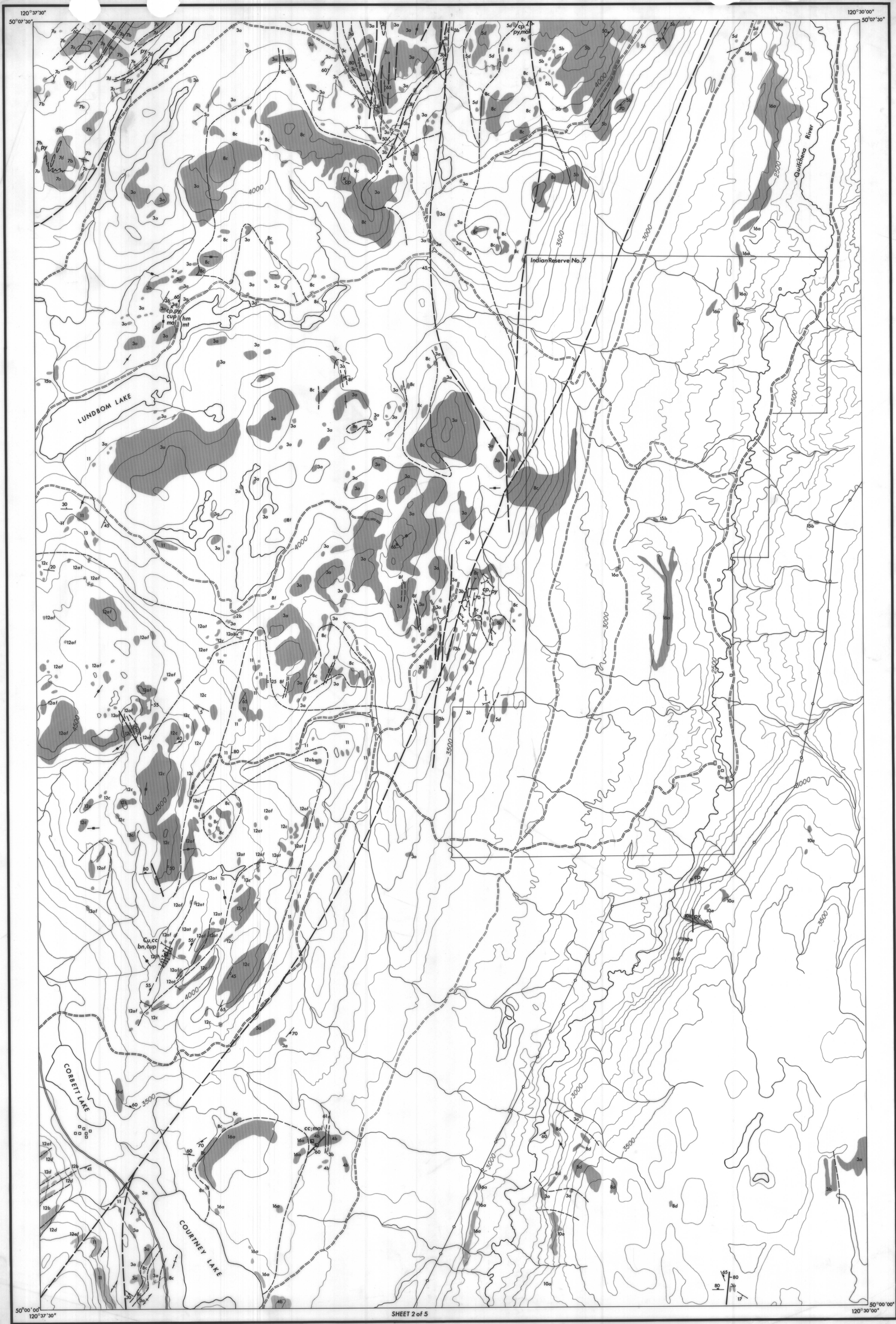


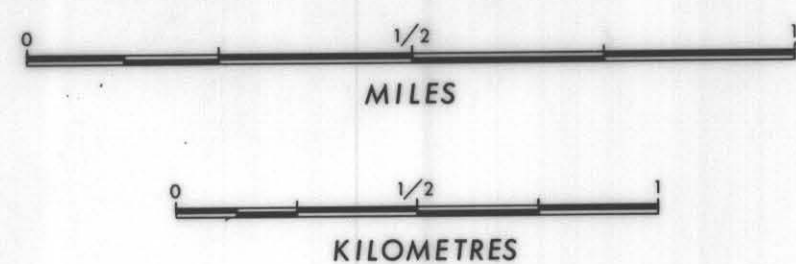
120°41'15" 120°37'30" 50°07'30" 50°07'30"





