MINERAL RESOURCE POTENTIAL
OF THE CONDREY MOUNTAIN
ROADLESS AREA
SISKIYOU COUNTY, CALIFORNIA

by

R. G. Coleman,[1] Ron Mayerle,[2]
R. C. Jachens,[1] and David B. Smith[1]

Open-File Report 83-497

[1] U.S. Geological Survey

[2] U.S. Bureau of Mines

STUDIES RELATED TO WILDERNESS

Under the provisions of the Wilderness Act (Public Law 88-577, September 3, 1964) and related acts, the U.S. Geological Survey and the U.S. Bureau of Mines have been conducting mineral surveys of wilderness and primitive areas. Areas officially designated as "wilderness," "wild," or "canoe" when the act was passed were incorporated into the National Wilderness Preservation System, and some of them are presently being studied. The act provided that areas under consideration for wilderness designation should be studied for suitability for incorporation in the Wilderness System. The mineral surveys constitute one aspect of the suitability studies. The act directs that the results of such surveys are to be made available to the public and be submitted to the President and the Congress. This report discusses the results of a mineral survey of the Condrey Mountain Roadless Area (5704, 6704), Klamath and Rogue River National Forests, Siskiyou County, California. The Condrey Mountain Roadless Area was classified as a further planning area during the Second Roadless Area Review and Evaluation (RARE II) by the U.S. Forest Service, January 1979.

SUMMARY

The Condrey Mountain Roadless Area contains no identified metallic mineral resources, but lode copper, zinc, silver, and gold and placer gold resources are present in contiguous, patented and unpatented claim groups that extend into the study area. The Blue Ledge mine, adjacent to the west boundary of the roadless area, occurs in a massive-sulfide deposit that is in a north-south trending mineralized belt. There is a moderate, locally high, potential for extensions of the deposit or other discrete deposits in the part of the belt covered by the Blue Ledge Claim Group, parts of which extent into the study area. Prospects in sulfide mineral occurrences on the belt north and south of the claim group and other prospects within or adjacent to the western part of the study area have low potential for the occurrence of similar resources in base metal massive sulfide deposits.

The area has a low potential for the occurrence of soapstone or mercury, subeconomic placer gold, and chromite. Sand, gravel, and stone occur in the study area, but there are similar or better quality materials closer to major markets.

INTRODUCTION

The U.S. Geological Survey and the U.S. Bureau of Mines conducted a mineral resource assessment of the Condrey Mountain Roadless Area, Siskiyou County, California. Geologic mapping, geophysical surveys, and geochemical sampling were carried out by the U.S. Geological Survey during 1980 and 1981 (Coleman and others, 1983). The U.S. Bureau of Mines made detailed examinations of mines, prospects, and mining claims during 1980 (Mayerle, 1983). The results of these investigations are presented in this report.

The Condrey Mountain Roadless Area is located about 30 mi northwest of Yreka and lies just south of the Oregon-California border (fig. 1). Most of the study area is in the Rogue River National Forest along the south slope of the drainage of Elliot Creek. A small southwestern portion is in the Klamath National Forest along the north slope of the drainage of the Klamath River. The two portions are divided by the crest of the Siskiyou Mountains, which form part of the southern boundary. The divide ranges between about 6,000 and 7,000 ft in elevation, with Condrey Mountain the highest point.

Access to the northern part of the area is from Ruch, Oregon, on Oregon State Highway 238 then by way of U.S. Forest Service roads that follow Elliot Creek eastward to the study area. Access to the southern part of the area is by Forest Service second-class roads from California State Highway 96, called the Klamath River Highway.

GEOLOGY, GEOCHEMISTRY, AND GEOPHYSICS PERTAINING TO RESOURCE ASSESSMENT

Geology

The Condrey Mountain Roadless Area is within a structural dome that is surrounded by the metamorphic rocks of the western Paleozoic and Triassic belt in the Siskiyou Mountains of California and Oregon (Irwin, 1972). This structural dome forms a topographic high (Condrey Mountain, 7,112 ft) whose core consists of highly deformed metasedimentary and metavolcanic rocks in the greenschist and blueschist facies of metamorphism. These units collectively make up the Condrey Mountain Schist (Hotz, 1967, 1979). Previous geologic studies in this area were carried out by Shenon (1933) and Rynearson and Smith (1940). A geologic map has been prepared by the U.S. Geological Survey as part of this assessment (Coleman and others, 1983). A generalized geologic map of the study area is presented in figure 2.

Western Paleozoic and Triassic belt

The rocks that nearly surround the Condrey Mountain structural dome make up an extensive terrane of sedimentary, volcanic, and ultramafic rocks metamorphosed from greenschist to amphibolite facies. This terrane is usually referred to as the western Paleozoic and Triassic belt (Irwin, 1972; Hotz, 1979). Even though these rocks are not part of the roadless area, they are pertinent to the overall understanding of the geology.

The metavolcanic rocks in this belt have mostly been metamorphosed to amphibolite facies obscuring original igneous structures. The metasediments are mostly argillite, siliceous argillite, chert, and minor marble that have also been metamorphosed under amphibolite facies conditions. Numerous bodies of ultramafic rocks that have been metamorphosed to olivine-talc- anthophyllite-actinolite assemblages are closely associated with the metavolcanic rocks. The distribution of these rock types is chaotic and recent workers now consider parts of this belt to be a metamorphosed melange (Hotz, 1979; Kays and Ferns, 1980).

