

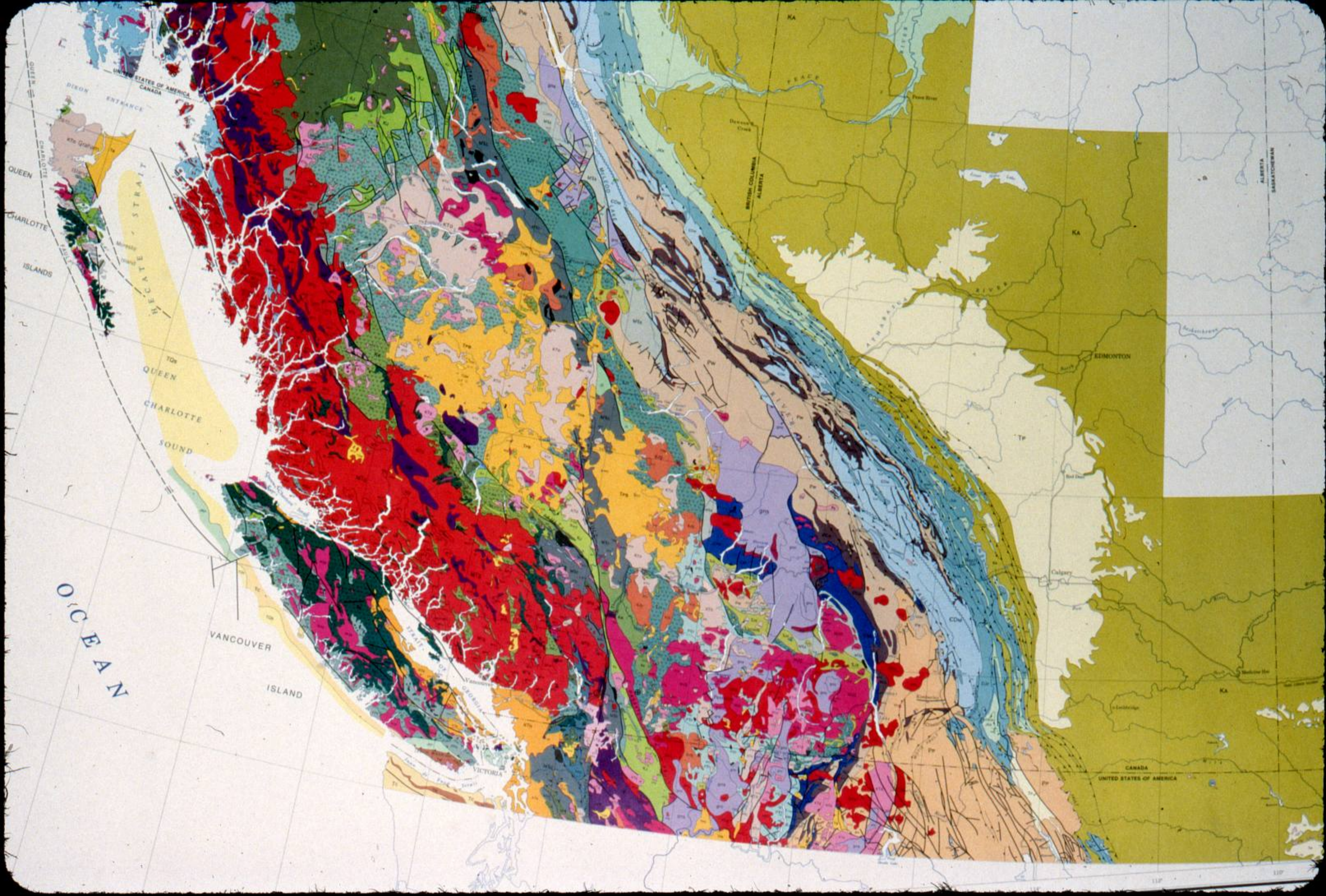
Co-ordinates

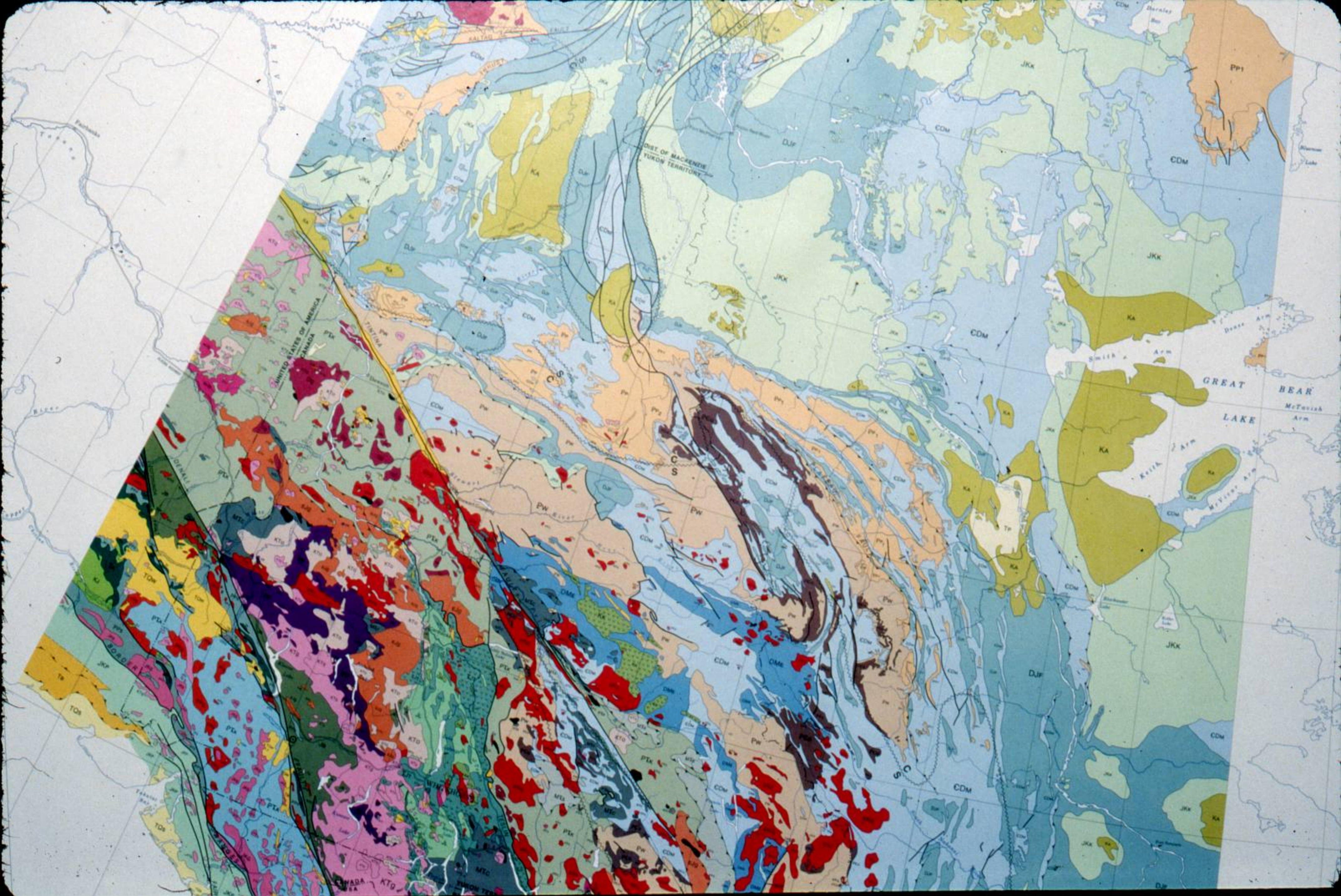
Scale 1:500,000

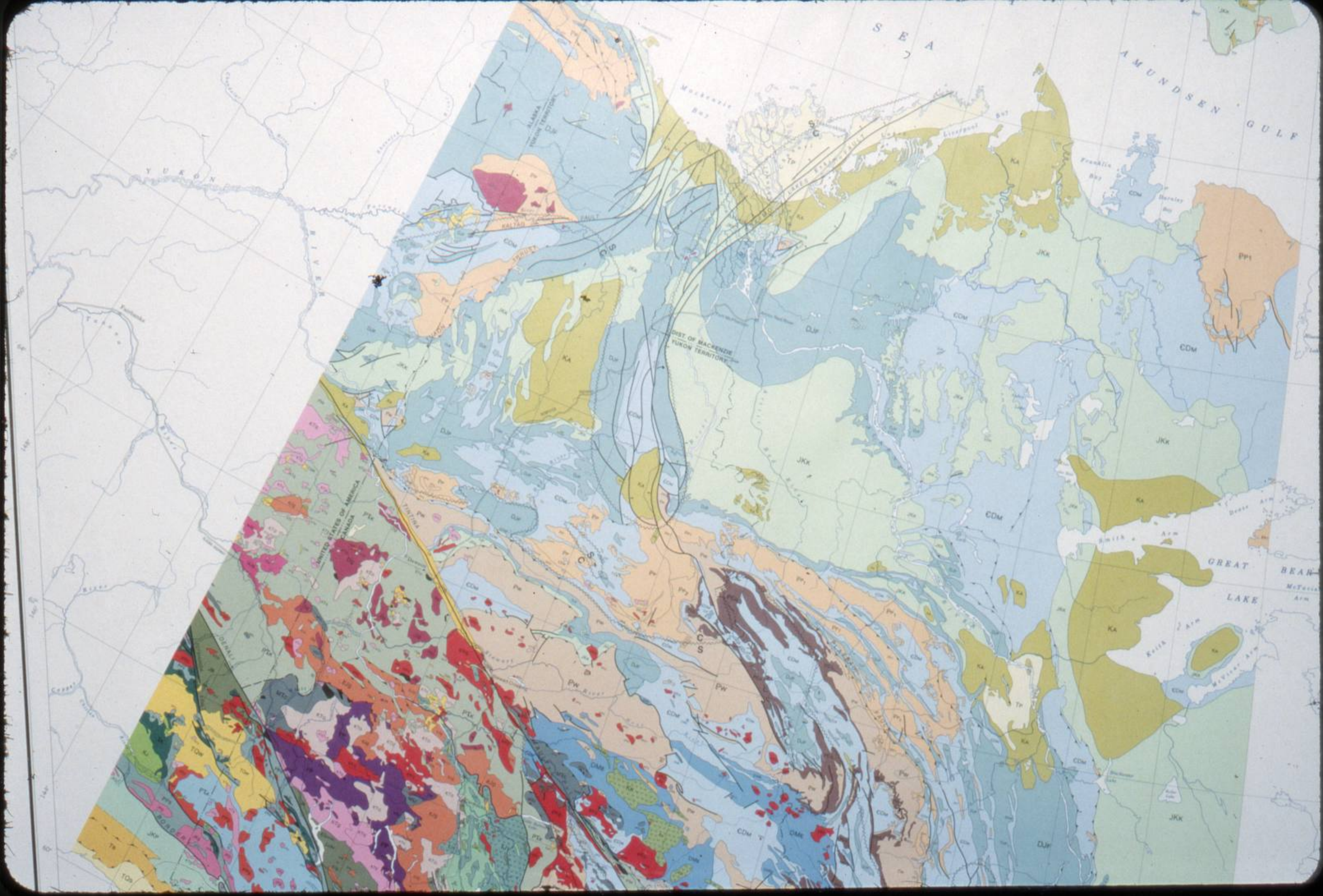
Source of information
Geological Survey of Canada
Energy, Mines and
Technical Services
H.W. Taylor
assembling
D. Baker, D. Saff
The technical
J.W.H. Morgan
Southern, and
1:1,000,000 map
and critically re-
regular Survey
western Canada
other members
Canada, Canada
critically revised
Park, California
This map is
The map is
scale of 1:500,000
many small
geometric
of faults, and
of evidence

