MOUNT EMILY DISTRICT

The Mount Emily (or Mount Emory or Emny as it is called by some) district is situated in the neighborhood of Mount Emily (see figure 33), 6 miles northeast of Harbor. The mountain proper rises from the Chetco river to an elevation of about 2,900 feet as determined with a barometer. From the summit a magnificent view of the Pacific Ocean as far south as Crescent City, California, is obtainable. At the top of the western slope where the view is especially good are located a number of Indian structures which take the form of rings of stone. These are uncemented, and some of them have been partially destroyed. Others are still in a good state of repair. They vary from 2 or 3 to 20 feet in diameter, and the better preserved ones are as much as 2 feet deep. The Indians living in the vicinity say that their forefathers used to build fires in the centers of these rings and then sit in a circle around the blaze. The smallest rings are barely large enough to hold one man and a small fire. When asked the purpose of this ceremony, the Indians reply that the rings were alters or open air temples from which their ancestors "talked to God." Figure 34 shows photographs of three of these rings.

Mount Emily is extremely interesting from a geologic point of view. The main mass of the mountain seems to be made up largely of a thick flow of rhyolite which has thrust its way through, and spread over, Dothan sandstone and shale. These latter are exposed on the western slope, and near the top have been metamorphosed until they form hornfels. This metamorphosed Dothan material has been crushed and broken near the contact, after which the broken zone has been invaded by rhyolite which on cooling cemented the fragments together, forming a beautiful breccia of notably unusual type. The fragments of metamorphosed Dothan are decidedly angular and vary from a fraction of an inch to many feet in diameter. Figure 35 shows one of the largest of these.

It is entirely surrounded with igneous material and is composed of banded hornfels.

Below the rhyolite cap of the mountain occurs a mass of syenite-porphyry which seems to have the form of a dike and may represent an earlier stage of volcanic activity. Besides the main rhyolite mass, the syenite-porphyry and the brecciated metamorphosed sediments, there also occur several dikes of basalt and of a variety of rhyolite which is more porous than the one already described. These cut through the other rocks alluded to and seem to have been formed at a later stage of igneous activity than the main rhyolite flow represents.

The description of the geologic relationships of the various rocks constituting Mount Emily which has just been given, should be regarded as tentative, as the time available for the examination of this area was decidedly insufficient to permit the reaching of positive conclusions. It is believed, however, that conditions existing there are substantially as outlined.

Lode 34. Florence prospect. The Florence prospect was located March 4, 1914, and is owned by Charles M. Warren. It is situated just below the crest on the northern slope of Mount Emily. The deposit is along the contact between metamorphosed Dothan sediments and rhyolite. The hornfels resulting from the metamorphosis of the Dothan shale has been crushed, sheared, and silicified at this point, and in the crevices thus formed sphalerite and pyrrhotite have been deposited. The total width of the mineralized zone is about 8 feet; the strike is N. 35° E. and the dip 75 degrees S. E. A sample taken across this mineralized zone proved to contain 3.57 per cent zinc and a trace of gold, while a sample consisting largely of pyrrhotite yielded but a trace of gold. It is certain that this ore would yield a high-grade zinc concentrate, but the only opening on the vein consists of an open cut, and it is decidedly uncertain how extensive the deposit will prove to be. It

seems likely, however, that the sulphides will be confined to points along the contact where an unusually great degree of crushing has occurred, and this will tend to give the deposit a "pockety" nature.

An eighth of a mile west of the Florence prospect, across a small gulch, is a cliff the face of which is heavily iron-stained and covered with pot-holes. It proved on examination to consist of a brecciated mass of rhyolite containing rounded cavities and seams filled with pyrite and quartz. A sample of the sulphide yielded not a trace of gold, however.

Lode 35. Lucky Warren prospect. This deposit is also owned by Mr. Charles M. Warren and is situated a short distance south of the crest of Mount Emily. The deposit is similar in nature to that on the Florence claim, but the mineralized streak is narrower, and the interstices between the fragments of hornfels contain molybdenite. A sample across the whole ore body yielded on analysis 3.10 per cent molybdenum.

Another peculiarity of this deposit is the presence of considerable hornblende which was not seen in the Florence prospect. The mineralized streak is said to yield high gold values when panned, but a sample proved, when assayed, to contain not a trace of gold.

