 0.15 g Au/t). Hole SG08-30 was drilled at -60° to the west and collared between the 2007 holes which were angled to the north. Hole SG08-30 encountered similar low grade porphyry hosted Au-Cu mineralization to that seen in the 2007 holes. Hole SG08-31 was sited 60 m to the northeast, and drilled at -60° to the west, and produced one of the better porphyry style gold intercepts in the Amadeus Zone with 133 m of 0.478 g Au/t. Given low copper, arsenic, and silver/gold values this zone could be the southern continuation of the



SG06-06 gold zone. The last hole, SG08-32, a vertical hole drilled 120 m to the west of SG08-30, encountered gneiss cut by thin porphyry dikes. Silver dominated mineralization diminished at depth.

After 4 failed attempts the 2008 drill program was able to complete the first hole to target in the Jupiter Zone. This hole, SG08-26, passed through various types of gneisses cut by multiple porphyry dikes and encountered only a few short vein related anomalous intervals.

2008 saw the first drill program on the Nightmusic Zone with 6 holes drilled and all encountering at least short intervals of mineralization. Two of the holes, SG08-27 and SG08-28, produced ore grade over mineable width type gold intercepts with significant copper.

## 11.2 2009 PROGRAM

In 2009 Kluane Drilling Ltd., supported by Heli-Dynamics, drilled 12 NTW diamond drill holes for a total of 2454.6 metres. All holes were in the Nightmusic Zone to follow-up the success of holes SG08-27 and SG08-28. Highlights are provided in Table 7.

**TABLE 7.**  
**2009 DRILL HIGHLIGHTS AT SONORA GULCH**  
(values for all metals in ppm)

Zone	Hole	E.O.H.	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Night Music	SG09-33	246.9	91.0	93.9	2.9	gneiss	3.700	2.2	0.6	1273	274	4.00	40
			127.1	128.5	1.4	gneiss	5.250	7.4	10.2	36	64	0.83	0
			200.2	200.9	0.7	gneiss	1.190	9.6	8	2350	669	1.81	0
	SG09-34	234.8	78.0	102.9	24.9	gneiss	0.270	1.2	4.7	1123	182	1.17	10
			156.9	158.3	1.4	gneiss	0.340	10.0	30	3250	1324	1.77	0
			164.3	165.4	1.1	fault	0.219	3290.0	15300	75	9280	257.00	0
	SG09-35	224.1	126.8	129.1	2.3	porphyry	0.920	2.0	2	4500	244	1.90	0
	SG09-36	182.9	0.0	182.9	182.9	no significant anomaly							
	SG09-37	153.1	82.30	83.40	1.1	gneiss	1.310	62.0	47	1220	1040	2.42	4
	SG09-38	243.9	41.8	44.0	2.2	gneiss	0.616	1.8	2.9	303	213	3.80	7
			101.0	102.2	1.2	porphyry	1.050	25.0	24	1725	563	0.04	1
	SG09-39	184.5	45.2	47.2	2.0	gneiss	1.040	0.9	0.9	218	110	1.50	2
			85.4	85.9	0.5	gneiss	63.800	47.0	0.73	>10000	589	0.73	0
	SG09-40	269.8	197.7	202.1	4.4	gneiss	0.710	5.2	7.5	160	1664	8.00	0
	SG09-41	252.1	13.7	18.8	5.1	gneiss	1.590	1.7	1.1	366	207	1.00	11
			178.8	183.1	4.3	gneiss	0.490	4.0	8	5912	416	2.10	139
	SG09-42	73.8	0.0	73.8	73.8	no significant anomaly							
	SG09-43	243.4	53.8	100.9	47.1	gneiss	0.195	1.9	9.8	207	230	0.89	2
			106.4	106.8	0.4	skarn	7.870	67.0	8.4	1135	2020	0.60	2
			130.9	134.6	3.7	skarn	1.000	9.7	9.7	823	1292	0.04	0
	SG09-44	141.8	76.4	78.4	2.0	gneiss	0.450	5.9	13	1110	130	0.24	22
			78.4	79.4	1.0	skarn	1.800	139.0	77	>10000	612	0.18	2

The holes closest to hole SG08-27, holes SG09-33, 34, and 38, encountered only short intervals of ore grade gold and silver mineralization. The work also demonstrated that the exploration model did not work everywhere. The apparent link between the hanging wall contact of the ultramafic body and mineralization did not hold up in the 2009 drilling. While most mineralization is hosted by gneiss the presence of porphyry and skarn indicates that mineralization is most likely linked to the porphyries.

### 11.3 2010 PROGRAM

In 2010 Kluane Drilling Ltd. drilled 12 NTW diamond drill holes for a total of 2875.3 metres primarily in the Jupiter Zone and southern part of Nightmusic Zone along the Big Creek Fault. At the end of the program 2 holes were drilled into the GVZ, the first holes drilled in this zone in nearly 30 years. Highlights of the program are provided in Table 8.

**TABLE 8.**  
**2010 DRILL HIGHLIGHTS AT SONORA GULCH**  
(values for all metals in ppm)

Zone	Hole	E.O.H.	From (m)	To (m)	Interval	Lithology	Au	Ag	Ag/Au	As	Cu	Cu/(Pb+Zn)	Mo
Jupiter	SG10-45	292.1	225.0	227.0	2.0	monzonite	0.458	12.5	27	3241	428	1.70	7
	SG10-46	48.5	37.2	39.2	2.0	gneiss	1.100	1.3	1.2	15	212	7.00	38
	SG10-47	294.1	2.4	12.9	10.5	gneiss	0.140	11.6	83	958	288	0.76	21
			144.4	150.4	6.0	monzonite	0.426	30.0	70	2215	139	0.09	27
			180.4	186.4	6.0	gneiss	1.440	44.0	24	459	211	0.10	44
			245.26	245.32	0.1	gneiss	14.050	2120.0	151	>10000	6300	0.05	80
	SG10-48	294.0	64.0	66.0	2.0	gneiss	0.340	2.8	8	3080	171	0.23	61
			102.4	114.6	12.2	gneiss	0.200	0.5	24	39	129	1.70	50
			115.3	115.4	0.1	gneiss	14.450	305.0	21	>10000	1085	0.01	6
			114.6	118.0	3.4	gneiss	0.520	12.0	23	1014	173	0.04	117
			177.0	178.0	1.0	hornfels	5.650	33.0	5.8	>10000	124	0.02	86
	SG10-49	74.7	0.0	74.7	74.7		no significant anomaly						
Night Music	SG10-50	289.6	134.8	136.8	2.0	porphyry	1.010	2.5	2.5	1105	161	2.60	36
			264.8	276.8	12.0	gneiss	0.400	59.0	145	3985	203	0.08	38
Night Music	SG10-51	287.7	41.0	49.0	8.0	skarn	0.110	3.8	34	1063	267	0.15	17
			27.3	30.2	2.9	skarn	1.170	28.0	24	3918	411	0.05	1
			51.4	54.2	2.8	skarn	0.810	16.5	20	7522	163	0.06	2
Jupiter	SG10-53	280.0	194.5	210.5	16.0	skarn	1.880	6.1	3.3	4013	255	1.90	13
Night Music	SG10-54	213.4	133.0	135.0	2.0	skarn	0.124	45.0	364	715	2130	0.62	2
GVZ	SG10-55	219.5	2.7	53.7	51.0	porphyry	0.179	0.8	4.4	130	132	1.60	3
			53.7	53.8	0.1	porphyry	9.160	89.0	9.7	>10000	203	0.04	2
			88.4	133.0	44.6	porphyry	1.140	24.0	21	1318	245	0.14	3
			115.0	119.0	4.0	porphyry	11.300	232.5	25	>10000	788	0.82	2
			165.0	173.0	8.0	porphyry	0.420	9.7	23	1294	89	0.06	6
	SG10-56	292.6	225.0	227.0	2.0	hornfels	0.458	12.5	27	3241	428	1.70	7

Drilling on all zones in 2010 encountered narrow high grade gold-silver-arsenic-lead veins (holes SG10-47, SG10-48, and SG10-55). The latter intercept was adjacent to a gold dominated vein expanding the mineralized zone to 4 metres of 11.3 g Au/t and 232.5 g Ag/t. While not encountering long intercepts of economic mineralization several holes document the presence of large volumes of highly altered rock in around the GVZ porphyry. Strongly pyritized skarn and hornfels were encountered over significant widths in all of the Nightmusic, Jupiter, and GVZ but have little associated gold and copper.

## **12. SAMPLING METHOD AND APPROACH**

### **12.1 SURFACE SAMPLING**

Based on descriptions of Schulze (2008 and 2009) rock chips were obtained with a rock hammer and sample locations recorded with a hand held GPS unit set to record UTM NAD 83 coordinates. A tag with the unique sample number was placed in the bag and the sample number written on both sides of the bag with an indelible marker. The sample numbers were also written on aluminum tags attached to branches or other suitable unmovable material at the sample site.

Each rock sample was logged into a spreadsheet with UTM coordinates, sample type, exposure type, formation, lithology, a textural modifier, colour, degree of carbonatization or silicification, other alteration, mineralization, date, sampler name and comments. Minimum sample weight was 0.5 kg.

Soil samples were taken from the B-horizon with A or C horizon soil used in the absence of a B horizon. Soil samples were recorded as to location, horizon, depth, slope angle, colour, presence of permafrost, vegetation type, geology, fragment lithology, percent organics, date, sampler and comments. The minimum original sample weight was 0.25 kg. Sample locations were recorded in the field as with rock samples by writing the sample number on an aluminum tag and attaching the tag to the station picket. Samples were placed in kraft bags, with a tag labelled with the unique sample number placed in the bag, and the sample number written in indelible marker on both sides of the bag. The bags were air dried before shipping.

Field data was entered into Microsoft Excel spreadsheet format, and later matched with analytical results. This process was continually re-checked to ensure correct results were paired with the correct descriptions.

### **12.2 GEOTECHNICAL LOGGING**

Given Sonora Gulch's status as an early stage exploration program compiling geotechnical logs was not deemed necessary. Northern Tiger's protocol did call for collection of RQD's and core was photographed, so basic geotechnical parameters have been recorded. (The RQD is a measure of the competency of a section of rock. It is generally expressed as a percentage figure with higher numbers indicating more competent rock. In core logging the RQD is calculated for each sample interval by dividing the length of that interval into the cumulative length of pieces of competent core 10 cm or greater in length within that interval.)

### **12.3 LITHOLOGICAL LOGGING AND SAMPLING**

Based on Schulze 2008 and 2009 assessment reports, and personal communication with Ouellette (2010), the following describes Northern Tiger's protocols for handling, logging, and sampling core. Core was delivered to the core logging facility at the Sonora Gulch camp by helicopter at the end of each shift. Upon arrival all boxes were laid out in order and photographed before the core was logged, marked and halved with a rock saw. The core logger documented core recovery, RQD's, rock type, alteration, structures, and mineralization prior to splitting.

The protocol called for core to be sampled on regular 2 metre intervals unless contacts, veins, or structures dictated a lesser interval. A review of the logs for 2008 and 2010 shows that most samples were collected on the 2 metre intervals while in 2009 as many as half the samples were taken on intervals of less than 2 metres.

All sample intervals prior to being sawn were separated by wooden blocks in the core trays with sample numbers written on the blocks. Additionally, the duplicate sample tag supplied by ALS Chemex for each sample taken was placed in the core tray beneath the first piece of core at the beginning of the sample interval. The core was not marked prior to being sawn. In the future, WGM recommends the geologist doing the logging mark all core with a line to guide sawing.

All core was sawn in half with the same side of the core sampled to limit the chance of sampling bias. An electric powered, water lubricated rock saw was used to cut the samples. The saw blade was 'cleaned' after each sample with a masonry brick to prevent contamination. The catchment tray under the saw and the entire sampling area was thoroughly cleaned at the end of each shift.

The "Quality Control" (QC) protocol called for collection of a duplicate sample and insertion of a standard and a blank in sequence every 33 samples to ensure each 36 sample batch had a duplicate, standard and blank. Several sets of standards were utilized involving known copper-gold and gold only concentrations. The blanks were taken from bags of dolomitic sand to ensure uniformity of values. In future programs WGM recommends use of blanks composed of coarse fragments comparable in size to pieces of sawn core. Dolomite or other hard abrasive rock type would be suitable.

## **12.4 DISCUSSION**

WGM was not able to watch any of the core handling, logging, or sampling while it was taking place as the program had ended by the time of the 2010 site visit. Furthermore, with only 3 hours on site, and that time devoted to collecting check samples, it was not possible to confirm that samplers consistently sampled the same side of the core. However, from the brief field visit WGM can confirm that core boxes and sample intervals are well marked with sample tags. WGM would caution that in future programs the sample tags be stapled into the core boxes to ensure they do not blow away or accidentally get moved around.

It is apparent from logs and a review of several dozen core boxes that most but not all core was sampled. Sampling required some evidence of mineralization in the eyes of the core logger. WGM does not believe that in deciding not to sample unmineralized core that the program will have failed to identify any zone of significance.

WGM believes that all of the 2008-2010 drill programs were carried out in a professional manner under protocols sufficient for the early stage of the project.

### **13. SAMPLE PREPARATION, ANALYSES AND SECURITY**

#### **13.1 SURFACE SAMPLING PROGRAMS**

Based on Schulze's reports (2008 and 2009) Northern Tiger's protocols for handling surface rock chip, soil, and silt samples are fully adequate. Prior to shipping rock samples were placed in thick plastic bags, sealed with thick plastic serrated locking ties and placed in rice bags also sealed with locking plastic straps. The bags were delivered by Northern Tiger personnel to Byers Transport in Whitehorse placed on sealed pallets, loaded on a truck and delivered directly to ISO 9001:2000 certified ALS Chemex Labs of North Vancouver, B.C.

ALS Chemex crushed all rock samples to a minimum of 70% passing a 2 mm screen. A 250 g split was pulverized to -75 µm from which a 50-gram sample underwent fire assay with atomic absorption finish. This technique provides gold analysis ranging from 0.005 to 10.0 g Au/t.

Soil samples were collected in "kraft bags" sealed with plastic locking ties and placed in labelled and sealed rice bags and shipped to ALS Chemex in the same manner as rock samples. At ALS Chemex dried and screened the samples to -180 µm. From this fine material 30 grams were consumed in a 30-gram fire assay with ICP – AES finish, providing a detection limit of 0.001 g/t.

All rock chip and soil samples were also analyzed by 35-element ICP to provide concentrations of Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W and Zn. Many samples were analyzed for tellurium (Te) as well.

Northern Tiger did not insert standards and blanks into the surface sample stream. Best practice calls for use of standards and blanks. However, ALS Chemex in-house quality-control provides some level of assurance that results are not compromised.

#### **13.2 2008-2010 DRILLING PROGRAM**

Core samples were handled in the same way as rock chip samples with each sample placed in a thick plastic sample bag, sealed with locking plastic ties then placed in sealed rice bags and delivered to Byers Transport by Northern Tiger personnel. Byers Transport trucks delivered the samples directly to the ALS Chemex prep facility in Terrace, B.C.

At ALS Chemex all core and rock samples underwent crushing to a minimum of 70% passing a 2 mm screen. The resulting material was then thoroughly mixed and a 250-gram split then underwent pulverization to a minimum of 85% passing a 75 µm screen. These pulps were then shipped to the ALS Chemex Laboratories of North Vancouver, B.C. for analysis by 50-gram fire assay with atomic absorption finish. WGM notes two Certificates of Analysis from ALS Chemex, WH10098943 (60 samples from hole SG10-45) and WH10098944 (60 samples from hole SG10-47) for which fire assays were not carried out. Gold in these work orders was determined by ICP with a detection limit of 0.2 ppm Au. Not using fire assays on these samples has no material impact on the conclusions made in this report. However, WGM recommends in the future using assay or geochemical methods for gold analysis with a gold detection limit no higher than 0.01 ppm Au.

All samples were also analyzed by 35-element ICP to test for abundances of Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, and Zn. Many samples were also analyzed for tellurium (Te) as well. Silver values exceeding 100 g/t were re-analyzed by atomic absorption (AA-46).

WGM believes that Northern Tiger sample handling protocols, QA/QC program, and the sample preparation and analytical methods applied at ALS Chemex were appropriate for the drilling program at Sonora Gulch. The results should accurately represent the nature of mineralization encountered in drilling.

### **13.3 RESULTS OF 2008 QA/QC PROGRAM**

Northern Tiger followed a QA/QC protocol in 2008 of inserting a quarter core duplicate, a standard, and an agricultural dolomite blank in sequence every 26 to 34 core samples with 3 exceptions of 61, 68, and 57 core samples between QA/QC samples in holes SG08-23, -25, and -31. For the 2008 program this resulted in the analysis of 34 duplicates, standards, and blanks.

#### **13.3.1 BLANKS**

In the 2010 program there was not a single blank failure for any element of interest (Table 17, Appendix 2). For the elements of greatest interest, Au, Ag, and Cu, the highest values returned were 0.005, 0.05, and 14.6 ppm respectively.