GEOLOGY OF
ASPEN GROVE AREA, BRITISH COLUMBIA

GEOLOGY BY: P. A. CHRISTOPHER AND D. COOMBS, 1972 (REVISED)
V. A. PRETO, T. E. KALNINS, N. A. THOMSEN, AND J. NEBOCAT, 1973



LEGEND

PLEISTOCENE AND RECENT

- 16 VALLEY BASALT
16a - RED AND GREY, VESICULAR OLIVINE BASALT
16b - MEDIUM-GRAINED GABBRO AND BASALT PLUGS

POST LOWER CRETACEOUS TO EARLY TERTIARY

- 15 COLDWATER BEDS
15a - POORLY CONSOLIDATED BOULDER CONGLOMERATE AND GRIT WITH POORLY PRESERVED PLANT REMAINS
15b - SANDSTONE, SHALE, AND COAL-BEARING BEDS

- 14 BOULDER CONGLOMERATE WITH REDDISH HEMATITIC MATRIX AND CLASTS PREDOMINANTLY DERIVED FROM UNIT 12

- 13 BOULDER CONGLOMERATE WITH ABUNDANT GRANITIC CLASTS

LOWER CRETACEOUS

- 12 KINGSVALE GROUP
12a - PLAGIOCLASE-RICH REDDISH, BROWN, AND MAROON FLOWS (12af), TUFFS (12at), AND BRECCIAS (12abx) OF ANDESITIC TO BASALTIC COMPOSITION
12b - PLAGIOCLASE AND AUGITE-PLAGIOCLASE ANDESITE AND BASALT PORPHYRY BILLS AND/OR FLOWS
12c - REDDISH VOLCANIC CONGLOMERATE
12d - REDDISH GRIT, VOLCANIC SANDSTONE, AND SHALE

UPPER JURASSIC TO LOWER CRETACEOUS

- 11 CHERT PEBBLE AND COBBLE CONGLOMERATE, MINOR INTER-BEDDED GRIT AND SANDSTONE

LOWER JURASSIC OR LATER

- 10 PENWASK BATHOLITH
10a - BIOTITE-HORNBLENDE GRANODIORITE AND QUARTZ MONZONITE
10b - FELSIC DYKES OF COMPOSITION SIMILAR TO 10a

UPPER TRIASSIC TO LOWER JURASSIC

- 9 MONZONITE AND SYENITE, MEDIUM GRAINED AND GENERALLY PORPHYRYTIC

8 DIORITE, QUARTZ DIORITE, AND GABBRO

- 8a - HORNBLENDE DIORITE, PORPHYRYTIC AND FOLIATED
8b - DIORITE - CONTAINS PYROXENE AND AMPHIBOLE, FINE GRAINED, PORPHYRYTIC, AND BRECCIATED ALONG WESTERN MARGIN
8c - MEDIUM TO COARSE-GRAINED, LOCALLY FOLIATED PYROXENE QUARTZ DIORITE, DIORITE, GABBRO, AND MINOR PYROXENITE
8d - FINE-GRAINED DIORITE - IN PART POSSIBLY RECRYSTALLIZED VOLCANIC ROCKS
8e - 'BIG KID' BRECCIA PIPE
8f - HYABYSSAL ROCKS OF DIORITIC COMPOSITION
8g - DACITE PLUGS

UPPER TRIASSIC TO LOWER JURASSIC

NICOLA GROUP

WESTERN BELT

- 7 FLOW AND PYROCLASTIC ROCKS AND RELATED VOLCANIC SEDIMENTS AND LIMESTONE

- 7a - DARK GREY, GREY-GREEN, AND LIGHT GREY PLAGIOCLASE ANDESITE TO DACITE AND MINOR BRECCIA
7b - REDDISH TO MAROON VOLCANIC BRECCIA, LAPILLI TUFF, AND MINOR FLOWS OF ANDESITIC TO DACITIC COMPOSITION
7c - WELL-BEDDED REDDISH TO MAROON TUFF AND VOLCANIC SILTSTONE
7d - GREY, MASSIVE TO CHERTY LIMESTONE, COMMONLY FOSSILIFEROUS
7e - GREENISH AND GREY VOLCANIC CONGLOMERATE, SANDSTONE, SILTSTONE, AND MINOR TUFF AND BRECCIA, GENERALLY LIMY AND LOCALLY FOSSILIFEROUS

