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GEOLOGICAL AND PROSPECTING REPORT

on the

PGR CLAIM GROUP

KAMLOOPS MINING DIVISION

NTS 92P/9W  
Lat. ~~50°~~<sup>51°</sup> 35'N Long. 120° 25'W

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February 1992

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**22,180**

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## CONCLUSIONS AND RECOMMENDATIONS

The PGR property lies in a structurally complex area (fault duplex?) with numerous faults related to major splays from the Thompson Valley-Louis Creek system. There is a strong interrelationship between structure (different ages), intrusive activity (alkalic and calc-alkalic) and mineralization (replacement/skarn Cu, Ag, Au; shear zone/alteration/vein Au, Ag, Cu, Pb, Zn; porphyry Au, Cu?). These favourable environments occur within a belt 45 km long and 10 km wide extending northeast from Little Fort.

The property has a number of untested or poorly tested skarn, vein/alteration and porphyry style targets with excellent potential. The three best targets could with relatively inexpensive geological, geochemical and geophysical surveys be upgraded quickly to a drilling stage.

## INTRODUCTION

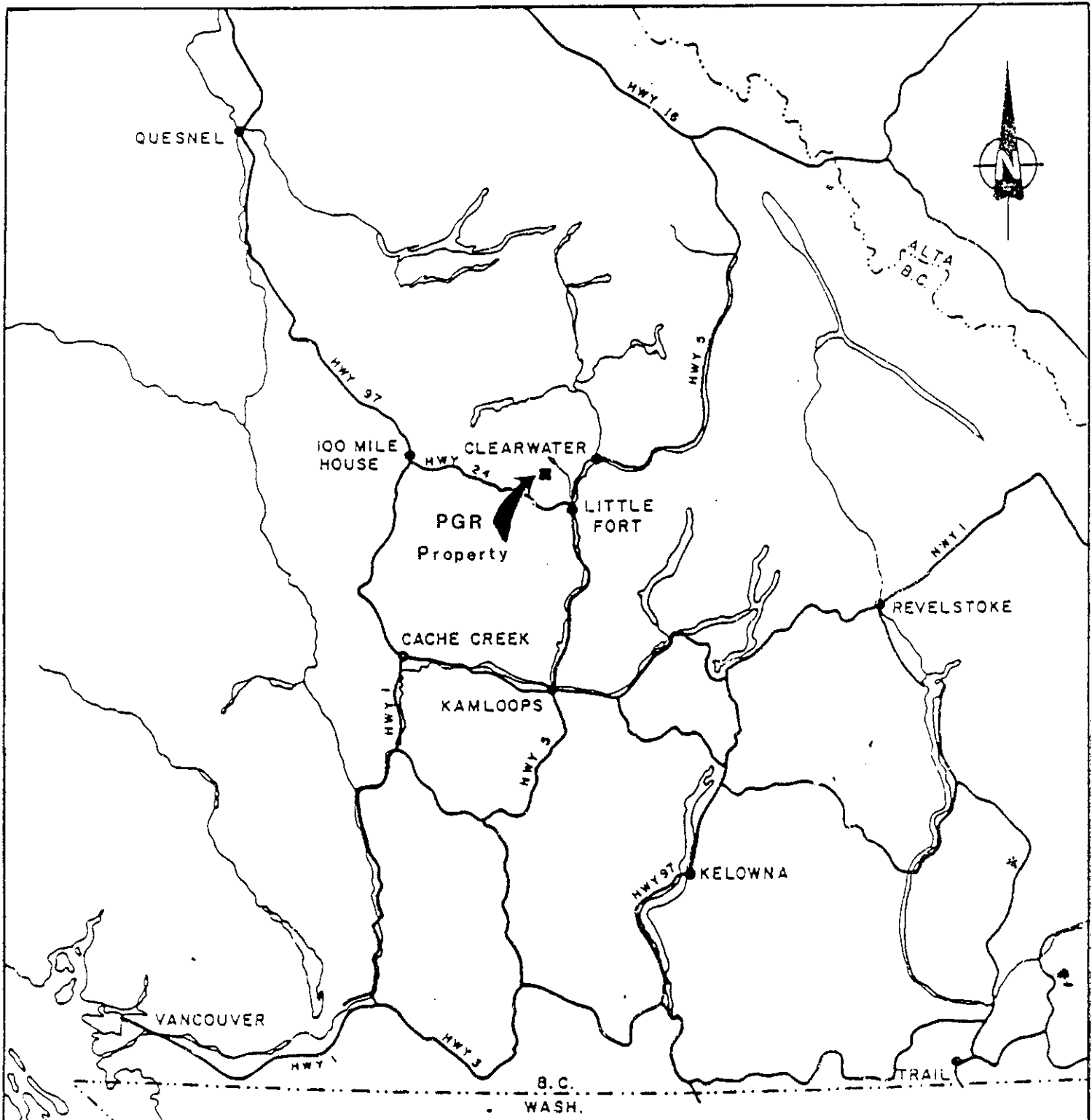
The PGR claim group lies northwest of Little Fort in Kamloops Mining Division, NTS 92-P-PW. This is a short report on a prospecting, geological program conducted on the property in 1991 with a total cost of \$4,480.00. Kamloops Geological Services Ltd. financed this work and supervision was by R.C. Wells, Consulting Geologist.

## LOCATION AND ACCESS

The PGR claim group (Figure 1) is located 22 kilometres northwest of Little Fort in the southwestern part of NTS map sheet 92P/9W. Lost Horse Lake lies in the northern part of the property. Access from Little Fort on the Jasper Highway (No.5) is west on Highway 24 for 19 kilometres then north on a logging road for 5 kilometres to Deer Lake. From the lake, the west fork is taken past Silver Lake and onto the property (1.7 km) then for 5 kilometres north past Lost Horse Lake to the north boundary. A network of old logging roads yields good access to much of the property.

## TOPOGRAPHY AND VEGETATION

The property lies within a gently undulating upland region with numerous lakes. Elevations are in the 1300 to 1600 m range. Fairly thick stands of spruce, fir and pine occur around the lakes in the northern claims. In the south and southeast large areas have been logged.



PGR PROPERTY
LOCATION MAP

Figure 1

TABLE 1: PGR PROPERTY, CLAIM INFORMATION

CLAIM NAME	RECORD NO	RECORDED DATE	EXPIRY DATE
PGR	1 219658	DEC. 7, 1990	DEC. 7, 1992
PGR	2 219659	DEC. 7, 1990	DEC. 7, 1992
PGR	3 219660	DEC. 7, 1990	DEC. 7, 1992
PGR	4 219661	DEC. 7, 1990	DEC. 7, 1992
PGR	5 219662	DEC. 7, 1990	DEC. 7, 1992
PGR	6 219663	DEC. 7, 1990	DEC. 7, 1992
PGR	7 219664	DEC. 16, 1990	DEC. 16, 1992
PGR	8 219555	DEC. 16, 1990	DEC. 16, 1992
PGR	9 219666	DEC. 16, 1990	DEC. 16, 1992
PGR	10 219667	DEC. 16, 1990	DEC. 16, 1992
PGR	11 219707	JAN. 23, 1991	JAN. 23, 1993
PGR	12 219708	JAN. 23, 1991	JAN. 23, 1993
PGR	13 219668	DEC. 15, 1990	DEC. 15, 1992
PGR	14 219669	DEC. 15, 1990	DEC. 15, 1992
PGR	15 219670	DEC. 15, 1990	DEC. 15, 1992
PGR	16 219671	DEC. 15, 1990	DEC. 15, 1992
PGR	17 219672	DEC. 16, 1990	DEC. 16, 1992
PGR	18 219673	DEC. 16, 1990	DEC. 16, 1992
PGR	19 219709	JAN. 23, 1991	JAN. 23, 1993
PGR	20 219710	JAN. 23, 1991	JAN. 23, 1993
PGR	21 219674	DEC. 15, 1990	DEC. 15, 1992
PGR	22 219675	DEC. 15, 1990	DEC. 15, 1992
PGR	23 219676	DEC. 15, 1990	DEC. 15, 1992
PGR	24 219677	DEC. 15, 1990	DEC. 15, 1992
PGR	25 219678	DEC. 15, 1990	DEC. 15, 1992
PGR	26 219679	DEC. 15, 1990	DEC. 15, 1992
PGR	27 219680	DEC. 15, 1990	DEC. 15, 1992
PGR	28 219681	DEC. 15, 1990	DEC. 15, 1992
PGR	29 219711	JAN. 24, 1991	JAN. 24, 1993
PGR	30 219712	JAN. 24, 1991	JAN. 24, 1993
PGR	31 219713	JAN. 24, 1991	JAN. 24, 1993
PGR	32 219714	JAN. 24, 1991	JAN. 24, 1993
PGR	33 219715	JAN. 24, 1991	JAN. 24, 1993
PGR	34 219716	JAN. 24, 1991	JAN. 24, 1993
PGR	35 219717	JAN. 24, 1991	JAN. 24, 1993
PGR	36 219718	JAN. 24, 1991	JAN. 24, 1993
PGR	37 219719	JAN. 25, 1991	JAN. 25, 1993
PGR	38 219720	JAN. 25, 1991	JAN. 25, 1993
PGR	39 219721	JAN. 25, 1991	JAN. 25, 1993
PGR	40 219722	JAN. 25, 1991	JAN. 25, 1993
PGR	41 219722	JAN. 25, 1991	JAN. 25, 1993
PGR	42 219723	JAN. 25, 1991	JAN. 25, 1993
PGR	A3 219883	MAY 5, 1991	MAY 5, 1993
PGR	A4 219884	MAY 5, 1991	MAY 5, 1993

## PROPERTY

The PGR claim group consists of 44 contiguous 2 post claims that cover an area of approximately 1100 hectares. All the claims lie within the Kamloops Mining Division and have P. Watt of Kamloops as the registered owner.

