

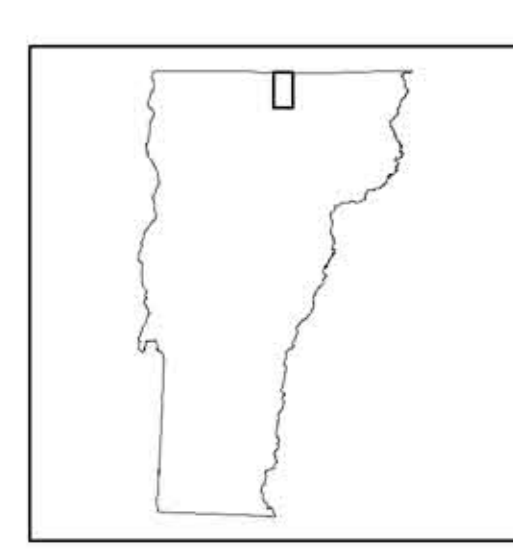
Legend

Descriptions of Map Units
The lithologic units include Cambrian and Ordovician metasedimentary and metaigneous rocks of the Hazens Notch, Ottauquechee, Stowe and Moretown Formations. Units are not listed in stratigraphic order. Please refer to the accompanying interpretive stratigraphy diagram.

- bbp - bluish-black, fine-grained phyllite
- bgms - bluish-green metaslimestone
- tgg - tan, gray granofels and phyllite
- gbp - gray-brown phyllite
- mp - phyllite
- qlp - well foliated, quartz laminated, phyllite
- gp - green phyllite
- ggp - gray-green phyllite
- sgp - medium green phyllite
- tgp - green and tan, chlorite-sericite-quartz phyllites; tan phyllite is more quartzose; light gray quartz phyllite is commonly associated with the tan phyllite; contact with tp is gradational by complex interlayering (transposed)
- sfp - light green, very dense, fine-grained, quartz-poor phyllite with greasy or satiny foliation surfaces
- bgp - gray-brown and green phyllites
- bp - black, fine-grained, carbonaceous phyllite with pyrite cubes; foliation surfaces have greasy sheen and rust-yellow stains; white to light gray discontinuous siltstone; includes gray to yellow-brown, finely interlayered phyllite interstratified with black phyllite (bacon rock); thick (0.5 to 2 meters) dark gray to black, glassy quartzites are locally abundant; this unit is characteristic of the Ottauquechee Formation
- bs/bp - black schist and phyllite
- bgw - biotite graywacke
- gw - light colored greywacke and minor green and black phyllites
- gwb - greywacke with black phyllite
- mgw - massive greywacke within layers of grey-green phyllite
- tgw - tan graywacke
- mqs - quartz-magnetite schist
- wqs - white quartz schist with thin interlayers of black and green phyllites
- wqs-bp - interlayered white quartz schist and black phyllite
- cas - carbonaceous albite schist
- gas - green albite schist
- was - white to tan albite schist
- db - metadiabase
- cg - gray, calcareous metadiabase; massive but foliated, calcareous gneisses which, in some exposures, grade into metadiabase or metagabbro
- gv - medium to dark green, fine-grained greenstone with bands of magnetite oolites in some locations; massive foliated fabric within the interior of the unit grades outward into green phyllite; grain size and composition varies from fine-grained greenstone to coarser-grained diabase or diorite in areas west of Big Falls
- g - greenstone
- mbs - green, punky-weathered, calcareous metabasalt
- mbm - metabasalt with magnetite
- mb - metabasalt
- bmV - amphibolite
- mg - dark, mottled green, fine to medium-grained, massive to foliated, ophiolite metagabbro composed of hornblende, epidote, albite, quartz, and sphene; associated with serpentinite and amphibolite
- s - serpentinite
- tc - talc-carbonate rich rocks which weather to a distinctive brown with an unsystematic fracture pattern
- ts - cream to light blue talc schist; weathers to a light brown

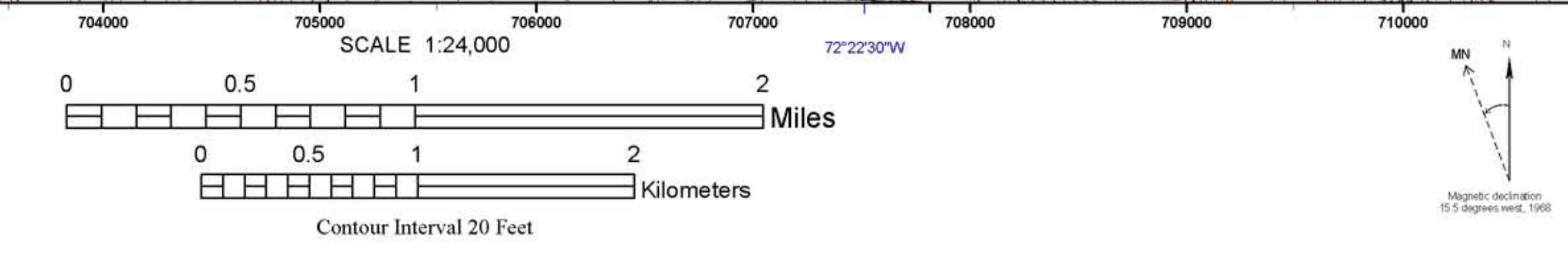
- Thrust fault
- Cross-section endpoints
- Outcrop
- Town Boundary