### 13.3.2 STANDARDS

In the 2008 drill program Northern Tiger used 3 gold standards supplied by CDN Resource Laboratories Ltd, CDN-GS-1C (0.99 ppm Au), CDN-GS-5C (4.74 ppm Au), and CDN-GS-P2 (0.214 ppm Au). Northern Tiger also used 4 gold-copper standards from the same supplier, CDN-GS-10 (1.73 ppm Au and 1.55% Cu), CDN-GS-12 (0.29 ppm Au and 2650 ppm Cu), CDN-GS-13 (1.01 ppm Au, and 3290 ppm Cu), and CDN-GS-18 (0.297 ppm Au and 3190 ppm Cu). One of the standards used was mis-identified in hole SG08-30. In this hole, sample H164321 was identified as standard CDN-GS-13 when the results strongly indicate it is standard CDN-GS-1C (the gold results for this standard would fit with either standard but the copper value of 55 ppm only fits with the GS-1C standard as the GS-13 standards has 3290 ppm Cu).

With a failure for either Au or Cu defined here as a single sample returning a value greater than two "between lab" standard deviations (as supplied by the supplier) there were 3 gold standard failures, with 1 each for standards CDN-GS-P2, CDN-GS-5C, and CDN-GS-13. The laboratory reported gold analysis results on the order of 3-4 standard deviations to the high side (Std's GS-P2 and GS-13) and to the low side (Std GS-5C). There was also a standard inserted in the sample stream for hole SG08-24 with insufficient material for an assay also counting as a failure. In the case of copper there was one failure in the analysis of standard CDN-GS-13 with the failure just above the 2 standard deviation limit on the high side. All the copper analyses (5) of standard CDN-GS-18 produced failures on the low side by more than 4 standard deviations – there may be a problem with this standard (Table 18 Appendix 2).

### 13.3.3 DUPLICATES

The results of duplicate core sampling (half core compared to quarter core) show few cases where the duplicate sample returned an assay (Au) or geochemical value for any other element of interest (Ag, Cu, Mo, Pb, Zn, As, or Sb) that was more than double or less than half that of the original sample. Out of the 34 duplicates there were 6 cases where this occurred with gold. However, 4 of these were in cases where the high value was less than 0.1 ppm Au and the other two were cases where the high values were 0.11 and 0.14 ppm Au. For other elements the results were similar or better than as described for gold (Table 19, Appendix 2). Lastly, there does not appear to be a bias in sampling. Neither copper nor gold show a bias to the high or low side with respect to the gold and copper results in the original sample.

## **13.4 RESULTS OF 2009 QA/QC PROGRAM**

Northern Tiger followed the same QA/QC basic protocol as in 2008, inserting a quarter core duplicate, a standard, and a dolomite blank in sequence every 32-36 samples with the exception of no QA/QC samples in the last 83 samples from SG09-43 and apparently no QA/QC samples in hole SG09-44 (60 core samples). For the 2009 program this resulted in the analysis of 34 duplicates, standards, and blanks. Errors were found with each set of QA/QC sample insertions in hole SG09-38. The sample numbers were recorded properly in the Northern Tiger's table of duplicates, standards, and blanks but in the drill hole database the sample sequence was off by two sample numbers. The errors have been corrected in the drill hole database with effect of losing two 1 sample intercepts of 4.58 and 7.64 g Au/t.

### **13.4.1 BLANKS**

In the 2009 program there were 3 blanks that returned plus 0.01 ppm Au. This included both blanks inserted into the stream for hole SG09-43 but these were only slightly above background (0.021 and 0.011 ppm Au). The one severe failure was the blank, sample number G226180, which returned 0.305 ppm Au (Table 20, Appendix 2). There was either contamination in the blank, contamination somewhere in the lab or a mix up in samples. With the core samples immediately before and following being in the 0.01 to 0.02 ppm Au range the contamination, if that is what it was, did not affect the results for the core samples.

### **13.4.2 STANDARDS**

In the 2009 program Northern Tiger again used standards supplied by CDN Resource Laboratories Ltd. including two gold only standards (CDN-GS-P3A with 0.338 ppm Au and CDN-GS-5C with 4.74 ppm Au) and four gold-copper standards (CDN-CG-16 with 0.14 ppm Au and 1120 ppm Cu, CDN-CG-18 with 0.297 ppm Au and 3190 ppm Cu, CDN-GS-13 with 0.101 ppm Au and 3290 ppm Cu, and CDN-GS-20 with 7.75 ppm Au and 3.36% Cu). With a failure for either Au or Cu defined here as a single sample returning a value greater than two "between lab" standard deviations (as supplied by the supplier) there were 5 failures of gold standards in the range of 2-3 standard deviations (Table 21 Appendix 2). There was also one gold failure for a standard from hole SG09-33 for which not enough standard was sent to the lab for assay. In addition, there were 3 failures of copper standards in the 2-3 standard deviation range (Table 21 Appendix 2).

### 13.4.3            DUPLICATES

The results of duplicate core sampling (half core compared to quarter core) show 6 cases out of the 34 duplicates where the duplicate sample returned a value for gold at more than double or less than half of the original sample. However, in all cases but one the high values were near the detection limit ( $<0.05$  ppm) where such differences can be expected. The lone significant difference is with a duplicate of the sample for the interval from 85.9 to 87.9 m in hole SG09-39. The original sample had just 0.015 ppm Au and the duplicate and order of magnitude more with 0.15 ppm Au. For other elements of interest (Ag, Cu, Mo, Pb, Zn, As, or Sb) there were few cases with large differences between original samples and their duplicates (Table 22 Appendix 2)). Lastly, there does not appear to be a bias in sampling. Neither copper nor gold show a bias to the high or low side with respect to the gold and copper results in the original sample.

## 13.5            RESULTS OF 2010 QA/QC PROGRAM

As with the earlier programs a sequence of a quarter core duplicate, a standard, and a dolomite blank were inserted into the sample sequence, however, unlike the early programs the QA/QC samples were inserted less frequently. For example, in holes SG10-53 and SG10-55 (165 and 123 core samples respectively) each had only two QA/QC sample sets inserted. This is an insufficient number to ensure every sample batch at the laboratory has at least a blank and a standard. Overall the 2875 metre 2010 drill program included analysis of 24 sets of duplicates, standards, and blanks.

### 13.5.1            BLANKS

In the 2010 program there was not a single blank failure for any element of interest (Table 23, Appendix 2). For the elements of greatest interest, Au, Ag, and Cu, the highest values returned were 0.005, 0.05, and 14.6 ppm respectively.

### 13.5.2            STANDARDS

In the 2010 program Northern Tiger used two gold-copper standards supplied by CDN Resource Laboratories Ltd., CDN-CG-16 (0.14 ppm Au and 1120 ppm Cu) and CDN-CG-23 (0.218 ppm Au and 1820 ppm Cu). With a failure for either Au or Cu defined here as a single

sample returning a value greater than two "between lab" standard deviations (as supplied by the supplier) there were no analytical failures for any gold analysis. There was, however, one standard for hole SG10-45 that was not delivered to the lab in sufficient quantity to permit an assay which qualifies as a failure. There were 8 CDN-CG-16 standards in the sample stream and 5 had copper analysis failures on the high side (a high of 1300 ppm Cu). In the case of CDN-CG-23, there were 16 copper analyses and 9 failures, all on the high side (a high of 2070 ppm Cu). Results are provided in Table 24, Appendix 2.

### 13.5.3            DUPLICATES

The results of duplicate core sampling (half core compared to quarter core) show few cases where the duplicate sample returned a geochemical value for any element of interest (Au, Ag, Cu, Mo, Pb, Zn, As, or Sb) at more than double or less than half of the original sample. Out of the 24 duplicates there was only one case where this occurred with gold. The interval 236.8 – 238.8 m in hole SG10-50 returned a gold value of 0.26 ppm in the original sample and 0.07 ppm in the duplicate. There was no case where copper values varied by greater than 50% (Table 25 Appendix 2). Lastly, as with the 2008 and 2009 programs there does not appear to be a bias in sampling.

### 13.6                SUMMARY

With a few exceptions as noted above, Northern Tiger in general inserted more than a sufficient number of QA/QC samples made up of core duplicates, purchased standards, and dolomite blanks into the sample stream. However, the company did not routinely tabulate or graph results of the QA/QC samples to provide an on-going record. This resulted in Northern Tiger not responding to standard or blank failures, and there were 11 gold standard failures and 21 copper standard failures. Of these the gold failures are considered to be more significant in that gold is the primary metal of interest.

WGM recommends that Northern Tiger in future programs tabulate and plot results for all QA/QC samples appropriately to allow tracking of results and rapid response to the geochemical lab in the case of blank or standard failures. At the time of a failure it is much easier to resolve the problem which usually entails re-assaying a few samples on either side of the failed blank or standard. In addition, Northern Tiger should include a few Au-Ag standards as silver could be economically significant.

While the QA/QC program can be improved, it is WGM's opinion that the analytical results of the 2008-2010 drill programs can be relied upon in evaluating this relatively early exploration stage property.

The results of duplicate samples, even though duplicates were of just quarter core, are encouraging with few duplicate pairs returning dramatically different results. More important, there is no evidence of sampling bias demonstrated by the duplicates. There are nearly an equal number of duplicates pairs where the quarter core duplicate returned higher values (of any element) in relation to the original sample analysis as returned lower values.

## **14. DATA VERIFICATION**

### **14.1 DRILL HOLE COLLAR LOCATIONS**

Given the brevity of the WGM site visit it was not possible to visit any drill collar location from any vintage of drilling. However, hand held GPS coordinates obtained by Northern Tiger are expected to be accurate within 4 metres. This is sufficient for the stage of the project. WGM has no reason to believe that any error in the drill collar locations would materially affect the conclusions of this report.

### **14.2 DRILL HOLE AUDITS**

#### **14.2.1 2008-2010 DRILL HOLES**

WGM has reviewed and compared several Certificates of Analysis from ALS Chemex from the 2008, 2009, and 2010 drilling campaigns and checked for transposition errors in the drill hole database. In the case of 2008, WGM reviewed 3 random Certificates, TR08104058 (hole SG08-24), TR08120115 (holes SG08-27 and 28), and TR08122799 (holes SG08-30 and 31) representing 160 drill core samples (14% of the samples) and compared them to several versions of Northern Tiger's drill hole database. No errors were found with the results for sample numbers in the certificates matching those in the Excel spreadsheets. Northern Tiger has used the convention for gold and silver that when the result is below detection limit ( $<0.005$  ppm for Au and  $<0.2$  ppm for Ag) that those numbers are replaced with a value equal to half the detection limit (0.0025 ppm for Au and 0.1 ppm for Ag). In the case of gold the laboratory provides results to the 3<sup>rd</sup> decimal place and Northern Tiger has rounded the results to the 2<sup>nd</sup> decimal place. This has no material impact at this stage of the project but there is no reason to continue the practice.

For 2009, another 3 random Certificates, TR09092004 (hole SG09-38), TR09080981 (hole SG09-34), and TR09092330 (hole SG09-40) representing 146 samples (11% of the samples) were compared to Northern Tiger's Excel workbook for 2009 drilling. No errors were found and no rounding of gold values noted. However, as stated previously in the QA/QC section, there was a problem with linking the correct sample number to the correct duplicate, standard, and blank (which were Northern Tiger always inserted in sequence). This set of errors was easily corrected as Northern Tiger maintained a master sheet of sample numbers and the duplicates, standards, and blanks they go with. The transposition of sample numbers for these QA/QC samples resulted in two high grade gold standards being considered as core samples.

This problem has now been corrected in the drill hole database. While losing two ore grade samples (4.74 gAu/t and 7.75 gAu/t) the correction has no impact on the overall evaluation of the Sonora Gulch Project.

For 2010, another 3 random Certificates, WH10094436 (hole SG10-45), WH10098943 (hole SG09-34), and WH10111389 (hole SG09-40) representing 180 samples (12% of the samples) were compared to Northern Tiger's Excel workbook for 2010 drilling. No errors were found and no rounding of gold values noted in comparing results shown on the Certificates to the results for the same samples shown in Northern Tiger's Excel workbooks (for 2010 the final drill hole database consists of 12 workbooks, one for each hole).

WGM concludes that the drill hole database can be relied upon to support the conclusions of this report.

### **14.3 WGM DRILL CORE SAMPLE ANALYSES**

#### **14.3.1 2010 SITE VISIT SAMPLING**

During WGM's visit to the Property on October 6, 2010 core from 2008, 2009, and 2010 drill holes was briefly reviewed and 8 duplicate samples collected. With core cross stacked on pallets, and given the short time available for the visit, sampling was restricted to boxes near the top of the stacks. The WGM samples, which consisted of the remaining other half of the core, were matched as closely as possible to the intervals making up the original Northern Tiger samples. All 8 samples were collected by Dr. Page. The samples were put in large heavy duty plastic bags with two copies of the sample tag placed in each bag and sample number written on both sides of the bag. The bags were sealed with heavy locking plastic ties with imprinted sample numbers (matched to that on the tags placed in the bag).

Dr. Page accompanied the samples to Mail Boxes Etc. in Whitehorse and assisted in packing them in two boxes. The boxes were shipped via Canada Post to the WGM office in Toronto. On arrival Dr. Page opened the boxes, which showed no signs of having been tampered with, confirmed the sample bags were all present and intact, and then had the boxes picked up by Purolator and couriered to the SGS Toronto laboratory.

At SGS the samples were prepped and then assayed for gold and geochemically analyzed for 32 elements. Gold fire assays were done as per SGS code FAI515 - a 50 gram fire assay with ICP finish and a detection limit of 1 ppb Au. The geochemical analysis was done as per SGS code ICP40B, a procedure which calls for 4 acid, near total, digestion of the sample. Sample

72979 reported back as >10 ppm Ag and the pulp was resubmitted for analysis by atomic absorption (SGS code AAS21E). Copies of the laboratory certificates are provided in Appendix 3.

### 14.3.3 DISCUSSION

Despite the time constraint in collecting the 8 samples, and lack of access to most of the core owing to the way the boxes were stacked, WGM believes the 8 samples collected are sufficient to confirm the presence of Au-Ag-Cu-Mo mineralization at Sonora Gulch. In addition the data indicate that gold fire assays and ICP geochemical analyses performed by ALS Chemex are comparable to the gold fire assays and multi-element ICP geochemical analyses performed on the WGM duplicate samples at SGS in Toronto. Results along with the original Northern Tiger analytical data, are given in Tables 9 and 10.

**TABLE 9.**  
**GOLD AND SILVER IN WGM CHECK SAMPLES COMPARED TO ORIGINAL NORTHERN**  
**TIGER SAMPLES**

Drill Hole	From	To	Width	Sample #	Au ppb	Ag ppm	WGM #	Au ppb	Ag ppm	Rock Type
SG10-55	109.0	111.0	2.0	1038001	977	19.8	72972	619	8	veined porphyry
SG10-56	249.0	251.0	2.0	1038195	18	0.7	72973	21	<2	banded gneiss
SG10-45	276.8	278.8	2.0	1036350	479	0.4	72974	92	<2	veined porphyry
SG10-53	198.5	200.5	2.0	1037785	402	2.1	72975	247	<2	chloritized skarn
SG08-27	124.0	126.0	2.0	H164023	10	<0.2	72976	28	<2	serpentinized mafic
SG09-38	202.2	204.2	2.0	G6227724	6	0.2	72977	7	<2	chloritized skarn
SG09-36	150.1	151.6	1.5	G227513	1	<0.2	72978	5	<2	listwanite
SG08-31	287.0	289.0	2.0	H163580	590	14.6	72979	384	10.8	phyllic alt. porphyry

With respect to gold and silver, the numbers compare reasonably well for duplicate samples. There is an appearance of a bias to the high side for gold in the original data but with just 4 samples having plus 100 ppb gold there is no statistical basis to confirm a bias.

**TABLE 10.**  
**BASE METAL CONTENT IN WGM CHECK SAMPLES COMPARED TO ORIGINAL**  
**NORTHERN TIGER SAMPLES**

Hole	From	To	Width	N. Tiger #	Cu	Mo	Pb	Zn	As	WGM #	Cu	Mo	Pb	Zn	As
SG10-55	109.0	111.0	2.0	1038001	136	0.96	1510	1720	3190	72972	66	<1	452	578	2210
SG10-56	249.0	251.0	2.0	1038195	695	4.9	4.1	33	1.8	72973	672	7	7	39	<3
SG10-45	276.8	278.8	2.0	1036350	41	67	40	150	1875	72974	49	64	333	418	308
SG10-53	198.5	200.5	2.0	1037785	444	47	55	160	1750	72975	205	19	50	145	4130
SG08-27	124.0	126.0	2.0	H164023	157	<1	4	36	87	72976	63	<1	83	126	618
SG09-38	202.2	204.2	2.0	G6227724	13	1	5	73	106	72977	16	<1	12	58	35
SG09-36	150.1	151.6	1.5	G227513	67	<1	5	28	16	72978	66	1	10	30	21
SG08-31	287.0	289.0	2.0	H163580	95	32	268	176	13	72979	67	18	166	152	11

The multi-element data for metals of potential economic interest (plus arsenic) in the WGM samples also compare well with the original sample data. The original numbers are slightly higher for copper and molybdenum across the board but as with gold there is not enough data to confirm a bias.

WGM concludes that Au-Ag-Cu-Mo-Zn-Pb mineralization is present at Sonora Gulch and that Northern Tiger's sampling and analytical program was of sufficient quality to allow an accurate assessment of the level of precious and base metal mineralization encountered in drilling.

