



Ministry of Energy and Mines
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geological Assessment Report - Mapping & Sampling TOTAL COST: \$ 13,030.00

AUTHOR(S): D.G. ((Dan) Cardinal, P.Geo.

SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-3-128

YEAR OF WORK: 2013

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): Event No. ID 5468701; Recorded Date September 22, 2013

PROPERTY NAME: Dot-Apex Claim Group

CLAIM NAME(S) (on which the work was done): Apex (565067 & 558159)

COMMODITIES SOUGHT: Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: New Westminster & Kamloops

NTS/BCGS: NTS:092I/4; BCGS:092I.002

LATITUDE: 50 ° 04 '17 " LONGITUDE: 121 ° 39 '04 " (at centre of work)

OWNER(S):

1) Dan Cardinal 2)

MAILING ADDRESS:

1883 Agassiz Ave.

Agassiz, BC V0M 1A3

OPERATOR(S) [who paid for the work]:

1) Same 2)

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Bridge River Terrane, Kwoiek Creek Fault, Mississippian - Permian, lower order fault-shear, sheeted veins, graphitic schist

carbonitization, chlorite schist, flower structure, pull-apart, compression-transpression, accretion, subduction, Fraser Fault

dextral, biotite granodiorite, quartz monzonite, IRGS, sedimentary-hosted, orogenic, pyrite, arsenopyrite, pyrrhotite, alteration.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 4985, 13634, 22665, 25411, 30564, & 31003

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	1000m x 500m (1:15000 & 1:5000)	558159 & 565067	\$8,160.00
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail	12 km	558159, 604687 & 623903	\$2,850.00
Trench (metres)			
Underground dev. (metres)			
Other	Report: field compilation & documentation	558159 & 565067	\$2,020.00
TOTAL COST:			\$ 13,030.00

EVENT NUMBER : 5468701

**BC Geological Survey
Assessment Report
34481**

GEOLOGICAL ASSESSMENT REPORT

**GEOLOGICAL MAPPING AND SAMPLING FOLLOW-UP SURVEYS
(AN OROGENIC GOLD RELATED SYSTEM – ARSENOPYRITE PROXY TO POTENTIAL GOLD SITES)**

ON THE

DOT-APEX MINERAL CLAIM GROUP

*(Tenure Numbers: 558159, 565067, 598515, 604687, 623903, 759322, 779482,
779503, 839461 839468, 920089, 1015469)*

*Surveys Conducted On Dot-Apex claims: 565067 and 558159
(Approximate center of project site at co-ordinates: Lat. 50°04'17"N; Long. 121°39'04"W)*

Surveys commenced July 5th and completed August 20th, 2013

Located Within:

NEW WESTMINSTER & KAMLOOPS MINING DIVISIONS

NTS: 0921/04; BCGS: 0921.002

Co-ordinates Centered on Claim Group at:

NTS: Latitude: 50°03'39"N; Longitude: 121°38'22"W

UTM: Zone 10, 597380E; 5546277N

Report Prepared by:

D.G. (Dan) Cardinal, P.Geol./P.Geol./F.G.A.C.

1883 Agassiz Avenue, Agassiz, BC

District of Kent

December 13, 2013

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A. INTRODUCTION

The Dot-Apex claim group (or property) encompasses a 2,364.63 hectare area in southwestern BC. It covers a portion of northwest trending, mineral-bearing, structural system known as the Kwoiek Creek Fault (KCF), which forms part of the regional tectonic framework. Identified within this transpressional crustal break, are at least 2 structurally controlled, sedimentary-hosted and intrusive-related, orogenic style gold-bearing sites, referred to as the Dot and Apex zones. At these sites arsenopyrite mineralization is closely associated with gold enrichment. Based on empirical field data (including recent and historical geochemical and assay data), where there is an increase in arsenic there is a corresponding increase in gold. As a result, arsenopyrite mineralization makes for good pathfinder vectoring to potential gold site(s) and, is considered a proxy to gold mineralization.

The Dot- Apex property covers the south-eastern extension of the KCF system, a 35 km long northwest trending structure. Historically, the Dot zone received most of the attention with 2 exploratory drill programs, 1984-85 consisting of 6 drill holes and more recently in 2011, with 5 drill holes. In each case encouraging gold values were encountered. In 2012, a 43-101 Technical report documented by an independent consultant, describes the positive gold results encountered.

In 2012, reconnaissance mapping surveys were concentrated along the Apex zone. The work identified a granodioritic to quartz monzonitic intrusive stock, herein referred to as the 'Four Barrel Creek' (FBC) stock, hosting layered, sheeted-like quartz veins carrying arsenopyrite-gold mineralization. This isolated intrusive stock characteristically displays an IRGS type signature. Selected rock grab samples (7) collected in 2012 adjacent to and within the western contact boundary of the stock were enriched in gold ranging between 0.807 to 6.776 gm/t. Based on these findings, follow-up surveys were conducted in 2013 to better define the mineralized stock and its structural relationship with KCF system and related lower order shear structures, which also host mineralization.

The Dot and Apex zones are some 6 km apart with the Apex occurring to the northwest of the Dot along strike. Both gold zones are structurally controlled and hosted in sheared, graphitic-carbonaceous argillites, altered shales and siltstones. Mineralization is associated with quartz vein systems with disseminated sulphides (arsenopyrite dominate) replacing altered, siliceous and carbonitized sediments. The sulphide and alteration assemblages suggest a multiphase hydrothermal (mesothermal) plumbing system along second order structures related to a syn/ post accretionary event.

The 2013 field work herein submitted under event number 5468701, is a follow-up to the 2012 field surveys, which were documented in Assessment Report – Event Number 5427670 titled 'Geological Reconnaissance Mapping And Sampling Survey (Evidence of Orogenic-Related Sedimentary-Hosted & Intrusive Related Gold Mineralized Systems)'. This field work is part of an on-going study project by the author in developing a gold exploration model, as a guide for targeting potential, economic-bearing, gold enriched sites.



PROPERTY LOCATION MAP

DOT-APEX CLAIM GROUP

New Westminster & Kamloops Mining Divisions

NTS: 0921/04

B. LOCATION AND ACCESS

The property is located in southwestern British Columbia (Figure 1). Geographically, it is situated along the southern end of the Lillooet Range, which forms part of the mountain range that flanks the south-eastern Coast Mountain Belt.

It is some 135 km due northeast of the city of Vancouver or, about 3.5 -4 hour drive via the Trans Canada Highway (Hwy# 1) and is about a 2-2.5 hour drive north of the town of Hope.

Access is from the community of Boston Bar located about 1 hour drive north of Hope on Hwy 1. From Boston Bar the property and project site can be reached by a series of roads for a total distance of 30 km. The first 15 km is along well maintained, all season public gravel road leading to the Nahatlatch River valley provincial park. From here, remaining 15 km is along seasonal roads with the last 10 km recommended for 4-wheel drive vehicle use only, which is part of the old forestry fire-tower lookout and mineral exploration road. It is approximately 1-1.5 hour drive from Boston Bar to reach the project site and base camp at elevation 1,580 m asl (photo below).



Photo 1:

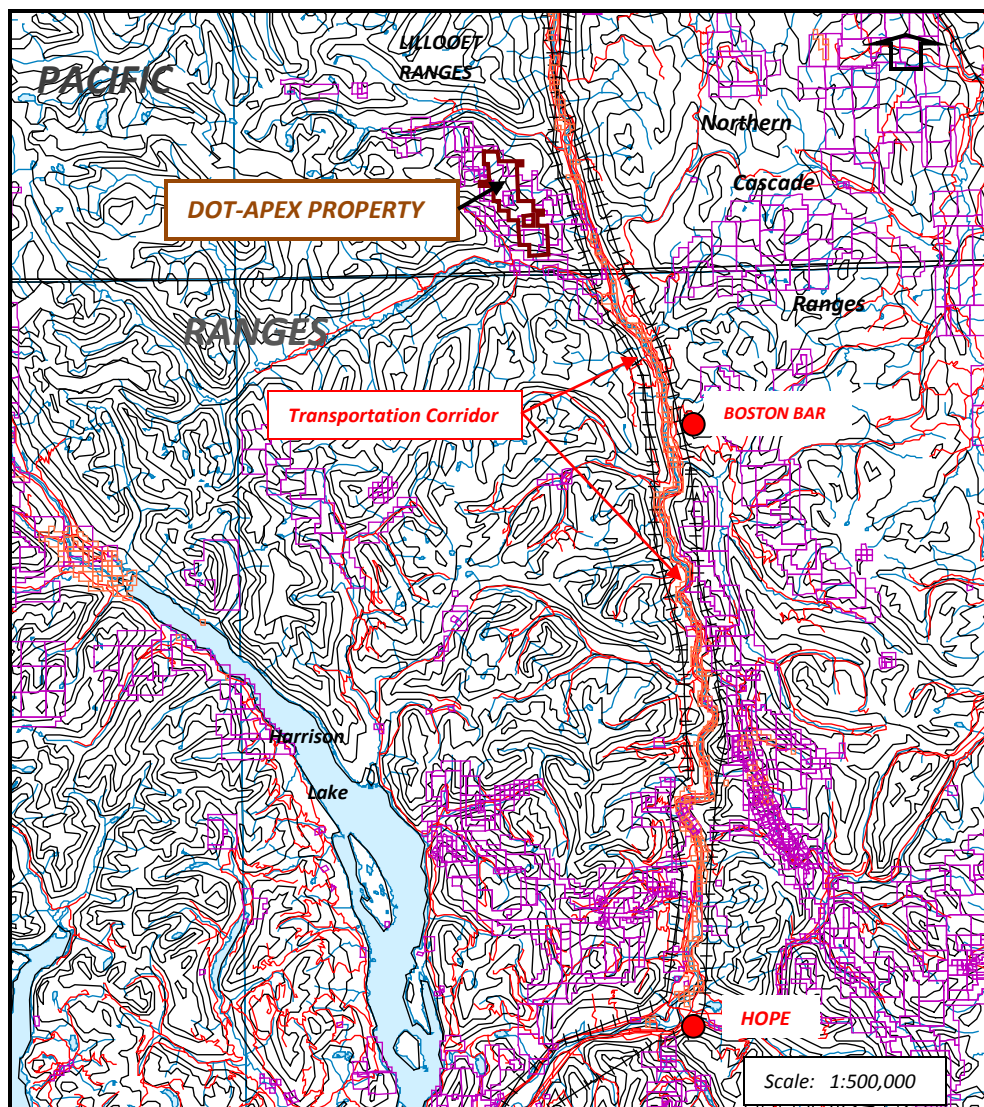
GEOLOGY BASE CAMP – PROJECT SITE (Dragon Fly Lake)