Condrey Mountain Schist

The Condrey Mountain Schist was first studied by Hotz (1967) and was considered to be a metamorphosed graywacke and spilitic volcanic rock unit similar to the Galice Formation of Late Jurassic age. The Condrey Mountain Schist is composed predominantly of metasedimentary rocks with significant amounts of metavolcanic rocks and minor amounts of metaserpentinite (fig. 2).

The most abundant rock type is a fine-grained gray to black schist that has well-developed foliation. The protolith for these metasedimentary rocks appears to have been a quartz-rich graywacke that contained abundant organic debris. The metavolcanic rocks are laminated greenschists that exhibit no original igneous features. The protolith of the greenschists was basaltic or andesitic volcaniclastic deposits interlayered with the sediments. The increase of metavolcanic rocks to the west indicates that the source may have been a volcanic center lying to the west.

Thin metasedimentary units, probably developed from a felsic tuff protolith, interlayered with the greenschist unit and also found in the undifferentiated blackschist and greenschist unit extend north and south from the vicinity of the Blue Ledge mine (fig. 2). They consist mainly of quartz and muscovite with minor amounts of barite and have been referred to as "silver schist" (Shenon, 1933). These metasedimentary units are shown on figure 2 (silver schist areas) and are guides to mineralization. At least 9 silver schist occurrences are known. Three are scattered, but 5 are adjacent to the western boundary of the largest blackschist and greenschist unit, and one is within this unit. The blackschist and greenschist unit and the area of silver schist occurrences immediately west of the boundary are an apparent mineralized belt.

Tabular and lens-shaped bodies of metaserpentinite are present within the metasediments and consist mainly of antigorite with minor amounts of magnetite and brucite. Nearly all of the contact zones between the metaserpentinite and metasediments show blackwall metasomatic assemblages characteristic of greenschist facies metamorphism.

Metamorphism of all of these rocks was accompanied by strong deformation and the development of isoclinal folds. In the eastern part of the area glaucophane-bearing greenschists develop within zones of metavolcanic rocks and represent variability in pressure-temperature conditions during metamorphism.

Structural Geology

The general interpretation of the regional structure is that at one time rocks of the western Paleozoic and Triassic belt completely covered the Condrey Mountain Schist as a thrust sheet. Later domal uplift and erosion produced the present topographic relationships. The Condrey Mountain Schist reveals a complicated series of deformational events. Isoclinal folding accompanied the greenschist and blueschist facies metamorphism and was followed by a pervasive crenulation cleavage that has produced a north-south foliation with rather steep dips. The second period of deformation may be related to the movement of the Western Paleozoic and Triassic belt over the Condrey Mountain Schist. The final phase of deformation during doming produced high-angle faults within the Condrey Mountain Schist and along its boundaries with the overlying Western Paleozoic and Triassic belt.

The mineralized zones of massive sulfide are conformable with the surrounding foliated metavolcanic rocks. The ore lenses of the Blue Ledge mine have been folded into a series of steep isoclinal folds, and textural evidence suggests that the ore bodies have been recrystallized and deformed during the period of regional metamorphism.

Geochemistry

A geochemical study of the Condrey Mountain Roadless Area was undertaken to aid in the evaluation of its mineral potential. Seventeen stream-sediment and 17 panned-concentrate samples were taken throughout the area. This reconnaissance geochemical sampling delineated the previously known mineralization of the Blue Ledge mine area.

Stream sediments were chosen as the primary sample medium for this. Two stream-sediment samples were collected at each sample site. One sample was sieved to -80 mesh (less than 0.18 mm), pulverized, and analyzed for 31 elements by a semiquantitative spectrographic method (Grimes and Marranzino, 1968). The second stream-sediment sample was panned to produce a heavy-mineral concentrate. After panning, the remaining light material was removed from the concentrate using bromoform (specific gravity 2.86). Magnetite was then removed from the heavy concentrate using a hand magnet. The resulting heavy-mineral fraction was divided into subfractions based on magnetic susceptibility. A split of the heavy, nonmagnetic subfraction was ground by hand using an agate mortar and pestle and then analyzed spectrographically. This subfraction contains the common ore-forming sulfide and oxide minerals as well as barite and other nonmagnetic minerals. The concentrate medium generally gives a greatly enhanced anomaly pattern, because all of the more common rock-forming minerals (quartz and feldspar) that tend to dilute the anomalies have been removed.

Spectrographic analyses of both -80 mesh stream sediments and the nonmagnetic, heavy-mineral concentrates showed a copper-zinc anomaly in the drainage basin of Joe Creek. This stream drains the far western margin of the study area and contains the Blue Ledge mine within its basin. This mine, which was operated until the latter part of 1920 (Averill, 1935), was a copper-zinc producer with its ore also containing silver, gold, and lead (Shenon, 1933; Eric, 1948). This mineralization is the cause of the anomaly in the basin of Joe Creek. The results of the geochemical sampling show no evidence of metallic mineral resource potential for the Condrey Mountain Roadless Area except for the mineralized zone at the Blue Ledge mine and its extension north or south into the roadless area.

