



EXPLANATION

Qal Older and younger alluvium undifferentiated

Qk Koloa Volcanic Series

Twc Waimea Canyon Volcanic Series

Sloping upland surface (planeze)
Stippled where underlain by ferruginous bauxite. Ferruginous bauxite occurs only in areas underlain by the Koloa Volcanic Series

Contact
Dashed where approximately located

Auger hole for which chemical analyses of samples are given in the accompanying table

Hole No. Depth augered, in feet

Thickness of low-silica ferruginous bauxite, in feet

Auger hole for which mineral composition of samples was estimated by differential thermal analysis methods (Patterson, 1962, app. p. 68-85)

Major chemical constituents, in percent, of auger-hole samples, Anahola and Kealia area, Kauai, Hawaii

[Samples with a laboratory number were analyzed by rapid methods described by Shapiro and Brannock (1956). Analysts: P. L. D. Elmore, S. D. Botis, I. H. Barlow, and Gillison Chice. Samples without a laboratory number were analyzed by X-ray fluorescence methods by R. M. Bromery.]

| Auger hole | Sample depth interval (feet) | SiO ₂ | Al ₂ O ₃ | Fe ₂ O ₃ | TiO ₂ | Laboratory No. |
|------------|------------------------------|------------------|--------------------------------|--------------------------------|------------------|----------------|
| 5 | 4-9 | 23.0 | 26.7 | 29.6 | 4.6 | 157483 |
| | 9-14 | | 25.9 | | | 157484 |
| | 14-19 | | 25.4 | | | 157485 |
| | 19-24 | 28.6 | 26.6 | 26.3 | 3.8 | 157486 |
| 9 | 24-39 | | | (not analyzed) | | |
| | 1-4 | 19.9 | 25.4 | 31.6 | 5.2 | 157479 |
| | 4-10 | | 25.3 | | | 157480 |
| | 10-14 | | 25.9 | | | 157481 |
| | 14-19 | 25.2 | 25.8 | 28.6 | 4.6 | 157482 |
| 20 | 19-34 | | | (not analyzed) | | |
| | 1-4 | 4.0 | 19.9 | 41.4 | 5.8 | |
| | 4-9 | 6.0 | 21.2 | 41.6 | 5.1 | |
| | 9-15 | 12.0 | 21.5 | 34.7 | 4.7 | |
| | 15-17 | 16.0 | 21.0 | 32.0 | 5.2 | |
| | 17-19 | 16.8 | 22.7 | 31.7 | 4.5 | |
| | 19-35 | | | (not analyzed) | | |
| 21 | 0-1 | 10.7 | 20.5 | 34.4 | 6.9 | |
| | 1-4 | 3.6 | 22.7 | 40.4 | 5.4 | |
| | 4-9 | 11.2 | 22.3 | 35.6 | 5.0 | |
| | 9-14 | 18.2 | 26.0 | 33.0 | 5.0 | |
| | 14-19 | 19.2 | 26.7 | 29.6 | 4.5 | |
| | 19-24 | | | (not analyzed) | | |
| 34 | 24 | | | (not analyzed) | | |
| | 1-4 | 18.8 | 23.0 | 31.7 | 4.7 | |
| | 4-9 | 19.8 | 24.5 | 31.4 | 4.4 | |
| | 9-14 | 14.0 | 21.5 | 37.8 | 4.9 | |
| | 14-19 | 17.0 | 25.6 | 34.2 | 4.7 | |
| 38 | 19-29 | | | (not analyzed) | | |
| | 1-4 | 11.0 | 37.3 | 40.8 | 5.1 | |
| | 4-9 | 12.5 | 24.0 | 36.9 | 4.9 | |
| | 9-14 | 15.5 | 44.0 | 34.8 | 5.0 | |
| | 9-14 | 15.5 | 44.0 | 34.8 | 5.0 | |
| | 9-14 | 15.5 | 24.0 | 34.8 | 5.0 | |
| | 14-19 | 19.2 | 24.7 | 32.4 | 5.0 | |
| | 19-44 | | | (not analyzed) | | |

**MAP AND SECTION SHOWING THE LOCATION OF FERRUGINOUS BAUXITE DEPOSITS
IN THE ANAHOLA AND KEALIA AREA, KAUAI, HAWAII**