## 15. ADJACENT PROPERTIES

There are no immediately adjacent properties to Sonora Gulch but there is considerable exploration activity for gold in the Dawson Range and an operating Cu-Au mine at Minto. Reviewing all of these Dawson Range area projects is beyond the scope of this report, however, three of the closest projects to Sonora Gulch are of note and deserve mention as all are probably the same age.

The most significant in terms of contained metal is Western Copper Corporation's Casino Project located 45 km west of Sonora Gulch, followed by Northern Freegold Resources Ltd's Freegold Mountain Project located 55 km southwest of Sonora Gulch, and finally the Tarsis Resources-Silver Quest JV's Prospector Mountain property located 25 km south of Sonora Gulch. All of these properties host mineralization related to either the Prospector Mountain or the slightly younger Carmacks igneous suites. In particular, both Sonora Gulch and Casino have Carmacks age (75 m.y.) porphyries.

Casino is a large, structurally complex, low grade copper-gold-molybdenum porphyry with the most recent 43-101 report (Giroux, 2010) showing Measured and Indicated Resources of 1.14 billion tons at a grade of 0.185% copper, 0.246 g Au/t, 0.022% molybdenum, and 1.77 g Ag/t. Within this resource is a substantial supergene enriched zone with 252 million tons at 0.26% copper, 0.25 g Au/t, 0.021% molybdenum and 1.81 g Ag/t. Also included in the global Measured and Indicated resource is a substantial oxide zone with 84 million tons at 0.4 g Au/t. Currently Western Copper is advancing the Casino Project through Pre-feasibility studies.

Northern Freegold Resources' Freegold Mountain property, like Sonora Gulch, lies on the Big Creek Fault with Freegold's property position covering 35 km of strike along this major structure. The Freegold Mountain area is underlain by Paleozoic metamorphic rocks intruded by a diverse suite of igneous rocks of the Prospector Mountain and Carmacks groups. The Nucleus Zone is the most advanced target area on the large property and has an Inferred Resource of 52.4 million tons of 0.734 g Au/t and 1.19 g Ag/t. Within this resource is a smaller higher grade resource of 1.3 million tons with 1.62 g Au/t, 45 g Ag/t, 0.26% copper, 0.84% lead and 1.4% zinc.

At Prospector Mountain the Tarsis-Silver Quest JV is carrying out early stage work with no resources identified to date. The property is underlain Carmacks Suite volcanic rocks resting at least in part on a Prospector Mountain Suite monzonite intrusion. This pluton underlies the eastern portion of the property and exhibits potassic alteration and low grade copper mineralization. However, the JV's current target of interest on the property is the Bonanza

zone (Tarsis Resources website 2010), a northwest trending structural zone separating the monzonite on the east from the Carmacks rocks on the west. Mineralization is characterized by hematized and tourmalinized breccias with elevated copper and gold values. Until the Bonanza Zone was recognized the more typical mineralization on the property consisted of silver-lead rich veins. Like Sonora Gulch the project appears to have gold-silver, silver-lead-arsenic, and copper-gold mineralization with the former possibly epithermal and the latter probably porphyry type mineralization.

## **16. MINERAL PROCESSING METALLURGICAL TESTING**

WGM is unaware of any mineral processing or metallurgical testing done during or prior to the beginning of Northern Tiger's programs.

## **17. MINERAL RESOURCE ESTIMATE**

There is insufficient data to permit estimation of a mineral resource at Sonora Gulch.

## **18. OTHER RELEVANT DATA AND INFORMATION**

WGM is unaware of any other available technical information pertaining to the Sonora Gulch project.

## 19. INTERPRETATION AND CONCLUSIONS

Northern Tiger's Sonora Gulch Project lies within the Tintina Gold Belt, a broad structural zone with abundant Cretaceous to early Tertiary aged granitic plutonism. The belt stretches from south western Alaska through the south central Yukon Territory to the British Columbia border. Numerous gold deposits and districts lie within the Tintina Gold Belt including Donlin Creek, Fort Knox, and Livengood in Alaska and Dawson City, White Gold and Casino in the Yukon. More locally within this larger belt, Sonora Gulch straddles the Big Creek Fault a major northwest trending crustal break. This break parallels the trend of the larger belt and also passes through the Freegold Mountain Property to the southeast of Sonora Gulch and the massive low grade Casino porphyry deposit to the west of Sonora Gulch. Both Freegold Mountain and Casino properties host 75 m.y. old quartz monzonite to granodiorite porphyry stocks and dikes with porphyry style alteration and mineralization. Sonora Gulch has multiple porphyry bodies of the same age and there is little doubt that much of the alteration and mineralization seen at Sonora Gulch is related to these intrusive bodies.

Other styles of alteration and mineralization may be present at Sonora Gulch with Schulze (2007) and Bennett (2010) look to an epithermal model to explain the fine grained silica stringers and geochemical signature (gold-silver-arsenic-antimony) of Sonora Gulch. Though not documented by any worker, there is the possibility of orogenic type gold mineralization given a location centered on a major structure within an orogenic belt. However, based on information available to WGM, the working model applied here is that most if not all of the mineralization at Sonora Gulch is related to the various phases of Prospector Mountain or Carmacks suites of igneous rocks.

The GeoPrecision airborne magnetic survey appears to map the limits of a large, mostly blind, Late Cretaceous intrusive body. It lies on the east side of the Big Creek Fault in the south east corner of the claim block, outside the mineralized area, in an area mapped as Paleozoic gneiss. The anomaly is so featureless as to indicate the causative intrusive is either unaltered or has seen only potassic alteration. This anomaly decreases in intensity to the west northwest but the outer boundary remains clear, and it is likely the pluton or a series of porphyries related to it explain this weaker but still prominent magnetic high. This anomaly takes in all of the principal mapped porphyries, Concerto Creek, Amadeus, Figaro, and GVZ and is bounded on the north by an elongate prominent high caused by a peridotite sill.

Not coincidentally this anomaly and the immediately surrounding magnetic lows enclose most of the extensive gold in soil geochemical anomaly at Sonora Gulch. The combination of mapped intrusives, the magnetic anomaly, and the Au-Cu-Mo geochemical anomaly all fit with a porphyry model.

Mineralization encountered in drilling to date, however, has yet to produce the sort of intercepts expected from such a large and potentially productive porphyry system. Copper (100 to 300 ppm) and molybdenum (20-50 ppm) numbers encountered in drilling are an order of magnitude less than required for an economic deposit. In addition, one expects to see well developed quartz and quartz-sulfide stock works or sheeted veins. The quartz-pyrite-chalcopyrite, quartz-molybdenite and late pyrite veins typical of productive porphyry copper deposits are, so far, rare at Sonora Gulch. However, it must be noted that the porphyry system has not been tested at depth, and even at surface there are areas of porphyry with no drilling and an ample space to host a large deposit.

In addition, the Sonora Gulch hydrothermal system was strong enough to alter large volumes of gneiss and schist to skarn, argillize extensive portions of the porphyries, and produce local intervals of ore grade gold mineralization. Gold-copper-molybdenum mineralization may be weak within the porphyries as tested to date (Table 11) but this mineralization is not inconsequential. Several holes, particularly in the Amadeus porphyry, returned long intervals of porphyry gold style mineralization at levels comparable to protore gold mineralization at the Casino deposit.

**TABLE 11.**  
**LOW GRADE PORPHYRY STYLE GOLD INTERCEPTS AT SONORA GULCH**  
(values in ppm)

Zone	Hole	E.O.H.	From (m)	To (m)	Interval	Lithology	Au	Ag	Cu	Mo	Pb	Zn
Amadeus	SG06-06	219.4	2.4	193.3	190.9	porphyry	0.205	4.7	47	1	127	258
	SG07-11	204.5	3.1	128.2	125.2	porph/bx	0.286	5.2	60	1	375	834
	SG07-12	272.5	56.0	144.0	88.0	breccia	0.851	5.8	38	2	152	256
			205.0	219.0	14.0	gneiss	1.050	1.2	21	2	60	89
			219.0	272.8	53.8	gneiss	0.263	10.0	407	1	180	224
	SG07-13	266.7	140.0	266.7	126.7	porphyry	0.177	7.0	78	4	200	355
	SG07-14	262.1	57.6	262.1	204.5	porphyry	0.145	4.5	72	1	96	350
	SG07-16	254.5	65.5	241.9	176.4	breccias	0.145	11.6	187	1	409	586
	SG08-31	335.5	64.0	197.0	133.0	porphyry	0.478	4.0	70	1	60	206
	SG08-32	329.2	0.0	75.8	75.8	porphyry	0.212	0.5	12	1	38	84
Nightmusic	SG08-24	116.4	0.0	37.0	37.0	gneiss	0.300	2.6	265	83	86	104
			47.1	51.4	4.3	porphyry	0.470	5.7	87	13	268	1476
			72.0	101.5	29.5	porphyry	0.588	6.0	366	1	454	1378
	SG08-25	181.4	95.0	112.5	17.5	gneiss	0.330	9.0	245	2	92	833
			117.0	122.2	5.2	gneiss	2.130	18.0	6805	3	10	169
GVZ	SG10-55	219.5	2.7	53.7	51.0	porphyry	0.179	0.8	132	3	13	72

Even if porphyry style mineralization has not attained ore grade levels at Sonora Gulch the hydrothermal system active around the Amadeus and GVZ stocks appears to have been strong enough to produce a significant gold-silver deposit in the right setting. Drill results over the last 5 years demonstrate that ore grade mineralization can develop in favorable structural or lithologic settings (Table 12).

**TABLE 12.**  
**SUMMARY TABLE OF "ORE GRADE" AU AND AG INTERCEPTS AT SONORA GULCH**  
**(values in ppm)**

Zone	Hole	E.O.H.	From (m)	To (m)	Interval	Lithology	Au	Ag	Cu	Mo	Pb	Zn
Amadeus	SG06-06	219.4	208.3	219.4	11.1	breccia	8.01	3	53	4	62	62
	SG07-12	272.5	205.0	219.0	14.0	gneiss	1.05	1	21	2	60	89
Night Music	SG08-23	122.5	113.3	115.3	2.0	fault	5.09	1	249	2	8	60
	SG08-25	181.4	117.0	122.2	5.2	gneiss	2.13	18	6805	3	10	169
	SG08-27	214.9	70.0	116.0	46.0	gneiss, bx	2.97	9	1712	6	82	256
	SG08-28	228.6	112.0	129.0	17.0	gneiss	1.57	29	5900	9	82	446
	SG09-34	164.3	164.3	165.4	1.1	fault	0.22	3290	9280	0	4	32
	SG09-39	184.5	85.4	85.9	0.5	gneiss	63.80	47	589	0	209	594
	SG09-43	243.4	106.4	106.8	0.4	skarn	7.87	67	2020	2	73	2800
Jupiter	SG10-47	294.1	180.4	186.4	6.0	gneiss	1.44	44	211	44	1817	296
	SG10-53	280.0	194.5	210.5	16.0	skarn	1.88	6	255	13	61	71
GVZ	SG10-55	219.5	115.0	119.0	4.0	porphyry	11.30	233	788	2	15008	953

Table 12 shows all potentially economic gold-silver intercepts encountered in the 58 holes drilled from 2006 to 2010 (includes 11 holes lost at shallow depth). The table shows that 4 of the 5 zones drilled have at least one significant gold intercept (there is no plus 1 g Au/t intercept in the Figaro Zone but only one hole this zone). All of these intercepts with the exception of the last one in hole SG10-55 have seen some amount of offsetting or are in areas with enough drilling to limit the size of the mineralized zone encountered. However, even if none of these intercepts ends up being part of a significant deposit they confirm the potential of the hydrothermal system to generate ore grade gold-silver mineralization.

Even if all alteration-mineralization is porphyry related, complicating the picture (but important to exploration potential) are the multiple porphyries. One would not expect a single simple zoning pattern. There are at least 2 centers each of which will have unique mineralization-alteration zoning developed around them. The Amadeus porphyry in comparison to the GVZ porphyry, for example, exhibits more pervasive phyllic alteration, has silver dominated background mineralization, and much less molybdenum. The differences could be due to the two porphyries being exposed at different levels of erosion, but the more likely scenario is that there are some fundamental differences between the two porphyries.

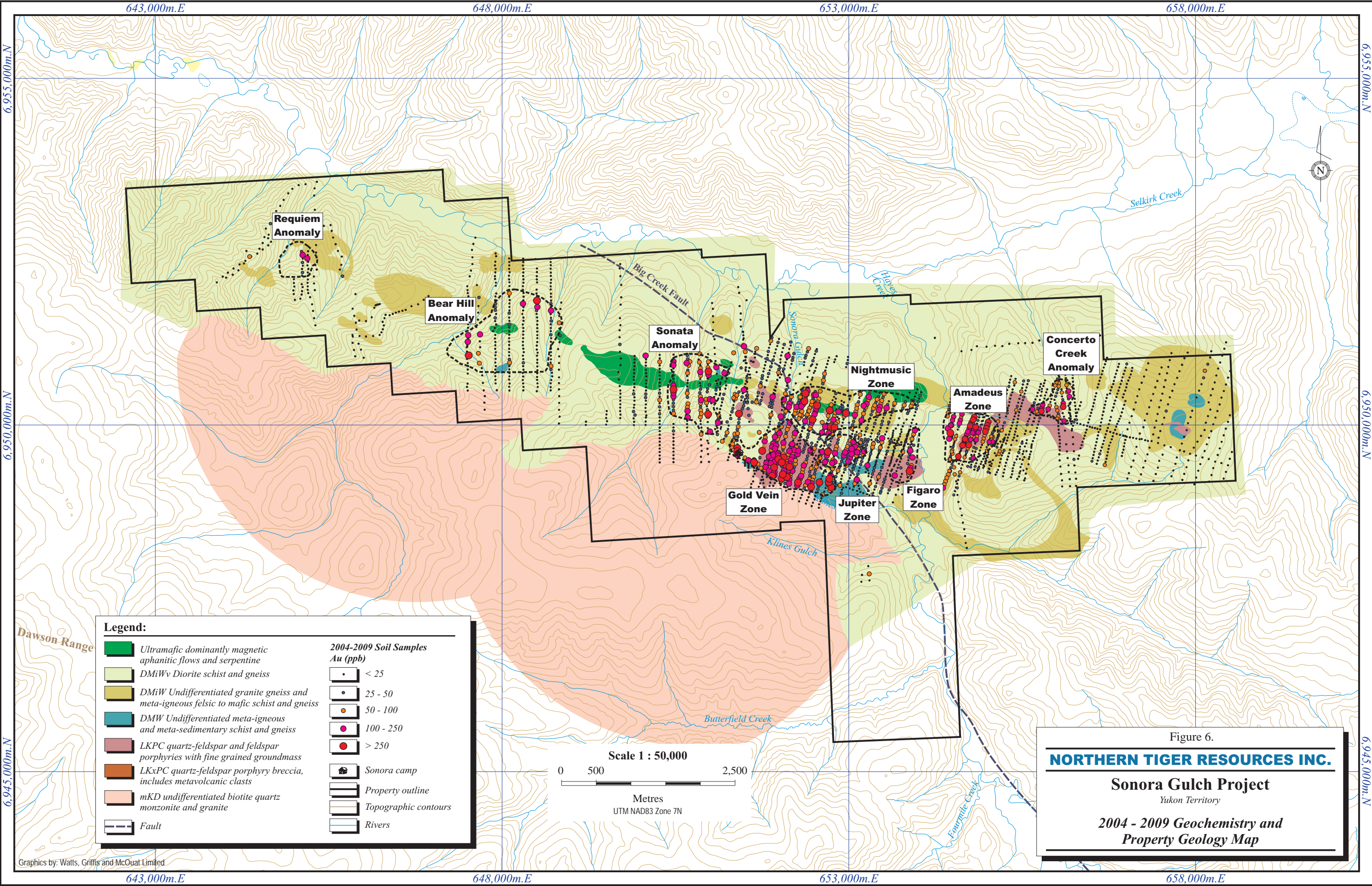
Of particular interest in the Amadeus porphyry is the gold-rich zone encountered in holes SG06-06 and SG07-12. This zone has a much lower silver to gold ratio than surrounding background mineralization and probably is related to slightly later crosscutting mineralization. This higher grade gold mineralization appears epithermal (Schulze, 2007) and is probably related to the final collapse of the Amadeus alteration system. Less likely but possible is that the higher grade gold zone is a prograde mineralization zone emplaced along a brecciated structure. If so the zone could expand with depth – a concept that remains untested.

The GVZ porphyry has been much less well explored by the Firestone-Northern Tiger drill programs with only hole SG10-55 fully within the zone. There are numerous holes around the northern and northeast margins of the GVZ and many of these intersected porphyry dikes or skarn.

If the GVZ porphyry has the same fundamental chemistry as the Amadeus porphyry it is more deeply eroded as indicated by the higher levels of molybdenum and higher average copper to lead plus zinc ratios. However, the more likely scenario is that the GVZ porphyry, and probably the porphyry in the Figaro Zone as well, have a different chemistry than the Amadeus porphyry.

