



## ASSESSMENT REPORT TITLE PAGE AND SUMMARY

**TITLE OF REPORT: Prospecting And Geological Reconnaissance Assessment Report**

**TOTAL COST: \$ 1,260.00**

AUTHOR(S): Dan Cardinal

SIGNATURE(S): *Dan Cardinal*

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): 4233008/ August 24, 2008

STATEMENT OF WORK EVENT NUMBER(S)/DATE(S):

YEAR OF WORK: 2008

PROPERTY NAME: DOT

CLAIM NAME(S) (on which work was done):

DOT

COMMODITIES SOUGHT: AU

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:

MINING DIVISION: New Westminster

NTS / BCGS: 92I/04

LATITUDE: 50 " 01 ' 37 "

LONGITUDE: 121 ° 37 ' 02 " (at centre of work)

UTM Zone: 10 EASTING: 599000 NORTHING: 5542500

OWNER(S):

Dan Cardinal

MAILING ADDRESS:

1883 Agassiz Ave., Agassiz, BC V0M 1A2

OPERATOR(S) (who paid for the work): Dan Cardinal

MAILING ADDRESS: (same)

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. **Do not use abbreviations or codes**)

The claim is underlain by a thick sequence of steeply dipping, northwesterly striking graphitic phyllites and argillites of Paleozoic age, metamorphosed to greenschist facies. Sediments host structurally quartz veins carrying pyrite and arsenopyrite.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:

ARS numbers: 4985, 13634 and 23691

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area) 1500m by 750m, 1:15000		DOT	\$760
Ground, mapping			
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, storage location)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling / Assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale/area) 1500m by 750m, 1:15000		DOT	\$500
PREPARATORY / PHYSICAL			
Line/grid (km)			
Topo/Photogrammetric (scale, area)			
Legal Surveys (scale, area)			
Road, local access (km)/trail			
Trench (number/metres)			
Underground development (metres)			
Other			
		<b>TOTAL COST</b>	\$1,260.00

**BC Geological Survey  
Assessment Report  
30564**

Event Number 4233008

**PROSPECTING AND GEOLOGICAL RECONNAISSANCE  
ASSESSMENT REPORT**

**DOT MINERAL CLAIM**

Mineral Tenure 565120

Located  
(claim centre)

NTS: 50°01'37"N, 121°37'02"E  
UTM: 5542500N, 599000E

Map Sheet  
NTS: 921/04  
BCGS: 921.002

Report Prepared by:

**D. G. Cardinal, P. Geo.**  
1883 Agassiz Avenue  
Agassiz, BC  
V0M 1A2

February 2, 2009



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## **A. INTRODUCTION**

The Dot mineral claim lies approximately 22 km due north-northwest of the community of Boston Bar and the Fraser River canyon and Trans Canada Highway. From Boston Bar, it is accessible via series of connecting secondary (year-round) and seasonal (logging) access roads for a combined distance of some 30 road kilometres. The claim encompasses an area of 269.84 hectares. It overlooks the Nahatlatch River valley at claim summit of 1530 metres.

Historically, the watersheds adjacent to the property were prospected at the turn of the century. An arsenopyrite gold-bearing quartz shear structure located near the southeast area of the Dot claim was worked by prospectors from Boston Bar in the 1920s. This work was briefly documented by Horwood (GSC, 1939) during his visit. Duffel and McTaggart initially carried out regional geological mapping over the area (GSC, 1952). This work was later updated by Monger (GSC, 1989) with tectonic terranes incorporated into the regional mapping and structural interpretation. Over the years sporadic regional exploration has taken place with some of the more recent work conducted by Hudson Bay Exploration & Development (Taylor, 1985) consisting of regional geology and geochemical surveys. This included limited exploratory drilling to test the gold-bearing quartz shear structures.

Regional geological setting is structurally controlled by a prominent northwest trending belt of serpentinite referred to as the Kwoiek Fault (Monger, 1989). The fault separates 2 distinct lithological units. To the northeast are Mesozoic age, weakly metamorphosed sediments and to the northwest are older, lower greenschist metasediments of Paleozoic age. The Dot claim is predominately underlain by thick sequence of faulted phyllite and graphitic argillite. Immediately to northeast of the claim this sedimentary unit is intruded by a granodiorite stock.

Limited reconnaissance mapping and prospecting was carried out along 2 sections of the property accessible by ATV on overgrown old roads. One area is located near the summit and northern portion of the claim and the area is near the south boundary along an incised creek valley. For mapping control, hand-held GPS garmin model was used to position UTM survey points and an ortho photo map downloaded from MTO Map Place at approximately 1:15000 scale was used in the field for interpreting and plotting GPS points. Field data was entered into field lap top. This reconnaissance work was submitted for assessment work credits under event number: 4233008.

