# State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

Brodway Vein Claim (cinnabar) — S.F.C. ~~Murderers Creek~~ District, Grant County

Owner: Cecil Rannells, Canyon City, Grant, County, Oregon.
Homer T. York, 442 W 7th Street, Prineville, Oregon.

Location: T. 16 S., R. 29 E., Sec. 7.
This location is within a mile, or a mile and a half, southwest from the Roba-Westfall property which is in all fundemental respects geologically similar to the subject prospect. Access is by the Izee and Deer Creek roads from the John Day-Seneca highway to the Roba mine, and thence by a short side road leading to the claim itself. The Izee and Deer Creek roads are both good quality, graded and gravelled woods roads. The final side road leading to the property is readily passable in dry weather, but is otherwise of strictly secondary caliber.

Development: Examinable development work at the time of the writer's visit consisted only of a 12 foot shaft from the top of which there extended a shallow cut of approximately 20 feet in length. Three or four dozer cuts existed nearby but these were part of the earlier attempts at prospecting and they offered little in the way of opportunity for a first-hand inspection of the occurrence due to accumulated debris, etc. In fact, the upper half of the present shaft was effectively obscured by close lagging. A deeper shaft had been sunk within a matter of five or six feet from the present shaft according to Mr. Rannells, but this had been filled with waste and no trace of its presence was apparent.

Geology: Laboratory examination shows the country rock to be a medium-grained sandstone containing a minor amount of mineral cement. Quartz is the predominant mineral component, but feldspar and other mineral grains are also present along with opaline silica. The feldspar is highly kaolinized. It is possible that the opaline silica could have been derived from the alteration of volcanic shards, which if so would indicate that the rock could be classed as a tuffaceous sandstone. No relict shards were observed in the samples studied however and hence the rock is here classified as sandstone without further qualification. It is believed that this material belongs to Thayer's "Murderer's Creek Graywacke formation" of Triassic age.

The mercurial mineralization present occurs in the form of thin films coating fracture surfaces in the above sandstone. These films are a deep black. Examination in the laboratory shows they are made up of very minute crystals which become red when crushed so that it is felt that the mercurial mineral is cinnabar rather than metacinnabarite.

Fracture surfaces showing these thin films occur at close intervals with a multiplicity of directions and dips in conformity with the bedding and natural blockiness of the country rock. No apparent evidence was observable in the meagre amount of workings open to inspection to indicate any localization of mineralization to any narrow vein or sheer zone. Rather to the contrary the impression gained was that mercurial mineralization comparable to that exposed might be encountered over an indefinitely wide area, and in fact, Mr Rannells' reports that such was found in the neighboring workings which were not open for inspection.

Two large samples were taken from the shaft. One was of material

selected exclusively from the numerous narrow seams present. The other sample consisted of large chunks of rock with seam material on one face. Assay results are 5.90 lbs./ton for the selected fines and 4.50 lbs./ton for the lump rock. It was thought when the samples were taken that a much greater spread of assay values would be found and the surprising closeness of the results suggests that some cinnabar must be contained within the body of the rock itself in addition to that showing on the fracture surfaces. Another sample was taken of sweepings that had been saved during the course of sinking the shaft. These were considered by the owners to represent high grade but their grade proved to be only 3.90 lbs./per ton on assay.

Conclusions: Much more carefully planned prospect work will have to be done to disclose the true nature and extent of the mineralized area here. Whether or not this will prove rewarding is, of course, a problematical quantity at this time, but judging from the nature of the host rock and present mineralization evident therein, the occurrence is definitely intriguing, and it would seem that at least some additional prospecting would be justified to determine if the country rock is consistently mineralized over a sufficiently wide area to permit possible mining by non-selective, bulk tonnage methods. If so, the question of grade would remain to be worked out in terms estimated mining and retorting costs and it would probably also be desirable to see if some effective concentration method could be established. In view of the fact that geologic conditions on this property are fundementally similar to those prevailing on the nearby Roba-Westfall property on which exploration work is now being carried out under a D.M.E.A. loan, much valuable guidance can undoubtedly be obtained from a close study of the findings made there.

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Report by: N.S.Wagner
Date of exam: 10-28-53

Informant: Mr. Rannells
References: Roba-Westfall report
Samples NB-239-243

# State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

Roba-Westfall Mine (Hg)

South Fork
~~Unclassified District~~
Grant County

Foreword: This is a newly discovered mercury prospect and the following represents the initial file report on development and operations.

Owners and Operators: L. H. Roba, P. O. Box 186, Canyon City, Oregon
Victor M. Westfall, Canyon City, Oregon.

Location: T. 16 S., R. 29 E., Section 6, SW¼. Access in by the Izee road which takes off from the Canyon City-Seneca highway at a point about 9 miles north of Seneca, and by the Deer Creek road. Distance to the Deer Creek road turn-off is 13 miles, and the distance in a northwest direction on the Deer Creek road is about 8 miles. Both roads are good, graded and graveled woods roads.

Area: Four unpatented lode claims taken June 1951 and called the Purple Ridge No. 1 and 2, the Purple Ridge, Extension and the Beavor Dam.

History and Development and Geology: This prospect was first discovered by Roba in 1947. Little or no work was done untill 1951 at which time the present claims were staked. The initial prospecting consisted of a considerable amount of panning followed by surface trenching over a wide area. A vertical shaft was sunk to a depth of 35 feet at one of the more promising sites and a 4 flask production was obtained from the development rock before work was suspended for the season.

The country rock is everywhere a rather highly fractured, fine-grained shale with mercury occurring in the form of a powdery cinnabar on the

fracture surfaces. According to Roba, cinnabar indications can be found by panning more or less consistently over a large area along the ridge with localized areas giving stronger showings, but at the present stage of development the pattern of mineralization is obscure. No apparent walls or vein structure or other criteria for visual recognition of orebodies has as yet been revealed in any of the development pits in a sufficiently conclusive manner to permit the working out of an interpretation of the structural nature of the occurrence.

Equipment: The present plant set-up is such that ore is hoisted from the shaft and let down a steep surface incline to a 35 ton bin. It is then crushed and washed through 2 x 6 foot trommel with 3/16 inch perforations. The screenings are diverted to settling vats. Retorting is accomplished in a ½ ton Champion-style batch retort. Whereas a substantial concentration is effected by the washing and screening process, examination of the tailings indicate that there is also a substantial tailings loss and the operators are planning experiments with the intent of altering the concentrating technique for the 1952 season.

Economics: This is an interesting prospect that appears to be worthy of continued prospect-development but much more work will have to be done before the potentialities of the occurrence can be properly evaluated.

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Report by: N. S. Wagner
Date of Exam: May 19, 1952
Date of report: July 7, 1952
Informant: L. H. Roba.

Brodway Vein Claim | | Hg

NAME | OLD NAMES | PRINCIPAL ORE | MINOR MINERALS

16 S (T) | 29 E (R) | 7 (S)

PUBLISHED REFERENCES

Grant ..... COUNTY

Murderers Creek ..... AREA

..... ELEVATION

MISCELLANEOUS RECORDS

..... ROAD OR HIGHWAY

..... DISTANCE TO SHIPPING POINT

PRESENT LEGAL OWNER (S) (1953) Cecil Rannells — Address Canyon City, Oregon

Homer T. York — 442 W. 7th Street, Prineville

OPERATOR .....

| Name of claims | Area | Pat. | Unpat. |
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| Brodway Vein | | | |
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| Name of claims | Area | Pat. | Unpat. |
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EQUIPMENT ON PROPERTY

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