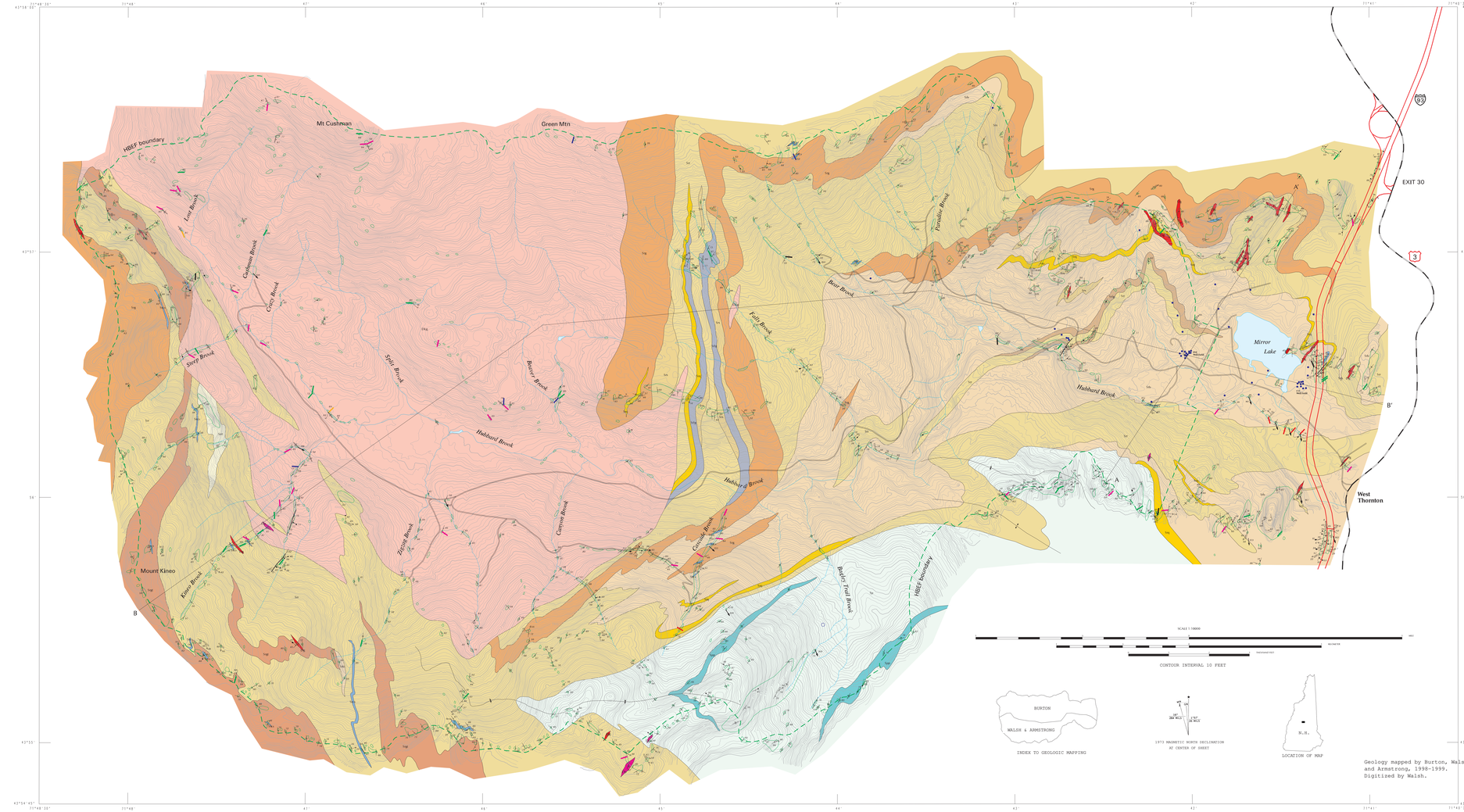
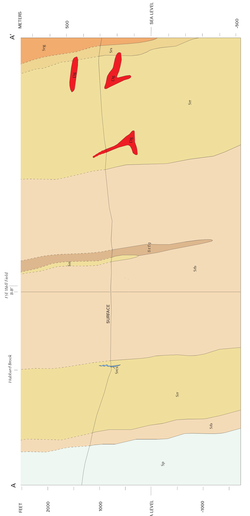
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

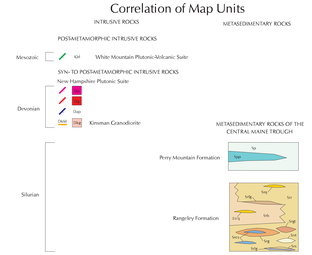
OPEN-FILE REPORT 00-45-A, v
Plate 1 o
Explanatory pamphlet accompanie



Geology mapped by Burton, Walsh, and Armstrong, 1998-1999. Digitized by Walsh.