Lat. 50°03'07"; Long. 121°37'43"W Elevation: 1,580m ASL

C. PHYSIOGRAPHY AND INFRASTRUCTURE

The property straddles a height of land along the southern end of the Lillooet Ranges (a subdivision of the Pacific Ranges), a rugged mountain range that flanks the eastern side of the southeastern Coast Mountain Belt. It covers topography that ranges from a summit of 1,940m at the northern end along the Apex zone, down to 820m in the south at the Dot zone. Vegetation varies from sub-alpine type to timber stands of hemlock and pine at lower elevations. There are semi-plateau areas with small, fen-like marshes and snow-fed lakes (e.g. Photo 1). The area experiences more of the dry weather type climate influenced by the dry, semi-arid interior plateau located to the east and south such as in Lytton and Boston Bar communities. The Apex zone is generally free of snow by mid-June through to mid-October with the Dot zone open to surface exploration by late April through to late October-early November.

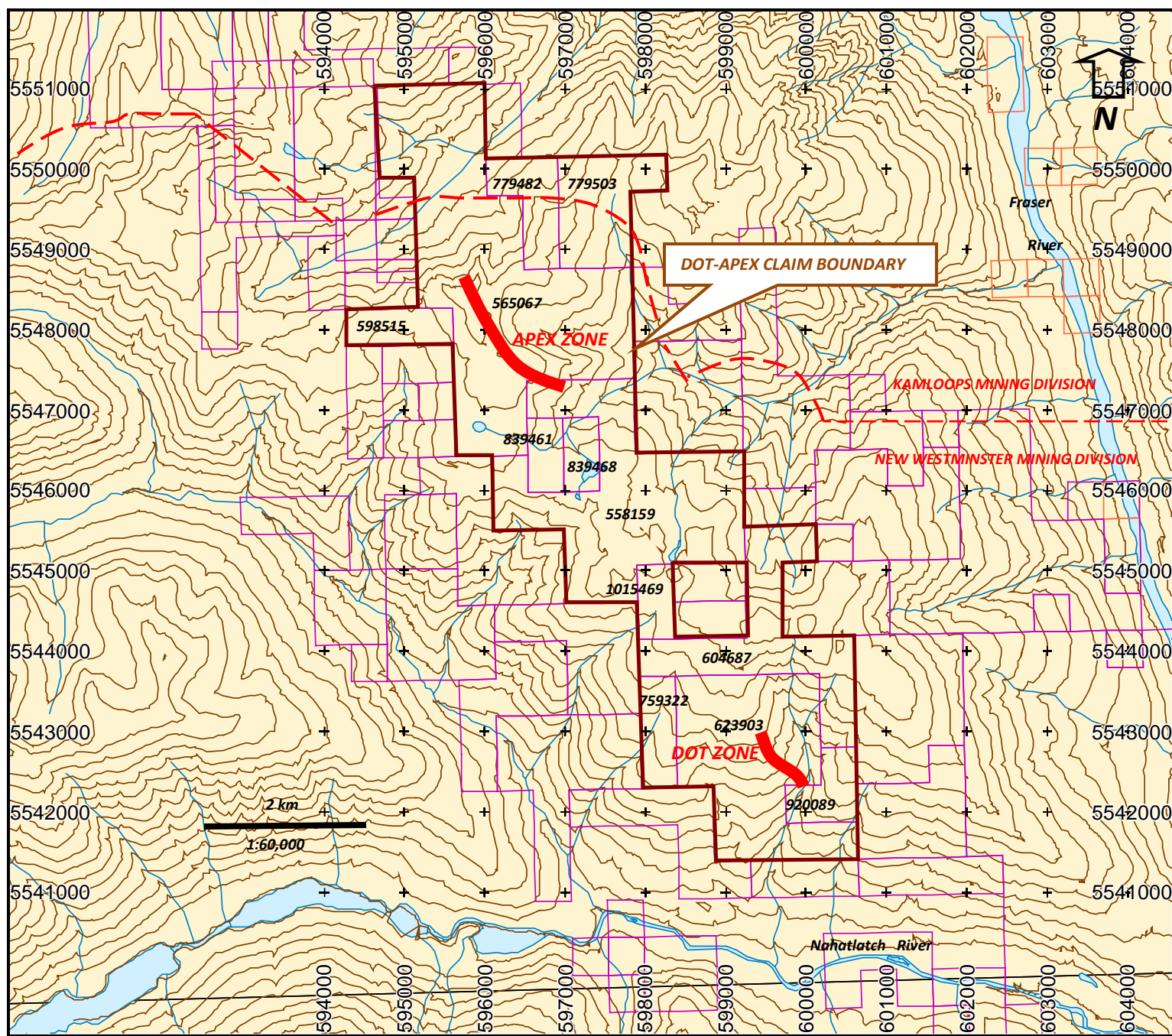
Boston Bar lies along an active transportation corridor that includes the Trans Canada Highway and 2 major railways (see map below). For electrical power, there are hydro power grids that run adjacent to the property including a run-of-the-river power-plant (in final phases of construction) located few kilometers to the northeast. Boston Bar is a historical logging community and has an experience work force, and the town of Hope offers schools, hospital, stores and heavy equipment contractors.



PHYSIOGRPAHY AND INFRASTRUCTURE

D. MINERAL CLAIM TENURE INFORMATION

The Dot-Apex claim group consists of 12 contiguous mineral claims encompassing 2,364.63 hectares (Figure 2 & Table 1). The claims partly straddle the New Westminster and Kamloops mining divisions within NTS mapsheet 0921/04 in southwestern British Columbia. Co-ordinates are centered on the claim group at: Latitude: 50°03'39" N and Longitude: 121°38'22" W. The property is owned by D. G. (Dan) Cardinal, P.Geo. (author of this assessment report), FMC # 104232.



DOT-APEX CLAIM GROUP

MINERAL CLAIM AND TENURE MAP

FIGURE 2

Pertinent tenure information listed in Table 1 below:

Tenure Number	Claim Name	Good To Date	Area (ha)	Owner/FMC
558159	Dragon	Dec. 30, 2019	477.11	104232
565067	Apex	Dec. 30, 2019	725.66	104232
598515	Apex	Dec. 30, 2019	62.2	104232
604687	Dot 2	Dec. 30, 2019	249.01	104232
623903	Dot	Dec. 30, 2019	373.62	104232
759322	Dot 3	Dec. 30, 2019	62.27	104232
779482	Apex	Dec. 30, 2019	82.92	104232
779503	Apex	Dec. 30, 2019	145.11	104232
839461		Dec. 30, 2019	41.48	104232
839468		Dec. 30, 2019	41.48	104232
920089	Dot 10	Dec. 30, 2019	62.27	104232
1015469	Apex	Dec. 30, 2019	41.50	104232

Total Hectares: 2,364.63

E. PURPOSE OF THE PROJECT AND FIELD PROCEDURES

This season (2013) a limited field mapping and sampling project was conducted on the northwest portion of Dot-Apex claim group, concentrating on a section of the Apex zone. The survey crew consisted of geologist (author) and experienced field assistant. This survey was carried out over an 8 day period between July 5th and August 20th, 2013 and is a follow-up to the 2012 work. The main purpose of the project was to better define the mineralized intrusive stock and its spatial relationship to the auriferous-bearing lower order shear structures referred to as the Apex zone, as well as, related alteration features and structural controls.