A number of other prospects exist on Mount Emily, and some of these are reported to be very promising. Lack of time and proper guidance made it impossible to inspect any except those already described, but it should be mentioned that at one point a shallow pit has exposed a veinlet of smaltite (arsenide of cobalt and nickel). This deposit is altogether too small to permit of profitable mining so no samples were taken.

From what has been said it must be evident that Mount Emily exhibits much of interest both to the geologist and the miner. The presence of ores of zinc, molybdenum, cobalt, nickel, and gold, 3 or 4 varieties of igneous rock, and sedimentary material which has been at some points metamorphosed in an unusual

fashion form a combination of circumstances so unusual as to seem deserving of much more thorough investigation than it was possible for this party to give. It is hoped that some time in the future a party of geologists may map the district in detail and investigate the mineral deposits carefully. It is impossible to predict whether such an investigation is likely to prove economically profitable, but there is no doubt of the scientific interest and value which the work will have.

The Mineral Resources of Oregon. Vol. 2, no. 2, October 1916. Published Monthly By The Oregon Bureau of Mines and Geology. Preliminary Survey of the Geology and Mineral Resources of Curry County, Oregon, by G. M. Butler and G. J. Mitchell. pp. 109-113.

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland, Oregon

INVESTIGATION OF MINERAL DEPOSITS ON MT. EMILY CURRY COUNTY, OREGON

BY
F.W. Libbey, W.D. Lowry, and R.S. Mason
June 4, 1946

Location and Access:

Mt. Emily, in the Chetco district, is about 7 miles inland (northeast) from Brookings on the southern Oregon coast. Its location is shown on the accompanying index map. The crest of the mountain, which is 2721 feet in elevation, lies in sec. 8, T. 40 S., R. 12 W., W.M. The trail up Mt. Emily leaves the road, which follows up the southeast side of the Chetco River, about 6 miles above Harbor, 1 mile southeast of Brookings. It is about 4 miles by fairly good forest trail to the lookout atop Mt. Emily.

Purpose:

The main purpose of this investigation was to check on the occurrence of molybdenum and zinc described by G. M. Butler and G. J. Mitchell in the "Preliminary Survey of the Geology and Mineral Resources of Curry County, Oregon", Oregon Bureau of Mines and Geology, The Mineral Resources of Oregon, vol. 2, no. 2, p. 111, October 1916. One of the deposits, the Florence prospect, was said to be just below the crest on the northern slope of Mt. Emily and to contain a mineralized zone with a total width of 8 feet. A sample taken across this zone was reported to contain 3.57 percent zinc and a trace of gold, whereas a sample consisting largely of pyrrhotite yielded only a trace of gold. The other deposit described in the above publication which appeared to warrant examination was the Lucky Warren prospect. It was reported to be a short distance south of the crest of Mt. Emily. The deposit was said to be similar to, but the mineralized streak narrower than in the Florence prospect.

A sample across the whole ore body was said to have contained 3.10 percent molybdenum.

History:

According to Butler and Mitchell, the Florence prospect was located March 4, 1914 and was owned by Mr. Charles M. Warren in 1916. Mr. Warren also held the Lucky Warren at that time. Their report, subsequently condensed in the two mines handbooks listed in the references, contains most of the available published information on these deposits. Although several hours were spent looking for these two prospects, it is not known whether either was found. Certainly no zinc deposit such as the Florence was seen, and samples taken from prospect pits and a dump by an old mill situated where the Lucky Warren deposit was believed to be, contained only a very small percentage of molybdenum. As the locations of the prospects given by Butler and Mitchell are indefinite and as brush on the north and west sides, especially, is very thick, it is recommended that anyone wishing to investigate these deposits employ a guide if possible.

Samples from Prospects and Geology:

No attempt will be made to describe the prospect cuts, adit tunnel, and old mill on the south slope of the mountain below the crest. They are referred to as the Heintz property, according to Mark Wood of Harbor and Delmer Colegrove, whose address is Brookings. The remains of the old millare just below or south of the main trail and the adit tunnel just north of it where the trail follows a small flat area. A grab sample (P-4895) of rotten white material at the portal of the tunnel carried a trace of silver, no gold, and no tungsten. A 4-foot horizontal channel sample (P-4894) taken close to an approximately west-trending fissure in a big prospect hole a short distance above the trail

and the old mill contained 0.04 oz. gold, a trace of silver, 0.001-0.01 percent molybdenum and no tungsten. A sample (P-4902) of diorite and associated hornfels (?) from this same prospect hole assayed 0.02 oz. gold and 0.24 oz. silver. A sample (P-4896) from the ore bin in the old mill carried 0.01 oz. gold, 0.20 oz. silver, and a trace of molybdenum. Another sample from this cut, which appeared to contain sulphides, contained 0.02 oz. gold and a trace of silver.

