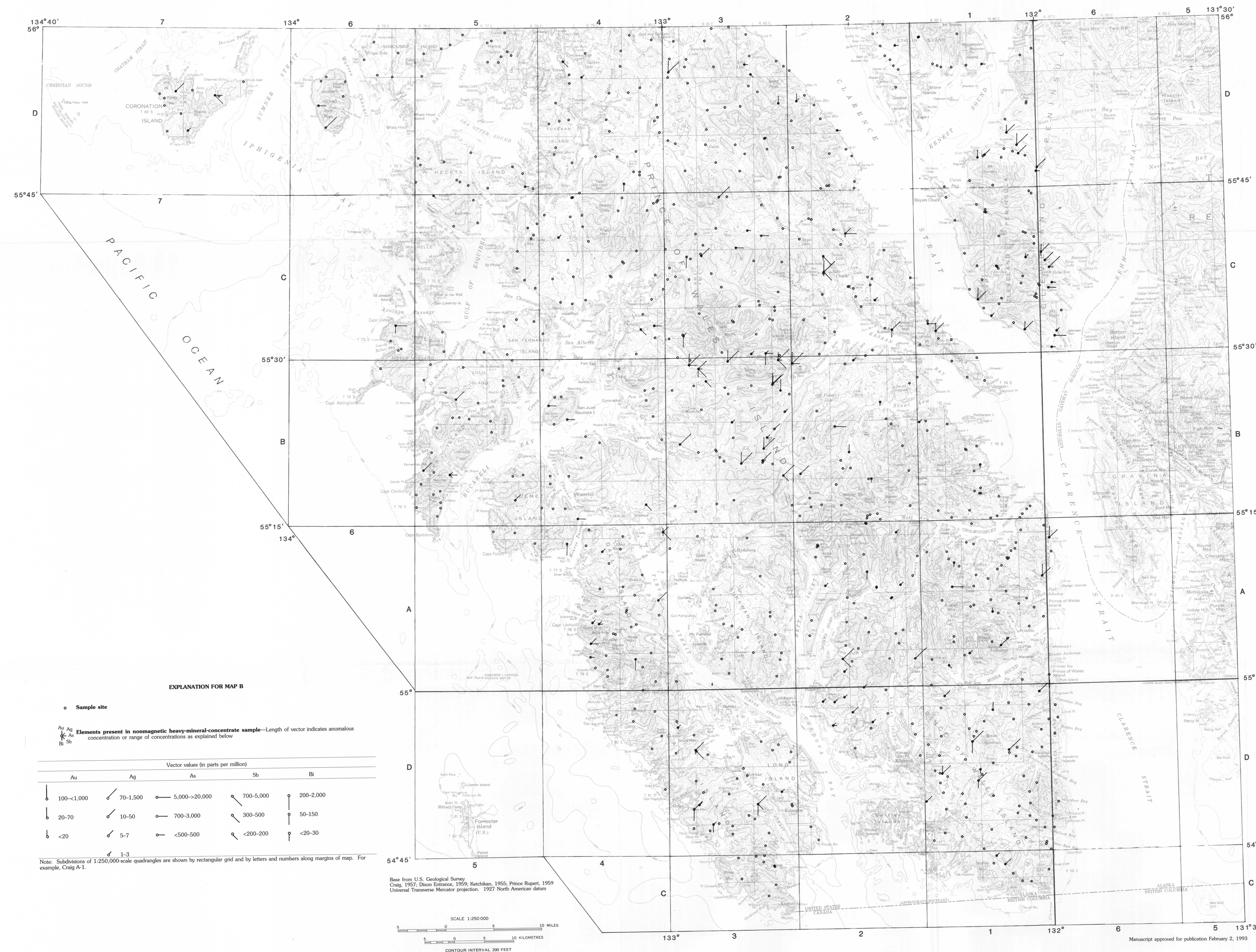


MAP A. DISTRIBUTION AND CONCENTRATION OF Cu, Pb, Zn, Cd, AND Ba



MAP B. DISTRIBUTION AND CONCENTRATION OF Au, Ag, Sb, AND Bi

GEOCHEMICAL MAPS SHOWING THE DISTRIBUTION AND CONCENTRATION OF SELECTED ELEMENTS IN NONMAGNETIC HEAVY-MINERAL-CONCENTRATE SAMPLES FROM STREAM SEDIMENT FROM THE CRAIG, DIXON ENTRANCE, AND WESTERN EDGES OF THE KETCHIKAN AND PRINCE RUPERT QUADRANGLES, SOUTHEAST ALASKA