Geophysics

Gravity and aeromagnetic surveys were conducted over the Condrey Mountain Roadless Area and surrounding areas to supplement the geologic mapping and to aid in the assessment of the mineral resource potential of the area. The magnetic data reflect the distribution of magnetic minerals, mainly magnetite, in the underlying rocks, and the gravity data reflect subsurface density distributions. Within the area covered by the two surveys, the major rock units are characterized by distinctive densities and magnetic properties, and these characteristics have been used to interpret the geophysical data in terms of geologic structures.

The most prominent feature of the gravity field in the vicinity of the roadless area is a major regional gravity low (35-45 milligals in amplitude) centered over the Condrey Mountain Schist and flanking gravity highs over the surrounding western Paleozoic and Triassic belt. This gravity feature is qualitatively consistent with the geologic data that indicate the low density Condrey Mountain Schist forms a structural dome that is exposed in a structural window in the overlying, high density, western Paleozoic and Triassic belt. Quantitative modeling of the gravity data along an east-west profile that passes through the study area indicates that the western contact between the Condrey Mountain Schist and the western Paleozoic and Triassic belt is nearly vertical, whereas the eastern contact dips eastward at approximately 30° near the surface and less steeply at depth. The overlying plate is approximately 4 mi thick west of the roadless area and at least 2.5 mi thick east of the roadless area. A local, low-amplitude gravity high centered over the apex of the Condrey Mountain dome suggests that the dome contains a concealed layer that is more dense than the rocks exposed at the surface.

The magnetic field over much of the Condrey Mountain Schist is smooth and featureless, but prominent magnetic anomalies are associated with bodies of metaserpentinite contained within the Condrey Mountain Schist and with the contact between the Condrey Mountain Schist and the overlying western Paleozoic and Triassic belt. Within the Condrey Mountain Roadless Area, magnetic anomalies reflect the locations and shapes of metaserpentinite bodies that are potentially favorable hosts for chromite. The large magnetic anomaly that lies above the tabular White

Mountain metaserpentinite body (fig. 2) indicates that this body dips toward the west and that its subsurface extent is considerably larger than its surface exposure. This body continues in the subsurface both west and south of its surface exposure and probably is about 2 mi wide (east-west) and about 3 mi long (north-south). Three small, roughly circular magnetic highs occur within the roadless area and are associated with small exposures of metaserpentinite. These three anomalies are located 2.5 mi north of White Mountain, 2.1 mi east of White Mountain, and 0.5 mi south-southeast of Scraggy Mountain, respectively. The bodies that cause these anomalies probably are small, with characteristic lateral dimensions of a few thousand feet or less. The lack of other large magnetic anomalies over the roadless area indicates that no other large, magnetic metaserpentinite bodies are buried at shallow depth beneath this area.

West of the roadless area, the magnetic data indicate that the rocks of the western Paleozoic and Triassic belt are more magnetic than the Condrey Mountain Schist and a quantitative model of the magnetic anomaly associated with the contact between these two units confirms the near-vertical attitude of this boundary as inferred from the gravity data.

MINING DISTRICTS AND MINERALIZATION

All but a small southeastern part of the Condrey Mountain Roadless Area is in the Elliot Creek mining district, a subdistrict of the Upper Applegate mining district of southern Jackson County, Oregon. Averill (1935) reported that the first discovery of placer gold was made on Elliot Creek in 1852. The California Division of Mines and Geology reported that 993 ounces of gold were produced from the creek, all probably from outside the roadless area, from 1890 to 1937, but this recorded production was probably only a small part of the actual production (Averill, 1935). In the 1920's and 1930's, several placer mines were active (Averill, 1935), including the Penn (fig. 3, No. 16) and the Daffodil on the east claims of the Cobb claim group (fig. 3, No. 4), which is partly in the study area. P. F. Boswell (1978) estimated that since 1852 at least 20,000 ounces of placer gold has been recovered from Elliot Creek. Small amounts of placer gold have been mined from Elliot Creek in recent years.

The Blue Ledge mine (fig. 3, No. 12) outside the study area, was discovered in 1896 by prospectors searching for placer gold on Joe Creek, a tributary of Elliot Creek (Hundhausen, 1947). Twenty-six claims at the mine are patented. Production of copper, zinc, gold, and silver from 11,151 tons of ore occurred from 1917 to 1920 and in 1930. The mine, which contains over 13,000 ft of workings, is being examined by the Freeport Exploration Company. In 1982, the company located 27 more claims at the property, some of which are in the roadless area. Plans are to drill at the sites of several geophysical and geochemical anomalies; it is not known if any of these anomalies are in the roadless area.

Elsewhere in the Elliot Creek district, some gold and silver may have been produced from a vein quartz and quartz mica schist (Brooks, 1968, p. 255) at the Grubstake mine, 3 mi north of the roadless area, and soapstone has been produced from talc zones in serpentinite at the Elliot Creek Soapstone mine (Peterson and Ramp, 1978, p. 150). A mercury prospect (fig. 3, No. 17) is northeast of the study area, probably in glaucophane-rich greenschist.

Mining claims

More than 70 lode claims have been located in and near the study area. All or parts of about 30 claims of the Blue Ledge, Tin Cup, and Norsisk groups probably are in the roadless area (fig. 2).

