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REPORT

ON

WEAVER LAKE

HARRISON LAKE AREA

B. C.

1965

NEW WESTMINSTER

MINING DIVISION

Brian Lowes

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Vancouver, B. C.
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This report was prepared after two and one-half weeks of mapping and prospecting in an area of about eight square miles, which lies just west of the southern end of Harrison Lake. The writer worked alone using a charter truck for access along a network of logging roads.

LOCATION & ACCESS

The area represented by the map lies almost in the centre of the Harrison Lake sheet (West Half, National Topographic System of Maps) the eastern edge falling just a mile from the west shore of Harrison Lake. Access is by logging road from the Sasquatch Inn on Highway 7 (Agassiz to Mission), just north of the Harrison River Bridge. The centre of the map lies about 14 miles by road from the Inn. Two good roads enter the map area, both of which are maintained and restricted in use by H. & F. Contractors of Harrison Mills. This company kindly allowed the writer free use of the roads.

TOPOGRAPHY

The range of elevation is from below 800 feet around Weaver Lake to 4600 feet on Mount Klaudt. Cliffs have developed locally (especially on coarse-grained, volcanic agglomerate'breccia). Except where logged, slopes are wooded and logging progresses on mature timber.

GEOLOGY

For regional geology, reference may be made to Map 737A of the Geological Survey of Canada (Hope Sheet). The Weaver Lake area is

composed of Mid-Jurassic volcanic rocks into which granodiorite has intruded along Brett Creek, on the northeast side of Mount Klaudt. Most distinctive and predominant are coarse-grained agglomerate and breccia, with minor bedded tuffs; lavas are frequently porphyritic and similar in appearance to crystal tuffs (often the matrix of coarse breccia) so that distinction has been based on rock fabric and minor features such as amygdules.

STRUCTURE

Throughout the map area, beds strike north to northwest with mainly gentle dips (not exceeding fifty degrees, except L-35). Local flexures are open structures and intense deformation is not apparent, corresponding to the absence of metamorphism in these rocks. The intrusion of igneous rocks probably caused the northerly swing of beds on the northern part of the area.

Faults: Several north-south linear, topographic features are indicated on the map; however, there is no surface indication that these are more than the result of weathering along joints.

Joints & Shear Zones: The dominant joint sets are steeply dipping, striking about north-south and east-west. Intensity of fracturing depends on the rock type; many rhyolitic exposures are strongly shattered.

Zones of concentrated fracturing are distinguished, several of which are gouge-filled and may be small faults. These features strike mainly NW-SE and NE-SW with intermediate dips (50 - 60°).

Veins: Veins and veinlets containing sulphides are restricted to the volcanic rocks. Most of these strike NW-SE, following the corresponding

shears. However, almost all fractures are mineralized with pyrite and many contain quartz and carbonate. Most veinlets are less than one inch wide but several are appreciably wider; at L-59, a quartz vein two feet wide is exposed for 100 feet, dipping northwesterly at 40°.

MINERALIZATION

Chalcopyrite, sphalerite, quartz and carbonate minerals are restricted to pods and veins whereas some pyrite is present in most fractures and widely disseminated in less siliceous volcanic rocks. Apparently rhyolitic volcanics are less permeable and more brittle than more intermediate types, pyrite occurring in numerous tiny fractures.

Except for road-cuts, vein sulphides and carbonate have been almost completely eroded from outcrops, so that in many places only residual quartz vein stockworks and gossan provide an indication of the sulphides originally present. The widespread distribution of pyrite tends to blanket gossan staining, especially in the central part of the area, and here a true evaluation of economic mineralization can be had only from road-cuts with cautious extrapolation to residual quartz stockwork veins.

The prospect for economic concentrations of sulphide minerals, particularly sphalerite and chalcopyrite, appears to hinge on the presence of either large veins or concentrations of small veinlets. Both of these alternatives appear scarce in the exposures of fresh-rock already examined, but the most intensely gossan-stained area of all, between L-47 and L-65, affords no opportunity for first-hand examination.

