Agency of Natural Resources
Vermont Geological Survey

Geology mapped by : Thompson,P. [1] , Thompson, T.B. [1]

Compiled by: Marjorie Gale [2] ,under the direction of Rolfe Stanley [1]

Digitized by: Tom Merrifield [3] , David Dreher [3]

John Dudley [3] , and Tom Merrifield [3] in cooperation with the US Geological Survey, developed digital protocols for creating Arcinfo coverages of the bedrock data.

Laurence R. Becker, State Geologist

[1] University of Vermont, Geology Department
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Geologic Units, Faults and Outcrops

Extent of bedrock exposure

Lithic contact

Thrust fault: teeth on upper plate; pre to syn-S2.

Thrust fault: teeth on upper plate; post-S2.

Description of Map Units

Order of units does not reflect relative ages

LITHOLOGIC DESCRIPTIONS

OTTAUQUECHEE FORMATION

Co Quartzite and Phyllite: black to gray graphitic quartzite; black, graphitic quartzose phyllite with thin quartz laminae and large euhedral pyrite; light green to gray quartzose schist with pyrite; local subaqueous lenses, ultramafic bodies, and greenstones.

PINNEY HOLLOW FORMATION

Cph Silver-Green Schist and Phyllite: silver-green schist and phyllite rich in quartz, chlorite and muscovite, locally with albite and magnetite. Local light gray quartzite.

HAZENS NOTCH FORMATION

CZhn Graphitic Schist and Phyllite: black, graphitic schist and phyllite interlayered with rusty-weathering sulfidic, quartz- chlorite-muscovite -biotite schist and phyllite;commonly with albite, tourmaline and garnet. Local lenses of dark gray quartzite and tan-weathering carbonate.

CZhnn Non-Graphitic Schist: rusty-weathering, non-graphitic, sulfidic, chlorite schist distinguished from CZhn by lack of graphite.

CZhng Greenstone: includes greenstone with variable amounts of chlorite, albite, carbonate, epidote, amphibole and sphene, and amphibolite with variable amounts of hornblende, actinolite, albite, chlorite, epidote, biotite,magnetite and sphene.

UNIONVILLE FORMATION

CZu Phyllite, Schist and Gneiss: silver-green, chlorite-muscovite-quartz schist, phyllite and gneiss; commonly with albite and magnetite. Local lenses of white to pale gray quartzite and quartz-albite granulite. Locally interlayered with CZu at a scale to small to map.

CZug Greenstone and Amphibolite: thinly bedded, albite-epidote-carbonate greenstone and massive albite-amphibole-biotite-epidote-magnetite amphibolite.

MOUNT ABRAHAM SCHIST

CZa Schist and Phyllite: silver-gray muscovite-quartz-chlorite schist and phyllite locally with chloritoid, kyanite, garnet, and porphyroblasts of magnetite.

PINNACLE FORMATION

CZp Metagraywacke, Schist and Phyllite: gray, foliated quartz-feldspar-biotite-chlorite-muscovite schist, phyllite and metagraywacke. Quartz is commonly blued; locally in thin conglomeratic horizons.

unknown

Lakes & Rivers

Lithic Contacts

Roads

Topography (100' Contours)

0 .5 1 2 KILOMETERS

0 .5 1 2 MILES

Scale 1:24000

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The accuracy of data layers shown on this map is limited by the accuracy of the source materials. Although every effort has been made to ensure the accuracy of features and their attributes, the Agency of Natural Resources is not responsible for errors in or misuse of the data. The data is subject to revision at any time and the map user is responsible for contacting the developer of the data layer for data updates. The information used in preparing the data layer represents the best data possessed by ANR at the time of production. No warranty as to the accuracy or the usefulness of the data is expressed or implied.