## **B. LOCATION AND ACCESS**

The Dot claim is located some 22 kilometres due north-northwest of Boston Bar, BC. NTS co-ordinates which are plotted near the centre portion of the claim are: 50 01' 37" N; 121 39' 06" W. Geographically, the property lies along the rugged region of the Pacific Range mountains with property summit at 1530 metres. It overlooks the east-west trending Nahatlatch River valley which empties into the Fraser River.

The claim can be reached from Boston Bar via North Bend by a series of connecting secondary and seasonal access roads. Firstly, by heading north from North Bend and paralleling the Fraser River along an all weather road to Nahatlatch River for 16 km. From this point a seasonal 4wheel drivable road branches northerly which can be taken for additional 14 km to reach the northern portion of the claim. To reach the south portion of the claim, the main Nathatlatch River valley road is followed westerly for a further 5 km, a seasonal road is then taken branching right for an additional 3 km. All terrain vehicles were used to access the last several kilometres to the Dot claim since the seasonal roads have been deactivated and partly grown over by brush.

## **C. CLAIM INFORMATION**

The Dot claim covers 269.84 hectares. It is 100% owned by the author of this report. The centre of the claim falls within NTS co-ordinates: Lat. 50 01' 37" N; Long. 121 37' 02" W with corresponding UTM co-ordinates: Zone 10, 5542500N; 599000E. NTS Mapsheet: 092I04.

Pertinent claim data is as follows:

<b><u>Claim Name</u></b>	<b><u>Tenure Number</u></b>	<b><u>Current Expiry Date</u></b>	<b><u>Area</u></b>
Dot	565120	2009/Sept/06	269.84 Ha

#### **D. BRIEF HISTORY**

The claim covers part of geological favourable belt which, historically, has attracted sporadic exploration both for precious and base metals. Some of the earliest work along the belt dates back to the early 1900s, prospectors reported finding mineralized quartz veins hosting gold values both along the southeastern portion to the Dot claim and 4-5 km to the northwest along structural trend. This work was first documented by H.C. Horwood in 1936 (GSC Paper 36-7). In recent years, several exploration companies have carried out regional scale type reconnaissance exploration projects and exploratory drilling programs in search of both base and precious metals along trend of the belt.

During 1973-74, a section of the northwest regional trending ultramafic body, which is well exposed 1-2 km northwest of the Dot claim, was tested for potential nickel. Majority of the samples collected contained marginal nickel values ranging between .15 to .2% (J.A. Chamberlain, 1973). In 1983-85, Hudson Bay Exploration & Development Ltd. (HUDBAY) acquired a large tract of ground and conducted reconnaissance geological, geophysical (VLF-EM) and geochemical surveys orientated towards gold exploration. In 1984 and 1985, HUDBAY conducted limited exploratory drilling along the southeast end of the belt, which is located near the southeastern portion of the claim boundary now covered by Dot claim, to a test series of auriferous-bearing quartz shear structures (Taylor, 1985).

Some 10 kilometres to the northwest of the Dot claim and along the same geological structure, in 2003-04, an exploratory drilling program was carried out by a joint-venture partnership on claims known as the Randi located near Pyramid Mountain. Drilling was conducted along a structurally controlled gold-bearing quartz system and altered sulphide-bearing shales. Several quartz veins were encountered during drilling with values up to 3.32 gm/t over 4.5 m. Trench samples also assayed up to 6.0 gm/t across 9.7 m (P. Kollack, 2003).

The Dot claim was acquired by the author and, in September 2005. Some limited reconnaissance mapping and prospecting was carried out along the northern and southern portions of the claim during August 2008. A Statement of Work was filed August 24, 2008 registered under event number: 4233008. The reconnaissance surveys carried out from this work are documented in this report.

## **E. REGIONAL GEOLOGICAL FRAMEWORK**

Regional geological framework (Figure 4.) is comprised of a northwest-southeast trending accretionary belt of volcanic, sedimentary and oceanic ultramafic rocks marked by a major structural break referred to as the Kwoiek Creek Fault (J.W.H. Monger & W.J. McMillan, GSC 1989). The fault is represented by a series of sub-parallel, strike-slip and imbricated structures associated with a semi-continuous band of serpentinized ultramafic, which separates the regional rocks into different age units. Regional deformation has produced an overall northwesterly trending, easterly dipping, penetrative fabric characterized mainly by schistosity and foliated structures.

The Kwoiek Creek Fault-ultramafic complex can be traced for some 30 kilometres along strike and is bounded by 2 lithological units (Figure 4.). To the northeast is a package of intercalated Paleozoic sediments and volcanics believed to be latterly equivalent to Permian age Bridge River complex (Monger & McMillan). These rocks are predominately comprised of greenstone volcanic and phyllitic rocks metamorphosed to lower greenschist facies. To the southwest is the Jurassic to late Cretaceous age Relay Mountain Group consisting mainly of argillite, shale-limy shale interbedded with lesser sandstone and phyllite. The Relay Mountain Group is believed to be latterly equivalent to the Cadwallader Terrane.

