This following report was made nearly two years ago, Feb. 2, 1937.

Since that time considerable additional work has been done on opening up the mine. Tunnel No. 2 has been extended along the side of the vein nearly 100 fe and two crosscuts have been made on the opposite side of the vein. There is exposed at the present time about one hundred feet of vein. Several carloads good ore have been piled on the dump.

Another change from this report is advisable in that it would be cheaper to build a road to the mine than have a tram road built over the mountain. Good logging roads are now being made on the roughest kind of terrain for $3000 per mile by the use of bulldozers. A crew of loggers and one bulldozer will build about a quarter of mile of road per day. Also when this report was made it was estimated that the P.O.Cedar Co. would build additional road into tract which would necessitate the building only one and a half miles of road t get to the mine. This the Company did not do, so the extent of new road to be built will be about 3 or 3½ miles to join with the end of the available loggi road. The estimated distance from mine to rail head is about eight miles.

In my opinion it will be advisable to ship the ore out just as it comes from the mine as the gold content is so intimately mixed with the porphyry that con siderable loss would be entailed by milling at the mine. It might be advisabl to sack the ore, and again a trial might prove this unnecessary. The ore shou be graded into bins at the mine so as to avoid shipping high grade ore with lower grades. Three grades would be sufficient. My opinion in this matter is based upon my assays of ore both washed and unwashed. Free gold is readily obtained by panning the outer edges of the lode.

Fred S. Minshall

# ENGINEER'S REPORT ON RUSTY GULCH

## LOCATION:

The Sixes River is a tributary of the Pacific Ocean, about thirty miles in length, and enters the ocean in Curry County, Oregon, just north of Cape Blanco. The gulch on which the property is located is a small tributary of the south fork of the Sixes River, about twenty-five miles from the ocean.

## CLIMATE:

The Climate is very favorable in this latitude for year round mining, there being but a short period in December and January in which a light snowfall may be expected. Considerable rainfall during the spring and winter months provide ample water for milling and in favorable locations for power development also.

## TIMBER AND WATER:

This property lies within the Siskiyou National Forest and is covered by plenty of Douglas Fir for any mining purposes and the surrounding ground has a heavy stand of timber, also, which can be obtained from the government on a stumpage basis. There is water during most of the year in the gulch to carry on milling operations with a twenty to twenty-five ton capacity mill. Both the south fork and middle fork carry water all year for a mill of much larger capacity for both milling and power purposes.

## TRANSPORTATION:

An extension of the Southern Pacific Railroad, nine miles south of the town of Powers, Oregon, over which logs are hauled to the sawmills of Coos Bay, reaches to within four and one-half miles of this property, and a truck road for log hauling extends from the end of the railroad an additional two and one-half miles. This will be extended another half mile by the logging company early this year, leaving about one and one-half miles to the present workings on the main gulch.

## GEOLOGY:

The rock formation in this vicinity consists of porphyry and slaty shale with the veins lying along the contacts of these formations. In general, the surface of the ground is covered with a heavy timber growth as well as an overburden of several feet of soil, making prospecting very difficult and slow.

## ORE DEPOSITS:

The ore consists of a gold bearing iron and arsenic sulfide with quite a percentage of free gold in the leached portion lying close to the surface. It is very probable that on gaining depth that all values will be locked in the sulfides, but so far no depth has been reached on any ore deposit in this vicinity, so that is a matter to be proven in further development. The vein is about four feet wide, striking about N 60°E. and dipping about sixty-five degrees to the south.

## EQUIPMENT:

There is at present a cabin about twelve by twelve feet, a blacksmith shop under a shed roof, and such hand mining tools consisting of picks, shovels, hand steel and hammers as is necessary in preliminary development work, such as has been carried on up to the present.

DEVELOPMENT:

The present development consists of two tunnels and short cross cuts and two open cuts.

The lower tunnel, about eighty feet long with a twenty foot cross cut to the north at the end of the tunnel, did not reach the vein, as it is under the dip of the vein and the above mentioned cross cut drive in the opposite direction to the vein. The upper tunnel is at an elevation of fifty feet above Tunnel #1, and shows good values for a distance of forty to fifty feet in from the portal. An opencut just over this tunnel exposes four feet of vein, which carries very good values in gold as shown by attached assay. In Tunnel #2, good values were found back to a distance of twenty-five to thirty feet, at which point the vein goes into the north wall of the tunnel. Across the small creek from Tunnel #1, is an open cut in which a small vein about a foot in width is shown. This vein carries low values and is not the same vein as the above, being parallel to it to the north as far as can be ascertained at present.