Several hundred placer claims were located on Elliot Creek adjacent to the northwestern boundary of the study area and for several miles east and west since the early 1850's; 21 patented claims and one current unpatented claim of the Cobb's Placer Claim Group border the study area (fig. 3, No. 4). The southern parts of three of the claims are within the study area but do not include any river gravels. Two unpatented claims of the Evergreen-Campbell group are west of the Cobb group and may be partly in the study area.

Mines, prospects, and mineral deposits

There are no identified mineral resources in the roadless area, but gold in placer deposits and copper, zinc, silver, and gold (in lode) deposits occur adjacent to the area.

Known lode resources at the Blue Ledge mine are estimated by W. M. Sharp (unpub. data, 1978) to consist of 226,000 tons containing 3.5 percent copper, 3.95 percent zinc, 2.16 ounces silver per ton and 0.05 ounces gold per ton. In addition, possible 1-2 pounds of cadmium per ton can be recovered. The mine has produced 11,151 tons of ore that yielded 1,026 ounces of gold, 58,431 ounces of silver, and 2.7 million pounds of copper. The mine was examined and mapped by the U.S. Bureau of Mines and the U.S. Geological Survey in 1943 and 1944 (Hundhauson, 1947 and Rynearson and Hutchinson, 1945). The actual mineralized ore zone is reported to have averaged about 5 ft in thickness. The ore zones consist mainly of massive sulfides in the following order of abundance: pyrrhotite, pyrite, chalcopyrite and sphalerite. Minor amounts of galena and covellite are present, and it is considered that the gold and silver are contained within the copper sulfide minerals. The associated gangue minerals are mainly quartz and sericite, the main components of the "silver schist." Calcite and barite are also common associates. Specimens of ore with surrounding gangue minerals have a pronounced foliation, and this foliation is conformable with that of the surrounding foliated metavolcanic rocks. Using structural data gathered in the mine area, it is possible to show that these ore bodies have been recrystallized and deformed during the period of regional metamorphism. The mineralization appears to be premetamorphic and is somehow related to the evolution of the "silver schist" during its formation as silicic volcanic rocks. The ore bodies appear to have been stratabound during their original formation, but deformation and metamorphism have obscured the original relationships. Prospects on the same mineralized belt north of the Blue Ledge claim group (fig. 3, Nos. 1 and 2) and other prospects in or near the western part of the study area (fig. 3, Nos. 5, 8-11, and 13-15) are located on disseminated or massive sulfide occurrences in greenschist. These prospects, also generally associated with silver schists or similar metamorphosed felsic tuffs, have a low potential for similar gold silver copper zinc resources similar to those in the Blue Ledge mine. Prospects on quartz veins or lenses in blackschist or glaucophane-rich greenschist along the eastern boundary of the study area (fig. 3, Nos. 18-21) have no evident metallicmineral resource potential.

North of the study area at Cobb's claim group (fig. 3, No. 4), U.S. Forest Service studies (M. M. Suchy, 1962) indicate a large volume of potentially mineable gold-bearing gravel. However, none of the gravel is within the study area. Another Forest Service study (P. F. Boswell, 1980) and the U.S. Bureau of Mines study (Mayerle, 1983) indicates the adjoining Evergreen-Campbell claims have subeconomic gold-bearing gravel. However, only 2,000 to 4,000 yd^3 of the gravel may be in the study area.

Table 1 describes prospects inside or less than 0.5 mi outside the roadless area.

ASSESSMENT OF MINERAL RESOURCE POTENTIAL

Although there are no identified mineral resources in the Condrey Mountain Roadless Area, lode copper, zinc, silver, and gold and placer gold resources exist in contiguous, patented and unpatented claim groups that extend into the study area.

The Blue Ledge mine (fig. 3, No. 12), adjacent to the western boundary, is in a stratabound, volcanogenic massive-sulfide deposit. It parallels and dips westward away from the study area boundary, which is 200 to 900 ft to the east. The deposit is on a north-south trending mineralized belt at least 6.3 mi long. There is a moderate, locally high, potential for extensions of the deposit or other discrete deposits on that portion of the belt covered by the 4.4 mi-long Blue Ledge Claim Group, parts of which extent into the study area. Freeport Exploration Company plans to drill core holes at the sites of several geophysical and geochemical anomolies on the claim group. The location of the drill sites (areas of high potential) is unknown. In addition, there is a low potential for other geologically similar deposits on the belt north and south of the claim group or nearby in the greenschist terrane in and adjacent to the western portion of the study area.

Although no field evidence of soapstone or mercury was found, there is a low potential for their occurrence based on the proximity of mines or prospects for these minerals in geologic environments similar to those found within the study area.

The southern part of three placer claims of the Cobb group (fig. 3, No. 4) is within the study area, but does not contain gravel deposits. At the Evergreen-Campbell placer claims (fig. 3, No. 3), only 2,000 to 4,000 yd^3 of subeconomic gold-bearing gravel are within the study area.

The large metaserpentinite body along the Siskiyou Divide does not contain any known chromite concentrations. However, the aeromagnetic survey of the Condrey Mountain area reveals that the metaserpentinite extends and enlarges downward. Therefore, it is possible that chromite-bearing bodies occur in this body at depth.

