

## REPORT from W. D. WILKINSON, Oregon State College

## SAMPLE #2.

Label—Composite sample all around and over large outcrop.

Megascopeic

Red chert badly fractured with veinlets of crystalline quartz. Surface slightly stained by limonite.

Microscopic

The main body of the section is composed of cryptocrystalline quartz, which constitutes the gangue material. Its origin is undeterminable from sample or section. It has been subjected to strain which has produced a series of fractures. Each set of fractures has been resealed by crystalline quartz with the exception of the latest which is filled with iron oxide and some Maganite (?). This latest series of veinlets cross all the other quartz-filled veinlets indicating their late origin. In only few cases does the Maganite (?) and limonite accompany the quartz veinlets and there it is probably due to re-opening of an earlier quartz veinlet. All evidence points to the late origin of the Maganite-limonite veinlets.

The red coloration seems to be due to minute scales of hematite widely disseminated through the cryptocrystalline material.

## SAMPLE #1.

Label—Chipped sample from 3' pit 20' west of main outcrop shows 5' N-S cut all in place - Much Hematite stain indicate that medium grade ore goes West by and on edge of bald exposure.

Megascopeic

Differs from #2 in the amount of iron oxide present and the amount of dark material. Crystalline quartz present in fracture.

Microscopic

Essentially the same gangue as in sample #2 - although a much higher percentage of Hematite is present. The maganite and iron oxide seem to accompany the quartz veinlet more frequently than in Sample 2, otherwise same as Sample 2.

Micro chemical and Blowpipe

Borax bead test using black veinlet filling shows only reaction for iron.

Microchemical

Sodium Bismuthionate test gives no reaction, although supposed to be sensitive for solution of 0.1% or higher of manganese.

The same test on larger quantities of the powdered material gave a test for manganese.

Samples 3 and 4 differ only in the amount of fracturing and recementing. The veining is not so pronounced and the cryptoerystalline character of the mass is more evident.

Again the youngest set of fractures carry the black filling.

Conclusion

*material is*  
The ~~samples submitted are~~ chalcidonic in character. One set of fractures have been filled with a highly hydrated iron oxide accompanied by maganite (?) in small amounts; this material recementing the minute fracture. From the samples it seems to be due to the circulation of meteoric waters. There is no evidence as to the origin of the Maganite (?) or gangue material. This filling probably is of rather shallow depth, and it is questionable whether there is sufficient manganese present to warrant development.

MACK

December 17, 1937

Office numbers:

101 to 108 - 12-17

Samples taken by Mr. H.K. Nixon on Manganese property.

Sample No.	Gold oz./ton	Manganese per cent
1	0.08	0.7
2	Nil	2.1
3	Tr	0.9
4	0.01	Tr
5	Tr	1.1
6	Tr	0.8
7	0.02	3.2
8	Nil	1.2

66666

Leslie L. Metz, Assayer

December 17, 1937

Office numbers:

101 to 108 - 12-17

Samples taken by Mr. E.K. Nixon on Manganese property.

- #1 -- Chipped sample from pit 20' west of main outcrop. Shows 5' North-South out all in place. Much hematite stain. Indication that ms. grade ore goes west, by and on edge of blast expos.
- 2 -- Composite sample all around and over large outcrop.
- 3 -- From N.W. exposure 1000'± from main lens. Distinctly leaner. Stands up a few feet and a few wide. Trends N.S. Shows secondary silica.
- 4 -- Cherty phase without red stain - from outcrop near gulch N. of main exposure.
- 5 -- From N.W. exposure 1000'± N. of main exposure.
- 6 -- Southern exposure of main outcrop.
- 7 -- Sample from Kidney on S. side of gulch 500'-600' S. of large exposure. Shows crop 10' high and 10'-12' thick. Seeming to trend N. 60 degrees E. Shot N. 35 degrees E. to main deposit. Contacts not visible. Soils show reddish brown and silicious on western contact. Higher grade underneath. Very hard. Estimate material runs 15% - 20% Mn. with 20% - 40% SiO<sub>2</sub>
- 8 -- Sample from westmost exposure of main outcrop.