Two grab samples were taken from Mark Wood's gold claims along the trail down the east slope of the mountain about one-half mile east of the summit. One sample (P-4897) from the face of a 75-foot adit, tunnel no. 6, contained 0.10 oz. gold and a trace of silver and molybdenum. Sample P-4901 from the dump of tunnel no. 6 carried a trace of gold, 0.20 oz. silver, and 0.01-0.1 percent molybdenum. Mark Wood has a number of assay certificates showing values in gold and silver averaging several dollars a ton.

A specimen of rhyolite along the trail on the southwest slope of the mountain just west of a small creek between the 2- and 3-mile markers was assayed and found to carry a trace of both gold and silver.

The tentative description of the geology given by Butler and Mitchell does not appear to agree with all the observations made on the recent investigation. According to them, the main mass of the mountain seems to be made up largely of a thick flow of rhyolite which has thrust its way through and spread over Dothan sandstone and shale exposed on the western slope, and near the top of the mountain where they are said to have been metamorphosed to form hornfels and an unusual breccia. The fragments of the breccia are described as angular masses of metamorphosed Dothan ranging in size from a fraction of an inch to many feet in diameter. One of the larger masses illustrated in their report is said to be composed of banded hornfels entirely surrounded by igneous material. Although time did not permit a careful examination of this mass, it appeared

to be a quartzose gneiss cut by numerous light-colored veinlets. The metamorphism appeared to be the result of regional rather than contact effects. If due to regional metamorphism, this gneiss-like rock is probably the oldest rock exposed and may belong to either the Craggy gneiss or Colebrook schist. The metamorphic rock exposed in some of the cuts on the Heintz property may be next to the oldest rock and may be part of the Dothan formation of Jurassic age. It is cut by a dioritic intrusive which is probably responsible for most of the mineralization. Apparently younger than the diorite, as judged by relative alteration, is the syenite porphyry described by Butler and Mitchell, which crops out just east of the lookout station. However, further study may show the syenite is related to the dioritic intrusive. The only intrusive similar to this syenite porphyry is the syenite in Table Mountain 11 miles east of Waldport, many miles to the north. Probably the youngest geologic unit is the rhyolite which is common on the southwest side of the mountain and which is exposed at a number of points along the trail. None of these units can yet be accurately dated and their relationships to each other needs further study.

The mineralized zones appear to be ill-defined and no well-defined veins have been reported in any of the prospects.

References

Butler, G. M. and Mitchell, G. J.

Preliminary Survey of the Geology and Mineral Resources of Curry County, Oregon, Oregon Bureau of Mines and Geology, The Mineral Resources of Oregon, vol. 2, no. 2, pp. 109-113, 1916.

Parks, H. M. and Swartley, A. M.

Handbook of the Mining Industry of Oregon, Oregon Bureau of Mines and Geology, The Mineral Resources of Oregon, vol. 2, no. 4, 1916.

Oregon Metal Mines Handbook, vol. 1, Coos, Curry, and Douglas Counties, State Department of Geology and Mineral Industries, Bull. 14-C, 1940.

Sec. 8 ?, T. 40 S., R. 12 W.

See Florence Prospect, p. 94
also Lucky Warden Prospect, p. 145

C
O
P
Y

Emily Gold, Inc. Sec. 7 & 8, T. 40 S., R. 12 W.
28 claims. General Motors Bldg., Detroit
or Wm. F. Hayden, Grants Pass.

A
FWL
48

QUOTATIONS FROM A REPORT ON MT. EMILY REGION

by

W. L. Seeley, Consulting Engineer.

GEOLOGY:

The Geology of Mt. Emily is most interesting and is highly favorable to ore deposits carrying values in gold. At the extreme western end of the property a Rhyolite dike runs north and south for quite a distance, being traceable for nearly two miles. Its width varies but is approximately three hundred feet at the highest portion, but is much wider where cut by the trail to the south. Adjacent to this Dike on the east is a rhyolite extrusion that all evidence indicates as a partially cooled flow. This is not in evidence as of great length but shows a width of more than twelve hundred feet on the Trails End claim.