EASTERN BELT

- 6 LAHAR DEPOSITS AND ASSOCIATED VOLCANIC CONGLOMERATE, SANDSTONE, SILTSTONE, AND TUFF; MINOR INTERLAYERED FLOW ROCKS

- 6a - MASSIVE TO CRUDELY LAYERED, MAINLY GREEN LAHAR DEPOSITS AND VOLCANIC CONGLOMERATE
6b - GREY TO GREEN, WELL-BEDDED VOLCANIC SANDSTONE AND SILTSTONE
6c - REDDISH TO GREENISH GREY CRYSTAL, LITHIC, AND LAPILLI TUFF
6d - GREEN TO REDDISH GREY AUGITE AND AUGITE-PLAGIOCLASE ANDESITE

CENTRAL BELT

- 5 FLOW UNITS OF VARIABLE COMPOSITION AND ASSOCIATED TUFF AND VOLCANIC SILTSTONE

- 5a - AUTOBRECCIATED AUGITE BASALT PORPHYRY, GENERALLY RED TO MAROON WITH SOME PILLOW-LIKE STRUCTURES
5b - MASSIVE GREEN AUGITE ANDESITE TO BASALT PORPHYRY
5c - MASSIVE GREENISH GREY TO GREY AUGITE-PLAGIOCLASE ANDESITE PORPHYRY, EXTENSIVELY AUTOBRECCIATED
5d - MASSIVE RED AUGITE ANDESITE TO BASALT PORPHYRY
5e - WELL-BEDDED RED CRYSTAL TUFF, LAPILLI TUFF, AND VOLCANIC SILTSTONE

4 VOLCANIC BRECCIA AND LAHAR DEPOSITS

- 4a - RED SEQUENCE, MOSTLY MASSIVE
4b - GREEN SEQUENCE, MOSTLY MASSIVE
4c - UNDIVIDED GREEN AND RED MASSIVE SEQUENCES

3 MASSIVE ANDESITE AND MINOR RELATED TUFF AND DACITE

- 3a - ANDESITE - GREY TO GREEN AND MASSIVE, USUALLY PYROXENE RICH
3b - GREEN THINLY BEDDED TUFF, LOCALLY SILICIFIED
3c - REDDISH TO LIGHT GREENISH GREY ANDESITE AND DACITE

2 LIMESTONE AND RELATED SEDIMENTARY ROCKS

- 2a - LIMY SILTSTONE AND IMPURE LIMESTONE
2b - GREY TO DARK GREY REEFOLD LIMESTONE, COMMONLY FOSSILIFEROUS

1 UNDIVIDED SEDIMENTARY ROCKS - SILTSTONE, SANDSTONE, AND ARGILLITE

SYMBOLS

- AREA OF PREDOMINANT OUTCROP
FAULT: DEFINED, APPROXIMATE
PREVALENT FRACTURE DIRECTION
BEDDING: VERTICAL, INCLINED, RIGHT SIDE UP
PROSPECT: SHAFT, TRENCH, ADIT, PIT
GEOLOGICAL CONTACT: DEFINED, APPROXIMATE
SECONDARY FOLIATION, SCHISTOSITY: VERTICAL, INCLINED
GLACIAL STRIATIONS
POWER TRANSMISSION LINE
MICROSYENITE PORPHYRY CLASTS IN FRAGMENTAL VOLCANIC ROCKS
AREA OF PRELIMINARY MAP NO. 10, 1972
BY P. A. CHRISTOPHER

(F) FOSSIL LOCALITY

- cp = CHALCOPYRITE
cc = CHALCOCITE
bn = BORNIITE
cu = NATIVE COPPER
az = AZURITE
mal = MALACHITE
py = PYRITE
hm = HEMATITE
ml = MAGNETITE
cup = CUPRITE
po = PYRRHOTITE
au = GOLD