The highly altered and sheared lenses of talcose serpentine and lenticular bodies of massive serpentinite that define the fault system and correlated with Bridge River Assemblage by Monger, also mark the zone of accretion between the Mesozoic and Paleozoic lithological tectonic plates.

The Cretaceous age Scuzzy Pluton which forms part of the Coast Range granitic intrusives, partly surrounds the above-noted accretionary complex to form a regional roof pendant-like belt of rocks some 30 km long and 10 km wide. Local, possibly younger (Tertiary?) stocks, intrude parts of the belt and have developed localized skarn alteration overprinting regional metamorphism.

Structurally controlled gold mineralization is known to occur along parts of the belt and in places is spatially related to the stocks. These local intrusions probably played a role in introducing and remobilizing mineral-bearing fluids into tensional and dilatent structures. The anomalous gold-arsenic quartz structures along the southeastern portion of the Dot claim are probably genetically related to these types of controls.



## **F. RECONNAISSANCE – BEDROCK GEOLOGY**

Based on the reconnaissance mapping and prospecting conducted, much of the property appears to be underlain by essentially one main rock type consisting of faulted sedimentary unit (Figures 4, 5, & 5A). A shear-fault structure was noted during the traverses along the northern portion of the claim trending northwest-southeast and is believed to be part of the Kwoiek Fault system documented by Monger. The sedimentary unit consists of steeply dipping, northwest trending phyllites, graphitic argillites and minor bands of siltstone. Occasionally, lenticular chloritic schists was noted associated with minor barren quartz veinlets.

Reconnaissance Mapping and prospecting was conducted near the northeastern and southern boundaries of the claim (Figures 5 & 5A). Much of the claim is well covered by vegetation. Some limited bedrock was noted along the southeast facing slope near the north claim boundary comprised mainly of sheared phyllitic and black argillitic rocks (Figure 5). Similar rock types were also encountered along an incised creek gully which cuts through the southern part of the claim, the creek drains into the Nahatlatch River. The creek section affords a fairly good exposure of sediments. Here, sections of phyllitic schists and graphitic argillites host steeply dipping, sub-parallel quartz veins some of the veins were noted to carry disseminated pyrite and minor arsenopyrite. Panning was conducted along 2 areas of the creek, fine visible gold was panned from both sites. It is believed that some of this gold may be originating from further upstream and possibly from the Kwoiek Creek fault system which is cut by the creek.

## **G. FIELD PROCEDURES**

A 2-person team consisting of a geologist (the author) and seasoned prospector carried out 2 days of reconnaissance geology and prospecting surveys on the Dot claim, between August 1-3, 2008. Two portions of the claim were selected for the surveys as these sites were the easiest to access by ATV see Figures 5 and 5A.

Any bedrock encountered was mapped by the geologist and any stream encountered was panned by the prospector. Reconnaissance mapping and prospecting were conducted a scale of 1:15,000 utilizing a UTM grid orthophoto map. A hand-held Garmin GPS, with Map Source software, was used to fix a position on rock outcrops, briefly identified along with any mineralization encountered and plotted on the map.

The 2 areas prospected and mapped on the north and south portions of the claim cover approximately 1000 metres by 500 metres and 500 metres by 200 metres ( 100 m on either side of the creek) respectively.

## H. CONCLUSION

The Dot claim covers a portion of the southern extension of favourable geological structure referred to as the Kwoick Fault which is known to be spatially associated with a number of auriferous-bearing quartz veins. Reconnaissance mapping and prospecting was briefly conducted on parts of the claim which is underlain predominately by phyllite and argillitic rocks.

Limited gold panning was conducted on a stream which cuts the southern part of the claim. Some fine gold colours were noted in the pan. The gold is believed to be locally derived possibly originating near the Kwoick Fault system which is cut by the creek further up stream.

More detail prospecting and sampling should be conducted along the creek. Quartz veins containing arsenopyrite should be sampled and an attempt should be made to trace the source of the gold found from the panning.

## I. STATEMENT OF EXPLORATION – COST BREAKDOWN

Reconnaissance mapping and prospecting surveys were conducted on the Dot claim for 2 days between August 1<sup>st</sup> and August 3<sup>rd</sup>, 2008. Expenses incurred are as follows:

### Field Crew:

Geologist, 2 days @ \$300 per day	\$ 600.00
Prospector, 2 days @ \$200 per day	400.00

### Transportation:

4-wheel drive truck, \$80 per day	160.00
ATV, \$50 per day	100.00

Total Expenses Incurred: **\$ 1,260.00**

Respectfully,



D. G. Cardinal, P. Geo.

## **J. REFERENCES**

Cardinal, D.G., November 1994, Assessment Report on the Talc Project – Pilot Scale Tests and Diamond Drill Programme, Talc Group. Assessment Report No. 23691.