The claims are a partial restaking of the Ta Hoola 10, 11 and 12 (48 units) that came open in October 1990. These were part of a large group of claims collectively known as the Ta Hoola Property and held by SMDC (now Cameco).

Details regarding the claims can be obtained from Table 1 and Figure 2.

## EXPLORATION HISTORY

The geology of the property area is highly favourable for a wide range of mineral deposits. This is strongly reflected by its long history of exploration and type of targets:

1. Before 1960 exploration was largely for base and precious metal, skarn/replacement deposits like Deer Lake associated with the margins of dioritic intrusive rocks.



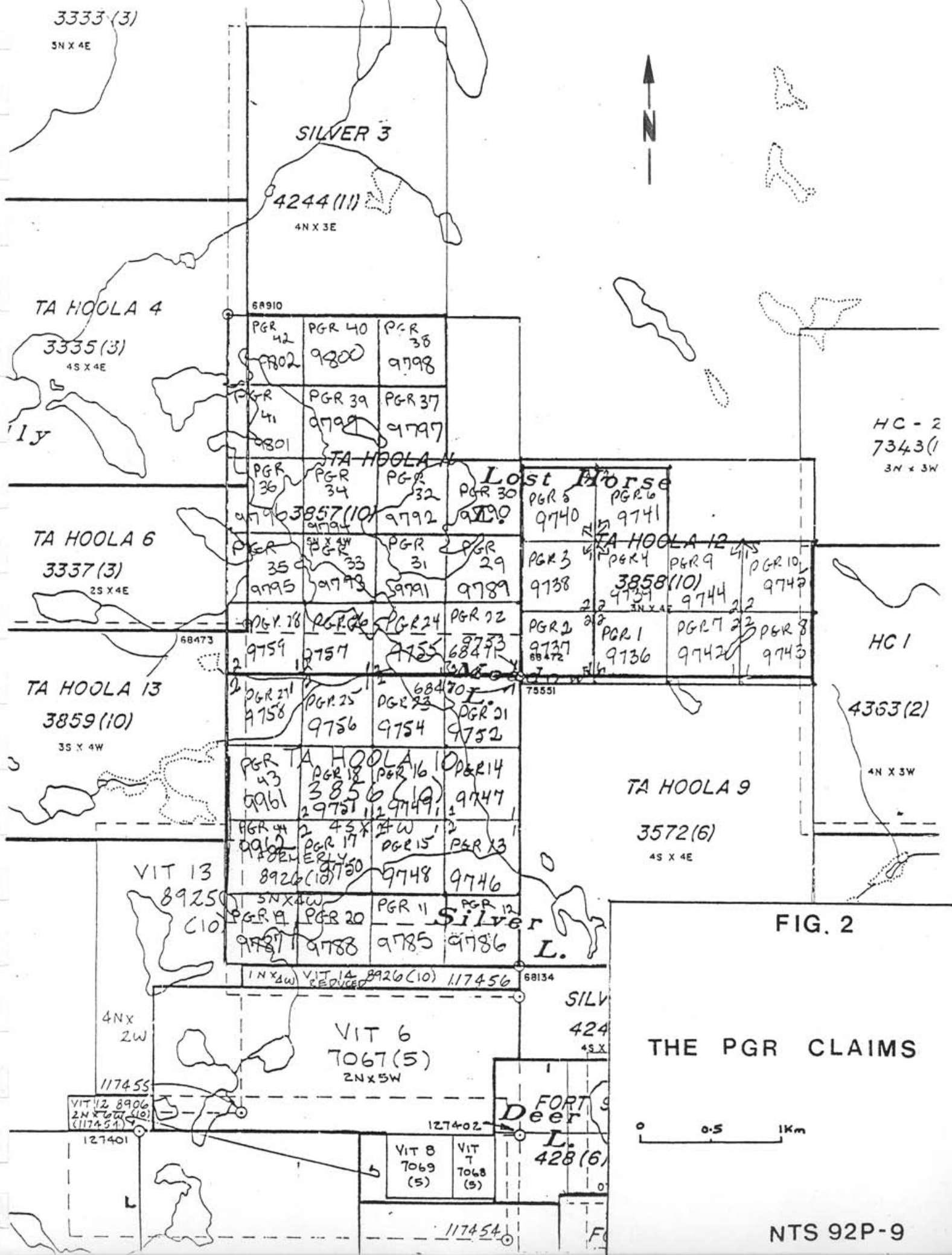
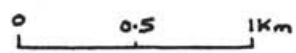


FIG. 2

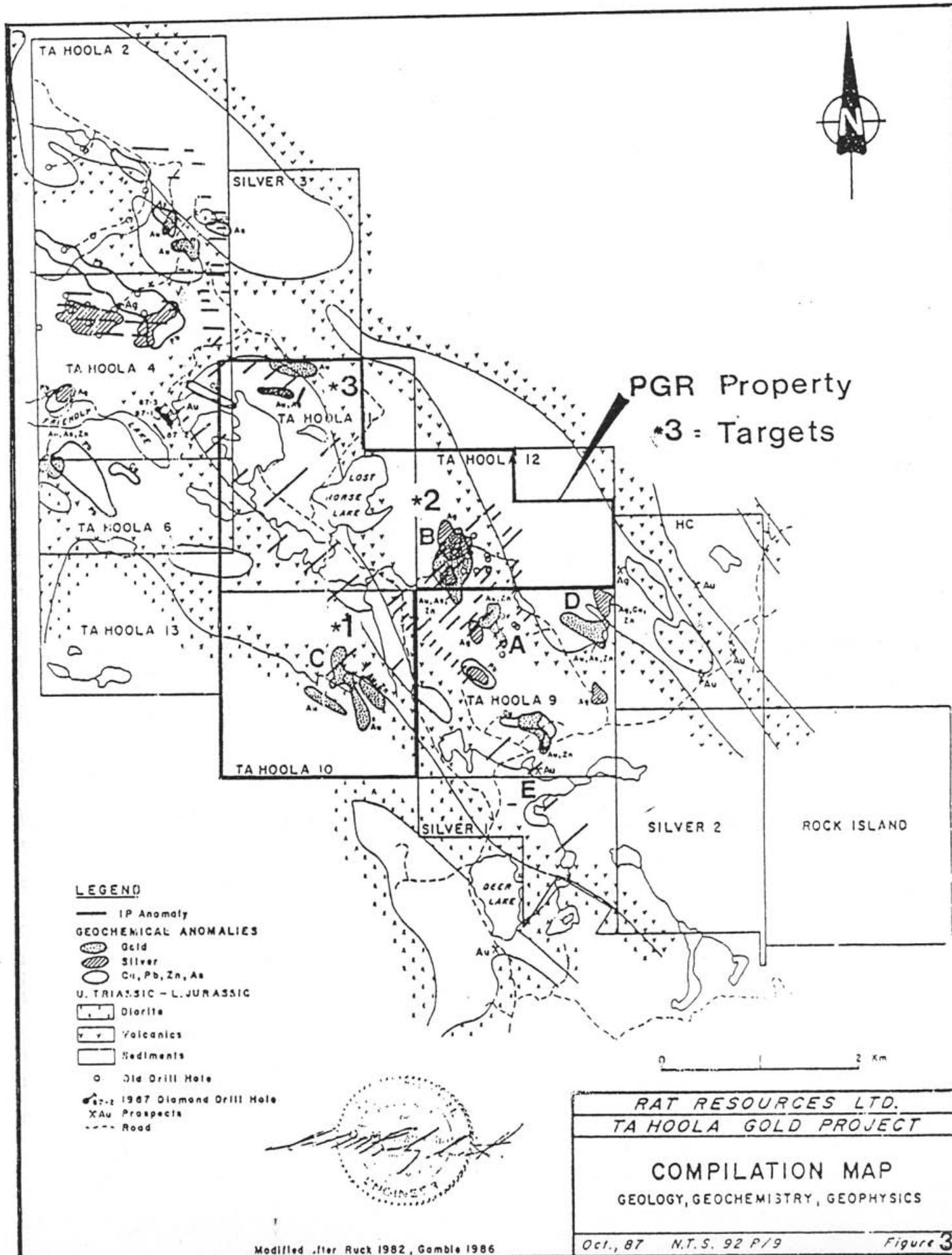
THE PGR CLAIMS



2. 1960 to 1975 - Largely for Cu-Mo porphyry deposits mainly by Anaconda and Imperial Oil.
3. 1975 to 1985 - Alkalic Cu-Au porphyry deposits were the main target with auriferous structurally controlled alteration zones a distant second. SMD Mining, BP-Selco and Lornex.
4. 1987 to 1989 - Structurally controlled auriferous alteration zones and veins by Rat Resources Ltd on a limited budget.