In 2012, an old (1981) mineral exploration road was rehabilitated in order to gain access to project site. In 2013, this road required some minor up-grading due to washouts and reconstructed for an additional 2 km. Field base camp was re-established at the same location as 2012, at a small lake referred to as Dragon Fly Lake, elevation 1,580 m (Photo 1). From here, mapping traverses were made possible to the northern end of the claims in the area of the Apex gold zone. Also, by extending the existing old exploration road, it allowed for better access to headwaters of 4-Barrel Creek watershed for mapping and silt sampling.

A combination of computer generated field maps, hand-held Garmin GPS and a Trimble (Yuma Tablet) unit were utilized for mapping control. Mapping of the Apex zone was conducted at scales 1:15000 more detail at 1:5000 with field data geo-referenced, such as rock outcrops, structures and related information entered into the GPS and/or Trimble unit as well as a field log book. An area approximately 1 km long by 0.5 km wide was covered during the mapping surveys. Survey area is centered at UTM co-ordinates: Zone 10 595750E- 5547750N; NTS mapsheet 0921/04.

Seven mineralized rock-grab samples and four silt samples were collected and plotted onto field base map (Figure 7). The rock samples are identified (e.g. DA-A02, etc.) using the prefix DA=Dot-Apex claim, with A02= Apex zone, second sample=02. Silt samples are identified as 4B-01, etc., 4B referring to the creek name – Four Barrel creek. Geology map Figure 6, shows location of where the silt samples and rock float samples were collected. All samples are geo-referenced with GPS (UTM co-ordinates) and logged.

Several rock specimens were collected for further detail examination under binocular microscope. All samples were recently sent to a Vancouver laboratory for multi-element geochemical analysis including gold.

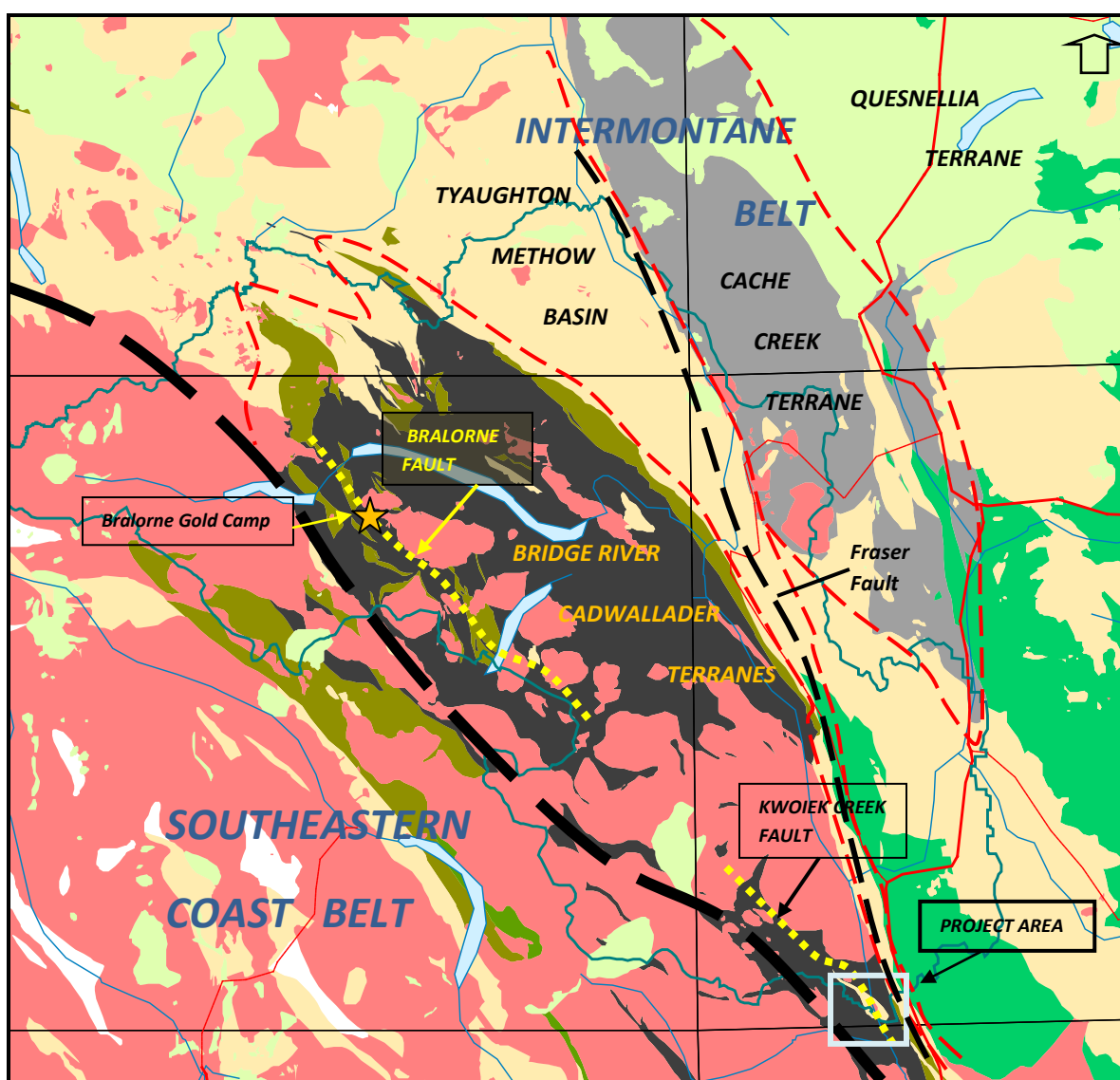
F. REGIONAL GEOLOGICAL AND TECTONIC FRAMEWORK:

The project area is within the southeastern Coast Belt near its contact boundary with the Intermontane Belt, an area of structural complexity and intense deformation. Tectonically, the region is largely underlain by Mississippian to Middle Jurassic accretionary oceanic rock assemblages that make up the Bridge River Complex including the stratigraphically overlying Cayoosh Assesmlage, and form the Bridge River Terrane. To the east, these assemblages are juxtaposed as a result of the Paleogene age Fraser Fault offset with clastic, marine to mainly non-marine successions belonging to: (i) lower-mid Jurassic Ladner Group (also referred to as Methow Basin) that correlates with the Tyaughton Formation and extension of the Cadwallader terrane and, (ii) overlapping Upper-Cretaceous clastic, Jackass Mountain Group, respectively.

Magmatically, the region is intruded by a range of Cretaceous-Tertiary plutonic arc rocks that define the eastern limit of the Coast Plutonic Complex. The project is bordered to the south by the Spuzzum batholith with several local

small stocks intruding the mapping area. Structurally, the region is marked by a prominent transpressional crustal break referred to as the Kwoiek Creek Fault, reactivated during the younger (Tertiary) dextral movement of the Fraser Fault. KCF is represented by a belt of serpentinized ophiolitic rocks that comprise part of the Bridge River Terrane oceanic complex. This first order fault, along with proximal stocks, is spatially related to a number of structurally controlled gold occurrences hosted in lower order fault-shear systems (e.g. Dot and Apex gold zones).

Based on crustal seismic lithoprobe survey data (Spence and Mclean, 1998), the KCF is interpreted to be the southeastern extension of the Bralorne Fault system, associated with the historical Bridge River gold camp, which forms a deep-seated crustal break interrupted by the southeastern Coast Range batholithic intrusions (Figure 3 below). Author also had brief discussions with P. Schiarizza who concurs with this Interpretation.



REGIONAL GEOLOGICAL AND TECTONIC FRAMEWORK

FIGURE 3.

G. BRIEF HISTORICAL BACKGROUND

At the turn of the century as placer miners headed to the Cariboo Goldfields, limited placer gold activity took place on some of the local streams and gravel bars of the Fraser River. In 1932, the BC Ministry of Mines Annual Report noted that prospectors had found some very coarse gold on Log Creek. Part of the creek cuts along the western flank of the DOT-Apex claim group. Potential source of some this placer gold led prospectors to explore the Kwoiek Creek fault system and serpentine belt. In 1936, H.C. Horwood of the G.S.C. (Paper 36-7) briefly examined 3 gold and silver workings along the belt between Pyramid Mtn. and Nahatlatch River, a strike length of some 15 km. The old workings include: (i) 'Serpentine and Summit' now covered by the Apex claim, (ii) 'Jubilee' covered by the DOT claim and, (iii) the 'Paystreak' or Randi claims (not part of the Dot-Apex group). Horwood describes these workings, consisting mainly of open cuts and shallow pits and reported to contain quartz veins with sulphide mineralization in altered sediments carrying minor amounts of gold and silver.

The Geological Survey of Canada carried out a regional mapping program between 1945-47, which included mapping of the Kwoiek Creek fault structure and related lithologies (S. Duffel and K.C. McTaggart, G.S.C Memoir 262). In 1989, J.W.H. Monger (G.S.C.) updated and produced a structural terrain map of the area (Maps 41-1989 & 42-1989). Except for brief period in 1972-73, when limited exploration surveys were conducted to investigate the ultramafic rocks associated with the fault system for potential nickel – the area has largely remained unexplored from the late 1930s until early 1980s.

