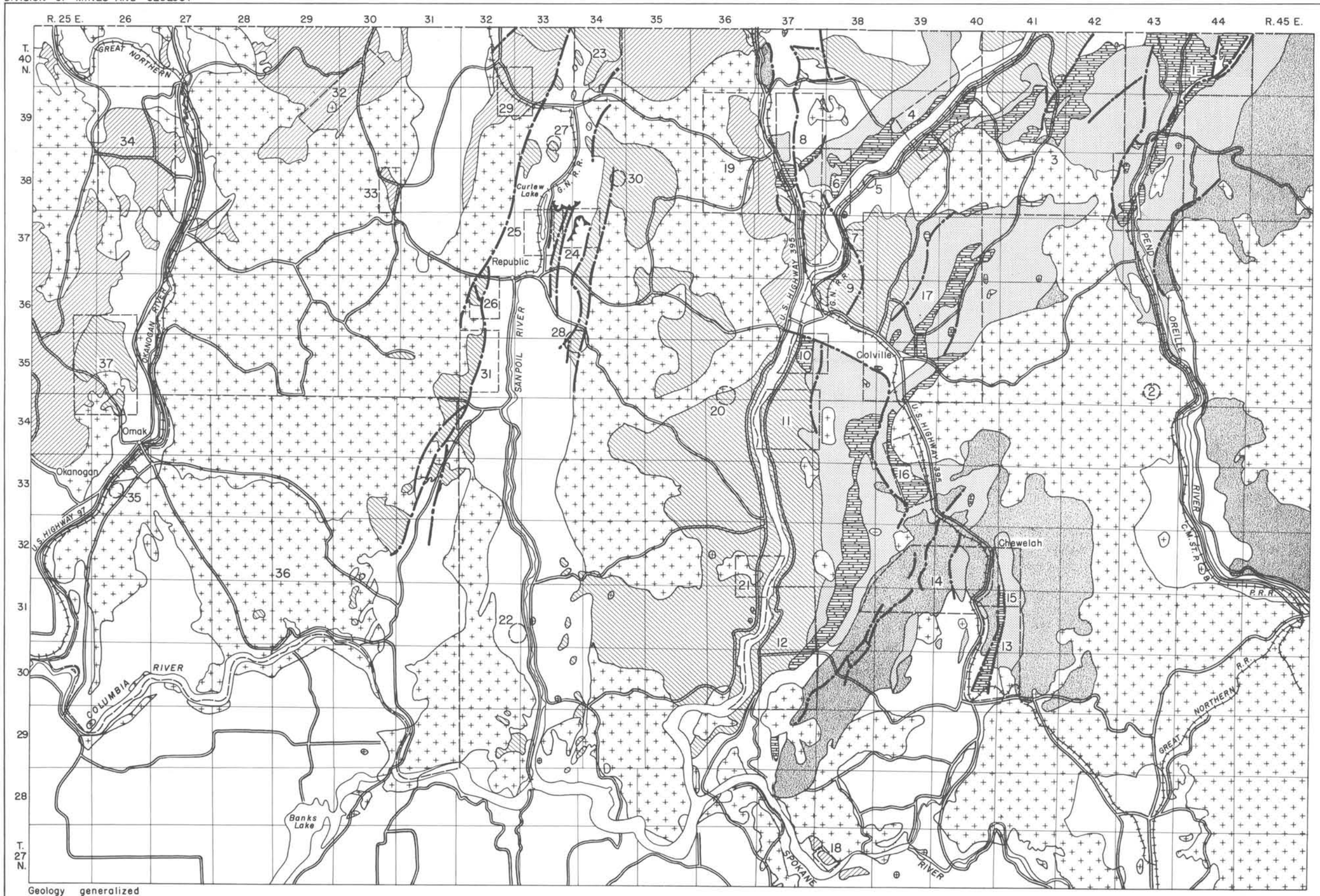


EXPLANATION

Pre-Tertiary metamorphic rocks, including marble

Upper Paleozoic and Triassic rocks, principally clastic rocks and greenstone, some limestone, and dolomite