Table 2 gives a summary of previous exploration in the Ta Hoola area (1965 to 1991). Figures 3 and 4 are compilation maps for the property area and are based on exploration data generated between 1980 and 1987 (SMD, BP-Selco, Rat). More details regarding the exploration history can be obtained from Appendix A which contains an excerpt from a 1989 report for Rat Resources by C.M. Rebagliati.

The previous exploration programs on the property area developed many targets. A large number of these received insufficient development and testing. It is remarkable how little diamond drilling has taken place on the property and surrounding area. Many targets were tested with trenches and had very limited success due largely to deep overburden or wet conditions.



PGR Property  
\*3 = Targets

LEGEND

- IP Anomaly
- GEOCHEMICAL ANOMALIES
- Gold
- ▨ Silver
- Cu, Pb, Zn, As
- U. TRIASSIC - L. JURASSIC
- ▨ Diorite
- ▨ Volcanics
- ▨ Sediments
- Old Drill Hole
- ⬤ 1967 Diamond Drill Hole
- X Au Prospects
- - - Road

RAT RESOURCES LTD.  
 TA HOOLA GOLD PROJECT

COMPILATION MAP  
 GEOLOGY, GEOCHEMISTRY, GEOPHYSICS

Oct., 87 N.T.S. 92 P/9 Figure 3

The following sections on regional and property geology are excerpts from the 1989 report on the Ta Hoola Property by C.M. Rebagliati for Rat Resources Ltd.

## REGIONAL GEOLOGICAL SETTING

The Ta Hoola property is situated within the Quesnel Trough, a 2000 km long northwesterly-trending belt consisting of Upper Triassic-Lower Jurassic volcanic rocks, derived sedimentary rocks and intrusives. The belt is characterized by a volcanic core of Triassic subaqueous andesite pyroxene porphyritic flows, tuffs and breccias. Interbedded with the volcanics are calcareous argillite, siltstone, siliceous cherty sediments and limestone. On the eastern and western margins of the volcanic core is an overlying and flanking sequence of Lower Jurassic pyroxene porphyritic volcanoclastic breccias with proximal to distal epiclastic sediments consisting of conglomerate, greywacke and argillite. To the extreme east are fine clastic sediments, consisting of a siltstone, shale and argillite assemblage, which appear to form the base of the Triassic sequence.

Regional mapping indicates that the property area is underlain by Nicola Group alkaline volcanic and sedimentary rocks intruded by numerous comagmatic diorite to syenite stocks (Preto 1970, Campbell and Tipper, 1971).

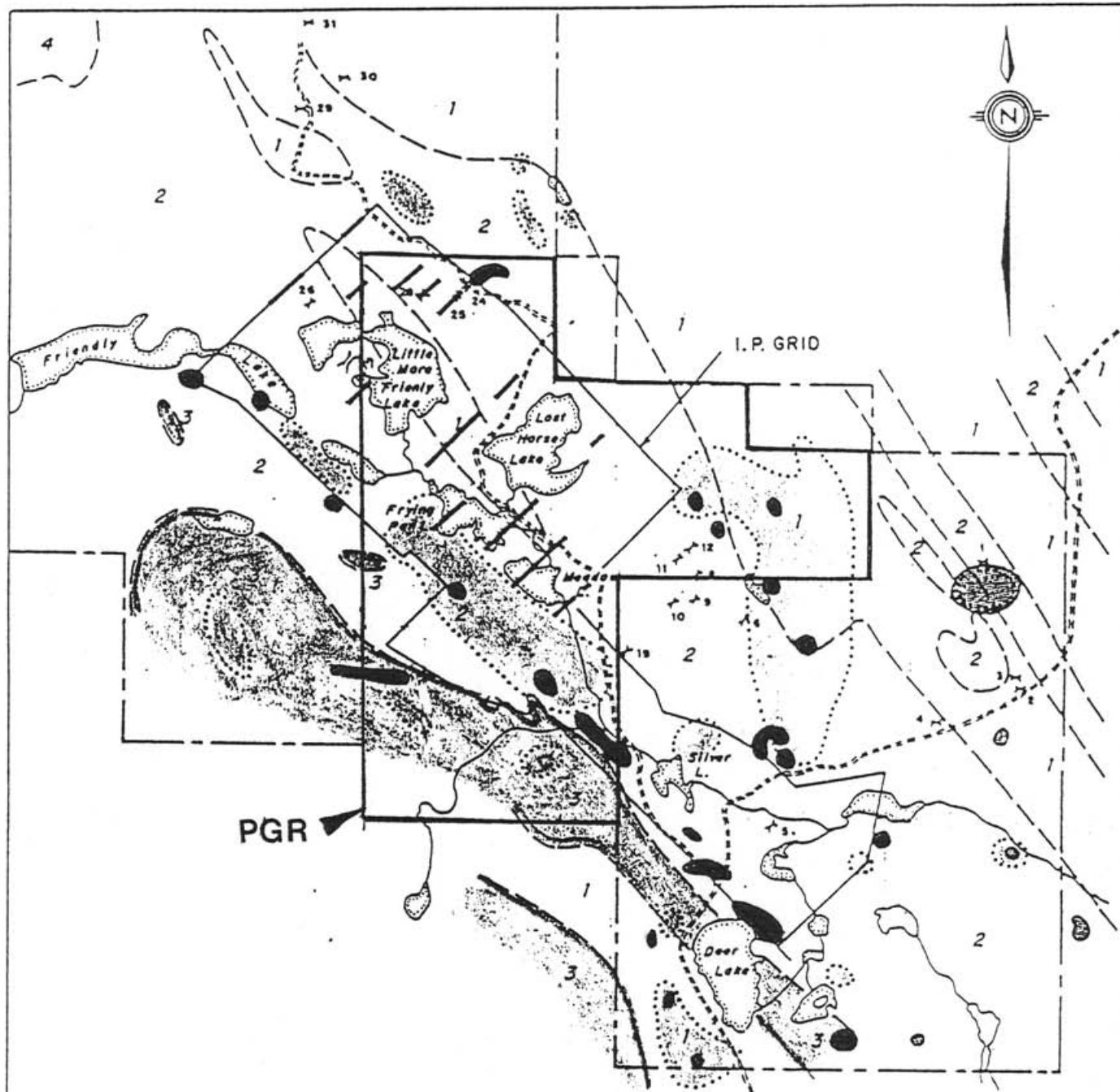
The Ta Hoola claim block lies within an area of intense block faulting, formed where the North Thompson fault bifurcates into a multitude of northwesterly trending splays.

At Little Fort, where the North Thompson Fault breaks into the splays, there are two ultramafic bodies aligned along the fault. These ultramafic bodies are evidence that the fault represents a zone of deep crustal weakness, a favourable host structure for gold mineralization.

#### PROPERTY GEOLOGY

The Ta Hoola property overlies the central Triassic volcanic core of the Nicola Group, which is flanked on the east by a sequence of interbedded Lower to Mid-Jurassic pyroxene porphyritic pyroclastics and distal epiclastic sediments (Figures 3 and 4). To the west, a large diorite pluton and a series of smaller satellitic plugs intrude the volcanic assemblage. Block faulting has disrupted the stratigraphy, which has been rotated into a near-vertical attitude.

Three main bands of pyroxene lapilli tuff-agglomerate trend northwesterly across the claims. These rocks are medium to dark green, massive and medium to coarse-grained pyroclastics. Fragment sizes vary from 1 cm to 20 cm and are comprised of subangular to subrounded porphyritic augite andesite. Clasts are supported by



**LEGEND**

UPPER TRIASSIC - LOWER JURASSIC

4 MICROGRANITE - SYENITE PORPHYRY

DIORITE

2 VOLCANICS: Ash, Tuff, Breccia, Agglomerate, Flow (Augite Porphyritic)

1 SEDIMENTS: Dolomitic Limestone, Argillite, Siltstone, Chert, Conglomerate, Siliceous Tuff

I. P. ANOMALIES X 12 TRENCH • No.

● Au SOIL ANOMALY (≥ 50 ppb ≤ 6260 ppb)

○ As SOIL ANOMALY (≥ 40 ppm ≤ 258 ppm)

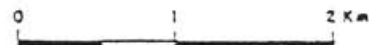


FIGURE 4

SELCO DIVISION -  
BP RESOURCES CANADA LIMITED

TA HOOLA J.V. PROJECT

SILVER LAKE I.P. GRID

a matrix of fine-grained ash tuff. Subordinate units of andesite flows and feldspar crystal tuffs are interbedded with the pyroxene porphyritic units. Pyrite occurs in minor concentrations as widely-spaced disseminated grains.

