

DATE: December 13, 1990  
A  
TO: Ian Pirie  
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FROM: C.J. Clayton  
SUJET  
SUBJECT: INDI PROPERTY EXAMINATION

92I/10W

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**Savona Area**  
**Kamloops Mining Division**  
Latitude: 50° 44' N Longitude: 120° 54' W  
NTS 92I/10W  
Owner: Michael Dickens  
Record No.'s: 7701, 7702, 7789, 7790

#### **PROPERTY LOCATION, ACCESS, AND PHYSIOGRAPHY**

The Indi property (I.G. claims) is located approximately 40 km west of Kamloops on the south shore of the Thompson River. Access to the property is by 10 km of gravel road from the Trans Canada Highway at Savona. Two deeded properties and a pre-existing Crown granted claim are covered by the claims.

Elevations range from 350 metres to 950 metres. Topography consists of rolling hills with deeply incised canyons. More than 50% is open range land with sage-brush, tumble weed and cactus vegetation. The remainder of the claims are sparsely wooded with no undergrowth (MineQuest Report #217, Ref # RM5304, R.S. Wasylyshyn, C. Nagati, 1988 Geology, Geophysics, and Geochemistry report).

#### **SUMMARY OF CLAIM STATUS**

The INDI property consists of four contiguous MGS mineral claims totalling 72 units. This provides a total acreage of 1800 hectares less the approximately 20.9 hectares in the Crown granted claim for a total of 1779.1 ha.

The following table summarizes pertinent claim information.

CLAIM	RECORD #	UNITS	RECORD DATE
I.G. #3	7701	20	2 JUN 1988
I.G. #4	7702	12	2 JUN 1988
I.G. #5	7789	20	4 JUL 1988
I.G. #6	7790	<u>20</u>	4 JUL 1988
		TOTAL 72 UNITS	

In addition to these claims an additional 60 claim units have been staked south of I.G. #5 and #6 bringing the total number of claim units to 132. These claims (the INDI claims) will expire this February, 1991.

#### PROPERTY HISTORY

Several old trenches are still visible on the property and were probably worked during the 1930's (M.Dickens, pers. comm.). At this time several claims were staked in the area. There is no record of mineral production from these workings, however small placer operations were established on the Thompson River at the mouth of Indian Gardens Creek which traverses the centre of the property. Claims staked in the early 1970's by G.E. Trout were presumably for porphyry copper (M. Dickens, pers. comm.). QPX Minerals Inc optioned the property in 1988 after several auriferous quartz veins had been exposed by trenching operations. During 1988 and 1989 MineQuest carried out exploration on the INDI property for QPX. Work consisted of the establishment of three grids totalling 85.3 km, geological mapping at a scale of 1:2500, and locally at 1:200, soil geochemistry, VLF-EM and magnetometer geophysics, four diamond drill holes, and seven reverse circulation drill holes. QPX could not make the option payment the following year and claim ownership was therefore retained by M. Dickens.

## **REGIONAL GEOLOGY**

Regionally, the area is underlain by sediments and volcanic rocks of the Palaeozoic Cache Creek Group. These are unconformably overlain by Triassic Nicola Group, consisting primarily of intermediate to mafic volcanic rocks with lesser sediments. Plutonic rocks of the Coast Intrusive complex intrude earlier rocks, and are in turn overlain by Kamloops Group volcanics and sediments.

In a regional structural context, the property is located at the southern extent of the Deadman River Fault directly on strike with the structure. The Deadman River Fault is believed to be an extension of the Pinchi Fault that extends south to Tunkwa Lake eventually merging with the Guichon Creek Fault. Locally, therefore, structure on the I.G. claims is directly related to the Deadman River Fault and its splays.

## **PROPERTY GEOLOGY, MINERALIZATION, AND ALTERATION**

Previous mapping at a scale of 1:2500 revealed Triassic Nicola Group underlying roughly 80% of the area, unconformably overlain by Jurassic Ashcroft Formation (pebble conglomerate) found on the southwest corner of the grid area. The eastern portion of the grid area contains Tertiary Kamloops Group volcanic rocks.

Structural trends on the property are in a north-south direction with moderate dips to the west. Quartz-carbonate alteration zones tend to parallel these orientations.

## **MINERALIZATION AND ALTERATION**

Mineralization and alteration on the INDI property consists of carbonate alteration within Nicola Group +/- quartz, Au, Ag, Pb, Zn and associated metals. Phyllic alteration (quartz-sericite-pyrite) of Tertiary felsic flows and tuffs is also noted with mineralization consisting of +/- Ag, Pb, Zn, and other metals.

