

Geological Map of Cracked Mountain

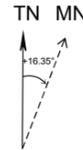


British Columbia

Scale 1:7,000



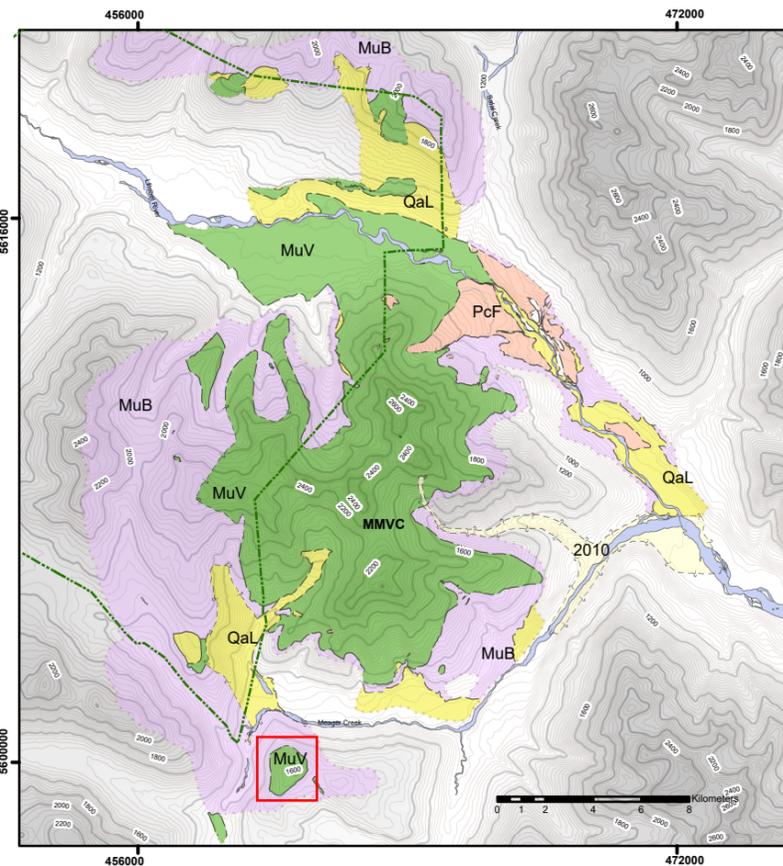
Universal Transverse Mercator Projection
Zone 10U
North American Datum 1983



Limit of Mapping

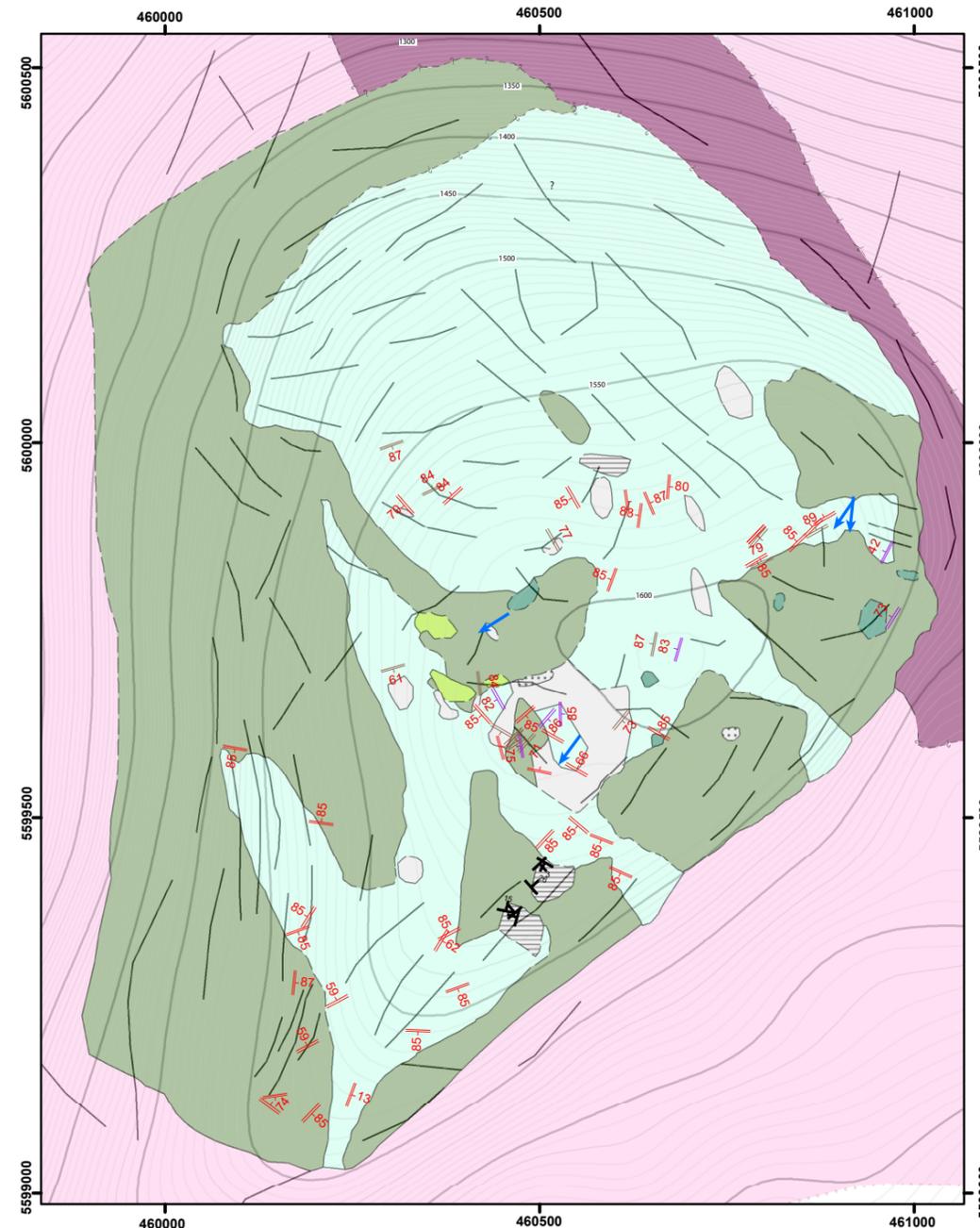
Contacts: *Observed, Approximate, Inferred*