This tremendous upthrust of Rhyolite evidently carried upward great masses of Intrusive Nepheline Syenite, a conglomerate of Syenite, Rhyolite, Phonolite (?), Quartz, etc., and the original Arkose Sandstone Beds, forming the great mass of Mt. Emily and the east and west ridge. Some thin beds of shales or Mud Rock are to be observed in spots over the upper areas and down the sides. They were not of sufficient thickness to cause great effects but are in some of the re-cemented Breccias.

Rhyolite flows have invaded all open cracks and openings and are to be found the entire length of the east and west ridge as Dikes. The whole action was a compressive thrust to the east and opened fissures running east and west that later became a host for mineralization.

The Syenites are rocks similar to Granites formed at great depth, or plutonic in formation. The upthrust of the Rhyolites carried them to the surface with the Arkose Sandstones and thin Shales on top. Most of the latter have been eroded from the crests but are still in evidence on the slopes.

Much metamorphism is noticed. Some of the very fine Sandstones have so altered that they are approaching a Hornstone. The finer grained beds had much clayey material which has altered to Biotite.

MINERALOGY:

Before discussing the mineralogy of the various formations it is well to give the definitions and habits of the various Igneous rocks under discussion. The definitions while brief are taken from standard texts and are therefore orthodox.

RHYOLITE:

The group name of a type of volcanic rock occurring mostly as lava flows, characterized by a highly acid composition, and so called form the

Greek, to flow (because of the frequency with which it exhibits fluxion structures). They are the most siliceous of all lavas, and, with the exception of the dacites, are the only lavas with free primary quartz.

In chemical composition they very closely resemble the granites, the corresponding rocks of the plutonic or deep-seated origin; their minerals also present many points of similarity to those of the granite though they are by no means entirely the same.

Quartz, orthoclase, plagioclase, feldspars and biotite are the commonest ingredients of both rocks, but the quartz of rhyolites is full of glass enclosures and the potash feldspar is pellucid sanidine, while the quartz of the Granites contain dust-like cavities of a very minute size and its potash feldspar is of the turbid variety which is properly called orthoclase.

The granites are also holocrystalline, while in the rhyolites there are usually porphyritic crystals floating in a fine ground-mass. Above all rocks they have a disposition to assume vitreous forms, as when fused they crystallize with great difficulty; the vitreous forms are known as obsidian, perlite and pumice.

* *

Unquote: Mineralization in the Mt. Emily district has been due to pneumatolysis, Metasomatism and Hydrothermal Action. As hydrothermal action has modified the other two only the latter is detailed here.

HYDROTHERMAL ACTION:

The part played by water in the formation of ore deposits. It is of the first importance, for on account of its mobility and solvent action, which is enormously increased at high temperatures and pressures, it is the universal vehicle for the transference of mineral matter.

METAMORPHISM:

In petrology, denotes the sum of the processes effecting fundamental alterations in the composition, mineral or chemical, structural or textural in solid rock masses, the alteration determining completely the character to the rock mass.

While pneumatolysis, metasomatic action and metamorphism all play an important part in the action producing the conditions now found on the Mt. Emily property, by far the most important changes have been due to Hydrothermal action. Therefore a complete review of the results of hydrothermal action in general and more particularly as it applies to the area under discussion will be given.

In the Mt. Emily region the water table has continually risen over a period of thousands of years until the zone of discharge now lays at an elevation of twenty-four hundred feet. The surrounding country, with the exception of the ridge on the east side is much lower. In the main the elevation of this surrounding country is not in excess of seven hundred feet. It is

evident that great hydrothermal action has taken place within the mountain itself and along the east and west ridge to the east. All evidence points to the center of mineralization from the ranger look-out station eastward. About South eighty degrees east. Several rhyolite dikes run through the ridge, exposed in a few places where erosion has cut down the covering capping.

At a distance of seventy-five hundred feet eastward a trail cuts the downward slope of the ridge and exposes these dikes. At least three definite ones having been sampled and found to carry appreciable values. It is more than probable other fissures than those found occur in this parallel system.

