

→ File Thistle
NOTE 92F2?

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THISTLE PROJECT, 1984
SUMMARY OF EXPLORATION SURVEYS

LOCATION: The Thistle property is located 20 km southeast of Port Alberni, south-central Vancouver Island, B.C., 82 km southeast of Westmin's Buttle Lake mine.

PROPERTY: The property consists of 100 claim units optioned by Westmin from Nexus Resource Corp. in August 1983. The property was optioned to explore for deposits of gold and copper in the area of the Thistle mine which produced 6,900 tons grading 4.9% Cu, 0.3 oz Au/t and 0.4 oz Ag/t between 1938 and 1942, and in the area of the Panther Road showing of massive pyrite with 0.49 oz Au/t over a width of 2.2 m.

1983 EXPLORATION PROGRAM: In 1983, Westmin spent \$105,700 on the property. Work in 1983 included geologic mapping and prospecting, 7.5 km of I.P.-resistivity survey and soil sampling (327 samples) on 2 small grids centred on the Thistle mine and the Panther Road showing. The I.P. survey on the Thistle mine grid delineated a complex broad zone of higher chargeabilities and lower resistivities northwest of, and on trend with the mineralized intervals at the mine. The three lines of I.P. survey on the Panther Road showing grid suggested that the massive Au-bearing pyrite has little depth extension and less than 100m trend-length.

1984 EXPLORATION PROGRAM: The 1984 program consisted of geologic mapping and prospecting, 8.4 km of linecutting, collection of 976 soil samples,

10 km of I.P.-resistivity survey, and a total of 3,829 ft. (1,167.1 m) of diamond drilling. In addition, a Dighem airborne EM and magnetometer survey was flown along 34 lines across the property (total of 66 km). Expenditures of the 1984 program on the Thistle property were about \$300,000.

GEOLOGY: The property is underlain by an irregular, northwest to north trending belt of the upper part of the Lower Paleozoic Sicker Group volcanic rocks. The Sicker rocks appear to form the core of a large, complex anticline which is flanked and unconformably overlain by limestones and/or bedded cherts and cherty tuffs of the Buttle Lake Fm., that forms the top of the Sicker Group. The Buttle Lake Fm. is overlain unconformably by the Triassic Karmutsen Fm. of tholeiitic pillow basalts, flows and volcanoclastics.

I have divided the Sicker Group, below the Buttle Lake Fm., into two major packages of rocks:

1. The Flow Complex, forms the upper part of the Sicker Group, and consists of thick basaltic to diabasic-appearing flows with major interflow units of basaltic tuffaceous lapilli agglomerates, massive tuffs, bedded, cherty, basaltic tuffs and relatively minor, andesitic flows, agglomerate and lithic tuffs. A major unit of predominantly flows (the mine flow unit) contains all the significant occurrences of massive sulphides with Au and Au-Cu mineralization, and has been the major focus of our exploration surveys.

2. The "Myra" Fm. appears to unconformably underlie the flow complex to the east. It consists of a complex succession of broken, basaltic pillow breccias, massive to bedded basaltic tuffs and cherty tuffs, and, in addition, pillowed basalts and dacitic volcanoclastics which distinguish this package from the flow complex in this area. In addition, the "Myra" Fm. commonly contains zones of weak to strong schistosity, and commonly concomitant ankerite alteration.

Both the flow complex and the "Myra" Fm. appear to be characterized by complex facies transitions and internal angular unconformities. This and the paucity of bedding and layering hamper resolution of the regional structure.

MINERALIZATION:

A. THISTLE MINE: The mine is located within a complex succession of thick to locally thin, basaltic to diabasic-appearing flows with intervals of porphyritic, meta-vitrophyric basaltic flow breccias, and very locally massive basaltic tuffs, and bedded, cherty, basaltic tuffs. It appears from drilling and mapping that facies transitions occur over relatively short distances which makes lithologic correlations from hole to hole and area to area very difficult.

The succession contains several intervals in which basalts are very strongly sericite-epidote altered and a number of thin intervals in which basalts are very strongly chlorite-altered. Mineralization at the mine occurs within the chlorite-altered basalts, and is in the form of somewhat to very irregular layers of pyrite + chalcopyrite (and locally magnetite) with a quartz + calcite gangue. These layers occur within 3 or 4 main intervals within a complex succession of massive to bedded tuffs, agglomerates and flows, more than 25 to 29 m thick; the layers vary from 5 to 45 cm thick.¹ They carry up to 11.8% Cu, 1.0 oz Ag/t, and 2.16 oz Au/t.

