

Pioneer Mine

Gold

NAME

OLD NAMES

PRINCIPAL ORE

MINOR MINERALS

6/46

~~10S~~

~~134E~~

Sec. 7

T

R

S

PUBLISHED REFERENCES

Oregon Metal Mines Handbook 14B:87
Parks & Swartley 16:161

..... Grant COUNTY

..... Greenhorn AREA

..... 6000 ELEVATION

..... ROAD OR HIGHWAY

..... DISTANCE TO
SHIPPING POINT

MISCELLANEOUS RECORDS

PRESENT LEGAL OWNER (S) New Eldorado Mining & Reduc. Co.

Address

..... E. B. Reed, Pres.

..... Austin, Ore.

OPERATOR

Name of claims Area Pat. Unpat.

Name of claims Area Pat. Unpat.

EQUIPMENT ON PROPERTY

Reed Prospect - Another name

PIONEER MINE (Gold) New Eldorado District Greenhorn Area
Collin Chisholm, Chas Wray, J.L.Krause and E. B. Reed Claims
(Also known as New Eldorado Mining and Reduction Co.)

Office: Austin, Oregon. E.B.Reed, president; Edwin H. Saxe, secretary-treasurer. Capital stock, \$100,000; par value \$1.00; \$50,000 subscribed; \$1,749.50 issued. (1916 report).

"The property of this company is located in sec.7, T.10 S., R.34 E., on the southern slope of the Greenhorn range at an elevation of about 6000 feet.

"The country rock is granodiorite cut by numerous rather coarse-grained dikes of granodiorite-porphry. These dikes are so much closer grained than the granodiorite that they remain hard after the granodiorite alongside has become quite soft in the altered zones. This altered zone is the peculiar thing about this property. It strikes N.35° E., has a vertical dip and a width of something over 200 feet, and has been traced for several hundred feet. It is a soft mass of extremely altered granodiorite, in which the ferro-magnesian minerals have been nearly decomposed and the feldspars have been kaolinized.

"There is a large number of veins in this zone varying in width from 5 feet down to a few inches. These veins are roughly parallel to the strike of the zone. The larger veins usually consist of bluish quartz; the coloring effect is probably due to minute crystals of stibnite. One vein had a streak of stibnite about 1 inch wide, associated with small amounts of pyrite, and zinc blende. A specimen containing silver sulphide, either stephanite or pyrargyrite, was found at one point. Besides the large veins, there is a number of small veins which cut the rock in every direction. These contain some sulphides of antimony and iron.

"This property is said to contain low values throughout the altered zone, but the development work consists almost entirely in drifts along the larger veins, so that there is little chance to sample in crosscuts in the zone."

Reference: Parks and Swartley 16:161 (quoted).

C O P Y

REPORT ON GROUP OF CLAIMS

PERSONAL
A. M. SWARTLEY

LOCALLY KNOWN AS "THE PIONEER"

Mostly from Hand book file.

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B
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This group of claims lies on the southern slope of the Greenhorn range of mountains in Section 7, Township 10 S., Range 34 E. They lie in what is known as the New Eldorado District in Grant County, Oregon. There are eight mining claims in this group, viz: Pioneer, Montana, Chief, Chancellor, Hummer, Solo, Timber No.1 and Arkansawyer.

This property is at an altitude of about 6000 feet, the mountain sides being quite heavily timbered at this altitude. There is plenty of water in the canyons and especially in the canyon which crosses this group of claims.

Austin is the nearest railroad station to the mine, but the railroad company is now building a branch line from Austin down the Middle Fork of the John Day river, which will result in shortening the haul to and from the mine. The distance at present is about 18 miles from the mine to Austin, the nearest railroad point, but eventually it will be only six miles. This railway is called the Sumpter Valley Railroad, a narrow gauge from Baker, Oregon. The town of Austin is 50 miles west of Baker. Twelve miles of the present wagon road is very good, this part being the county highway and the part which the railroad will cut out. The other six miles is not so good, but it is possible to better it a great deal by following up Big Boulder Creek. From this property to Susanville, the nearest postoffice, is about six miles by trail, but about 12 miles by wagon road.

This ground has not as yet been patented, although sufficient work has been done to warrant this now. This is no invasion of this ground by any one owning adjoining claims.

The chief characteristics about this property are the veins which seem to radiate from a common center on the Pioneer claim, like one's

fingers radiate from the palm of the hand. These veins range from ten feet wide down to eighteen inches and all carry values in gold and silver. The average strike is North 35 degrees East, has a vertical dip and is something over 200 feet in width. These veins or altered zones are composed of granodiorites highly altered, in which the ferromagnesian minerals have been nearly decomposed and the feldspars have been kaolinized.

Between these altered zones are dikes of very coarse-grained granodiorite-porphyry which remain very hard after the granodiorites on both sides has become very soft.

