

VICTORY RESOURCES CORPORATION

(Owner & Operator)

GEOLOGICAL ASSESSMENT REPORT

(Event 5424479)

on a

STRUCTURAL ANALYSIS

Work done from December 20, 2012 to December 24, 2012

on

Tenure 551397

of the 6 Claim

Toni 551397 Claim Group

of the 99 claim 45,242 hectare

TONI PROPERTY

Nicola Mining Division

BCGS Map 092H.098/.099

**Centre of Work
5,534,200N, 690,100E**

AUTHOR & CONSULTANT

**Laurence Sookochoff, PEng
Sookochoff Consultants Inc.**

**BC Geological Survey
Assessment Report
33747**

TABLE OF CONTENTS

	page
Summary -----	4.
Introduction -----	6.
Toni 551397 Claim Group Description and Location -----	6.
Table 1. Toni 551397 Claim Group Tenures -----	6.
Accessibility, Climate, Local Resources, Infrastructure and Physiography -	7.
History: Toni 551397 Claim Group Area -----	8.
092HNE002 – MAL -----	8.
092HNE047 – BRENDA -----	8.
092HNE059 - ECHO -----	8.
092HNE073 – BIG SIOUX -----	9.
092HNE086 – TOMCAT -----	9.
092HNE096 – ELK -----	10.
092HNE270 – SNOW -----	10.
092HNE311 – WAVE 1 -----	10.
092HNE312 – WAVE 2 -----	10.
History: Toni 551397 Claim Group -----	12.
Geology: Regional -----	12.
Geology: Toni 551397 Claim Group Area -----	12.
092HNE002 – MAL -----	13.
092HNE047 – BRENDA -----	13.
092HNE058 – HN-WEN - -----	16.
092HNE059 - ECHO -----	16.
092HNE073 – BIG SIOUX -----	17.
092HNE086 – TOMCAT -----	17.
092HNE096 – ELK -----	17.
092HNE144 – AU-WEN - -----	18.
092HNE270 – SNOW -----	18.
092HNE275 – BREW -----	18.
092HNE311 – WAVE 1 -----	19.
092HNE312 – WAVE 2 -----	19.
Geology: Toni 551397 Claim Group -----	19.

TABLE OF CONTENTS (cont'd)

Mineralisation: Toni 551397 Claim Group -----	20.
092HNE002 – MAL -----	20.
092HNE047 – BRENDA -----	20.
092HNE059 - ECHO -----	22.
092HNE073 – BIG SIOUX -----	22.
092HNE086 – TOMCAT -----	23.
092HNE096 – ELK -----	23.
092HNE144 – AU-WEN - -----	26.
092HNE270 – SNOW -----	26.
092HNE275 – BREW -----	27.
092HNE311 – WAVE 1 -----	27.
092HNE312 – WAVE 2 -----	27.
2012 Structural Analysis -----	28.
Interpretation -----	29.
Selected References -----	30.
Statement of Costs -----	31.
Certificate -----	32.

ILLUSTRATIONS

Figure 1. Location Map -----	6.
Figure 2. Claim Location -----	7.
Figure 3. Claim Map -----	9.
Figure 4. General Interpretation of 1968 IP Survey -----	11.
Figure 5. Geology, Claim, Index & Minfile -----	14.
Figure 6. Indicated Lineaments on Tenure 551397 -----	27.
Figure 7. Rose Diagram from Lineaments of Tenure 551397 -----	28.

SUMMARY

The six claim Toni 551397 Claim Group of the Toni 551397 Claim Group covers an area of 2849 hectares located 202 kilometres northeast of Vancouver and 40 kilometres southeast of Merritt. Tenure 551397 of the Toni 551397 Claim Group, the subject of this report, is located eight kilometres north of the formerly productive **Elk gold-silver deposit** (*Minfile 092HNE096*) and 22 kilometres west of the formerly productive **Brenda copper-molybdenum deposit** (*Minfile 092HNE047*).

At the **Elk** property, the mineral zones appear to be distributed expansively along and proximally to the northerly trending Elk fault system which is evidenced topographically for a minimum of 25 kilometres from, and not necessarily restricted to the limits of the formerly productive Elk property in the south, to and beyond the SNOW mineral showing (*Minfile 092HNE292*) in the north. The Elk fault is indicated as being offset twice for up to two kilometres in the Elk/Snow section; at the BREW mineral showing (*Minfile 092HNE275*) by the 280 degree striking Magwump fault and by the northwesterly trending fault (Snow fault) at the Snow mineral showing.

Gold-silver mineralisation is hosted primarily by pyritic quartz veins and stringers in altered pyritic granitic and, less frequently, volcanic rocks. From 1992 and 1995 (inclusive) 16,570 tonnes of ore were mined and milled resulting in the production of 1,518,777 grams (48,830 ounces) of gold and 1,903,000 grams (61,183 ounces) of silver

The **Brenda copper-molybdenum deposit** is hosted by the “Brenda Stock”, a composite quartz diorite/granodiorite body which forms part of the Early Jurassic Pennask batholith. The mineralisation within the Brenda stock decreases outwardly from the most intensely fractured/mineralised rock and the centre of the main mineral zone.

It is suggested that intermittent east-west compressional forces intensely fractured the rocks of the Brenda stock during several stages of time and tapped a hydrothermal source, either a later phase of the Brenda stock or a separate intrusive system. As each stage of fractures developed, hydrothermal fluids introduced vein material which healed the fractures. Renewed build-up of compressional forces again fractured the rocks, which were again healed.

Repetition of this sequence can explain all stages of mineralisation within the Brenda deposit. East-west compression continued after mineral deposition ceased and produced prominent east-northeast and northwest striking shear zones. Faults in the Brenda pit are expressed as fracture zones in which the rock is intensely altered to clay minerals, sericite, epidote and chlorite. These fracture zones range in width from a few centimetres to 9 metres..

The Brenda mine began production in early 1970 with measured geological (proven) reserves of 160,556,700 tonnes grading 0.183 per cent copper and 0.049 per cent molybdenum at a cutoff of 0.3 per cent copper equivalent. The mine officially closed June 8, 1990.

(The above information on the Brenda copper-molybdenum deposit and on the Elk gold-silver deposit is summarized from the Minfile records which are contained in full herein).

As indicated by the BC government supported MapPlace geological maps, the Toni 551397 Claim Group is predominantly underlain by the Early Jurassic the Pennask batholith (LTrJgd) with a northeasterly and northerly trending contact of the Upper Triassic Nicola volcanics (UTrNE) in the west and southwest. Proximate to the southeast boundary of the Toni 551397 Claim Group is a five kilometre wide embayment of Nicola rocks enveloped by the Pennask Batholith. The Pennask-Nicola contacts in this area are prominently northeasterly and northerly.

SUMMARY *(cont'd)*

The lineament pattern on Tenure 551397 indicates primary north-south and east-west trending structures with two structural intersections which would be the most convenient conduit for the structure tapping any hydrothermal mineral source and imprint the sub-surficially derived mineral indicators at the surface. These indicators could be revealed as minerals and/or as alteration.

The Pennask Batholith is a highly prospective intrusive to host many different deposit types as evidenced in the localized Brenda stock mineralised polymetallic veins. The Snow (*Minfile 092HNE292*) mineral showing with copper mineralisation occurring along fractures and as disseminations in granite of the Batholith may be a surficial indicator of an underlying economic porphyry Cu +/- Mo +/- Au or a polymetallic vein Ag-Pb-Zn+/-Au mineral resource. At the Wave 1 (*Minfile 092HNE311*) anomaly where quartz vein float was found and containing disseminated pyrite and limonite with occasional specks of chalcopyrite, galena or sphalerite, could be surficial indicators to a polymetallic vein Ag-Pb-Zn+/-Au mineral resource.

For other mineral deposit types that may occur within the Toni 551397 Claim Group reference is made to the 11 Minfile properties outside Tenure 551397 as reported on herein. These Minfile descriptions, copied from the BC Government Minfile records, are shown on Figure 5 and are included herein as potential types of mineralisation that should be sought on the Toni 551397 Claim Group subsequent to the exploration of the two prime exploration areas on Tenure 551397.

INTRODUCTION

In December 2012 a Structural Analysis was completed over Tenure 551397 of the six claim Toni 551397 claim group (Property) and Victory’s 99 claim 45,242 hectare TONI property. The purpose of the program was to delineate potential structures which may be integral in geological controls to potentially economic mineral zones that may occur on Tenure 551397 or other claims of the Toni property.

Information for this report was obtained from sources as cited under Selected References.

*Figure 1. Location Map
(base map from MapPlace)*



TONI 551397 CLAIM GROUP DESCRIPTION AND LOCATION

The Property is comprised of six contiguous claims covering an area of 2849.3657 hectares. Particulars are as follows:

Table 1. Toni 551397 Claim Group Tenures

<u>Tenure Number</u>	<u>Type</u>	<u>Claim Name</u>	<u>Good Until</u>	<u>Area (ha)</u>
<u>551397</u>	Mineral	ENY	20131130	499.1721
<u>551399</u>	Mineral	MEANY	20131130	499.3213
<u>585980</u>	Mineral	VT679	20131130	374.4429
<u>589880</u>	Mineral	TONI 18	20131130	519.8626
<u>589946</u>	Mineral	TONI 34	20131130	519.6958
<u>1015041</u>	Mineral	TONIAMAL8	20131130	436.871

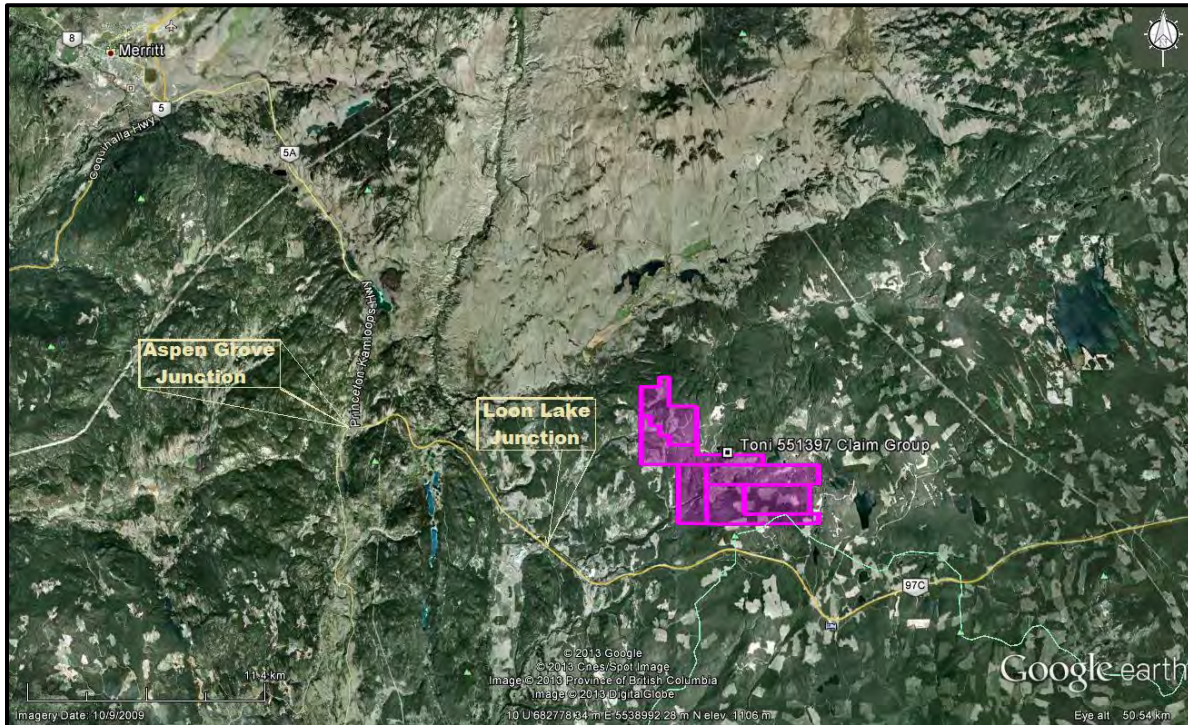
Total Area: 2849.3657 ha

*Upon the approval of the assessment work filing, Event Number 5424479.

