

EXPLANATION

Legend:

- Geological Symbols:**
 - Diagonals: Veins and replacements along faults
 - Circle with 'D': Dolomite
 - Circle with 'R': THERMALLY METAMORPHOSED ROCKS
 - Circle with 'Kb': Kibara hornfels and garnet-bearing hornfels
 - Circle with 'Kh': Khik-hik hornfels locality
 - Circle with 'Kc': Kik-ashoo hornfels locality
 - Circle with 'Ka': Actinolite hornfels (probably a contact metamorphosed portion of the Big River thrust sheet)
 - Circle with 'Ksp': Kip-ashoo hornfels
 - Circle with 'Kst': Kist-ashoo hornfels
 - Circle with 'Ksl': Kist-ashoo hornfels
 - Circle with 'Ksm': Kist-ashoo hornfels
 - Circle with 'Ksn': Kist-ashoo hornfels
 - Circle with 'Ksp': Kip-ashoo hornfels
 - Circle with 'Kst': Kist-ashoo hornfels
 - Circle with 'Ksl': Kist-ashoo hornfels
 - Circle with 'Ksm': Kist-ashoo hornfels
 - Circle with 'Ksn': Kist-ashoo hornfels
- INTRUSIONS:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- DIKES:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- VOLCANIC ROCK:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- SEDIMENTARY ROCKS:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- BASAL CONGLOMERATE WITH RED BEDS:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- INTRUSIONS:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- DESCON FORMATION:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- DESCON FORMATION(?):**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike
- WALLES GROUP:**
 - Circle with 'Ksd': Kip-ashoo dike
 - Circle with 'Kst': Kist-ashoo dike
 - Circle with 'Ksl': Kist-ashoo dike
 - Circle with 'Ksm': Kist-ashoo dike
 - Circle with 'Ksn': Kist-ashoo dike

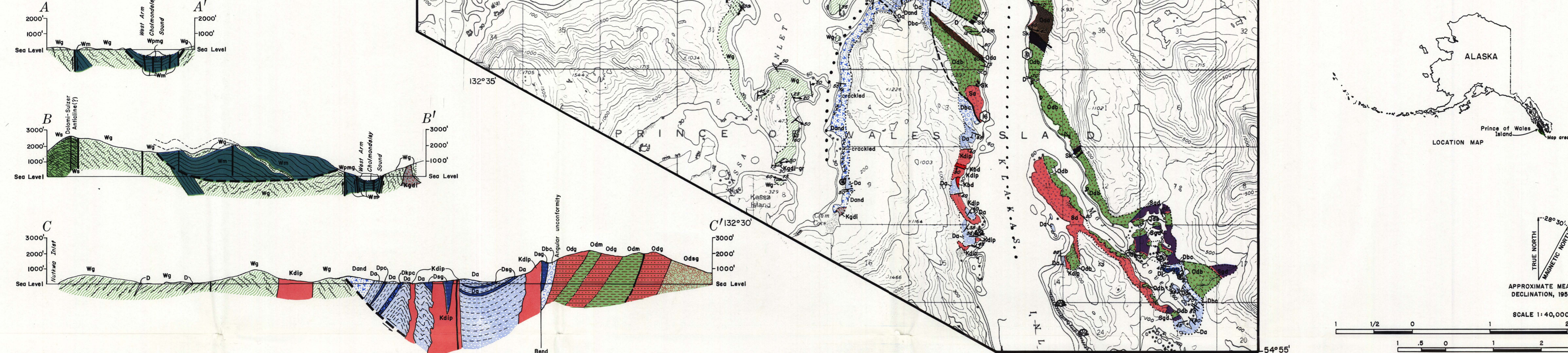
SYMBOLS

- Dashed line: Dashed where approximately located; short dashed where inferred; dotted where concealed.
- Circle with 'D': Contact of hornfels zone.
- Circle with 'D': High-angle fault. Dashed where approximately located; short dashed where inferred; dotted where concealed; quartered where disjunct; U, upstream side; D, downstream side; Dip shows where observed or known; arrow shows relative horizontal movement.
- Circle with 'D': Thrust faults. Dashed where approximately located; dotted where concealed; quartered where doubtful; southwest on upper plate.
- Circle with 'D': Shear zone.
- Circle with 'D': Outer limit of geologic mapping.
- Circle with 'D': Crest plane. Overturned through plane. Overturned. Anticline. Boudin. Shouting trace of axial surface and plunge of axis; dashed where approximately located.
- Circle with 'D': Tops of beds known from sedimentary structures.
- Circle with 'D': Inclined. Vertical. Overturned. Attitude of beds.
- Circle with 'D': Strike and dip of foliation. Strike and dip of joint.
- Circle with 'D': Crevasse. Minor folds. Kink-band folding. Boudin.
- Circle with 'D': Minor folds. Early crenula. Drag folds showing sense of folding. Drag folds showing sense of folding. Drag folds showing sense of folding. Drag folds showing sense of folding.
- Circle with 'D': Bulk chemical rock analysis.
- Circle with 'D': Mineral prospects and mines. Magnetite-chalcopyrite deposits (where numbered, described in text).
- Circle with 'D': K-Ar sample number (see list below).
- Circle with 'D': Fossil locality (reported by Churkin and others, 1970).

Base from U.S. Geological Survey, Dixon Entrance D-2, 1951; Craig A-1, 1948; A-2, A-3, 1951; B-1, B-2, B-3, 1949; quadrangles, Alaska.

Geology by Gordon Herred, 1970-72; assisted by Thomas R. Sandness, 1971-72, and James C. Pray, 1970-72. Cartography by L.C. Schell.

STRUCTURAL CROSS SECTIONS



40% Ar Age Determinations*

Map No.	Mineral dated	Age (m.y.)
1	Amphibole	479±
2	Amphibole	479±
3	Whole rock	479±
4	Hornblende	479±
5	Actinolite	268 ± 1.8
6	Actinolite	218 ± 8
7	Actinolite	102 ± 3
8	Hornblende	102 ± 3
9	Hornblende	102 ± 3
10	Hornblende	101 ± 3
11	Hornblende	102 ± 3
12	Hornblende	312 ± 3
13	Actinolite	141 ± 4

*40% Ar age determination from Turner & others, 1971.
†Tachibana age, see Turner & others, 1971.