Sand, gravel, and stone deposits occur in the study area; however, there are similar or better quality materials closer to major markets.

REFERENCES CITED

Averill, C. V., 1935, Mines and mineral resources of Siskiyou County: California Journal of Mines and Geology, v. 31, no. 3, p. 255-338.

Boswell, P. F., 1978, Report of mineral examination, patent application CA4986, CA4937, and CA4988, Rogue River National Forest: Medford, Oregon, 6 p.

Boswell, P. F., 1980, Report of mineral examination, job 968, Rogue River National Forest: Medford, Oregon, 9 p.

Brooks, H. C., and Ramp, Len, 1968, Gold and Silver in Oregon: Oregon Department of Geology and Mineral Industries, Bulletin 61, p. .

Coleman, R. G., Helper, M. D., Donato, M. M., 1983, Geologic map of the Condrey Mountain Roadless Area, Siskiyou County, California: U.S. Geological Survey Miscellaneous Field Studies Map MF-1540-A, scale 1:50,000.

Eric, J. H., 1948, Tabulation of copper deposits in California, in Copper in California: California Division of Mines Bulletin 144, p. 341.

Grimes, D. J., and Marranzino, A. P., 1968, Direct current arc and alternating current spark emission spectrographic field methods for semiquantitative analysis of geologic materials: U.S. Geological Survey Circular 591, 6 p.

Hotz, P. E., 1967, Geologic map of the Condrey Mountain quadrangle and parts of the Seiad Valley and Hornbrook quadrangles, California: U.S. Geological Survey Geologic Quadrangle Map GQ-618, scale 1:62,500.

Hotz, P. E., 1979, Regional metamorphism in the Condrey Mountain quadrangle, north-central Klamath Mountains, California: U.S. Geological Survey Professional Paper 1086, 25 p.

Hundhausen, R. J., 1947, Blue Ledge copper-zinc mine, Siskiyou County, California: U.S. Bureau of Mines Report of Investigations 4124, 16 p.

Irwin, W. P., 1972, Terranes of the western Paleozoic and Triassic belt in the southern Klamath Mountains, California: U.S. Geological Survey Professional Paper 800C, p. C103-C111.

Kays, M. A., and Ferns, M. L., 1980, Geologic field trip guide through the north-central Klamath Mountains: Oregon Geology, v. 42, no. 2, p. 23-35.

Mayerle, R. T., 1983, Mineral investigation at the Condrey Mountain RARE II Area (Nos. 5704 and 6074), Siskiyou County, California: U.S. Bureau of Mines Open-file Report MLA 36-83, 16 p.

Peterson, N. V., and Ramp, Len, 1978, Soapstone Industry in Southwest Oregon, The Ore Bin, V. 40, no. 9, p. 149-164.

Rynearson, G. A., and Hutchinson, R. M., 1945, Blue Ledge mine, Siskiyou County, California: U.S. Geological Survey Open-File Report [56-105], 22 maps.

Rynearson, G. A., and Smith, C. T., 1940, Chromite deposits in the Seiad quadrangle, Siskiyou County, California: U.S. Geological Survey Bulletin 922-J, p. 281-306.

Shenon, P. J., 1933, Copper deposits in the Squaw Creek and Silver Peak districts and at the Almeda mine, southwestern Oregon with notes on the Pennell and Farmer and Banfield prospects: U.S. Geological Survey Circular 2, 34 p.

Suchy, M. M., 1962, Report of mineral examination, patent application Sacramento 96425, Rogue River National Forest, Medford, Oregon, 10 p.

Table 1.--Miscellaneous prospects, Condrey Mountain Roadless Area and immediate vicinity

(Underlined prospects are inside the study area)

Map No. (fig. 1)	Name	Summary	Number and type of workings	Sample data
1	Parker No. 1	Minor malachite stain with sparse pyrite and magnetite in stringers in schist	A 64-ft adit with a 17-ft crosscut	Four samples: a chip sample of malachite-stained wallrock at the face of the adit assayed 0.01 percent copper; a select sample of malachite-stained wallrock assayed 0.5 oz silver per ton and 0.11 percent copper
2	Parker No. 2	Quartz lenses 2 in. by 6 in. long in schist	A 22-ft adit	Three samples: no significant mineral values
5	Whitcom prospect	Two narrow, massive pyrite veins in schist	A 25-ft adit	Six samples: No significant mineral values
7	Dutch Creek placer	Gravel along Dutch Creek and its west and south forks	None	Nineteen reconnaissance pan samples: two contained 3 and 4 very fine particles of gold
8	Unnamed	A 3.5-ft-thick schist layer with minor disseminated pyrite and several thin quartz layers	A 40-ft dozed cut, a caved shaft about 15 ft deep, and a caved adit about 40 ft long	Three samples: no significant mineral values

Table 1.--Miscellaneous prospects, Condrey Mountain Roadless Area and immediate vicinity--Continued