Both the sericite-epidote, and chlorite alteration affect all textural types of basalts. It appears that the sericite-epidote alteration is strata-bound and affected some of the rocks prior to deposition of the tuffaceous intervals. Chlorite alteration zones locally cut sericite-epidote alteration

¹Old government records indicate thicknesses of massive sulphide up to 2.44 m.

zones and therefore, in part at least, post-date sericite-epidote alteration. It appears that chlorite alteration zones may crosscut as well as perhaps locally follow layering. The sericite-epidote alteration causes strong depletion of Fe (average of 3.5% Fe_2O_3) whereas the chlorite alteration is attended by strong enrichment of Fe (up to 35% Fe_2O_3) and Cu. At the Thistle mine, the Py.-Cpy.-Qtz.-Cal. layers appear to comprise branching veins within stratabound? chlorite alteration zones. However, the upper mineralized interval at the upper glory hole may be two beds of stratiform massive sulphide.

B. PANTHER ROAD SHOWING AND AREA: The Panther Road showing is located 1.4 km southeast of the Thistle mine, perhaps at about the same lithologic level within the mine flow unit as the mine. The showing consists of a 2.2 m wide interval of pyritic, chlorite-altered basalt, sericite-altered basalt? and 80 cm of massive pyrite, that occurs within basaltic flows. The 2.2 m wide interval assayed 0.49 oz Au/t, with 900 ppm Cu.

Work this summer developed a new area of interest located 230 m southeast to 260 m south of the Panther Road showing. Within this 190 m wide area, there are three separate exploration targets. The first consists of several meters of limonitic? colluvium with pebbles and cobbles of massive pyrite with 0.1 oz Au/t. The colluvium coincides with a narrow zone of very high chargeabilities. 110 m to the southwest, and up-slope from this colluvium is a 9 m wide zone with 150 to 1,900 ppb Au in the soil. The anomalous soil samples coincide with a narrow zone of moderately low resistivities and moderately high chargeabilities. 80 m to the southwest of this zone, a new showing was discovered this summer in the bed of a new logging road. The showing consists of two massive pyrite layers about 17 cm thick and about 1 m apart.

One massive pyrite layer contains 0.35 oz Au/t; the second layer carries 0.144 oz Au/t and is underlain by 15 cm of pyritic, chlorite-altered basalt with 0.118 oz Au/t. The massive pyrite layers appear to be stratabound between basaltic to diabasic-appearing flows with chlorite-altered selvages? The area of these three occurrences of Au mineralization warrants testing with a drill in 1985. ✓

C. PANTHER ROAD SOUTH: 1.9 km south of the Panther Road showing, 25 or more cobbles of variably weathered massive pyrite were located in colluvium or till in a road bank in 1983. The largest boulder of massive pyrite measured 17 X 23 X 40 cm and contained 0.086 oz Au/t. In 1984, an I.P. survey detected a narrow zone of low resistivities and high chargeabilities that is centred about 8 m east of the boulder of massive pyrite. This zone warrants trenching or several short drill holes.

DIAMOND DRILLING PROGRAM, 1984: Between October 4 and 26, 1984, Longyear Canada Ltd. drilled a total of 1167.1 m (3,829 ft.) (BQ core size) in the Thistle mine area, at a cost of \$22.70/ft. A total of 9 holes were drilled from 4 sites.

The drill program provided a relatively extensive test to depths of 60-100 m, of the favourable lithologic succession northwest of, and on trend with, the mineralization at the Thistle mine. All but one hole were designed to test the areas of highest chargeabilities and lowest resistivities detected in 1983. 3 holes were drilled from an upper road 310 m north of the mine; 4 holes were drilled from a lower road 250 m northwest of the mine. One flat hole was drilled from a road 155 m west of the mine.

Lithologic Succession and Mineralization: The lithologic succession encountered in holes 1 through 8 can be divided into four major units that dip moderately to steeply northeast, and are upright. From down-section to up-section, these units consist of:

1. Thin bedded to laminated, basaltic (sericite-epidote altered) tuff, cherty tuff (to locally basaltic chert) with a few percent laminations to thin beds of graphitic? chert. The tuffs and cherts commonly contain minor to 1% disseminated pyrite which appears to be the source of higher chargeabilities in this area.