At the northeast end of the North claim, which lies on the north slope of the ridge, between the South Fork and the Middle Fork of the Sixes, is a cropping of vein material which is of the same character as the vein exposed in the workings on the main gulch, and is no doubt the same vein. This pans free gold in the cropping and is being covered by additional locations. This cropping is fifteen hundred feet from the main work, so indicates a large tonnage.

METHODS OF MINING AND MILLING:

This ground will be mined by tunnels and stoping as depth is gained very rapidly due to the steep slope of the mountains in which it occurs. After additional development has blocked out a reasonable amount of ore, four to five thousands tons, a twenty-five ton daily capacity mill is to be installed on the main gulch with a surface tram over the ridge to the Middle Fork side where the one end of the logging road can be reached by building about one-half mile additional road, and milling operations carried on, amalgamating what free gold is in the ore, and concentrating the balance for shipment to the smelter, unless on further investigation, it is found that roasting will free the gold from the sulfides when it can be amalgamated at the mill.

Development will be carried on also at the ore cropping at the north end of the north claim, and upon satisfactory proof of the vein at this point, a tunnel will be driven through the ridge and the mill installed on the Middle Fork side of the ridge, the milling capacity increased and water power developed for all future operations. About one hundred tons of ore with an average value of thirty-five dollars per ton is on the dump at the present.

Mining and milling costs should not exceed five dollars per ton. Freight and smelter charges on concentrates will approximate twenty-five dollars per ton. A ten to one reduction in the mill will produce a concentrate running three hundred to three hundred and fifty dollars per ton. Total milling, mining, freight and smelting costs on a ton of concentrate will approximate seventy-five dollars, leaving a very attractive profit.

CONCLUSION:

Judging from all available data on this property, I believe that a very attractive mining property will be developed here, and at small cost. All conditions relating to climate, power, timber, etc., are very favorable, and in my opinion the money necessary for development and the subsequent installation of a mill is well justified. At one time the gulch below these claims was mined for

placer gold and paid very well. This gold was produced by the vein on these quartz claims. A tabulated estimate of cost development, mill machinery, installation and operating until in production is herewith given.

Respectfully submitted:

E. F. Wann
Mining Engineer

Dated at:
Port Orford, Oregon,
February 2, 1937

## ASSAYS

Copy of assays from American Smelting and Refining Company.

| | Gold oz. per ton | Silver | Value |
|---|---|---|---|
| 1. Portal Tunnel #2 | $ .43 | $ .30 | $ 15.10 |
| 2. 25' in Tunnel #2 | 2.08 | 1.00 | 73.00 |
| 3. Open cut over #2 | 1.13 | .70 | 39.75 |
| 4. 8' in Tunnel #2 | 1.28 | .90 | 45.00 |
| 5. Portal Tunnel #2 | .43 | .50 | 15.15 |
| 6. Solid Sulfide | 6.93 | 2.80 | 243.50 |

| | | | |
|---|---|---|---|
| Cost of additional development | | | $2,000.00 |
| Cost of Mill Equipment | | | |
| 1. | 4' x 3' ball mill and manganese liners | | 2,296.00 |
| 1 | 2' 3 x 14' 8 classifier | | 450.00 |
| 1 | H.217 Buda gas engine | | 460.00 |
| 1 | reconditioned Overstrom concentrator | | 300.00 |
| 1 | 6" x 12" Tiger crusher | | 450.00 |
| 1 | 3' x 8' Grizzly | | 74.00 |
| 1 | set foundation bolts | | 20.00 |
| | balls - 800# 1½" - 2" and 3" | | 94.00 |
| | transmission machine | | 200.00 |
| 1 | 16 cu. ft. Matteson ore car | | 87.50 |
| 1 | hoist | | 455.00 |
| 1 | 10 h.p. gas engine for hoist | | 407.00 |
| 2600 | ft. ½" plow steel cable | | 260.00 |
| 5000 | ft. 12# steel rails and fish plates | | 269.00 |
| | rail bolts | | 12.50 |
| | amalgamator and jig | | 500.00 |
| | Total machinery (weight 52,000#) | | $6,335.00 |
| | Freight, San Francisco to mine | | 2,000.00 |
| | Installation machinery and tram | | 2,000.00 |
| | Mill buildings, ore bins, etc. | | 2,000.00 |
| | Wages - one month: | | |
| | Superintendent | $250.00 eight months) | |
| | | 750.00 " " ) | |
| | | $1000.00 | 8,000.00 |
| | Pres., Sec., Treas. | 150.00 eight months | 1,200.00 |
| | Packer - 3 days per month | 21.00 eight months | 168.00 |
| | Packer $4.00 per day | | |
| | Two mules 3.00 " " | | |
| | Truck for hauling concentrates | | 750.00 |
| | Concentrate sacks 500 @ 25¢ | | 125.00 |
| | | | $24,578.00 |

OWNERSHIP, CAPITALIZATION, TERMS, PROSPECTUS, etc.