Correlation of Map Units



Simplified Description of Map Units

(see accompanying text for complete description)

POSTAMETAMORPHIC INTRUSIVE ROCKS

White Mountain Plutonic-Volcanic Suite

Kwi — Diabase and lamprophyre dikes, shown by symbol only (Cretaceous and Jurassic)

SYN- TO POSTAMETAMORPHIC INTRUSIVE ROCKS

New Hampshire Plutonic Suite

Concord Granite (Late Devonian)

Pegmatite (Devonian)

Dap — Aplite, shown by symbol only (Devonian)

Dkm, Dkg — Kinsman Granodiorite (Dkg) and fine-grained granodiorite dikes (Dkm), shown by symbol only (Early Devonian)

METASEDIMENTARY ROCKS OF THE CENTRAL MAINE TROUGH

Perry Mountain Formation (Middle to Lower? Silurian)

Sp — Bedded quartzite and sillimanite schist

Spm — Pelitic member, massive sillimanite schist

Rangeley Formation (Lower Silurian)

Srb — Biotite schist

Sr — Rusty schist

Srt — Rusty tourmaline schist

Srg — Coarse-grained schist and granofels

Srgt — Coarse-grained schist and granofels with garnet and tourmaline

Srq — Quartzite

Srs — Sillimanite schist

Srfg — Fine-grained granofels

Srlg — Layered quartzite and granofels

Srcg — Calc-silicate granofels

Explanation of Map Symbols

- Contacts, dotted where concealed
- Brittle fault, U = up and D = down
- Outcrops (areas of exposed bedrock examined in this study)
- F1 antiform
- F1 synform

Minor Folds

Strike and dip of refolded F1 axial surface: Inclined

Strike and dip of F2 axial surface: Inclined; Vertical

Strike and dip of F3 axial surface: Inclined; Vertical

Planar Features

Strike and dip of bedding: Inclined; Vertical; Inclined, showing tops from graded beds; Inclined, overturned showing tops from graded beds

Strike and dip of layer-parallel S1 schistosity: Inclined; Vertical

Strike and dip of dominant schistosity of undetermined age or composite S1 and S2 schistosity or foliation: Inclined; Vertical; Inclined, deformed

Strike and dip of flow foliation in the Kinsman Granodiorite: Inclined; Vertical

Strike and dip of S2 penetrative cleavage, schistosity, or foliation: Inclined; Vertical

Strike and dip of S3 penetrative to spaced cleavage, schistosity, or foliation: Inclined; Vertical

Strike and dip of dikes: Inclined, DKkl; Inclined, Dap; Inclined, Dp; Vertical, Dp; Inclined, Dg; Vertical, Dg; Inclined, Kld; Vertical, Kld

Strike and dip of veins: Inclined; Vertical

Strike and dip of brittle fault: Inclined

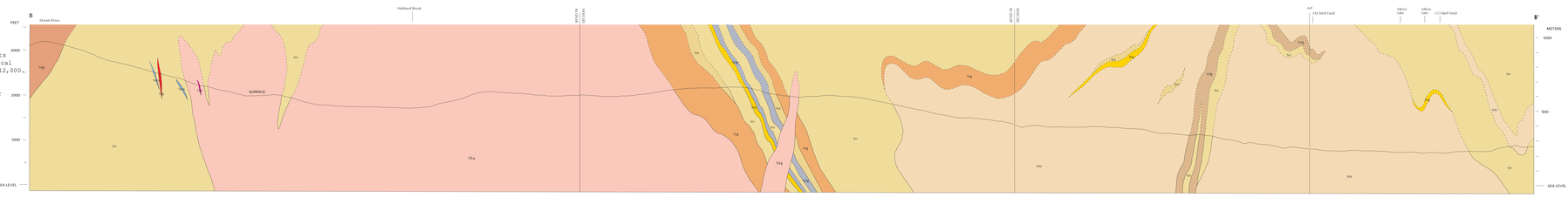
Linear Features

Trend and plunge of fold axes and lineations

- Refolded F1 fold axis
- F2 fold axis
- F3 fold axis
- Intersection between S1 and S2
- Elongation or mineral lineation on S2
- Slickensides on brittle fault
- Trend of glacial striations or grooves

Other Features

- Well
- Spring



Base from unpublished U.S. Forest Service map, 1956.

Base map digitized by Cornell Laboratory for Environmental Applications of Remote Sensing (CLEARS), Center for the Environment, Cornell University. Digital file obtained from: Barton, C.C., 1997, Bedrock geologic map of the Hubbard Brook Experimental Forest and maps of fractures and geology in roadcuts along Interstate 93, Grafton County, New Hampshire: U.S. Geological Survey Miscellaneous Investigations Series Map I-2562, scale 1:12,000.

Topography by photogrammetric methods from aerial photographs taken 1956. Topographic contours in northeastern part of Mirror Lake watershed are interpolated from U.S. Geological Survey Woodstock quadrangle, New Hampshire, 7.5-minute series topographic map, 1980.

Roads from New Hampshire s statewide GIS, NH GRANIT.
Polyconic projection, 1927 North American Datum.

BEDROCK GEOLOGIC MAP OF THE HUBBARD BROOK EXPERIMENTAL FOREST, GRAFTON COUNTY, NEW HAMPSHIRE

By

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2000

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This plate was compiled from the digital bedrock geologic information for the Hubbard Brook Experimental Forest located in Grafton County, New Hampshire. The database was digitally compiled in ARC/INFO version 7.2.1.

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards (or with the North American Stratigraphic Code). Any use of trade names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

This plate and the accompanying text are part A and the rest of the report is part B of this Open-File Report; both parts are available from:

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