

003972

92K/13W No. 1.  
82K/12W-75

50-117 exm

PRELIMINARY REPORT ON LAUTHER'S  
PROPERTY AT SIDMOUTH, B.C.

REFERENCES: Report of Minister of Mines, 1921.  
Report of Minister of Mines, 1928.  
Geological Survey of Canada, Memoir  
161, Lardeau Map Area, B.C.

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This property is owned by J.T. Lauther and D. McIntosh of Revelstoke. The claims consisting of the Asbestos, Asbestos No. 1 and Managanese, are held by location. The property is located on the eastern valley wall of the Columbia River, on Sproat Mountain, north-east of the settlement of Sidmouth. The elevation at the camp is 4000 feet. Local topography is regular, the westerly slope of Sproat Mountain being well-covered with overburden and little effected by the action of running water. Timber and small growth is heavy. Surface work is necesssarily hampered by these conditions.

Access to the property is by  $3\frac{1}{2}$  miles of pack trail from Sidmouth whcih is on the main highway and railroad from Revelstoke to Arrowhead. The pack trail is steep in the upper mile and a permanent route would require relocation.

The property is located along a belt of serpentine rock, assumed to have resulted from the metamorphism of a basic intrusive. This occurrence of serpentine strikes northerly, has widths up to at least a 1000 feet. The serpentine occurs in rocks of the Hamill series of slates,

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schists and other metamorphosed sediments. There is a contact with the younger Lardeau series of quartzites, schists and limestones which strikes approximately parallel to the serpentine, at a short distance easterly from the serpentine. The mineralization by manganese, at present under consideration, occurs close to the serpentine on the east side of it. The contact between the Hamill and Lardeau series is extremely difficult to locate in this area. In the district it is marked by the Badshot formation which is here represented. According to the Geological Survey map, accompanying Memoir 161, the contact is marked by a pronounced width of limestone, the Badshot formation. The writer covered the mapped location of this formation carefully but could find no rock answering its description. Tentatively, the manganese occurrences exposed are considered to be in the Hamill series. From the general strike of these occurrences, slightly east of north, and the mapped strike of the contact between the Hamill and Lardeau series as given in Memoir 161, there should be an intersection between the manganese zone and the contact at some point well north of the present stripping of the manganese occurrence.

The manganese occurs in the form of carbonate in close association with the carbonates of iron, magnesium and calcium, in grey quartzite. In many cases the quartzite

is heavily silicified and occasionally is traversed by irregular quartz stringers. The strike of the quartzite in which the mineralization occurs is slightly east of north. While the general direction is maintained, the development to date indicates that there are probably no extensive lengths of manganese mineralization but, instead, lenticular concentrations within several parallel bands of quartzite. Complete delineation of neither the quartzites nor the carbonate mineralization within the quartzite is possible at the present stage of development. It is probable that there is some en echelon arrangement of the mineralized lenses, particularly close to the margin of the serpentine, at flat angles to the serpentine contact. The concentrations of carbonates dip flatly to the eastward generally although some dips were observed up to 60 degrees eastward. Widths of carbonate mineralization vary up to 8 feet as exposed by the present development.

Upon weathering of the carbonate the manganese changes to the black dioxide and the stain of this mineral is wide-spread in the area. At the principal cut on the property progression from the carbonate to the dioxide is clearly visible in the rock in place. This process is apparent but is not as obvious at some of the other cuts. Films of the black stain are general on float and on rock

in place. Although a search was made, no secondary concentrations of the dioxide were found at elevations below the outcrops of the carbonates. In the following description of the workings it will be found difficult to estimate lengths for the mineralized zones. It is equally difficult to do so on the ground due to the fact that the incompetency of the schist on the sides of the manganese bearing quartzite permits abrupt termination of even apparently strong widths of quartzite, to create typically lenticular outlines for the quartzite; thus, assumption of length is dangerous; knowledge of length may be determined only by complete stripping.

Description of Workings:

Stripping and open cutting have been done over a length of approximately 650 feet. In this length concentrations of manganese are exposed at only two locations, Cut No. 8 and No. 11. Cut No. 8, approximately 140 feet north of the southern limit of the stripping is the one in which the presence of manganese was discovered originally. Cut No. 11, a similar occurrence, is approximately 200 feet north-eastward from Cut No. 8. The main line of stripping extends almost due north from Cut No. 8, but in this direction there is little manganese

mineralization in the grey quartzite exposed, although there may be slight films of black manganese stain on the exposed surfaces and on fracture planes within the rock. Assays and widths samples are shown on the accompanying sketch map.

Conclusion:

This deposit is practically unprospected with the exception of Cut. No. 8. All the stripping and open cutting shown on the plan has been done very recently. To give any complete idea of the value of the manganese occurrence a considerable amount of additional stripping and open cutting is necessary particularly to the north-east of Cut 11 on the line from 8 to Cut 11. This direction is probably the characteristic strike of the manganese occurrence rather than the direction from Cut No. 8 to Cut No. 1. On this basis further prospecting should be done north-east of the line from Cut 8 to Cut 1 to ascertain whether or not there are other occurrences similar to that exposed by Cut 8 and Cut 11 and parallel to the line between those cuts. Additional prospecting and probably some stripping should also be done well to the north and north-east of Cut No. 1. In this area it is possible to find float covered with manganese stain.

82K/13W No. 2.  
82K/10W-75

IDENTIFICATION OF LAUTHER'S MANGANESE SAMPLES

1. mn

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|--------|--|------|
| ✓ 8G.  | Across 6.4 feet, silicified grey quartzite, black manganese stain on exposed surfaces.   | 4.4  |
| ✓ 9G.  | Across 7.9 feet which included 5.4 feet carbonate mineralization and 2.5 feet in which the manganese carbonate was almost entirely altered to the dioxide.                             | 7.5  |
| 10G.   | Select sample of clean, grey, silicified quartzite mineralized by iron carbonate and manganese carbonate; dioxide stain almost entirely absent.  | 8.8  |
| 11G.   | Select dioxide mineralization.   | 14.0 |
| ✓ 12G. | Across 7 feet carbonate and dioxide mineralization representing near surface average.  | 22.5 |
| 13G.   | Select sample of clean carbonate "ore" as nearly as possible but even this has in it hair line seams of MnO <sub>2</sub> . Also very slightly mineralized by pyrite and chalcophyrite. | 33.0 |
| ✓ 14G. | Across 9.9 feet which included 8.9 feet quartzite only slightly mineralized by carbonates and 1 foot concentrated MnO <sub>2</sub> .   | 11.4 |
| ✓ 15G. | Across 3.25 feet silicified quartzite containing little or no carbonate. Slight brown surface stain, probably a mixture of iron carbonate and manganese dioxide.                       | 11.1 |
| ✓ 16G. | Across 10.5 feet heavily silicified quartzite which contains some manganese carbonate.   | 11.1 |
| ✓ 17G. | Across 1.5 feet heavily silicified quartzite which contains some manganese carbonate.  | 11.1 |
| ✓ 18G. | Across 2.25 feet dark grey quartzite, heavily seamed by quartz stringers; very slight dioxide stain.   | 11.1 |

The following two samples were taken on May 31st, 1940, on a previous visit in connection with trail examination. They are both select samples from Cut 8, taken in an effort to ascertain the relative concentrations of manganese in the carbonate rock and in the dioxide rock.

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| 2G. | Select dioxide mineralization.   | 46.8 / mn |
| 3G. | Select carbonate mineralization. | 35.4      |

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