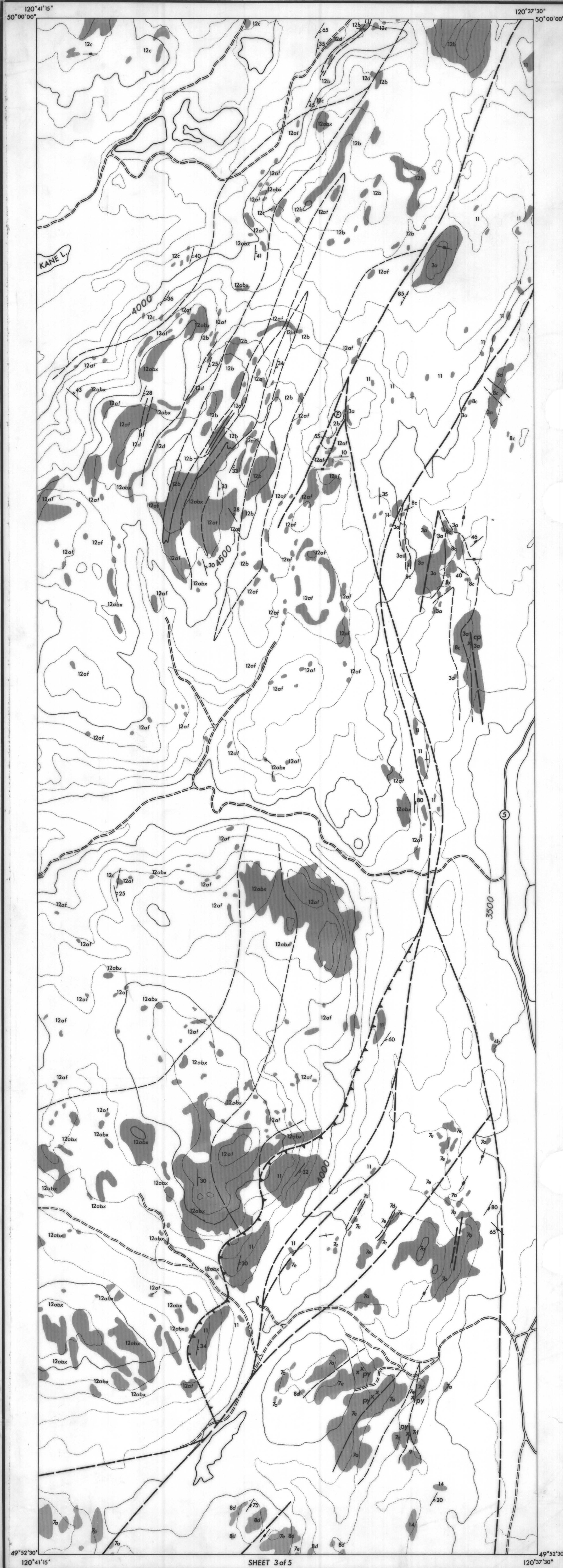