This mine is owned by two experienced prospectors, one of whom is old and sick, the other is otherwise employed. They ask $20,000 for the mine, one half to be paid in cash, the balance on any suitable terms from returns from the mine. The title is clear; all assessment work has been completed and patent can be secured at any time. The mine is located on unsurveyed forest land in Siskiyou National Forest. In my opinion after thoroughly examining the mine and the work done, the price asked is exceedingly reasonable for at least one-third of the amount is apparent in work done and the values speak for themselves.

I spent the better part of three months in this section, June, July and August of this year, and have located two additional claims on outcrops of this same kind of ore. It crops out in several places along the spur of the range which extends from Salmon Mt. to the end of the spur which divides the South and Middle forks of the Sixes River. It is possible that an extensive mining district could be formed in this section of Curry County.

I estimate the amount of capital required as follows:

| | |
|---|---|
| one half payment on mine | 10,000 |
| three miles of new road | 9,000 |
| 2 used 2½ yard trucks | 1,000 |
| Buildings, ore bins, houses etc. | 2,000 |
| Working capital | 3,000 |
| Total | 25,000 |

**********

Estimate Cost per Carload, 50 tons

| | | |
|---|---|---|
| 25 tons per day ¼ $5.00 | 125.00 | |
| " " " " | 125.00 | 50 tons |
| Transportation to rail head | 50.00 | |
| Gas, Oil, etc. | 20.00 | |
| Freight to Tacoma | 480.00 | |
| Smelting per 50 tons | 550.00 | |
| Total cost producing carload | 1350.00 | |
| Cost per ton | | 27.00 |

**********

Estimated Profit per carload

It is not likely that any of the ore will run below 6 ounces of gold to the ton, as a minimum, and it is possible it will assay over 10 ounces for the best, which would be an average of 8 ounces per ton @ 34 per ounce, or $272.00 per ton

| | |
|---|---|
| 50 ton carlot @ 272.00 per ton | 13,600.00 |
| Production cost per carlot | 1,350.00 |
| Total profit carlot | 12,250.00 |

Interest on investment, depreciation, and business administration would still leave a handsome profit.

Fred S. Minshall

TACOMA SMELTER--AMERICAN SMELTING & REFINING CO.
GENERAL CLAUSES COVERING ALL OPEN SCHEDULES.

1. In each case where shipments are made in lots of less than five tons a charge of $10.00 per lot is made in addition to the quoted rate to cover the additional expense of handling and sampling these small lots.

2. The rates quoted apply to shipments in bulk. When shipments are made in sacks an additional charge of 75 cents per ton will be made to cover extra cost of handling.

3. All Federal or State taxes now or hereafter imposed and all duties and excise or other taxes levied by the United States or any foreign government shall be for shipper's account.

4. SPECIAL:
All schedules on ore not under contract for a definite period of time are subject to change without notice. Should thirty days elapse before you make shipment on the attached schedule, it will be necessary for you to take the matter up with us again for confirmation of the price, because our prices and conditions of purchase are changing from time to time.

5. In the event that the quotation date should fall on a legal holiday or one upon which no quotation is issued, the next succeeding quotation will be used in settlement. However, it is understood that in case there is no silver or copper quotation on the date of arrival of the ore in the Buyer's Plant, for the reason that there is no market for such metals, then in such case the metal so affected will be settled for according to the quotation of copper and/or silver actually received by the Buyer when the metals resulting from smelting each lot have been actually sold.

6. Base charges apply on the ore delivered in our Plant.

7. In the above schedule where the word "ton" is used, it is understood to be a ton of two thousand pounds avoirdupois; where the word "ounce" is used, as referring to gold and silver, it is understood to mean the troy ounce; and where the word "unit" is used, it is understood to mean a unit of one per cent, or twenty pounds avoirdupois.