Fault assemblages were interpreted in the Jay area:
 Fault Assemblage 1: cas, gas, mb, was
 Fault Assemblage 2: bgw, bp, bs-bp, gp, mp, mbs, gw, gwb, mgw, mqs, tgp, wqs, wqs-bp
 Fault Assemblage 3: bbp, bgms, cg, db, gbp, tgg
 Fault Assemblage 4: bbp, bgms, gbp, gp, mbm, sgp, tgg, tgw
 Fault Assemblage 5: s, mg, tc, ts, bmV



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<http://www.anr.state.vt.us/dec/geo/vgs.htm>

Base map from U.S. Geological Survey.
 Quadrangle names printed in blue.
 Coordinate System: Vermont State Plane, meters, NAD 83.
 Geographic coordinates shown at topo corners are in NAD 83.
 Grid overlay on map is Universal Transverse Mercator,
 Zone 18N, NAD 27.
 Digital Cartography by Marjorie Gale
 Date: May 2010



BEDROCK GEOLOGIC MAP OF THE JAY AND NORTH TROY AREA, VERMONT

by
Rolf Stanley and Dana Roy*
 1997

Edited by R. Stanley and M. Gale, 1997

REFERENCES
 Roy, D.L., 1982, The structure and stratigraphy of the Cambrian-Ordovician sequence in the ultramafic belt near Troy, Vermont, Burlington, Vermont, University of Vermont, unpublished M.S. thesis, 123 p.
 Stanley, R.S., Roy, D.L., Hatch, N.L., Jr., and Knapp, D.A., 1984, Evidence for the tectonic emplacement of the ultramafic and associated rocks in the pre-Silurian eugeosynclinal belt of western New England-vestiges of an ancient accretionary wedge, *American Journal of Science*, v. 284, p. 559-595.
 Stanley, R.S. and Roy, D., 1997, Digital bedrock geologic map of part of the Serpentine Belt, Lowell and North Troy quadrangles, Vermont, Vermont Geological Survey Open-File Report VG97-04A, scale 1:24,000.



INTERPRETIVE STRATIGRAPHY

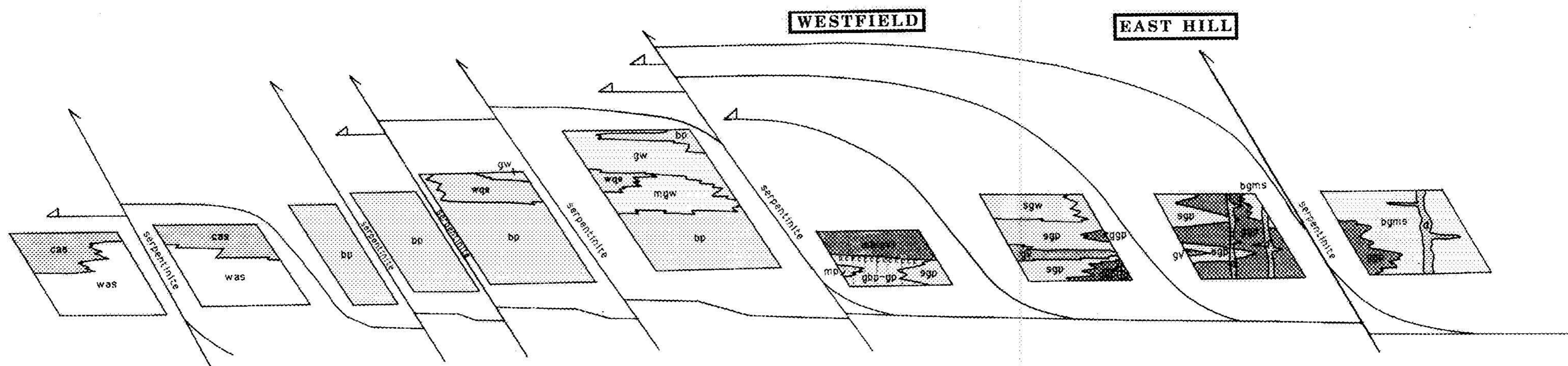
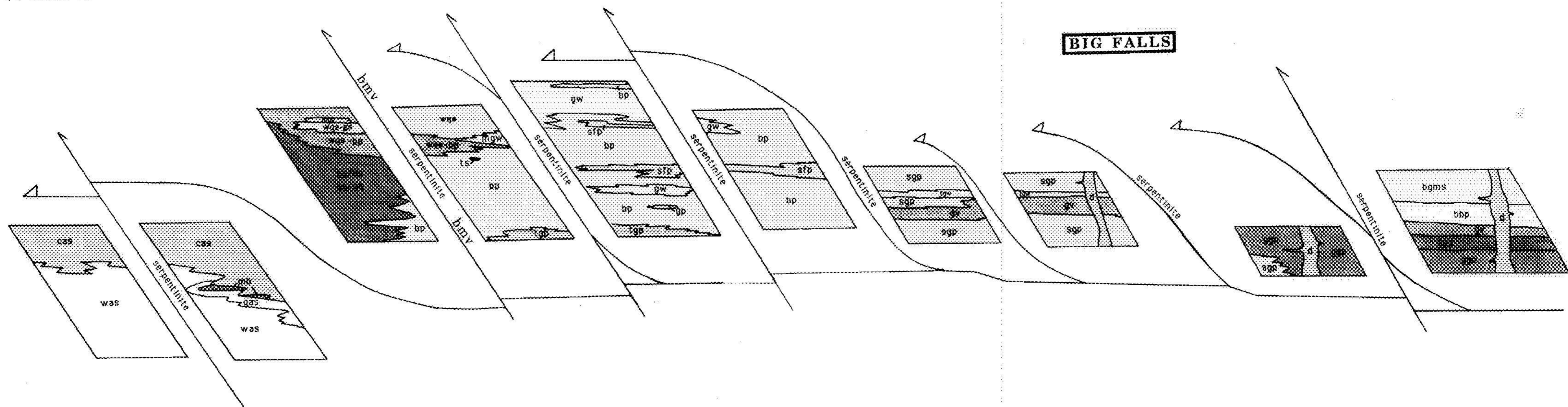
Ultramafic Belt / Taconian Suture

