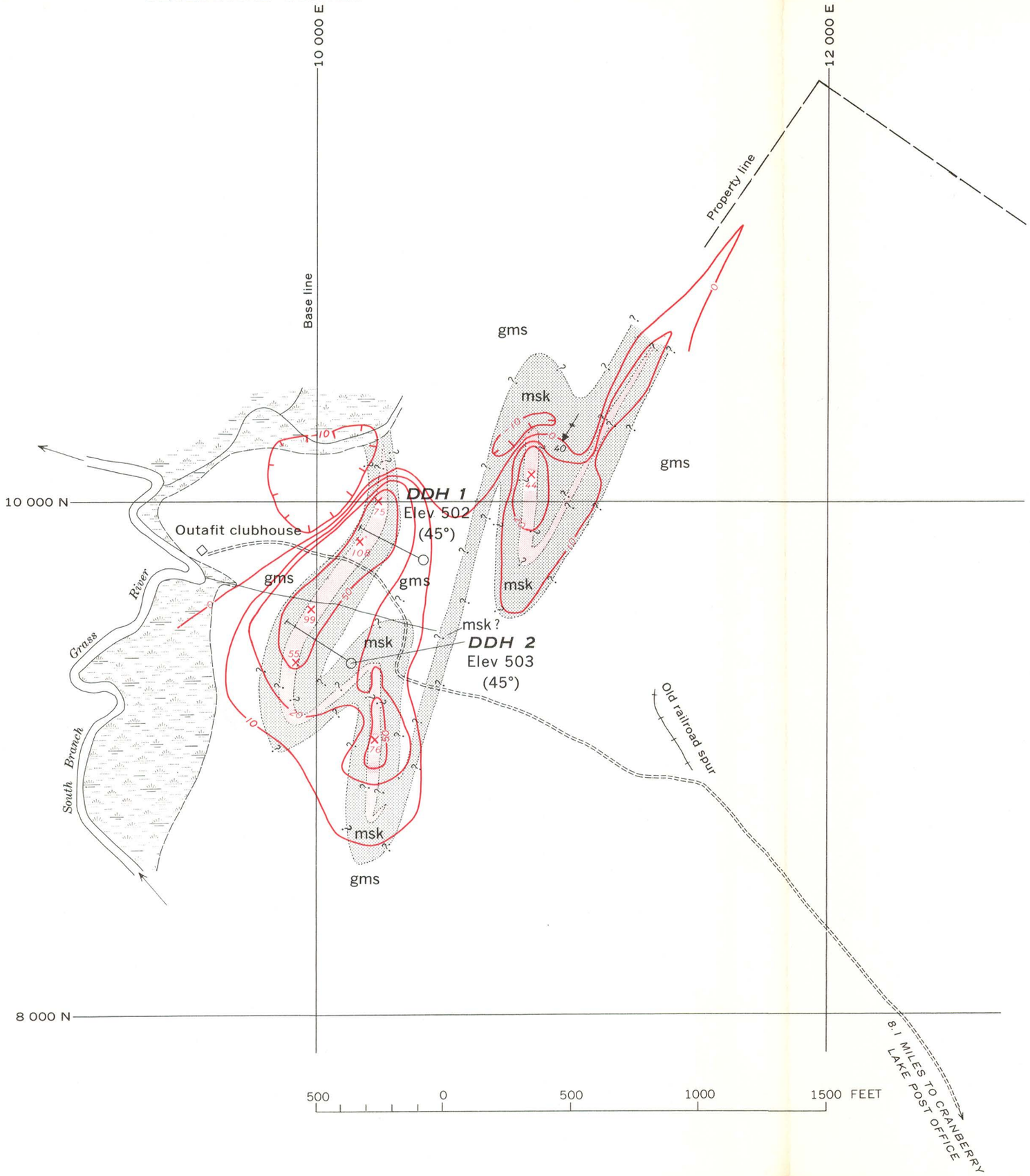
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROFESSIONAL PAPER 377
PLATE 10



EXPLANATION

Main ore zone
Average grade 29 percent magnetic Fe. Host is chiefly pyroxene skarn and mica sköl

gms

Microcline granite gneiss
Locally syenitic, with layers of metasedimentary gneiss. Mafic mineral is variable. Unit includes some syenite pegmatite

msk

Skarn
Variable in composition but chiefly pyroxenic. Locally carries small to substantial quantities of magnetite. Unit includes thin layers of syenite pegmatite, microcline granite gneiss (locally syenitic), and metasedimentary gneisses

PRECAMBRIAN

Concealed contact
Queried where location or continuation is questionable (horizontal projection of its suboutcrop)