Toni 551397 Claim Group Description and Location (cont'd)

The Toni 551397 Claim Group is located within BCGS Map 092H.098/.099 of the Nicola Mining Division, 202 direct kilometres northeast of Vancouver and 40 direct kilometres southeast of Merritt. The centre of the work area is at 5,534,200N, 690,100E (NAD 83).

Figure 2. Claim Location
(base map from MapPlace and Google)

**ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

Access to the Toni 551397 Claim Group is southward from Merritt via Highway 5A/97C for 27 kilometres to the Aspen Grove junction thence eastward on Highway 5A or the Coquihalla connector Highway, for 26 kilometres to the Loon Lake junction. A secondary road to the north is taken for 10 kilometers to the northeast boundary of Tenure 589980, thence southeastward for four kilometres to the west border of Tenure 551397 thence easterly through Tenure 551397 for six kilometres to near the southeast corner of Tenure 551397 and the common border with Tenure 551400.

The region is situated within the dry belt of British Columbia with rainfall between 25 and 30 cm per year. Temperatures during the summer months could reach a high of 35°C but average 25°C with the winter temperatures reaching a low of -10°C and averaging 8°C. On the Toni 551397 Claim Group snow cover on the ground could be from December to April and would not hamper a year-round exploration program.

Sufficient water for all phases of the exploration program could be available from the many lakes, creeks, and rivers located within the confines of Tenure 551397.

Accessibility, Climate, Local Resources, Infrastructure and Physiography (cont'd)

Merritt, and/or Kamloops, historic mining centres could be a source of experienced and reliable exploration and mining personnel and a supply for most mining related equipment. Kamloops is serviced daily by commercial airline and is a hub for road and rail transportation. Vancouver, a port city on the southwest corner of, and the largest city in, the Province of British Columbia is four hours distant by road and less than one hour by air from Kamloops.

The topography within the Toni 551397 Claim Group is of gently sloped forested hills with localized logged areas. Relief is in the order of 150 metres ranging from elevations of 1,550 metres in the northeast corner to 1,400 metres in a river valley along the mid-western border.

HISTORY: TONI 551397 CLAIM GROUP AREA

The history on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers on and peripheral to the Toni 551397 Claim Group are reported as follows. The distance from the Toni 551397 Claim Group is relative to Tenure 551397, which is the subject of the structural analysis.

MAL prospect (Cu skarn; Fe skarn; Au skarn)

MINFILE 092HNE002

Five kilometres northeast

Initial work consisted of diamond drilling and trenching in the early 1960s on the main showing (Malachite 1 2 and Chalcocite 1-2 claims), on which the occurrence is centred. This is located on access road number 5116, 1 kilometre south of Quilchena Creek, 11.5 kilometres east-northeast of the community of Aspen Grove. A second showing, smaller and less significant but with the same characteristics, is located 1 kilometre to the southwest (Malachite 7, 092HNE269).

BRENDA past producer (Porphyry Cu +/- Mo +/- Au)

MINFILE 092HNE047

Twenty-five kilometres east

The Brenda mine began production in early 1970 with measured geological (proven) reserves of 160,556,700 tonnes grading 0.183 per cent copper and 0.049 per cent molybdenum at a cutoff of 0.3 per cent copper equivalent [$eCu = \% Cu + (3.45 \times \% Mo)$]. The mine officially closed June 8, 1990.

ECHO showing (Volcanic redbed Cu)

MINFILE 092HNE059

Eleven kilometres west

The Echo occurrence refers to a group of minor copper showings in an area east of the historical Aspen Grove copper camp, between Merritt and Princeton. The occurrence is centred on the northernmost of three showings which were worked on in the 1960s, in a small area (less than 0.5 square kilometre) located southeast of Quilchena Creek, 8.5 kilometres west-northwest of Boot Lake, and 13 kilometres east of the community of Aspen Grove (Assessment Report 1586).

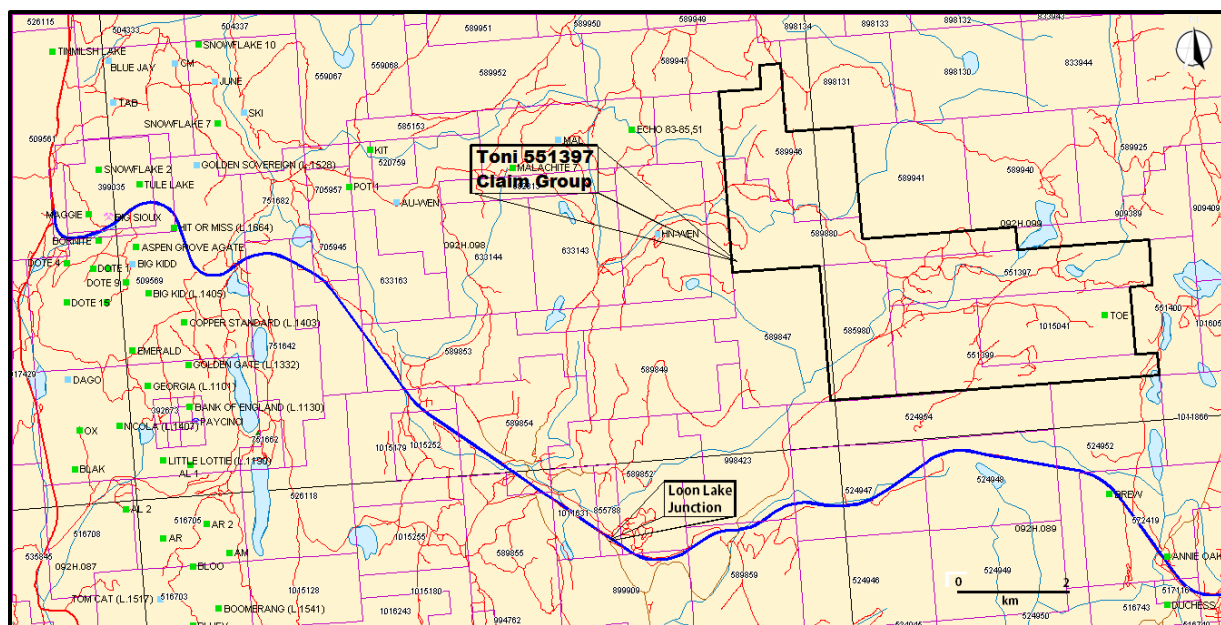
History: Toni 551397 Claim Group Area (cont'd)

BIG SIOUX past producer (Volcanic redbed Cu; Alkalic porphyry Cu-Au)
MINFILE 092HNE073

Fourteen kilometres west

This deposit was one of the first showings to be explored in the Aspen Grove copper camp. It was staked in 1899, and investigated periodically by H.H. Schmidt up to 1914. One shaft, 10 metres deep, an adit, 46 metres long, and numerous pits and trenches were excavated during this time. Forty-four tonnes of ore were shipped in 1918 grading 9.78 per cent copper and 67.9 grams per tonne silver. David Minerals Ltd., Amax Exploration Inc. and Norranco Mining and Refining completed soil and rock geochemical and geophysical surveys over the deposit between 1968 and 1978. The occurrence was restaked in 1989 after copper mineralisation was exposed in a roadcut along the north side of the recently completed Coquihalla Highway (Phase 3 - Okanagan Connector). The deposit was subsequently mapped and sampled by Amex Exploration Services Ltd. in 1990, Northair Mines Ltd. in 1991 and Placer Dome Inc. in 1992. Christopher James Gold Corp. drilled the area, including the Big Kidd (092HNE074) in 1997.

Figure 3. Claim Map
(Base map from MapPlace)



TOMCAT prospect (Volcanic redbed-Cu; Subvolcanic-Cu-Ag-Au (As-Sb); Porphyry Mo (Low F-type))
MINFILE 092HNE086

Sixteen kilometres southwest

The occurrence was initially prospected and trenched by W. Murray between 1906 and 1913. Pyramid Mining Company Ltd. drilled 13 holes totalling 1042 metres in 1965.

History: Toni 551397 Claim Group Area (cont'd)

ELK past producer (Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn +/-Au; Au-quartz veins)

MINFILE 092HNE096

Thirteen kilometres east-southeast

From 1992 and 1995 (inclusive), 16,570 tonnes of ore were mined and milled and 1,518,777 grams (48,830 ounces) of gold and 1,903,000 grams (61,183 ounces) of silver recovered.

In 1996, Fairfield shipped all remaining stockpiles, estimated to contain 2700 tonnes and grading greater than 12 grams per tonne (Information Circular 1997-1, page 21). A total of 994 metres of ramp access and three development levels exist underground.

Reverse circulation drilling, underground diamond drilling, reclamation, road construction, water sampling and aerial photography were also undertaken during this period.

Surface and underground diamond drill programs were carried out in the Siwash Mine area from 1994 to 1996 to define the resource. Exploration surface drilling was also carried out during the 1995 and 1996 field seasons to test trench targets between the Siwash mine site and the South Showing area 2.5 kilometres to the south. Limited prospecting and environmental monitoring was undertaken from 1997 to 1999.