Further work should be prefaced with some blasting of the upper cliffs of L-47. If veins are revealed of equivalent tenor to that of L-51, then it may seem worthwhile to test whether they occur in sufficient density to warrant further development by drilling.

Vancouver, B. C.
June, 1965.

Brian Lowes.

A P P E N D I X

Station	Veins, Veinlets	Assays
L-4	Several 100's ft. - gossan; numerous tiny veinlets, sphal. & carb.	-
L-5	Small o/c. Several veinlets 1" width; sphal.-pyr.-qtz.	Ag 2.2 Zn 7.01
L-16	Tiny o/c. - numerous small qtz.-pyr. veinlets & pyr. dissem.	Ag 1.5 Cu 0.04
L-18A	Several 100's ft. - gossan; veins to several inches apparently weathered away. Pyr. veinlets, strs. marcasite in gouge of 1 ft. shear zone.	
L-21	Road-cut, 50-100 ft. Numerous small pyr.-sphal.-carb. strs.	Ag tr Zn 0.05
L-22	Several 100's ft. - numerous pyr. strs. Several pyr.-qtz.-carb. veinlets, pyr. dissem.	Ag 0.03 Cu 0.04
L-23	Trenched & blasted o/c - Stockwork of qtz. veins; pyr. in veinlets & as dissem.	-
L-28	12" sheared zone - marcasite in gouge	-
L-34	Road-cut - 100 ft. Several 1-2" veinlets qtz.-pyr.-sphal.	Au/Ag tr Zn 0.07
L-36-B	2-3" vein: qtz.-pyr.-cpyr.-sphal.-carb.	Ag 0.2 Cu 4.01 Zn 1.46
L-36-C	Several 1-2" veinlets of qtz.-pyr.-sphal.	Zn 11.95
L-38,39	Road-cut. 12" pod - in breccia vein zone - somewhat weathered; pyr.-cpyr.-qtz.	Ag 0.8 Cu 4.04
L-42	Road-cut; several 1" veinlets qtz.-pyr.-sphal.-cpyr.	Ag 0.3 Zn 8.1 Cu 0.61
L-43	Large cliff road-cut - gossan, weathered joints & veinlets. Numerous ½" - 1" veinlets of qtz.-pyr.-sphal.-cpyr.	
L-44	Small o/c. Small veins 1" - qtz.-pyr.-cpyr.-sphal.	
L-45	Weathered cliff - gossan & weathered veinlets - qtz.-siderite	
L-47	Long cliff - 500 ft. Strongly gossan stained - veins to several inches wide weathered - siderite & eroded stockwork. Dissem. pyr. contributes to gossan.	
L-51	Road-cut - 4-5" qtz.-sphal.-cpyr.-vein - 20 ft. length, & several assoc. veinlets	Au/Ag tr Zn 17.85 Cu 0.57

(Cont.)

