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MINERALOGICAL STUDY

for

SILVER FOX, WIND 1, and LECROY CLAIMS

54 24'N; 125 25'W

N.T.S. 93-K-6/W

OMINECA M.D.

owner & operator

WINDFLOWER MINING LTD.

Gerald Ryznar, P.Eng.

November 30/84

MINERALOGICAL STUDY

SILVER FOX CLAIM GROUP

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SILVER FOX, WIND 1 and LECROY CLAIMS

INTRODUCTION

A petrographic and mineralogical study was carried out on various rock samples collected from the Silver Fox group of mineral claims in order to achieve a better understanding of the mineralogy known to occur on the claims. Polished thin sections and standard thin sections were prepared and used in the study and mineralized samples were geochemically analyzed for gold and silver. In one sample bearing high values in gold (15,500 ppb) the gold was found to be intimately associated with pyrite mineralization. It is believed that the silver content is associated with galena.

PROPERTY and OWNERSHIP

The property consists of one 12 unit located mineral claim WIND 1, record number 3333, crown granted mineral claim, the Silver Fox, lot number 4097, and reverted crown grant, the Lecroy, lot number 4098. All of the above listed claims are owned by Windflower Mining Ltd. of Vancouver, British Columbia.

LOCATION and ACCESS

54 24'N; 125 25'W

N.T.S. 93-K-6/W Omineca Division

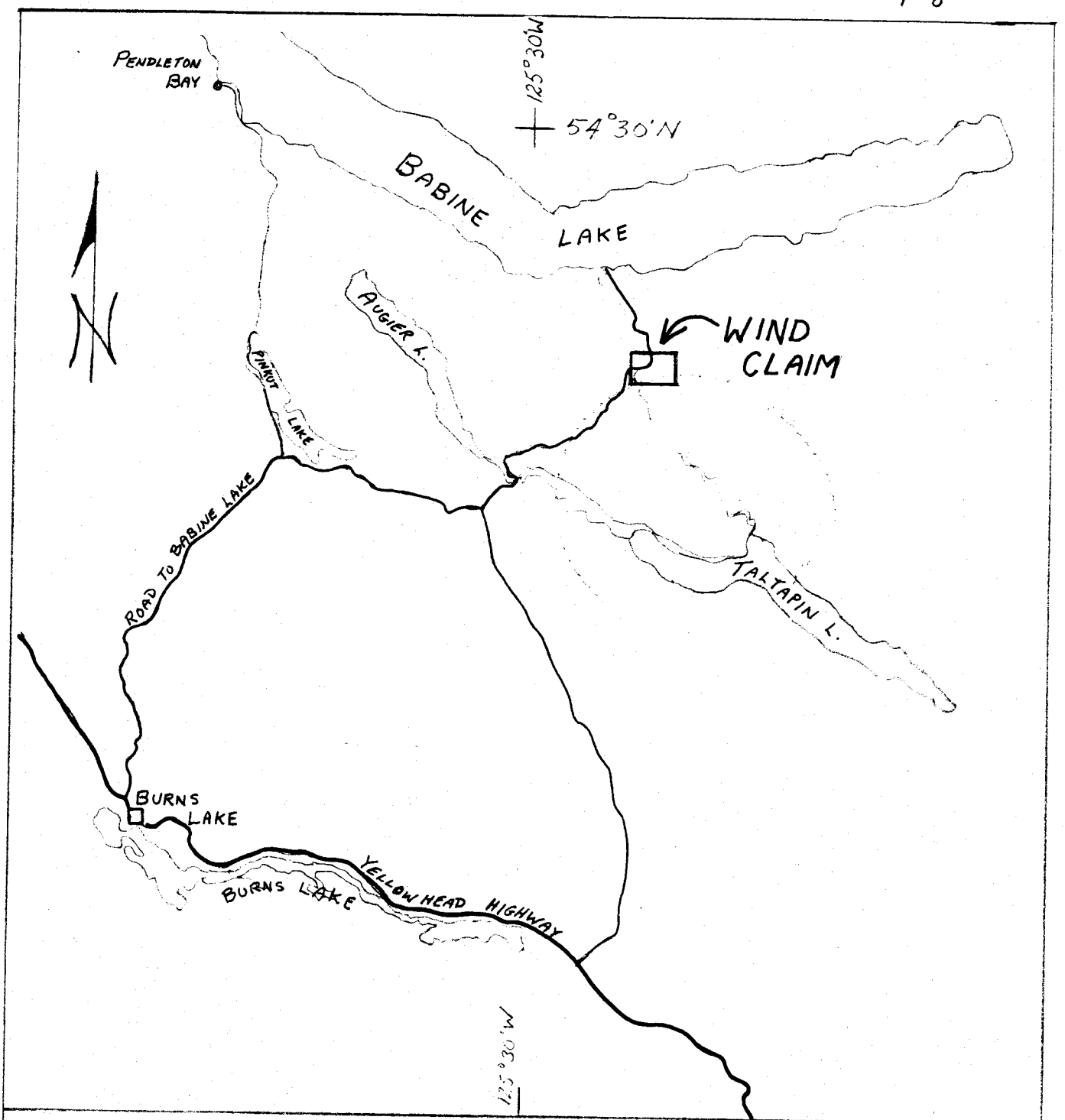
The claim group consisting of the Silver Fox, Lecroy and Wind 1 mineral claims, is located approximately 40 km northeast of Burns Lake B.C. along a well maintained gravel road leading to the mouth of Pinkut Creek on Babine Lake, in north central B.C. (see figure 1.)

