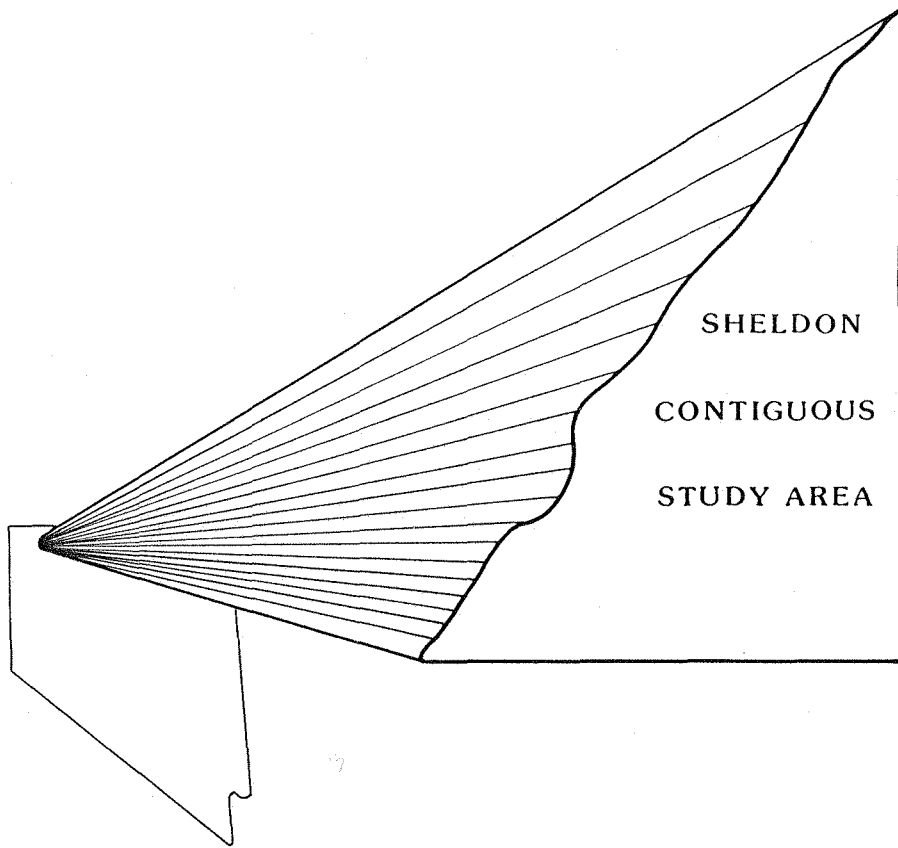


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Open File Report

Mineral Resources of the Sheldon Contiguous Study Area, Washoe County, Nevada



BUREAU OF MINES
UNITED STATES DEPARTMENT OF THE INTERIOR

MINERAL RESOURCES OF THE SHELDON CONTIGUOUS
STUDY AREA, WASHOE COUNTY, NEVADA

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PREFACE

The Federal Land Policy and Management Act (Public Law 94-579, October 21, 1976) requires the U.S. Geological Survey and U.S. Bureau of Mines to conduct mineral surveys on U.S. Bureau of Land Management administered land designated as Wilderness Study Areas ". . . to determine the mineral values, if any, that may be present" Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a Bureau of Mines mineral survey of a portion of the Sheldon Contiguous Wilderness Study Area (CA-020-1012), Washoe County, NV.

This open-file report will be summarized in a joint report published by the U.S. Geological Survey. The data were gathered and interpreted by Bureau of Mines personnel from Western Field Operations Center, East 360 Third Avenue, Spokane, Washington 99202. The report has been edited by members of the Branch of Mineral Land Assessment at the field center and reviewed at the Division of Mineral Land Assessment, Washington, D.C.