In 1995, Fairfield Minerals with the support from the Explore B.C. Program carried out an extensive program including geochemistry, 13,972 metres of surface and underground diamond drilling in 315 holes and reserve calculations.

SNOW showing (Porphyry Cu +/- Mo +/- Au; Polymetallic veins Ag-Pb-Zn +/-Au)

MINFILE 092HNE270

Five kilometres northeast

The Pine showing is 500 metres south of Quilchena Creek and 4.8 kilometres north-northeast of the north end of Boot Lake.

WAVE 1 anomaly (Polymetallic veins Ag-Pb-Zn +/-Au)

MINFILE 092HNE311

Ten kilometres east

Between 1986 and 1995, Fairfield Minerals conducted exploration, including a program of wide-spaced grid soil sampling. The Wave 1 and 2 claims were staked to cover areas of mineralised quartz float and coincidental soil and stream anomalies. Recently, the area has been explored by Sookochoff Consultants as a part of the Toni property.

WAVE 2 anomaly (Polymetallic veins Ag-Pb-Zn +/-Au)

MINFILE 092HNE312

Ten kilometres east

Between 1986 and 1995, Fairfield Minerals conducted exploration, including a program of wide-spaced grid soil sampling. The Wave 1 and 2 claims were staked to cover areas of mineralised quartz float and coincidental soil and stream anomalies. Recently, the area has been explored by Sookochoff Consultants as a part of the Toni property.

Figure 4. General Interpretation of IP Survey completed in 1968 on ground covered in part by Tenure 551397 (Cochrane, 1968 AR 1,589 Figure 8) (see Figure 5 for location)

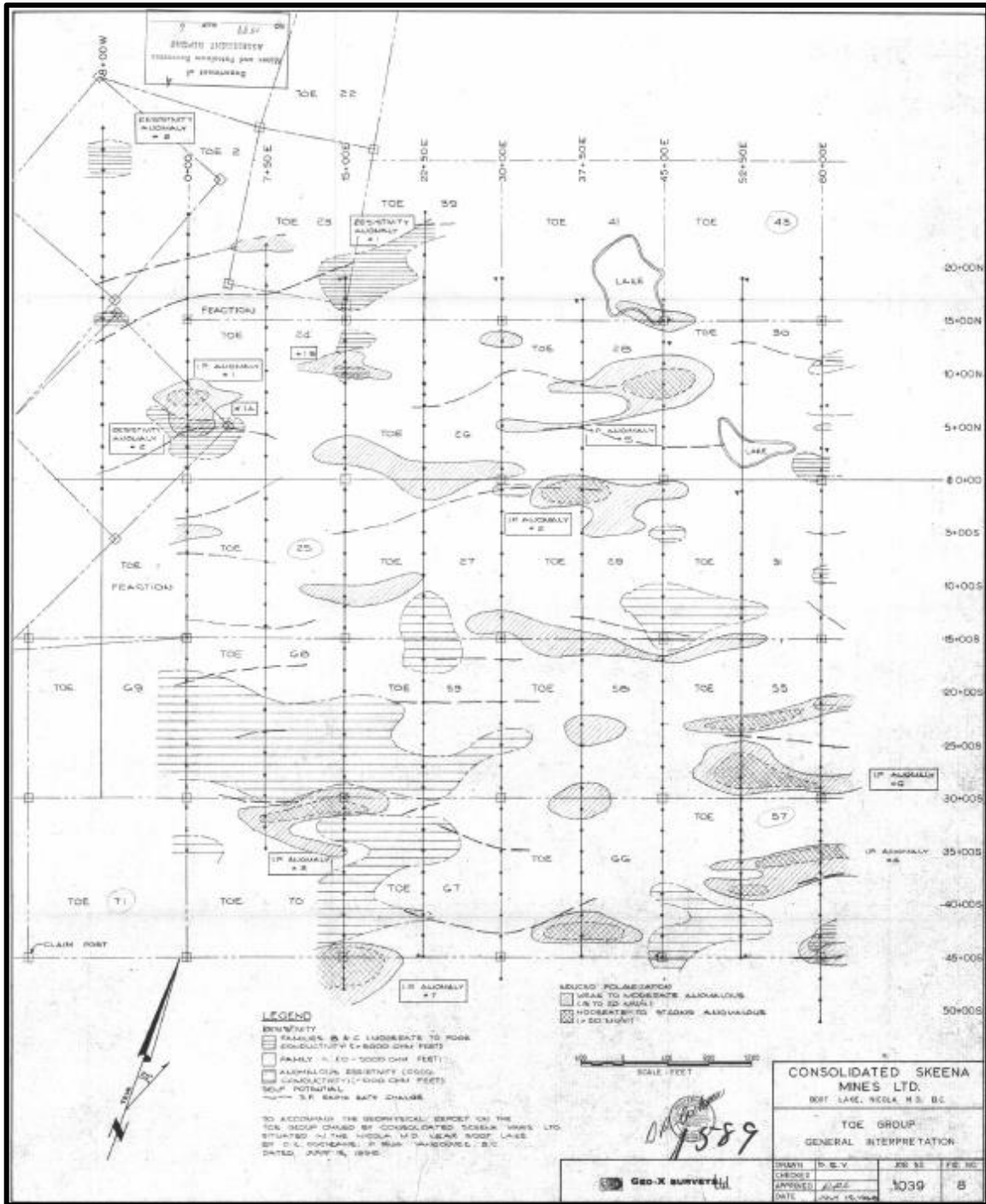


Table 2: TONI 551397 CLAIM GROUP

Year	Current Location	Work Completed	Company	Reference
1967	Tenure 1015041 (Toe)	Preliminary Geochemical Survey: Low order 1,800 foot wide copper anomaly with values between 20 ppm and a local high of 140; Hg halo on eastern end of the anomaly.	Consolidated Skeena Mines	AR 1049 (Sharp)
1967	Tenure 1015041 (Toe)	Airborne Geophysical Survey: EM & Magnetic anomalies trending zones parallel to the granite-volcanic contact. Geochemical Survey:	Consolidated Skeena Mines	AR 1089 (Sharp)
1968	Tenure 1015041 (Toe)	IP Survey: Several mineralised sections in the general environment have been indicated.	Consolidated Skeena Mines	AR 1703 (Caven)
1968	Tenure 551397 & 1015041 (Toe)	IP, Resistivity, & SP Survey: Localized correlative chargeability and resistivity lows in the north portion of the survey. IP response increased with depth	Consolidated Skeena Mines	AR 1,589 (Cochrane)
2000	Tenure 1015041 (Toe)	Geologic Mapping and Sampling: The potential for a large scale buried Cu-Au porphyry or epithermal style mineralisation is poor.	Commerce Resources Corp.	AR 26,605A (Reeder)
2006	Tenure 1015041 (Toe)	MMI Soil Survey: Two anomalous zones were delineated	Victory Resources Corporation	AR 29,156 (Sookochoff)
2007	Tenure 1015041 (Toe)	Diamond Drill Holes (2): Potential mineral zone to depth	Victory Resources Corporation	AR 29,976 (Sookochoff)
2008	Tenure 1015041 (Toe)	Diamond Drill Holes (4): Unsuccessful in locating intrusive-volcanic contact.	Victory Resources Corporation	AR 30,747 (Sookochoff)
2012	Tenure 589946	Structural Analysis: Four specific locations for exploration.	Victory Resources Corporation	AR 33,034 (Sookochoff)

GEOLOGY: REGIONAL

The Aspen Grove geological district is located within the regional Quesnel Trough, a 30 to 60, km wide belt of Lower Mesozoic volcanic and related strata enclosed between older rocks and much invaded by batholiths and lesser intrusions (Campbell and Tipper, 1970). The southern part is the well-known Nicola belt, continuing nearly 200 km to its termination at the U.S. border and containing the important copper deposits of Highland Valley, Craigmont, Copper Mountain, Afton, Brenda, in addition to the historic Hedley gold camp.

The Nicola Group has been divided into western, central, and eastern belts on the basis of lithology and litho-geochemistry and by major fault systems. Variation from calc-alkaline to shoshinitic compositions from west to east has been interpreted to reflect eastward dipping subduction in the Nicola arc. The Toni 551397 Claim Group is situated within the eastern belt of the Nicola Group which is bounded on the west by the northerly striking Kentucky-Alleyne fault zone.

GEOLOGY: TONI 551397 CLAIM GROUP AREA

The geology on some of the more significant mineral MINFILE reported occurrences, prospects, and past producers on the Toni 551397 Claim Group and peripheral to the Toni 551397 Claim Group (Figure 4) are reported as follows. The distance from the Toni 551397 Claim Group is relative to Tenure 551397, which is the subject of the structural analysis.

Geology: Toni 551397 Claim Group Area (cont'd)**MAL** prospect (Cu skarn; Fe skarn; Au skarn)

MINFILE 092HNE002

Five kilometres northeast

The Malachite occurrence is hosted in the Upper Triassic Nicola Group, which regionally consists of alkalic and calcalkalic volcanics and intrusions of island arc origin, and which is the principal component of the Quesnel Terrane in southern British Columbia (Geological Survey of Canada Maps 41-1989, 1713A). This belt has been of major economic interest because of its potential for porphyry copper-gold mineralisation.

The occurrence lies in the northern assemblage of the Eastern belt or facies of the Nicola Group (after Preto, Bulletin 69). This assemblage mainly consists of well-bedded submarine volcanoclastic rocks and volcanic flows.

The main Aspen Grove copper camp lies several kilometres to the west in the Central belt, separated by the north-striking Kentucky-Alleyne fault system (Bulletin 69).

The area of the Malachite occurrence is underlain by dark green, augite porphyritic andesitic to basaltic volcanics and fragmental rocks, with subordinate black argillite with local limy horizons, and feldspar porphyry (Assessment Reports 449, 1586). Some volcanic flow breccia contains pink trachytic fragments (Assessment Report 9590). Stratified rocks strike north-northwest and dip moderately to steeply west (Geological Survey of Canada Map 41-1989).

Within 1 or 2 kilometres to the north of these rocks is the east-trending contact of the Early Jurassic Pennask batholith, a large intrusion of medium-grained granodiorite to quartz diorite.

The volcanics and sedimentary rocks have been altered, probably the result of hydrothermal activity related to the Pennask batholith. Epidote alteration is common; potassium feldspar alteration is more restricted. Skarn alteration is most characteristic of this occurrence, as it hosts the main mineralisation. It is closely associated with limy rocks, and is marked by epidote and garnet. North-trending gossanous shear zones have been exposed in trenches near the skarn zones (Assessment Report 449).

