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(BUREAU OF MINES)

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SUMMARY REPORT

MINERAL INVESTIGATION OF THE UPPER PRIEST LAKE RARE II AREA
(A1-123), BONNER COUNTY, IDAHO

by
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This open file report summarizes the results of a Bureau of Mines wilderness study and will be incorporated in a joint report with the U.S. Geological Survey. The report is preliminary and has not been edited or reviewed for conformity with the U.S. Bureau of Mines standards and nomenclature. Work on this study was conducted by personnel from Western Field Operations Center, East 360 Third Avenue, Spokane, Washington 99202

SUMMARY REPORT

MINERAL RESOURCE POTENTIALS OF THE
UPPER PRIEST LAKE RARE II AREA (A1-123),
BONNER COUNTY, IDAHO

by

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FOREWORD

The U.S. Bureau of Mines and U.S. Geological Survey jointly conduct mineral surveys of lands which in the U.S. Forest Service Roadless Area Review and Evaluation (RARE II) program have been designated for further planning. These evaluations are used in the RARE II program which conforms with the Multiple-Use Sustained-Yield Act of 1960 (74 Stat. 215; 16 U.S.C. 528-531), the Forest and Rangeland Renewable Resources Planning Act of 1974 (88 Stat. 476, as amended; 16 U.S.C. 1601 note), and the National Forest Management Act of 1976 (90 Stat. 2949; 16 U.S.C. 1600 note). Reports on these surveys provide the President, Congress, the U.S. Forest Service, and the general public with information essential for determining the suitability of land for inclusion in the National Wilderness Preservation System.

This report is on the Upper Priest Lake RARE II area (A1-123), Idaho. The area was designated for "further planning" in the Final Environmental statement but was later changed to "nonwilderness" by President Carter.

CONTENTS

	<u>Page</u>
Summary.....	4
Introduction.....	4
Present and previous studies.....	6
Mining districts and mineralized areas.....	6
Assessment of mineral resource potential.....	8
References.....	9

ILLUSTRATION

Figure 1. Mines, prospects, and mineralized areas, Upper Priest Lake RARE II area.....	5
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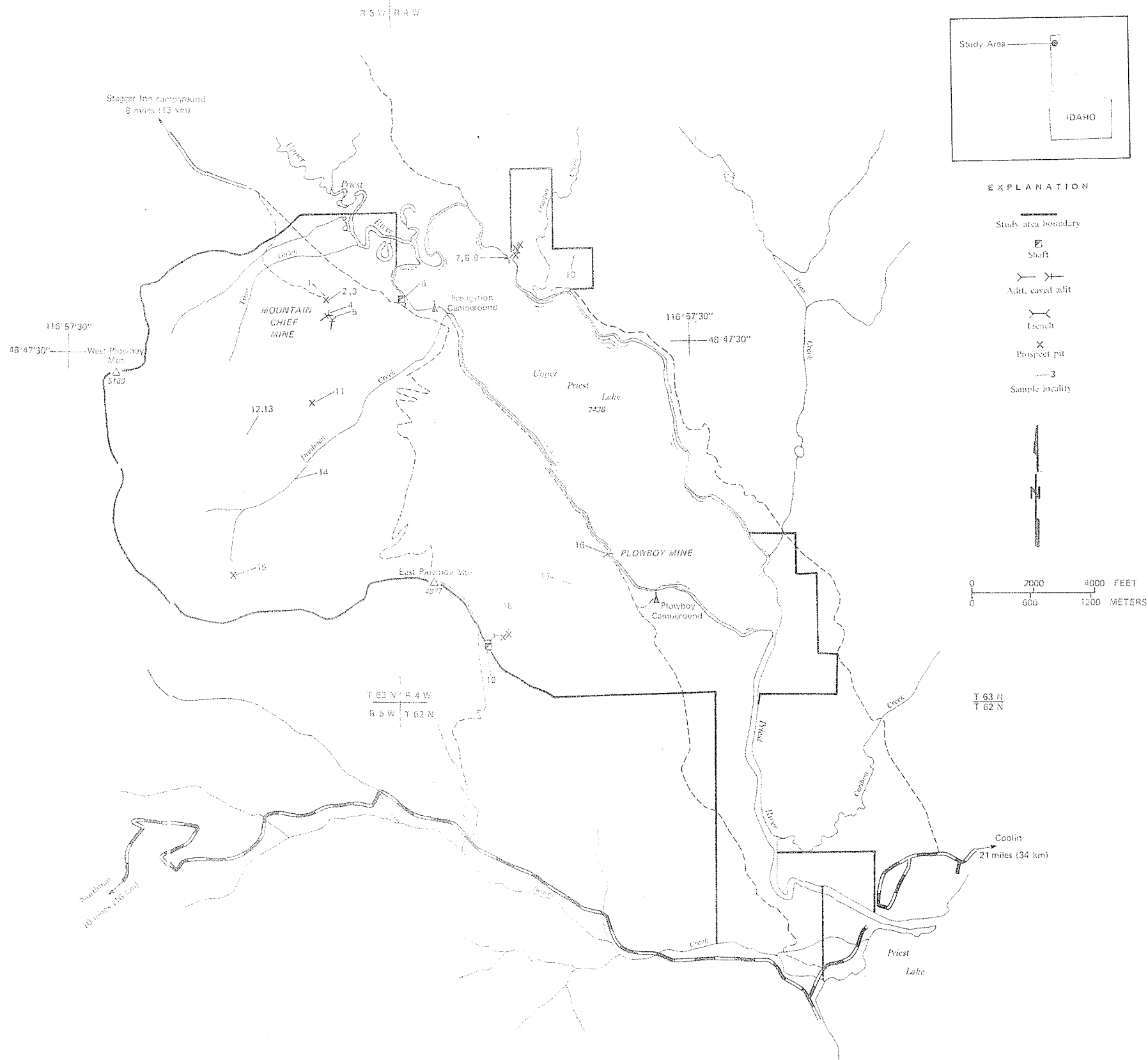
SUMMARY

