

- STRATIFIED ROCKS**
- QUATERNARY**
 PLEISTOCENE AND RECENT
 Q Alluvial, marine and glacial deposits
- JURASSIC**
 LOWER JURASSIC
 JH HARBLEDDOWN FORMATION
 Argillite, ribbon chert; minor limestone, tuffaceous and sandy layers; hornfelsed near contact with intrusive rock
- TRIASSIC**
 UPPER TRIASSIC
 UKPB PARSON BAY FORMATION
 Dark limy shale, limestone, argillite
 UKx KARLSTEN FORMATION
 Basalt flows, pillow lava, pillow breccia, greenstone; minor limestone
- AGE NOT KNOWN**
 mm1 Greenstone, amphibolite, chert, argillite, schist, hornfels
 mm2 Argillite, quartzite; minor schist and skarn
 mm3 Chlorite schist, biotite schist, grades into dioritic complex
 mm4 Limestone, quartzite
- HYPABYSSAL ROCK**
 JURASSIC OR YOUNGER
 LOWER JURASSIC OR YOUNGER
 fp feldspar porphyry

- PLUTONIC ROCKS**
 (Age of intrusion not known, but probably Late Jurassic and Early Cretaceous)
- g Beta granite; minor quartz monzonite
 gd Grandodiorite; grading into tonalite and quartz diorite
 t Tonalite; grading into quartz diorite (especially leucocratic varieties) and granodiorite
 qd Quartz diorite; grading into tonalite and diorite
 d Diorite, dioritic complexes; amphibolite, gabbro; grading into quartz diorite
 dgn Complexes of agmatite, gneiss, stockwork, amphibolite; mainly dioritic in composition, in places quartz dioritic or tonalitic; commonly equivalent to diorite unit (next above)
 gb Gabbro; in most places not mapped separately from diorite unit

(From Mineral Inventory Map, British Columbia Department of Mines and Petroleum Resources)

Property Number	Name(s)	Commodity	Reference
71	Princess	Cu, Au, Ag	B.C.M.M. An. Rept. 1916, p. 343
125	Lone Star	Cu	B.C.M.M. An. Rept. 1901, p. 1115 B.C.M.M. An. Rept. 1909, p. 190 G.S.C. Memoir 23, p. 129
126	Copper Queen	Cu	B.C.M.M. An. Rept. 1901, p. 1116 G.S.C. Memoir 23, p. 129
153	Venture (Craycroft)	Au, Ag, Cu	B.C.M.M. An. Rept. 1926, p. 313

Chemical notations: Ag-silver; Au-gold, Cu-copper

Most of the plutonic rocks underlying the northeastern part of Alert Bay map-area are heterogeneous and individual map-units commonly include a variety of rock types. Because of this complexity, the specimens collected probably represent the proportions of the different rock types more accurately than do the areas of the map-units. The following table is derived from a collection of 1609 specimens, each representing the main lithology at a station. Most of the stations lie along the extensive shoreline and were spaced about 500 to 700 metres apart. Modal estimates were made by comparison of stained specimen with spot-abundance charts.

Abundance of rock classes

Total specimens = 1609	
Plutonic (non-migmatitic = 75.4%; migmatitic = 13.4%)	= 88.8%
Metavolcanic	= 7.1%
Metasedimentary	= 1.9%
Sedimentary	= 0.9%
Other	= 1.3%

