CRIB MINERAL RESOURCES FILE 12

RECORD IDENTIFICATION
RECORD NO..... M002002
RECORD TYPE..... X1M
COUNTRY/ORGANIZATION. USGS
DEPOSIT NO..... ODGMI 93-168
MAP CODE NO. OF REC..

REPORTER
NAME..... SMITH, ROSCOE M.
DATE..... 78 08
UPDATED..... 81 04
BY..... FERNS, MARK L. (BROOKS, HOWARD C.)

NAME AND LOCATION
DEPOSIT NAME..... SHASTA COSTA COPPER

COUNTRY CODE..... US
COUNTRY NAME: UNITED STATES

STATE CODE..... OR
STATE NAME: OREGON

COUNTY..... CURRY
DRAINAGE AREA..... 17100310 PACIFIC NORTHWEST
PHYSIOGRAPHIC PROV..... 13 KLAMATH MOUNTAINS
LAND CLASSIFICATION..... 40

QUAD SCALE	QUAD NO OR NAME
1: 62500	MARIAL

LATITUDE	LONGITUDE
42-35-08N	123-59-07W

UTM NORTHING	UTM EASTING	UTM ZONE NO
4715050.	419150.	+10

TWP..... 34S
RANGE.... 11W
SECTION.. 35
MERIDIAN. WB & M

LOCATION COMMENTS: SW 1/4

COMMODITY INFORMATION
COMMODITIES PRESENT..... CU AU AG

MAIN COMMOD..... CU

ORE MATERIALS (MINERALS,ROCKS,ETC.):
PYRITE, CHALCOPYRITE; MALACHITE

ANALYTICAL DATA(GENERAL)
SAMPLES ACROSS THE ZONE AVERAGED 0.67 % CU; TRACE AU; 0.15 OZ/TON AG

EXPLORATION AND DEVELOPMENT
STATUS OF EXPLOR. OR DEV. 2

DESCRIPTION OF DEPOSIT

DEPOSIT TYPES:
SHEAR ZONE
FORM/SHAPE OF DEPOSIT:

SIZE/DIRECTIONAL DATA
SIZE OF DEPOSIT..... SMALL
MAX WIDTH..... 100 FT
COMMENTS(DESCRIPTION OF DEPOSIT):
VOLCANOGENIC?

DESCRIPTION OF WORKINGS
SURFACE

PRODUCTION
UNDETERMINED

GEOLOGY AND MINERALOGY

AGE OF HOST ROCKS..... JUR
HOST ROCK TYPES..... PORPHYRITIC GREENSTONE (METABASALT)

PERTINENT MINERALOGY..... QUARTZ, CALCITE, EPIDOTE

LOCAL GEOLOGY
NAMES/AGE OF FORMATIONS,UNITS,OR ROCK TYPES
1) NAME: ROGUE VOLCANICS
AGE: JUR

GENERAL REFERENCES
1) RAMP, L. AND OTHERS, 1977, GEOLOGY, MINERAL RESOURCES AND ROCK MATERIAL OF CURRY COUNTY, OREGON; ODGMI BULL. 9
P. 34

Sept., 1944

12-4-1

WAR MINERALS MEMORANDUM 1/

United States Department of the Interior - Bureau of Mines

Report of the Bureau of Mines to Hon. Harold L. Ickes, Secretary of the Interior

SHASTA COSTA COPPER PROSPECT
Curry County, Oregon

- Copper -

Summary

The Shasta Costa copper prospect is situated immediately south of Shasta Costa Creek, about 5 miles airline distance northeast of Agness, Oregon. It is in Sec. 35, T. 34 S., R. 11 W., W.M., and can be reached by trail only from Agness, a distance of 7 to 8 miles.

The prospect was located prior to 1909 by Edward Miller but, except for trails and three small cuts, all very old, no other development was noted. Local information that one or two tunnels had been driven on the prospect many years ago could not be verified.

The deposit is composed of basalt porphyry which has undergone varied degrees of alteration and contains disseminated pyrite and a small amount of chalcopyrite. Copper is more abundant in the more highly altered igneous rock in which quartz has been injected and chip samples across 100 feet of this zone averaged 0.67 percent copper. The less altered basalt porphyry was practically barren of copper and precious metals.

1/ These memoranda present the facts reported by Bureau of Mines engineers regarding properties for which no further consideration is recommended. Therefore, they should be treated as confidential, for the sole use of Bureau employees. They should not be given out to the public or to the owners of the properties concerned.

