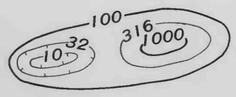
Base map by Topographic Division,
U.S. Geological Survey, 1950

Sampled in 1948–50 by R. G. Yates, W. C. Overstreet, and W. R. Griffitts assisted in 1948 by G. S. Koch, Jr., and L. A. Herrmann and in 1950 by G. A. Dover and Roy Morris

EXPLANATION



Logarithmic isogram showing estimated abundance of accessory monazite in metamorphosed sedimentary rocks

Isograms showing accessory monazite in saprolite of biotite schist, sillimanite schist, and biotite gneiss are logarithmically scaled for abundances ranging from 0.00001 to 0.01 volume percent of the host rock; whole numbers used with isograms represent fractions of 1 percent according to the scheme:

Value of isogram, in volume percent

Line number		Percent
1	=	0.00001
3	=	.00003
10	=	.00010
32	=	.00032
100	=	.00100
316	=	.00316
1000	=	.01000

Hachures indicate closed areas where monazite is of lower abundance

○

Location of heavy-mineral concentrate made from saprolite of biotite schist, sillimanite schist, or biotite gneiss

Concentrates used for descriptions of heavy minerals and for plotting isograms for monazite

⊖

Location of heavy-mineral concentrate made from residual soil

Concentrates used to supplement descriptions of heavy minerals in concentrates from saprolite; not used for plotting isograms

•12

Location of concentrate from saprolite of pegmatite

Concentrates used for descriptions of heavy minerals in pegmatite; volume percentage of monazite in the pegmatite given as a whole number according to the system used to number the isograms; not used for plotting

•T140

Location of concentrate from saprolite of Toluca Quartz Monzonite

Concentrates used for descriptions of heavy minerals in Toluca Quartz Monzonite; volume percentage of monazite in the Toluca Quartz Monzonite given as a whole number according to the system used to number the isograms; not used for plotting

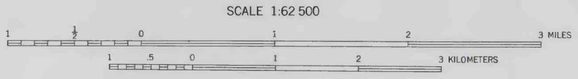
× 30

Location of monazite separate used for spectrochemical analysis

Locality number reported in table of analyses; several samples were taken from some localities

MAP SHOWING DISTRIBUTION OF ACCESSORY MONAZITE IN METAMORPHOSED SEDIMENTARY ROCKS AND THE LOCATIONS OF HEAVY-MINERAL CONCENTRATES IN THE SHELBY QUADRANGLE, NORTH CAROLINA

SCALE 1:62 500



CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

QUADRANGLE LOCATION

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—63106