Chamberlain, J.A., 1973, Geological Report, H Claims, Nahatlatch Area, BC, Department of Mines and Petroleum Assessment Report No. 4985.

Duffel, S. and McTaggart, K.C., 1952, Ashcroft Map Area, British Columbia, Geological Survey of Canada, Memoir 262.

Horwood, H.C., 1936, Preliminary Report on the Nahatlatch Region, GSC Paper 36-7.

Journey, J.M. and Monger, J.W.H., 1994, Terranes Of The Southern Coast And Intermontane Belts, British Columbia, GSC, Scale 1:500,000.

Monger, J.W.H., 1989, Geology of Hope and Ashcroft Map Area, British Columbia, GSC, Maps 41-1989 and 42-1989.

Taylor, K.J. (Hudson Bay Exploration & Development Co. Ltd.), March 1985, Diamond Drill Report for the Natch 1-4 Claims, Boston Bar Area, BC, Geological Branch Assessment Report No. 13634.

**K. PROFESSIONAL CERTIFICATE**

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

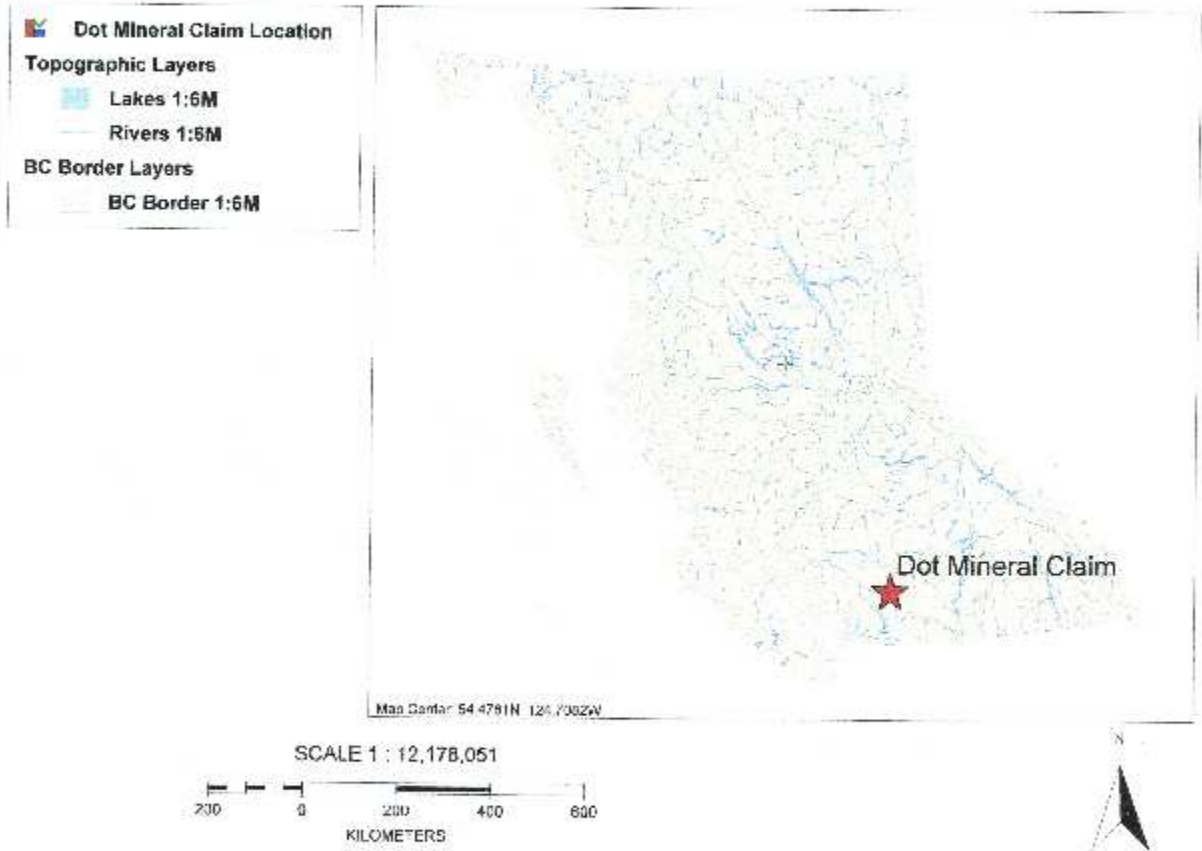
- I am a Professional Geoscientist and reside at 1883 Agassiz Ave., Agassiz, BC V0M 1A2.
- I am a graduate of the University of Alberta (1978), BSc.-Geology and received a 2-yr. Diploma certificate from the Northern Alberta Institute of Technology (NAIT) 1972.
- I am member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (P.Geo.), membership 18455; and a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (P.Geol.), membership No. M29405.
- I have practiced my profession continuously for the past 30 years.
- I am the registered owner of the Dot claim – Tenure Number 565120.
- and that, I conducted the field surveys described in this report.