Map No. (fig. 1)	Name	Summary	Number and type of workings	Sample data
9	Unnamed	Three varieties of schists. All units contain minor disseminated pyrite and discontinuous quartz stringers up to 2 in. thick. They are at or closely parallel to a fault that strikes N. 54° E. and dips 84° SE.	Two adits: one is 168 ft long with a 40-ft drift; the other is 80 ft long and has a 21-ft crosscut	Nine samples: no significant mineral values
10	Unnamed	Slightly limonite-stained chlorite-sericite schist striking north and dipping steeply west	A caved adit estimated to be 31 ft long	One sample: no significant mineral values
11	Unnamed	Several 1.5-ft-thick limonite-stained layers, minor disseminated pyrite in schist	Two caved adits about 25 ft and 45 ft long	Two samples: no significant mineral values
13	Tin Cup claim group (patented)	Limonite-stained, quartz-rich layers in chlorite-sericite schist or graphitic quartz-mica schist that strikes generally northwest and dips steeply west. The layers are from less than 1 in. to 4 ft or more thick. A fault striking east and dipping 40° N. was filled with limonite-stained gouge	A 48-ft adit, caved to the surface except for the last 5 ft, which is accessible to the face; a 43-ft adit; a caved shaft about 10 ft deep; four pits and cuts 8 to 26 ft long	Nine samples: A chip sample across the fault assayed 0.01 oz gold per ton; a heavily limonite-stained lens up to 1.5 in. thick assayed 0.02 percent copper

Table 1.--Miscellaneous prospects, Condrey Mountain Roadless Area and immediate vicinity--Continued

Map No. (fig. 1)	Name	Summary	Number and type of workings	Sample data
14	Norsisk claim group	Heavily iron-stained zone up to 8.5 ft thick in quartz-sericite schist, carbonaceous schist, and outcrop of dark gray volcanic rocks	None	Four samples: no significant mineral values
15	Molly B claim	Heavily limonite-stained zones in quartz-mica schist near contact with graphitic schist. Schist strikes north, dips 40° to 60° W.	None	Three samples: one chip sample of a heavily limonite- and manganese-stained zone as much 20 in. thick contains minor pyrite and chalcopyrite and assayed 0.15 weight percent copper.
18	Unnamed	Concordant quartz lenses up to 5 ft long and 6 in. thick in muscovite-graphite schist	A pit	One sample: no significant mineral values
19	Unnamed	do----------------------------	A bulldozer trench 190 ft long, and two hand-dug cuts 70 and 23 ft long	Five samples: no significant mineral values
20	Unnamed	do----------------------------	Four connected bulldozer trenches, 75 to 125 ft long	One sample: no significant mineral values
21	Unnamed	Small quartz lenses in schist	Two small pits	Two samples: no significant mineral values