from parts of
Geological
Assembly
Fault
Dashed
Fault
Line
Late
Map

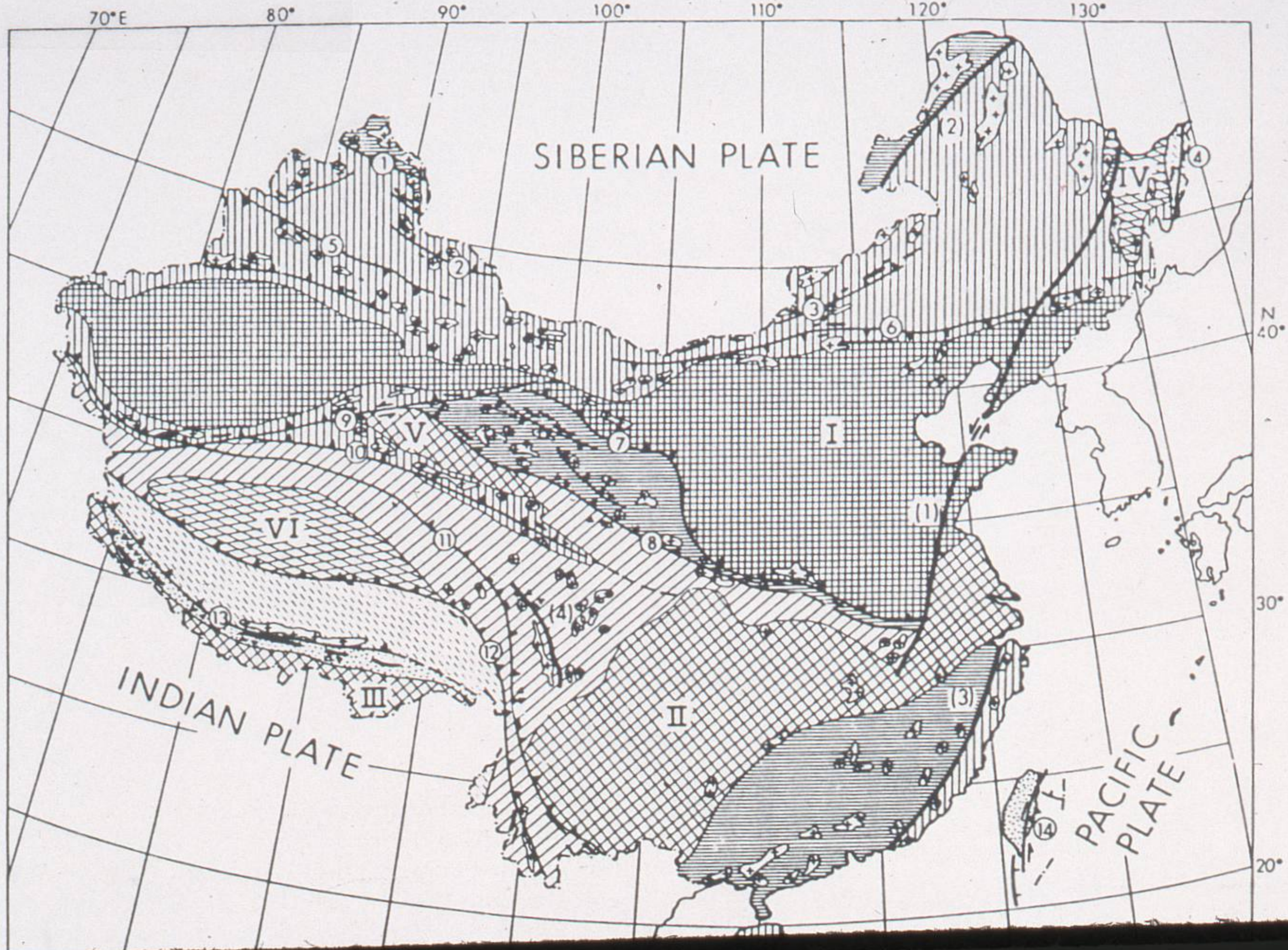
YUKON TERRITORY
BRITISH COLUMBIA
DISTRICT OF MACKENZIE
BRITISH COLUMBIA
UNITED STATES OF AMERICA
CANADA
CHALMERS
DIXON ENTRANCE
QUEEN
CHARLES











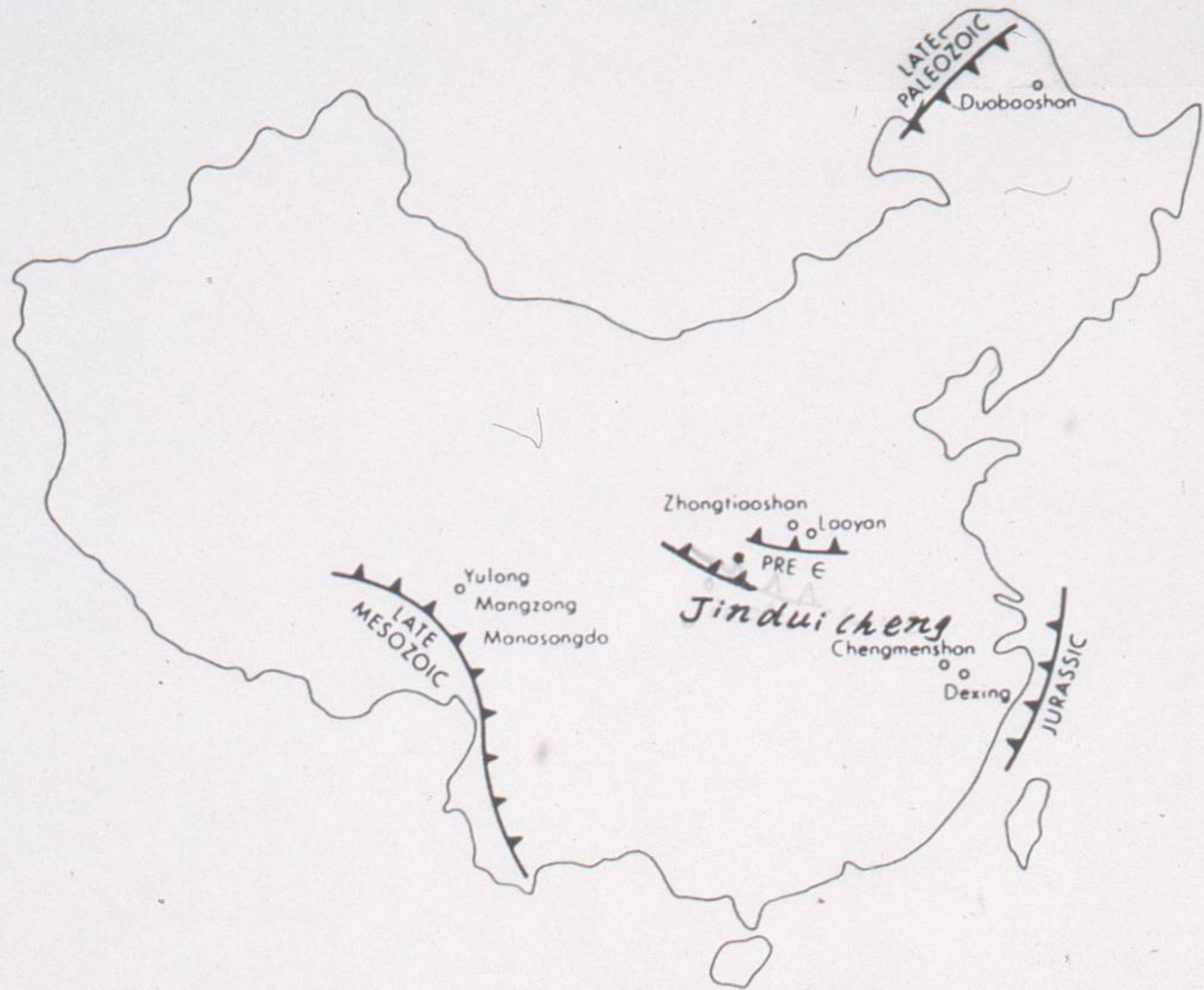
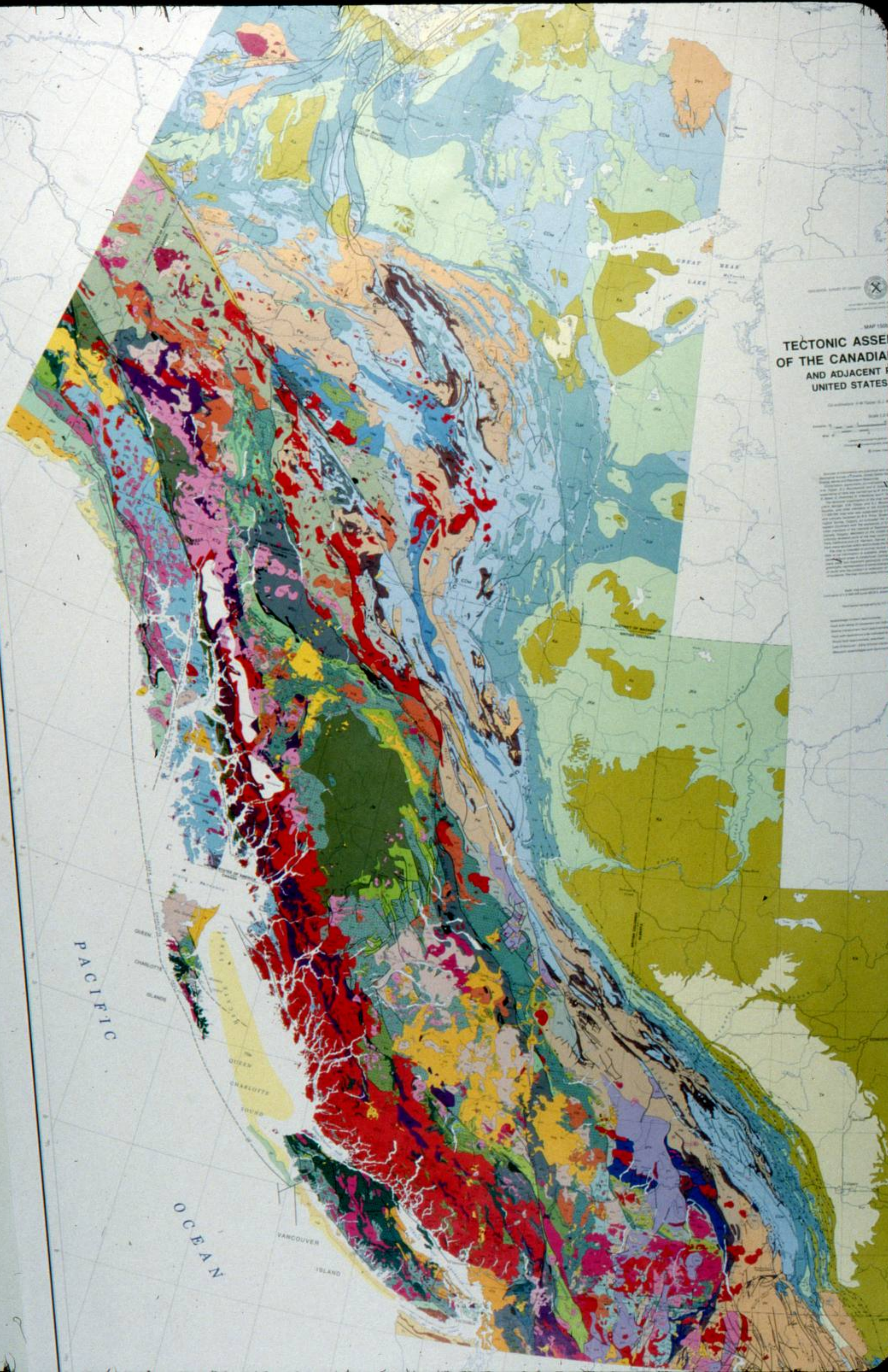


FIG. 4. The relationship of the Yulong porphyry copper deposit and the late Mesozoic subduction zone, the Zhontiaoshan porphyry copper deposit and the Precambrian subduction zone, and the Dexing porphyry copper deposit and the Jurassic subduction zone.



MAP 1520
**TECTONIC ASSEMBLY
OF THE CANADIAN
AND ADJACENT
UNITED STATES**

Geological Survey of Canada
Department of Energy, Mines and Technical Surveys
Ottawa, Ontario
1981

SYMBOLS

- Fault
- Strike-slip fault
- Thrust fault
- Normal fault
- Tectonic contact
- Unconformity
- Volcanic vent
- Volcanic cone
- Volcanic flow
- Volcanic ash
- Volcanic breccia
- Volcanic sandstone
- Volcanic tuff
- Volcanic agglomerate
- Volcanic brecciated sandstone
- Volcanic brecciated tuff
- Volcanic brecciated agglomerate
- Volcanic brecciated sandstone and tuff
- Volcanic brecciated sandstone and agglomerate
- Volcanic brecciated tuff and agglomerate
- Volcanic brecciated sandstone, tuff and agglomerate
- Volcanic brecciated sandstone, tuff and agglomerate with breccia
- Volcanic brecciated sandstone, tuff and agglomerate with breccia and sandstone
- Volcanic brecciated sandstone, tuff and agglomerate with breccia, sandstone and tuff
- Volcanic brecciated sandstone, tuff and agglomerate with breccia, sandstone and tuff and agglomerate

LEGEND

1. Paleozoic and Mesozoic rocks
2. Tertiary rocks
3. Quaternary rocks
4. Volcanic rocks
5. Metasedimentary rocks
6. Metavolcanic rocks
7. Metagranite
8. Metadiabase
9. Metasiltstone
10. Metasandstone
11. Metashale
12. Metasiltstone and shales
13. Metasandstone and shales
14. Metasiltstone and shales with chert
15. Metasandstone and shales with chert
16. Metasiltstone and shales with chert and sandstone
17. Metasandstone and shales with chert and sandstone
18. Metasiltstone and shales with chert, sandstone and tuff
19. Metasandstone and shales with chert, sandstone and tuff
20. Metasiltstone and shales with chert, sandstone and tuff and agglomerate
21. Metasandstone and shales with chert, sandstone and tuff and agglomerate
22. Metasiltstone and shales with chert, sandstone and tuff and agglomerate with breccia
23. Metasandstone and shales with chert, sandstone and tuff and agglomerate with breccia
24. Metasiltstone and shales with chert, sandstone and tuff and agglomerate with breccia and sandstone
25. Metasandstone and shales with chert, sandstone and tuff and agglomerate with breccia, sandstone and tuff
26. Metasiltstone and shales with chert, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate
27. Metasiltstone and shales with chert, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate with breccia and sandstone
28. Metasandstone and shales with chert, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate with breccia, sandstone and tuff
29. Metasiltstone and shales with chert, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate with breccia and sandstone
30. Metasandstone and shales with chert, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate with breccia, sandstone and tuff and agglomerate with breccia and sandstone

