

Schematic cross-section

MINERAL OCCURRENCES

**APLITE CREEK, AHDATAY (MINFILE 093N 085)**  
The Aplite Creek mineral prospect is situated 4.75 kilometres east-southeast of the southern end of Ahdatay Lake, along Aplite Creek. The area has received sporadic exploration activity since the 1970's, first for porphyry copper-molybdenum deposits and most recently for porphyry copper-gold deposits. The prospect is hosted within the Aplite Creek intrusive complex.

The area is cut by fracture zones trending northwest (345°) or northeast (060°). Deeply incised gullies with good outcrop exposures are coincident with these sub vertical fracture zones and form prominent topographic linears. Moderate to intense propylitic and potassic alteration envelopes up to 20 to 25 metres thick occur around the fractures (Assessment Report #20,943).

Mineralization consists of disseminated pyrite, pyrrhotite and chalcopyrite in anastomosing quartz-carbonate veins up to 4 centimetres thick. Sulphides are also present in the matrix of the country rocks, locally up to 100 metres away from the fractures (Assessment Report #20,943). Various amounts of malachite, azurite, limonite and hematite are associated with the sulphide minerals.

**KLAWLI (MINFILE 093N 032)**

The Klawli showing lies east of the Klawli River and is hosted by plagioclase ± hornblende porphyritic volcanics of the Chuchi Lake formation. In creek bank trenches near old adits the volcanics are bleached and altered with zones containing pyrite, chalcopyrite, malachite and azurite. Although the rocks appear sheared and fractured, discrete shear zones and fabrics were not recognized. Three grab samples assayed greater than 2 percent copper, 102.8 grams per tonne silver and 2.6 grams per tonne gold (Assessment Report #12,908).

**TSAY (MINFILE 093N 214)**

The Tsay occurrence is hosted by a northwest-trending fault structure that extends 10 kilometres from the west end of Tsaydaychi Lake to the headwaters of Valleau Creek. The zone, 1.5 to 2 kilometres wide, lies entirely within the Inzana Lake formation and is characterized by iron-carbonate and quartz-sericite alteration. Disseminated green mica (mariposite?) and pyrite occur in intensely altered, pale buff coloured, foliated sediments. A grab sample returned 135 ppm arsenic and 98 ppm copper.

The presence of anomalous arsenic values with carbonate-quartz-sericite alteration and mariposite suggests a listwanite association. The fault structure has potential for hosting gold-bearing quartz veins, and is thus an interesting regional exploration target.

**SOONER (MINFILE 093 169)**

Molybdenite occurs in fractures and veinlets of alaskite cutting Takla volcanics (Assessment Reports #4471, 3962, 4431). This was not confirmed in the field in 1992.

**VALL (MINFILE 093N 213)**

The Vall occurrence is located along the northeast bank of Valleau Creek approximately 5.5 kilometres from its confluence with the Klawli River. It is a skarn 20 centimetres wide with an altitude 000/78E, associated with a small, irregular carbonate vein system. A grab sample from the showing assayed 130 ppb gold and 176 ppm copper. The occurrence is hosted by hornfelsed coarse augite and minor plagioclase porphyritic basalts of the Jurassic Chuchi Lake formation.

**VALLEY GIRL (MINFILE 093N 111)**

Numerous quartz-carbonate veins up to 15 centimetres wide occur in fractured and sheared andesite. Free gold was observed in one (Assessment Report #15,634; not field verified in 1992).

**WUDTSI (MINFILE 093N 215)**

At the headwaters of Valleau Creek, approximately 5 kilometres north of the south end of Wudtsi Lake, a small, hybrid stock intrudes the Inzana Lake formation. The intrusive is a vari-textured diorite and gabbro body. A hornfelsed mesocratic hornblende diorite phase contains pyrrhotite-bearing quartz stringers that yielded analyses of 190 ppm copper. Epiclastic sandstone and siltstone hosts are hornfelsed and altered (potassic?) and contain disseminated pyrite.

ANALYTICAL PROCEDURES FOR ROCK GEOCHEMISTRY

- GOLD (Au)** Determined by Eco-Tech Laboratories Limited, 10041 East Trans Canada Highway, Kamloops, B.C., V2C 2J3  
**Fire Assay/Atomic Absorption** A 30 gram aliquot sample is subjected to a fire assay technique to generate a Au/Ag bead. The bead is dissolved in nitric acid and the solution is analysed for gold by flame atomic absorption. Detection limit is 5 ppb.
- BASE METALS (Cu, Pb, Zn, Ag)** Determined by B.C. Geological Survey Branch - Analytical Sciences Laboratory, Victoria, B.C., V8V 1X4  
**Atomic Absorption** Samples are digested in hot, concentrated nitric-perchloric-hydrofluoric-hydrochloric acids. The acid solution is diluted to a specific volume and the elements are measured by flame atomic absorption. Detection limits: Cu - 5 ppm, Pb - 4 ppm, Zn - 0.5 ppm, Ag - 0.2 ppm.
- ELEMENTS AS, Sb** Determined by B.C. Geological Survey Branch - Analytical Sciences Laboratory, Victoria, B.C., V8V 1X4  
**Atomic Absorption/Hydride Generation** A 1 gram sample is digested in hot nitric-perchloric-hydrofluoric-hydrochloric acids followed by hydride vapour generation atomic absorption. Detection limits: As - 1 ppm, Sb - 1 ppm.