BRENDA past producer (Porphyry Cu +/- Mo +/- Au)

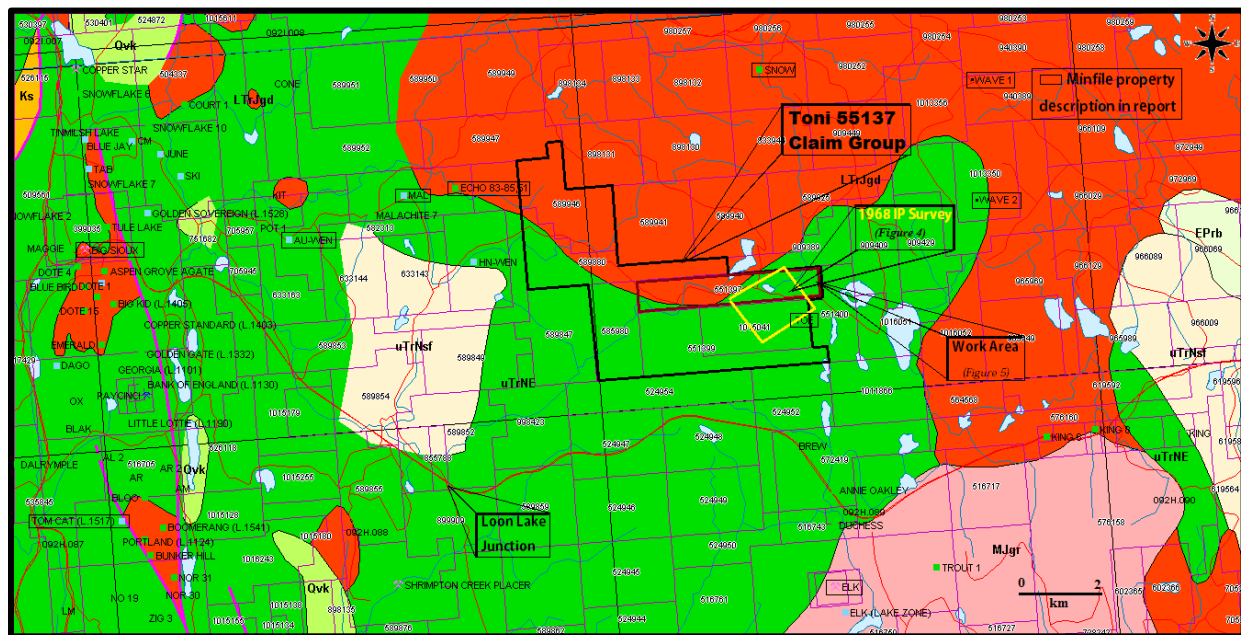
MINFILE 092HNE047

Twenty-five kilometres east

The Pennask Mountain area is mainly underlain by a roof pendant comprising westerly younging, Upper Triassic sedimentary and volcanoclastic rocks of the Nicola Group. These are intruded and enclosed to the north, east and south by plutonic rocks of the Early Jurassic Pennask batholith and Middle Jurassic Osprey Lake batholith. Both the Nicola rocks and the Pennask batholith are unconformably overlain by Tertiary sediments and volcanics of the Princeton Group.

The Brenda copper-molybdenum deposit is within the "Brenda stock", a composite quartz diorite/granodiorite body which forms part of the Pennask batholith. Several ages and compositions of pre and post-ore dikes cut the stock. The deposit is approximately 390 metres from the contact with Nicola Group rocks to the west.

Figure 5. **Geology, Claim, Index & Minfile**
(Base Map from MapPlace)



GEOLOGY MAP LEGEND

Pleistocene to Recent

PIRal

Unnamed alluvial till

PIRvk

Unnamed alkalic volcanic rocks

Upper Triassic

Eastern Volcanic Facie

uTrNE

lower amphibolite/kyanite grade metamorphic rocks

uTtNsf

mudstone, siltstone, shale, fine clastic sedimentary rocks

uTrNMI

basaltic volcanic rocks

uTrJum

unnamed ultramafic rocks

Central Volcanic Facies

uTrNc

andesitic volcanic rocks

Late Triassic to Early Jurassic

LTrJgd

unnamed granodiorite intrusive rocks

LTrJdr

dioritic to gabbroic intrusive rocks

Geology: Toni 551397 Claim Group Area (cont'd)**BRENDA past producer (cont'd)**

The schistose hornfels grades westerly into recognizable west-dipping volcanic rocks which in turn are overlain by greywacke, argillite and shales.

The Brenda stock is a composite, zoned quartz diorite to granodiorite body which can be divided into two units. Unit 1 is of quartz diorite composition and contains abundant mafic minerals (hornblende > biotite) and angular quartz grains, whereas unit 2 is porphyritic granodiorite and contains fewer mafic minerals (biotite > hornblende), well-defined biotite phenocrysts and subhedral quartz grains. The contact between units 1 and 2 is generally gradational, but locally sharp. At sharp contacts, unit 2 is chilled against unit 1.

Dikes of several ages and compositions cut the Brenda stock. At least four types, aplite-pegmatite, andesite, trachyte porphyry and basalt, have been identified in the Brenda orebody. Similar dikes, as well as felsite, dacite and quartz diorite have been mapped beyond the limits of economic mineralisation. The aplite-pegmatite dikes are cut by all other dikes and by all mineralised fractures. The andesite dikes have been altered and mineralised during ore formation. Two types of quartz diorite dikes are found and both are cut by quartz-sulphide veins. Dacite porphyry and felsite dikes are also cut by quartz-sulphide veins.

A trachyte porphyry dike up to 4.5 metres wide and 300 metres in strike length is exposed in the Brenda pit. A weakly mineralised vein was observed in the dike which suggested an intermineral age for the dike. Further evidence has clearly shown that the dikes cut all stages of mineralisation, except some of the latest quartz veins (Canadian Institute of Mining and Metallurgy Special Volume 15). Several post-mineral hornblende lamprophyre dikes also occur within the Brenda orebody and are probably genetically related to the trachyte porphyry dikes.

Irregular, branching basalt dikes, probably related to Tertiary volcanism, have been intruded along pre-existing fault zones. They cut all phases of mineralisation and alteration.

Initial potassium-argon dating of two samples from the Brenda mine area resulted in different ages for hornblende (176 Ma) and biotite (148 Ma). Interpretation of these results suggests that the Brenda stock crystallized about 176 million years ago. Biotite samples from the pit area have been dated at about 146 Ma, which probably represents the age of mineralisation (Canadian Institute of Mining and Metallurgy Special Volume 15).

Faults in the Brenda pit are expressed as fracture zones in which the rock is intensely altered to clay minerals, sericite, epidote and chlorite. These fracture zones range in width from a few centimetres to 9 metres. Most strike 070 degrees and dip steeply south. Northwest-striking faults exhibit left-lateral movement. The faults transect all mineralisation, except some calcite veins. Sulphides, especially molybdenite, have been smeared along fault planes. Shear zones are wider and more numerous in the north half of the pit, where they control bench limits.

Geology: Toni 551397 Claim Group Area (cont'd)**HN-WEN prospect (Volcanic redbed Cu)**

MINFILE 092HNE058

Four kilometres southwest

The HN-WEN occurrence is hosted in the Upper Triassic Nicola Group, which regionally consists of alkalic and calcalkalic volcanics and intrusions of island arc origin, and which is the principal component of the Quesnel Terrane in southern British Columbia (Geological Survey of Canada Maps 41-1989, 1713A). This belt has been of major economic interest because of its potential for porphyry copper-gold mineralisation.

The occurrence lies in the northern assemblage of the Eastern belt of the Nicola Group (after Preto, Bulletin 69).

This assemblage mainly consists of well-bedded submarine volcanoclastic rocks and volcanic flows. The main Aspen Grove copper camp lies several kilometres to the west in the Central belt, separated by the north-striking Kentucky-Alleyne fault system (Bulletin 69).

The area of the occurrence is underlain by augite porphyritic volcanic flows of andesitic to basaltic composition, fragmental rocks including tuff and breccia, and argillites (Assessment Reports 1586, 4230). The argillites are dark grey to black, well bedded, and locally limy. They are somewhat carbonaceous and pyritic. Minor rock types present include feldspar porphyry and locally lenses of diorite. About 2.5 kilometres to the northeast is the contact with the Early Jurassic Pennask batholith, a large intrusion of medium-grained granodiorite to quartz diorite.

The contact between the volcanic rocks and the argillites passes through the centre of the mineralised area. The contact is parallel to bedding, striking 130 degrees and dipping 40 degrees southwest, with the volcanic rocks on the northeast side (Assessment Report 4230).

ECHO showing (Volcanic redbed Cu)

MINFILE 092HNE059

Eleven kilometres west

The Echo occurrence is hosted in the Upper Triassic Nicola Group, which regionally consists of alkalic and calcalkalic volcanics and intrusions of island arc origin, and which is the principal component of the Quesnel Terrane in southern British Columbia (Geological Survey of Canada Maps 41-1989, 1713A). This belt has been of major economic interest because of its potential for porphyry copper-gold mineralisation.

The occurrence lies in the northern assemblage of the Eastern belt of the Nicola Group (after Preto, Bulletin 69). This assemblage mainly consists of well-bedded submarine volcanoclastic rocks and volcanic flows. The main Aspen Grove copper camp lies several kilometres to the west in the Central belt, separated by the north-striking Kentucky-Alleyne fault system (Bulletin 69).

The area of the occurrence is underlain by augite porphyritic volcanic flows of andesitic to basaltic composition, and volcanic tuff and breccia (Assessment Report 1586; Geological Survey of Canada Map 41-1989). The volcanics may be affected by low grade propylitic and chloritic alteration. Less than 1 kilometre to the north of the occurrence is the east-striking contact of the Early Jurassic Pennask batholith, a large intrusion of medium-grained granodiorite to quartz diorite.

Geology: Toni 551397 Claim Group Area (cont'd)**BIG SIOUX** past producer (Volcanic redbed Cu; Alkalic porphyry Cu-Au)
MINFILE 092HNE073

Fourteen kilometres west

The Fairweather Hills region is underlain by the Central volcanic facies of the Upper Triassic Nicola Group, comprising intermediate, feldspar and feldspar augite porphyritic pyroclastics and flows, and associated alkaline intrusions. The intrusions vary from diorite to monzonite in composition and are thought to be comagmatic with the Nicola Group, ranging in age from Late Triassic to Early Jurassic.

Locally, the area is underlain by red and green laharic breccias, augite andesite porphyry and minor sediments of the Nicola Group (Central belt, Bulletin 69). The units generally strike north-northwest and dip east. This sequence is broken up into a series of tilted fault blocks trending north.