2. The mine flow unit which is about 225 m thick here, and consists of thick to thin (1 to 70 m thick) flows interlayered with 15 or so intervals of agglomerates and/or flow breccias 1 to 25 m thick, and 8 intervals of basaltic crystal tuff, lapilli tuff and bedded cherty, basaltic tuffs a few cms to 4 m thick. The flows and agglomerates consist of variations of hornblende, feldspar porphyritic, feldspar, hornblende microporphyritic (locally amygduloidal), metavitric basalt, and very finely crystalline to medium crystalline and diabasic-appearing, basalt.

The mine flow unit rocks commonly contain minor to 2% disseminated pyrite, minor to 1% fracture-pyrite and minor to 2% disseminated magnetite, which appear to be the source of the higher chargeabilities and lower resistivities associated with the unit.

The rocks are characterized by variable epidote, sericite, and chlorite alteration at a wide variety of scales. Most of the significant pyrite-chalcopyrite mineralization occurs within the chlorite alteration zones as 1 to 3%, locally to 15% disseminations, stringers, in fractures and locally in veinlets and veins of semi-massive to massive pyrite, locally with chalcopyrite.

A total of 79 chlorite alteration zones were noted in core; they vary from 2-53 cm in width, but average 16 cm (total width of 11.85 m in all holes). 29 of the 37 chlorite-altered basalt zones sampled, contain an average of 0.014 oz Au/t and highly variable concentrations of Cu (11 to 3,790 ppm, with an average of 750 ppm Cu). However, anomalous concentrations of Au are not restricted to the chlorite alteration zones because half of the 59 samples of basalts adjoining the zones contain an average of 0.007 oz Au/t., but contain only minor to 2% disseminated pyrite. In a broad manner, the highest chargeabilities and lowest resistivities correspond to the location of intersections with a significant proportion of chloritic, pyritic alteration zones.

Within the chlorite alteration zones there are six intersections of massive to semi-massive pyrite, locally with a few percent cpy., that vary in width from 2 to 27 cm. These carry an average of 0.18 oz Au/t, but Au varies from 0.046 to 0.284 oz Au/t. The highest assay for Au was 0.514 oz Au/t from a 20 cm wide zone of basalt with chloritic fractures and a 1-1.8 cm thick band of semi-massive pyrite (D.D.H. 84-1; 178.7-178.9 m). The Au and Cu concentrations are an order of magnitude lower than those for the massive py-cpy. layers at the Thistle mine which carry up to 2 oz Au/t and 12% Cu.

D.D.H. 1 to 8 failed to intersect ore grade concentrations of Au and/or Cu over mining widths, although 110 of the 241 core samples analyzed, carry anomalous concentrations of Au (0.011 oz/t length-weighted average for a total of 64.3 m of samples). Although numerous chlorite alteration zones were intersected in the holes, they are significantly thinner than those at the Thistle mine, where they host the layers of massive Py.-Cpy. Furthermore, there are significantly wider and more numerous intervals of strongly

sericite-epidote-altered basalts at the mine than intersected in the drill holes. And finally, the sequence at the mine appears to be predominantly massive to bedded tuffs and cherty tuffs, but within the mine flow unit cut by the drill holes, tuffs are very rare.

3. An about 55 m thick succession of massive basaltic lapilli tuffs with intervals of bedded cherty tuffs and four basaltic flows.

4. A major unit of interlayered, andesitic? lithic tuffs, agglomerates and flows.

Hole 84-8 is a flat hole collared 155 m west of the Thistle mine and was intended to test the mine flow unit northwest of the mine in the immediate area of a hole drilled in 1965 by Vananda Exploration, which intersected 3, 15 cm wide intervals of massive pyrite in chlorite altered basalt (apparently not assayed). Hole 84-8 intersected a 27 cm wide layer of Py.-Cal.-Qtz.-chlorite altered basalt-magnetite-Cpy. at about 7 m west of, and 30 m below the Vananda intersections of massive Py. The 27 cm layer assayed 0.158 oz Au/t with 3,280 ppm Cu.