Northern Tiger and its predecessors have carried out enough geochemical, geological, and geophysical work at Sonora Gulch to constrain the limits of possible economic precious and base metal mineralization but those limits remain large at 6 km long E-W and 1.5 km across N-S as defined by soil sampling (Figure 6) and aeromagnetic data. Substantial drilling has been done both historically and since 2006. These drill programs have failed so far to produce significant discoveries but have produced significant intercepts and demonstrated the presence of a large composite hydrothermal system.

Given the scale of the mineralized system and location in a productive gold belt WGM is of the opinion that Sonora Gulch remains underexplored. Potential for discovery of a well mineralized large tonnage porphyry remains. Potential also remains for discovery of a significant structurally or lithologically controlled gold-silver deposit (e.g. skarn or shear zone).



## **20. RECOMMENDATIONS**

### **20.1 INTRODUCTION**

The property is large but in WGM's opinion exploration should remain centered on or immediately adjacent to the composite porphyry complex as delineated by the airborne magnetic data. The entirety of this area of high potential has been extensively sampled, has complete airborne magnetic and radiometric coverage, and the largest porphyry center is completely covered by a Titan 24 survey. The next step to gather more targeting data for the rest of the 6 by 1.5 kilometre intrusive complex would be to expand the Titan 24 coverage. However, prior to carrying out such expensive targeting work the value of the initial Titan 24 survey needs to be demonstrated with drilling. Given the above, other than continued mapping and sampling of several outlying anomalies, the only recommendations provided here are for drilling.

WGM feels the central area continues to have the highest exploration priority (GVZ to Amadeus Zones), and within this area the recommended drill program covers several target types. The first is offsetting existing intercepts and offers the greatest possibility of producing significant intercepts in the next phase of drilling. The remaining targets can be divided into testing for porphyry mineralization and testing for skarns or other contact related deposits adjacent to the porphyries. These latter targets are each supported by some combination of geologic interpretation, geochemical anomalies, and geophysical anomalies. Specific targets and drill locations are described in the section that follows.

### **20.2 OFFSETTING EXISTING DRILL INTERCEPTS**

#### **20.2.1 AMADEUS ZONE**

Firestone Ventures in 2007 and Northern Tiger in 2008 attempted to show continuity around the 8 g Au/t intercept over 11.1 metres in hole SG06-06. The follow-up hole with the best results was hole SG07-12, collared 53 metres to the south and drilled at an angle nearly parallel to hole SG06-06 (both holes have an 180° azimuth but hole 12 drilled at -60° to hole 06's -55°). The pattern of mineralization and the host lithologies are similar in the two holes. Both have a long interval of low grade mineralization hosted by breccias cut by porphyry dikes (65 metres of 0.35 g Au/t in SG06-06 and 88 metres of 0.85 g Au/t in SG07-12). These

low grade intervals were followed by short barren intervals and then the higher grade mineralization (the above referenced interval in SG06-06 and a 14 metre intersection of 1.05 g Au/t in hole SG07-12). The higher grade intercepts are at approximately the same elevation in these holes and are difficult to correlate without faulting. However, based on the lithologic logs the higher grade intervals may not correlate. The best correlation could be between the high grade zone in SG06-06 and the bottom of the 0.85 g Au/t zone in SG07-12. Both these intervals are breccia hosted.

If this is the case, gold mineralization is increasing to depth along a high angle brecciated zone of probable northwest or northeast orientation. The lack of anything but large intervals of low grade in holes drilled from south to north (SG07-13) and from east to west (SG07-14 and SG08-31), which should have all cut the structure, could be attributed to mineralization attenuating towards surface.

WGM recommends stepping 50 metres to the north of the collar of SG06-06 and drilling a 450 metre hole at an azimuth of 180° and -60° to test for continuity of mineralization below the high grade intercept in SG06-06. Additional drilling of this zone will depend on results of the new hole.

The Amadeus Zone has the most consistent background gold grades encountered in the various drill programs at Sonora Gulch but is seen by WGM to have been sufficiently tested for a porphyry deposit (although one additional hole on the northwest edge of Amadeus Zone is recommended under the Figaro Zone program). No further testing for near surface bulk tonnage mineralization is recommended for the Amadeus Zone.

#### 20.2.2 GOLD VEIN ZONE

Drill hole SG10-55 has the highest grade gold intercept at Sonora Gulch that has not been offset; 4 metres of 11.3 g Au/t and 233 g Ag/t starting at 115 metres. The 4 metre mineralized zone is logged as quartz feldspar porphyry with disseminated pyrite cut by 1 cm thick veins of quartz-boulangerite-jamesonite (both Pb-Sb-As sulfosalts that can carry Au and Ag). Such veins are logged over the interval from 88.4 to 133 metres with the entire 44.6 metre interval averaging 1.14 g Au/t and 24 g Ag/t. WGM recommends multiple offsets of hole SG10-55 (Table 13) starting with a hole drilled to 150 m at the same site with the same azimuth but drilled at -45° (drilled deeper if still in mineralization). A second hole is recommended to "scissor" this hole and hole SG10-55 and should be drilled due north at -60° to a depth of 200 metres from a site 110 metres south of the collar of SG10-55. The two new holes in combination with the original hole SG10-55 should indicate whether the hole SG10-55

intercept is part of a coherent zone. The drilling should also assist in determining possible dip of the zone and where to go next to determine the strike. In the best case the zone would come across as a stock work and subsequent drilling would be on a grid with vertical holes. Unless these two initial offset holes are blanks, WGM recommends a minimum additional 2 holes, each of approximately 200 metres to be drilled as 50 m offsets to hole SG10-55. The location and orientation of the holes would be determined by results of the two holes described above.

**TABLE 13.**  
**PROPOSED STEP OUT HOLES TO EXISTING GOLD INTERCEPTS**

Concept	Drill Site	Easting	Northing	Azimuth°	Dip °	Depth_m	Zone	Comment
Offset Intercepts	A	654856	6949803	180	60	450	Amadeus	test beneath hole SG06-06 Au intercept
	B	652050	6949340	180	45	150	GVZ	test above SG10-55 Au intercept, same site
	C	652050	6949230	360	60	200	GVZ	scissor SG10-55
	2 holes	T.B.D.	T.B.D.	T.B.D.	T.B.D.	400	GVZ	sites and orientations of 2, 50m stepouts to be determined by B & C
	E	652860	6949930	200	60	350	Jupiter	offset to CG10-53 150 m to north; 1180N on line 4E, IP High
	F	653020	6949920	200	50	350	Jupiter	offset CG10-53 200 m to northeast
	G	653160	6949670	225	50	300	Jupiter	offset CG10-53 300 m to east
	GG	652860	6949700	20	60	300	Jupiter	scissor SG10-53 (drilling this hole depends on results of E, F, and G)
	3 holes	T.B.D.	T.B.D.	T.B.D.	T.B.D.	900	Jupiter	sites and orientations of 3, 50m stepouts to be determined by GG
Totals	12					3400		

### 20.2.3 JUPITER ZONE

Drilling in the Jupiter Zone has arguably produced the weakest gold, silver, and copper intercepts of the zones tested to date. However, the zone does host strong skarn alteration and there was one good hole. This hole, hole SG10-53, encountered not just increasing alteration and intensity of skarn development with depth but also the best grade skarn intercept yet at Sonora Gulch with 16 metres of 1.88 g Au/t starting at 194.5 metres. The hole passed into porphyry at 241 metres. This intercept has only been partially offset to the west and south and needs to be offset to the northwest, north and east.

Northern Tiger can consider a couple of options including one that would be similar to that recommended for offsetting hole SG10-55 – a scissor hole and several close spaced step outs. However, WGM's preferred option, is to drill 3 widely spaced step out holes to bracket SG10-53 at 150 metres north, 200 metres northeast, and 300 metres east. The first test (site E in Table 13) will drill under a highly gold anomalous area including a rock chip with 1.7 g Au/t, test a strong IP high, and pass ~55 m west of the trace of Hole SG10-53. The hole to the northeast of SG10-53 (site F) should be angled to the southwest to test the eastern margin of a magnetic low and pass ~90m east of hole SG10-53. The last of these step outs, to the east at site G, will test an area of anomalous gold in soils, the edge of a magnetic high, and the eastern edge of the Gold Vein Zone porphyry as indicated by potassium radiometrics. The hole will also test the area along the Big Creek Fault intended to be tested by 4 holes in 2006-

2007 all which were lost at shallow depth. These last two tests will hopefully catch the leading edge of the skarn around the porphyry where prograde mineralization would be expected to be the strongest.

Should the above tests around hole SG10-53 fail to encounter significant mineralization, Northern Tiger should consider drilling 4 short holes immediately adjacent to hole SG10-53 starting with a scissor hole (site GG) to guarantee not missing the zone. The scissor hole should be drilled at an azimuth of 20° and an inclination of -60° and collared so as to cut the trace of SG10-53 at 195 m depth. Three step outs at 50 m to north, east, and west of SG10-53 will follow with orientations determined by results of the scissor hole. Should the results of the close spaced step out holes be favourable it should be clear as to how to proceed with a second phase of drilling to delineate the zone.

### **20.3 GEOPHYSICAL TARGETS**

The geophysical targets are based primarily on interpretation of Titan 24 2D chargeability and resistivity inversions as shown on sections and plans (Figure 7). To a lesser extent they take into account results of the magnetic or radiometric surveys but that data primarily serves to identify the area in which the Titan 24 was carried out as being the prime target area. This area takes in both the surface outcrop of quartz feldspar porphyry as well as the probable larger expanse of porphyry at depth. Coincidentally this area also takes in the largest part of the gold in soils anomaly.

There are two target types that should be tested with the recommended program:

1. Deep copper-gold-molybdenum porphyry – very large tonnage
2. Peripheral targets along the contact both within and outboard of the intrusive complex
  - a. Skarn – to include prograde skarn fronts and structurally controlled retrograde mineralization
  - b. Breccias along the intrusive contact – as in SG06-06 in the Amadeus Zone
  - c. Vein or structurally hosted mineralization both within and outside the porphyry.

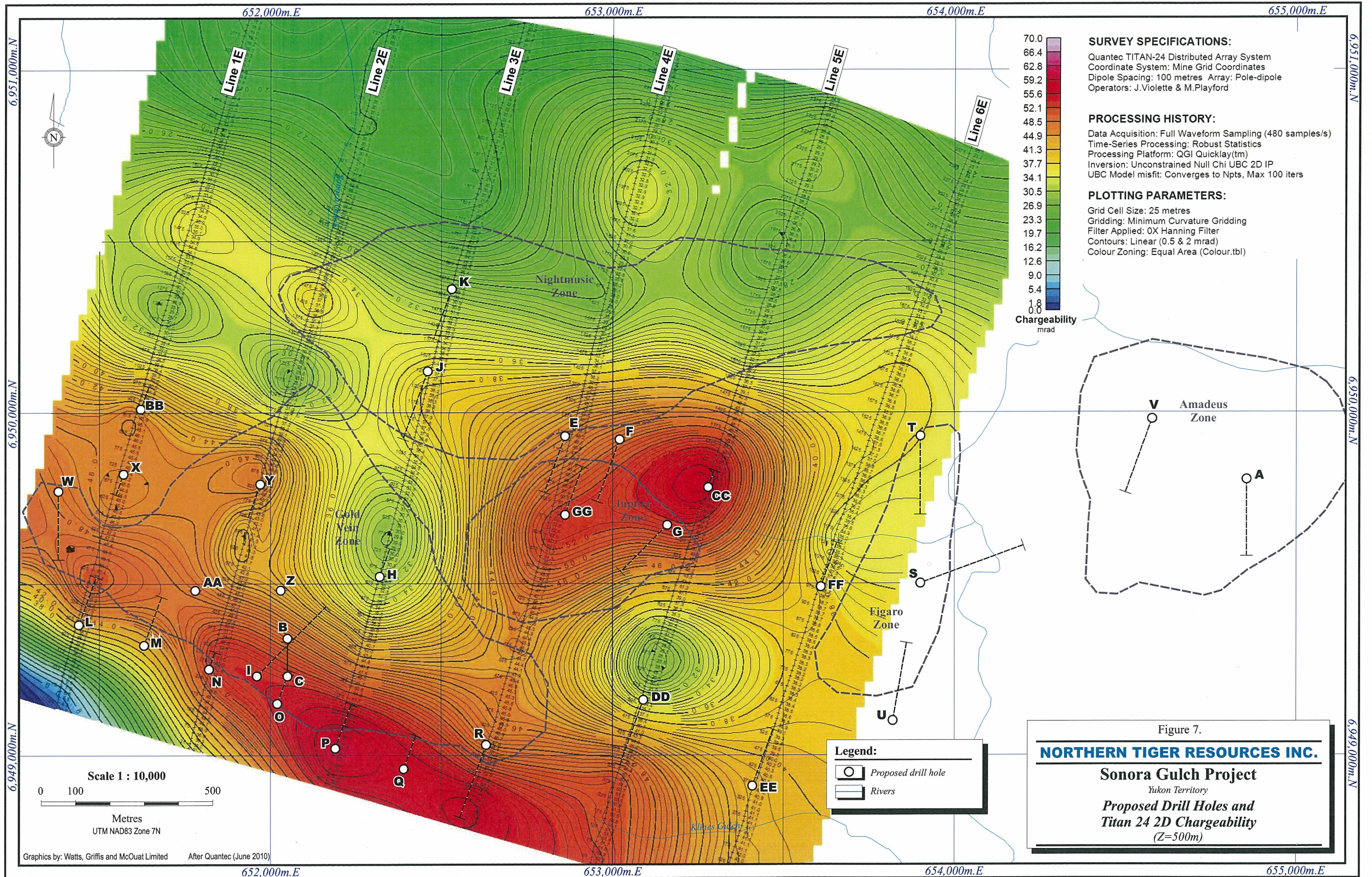
### 20.3.1 PROPOSED HOLES - DEEP PORPHYRY

The classic IP response for a porphyry center in plan looks like a "donut" with a low chargeability "hole" (related to the low sulphide core of the porphyry) surrounded by a high chargeability "donut" (related to the pyrite halo). Copper-gold-molybdenum mineralization can be confined to the "hole" with little but pyrite in the halo, or the center can be barren with mineralization of economic interest straddling the boundary of the low chargeability core and the high chargeability halo. Given there could be two scenarios a drill test of this model should not be a single hole "center punch", although the first hole probably should be a "center punch" drilled to at least 500 m. The preferred site for this hole is at 650N on Titan 24 line 3E with the hole drilled at -80° on a 20° azimuth (site H in Table 14). This location and orientation will allow testing a near surface chargeability anomaly that Quantec recommended drill testing (Verweerd, 2010).

**TABLE 14.**  
**PROPOSED HOLES FOR TESTING TITAN 24 AND OTHER GEOPHYSICAL ANOMALIES**

Concept	Drill Site	Easting	Northing	Azimuth°	Dip °	Depth_m	Zone	Comment
GVZ	H	652320	6949520	20	80	500	GVZ	test conceptual center of GVZ porphyry
Deep Porphyry	I	651960	6949230	45	55	500	GVZ	cross south flank of conceptual GVZ porphyry
	J	652460	6950120	200	65	500	GVZ	cross north flank of conceptual GVZ porphyry
Resistivity High	K	652530	6950360	200	70	450	Nightmusic	test deep resistivity anomaly
SW GVZ IP High	L	651440	6949380	20	65	350	GVZ	250N on Line 1E, cross north flank of IP high
	M	651630	6949320	20	60	300	GVZ	In-fill hole between sites L and N
	N	651820	6949250	20	85	600	GVZ	250N on Line 2E, test core of deep IP high
	O	652020	6949150	20	70	300	GVZ	In-fill hole between sites N and P
	P	652190	6949020	20	70	400	GVZ	125N on Line 3E, cross north flank intense IP high
	Q	652390	6948960	20	70	300	GVZ	In-fill hole between sites P and R
	R	652630	6949030	200	50	350	GVZ	Line 4E 250N cross structure and IP high
Totals	11					4550		

The second hole would test the south flank of the IP anomaly drilling from the south towards the center of the IP low. The recommended collar location is between Titan 24 lines 2E and 3E collared 150 metres southwest of hole SG10-55. If the decision is made to drill this hole it should be drilled before the step out holes around SG10-55 as it will provide pertinent information on continuity of the intercept in that hole. The third hole should be collared in the far north of the Nightmusic Zone at 1250N Titan 24 line 3E and drill southwest back into the center of the IP anomaly.



### **20.3.2 PROPOSED HOLES – OTHER IP AND RESISTIVITY FEATURES**

There is a deep east-west trending resistivity feature that parallels the mapped ultramafic of the Nightmusic Zone. One hole (site K) is planned to test this feature where it is strongest at approximately 400 metres depth on line 3E. The resistivity high does not coincide with a strong IP anomaly but the IP inversion does show a modeled response that is well above background. If the resistivity high is caused by a silicified zone or a siliceous porphyry dike it becomes interesting, but regardless this contact should be tested. The anomaly cannot be fully assessed with a single hole but any additional tests need to take into account the results of this first hole.

The southern contact of the GVZ porphyry is of interest based on consistently anomalous surface gold geochemistry, results of hole SG10-55, and the strong geophysical contrasts in chargeability, potassium radiometrics, and total magnetics. As a minimum program single holes are recommended to be stepped out every 200 m from Titan 24 line 1E through line 4E. Thus of these 7 holes, 4 holes would be drilled on and parallel to the geophysical lines and 3 collared midway between Titan 24 lines (that is single holes midway between line 1E and 2E, line 2E and 3E, and line 3E and 4E). All holes will test the southern flank of the modeled southwest dipping chargeability highs. All of the holes should be drilled to the north except for the hole on line 4E which should be drilled in the opposite direction to cross a possible structure before testing the IP high.