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INTRODUCTION

The U.S. Geological Survey is required by ANILCA (Alaska National Interest Lands Conservation Act, Public Law 96-487, 1985) to study the geology and mineral resources of the Alexander Archipelago, including the Ketchikan and Prince Rupert quadrangles, southeast Alaska. This study is part of a larger project to study the geology and mineral resources of the Alexander Archipelago, including the Ketchikan and Prince Rupert quadrangles, southeast Alaska. The study area is located in the southeastern part of the Alexander Archipelago, between 54°45' N and 56° N, and 131°30' W and 134°40' W. The study area is located in the southeastern part of the Alexander Archipelago, between 54°45' N and 56° N, and 131°30' W and 134°40' W. The study area is located in the southeastern part of the Alexander Archipelago, between 54°45' N and 56° N, and 131°30' W and 134°40' W.

GEOLOGIC SETTING

The Craig study area contains parts of three northward-trending tectonostratigraphic terranes (Berg and others, 1972, 1976; Meyer and Berg, 1987) (Fig. 1). From south to north, they are the Alexander, the Krapenow Lowland, and the Coastal Foothills. The Alexander terrane consists of Paleozoic (Precambrian to Paleozoic) igneous and sedimentary rocks that have been intruded by Paleozoic and Mesozoic plutonic rocks on Prince of Wales Island and the western edge of the Ketchikan and Prince Rupert quadrangles. The Krapenow Lowland is a tectonostratigraphic terrane that consists of Paleozoic igneous and sedimentary rocks that have been intruded by Paleozoic and Mesozoic plutonic rocks on Prince of Wales Island and the western edge of the Ketchikan and Prince Rupert quadrangles. The Coastal Foothills is a tectonostratigraphic terrane that consists of Paleozoic igneous and sedimentary rocks that have been intruded by Paleozoic and Mesozoic plutonic rocks on Prince of Wales Island and the western edge of the Ketchikan and Prince Rupert quadrangles.

SAMPLE COLLECTION, PREPARATION, AND ANALYSIS

Nonmagnetic heavy-mineral-concentrate samples were collected from active alluvium, primarily from first-order (tributary) and second-order (main) stream channels, as shown on the USGS topographic maps (scale 1:63,000). A total of 793 nonmagnetic concentrate samples were collected. The samples were collected from stream channels that are 10 to 100 m wide and 1 to 10 m deep. The samples were collected from stream channels that are 10 to 100 m wide and 1 to 10 m deep. The samples were collected from stream channels that are 10 to 100 m wide and 1 to 10 m deep. The samples were collected from stream channels that are 10 to 100 m wide and 1 to 10 m deep.

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Table 1. Statistical summary of the geochemical data for 16 selected elements from the nonmagnetic heavy-mineral-concentrate samples from the Craig study area, southeast Alaska. Values in parts per million; >, greater than; <, less than; N, not detected at value shown.

Element	SI ¹	SI ²	SI ³	SI ⁴	SI ⁵	SI ⁶	SI ⁷	SI ⁸	SI ⁹	SI ¹⁰	SI ¹¹	SI ¹²	SI ¹³	SI ¹⁴	SI ¹⁵	SI ¹⁶
Au	219	211	129	4	459	100	200	200	200	200	200	200	200	200	200	200
Ag	111	103	42	0	84	100	100	100	100	100	100	100	100	100	100	100
Sb	314	301	187	0	245	100	100	100	100	100	100	100	100	100	100	100
Bi	208	192	100	0	245	100	100	100	100	100	100	100	100	100	100	100