A ninth hole was drilled 565 m west of the Thistle mine, to a depth of 200 ft. (61.2 m) to test a prominent zone of very high chargeabilities and anomalously low resistivities in an area of extensive overburden. The hole intersected thin bedded basaltic tuff, cherty tuff, and chert with graphitic chert intervals and beds. The graphitic chert contains up to a few percent sedimentary-appearing disseminated pyrite, locally concentrated to 50-80% in thin laminations, and is cut by graphitic and locally pyritic fractures. The graphite and pyrite are the source of the I.P. resistivity anomaly. Seven samples of pyritic chert from a 17.5 m long interval in the upper 30 m of the hole, contain 0.002 to 0.012 oz Au/t (7.95 m total sample

length). This points to the potential for a Au deposit within these bedded tuffs that are apart from the mine flow unit and which may warrant further exploration.

1985 RECOMMENDED PROGRAM:

1. Several drill holes in the immediate area of the Thistle mine, including a hole to test an I.P.-resistivity anomaly located between the two glory holes, and several holes to test the down-dip projection of the mineralized succession at the upper glory hole.

2. Several drill holes to test the three areas with anomalous concentrations of Au in massive pyrite in outcrop and colluvium, and in soil samples, and two I.P. anomalies, in the area of L.200 south on the Panther Road showing grid.

3. Trenching or drilling across the area of Au-bearing, massive pyrite cobbles and boulders in the overburden, and nearly coincident I.P. anomaly at the southeast corner of the property.

HOLE #	LENGTH (m)	INCLINATION	AZIMUTH*	COLLAR ELEV. (m)	LOCATION OF COLLAR **	
					GEOGRAPHIC	U.T.M. GRID COORDINATES
84-1	228.6	-45°	252°	854	T.M.E. road, 312 m at 352° from 300 adit of Thistle mine, L92G claim	5440632N/ 580507E
84-2	107.9	-63°	243°	854	Same as 84-1	Same as 84-1
84-3	105.5	-27°	069°	854	Same as 84-1	Same as 84-1
84-4	137.2	-10°	060°	745	East side of Thistle Main road, 255 m at 318° from 300 adit of T.M.; 175 m at 227° from 84-1; L92G-L93G claim boundary	5440233N/ 580377E
84-5	91.4	-55°	050°	745	Same as 84-4	Same as 84-4
84-6	107.6	-81°	247°	745	Same as 84-4	Same as 84-4
84-7	128.9	-42°	247°	745	Same as 84-4	Same as 84-4
84-8	199.0	00°	062°	728	East side of Thistle Main Road; 156 m along 283° from 300 adit; 154.5 m along 172° from 84-4; east-central L93G claim	5440080N/ 580397E
84-9	61.2	90°	-	702	Centre of T.M. 70 road; 565 m west (276°) of 300 adit; 410 m west (274°) of 84-8; northwest corner of L93G claim	5440393N/ 579978E

NOTES: * azimuths are from Sperry-Sun survey tests just below casing, for 84-1 thru 7.

** collars located with a hip chain or tape measure, and compass.

TABLE 6: Location, orientation and length of diamond drill holes 84-1 through 9, drilled on the Thistle property, October, 1984.

The area between the Thistle mine and the Panther Road showing is occupied by a broad, somewhat swampy, saddle, covered by mature forest and relatively thin overburden.

C. Claims Information

The Thistle property, optioned by Westmin Resources Ltd. from Nexus Resource Corp. of 206 - 475 Howe Street, Vancouver, B.C., consists of 98 claim units, 3 Crown Grants and 2 reverted Crown Grants that cover an area 4.5 km x 5.7 km (Figure 4). All claims are now owned by Nexus Resource Corp., excepting the reverted Crown Grants. The claims information is as follows:

1. SUE: 20 units, record number 488(6), recorded June 28, 1979.
2. CROW: 20 units, 489(6), recorded June 28, 1979.
3. LEVI: 16 units, 490(6), recorded June 28, 1979.
4. RAND: 16 units, 731(2), recorded February 29, 1980.
5. MUSEUM: 15 units, 1223(5), recorded May 6, 1981.
6. QUILL: #1-8: 8 units, 1391-1398(2), recorded February 11, 1982.
7. LORE: #103: 3 units, 575-577(8), recorded August 17, 1981.
8. CROWN GRANTS:
 - L91G: lot number 242, Thistle mineral claim, 51.65 acres.
 - L92G: lot 240, Pansy claim, 49 acres.
 - L93G: lot 241, Primrose claim, 47 acres.
9. REVERTED CROWN GRANTS:
 - L95G: lot 244, Rose mineral claim, 378(2), 51 acres; owner of gold and silver rights: David Murphy; under option-to-purchase agreement with Nexus.
 - L97G: lot 243, Jumbo mineral claim, 379(2), 40.5 acres; owner of gold and silver: David Murphy; under option-to-purchase agreement with Nexus.