Upper Lillooet Provincial Park Boundary



Inset Map Legend Meager Undivided Geology

- 2010 Landslide (2010)
- QaL Alluvium (Quaternary)
- PcF Pebble Cree Fm. (2360 B.P)
- MuV MMVC Undivided Volcanics (Pleistocene)
- MuB MMVC Undivided Basement (Triassic to Tertiary)
- Cracked Mountain Map Area



References

Harris, M., Muhammad, M., Williams Jones, G., and Russell, J.K., 2020, Bedrock Mapping for Mount Meager Geothermal Research Initiative, Garibaldi Geothermal Energy Project, Mount Meager 2019 - Field Report: Geoscience BC, 2, 1-29.

Read, P.B., 1977, Meager Creek Volcanic Complex, southwestern British Columbia: Geological Survey of Canada, 77-1A, 277-281, doi: 10.4095/102701.

Read, P.B., 1979, Geology of Meager Creek Geothermal Area, British Columbia: Geological Survey of Canada Open-File 603, 1 sheet, doi:10.4095/129507.

Read, P., 1990, Mt Meager Complex, Garibaldi Belt, Southwestern BC.: Geoscience Canada, 17, 167-170.

Roberti, G., 2019, Mount Meager, a glaciated volcano in a changing cryosphere (Doctoral Dissertation). British Columbia, Canada: Simon Fraser University.

Stewart, M.L., Russell, J.K., and Hickson, C.J., 2008, Geology, Pebble Creek formation, British Columbia: Geological Survey of Canada, Open File 5533, 1 sheet, doi:10.4095/225582.

Woodsworth, G., 1977, Geology of Pemberton (92J) Map Area: Geological Survey of Canada, p. 1 sheet, doi:10.4095/129282.

Wilson, A.M., 2019, Glaciovolcanism in the Garibaldi volcanic belt (Doctoral dissertation). British Columbia, Canada: University of British Columbia.

GIS Open Files:
603: Geology, Meager Creek Geothermal Area, British Columbia
Freshwater Atlas Rivers: Published by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development - GeoBCLicensed under Open Government Licence -

*R denotes Read (1979) Map Unit

Cracked Mountain Assemblage (Pleistocene)

- CMjl** **Basalt** - Coherent, subvertical, jointed intrusions, plagioclase and olivine ± augite porphyritic, commonly vesicular, low to high magnetic susceptibility, poorly defined, undulating, to well defined cooling margins, half to three metre thick.
- CMjla** **Basalt** - Coherent, subvertical, jointed intrusions, plagioclase and olivine porphyritic, commonly vesicular, low magnetic susceptibility, poorly defined cooling margins, half to three metre thick.
- CMjlb** **Basalt** - Coherent, subvertical, jointed intrusions, plagioclase, olivine, and augite porphyritic, commonly vesicular, medium to high magnetic susceptibility, undulating to well defined cooling margins, half to three metre thick.
- CMbpB** **Basalt** - Massive, clast supported, moderately to poorly sorted, block and pillow dominated breccia, lapilli to block sized, dense to highly vesiculated lava fragments, lithics commonly show cooling rinds, rare rounded block sized lapilli tuff lithics entrained. Minor yellow ash sized matrix present between breccia clasts.
- CMjL** **Basalt** - Coherent, blocky to columnar jointed lava, dark grey, plagioclase and olivine ± augite porphyritic, dense to moderately vesicular, subvertical columns up to 30 cm in diameter.
- CMpH** **Basalt** - Massive, clast supported, moderately sorted, monolithic pillow dominated hyaloclastite, lapilli to block sized, plagioclase and olivine porphyritic pillow fragments, commonly show in-situ fragmentation with yellow-orange ash sized interstitial sediment.
- CMpL** **Basalt** - Coherent to clast supported, pillow to peperitic lava, dark grey, plagioclase and olivine porphyritic, dense to highly vesicular, commonly mingled within lapilli tuffs, pillows up to 50 cm in diameter.
- CMITa** **Basalt** - Massive, moderately to poorly sorted, monolithic lapilli tuff, ash to lapilli sized vitric components, commonly palagonitized.
- CMITb** **Basalt** - Thinly bedded, well to moderately sorted, monolithic lapilli tuff, ash to lapilli sized vitric components, commonly palagonitized.
- CMITc** **Basalt** - Massive to stratified, moderately to poorly sorted, monolithic lapilli tuff, ash to lappilli sized vitric componentd with localized block and lapilli vesiculated spatter clasts, commonly palagonitized.

Basement (Triassic to Tertiary Intrusive and Metasedimentary)

- ^R **Mgd** **Granodiorite**- Coarse to medium grained, quartz and biotite rich
- ^R **uTR-csb** **Quartz-Biotite Schist**- Coarse to medium grained, biotite and hornblende rich

— Extensional Cracks and Fractures



Glacial Striations



Bedding

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