Results of the mineral resource study of the Upper Priest Lake RARE II study area indicate a low potential for the discovery and economic recovery of silver and lead in the Prichard Formation near contacts with the Kaniksu Batholith in the vicinity of the Mountain Chief Mine (fig. 1). Silver and lead minerals locally occur disseminated and in irregular quartz fissure-fillings in the Prichard Formation. Between 1886 and 1967, 105 lode mining claims were located in the study area.

The area was designated for "further planning" in the Final Environmental statement but was later changed to "nonwilderness" by President Carter after work was scheduled for the area.

INTRODUCTION

The Upper Priest Lake RARE II area of Bonner County, Idaho is in the Kaniksu National Forest between the Pend Oreille and Kootenai Rivers. Elevations vary from 2,438 ft (743 m) along Upper Priest Lake and meadows adjoining Priest River to 5,130 ft (1,564 m) at the summit of Plowboy Mountain. Covering 3,903 acres (1,580 ha), the study area coincides with the Upper Priest Lake Scenic Area and includes Upper Priest Lake and the headwaters of Deadman Creek. The area is accessible by foot trail, boat, and logging roads originating from Idaho Highway 57, 13 mi (21 km) north of Nordman, Idaho.



PRESENT AND PREVIOUS STUDIES

During October 1979 the U.S. Bureau of Mines, Western Field Operations Center, made an economic appraisal of the area. A search was made of county, state, federal, and private records and reports. All mines, prospects, and claims in the study area were examined, sampled, and mapped if warranted. Information from previous field studies by Ridenour (1974), Lancaster (1910), and Curtis (1906) were reviewed. Metallic mineral occurrences noted by Savage (1967), Ross (1941), Kirkham and Ellis (1926), and Heikes (1906) were field checked.

MINING DISTRICTS AND MINERALIZED AREAS

No production figures were recorded from the study area, which is in the Priest Lake mining district. Porthill, Metalline, and Pend Oreille mining districts are nearby. Porthill district's Idaho-Continental Mine, 8.5 mi (13.7 km) north of the area, was the district's top producer until closure in 1943. About 500,000 tons (450,000 t) of silver, lead, zinc, and copper ore valued at \$5.4 million were produced from the mine (Kirkham and Ellis, 1926).

Mining activity around Upper Priest Lake began in August 1886, when Jonathan Truesdale's group located the Mountain Chief Claims on a lead-silver deposit in the study area. By 1908, 30 prospects were located on the shores and hills near Upper Priest Lake, including Idaho Copper Company and Gem Copper Mining Companies claims. U.S. Forest Service officials reported a shipment of ore from the Mountain Chief Mine was milled in Metalline Falls, Washington in 1958. With the creation of Upper Priest Lake Scenic Area on May 25, 1967, the entire study area was withdrawn from mineral location. Bonner County mining claim records indicate 105 lode claims were located in the study area between 1886 and 1967.

Greenish-gray quartzite, light- to dark-gray siltite, and argillite of the Precambrian Prichard Formation underlie approximately three-fourths of the study area. Quartz diorite porphyry and medium-grained hornblende quartz diorite of the Cretaceous Kaniksu Batholith have intruded the metasedimentary rocks. Pyrite, galena, chalcopyrite, and tetrahedrite locally occur disseminated and in irregular quartz veins in the Prichard Formation.

ASSESSMENT OF MINERAL RESOURCE POTENTIAL

Under present economic conditions, no minable deposits are known in the Upper Priest Lake study area; however, mining companies are actively exploring adjacent lands. A low potential for the discovery and economic recovery of silver and lead in the Prichard Formation exists near contacts with the Kaniksu Batholith in the vicinity of the Mountain Chief Mine (fig. 1).

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