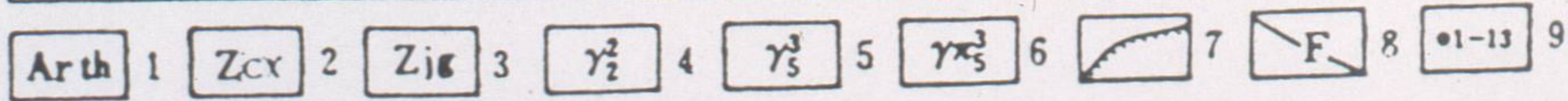
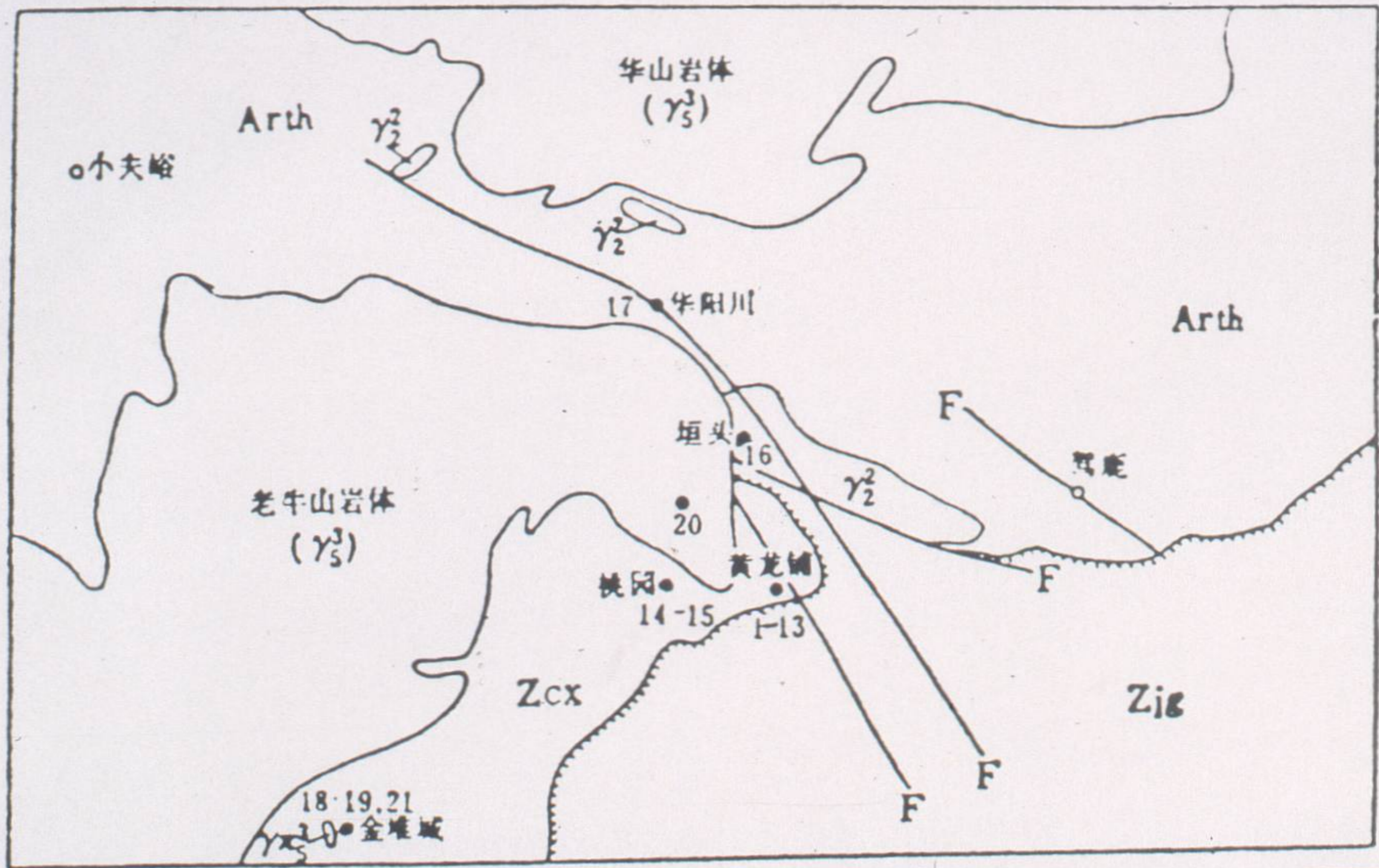
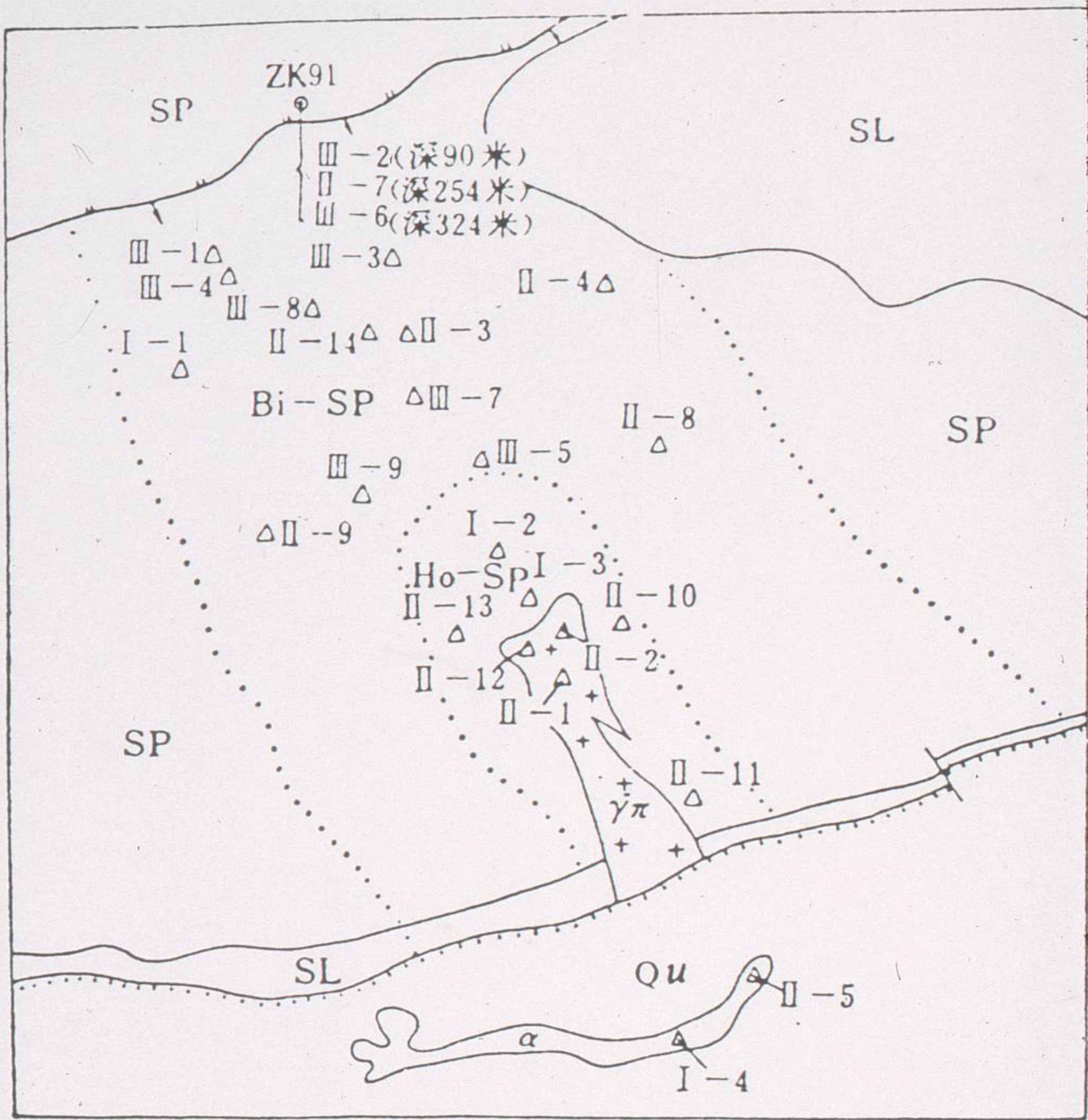


图 1 黄龙铺一金堆城地区地质示意图及铅同位素取样位置



- | | | | | | | | | | | | |
|-------------|---|-------|---|----|---|-------|----|--------|----|----------|----|
| QU | 1 | SL | 2 | SP | 3 | Bi-SP | 4 | Ho-SP | 5 | α | 6 |
| $\gamma\pi$ | 7 | | 8 | | 9 | | 10 | ○ ZK91 | 11 | △ III- | 12 |

图 2 金堆城斑岩钼矿床露天采场中的硫同位素样品分布示意
Schematic map showing distribution of sulfur isotopic samples for
the Jinduicheng porphyry type molybdenum deposit

2. 凝灰质板岩; 3. 变细碧岩; 4. 黑云母化细碧岩; 5. 角岩化细碧岩; 6.
8. 接触变质界线; 9. 正断层; 10. 不整合界线; 11. 钻孔及编号; 12. 采样

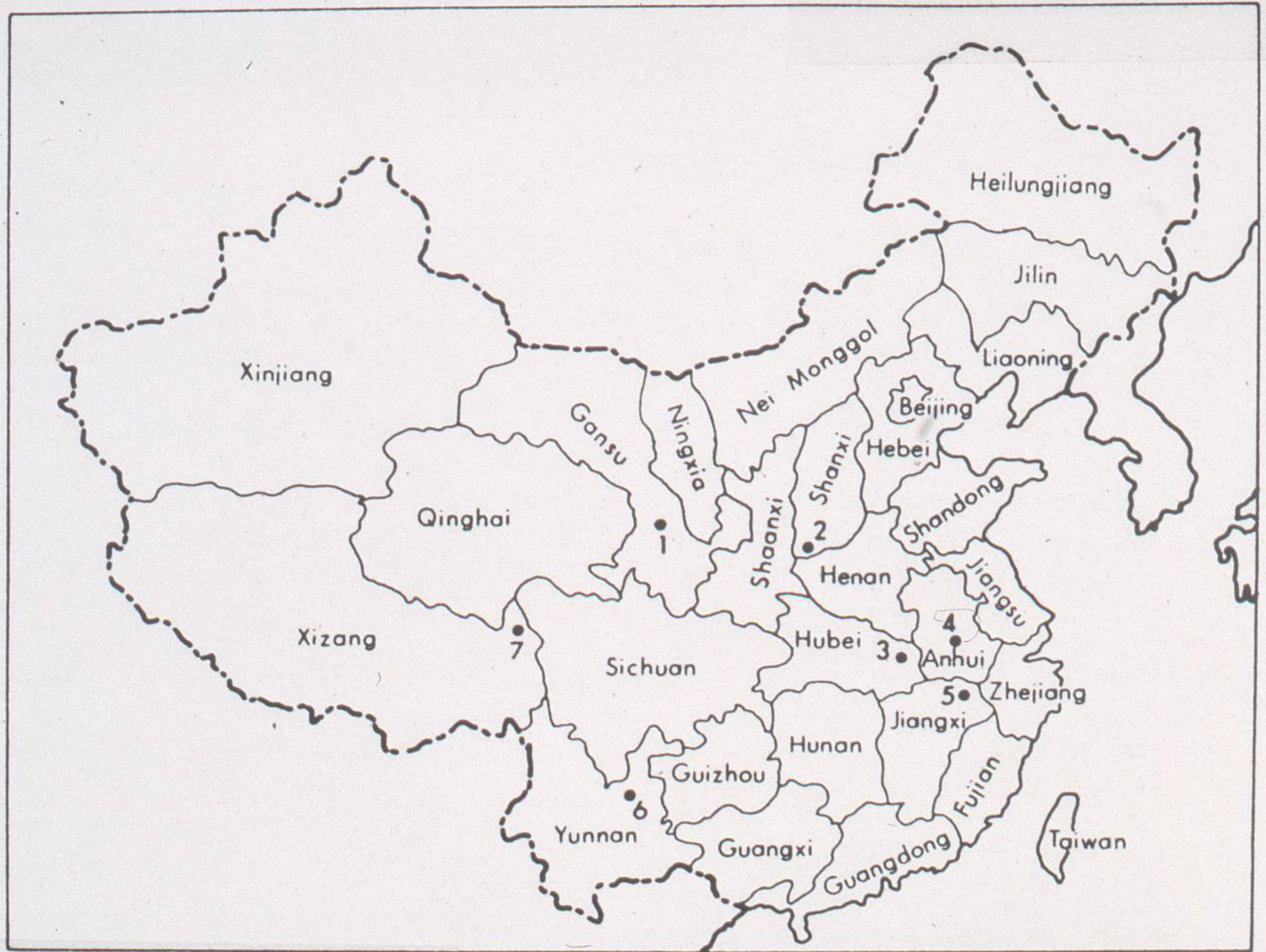


FIG. 1. Location of the major copper deposits of China discussed in this paper.