In the hydrothermal circulation the mineral-bearing solutions are in part directly connected with igneous magmas, namely insofar as they are formed by the cooling of the aqueous vapors given off at a late stage in their consolidation. A considerable proportion however are no doubt surface waters (i.e., meteoric in origin) which descending along fractures derive their thermal properties from the secular heat of the earth, or by coming in contact with or into the immediate neighborhood of, igneous intrusions.

Of the water that falls as rain one part is run-off, that is to say, water that reaches the rivers without having penetrated the surface. A second is returned into the atmosphere by evaporation; while a third part disappears into the soil and the underlying rocks by percolation. Under the influence of gravity the water of percolation penetrates into the earths crust, first through the superficial weathered and disintegrated layers and then through the more solid rocks by the way of fractures of jointing and faulting, the planes of bedding or the pore spaces between their constituent minerals.

It is a matter of common observation that at a variable depth below the surface, there is a connected body of water, which permanently fills all openings. The surface of the sea of water is called the level of the ground water, the permanent water level, or the water table; it is the upper level of the belt of saturation.

Above the permanent water level is the zone of percolation in which the openings in the rocks are only intermittently filled with water. This water is in active movement and air is present. The thickness of the zone of percolation varies greatly. At sea level and at or near streams and lakes the level of the ground water reaches the surface; in average areas it is from teh to a thousand feet below the surface; in high lying districts with small rain fall it may be from one to three hundred feet below the surface, and in elevated desert regions as much as one to two thousand feet below the surface.

The belt of saturation is divisible into two portions, the upper portion, or that part which has a means of escape and discharge, as the zone of discharge. In general it lies between the water table and sea level. In it the circulation is vigorous, as is evidenced by the vast volume of water discharged by springs.

The bottom part of the belt of saturation is the static zone. In it the waters are practically stagnant, or at the best move very slowly. Near the bottom of the stagnant zone the water gradually diminishes until a dry zone is reached. The boundry between these two zones is quite irregular, descending to a great depth along fractures and rising high in solid ground. The lower levels of most deep mines are in the dry zone, reached in some places at a depth of not more than one thousand to fifteen hundred feet below the surface.

The waters circulating in the zone of percolation are cold, contain free oxygen, are acid with dissolved carbon dioxide. They have a strong oxidizing effect on sulphides, pyrites, for instance, being decomposed with the formation of oxide of iron and sulphuric acid. (Gold held within the cleavage planes of the pyrites is thus liberated and will migrate downward as the mechanical conditions allow.) The effect of the percolation circulation, therefore, is destruction, and the zone of percolation is practically coincident with the zone of weathering, although the latter overlaps the upper portion of the zone of discharge.

In the zone of discharge the waters as they descend, lose their oxygen and carbon dioxide and deposit mineral brought from the zone of weathering, then they have access to open channels they penetrate deeper and deeper, absorb heat and thus become powerful solvents of the metallic sulphides and tellurides.

Ultimately these heated waters, together with those of magmatic origin, ascend, and as they do, cool and mingle with the descending waters deposit their mineral burden either in the main-channels of circulation, thus forming ore-veins, or in the pores of the rocks forming the so-called cemented ore-bodies.

As the openings become closed by cementation, however, the circulation becomes feeble and ultimately completely stops, although earth movements may refracture the rocks and inaugurate a new circulation. The vertical movement of the water is confined to the zone of fracture and cementation. Below this zone the pressure is sufficiently great to purchase a differential movement of the rock particles, and thus to close all openings by rock-flow. For free upward movement the ground must be fissured, fault fractured, especially when brecciated, and shear-zones are preferentially used by the ground waters, and these, therefore become the seat of deposition of ores.

The deposition of minerals from solution is brought about in a variety of ways. Solutions which are unsaturated at depth, become saturated as they ascend by a decrease of temperature and pressure and chemical reactions also come into between solutions and solids and between solutions and gasses; Under one or more of these conditions the metallic burden is precipitated, lining and ultimately filling the channels traversed by the solutions.

The soluble compounds are carried down to the belt of saturation. A portion is lost in the waters escaping in the zone of discharge. The remainder is deposited as the descending acid waters become neutralized by the alkaline waters of the lower zone.

The changes produced in ore deposits by the process described above are most striking, and of great economic importance. Those metals that form soluble compounds are removed from the zone of weathering, leaving in most cases an impoverishment of residual material. On the other hand, the precipitation of new metallic ompounds or of the metals themselves at the lower levels leads to enrichments at those levels. As a rule oxy-salts, halogen salts and native metals are precipitated above the water table and secondary sulphides are deposited below it.

