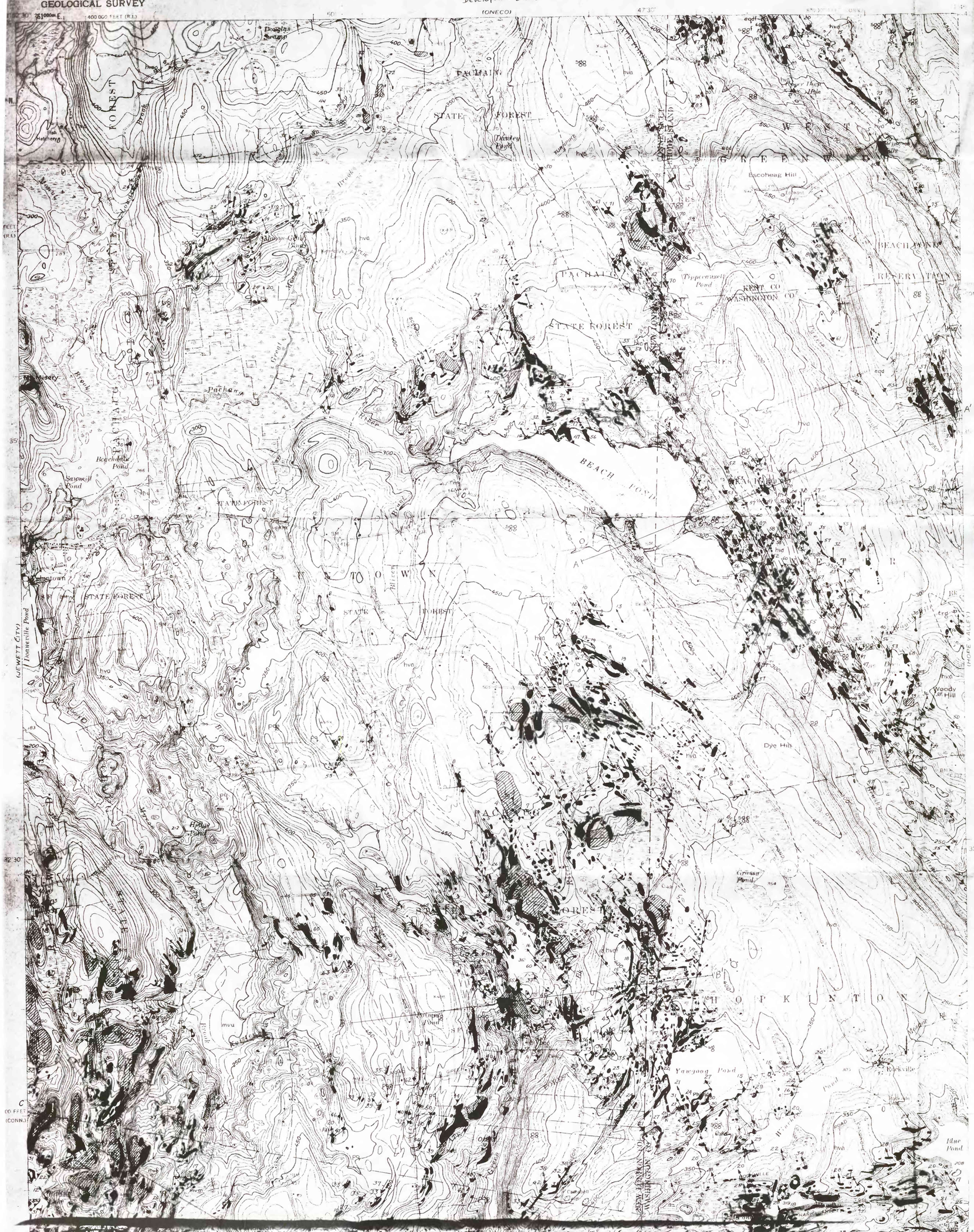
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with
The State of Connecticut
Geological and Natural History Survey
and
The State of Rhode Island
Development Council



Base map by Topographic Division, U. S. Geological Survey, 1943

Geology mapped in 1958-63, by Tomas Feininger
assisted by James T. Hoffer, 1961

U.S. Geological Survey
OFR 65-[illegible]
This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.

Geologic map, Ashaway and Voluntown quadrangles, Connecticut - RHODE ISLAND

by
Tomas Feininger
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EXPLANATION

Individual and nearly continuous outcrop areas shown by darker shade. Closely spaced outcrop areas shown by ruled lines.

LATE OR POST PENNSYLVANIAN

MESOZOIC(?)

Mafic dike

wg

Westerly Granite

npgw
npg

Narragansett Pier Granite
npgw, white facies

MISSISSIPPIAN OR OLDER

phg
phgm

Hope Valley Alaskite Gneiss
phgm, massive facies
phgx, mixed facies

hvgw
hvg
hvgf

Hope Valley Alaskite Gneiss
hvgw, white facies
hvgf, fine-grained facies
hvag, fine-grained granite

sgg
sggf

Scituate Granite
sggf, fine-grained facies

trg

Ten Rod Granite Gneiss

gg

Porphyritic granite gneiss

eqd
eqdf

Escoheag Quartz Diorite Gneiss
eqdf, fine-grained facies

og
ogm

Augen gneiss
ogm, muscovite facies

ORDOVICIAN(?)

csq

Calc-silicate quartzite

mvf
mvu
mvm

g
og
a

Metavolcanic rocks
mvm, mafic and intermediate metavolcanic rocks
mvf, felsic metavolcanic rocks
mvu, undivided metavolcanic rocks
a, amphibolite
g, layered felsic gneiss
og, calcareous felsic gneiss

CAMBRIAN(?)

pq
pg
pqg
pc

Plainfield Formation
pg, feldspathic biotite gneiss and schist
pqg, quartzose biotite gneiss and schist
pc, calc-silicate quartzite and calc-silicate granofels
pq, quartzite

m

Mafic metamorphic rock

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Contact
Dashed where approximately located; short dashed where gradational; dotted where concealed; tick and figure give direction and amount of dip

U
D

Fault
Approximately located; U, upthrown side; D, downthrown side, indicated where known

Synclinal axis

Vertical — Inclined 40 — Horizontal

Foliation
Parallelism of minerals, especially micas

Inclined — Horizontal

Lineation
Alinement of individual mineral grains or groups of mineral grains unless designated otherwise. Fa, minor fold axis; C, crinkle axis; S, slickenside

Vertical — Inclined 30

Bedding

Vertical — Inclined 70 — Horizontal

Joint

Topographic lineament

I — S

Mineral Localities
I, ilmenite (dashed border surrounding letter delineates area of occurrence in glacial boulders); S, sillimanite in granitic rock

N

Quartz-sillimanite and quartz-sillimanite-muscovite nodule layers in phg, hva, hvaw, hvaf, and gg. Lines denote probable extent of layers; N, exposure of nodules

Quarry

Large quarry — Small quarry or stone prospect

Abandoned quarry
Abandoned quarries are too numerous to show on the hills immediately north of the railroad from Moosenack Hill Road to Aguntaug Brook

P

Pegmatite

m

Muscovite-rich Hope Valley Alaskite Gneiss