Lower Paleozoic limestone and dolomite, and Carboniferous limestone and dolomite in the Springdale-Jumpoff Joe Lake Area

Lower Paleozoic clastic rocks

Precambrian, principally clastic rocks, some dolomite and marble

Mesozoic and Tertiary granitic intrusives

Mesozoic volcanic rocks, Tertiary volcanic and sedimentary rocks, Quaternary sands and gravels

SYMBOLS

Thrust or reverse fault

Fault

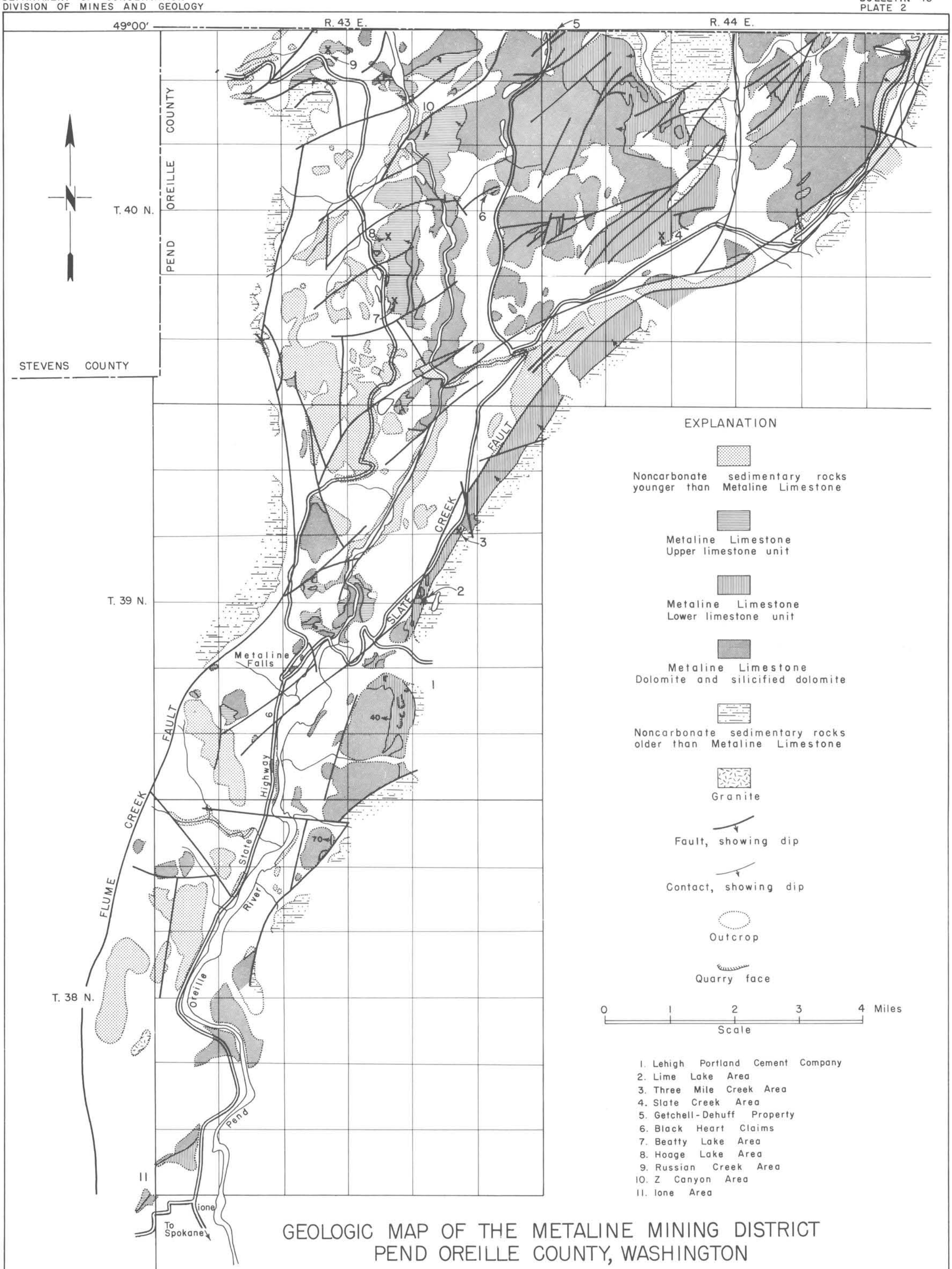
Contact

Geology generalized and modified from 1961 State Geologic Map

0 10 20 30 Miles
Scale

GENERALIZED GEOLOGIC MAP OF NORTHEASTERN WASHINGTON SHOWING DISTRIBUTION OF THE PRINCIPAL LIMESTONE-BEARING TERRAINS AND DISTRICTS

1. Metaline district
2. Parker Lake district
3. Deep Creek district
4. Northport district
5. China Bend and Columbia Rock Company
6. Bossburg district
7. Evans district
8. Orient-Kelly Hill district
9. Kettle Falls North district
10. Kettle Falls South district
11. Heidegger Hill district
12. Hunters Creek district
13. Springdale-Valley district
14. Valley district
15. Valley to Chewelah district
16. Addy district
17. Colville district
18. Cayuse Mountain area
19. Orient district
20. Lake Ellen district
21. Covada area
22. Keller area
23. Curlew Northeast district
24. Republic Northeast district
25. Republic North district
26. Copper Lakes district
27. Empire Creek district
28. Iron Mountain district
29. Curlew Northwest district
30. North Fork St. Peter Creek district
31. Wauconda Southwest district
32. Buckhorn Mountain Havillah district
33. Wauconda district
34. Wannacut Lake-Spectacle Lake district
35. Jackass Butte
36. West Half Colville Indian Reservation
37. Riverside district