The dictum of the mining camp that lodes become richer in depth, is therefore true only as regards their upper portions. In progressing from the outcrop downwards, a barren or lean portion of the lode is first passed through. As the water table is approached, the metal content increases, attaining a maximum in a zone of secondary sulphides below it. The grade then falls to a minimum is reached in the unenriched zone of the lean primary sulphides.

Unquote

The above conditions of weathering and percolation is to be found in the ledge or shear zone opened by tunnels on the Blue Grouse claim.

First;	Surface cut at 2,504 feet average	$6.30
Second;	Average several samples #4 tunnel	.35
Third;	Average several samples #5 tunnel	2.36
	Average several samples #6 tunnel	3.15

These workings are below each other and cut the same shear zone. In the upper tunnel leaching has been so far carried out that only a prospectors pick would be necessary for mining. In the next lower working there are indications of firmer rock and leaching has not gone quite as far as above. In the bottom working the shear zone or fissure is filled with a recemented breccia that is a descending percolator zone. Some inclusions of unleached portions of rock show very material values and give an indication of what may be expected with depth.

The assay of $6.30 at the surface is due to the erosion and washing away of the clayey material and leaving the heavier gold behind. This enrichment on the surface seems to be general.

Lucky Warren prospect is reached via the old trail to Mt. Emily L.O. which takes off from the south side of the jeep trail at a point about 200 feet east of the former site of the lookout tower. Follow trail (badly overgrown but still recognizable) downhill and around the first switchback. Prospect is just past the switchback with caved portal to the right (north) and dump and old mill to the left. No mineralization noted. Rock exposed at point where adit is caved is breccia, similar to that at the Florence prospect. Much antique mill machinery remaining. Could probably poke a hole into the adit quite easily but why bother.

10/12/80

Visited both Florence and Lucky Warren prospects on October 7 with Morris Hubbard (Denison Mines, Spokane office). Florence prospect is about one half mile east of the former site of Mt. Emily lookout and lies on the north side of the Mt. Emily jeep trail about 75 feet below the top of the ridge. A ½" galvanized pipe line, at least 200 yards long, angles down to the prospect from a point atop the ridge. Best (perhaps only) way to find it is to make a couple of short traverses from the ridge crest northward until you locate the pipe line, then follow it down hill to the prospect.

Adit about 80 feet long was driven southward into the ridge and appears to have followed one or more dike-like bodies of breccia composed of fragments of Dothan sediments (?) in what is probably a rhyolite matrix. Few specks of pyrr and lesser cp on dump but no mineralization noted underground.

Curry County file

General Information: One claim held by location. Elevation 3500 ft.; maximum snow 12 ft.; plenty of timber and water for mining purposes. At present stripping along the contact is being done with a fire hose under about 80 ft. head.

History: Located July 1936, and worked continuously in a small way to date.

Geology: Country rock is altered greenstone to a depth of about 40 feet. At this horizon, a flat-lying gouge separates this upper altered greenstone from a lower, harder material, possibly dacite. Quartz stringers cut the altered greenstone and values are found in the quartz as well as the gouge below.

Mining and Development: Present method of mining is to remove the upper material and then run the gouge material. The quartz stringers are also mined separately. During the last season a pit, about 150 ft. by 200 ft. and 40 ft. deep, was made. This spring the upper side of the pit caved in and at present it covers the larger part of the bottom of the excavation.

Equipment: About 1500 ft. of 2-inch galvanized pipe (drain pipe),100 ft. of 4-inch firehose, and miscellaneous hand equipment.

Informant: J. E. Morrison, 38.

HAMAKER (Paul) GROUPS (Gold, manganese, chrome) Chetco Area

Owner: Paul Hamaker, Oregon Hotel, Grants Pass, Oregon.

Location: On the headwaters of Babyfoot Creek, a branch of the Chetco River, in sec.31, T.38 S., R.9 W.

Deposits of rhodonite containing manganese oxides are reported. It is stated that a crosscut has cut these oxides for 85 feet without reaching a wall. Disseminated chromite with bunches of shipping grade is said to be exposed.

Informant: Paul Hamaker.

HILL TOP GROUP (Gold) Chetco Area

Owners: Paul and Lloyd Hamaker, Kerby, Oregon.