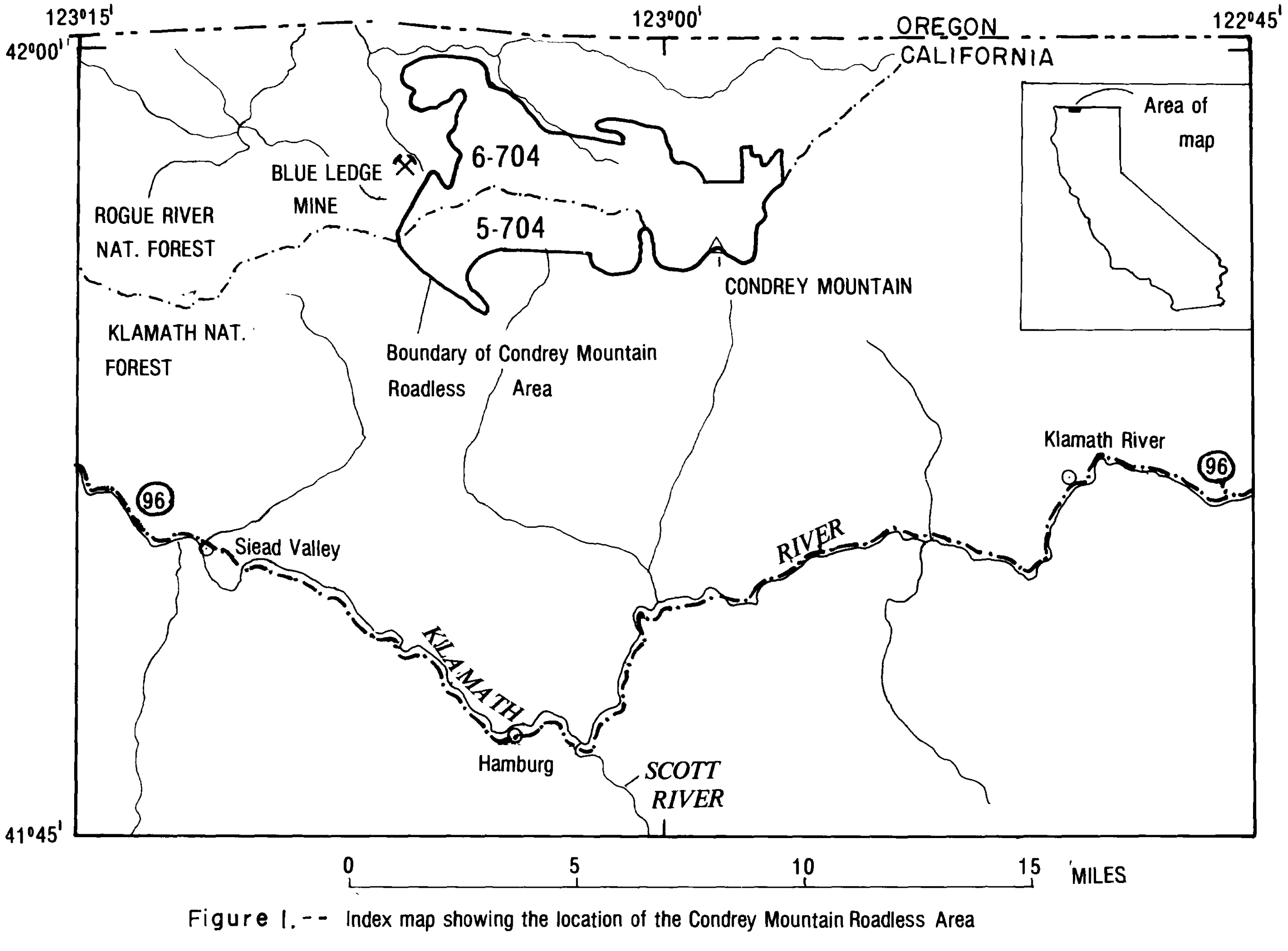

Figure 1.-- Index map showing the location of the Condrey Mountain Roadless Area

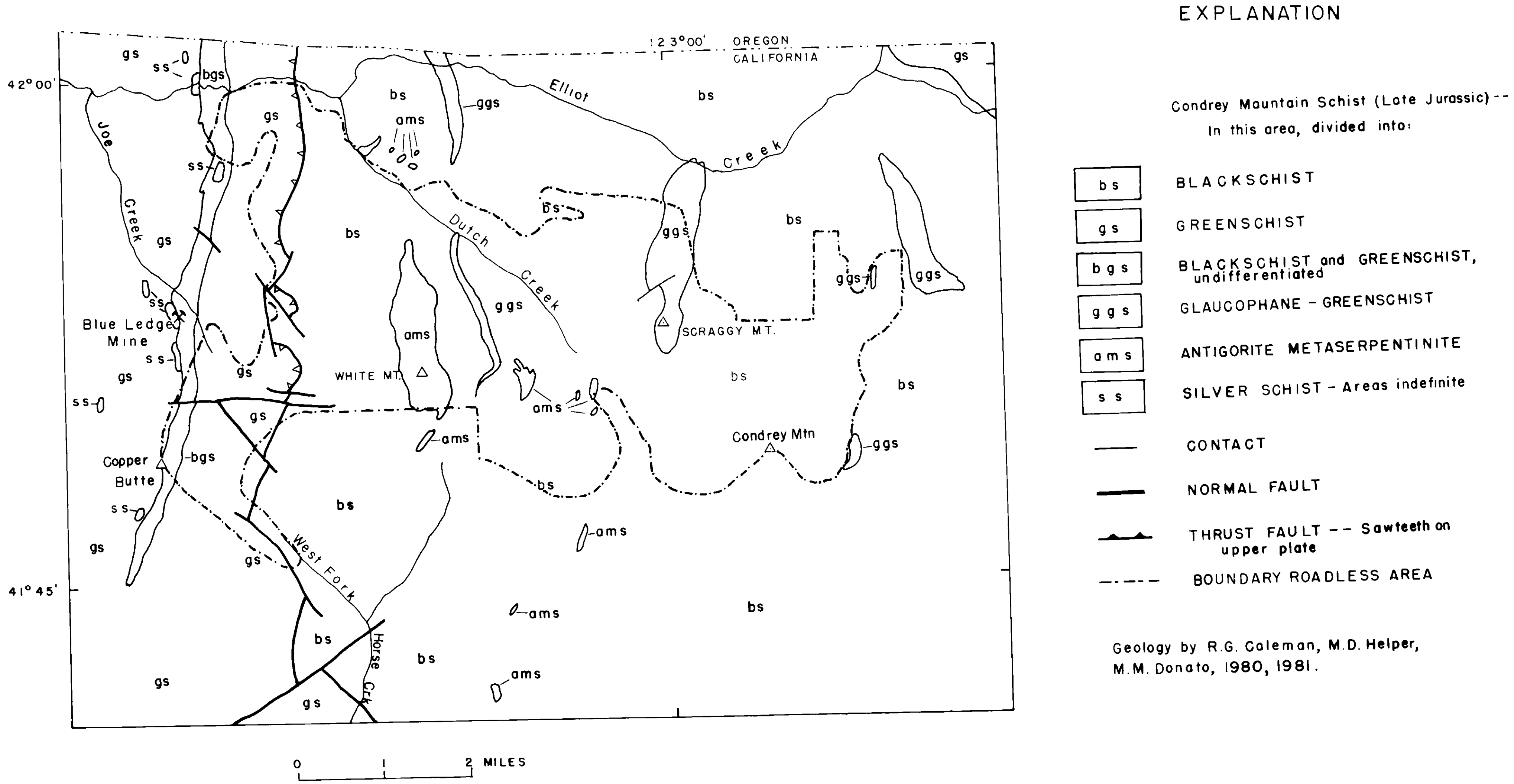

Figure 2.--Generalized geology of the Condrey Mountain Roadless Area, northern California

