

EXPLANATION

Recent
Qa Qt Qi
Surficial deposits
Alluvial, beach, and colluvial deposits, Qa; till of terminal and ground moraines, Qt; glacier ice, Qi

Pliocene and Recent
Qel Qep
Eider Point basalt
Includes olivine, two pyroxene basalt and minor rhodacite porphyries. Dominantly pyroclastic rocks, Qep; dominantly lava, Qel

Pliocene(?) and Pleistocene
Q1m
Makushin volcanics
Basalt and andesite lava, pyroclastic rocks, and minor sedimentary rocks, Q1m; basalt plugs, sills, and dikes, Q1

Miocene(?)
Tg Tgd Tgg
Granodiorite batholith
Includes contrasting border facies and associated plutons. Granodiorite, Tg; diorite and minor granitic border facies and small plutons, Tgd; gabbro border facies and small plutons, Tgg

Miocene and lower Pliocene and lower
Tu
Unalaska formation
Slightly altered andesite and basalt extrusive rocks, sills, and sedimentary rocks ranging in coarseness from argillite to conglomerate, Tu; andesite and basalt dikes, including dikes of undetermined age, Tu

Contact, approximately located

Inferred or gradational contact

Fault, approximately located, showing dip D, downthrown side; U, upthrown side

Inferred or gradational fault

Concealed fault

Seaward margin of glaciated topography, probably moraines

Shear zone

Strike and dip of beds

Horizontal beds

Strike and dip of foliation

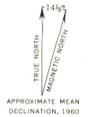
Strike of vertical foliation

Volcanic vent

Fumarole

Collection site of chemically analyzed specimen

Glacial striae, showing probable direction of glacial movement



Subaerial topography by U. S. Coast and Geodetic Survey and U. S. Corps of Engineers, 1940-44; form lines of Shaler Mountains and Makushin Volcano by Harald Drewes

Submarine topography compiled from U. S. Coast and Geodetic Survey smooth sheets of 1934-39 by Harald Drewes

GEOLOGIC MAP OF UNALASKA ISLAND, ALASKA, AND ADJACENT SUBMARINE AREAS



SCALE 1:250,000

CONTOUR INTERVALS 200 AND 1000 FEET

FORM LINES OR AREAS NOT SURVEYED IN DETAIL ARE INDICATED BY BROKEN LINES

DATUM IS MEAN SEA LEVEL

DEPTH CURVES IN FEET—DATUM IS MEAN LOWER LOW WATER

BROKEN LINES ARE A HALF-INTERVAL AND DOTTED LINES ARE A QUARTER-INTERVAL

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C. 10163

Geology by H. F. Barnett, Jr., Harald Drewes, G. D. Fraser, E. H. Metzner, and G. L. Snyder, 1953-54