Profuse vegetation and lack of outcrops and exposures prevented determining the extent of the mineralized zone and its relation to the basalt porphyry that contained finely disseminated pyrite but practically no copper. There may be a possibility of finding an undisclosed large, low grade copper deposit in the area inasmuch as there is the Red Cub copper prospect about one mile to the southwest which has a mineralization similar to the Shasta Costa copper prospect.

The results of this investigation, however, do not warrant further consideration by the Bureau of Mines unless an interest arises in prospecting for low grade copper deposits of about 0.5 percent copper content, or, unless upon further prospecting by the owners or other interested parties, it is shown that there is a good possibility of developing a large deposit of higher grade ore.

Introduction

Location and Accessibility - The Shasta Costa copper prospect is situated in the southern part of Sec. 35, T. 34 S., R. 11 W., on the south side of Shasta Costa Creek. It is about 8 miles airline distance northeast from Agness, Oregon. It is accessible from Agness by trail, a distance of 7 to 8 miles. The trail for about the last two miles is in poor condition and would need considerable improvement if much packing were to be done over it. The improvement should consist of clearing, widening, and in some places, relocating the steep portions of the trail on less grade. Less extensive trail improvement would suffice for the packing in of supplies needed for an investigation, preliminary in scope, but more extensive than heretofore conducted.

Agness, Oregon, a small village, is situated near the confluence of the Illinois and the Rogue Rivers. It is about 23 miles east of Gold Beach

end may be reached therefrom by launch up the Rogue River. The launch carries passengers and mail and makes a round trip from Gold Beach to Agness and return each day during the summer and on alternate days during the remainder of the year. Gold Beach is on the U. S. Pacific Coast Highway No. 101 which extends along the Oregon Coast into Washington and California.

Agness is 37 miles south of Powers, Oregon, the nearest railroad point. A mountain road, passable in dry weather, extends from Agness to Powers, and a paved highway extends from Powers to the Oregon State Highway 49, which is connected with the National highway system. The distance from Powers to this junction is 19 miles.

Topography and Vegetation - Relief in the prospect area is sharp with ridges ranging between an estimated altitude of 1,000 and 2,000 feet. Deep canyons and high ridges constitute the dominant topographic features.

The area investigated is on the north slope of a north-south trending ridge. This ridge is bounded to the north by Shasta Costa Creek and to the east and west by tributaries to this stream. These tributaries flow north and the distance between them is slightly more than one mile airline distance. The ridge extends for more than a mile south of Shasta Costa Creek. It rises to the north of Shasta Costa Creek but its distance in this direction is not known. The ridge slopes are steep and are commonly 30° to 35°.

The elevation at Shasta Costa Creek near the prospect is about 625 feet (barometer reading) while the elevation of the ridge top is estimated to be about 1600 feet above sea level.

Shasta Costa Creek is a perennial stream, and upstream from the deposit, its drainage area is at least 25 square miles. Water flow measurements are not available. However, during the latter part of the dry season in 1944, the

stream was about 15 feet in widt and at least 6 to 8 inches in depth with a moderately swift flow. This stream would be a convenient source of water and would be adequate for a fairly large mining operation.

The ridge slopes are densely covered with brush and undergrowth and some timber. Much of the timber is small, perhaps second or third growth. Due to the profusion of vegetation, there are few exposures of rock in place excepting along the lower trail and along the creek bed.

Climate - A moist, temperate climate exists in the area. The total rainfall during the fall, winter and spring is high, on the order of 40 to 60 inches, most of which falls during the winter months. Although snow and freezing weather are not uncommon, these are not severe and only occasional in occurrence. Hot and dry weather usually prevails from the period from late June to the early part of September.

Field Work

Bureau of Mines engineers 2/ accompanied by Larry Lucas of Agness, made a preliminary examination of the prospect on June 13, 1944. Two chip samples were taken over a total distance of 100 feet across a weakly mineralized zone exposed along the lower trail. These samples averaged 0.67 percent copper and it was deemed advisable to obtain additional samples which might indicate to some extent the merits of the prospect as a low grade copper deposit. The prospect was therefore examined again by Bureau of Mines engineers 3/ on August 7, 1944. They were accompanied by Gene Fry of Agness, Oregon.