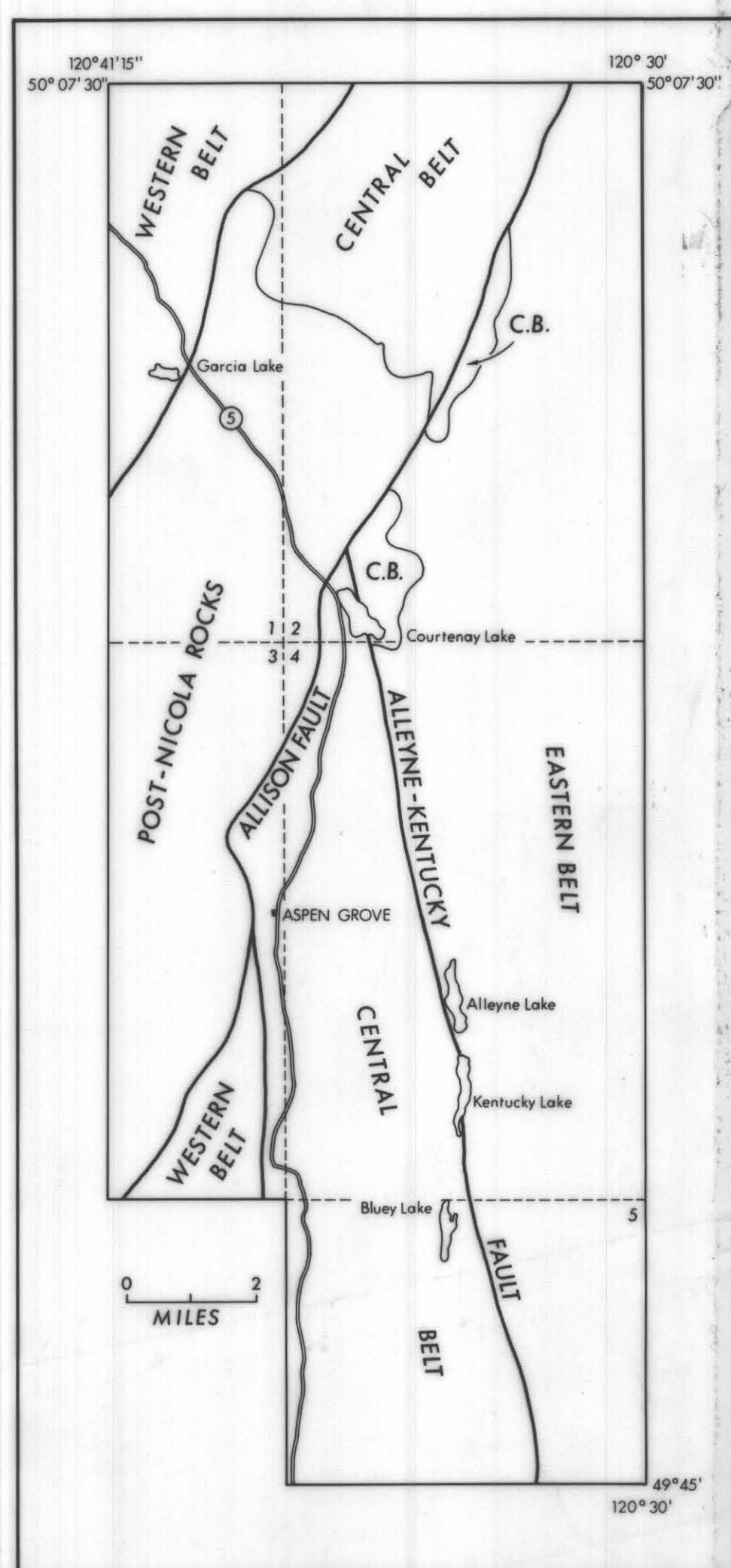
CROWN-GRANTED MINERAL CLAIMS