A P P E N D I X

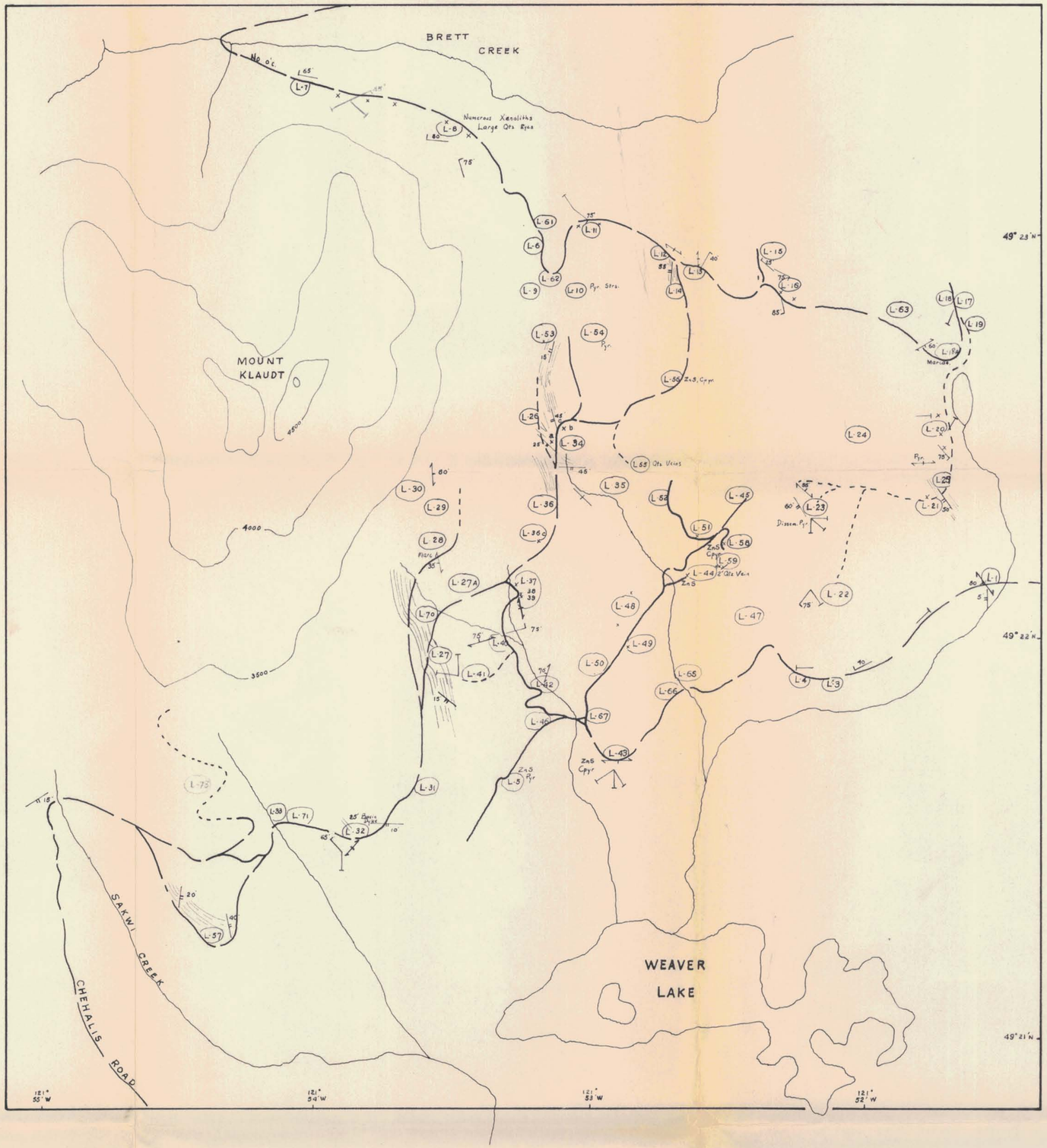
L-55 Small o/c - trenched: 6" qtz. pods & veins - sulphides weathered away. Length indeterminate.

L-56 Road-cut: 12" qtz.-ZnS - Pyr.-cpyr. vein
Length not known.

L-58 Small road-cut exposure: 4" vein - qtz.-pyr.-sphal.-cpyr.

L-59 Top of cliffs o/c - L-47
2 ft. qtz. vein dips 40° towards N.W.
Sulphides weathered: gossan staining.

PROSPECTING MAP OF WEAVER LAKE AREA, NEW WESTMINSTER DISTRICT, BRITISH COLUMBIA



SCALE – 1 INCH = 1000 FEET

KEY

- LOGGING ROADS
- ROUGH ROADS
- (21) TRAVERSE STATIONS
- 40° JOINTS
- SHEAR ZONES

VOLCANIC ROCKS OF MID-JURASSIC AGE

- INTERMEDIATE LAVAS
- VOLCANIC TUFFS, BRECCIA (STRATIFIED)
- O SULPHIDE MINERALIZATION
- G MAJOR GOSSAN AREAS

BRIAN LOWES - JUNE, 1965