In the late season of 1983, the author with 2 field assistants, mainly based on oral history (from retired prospectors) of the area, with limited documented geological data, rediscovered the old Jubilee showing. A grab sample from the showing taken from one of sheared oxidized structures and containing abundant arsenopyrite, assayed 0.766 oz/ton Au (26.0 gm/t). Spurred by this initial find, the old Serpentine and Summit showings were also subsequently located. Following these discoveries the area was staked with claims straddling the Kwoiek Creek fault system for some 10 km along strike (parts now covered by the Dot-Apex claim group). In 1984, Hudson Bay Exploration & Development Co. Ltd. became the owner-operator of the claims. Between 1984-85 Hudbay conducted both reconnaissance geophysical (VLF-EM) and geochemical surveys along strike of the mineralized structure this included 6 exploratory diamond drill holes over the area now referred to as the 'DOT Zone'. Although Hudbay was encouraged by the results it concluded in an in-house report "...with a dramatic increase in the price of gold, the claims might still have some potential, however, at present price levels of US \$300-350 per oz. it is no longer worth pursuing". The company subsequently dropped the claims in 1986. Results of some of Hudbay's work can be studied from 2 assessment reports (AR 13167 & 13634) submitted to BC Ministry of Energy, Mines and Petroleum Resources (EMR).

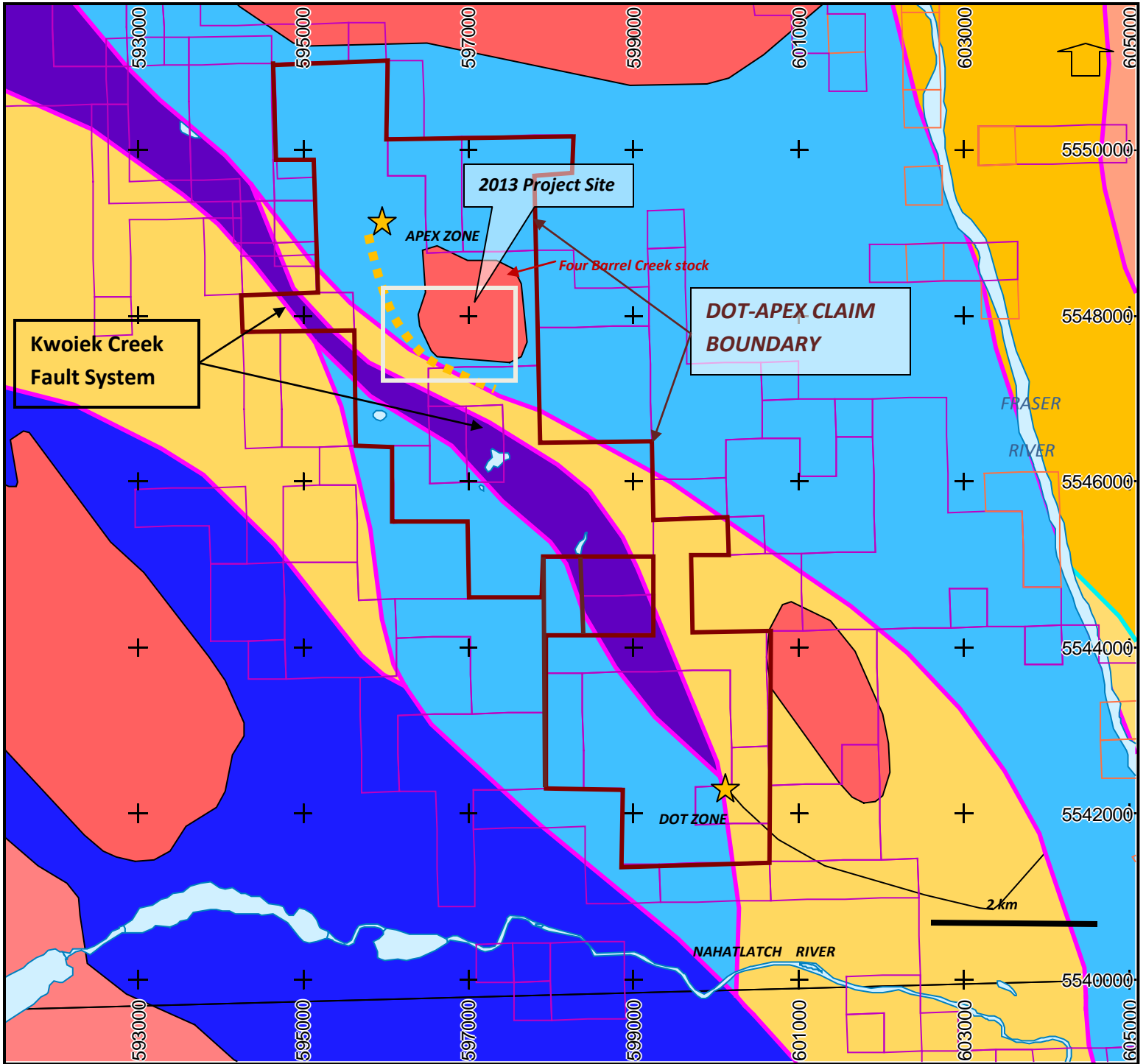
Following Hudbays' drilling, very little of this encouraging work was ever followed up. Subsequent to MTO-staking online system, various owners have claimed the area with no serious attempt to explore the area. In 2002, the author began to gradually acquire claims in this area and over time, was able to re-acquire majority of the original claim block now referred to as DOT-Apex claim group, which cover the old Serpentine, Summit and Jubilee gold showings noted above. In December, 2009 the claims were optioned to Electra Gold Ltd.

In 2011, commencing April and finishing July, Electra Gold Inc. conducted an exploratory drilling program to test the gold potential of the DOT Zone. This included upgrading access roads, trail building, drill pad construction and diamond drilling. Results of this work are documented in an assessment report (dated October 20, 2011) filed under Event Number 4912770.

Although the 2011 drill results were encouraging, very similar to the Hudbay results of the 1984-85, Electra was not in the financial position to continue with follow-up drilling. The company subsequently terminated its' option agreement and the Dot-Apex property returned to the owner (the author).

In the late summer summer-early fall of 2012, the author carried out reconnaissance mapping and sampling surveys mainly in the northern portion of the property. This work was concentrated along the Apex zone in an area where a mineralized intrusive stock – Four Barrel Creek intrusive was outlined. The western section of this stock was found to host mineralized quartz veins (sheeted-like veins) carrying gold values. Seven selected grab samples contained between 0.807 to 6.776 gm/t Au. This season (2013) follow-up work was conducted to further define the mineralization and geological setting.

This work and findings are herein documented and submitted toward assessment work credits under event number 5468701.



DOT-APEX CLAIM GROUP

REGIONAL PROPERTY GEOLOGY

Legend:

Bridge River Terrane:

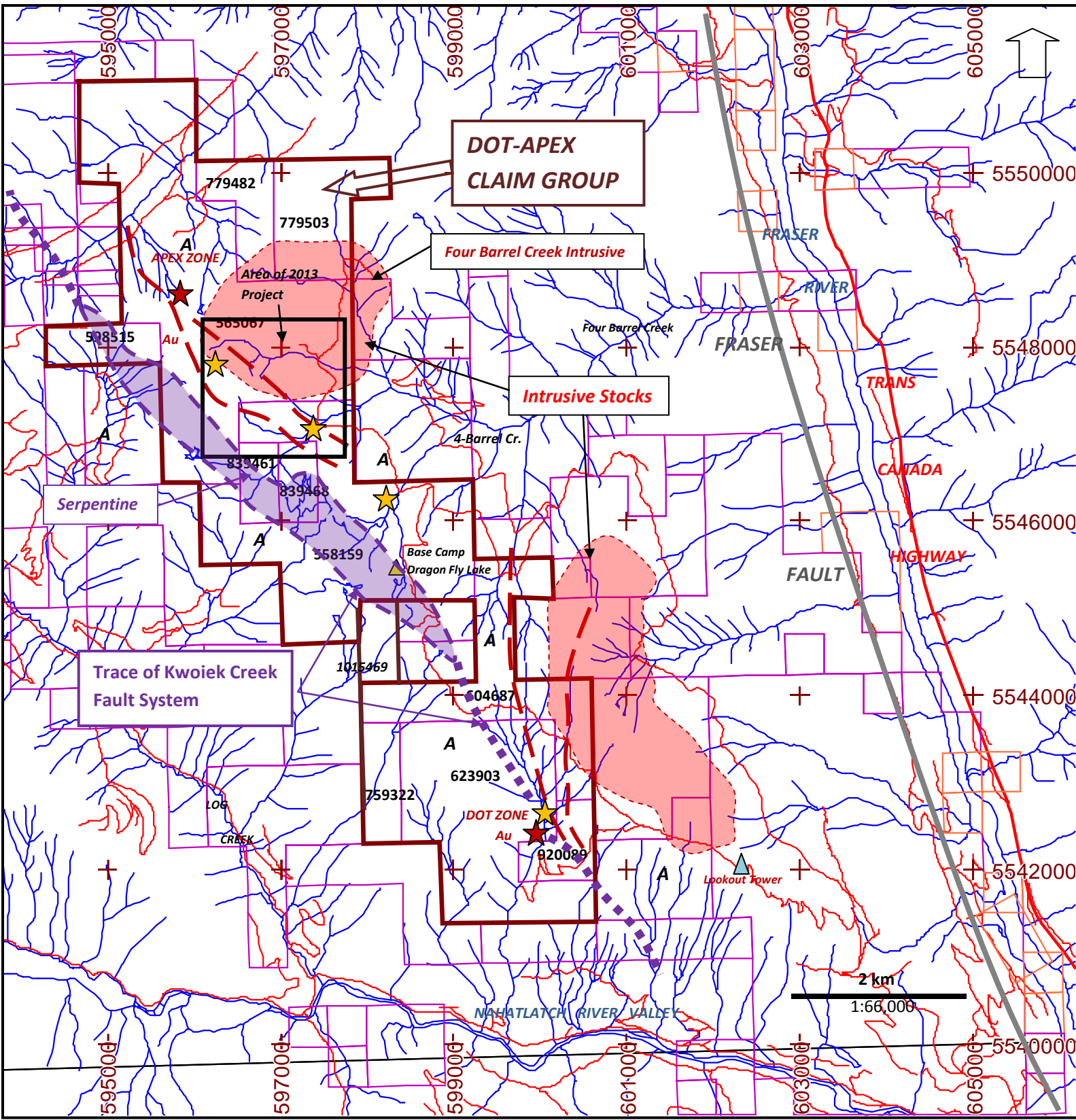
- Jurassic-Cretaceous, Cayoosh Assessemblage: marine, coarse clastic sedimentary rocks.
- Mississippian-Jurassic Bridge River Complex: undifferentiated meta-sedimentary and met-volcanic rocks.
- Faulted, serpentized ophiolitic rocks – defines the Kwoiek Creek fault system.

Shuksan Terrane:

- Cretaceous-Tertiary, amphibolites-andalusite grade metamorphic rocks.
- Post accretionary granitic plutons.




FIGURE 4.



DOT-APEX CLAIM GROUP

GENERAL GEOLOGY & MAPPING PROJECT SITE

 Lower Order Structures

 Zones of Arsenopyrite Mineralization

A Chloritic-Graphitic schist dominate

 Access Roads

FIGURE 5

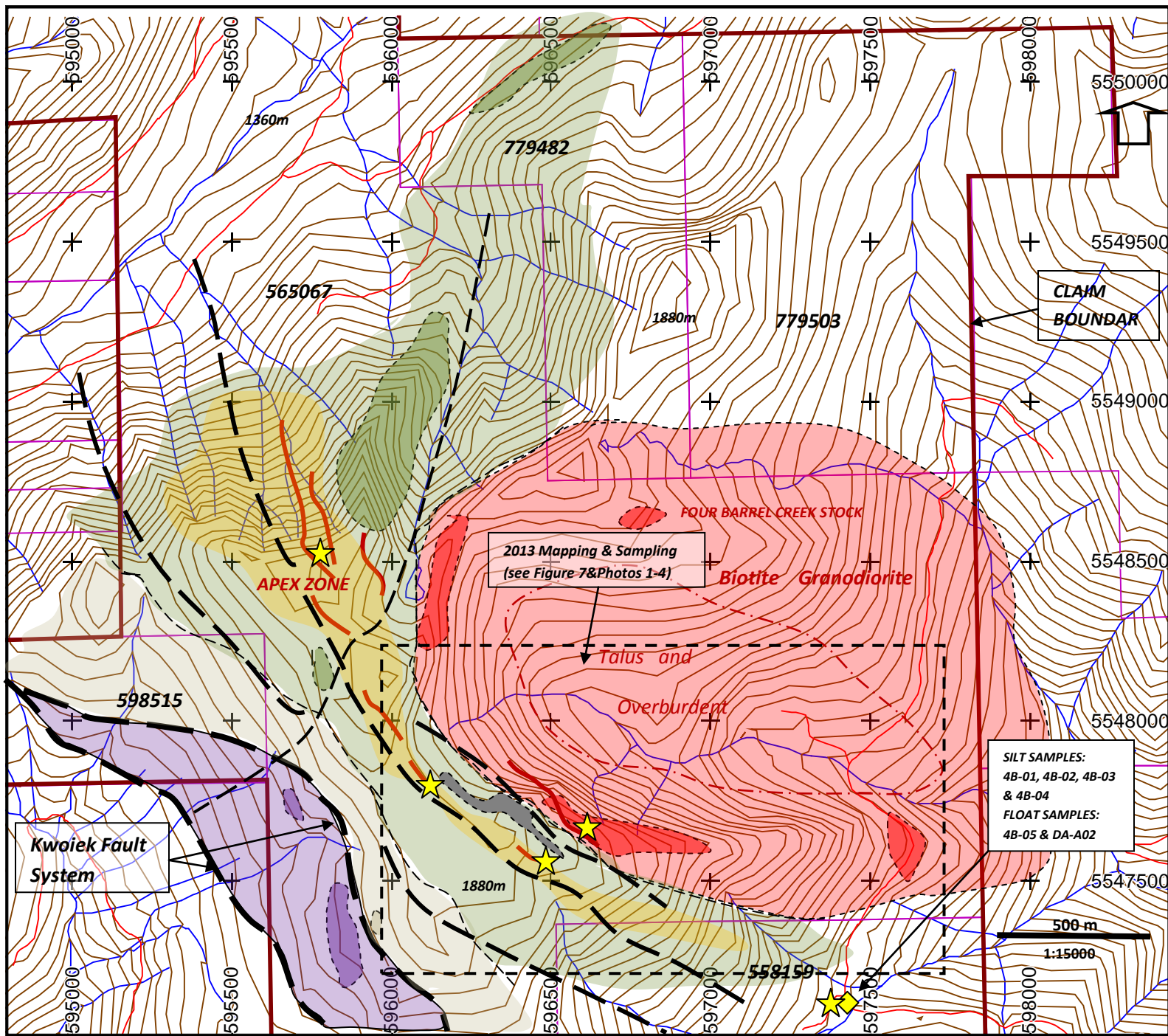
H. PROPERTY GEOLOGY:

Regionally, the property straddles the southeastern extension of the Kwoiek Creek Fault (Figures 4 & 5), a prominent northwest trending, first-order structural system defined by fault-bounded serpentinitized - ophiolitic rocks, which form part of the Bridge River Complex. This serpentine-structural system is traceable for some 35 kilometers, from the southeast, near the Nahatlatch River, where it is (dextrally) offset by the Fraser River Fault, extending northwest to the Stein River watershed where it is cut-off by southeast Coast Range batholithic rocks.

Within the mapping project area, the dominate rock type is a northwest trending, steeply dipping, foliated, chloritic-graphitic-quartz schist, intercalated with lower green schist facies, volcanic clastic - greenstone volcanic rocks. The schist is in fault-contact and structurally bounds a body of massive, dark green, serpentinite, which defines part of the KCF system (Figure 4 & 5). Based on the mapping, the serpentinite is interpreted as pinching out near the northwestern end and faulting off along the southeast-central portion of the property. This structural complex is intruded by 2 post accretionary granitic stocks (Figure 5). Both events, structurally and magmatically, are spatially related to at least 2 gold-enriched sites (Dot and Apex zones) discussed in more detail below.

Along the northern portion of the property four main rock types were encountered (Figure 6) near the western claim boundary including: (i) serpentine rocks are in fault-contact (KCF) with highly foliated (ii) chloritic and graphitic-quartz schist. The schist characteristically displays tightly crenulated, thin boudin quartz lenses in chloritic to graphitic schistose matrix. Further east at higher elevation, the graphitic schist is in conformable contact with highly foliated, (iii) volcanic-greenstone schist, altered to chloritic, greenschist facies grade metamorphism. Intruding the greenstone is a medium to coarse grain (iv) biotite granodiorite – Four Barrel Creek intrusive. Along the greenstone-granodiorite contact is a structurally controlled, blackish-green, massive, coarse grain, sill-like, mafic-rich intrusion, which can be traced for some 250 m along strike. Its relationship to the mineralized system is presently speculative.

Along the western contact boundary of the FBC stock the intensity of alteration is strong. Here, hosted in lower order shear structures, moderate to strong carbonitization and silicification characteristically replaces greenstone-schist rock. In places, the rock is pervasively altered with lensoid bodies of iron carbonate with cross-cutting quartz veinlets, and listwanite-green chrome mica (fuchsite) mineralization (see Photo 2 below). The Mg-rich mica is referred to as phengite mica or phengite alteration.