An altered zone of Nicola Group cropping out in Indian Gardens Creek shows strong silicification with semi-massive to massive pyrite, arsenopyrite, and possibly sphalerite. Reported values of up to 4183 ppm Zn, 3.1 ppm Ag, 1287 ppm As, 109 ppm Sb, and 14400 ppb Hg have been returned from grab samples. Sample number BCS11062, taken in this area returned values of 4.2 ppm Ag, 1386 ppm As, 109 ppm Sb, and 21375 ppb Hg.

Several anomalous Au zones were located on grid A associated with quartz veining and intense carbonate alteration. One previous sample taken contained 1.05 oz/t Au over 25 cm, however values and widths are not found to be consistent along strike. Another zone located on grid A, the Adit zone, is the site of an old working and consists of intense carbonate altered (bleached) Nicola Group with associated quartz veining. The zone occurs within a steeply incised gully at the intersection of at least two, possibly three structures. Forty-two channel samples have previously been taken in this area, 26 of which returned Au values greater than 200 ppb (MineQuest Report, 1989). Sample BCS11064 taken from this zone during the property examination was of a 6 cm wide quartz vein containing visible pyrite, chalcopyrite, tetrahedrite, and sphalerite. The following results were obtained: Au 270 ppb, Ag 438.3 ppm, As 480 ppm, Cu 1128 ppm, Pb 4990 ppm, Sb 1174 ppm, Zn 1743 ppm, and Hg 26375 ppb. This altered zone continues northward along strike with associated quartz veining. Of twenty channel samples from quartz veins along strike, nine returned values greater than 200 ppb Au, and five greater than 1000 ppb Au (MineQuest Report, 1989). During the property examination one of these quartz veins (containing azurite to 15%, malachite and tetrahedrite) was sampled. The 8 cm wide quartz vein was contained within a 1 metre wide, silicified shear zone. This sample (BCS11066) returned the following values: Au 22.1 g/t (0.645 oz/t), Ag 494.2 g/t, As 460 ppm, Cu 1163 ppm, Pb 639 ppm, Sb 466 ppm, Zn 165 ppm, and Hg 956250 ppb.

## DIAMOND DRILLING RESULTS

Two holes were drilled to intersect quartz veins associated with the Adit zone at depth. These holes intersected alternating sequences of altered and unaltered andesites, as well as a number of quartz veins. The highest Au value obtained was 955 ppb over 38 cm. One sample from the second hole contained 345 ppb Au and 128.4 ppm Ag over 55 cm. The highest arsenic value was 2875 ppm over 56 cm.

The third hole was drilled to intersect a surface vein exposure containing 1.05 oz/t Au and 11.62 oz/t Ag over 25 cm at depth. The highest value obtained in core was 870 ppb Au over 23 cm with Ag values not exceeding 5.2 ppm and As less than 2010 ppm. The fourth hole was drilled to test a magnetic low feature, and collared in intensely phyllicly altered Tertiary felsic (rhyolite) volcanic rocks. These rocks are in fault contact with underlying Nicola rocks. Gold values were low, but Ag and base metal values were significant. Values of 2.23% combined Pb-Zn over 4.17 m, 1.45% over 1.82 m, and 0.55% over 17.0 m were returned. Silver values reached 2.26 oz/ton over 1.5 m, 2.18 oz/ton over 0.30 m, and 0.72 oz/ton over 1.0 m. Arsenic values averaged between 300 and 400 ppm with a high of 4985 ppm.

## CONCLUSIONS AND RECOMMENDATIONS

The prospect of a large tonnage deposit in this area does not seem likely. Property acquisition should not be considered based on the following:

1. Despite widespread propylitic alteration, and structurally localised quartz-carbonate, and phyllic alteration, Au mineralization does not occur on a large scale.
2. Gold mineralization appears to be confined to narrow quartz veins within carbonate altered zones trending in a north-south direction and roughly coincident with north-south trending major structures. Although these veins contain significant precious and

base metal concentrations widths and values obtained are not consistent along strike.

4. The possibility of a large tonnage porphyry type deposit was considered, but review of drill core, evaluation of rock types seen on the property, and review of current literature and government mapping make this unlikely.