- BRITISH COLUMBIA**
- 1. Adair area, Au.
 - 2. Folsom Tuff, Au. Co. Ag.
 - 3. Tuleworth Chert, Zn. Co. Pb. Ag. Au. Co.
 - 4. Big Bush Zn. Co. Pb. Ag. Au. Co.
 - 5. Canyon Asbestos, etc.
 - 6. McDougall Creek area, Au.
 - 7. Thibault Creek area, Au.
 - 8. Deane Creek, Au.
 - 9. Big Mission, Au. Ag. Zn. Pb.
 - 10. Premier Boulder, Zn. Pb. Ag. Au. Co.
 - 11. Shiloh, Au. Zn. Pb. Co. Ag.
 - 12. Daily Valley, Ag. Pb. Co. Au.
 - 13. Tantalus, Ag. Pb. Zn. Au.
 - 14. Outcrop, Co. Ag. Au.
 - 15. Bonanza, Co. Ag. Au.
 - 16. Gossage, Au. Ag.
 - 17. Gravelly Point, Ag. Au. Pb. Co.
 - 18. Hidden Creek, Co. Ag. Au.
 - 19. Lime Creek, Mo.
 - 20. Garmann River area, Au.
 - 21. Silver Standard, Ag. Zn. Pb. Co. Au. Co.
 - 22. Royal Detour, Co. Au. Ag. Zn. Pb.
 - 23. Red Rose, W. Co. Au. Ag.
 - 24. Gurnee, Ag. Pb. Zn. Au.
 - 25. Granite, Co.
 - 26. Frisco Lake, Hg.
 - 27. Sulphur, Au. Ag. Co.
 - 28. Sulphur, Au. Co. Ag.
 - 29. Enduro, Au.
 - 30. Fraser River, Au.
 - 31. Carbon area (Garmann and Barkerville), Au.
 - 32. Aurora Island Mountain, Au.
 - 33. Carbonic South Fork, Au.
 - 34. Blue Mountain, Mo.
 - 35. Wilks, Au. Ag. Pb. Co.
 - 36. Barren Promontory, Au.
 - 37. Iron Peak, Fe.
 - 38. Coal Deposit (Old Spout), Co. Fe. Au. Ag.
 - 39. Frank, Co. Ag. Au.
 - 40. Empire, Fe.
 - 41. Napanee, Fe.
 - 42. Zepherus (P.L.), Fe.
 - 43. Mount Detour, Au. Ag. Co. Zn. Pb.
 - 44. Prosser, Au. Ag. Pb. Co.

- ALBERTA**
- 1. Laramie, Co.
 - 2. Big Chief - Little Chief, Co. Au. Ag.

- BRITISH COLUMBIA (Continued)**
- 65. Gogger Mountain, Co. Au. Ag.
 - 66. Hedley Mountain, Au. Co. Ag.
 - 67. Nickel Peak, Au. Co. Ag.
 - 68. French, Au.
 - 69. Iron Silver, Ag. Au. Pb. Zn. Co.
 - 70. Iron Silver, Au. Co. Ag. Pb. Zn.
 - 71. Dorrhead Limestone, Au. Co. Ag. Pb. Zn.
 - 72. Fairview (Manning Basin), Au. Ag. Pb. Co. Zn.
 - 73. Highland Belt, Ag. Zn. Pb. Au. Co.
 - 74. Carboniferous (McKenna), Au. Ag. Zn. Pb.
 - 75. Southern Lake, Co. Au. Ag.
 - 76. Summit, Co. Au. Ag.
 - 77. B.C. Co. Ag. Au.
 - 78. Bonanza (Garmann), Co. Au. Ag.
 - 79. Denton, Au. Ag. Pb. Zn.
 - 80. Emma, Co. Au. Ag.
 - 81. Old Bonanza, Co. Au. Ag.
 - 82. Archaic (Manning Basin), Au. Ag. Pb.
 - 83. Rosholt, Co. Au. Ag.
 - 84. Snowflake, Co. Au. Ag.
 - 85. Wrenn, Au. Co. Ag. Pb.
 - 86. Rock Candy, Fe.
 - 87. Union, Ag. Au. Zn. Pb. Co.
 - 88. West, Co. Au. Ag.
 - 89. Centre Star (Creston), Au. Co. Ag.
 - 90. Red Mountain (Creston), Mo.
 - 91. Reeves MacDonald, Zn. Pb. Co. Ag.
 - 92. Emerald, W.
 - 93. Jersey, Zn. Pb. Co. Ag.
 - 94. Bayshore, Au. Ag.
 - 95. Golden Belt, Au. Ag.
 - 96. Kootenay Lake, Au. Ag. Zn. Pb.
 - 97. Kern, Au. Ag. Pb. Zn.
 - 98. Sweet Creek, Au. Ag. Pb. Zn.
 - 99. H.B. Zn. Pb. Co. Ag.
 - 100. Arlington, Au. Ag. Pb. Zn.
 - 101. Second River, Au. Ag. Co. Pb. Zn.
 - 102. Hutter V and Double Standard, Au.
 - 103. Carolee Hill, Au. Zn. Pb. Ag. Co.
 - 104. Year, Au. Pb. Ag. Zn.
 - 105. Athabasca, Au. Ag. Zn. Pb. Co.
 - 106. Granite Promontory, Au. Ag. Pb. Zn. Co.
 - 107. Silver King, Au. Co. Au. Pb. Zn.
 - 108. Glenora, Au. Co. Au. Pb. Zn.
 - 109. Molybdenum, Au. Ag. Pb. Zn. Co.
 - 110. Florence (Auriferous), Pb. Zn. Ag. Co. Au.
 - 111. Highland, Pb. Ag. Zn. Co. Au.
 - 112. Yule (Highlander), Pb. Zn. Ag. Co. Au. Fe.
 - 113. Shalston, Zn. Pb. Ag. Co. Au.
 - 114. Cook Prospector, Zn. Pb. Ag. Co. Au.
 - 115. Galena Farm, Zn. Ag. Pb. Co. Au.
 - 116. Brown, Ag. Pb. Zn. Au. Co.
 - 117. Hewitt, Ag. Pb. Zn. Co. Au.
 - 118. Isadore, Ag. Pb. Zn.
 - 119. Maymont, Ag. Zn. Pb. Co. Au.
 - 120. Richmond-Eureka, Au. Pb. Zn. Co. Au.
 - 121. Ruth Hope, Ag. Pb. Zn. Au.
 - 122. Silverthorn and Stovin Star, Ag. Pb. Zn. Co. Au.

- NEW BRUNSWICK**
- 1. Miramichi.

- NOVA SCOTIA**
- 1. Joggins.
 - 2. Springhill.
 - 3. Pictou.
 - 4. Pictou.
 - 5. Maitland.
 - 6. Westmead.
 - 7. St. Rose.
 - 8. Sydney.

- SASKATCHEWAN**
- 1. Estevan.

- NEW BRUNSWICK (Continued)**
- 1. Miramichi-Thamesville, Mo.
 - 2. Rodney, Mo.
 - 3. Ceyloria, Co.
 - 4. Botary, Mo.
 - 5. Camden Gore Chatham, Mo.
 - 6. Kipp, Mo.
 - 7. Dover, Co.
 - 8. Lake St. Clair, Mo.
 - 9. Morpeth, Mo.
 - 10. O'Chute, Mo.
 - 11. Fitcher, Co.
 - 12. Tilbury, Mo.
 - 13. Belle River, Mo.
 - 14. Stages Morosa, Co.
 - 15. Kingsville, Mo.
 - 16. Colchester, Co.
 - 17. Madon, Co.
 - 18. Madonville, Co.
 - 19. Brownsville, Co.
 - 20. Brighton, Co.
 - 21. Hartwick, Co.
 - 22. Galois, Co.
 - 23. Haddonsville, Co.
 - 24. Westford, Co.
 - 25. Acton, Co.
 - 26. Hamlet, Co.

- MANITOBA**
- 1. Kirkville, Mo.
 - 2. North Indian Station, Mo.
 - 3. Mayne, Mo.
 - 4. Vanden-Rosen, Mo.
 - 5. Rosedale, Mo.
 - 6. West Rosedale, Mo.
 - 7. Dale, Mo.
 - 8. Ebor, Mo.
 - 9. West Butler, Mo.
 - 10. Woodworth, Mo.
 - 11. Parson, Mo.
 - 12. South-Harvey, Mo.
 - 13. Whitestar, Mo.

- NEW BRUNSWICK (Continued)**
- 1. Stony Creek, Mo.

- MANITOBA (Continued)**
- 1. Lantz Lake, Mo. Co. Co.
 - 2. Shepperton, Co. Zn. Au. Ag.
 - 3. Fox-Fox, Co. Zn. Au. Ag. Co. Fe. Fe. Fe.
 - 4. Mansfield, Co. Zn. Au. Ag.
 - 5. North Star, Co. Zn. Au. Ag.
 - 6. Dan-Jin, Co. Zn. Au. Ag.
 - 7. North Star, Co. Zn. Au. Ag.
 - 8. Chisel Lake, Zn. Ag. Au. Co. Pb.
 - 9. Neil Arnie, Au.
 - 10. St. Lawrence, Co. Zn. Au. Ag.
 - 11. Laggan, Au.
 - 12. Swift, Mo. Co.
 - 13. Brimley, Mo. Co.
 - 14. Thompson, Mo. Co. Co. Pb.
 - 15. South Lake, Au.
 - 16. Oxbow, Mo.
 - 17. Sweeney, Mo.
 - 18. Annapolis, Mo.
 - 19. Forty-Four, Au.
 - 20. St. Anthony, Mo.
 - 21. Ogema-Rockland, Au.
 - 22. Central Manitoba, Au.
 - 23. Summit Hill, Au.
 - 24. Silver Phoenix, Mo.

- ONTARIO**
- 1. Goggin River, Au.
 - 2. Bedouin River, Au. Ag. Pb. Zn.
 - 3. Prince-Crope, Au.
 - 4. Central Phoenix, Au.
 - 5. New-Jersey, Au.
 - 6. Uchi, Au.
 - 7. J.M. Consolidated, Au.
 - 8. H.G. Young, Au.
 - 9. Jinnis, Au.
 - 10. Campbell Red Lake, Au.
 - 11. Cochrane-Wilkins, Au.
 - 12. Gold Eagle, Au.
 - 13. McManis Red Lake, Au.
 - 14. McManis, Au.
 - 15. Heaps, Au.
 - 16. Hovey, Au.
 - 17. Red Lake Gold Shore, Au.
 - 18. Madson Red Lake, Au.
 - 19. Starlet Down, Au.
 - 20. Griffin, Fe.
 - 21. Garden Lake, Mo. Co. Pb. Zn.
 - 22. Mikalio, Au.
 - 23. Sullivan, Au.
 - 24. Waddington, Au.
 - 25. Regina, Au.
 - 26. North-Pole, Zn.
 - 27. St. Anthony, Au.
 - 28. Calvert, Fe.
 - 29. Steep Rock, Fe.
 - 30. Canadian Charlevoix, Fe.
 - 31. Mikalio, Fe.
 - 32. Moss, Au.
 - 33. North-Corriburn, Co. Au. Ag.
 - 34. Tachina Goldfields, Au.
 - 35. Sturgeon River, Au.

- LABRADOR**
- 1. Mack, Au.
 - 2. Monty Porcupine, Au.
 - 3. Neeposh, Au.
 - 4. Porcupine Crown, Au.
 - 5. Schuchman, Au.
 - 6. Aurora, Au.
 - 7. Buffalo-Aurora, Au.
 - 8. Dalny, Au.
 - 9. De-Serpis-Phoenix, Au.
 - 10. Dore, Au.
 - 11. Fagnon, Au.
 - 12. Neeposh, Au.
 - 13. Neeposh, Au.
 - 14. Phoenix, Au.
 - 15. Corriburn, Au.
 - 16. Wright, Au.
 - 17. Night Hawk Porcupine, Au.
 - 18. Sturgeon River, Au.
 - 19. Wabeno, Au.
 - 20. Hughham, Au.
 - 21. Phoenix, Au.
 - 22. Aurora, Co.
 - 23. Morris, Zn. Ag.
 - 24. Ross, Zn.
 - 25. Chaceville, Au.
 - 26. Neil Addison, Au.
 - 27. Bridgford-Kirkland, Au.
 - 28. Lake-Bear-House, Co. Au.
 - 29. Lake-Bear-House, Au.
 - 30. Otago, Au.
 - 31. Raven-River, Au.
 - 32. Upper-Canada, Au.
 - 33. Atams, Au.
 - 34. Tyburn, Au.
 - 35. Wright-Hargreaves, Au.
 - 36. Barry-Ginger, Au.
 - 37. Golden-Gate, Au.
 - 38. Kirkland-Lake, Au.
 - 39. Lake-Shore, Au.
 - 40. Mackinac, Au.
 - 41. Tech-Hughes, Au.
 - 42. Aurora, Au.
 - 43. MacIntosh-Corriburn, Au.
 - 44. Ryan-Lake, Co. Au.
 - 45. Young-Dalton, Au.
 - 46. Centre, Ag. Co.
 - 47. Consolidated, Au.
 - 48. Sigsbee, Au.
 - 49. Tyburn, Au.
 - 50. Jinnis, Au.
 - 51. Tallyho, Au.
 - 52. Campbell, Au.
 - 53. Jordan, Pb. Zn.
 - 54. Rock-Lake, Au.
 - 55. Bruce-Ming, Au.
 - 56. Phoenix, U.
 - 57. Call-Met, U.
 - 58. Millan-Lake, U.
 - 59. Starbuck, U.
 - 60. Starbuck, U.
 - 61. Starbuck, U.
 - 62. Starbuck, U.
 - 63. Starbuck, U.
 - 64. Starbuck, U.
 - 65. Starbuck, U.
 - 66. Starbuck, U.
 - 67. Starbuck, U.
 - 68. Starbuck, U.
 - 69. Starbuck, U.
 - 70. Starbuck, U.
 - 71. Starbuck, U.
 - 72. Starbuck, U.
 - 73. Starbuck, U.
 - 74. Starbuck, U.
 - 75. Starbuck, U.
 - 76. Starbuck, U.
 - 77. Starbuck, U.
 - 78. Starbuck, U.
 - 79. Starbuck, U.
 - 80. Starbuck, U.
 - 81. Starbuck, U.
 - 82. Starbuck, U.
 - 83. Starbuck, U.
 - 84. Starbuck, U.
 - 85. Starbuck, U.
 - 86. Starbuck, U.
 - 87. Starbuck, U.
 - 88. Starbuck, U.
 - 89. Starbuck, U.
 - 90. Starbuck, U.
 - 91. Starbuck, U.
 - 92. Starbuck, U.
 - 93. Starbuck, U.
 - 94. Starbuck, U.
 - 95. Starbuck, U.
 - 96. Starbuck, U.
 - 97. Starbuck, U.
 - 98. Starbuck, U.
 - 99. Starbuck, U.
 - 100. Starbuck, U.