The occurrence is hosted in variably amphibole, augite and feldspar porphyritic basaltic andesite, subjected to extensive fracturing, shearing and faulting. Alteration minerals include abundant epidote, and minor silica and chlorite. Some microdiorite and diorite are also present.

TOMCAT prospect (Volcanic redbed-Cu; Subvolcanic-Cu-Ag-Au (As-Sb); Porphyry Mo (Low F-type))
MINFILE 092HNE086

Sixteen kilometres southwest

This deposit is hosted in green laharic breccia or basaltic flow breccia near the contact with red laharic breccia of the Upper Triassic Nicola Group (Central belt, Bulletin 69). The unit strikes north-northwest and dips 60 degrees east. Massive basaltic flows outcrop to the northeast. Alteration of the breccia consists of some chloritization of olivine and pyroxene, and sericitization of feldspar.

ELK past Producer (Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn +/-Au; Au-quartz veins)
MINFILE 092HNE096

Thirteen kilometres east-southeast

The Elk property is underlain by Upper Triassic volcanics and sediments of the Nicola Group and by Middle Jurassic granites and granodiorites of the Osprey Lake batholith. The contact between these units trends northeasterly across the property. Early Tertiary feldspar porphyry stocks and dikes of the Otter intrusions occur throughout the property. The western property area is underlain by steeply west-dipping andesitic to basaltic flows, agglomerates, tuffs and minor siltstone and limestone units of the Nicola Group. The eastern half of the property is underlain by granitic rocks of the Osprey Lake batholith.

AU-WEN prospect (Intrusion related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn +/-Au)
MINFILE 092HNE144

Nine kilometres southeast

The occurrence lies in the northern assemblage of the Eastern belt of the Nicola Group (after Preto, Bulletin 69). This assemblage mainly consists of well-bedded submarine volcanoclastic rocks, ranging from tuffaceous volcanic siltstones characteristic of the lower part, to coarse volcanic conglomerate and laharic breccias in the upper part.

Geology: Toni 551397 Claim Group Area (cont'd)**AU-WEN prospect (cont'd)**

The assemblage is characterized by a paucity of intrusive rocks in comparison to the main Aspen Grove copper camp in the Central belt a few kilometres to the west, separated by the Kentucky-Alleyne fault system (Bulletin 69).

The AU occurrence is centred on the main gold showing, a small stripped, drilled and trenched area just off a gravel road south of Quilchena Creek (Assessment Reports 5766, 16008). This and most of the surrounding area is underlain by andesitic to dacitic tuff, cherty tuff, black argillite, and volcanic sandstone and siltstone.

The rocks are strongly fractured in a variety of orientations. Bedding in the tuff has been measured to strike 060 degrees and dip 54 degrees northwest, but it varies.

About 1 kilometre to the north of the main showing is biotite hornblende granodiorite and quartz monzonite of the Early Jurassic Pennask batholith, and about 500 metres to the west are porphyritic andesitic and basaltic volcanic rocks (Bulletin 69; Assessment Report 16008). Small bodies of diorite and micromonzonite, possibly subvolcanic, are quite common in the area, on the surface and in drill core (Assessment Report 16008). Some of the volcanics have sustained carbonate and epidote alteration, and locally they have pervasive hematite (Assessment Report 16008).

SNOW showing (Porphyry Cu +/- Mo +/- Au; Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 092HNE270

Five kilometres northeast

A drillhole intersected minor copper mineralisation in weakly to moderately chloritized granite of the Early Jurassic Pennask batholith.

BREW showing (Alkalic porphyry Cu-Au; Subvolcanic Cu-Ag-Au; As-Sb)

MINFILE 092HNE275

Four kilometres south

This occurrence is hosted in volcanics and minor sediments of the Upper Triassic Nicola Group, 2.6 kilometres northwest of the Middle Jurassic Osprey Lake batholith. The volcanics consist primarily of andesite and fine-grained diorite. The contact between the two units is gradational, suggesting the diorite may be a subvolcanic equivalent of the andesite. Minor tuffs, lapilli tuffs, agglomerates, and feldspar porphyritic andesite are also present. The sediments consist of mudstone, siltstone, shale, and rare carbonate, intercalated with the pyroclastic units. A major fault zone, the Brew fault, striking 140 degrees and dipping steeply southwest, is exposed along the Coquihalla Highway for 600 metres.

The zone is approximately 40 metres wide. It is somewhat gossanous and exhibits carbonate and clay alteration and sporadic silicification.

Some quartz +/- calcite stringers and blebs are present but not common. Pyrite is ubiquitous along the entire fault. Sections of the zone are strongly mineralised with massive veins, narrow stringers and occasional disseminations of marcasite, pyrite and pyrrhotite. Samples of pyritic clay-altered sections have yielded up to 0.280 gram per tonne gold and 0.445 per cent arsenic (Assessment Report, 18041, page 8, samples 128665, 44719) A sample from a zone of quartz stringers analysed 0.600 gram per tonne gold (sample 239716). This fault is traversed by several significant fault/shear zones striking 100 to 120 degrees. One major crossfault, the Mugwump fault, is exposed west of the Brew fault, striking 100 degrees and dipping 60 degrees south.

Geology: Toni 551397 Claim Group Area (cont'd)**BREW showing (cont'd)****WAVE 1 anomaly (Polymetallic veins Ag-Pb-Zn+/-Au)**

MINFILE 092HNE311

Ten kilometres east

The area is underlain by granitic rocks of the Jurassic Pennask batholith and basaltic volcanics of the Triassic Nicola Group.

WAVE 2 anomaly (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 092HNE312

Ten kilometres east

The area is underlain by granitic rocks of the Jurassic Pennask batholith and basaltic volcanics of the Triassic Nicola Group.

GEOLOGY: TONI 551397 CLAIM GROUP

As indicated by the BC government supported MapPlace geological maps, the six claim Toni 551397 Claim Group is predominantly underlain by the Early Jurassic Pennask batholith (LTrJgd) with an Upper Triassic eastern belt of Nicola volcanics (UTrNE) northeasterly and northerly trending contact in the west and southwest. Proximal to the southeast boundary of the Toni 551397 Claim Group is a five kilometre wide embayment of Nicola rocks enveloped by the Pennask Batholith. The Pennask-Nicola contacts are prominently to the northeast, northwest, and north.

These three prominent directional contacts are evident in the water course pattern of the immediate area within both the Nicola rocks and the Pennask intrusive, indicating prevailing tectonic forces prior to, contemporaneous, and subsequent to, the emplacement of the Pennask Batholith. This compressional tectonic force is reported as east-west in the Brenda (*Minfile 092HNE047*) area.

One of the resultant major structures is the area is the northerly trending Elk fault system which is evidenced topographically for a minimum of 25 kilometres from, and not necessarily restricted to the limits of, the formerly productive Elk property in the south, to and beyond the SNOW mineral showing (*Minfile 092HNE292*) in the north. The Elk fault is offset twice for up to two kilometres in the Elk/Snow section; at the BREW mineral showing (*Minfile 092HNE275*) by the 280 degree striking Magwump fault and by an indicated northwesterly trending fault (Snow fault) at the Snow mineral showing.

MINERALISATION: TONI 551397 CLAIM GROUP AREA

The mineralisation on some of the more significant mineral MINFILE reported showings, prospects, and past producers on the Toni 551397 Claim Group and peripheral to the Toni 551397 Claim Group are reported as follows. The distance from the Toni 551397 Claim Group is relative to Tenure 551397, which is the subject of the structural analysis.

MAL prospect (Cu skarn; Fe skarn; Au skarn)

MINFILE 092HNE002

Five kilometres northeast

Copper mineralisation is concentrated in the skarn zones. Pyrite and subordinate magnetite and chalcopyrite are associated with quartz-calcite veins, or are disseminated in variable amounts (Assessment Report 1586). Chalcocite and malachite are also present at the main showing (Assessment Report 8453).

Mineralisation: Toni 551397 Claim Group Area (cont'd)**MAL prospect (cont'd)**

Finely disseminated pyrite is common in most rocks, particularly the argillaceous rocks (Assessment Reports 1718, 9590). A zone of massive, medium-grained pyrite between 1 and 13 metres thick, in altered volcanic rocks, has been found below the surface by diamond drilling; the paragenesis is epidote, magnetite, pyrite (Assessment Report 9590).

Copper values appear to be erratic. In early diamond drilling, the best result reported is 1.62 per cent copper over 6 metres; this section contained at least 50 per cent magnetite (Assessment Report 449, page 6). More recent diamond drilling has resulted in generally low metal values, although one split core sample assayed 0.37 per cent copper and 6.8 grams per tonne silver (Assessment Report 9590). A grab sample from the main trenched and drilled area assayed 0.34 gram per tonne gold, 3.4 grams per tonne silver, and 0.2 per cent copper (Assessment Report 8453).

The high magnetite and pyrite content of the rocks at this occurrence is reflected in significant magnetic and induced polarization anomalies, respectively, over the mineralised zones (Assessment Reports 1586, 8453).

BRENDA past producer (Porphyry Cu +/- Mo +/- Au)**MINFILE 092HNE047***Twenty-five kilometres east*

The Brenda orebody is part of a belt of copper-molybdenum mineralisation that extends north-northeast from the Nicola Group-Brenda stock contact. Mineralisation of economic grade (0.3 per cent copper equivalent) is confined to a somewhat irregular zone approximately 720 metres long and 360 metres wide. Ore-grade mineralisation extends more than 300 metres below the original surface.

Lateral boundaries of ore-grade mineralisation are gradational and appear to be nearly vertical.

Primary mineralisation is confined almost entirely to veins, except in altered dike rocks and in local areas of intense hydrothermal alteration which may contain minor disseminations. The grade of the orebody is a function of fracture (vein) density and of the thickness and mineralogy of the filling material. The average total sulphide content within the orebody is 1 per cent or less. Chalcopyrite and molybdenite, the principal sulphides, generally are accompanied by minor, but variable, quantities of pyrite and magnetite.

Bornite, specular hematite, sphalerite and galena are rare constituents of the ore. Johnson (1973), in a study of 17 samples from the deposit, reported minor pyrrhotite, mackinawite, carrollite, cubanite, ilmenite, rutile and native gold (?), as well as several secondary sulphides (Canadian Institute of Mining and Metallurgy Special Volume 15). Pyrite is most abundant in altered andesite dikes and in quartz-molybdenite veins. The ratio of pyrite to chalcopyrite in the orebody is about 1:10, with the chalcopyrite content diminishing beyond the ore boundaries.

Because mineralisation is confined almost entirely to veins in relatively fresh homogeneous rock, the veins are divided into separate stages, based on crosscutting relations and their mineralogy and alteration effects on the hostrock. The vein density within the orebody is not uniform.

