



Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

**GEOLOGY OF THE HOZAMEEN FAULT AREA BETWEEN
BOSTON BAR AND THE COQUIHALLA RIVER,
SOUTHWEST BRITISH COLUMBIA (92H)**

0 1 KILOMETRES

OPEN FILE MAP 1986/1A

Geologically mapped by G. E. RAY
assisted by P. DESJARDINS

RELEASED JANUARY 1986

LEGEND FOR OPEN FILE MAPS 86/1-A, B, C, D, E, & F

- Unmapped areas
- INTRUSIONS INTO ROCKS OF THE PASAYTEN TROUGH**
- EOCENE**
- NEEDLE PEAK PLUTON**
- NP Granite and granodiorite
- UNCERTAIN AGE**
- f Undifferentiated felsic sills and dykes
- fm Felsic sills with some mafic portions
- p Feldspar porphyry-bearing felsic sills and dykes
- n Non-porphyrific felsic sills and dykes
- ph Hornblende porphyritic felsic sills and dykes
- h Mafic dykes and sills; composition ranges from diorite to gabbro to hornblende
- q Quartz vein
- INTRUSIONS INTO THE HOZAMEEN GROUP**
- d Diorite to gabbro sills and dykes
- F Feldspar-quartz porphyry sills and dykes
- q Quartz porphyry sills and dykes
- Q Quartz vein
- SEDIMENTARY ROCKS OF UNCERTAIN AGE**
- (POSSIBLY UPPER JURASSIC DEMONEY CREEK GROUP)**
- D Undifferentiated; Dw - wacke; D1 - lithic wacke; Ds - siltstone, Da - argillite
- UPPER JURASSIC AND LOWER CRETACEOUS**
- DEMONEY CREEK AND JACKASS MOUNTAIN GROUPS**
- J Undifferentiated sedimentary rocks; Jw - wacke, lithic wacke, sandstone and minor siltstone; Jc - conglomerate
- LOWER TO UPPER JURASSIC**
- LADNER GROUP**
- L Undifferentiated Ladner Group; A - argillite; Ao - organic-rich, pyritic argillite; As - argillite with minor siltstone interbeds; Aw - argillite with minor wacke interbeds
- S Siltstone; Sa - siltstone with minor argillite interbeds; Sw - siltstone with minor wacke interbeds; Sc - siltstone with minor conglomerate interbeds; Sl - siltstone with some coarse lithic clasts
- W Wacke; W1 - lithic wacke; Wa - wacke with minor argillite interbeds; Ws - wacke with minor siltstone interbeds; Wc - wacke with minor conglomerate interbeds
- C Conglomerate; Cm - conglomeratic mudstone; Cb - green-coloured sedimentary breccia and conglomerate; Cw - conglomerate interbedded with wacke
- LOWER TRIASSIC (?)**
- SPIDER PEAK FORMATION**
- V Undifferentiated; Vm - massive greenstone; Vf - foliated greenstone; Vp - greenstone with pillow structures; Vb - brecciated greenstone; Vs - volcanic sandstone, siltstone, or wacke; Vc - conglomerate; Vg - gabbro; Va - argillite
- UNCERTAIN AGE**
- COQUIHALLA SERPENTINE BELT**
- U Undifferentiated; Us - serpentinite; Ug - gabbro and microgabbro; Um - mariposite-magnetite-bearing rock ('listwanite')
- PERMIAN TO JURASSIC**
- HOZAMEEN GROUP**
- H Undifferentiated; Hs - volcaniclastic sedimentary rock, tuff, and siltstone; H3 - with thin limestone interbeds; Hsa - with argillite interbeds; Hsc - with chert interbeds; Hsg - with thin volcanic, greenstone units; Hs - argillite; Hc - argillite and minor chert; Hl - limestone; Hc - chert; Hca - with minor argillite interbeds; Hcg - with minor greenstone interbeds; Hg - greenstone; Hg - gabbro; Hu - serpentinite (Patch Creek serpentine belt)
- UNCERTAIN AGE**
- CUSTER-SKAGIT GNEISS AND YOUNGER INTRUSIONS**
- G Undifferentiated; Gd - massive to weakly foliated granodiorite; Gg - granitic to dioritic gneiss with local cataclastic fabric; Ggs - gneiss containing garnetsillimanite; M - marble