Signed in Agassiz, BC this 2<sup>nd</sup> day of February, 2008.

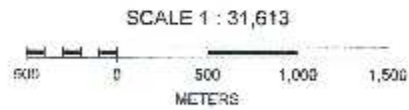
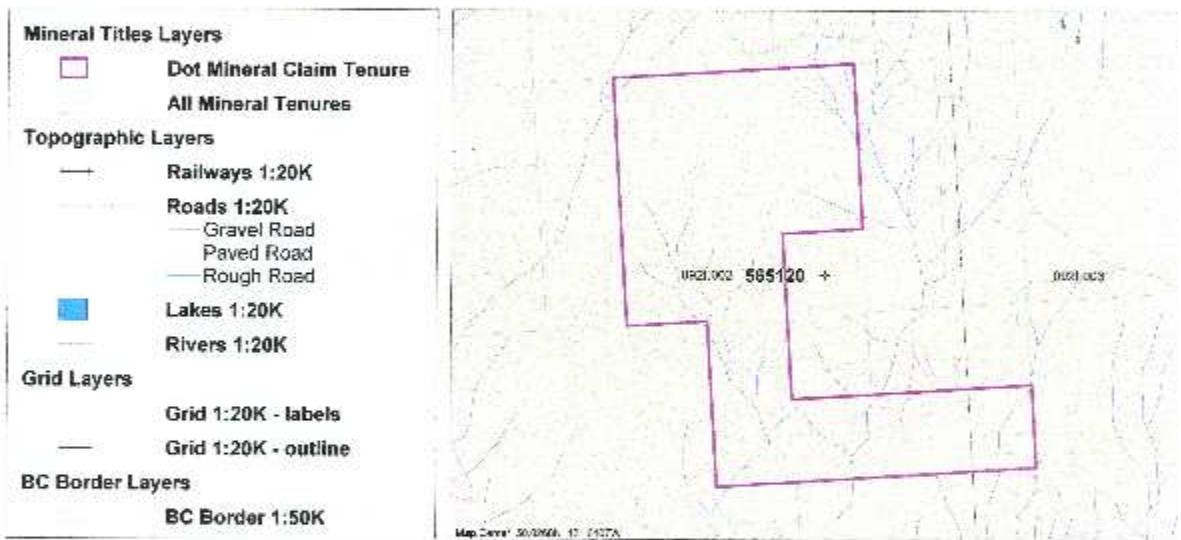
A handwritten signature in blue ink, "Daniel G. Cardinal", is written over a red circular professional seal. The seal contains the text "PROFESSIONAL GEOSCIENTIST" around the perimeter and "D. G. Cardinal" in the center.

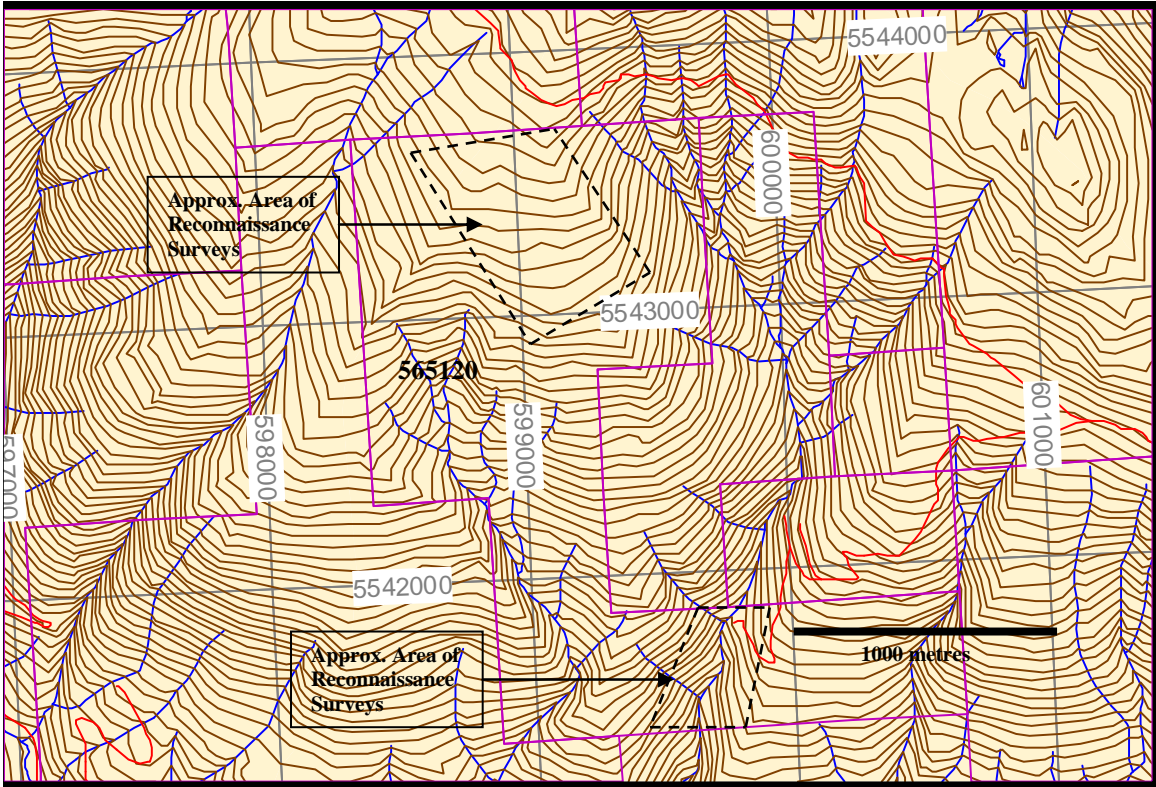
Daniel G. Cardinal, P.Geo.