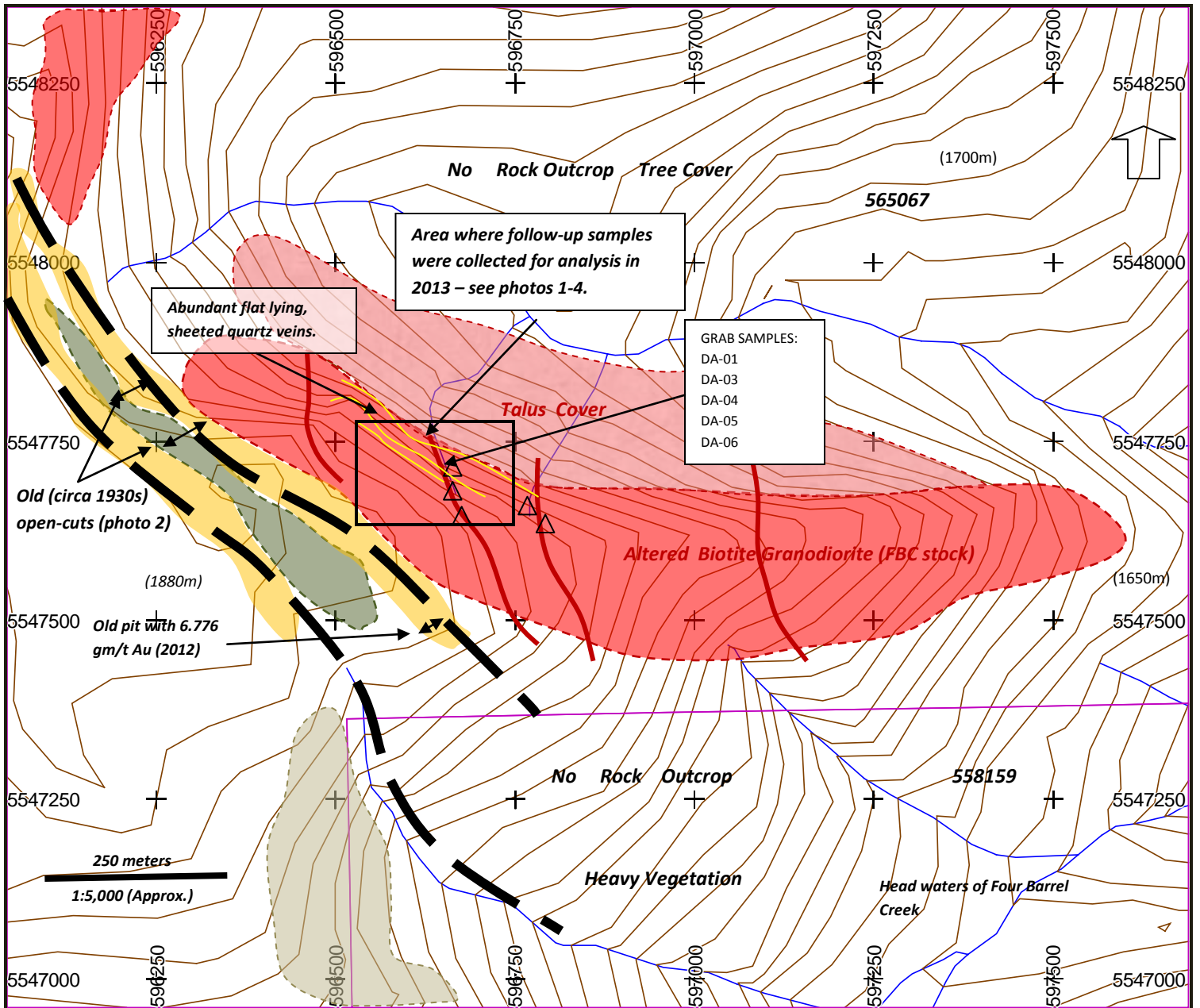
DOT-APEX MINERAL CLAIM GROUP

MAP OF APEX ZONE

Legend:

- Serpentinite, faulted, massive dark green – Kwoiek Creek fault structure.
- Graphitic-quartz schist dominate and minor phyllite; northwest trending, steeply dipping, highly foliated.
- Chloritic-quartz schist, volcanic – volcanic clastic rocks.
- Zone of alteration: carbonitization, iron carbonate pervasive.
- Black, fine grain; mafic sill.
- Intense arsenopyrite mineralization.
- Extent of mapped exposed bedrock.
- Quartz veins with associated sulphide mineralization.
- Lower order fault-shear structures and cross-cutting faults.

FIGURE 6.



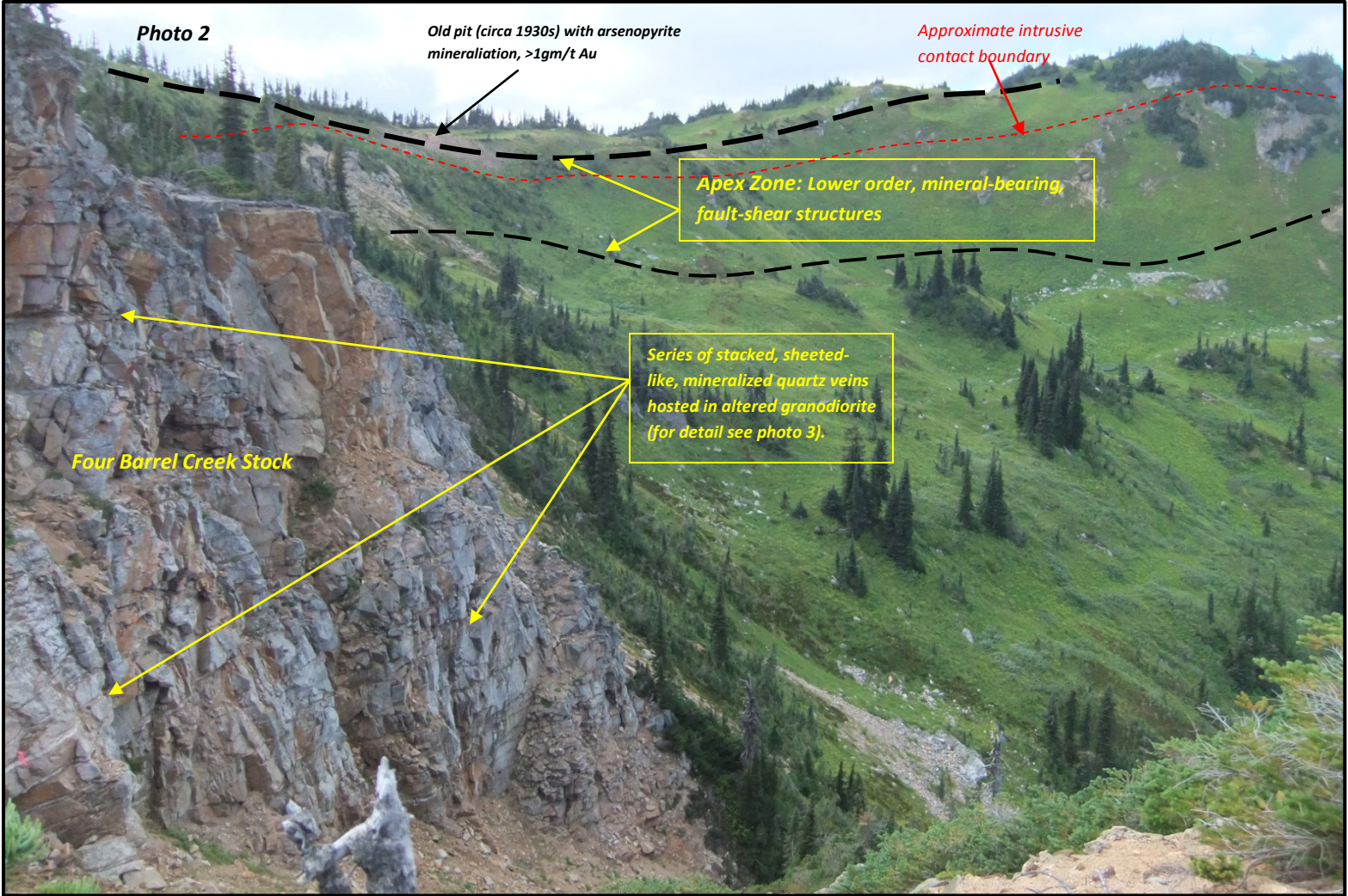
APEX GOLD ZONE – Four Barrel Creek Stock & Lower Order Structures

Legend:

- Altered biotite granodiorite (FBC Stock).
 - Chloritic – Graphitic, steeply dipping, foliated schist.
 - Dark green, coarse grain, mafic sill.
 - Siliceous – Iron carbonate & iron sulphide alteration.
 - Lower order mineral-bearing shear structures.
 - Sulphide-bearing quartz breccia veins.
 - Mineralized sheeted veins.
- 10m Contour Intervals

FIGURE 7.