SYMBOLS

- Strike and dip of bedding (tops known, tops unknown)
- Bedding, inclined, vertical, overturned
- Strike and dip of cleavage, inclined, vertical
- Strike and dip of foliation in the Custer-Skagit Gneiss
- Strike and dip of primary volcanic (?) layering in the Spider Peak Formation
- Younging direction in Spider Peak Formation (determined from pillows)
- Massive, nonbedded or unfoliated outcrop
- Plunge of lineation
- Fold vergence determined from bedding-cleavage intersections or small-scale folds
- Minor fold with plunge of fold axis
- F₂ antiform
- F₂ synform
- Geological contact (defined, assumed)
- Fault (defined, assumed)
- Fault plane with dip
- Mineralized outcrop (pyrite, pyrrhotite, gold, arsenopyrite, chalcopyrite, molybdenite)
- Limit of visible thermal aureole associated with the Needle Peak pluton
- Trench



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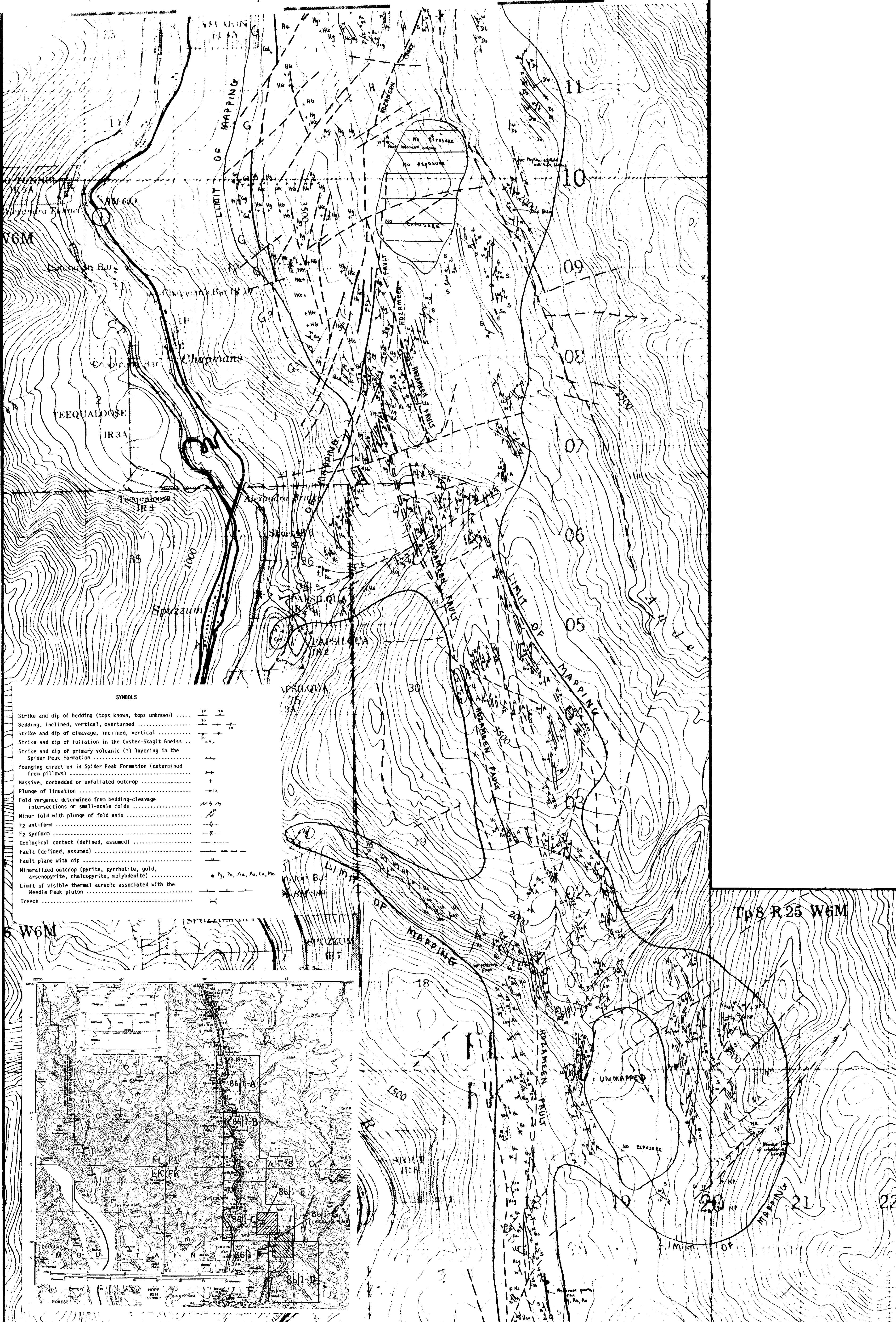
OPEN FILE MAP 1986/1B