# Dot Mineral Claim Location Map - Figure 1.



# Dot Mineral Claim Map - Fig. 2

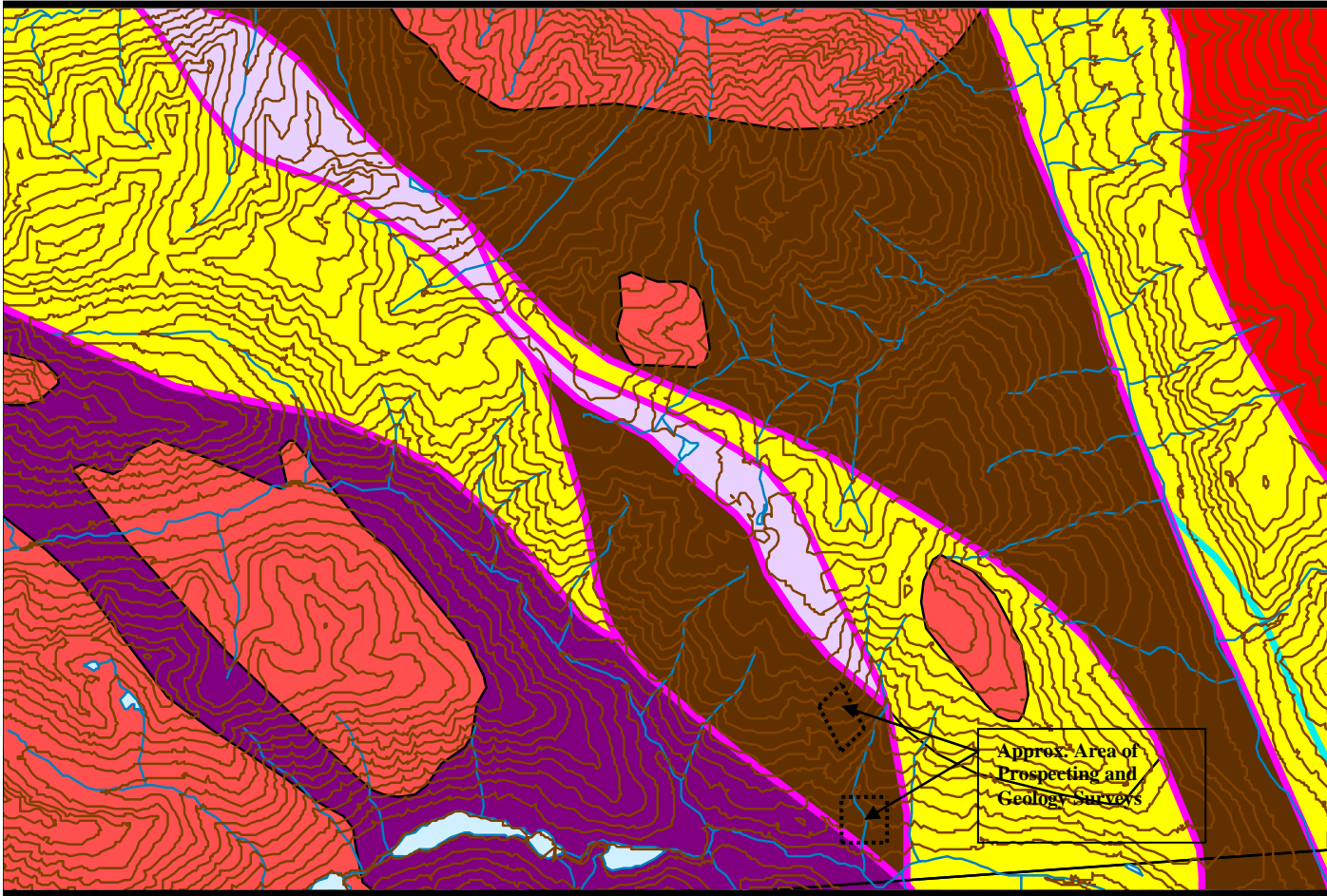




**Location Of Reconnaissance Prospecting And Geology Surveys – Tenure 565120**

Figure 3.