ROCK GEOCHEMISTRY

SAMPLE NUMBER	MINERAL SHOWING/ SAMPLE DESCRIPTION	UTM EAST	UTM NORTH	Au ppb	Ag ppm	Cu ppm*	Pb ppm	Zn ppm	As ppm	Sb ppm
92KB4-5	VALL: 20 cm skarn vein with epidote, garnet and pyrite	383450	6135325	130	<0.2	176	11	32	4	1
92KB6-4	disseminated malachite in hornblende	379925	6141150	<5	<0.2	197	10	100	6	2
92KB8-6	mylonitized meta-volcanics with pyrite	380560	6140325	<5	<0.2	22	13	49	3	1
92KB8-4	TSAY: intense iron-carbonate altered rock with mariposite?	382475	6146675	5	0.3	98	9	58	135	1
92KB8-6	TSAY: iron-carbonate altered rocks	381725	6147825	5	<0.2	58	11	90	38	1
92KB10-5	WUDTSI: hornfelsed hornblende diorite with py + po	379975	6147975	10	<0.2	190	7	76	5	1
92KB10-5Dup	WUDTSI: hornfelsed hornblende diorite with py + po	379975	6147975	15	<0.2	189	8	78	5	1
92JN5-9	APLITE CREEK: hbl porphyry intrusive with mal + cpy + py	381300	6132025	105	1.2	0.11%	10	40	2	1

\* values in ppm or percent where indicated  
Abbreviations: cpy = chalcopyrite, hbl = hornblende, mal = malachite, po = pyrrhotite, py = pyrite

ADDITIONAL CONTRIBUTIONS TO MAP

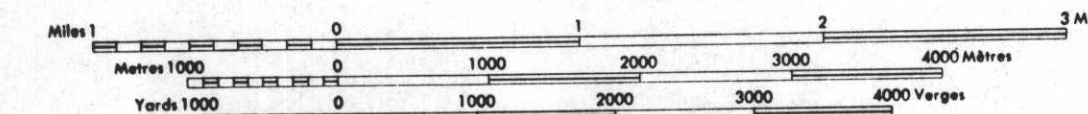
Garnett, J. A. (1978): Geology and Mineral Occurrences of the Southern Hogen Batholith, B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 70, 75 pages.

GEOLGY AND GEOCHEMISTRY OF  
THE KLAWLI LAKE MAP AREA

NTS 93N/7W

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Scale 1:50,000



SHEET 1 OF 1

LEGEND  
LAYERED ROCKS

- MESOZOIC**  
**Lower Jurassic**  
**TAKLA GROUP**  
CHUCHI LAKE formation  
IJCL plagioclase ± augite porphyry flows and fragmental volcanics
- Upper Triassic**  
**TAKLA GROUP**  
WITCH LAKE formation  
uTrWL green and maroon, augite ± plagioclase and hornblende ± plagioclase porphyritic flows and volcaniclastics
- INZANA LAKE formation  
uTrIL green tuff, lapilli tuff, grey siltstone and slate

INTRUSIVE ROCKS

- MESOZOIC**  
**Early Cretaceous**  
GERMANSEN batholith  
EKG coarse-grained hornblende-biotite granite, equigranular to orthoclase megacrystic
- KLAWLI stock  
EKK orthoclase-megacrystic, hornblende-biotite granite
- HOGEN intrusive complex  
EKH orthoclase-megacrystic granite, minor syenite
- Early Jurassic**  
HOGEN intrusive complex  
EJH monzonite, quartz monzonite, granodiorite, and diorite
- APLITE CREEK intrusive complex  
EJAC equigranular to porphyritic, fine to medium-grained diorite and gabbro, intrusive breccia, porphyritic monzonite
- Late Triassic - Early Jurassic**  
VALLEAU CREEK intrusive complex  
TRJVC fine to coarse-grained diorite, gabbro, pyroxenite and hornblende

SYMBOLS

- Geologic contact (defined, approximate, inferred) .....  
Lithologic contact (defined, approximate, inferred) .....  
Transitional contact .....  
Fault (defined, approximate, inferred) .....  
Strike-slip fault (motion indicated) .....  
Normal fault (ball on hanging wall) .....  
Thrust fault (tick on hanging wall) .....  
Outcrop .....  
Subcrop .....  
Bedding (tops known, unknown, overturned) .....  
Pillow bedding and facing .....  
Foliation .....  
Fold axis .....  
Fault surface with slickenside .....  
Glacial striation .....  
Fossil locality .....  
Mineral occurrence - MINFILE number and name .....  
MINFILE mineral occurrence (not field verified) .....  
Cross section .....  
Trench .....  
Geochemical sample locality .....  
Whole rock geochemical sample locality .....

LOCATION MAP

