UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

SEMIQUANTITATIVE SPECTROGRAPHIC ANALYSES OF NINE SPECIMENS FROM THE MOUNT EDGECUMBE VOLCANIC FIELD, KRUZOF ISLAND, SOUTHEASTERN ALASKA

By

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Open-file report

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This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards.

Semiquantitative spectrographic analyses of nine specimens from the Mount Edgecumbe volcanic field, Kruzof Island, southeastern Alaska

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These semiquantitative spectrographic analyses (Table 1) supplement the chemical analyses and petrographic data published by Brew, Muffler, and Loney (1969).

Reference cited

Brew, D. A., Muffler, L. J. P., and Loney, R. A., 1969, Reconnaissance geology of the Mount Edgecumbe volcanic field, Kruzof Island, southeastern Alaska: in Geological Survey Research, U.S. Geol. Survey Prof. Paper 650-D. (In press)

Table 1.--Semiquantitative spectrographic analyses of nine specimens from the Mount Edgecumbe volcanic field, Kruzof Island, southeastern Alaska

[Analysts: Chris Heropoulos (specimens 1, 3-7) and R. E. Mays (specimens 2, 8-9). Analyses are reported in percent to the nearest number in the series 1, 0.7, 0.5, 0.3, 0.2, 0.15, and 0.1, etc., which represent approximate midpoints of interval data on a geometric scale. The assigned interval for semi-quantitative results will include the quantitative value about 30% of the time. M indicates major constituents--greater than 10%, 0 indicates looked for but not detected. Also looked for in all specimens but not detected: ~~P~~, Ag, As, Au, B, Be, Bi, Cd, Ce, Ge, Hf, Hg, In, La, Li, Mo, Pb, Pd, Pt, Re, Sb, Ta, Te, Th, Tl, U, W, Zn.]

Number	1	2	3	4	5	6	7	8	9
Si	M	M	M	M	M	M	M	M	M
Al	10.	7.	10.	10.	10.	M	10.	M	7.
Fe	7.	7.	7.	10.	7.	7.	5.	5.	2.
Mg	7.	10.	3.	3.	3.	2.	2.	1.	.2
Ca	7.	5.	7.	5.	5.	7.	5.	2.	1.
Na	1.5	1.	5.	2.	2.	3.	2.	1.5	2.
K	0	0	0	0	.7	1.5	1.	1.	2.
Ti	.7	.3	.7	1.	.7	.7	.7	.5	.1
~~P~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
Mn	.15	.07	.07	.15	.15	.07	.07	.05	.05
Ba	.005	.005	.01	.015	.02	.07	.03	.015	.03
Co	.007	.002	.005	.005	.003	.003	.003	.0015	0
Cr	.05	.02	.03	.015	.007	.01	.007	.0015	.0007
Cu	.015	.007	.015	.015	.01	.005	.01	.005	.002
Ga	.0015	.002	.002	.0015	.0015	.002	.0015	.002	.003
Nb	0	0	.001	.001	0	.001	.001	0	0
Ni	.05	.01	.01	.007	.005	.003	.007	.0015	0
Sc	.007	.005	.005	.005	.003	.003	.002	.0015	.001
Sr	.02	.03	.03	.05	.05	.07	.03	.02	.015
V	.03	.02	.02	.03	.02	.02	.015	.015	0
Y	.003	.002	.003	.005	.003	.003	.003	.002	.003
Yb	.0003	.0003	.0003	.0005	.0003	.0003	.0003	.0002	.0003
Zr	.007	.01	.01	.015	.015	.015	.02	.02	.02

Sample descriptions

1. 61ABg734a. Olivine-pigeonitic augite basalt from Basalt and breccia unit.
2. 61ABd720. Porphyritic olivine-bearing augite basalt from Oldest basalt flows unit.
3. 61ABd725b. Microporphyritic olivine basalt from Oldest basalt flows unit.
4. 61ALy566. Microporphyritic augite-olivine basalt from Oldest basalt flows unit.
5. 61ALy567a. Porphyritic olivine-bearing pigeonite basaltic andesite from Basaltic andesite unit.
6. 61ALy571. Porphyritic hypersthene basaltic(?) andesite from Andesite unit.
7. 62ABd446. Porphyritic augite dacite from Dacite and possible dacite unit.
8. 61ABd723d. Porphyritic pyroxene dacite from Dacite flows and associated cinder cones unit.
9. 62ABd444. Porphyritic augite-bearing quartz latite from Quartz latite domes unit.