**REGIONAL GEOLOGICAL SETTING  
DOT MINERAL CLAIM AREA**

**Legend:**

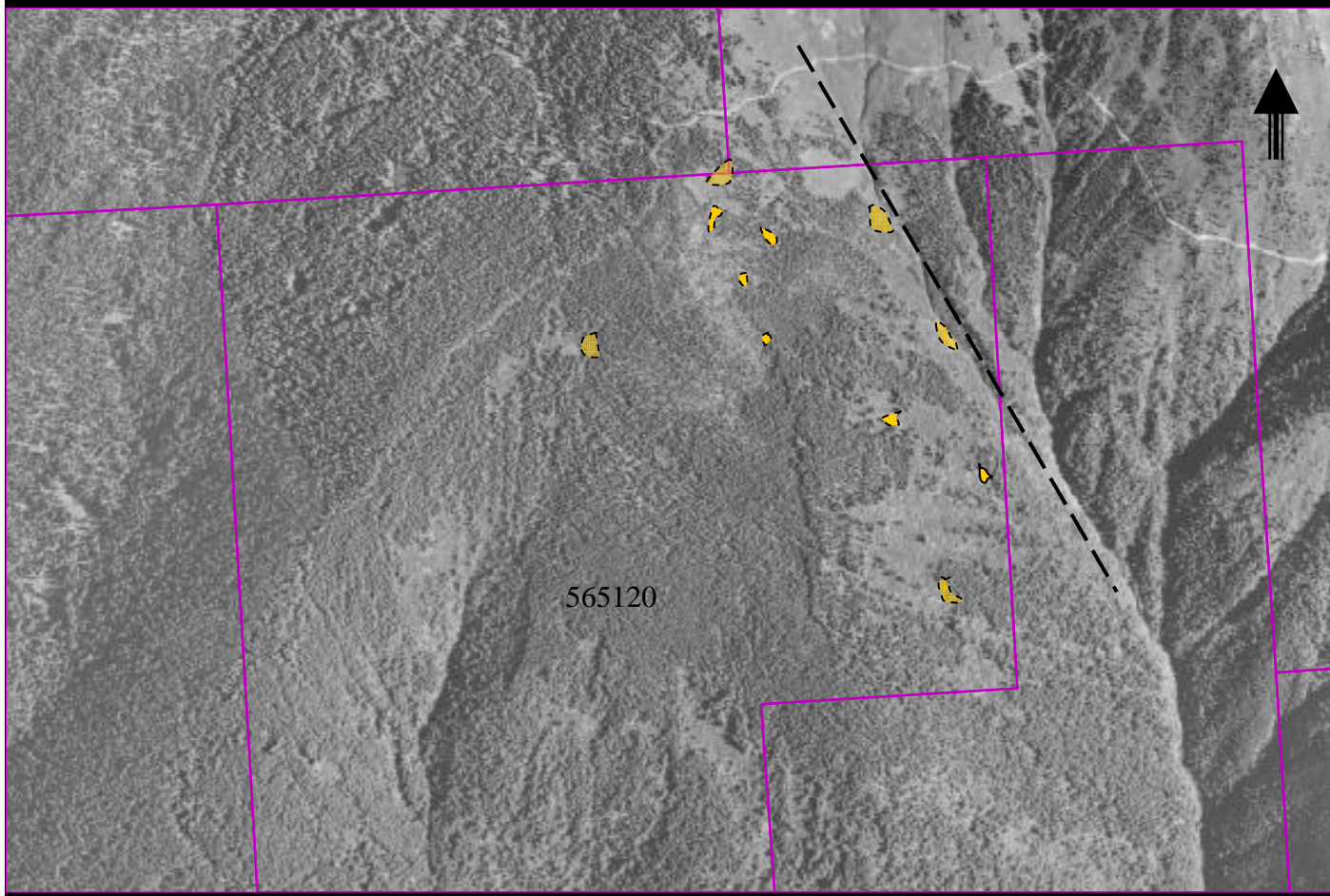
- Bridge Terrane/Assemblage; phyllites & schists
- Cadwallader Terrane/Cayoosh Assemblage-Relay Mtn. Grp.  
Mainly shales, phyllites, argillites.
- Alpine Ultramafic – Ophiolitic Complex
- Amphibolite Facies – Metamorphic sediments
- Coast Range Granites – Granodioritic  
Local Stocks – quartz monzonitic