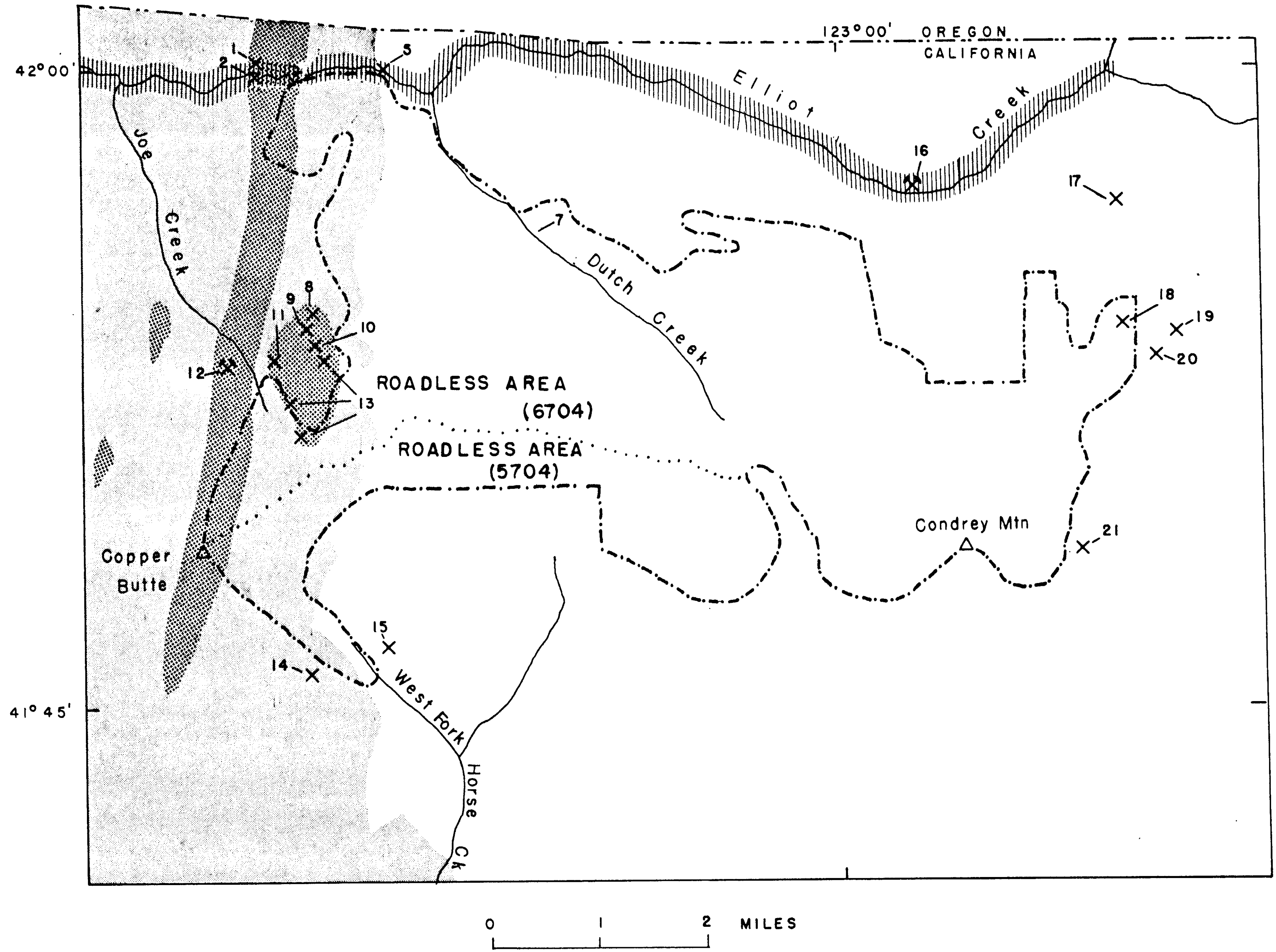

Figure 3.-- Mines and prospects of the Condrey Mountain Roadless Area. (Explanation on following page)

EXPLANATION

▩ AREA WITH MODERATE, LOCALLY HIGH, COPPER, ZINC, GOLD, AND SILVER RESOURCE POTENTIAL IN LODE DEPOSITS

░ AREA WITH LOW COPPER, ZINC, GOLD, AND SILVER RESOURCE POTENTIAL IN LODE DEPOSITS

▥ AREA WITH PLACER GOLD RESOURCE POTENTIAL

⚒ MINE

× PROSPECT

— - — - - BOUNDARY OF ROADLESS AREA - Approximately located

MINES AND PROSPECTS

1- PARKER PROSPECT No. 1
2- PARKER PROSPECT No. 2
4- COBB'S PLACER MINE
5- WHITCOM PROSPECT
7- DUTCH CREEK PLACER
8- UNNAMED PROSPECT
9- UNNAMED PROSPECT
10- UNNAMED PROSPECT
11- UNNAMED PROSPECT
12- BLUE LEDGE MINE
13- TIN CUP PROSPECT
14- NORSISK CLAIM GROUP
15- MOLLY B CLAIM GROUP
16- PENN MINE
17- FRUIT GROWER'S SUPPLY Co. MERCURY PROSPECT
18- UNNAMED PROSPECT
19- UNNAMED PROSPECT
20- UNNAMED PROSPECT
21- UNNAMED PROSPECT