FOUR BARREL CREEK STONE: with sheeted veins



Altered, granodiorite FBC intrusive stock in photo 2 above, hosts a series of flat lying to shallow dipping, stacked sheeted-like veins. Adjacent to veins are salvages and disseminations of pyrite and arsenopyrite. The stock displays characteristics of an intrusive related gold system (IRGS).

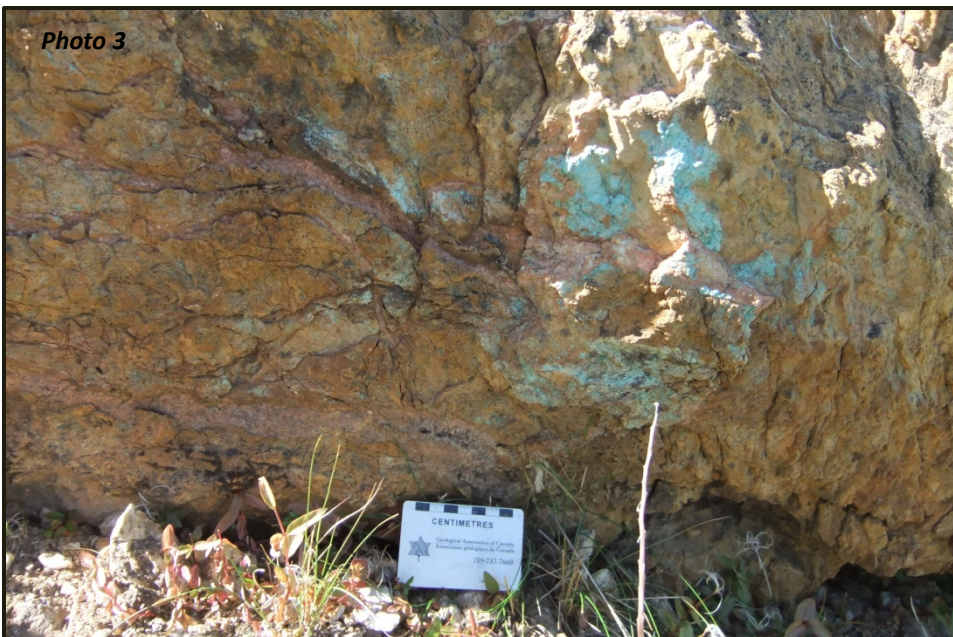


Photo 2: Apex zone: liswanitic – iron carbonate alteration exposed in one of the old open-cuts with green coloured, Mg-rich phengite mica, located approximately 150m west of photo 1 near the intrusive contact with Apex structure zone.

Mg-Rich Phengite & Iron Carbonate Alteration



Photo 3 above shows close-up view of stacked sheeted veins hosted in altered intrusive (pink flagging indicates sampled sites). Dashed red lines show trace of arsenopyrite-rich, quartz breccia structure, cutting the sheeted veins. Residual soils along the structure are intensely iron oxidized with numerous well mineralized oxidized boulders. The oxidized zone is about 4 meters wide. Five grab composite samples were collected from this site numbered: DA-A01 and DA-A03 to DA-A06 (also see Figure 7 & Photo 4). Samples were obtained from the oxidized structure containing intensely silicified quartz breccia carrying disseminated pyrite with abundant seams and disseminations of arsenopyrite. Grab samples were also obtained from the sheeted veins and host rock, which carries disseminated arsenopyrite with minor pyrite.

The samples have recently been forwarded to ACME laboratories in Vancouver for multi-element geochemical analysis. In 2012, seven grab samples obtained from this site and from the structural contact boundary with the intrusive contained anomalous amounts of gold varying from 0.807 to 6.776 gm/t.

I. MINERALIZATION AND ALTERATION

This season the author focused on mapping and sampling the western section of the FBC mineralized intrusive stock, a follow-up to the last years work. The stock is spatially related to and partly intrudes sub-parallel, lower order shear systems that host lenses of arsenopyrite-rich, gold-bearing mineralization. The area examined is roughly 1km east-west by 0.5km north-south.

Both the stock and the sheeted veins noted above are mineralized but much of the stronger mineralization is hosted along quartz-bearing, siliceous shear zones. The sulphide assemblage includes arsenopyrite as the dominant sulphide, some samples contain 10% or greater arsenopyrite; disseminated pyrite up to 2-3% by volume; lesser pyrrhotite, and minor specks of sphalerite and a silvery, argentite-looking sulphide. Silicification and carbonitization are the dominant alteration features and most pervasive along shear structures, with lesser sericitization and albitization. Alteration minerals include silica with zones of cross-cutting quartz veinlet with associated albite stringers; iron carbonate consisting mainly of iron-magnesium-rich carbonate and calcite veining; and isolated lenses of listwanite associated with Mg-rich green mica identified as phengite. Shear structures immediately adjacent to the stock are generally more intensely altered and carry the highest volume of sulphides, arsenopyrite dominates. Here, much the schist is replaced by silica and carbonate and disseminated sulphides.

The stock, which is composed mainly of biotite granodiorite, has experienced the strongest alteration and mineralization along its western contact boundary immediately adjacent to the shear structures, more distal from the structures the weaker the alteration and quartz veining. The zone of alteration extends at least 200 meters westerly from the structural contact boundary. Within this proximal zone of alteration the intrusive hosts abundant flat lying, sheeted quartz veins with cross-cutting shear zones hosting sulphide-bearing, arsenopyrite-dominant quartz veins. The granodiorite has undergone strongest alteration immediately adjacent to the sheeted veins with biotite been replaced by arsenopyrite.

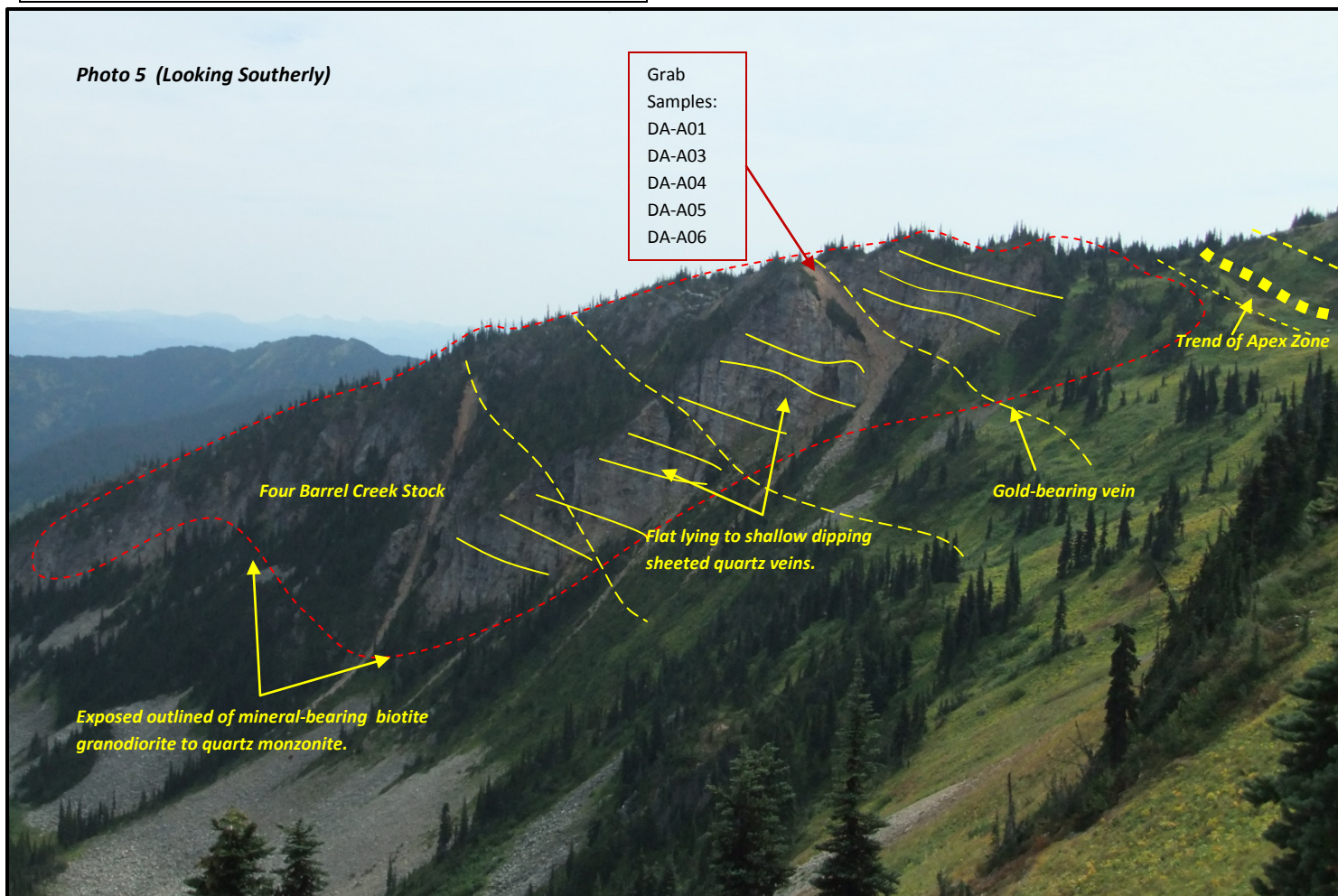


Photo 4 shows a different perspective of the Four Barrel Creek intrusive stock taking from across the valley looking south. The stock occurs immediately east of and adjacent to the Apex structure shown on the photo. Exposed north face of mineralized granite FBC stock (above photo) hosts numerous sheeted veins as depicted by the yellow semi-horizontal yellow lines. The veins are characteristically flat lying to shallow dipping and are cut by a second system of larger veins, which cross-cut the shallow dipping veins. Five grab samples noted on the photo above were collected from one of the cross-cutting veins as well as from the flat lying sheeted veins and the altered mineralized stock.

