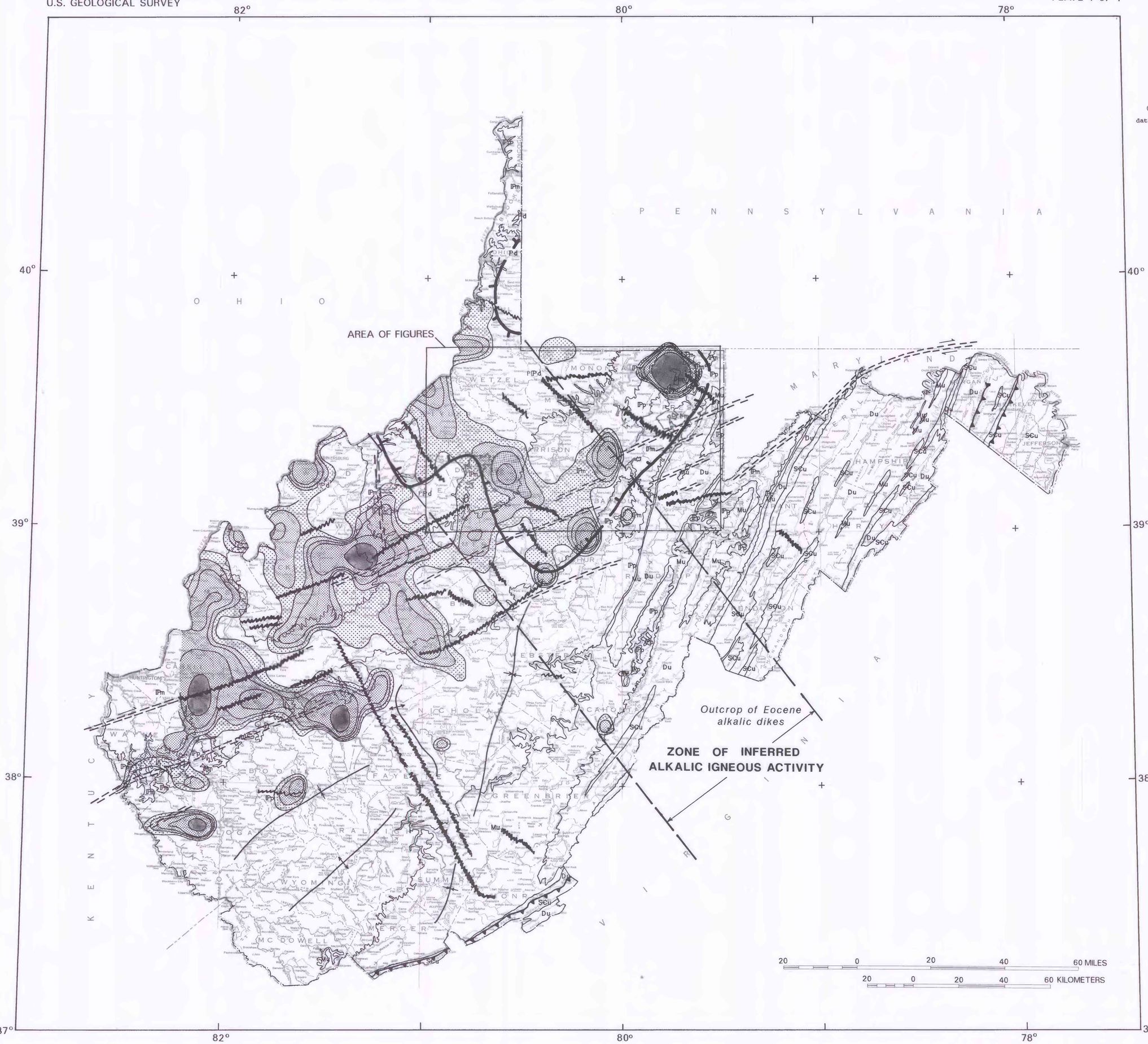

EXPLANATION

(Simplified geology from W.F. Cannon, U.S.G.S., 1991, unpub. data; structural data from Woodward, 1968)

CORRELATION OF MAP UNITS

PPd	Lower Permian and Upper Pennsylvanian
Pm	Upper and Middle Pennsylvanian
Pp	Middle and Lower Pennsylvanian
Mu	Mississippian
Du	Devonian
SCu	Silurian to Cambrian

DESCRIPTION OF MAP UNITS

PPd Dunkard Group (Upper Pennsylvanian and Lower Permian)- Non-marine cyclic sequences of sandstone, siltstone, red, and gray shale limestone and coal

Pm Monongahela Group and Conemaugh Formation, undivided (Upper Pennsylvanian)-Monongahela Group-non-marine cyclic sequences of sandstone, siltstone, red and gray shale, limestone and coal. Conemaugh Formation-cyclic sequences of red and gray shale, siltstone and sandstone, containing thin limestone and coal beds. Mostly marine

Pp Pocahontas, New River, Kanawha, and Allegheny Formations, undivided (Middle and Lower Pennsylvanian)-Predominantly sandstone with some shale, siltstone, coal, and minor limestone near top. Contains some marine zones

Mu Mississippian strata, undivided- Mostly red, green, and gray shale (Mauch Chunk Group). Gray massive sandstone near base (Pocono Group) overlain by a major marine limestone unit (Greenbriar Formation)

Du Devonian strata, undivided- Mostly marine and non-marine gray, black, green, and brown shale, lesser sandstone and conglomerate. Cherty limestone (Helderberg Group) near base, overlain by white to brown sandstone (Oriskany Sandstone)

SCu Silurian, Ordovician and Cambrian strata, undivided- Silurian strata are limestone, shale and sandstone. Ordovician strata are mostly marine limestone and dolomite with gray and black shale (Martinsburg Shale) and red sandstone and shale (Juniata Formation and Oswego Sandstone) near top. Cambrian strata are mostly limestone and dolomite in upper part and quartzite, phyllite and conglomerate in lower part

Contact

Thrust fault-hashures on upper plate

Disruption of fold axes and strike of beds- interpreted as fault

Transcurrent basement fault

Fold axes in the basement

Outline of evaporite basin (from King and Kirstein, 1987)

Isopleths of lanthanum concentrations- corresponds to 50th, 75th, 85th, 90th, 95th, and 99th percentiles of the state-wide data distribution

407 (maximum)
74
56
51
48
45
35

REGIONAL SETTING OF Ti AND ASSOCIATED REE ANOMALIES

By

K.C. WATTS Jr., M.E. HINKLE, AND W.R. GRIFFITTS

1992

Simplified geology from W.F. Cannon, USGS, 1991 unpub. data; structural data from Woodward, 1968

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