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SUMMARY

The Bureau of Mines studied 780 acres of the 24,130-acre Sheldon Contiguous Wilderness Study Area (CA-020-1012) in 1985. The study was done at the request of the Bureau of Land Management and authorized under the Federal Land Policy and Management Act (Public Law 94-579, October 21, 1976) in order to evaluate the mineral resources. The study area is located in Washoe County, NV, about 35 miles northeast of Cedarville, CA. A search of county courthouse records and an examination by foot traverses through and adjacent to the study area did not reveal evidence of any mining or mining exploration activity past or present. In addition, evidence of any form of rock alteration was not observed. Evidence of mineral resources is not apparent. Although basalt, the only rock-type present in the study area, can have some limited industrial applications, sources closer to potential markets probably would preclude rock from this area being economically competitive.

INTRODUCTION

This report describes the USBM (U.S. Bureau of Mines) portion of a cooperative study with the USGS (U.S. Geological Survey) to evaluate mineral resources and potential of the Sheldon Contiguous study area at the request of the BLM (U.S. Bureau of Land Management). The USBM examines individual mines, prospects, claims, and mineralized zones, and evaluates identified mineral and energy resources. The USGS evaluates potential for undiscovered resources based on areal geological, geochemical, and geophysical surveys. Results of the investigations will be used to help determine the suitability of the study area for inclusion into the National Wilderness Preservation System. Although the immediate goal of this and other USBM mineral surveys is to provide data for President, Congress, government agencies, and the public for land-use decisions, the long-term objective is to ensure the Nation has an adequate and dependable supply of minerals at a reasonable cost.

Geographic Setting

The study area is located about 35 mi (miles) northeast of Cedarville, CA, in Washoe County, NV, (fig. 1) and is part of the Sheldon Contiguous WSA 1/ (Wilderness Study Area) which contains 24,130 acres (fig. 2).

1/ A WSA is a roadless area or island that has been inventoried by the U.S. Bureau of Land Management and found to have wilderness characteristics as described in section 603 of the Federal Land Policy and Management Act (Public Law 94-579) and Section C of the Wilderness Act of 1964 (Public Law 88-557).