Northern Vermont

Stanley 1990

WEST

EAST

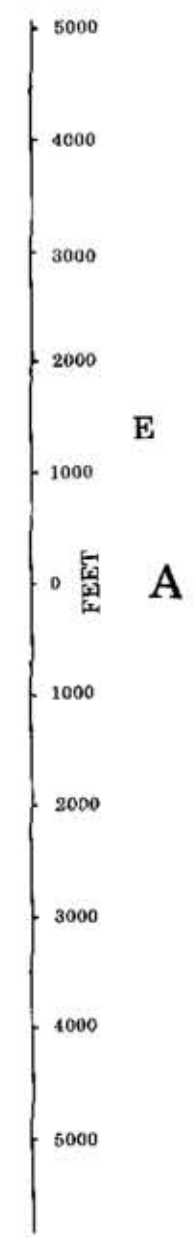
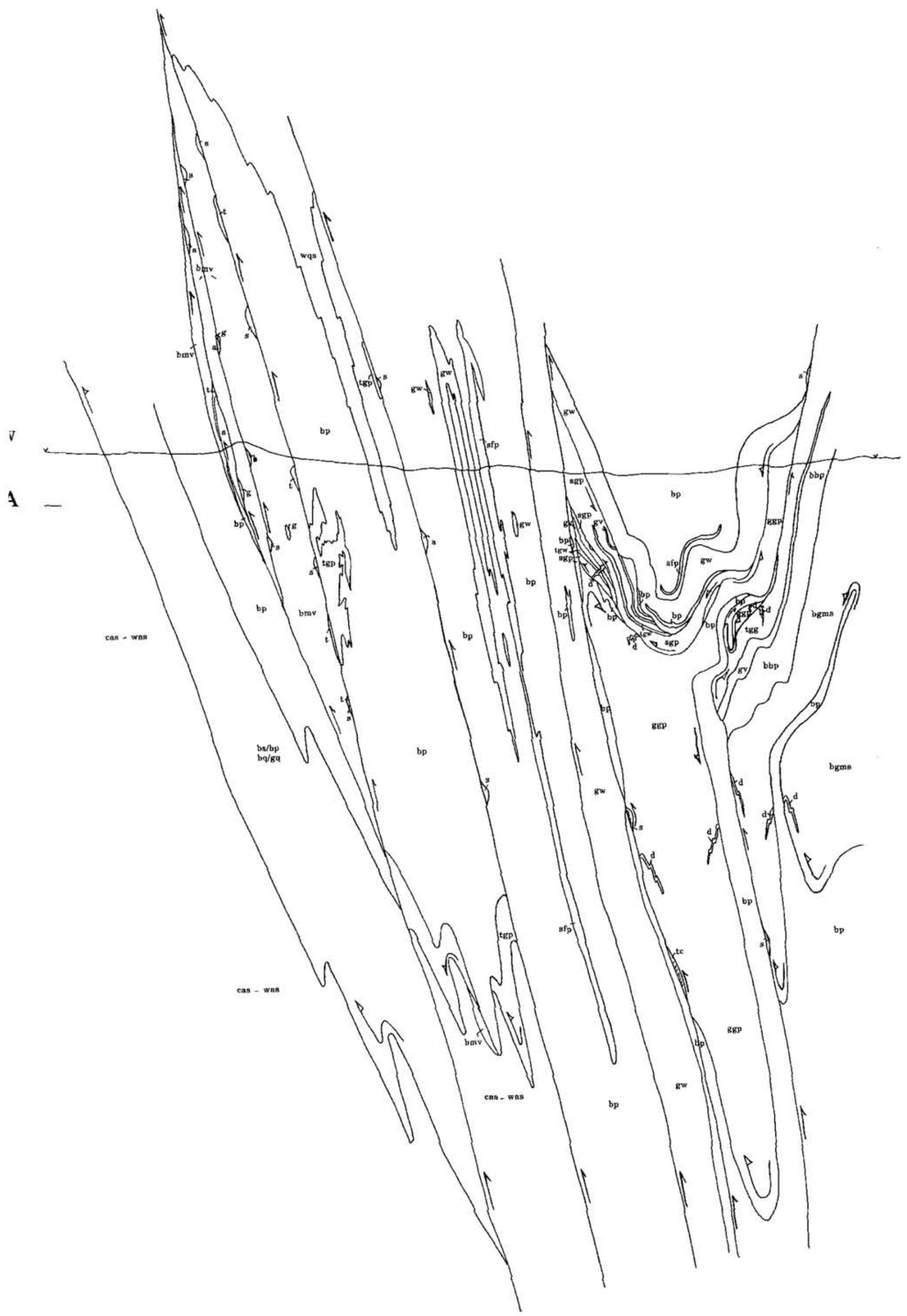