The epiclastic sediments interbedded with and flanking the volcanic units comprise siltstone, argillite, chert, greywacke and conglomerate. Siltstone predominates. Pyrite is sparse, occurring as disseminated grains, but reached .5% to 10% in light grey bands as heavy disseminations with interstitial carbonate. Subordinate very-fine-grained, massive, black, carbonaceous argillite is occasionally interbedded with the siltstone. Disseminated pyrite is ubiquitous and commonly comprises up to 5% of the rock.

A large fine to medium-grain diorite stock comprised of 20% mafics, 75% plagioclase and 5% quartz lies along the western side of the claims. East of Deer Lake, the intrusive is a hornblende-diorite.

At the boundary between the Ta Hoola 10 and Ta Hoola 13 claims, a diorite breccia has formed as a contact phase along the margin of the main diorite pluton. It contains angular diorite fragments to 10 cm in size, which are supported in a diorite matrix. Epidote-chlorite-quartz veins are present. The pyrite content is less than 1%.

Numerous northwest and northeast-trending faults traverse the property. Their traces are marked by the alignment of lake chains and a rectangular stream drainage pattern.

Carbonate alteration is widespread on the property. Narrow, randomly oriented, calcite stringers and grain aggregates are common in all units. They are generally sulphide free and barren. Veinlet density increases in the fractured rocks adjacent to many of the major structures.



## 1991 WORK PROGRAM

Exploration on the PGR property was funded by Kamloops Geological Services Ltd and the owners. This work consisted of three main elements:

1. four days prospecting throughout the property by P. Watt. This involved a number of separate day trips between June and November 1991.
2. a preliminary geological examination of the southern part of the property. Over 15 representative rock samples were taken during two days in October and November 1991. 13 samples were selected for thin sections and petrographic work. The thin sections were made by Vancouver Petrographics Ltd., Vancouver. Geological and petrographic work was by R. C. Wells, B.Sc., F.G.A.C., Consulting Geologist.
3. examination of core from the 1987 drill program by Rat Resources Ltd on the Ta Hoola 9 and 12 claims. This work was by G. Evans B.Sc, geologist, in November 1991.

## RESULTS

### 1. PROSPECTING

Magnetite skarn with pyrrhotite and minor chalcopyrite, pyrite is well documented in the area south of Deer Lake on the adjacent Haida Property (to south). This alteration and mineralization is associated with one or more impure limestone, limey volcanic units within the Nicola sequence. Sampling by B.P. Resources in 1986 on the Deer Lake showing yielded gold values up to 31 g/t, 0.28% copper and 6 g/t silver.

Geological mapping by BP and SMD (Figure 5) in the early 1980's did not indicate any limestone or skarn units on the area now covered by the PGR claims. Exploration in 1990 by Teck Corporation on the Haida Property traced a limestone, skarn trend for 1.3 kilometres northwest from Deer Lake to within a few hundred metres of the PGR southern boundary.

Prospecting by P. Watt in 1991 in the southern part of the PGR concentrated on this limestone, skarn trend. Although bedrock exposures are quite widely spaced in this area it was possible to follow the limestone sequence into the southwestern corner of the property. Dark coloured, strongly deformed and microbrecciated, impure limestone is altered to magnetite skarn on PGR claims 19 and 20 (Samples FW 5 and 6). This area has not been covered by soil

geochemical or geophysical surveys in the past. A number of other outcrops consisting of carbonated andesite (Nicola) with variable pyrite content were also found in this area.

The Meadow-Last Horse Lake area in the central part of the property lies on a large northwest trending chargeability (IP) anomaly coincident with a magnetic high (regional magnetics). This area is low lying with very few bedrock exposures. Prospecting between Lost Horse and Frying Pan Lakes located a concentration of carbonate breccia float with significant pyrite (Sample PW 1). More detailed examination of samples revealed strong alteration with k. feldspar folding of the breccia matrix. This combined with the geophysics suggests a porphyry environment may exist in this area.

Further to the east in the area drilled by Lornex in 1983 no bedrock could be found. A large boulder of brecciated quartz vein with altered andesitic wallrock and chalcopyrite mineralization was found in this area (Sample PW 3).

## 2. RECONNAISSANCE GEOLOGICAL SURVEY.

A number of geological traverses were made on the PGR property in 1991. The previous geological mapping by BP Resources and SMD was used as a base and is shown in Figure 5 with 1991 sample locations. Semi-detailed descriptions of the geological units is

given in the 1986 assessment report by Gamble and Farmer for BP Resources.

Detailed petrographic descriptions of some of the 1991 samples are given in Appendix B, brief hand specimen descriptions of others are given in Appendix C. A few comments on the geological units arising from the 1991 work are made in the following section.

#### Triassic Nicola Volcanics. Map Unit 1.

This is a mixed sequence of volcanic flows and fine to coarse pyroclastic rocks predominantly of andesitic composition.

Augite andesite flows (sub unit 1d) outcrop east of Meadow Lake and along the margins of the dioritic intrusives in the southern area. These are medium green, massive with numerous chlorite altered, euhedral augite phenocrysts to 5mm in a fine andesitic groundmass (Samples PGR 5 and 9). Away from the intrusives the alteration in these rocks is largely metamorphic (Greenschist) with chlorite, carbonate, minor epidote, magnetite and pyrite.

Related coarse pyroclastics-agglomerate (sub unit 1d<sub>1</sub>). These rocks were not observed in outcrop on the property. Outcrops do occur on the adjacent Ta Hoola 9 and HC claims and these appear to strike into the eastern PGR claims where exposure is poor. These

are green, massive to poorly bedded, medium to coarse grained lapilli tuffs and agglomerates. Some of the fragments in the coarser agglomerates may reach metre scale, generally fragments are in the 1 to 20 cm range and predominantly monolithic consisting of augite andesite (1d) as in Sample PGR 15. The finer andesitic lapilli tuffs (Sample PGR 13) tend to be weakly heterolithic with small sedimentary and vein clasts. All these units tend to be matrix supported consisting of fine ash. Alteration in these rocks is commonly quite strong with pervasive carbonate and silica replacing the matrix, chlorite alteration of the fragments (Sample PGR 13). This alteration is particularly well developed in the lapilli tuff units on the HC claim and is accompanied by significant disseminated pyrite and variable green mica.

Chlorite andesite schist (sub unit 1e). This unit outcrops in the southern part of the property near dioritic intrusives and consists of light to dark green to grey, well foliated andesite without phenocrysts. Weak to moderate silicification and carbonate alteration with variable fracture controlled disseminated pyrite is common.

#### Triassic Nicola Sediments - Map Units 2 to 5

This is another mixed sequence consisting of interbedded argillites siltstones, sandstones and local conglomerates. The

limestone (Unit 5) occurs in the southern area and was discussed earlier.

Sub units 3b and 3c outcrop in the eastern part of the property and consist of interbedded siltstone and finely bedded argillite. Locally coarser sandstone beds (Sample PGR 10) occur within the sequence. Fine seams of recrystallized (syngenetic?) pyrite are common within the dark coloured, finely bedded argillites. A sample of massive coarser grained siltstone to fine grit (PGR 11) was found to be a volcanic sandstone consisting largely of quartz and feldspar grains that appear to have undergone very little transport (epiclastic?).

#### Intrusives Map Unit 7

A large amount of time was spent examining dioritic intrusive rocks from the southern part of the property in the field and in thin section.

A northwesterly trending zone of dioritic plugs intrude the Nicola volcanics and sediments in the southern area. There is good evidence that this is a roof zone and that the plugs probably merge at shallow depth. These intrusions are predominantly mottled green and white, medium to fine coarse grained, equigranular to plagioclase porphyritic diorites (Samples PGR 1 and 7).

Saussuritic and carbonate alteration is widespread, mafic minerals such as hornblende are largely altered to chlorite.

Dioritic breccias (sub unit 7c) are common and consist of angular dioritic fragments to 10 cm in a finer microdiorite matrix. These grade laterally into xenolithic diorite. Alteration locally features strong pervasive epidote with carbonate and disseminated pyrite (Sample PGR 6).

Mixed zones of diorite or diorite breccia with roof zone metavolcanics was observed in several areas (Samples PGR 2, 3, 4 and 7). Both diorite and volcanics are commonly strongly silicified with local quartz vein stockworks, significant carbonate and fracture controlled pyrite. In the southern most claims the roof zone of the diorite is with limestone or limey volcanics resulting in magnetite skarns.

A dyke of hornblende-plagioclase porphyritic diorite (Sample 8A) features large euhedral hornblende phenocrysts up to 20 mm long. In the same area the wallrock diorite is locally very coarse grained to pegmatitic with possibly some fine biotite.

### 3. 1988 DRILL CORE EXAMINATION

In October 1991, the 1988 Rat Resources drill core was examined by G. Evans and R. Wells. The core is stored on the adjacent H.C. property and holes TA 88-4 and Ta 88-5 were studied to check the lithologies and determine the source of the precious metal values. In general, the drill logs in Assessment Report #18,304 logged by C.M. Rebagliati are accurate but several additional features were noted and are mentioned here.