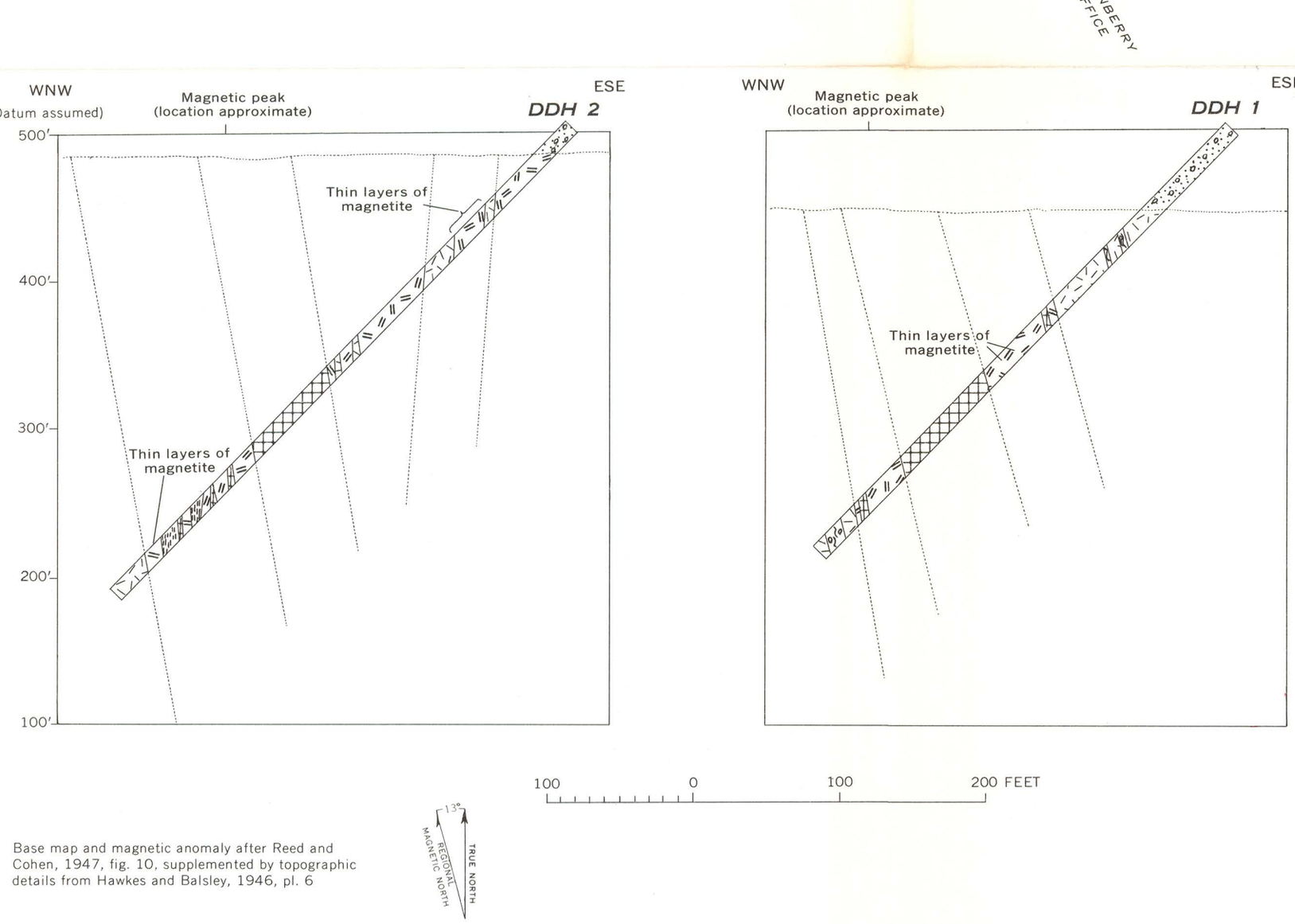
Vertical foliation
Showing plunge of lineation

DDH 2
Elev 503
(45°)
Diamond-drill hole
Showing horizontal projection, elevation, and inclination. Elevation of drill holes, relative to mean sea level, is 1400 ±20 feet
Datum for U.S. Bureau of Mines drill holes is assumed.

Dip-needle isoclinal contour reduced to normal of zero

Note: Stratigraphic relations of the metasedimentary rocks are indeterminate

SECTIONS



QUATERNARY

Overburden

Ore
Average grade of main zone is 29 percent magnetic Fe. Host is chiefly pyroxene skarn and mica sköl

Microcline granite gneiss
Locally syenitic, with a few thin layers of metasedimentary gneiss. Mafic mineral is variable. Unit includes some syenite pegmatite

Skarn
Variable in composition but chiefly pyroxenic. Locally carries a little magnetite. Unit includes thin layers of syenite pegmatite and (rarely) a little microcline granite gneiss and metasedimentary gneiss

Pyroxene-microcline gneiss
In part scapolitic, with local layers of silicated marble and garnet-pyroxene skarn

Biotite gneiss
Carries sillimanite and local garnet. Includes some thin amphibolite layers

Biotite gneiss with garnet

PRECAMBRIAN

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—10324

Base map and magnetic anomaly after Reed and Cohen, 1947, fig. 10, supplemented by topographic details from Hawkes and Balsley, 1946, pl. 6

Geology by B. F. Leonard and A. F. Buddington, 1946

BEDROCK GEOLOGIC AND MAGNETIC MAP AND GEOLOGIC SECTIONS OF THE OUTAFIT DEPOSIT SOUTH-CENTRAL RECTANGLE, STARK QUADRANGLE, ST. LAWRENCE COUNTY, NEW YORK