Hazens Notch Formation
(CZ)

Ottawaqueechee Formation
(C)

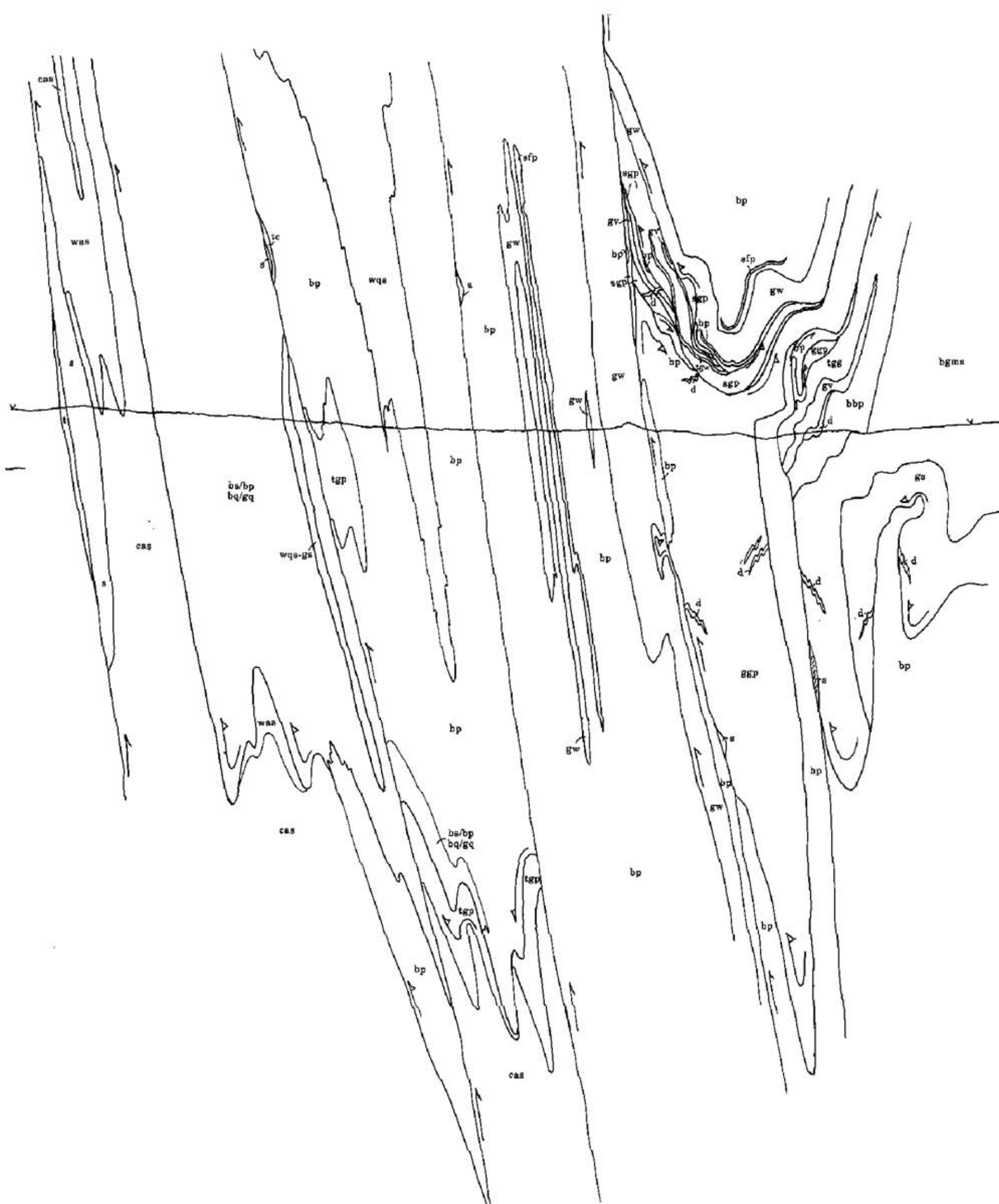
Stowe Formation (western)
(C?)

