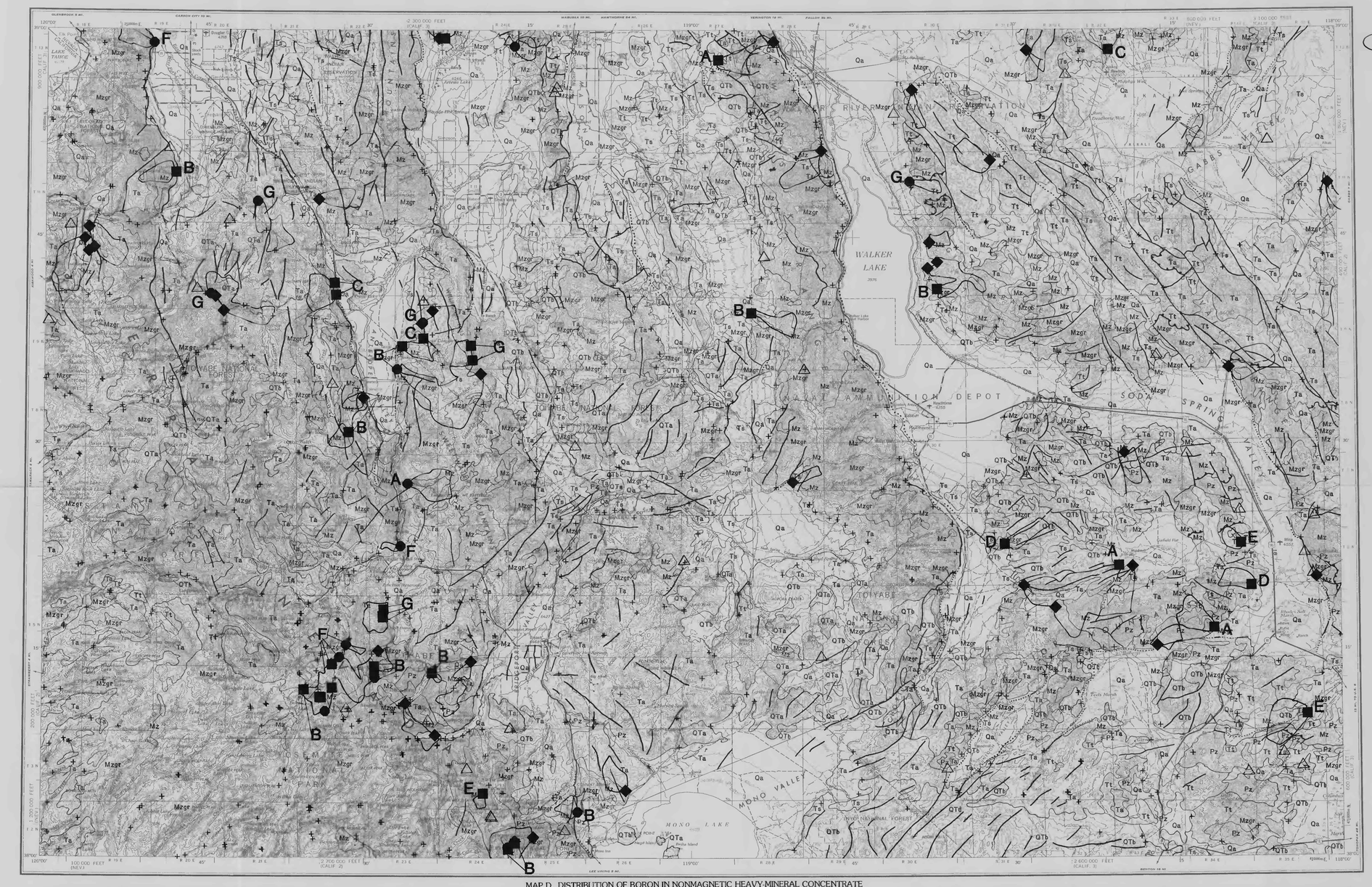


MAP D. DISTRIBUTION OF BORON IN NONMAGNETIC HEAVY-MINERAL CONCENTRATE

EXPLANATION

SAMPLE LOCALITY AND BOUNDARY AND DOMINANT LITHOLOGY OF ASSOCIATED DRAINAGE BASIN--Anomalous in boron. Locality is at center of plotted symbol. Figure 3 shows concentration ranges represented by locality symbols. Letter indicates lithology keyed to table 1

Table 1.--Summary of the dominant source-rock type(s) present in the drainage basins upstream from the most metal-rich sample localities shown on the maps

[X indicates rock type present; leaders (--) indicate rock type not present in significant exposures in that area. Area H is considered to be anomalous only as a result of scrap-metal contamination]

Lithology symbol	Dominant rock types in area: Paleozoic and Mesozoic rocks	Mesozoic intrusive rocks	Tertiary volcanic rocks
A	X	X	X
B	X	X	--
C	X	--	X
D	--	X	X
E	X	--	--
F	--	X	--
G	--	--	X

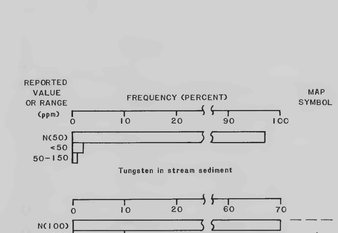


Figure 3.--Frequency-distribution histograms for boron in samples of concentrate. N, not detected at lower limit of determination shown in parentheses. Darkened symbols indicate those concentrations considered to be anomalous.