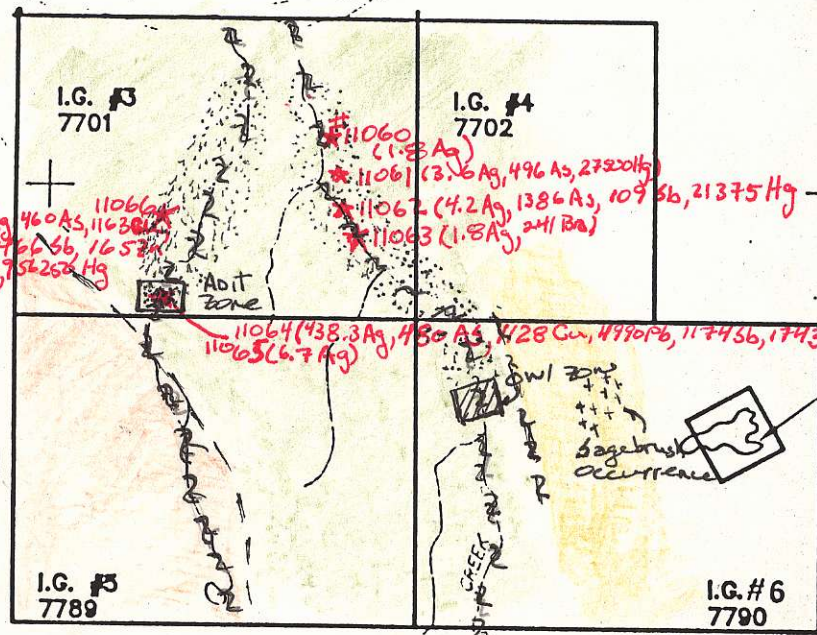


Karloops Lake

Savona

120° 55' W

50° 45' N







5622000m N

L4668 C.G.

I.G. #5 7789




I.G. #6 7790

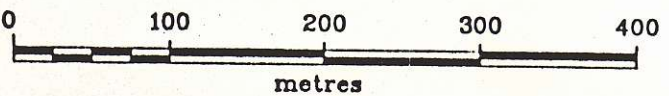
-  Tertiary Karloops Grp felsic flows, tuffs
-  Jurassic Ashcroft Fm. poorly sorted, bedded pebbly conglomerate
-  Tertiary Nicola Gp. massive, w/ calc, magnetic Int. to mafic; locally lap. tuffs, Fsp, porph, bxs, flows
-  ~~Tertiary Karloops Grp felsic flows, tuffs.~~

647000m E

5618000m N

652000m E

-  Carbonate alteration ± Pyrite ± quartz veins ± Act ± Gm ± tetrahedrite
-  Silicification (intense) ± As ± Hg ± Ag ± Zn
-  phyllic (quartz-sericite-pyrite) alteration ± Ag ± Pb ± Zn



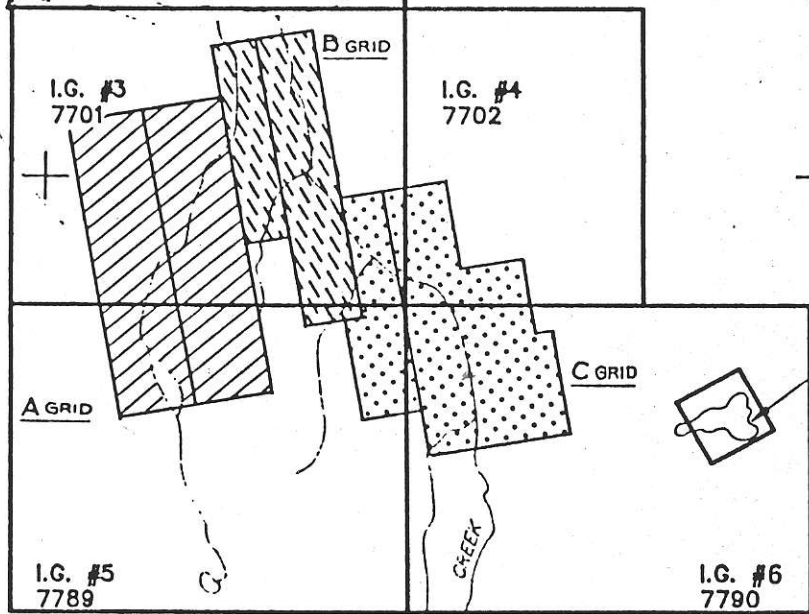
QPX MINERALS INC.					
INDI PROPERTY KAMLOOPS M.D., B.C.					
CLAIM MAP					
Original	Originator	Drawn	Date	PLAN No.	FIGURE
Revision		Geo-Comp	FEB '89	N.T.S.	2
Revision				921/10	
MINEQUEST EXPLORATION ASSOCIATES LTD.					



Kamloops Lake

Savona

120°55' W  
50°45' N

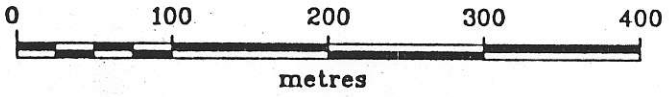


5622000m N

L4668  
C.G.

647000m E

5618000m N  
652000m E



QPX MINERALS INC.

INDI PROPERTY  
KAMLOOPS M.D., B.C.

# GRID LOCATION MAP

	Originator	Drawn	Date	PLAN No.	FIGURE
Original		Geo-Comp	FEB '89		3
Revision				N.T.S.	
Revision				021/10	

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