Geologically mapped by G. E. RAY
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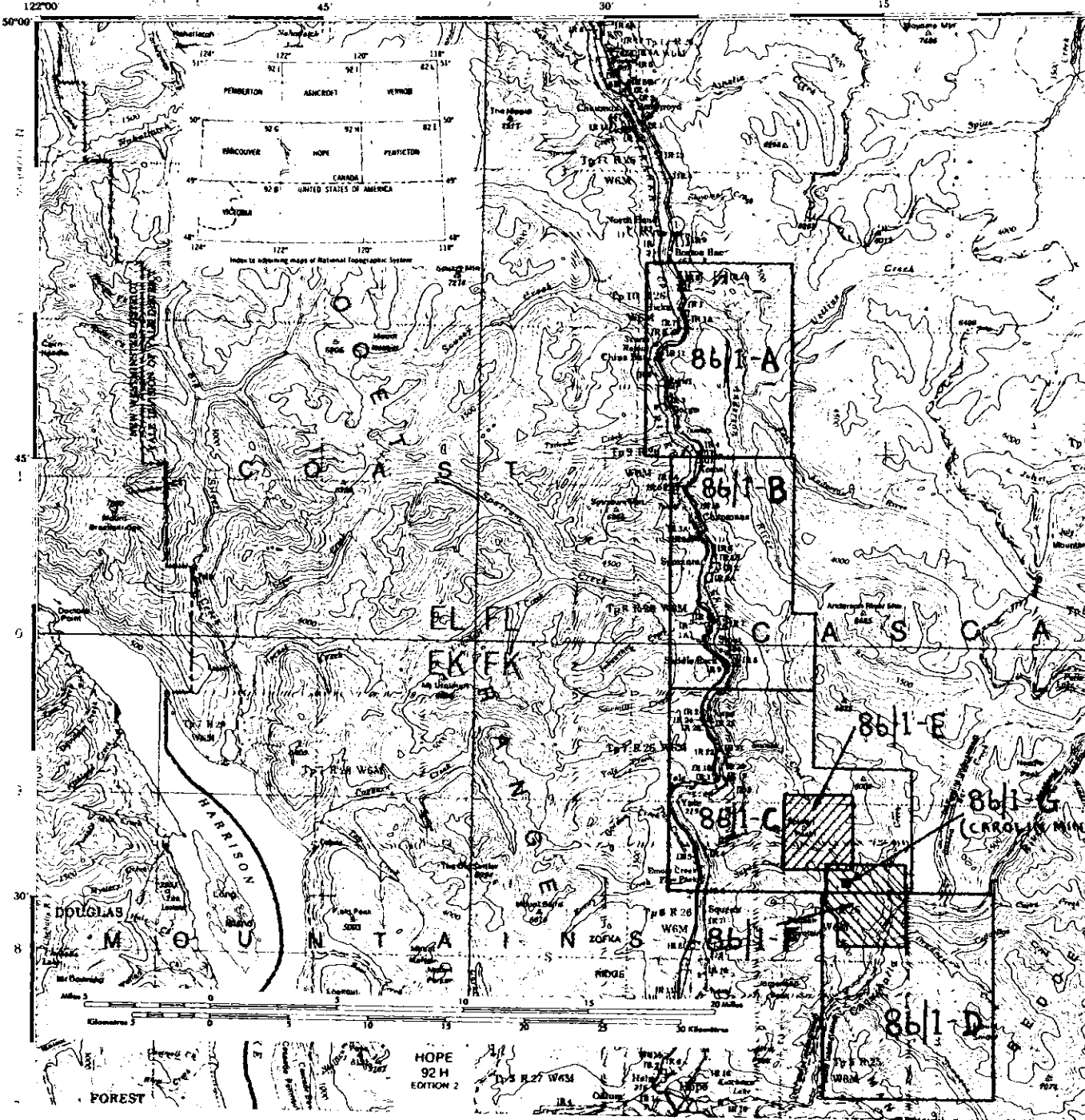
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 - J Undifferentiated sedimentary rocks; Jw - wacke, lithic wacke, sandstone and minor siltstone; Jc - conglomerate
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- LOWER TRIASSIC (?)
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SYMBOLS