- LABRADOR (Continued)**
- 101. Starbuck, U.
 - 102. Starbuck, U.
 - 103. Starbuck, U.
 - 104. Starbuck, U.
 - 105. Starbuck, U.
 - 106. Starbuck, U.
 - 107. Starbuck, U.
 - 108. Starbuck, U.
 - 109. Starbuck, U.
 - 110. Starbuck, U.
 - 111. Starbuck, U.
 - 112. Starbuck, U.
 - 113. Starbuck, U.
 - 114. Starbuck, U.
 - 115. Starbuck, U.
 - 116. Starbuck, U.
 - 117. Starbuck, U.
 - 118. Starbuck, U.
 - 119. Starbuck, U.
 - 120. Starbuck, U.

- LABRADOR (Continued)**
- 121. Starbuck, U.
 - 122. Starbuck, U.
 - 123. Starbuck, U.
 - 124. Starbuck, U.
 - 125. Starbuck, U.
 - 126. Starbuck, U.
 - 127. Starbuck, U.
 - 128. Starbuck, U.
 - 129. Starbuck, U.
 - 130. Starbuck, U.



MINERAL DEPOSITS OF CANADA

- MINERAL PROVINCES**
- 1. Arctic
 - 2. Northwest Territories
 - 3. Yukon
 - 4. British Columbia
 - 5. Alberta
 - 6. Saskatchewan
 - 7. Ontario
 - 8. Quebec
 - 9. Atlantic

- MINERAL DEPOSITS**
- 1. Iron
 - 2. Nickel
 - 3. Copper
 - 4. Zinc
 - 5. Lead
 - 6. Silver
 - 7. Gold
 - 8. Uranium
 - 9. Potash
 - 10. Coal
 - 11. Oil
 - 12. Natural Gas
 - 13. Salt
 - 14. Asbestos
 - 15. Manganese
 - 16. Molybdenum
 - 17. Vanadium
 - 18. Titanium
 - 19. Zirconium
 - 20. Niobium
 - 21. Tantalum
 - 22. Tin
 - 23. Antimony
 - 24. Bismuth
 - 25. Arsenic
 - 26. Selenium
 - 27. Tellurium
 - 28. Mercury
 - 29. Platinum
 - 30. Palladium
 - 31. Rhodium
 - 32. Iridium
 - 33. Osmium
 - 34. Rhenium
 - 35. Boron
 - 36. Fluorine
 - 37. Chlorine
 - 38. Bromine
 - 39. Iodine
 - 40. Lithium
 - 41. Sodium
 - 42. Potassium
 - 43. Calcium
 - 44. Magnesium
 - 45. Strontium
 - 46. Barium
 - 47. Lead
 - 48. Bismuth
 - 49. Antimony
 - 50. Arsenic
 - 51. Selenium
 - 52. Tellurium
 - 53. Mercury
 - 54. Platinum
 - 55. Palladium
 - 56. Rhodium
 - 57. Iridium
 - 58. Osmium
 - 59. Rhenium
 - 60. Boron
 - 61. Fluorine
 - 62. Chlorine
 - 63. Bromine
 - 64. Iodine
 - 65. Lithium
 - 66. Sodium
 - 67. Potassium
 - 68. Calcium
 - 69. Magnesium
 - 70. Strontium
 - 71. Barium

- MINERAL DEPOSITS**
- 1. Iron
 - 2. Nickel
 - 3. Copper
 - 4. Zinc
 - 5. Lead
 - 6. Silver
 - 7. Gold
 - 8. Uranium
 - 9. Potash
 - 10. Coal
 - 11. Oil
 - 12. Natural Gas
 - 13. Salt
 - 14. Asbestos
 - 15. Manganese
 - 16. Molybdenum
 - 17. Vanadium
 - 18. Titanium
 - 19. Zirconium
 - 20. Niobium
 - 21. Tantalum
 - 22. Tin
 - 23. Antimony
 - 24. Bismuth
 - 25. Arsenic
 - 26. Selenium
 - 27. Tellurium
 - 28. Mercury
 - 29. Platinum
 - 30. Palladium
 - 31. Rhodium
 - 32. Iridium
 - 33. Osmium
 - 34. Rhenium
 - 35. Boron
 - 36. Fluorine
 - 37. Chlorine
 - 38. Bromine
 - 39. Iodine
 - 40. Lithium
 - 41. Sodium
 - 42. Potassium
 - 43. Calcium
 - 44. Magnesium
 - 45. Strontium
 - 46. Barium

Scale 1:500,000

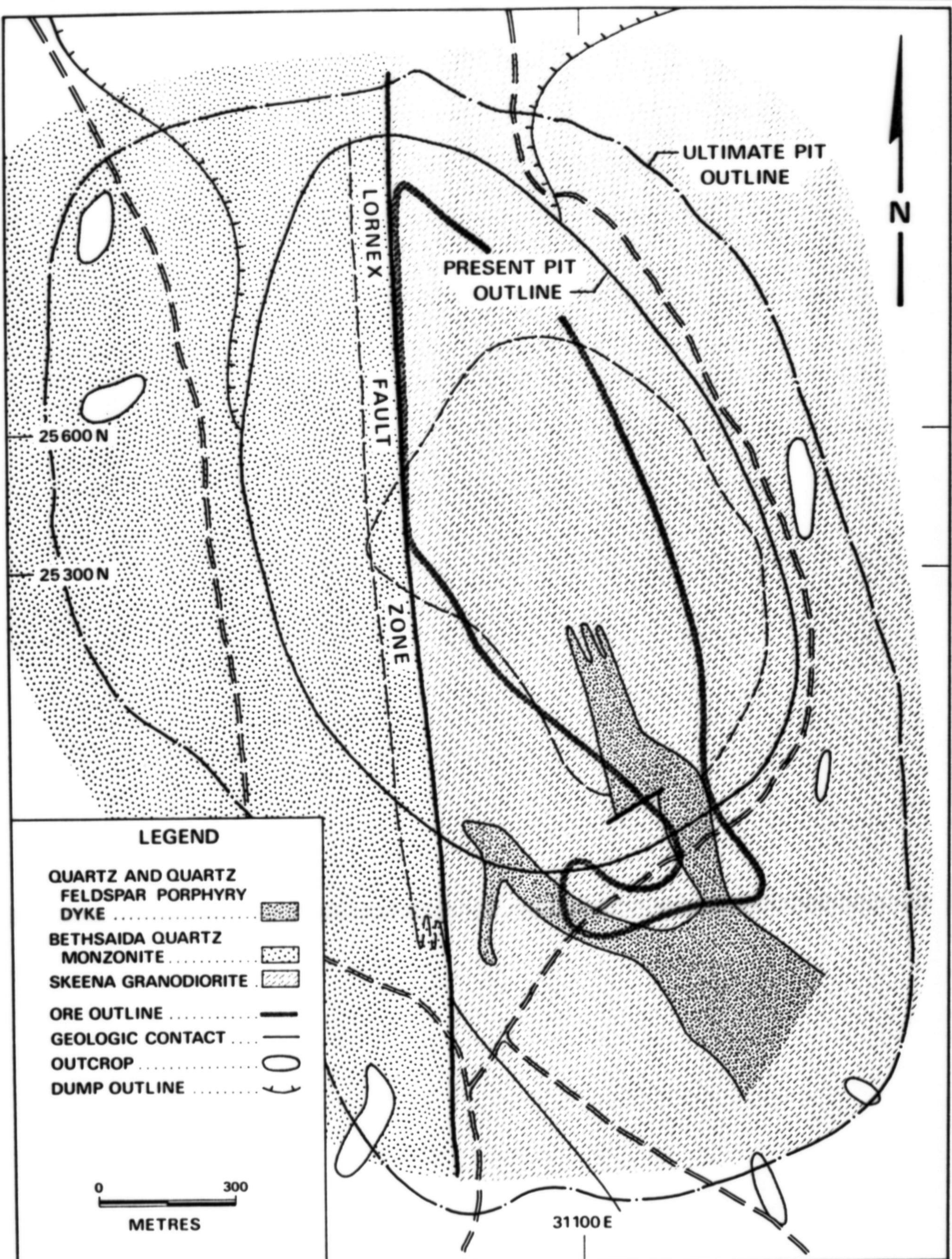
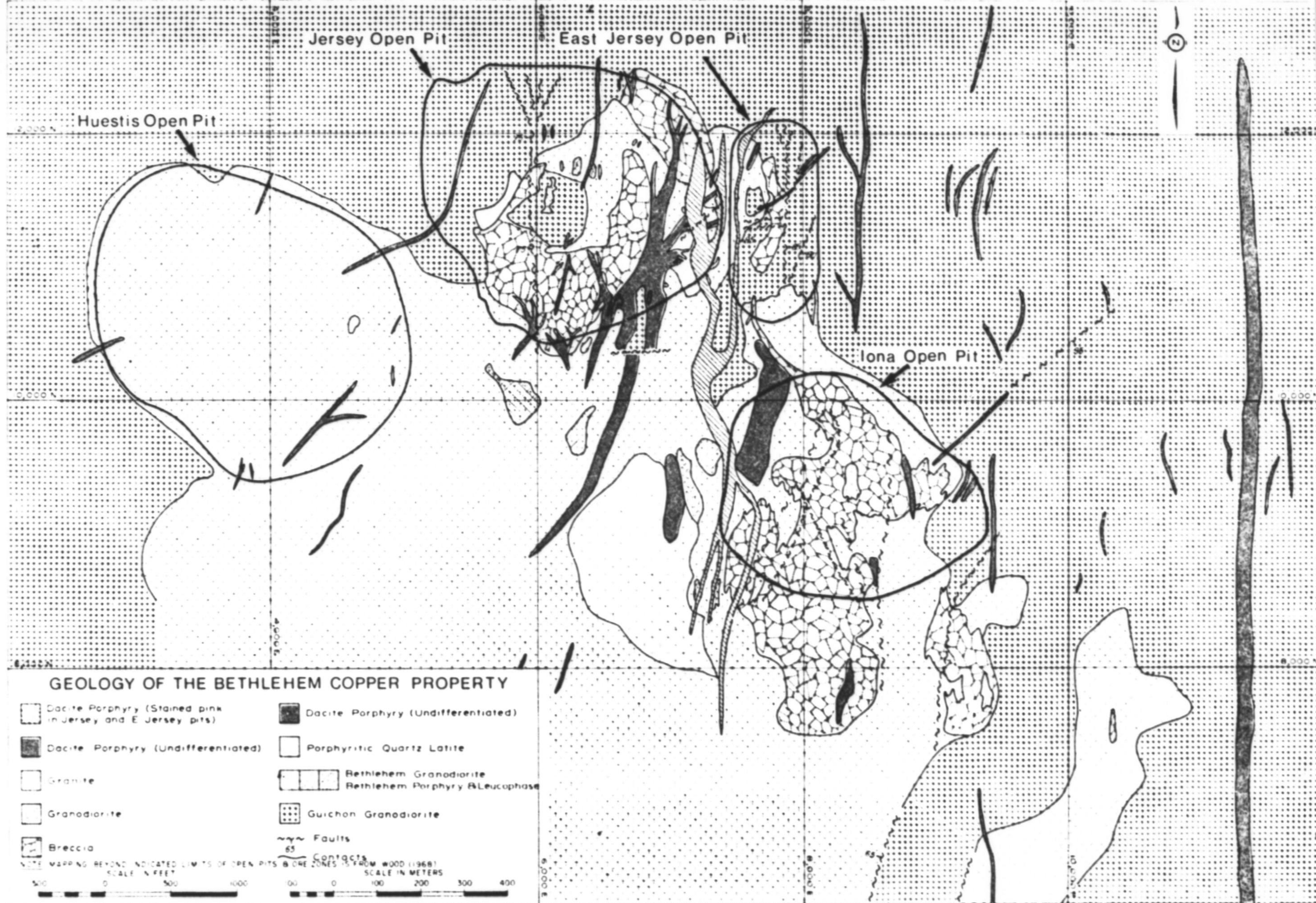
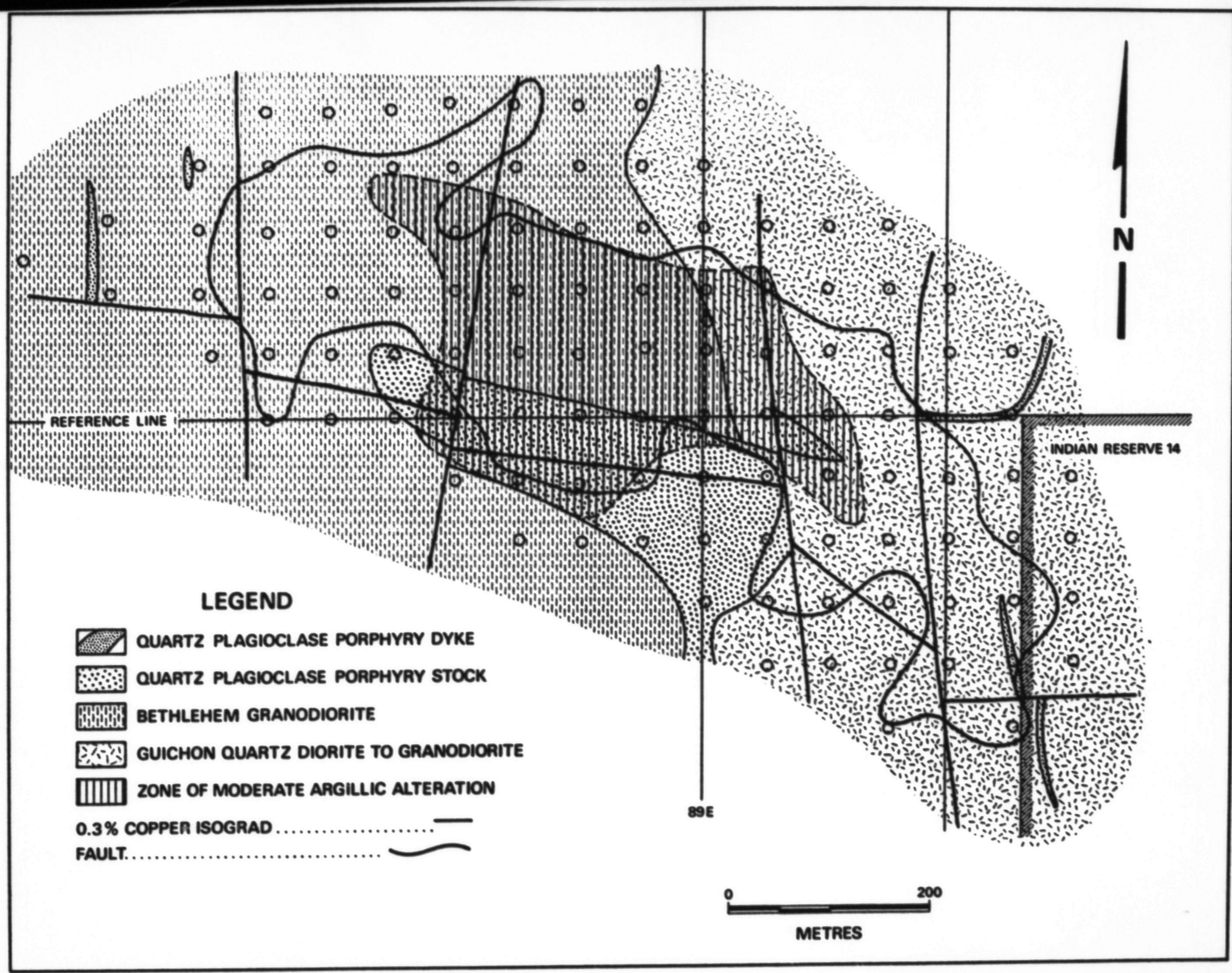