Should the Bureau of Mines become interested in investigating low grade copper deposits of 0.5 percent copper this area would warrant a more comprehensive preliminary investigation. This would require packing in camp equipment,

2/ F. A. Gunnell and M. M. Gilkey, Mining Engineers
H. G. Iverson, District Engineer and M. M. Gilkey, Mining Engineer

food, sampling tools and other necessary field supplies. To facilitate this work, a small amount of trail improvement would be necessary. A party of one engineer and three or four laborers would probably require about two to three weeks in preparing a preliminary map, sampling of exposures and excavating and sampling several pits or cuts.

History and Ownership

According to local information the property was originally located by Edward Miller prior to 1909. It was relocated in 1943 by Leonard Blondell of Agness.

Although, according to local information, development consisting of one or two tunnels were driven on the prospect many years ago, no evidence of these were seen on the area traversed on the north slope of the ridge. However, evidence of such work would be obscured, except at close distances, by the profuse vegetation. The only evidence of development work outside of old trails were three, small, closely spaced pits or cuts.

Labor and Living Conditions

During the summer of 1944 only about four to six laborers could be recruited in the vicinity of Agness. Although this would be sufficient for a more extensive preliminary examination, sufficient laborers needed to conduct an exploration project would probably have to be found in some other locality. The prevailing wage rate in the summer of 1944 was $0.95 per hour for unskilled labor.

A one room cabin situated on the north bank of Shasta Costa Creek near the prospect is sufficiently large to accomodate at least four men. It is in fair condition and would require very little rehabilitation. For a prolonged stay, complete camp facilities and supplies must be brought in by pack horses from Agness.

a distance of 7 to 8 miles.

At Agness there is a small store and post office, a small hotel, and a Forest Service ranger station. Telephone communication is available at both the hotel and ranger station. Although a small stock of groceries is available at the Agness store, a major stock can be obtained at Gold Beach and transported by launch to Agness. Although there are several small stores at Powers, Oregon, 37 miles north of Agness, larger supply centers are Myrtle Point and Coquille, 59 and 68 miles, respectively, from Agness.

Description of the Deposit

The Shasta Costa copper prospect is situated on the north slope of a precipitous north-south trending ridge. About one mile southwest from it is the Red Cub copper prospect situated near the headwaters of Red Cub Creek. With some exceptions this prospect, which has been described in a War Minerals Memorandum, shows similar mineralization as the Shasta Costa copper prospect. Veinlets of copper minerals are found associated with quartz and quartz diorite injected in dolerite. A contact between sandstone conglomerate and the ore zone has a northwest strike and an easterly dip.

Because of profuse vegetation and lack of exposures, important geological features could not be determined at the Shasta Costa copper prospect. The common rock type, that occurs at higher elevations along and above the upper trail, is extremely fine grained and green in color containing finely disseminated pyrite. This rock, tentatively identified in the field as andesite, was revealed by petrographic studies to be an altered basalt porphyry in which the feldspar had been replaced by calcite[4/] It is possible that this rock mass has been subjected to propylitization; a phase of hydrothermal metamorphism, involving the development of pyrite from the iron silicates originally present in the rock, and of

4/ R. B. Read, Microscopist

quartz, calcite and epidote from the feldspars. This rock was practically barren of copper, gold and silver.

Along the lower trail, about 130 feet lower in elevation than the upper trail and about 170 feet northwest therefrom, there is a weakly mineralized zone with a north-northwest strike and an undetermined dip. Although this rock has a texture similar to sandstone, it is probably a highly altered igneous rock in which quartz, as small veinlets, has been injected. A small lense of chalcopyrite, and about 100 feet to the east from this, a malachite stained rib were noted. Whether these exposures represent the limits of the mineralized zone is not known and cannot be determined without a considerable amount of additional work.

Sampling and Assays, Fig. 1 and 2

Two chip samples were taken of the mineralized zone along the lower trail for a total distance of 100 feet. One separate chip sample was taken from the 5 foot wide malachite stained rib at the eastern end of this sampled zone. Two chip samples were taken across the faces of two old cuts situated about 130 feet higher in elevation than the lower trail and about 170 feet horizontal distance to the southeast. One chip sample was taken from an outcrop along the upper trail about 100 feet west from the cuts and one chip sample was taken from a large boulder lying about 150 feet to the north of the cuts and which apparently had rolled down from the extremely precipitous slope to the north.

Since all of these samples are chip samples their analyses show approximations of the metal content rather than the true metal content of the material sampled. The analyses are shown in the following table.

