

September 18, 1942

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

RUBY MINES, INC., (Quicksilver)

Upper Applegate Area

The Ruby Mines, Inc., have the property under bond and lease from a man whose name was not learned and lives in Medford. They have a cook house under construction and plan a number of bunk houses and general living quarters. A ten ton Gould furnace has been ordered and will be installed. If the mine proves satisfactory, this plant will be increased to a sixty ton plant. Seven men are employed and the number will be increased to twelve when the plant is in operation.

The ore conditions appear to not be too favorable. The diorite is very tight, and it is doubtful if replacement has extended any distance beyond the contact. The serpentine in the fault zone is also quite tight, and it appears to me that the main chance for mineralization is in shear planes in the fault zone.

The tenor of the ore has been variously reported from 4 pounds to 40 pounds. Fletcher has been unable to find any ore that will average much over 10 pounds. He feels that the mine workings will be in bad ground, and it will be necessary to timber extensively. I anticipate that the company will find plenty of trouble in holding this ground.

AG-1428
CG-657

Mercury %
0.33

Mercury lbs./ton
7.6
1.4

Ray C. Treasher
Field Geologist
October 19, 1940.

CONFIDENTIAL

RUBY MINES, INC. (quicksilver)

Upper Applegate area

Owners: D. R. Luper, Jacksonville, Oregon and Mr. Jarmin, Medford, Oregon.

Operator: Ruby Mines, Inc., a Washington corporation; Dr. G. D. Matson, Chehalis, Washington, president; H. M. Meacham, 4543 11th, N.E., Seattle, Washington, secretary-treasurer; R. W. Fletcher, superintendent.

Location: SE $\frac{1}{4}$ sec. 34, SW $\frac{1}{4}$ sec. 35, T. 40 S., R. 3 W., north of Squaw Creek, a tributary of Applegate River, elevation 3600-3700 feet. The distance to Medford is 35 miles.

Area: 4 unpatented lode claims.

History: Ruby Mines, Inc., leased the property from D. R. Luper and began work on the Red Feather claim. Prospect openings were cleaned out and some new development work was started. Several miles of road were built to the property from the Squaw Creek Forest Service road, and a space was cleared for a 10-ton Gould retort.

Development: One inclined shaft, 70 feet deep, has been sunk. This work included a crosscut and a shallow winze, 25 feet deep. A tunnel, now 60 feet long, is being driven to cut the ore body under the shaft. Two miles of bulldozer road with grades from 7 to 10 percent have been built.

General: Rather scarce pine and fir timber is available for mine timbers. Water is also scarce.

Geology: The cinnabar ore is found in a fault zone trending from N. 45° E. to N. 60° E. and dipping from 35° to 50° NW. South of the fault zone Older Schists (Wells, 40) crop out which are intensely sheared and crumpled in a generalized trend slightly east of north, and contain considerable sericite. When used for road material the rock becomes slick from the large amount of mica present. The schist contains many quartz stringers and pods, and in places there are quartz veins up to several feet in width.

The shear zone is approximately 50 feet wide. Ore occurs in the footwall along with considerable gouge. The fault zone is in serpentine which has been intensely sheared and altered with the development of a quantity of light-green serpentinite minerals. Parts of the serpentine have been silicified. A granitic rock forms the hanging wall. Megascopically it appears to be composed of feldspar, quartz, and white mica, and some pieces of float were found that resembled graphic granite. It is reported however that thin sections show that the feldspar is plagioclase, and the rock is probably quartz diorite.

Cinnabar seems to be deposited in streaks or zones within the serpentine shear zone, and some of it has penetrated the quartz diorite, although the diorite is usually barren. Some of the light-green, altered serpentine has spots of vermilion cinnabar scattered through it, but this is not classed as ore. It is reported that the ore will average from 6 to 10 pounds mercury to the ton. The ore zone has been prospected on the surface for 1500 feet.

Reference: Mining Journal, December 15, 1940 and February 15, 1941.

Informant: R. W. Fletcher, October 18, 1940.

Report by: R.C.T., October 19, 1940; revised September 16, 1942.



Area:
Develop:
driven
Grade
Mining

Area
ed 1940
H. M.
Researcher
North of
shallow
being
dozer road
ful, but
not abundant
It is 38 miles to Jacksonville by road, the first 7 miles very rough.

Geology: The chamber ore is found in an east-west trending fault zone. South of the fault zone is schist which is reported to belong to the Pre-Palaeozoic series. The schist is intensely sheared and crumpled as a generalized trend that is slightly east and west.



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Informant: H. W. Fletcher and Ray C. Treasurer, October 18, 1940.
Report by: MCT, October 19, 1940.