Figure 22. General geologic setting of the Lornex copper-molybdenum deposit (modified after Waldner, et al., 1976).

FIGURE 1 - Geology of the Bethlehem property.



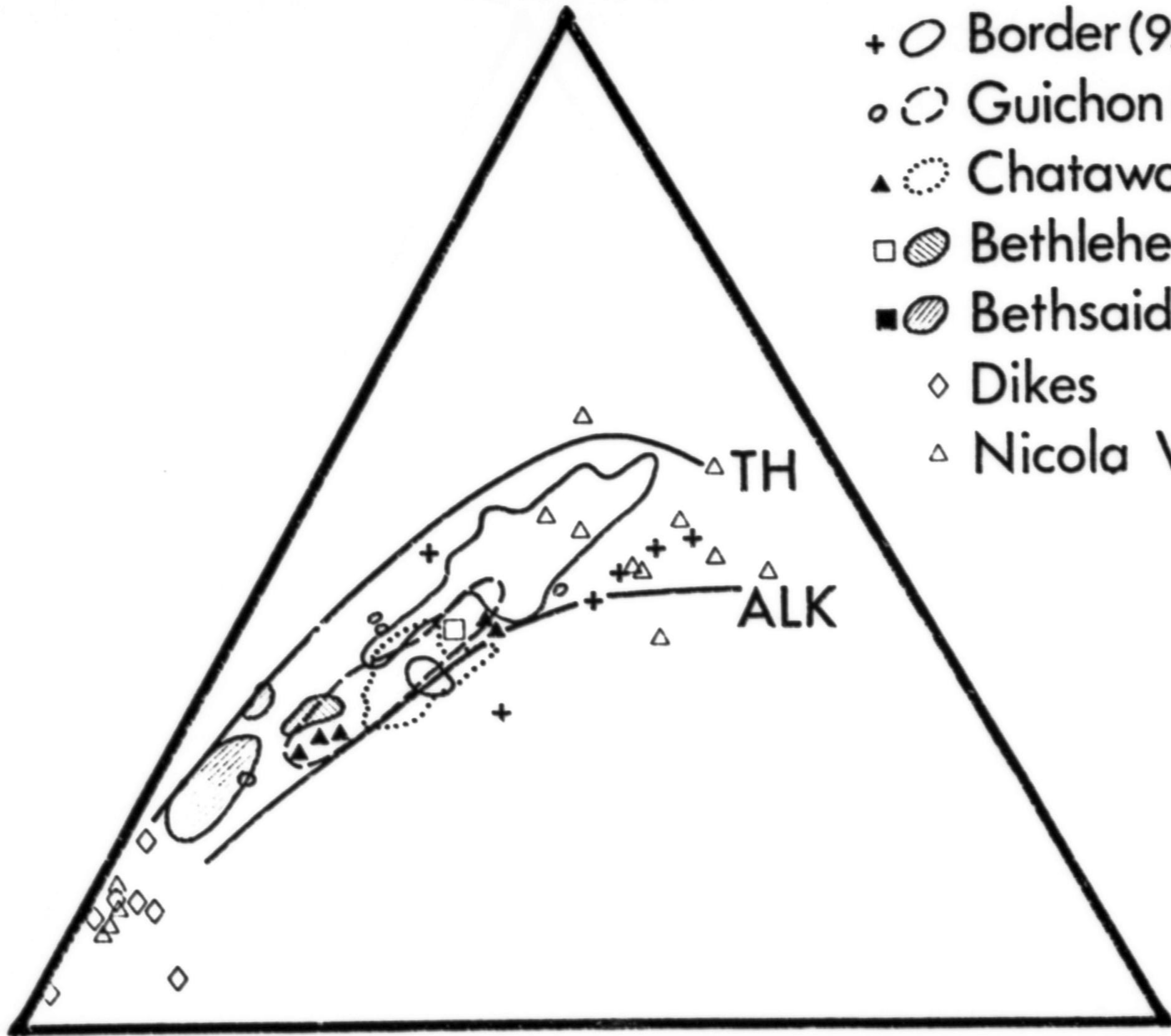


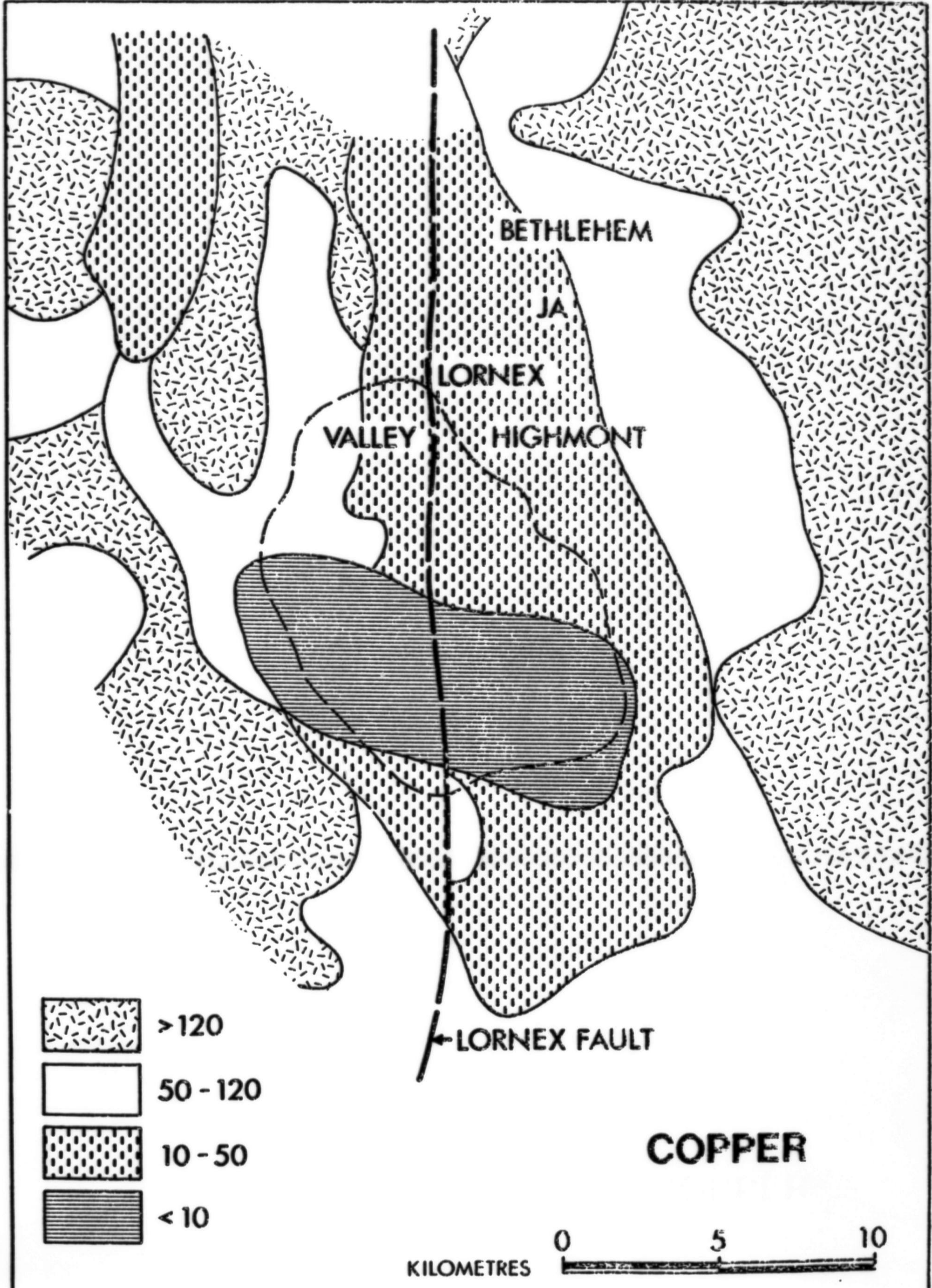
Total Iron

- + ○ Border (95)
- ○ Guichon (62)
- ▲ ○ Chataway (35)
- ● Bethlehem, Skeena (9)
- ● Bethsaida (37)
- ◇ Dikes
- △ Nicola Volcanic Rocks

Alkalis

Mgo





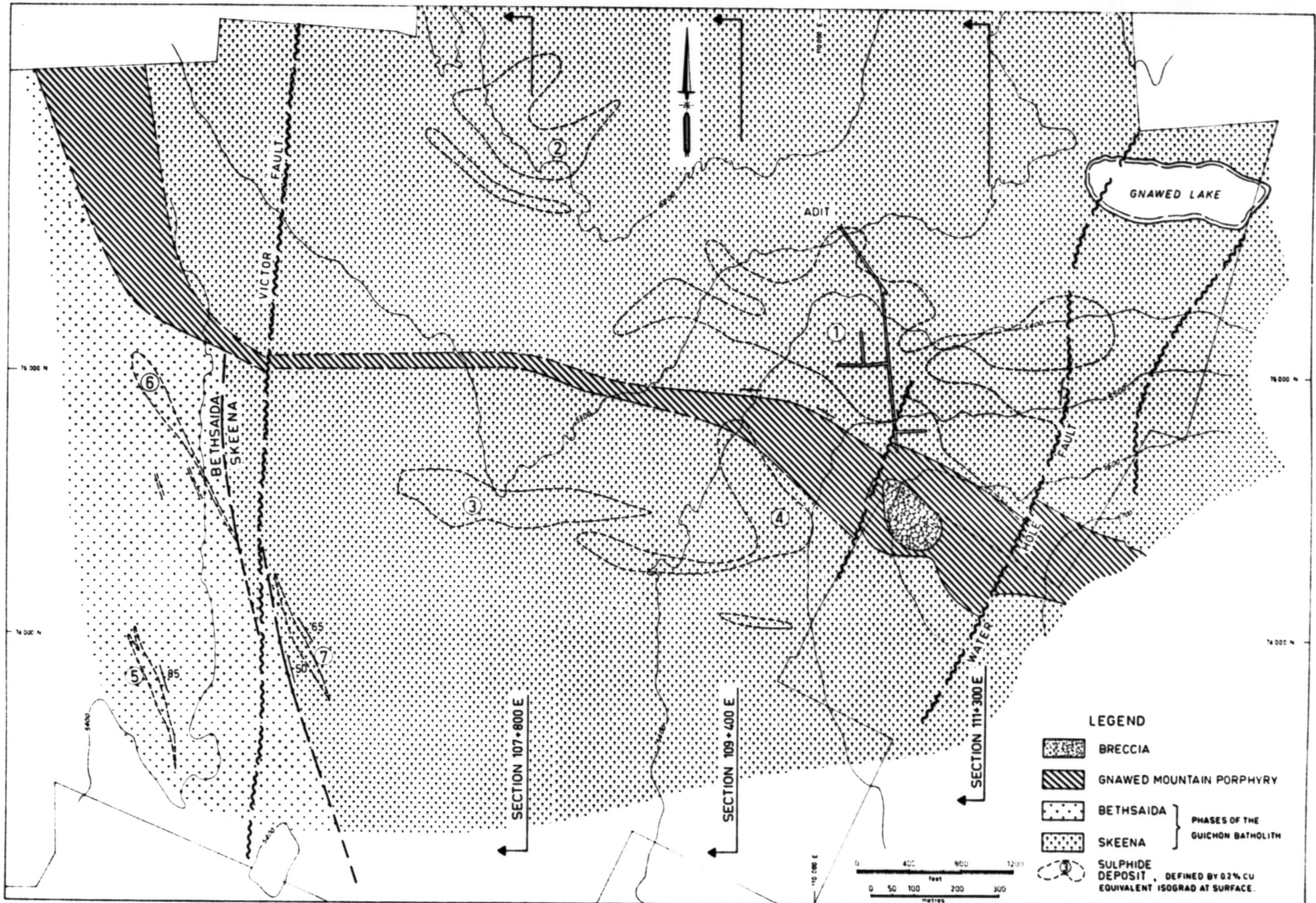


FIGURE 1 — Geology of the Highmont property and locations of the seven known sulphide deposits.