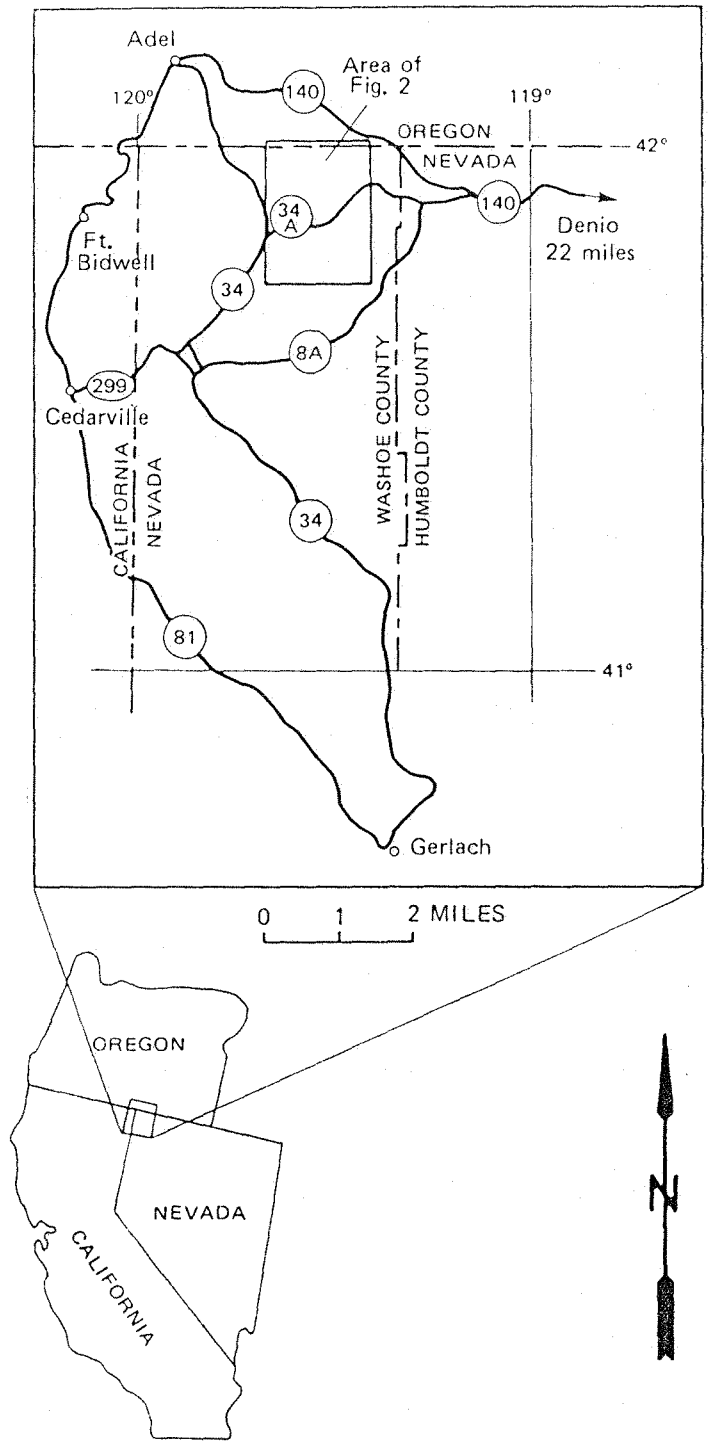


FIGURE 1.— Location of the Sheldon Contiguous Wilderness Study Area (CA-020-1012), Washoe County, NV