Strike and dip of bedding (tops known, tops unknown)	↗ ↘
Bedding, inclined, vertical, overturned	↗ ↘
Strike and dip of cleavage, inclined, vertical	↗ ↘
Strike and dip of foliation in the Custer-Skagit Gneiss	↗ ↘
Strike and dip of primary volcanic (?) layering in the Spider Peak Formation	↗ ↘
Younging direction in Spider Peak Formation (determined from pillows)	↗ ↘
Massive, nonbedded or unfoliated outcrop	+
Plunge of lineation	↘ ↗
Fold vergence determined from bedding-cleavage intersections or small-scale folds	↗ ↘
Minor fold with plunge of fold axis	↗ ↘
F ₂ antiform	↗ ↘
F ₂ synform	↗ ↘
Geological contact (defined, assumed)	—
Fault (defined, assumed)	—
Fault plane with dip	—
Mineralized outcrop (pyrite, pyrrhotite, gold, arsenopyrite, chalcopyrite, molybdenite)	• Py, Fe, Au, As, Cu, Mo
Limit of visible thermal aureole associated with the Needle Peak pluton	—
Trench	—





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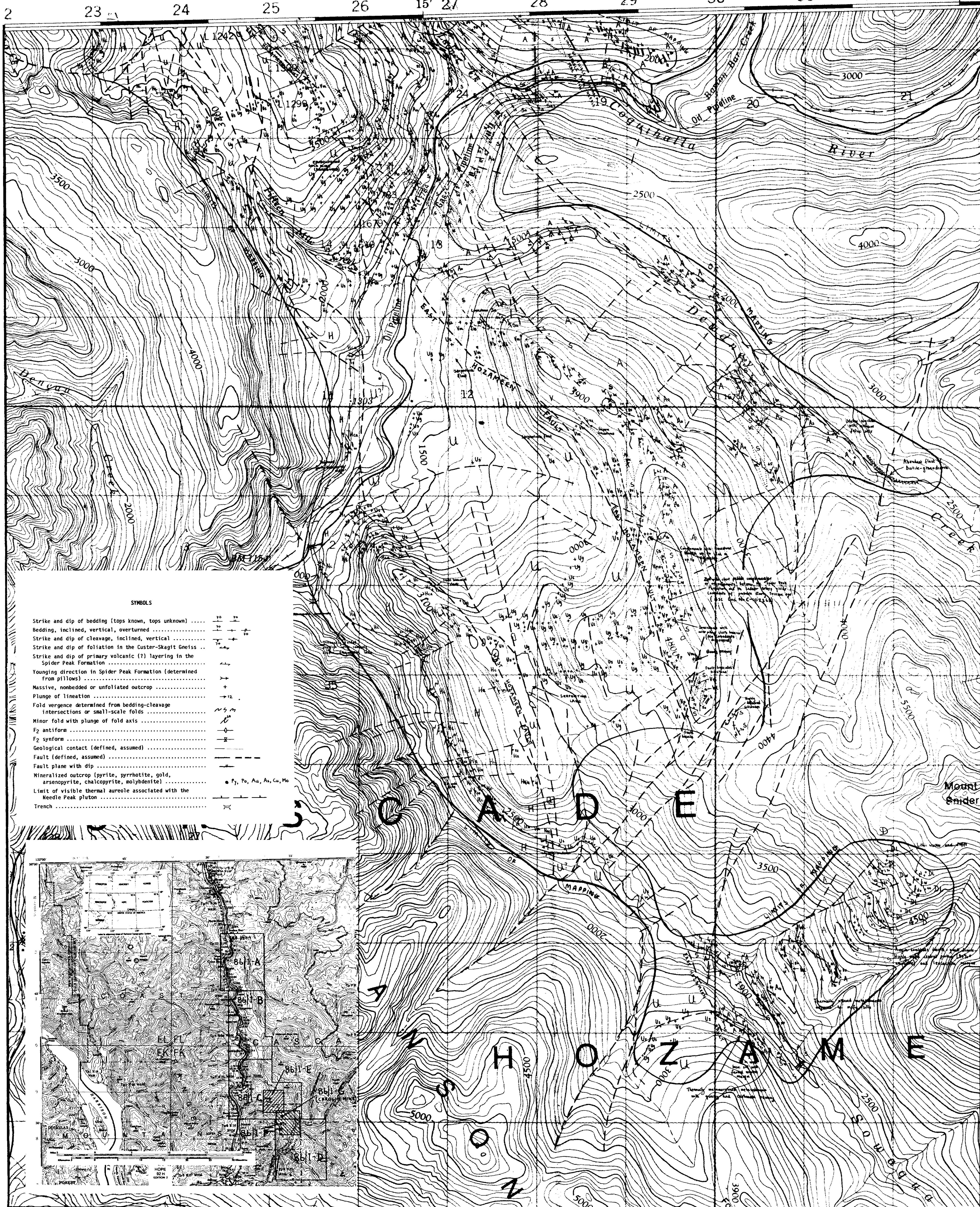
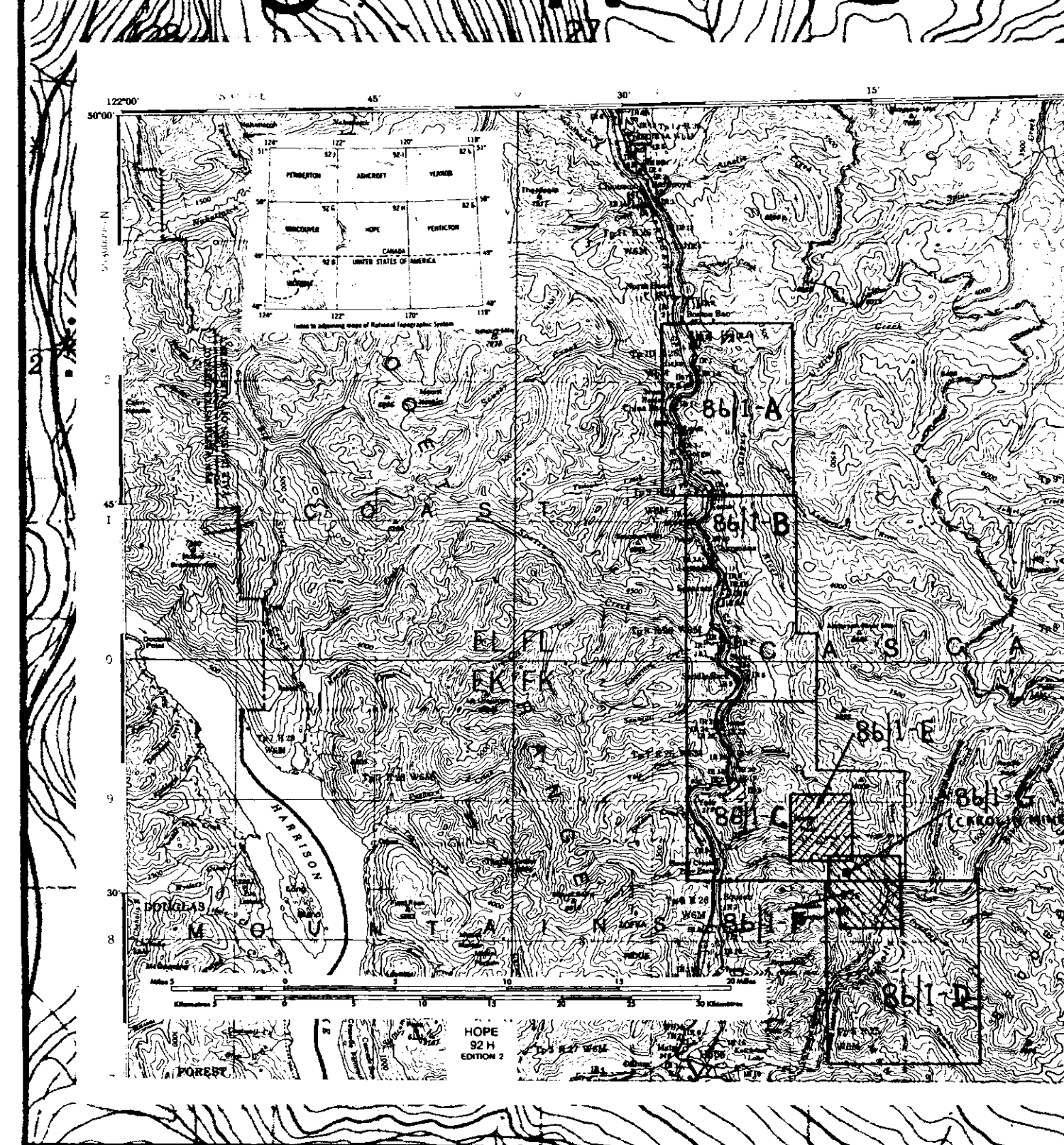
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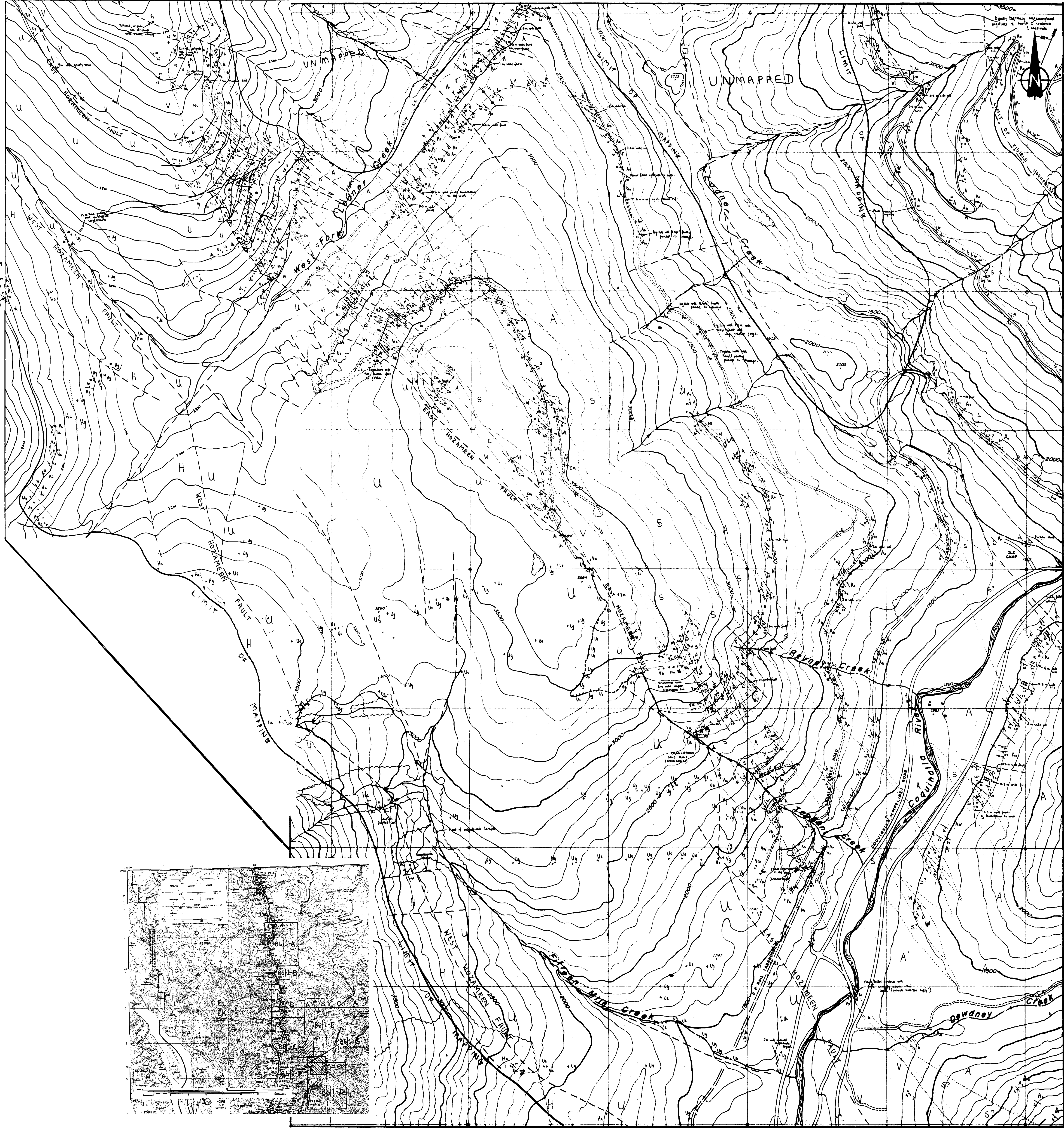
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- Strike and dip of foliation in the Custer-Skagit Series ↗ ↘ ↙ ↚
- Strike and dip of primary volcanic fill layering in the Spider Peak Formation ↗ ↘ ↙ ↚
- Younging direction in Spider Peak Formation (determined from pillows) ↗ ↘ ↙ ↚
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- Fault (defined, assumed) ↗ ↘ ↙ ↚
- Fault plane with dip ↗ ↘ ↙ ↚
- Mineralized outcrop (spinel, pyrrhotite, galena, arsenopyrite, chalcopyrite, sulphides) ↗ ↘ ↙ ↚
- List of visible thermal aureole associated with the Needle Peak pluton ↗ ↘ ↙ ↚
- Trench ↗ ↘ ↙ ↚