## **20.4 ADDITIONAL PORPHYRY TARGETS**

A large scale porphyry target based on modeled Titan 24 data was discussed above, but there are others that are defined to various extents by geology, potassium radiometrics, and magnetic data. These include the Figaro Zone in which only 1 hole has been completed to date and large portions of the central and western portions of the GVZ that have not previously been tested.

### **20.4.1 PROPOSED HOLES FIGARO ZONE**

The Figaro Zone which lies on the west side of Hayes Creek opposite the Amadeus Zone is possibly related to the Amadeus porphyry and not the larger GVZ porphyry system to the west. The first hole drilled in the Firestone Ventures – Northern Tiger era was drilled in the Figaro Zone and took two attempts to complete. It is impossible based on one hole to say much about the merits of Figaro but the hole is notable in having strongly anomalous

molybdenum from top to bottom. This sets it apart from the Amadeus holes on the east side of Hayes Creek. Also, a location in the valley allows a deeper test of the Sonora Gulch system than will be accomplished from the holes discussed above drilled into the top of Gold Vein Zone.

WGM recommends drilling 3 holes in the Figaro Zone and a fourth on the other side of Hayes Creek on the west edge of the Amadeus Zone. The three recommended holes directly in Figaro should be spaced at 400 m apart along the length of the zone (Table 15) starting in a magnetic "trough" connecting the Amadeus and Figaro Zones that is presumably caused by alteration of the otherwise magnetic porphyries. The middle of these holes (site S, Table 15) will drill to the east under Hayes Creek and test the eastern contact of the porphyry at Figaro or continuity with the Amadeus porphyry. The other two holes, drilled at sites T and U, will test the northern and southern ends of the Zone respectively. The last hole recommended for Figaro, the hole at site V, is located on the east side of Hayes Creek and will test a gold in soil anomaly and for mineralization between the Figaro and Amadeus porphyries.

**TABLE 15.**  
**PROPOSED HOLES FOR TESTING PORPHYRY TARGETS NOT ADDRESSED PREVIOUSLY**

Concept	Drill Site	Easting	Northing	Azimuth°	Dip °	Depth_m	Zone	Comment
Figaro Porphyry	S	653900	6949500	70	50	500	Figaro	Test center of Figaro porphyry and structure under Hayes Creek
	T	653900	6949930	180	55	400	Figaro	Test north end of Figaro porphyry
	U	653820	6949100	10	55	400	Figaro	Test south end of Figaro porphyry
	V	654580	6949980	200	55	400	Amadeus	Test Au soil anomaly and UM-Figaro porphyry contact
GVZ Porphyry	W	651380	6949770	180	60	400	GVZ	Au soil anomaly and cross edge of potassium high
	X	651570	6949820	200	75	250	GVZ	700N, Line 1E, (Quantec pick DH-02), edge of potassium high
	Y	651970	6949790	200	70	300	GVZ	780N on Line 2E, test IP high and edge of potassium high
	Z	652030	6949480	0	90	300	GVZ	Test cluster of +0.3 ppm Au in soil samples and projected IP high
	AA	651780	6949480	0	90	350	GVZ	"center punch" small body of porphyry breccia
	BB	651620	6950010	20	80	400	GVZ	north margin potassium low, 900N Line 1E IP high
Totals	11					3700		

#### 20.4.2 PROPOSED HOLES – ADDITIONAL GVZ ZONE TARGETS

Through 2010, other than very short historic holes, only 3 holes had been drilled in the GVZ and two of those were drilled on its northern and southeastern margins. Even with the fairly extensive set of holes proposed for the GVZ, as shown in Tables 14 and 15, the northwestern and eastern portions of the GVZ would remain untested. The latter area has poor geochemistry and WGM is not recommending further holes in this phase. On the other hand WGM recommends 6 holes to test various geochemical and geophysical targets within an area 900 m long in a northwest direction by 450 m wide in the northwest portion of the GVZ. Several of these sites (W, X, Y and BB) test the margin of the radiometric survey potassium high believed to be related to the GVZ porphyry. All of the holes except X and B test gold in soil anomalies and 4 test strong IP anomalies (X, Y, Z, and BB). Lastly, the proposed site AA is drilled in the middle of a small body of porphyry breccia that has not yet been tested.

### 20.4.3 PROPOSED HOLES – OTHER

The area south of the Jupiter Zone and between the GVZ and Figaro Zone has seen no drilling. While there is no significant geochemical anomaly the area lies on the margins of the GVZ and Figaro porphyries and hosts significant Titan 24 chargeability anomalies. WGM's 4 proposed holes test 4 chargeability anomalies and all but the proposed hole at site CC (Table 16 and located between the Jupiter and Figaro Zones) test the margins of a large low in the potassium radiometrics data. Any of these holes could cut mineralized skarn along a contact with porphyry. At a minimum these holes begin to fill in an area of 700 by 700 metres that all lies within the limits of the intrusive complex.

**TABLE 16.**  
**PROPOSED HOLES FOR TESTING SOUTHEAST OF THE GVZ AND OUTLYING ANOMALIES**

Concept	Drill Site	Easting	Northing	Azimuth°	Dip °	Depth_m	Zone	Comment
SE Potassium Low	CC	653280	6949780	20	-85	600	no zone	1150N on Line 5E, deep IP high (Quantec pick DH-23)
	DD	653090	6949160	200	-60	400	no zone	500N on Line 5E, shallow IP high on edge of potassium low
	EE	653410	6948910	20	-60	350	no zone	350N on Line 6E, edge of IP high on south flank of potassium low
	FF	653610	6949490	20	-70	400	no zone	960N on line 6E (Quantec pick DH-26), north edge of potassium low
Outlying Anomalies	4-5 holes	Concerto Creek Anomaly		T.B.D.	T.B.D.	1000	Concerto	4-5 shallow holes with sites to be determined by further work
	4-5 holes	Sonata Anomaly		T.B.D.	T.B.D.	1000	Sonata	4-5 shallow holes with sites to be determined by further work
	4-5 holes	Bear Creek & Requiem		T.B.D.	T.B.D.	1000	multiple	4-5 shallow holes with sites to be determined by further work
Totals	11					4750		

Two additional anomalies, Concerto Creek and Sonata have soil grids and numerous anomalies at plus 100 ppb gold. Both anomalies have seen little work beyond limited soil and rock chip sampling. Concerto Creek is the more advanced and has mapped quartz feldspar porphyries whereas Sonata appears to lie just to the west of the intrusive complex and is underlain by various Wolverine Creek metamorphic rocks. Given the gold in soil anomalies both deserve testing but not without further geologic and geochemical data. WGM believes that each will deserve 4-5 holes with locations to be determined by the work to be completed.

Lastly, reconnaissance sampling has picked up two further gold anomalies in the west of the claim block, Bear Hill and Requiem. Little work has been done on either but both need to be followed up with detailed mapping and soil and rock sampling. Another 4-5 holes are recommended for the best anomalies to emerge from these two zones.

### 20.5 BUDGET

Helicopter supported diamond drilling programs in the Yukon have been estimated to cost on an all inclusive basis \$600 per metre drilled. The above drill program totals 16,400 metres, which at this all in cost will require a budget on the order of \$10 million dollars.

## 21. SIGNATURE PAGE

This report titled "*Technical Report on the Sonora Gulch Project, Whitehorse Mining Division, Yukon Territory for Northern Tiger Resources Inc.*" dated February 3, 2011 was prepared and signed by the following author:

Dated effective as of February 3, 2011.



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Robert H. Page, Ph.D., P.Geo.  
Senior Associate Geologist

## **CERTIFICATE**


**To accompany the report entitled "Technical Report on the  
Sonora Gulch Project, Whitehorse Mining Division, Yukon Territory for  
Northern Tiger Resources Inc." dated February 3, 2011**

I, Robert Page, do hereby certify that:

1. I reside at 1129 Windrush Dr., Oakville, Ontario, Canada L6M 1S9.
2. I am a graduate of Dartmouth College, Hanover, NH, USA (1973) with a Bachelor of Arts degree in Earth Sciences. I am also a graduate of the University of California at Berkeley, (1979) with a Ph.D. in Economic Geology.
3. I am a member in good standing of the Association of Professional Geologists of Ontario (Membership Number 0820).
4. I am a Senior Associate Geologist with Watts Griffiths and McOuat Limited, a firm of consulting geologists and engineers, which has been authorized to practice professional engineering by the Professional Engineers Ontario since 1969, and professional geoscience by the Association of Professional Geoscientists of Ontario.
5. I have practiced my profession since 1973.
6. I was previously employed by Linear Metals Inc. as V.P. Exploration from January 2007 through December 2008. Prior to that I worked from September 1979 to October 2006 for Noranda and then Falconbridge as a geologist, country manager, and finally as Chief Geologist-Copper. Before Noranda, and during my years at Berkeley I held temporary positions with Umont Mining, Anaconda Uranium, and Anaconda – Butte, Montana Operations. During my career I have gained experience in the exploration and evaluation of a wide variety of ore deposit types with an emphasis on porphyry copper deposits.
7. I have read the definition of "Qualified Person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
8. I am independent of the issuer applying all of the tests in Section 1.5 of National Instrument 43-101.
9. I made a site visit to the Property on October 6, 2010.
10. I have not had any direct prior involvement with this Property prior to writing this report.

11. I am responsible for authorship of all Sections of this report relating to the Sonora Gulch Property in the Yukon Territory.
12. This report was prepared for Northern Tiger Resources by Robert Page, an associate with WGM. It is based almost exclusively on data that were provided to Dr. Page by Northern Tiger. Robert Page and WGM disclaim all liability for the underlying data and do not accept responsibility for the interpretations and representation made in this report where they were a result of erroneous, false, or misrepresented data. Robert Page and WGM disclaim any and all liability for representations or warranties, expressed or implied, contained in, or for omissions from, this report or any other written or oral communications transmitted or made available to any interested party when done without written permission or when they are inconsistent with the conclusions and statements of this report.
13. Neither I, nor any affiliated entity of mine, is at present, under an agreement, arrangement or understanding or expects to become, an insider, associate, affiliated entity or employee of Northern Tiger Resources or any associated or affiliated entities.
14. Neither I, nor any affiliated entity of mine, own, directly or indirectly, nor expect to receive, any interest in the properties or securities of Northern Tiger Resources or any associated or affiliated companies.
15. Neither I, nor any affiliated entity of mine, have earned the majority of our income during the preceding three years from Northern Tiger Resources or any associated or any affiliated companies.
16. I have read National Instrument 43-101 and Form 43-101F1 and have prepared the Technical Report in compliance with NI 43-101 and Form 43-101F1; and have prepared the report in conformity with generally accepted Canadian mining industry practice, and as of the date of the certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.



  
Robert H. Page, Ph.D, P. Geo.  
February 3, 2011

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## **APPENDICES**

**APPENDIX 1:  
CLAIMS MAKING UP THE SONORA GULCH PROJECT**

### CLAIMS MAKING UP THE SONORA GULCH PROJECT

Grant Number	Claim		
	Name	Number	Expiry Date
YD63606	BACH	1	6/7/2011
YD63607	BACH	2	6/7/2011
YD63608	BACH	3	6/7/2011
YD63609	BACH	4	6/7/2011
YD63610	BACH	5	6/7/2011
YD63611	BACH	6	6/7/2011
YD63612	BACH	7	6/7/2011
YD63613	BACH	8	6/7/2011
YD63614	BACH	9	6/7/2011
YD63615	BACH	10	6/7/2011
YD63616	BACH	11	6/7/2011
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YD63619	BACH	14	6/7/2011
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YD63621	BACH	16	6/7/2011
YD63622	BACH	17	6/7/2011
YD63623	BACH	18	6/7/2011
YD63624	BACH	19	6/7/2011
YD63625	BACH	20	6/7/2011
YD63626	BACH	21	6/7/2011
YD63627	BACH	22	6/7/2011
YD63628	BACH	23	6/7/2011
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YD63630	BACH	25	6/7/2011
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YC26226	S	14	12/22/2026

Grant Number	Claim		
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YC90030	STONE	56	12/22/2014
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YC90032	STONE	58	12/22/2014
YC90033	STONE	59	12/22/2014
YC90034	STONE	60	12/22/2014
YC90035	STONE	61	12/22/2014
YC90036	STONE	62	12/22/2014
YC90037	STONE	63	12/22/2014
YC90038	STONE	64	12/22/2014
YC59834	STRAUSS	1	12/22/2020
YC59835	STRAUSS	2	12/22/2020
YC59836	STRAUSS	3	12/22/2020
YC59837	STRAUSS	4	12/22/2018
YC59838	STRAUSS	5	12/22/2018
YC59839	STRAUSS	6	12/22/2017
YC59840	STRAUSS	7	12/22/2017
YC59841	STRAUSS	8	12/22/2017

Grant Number	Claim		
	Name	Number	Expiry Date
YC59842	STRAUSS	9	12/22/2017
YC59843	STRAUSS	10	12/22/2018
YC59844	STRAUSS	11	12/22/2017
YC59845	STRAUSS	12	12/22/2018
YC59846	STRAUSS	13	12/22/2020
YC59847	STRAUSS	14	12/22/2018
YC59848	STRAUSS	15	12/22/2020
YC59849	STRAUSS	16	12/22/2020
YC59850	STRAUSS	17	12/22/2020
YC59851	STRAUSS	18	12/22/2020
YC59852	STRAUSS	19	12/22/2018
YC59853	STRAUSS	20	12/22/2018
YC59854	STRAUSS	21	12/22/2013
YC59855	STRAUSS	22	12/22/2017
YC59856	STRAUSS	23	12/22/2013
YC59857	STRAUSS	24	12/22/2013
YC59858	STRAUSS	25	12/22/2013
YC59859	STRAUSS	26	12/22/2018
YC59860	STRAUSS	27	12/22/2018
YC59861	STRAUSS	28	12/22/2018
YC59862	STRAUSS	29	12/22/2018
YC59863	STRAUSS	30	12/22/2018
YC59864	STRAUSS	31	12/22/2013
YC59865	STRAUSS	32	12/22/2017
YC59866	STRAUSS	33	12/22/2013
YC59867	STRAUSS	34	12/22/2017
YC59868	STRAUSS	35	12/22/2013
YC59869	STRAUSS	36	12/22/2013
YC59870	STRAUSS	37	12/22/2014
YC59871	STRAUSS	38	12/22/2013
YC59872	STRAUSS	39	12/22/2014
YC59873	STRAUSS	40	12/22/2013
YC59874	STRAUSS	41	12/22/2013
YC59875	STRAUSS	42	12/22/2014
YC59876	STRAUSS	43	12/22/2013
YC59877	STRAUSS	44	12/22/2014
YC59878	STRAUSS	45	12/22/2013
YC59879	STRAUSS	46	12/22/2013
YC59880	STRAUSS	47	12/22/2013
YC59881	STRAUSS	48	12/22/2013
YC59882	STRAUSS	49	12/22/2015
YC59883	STRAUSS	50	12/22/2015
YC59884	STRAUSS	51	12/22/2016
YC59885	STRAUSS	52	12/22/2015
YC59886	STRAUSS	53	12/22/2016
YC59887	STRAUSS	54	12/22/2015
YC59888	STRAUSS	55	12/22/2016
YC59889	STRAUSS	56	12/22/2013
YC59890	STRAUSS	57	12/22/2015
YC59891	STRAUSS	58	12/22/2014
YC59892	STRAUSS	59	12/22/2015

Grant Number	Claim		
	Name	Number	Expiry Date
YC59893	STRAUSS	60	12/22/2013
YC59894	STRAUSS	61	12/22/2015
YC59895	STRAUSS	62	12/22/2016
YC59896	STRAUSS	63	12/22/2015
YC59897	STRAUSS	64	12/22/2016
YC59898	STRAUSS	65	12/22/2015
YC59899	STRAUSS	66	12/22/2016
YC59900	STRAUSS	67	12/22/2016
YC59901	STRAUSS	68	12/22/2016
YC59902	STRAUSS	69	12/22/2014
YC59903	STRAUSS	70	12/22/2015
YC59904	STRAUSS	71	12/22/2014
YC59905	STRAUSS	72	12/22/2014
YC59906	STRAUSS	73	12/22/2014
YC59907	STRAUSS	74	12/22/2014
YC59908	STRAUSS	75	12/22/2014
YC59909	STRAUSS	76	12/22/2014
YC59910	STRAUSS	77	12/22/2014
YC59911	STRAUSS	78	12/22/2014
YC59912	STRAUSS	79	12/22/2014
YC59913	STRAUSS	80	12/22/2014
YC59914	STRAUSS	81	12/22/2014
YC59915	STRAUSS	82	12/22/2014
YC59916	STRAUSS	83	12/22/2014
YC59917	STRAUSS	84	12/22/2014
YA03779	SWEDE	1	12/22/2026
YA03780	SWEDE	2	12/22/2026
YA03781	SWEDE	3	12/22/2026
YA03782	SWEDE	4	12/22/2026
YC26162	SWEDE	5	12/22/2027
YA03784	SWEDE	6	12/22/2026
YC54316	WAM	1	12/22/2019
YC54317	WAM	2	12/22/2019
YC54318	WAM	3	12/22/2019
YC54319	WAM	4	12/22/2019
YC54320	WAM	5	12/22/2019
YC54321	WAM	6	12/22/2019
YC54322	WAM	7	12/22/2017
YC54323	WAM	8	12/22/2019
YC54324	WAM	9	12/22/2017
YC54325	WAM	10	12/22/2019