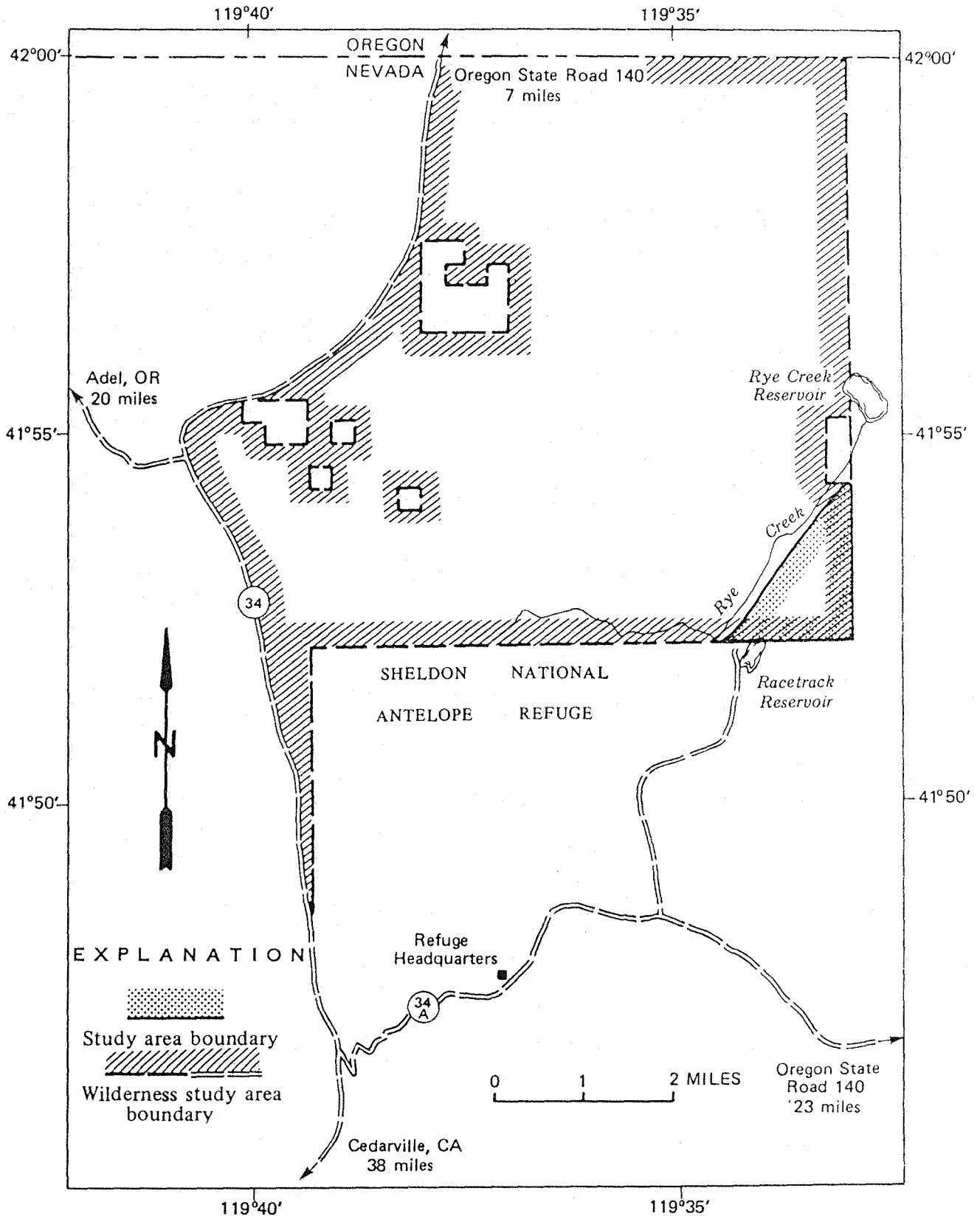


FIGURE 2. - Sheldon Contiguous Wilderness Study Area, (CA-020-1012), Washoe County, NV

The study area is adjacent to a part of the northwest boundary of the Sheldon National Antelope Refuge; north of Racetrack Reservoir, and southeast of Rye Creek, figs. 2 and 3. Road access to the study area is by an improved road and jeep trail north from the Refuge Headquarters.

Topography in the study area is predominantly a southeast-facing, gentle sloping, basalt hillside with elevations ranging from 5,844 ft (feet) to 5,640 ft. Vegetation includes sage brush, and a few scattered junipers. The climate is semiarid to arid.

Previous Studies

Geology of the Charles Sheldon Wilderness Study Area is reported by Green (1984); Plouff (1984) provides an interpretation of aeromagnetic and gravity data; Cathrall and others (1984) report a geochemical evaluation of the mineral and geothermal resources. An economic appraisal of mineral resources also for the Charles Sheldon Wilderness Study Area is reported by Tucheck and others (1984) and by the U.S. Geological Survey and U.S. Bureau of Mines (1984).

Present Study

This study began in May 1985 and was completed in September 1985. Work on this study was done intermittently during this period. The prefield phase of the study involved a review of pertinent literature and a search of mining claim records on file with the Washoe County Assessor. The field study phase involved foot traverses through the study area searching for mine workings or mineralized areas. Four samples of the country rock were collected and were analysed for 40 1/ elements by semiquantitative spectrographic methods.

ACKNOWLEDGEMENTS

The author wishes to thank Steven W. Schmauch for help during the field phase of this study. Joe McFarland of the Cedarville district of the U.S. Bureau of Land Management provided information about mining activity near the study area.

1/ Aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, calcium, chromium, cobalt, copper, gallium, gold, iron, lanthanum, lead, lithium, magnesium, manganese, molybdenum, nickel, niobium, palladium, phosphorus, platinum, potassium, scandium, silicon, silver, sodium, strontium, tantalum, tellurium, tin, titanium, vanadium, yttrium, zinc, and zirconium.

