UNITED STATES DEPARTMENT OF THE INTERIOR
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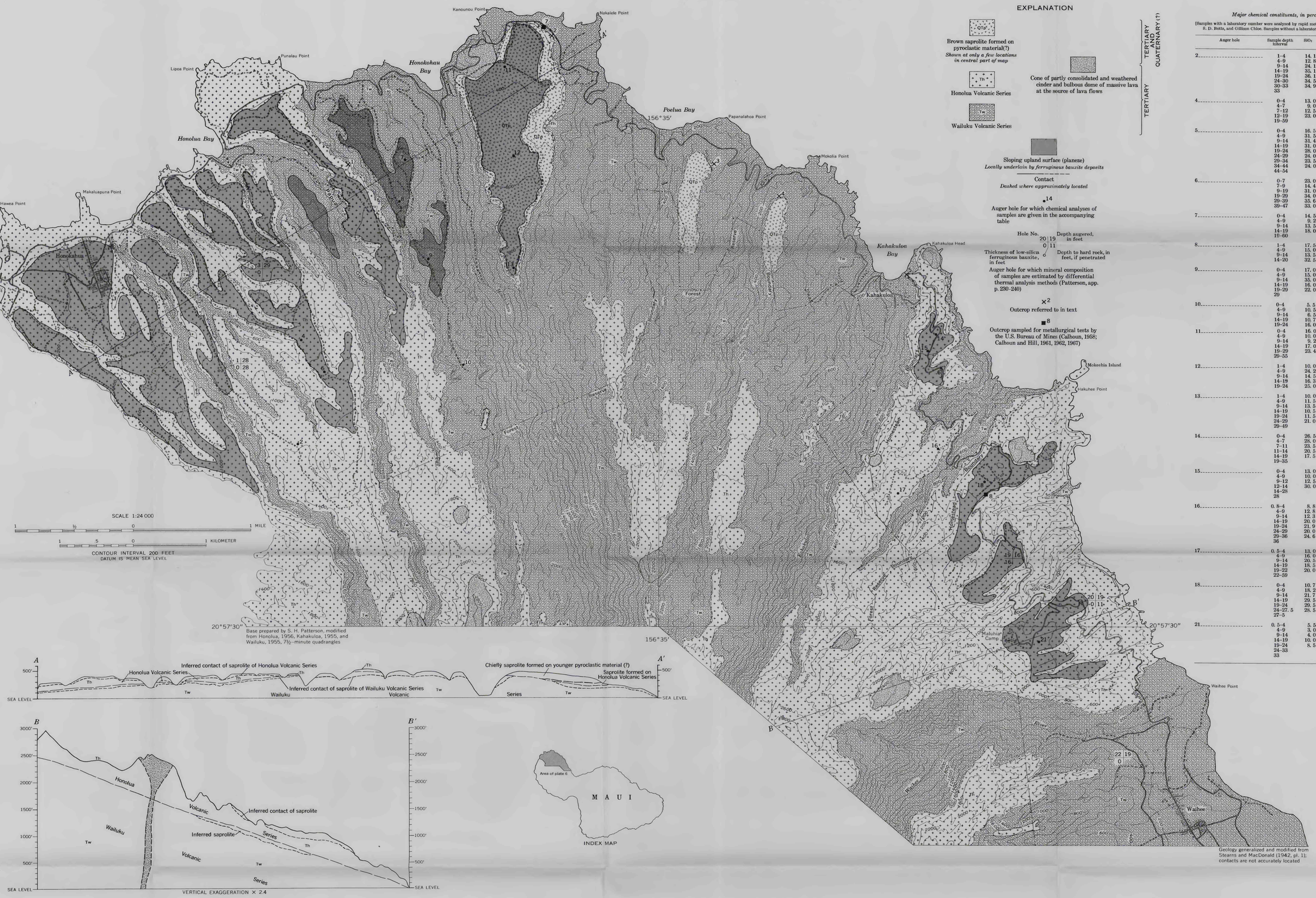
PREPARED IN COOPERATION WITH THE
STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT

PROFESSIONAL PAPER 656
PLATE 6



EXPLANATION

- Brown saprolite formed on pyroclastic material(?) *Shown at only a few locations in central part of map* — QTs
- Honolua Volcanic Series — Th
- Wailuku Volcanic Series — Tw
- Cone of partly consolidated and weathered cinder and bulbous dome of massive lava at the source of lava flows
- Sloping upland surface (planeze) *Locally underlain by ferruginous bauxite deposits*
- Contact *Dashed where approximately located*
- Auger hole for which chemical analyses of samples are given in the accompanying table
- Hole No. 20 | 19 / 0 | 11 — Depth augered, in feet; Thickness of low-silica ferruginous bauxite, in feet; Depth to hard rock, in feet, if penetrated
- Auger hole for which mineral composition of samples are estimated by differential thermal analysis methods (Patterson, app. p. 230–240)
- Outcrop referred to in text
- Outcrop sampled for metallurgical tests by the U.S. Bureau of Mines (Calhoun, 1958; Calhoun and Hill, 1961, 1962, 1967)

TERTIARY AND QUATERNARY (?) / TERTIARY

Major chemical constituents, in percent, of auger-hole samples, West Maui, Hawaii

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

Auger hole	Sample depth interval	SiO_2	Al_2O_3	Fe_2O_3	FeO	TiO_2	Loss on ignition	Laboratory No.
2	1–4	14.1	27.3	23.2	0.9	3.2	28.5	156970
	4–9	12.8	37.5	8.8	1.1	1.6	36.1	156971
	9–14	24.1	37.7	8.1	.7	1.4	26.4	156972
	14–19	35.1	31.2	9.5	.7	1.8	19.8	156973
	19–24	36.1	31.1	10.4	.6	1.8	18.6	156974
	24–30	34.5	31.4	11.9	.2	2.0	19.3	156975
	30–33	34.9	30.0	11.7	.8	2.1	17.6	156976
	33				(hard rock)			
4	0–4	13.0	8.0	45.4		8.0		
	4–7	9.0	32.7	25.6		3.9		
	7–12	12.5	37.7	22.5		3.2		
	12–19	23.0	34.2	20.1		3.0		
	19–59				(not analyzed)			
5	0–4	16.5	33.7	23.2		3.2		
	4–9	31.5	37.8	16.9		2.5		
	9–14	31.4	38.0	16.3		2.6		
	14–19	31.0	40.0	14.7		2.4		
	19–24	28.0	38.7	15.5		2.5		
	24–29	24.0	38.5	17.5		2.7		
	29–34	23.5	38.7	17.4		2.8		
	34–44	24.0	38.7	16.5		2.6		
	44–54				(not analyzed)			
6	0–7	23.0	23.8	24.4	.7	4.0	22.4	156977
	7–9	14.4	38.8	11.5	.8	2.0	31.0	156978
	9–19	31.0	33.3	11.2	.9	2.0	20.7	156979
	19–29	34.0	32.4	11.4	.7	2.0	18.3	156980
	29–39	35.6	31.9	10.7	.6	1.9	17.6	156981
	39–47	33.0	32.6	11.7	.6	2.0	19.1	156982
7	0–4	14.5	26.5	34.0		6.0		
	4–9	9.2	32.5	32.8		6.2		
	9–14	13.5	30.0	30.5		6.0		