Moretown Formation (west)
(O?C)

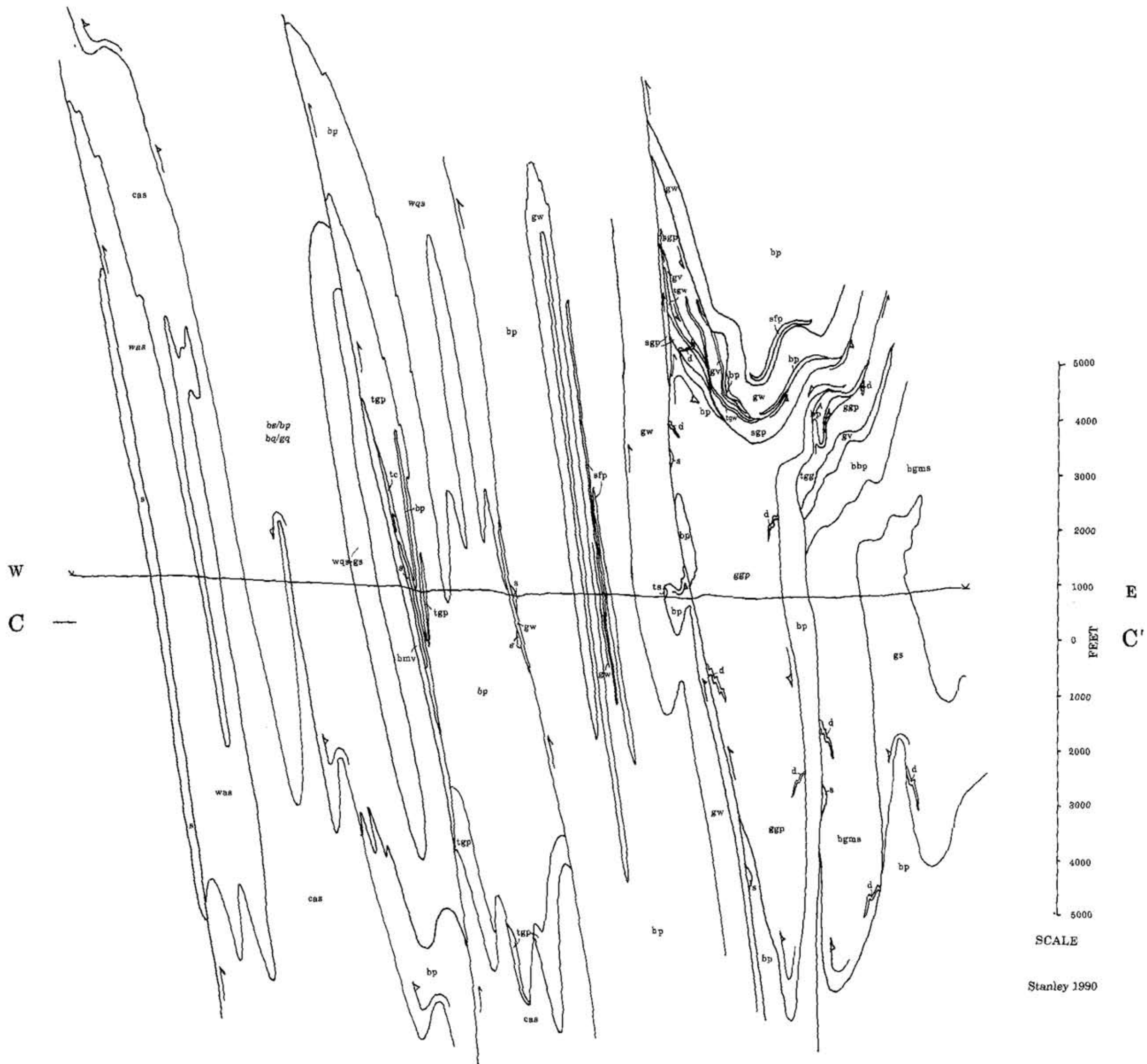


SCALE
Stanley 1990