#### DDH # TA 88-4

The interval from 7.32 - 19.70 metres is described as an altered polyolithic volcanic fragmental but on inspection the interval from 10.0 - 19.70 metres appears to be a chert unit with a small mafic tuff component. Primary features do exist including fine pebble conglomerates and tuffaceous beds. This explains the very low gold values from 12 - 22 ppb Au in a unit that is only very weakly altered.

The interval from 70.0 - 88.0 metres was logged as an altered andesite with subordinate cherty siltstone units. Again the silica presence does not appear to reflect alteration but is a primary component with the rock being dominantly chert with minor mafic tuff.



Again, the interval from 88.0 - 95.0 metres is described as a silicified siltstone but is actually a chert unit with occasional mafic tuff laminations. This unit is well bedded with rounded pink chert pebbles. Strong alteration on the property is usually associated with anomalous gold values, this was not the case in this drill hole according to the logs. The alteration seen in the hole consisted of weak pervasive carbonate and propylitic alteration which is consistent with the regional metamorphic grade of lower greenschist facies. In this alteration, no significant precious metal values would be anticipated but do compare with the values encountered in this hole.

**DDH # TA 88-5**

This entire hole was in argillite, siltstone and wackes all containing a calcareous component. Chloritic laminations and chlorite on fractures suggest a mafic tuff component. Several features were noted that are primary textures including graded bedding, load casts and soft sediment deformation including folding. When plotting the Core Axis angles it was noticed that there is likely a large scale fold within the hole with a fold axis centered in the interval from 40 - 60 metres down the hole where Core Axis angles are at  $0^{\circ}$  with respect to the drill hole.

This hole is unusual in the respect that there are consistently elevated gold values throughout the hole and does not

appear to reflect any alteration. Quartz-carbonate veins with disseminated pyrite, galena and sphalerite do have elevated gold values in the 400 - 1020 ppb range but they do not explain the elevated 40 - 200 ppb gold values throughout the hole. Syngenetic pyrite is present within the wacke units in contents ranging from 1 - 15% with trace amounts of sphalerite and chalcopyrite. There is a possibility these beds may contain elevated gold values and it is recommended in future work that these sulphide beds should be made into a concentrate. This has an important implication in the possibility that gold could be related to a sedimentary exhalative unit with a syngenetic origin. This would enhance the possibility of coeval Cu-Au porphyry systems being present on the property.

## EXPLORATION TARGETS

The PGR claims cover some of the best untested or poorly tested, precious metal targets outlined by the previous exploration programs on the Ta Hoola Property. Three of these targets (with positive results) could be quickly advanced to a drilling stage. These are shown in Figure 3.

### 1) TARGET 1

This lies in the southern part of the property. It consists of an area 1.5 km long by 0.75 km wide with numerous gold in soil anomalies covering the contact between a large dioritic intrusion and andesitic tuffs, schists (Figure 3). The geological setting is considered to have excellent potential for precious metal skarns, replacement deposits. The Deer Lake Cu-Au skarn replacement occurs in a similar geological environment 3 kilometres to the southeast (same dioritic intrusives).

The Target 1 area lies at the edge of the BP-Selco Silver Lake Grid (Figure 4) and received limited and patchy geological, geochemical and geophysical coverage. Soils were taken at 400m X 100m density with some fill-in at 100m X 50m. Numerous anomalous gold values greater than 50 ppb were produced including some up to 6 gt (that were reproduced during resampling). Some overlap occurs with arsenic in soil anomalies (Figure 4).

No further work has been conducted in this target area since the BP-Selco program. Geological mapping combined with magnetic and detailed soil surveys over the diorite contact zone could quickly define drill targets.

## 2) TARGET 2

This is an area 700m X 400m with multi-element (Au, Zn, Pb, Ag) soil anomalies that coincide in part with broad I.P. chargeability anomalies (Figure 3 and 4). Outcrops are sparse in the area and consist predominantly of andesitic flows according to SMDC mapping.

In 1983 Lornex drilled 10 fairly widely spaced (100m) and vertical percussion holes on the northern part of the anomaly (IP geochemical targets). These holes often do not appear to have tested the better parts of SMDC's IP anomalies. Anomalous gold values greater than 100 ppb occur in many of the holes, with TA PDH #83-1 (118 feet) returning an average of 254 ppb Au, 5 g/t Ag over its entire length.

In 1988 Rat Resources Ltd (C.M. Rebagliati Consulting) drilled 3 holes across an IP anomaly 60 metres northeast of PDH 1 (Lornex). The IP anomaly coincided with anomalous Au-As-Cu-Pb-Zn in soils. Drilling intersected a southwesterly dipping sequence of siltstone,

andesitic volcanoclastics and flows with narrow feldspar porphyry dykes. Hole 38-4 encountered a 4.6m wide quartz-carbonate vein from which 1.4m ran 0.62 gt Au, and 0.18% Zn. Another 1m wide vein in hole 88-5 ran 1.07 gt Au and 40 gt Ag. 800m to the south, a hole drilled by Rat Resources on the Ta Hoola 9 claim (same geochemical anomaly) returned 4.29 gt Au from a quartz carbonate vein 3.10 m wide.

Much of the central part of the multi element soil and IP anomaly remains basically untested. Potential exists for structurally controlled auriferous veins and stockworks. The presence of feldspar porphyry dykes in the 1988 drilling also indicates some potential for a buried porphyry system.

### 3) TARGET 3

This lies in the northern part of the property and features poorly tested gold and silver soil anomalies with coincident IP anomalies (Figure 3). Two trenches (24 and 25) exposed andesitic flows with patchy epidote alteration and disseminated pyrite but no significant gold values. Syenitic intrusive rocks are known to occur 3 km to the northwest and along strike suggesting that this area has some porphyry potential. Further geochemical and geophysical surveys in this area could upgrade this target to drilling. Trenching is not recommended due to the variable depth of overburden (number of abandoned trenches).

### 4) OTHER TARGETS

Other less well developed targets exist on the property.

A major structural zone with northwest trend is probable along the Silver, Meadow and Frying Pan Lake system. Soils do not work in this area because of deeper overburden. However, some IP anomalies were identified (Figure 3) and magnetic 'highs' also occur along the trend which may indicate structurally controlled and buried intrusives.

The area covered by the western part of the old Ta Hoola 12 claim has received limited work in the past. The adjacent HC claim

has numerous northwest trending, structurally controlled and locally auriferous (siliceous, green mica) alteration zones. Some of these should continue into the Ta Hoola 12 area and could be outlined by soil geochemical surveys.

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- Serack, M.L., 1983; 1983 Percussion Drill Report on the Ta Hoola, RO and Silver Claims, Kamloops M.D., Lornex Mining Corporation.
- B.C. Assessment Reports: 981, 1061, 1169, 1690, 4028, 4260, 4262, 4678, 4684, 5191, 10287, 10880, 11413, 12101, 15221.



## STATEMENT OF EXPENDITURES

## PROSPECTING

## Personnel:

## 1) Paul Watt -

4 days @ \$200/day	\$ 800.00
4 days truck @ \$50/day	200.00
Expenses - gas, supplies, etc.	<u>280.00</u>
Sub total	\$ 1280.00

## GEOLOGICAL

## Personnel:

## 1) R.C. Wells B.Sc., F.G.A.C., Consulting Geologist -

5 days total (2 field, 3 petrographics) @ \$325/day	\$1625.00
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## 2) G. Evans B.Sc. Geologist

2 days total (1 field, 1 office) @ \$300/day	600.00
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## Report Preparation:

Drafting, Reproduction, Typing etc.	840.00
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## Thin Sections:

11 thin sections by Vancouver Petrographics Ltd.	<u>135.00</u>
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Sub total	\$4480.00
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Total	<u>\$4480.00</u>
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Total required for assessment work	\$4400.00
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## STATEMENT OF QUALIFICATIONS

I, RONALD C. WELLS of the City of Kamloops, British Columbia do hereby certify that:

1. I am a Fellow of the Geological Association of Canada.
2. I am a graduate of the University of Wales, U.K. B.Sc in Geology (1974), did post graduate (M.Sc) studies at Laurentian University, Sudbury, Ontario (1976-1977) in Geology.
3. That I am presently a consulting geologist residing in Kamloops, B.C.
4. That I have practised continuously as a geologist for more than fifteen years throughout Canada and have past experience and employment as a geologist in Europe. Ten years was spent as a Regional Geologist for major mining companies in Ontario, Quebec and British Columbia.

Signed and dated in Kamloops, British Columbia this 5  
day of March 1992.

*R. C. Wells* \_\_\_\_\_

## STATEMENT OF QUALIFICATIONS

I, GRAEME W. EVANS of the City of Kamloops, British Columbia do hereby certify that:

1. I am a graduate of the University of B.C. (1983) with a B.Sc. geology.
2. I am presently employed by Teck Corporation as a Contract Geologist based in Kamloops, B.C.
3. I have practiced continuously as a geologist for the last eight years in B.C. for various mining companies.

Signed and dated in Kamloops, British Columbia this 5  
day of March 1992.