EXPLANATION

Noncarbonate sedimentary rocks younger than Metaline Limestone

Metaline Limestone
Upper limestone unit

Metaline Limestone
Lower limestone unit

Metaline Limestone
Dolomite and silicified dolomite

Noncarbonate sedimentary rocks older than Metaline Limestone

Granite

Fault, showing dip

Contact, showing dip

Outcrop

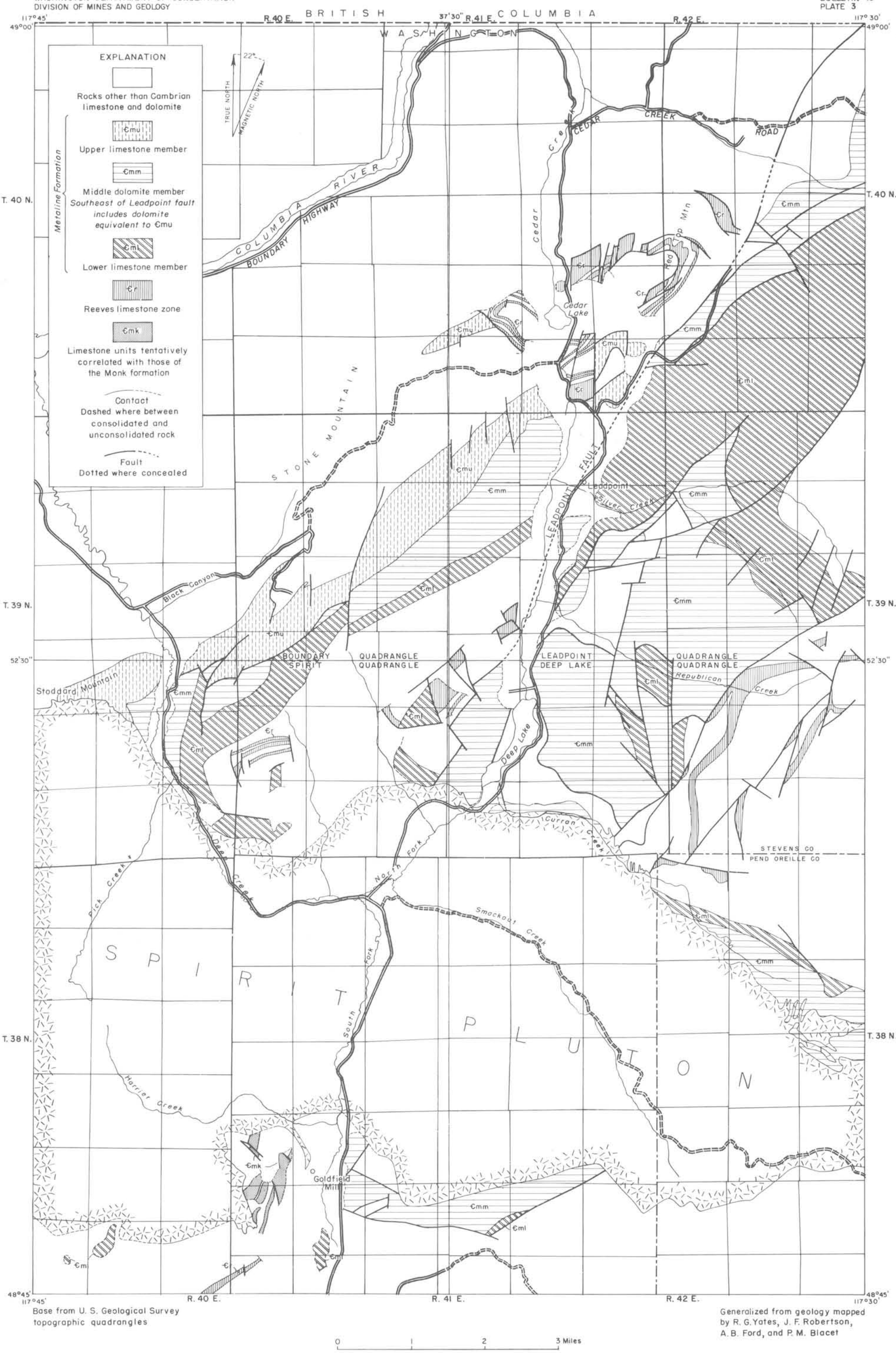
Quarry face

0 1 2 3 4 Miles
Scale

1. Lehigh Portland Cement Company
2. Lime Lake Area
3. Three Mile Creek Area
4. Slate Creek Area
5. Getchell-Dehuff Property
6. Black Heart Claims
7. Beatty Lake Area
8. Hoage Lake Area
9. Russian Creek Area
10. Z Canyon Area
11. Ione Area