Claims located from map 92H/15, Edition 1 ASE, Series A721.

- L1123 COVINGTON
L1124 PORTLAND
L1125 VICKSBURG
L1126 QUEBEC
L1191 LOTTIE FRACTION
L1401 MAY BELL
L1517 TOM CAT
L1535 FRISCO FRACTION
L1547 LIVERPOOL
L1548 LONDON

Lots 1564 and 2381 were also located from map 92H/15; approximate location of old Crown-granted mineral claims from 1906 plan showing mineral claims of the Aspen Grove area.

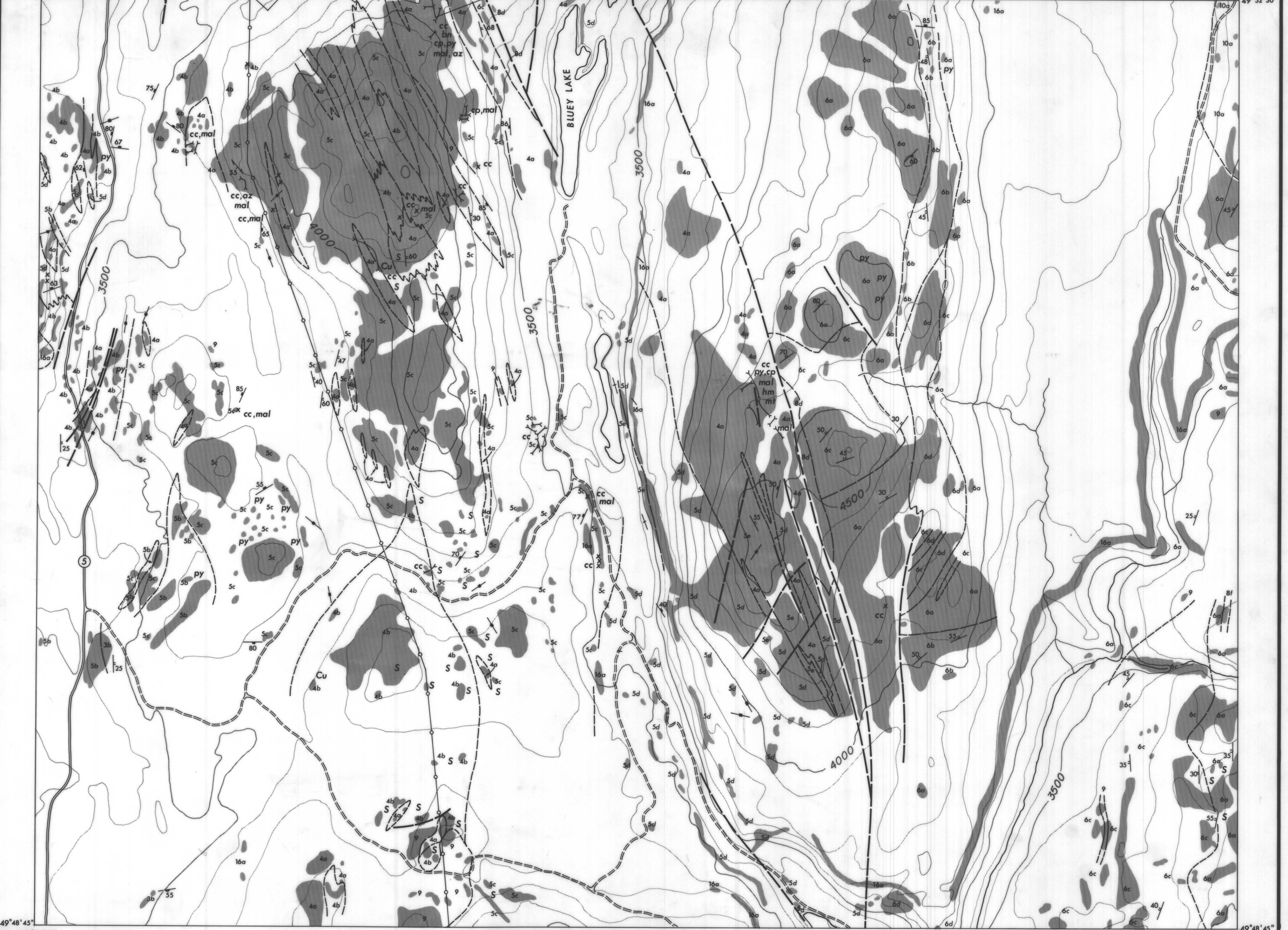
- L1101 GEORGIA
L1102 BRIGMAN
L1103 REDWOOD FRACTION
L1127 CINCINNATI
L1128 COPPER BUTTE FRACTION
L1129 NEW PORT
L1130 BANK OF ENGLAND
L1131 NOBLE FIVE
L1132 QUEEN OF THE WEST
L1187 HAPPY JACK
L1188 HATTIE
L1189 COPPER JACK
L1190 LITTLE LOTTIE
L1332 GOLDEN GATE
L1403 COPPER STANDARD
L1404 AMELIA
L1405 BIG KID
L1407 NICOLA
L1410 TRIANGLE FRACTION
L1519 NIGHT HAWK
L1528 GOLDEN SOVEREIGN
L1529 GREAT REPUBLIC
L1530 YANKEE
L1531 BIG DUTCHMAN
L1532 CANADA
L1533 AMERICA
L1534 FRISCO
L1535 GREAT WEST
L1540 METAL FRACTION
L1541 BOOMERANG
L1542 OCEAPHEMIA
L1543 GLADIATOR
L1544 GOLDEN EAGLE
L1545 PEKIN
L1546 BOSTON
L1549 CORNELL
L1550 WOODPECKER
L1555 VERNON FRACTION
L1565 BLACK PRINCE
L1567 COPPER AGE
L1568 COPPER KING
L1569 HIT OR MISS
L1565 COPPER QUEEN



#15 (3)

120°37'30"
49°52'30"

120°30'00"
49°52'30"



49°48'45"
120°37'30"

49°48'45"
120°30'00"