



EXPLANATION

- Contact—shown, approximate, gradational, and inferred. Most contacts between bedded rock units are probably faults.
- Fault or fault zone—Dashed where approximate, inferred, or concealed. U, upthrown side; D, downthrown side. Arrows indicate relative lateral movement.
- Thrust fault—Dashed where approximate, inferred, or concealed. Sawtooth on upper plate.
- Strike and dip of beds or flows.
- Inclined (includes some overturned beds).
- Vertical.
- Overturned.
- Strike and dip of inclined cleavages.
- Strike and dip of foliation.
- Inclined; arrow showing bearing and plunge of lineation, chiefly minor fold axes.
- Inclined.
- Vertical.
- Trenches, fissures, and upthrusting scarps = "sacking" features developed along bedrock tension fractures.
- Mafic volcanic rocks, chiefly pillow basalts.
- Hornfels, chiefly biotite-hornfels surrounding plutonic rocks.
- Small cinder cone or volcano.
- Potassium-argon radiometric age locality — Age determinations are shown in table 1 (sheet 2).

FOSSIL LOCALITY SYMBOLS

- | MEGAFOSILS | | MICROFOSILS | |
|------------|----------------|-------------|----------------|
| DIAGNOSTIC | NON-DIAGNOSTIC | DIAGNOSTIC | NON-DIAGNOSTIC |
| ● | ○ | ● | ○ |
| ▲ | □ | ▲ | □ |
| ◆ | ◇ | ◆ | ◇ |
| ■ | ▣ | ■ | ▣ |
| ● | ○ | ● | ○ |
| ▲ | □ | ▲ | □ |
| ◆ | ◇ | ◆ | ◇ |
| ■ | ▣ | ■ | ▣ |
- Quaternary or Tertiary
Cretaceous to Triassic
Permian and Permian (?)
Devonian to Ordovician
Tertiary or Cretaceous

**GEOLOGIC MAP
OF THE
GOODNEWS AND HAGEMESTER ISLAND QUADRANGLES REGION, SOUTHWESTERN ALASKA**

BY
J. M. HOARE AND W. L. COONRAD

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BACKGROUND INFORMATION RELATING TO THIS REPORT IS PUBLISHED AS AVAILABLE FROM THE SAME SOURCE AS THE GEOLOGIC MAP.

This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.

BASE MAP INDEX
Base compiled from U.S. Geological Survey 1:62,500 (A) and 1:250,000 (B) scale topographic series 1925-1937 and advance field compilation material (C) 1976 by Maple Park Base Map Section.

SCALE 1:250,000
CONTOUR INTERVALS 50, 100, AND 200 FEET
DATUM: MEAD SEA LEVEL

APPROXIMATE YEAR OF DEPOSITION: 1976