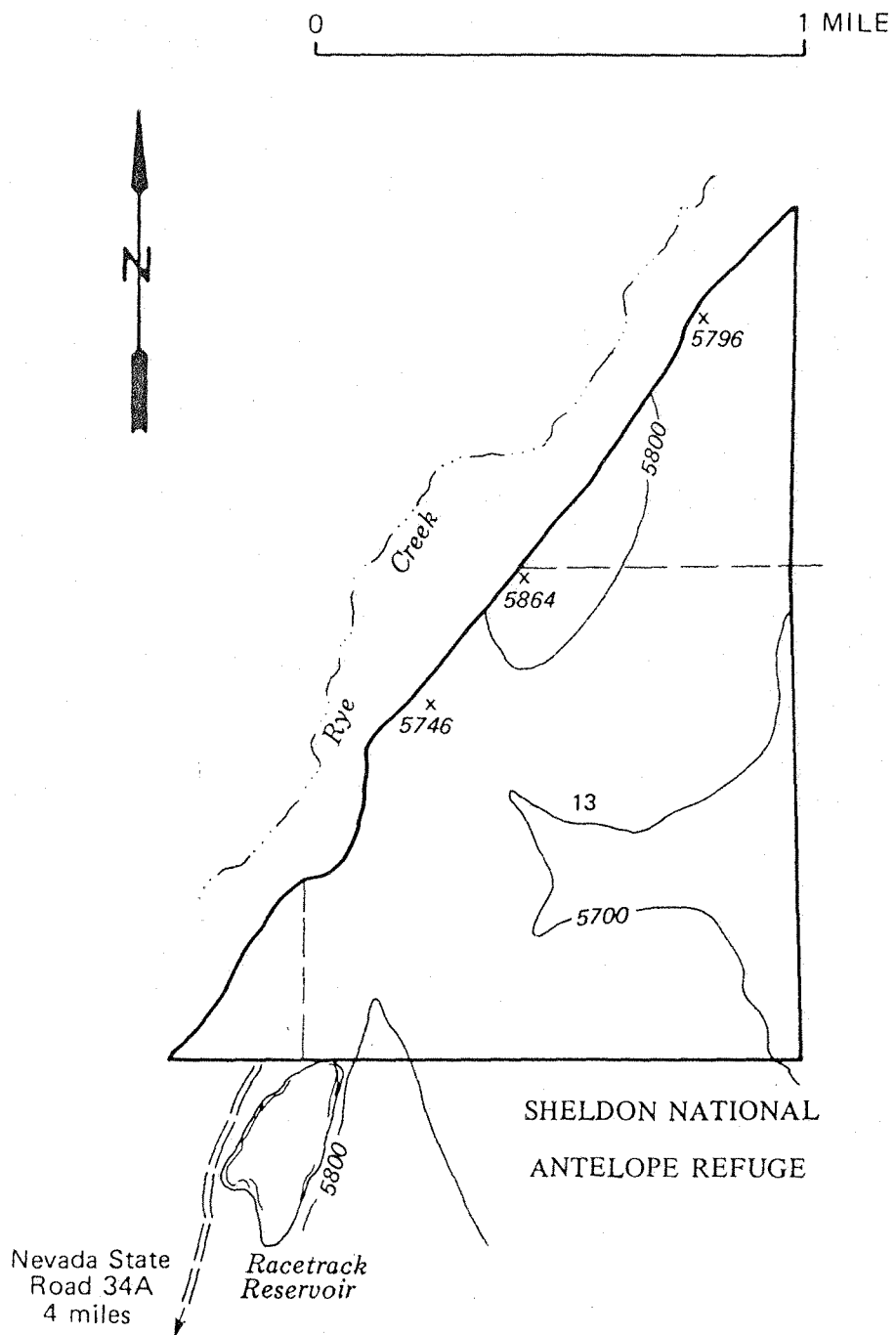


FIGURE 3.—Sheldon Contiguous study area, Washoe County, NV

GEOLOGIC SETTING

Dark to medium gray, aphanitic to fine grained basalt of the Catnip Creek Formation of Miocene age crops out in the Sheldon Contiguous study area. Green (1984, p. 29) reports a section of the basalt at Racetrack Reservoir consists of 24 flows in continuous vertical exposure in a fault scarp about 131 ft high.

A normal fault along the northwest boundary strikes about N. 25 E. and dips about 15° southeast. Green (1984, p. 32) reports that much faulting in the Catnip Creek Formation occurred after 9.4 million years B.P. (before present).

MINES, PROSPECTS, AND MINERALIZED AREAS

There is no record of mining or mining exploration activity (past or present) in or adjacent to the study area. Mining claim records were not found in the search of Washoe County courthouse files. The nearest mineral exploration activity is about 6 mi south of the study area in the Lone Pine mining district.

MINERAL APPRAISAL

Basalt is the only rock present in the study area. Evidence of any form of alteration associated with mineralization was not apparent.

Based on our sample results, no mineral resources were identified. Some types of basalt can be used for building stone, lining material, industrial flooring or processed for fiber optic applications. The distance to markets from the study area are too great to compete economically with other basalt deposits.

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