GEOLOGY

The claim group is underlain by Cache Creek greenstones, andesitic flows and tuffs, argillaceous quartzites and argillites, intruded by the Permian? Topley granitic intrusions. The much younger Endako group consisting of Tertiary vesicular and amygdaloidal basalts covers small areas on the property.

Outcrop occurs along the Pinkut Creek canyon on the claim group, sparsely along small tributaries to Pinkut Creek, and where road building crews have gathered road building materials. Elsewhere on the property outcrop occurs only rarely as a good thickness of overburden obscures the geology over most of the claim area.

Mineralization of economic interest is known to occur on the Silver Fox crown grant grant where quartz veins varying in width from 6 inches to a few feet in width carry values in gold, silver, copper, lead and zinc. The veins are exposed along the creek canyon and occur within the greenstones in a sheet like fashion at or near the contact of the greenstones with a tongue of intrusive granodiorite. The veins carry sphalerite, chalcopyrite, galena, pyrite and occasionally tetrahedrite.



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93-K-6/W

LOCATION - WIND MINERAL CLAIM

BURNS LAKE AREA B.C.

SCALE 1:250,000

5 km

FIG. 1.

Mineralogical Study - Silver Fox Group (cont'd)

PETROGRAPHIC STUDY

A petrographic study was carried out by Dr. Harris of Harris Exploration Services, on samples collected from outcrops along Pinkut Creek on the Silver Fox crown granted mineral claim. Since previous assays had indicated that significant values in gold and silver are present in some of the vein type mineralization, this study was intended to achieve a better understanding of the nature of the precious metal (Au, Ag) occurrences and the associated mineral assemblage.

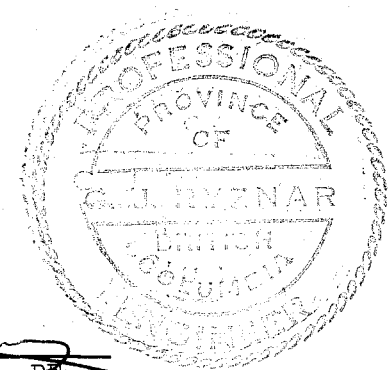
Results of the work by Harris are attached as Appendix " A " to this report.

CONCLUSIONS

Although only a small number of samples were used in this study, it was confirmed that precious metals are present in at least some of the veins located on the Silver Fox crown granted mineral claim. In fact, relatively high gold and silver values were obtained from one of the samples.(15,500 ppb Au; 20.6 ppm Ag) The mineral assemblage associated with the high precious metal content consists of sphalerite, pyrite, galena and minor chalcopyrite, all generally occurring in quartz vein gangue with sparse carbonate. In particular it was found that the higher precious metal content appears to be associated with heavy or massive pyrite within quartz veining. The silver values in the samples studied appear to be due to argentiferous galena.

RECOMMENDATIONS

Because of the association of high Au and Ag content with veins bearing heavy to massive pyrite, emphasis in future prospecting on this property should be on locating more pyrite bearing veins and carrying out the proper sampling and assaying procedures.