Mineralization described by Benvenuto could be viewed as an assemblage of components which include pyrite, chalcopyrite, pyrrhotite carbonate, magnetite, and jasper which commonly exhibit compositional layering and apparent conformability with layered host rocks. These occurrences may well represent various phases of iron formation (in the broad sense) and our exploration is conducted with this hypothesis in mind. Thus, the nature of the volcanic stratigraphy is of importance which leads to our initial emphasis on mapping and description of lithologies.

The results of analyses of rock samples are referenced in the enclosed reports. These rock samples were taken mainly as chip samples from outcrop but some significant float samples are also quoted. The metals of obvious economic significance are gold and copper and to a much subordinate degree silver. Geochemically anomalous concentrations of cobalt were noted in a couple of samples and anomalous zinc and lead in only one sample. Arsenic varies from background to anomalous but does not appear to present a serious problem. It seems unlikely that arsenic would be a reliable pathfinder element in this environment.

The most significant assays are listed in the following table. The samples from the Thistle mine workings serve to substantiate the grade quoted for past production.

<u>Location</u>	<u>Sample Type</u>	<u>Sample Length</u>	<u>Apparent True Thickness</u>	<u>Cu</u>	<u>Au</u>	<u>Ag</u>
Lower glory hole	chip	28 cm	25-28 cm	6.1%	0.098 oz.	0.50 oz.
Lower glory hole	chip	50 cm	50 cm	3.84%	0.942 oz.	0.52 oz.
Lower glory hole	chip	45 cm	45 cm	5.49%	0.74 oz.	1.33 oz.
Lower glory hole	chip	45 cm	45 cm	10.20%	0.226 oz.	1.06 oz.
Upper glory hole	chip	4.5 M	3-4 M	2.71%	0.372 oz.	0.15 oz.
Upper glory hole	chip	17 cm	15 cm	10.20%	1.22 oz.	0.58 oz.
Upper cut	chip	15 cm	15 cm	4.57%	0.996 oz.	0.50 oz.
9 M NW of upper cut	chip	1.7 M width of outcrop across horizontal width of 2 M		>10,000 ppm	1,400 ppb	3.3 ppm
Uppermost cut	chip	1.5 M	1 M?	7.55%	1.21 oz.	0.70 oz.
Upper Stope adit	chip	30 cm	30 cm	10.20%	0.44 oz.	0.50 oz.
Upper Stope adit	chip	1.6 M	1.6 M	1,350 ppm	40 ppb	0.1 ppm
Upper Stope adit	chip	45 cm	45 cm	4.57%	0.47 oz.	0.39 oz.
Average of above 3 samples		2.35 M	2.35 M	2.27%	0.146 oz.	0.14 oz.
Panther Road showing 1.4 km SE of Thistle Mine	chip	2.2 M	2.2 M?	900 PPM	0.490 oz.	0.05 oz.

THISTLE PROPERTY

SUMMARY OF OPTION FROM NEXUS RESOURCE CORP.

<u>YEAR</u>	<u>PAYMENTS</u>	<u>WORK COMMITMENT</u>	<u>WESTMIN INTEREST</u>
1983	\$ 20,000	\$ 100,000	
1984	5,500	250,000	
1985	<u>6,500</u>	<u>350,000</u>	
Cummulative Total	\$ 32,000	\$ 700,000	
1986	<u>57,000</u>	<u>700,000</u>	
Cummulative Total	89,000	\$1,400,000	40%
1987	<u>157,000</u>	<u>1,500,000</u>	
Cummulative Total	\$246,000	\$2,900,000	60%
1988	250,000	-	60% in joint venture or else Westmin
1989-1999	50,000 per year	-	continues to earn to 80% net profits interest