GEOLOGIC MAP OF THE METALINE MINING DISTRICT PEND OREILLE COUNTY, WASHINGTON

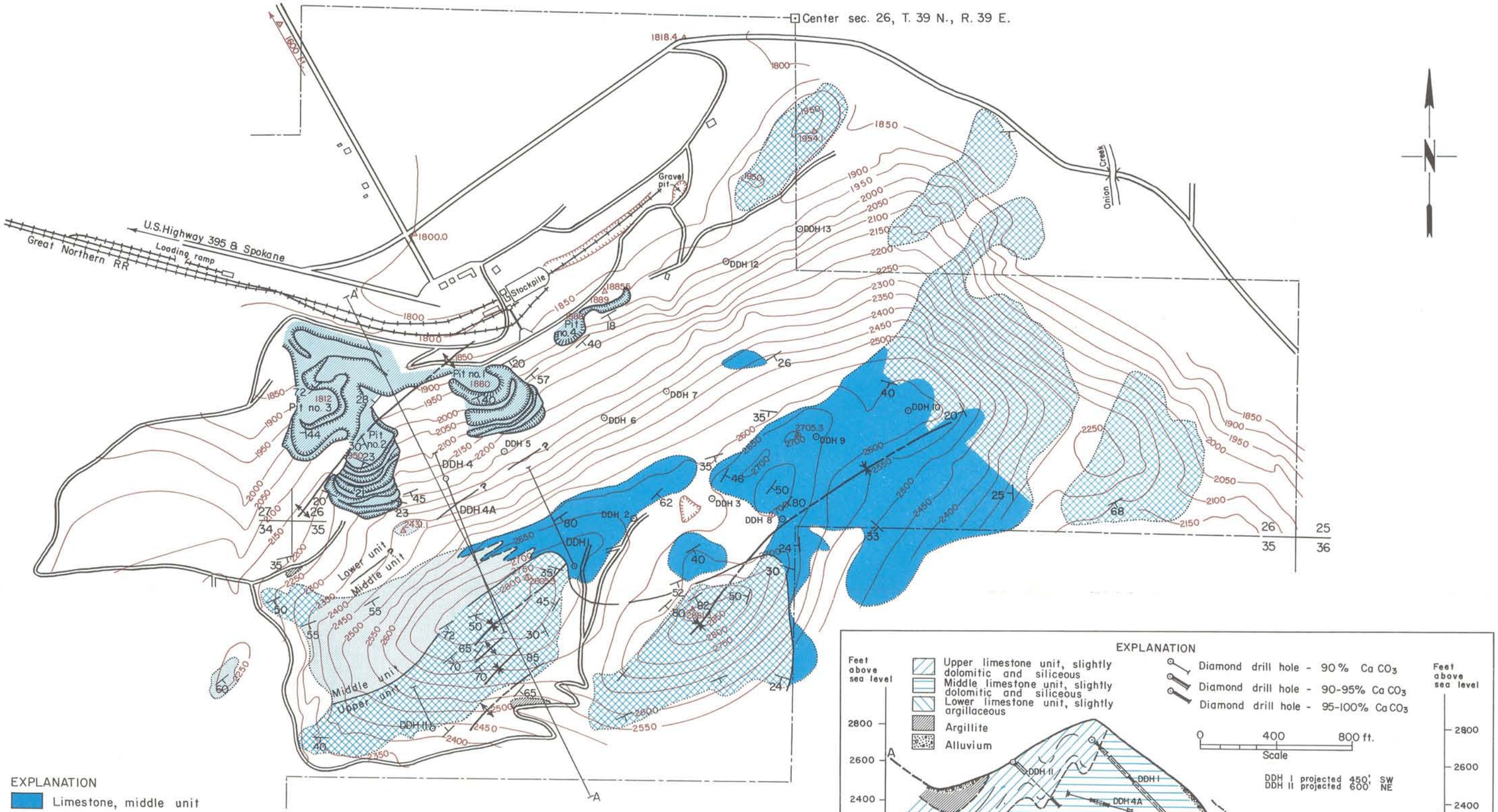
(Modified from M.G. Dings, D.H. Whitebread, R.G. Yates and V.E. Nelson (1956) U.S. Geological Survey Open File Report)



Base from U. S. Geological Survey topographic quadrangles

Generalized from geology mapped by R. G. Yates, J. F. Robertson, A. B. Ford, and P. M. Blacet