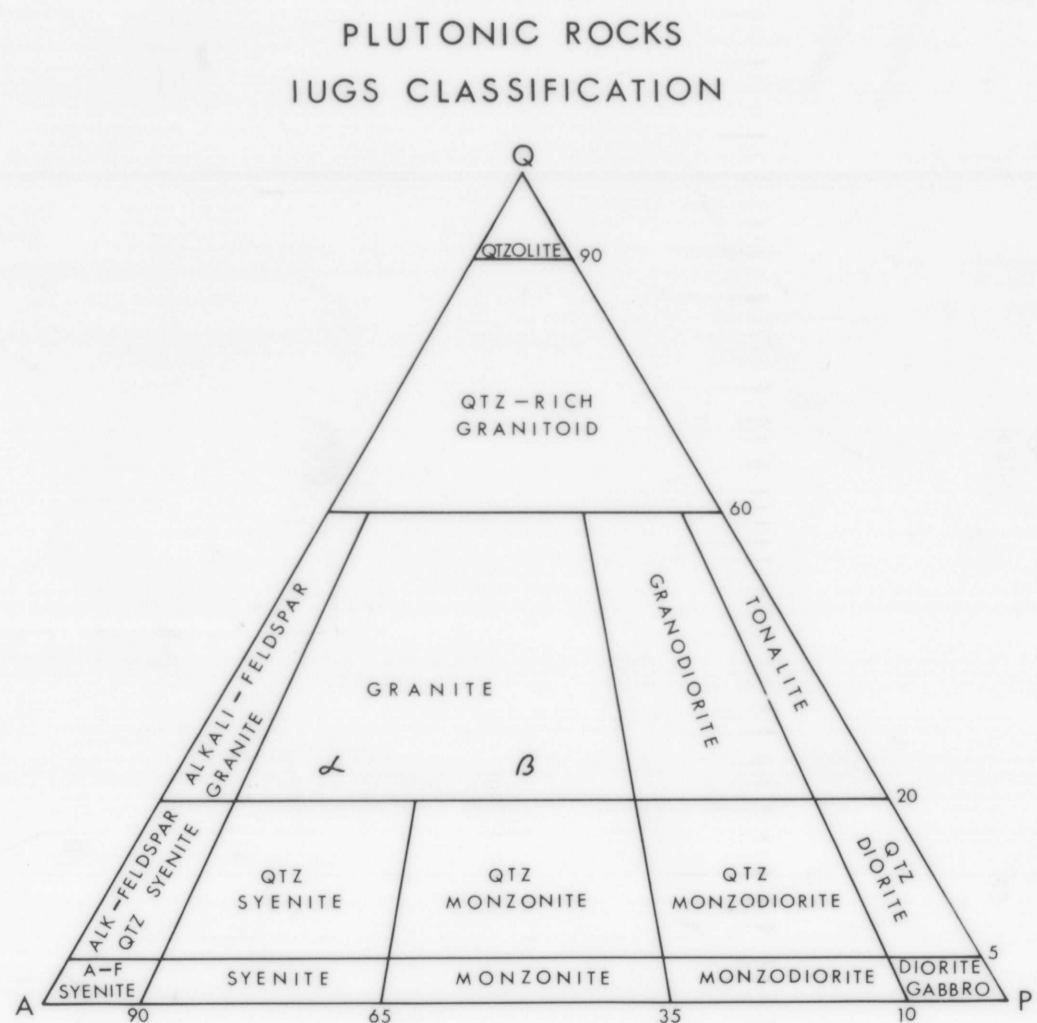
PLUTONIC ROCKS (1213): abundance, modal estimate and specific gravity

TYPE	TOTAL (%)	MAFICS	K-FELD	QUARTZ	SP. GR.
Qtz Diorite	383 (31.6)	22.1	1.8	10.4	2.80
Tonalite	265 (21.8)	19.6	2.0	24.7	2.75
Grandodiorite	205 (16.9)	12.8	11.0	27.6	2.70
Diorite	204 (16.8)	27.8	0.4	1.0	2.84
Qtz Monzodiorite	54 (4.5)	15.9	10.9	13.3	2.73
Gabbro	50 (4.1)	35.8	0.1	0.2	2.98
Beta granite	33 (2.7)	8.3	27.8	30.8	2.65
Qtz Monzonite	3 (0.2)	11.7	37.7	10.0	2.70
Monzodiorite	3 (0.2)	33.0	10.7	1.3	2.77
Unclassified	13 (1.1)				

Plagioclase may be assumed = 100-(mafics + K-feld + quartz)

Average plutonic rock compared with average plutonic rock in the southern Coast Plutonic Complex (both are quartz diorite)

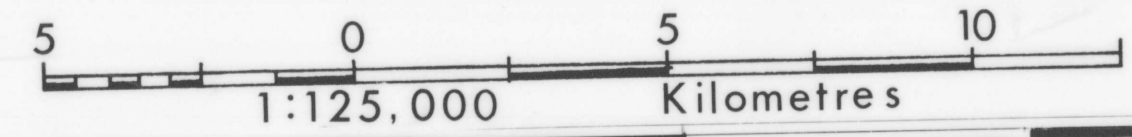
SPEC	MAFIC	K-FELD	QUARTZ	SP. GR.	
Alert Bay (NE)	1200	20.8%	4.3%	15.3%	2.78
Coast Plutonic Complex (beta, lat. 49° and 52°N)	7949	16.7%	5.2%	13.5%	2.75



Geology by J.A. Roddick, and W.W. Hutchison, 1967
 Compiled by J.A. Roddick, 1980

Geology of NORTHEAST ALERT BAY MAP-AREA

BRITISH COLUMBIA



O.F. 722