Prototype
Digitally Compiled Bedrock Geologic Map
Huntington,Richmond,Bolton & Waterbury Area

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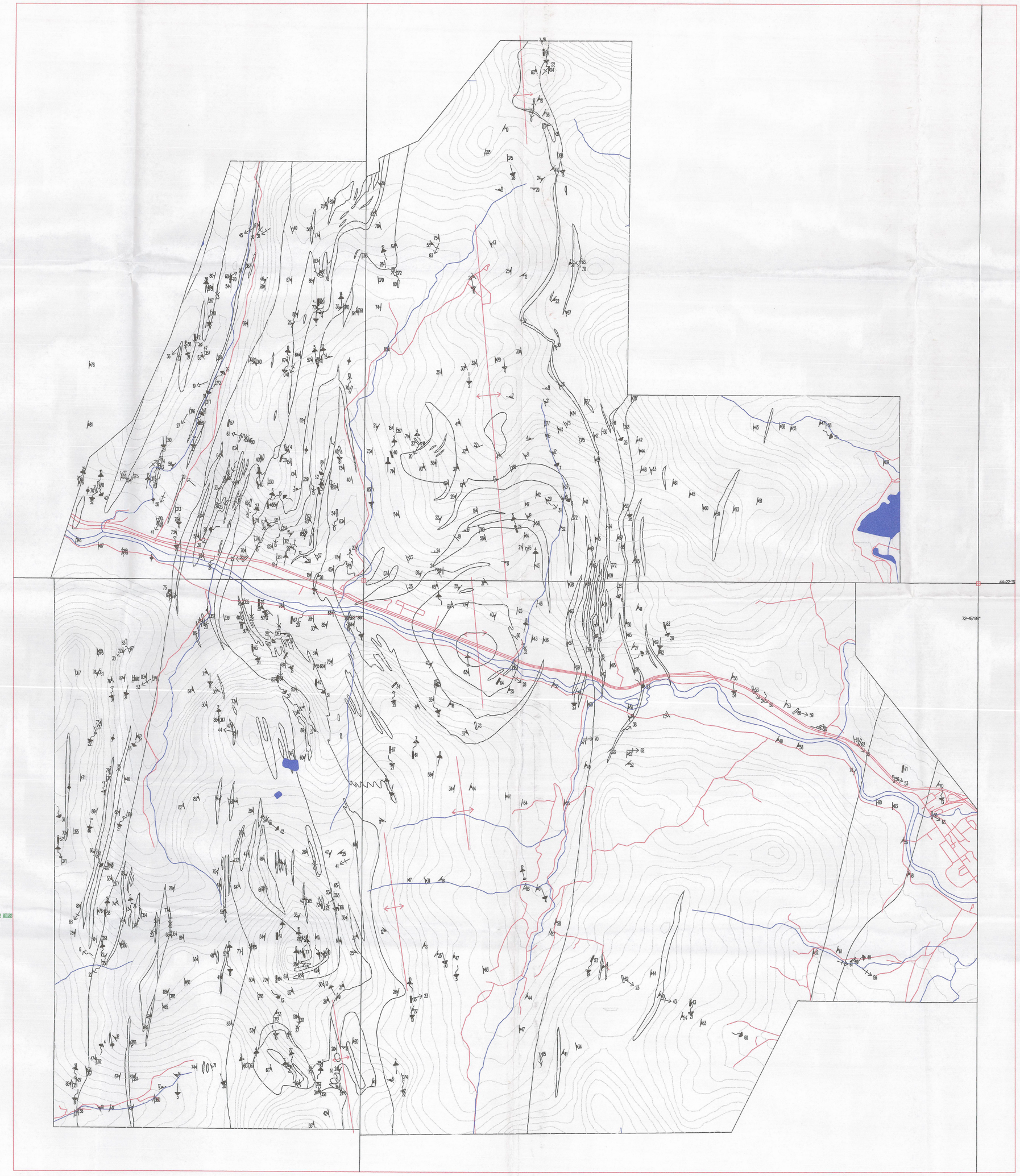

Explaination of Map Symbols

Planar Features

Strike and dip of bedding (So).

Strike and dip of dominant, penetrative schistosity (S2/So+1).

Strike and dip of spaced cleavage (S3/So+2).

Strike and dip of mylonitic foliation.

Strike and dip of F2/Fn+1 axial surface.

Strike and dip of F3/Fn+2 axial surface.

Linear Features

Trend and plunge of F1/Fn fold axis.

Trend and plunge of F2/Fn+1 fold axis with sense of rotation where known.

Clockwise rotation.

Counterclockwise rotation.

Trend and plunge of F3/Fn+2 fold axis

Clockwise rotation.

Counterclockwise rotation.

Trend and plunge of F3a/Fn+2a fold axis (rotated by Green Mtn. anticlinorium).

Clockwise rotation.

Counterclockwise rotation.

Trend and plunge of quartz lineation.

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