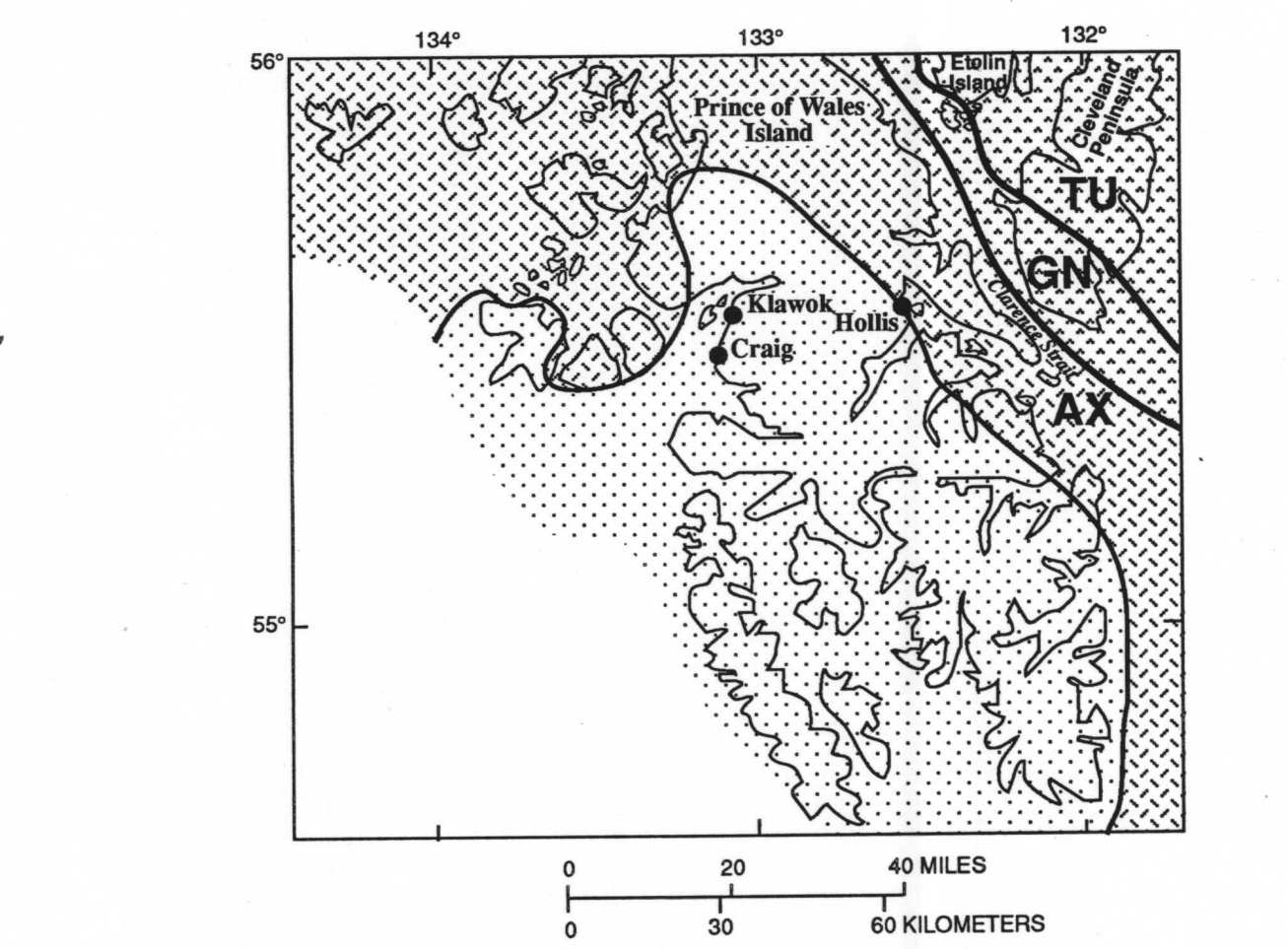
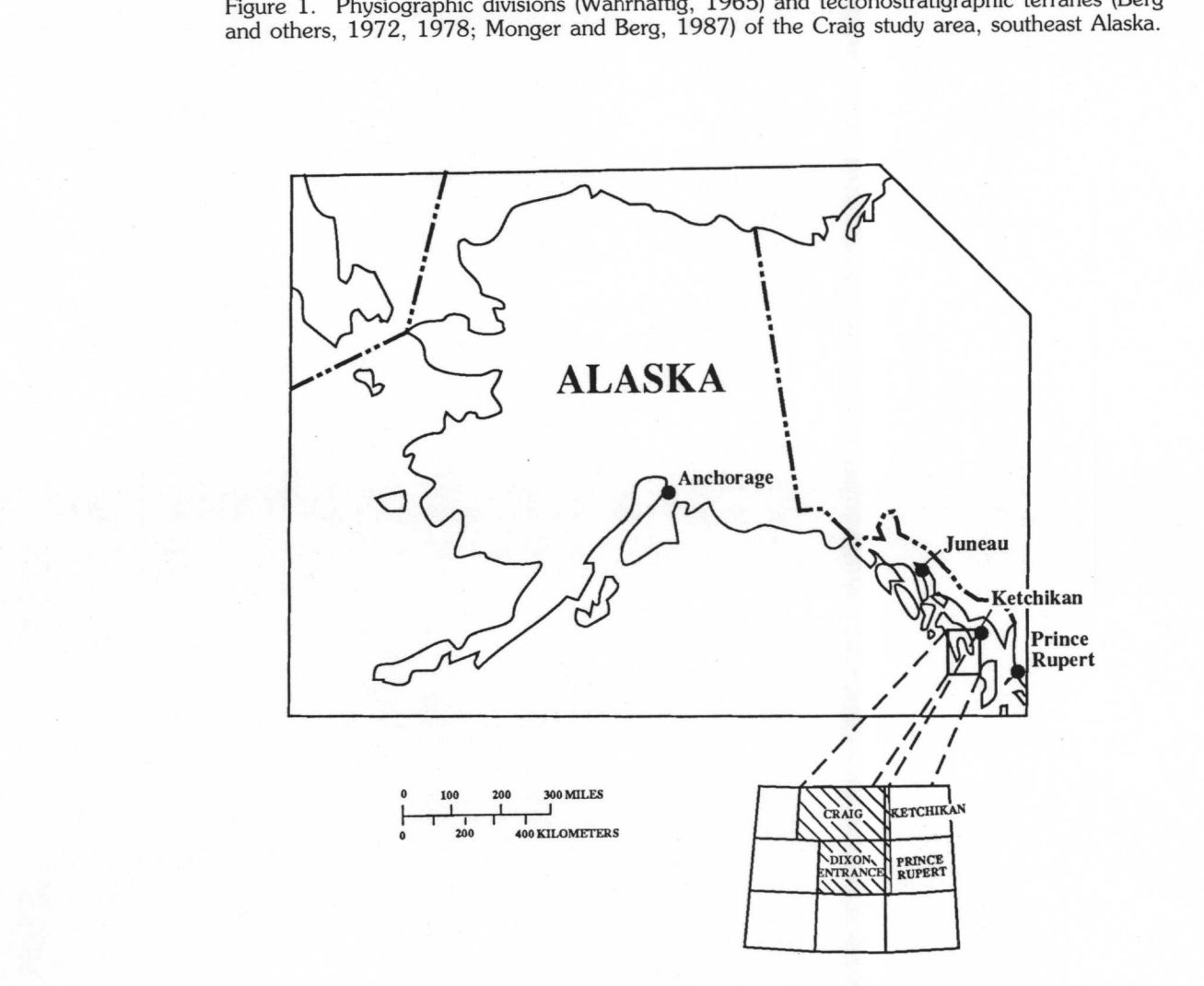


Figure 1. Physiographic divisions (Wahrhaftig, 1965) and tectonostratigraphic terranes (Berg and others, 1972, 1976; Meyer and Berg, 1987) of the Craig study area, southeast Alaska.



INSET MAP SHOWING LOCATIONS OF THE CRAIG, DIXON ENTRANCE, AND WESTERN EDGES OF THE KETCHIKAN AND PRINCE RUPERT QUADRANGLES