MAP SHOWING DISTRIBUTION OF CAMBRIAN LIMESTONE AND DOLOMITE IN DEEP CREEK DISTRICT

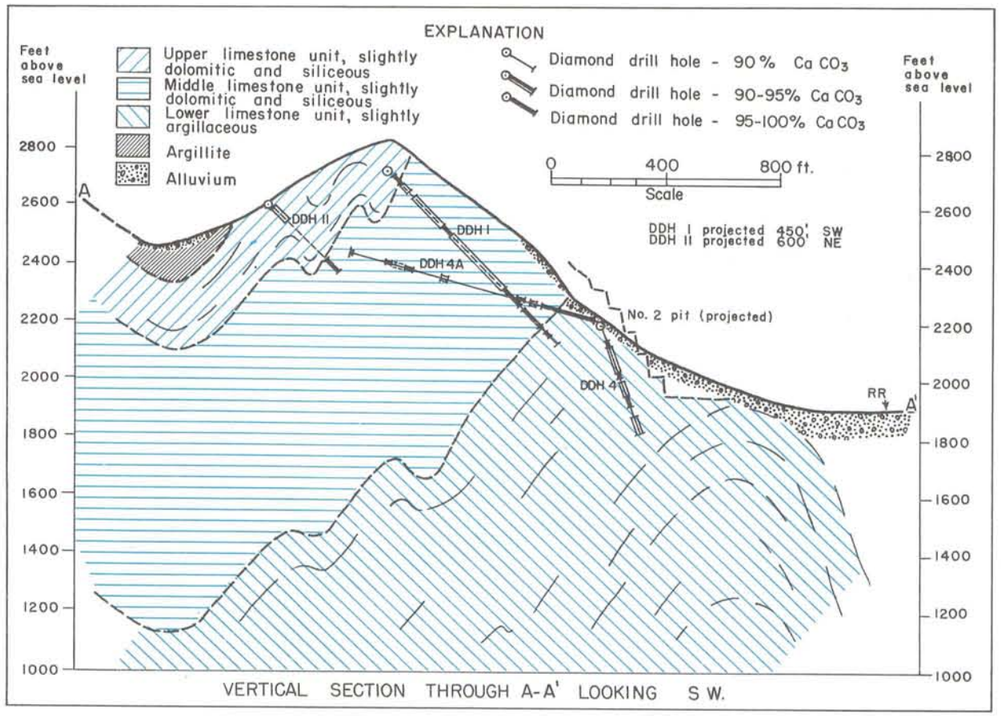


EXPLANATION

- Limestone, middle unit
- Dolomitic limestone, upper, middle and lower units
- Limestone, slightly argillaceous, lower unit
- Siliceous limestone, middle and lower units
- Argillite
- 55 Strike and dip of beds
- Strike of vertical beds
- Anticline
- Syncline
- Contact
- Outcrop
- Quarry face
- Diamond drill hole
- Property boundary

Contour interval 50 feet

0 400 800 ft.
Scale



VERTICAL SECTION THROUGH A-A' LOOKING S W.

Base from aerial photo.
Topography by Ideal Cement Co.

Geology by J.W. Mills.

MAP AND CROSS SECTION OF IDEAL CEMENT COMPANY NORTHPORT QUARRIES

EXPLANATION

- Alluvium
- G — Graywacke
- L — Limestone pods
- Gs — Greenstone
- B — Basalt
- Q — Quartzite (?)
- A — Argillite
- P — Phyllite
- Q — Quartzite
- #D# — Diabase
- +Gr+ — Granite
- Di — Diorite

- Fault (D / U)
- Doubtful fault (?)
- Strike and dip of beds (30)
- Strike and dip of overturned beds (71)
- Strike of vertical beds
- Strike and dip of cleavage (60)
- Strike of vertical cleavage
- Strike and dip of of foliation (70)
- Contact
- Approximate contact
- Anticline
- Overturned anticline
- Syncline
- Overturned syncline

R. 37 E.

T. 35 N.
T. 34 N.

LAKE ROOSEVELT
STATE HIGHWAY 22
THORPE ROAD
PANKEY ROAD
CHILDERS ROAD
The Spillotf
Heidegger Hill
Pleasant Valley

0 1/2 1 2 Miles
Scale

Contour interval 100 feet

22 1/2°
TRUE NORTH
MAGNETIC NORTH

GEOLOGIC MAP OF HEIDEGGER HILL DISTRICT

Geology by Thomas Cole, 1959

GEOLOGIC MAP OF COLVILLE DISTRICT

Geology by W.A.G. Bennett

0 1 2 3 Miles
Scale

EXPLANATION

SEDIMENTARY ROCKS

QUATERNARY

Qa — Alluvium and glacial drift

UPPER PALEOZOIC

Pl, Pu, Cl — Graywacke and interbedded argillite (Pu), with Permian limestone reefs (Pl) and Carboniferous limestone lenses (Cl) in greenstone