— Fault Structures & Contact Zones

Scale 1: 250,000




Figure 4





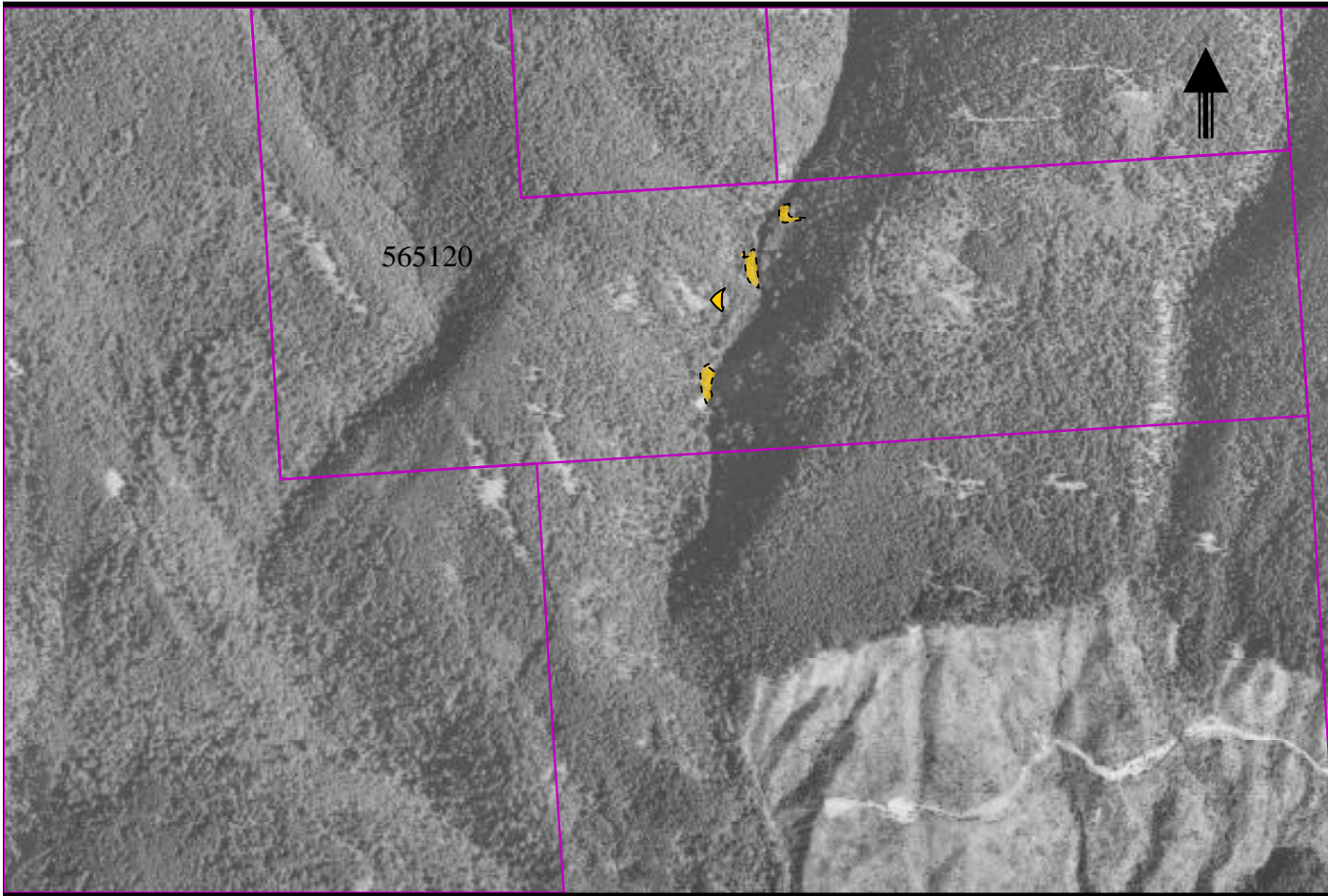
**RECONNAISSANCE GEOLOGY & PROSPECTING**  
 (Centre of survey area located at UTM: 5543500N; 599000E)

Exposed Bedrock And Structures

	Mainly graphitic phyllite with bands of chloritic schist, occasional quartz stringer	
	Inferred fault-shear structure	
	Bedrock outcrop	

Scale 1:15000 (approx.)

Figure 5.



**RECONNAISSANCE GEOLOGY & PROSPECTING**

(Centre of survey area located at UTM: 5542750N; 59750E)

**Exposed Bedrock**



Bedrock outcrop

Mainly graphitic argillite with quartz stringers.

Scale 1:15000 (approx.)

Figure 5A.