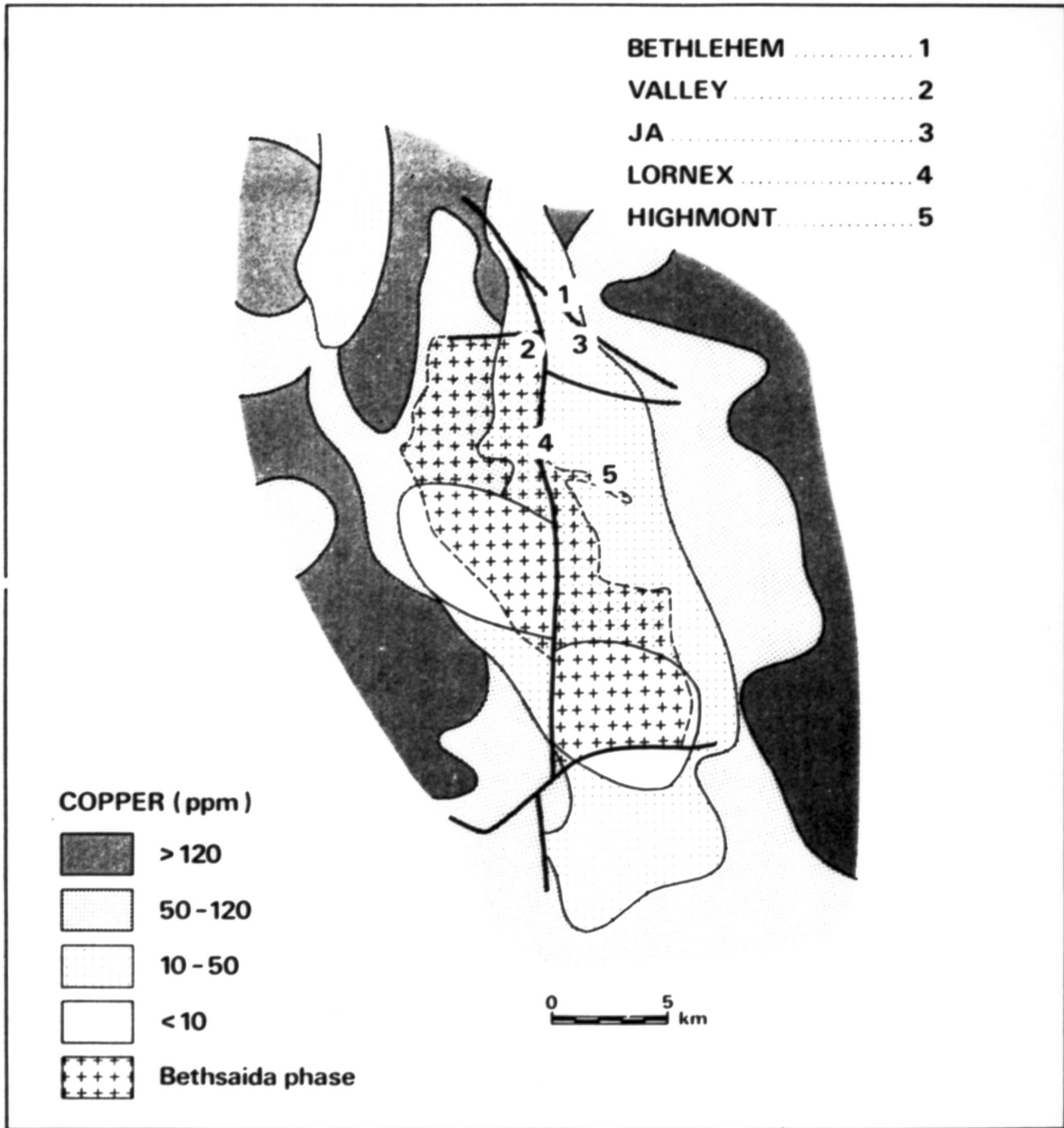


Figure 10. Simplified geological map of the Guichon Creek batholith showing copper abundances; strong depletion occurs in the Bethsaida phase south of the major ore deposits (modified after McMillan and Johan, 1981).

5261	2950	125	73	150	291	112
351	87	13	5			
194	100	130	153	微量	少量	少量
145	19	13				

表 14—2。

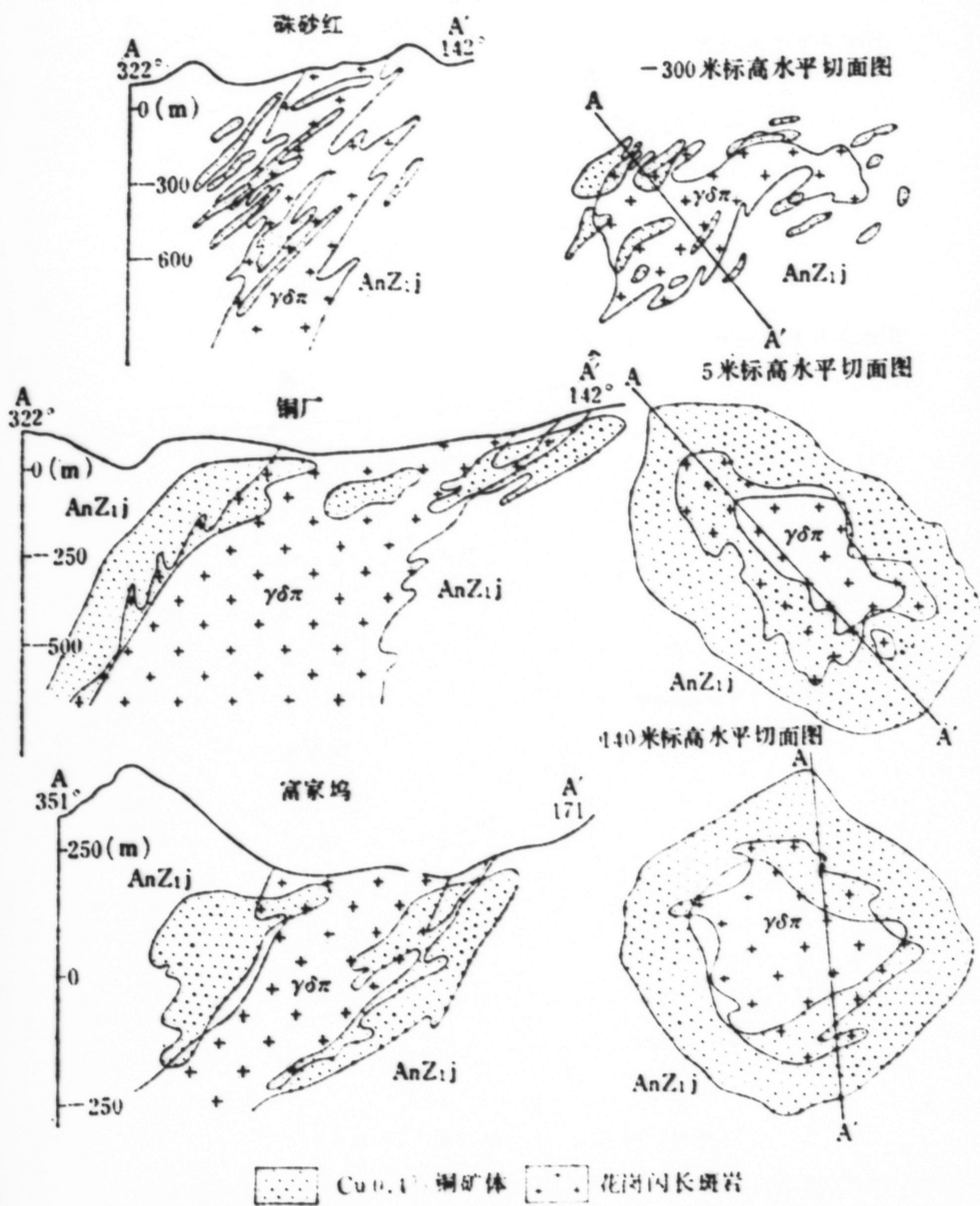
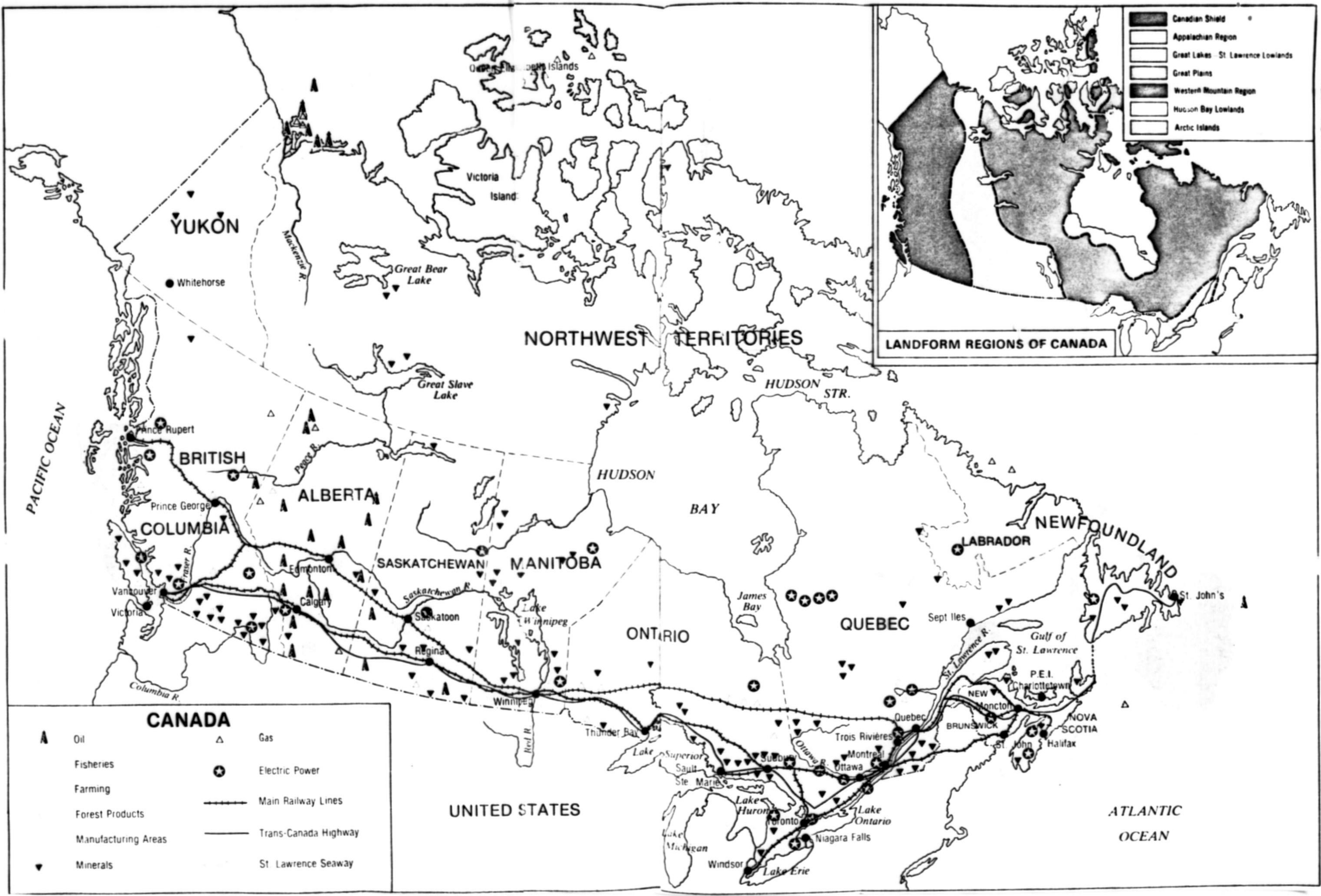


图 14—3 德兴斑岩铜（钼）矿矿田三个矿床的矿体形态和产状图解



- Canadian Shield
- Appalachian Region
- Great Lakes - St. Lawrence Lowlands
- Great Plains
- Western Mountain Region
- Hudson Bay Lowlands
- Arctic Islands

LANDFORM REGIONS OF CANADA

CANADA

- | | | | |
|--|---------------------|--|----------------------|
| | Oil | | Gas |
| | Fisheries | | Electric Power |
| | Farming | | Main Railway Lines |
| | Forest Products | | Trans-Canada Highway |
| | Manufacturing Areas | | St. Lawrence Seaway |
| | Minerals | | |