Ranges are recorded from less than 9 per metre near the periphery of the orebody to 63 per metre and occasionally 90 per metre near the centre of the orebody. Some veins have very sharp contacts with wall rocks, but most contacts are irregular in detail where gangue and sulphide minerals replace the wallrock.

Mineralisation: Toni 551397 Claim Group Area (cont'd)**BRENDA** *past producer*

A vein may show features characteristic of fracture-filling in one part and of replacement in another. Mineralised solutions were introduced into fractures and, during development of the resultant veins, minor replacement of the wallrock ensued.

The chronological stages of mineralisation are as follows: (1) biotite-chalcopyrite (oldest); (2) quartz-potassium feldspar-sulphide; (3) quartz-molybdenite-pyrite; (4) epidote-sulphide-magnetite; and (5) biotite, calcite and quartz. Stages 1 through 4 are all genetically related to a single mineralizing episode, which was responsible for the orebody. Stage 5 represents a later, probably unrelated, event(s) (Canadian Institute of Mining and Metallurgy Special Volume 15). Stage 2 veins form the bulk of the mineralisation in the deposit, and are the most important source of ore.

Hydrothermal alteration at the Brenda deposit generally is confined to narrow envelopes bordering veins. These alteration envelopes commonly grade outward into unaltered or weakly propylitic-altered rock. Where veins are closely spaced, alteration envelopes on adjacent veins may coalesce to produce local areas of pervasive alteration. For the most part, hydrothermal alteration at the Brenda deposit is exceptionally weak for a porphyry copper system.

Four types of alteration are recognized in the Brenda deposit, three of which are related to the mineralizing process. Two of these are potassic (potassium feldspar) and biotite, and the other is propylitic. Later argillic alteration has been superimposed on the system along post-mineral faults.

Potassium feldspar and biotite alteration generally are separated in space, but locally occur together. Both types of alteration accompanied sulphide deposition. Potassium feldspar replaces plagioclase adjacent to most stage 2 and, to a lesser extent, stage 3 veins. These irregular envelopes range in width from a centimetre or less up to a metre, with an average of about 2 centimetres. Potassium feldspar also occurs as a minor constituent of stage 1 veins.

Hydrothermal biotite replaces magmatic mafic minerals (hornblende, biotite) and, more rarely, plagioclase in hostrock adjacent to stage 2 and especially stage 3 veins. These envelopes of hydrothermal biotite range in width from less than 1 millimetre to several centimetres.

Weak to intense propylitic alteration, which is characterized by the development of chlorite and epidote, as well as less obvious microscopic sericite and carbonate, is sporadically distributed throughout the Brenda stock. Large areas within the orebody have not been propylitized and in these areas, veins with potassic alteration envelopes clearly cut across propylitized quartz diorite, indicating an early hydrothermal or even a pre-ore origin for the propylitization (Canadian Institute of Mining and Metallurgy Special Volume 15). A second period of propylitization accompanied the development of stage 4 veins and is reflected as envelopes of epidote and chlorite.

Locally intense argillic alteration is confined to post-mineral fault zones where the hostrock has been highly shattered. Kaolinite, sericite and epidote have almost completely replaced the host rocks.

Surface weathering, which is expressed predominantly by the development of limonite, extends as a highly irregular blanket over the mineralised zone for depths ranging from a few metres to greater than 30 metres. In this weathered area, limonite stains all fractures.

Mineralisation: Toni 551397 Claim Group Area (cont'd)**BRENDA** past producer (cont'd)

Fault zones have been especially susceptible to surface weathering, and the argillic alteration of these zones may be primarily the result of groundwater action. Secondary minerals developed during weathering, all highly subordinate in quantity to limonite, include malachite, azurite, hematite, ferrimolybdate, powellite and cupriferous manganese oxides. Cuprite, covellite, chalcopyrite, native copper, tenorite and ilsemanite are rare constituents.

Copper-molybdenum mineralisation in the Brenda deposit was developed during several sequential stages, all of which constitute one mineralizing episode.

Each stage occupies unique sets of fractures, which are filled with specific combinations of metallic and gangue minerals. Although the attitudes of veins in each stage are unique in detail, most stages include conjugate steeply dipping sets of northeast and northwest striking veins. If these veins occupy shear fractures, it is probable that they were formed by generally east-west compressive forces. Examination of the structure in the Nicola Group rocks to the west reveals that north-northwest and north trending fold axes also indicate an east-west compression.

It is suggested that intermittent east-west compressional forces intensely fractured the rocks of the Brenda stock during several stages of time and tapped a hydrothermal source, either a later phase of the Brenda stock or a separate intrusive system.

As each stage of fractures developed, hydrothermal fluids introduced vein material which healed the fractures. Renewed build-up of compressional forces again fractured the rocks, which were again healed. Repetition of this sequence can explain all stages of mineralisation within the Brenda deposit. East-west compression continued after ore deposition ceased and produced prominent east-northeast and northwest striking shear zones (Canadian Institute of Mining and Metallurgy Special Volume 15).

ECHO showing (Volcanic redbed Cu)

MINFILE 092HNE059

Eleven kilometres west

Chalcopyrite and malachite are present in trenches and open cuts in volcanics over an area 1000 by 800 metres. Chalcopyrite is disseminated, or concentrated in quartz-calcite veins (Assessment Report 1586). The Echo occurrence lies directly along the strike of prominent fractures which host significant copper-silver mineralisation at the HN-WEN occurrence (092HNE058), 2 kilometres to the south-southeast (Assessment Report 4230).

BIG SIOUX past producer (Volcanic redbed Cu; Alkalic porphyry Cu-Au)

MINFILE 092HNE073

Fourteen kilometres west

Pyrite, pyrrhotite, chalcopyrite and arsenopyrite are disseminated sporadically in the tuffaceous rocks and argillite, up to about 1 per cent, and also occur in fractures (Assessment Reports 11241, 16008). Native gold is associated with the sulphides in narrow quartz-filled fractures in these rocks (Assessment Report 16008). Minor malachite occurs in volcanics.

The overall extent of the mineralisation has not been determined, although diamond drilling has demonstrated that minor pyrite, pyrrhotite and chalcopyrite, disseminated or associated with quartz or calcite fracture veinlets, does persist below the surface (Assessment Reports 11241, 16008).

Mineralisation: Toni 551397 Claim Group Area (cont'd)**BIG SIOUX** past producer (cont'd)

Gold values in the area are generally low, but high values have been obtained from trench sampling and drill core at the main showing. Significant gold assays in chip samples range from 6.8 grams per tonne over 5.1 metres to 10.8 grams per tonne over 4.9 metres (Assessment Report 16008).

TOMCAT prospect (Volcanic redbed-Cu; Subvolcanic-Cu-Ag-Au (As-Sb); Porphyry Mo (Low F-type) MINFILE 092HNE086

Sixteen kilometres southwest

The laharic breccia is erratically mineralised with chalcocite, magnetite, bornite, chalcopyrite, native copper and hematite, as disseminations and fracture coatings. Trenching and diamond drilling has intersected this mineralisation over a width of 30 metres and a depth of at least 45 metres.

One drillhole analysed 0.32 per cent copper over 45.7 metres (Minister of Mines Annual Report 1965, page 157, hole 1). Two chip samples assayed 2.4 and 1.6 per cent copper over 2.1 and 3.0 metres respectively (Minister of Mines Annual Report 1913, page 223).

ELK past producer (Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn +/- Au; Au-quartz veins)

MINFILE 092HNE096

Thirteen kilometres east-southeast

Gold-silver mineralisation on the Elk property is hosted primarily by pyritic quartz veins and stringers in altered pyritic granitic and, less frequently, volcanic rocks.

Crosscutting relationships indicate that the veins are Tertiary in age; they may be related to Tertiary Otter intrusive events.

To date, mineralisation has been located in four areas on the Elk property: Siwash North, South Showing (092HNE261), North Showing (092HNE281) and Siwash Lake (092HNE041, 295).

The Siwash Lake zone is 800 metres south of the Siwash North deposit; the North Showing and South Showing areas are 2 and 3 kilometres south of Siwash North respectively.

In the Siwash North area, gold occurs in veins measuring 5-70 centimetres wide, hosted by a zone of strongly sericitic altered granite and, in the west, volcanic rocks. In general, the mineralised zone trends east-northeast with southerly dips from 20-80 degrees (from east to west), and appears to be related to minor shearing. Quartz veining occurs in a number of parallel to subparallel zones. Each zone consists of one or more veins within an elevation range of 5 to 10 metres that can be correlated as a group to adjacent drill holes. In the eastern parts of the area, up to six subparallel zones occur. Five of these zones are consistent enough to be labelled the A, B, C, D and E zones.

Mineralisation in the west has been identified in one or locally two zones (the B and C zones). The main mineralised zone (B) is consistent, with only minor exceptions, across the entire drill grid.

The Siwash North structure has been tested to 335 metres down dip and along a strike length of 925 metres. The zone remains open to depth and along strike.

At surface, supergene alteration has leached out most of the sulphides with some pyrite and chalcopyrite remaining. Mineralisation occurs primarily as native gold, occasionally as spectacular aggregates of coarse flakes in frothy quartz (strong pyrite boxwork) or in fractures in the vein. Electrum was noted in one area as very coarse-grained flakes associated with strong manganese staining. Gold is rarely seen in boxworks in sericitic (phyllic) alteration.

Mineralisation: Toni 551397 Claim Group Area (cont'd)**ELK past producer (cont'd)**

In drill core, mineralisation has not been affected by supergene processes. Metallic minerals in drill core include pyrite, chalcopyrite, sphalerite, galena, tetrahedrite, maldonite? pyrrhotite and native gold in order of decreasing abundance. Gold is strongly associated with pyrite and with a blue-grey mineral. Photomicrographs show the gold commonly in contact with this mineral, which may be a gold-bismuth alloy (maldonite?) or a copper-bismuth-antimony sulphosalt.

Gangue mineralogy consists primarily of quartz and altered wallrock fragments. Ankerite is commonly present, with lesser amounts of calcite. Minor barite is also present. Fluorite was noted in one vein as very small (less than 1 millimetre) zoned purple cubes scattered in the quartz.

Stronger alteration generally accompanies higher grade gold mineralisation. Seven main types of alteration were recognized in the granitic rocks throughout the property: propylitic, argillic, sericitic, potassium feldspar stable phyllic, phyllic, advanced argillic and silicic. Locally, potassic alteration, skarnification and silicification are evident, but are relatively minor and do not appear to be related to mineralisation.

Propylitic alteration is generally light green with biotite and hornblende altered to chlorite, and plagioclase is saussuritized. In volcanics, the colour is generally olive green, and the rock is soft. Argillic alteration is exemplified by bleached rock, with plagioclase white and clay-altered; potassium feldspar is slightly altered.