Location: On ridge between Babyfoot and Carter Creeks about one-half mile west of Babyfoot Lake, in sec.36, T.38 S., R.10 W. Estimated to be 5 miles to road on Josephine Creek and about 12 miles west of Kerby.

Area: Three claims held by location, 60 acres.

History: Paul Hamaker located Hilltop claim April 10, 1934. Hilltop No.2 was located August 6, 1937 (grubstake claim). No record of No.3 claim in recorder's office.

Geology: Greenstone country rock. No veins were seen at time of visit. Two samples have been submitted by Mr. Hamaker. It is impossible to determine where these samples came from.

Samples: Hilltop No.2 - 12 ft. - Au. .06 - $2.10 Ag. trace
Hilltop No.2 - 30 in. - Au. .11 - $3.85 Ag. .04 $.03

Informant: J. E. Morrison, 38.

LUCKY WARREN PROSPECT (Molybdenum) Chetco (Mount Emily) Area

"This deposit is owned by Mr. Charles M. Warren, and is situated a short distance south of the crest of Mount Emily. The deposit is similar in nature to that on the Florence claim, but the mineralized streak is narrower, and the interstices between the fragments of hornfels contain molybdenite. A sample across the whole ore body yielded on analysis 3.10 percent molybdenum.

"Another peculiarity of this deposit is the presence of considerable hornblende, which was not seen in the Florence prospect. The mineralized streak is said to yield high gold values when panned, but a sample proved, when assayed, to contain not a trace of gold". (Ref: Parks and Swartley, 16:145 quoted).

PECK MINE (Gold) (Old Name: Bacon Mine) Chetco (China Diggings) Area

Sec 23, T39S, R14W

"These groups were not visited, but Diller describes them together as follows:

'Recent strikes of the Higgins mine have greatly invigorated prospecting in that region, and numerous claims have been located near the same horizon to the south on Miller Creek and Babyfoot Creek, tributaries of the Chetco.

'The Miller and Bacon prospects are on the ridge between Miller Creek and Babyfoot. At the northern foot of this spur, along Miller Creek, a mass of serpentine strikes nearly east and west and cuts the volcanic greenstones which form the body of the ridge. The greenstones are well exposed in the great bluffs overlooking Babyfoot, and are intruded by smaller masses of serpentine, off-shoots of the larger masses which lie at some distances on both sides.

'Considerable quartz occurs in irregular veins or bunches in the greenstone, especially near the contact with serpentine, where it is impregnated with chalcopyrite and pyrrhotite. The veins strike in general about N.60° E. and dip SE. Their gold content is not evident, though it is said that assays show a considerable amount. The gold at present remains in the decomposed and rotten rock ready to be released by sluicing.

'In the Miller Group of ten claims a portion of the contact has been sluiced. A ditch is being opened from Miller Creek to the crest of the divide at an elevation of about 2,760 feet, for the purpose of sluicing available auriferous residual material clinging to the slopes on both sides of the spur.'

"Although Diller does not mention the fact, it is evident from his map that the Bacon group is on the Miller Creek side of the divide, while the Miller group is on the Babyfoot slope, about a mile southwest of the Bacon claims". (Ref: Bacon and Miller Groups, Parks and Swartley, 16:19 quoted).

ROBERT E. MINE (Gold) Chetco Area

Owner: U.S.Government. Property is for sale. Interested parties should communicate with the Collector of Internal Revenue, Portland, Oregon, or Medford, Oregon.

The property is described in detail by Shenon, 31:51-55. It has not been operated since about 1930. Production over $100,000 from high grade ore. All workings are inaccessible at present and the mill building is in a very poor state of repair. The rest of the buildings are tent houses. Packing to McCaleb Ranch costs 2¢ per pound.

The Anderson Ranch referred to in the last paragraph on page 51 (Shenon:31) is now known as the McCaleb Ranch.

Curry County file

FLORENCE PROSPECT (Zinc) Chetco Area

"The Florence prospect was located March 4, 1914, and is owned by Charles M. Warren. It is situated just below the crest on the northern slope of Mount Emily. The deposit is along the contact between the metamorphosed Dothan sediments and rhyolite. The hornfels resulting from the metamorphosis of the Dothan shale has been crushed, sheared, and silicified at this point, and in the crevices thus formed sphalerite and pyrrhotite have been deposited. The total width of the mineralized zone is about 8 feet; the strike is N.35° E., and the dip 75° SW. A sample taken across this mineralized zone proved to contain 3.57 percent zinc and a trace of gold, while a sample consisting largely of pyrrhotite yielded but a trace of gold. It is certain that this ore would yield a high-grade zinc concentrate, but the only opening on the vein consists of an open cut, and it is decidedly uncertain how extensive the deposit will prove to be. It seems likely, however, that the sulphides will be confined to points along the contact where an unusually great degree of crushing has occurred, and this will tend to give the deposit a 'pockety' nature.