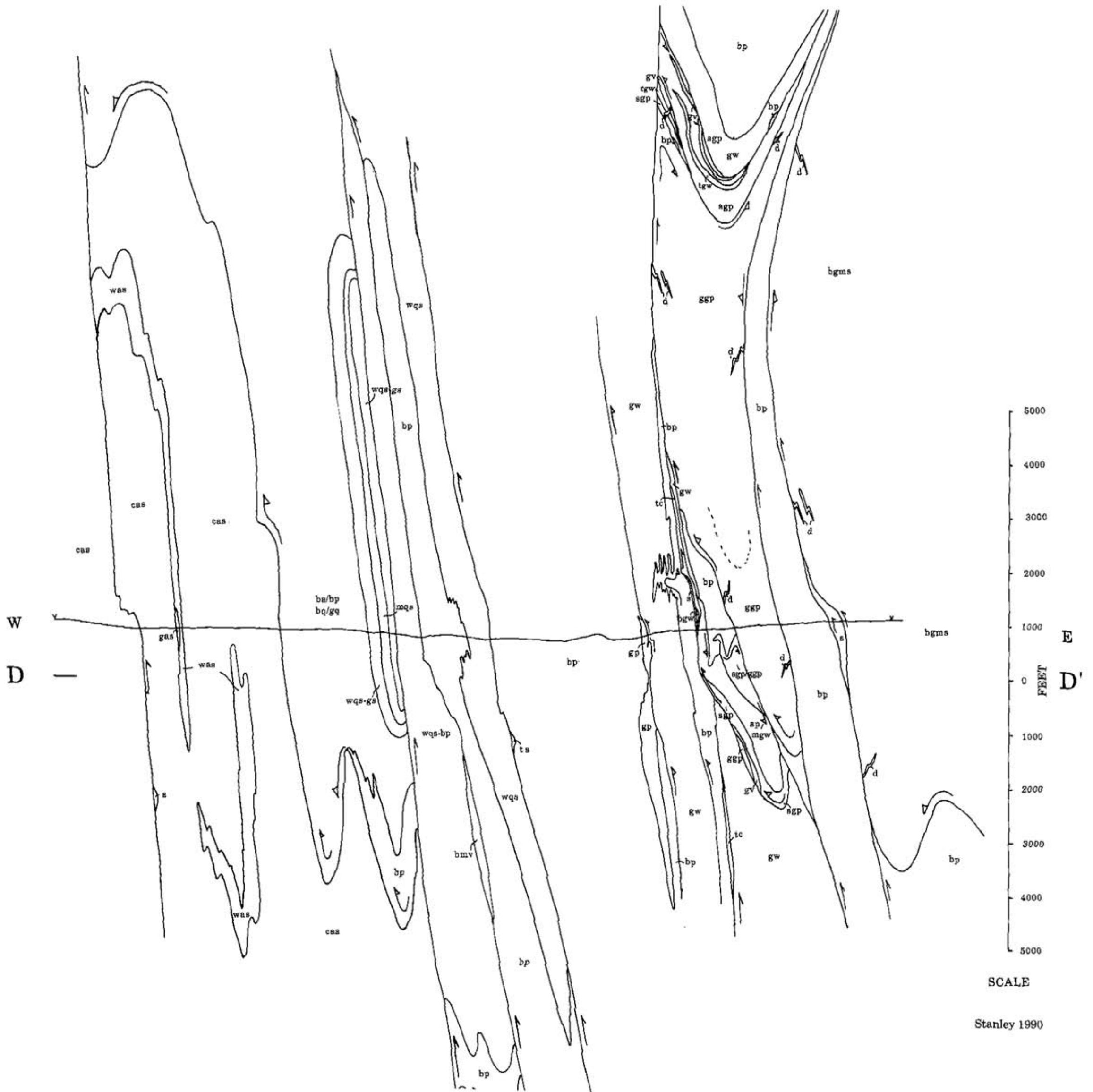
B



SCALE
Stanley 1990

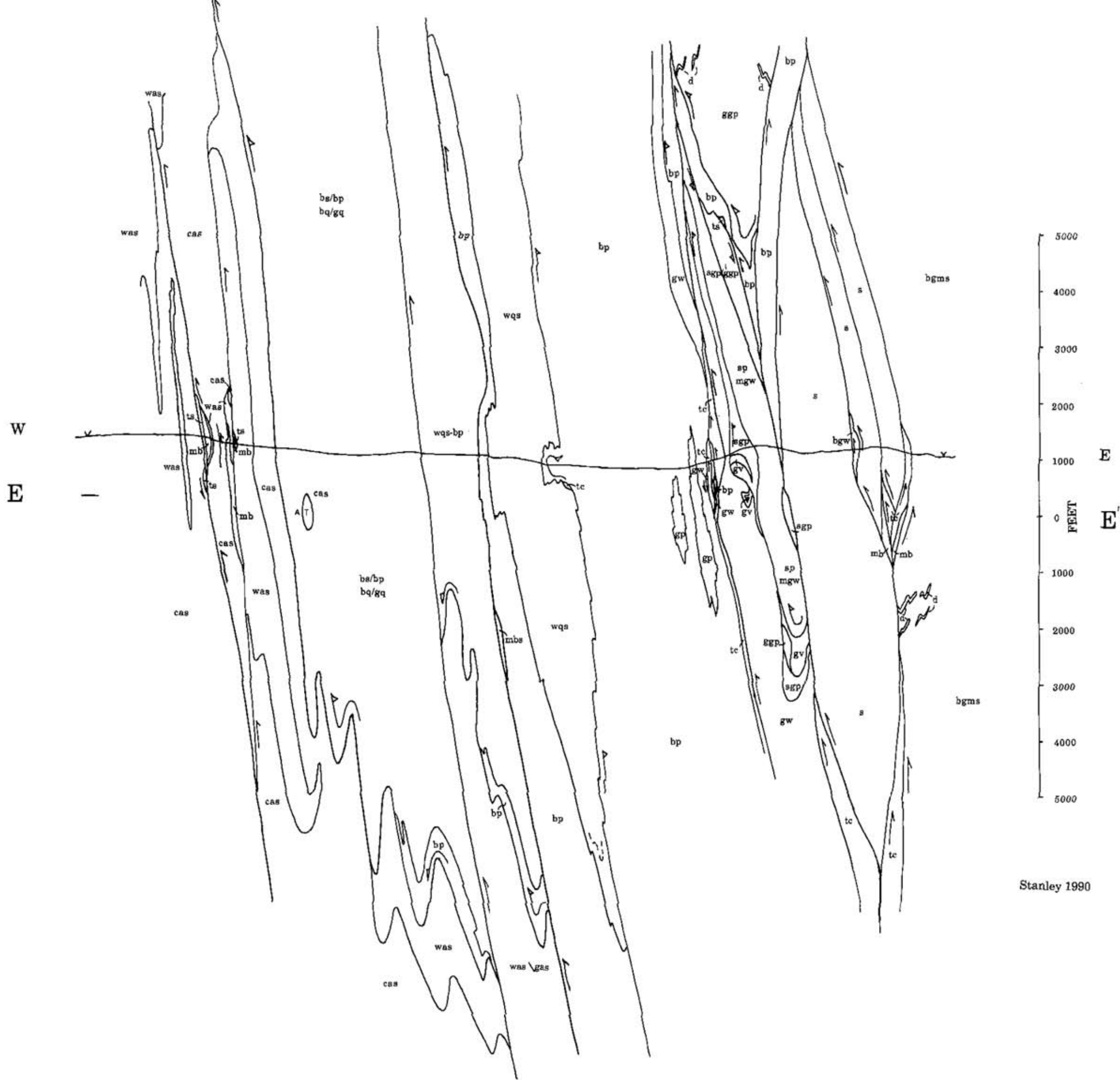