**APPENDIX 2:  
QA/QC TABLES**

**Table 17. 2008 analytical results for dolomite blanks (all values in ppm).**

Drill Hole	Sample	Au	Ag	Cu	Mo	Pb	Zn	As	Sb
SG-08-23	H164563	0.003	0.10	4	0.5	2	1	<2	3
SG-08-24	H164593	0.003	0.10	5	0.5	5	1	3	1
SG-08-24	H164728	0.003	0.10	3	1.0	3	1	12	1
SG-08-25	H164799	0.003	0.10	3	0.5	6	11	<2	1
SG-08-26	H164831	0.003	0.10	4	1.0	3	2	4	1
SG-08-26	H164862	0.003	0.10	17	0.5	1	3	<2	2
SG-08-26	H164895	0.003	0.10	2	0.5	1	1	<2	1
SG-08-26	H164922	0.003	0.10	4	0.5	3	1	4	1
SG-08-27	H164014	0.003	0.10	9	0.5	1	1	5	1
SG-08-27	H164044	0.003	0.10	3	0.5	5	1	3	1
SG-08-27	H164954	0.003	0.20	6	1.0	4	3	<2	1
SG-08-27	H164984	<b>0.010</b>	0.10	3	1.0	3	2	9	5
SG-08-28	H164082	0.003	0.10	5	0.5	1	2	5	1
SG-08-28	H164112	0.003	0.10	2	1.0	6	2	2	1
SG-08-28	H164142	0.003	0.20	14	1.0	6	3	8	6
SG-08-28	H164172	0.003	0.20	5	0.5	5	1	5	1
SG-08-28	H164202	0.003	0.10	4	0.5	6	2	11	1
SG-08-29	H164232	0.003	0.10	29	0.5	3	1	3	2
SG-08-29	H164262	0.003	0.10	16	0.5	2	1	8	1
SG-08-30	H164292	<b>0.010</b>	0.20	26	0.5	7	1	<2	1
SG-08-30	H164322	0.003	0.10	2	0.5	5	1	2	1
SG-08-30	H164342	0.003	0.10	16	1.0	4	2	3	1
SG-08-30	H164372	0.010	0.10	12	0.5	1	2	4	1
SG-08-31	H163597	0.003	0.10	29	0.5	2	8	3	2
SG-08-31	H164407	0.003	0.10	6	0.5	2	2	3	1
SG-08-31	H164437	0.003	0.10	5	0.5	6	3	2	1
SG-08-31	H164452	0.003	0.10	10	0.5	1	2	<2	1
SG-08-31	H164480	0.003	0.10	8	0.5	2	2	5	1
SG-08-32	H163627	0.003	0.10	6	0.5	2	2	2	1
SG-08-32	H163657	0.003	0.10	15	0.5	2	2	3	1
SG-08-32	H163687	0.003	0.10	15	0.5	2	3	3	1
SG-08-32	H163717	0.003	0.10	<b>50</b>	0.5	1	4	3	2
SG-08-32	H163747	0.003	0.10	<b>42</b>	0.5	1	3	3	2
SG-08-32	H163777	0.003	0.10	18	0.5	1	3	4	2
<b>Failures in bold</b>									

**Table 18. 2008 analytical results for standards (all values in ppm).**

Drill Hole	Sample	Standard	Au LL	Au Std	Au UL	Au	Cu LL	Cu Std	Cu UL	Cu	Ag	Mo	Pb	Zn	As	Sb
		CDN-GS-P2	Gold standard only													
SG-08-31	H164405	CDN-GS-P2	0.194	0.214	0.234	<b>0.250</b>				52	2.3	0.5	16	648	48	8
		CDN-GS-12	Gold and copper standard only													
SG-08-28	H164141	CDN-GS-12	0.25	0.29	0.33	0.260	2500	2650	2800	2700	3.5	190	49	285	29	13
		CDN-GS-18	Gold and copper standard only													
SG-08-28	H164111	CDN-GS-18	0.257	0.297	0.337	0.260	3040	3190	3340	<b>2760</b>	3.2	200	48	296	28	8
SG-08-32	H163626	CDN-GS-18	0.257	0.297	0.337	0.280	3040	3190	3340	<b>2700</b>	3.2	195	49	309	27	10
SG-08-32	H163776	CDN-GS-18	0.257	0.297	0.337	0.280	3040	3190	3340	<b>2700</b>	3.1	181	43	290	27	8
SG-08-28	H164171	CDN-GS-18	0.257	0.297	0.337	0.310	3040	3190	3340	<b>2860</b>	3.2	188	46	307	29	7
SG-08-32	H163686	CDN-GS-18	0.257	0.297	0.337	0.310	3040	3190	3340	<b>2820</b>	3.1	182	45	279	26	6
		CDN-GS-1C	Gold standard only													
SG-08-23	H164562	CDN-GS-1C	0.91	0.99	1.07	0.990				56	2.3	6	18	98	354	29
SG-08-24	H164727	CDN-GS-1C	0.91	0.99	1.07	0.920				56	2.3	6	18	98	362	30
SG-08-25	H164798	CDN-GS-1C	0.91	0.99	1.07	1.000				55	2.3	6	19	102	351	30
SG-08-26	H164830	CDN-GS-1C	0.91	0.99	1.07	1.040				58	2.3	7	18	103	380	30
SG-08-26	H164894	CDN-GS-1C	0.91	0.99	1.07	0.860				58	2.3	7	15	103	377	30
SG-08-26	H164921	CDN-GS-1C	0.91	0.99	1.07	0.970				57	2.4	6	18	106	374	26
SG-08-28	H164201	CDN-GS-1C	0.91	0.99	1.07	0.970				61	2.2	6	21	104	378	33
SG-08-30	H164321	CDN-GS-1C	0.91	0.99	1.07	0.940				55	2.2	7	18	102	365	30
		CDN-GS-13	Gold and copper standard only													
SG-08-29	H164231	CDN-GS-13	0.9	1.01	1.12	0.980	3110	3290	3470	3240	4.1	208	116	159	63	28
SG-08-29	H164261	CDN-GS-13	0.9	1.01	1.12	1.050	3110	3290	3470	3320	3.7	203	113	158	60	26
SG-08-30	H164291	CDN-GS-13	0.9	1.01	1.12	0.940	3110	3290	3470	3430	4.7	211	116	163	56	27
SG-08-30	H164341	CDN-GS-13	0.9	1.01	1.12	1.060	3110	3290	3470	3260	3.6	199	109	165	62	25
SG-08-30	H164371	CDN-GS-13	0.9	1.01	1.12	1.010	3110	3290	3470	3340	3.8	206	115	158	61	27
SG-08-31	H163596	CDN-GS-13	0.9	1.01	1.12	1.070	3110	3290	3470	3270	3.8	210	114	168	64	28
SG-08-31	H164436	CDN-GS-13	0.9	1.01	1.12	0.950	3110	3290	3470	<b>3490</b>	4	209	115	164	59	25
SG-08-31	H164451	CDN-GS-13	0.9	1.01	1.12	1.010	3110	3290	3470	3330	3.8	210	114	158	60	25
SG-08-31	H164479	CDN-GS-13	0.9	1.01	1.12	0.970	3110	3290	3470	3320	3.8	204	115	169	63	27
SG-08-32	H163656	CDN-GS-13	0.9	1.01	1.12	<b>1.130</b>	3110	3290	3470	3270	3.7	201	110	155	60	26
SG-08-32	H163716	CDN-GS-13	0.9	1.01	1.12	1.040	3110	3290	3470	3270	4	207	114	162	61	27
SG-08-32	H163746	CDN-GS-13	0.9	1.01	1.12	0.900	3110	3290	3470	3270	3.7	208	115	159	62	28
		CDN-GS-10	Gold and copper standard only													
SG-08-26	H164861	CDN-GS-10	1.58	1.73	1.88	1.650	14800	15500	16200	15600	5.4	14	11	88	18	27
		CDN-GS-5C	Gold standard only													
SG-08-27	H164953	CDN-GS-5C	4.46	4.74	5.02	<b>4.250</b>				52	5.3	17	3	40	484	71
SG-08-27	H164043	CDN-GS-5C	4.46	4.74	5.02	4.470				52	5.5	16	5	38	477	72
SG-08-27	H164983	CDN-GS-5C	4.46	4.74	5.02	4.570				49	5.8	16	4	36	471	67
SG-08-27	H164013	CDN-GS-5C	4.46	4.74	5.02	4.650				51	5.3	16	3	38	487	71
SG-08-24	H164592	CDN-GS-5C	4.46	4.74	5.02	<b>N.A.</b>				59	1.8	5	211	228	236	23
Failures in bold; none of the standards are certified for other than Au and Cu.																
N.A. - insufficient material supplied to perform gold assay																

**Table 19. 2008 analytical results for core duplicates (all values in ppm).**

Drill Hole	Sample	Type	From (m)	to (m)	Width	Au	Ag	Cu	Mo	Pb	Zn	As	Sb
SG-08-24	H164590	O	53.4	55.4	2	<b>0.030</b>	<b>0.5</b>	175	1	<b>12</b>	57	<b>94</b>	2
SG-08-24	H164591	D			0	<b>0.070</b>	<b>1.2</b>	196	1	<b>27</b>	61	<b>47</b>	1
SG-08-24	H164725	O	114.5	116.4	1.9	0.270	2.2	78	0.5	128	463	2030	35
SG-08-24	H164726	D			0	0.480	3.8	138	0.5	208	796	3320	51
SG-08-25	H164796	O	128.2	130.2	2	0.010	0.2	49	0.5	4	45	135	4
SG-08-25	H164797	D			0	0.010	0.3	48	0.5	4	42	116	5
SG-08-26	H164828	O	8.1	10.1	2	<b>0.020</b>	<b>3.8</b>	247	<b>92</b>	<b>8</b>	136	<b>53</b>	<b>10</b>
SG-08-26	H164829	D			0	<b>0.140</b>	<b>9.4</b>	316	<b>36</b>	<b>65</b>	167	<b>299</b>	<b>46</b>
SG-08-26	H164859	O	64.1	66.1	2	0.020	0.3	305	77	5	71	6	<b>3</b>
SG-08-26	H164860	D			0	0.020	0.3	297	64	5	65	5	<b>1</b>
SG-08-26	H164892	O	124.1	126.1	2	0.020	<b>0.2</b>	198	28	3	38	83	3
SG-08-26	H164893	D			0	0.020	<b>0.4</b>	229	17	3	36	71	4
SG-08-26	H164919	O	168.5	170.5	2	0.020	0.4	149	17	6	24	3	<b>1</b>
SG-08-26	H164920	D			0	0.030	0.5	158	15	5	24	2	<b>2</b>
SG-08-27	H164011	O	108	110	2	<b>0.110</b>	<b>0.3</b>	141	2	6	30	40	<b>2</b>
SG-08-27	H164012	D			0	<b>0.040</b>	<b>0.6</b>	189	2	5	34	36	<b>4</b>
SG-08-27	H164041	O	160.8	162.8	2	0.010	0.1	33	0.5	4	18	111	2
SG-08-27	H164042	D			0	0.010	0.1	21	0.5	4	18	103	2
SG-08-27	H164951	O	2	4	2	0.010	0.5	118	5	5	70	11	1
SG-08-27	H164952	D			0	0.010	0.6	104	9	4	51	11	1
SG-08-27	H164981	O	56	58	2	0.020	0.7	97	41	6	93	98	<b>2</b>
SG-08-27	H164982	D			0	0.020	0.5	91	37	6	85	79	<b>5</b>
SG-08-28	H164079	O	13	15	2	0.050	1.3	179	28	15	106	<b>63</b>	2
SG-08-28	H164080	D			0	0.060	1.3	187	18	14	118	<b>28</b>	2
SG-08-28	H164109	O	67	69	2	<b>0.060</b>	0.3	82	17	6	64	31	1
SG-08-28	H164110	D			0	<b>0.020</b>	0.4	88	16	8	73	30	1
SG-08-28	H164139	O	118	119	1	2.910	38.0	8800	<b>22</b>	<b>362</b>	2110	873	<b>166</b>
SG-08-28	H164140	D			0	3.400	68.5	10700	<b>12</b>	<b>866</b>	3430	1195	<b>389</b>
SG-08-28	H164169	O	160	162	2	<b>0.080</b>	0.6	171	0.5	7	43	113	7
SG-08-28	H164170	D			0	<b>0.040</b>	0.5	175	0.5	7	41	73	6
SG-08-28	H164199	O	211	213	2	0.170	7.7	114	0.5	366	<b>254</b>	2640	49
SG-08-28	H164200	D			0	0.180	10.8	146	0.5	517	<b>512</b>	2820	83
SG-08-29	H164229	O	42.5	44.5	2	0.020	0.4	65	2	4	8	50	4
SG-08-29	H164230	D			0	0.020	0.3	37	2	4	6	74	4
SG-08-29	H164259	O	94.7	96.7	2	0.040	0.1	98	0.5	1	36	4	1
SG-08-29	H164260	D			0	0.030	0.1	106	0.5	1	39	7	1
SG-08-30	H164289	O	81.7	83.7	2	0.010	0.3	2	2	6	16	<b>2</b>	1
SG-08-30	H164290	D			0	0.010	0.4	2	3	7	16	<b>4</b>	1
SG-08-30	H164319	O	248	250	2	0.030	4.2	73	3	353	387	20	39
SG-08-30	H164320	D			0	0.020	3.3	72	3	256	235	19	54
SG-08-30	H164339	O	282	284	2	0.110	6.9	211	1	152	250	33	88
SG-08-30	H164340	D			0	0.110	6.2	155	2	172	276	27	65
SG-08-30	H164369	O	336	338	2	0.250	7	684	3	55	80	149	122
SG-08-30	H164370	D			0	0.170	8.6	665	2	38	111	164	144
SG-08-31	H163594	O	315	317	2	0.120	2.3	609	9	16	104	161	142
SG-08-31	H163595	D			0	0.090	2.0	536	8	13	90	146	115
SG-08-31	H164399	O	50	52	2	<b>0.030</b>	0.2	7	0.5	5	89	22	1
SG-08-31	H164400	D			0	<b>0.060</b>	0.3	7	0.5	5	80	22	<b>2</b>
SG-08-31	H164404	O	148	150	2	0.400	2.8	88	<b>1</b>	17	372	52	7
SG-08-31	H164405	D			0	0.250	2.3	52	<b>0.5</b>	16	648	48	8
SG-08-31	H164434	O	201	203	2	0.050	<b>21.9</b>	<b>119</b>	<b>1</b>	419	469	23	<b>60</b>
SG-08-31	H164435	D			0	0.030	<b>9.5</b>	<b>47</b>	<b>0.5</b>	303	306	13	<b>24</b>
SG-08-31	H164477	O	100	102	2	0.290	1.4	10	<b>1</b>	20	57	40	3
SG-08-31	H164478	D			0	0.290	<b>1</b>	13	<b>0.5</b>	19	48	35	4
SG-08-32	H163624	O	35	37	2	0.120	<b>0.2</b>	10	0.5	13	40	29	<b>6</b>
SG-08-32	H163625	D			0	0.120	<b>0.6</b>	7	0.5	55	55	27	<b>3</b>
SG-08-32	H163654	O	89	91	2	0.040	0.2	7	<b>1</b>	20	<b>38</b>	9	6
SG-08-32	H163655	D			0	0.030	0.2	10	<b>0.5</b>	24	<b>76</b>	12	7
SG-08-32	H163684	O	141	143	2	0.100	0.9	9	11	81	132	49	11
SG-08-32	H163685	D			0	0.100	0.7	8	11	70	172	49	8
SG-08-32	H163714	O	195	197	2	0.060	2.4	21	3	75	80	37	10
SG-08-32	H163715	D			0	0.060	3.2	23	2	<b>90</b>	100	35	10
SG-08-32	H163744	O	249	251	2	0.030	<b>1.9</b>	148	<b>1</b>	<b>102</b>	109	42	37
SG-08-32	H163745	D			0	0.030	<b>4.2</b>	197	<b>1</b>	<b>271</b>	131	48	59
SG-08-32	H163774	O	303	305	2	0.040	5.1	221	0.5	85	61	45	58
SG-08-32	H163775	D			0	0.040	5.7	272	0.5	81	82	55	73

Results where higher of analysis of a duplicate pair is >100% of the lower analysis are highlighted in bold.