Volcanics are bleached to light green or grey. Sericitic alteration is typically pale green with a micaceous sheen, with plagioclase altered to sericite; trace disseminated pyrite may be present. This type of alteration is often associated with quartz veins and appears to be the lowest grade alteration associated with gold mineralisation. It is not recognized in volcanics.

Potassium feldspar stable phyllic alteration is light pink, green or yellowish with potassium feldspar fresh and pink and blocky. Plagioclase and mafic minerals are altered to fine-grained quartz-sericite-pyrite. It often occurs with veins and is associated with gold mineralisation; it is not recognized in volcanics.

Phyllic alteration is generally grey, fine-grained quartz-sericite-pyrite alteration usually associated with veins and often gradational to quartz and often auriferous. Advanced argillic alteration is exemplified by most or all of feldspar being destroyed, quartz is "free-floating". The alteration is often sheared and white in colour and is often associated with quartz veins. Volcanics are white or blue coloured. Silicic alteration is quartz veining or replacement that is hard with moderate conchoidal fracture. There is a strong symmetrical zoning of alteration around the quartz veins: vein-advanced argillic-phyllic-potassium feldspar stable phyllic-argillic-propylitic.

Measured geological reserves of the Siwash North deposit are 308,414 tonnes grading 22.17 grams per tonne gold and 24.68 grams per tonne silver using a cutoff grade of 10 grams per tonne gold.

Reserves are based on results from 107 drillholes at 50-metre grid spacings along 804 metres of strike length to 304 metres down-dip. All veining intercepts have been adjusted for true width and assays diluted to 2-metre mining widths (George Cross News Letter No. 223 (November), 1991).

The revised drill indicated reserve, based on more realistic open pit and underground mining widths of 0.39 to 0.79 metre with 20.5 grams per tonne gold cutoff grade, is 122,458 tonnes averaging 54.5 grams per tonne gold (George Cross News Letter No. 65 (April 2), 1993).

Mineralisation: Toni 551397 Claim Group Area (cont'd)**ELK past producer (cont'd)**

Surface drilling was done on fences 10-50 metres apart, underground drilling on fences 10 metres apart. Reserve calculations by the company and consultant Roscoe Postle gave the following results (Explore B.C. Program 95/96 - A38):

Probable (undiluted) 16,991 tonnes at 28,200 tonnes at 50.2 g/t gold 26.6 g/t gold

Possible (undiluted) 50,260 tonnes at 66,400 tonnes at 42.0 g/t gold 31.4 g/t gold

The 1996 exploration program consisted of 6873 metres of drilling in 91 holes. The Siwash zone has been traced along a 914 metre strike length and down dip to 245 metres.

Reserves estimated by the company at January 1, 1996 were 121,350 tonnes grading 25.4 grams per tonne gold and 35.3 grams per tonne silver.

These include a diluted, probable open-pit resource of 11,340 tonnes grading 58.97 grams per tonne gold, an underground probable resource below the open pit of 20,225 tonnes grading 26.74 grams per tonne gold, and a further possible underground resource of 89,790 tonnes grading 23.66 grams per tonne gold (Information Circular 1997-1, page 21).

Surface diamond drilling totaling 1413.96 metres in 12 holes was completed on the Siwash Mining lease during 2000 testing the B, WD and Gold Creek West (GCW) zones.

A trenching program was carried out in 2001 in the Siwash East Area consisting of six trenches totaling 202 meters. Almaden Resources and Fairfield Minerals Ltd. merged into Almaden Minerals Ltd. in February, 2002.

In 2002, Almaden undertook a 26 hole surface diamond drill program for a total of 4995.67 metres testing the B, WD, GCW and Bullion Creek zones. During the 2003 field season a 6570 metre, 30 hole, diamond drill program was carried out by Almaden in the Siwash North area testing the WD zone. The WD vein system is located approximately 100 metres north of the Siwash B zone vein and has been tested over a strike length of 610m and down dip for 380m.

By the end of May 2004, a total of eight mineralised veins had been discovered on the property. Four vein systems had been drilled in the Siwash area: the B system with a strike length of 900 m has been tested down dip to 320 m; the WD zone with a strike length of 650 m has been tested to 370 m down dip; the GCW zone with a strike length of 300 m has been tested to 130 m down dip and the Bullion Creek (BC) zone which has been tested with two holes to a depth of 75 m.

A new 43-101 compliant resource was calculated using drill data for the Siwash B and WD veins, just two of eight known mesothermal vein structures on the property.

Global (bulk-tonnage and underground mineable) measured and indicated resources were reported to total 668,300 tonnes grading 9.66 grams per tonne gold (207,600 ounces) plus an additional 1,317,200 tonnes grading 4.91 grams per tonne gold (207,800 ounces) in the inferred category (News Release, Almaden Minerals Limited, May 28, 2004).

Included in the global figures is a higher grade, underground-mineable resource totaling 164,000 tonnes grading 33.69 g/t gold in the measured and indicated category, plus another 195 200 tonnes grading 16.38 g/t gold in the inferred category.

In 2004 a diamond drill program consisting of 10,265 meters of NQ drilling in 44 holes was completed.

Mineralisation: Toni 551397 Claim Group Area (cont'd)**ELK past producer (cont'd)**

As reported by Almaden in 2001, a possible extension to the B and WD vein systems was found roughly two kilometres along strike to the east, on the other side of an area of overburden cover and no outcrop, as part of a trenching program. Grab samples of the vein material taken at surface returned averaged analyses of 31.6 grams per tonne gold and 104.4 grams per tonne silver (News Release, Almaden Minerals Limited, March 4, 2005. This discovery added about two kilometres of prospective, unexplored strike length to the high-grade vein system.

**AU-WEN prospect (Intrusion related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn+/-Au)
MINFILE 092HNE144****Nine kilometres southeast**

Pyrite, pyrrhotite, chalcopyrite and arsenopyrite are disseminated sporadically in the tuffaceous rocks and argillite, up to about 1 per cent, and also occur in fractures (Assessment Reports 11241, 16008). Native gold is associated with the sulphides in narrow quartz-filled fractures in these rocks (Assessment Report 16008). Minor malachite occurs in volcanics. The overall extent of the mineralisation has not been determined, although diamond drilling has demonstrated that minor pyrite, pyrrhotite and chalcopyrite, disseminated or associated with quartz or calcite fracture veinlets, does persist below the surface (Assessment Reports 11241, 16008).

Gold values in the area are generally low, but high values have been obtained from trench sampling and drill core at the main showing. Significant gold assays in chip samples range from 6.8 grams per tonne over 5.1 metres to 10.8 grams per tonne over 4.9 metres (Assessment Report 16008).

Copper is associated with the gold mineralisation; one rock sample from the main trench yielded 0.29 per cent copper (Assessment Report 7293). Another sample yielded 26 grams per tonne silver and 0.14 per cent lead (Assessment Report 7293). Silver in diamond drill core is generally under 1 gram per tonne (Assessment Report 11241).

Grab and select samples assayed between 14.4 and 91 grams per tonne gold (Assessment Reports 5766, 16008). The best drill core intersection assayed 4.97 grams per tonne gold over 1.5 metres (Assessment Report 16008).

**SNOW showing (Porphyry Cu +/- Mo +/- Au; Polymetallic veins Ag-Pb-Zn+/-Au)
MINFILE 092HNE270****Five kilometres northeast**

A sample of drill core from 28.0 metres depth contained fine-grained magnetite accompanied by fine-grained chalcocite or bornite along the margins of a zeolite vein. Copper mineralisation also occurs along fractures and as disseminations in the granite. Two assays of a grab sample taken in the vicinity of the drillhole yielded less than 0.3 gram per tonne gold, 3.1 grams per tonne silver and 0.54 per cent copper, and 0.45 gram per tonne gold, 3.1 grams per tonne silver and 0.30 per cent copper, respectively (Assessment Report 3415, assay certificates).

Mineralisation: Toni 551397 Claim Group Area (cont'd)**BREW showing (Alkalic porphyry Cu-Au; Subvolcanic Cu-Ag-Au; As-Sb)**

MINFILE 092HNE275

Four kilometres south

The zone has been traced on surface for 400 metres and is 30 to 40 centimetres wide. It is comprised of strongly gossanous clay and fault gouge containing 1 to 2 per cent pyrite. Quartz and quartz-calcite stringers and quartz blebs occur sporadically throughout the zone. A sample of quartz vein material yielded 0.14 gram per tonne gold and 14.4 grams per tonne silver (Assessment Report, 18041, page 8, sample 239774).

WAVE 1 anomaly (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 092HNE311

Ten kilometres east

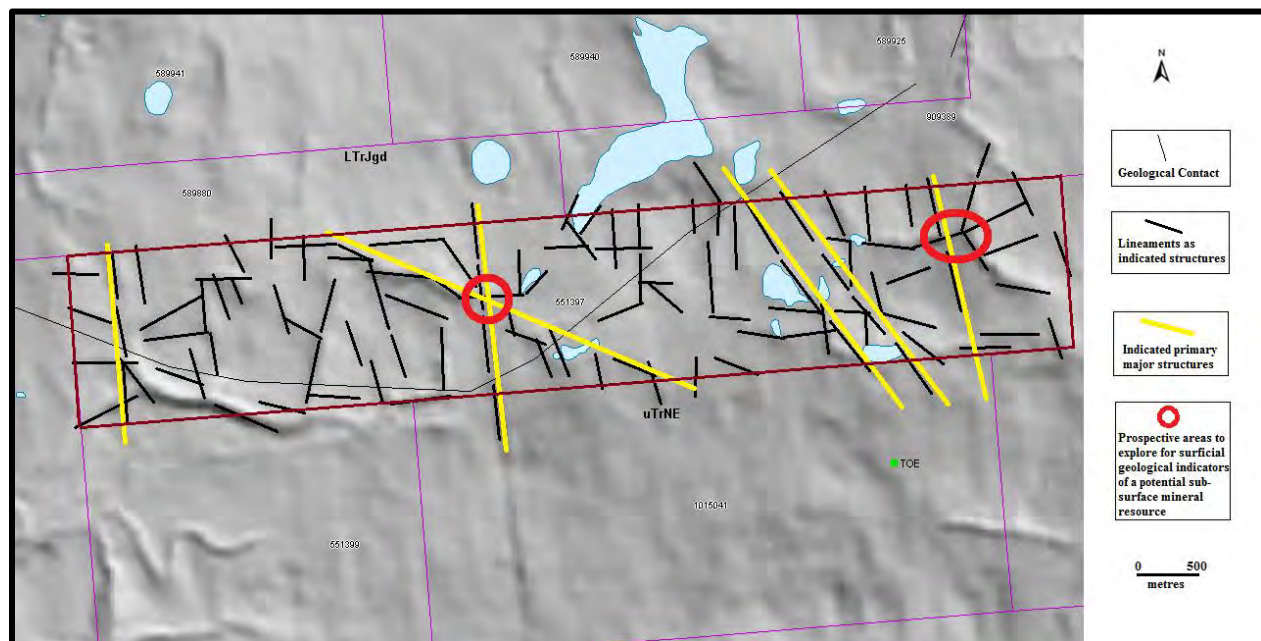
Locally, mineralised quartz vein float was found and contain disseminated pyrite and limonite with occasional specks of chalcopyrite, galena or sphalerite. In 1991, samples of mineralised vein float, up to 0.20 metre in diameter, returned up to 8230 parts per billion gold, 249.3 parts per million silver, 844 parts per million copper and 4091 parts per million lead (Assessment Report 22864).