Stanley 1990

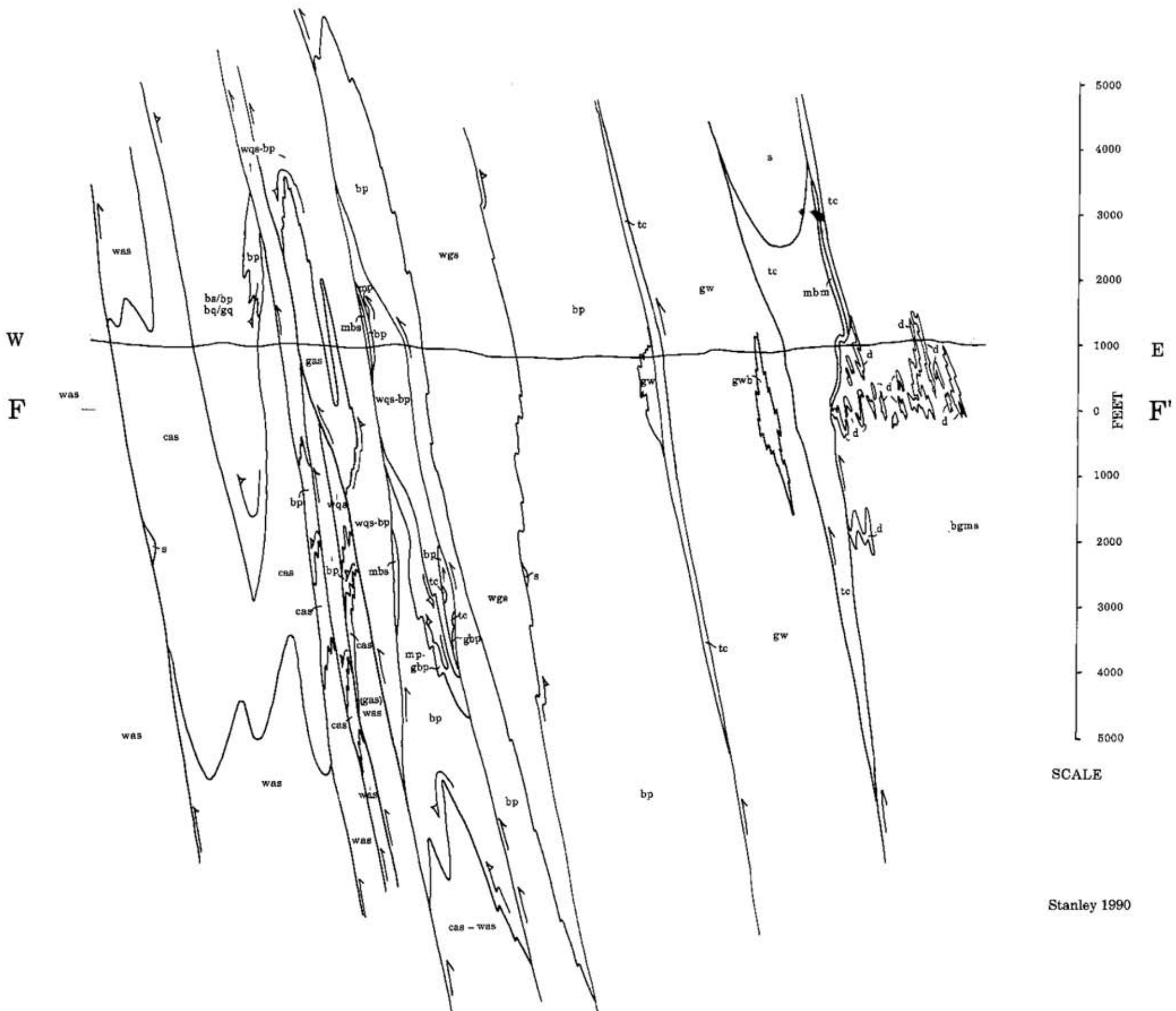


SCALE

Stanley 1990



