50488

50488

Alluvium
Unconsolidated gravel, sand and silt of valley fills; wind-blown sand; playa clay

Unconformity

Qoc

Older alluvium and conglomerate
Weakly consolidated gravel and sand; conglomerate composed of subrounded clasts as large as 2 feet in diameter of granitic and some volcanic rocks in matrix of gray coarse arkosic sandstone; little or no bedding; locally tilted and dissected

Unconformity

Tug Tu Tub

Upper part
Sedimentary rocks of fluviatile and lacustrine origin; Tu, composed mainly of gray arkosic sandstone and gray to variegated siltstone and clay shale; in places with thin layers of limestone or chert; shale contains bedded borate deposits; in places contains granitic conglomerate, Tug; and granitic breccia, Tub; also some basalt flows, Tb; maximum thickness; 1,000 feet or more.

Tsb

Saddleback basalt
One or more flows of fine- to medium-grained olivine-augite basalt; maximum thickness 600 feet

Trb

Red Buttes quartz basalt
One or more flows of fine-grained basalt with small quartz and plagioclase phenocrysts; maximum thickness 370 feet

Local Unconformity

Tlg Tl Tb Td Tlt

Lower part
Sedimentary rocks of fluviatile and lacustrine origin; Tl, composed of gray arkosic sandstone, gray siltstone, clay shale, tuffaceous shale, limestone, dolomite and chert; includes granitic conglomerate, Tlg; pyroclastic rocks, Tlt, composed of white tuff, tuff-breccia, and bentonite; flows of olivine basalt, Tb; and bodies of dacite, Td; maximum thickness, 2,000 feet

Unconformity

qm

Crystalline rocks
Mainly quartz monzonite; includes granite, pegmatite, aplite, hornblende schist, meta andesite, and quartz latite

Contact

U D

Fault
Dashed where approximately located; dotted where concealed or inferred; U, relatively upthrown side; D, downthrown side

25

Strike and dip of beds

Mine entrance or shaft

FC2

Test hole drilled for U. S. Geological Survey

Other test hole

•9014

Gravimetric station showing complete Bouguer anomaly value plus 1,000 milligals

900

Lines of equal Bouguer anomaly
Contour interval 1 milligal

Subsurface extent of Kramer borate body, after Gale, 1946, vertical pattern, calcium and calcium-sodium borates; horizontal pattern sodium borates.

*Gale, H. S., 1946, Geology of the Kramer borate district Kern County, California: Calif. Jour. Mines and Geology v. 42, no. 4, p. 325-378.

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

SECTION A-A'

SECTION B-B'

SECTION C-C'

APPROXIMATE MEAN DECLINATION, 1954

FIGURE 2 MAP OF KRAMER-FOUR CORNERS AREA, CALIFORNIA, SHOWING GEOLOGY AND GRAVIMETRIC DATA