8. Weighing and sampline (at which seller or a representative may be present) as done by Buyer according to standard practice, promptly after receipt of product, will be accepted as final. The absence of seller or a representative shall be deemed a waiver of the right in each instance. After sampling the product may be placed in process, commingled, or otherwise disposposed of by Buyer. In case of disagreement on assays, an umpire shall be selected in rotation from a list mutually agreed upoh, whose assays shall be final if within the limits of the assays of the two parties, and if not, the assay of the party nearer to the umpire shall prevail. The party whose results are farther from the umpire results shall pay cost of umpire. In case of Seller's failure to make or submit assays, Buyer's assays shall govern.

9. In order that delivery of the ore to our Plant may not be unnecessarily delayed, we make it a general rule that unless other arrangements have been previously made, the freight charge on a first shipment to us must either be prepaid or guaranteed by the shipper.

TACOMA SMELTER

7/24/37

Curry Rusty Gulch

# ENGINEERS REPORT ON RUSTY GULCH

## LOCATION

The Sixes River is a Tributary of the Pacific Ocean, about thirty miles in length, and enters the ocean in Curry County, Oregon, just North of Cape Blanco. The Gulch on which the property is located is a small tributary of the South Fork of the Sixes River, about twenty five miles from the ocean.

## CLIMATE

The climate is very favorable in the latitude for year round mining there being but a short period in December and January in which a slight snowfall may be expected. Considerable rainfall during the Spring and Winter months provide ample water for milling and in favorable locations for power development also.

## TIMBER AND WATER

This property lies within the Siskiyou National Forest and is covered by plenty of Douglas Fir for any mining purposes and the surrounding ground has a heavy stand of timber also which can be obtained from the Government on a stumpage basis. There is water during most of the year in the Gulch to carry on milling operations with a twenty to twenty five ton capacity mill. Both the South Fork and the Middle Fork carry water all year for a mill of much larger capacity for both milling and power purposes.

## TRANSPORTATION

An extension of the Southern Pacific Railroad, nine miles South of the town of Powers, Oregon, over which logs are hauled to the sawmills of Coos Bay, reaches to within four and one half miles of this property, and a truck road for log hauling extends from the end of the railroad an additional two and one half miles. This will be extended another half mile by the logging company early this year, leaving about one and one half miles to the present workings on the main gulch.

## GEOLOGY

The rock formation in this vicinity consists of porphry and slaty shale with the veins lying along the contacts of these formations. In general, the surface of the ground is covered with a heavy timber growth as well as an overburden of several feet

of soil making prospecting very difficult and slow.

ORE DEPOSITS

The ore consistsof a gold bearing iron and arsenic sulfide with quite a perceentage of free gold in the leached portion lying close to the surface. It is very probable, that upon gaining depth, that all values will be locked in the sulfides, but so far no debth has been reached on any ore deposits in this vicinity, so that is a matter to be proven in further development. The vein is about four feet wide, striking about N 60 E and dipping about 65 degrees to the South.

EQUIPMENT

There is at present a cabin about 12 by 18 feet, a blacksmith shop under a shed roof, and such mining tools consisting of picks, shovels, hand steel and hammers as is necessary in preliminary work, such as has been carried on up to the present.

DEVELOPMENT

The present development consists of two tunnels and short cross cuts and two open cuts.

The lower tunnel, about eighty feet long, with a twenty foot cross cut to the north at the end of the tunnel, did not reach the vein, as it is under the dip of the vein and the above mentioned cross cut driven in the opposite direction to the vein. The upper tunnel is at an elevation of fifty feet above Tunnel #1, and shows good values for a distance of from forty to fifty feet in from the portal. An open cut just over this tunnel exposes four feet of vein, which carries very good values in gold as shown by attached assay. In Tunnel #2, good values were found back to a distance of 25 to 30 feet, at which point the vein goes into the north wall of the tunnel. Across the small creek from Tunnel #1, is an open cut in which a small vein about a foot in width is shown. This vein carries low values and is not the same vein as the above, being parallel to it to the north as far as can be ascertained at present.

At the northeast end of the north claim, which lies on the north slope of the ridge, between the South Fork and the Middle Fork of the Sixes, is a cropping of vein material which is of the same character as the vein exposed in the workings on the Main

Gulch, and is no doubt the same vein. This pans free gold in the cropping and is being covered by additional locations. This cropping is 1500 feet from the main work, so indicates a large tonnage.