Stanley 1990



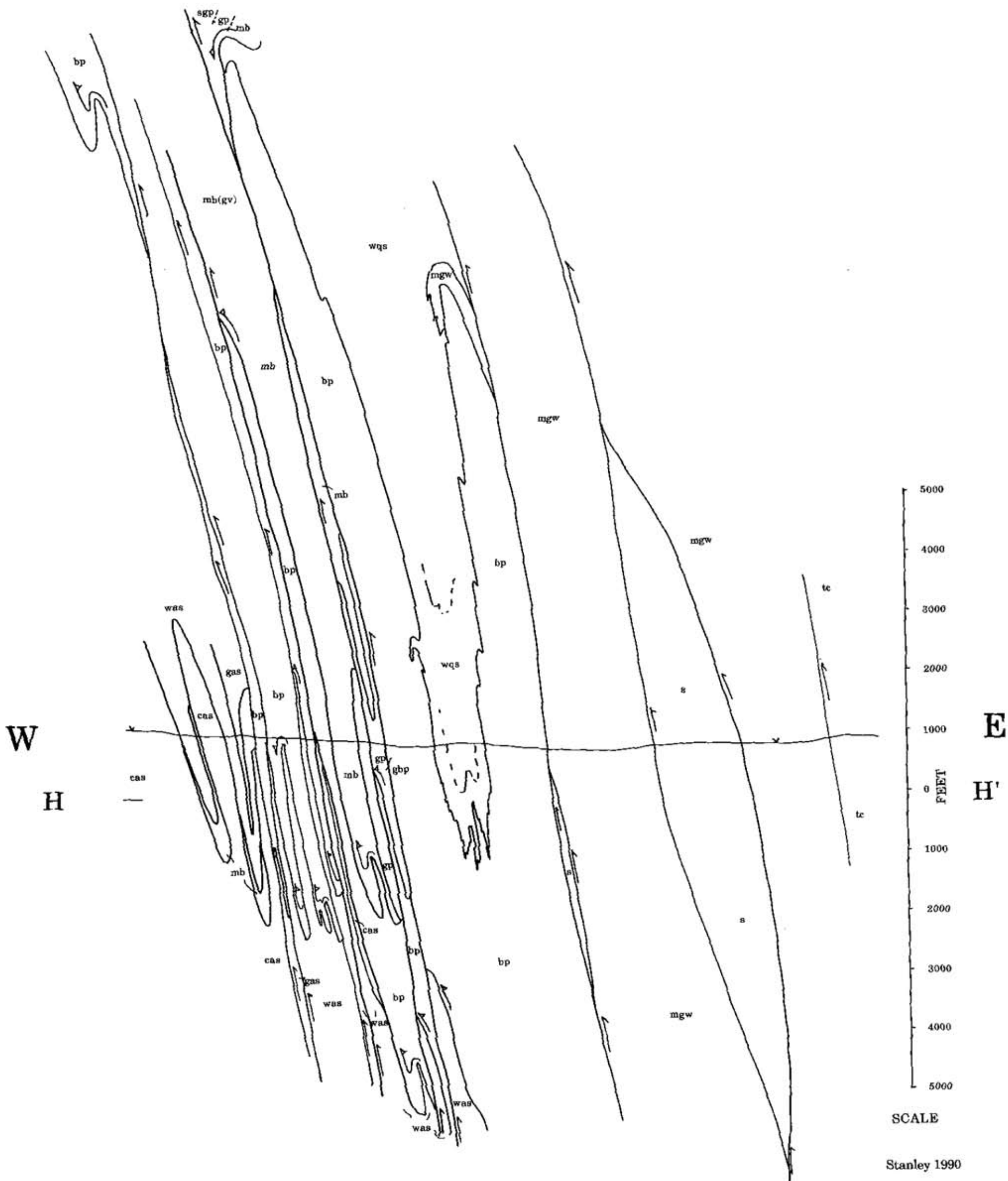
W
G



E
G'

SCALE

Stanley 1990



SCALE