WAVE 2 anomaly (Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 092HNE312

Ten kilometres east

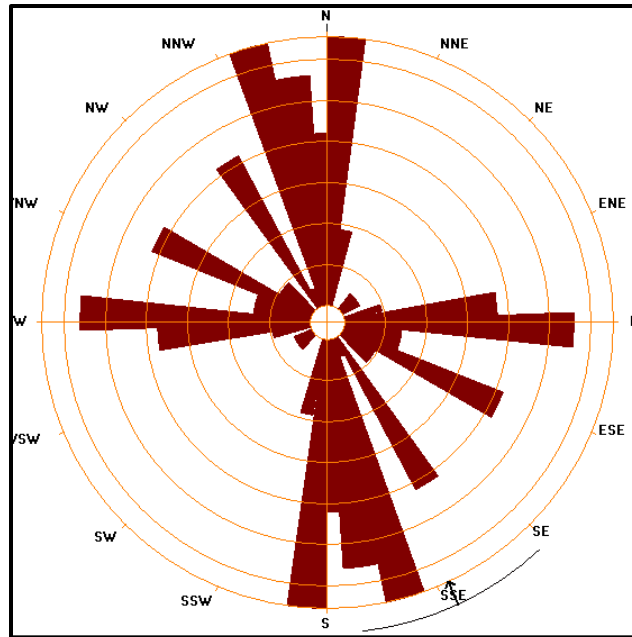
Locally, mineralised quartz vein float was found and contain disseminated pyrite and limonite with occasional specks of chalcopyrite, galena or sphalerite. In 1991, samples of mineralised vein float, up to 0.20 metres in diameter, returned up to 25.7 parts per million silver, 1732 parts per million lead and 2107 parts per million zinc (Assessment Report 22864)

Figure 6. Indicated Lineaments on Tenure 551397

2012 STRUCTURAL ANALYSIS

The structural analysis was performed on a MapPlace hillside shade map of Tenure 551397 by viewing of the map and marking the lineaments, or indicated structures, thereon. A total of 107 lineaments were marked (Figure 6), compiled into a 10 degree class interval, and plotted as a rose diagram as indicated on Figure 7.

Figure 7. Rose Diagram from lineaments (Figure 6) of Tenure 551397.



STATISTICS

Axial (non-polar) data

No. of Data = 107

Sector angle = 8°

Scale: tick interval = 2% [2.1 data]

Maximum = 13.1% [14 data]

Mean Resultant dir'n = 155-335

[Approx. 95% Confidence interval = ±18.4°]

(valid only for unimodal data)

Mean Resultant dir'n = 155.0 - 335.0

Circ.Median = 165.0 - 345.0

Circ.Mean Dev.about median = 34.1°

Circ. Variance = 0.26

Circular Std.Dev. = 44.45°

Circ. Dispersion = 2.76

Circ.Std Error = 0.1606

Circ.Skewness = 3.79

Circ.Kurtosis = -4.93

kappa = 0.63

(von Mises concentration param. estimate)

Resultant length = 32.12

Mean Resultant length = 0.3002

'Mean' Moments: Cbar = 0.1933; Sbar = -0.2296

'Full' trig. sums: SumCos = 20.6863; Sbar = -24.5667

Mean resultant of doubled angles = 0.5025

Mean direction of doubled angles = 177

(Usage references: Mardia & Jupp, 'Directional Statistics', 1999, Wiley; Fisher, 'Statistical Analysis of Circular Data', 1993, Cambridge University Press)

Note: The 95% confidence calculation uses Fisher's (1993) 'large-sample method'

INTERPRETATION

The lineament pattern on Tenure 551397 indicates two locations of intersecting prime northerly structures and subordinate general east-west structures which, contingent on a host of variable geological factors, would be prospective areas to explore for surficial geological indicators of a potential sub-surface mineral resource. A structural intersection could be the most convenient conduit for the structure tapping any sub surface hydrothermal mineral source to reach the surface and imprint mineral indicators thereon. These geological indicators may be revealed as minerals and/or alteration and would be subject to interpretation as economic mineral indicators.

These two structural directions are indicated as controlling structures to formerly productive mineral resources in the area; the ELK (*Minfile 092HNE096*) and the BRENDA (*Minfile 092HNE047*). At the ELK the mineral zones are shown to be distributed expansively along and proximate to the north-south trending Elk fault

At BRENDA the mineralisation, within the localized Brenda stock which forms part of the Pennask batholith, decreases outwardly from the most intensely fractured/mineralised rock and the centre of the main mineral zone. The Pennask batholith is highly prospective intrusive for the location of many different deposit types that it may host; the most prospective areas would be in a similar potential mineral hosting Brenda stock within the Batholith.

At the SNOW the reported copper mineralisation, occurring along fractures and as disseminations in the granite, may be a surficial indicator of an underlying economic porphyry Cu +/- Mo +/- Au or a polymetallic vein Ag-Pb-Zn+/-Au system. At the WAVE 1 (*Minfile 092HNE311*) anomaly the quartz vein float containing disseminated pyrite and limonite with occasional specks of chalcopyrite, galena or sphalerite, could be surficial indicators to a polymetallic vein Ag-Pb-Zn+/-Au mineral resource such as at the ELK.

For other mineral deposit types that may occur within the Toni 551397 Claim Group reference is made to the 11 Minfile properties as reported on herein. These Minfile descriptions, copied from the BC Government Minfile records, are shown on *Figure 5* and are included herein as potential types of mineralisation that should be sought on the Toni 551397 Claim Group subsequent to the exploration of the two prime exploration areas on Tenure 551397.

Respectfully submitted
Sookochoff Consultants Inc.



Laurence Sookochoff, PEng

SELECTED REFERENCES

Balon, E.A. -1994: 2003 Geochemical Report on the AU Property for Fairfield Minerals Ltd. **AR 23,446.**

Caven, R.J. – Report of Induced Polarization Survey, Toe Claim Group for Consolidated Skeena Mines Ltd (N.P.L.). November, 1968. **AR 1,703.**

Clayton, C.J. -1991: Assessment Report on 1990 Geological Mapping and Sampling, and Soil Geochemistry of the Wart Group for Minnova, Inc. **AR 20,994C**

Cochrane, D.R. – Geophysical Report on the Toe Group of Claims owned by Consolidated Skeena Mines Ltd. July 15, 1968. **AR 1,589.**

Holcombe, R. – 2009: GEORient, ver 9.4.4. Stereographic Projections and Rose Diagram Plots

Kierans, M.D. -1972: Mineral Exploration Report on the Hill Group, Wart Mountain Area for Nitracell Canada Ltd. **AR 4,230.**

MapPlace – Map Data downloads

Marshak, S., Mitra, G. – Basic Methods of Structural Geology. pp 258-259, 264*.Prentice-Hall Inc. 1988

MtOnline - MINFILE downloads.

092HNE002 – MAL

092HNE144 – AU-WEN

092HNE047 – BRENDA

092HNE270 – SNOW

092HNE059 - ECHO

092HNE275 – BREW

092HNE073 – BIG SIOUX

092HNE311 – WAVE 1

092HNE086 – TOMCAT

092HNE312 – WAVE 2

092HNE096 – ELK

Reeder, J., Dahrouge, J. – 2000 Geologic Mapping and Sampling of the Bigtoe Property for Commerce Resources Corp. November 19, 2001. **AR 26,605A.**

Sharp, W.M. – Report on an Airborne Geophysical Survey and Preliminary Geochemical Survey over the Toe#1 – Toe#23 Claim Block for Consolidated Skeena Mines Ltd. October 15, 1967. **AR 1,089.**

Sharp, W.M. Summary Report on Geological, Geochemical, and Geophysical Investigations. Tommy Lake, Paradise Lake Property for Consolidated Skeena Mines Ltd. (N.P.L.). July 25, 1968 **AR 1,586.**

Sharp, W.M. Report on Preliminary Geochemical Survey on the Echo and Toe Claims in the Tommy Lake-Boot Lake Areas for Consolidated Skeena Mines Ltd. (N.P.L.). August 31, 1967 **AR 1,049.**

Sookchoff, L. Geochemical Assessment Report on a MMI Soil Geochemistry Survey on the Wen Claim of the Au-Wen Property for Victory Resources Corporation. January 31, 2007. **AR 28,905.**

Sookchoff, L. Geochemical Assessment Report on a MMI Soil Geochemistry Survey on the Toe Claim Group for Victory Resources Corporation. April 30, 2007. **AR 29,156.**

Sookchoff, L. Assessment Report on a 2007 Diamond Drill Program on the Toe Claim Group for Victory Resources Corporation. May 11, 2008. **AR 29,976.**

Sookchoff, L. Geological Assessment Report on a Structural Analysis on Tenure 589941 of the Toni Property for Victory Resources Corporation. February 3, 2013.

STATEMENT OF COSTS

Work on Tenure 551397 was done from December 20, 2012 to December 24, 2012 to the value as follows:

Structural Analysis

Laurence Sookochoff, P Eng. 3 days @ \$ 1,000.00/day -----	\$ 3,000.00
Maps -----	1,000.00
Report -----	<u>3,500.00</u>
	\$ 7,500.00
	=====

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with an address at 120 125A-1030 Denman Street, Vancouver, BC V6G 2M6.

I, Laurence Sookochoff, further certify that:

- 1) I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
- 2) I have been practicing my profession for the past forty-six years.
- 3) I am registered and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
- 4) The information for this report is based on information as itemized in the Selected Reference section of this report and from work the author has performed on the Toni Property since 2006.
- 5) I have no interest in the Toni 551397 Claim Group as described herein.
- 6) I am a director of Victory Resources Corporation.



Laurence Sookochoff, P. Eng.