J. Tectonic Framework

The Dot and Apex gold-bearing zones are structurally controlled and hosted in lower order fault-shear systems that are spatially and temporally related to the Kwoiek Creek Fault (KCF), a first to second order crustal break. KCF is part of regional tectonic framework formed during Mesozoic, orogenic dynamic processes, caused by subduction-accretion of east-verging Mississippian-Jurassic Bridge River Terrane buttressing the western edge of the Superterrane (Stikine-Cache Creek-Quesnel terranes)(refer to Figure 3).

The ophiolitic (serpentinite)-sedimentary-basaltic (schist-greenstone) package mapped on the property (Figures 5 & 6) represents part of the Bridge River oceanic floor assemblage, which was subjected to

compressional processes during Jurassic-Cretaceous terrane collision event. Tectonically, the docking of Bridge River terrane to western edge of North America was aided along by the Jra-Cretaceous east-verging Harrison and Wrangellia arc terranes. These orogenic events resulted in deep crustal breaks that produced deep-seated structures such as the KCF system.

Topographic terrain on the property lends itself to apparent 3D sectional view in particular, the steep terrain overlooking the Dot and Apex zones. Based on the mapping surveys, topography and field structural interpretations, a simplified 3-D exploration model was constructed that shows the probable positions of the Dot and Apex zones and their spatial, temporal and genetic relationships to the structures and intrusive stocks (Figure). The Dot zone is positioned at least 1000 m structurally deeper along the KCF system than the Apex zone and both are about 8 km apart. Dot zone flanks the southwestern side of the KCF main structural strand with Apex on northeast flank and little more distal (at least 250 m) from the KCF, both are hosted along lower order fault-shear strands that make up the overall structural system.

The author believes the KCF system to be deep-seated, associated with a series of sub-parallel, lower order, listric thrust faulted, compressional-rotated panels, which initially formed as a result of west-verging North American plate and subduction of the east-verging Bridge River Terrane. This initial tectonic event would have developed both ductile and brittle (D_1 & D_2) deformational features now manifested on the property. This structural event was subsequently reactivated during the Paleogene and subjected to transpressional forces and dextrally offset by some 120-150 km during the formation of the Fraser Fault (Figure 3). The southern end of the KCF terminates along the western banks of the Fraser River canyon just north of the community of Boston Bar.

This final tectonic event (Fraser Fault) produced various transpressional, penetrative fabric features observed in chloritic-graphitic schist rocks underlying the property including: steeply dipping, northwest trending foliation, mineral lineation, striations, schistosity as well as numerous boudin and strike-slip dilatational quartz-filled veinlets.

K. DISCUSSION:

The 2013 follow-up mapping and sampling surveys are part of an on-going study project carried out by the author in order to better define the KCF – serpentized-ultramafic structural system and granitic intrusions and their spatial and possible genetic relationships to the gold-bearing/arsenopyrite-rich sites (Dot and Apex zones).

The property covers part of a regional, structurally complex tectonic event, caused as a result of Mesozoic, orogenic dynamic processes that included the subduction-accretion of the Mississippian-

Jurassic Bridge River Terrane to western edge of the Superterrane. The ophiolite, sedimentary and volcanic rocks (schist-facies) units mapped on the property, represents part of the Bridge River oceanic floor assemblage, which subsequently was subjected to compressional processes during Jurassic-Cretaceous terrane collision event, producing deep crustal faults including the KCF system.

The mapped area is intruded by a post (Cretaceous-Tertiary) accretionary granitic stock (Four Barrel Creek intrusion) that is spatially related to the gold-enriched sites. Just east of the property, Paleogene age, transpressional dextral movement produced the Fraser River Fault, which reactivated the accretionary zone between the 2 terranes (Bridge Rive & Quesnel), offsetting the western edge of the Bridge River Terrane by some 150 km. This fault would have also reactivated first order, KCF system and would also have reactivated, and or, generated the lower order structures that host the Dot and Apex gold-bearing zones.

In conclusion, as an exploration tool, arsenopyrite is considered as pathfinder and proxy to potential gold-bearing sites on the property. Based empirical field data, increase in elemental arsenic tends to have corresponding increase in gold content. Field data also shows that mineralization and alteration (silicification, carbonization and iron sulphidization) are structurally controlled hosted in sheared sediments and along the western boundary of the Four Barrel Creek granitic stock. The biotite granodiorite hosts sheeted veins with narrow seams of arsenopyrite salvages along the contact walls of the veins as well, adjacent to veins biotite is replaced by arsenopyrite. Cross-cutting the sheeted veins are steeply dipping quartz shears structures that host rich seams and disseminations of arsenopyrite and lesser pyrite.

Without laboratory work (i.e. fluid inclusions, geothermometry and thermodynamic studies, etc.), genesis of the gold-bearing fluids is speculative, however based on field data, the author believes that the Apex zone has experienced multi-stage hydrothermal event. This is based on the following observations: (i) Lower order structures immediately adjacent to stock have some of the highest gold values (>6 gm/t) associated with intense carbonitization and silicification suggesting the stock probably introduced epizonal to mesothermal, gold-bearing hydrothermal solutions along architecturally prepared channelways sometimes syn-post (Jra-Cretaceous) accretionary-magmatic event. (ii) The stacked sheeted veins may have also been introduced some time during this period with silica-rich fluids healing an already highly (flat-lying) fractured stock. (iii) Cross-cutting the sheeted veins are gold-bearing quartz veins that contain > 3 gm/t gold indicating that at least one additional (final?) hydrothermal phase may have occurred sometime during Lower Tertiary probably related to the Paleogene, dextral, transpressional displacement of the Fraser Fault. It is likely that the lower order mineralized structures would have also experience this final hydrothermal impulse.

The Apex zone is a structurally controlled, sedimentary-hosted and intrusive related gold system that has experienced intense silica flooding enriched with arsenopyrite mineralization. The recently discovered intrusive-related mineralization combined with the previously discovered sedimentary-hosted gold-bearing structures, offers this area an excellent gold exploration target.

L. REFERENCES CITED

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M. STATEMENT OF EXPLORATION EXPENSES

Mapping and sampling surveys were conducted for 8 days between July 5th and August 20th, 2013 on mineral tenures: 565067.

Field Crew:	Cost
Geologist (author); 8 days @ \$600 per day	\$4,800.00
Field Assistant; 8 days, @ \$200 per day	2,000.00
Field-Related Expenses:	
Road Access – up-grade & re-construction	
Twelve (12) km, 2.5 days-10hrs/d @ \$100 per hr.	2,500.00
Mob. and De-mob. Komatsu PC78 Excavator	350.00
Field Base Camp: 8 days @ \$70/d plus materials (2 people)	560.00
Transportation: 4x4 drive truck; 8 days @ \$100/d (+gas)	1,000.00
Report: Field Data Compilation and Documentation	2,020.00
Total Expenses Incurred:	<u>\$, 13,030.00</u>

Respectfully submitted;




D.G. Cardinal, P. Geo.

N. PROFESSIONAL CERTIFICATE

I, Daniel G. Cardinal, of the District of Kent, British Columbia, do hereby certify that:

- I am a Professional Geoscientist and reside at 1883 Agassiz Avenue, Agassiz, B.C. V0M 1A3.
- I am a graduate of the University of Alberta (1978) and received a 2 year technical diploma in Exploration-Geology from the Northern Alberta Institute of Technology (1972).
- I am member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (P.Geol.), membership #18455; a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (P.Geol.), membership #M29405; a Fellow of the Geological Association of Canada (FGAC) and, member ID #9166924 with The Geological Society Of America.
- I have practiced my profession continuously for the past 32 years.
- I am the registered owner of the **Dot-Apex** mineral claim group.
- I am author of this report herein submitted as **Event Number 5468701** and, that I have conducted the field work documented in this report.

Signed in Agassiz, British Columbia this 13th day of December, 2013.



The image shows a handwritten signature in black ink that reads "Dan Cardinal". To the right of the signature is a red octagonal seal. The seal contains the text "PROFESSIONAL" at the top, "PROVINCE OF" in the middle, "D. G. CARDINAL" in the center, "BRITISH COLUMBIA" below that, and "GEOSCIENTIST" at the bottom.

D.G. (Dan) Cardinal, P.Geol., F.G.A.C.