*Graeme Evans*

APPENDIX A

Table 2: SUMMARY OF PREVIOUS EXPLORATION IN THE TA HOOLA  
AREA (1965-1991)

EXPLORATION HISTORY: Excerpt from 1989 Report on the Ta Hoola  
Property for Rat Resources by C. Rebagliati

TABLE 2 SUMMARY OF PREVIOUS EXPLORATION IN THE TA-HOOLA AREA (1965-1991)

COMPANY	PERIOD	GRID	GEOL.	SOIL GEOCHEM	MAG	EM	IP	OTHER	TRENCH.	PDH	DDH	AREA OR ZONE	TARGET STYLE
=====													
ANACONDA AMERICAN BRASS	1965-68(72)	X	XL	X Cu, Pb, Mo, Zn, Ag	X		X		X			Mainly TaHoola 4 11, 9, 12 Silver 1, 2	Porphyry Cu-Mo
											X	TaHoola 4	' '
-----													
IMPERIAL OIL LTD	1972-73	X	X	X Cu, Pb, Mo, Zn, Ag								TaHoola 9, 12	' '
							X			X		TaHoola 2, 4	' '
-----													
BARRIER REEF RES.	1972-73	X	X	X	X	X	X					S and SW of Deer Lake	Porphyry, skarn
-----													
SMD MINING CO. LTD	1981-82	X	X	Multi-Elem.	X	X	X	Litho	X Numerous			TaHoola Group Several zones	Porphyry (alk) Cu-Au
-----													
LORNEX MINING CORP. LTD.	1983									Vertical 33 holes 5 zones		PGR Property 10 holes Meadow Lake Zone (2) TaHoola 9, 12	Porphyry (alk) Cu-Au
-----													
BP RESOURCES SELCO	1984-86												
	1984	X	X	Multi				Litho				TaHoola 9, 10, 11, 12 Silver 1, 2	Porphyry (alk) Cu-Au
	1985	X	X	Multi			X	Litho	31 Trenches Var. zones			Silver 3, 4 TaHoola HC	' '
-----													
RAT RESOURCES	1987-89												
	1987										3	TaHoola 4	Alteration/vein hosted Au, Ag, Cu, Pb, Zn
	1988		X	Multi							4	Meadow Lake TaHoola 9, 12	
	1989		X	X					3 Trenches			Meadow Lake TaHoola 9, 12	' '
-----													
PGR	1990											Restaking TaHoola 10, 11, 12	Porph. skarn, vein

## EXPLORATION HISTORY

In 1930, the Lake View gold skarn deposit was discovered at the south end of Deer Lake. A second prospect discovered in the 1930's is reported by Hirst (1966) to be located near Silver Lake. Hirst describes it as a zinc-lead-silver prospect occurring in a zone of sheared argillite. This prospect has not been relocated by the writer.

Since the mid-1960's, various parts of the Ta Hoola property have been explored by Anaconda American Brass Ltd. (1965-1968), United Copper Corporation (1966-1968), Imperial Oil Ltd. (1972-1973), Prism Resources (1972), Barrier Reef Resources (1972-1973), Cities Service Mineral Corp. (1973-1975), Meridian Resources (1977), Commonwealth Mining (1979-1982), SMD Mining Co. Ltd. (1981-1982), Lornex Mining Corporation Ltd. (1983), and Selco Division - BP Resources Canada Ltd. (1984-1986).

In the period 1965 to 1981, the exploration was directed towards porphyry copper and molybdenum deposits and comprised of repeated soil geochemical and IP surveys. In the 1960's, Anaconda drilled several holes, on ground now covered by the Ta Hoola 4 claim, to test Cu-Mo. Low grade copper-molybdenum mineralization was encountered in potassium metasomatized volcanic rock.

Imperial Oil drilled several widely spaced percussion drill holes to test a broad area of high IP response on the Ta Hoola 2 and 4 claims. Trenches excavated by SMD Mining Co. Ltd. at the east end of Friendly Lake exposed a pyritic carbonate alteration zone which ran 370 ppb gold across 11 m, and was also anomalous in copper, molybdenum and arsenic. In 1982, SMD Mining withdrew from exploration in British Columbia, and the property was farmed out to Lornex.

In 1983, Lornex drilled several short vertical percussion holes on geochemical-IP targets. No ore grade intersections were obtained.

In 1984, Selco/BP optioned the claims and undertook more geological, soil geochemical and IP surveys; identifying several new anomalies. In 1985, several of the anomalies were trenched. Thick overburden (greater than 4 m) and flooding prevented the anomalies from being adequately assessed. A program of diamond drilling was proposed to assess the overburden-covered IP and soil anomalies, however, the property became inactive in late 1985 when the Company's western Canadian exploration budget was sharply reduced.

In August of 1987, Rat Resources Ltd. optioned the Ta Hoola property from SMD Mining Co. Ltd. and, in September, sank three diamond drill holes comprising 310 m to test the auriferous carbonate alteration zone situated east of Friendly Lake. In 1988, Rat Resources Ltd. extended the previous soil geochemical grids and sank four NQ diamond drill holes comprising 457 metres to test geophysical-geochemical anomalies situated on claims Ta Hoola 9 and Ta Hoola 12.

In October 1989, Rat Resources Ltd. undertook geological mapping, shallow trenching and rock sampling on alteration zones and veins on the Ta Hoola 9 claim.

APPENDIX B  
PGR SAMPLES - PETROGRAPHIC DESCRIPTIONS



SAMPLE PGR 1: DIORITE, FELDSPAR PORPHYRITIC DIORITE

Essential Mineralogy

Estimated Mode	Mineral	Comments
60%	Plagioclase	strong carbonate and saussuritic alteration
3%	Hornblende	as relict grains. Chlorite, epidote, magnetite alteration.
<5%	Quartz	rare in ground mass.

Secondary and Accessory Minerals

>20%	Chlorite	after hornblende and mafic minerals.
5%	Epidote	after hornblende, mafic minerals, plagioclase.
5 - 10%	Carbonate	after plagioclase, hornblende.
1%	Magnetite	
Tr	Sphene.	

Sulfides

1 - 7%	Pyrite	coarse aggregates, late fractures, veinlets
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Comments

Dark green and white speckled, medium to coarse grained, equigranular to feldspar porphyritic diorite.

Subhedral plagioclase commonly in the 1-3mm size range with phenocrysts to 7mm. Moderate to strong saussuritic and carbonate alteration common.

Relict, ragged-skeletal hornblende grains to 2mm altered to magnetite, oxide cores with chlorite haloes. Carbonate along cleavages.

Groundmass is predominantly fine chlorite, carbonate, coarser epidote, minor quartz.

Coarse grained fracture fill and veinlet pyrite mainly as anhedral to subhedral aggregates with quartz pressure shadows. Commonly associated with late quartz, carbonate, epidote veinlets.

**SAMPLE PGR 5: FINE GRAINED, PORPHYRITIC AUGITE? ANDESITE**

This specimen is a medium to dark green porphyritic augite? andesite with an average grain size of less than 0.3mm and phenocrysts of 1-2.5mm diameter. Moderately magnetic.

Mineralogy

The original mineralogy has been completely replaced by fine chlorite, carbonate and minor epidote. A strong porphyritic texture remains with 10% pyroxene (augite?) phenocrysts up to 2.5mm replaced by green chlorite and finer carbonate. Up to 1% fine disseminated and anhedral magnetite grains.

5% chloritic (dark) subangular xenoliths up to 1cm long.

Veining

Irregular quartz > carbonate, minor epidote veins up to 3mm wide sparse sulfides. Numerous fine chlorite veinlets.

SAMPLE PGR 6: EPIDOTIZED MICRODIORITE BRECCIA

Essential Mineralogy

Estimated Mode	Mineral	Comments
>60%	Plagioclase	strong saussuritic and carbonate alteration, significant epidote and some chlorite.
30%	Mafic Minerals	completely altered to epidote and chlorite.
2%	quartz	groundmass, quite rare.

Secondary and Accessory Minerals

>20%	Epidote	generally fine pervasive alteration.
10%	Chlorite	alteration of mafic minerals, plagioclase.
>5%	Carbonate	mainly as fine veinlets, also plagioclase alteration.
1%	Magnetite	fine, disseminated in groundmass.

Sulfides

Tr	Pyrite
----	--------

Veins

Numerous fine epidote, carbonate, (chlorite) veins with fine pyrite, minor quartz.

Comments

Light to medium green, pervasively epidotized, fine-medium grained, equigranular microdiorite breccia. Diorite fragments are subangular to subrounded and upto 8cm long and supported by a dioritic matrix of similar composition and grain size. Average grain size in fragments and matrix is 1-2mm.

Subhedral plagioclase is moderately to strongly saussuritized with carbonate. Mafic minerals are completely replaced by fine chlorite and epidote. This alteration has resulted in a finer overall grain size. Fine magnetite is commonly disseminated in the more chloritic areas.

Numerous fine, irregular epidote-carbonate veinlets with fine subhedral pyrite, some quartz.