	14–19	18.0	30.0	29.1		5.4		
	19–60				(not analyzed)			
8	1–4	17.5	34.0	22.4		2.8		
	4–9	15.0	38.7	18.8		2.5		
	9–14	13.5	41.0	15.4		2.5		
	14–20	32.5	28.0	12.6		2.0		
9	0–4	17.0	28.0	31.2		5.1		
	4–9	15.0	38.0	22.1		2.8		
	9–14	35.0	38.0	14.1		2.1		
	14–19	16.0	39.7	20.4		2.8		
	19–29	22.0	37.5	19.4		2.7		
	29				(hard rock)			
10	0–4	5.5	35.0	30.5		4.3		
	4–9	10.5	37.0	25.1		3.5		
	9–14	6.5	46.0	22.2		3.0		
	14–19	10.7	44.0	22.0		3.0		
	19–24	16.0	30.5	19.3		2.6		
11	0–4	16.0	20.0	35.8		5.7		
	4–9	10.0	29.4	34.8		4.9		
	9–14	9.2	22.5	40.1		4.9		
	14–19	17.0	23.5	37.0		4.6		
	19–29	23.4	29.4	28.6		4.8		
	29–55				(not analyzed)			
12	1–4	10.0	28.8	33.8		7.0		
	4–9	24.2	30.5	25.9		5.3		
	9–14	14.5	34.3	28.1		5.9		
	14–19	16.3	30.8	29.2		6.2		
	19–24	25.0	31.5	25.6		5.4		
13	1–4	10.0	15.8	39.4		8.5		
	4–9	11.5	32.7	29.6		6.3		
	9–14	13.5	33.0	29.0		6.3		
	14–19	10.5	34.2	28.2		6.0		
	19–24	11.5	33.6	28.7		6.1		
	24–29	21.0	32.0	26.5		5.7		
	29–49				(not analyzed)			
14	0–4	26.5	32.5	21.4		2.9		
	4–7	28.0	34.0	17.9		2.5		
	7–11	23.5	31.5	25.0		3.8		
	11–14	20.5	30.0	26.5		4.0		
	14–19	17.5	27.5	31.6		5.1		
	19–35				(not analyzed)			
15	0–4	13.0	17.5	39.5		6.4		
	4–9	10.0	35.8	27.9		3.8		
	9–12	12.5	44.0	19.3		3.0		
	12–14	30.0	36.5	16.8		2.6		
	14–28				(not analyzed)			
	28				(hard rock)			
16	0.8–4	8.8	29.9	28.3	0.9	4.3	26.2	156983
	4–9	12.8	30.0	16.2	.9	2.6	26.5	156984
	9–14	12.3	40.7	15.4	.9	2.6	25.4	156985
	14–19	20.0	39.2	13.1	1.0	2.0	23.3	156986
	19–24	21.9	38.6	12.2	1.1	2.1	22.1	156987
	24–29	20.0	38.8	12.6	1.3	2.2	22.9	156988
	29–36	24.6	26.6	10.8	.9	2.0	22.8	156989
	36				(hard rock)			
17	0.5–4	13.0	40.2	18.4		2.4		
	4–9	16.0	42.5	15.9		2.2		
	9–14	20.5	39.5	17.1		2.4		
	14–19	18.5	42.0	16.2		2.3		
	19–22	20.0	40.5	16.9		2.4		
	22–59				(not analyzed)			
18	0–4	10.7	30.0	28.4		5.3		
	4–9	18.2	37.8	18.9		3.2		
	9–14	21.7	37.7	17.5		3.3		
	14–19	29.5	35.7	17.4		2.8		
	19–24	29.5	35.7	16.9		2.9		
	24–27.5	28.5	37.8	17.2		2.3		
	27–5				(hard rock)			
21	0.5–4	5.5	23.0	40.0		7.2		
	4–9	3.0	35.0	31.2		4.7		
	9–14	4.0	38.0	27.8		3.8		
	14–19	10.0	43.7	21.1		2.7		
	19–24	8.5	45.0	20.2		2.9		
	24–33				(not analyzed)			
	33				(hard rock)			

MAP AND SECTIONS SHOWING THE LOCATION OF FERRUGINOUS BAUXITE DEPOSITS IN WEST MAUI, HAWAII