"An eighth of a mile west of Florence prospect, across a small gulch, is a cliff the face of which is heavily iron-stained and covered with pot-holes. It proved on examination to consist of a brecciated mass of rhyolite containing rounded cavities and seams filled with pyrite and quartz. A sample of the sulphide yielded not a trace of gold, however". (Ref: Parks and Swartley, 16:94 quoted).

FRAZIER PROPERTY (Gold) Chetco (China Diggings)Area

No name - referred to as the Frazier property. Lucky Girl and Big Joe owned by J. M. Frazier of Selma, Oregon. Perseverance and Patience owned by J. H. McClung of Grants Pass, and J. M. Frazier.

Location: One mile south of Robert E. mine and twenty-two miles from Selma, in sec.26, T.38 S., R.10 W., on south side of Babyfoot Creek at an elevation of 3,000 feet.

History: A pocket was discovered by Messrs. McClung and Sanford in 1935 which produced $12,000 to $14,000. Sanford sold to Frazier August 1936. The production for 1936 was $500; for 1937, $150; and very little in 1938.

Equipment: Braun Assay Crusher, Gibson prospecting mill, Roehl Concentrating table, and two 1½ hp. gas engines.

General Information: Twelve feet of snow, steep mountain topography, plenty of timber and water. 2½¢ per pound packing charge from McCaleb ranch.

Geology: All four claims lie along the serpentine contact. However, this contact has not produced all the gold on these claims. On the Lucky Girl there is talc and crushed material produced by a slide. This material yields some gold; above this slide there is no trace.

Development: Two short tunnels and seven open cuts, which show up the contact.

Informant: J. E. Morrison, 38.

GOLD BASIN PLACERS Chetco (China Diggings) Area

Diller describes the deposits here as follows:

"About the head of Tin Cup Creek, fifteen miles northwest of Kerby there is a V-shaped remnant of the Klamath peneplain known as Gold Basin on a large

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
Project Sample Record

SAMPLES SUBMITTED BY: LEN RAMP Date: 11-29-76

☐ Baker
☒ Grants Pass

Sample No.	Mine or Prospect	Type	District	S.	T.S.	R.W.	Assay for
AKG-71	Chetco Rhyolite	200' random chip	Chetco	W½ 31	39	12	Au, Ag
72	Iron Mtn. metavols.	Chip from outcrop	Lobster Creek	NECor. 6	34	12	Au, Ag, Cu
73	Lucky Warren(?)	3' chip Glory hole	Mt. Emily	SW8	40	12	Au, Ag, Zn, Mo.
74	No Name	Grab	Chetco	SE 35	40	13	Au, Ag
75	Chetco Lake	0-8'10" auger	Chetco	SE 22	39	11	Ni, Co, Cr.
76	Hard Pull No. 2	10' chip	Upper Applegate	Cent. 10	41	3	Au, Ag ✓

Descriptions:

AKG-71 Iron-stained weathered rhyolite
72 Iron-stained siliceous metavolcanic rock with minor pyrite.
73 Weathered, altered Dothan-rhyolite breccia
74 Weathered limonite-bearing graywacke
75 Soil & Saprolite derived from peridotite
76 Chipped across zone of pyrite-impregnated soapstone John Pugh's Claim. Pyrite is weathered to limonite.

Results:	AKG Nr.	Au oz/ton	Ag oz/ton	%Cu	% Zn	% Mo	%Cr	% Ni	% Co
39815-1	-71	Trace	Nil	--	--	--	--	--	--
-2	-72	0.01	Nil	*.05%	--	--	--	--	--
-3	-73	0.02	Nil	0.008	*	*	--	--	--
-4	-74	trace	Nil	--	--	--	--	--	--
-5	-75	--	--	--	--	--	1.63	0.86	*
-6	-76	0.03	Nil	--	--	--	--	--	--

* to follow

RSR