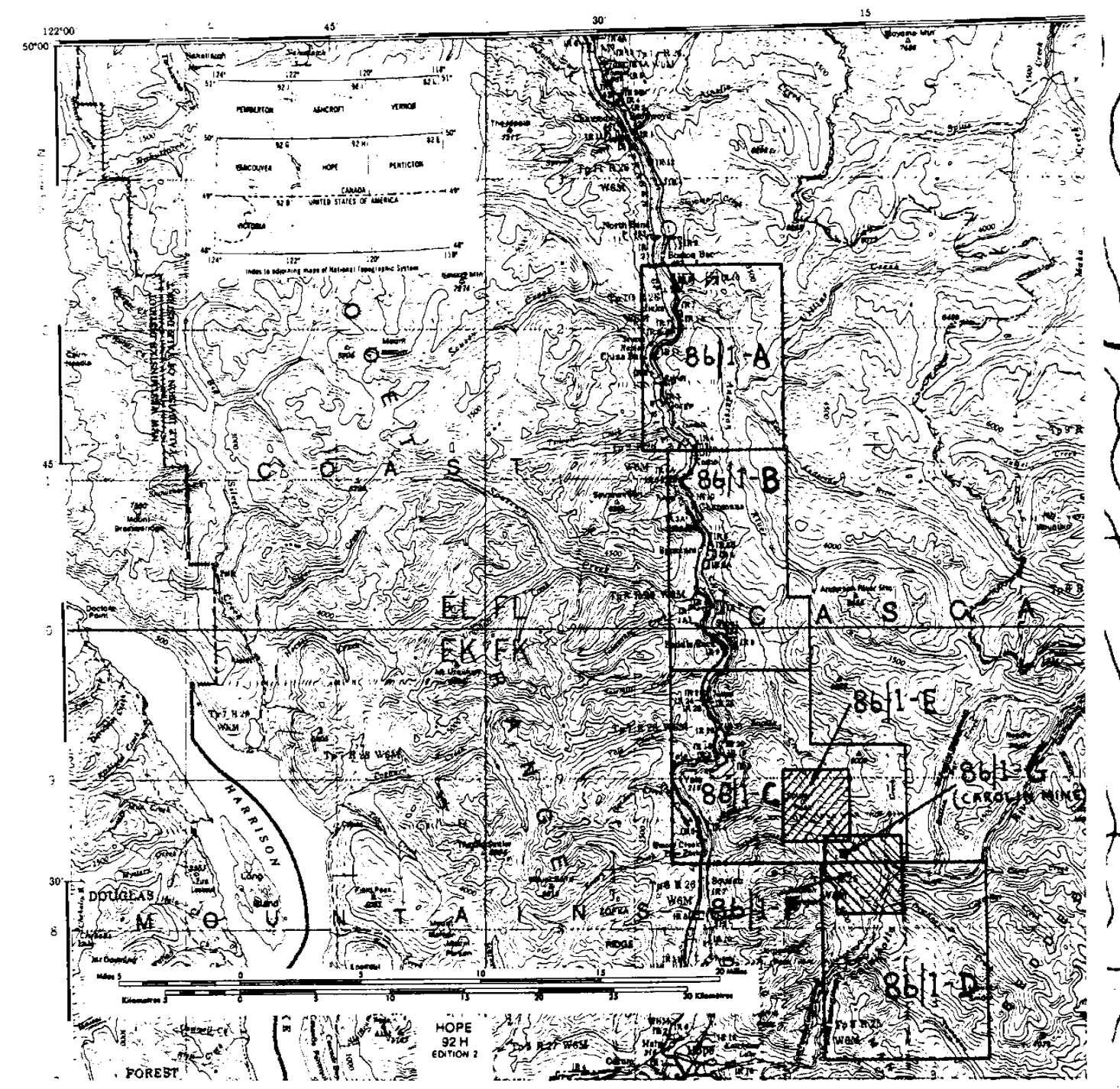
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- Limit of visible thermal aureole associated with the Needle Peak Pluton
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GEOLOGY OF THE CAROLIN MINE AREA (92H/11)

