

LEGEND

(continued) (Greenfield)

IGNEOUS ROCKS

(Areas of igneous rocks are shown by patterns of triangles and rhombs.)

Jb

Blackrock diabase (intrusive)

Jh

Holyoke diabase (main sheet of Percival, interbedded)

Jt

Talcoot diabase (anterior sheet of Percival, interbedded)

Jhp

Hampden diabase (posterior sheet of Percival, interbedded)

Cw

Williamsburg granite (coarse muscovite-biotite granite with pegmatites and albite granite veins)

Cbr

Belchertown tonalite (granitoid quartz-plagioclase hornblende rock)

mg

Middlefield granite (porphyritic biotite granite)

Probable faults

Sections

A B C D E F G H I J K

Mines and quarries

EM Emery and magnetite

SOS Sandstone for building

SER Serpentine, verd antique, etc.

SFS Soapstone

SPM Spodumene for lithia

GR Granite for building

WHS Whetstone

RLD Barite and lead

RIDN Chrome iron

TRAP Diabase for road ballast

CLAY Brick-clay

KLN Kaolin

MT Mica and feldspar

TSB Flagonite

WELL Artesian well

X Prospects

Known productive formations

Jl

Brownstone (reddish-brown Longmeadow sandstone, used for building)

EM

Emery and magnetite (in Chester amphibolite)

SP

Soapstone and serpentine (including black serpentine and verd antique, occurs in Brown and Savoy schists and Chester amphibolite)

Cb

Monumental granite (Becket gneiss used for architectural and monumental purposes)

Cw Cbr

Building granite (Williamsburg granite and Belchertown tonalite, used for work not requiring a high finish)