SAMPLE PGR 7: DIORITE WITH SMALL MAFIC XENOLITHS

Essential Mineralogy

Estimated Mode	Mineral	Comments
65%	Plagioclase	variable weak to moderate saussuritic alteration. Andesine composition.
30%	Mafic Minerals	epidote chlorite alteration of mafics.
Tr - 2%	quartz	

Secondary and Accessory Minerals

30%	Chlorite Epidote	
50%	Carbonate	alteration with above and as veinlets.
Tr	Magnetite	fine, disseminated

Sulfides

Tr	Pyrite	very rare in veinlets
----	--------	-----------------------

Veins

Well defined carbonate veinlets with sharp contacts. Carbonate commonly deformed, sheared.

Comments

Green and white speckled, medium to medium-coarse grained equigranular diorite with small subangular, more chloritic xenoliths to 2cm. Average grain size is 3mm.

Subhedral plagioclase with fine epidote inclusions. Measurements on feldspar twins indicates andesine compositions. Felty textures common.

Epidote, chlorite carbonate alteration of mafic minerals. The carbonate is usually fine, coarser in veinlets. sparse fine veinlets are also sharp and display shearing, kinks in carbonate twin lamellae.

Alteration in this sample could be termed weak. A very small portion of a finer grained strongly chloritic, mafic xenolith occurs at the edge of the thin section.

**SAMPLE 8A: HORNBLLENDE-PLAGIOCLASE PORPHYRY (DIORITIC)**

Essential Mineralogy

Estimated Mode	Mineral	Comments
70%	Plagioclase	tabular phenocrysts to 2mm, fine groundmass. Altered to carbonate.
10%	Hornblende	large euhedral phenocrysts up to 2cm long (tabular).
3%	quartz	groundmass, predominantly fine. Also in fine veins.

Secondary and accessory Minerals

15%	Chlorite Epidote	alteration of mafic minerals and groundmass.
>3%	Carbonate	alteration of feldspars
Tr	Pyrite	fine oxides, sulfides disseminated in groundmass.

Veins

Few, very fine <1mm quartz veinlets.

Comments

Large tabular hornblende phenocrysts (dark green) upto 8mm in hexagonal cross section. Chlorite alteration along cleavages, generally better developed in smaller phenocrysts.

Plagioclase forms subhedral, tabular phenocrysts to 2mm, large amount of groundmass plagioclase <1mm. Moderate to strong carbonate alteration, weak saussuritic.

Significant felty groundmass chlorite, generally fine with coarser epidote to 1mm.

Small mafic, subrounded xenoliths upto 1cm long occur in hand specimen but not in thin section.

Sparse very fine sulfides and oxides.

Specimen comes from a narrow dyke cutting diorite breccia.

SAMPLE PGR 8B: HORNBLLENDE DIORITE, PEGMATITE DIORITE

Essential Mineralogy

Estimated Mode	Mineral	Comments
(origin.) 60%	Plagioclase	coarse to 8mm. Strong carbonate alteration.
(origin.) 35%	Hornblende	strongly chloritized, minor epidote. Some fine biotite?
8%	quartz	fine interstitial.

Secondary Minerals

25%	chlorite	
>3%	epidote	
>5%	carbonate	
Tr	biotite	
Tr	oxides	fine, associated with altered hornblende.

Comments

Coarse grained, average grain size 2 to 8mm, non porphyritic with mosaics of chlorite altered hornblende and carbonate altered plagioclase. Patchy fine epidote in mafic areas, possibly some fine biotite.

Generally medium to coarse grained and dioritic with patches of pegmatitic diorite. These areas have light pinkish plagioclase to 1cm with fine dusty inclusions (hematite?).

Local fine quartz veinlets.

**SAMPLE PGR 9: FINE GRAINED, PORPHYRITIC AUGITE? ANDESITE.**

Medium to dark green porphyritic augite? andesite, average grain size 0.3mm. Numerous augite phenocrysts from 1 to 3mm diameter. Very weakly magnetic.

Mineralogy

Alteration of tabular augite? phenocrysts to chlorite and finer carbonate. They range in size from 0.5 to 3mm in diameter and are generally abundant (8-10%). The groundmass consists of fine felty mats of brown chlorite and remnant plagioclase. Relict skeletal plagioclase phenocrysts up to 1mm.

Fine disseminated anhedral oxides - not magnetite.

Veining

Few dark chloritic veinlets.

**SAMPLE PGR 11: GREY, MASSIVE TO POORLY BEDDED VOLCANIC SANDSTONE/GRIT**

This immature sediment, epiclastic consists of a mixture of quartz and feldspar grains and rock fragments. The composition of the volcanic fragments and feldspars is consistent with local transport.

Mineralogy

20-30%	Fine tabular plagioclase and k.feldspar	0.5mm
40%	Subangular to subrounded quartz	0.3-1mm
15%	Rock fragments, mainly volcanic, some plutonic	to 1mm
10%	Carbonate. Patchy fine to coarse cement, local veinlets.	
1-2%	Disseminated pyrite cubes to 1mm. Local quartz pressure shadows.	

Textures

Poor to moderate size sorting. Feldspars do not show evidence for significant transport, sediment is very immature, probably an epiclastic.



## SAMPLE PW 1: K.FELDSPAR FLOODED, FINE BRECCIA

Appears to be a matrix supported breccia consisting of carbonate altered fragments. the fragments are generally angular to subangular and up to 1cm in size. The matrix is fairly fine grained and k.feldspar flooded? with quartz and carbonate. Later quartz veins.

### Mineralogy

Matrix is largely carbonate, finer quartz, k.feldspar mosaics. K.feldspar is widespread and may be pervasive alteration.

Angular fragments do not have k.feldspar and consist of coarse carbonate and sparse opaques, generally fine.

Euhedral pyritic cubes to 1mm are common in the matrix and have quartz pressure shadows. Concentrations are in the order of 5 to 10%.

### Veins

Quartz veins are common and contain little pyrite.

## SAMPLE PW 2: MAGNETITE SKARN/AUGITE ANDESITE

This dark grey to black unit appears to be a carbonate altered and quartz-carbonate veined augite andesite flow. Skarn style alteration is indicated by pyrrhotite, magnetite replacements with minor pyrite.

### Mineralogy

Most of the mineralogy is secondary, due to alteration. Pervasive fine dusty carbonate and chlorite alteration with locally between 10 and 15% pyrrhotite and magnetite as disseminated and grain aggregates.

Magnetite >> Pyrrhotite.

### Textures

Original textures are largely obscured by alteration and veining, however outlines of original augite phenocrysts (to 1.5mm) are preserved locally by fine oxides, chlorite and carbonate. Local deformed lamination and microbrecciation.

### Veining

Numerous veins to 3mm wide with coarse carbonate, quartz and subhedral pyrite to 1mm.

## SAMPLE PW 4: SILICIFIED AND PYRITIC DIORITE

Patchy silicified and pyritic. Medium grained, equigranular average grain size 1 to 2mm, predominantly plagioclase. Leucocratic through alteration.

### Mineralogy

Predominantly plagioclase with saussuritic alteration epidote, carbonate. mafic minerals have largely been altered to chlorite, minor epidote, carbonate. Original hornblende cleavages are locally preserved by dusty opaques and chlorite.

3-5% pyrite as 1mm disseminated subhedral grains usually concentrated in the more chloritic areas.

Patchy silicification, introduction of significant pervasive fine quartz.

### Veins

Local, irregular quartz, pyrite veins.

## SAMPLE PW 5: MAGNETITE SKARN/LIMESTONE

Strongly deformed carbonated unit with significant magnetite replacement. Later quartz-pyrite veining. Probably originally an impure limestone unit, later magnetite skarn/replacement.

### Mineralogy

Predominantly carbonate (dusty) with fine to coarse disseminated and lensy magnetite. Minor chlorite. Patchy coarse quartz with large pyrite cubes to 2mm.

### Texture

Local fine, strongly deformed laminations. Primary textures are largely obscured by alteration and magnetite replacement. Heavily microbrecciated throughout.

### Veining

Irregular coarse carbonate, rare magnetite, coarse pyrite.

**SAMPLE PGR 13: MEDIUM GREEN, FINE TO MEDIUM GRAINED,  
ANDESITIC LAPILLI TUFF**

Angular to subangular, predominantly volcanic clasts with minor sediments. Elongate clasts show good parallel alignment. Fragment size ranges for 1mm to 1cm, they are matrix supported. The fine matrix is pervasively silicified and carbonated.

**Mineralogy**

The matrix is fine grained with carbonate, quartz, chlorite, minor feldspars (plagioclase and k.spar) and fine disseminated sulfides (pyrite and oxides (some magnetite). Carbonate greatly exceeds quartz (10%) in the matrix.

The clasts are predominantly volcanic, fine grained and chloritic. Relic, fine feldspar laths are fairly common with local coarser (to 0.5mm) tabular plagioclase. Carbonate alteration is widespread and some clasts may contain up to 5% fine anhedral magnetite as disseminated grains. Minor amounts of fine k.feldspar and brown biotite are present in some clasts. Some finer fragments may be sedimentary or vein material and are up to 90% coarse carbonate.

**Alteration**

Strong carbonate, lesser silica alteration of the matrix (tuff), mafic minerals in the clasts are altered to chlorite. K.feldspar appears to be primary.