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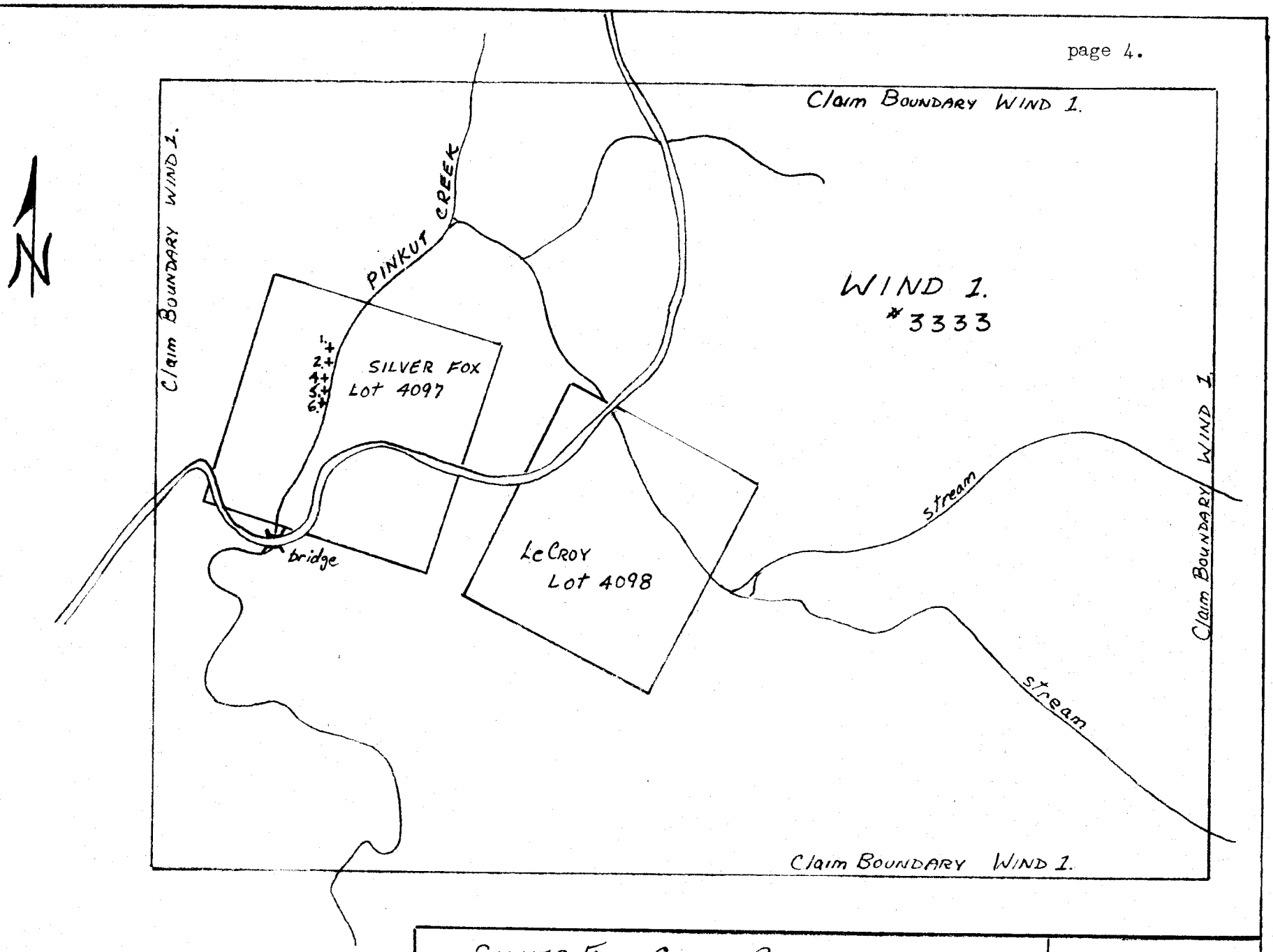


+ indicates sample location

SILVER FOX CLAIM GROUP
SAMPLE LOCATION

SCALE 1:10,000

500 m.

NTS 93-K-6/W

FIGURE 2.

OCT. 1[illegible]4

STATEMENT OF COSTS

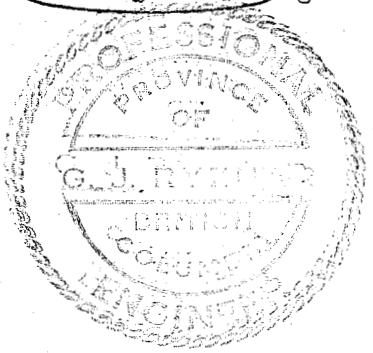
MINERALOGICAL STUDY, SILVER FOX CLAIM GROUP

October/84

PROFESSIONAL SERVICES

Harris Exploration Services - Oct/84	
Microscopic Examinations)	
Preparations of thin sections)	$ 330.00
Geochemical Analysis)	
G. Ryznar, PEng.	
Report writing and preparation	
2 days @ $300.00 per day	$ 600.00
Sample collection - prorated	$ 100.00
Total Costs this Study	$1030.00

Gerald Ryznar, PEng.