MAP E. DISTRIBUTIONS OF TUNGSTEN IN MINUS-60-MESH (0.25-MM) STREAM SEDIMENT AND IN NONMAGNETIC HEAVY-MINERAL CONCENTRATE

EXPLANATION

SAMPLE LOCALITY AND BOUNDARY AND DOMINANT LITHOLOGY OF ASSOCIATED DRAINAGE BASIN--Anomalous in tungsten. Locality is at center of plotted symbol. Figure 4 shows concentration ranges represented by locality symbols. Solid outline indicates concentrate anomaly; dashed outline indicates stream-sediment anomaly (tungsten > N(50) ppm in stream-sediment samples). Letter indicates lithology keyed to table 1

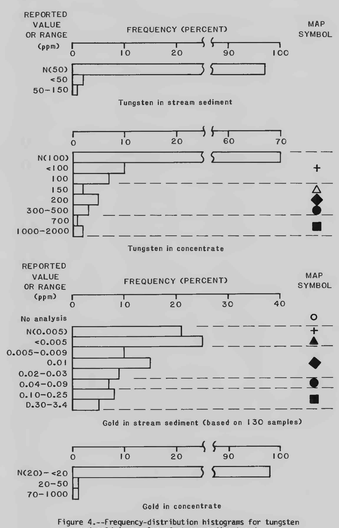


Figure 4.--Frequency-distribution histograms for tungsten and gold in samples of stream sediment and concentrate. N, not detected at lower limit of determination shown in parentheses. Darkened symbols indicate those concentrations considered to be anomalous.

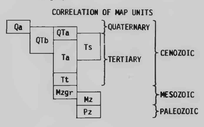
MAP F. DISTRIBUTIONS OF GOLD IN MINUS-60-MESH (0.25-MM) STREAM SEDIMENT AND IN NONMAGNETIC HEAVY-MINERAL CONCENTRATE

EXPLANATION

SAMPLE LOCALITY AND BOUNDARY AND DOMINANT LITHOLOGY OF ASSOCIATED DRAINAGE BASIN--Anomalous in gold. Locality is at center of plotted symbol. Figure 4 shows concentration ranges represented by locality symbols. Solid outline indicates stream-sediment anomaly; dashed outline indicates concentrate anomaly (gold > N(10) ppm in concentrate samples). Letter indicates lithology keyed to table 1

Note: The following correlation and description of map units are for the geologic base map shown in gray

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

Qa ALLUVIAL, LACUSTRINE, EOLIAN, LANDSLIDE, AND GLACIAL DEPOSITS, UNDIVIDED (QUATERNARY)--As mapped locally includes uppermost Tertiary gravel

QTb BASALT (QUATERNARY AND TERTIARY)--Ranges in age from about 9 m.y. to less than 1 m.y.

QTa ANDESITE TO RHYOLITE (QUATERNARY AND TERTIARY)--Andesite flows and breccia. Minor rhyolitic flows and shallow intrusive rocks. Ranges in age from about 5 m.y. to less than 1 m.y.

Ts SEDIMENTARY ROCKS (TERTIARY)--Tuffaceous sandstone, siltstone, and conglomerate to gravel. Minor tuff and volcanic breccia. Ranges in age from about 12 m.y. to 2 m.y.

Ta ANDESITE TO RHYOLITE (TERTIARY)--Andesite flows and breccia. Minor rhyolitic flows and shallow intrusive rocks, latitic to rhyolitic ash-flow tuffs, and sedimentary rocks; sparse basalt; includes some intrusive rocks. Ranges in age from about 22 m.y. to 5 m.y.

Tt TUFF (TERTIARY)--Welded and nonwelded rhyolitic ash-flow tuff. Minor rhyolite flows and shallow intrusive rocks, andesite flows, and sedimentary rocks; sparse basalt; includes some intrusive rocks. Ranges in age from 30 m.y. to 22 m.y.

Mzgr GRANITIC ROCKS (MESOZOIC)--Granite to granodiorite. Minor dioritic, gabbroic, and felsic intrusive rocks

Mz VOLCANIC AND SEDIMENTARY ROCKS, UNDIVIDED (MESOZOIC)--Andesitic to rhyolitic lava flows, breccia, tuff, volcanic sandstone, and conglomerate; shallow marine siltstone, sandstone, conglomerate, and limestone; continental sandstone and conglomerate. Metamorphosed near granitic rocks

Pz SEDIMENTARY AND VOLCANIC ROCKS, UNDIVIDED (PALEOZOIC)--Deep-water marine chert, phyllite, shale, carbonate rocks, volcanogenic turbidite, sandstone, and conglomerate (Ordovician, Devonian, Pennsylvanian, and Permian); shallow-water siltstone, sandstone, conglomerate, and carbonate (Cambrian, Mississippian, and Permian; as mapped includes upper Proterozoic rocks at one locality); and andesitic breccia and lava (Permian). Metamorphosed near granitic rocks

GEOLOGIC CONTACT

HIGH-ANGLE FAULT--Dotted where concealed

THRUST OR LOW-ANGLE FAULT

QUADRANGLE LOCATION

SCALE 1:250 000

CONTOUR INTERVAL 200 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

MAPS SHOWING DISTRIBUTION OF MOLYBDENUM, TIN, BORON, TUNGSTEN, AND GOLD IN SAMPLES OF MINUS-60-MESH (0.25-MM) STREAM SEDIMENT AND (OR) NONMAGNETIC HEAVY-MINERAL CONCENTRATE, WALKER LAKE 1° X 2° QUADRANGLE, CALIFORNIA AND NEVADA

By
M.A. Chaffee, R.H. Hill, and S.J. Sutley

1988

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1988

For sale by U.S. Geological Survey Map Distribution, Box 25286, Federal Center, Denver, CO 80225

Base from U.S. Geological Survey, 1957; revised 1969

Geology simplified from Stewart and others, 1982