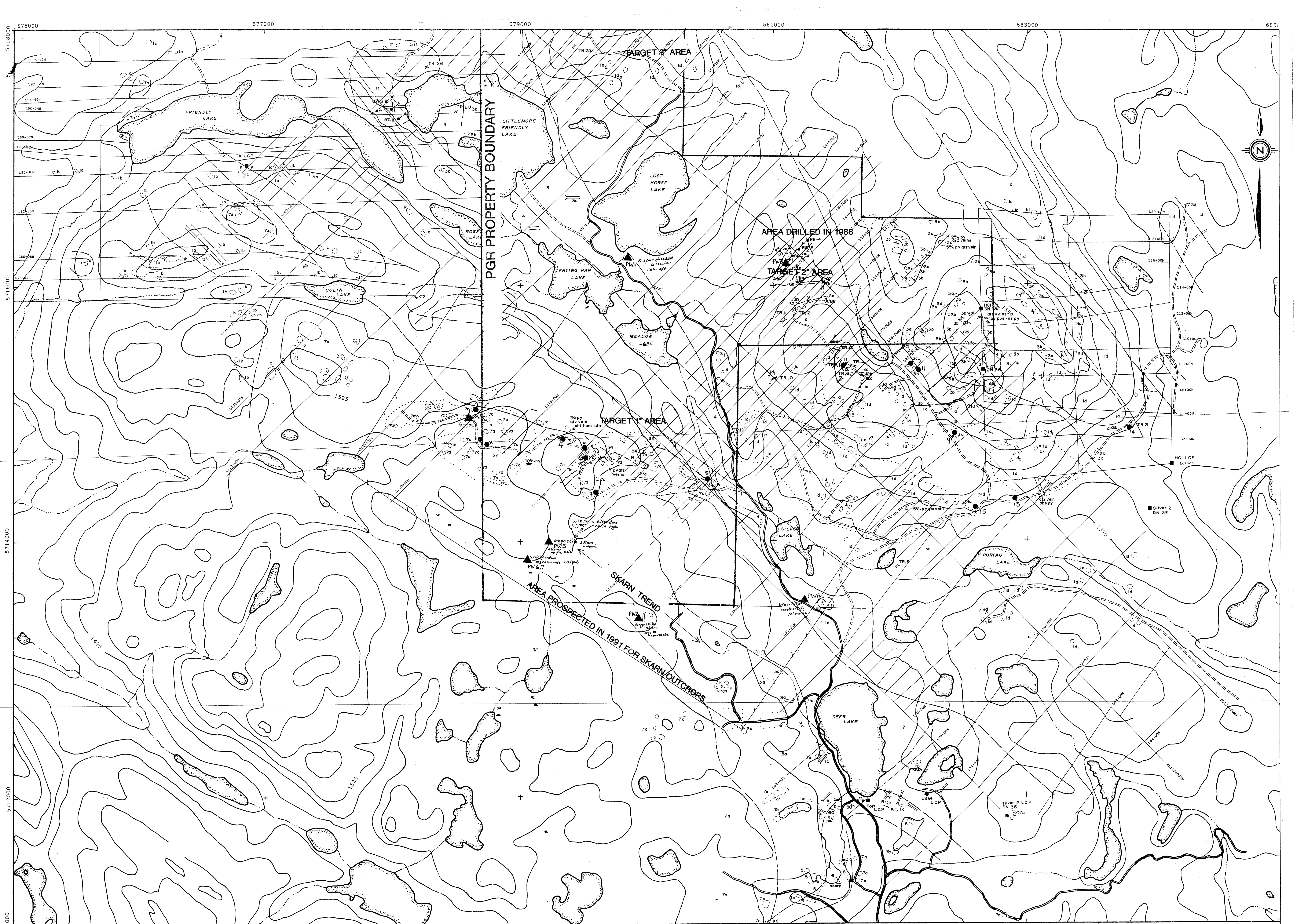
APPENDIX C  
BRIEF SAMPLE DESCRIPTIONS - PGR PROPERTY SAMPLES 1991

SAMPLE NUMBER  
(see Figure  
for locations)

DESCRIPTION

- PGR 2 Strongly brecciated and pervasively silicified porphyritic diorite. Moderate to strong pervasive silicification with greater than 20% quartz veining, individual veins up to 4mm wide. Weak carbonate, mafic minerals are replaced by dark green chlorite. Alteration obscures original textures, local ghost phenocrysts.
- PGR 3 Light to medium green, pervasively silicified diorite. Hard, strong silicification, moderately carbonated. Moderately fractured local quartz carbonate veins up to 3mm wide. Some slickenslides on fracture planes. 1 to 2% cubic pyrite up to 3mm average, 1-2mm disseminated.
- PGR 4 Light grey to greenish grey, brecciated, strongly silicified volcanic. Pervasive silicification and carbonate alteration, local quartz-carbonate vein stockworks. 1 to 3% fine to medium grained fracture controlled cubic pyrite.
- PGR 10 Interbedded dark grey to black argillites and siltstones with lighter coloured impure sandstone units. The argillites are finely bedded, 1mm scale with local fine pyrite rich layers.
- PGR 12 Medium green, augite porphyritic andesite. Phenocrysts are up to 2mm and subhedral to euhedral. Sparse disseminated pyrite. Patchy moderate silicification and carbonate alteration, minor green mica. These areas have up to 3% fine to medium grained disseminated pyrite.
- PGR 15 Medium to dark green, coarse lapilli tuff to agglomerate. Subangular to angular fragments up to 20 cm predominantly of porphyritic augite andesite, rare siltstone and chert fragments. Matrix supported fragments, matrix is predominantly fine (ash?). Sparse pyrite in matrix.
- FW A Strongly fractured to brecciated, light green, andesitic volcanic. Fine grained, pervasively silicified, weak carbonate, patchy dark chlorite. Up to 10% fine to medium grained fracture controlled pyrite.
- FW 3 Quartz vein float. Brecciated milky quartz with 1% medium grained, fracture controlled pyrite, local flecks of chalcopyrite. Wallrock is moderately carbonated, strongly silicified and has lenses of dark green chlorite. 1 to 5% fine to medium grained disseminated pyrite.
- FW 6 Dark grey, strongly brecciated carbonate unit. Heavy magnetite replacement. Local quartz carbonate veins to 5mm with coarse (3mm) cubic pyrite. Magnetite skarn/limestone.





<b>LEGEND</b> UPPER TRIASSIC: NICOLA GROUP VOLCANICS INTRUSIVES AND SEDIMENTS.			<b>MINERALIZATION</b> py PYRITE cpy CHALCOPYRITE Qts QUARTZ Cc CHALCOCITE Pbs GALENA Tet TETRAHEDRITE Mgt MAGNETITE Zns SPHALERITE			<b>SYMBOLS</b> --- CONTACT OBSERVED, ASSUMED ○ OUTCROP ===== ROAD ○ LOGGED AREA --- BEDDING - - - - - SCHISTOSITY - - - - - FAULT, APPROXIMATE, ASSUMED △ BRECCIA --- TRENCH			88-5 DIAMOND DRILL HOLE LOCATION 83-5 PERCUSSION DRILL HOLE LOCATION ● PGR SAMPLE ▲ PWI PROSPECTING SAMPLE			<b>AR 22180</b> PGR PROPERTY 1991 GEOLOGICAL PROGRAM, SAMPLE LOCATIONS AND COMPILATION		
9 SYENITE	4a ARGILLITE CONGLOMERATE	1f BASALT	8 FELDSPAR PORPHYRY DYKE	4 ARGILLITE MASSIVE	1e CHLORITE ANDESITE SCHIST	89219W	SCALE 1:10000	MAP NO. 5						
7c DIORITE BRECCIA	3d SILTSTONE ARGILLITE CONGLOMERATE/BRECCIA	1d AUGITE ANDESITE FLOW, PORPHYRITIC, MAY CONTAIN HORNBLENDE	7b COARSE-GRAINED HORNBLÉNDE DIORITE	3c SILTSTONE-ARGILLITE, INTERBEDDED	1d <sub>1</sub> RELATED COARSE PYROCLASTICS-AGGLOMERATE	R. & W.								
7a FINE-TO MEDIUM-GRAINED DICRITE	3b GREYWACKE, MASSIVE, LAMINATED	1d <sub>2</sub> RELATED FINE GRAINED PYROCLASTICS	6 SKARN-MASSIVE mgt, py, PYTE, cpy	3a SILTSTONE WITH CHERT HORIZONS, BANDED, MASSIVE	1d <sub>3</sub> BECCIATED ANDESITE									
5 LIMESTONE-DOLOMITE	2c ASH TUFF CONGLOMERATE/BRECCIA, SILICEOUS	1c ANDESITE ASH TUFF, MAY BE SILICEOUS		2b ASH TUFF, MASSIVE, LAMINATED, CRYSTAL, LITHIC	1b ANDESITE TUFF, CRYSTAL, LITHIC									
	2a LAPILLI TUFF, MASSIVE, CRYSTAL, SILICEOUS	1a ANDESITE TUFF BRECCIA, MAY CONTAIN PLUTONIC FRAGMENTS												