OPEN FILE MAP 1986/1G

Geologically mapped by G. E. RAY
assisted by P. DESJARDINS

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LEGEND FOR OPEN FILE MAP 86/1-G (CAROLIN MINE AREA)

UNCERTAIN AGE

- Quartz vein
- Pyrite-pyhotite mineralization

LOWER TO UPPER JURASSIC

LADNER GROUP

- Upper Unit**
Undifferentiated upper sedimentary unit, largely argillite; Ao - slaty, organic-rich argillite
- Middle Unit**
Undifferentiated middle sedimentary unit, largely siltstone; MS - thin-bedded turbiditic siltstone
- Lower Unit**
Undifferentiated lower sedimentary unit; LS - siltstone; LSw - siltstone with minor wacke; LSA - siltstone with minor argillite; LW - wacke; LWl - lithic wacke; LWS - wacke with minor siltstone; LWC - wacke with minor conglomerate; C - conglomerate; Cm - conglomeratic mudstone; Cb - green-coloured sedimentary breccia and conglomerate; LA - argillite

- UNCONFORMITY -

LOWER TRIASSIC (?)

SPIDER PEAK FORMATION

- Undifferentiated; Vm - massive greenstone; Vb - brecciated greenstone, Vp - greenstone with pillow structures; Vf - foliated greenstone

UNCERTAIN AGE

COQUIHALLA SERPENTINE BELT

- Undifferentiated; Us - serpentinite; Ug - gabbro and microgabbro

SYMBOLS

- Bedding, tops known, tops unknown, overturned
- F2 cleavage
- F2 lineation
- Primary (?) volcanic layering in Spider Peak Formation ...
- Fault with dip of fault plane, observed, assumed
- Geological contact, observed, assumed
- F2 fold, antiform, synform
- Lithochemical gold anomaly - gold values in ppm
- Creek
- Road
- Adit

Note: Altitude contours are recorded in feet