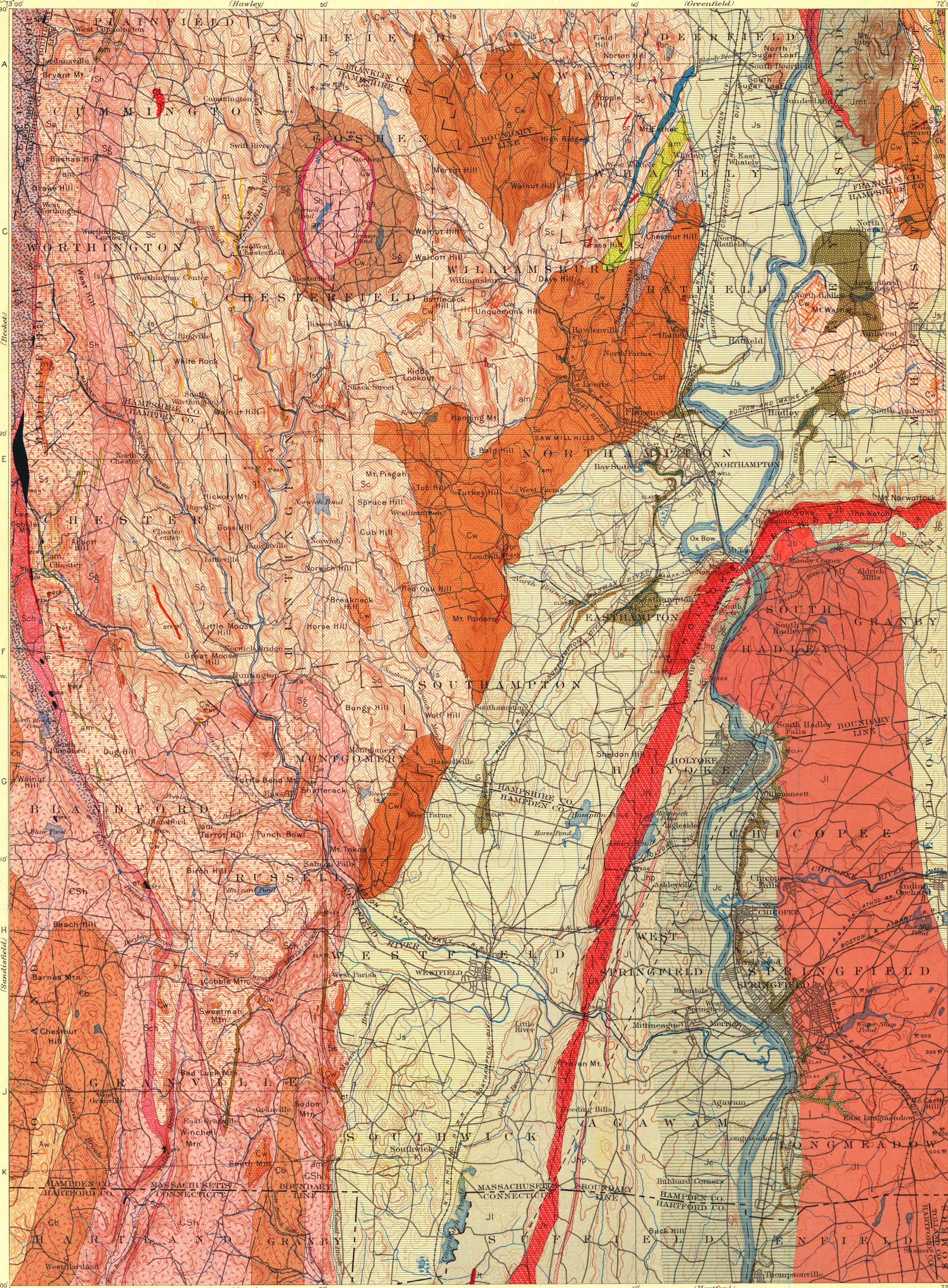
Sg

Flagstones (Goshen schist, used for flagging)

U.S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

ECONOMIC GEOLOGY SHEET

MASS.-CONN.
HOLYOKE QUADRANGLE



LEGEND

SEDIMENTARY ROCKS

(Areas of sedimentary rocks are shown by patterns of parallel lines. Metamorphism is indicated by short dashes combined with the parallel lines.)

Jc

Chicopee shale (black and red sandy shale)

Jl

Longmeadow sandstone (reddish-brown sandstone with shore and shallow water markings)

Jg

Granby tuff (coarse agglomerate of fragments of diabase, grading into tuffaceous sandstone)

Js

Sugarloaf arkose (coarse feldspathic sandstone composed of the angular debris of granite)

Jmt

Mt Toby conglomerate (very coarse conglomerate composed largely of granite fragments)

Sl

Leyden argillite (dark coarse slate or fine grained mica-schist)

Sc

Leyden argillite (chertolitic contact zone)

Scw

Conway schist (dark graphitic mica schist with biotite garnet and quartz, and many beds of dark impure limestone and sandy quartzite)

Sa

Amherst schist (coarse fibrolitic and foliated schist, probably the equivalent of Conway schist)

Sg

Goshen schist (dark graphitic flaggy mica-schist with biotite and garnet)

Sh

Hawley schist (sericite and chlorite schists with many beds of hornblende-schist)

Ss

Savoy schist (sericite-schist with garnet and chlorite locally developed)

Sch

Chester amphibolite (dark flaggy hornblende-schist, in places changed to soapstone and emery)

Sn

Rowe schist (quartzose sericite-schist)

CSh

Hoosac schist (light sericite-schist)

Cb

Becket gneiss (light gray biotite-gneiss, at times a conglomerate, contains intrusive masses of massive altered to serpentine and asbestos)

Aw

Washington gneiss (dark compact gneiss slightly fibrolitic)

ROCK MASSES (in various formations)

ls

Limestone (in Conway and Goshen schists)

qt

Quartzite (in Conway and Goshen schists)

gn

Gneiss (fine-grained biotite gneiss in Goshen schist, possibly bedded granite)

am

Amphibolite (in Conway, Hawley, Savoy, and Goshen schists)

et

Enstatite rock, pyroxene rock and dolomite (in Chester amphibolite)

Legend is continued on the left margin.

Henry Gannett, Chief Topographer.
Marcus Baker, Geographer in charge.

Triangulation by U.S. Coast and Geodetic Survey.
Topography by C. Arriack, C. C. Bassett, L. F. Cutter,
A. Karl, and H. L. Smyth.

Surveyed in 1884-87.

Scale 1:25,000

0 1 2 3 4 5 Miles

0 1 2 3 4 5 Kilometers

Contour Interval 40 feet.

Datum is mean Sea level.

Edition of July 1898.

Geology by B.K. Emerson.

Surveyed 1875-1896.