Harris
EXPLORATION
SERVICES

MINERALOGY AND GEOCHEMISTRY

534 ELLIS STREET, NORTH VANCOUVER, B.C., CANADA V7H 2G6 TELEPHONE (604) 929-5867

Job #84-76

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Samples:

5 rock samples from the Silver Fox Claims. Samples are numbered #1, 2, 4, 5 and 6. Corresponding slides are numbered 321X - 325X respectively.

Samples 1, 2 and 4 containing visible sulfides were prepared as polished thin sections. The remaining two were prepared as standard thin sections.

Summary:

The cut-off chips corresponding to the portions sectioned were analysed for Au and Ag in the case of the three mineralised samples.

Results obtained were as follows:

Sample 1	Au	15,500 ppb	Ag	20.6 ppm
Sample 2	Au	160 ppb	Ag	8.6 ppm
Sample 4	Au	290 ppb	Ag	6.3 ppm

Sample 1 is an aggregate of coarse-grained pyrite with intergrown quartz. It is essentially monomineralic, the only other constituents recognized in the section being sparse tiny inclusions of galena and lesser chalcopyrite and sphalerite within massive pyrite.

In view of the lack of any substantial accessory sulfide mineral suite with which precious metals might be associated, the high Au and Ag are surprising. Intensive search for Au under the microscope resulted in the location of just one example - an elongate, 25 x 4 micron inclusion within compact unfractured pyrite.

The situations in which Au might most reasonably be expected to occur (i.e. in microfractures in the pyrite and associated with the clumps of small accessory sulfide inclusions) consistently proved negative.

In view of the consistent mode of occurrence of the accessory sulfides as tiny blebs, apparently non-structurally controlled, within pyrite, a similar mode is the most likely one for the Au.

No fully satisfactory source for the Ag content was found. This element could well be associated with the galena inclusions (which are a rapidly

tarnishing variety and hence, possibly, Ag-rich), but the content of these is scarcely sufficient to yield an overall 20 ppm based on permissible solid-solution levels in galena.

Samples 2 and 4 are of very similar type, consisting of sparse stringers of sulfides in quartz. Sphalerite is the major sulfide in both cases, with more or less associated pyrite and galena and traces of chalcopyrite.

Precious metal analyses are low, which is probably a function of the overall low concentration of sulfides in these samples. No Au was found during the microscopic study.

Sample 5 is a somewhat altered granodiorite.

Sample 6 is a highly altered rock of unidentifiable origin.

J.F. Harris Ph.D.

Sample #1 (Slide 321X) MASSIVE PYRITE

This sample consists of about 80% pyrite and 20% quartz.

The pyrite is a semi-massive aggregate of anhedral grains on the scale 0.1 - 2.0mm. The pyrite is set in a matrix of anhedral quartz of widely varying grain size.

Although the impression is of massive pyrite brecciated (or "pulled apart" along grain boundaries) and cemented by quartz, the textural relationships are to the contrary. Pyrite grain shapes cut across the granular fabric of the quartz and nowhere does the quartz show crystal growth outwards from pyrite surfaces. The pyrite and quartz were, in fact, probably deposited essentially contemporaneously.

The mineralogy is extremely simple. The sulfides are pyrite - monomineralic except for tiny bleb-like non-oriented inclusions of galena, 2 - 20 microns in size, randomly scattered through some of the pyrite grains. Chalcopyrite in similar mode was observed rarely.

The gangue is monomineralic quartz except for rare traces (scattered flecks) of sericite.

Sample #2 (Slide 322X) VEIN QUARTZ WITH SULFIDES

This slide was cut from the most heavily mineralized area of a quartz vein sample showing sparse streaks of sulfides. It contains about 5% sulfides.

The gangue is anhedral quartz of highly variable grain size. It is traversed by elongate zones of apparent crushing and recrystallization but the distribution of the sulfides seems to bear little relationship to these.