**Table 20. 2009 analytical results for dolomite blanks (all values in ppm).**

Hole ID	Sample No.	Au	Ag	Cu	Mo	Pb	Zn	As	Sb
SG09-33	G226036	<0.005	<0.2	5	<1	2	14	2	<2
SG09-33	G226072	<0.005	<0.2	45	<1	2	20	10	<2
SG09-33	G226108	<0.005	<0.2	54	<1	3	18	3	<2
SG09-33	G226144	<0.005	<0.2	18	<1	2	18	7	<2
SG09-34	G226180	<b>0.305</b>	0.4	6	<1	4	15	3	<2
SG09-34	G226217	0.013	0.5	53	<1	4	51	45	4
SG09-34	G226253	<0.005	0.2	10	<1	3	14	<2	<2
SG09-34	G226289	<0.005	<0.2	7	<1	<2	14	3	<2
SG09-35	G226322	0.005	0.2	5	<1	<2	14	<2	<2
SG09-35	G226358	<0.005	<0.2	5	<1	3	14	<2	<2
SG09-35	G226394	<0.005	0.2	10	<1	<2	14	3	<2
SG09-36	G226429	<0.005	0.3	15	<1	3	16	<2	<2
SG09-36	G226465	<0.005	0.4	20	<1	3	19	7	<2
SG09-36	G227501	<0.005	<0.2	12	<1	<2	18	3	<2
SG09-37	G227536	<0.005	<0.2	12	<1	<2	15	<2	<2
SG09-37	G227572	<0.005	<0.2	19	<1	4	23	<2	<2
SG09-37	G227608	<0.005	<0.2	40	<1	3	17	3	<2
SG09-38	G227644	<0.005	0.2	3	<1	3	13	6	<2
SG09-38	G227680	<0.005	0.3	5	1	2	17	7	4
SG09-38	G227716	0.005	0.5	35	1	5	15	<2	<2
SG09-39	G227752	<0.005	<0.2	<1	<1	6	14	<2	<2
SG09-39	G227788	<0.005	0.5	3	<1	3	15	<2	<2
SG09-39	G227824	<0.005	<0.2	9	<1	2	14	7	3
SG09-40	G226504	<0.005	<0.2	28	<1	2	16	<2	<2
SG09-40	G227863	<0.005	<0.2	<b>174</b>	1	4	14	<2	<2
SG09-40	G227900	<0.005	<0.2	44	<1	2	15	3	<2
SG09-40	G227935	<0.005	0.2	66	1	4	14	7	<2
SG09-40	G227970	<0.005	<0.2	54	1	<2	13	2	<2
SG09-41	G226539	<0.005	<0.2	3	<1	2	15	6	<2
SG09-41	G226574	<0.005	<0.2	47	1	<2	13	<2	<2
SG09-41	G226609	<0.005	<0.2	<1	<1	<2	13	<2	<2
SG09-41	G226644	0.006	<0.2	3	<1	<2	14	<2	<2
SG09-43	G226680	<b>0.021</b>	<0.2	5	1	5	19	8	<2
SG09-43	G226716	<b>0.011</b>	<0.2	11	<1	<2	19	6	<2

**Failures in bold**

**Table 21. 2009 analytical results for standards (all values in ppm).**

Hole ID	Sample No.	Standard	LL	std	UL	Au	Ag	LL	std	UL	Cu	Mo	Pb	Zn	As	Sb
		CDN-GS-16	Gold and copper standard only													
SG09-39	G227751	CDN-GS-16	0.094	0.14	0.186	0.117	0.8	1070	1120	1170	1130	13	16	101	44	5
SG09-39	G227823	CDN-GS-16	0.094	0.14	0.186	<b>0.218</b>	1.1	1070	1120	1170	<b>1185</b>	13	12	107	51	6
		CDN-GS-18	Gold and copper standard only													
SG09-33	G226071	CDN-GS-18	0.257	0.297	0.337	0.258	2.9	3040	3190	3340	3280	35	92	336	63	4
SG09-33	G226143	CDN-GS-18	0.257	0.297	0.337	0.278	3.2	3040	3190	3340	3300	37	93	341	64	5
SG09-34	G226252	CDN-GS-18	0.257	0.297	0.337	0.312	3.1	3040	3190	3340	3130	34	86	323	59	3
SG09-35	G226321	CDN-GS-18	0.257	0.297	0.337	0.272	3	3040	3190	3340	3200	37	92	337	59	4
SG09-36	G226428	CDN-GS-18	0.257	0.297	0.337	0.286	3.2	3040	3190	3340	3310	36	90	344	68	2
SG09-36	G226464	CDN-GS-18	0.257	0.297	0.337	0.294	3.1	3040	3190	3340	3340	39	91	349	69	5
SG09-36	G226500	CDN-GS-18	0.257	0.297	0.337	0.309	3.1	3040	3190	3340	<b>3410</b>	38	93	341	66	5
SG09-37	G227607	CDN-GS-18	0.257	0.297	0.337	0.335	3.0	3040	3190	3340	3160	33	87	320	64	3
		CDN-GS-P3A	Gold standard only													
SG09-34	G226216	CDN-GS-P3A	0.316	0.338	0.360	0.360	3.2				3160	35	90	321	65	4
		CDN-GS-13	Gold and copper standard only													
SG09-33	G226035	CDN-GS-13	0.90	1.01	1.12	<b>N.A.</b>	3.6	3110	3290	3470	3220	205	115	162	61	27
SG09-33	G226107	CDN-GS-13	0.90	1.01	1.12	1.070	3.5	3110	3290	3470	3400	205	116	163	64	27
SG09-34	G226179	CDN-GS-13	0.90	1.01	1.12	<b>1.160</b>	3.7	3110	3290	3470	3140	203	112	157	60	24
SG09-34	G226288	CDN-GS-13	0.90	1.01	1.12	0.960	3.8	3110	3290	3470	3340	226	117	169	61	28
SG09-35	G226357	CDN-GS-13	0.90	1.01	1.12	0.977	3.9	3110	3290	3470	3390	211	116	163	61	24
SG09-35	G226393	CDN-GS-13	0.90	1.01	1.12	0.986	3.5	3110	3290	3470	3270	228	119	163	59	27
SG09-37	G227535	CDN-GS-13	0.90	1.01	1.12	0.969	3.7	3110	3290	3470	3370	216	115	155	63	25
		CDN-GS-5C	Gold standard only													
SG09-38	G227643	CDN-GS-5C	4.46	4.74	5.02	<b>4.36</b>	5.7				50	16	5	36	466	64
SG09-38	G227679	CDN-GS-5C	4.46	4.74	5.02	4.58	5.5				53	16	4	40	456	65
SG09-41	G226608	CDN-GS-5C	4.46	4.74	5.02	4.48	5.0				50	16	<2	36	477	71
SG09-41	G226643	CDN-GS-5C	4.46	4.74	5.02	<b>4.42</b>	5.1				52	16	<2	36	466	70
SG09-43	G226679	CDN-GS-5C	4.46	4.74	5.02	4.69	5.2				50	17	3	38	467	65
SG09-43	G226715	CDN-GS-5C	4.46	4.74	5.02	4.61	6.2				50	16	<2	35	480	62
		CDN-GS-20	Gold and copper standard only													
SG09-37	G227571	CDN-GS-20	7.28	7.75	8.22	7.71	14.6	31900	33600	35300	33100	384	78	136	54	38
SG09-38	G227715	CDN-GS-20	7.28	7.75	8.22	7.64	13.7	31900	33600	35300	33100	338	72	129	51	46
SG09-39	G227787	CDN-GS-20	7.28	7.75	8.22	7.88	13.1	31900	33600	35300	<b>31700</b>	361	73	132	57	48
SG09-40	G226503	CDN-GS-20	7.28	7.75	8.22	7.82	13	31900	33600	35300	33100	334	70	129	54	47
SG09-40	G227862	CDN-GS-20	7.28	7.75	8.22	8.10	13.4	31900	33600	35300	34200	350	70	131	52	43
SG09-40	G227899	CDN-GS-20	7.28	7.75	8.22	8.00	14.9	31900	33600	35300	32200	386	74	142	54	44
SG09-40	G227934	CDN-GS-20	7.28	7.75	8.22	<b>6.99</b>	13.3	31900	33600	35300	32400	375	70	134	50	44
SG09-40	G227969	CDN-GS-20	7.28	7.75	8.22	7.45	13.3	31900	33600	35300	33100	382	70	138	55	43
SG09-41	G226538	CDN-GS-20	7.28	7.75	8.22	7.45	13	31900	33600	35300	33100	349	68	128	54	48
SG09-41	G226573	CDN-GS-20	7.28	7.75	8.22	7.28	12.6	31900	33600	35300	33200	360	67	131	51	46

N.A. - insufficient material supplied to perform gold assay

Sample G226107 was mislabeled as standard CDN-GS-18

None of the standards are certified for other than Au and Cu, results for other elements provided for reference only.

**Table 22. 2009 analytical results for core duplicates (all values in ppm).**

Hole ID	Sample No.	From (m)	To (m)	Au	Ag	Cu	Mo	Pb	Zn	As	Sb
SG09-33	G226033	64.8	66.8	<b>0.016</b>	0.5	95	3	8	52	154	<2
SG09-33	G226034	duplicate	duplicate	<b>0.008</b>	0.5	73	3	7	35	113	<2
SG09-33	G226069	118.5	120.5	<b>0.006</b>	<0.2	10	<1	<2	70	43	<2
SG09-33	G226070	duplicate	duplicate	<b>0.014</b>	<0.2	12	<1	2	66	37	<2
SG09-33	G226105	169.3	171.3	0.022	<b>0.2</b>	85	<1	29	192	712	21
SG09-33	G226106	duplicate	duplicate	0.019	<b>0.5</b>	99	<1	29	211	624	20
SG09-33	G226141	229.8	231.3	0.007	<0.2	14	<1	7	29	<b>50</b>	<b>3</b>
SG09-33	G226142	duplicate	duplicate	0.005	<0.2	15	<1	6	30	<b>103</b>	<b>&lt;2</b>
SG09-34	G226177	62.0	64.0	0.008	0.3	32	11	4	17	18	<2
SG09-34	G226178	duplicate	duplicate	0.005	0.3	33	8	3	16	12	<2
SG09-34	G226214	116.2	118.2	<b>0.015</b>	<b>0.6</b>	<b>3</b>	<1	3	<b>14</b>	<b>&lt;2</b>	<b>&lt;2</b>
SG09-34	G226215	duplicate	duplicate	<b>0.042</b>	<b>0.3</b>	<b>45</b>	<1	2	<b>50</b>	<b>43</b>	<b>4</b>
SG09-34	G226250	167.4	169.1	<b>0.007</b>	0.2	62	<1	6	45	93	6
SG09-34	G226251	duplicate	duplicate	<b>0.024</b>	0.4	81	<1	7	33	62	4
SG09-34	G226286	223.0	225.2	0.007	<0.2	7	<1	3	18	518	10
SG09-34	G226287	duplicate	duplicate	0.006	<0.2	6	<1	3	20	575	8
SG09-35	G226319	46.7	48.7	0.016	<b>0.4</b>	67	35	2	16	76	<2
SG09-35	G226320	duplicate	duplicate	0.018	<b>&lt;0.2</b>	41	32	2	12	101	<2
SG09-35	G226355	99.9	101.9	<b>0.027</b>	0.2	49	2	6	17	22	<2
SG09-35	G226356	duplicate	duplicate	<b>0.011</b>	0.3	72	1	5	19	29	<2
SG09-35	G226391	152.0	154.0	0.005	0.2	71	1	6	37	61	4
SG09-35	G226392	duplicate	duplicate	0.007	0.2	90	1	5	40	47	4
SG09-36	G226426	9.2	11.2	0.012	0.4	62	18	4	26	89	3
SG09-36	G226427	duplicate	duplicate	0.009	0.3	47	17	3	27	74	2
SG09-36	G226462	71.0	72.2	0.109	5.6	209	6	163	828	580	7
SG09-36	G226463	duplicate	duplicate	0.069	5.5	166	7	210	559	345	4
SG09-36	G226498	131.6	132.4	0.022	0.3	81	2	3	40	450	5
SG09-36	G226499	duplicate	duplicate	0.013	0.6	112	<1	4	27	648	8
SG09-37	G227533	9.1	10.7	0.040	1.3	401	25	6	23	24	<2
SG09-37	G227534	duplicate	duplicate	0.044	1.1	338	37	9	24	35	<2
SG09-37	G227569	59.5	60.5	0.048	1.1	32	1	22	34	296	7
SG09-37	G227570	duplicate	duplicate	0.046	1.1	33	3	23	33	167	10
SG09-37	G227605	110.6	112.6	0.009	0.2	63	<1	<b>7</b>	34	380	6
SG09-37	G227606	duplicate	duplicate	0.008	0.4	48	<1	<b>24</b>	29	376	6
SG09-38	G227641	49.8	51.1	0.009	0.3	30	16	3	18	77	<2
SG09-38	G227642	duplicate	duplicate	0.008	0.2	30	8	2	19	95	<b>2</b>
SG09-38	G227677	106.4	108.1	0.018	0.4	70	<1	10	55	44	<b>3</b>
SG09-38	G227678	duplicate	duplicate	0.012	0.3	83	1	8	55	54	<b>&lt;2</b>
SG09-38	G227713	190.1	191.2	<0.005	0.3	35	1	3	48	7	<2
SG09-38	G227714	duplicate	duplicate	<0.005	0.4	39	1	3	48	8	2
SG09-39	G227785	85.9	87.9	<b>0.015</b>	0.3	70	1	5	21	72	2
SG09-39	G227786	duplicate	duplicate	<b>0.113</b>	0.2	67	1	7	17	86	<2
SG09-39	G227821	136.0	137.0	0.048	1.6	89	2	<b>95</b>	33	515	38
SG09-39	G227822	duplicate	duplicate	0.036	0.9	61	1	<b>25</b>	25	323	23
SG09-40	G226501	253.9	255.9	0.006	0.2	36	1	16	47	21	4
SG09-40	G226502	duplicate	duplicate	<0.005	0.3	19	2	10	38	17	5
SG09-40	G227860	30.2	32.2	<0.005	0.4	4	<1	32	67	16	<2
SG09-40	G227861	duplicate	duplicate	<0.005	0.3	5	1	35	71	16	<2
SG09-40	G227897	88.1	89.8	0.006	0.2	50	<1	6	63	43	20
SG09-40	G227898	duplicate	duplicate	0.007	<0.2	45	<1	5	59	47	21
SG09-40	G227932	144.2	145.8	0.007	0.2	71	<1	7	31	17	<2
SG09-40	G227933	duplicate	duplicate	0.006	0.2	88	<1	5	31	13	<2
SG09-40	G227967	204.4	206.4	<0.005	<0.2	29	<1	4	13	7	<2
SG09-40	G227968	duplicate	duplicate	<0.005	<0.2	30	1	4	13	9	2
SG09-41	G226536	55.3	57.3	1.400	3.5	257	5	7	65	3780	2
SG09-41	G226537	duplicate	duplicate	0.968	2.2	228	4	7	66	3360	3
SG09-41	G226571	126.2	128.2	0.027	0.2	111	33	5	52	520	5
SG09-41	G226572	duplicate	duplicate	0.02	0.2	77	55	3	38	402	4
SG09-41	G226606	176.6	178.6	0.024	1	255	22	12	52	<b>249</b>	8
SG09-41	G226607	duplicate	duplicate	0.019	0.5	190	25	7	40	<b>501</b>	6
SG09-41	G226641	231.8	233.2	0.035	3.7	941	3	6	69	45	2
SG09-41	G226642	duplicate	duplicate	0.037	3.6	1055	3	2	78	38	2
SG09-43	G226677	40.1	42.1	0.008	<0.2	109	2	5	17	80	3
SG09-43	G226678	duplicate	duplicate	0.008	<0.2	116	1	5	19	80	2
SG09-43	G226713	98.9	100.2	0.329	1.5	464	1	5	46	13	<2
SG09-43	G226714	duplicate	duplicate	0.525	1.6	544	1	6	45	9	<2

Results where higher of analysis of a duplicate pair is >100% of the lower analysis are highlighted in bold.