ORDOVICIAN

O — Slate

CAMBRIAN

Cclu — Upper limestone
Ccla — Limestone and argillite, interbedded
Ccd — Dolomite
Ccll — Lower limestone
Ccld — Limestone and dolomite, interbedded

Carbonate unit

Cmlu — Phyllite and argillaceous quartzite with two upper limestone members
Cmll — a lower *Archaeocyatha* limestone reef member
Cmld — and a lower limestone and dolomite member

Middle unit

Cq — Quartzite

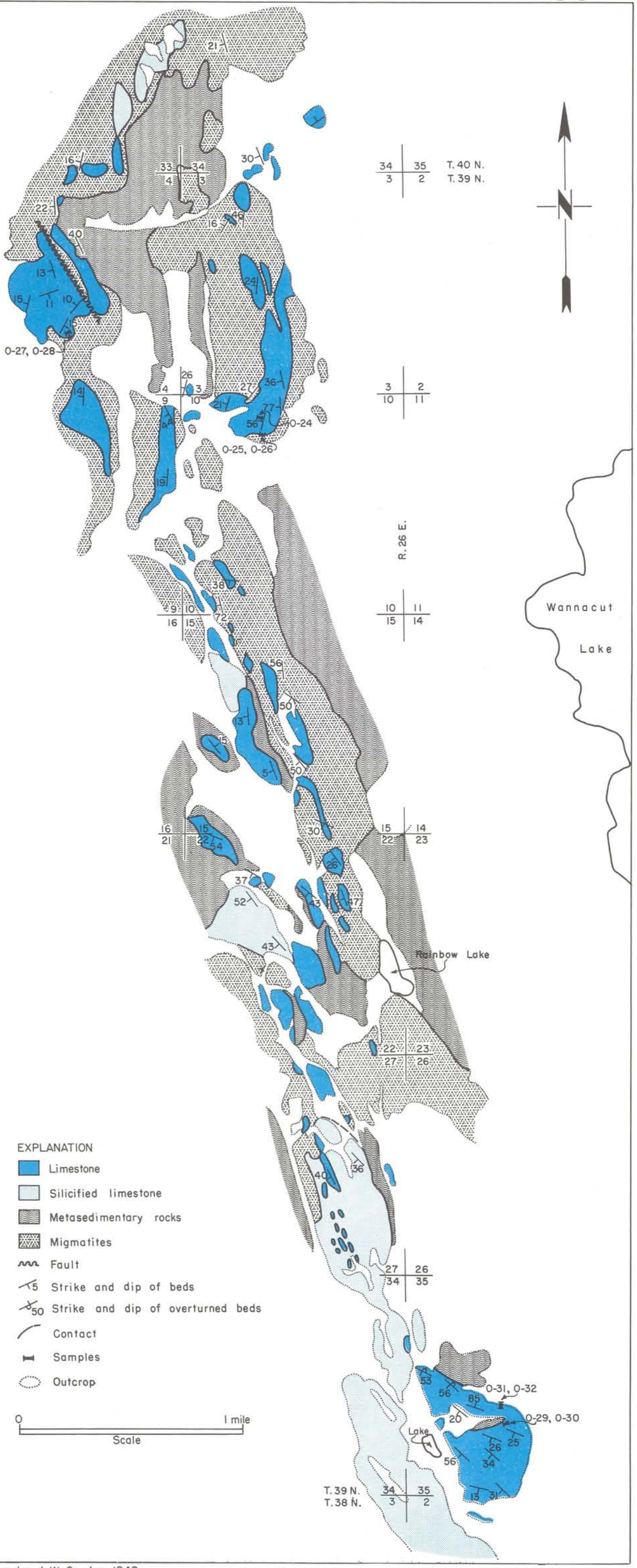
INTRUSIVE ROCKS

MESOZOIC

Mzg — Granite

SYMBOLS

Fault
Strike and dip of beds
Strike and dip of overturned beds
Anticline
Syncline
Overturned syncline
Contact



Geology by J. W. Crosby, 1949

GEOLOGIC MAP OF WANNACUT LAKE AREA