After production decision \$100,000/year advance royalty



R. R. Walker
Exploration Manager
Vancouver Island

October 26, 1983

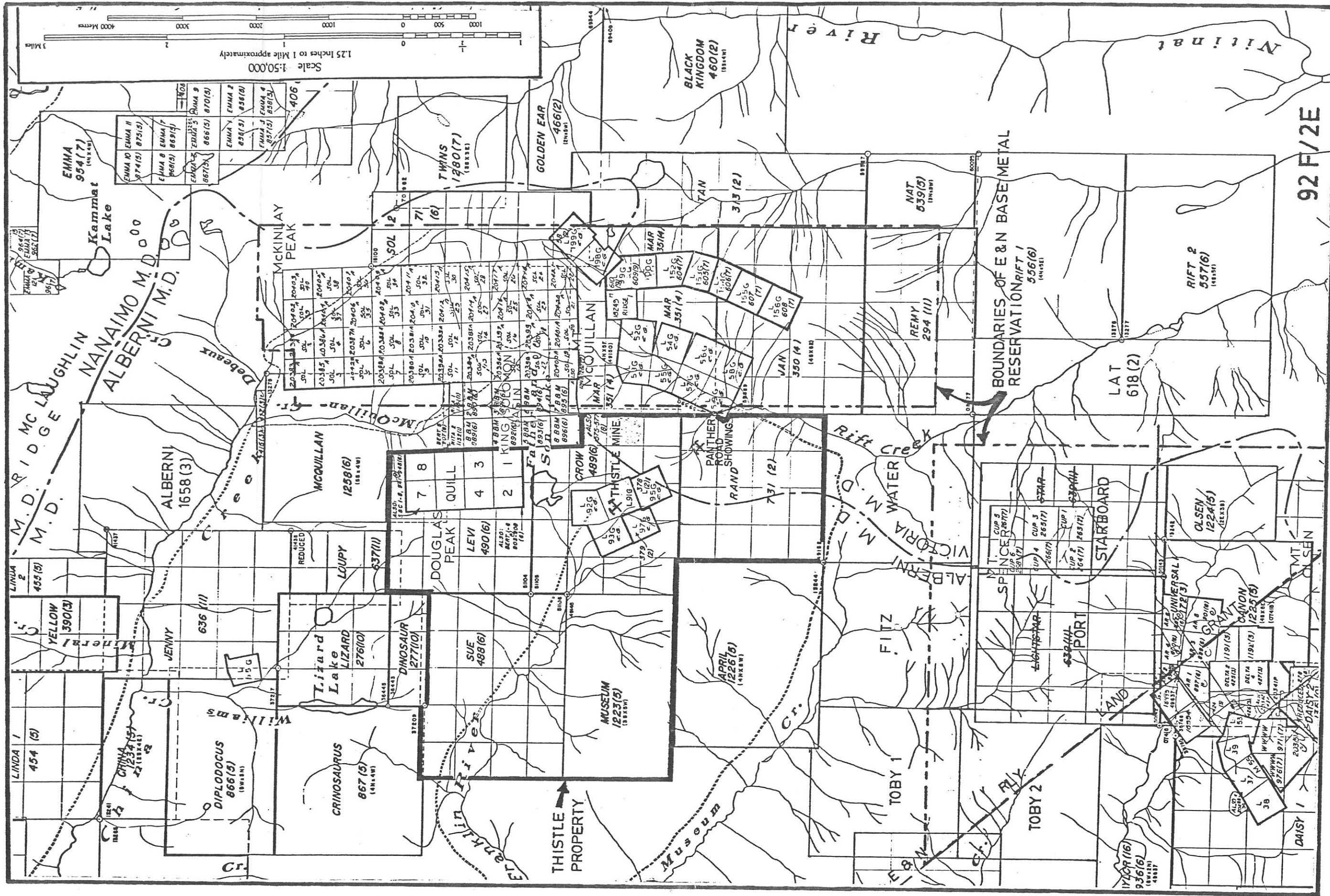
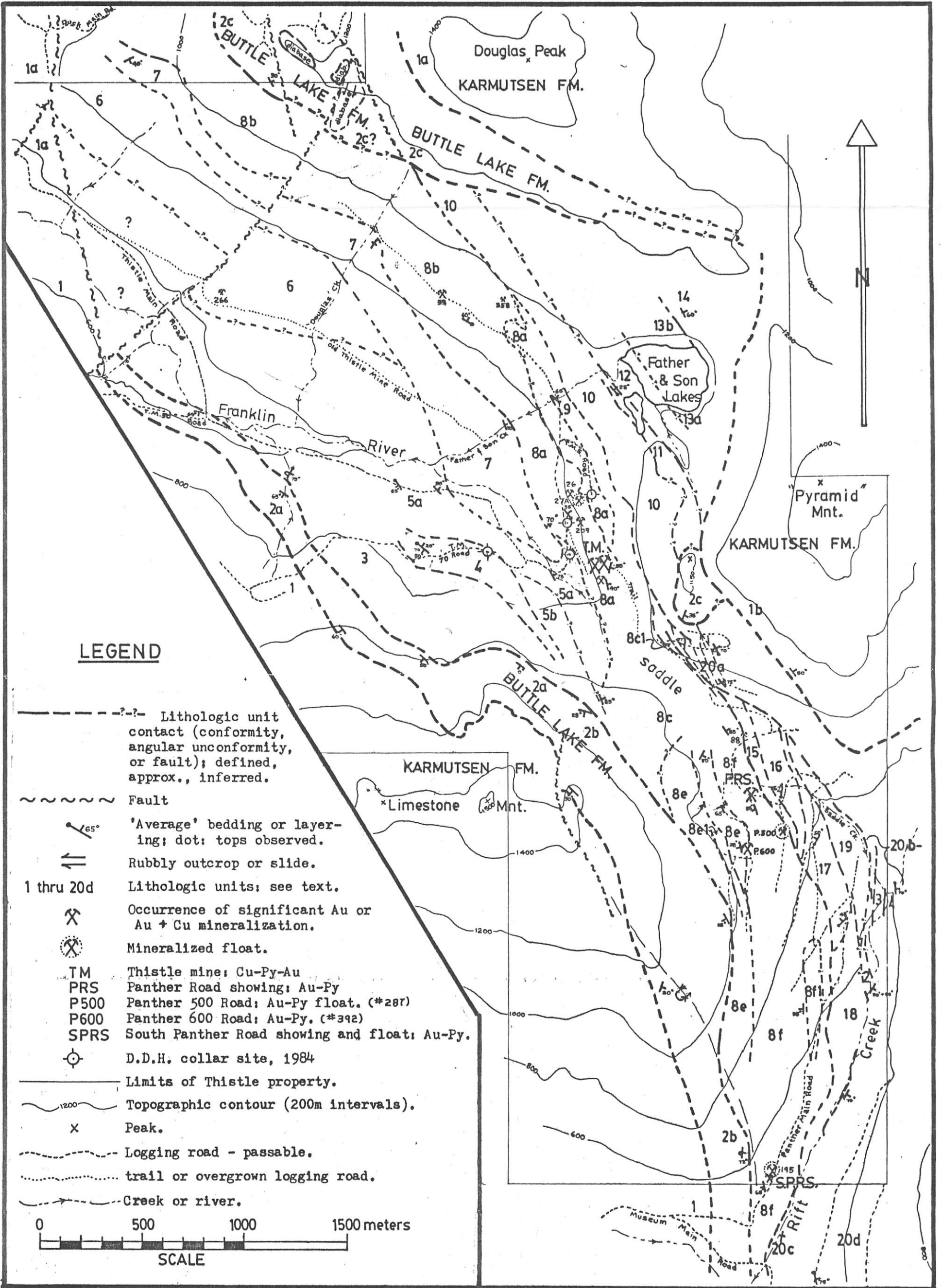


FIGURE 4: Claims map

FIGURE 5: Summary, schematic geologic map of the Thistle property showing the main lithologic units described in Appendix B (see following pages).



LEGEND

- ?-- Lithologic unit contact (conformity, angular unconformity, or fault); defined, approx., inferred.
- ~~~~~ Fault
- ↘^{65°} 'Average' bedding or layering; dot: tops observed.
- ↑↑ Rubbly outcrop or slide.
- 1 thru 20d Lithologic units; see text.
- ⌘ Occurrence of significant Au or Au + Cu mineralization.
- ⊗ Mineralized float.
- TM Thistle mine; Cu-Py-Au
- PRS Panther Road showing; Au-Py
- P500 Panther 500 Road; Au-Py float. (#287)
- P600 Panther 600 Road; Au-Py. (#392)
- SPRS South Panther Road showing and float; Au-Py.
- ⊙ D.D.H. collar site, 1984
- Limits of Thistle property.
- ~~~~~ Topographic contour (200m intervals).
- x Peak.
- - - Logging road - passable.
- ⋯ trail or overgrown logging road.
- Creek or river.