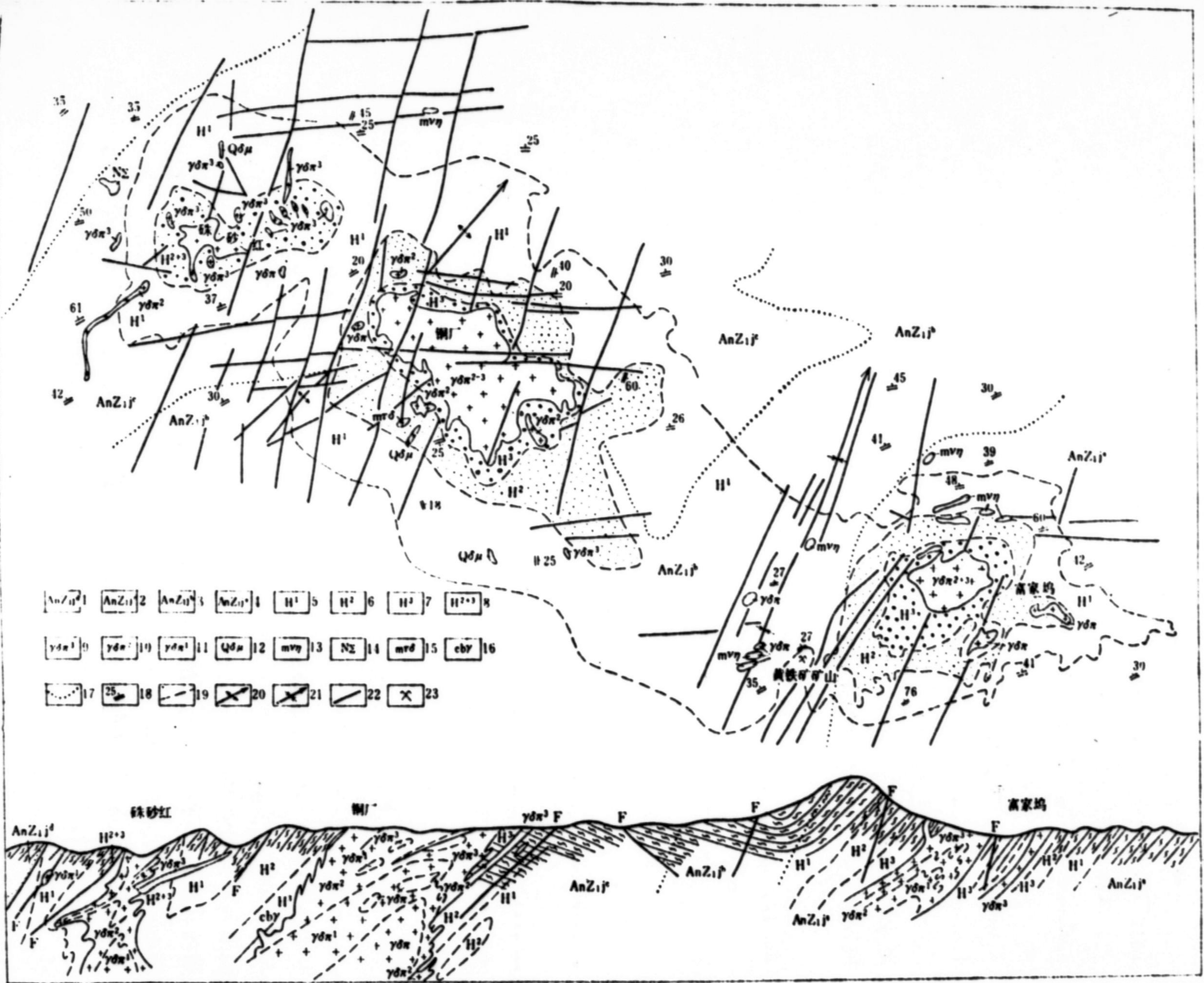
UNITED STATES

ATLANTIC OCEAN

图 14—1 德兴斑岩铜
(钼) 矿田地质图

(据胡魁等资料编制)

- 1—前震旦系九都组第四岩性段；2—前震旦系九都组第三岩性段；3—前震旦系九都组第二岩性段；4—前震旦系九都组第一岩性段；
- 5—绿泥石(绿帘石)-水云母化千枚岩(变质凝灰岩)；6—绿泥石(绿帘石)-水白云母化千枚岩(变质凝灰岩)；7—石英-水白云母化千枚岩(变质凝灰岩)；8—6和7未分；9—石英-水白云母化花岗闪长岩；10—绿泥石(绿帘石)-水白云母化花岗闪长斑岩；11—绿泥石(绿帘石)-水云母-钾长石化花岗闪长斑岩；12—石英闪长玢岩；13—变质辉绿岩；14—辉长-辉石岩；15—细粒长英岩；16—接触角砾岩；17—地质界线；18—片理产状；19—蚀变带界线；20—背斜和它的倾伏方向；21—向斜和它的倾伏方向；22—断层；23—黄铁矿



0 200 400
METRES

N

LAKE

LAKE

HIGHLAND VALLEY ROAD

LORNEX FAULT

QUILTANTON LAKE

REFERENCE LINE

SECTION LINE A-B

(APPROXIMATE LOCATION)

DECLINE C

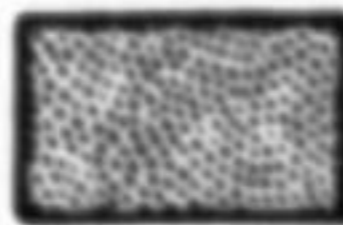
DECLINE A

DECLINE B

PRESENT STRIPPING LIMITS

TERTIARY SEDIMENTS

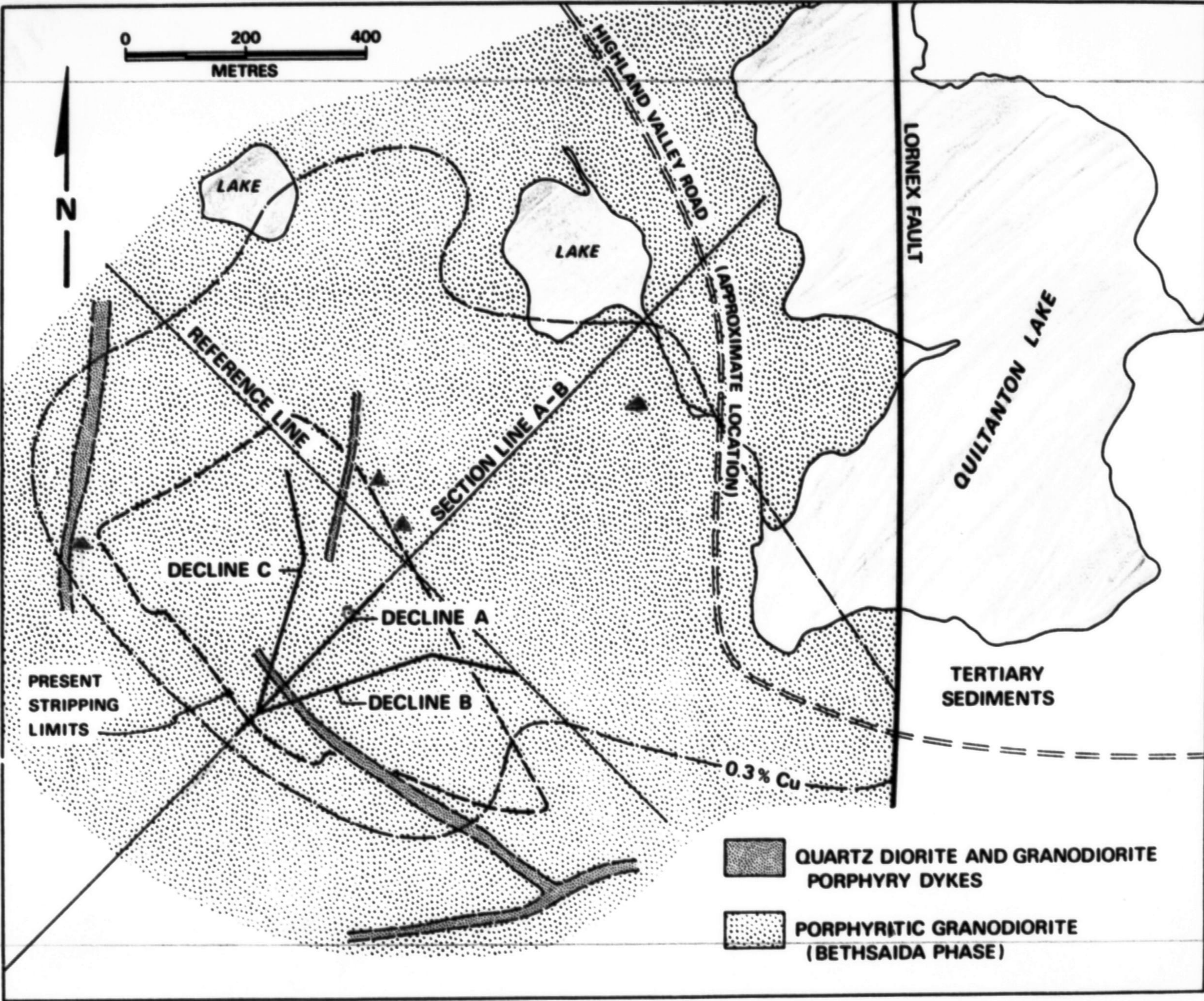
0.3% Cu

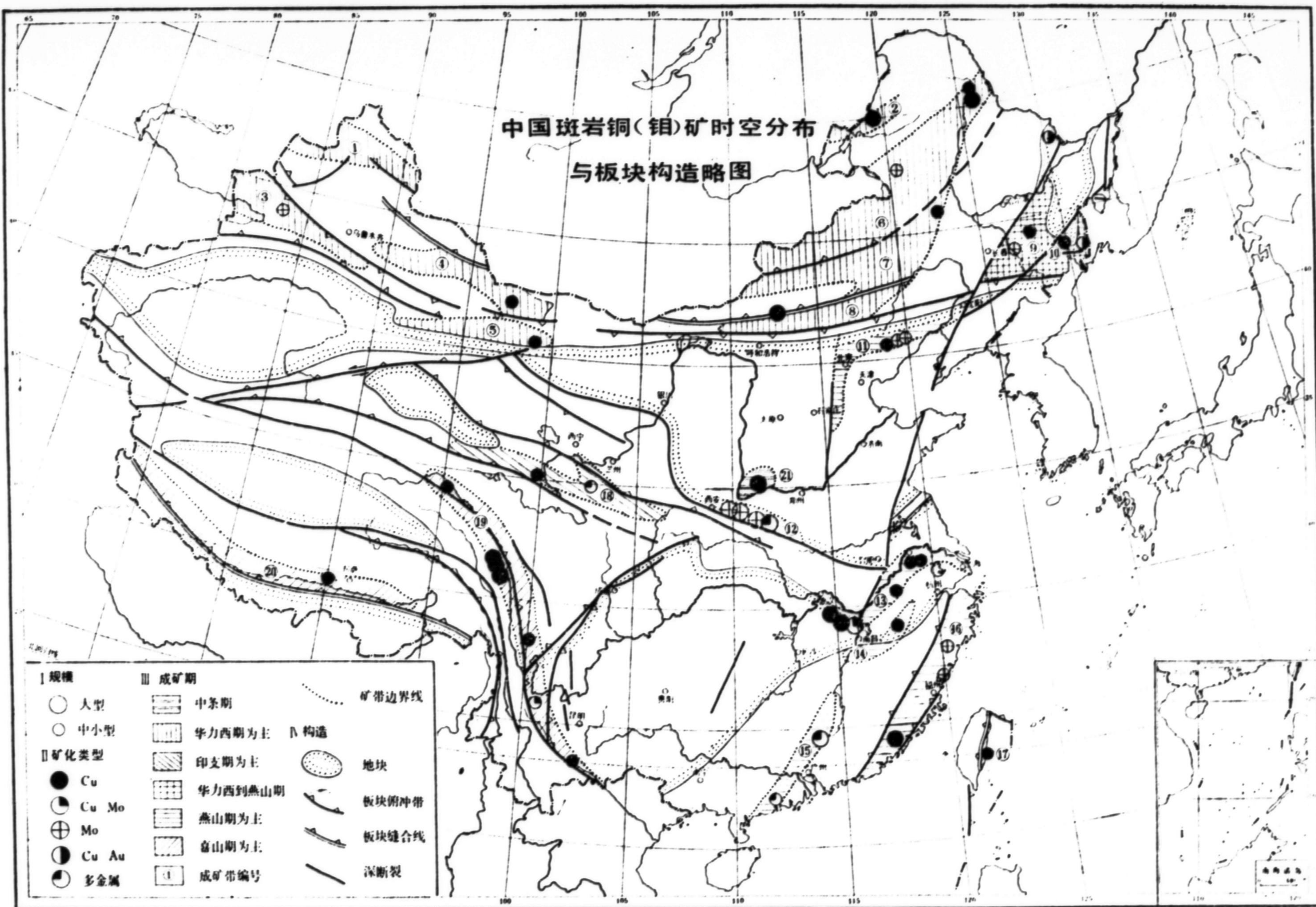


QUARTZ DIORITE AND GRANODIORITE PORPHYRY DYKES



PORPHYRITIC GRANODIORITE (BETHSAIDA PHASE)





本图参考中国地质出版社1980年出版的《中华人民共和国地质图》编制

图 2—1 中国斑岩铜(钼)矿时空分布与板块构造略图①