METHODS OF MINING AND MILLING

This ground will be mined by tunnels and stoping as debth is gained very rapidly due to the steep slope of the mountains in which it occurs. After additional development has blocked out a reasonable amount of ore, four to five thousand tons, a twenty five ton daily capacity mill is to be installed on the main Gulch with a surface tram over the ridge to the Middle Fork side where the end of the logging road can be reached by building about one half mile of additional road, and milling operations carried on, amalgamating what free gold is in the ore, and concentrating the balance for shipment to the smelter, unless upon further investigation it is found that roasting will free the gold from the sulfides when it can be amalgamated at the mill.

Development will be carried on also at the ore cropping at the north end of the North claim, and upon satisfactory proof of the vein at this point, a tunnel will be driven through the ridge and the mill installed on the Middle Fork side of the ridge, the milling capacity increased and water power developed for all future operations. About one hundred tons of ore with an average value of $35.00 per ton is on the dump at present.

Mining and Milling costs should not exceed $5.00 per ton. Freight and Smelter charges on concentrates will approximate $25.00 per ton. A ten to one reduction in the mill will produce a concentrate running $300.00 to $350.00 per ton. Total milling, mining, freight and smelting costs on a ton of concentrates will approximate $75.00, leaving a very attractive profit.

CONCLUSION

Judging from all available data on this property, I believe that a very attractive mining property will be developed here, and at small cost. All conditions relating to climate, power, timber, etc., are very favorable, and in my opinion the money necessary for development and the subsequent installation of a mill is well justified. At one time the Gulch below these claims was mined for placer gold and paid very well. This gold was produced by the vein on these quartz claims.

A tabulated estimate of cost of development, mill machinery, instillation and operating until in production is given herewith.

Respectfully submitted,

E. F. Wann, Mining Engineer

Dated at Port Orford, Oregon,
February 2, 1937.

| | | | |
|---|---|---|---|
| **Cost of additional development** | | | $ 2 000.00 |
| **Cost of Mill equipment** | | | |
| 1-4'x3' Ball Mill & Manganese Liners | $ 2 296.00 | | |
| 1-2'3x14'8 Classifier | 450.00 | | |
| 1-h. 217 Buda Gas Engine | 460.00 | | |
| 1-Reconditioned Overstrom Concentrator | 300.00 | | |
| 1-6"12" Tiber Crusher | 450.00 | | |
| 1-3'x8' Grizzly | 74.00 | | |
| 1-Set Foundation Bolts | 20.00 | | |
| Balls - 800# 1½" - 2" & 3" | 94.00 | | |
| Transmission Machinery | 200.00 | | |
| 1-16 cu. feet Matteson ore car | 87.50 | | |
| 1-Hoist | 455.00 | | |
| 1-10 H.P. Gas Engine for Hoist | 407.00 | | |
| 2600 feet ½" plow steel cable | 260.00 | | |
| 5000 feet 12 # steel rails and fish plates | 269.00 | | |
| Rail Bolts | 12.50 | | |
| Amalgamator & Jig | 500.00 | | |
| Total Machinery (weight 5 2 000.#) | | | 6 335.00 |
| Freight, San Francisco to Mine | | | 2 000.00 |
| Installation, machinery and Tram | | | 2 000.00 |
| Mill buildings, ore bins etc., | | | 2 000.00 |
| Wages, one month; Superintendent | $ 250.00 | | |
| 5 men | 750.00 | | |
| | 1 000.00 | - 8 months | 8 000.00 |
| Pres. Secy. Treas. | 150.00 | - 8 " | 1 200.00 |
| Packer - 3 days per month | | | |
| Packer $ 4.00 per day | | | |
| 2 mules 3.00 " " $ 21.00 | | 8 " | 168.00 |
| Truck for hauling concentrates | | | 750.00 |
| Concentrate sacks 500 at 25¢ | | | 125.00 |
| | | | $ 24 578.00 |

## ASSAYS

Copy of Assays from the American Smelting & Refining Company

| | Gold oz. per ton | Silver | Value |
|---|---|---|---|
| 1---Portal Tunnel #2 | .43 | .30 | $ 15.10 |
| 2---25' in Tunnel #2 | 2.08 | 1.00 | 73.00 |
| 3---Open cut over #2 | 1.13 | .70 | 39.75 |
| 4---8' Tunnel #2 | 1.28 | .90 | 45.00 |
| 5---Portal #2 | .43 | .50 | 15.15 |
| 6---Solid Sulfides | 6.93 | 2.80 | 243.50 |