Sample No.	Location	% Cu	% Zn	oz. Au	oz. Ag
1	Length, 40 ft. west from malachite stained rib.	0.71	--	Tr	0.3
2	Length, 60 ft. east from chalcopyrite lense to sample No. 1.	0.64	--	Tr	0.0
3	Length, 5 ft. across malachite stained rib.	0.37	0.0	<.01	<.1
4	Central cut, 130 ft. above Samples 1, 2, 3.	0.16	0.0	<.01	<.1
5	West cut, 130 ft. " " 1, 2, 3.	0.03	0.0	<.01	<.1
6	Outcrop, 100 ft. west of cuts.	0.02	0.0	<.01	<.1
7	Boulder, 60 ft. above and 160 ft. north from cuts.	0.02	0.0	<.01	<.1

Samples numbers 4, 5, 6 and 7 are practically barren of copper, gold and silver. The rock consisted of altered basalt porphyry containing fine, disseminated pyrite. Samples numbers 1, 2 and 3 indicate low grade copper material of 100 feet in width. Whether this is the highest grade material existing in large quantity or whether the sampled width represents the entire mineralized zone could not be determined. This zone is highly altered and is believed to be an igneous rock. However, the attitude of this zone and its relation to the basalt porphyry above it could not be determined. It is possible that this mineralized zone is either a continuance of that noted at the Red Cub copper prospect to the southwest or is parallel to it. Both have a northerly strike.

The samples taken are all from the surface of the exposures and some impoverishment of copper due to leaching can be expected.

Conclusions and Recommendations

1. Copper approximating 0.67 percent occurs in a highly altered zone of igneous rock, 100 feet in width. A continuation of this zone was not found but additional investigation is required to determine its extent and copper content. The deposit has some similarities to the Red Cub copper prospect, and whether the two deposits are continuous, parallel and/or separate with no relation to each other are not known.

2. The results of this investigation do not warrant an extensive project in 1944.

3. An area including the Shasta Costa Creek and the Red Cub copper prospects may contain undisclosed large disseminated copper deposits that would warrant further prospecting when a lease and becomes imminent for opencut operations on material of about 0.5 percent copper content. Additional prospecting would be necessary to more definitely evaluate the mineral possibilities before an exploration project can be recommended.

4. The deposit would warrant further consideration by the Bureau of Mines if, upon further prospecting by the owners or other interested parties, it is shown that there is a good possibility of developing a large deposit of higher grade ore.

105517

247

Report Numbers

United States Bureau of Mines

REVIEW OF EXAMINATION REPORT

State ~~Oregon~~ County ~~Curry~~ Mineral Products ~~copper~~

Name of property ~~Shasta Costa copper prospect~~

Owner ~~not stated, may be open~~ Address examiners were accompanied by Gene Fry of Agness, Ore. and Larry Lucas of Agness, Ore.

Lessee or Operator ~~do.~~ Address

Location ~~Sec. 35, T 34 N., R 11 W. on south side of Shasta Costa creek 5 miles northeast of Agness which is 23 miles of Rogue river from Gold Beach, Ore.~~

Examined by: ~~F. W. Gunnell, and M. W. Gilkey~~ H. G. Iverson Date ~~2 report dated 9/26/4~~

Apparent quality of examination and report: ~~good preliminary in view of poor exposures due to heavy vegetation, except no ore "structure" was described.~~ Vague conclusio indicate inexperience.

Discussion and review: Practically a raw prospect in remote and heavily forested mountain region. Deposit is in altered basalt porphyry. Zone of weak mineralization trends north-northwest; dip undetermined. Chip sample across 100 feet (presumably acorss structure, if any) ~~xxxx~~ averaged 0.67% Cu. "small" lens~~x~~ of chalcopyrite is 100 feet east of sampled section. Rock in vicinity contains numerous small quartz veinlets.

Examiners thought there may be possibility of large tonnage of (approximately) 0.5% copper ore.~~xxxxxxxxxxxxxxxxxx~~

Comments: Although sample across 100 feet suggests possible large tonnage of low grade, it seems likely that surrounding indications should have given more evidence if a deposit large enough to be remotely interesting at that grade is there. Reviewer believes that deposit is of no further interest. However, the fact that this is within one mile of Red Cub prospect indicates widespread mineralization in area. Such mineralization is widespread in southwestern Oregon and probalby is not very significant but might be of supporting interest if a good prospect is reported from that locality.

Date	Action	By

Reviewed by: S. W. Lorain

date: Dec. 18, 1947