The only other gangue constituent is carbonate, which occurs in trace amounts as small pockets, partly associated with the sulfides and partly independent.

The sulfides form irregular elongate patches up to 2 or 3mm in size, branching networks and discontinuous lines of grains. They consist mainly of sphalerite and pyrite, with minor amounts of galena and traces of chalcopyrite.

The pyrite consists of semi-compact clumps of subhedral grains, 0.01 - 1.0mm. These are partially associated with sphalerite (cemented by it, or as inclusions in it) and partially independent, set in gangue. In the latter case the pyrite sometimes has associated galena.

Sphalerite forms irregular areas up to several millimeters in size. These commonly contain disseminated, non-oriented inclusions, 1 - 50 microns, of chalcopyrite and scattered small pyrite grains, 0.01 - 0.1mm.

Galena forms irregular pockets in gangue up to 0.3mm or more. It also occurs as tiny bleb-like inclusions in pyrite (as observed in Sample #1), and local intergranular fillings to pyrite clumps.

There is a notable (and unusual) lack of association of galena with sphalerite.

In addition to the disseminated inclusions mentioned earlier, chalcopyrite was seen as one coarser patch (to 0.5mm) associated with sphalerite.

Sample #4 (Slide 323X) VEIN QUARTZ WITH SULFIDES

This sample is of very similar type to #2. Sulfides again constitute about 5% of the surface area of the slide.

The sulfides are the same assemblage as in #2, but pyrite is relatively less abundant.

They consist mainly of sphalerite with tiny, non-oriented chalcopyrite inclusions. Galena occurs as a minor constituent, alone in gangue or associated with pyrite as an included or interstitial phase.

The gangue is a coarse-grained anhedral aggregate of quartz with finer-grained streaks and patches. Carbonate with intergrown chlorite are sparse accessories, as tiny scattered pockets and thin discontinuous veinlets. These show no relationship to the sulfide concentrations. Traces of sericite do occur marginal to the sulfides here and there.

Sample #5 (Slide 324X) GRANODIORITE

Estimated mode

Quartz	30
Plagioclase	30
K-feldspar	15
Muscovite	8
Chlorite	13
Rutile	2
Carbonate	1
Epidote	trace
Opaques	1

This rock shows a typical medium-grained granitic texture.

Plagioclase forms subhedral, zoned grains, 0.5 - 2.0mm. Quartz forms coarse irregular masses up to 5mm or more composed of strongly strained, crenulate-margined, recrystallized aggregates partially enclosing and marginally replacing the feldspars.

K-feldspar (microcline) forms scattered coarse poikilitic grains to several mm in size, as well as a finer, granular interstitial phase with associated quartz.

The plagioclase is weakly to moderately altered to clays, sericite and carbonate. The microcline is clear and fresh except for scattered discrete gash micro-veinlets of sericite.

The mafics are chlorite with intergrown muscovite and fine-grained opaques. They form elongate clumps, irregular pockets and intergranular schlieren. The chlorite is typically full of acicular and granular inclusions of rutile.

Carbonate forms occasional intergranular wisps. Epidote occurs as traces of disseminated granules.

Sample #6 (Slide 325X) ALTERED ROCK

Estimated mode

Quartz	40
Sericite	20
Chlorite	15
Carbonate	20
Rutile) Opaques)	5

This is an intensely altered rock in which all evidence of primary origin has been destroyed.

It now consists of irregular patches and wispy networks of felted sericite (and occasional well-formed muscovite flakes to 0.5mm) in vein type quartz (showing highly variable grain size and zones of intense granulation).

The other major constituent is carbonate. This is mainly localized in one area as coarse, rather angular patches, partially rimmed with green chlorite, which may represent brecciated fragments of a vein. It also occurs in more diffuse form as discontinuous streaks in the quartzose areas and scattered small pockets in the area of sericite patches

Green chlorite is a common associate of the carbonate, as rims and spherulitic inclusions; it also occurs intergrown with the sericite and as discrete veinlets.

The carbonate (which is rather brown in colour but, judging from its reaction with dilute acid, largely of calcitic composition) commonly contains abundant inclusions of strikingly acicular opaques (probably hematite) as sheafs and clusters.

Scattered small grains of pyrite and clumps of sphalerite occur as traces in the more quartzose areas, and associated with chlorite.

The rock is pervasively permeated and veined by quartz. The sericite patches may, in part, represent altered included host-rock remnants. The carbonate is probably an associated veining and replacement phase with the quartz.