**Table 23. 2010 analytical results for dolomite blanks (all values in ppm).**

Hole ID	Sample No.	Au	Ag	Cu	Mo	Pb	Zn	As	Sb
SG-10-45	I036222	0.002	0.01	3.0	0.5	2.4	2	<2	0.11
SG-10-45	I036243	0.001	0.01	3.9	0.4	2.1	<2	6	0.08
SG-10-45	I036305	N.A.	0.01	4.6	0.2	2.0	<2	<2	0.08
SG-10-45	I036338	0.001	0.01	9.8	0.3	2.5	<2	<2	0.09
SG-10-46	I036372	0.003	0.01	3.9	0.3	2.2	<2	5	0.09
SG-10-47	I036415	<0.2	0.02	4.6	0.5	2.5	2	6	0.12
SG-10-47	I036495	0.001	0.01	9.7	0.3	2.1	<2	3	0.11
SG-10-48	I037082	0.002	0.01	9.4	0.5	2.1	<2	<2	0.08
SG-10-48	I037155	0.001	0.02	6.0	0.5	3.0	<2	2	0.24
SG-10-49	I037221	0.002	0.01	3.6	0.2	2.0	2	3	0.05
SG-10-50	I037295	0.002	0.01	7.4	0.3	2.4	3	2	0.08
SG-10-50	I037356	0.001	0.03	14.6	0.4	2.9	<2	5	0.91
SG-10-51	I037475	0.002	0.02	4.3	0.2	2.0	<2	2	0.21
SG-10-51	I037522	0.005	0.01	6.0	0.3	2.1	2	4	0.06
SG-10-52	I037593	0.002	0.01	7.2	0.3	2.1	2	3	0.08
SG-10-52	I037657	<0.001	0.02	4.7	0.3	1.8	15	<2	<0.05
SG-10-53	I037725	0.003	0.02	5.1	0.4	2.5	16	<2	0.05
SG-10-53	I037828	<0.001	0.02	6.2	0.4	1.8	15	4	0.06
SG-10-54	I037867	0.002	0.01	4.0	0.5	1.4	15	<2	<0.05
SG-10-54	I037915	0.002	0.01	4.0	0.2	1.4	15	<2	<0.05
SG-10-55	I037976	0.002	0.02	4.2	0.2	1.6	15	<2	0.07
SG-10-55	I038029	0.002	0.05	4.5	0.3	2.2	15	9	0.25
SG-10-56	I038105	0.002	0.01	4.4	0.2	1.4	15	<2	0.07
SG-10-56	I038156	0.001	0.02	9.6	0.5	1.8	16	6	0.15

Failures in bold

**Table 24. 2010 analytical results for standards (all values in ppm).**

Hole ID	Sample No.	Standard	LL	Au std	UL	Au	Ag	LL	std	UL	Cu	Mo	Pb	Zn	As	Hg	Sb	Te
SG-10-45	I036304	CDN-CG-16	0.094	0.14	0.186	N.A.	0.9	1070	1120	1170	1125	16.5	14	103	46	0.16	4.0	0.18
SG-10-45	I036337	CDN-CG-16	0.094	0.14	0.186	0.121	0.9	1070	1120	1170	<b>1190</b>	17.7	16	106	53	0.16	4.2	0.15
SG-10-47	I036494	CDN-CG-16	0.094	0.14	0.186	0.132	0.9	1070	1120	1170	1165	16.2	15	100	51	0.15	4.0	0.16
SG-10-48	I037081	CDN-CG-16	0.094	0.14	0.186	0.173	0.9	1070	1120	1170	1150	16.3	14	103	54	0.16	4.1	0.16
SG-10-50	I037294	CDN-CG-16	0.094	0.14	0.186	0.126	1.1	1070	1120	1170	<b>1225</b>	16.8	15	116	51	0.18	4.1	0.20
SG-10-50	I037355	CDN-CG-16	0.094	0.14	0.186	0.144	1.1	1070	1120	1170	<b>1225</b>	18.4	16	113	58	0.16	5.1	0.16
SG-10-51	I037474	CDN-CG-16	0.094	0.14	0.186	0.097	1.1	1070	1120	1170	<b>1300</b>	16.9	15	112	49	0.18	3.7	0.23
SG-10-51	I037521	CDN-CG-16	0.094	0.14	0.186	0.111	1.0	1070	1120	1170	<b>1280</b>	17.6	15	118	53	0.19	3.8	0.21
SG-10-45	I036221	CDN-CG-23	0.182	0.218	0.254	0.208	2.0	1720	1820	1920	1860	153.5	23	63	29	0.11	7.0	0.33
SG-10-45	I036242	CDN-CG-23	0.182	0.218	0.254	0.208	2.1	1720	1820	1920	1860	155.5	22	64	27	0.10	6.9	0.31
SG-10-46	I036371	CDN-CG-23	0.182	0.218	0.254	0.251	1.9	1720	1820	1920	1905	150.5	22	62	28	0.10	6.0	0.31
SG-10-47	I036414	CDN-CG-23	0.182	0.218	0.254	0.200	1.9	1720	1820	1920	<b>1930</b>	158.5	26	65	30	0.12	6.3	0.31
SG-10-48	I037154	CDN-CG-23	0.182	0.218	0.254	0.228	1.8	1720	1820	1920	1905	162.5	23	65	28	0.10	6.0	0.28
SG-10-49	I037220	CDN-CG-23	0.182	0.218	0.254	0.251	1.9	1720	1820	1920	<b>1930</b>	158.0	22	63	27	0.09	6.3	0.34
SG-10-52	I037592	CDN-CG-23	0.182	0.218	0.254	0.210	1.9	1720	1820	1920	1890	154.0	22	64	26	0.12	6.3	0.33
SG-10-52	I037656	CDN-CG-23	0.182	0.218	0.254	0.246	1.9	1720	1820	1920	<b>1980</b>	156.5	22	64	27	0.10	5.6	0.31
SG-10-53	I037724	CDN-CG-23	0.182	0.218	0.254	0.216	2.2	1720	1820	1920	<b>2070</b>	164.5	23	68	29	0.11	5.6	0.33
SG-10-53	I037827	CDN-CG-23	0.182	0.218	0.254	0.247	1.9	1720	1820	1920	<b>1960</b>	159.5	22	64	29	0.09	5.7	0.30
SG-10-54	I037866	CDN-CG-23	0.182	0.218	0.254	0.239	2.1	1720	1820	1920	<b>2030</b>	160.5	21	66	28	0.10	6.1	0.30
SG-10-54	I037914	CDN-CG-23	0.182	0.218	0.254	0.189	2.1	1720	1820	1920	<b>2010</b>	160.5	21	65	28	0.08	6.4	0.29
SG-10-55	I037975	CDN-CG-23	0.182	0.218	0.254	0.247	2.0	1720	1820	1920	<b>2040</b>	167.0	21	68	25	0.09	6.2	0.27
SG-10-55	I038028	CDN-CG-23	0.182	0.218	0.254	0.253	2.0	1720	1820	1920	1880	149.0	21	63	26	0.09	6.6	0.29
SG-10-56	I038104	CDN-CG-23	0.182	0.218	0.254	0.214	2.0	1720	1820	1920	<b>2020</b>	161.5	21	66	26	0.10	6.5	0.29
SG-10-56	I038155	CDN-CG-23	0.182	0.218	0.254	0.211	2.1	1720	1820	1920	1940	157.0	21	67	27	0.11	6.6	0.32

N.A. - insufficient material supplied to perform gold assay

None of the standards are certified for other than Au and Cu, results for other elements provided for reference only.

**Table 25. 2010 analytical results for core duplicates (all values in ppm).**

Hole ID	Sample	From (m)	To (m)	Au	Ag	Cu	Mo	Pb	Zn	As	Sb	Te
SG-10-56	I038102	79.0	81.0	0.007	0.20	275	3	3	33	6	1.1	0.24
SG-10-56	I038103	Dup	Dup	0.007	0.22	310	4	3	32	6	0.9	0.26
SG-10-56	I038153	171.0	173.0	0.026	0.27	179	3	6	26	304	1.8	0.06
SG-10-56	I038154	Dup	Dup	0.023	0.24	168	1	6	28	228	1.8	0.07
SG-10-55	I037973	65.0	67.0	0.047	0.10	20	2	7	28	9	0.9	0.02
SG-10-55	I037974	Dup	Dup	0.038	0.10	17	3	7	27	10	1.0	0.02
SG-10-55	I038026	151.0	153.0	0.009	<b>0.50</b>	13	2	17	17	<b>61</b>	5.1	0.23
SG-10-55	I038027	Dup	Dup	0.009	<b>0.17</b>	13	2	13	17	<b>22</b>	5.0	0.21
SG-10-54	I037864	71.0	73.0	0.017	0.43	223	<b>29</b>	9	25	48	2.6	0.14
SG-10-54	I037865	Dup	Dup	0.020	0.43	207	<b>7</b>	8	22	55	2.3	0.13
SG-10-54	I037912	161.0	163.0	0.007	0.41	226	2	6	22	29	3.8	0.1
SG-10-54	I037913	Dup	Dup	0.006	0.36	195	2	4	18	25	2.9	0.11
SG-10-53	I037722	78.5	80.5	0.007	<b>0.33</b>	37	3	4	7	20	0.3	0.03
SG-10-53	I037723	Dup	Dup	0.015	<b>0.15</b>	20	3	3	6	15	0.2	0.04
SG-10-53	I037825	278.5	280.4	0.007	0.37	321	1	4	21	23	0.7	0.08
SG-10-53	I037826	Dup	Dup	0.009	0.34	331	1	4	22	21	0.6	0.12
SG-10-52	I037590	118.2	120.2	0.008	0.20	236	3	4	33	22	1.0	0.12
SG-10-52	I037591	Dup	Dup	0.006	0.22	238	4	4	34	21	1.5	0.19
SG-10-52	I037654	238.2	240.2	0.010	0.28	105	1	6	19	5	0.1	0.05
SG-10-52	I037655	Dup	Dup	0.011	0.35	116	2	6	19	6	0.1	0.06
SG-10-51	I037472	185.0	187.0	0.008	0.24	207	10	4	29	3	0.4	0.07
SG-10-51	I037473	Dup	Dup	0.008	0.23	207	10	4	28	3	0.4	0.08
SG-10-51	I037519	273.0	275.0	0.017	0.39	181	<b>11</b>	12	25	6	0.4	<b>0.42</b>
SG-10-51	I037520	Dup	Dup	0.019	0.39	197	<b>22</b>	13	28	6	0.3	<b>0.12</b>
SG-10-50	I037292	120.8	122.8	0.011	0.23	200	72	3	52	<b>8</b>	0.6	0.05
SG-10-50	I037293	DUP	DUP	0.016	0.21	211	54	6	56	<b>4</b>	0.3	0.06
SG-10-50	I037353	236.8	238.8	0.090	<b>6.53</b>	90	24	<b>266</b>	<b>43</b>	696	<b>212.0</b>	0.03
SG-10-50	I037354	DUP	DUP	0.121	<b>13.85</b>	101	32	<b>133</b>	<b>82</b>	1170	<b>126.5</b>	0.03
SG-10-49	I037218	50.7	52.7	<b>0.260</b>	<b>1.95</b>	203	35	7	60	14	0.7	0.07
SG-10-49	I037219	dup	dup	<b>0.073</b>	<b>0.53</b>	202	38	4	55	7	0.5	0.06
SG-10-48	I037079	88.0	90.0	0.011	0.13	96	<b>79</b>	4	30	2	0.5	0.04
SG-10-48	I037080	dup	dup	0.009	0.12	82	<b>16</b>	4	26	2	0.4	0.04
SG-10-48	I037152	220.0	222.0	0.020	0.15	135	38	6	30	5	0.3	0.06
SG-10-48	I037153	dup	dup	0.018	0.15	138	36	6	31	7	0.3	0.06
SG-10-47	I036412	64.4	66.4	<0.2	0.15	68	15	4	70	84	0.5	0.04
SG-10-47	I036413	dup	dup	<0.2	0.18	68	26	7	81	60	0.4	0.05
SG-10-47	I036492	218.4	220.4	0.007	0.20	85	24	7	16	3	0.5	0.05
SG-10-47	I036493	dup	dup	0.007	0.23	97	21	7	16	5	0.7	0.06
SG-10-46	I036369	31.2	33.2	0.008	0.18	88	27	3	25	27	0.5	0.03
SG-10-46	I036370	dup	dup	0.009	0.19	93	27	3	24	22	0.4	0.03
SG-10-45	I036219	40.8	42.8	0.011	0.45	99	27	8	45	48	1.1	0.03
SG-10-45	I036220	dup	dup	0.015	0.56	119	25	9	51	45	0.8	0.03
SG-10-45	I036240	76.8	78.8	0.016	0.23	59	16	8	30	94	4.1	0.02
SG-10-45	I036241	dup	dup	0.008	0.24	70	17	7	29	99	4.5	0.03
SG-10-45	I036302	194.8	196.8	no assay	0.14	68	27	6	26	<b>12</b>	0.8	0.03
SG-10-45	I036303	dup	dup	no assay	0.23	63	44	6	27	<b>37</b>	1.2	0.02
SG-10-45	I036335	254.8	256.8	0.007	0.08	29	43	6	21	1	0.1	0.02
SG-10-45	I036336	dup	dup	0.008	0.09	29	40	6	19	1	0.1	0.02

Highlighted in bold - results where higher value of a duplicate pair is >100% of the lower value

**APPENDIX 3:  
ANALYTICAL CERTIFICATES**



## Certificate of Analysis

Work Order: TO113058

To: Robert Page  
Watts Griffis & McOuat Ltd.  
8 King Street East  
Suite 400  
TORONTO  
ONTARIO M5C 1B5

Date: Dec 16, 2010

P.O. No. : POH: TO112508/Project:Sonora Gulch  
Project No. : -  
No. Of Samples : 1  
Date Submitted : Dec 09, 2010  
Report Comprises : Pages 1 to 2  
(Inclusive of Cover Sheet)

Distribution of unused material:  
STORE:

Certified By :

Gavin McGill  
Operations Manager

*SGS Minerals Services (Toronto) is accredited by Standards Council of Canada (SCC) and conforms to the requirements of ISO/IEC 17025 for specific tests as indicated on the scope of accreditation to be found at <http://www.scc.ca/en/programs/lab/mineral.shtml>*

Report Footer:

L.N.R. = Listed not received  
n.a. = Not applicable

I.S. = Insufficient Sample  
-- = No result

\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion

Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
Methods marked with the @ symbol (e.g. @AAS21E) denote accredited tests

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Element	Ag
Method	@AAS21E
Det.Lim.	0.3
Units	g/t
72979	10.8
*Rep 72979	10.6

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## Certificate of Analysis

Work Order: TO112508

To: Robert Page  
Watts Griffis & McOuat Ltd.  
8 King Street East  
Suite 400  
TORONTO  
ONTARIO M5C 1B5

Date: Dec 03, 2010

P.O. No. : Project:Sonora Gulch  
Project No. : -  
No. Of Samples : 8  
Date Submitted : Oct 25, 2010  
Report Comprises : Pages 1 to 5  
(Inclusive of Cover Sheet)

Distribution of unused material:  
STORE:

Certified By :

Gavin McGill  
Operations Manager

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Report Footer:

L.N.R. = Listed not received  
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\*INF = Composition of this sample makes detection impossible by this method  
M after a result denotes ppb to ppm conversion, % denotes ppm to % conversion  
Methods marked with an asterisk (e.g. \*NAA08V) were subcontracted  
Methods marked with the @ symbol (e.g. @AAS21E) denote accredited tests

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Element	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr
Method	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B
Det.Lim.	2	0.01	3	1	0.5	5	0.01	1	1	1
Units	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
72972	8	7.69	2210	353	1.6	<5	2.44	30	5	14
72973	<2	6.71	<3	601	1.6	<5	2.57	<1	27	41
72974	<2	6.85	308	989	1.4	<5	2.68	11	6	28
72975	<2	6.10	4130	259	1.4	<5	12.1	34	19	84
72976	<2	1.85	618	14	<0.5	<5	6.22	8	50	2040
72977	<2	7.31	35	808	2.0	<5	9.80	<1	22	59
72978	<2	7.23	21	1200	1.7	<5	3.96	<1	10	18
72979	>10	7.26	11	364	1.3	5	0.85	2	2	13
*Rep 72973	<2	6.67	3	589	1.6	<5	2.54	<1	27	38

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Element	Cu	Fe	K	La	Li	Mg	Mn	Mo	Na	Ni
Method	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B
Det.Lim.	0.5	0.01	0.01	0.5	1	0.01	2	1	0.01	1
Units	ppm	%	%	ppm	ppm	%	ppm	ppm	%	ppm
72972	65.5	2.82	2.64	31.7	14	0.88	154	<1	1.90	6
72973	672	4.62	1.84	15.8	7	1.82	256	7	2.40	13
72974	49.2	2.73	2.49	25.1	19	0.82	430	64	2.34	9
72975	205	6.56	2.22	33.5	10	1.74	1260	19	0.34	43
72976	62.7	3.56	0.09	2.8	13	12.3	751	<1	<0.01	719
72977	15.9	7.09	2.29	38.7	23	2.32	1220	<1	0.97	35
72978	65.7	3.12	3.23	70.8	18	1.43	291	1	1.35	9
72979	66.9	1.47	7.87	24.0	8	0.54	200	18	0.13	7
*Rep 72973	665	4.55	1.83	15.8	6	1.80	255	4	2.39	13

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Element	P	Pb	Sb	Sc	Sn	Sr	Ti	V	W	Y
Method	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B	@ICP40B
Det.Lim.	0.01	2	5	0.5	10	0.5	0.01	2	10	0.5
Units	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
72972	0.06	452	205	5.9	<10	552	0.12	49	<10	9.1
72973	0.04	7	7	18.5	<10	258	0.31	80	<10	27.4
72974	0.06	333	115	6.0	<10	641	0.19	46	<10	9.1
72975	0.07	50	15	14.3	<10	294	0.44	92	<10	26.5
72976	<0.01	83	75	6.0	<10	123	0.01	31	<10	3.2
72977	0.11	12	14	15.2	<10	565	0.42	121	<10	23.4
72978	0.08	10	14	6.4	<10	413	0.41	43	<10	17.4
72979	0.07	166	40	4.8	<10	164	0.09	33	10	8.0
*Rep 72973	0.04	6	9	18.5	<10	249	0.30	80	<10	27.9

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Element	Zn	Zr	Au
Method	@ICP40B	@ICP40B	FAI515
Det.Lim.	1	0.5	1
Units	ppm	ppm	ppb
72972	578	35.8	619
72973	39	8.1	21
72974	418	12.4	92
72975	145	22.9	247
72976	126	0.7	28
72977	58	7.6	7
72978	30	9.1	5
72979	152	44.9	384
*Rep 72978			4
*Rep 72973	37	8.5	

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