The country rock is a hard glassy granodiorite.

A shaft has been sunk, in one of these altered zones, to a depth of 25 feet in the Pioneer claim. At the bottom of the shaft in a short cross cut to the east there is a vein of quartz in this altered zone, about 3 feet wide, which assays \$8.98 per ton in gold and silver and 5% antimony in the form of stibnite. The altered material on the west side of this quartz assayed \$4.10 per ton in gold and silver. This material is at least 5 feet wide, but the writer cannot tell how much wider it might be, because the wall was not exposed in the shaft.

A tunnel is driven into the mountain on this same claim 100 feet vertically below the shaft, but it not into the mountain far enough to come under it although the face of the tunnel is on 250 feet from the portal. The distance remaining to reach the ground under the shaft is not more than 125 feet; but where the work was stopped it appears that the idea the owner had was to cross-cut the decomposed zone rather than come under the shaft. The largest portion of this tunnel was driven in ore averaging \$4.06 per ton of gold and silver; and the zone has not been crossed.

Approximately 85 feet vertically below this tunnel is another one driven in a distance of 188 feet to a point where there is one cross-cut driven to the left, or west, a distance of 15 feet; and another one to the right, or east, which has only been started.

More than one half of this lower tunnel is in ore also which averages a little higher in value than the upper tunnel; but the cross-cut to the east is much higher in value. A distance of ten feet in this cross-cut gave me an average of \$13.18 per ton and 2½ feet more along side gave me \$3.96 per ton in gold and silver and 5½ per cent antimony.

All of the antimony in this ore is in the form of stibnite and has a tendency to color the quartz blue. Some places it has crystalized out in a band one inch wide.

On both sides of the band of quartz lays the decomposed grandiorite which carries gold and silver values in combination with arsonicopyrte. So far as the samples taken by the writer showed, there is no choice between the stibnite and quartz or the balance of the ledge, as they are equally rich.

The entire zone of enrichment in these properties are soft enough to mine without powder, as the quartz is so badly shattered that 90% of it after being mined will pass through a half inch mesh screen. Probably not to exceed two percent would need to pass through a crusher.

Figuring up the tonnage of ore in sight between these two tunnels alone, there are 48,450 tons of ore which would average six dollars per ton; and inside of this body there is a smaller one which amounts to 10,497 tons which will average eleven dollars per ton in gold and silver alone.

If the cross-cut to the east were extended to the wall of this ore body, the larger tonnage would be augmented 75%, as the open cuts on surface, of which there are several, show mineralization across the zone.

The average of the assays from these open cuts was one dollar per ton; but nowhere the samples were taken was the cut deeper than six inches below the surface soil. The values in this ore about one-third gold to two-thirds silver, and it is entirely a sulphide. The other claims all have one or more veins on them from 8 feet wide down and carrying values.

The water in this canyon which is the headwaters of the Big Boulder creek is ample for all mining and milling purposes. The writer was in there in what is known as the dry season and there was at least 75 inches of water in the creek then; but with a little development this amount could be increased twice. At present there is a ditch on this property which supplies ample power for a small saw-mill located there and owned by the man who owns the claims. This ditch gives a fall at present of 75 feet to the saw-mill; but by extending this ditch to above the mine tunnel a distance of 150 feet down the canyon, a fall of 150 feet would be had. This fall could be added to at will by locating the mill farther down the canyon instead of below the dump of the lower tunnel. This additional fall would be in the same ratio as the former one. This water is open for filing now. The lower tunnel is 35 feet above the bottom of the canyon so that there is sufficient fall for a mill located at the tunnel. The mine workings make water enough for wash-water in a mill. During winter there would not be much danger from freezing except at the wheel pit; because the snow falls so deep before a hard freeze that the ditch and pipe lines would be covered with snow and be protected.

The timber for mining and fuel purposes is ample; because all of the claims are heavily timbered with pine and tamarack, as well as all the rest of the National Forest Reserve surrounding this property.

The present wagon road is good enough for taking in supplies or small pieces of machinery, but it would be necessary to build the new one down Big Boulder Creek before any heavy machinery was hauled in, or many concentrates hauled out. This new road would cost not to exceed \$2,000.00 and would give a very easy grade up to the mill.

The labor could be obtained from the surrounding country and any expert help could be obtained in Baker City.

The recommendations which the writer would make would be as follows: There is sufficient ore in sight now to warrant the installation of a pilot mill of say 50 tons daily capacity. This tonnage could easily be mined doing development work only, this coming winter; and with a force of men not to exceed six, in the mine.

The mill would be the simplest possible, an all-sliming plant for crushing such as a ball mill of the Marcy type followed by flotation. The writer would not install a coarse crusher at first, but use the boulders of hard ore to replace balls as much as possible until the mill was enlarged. This type of mill would not require more than two men on the day shift and the one man on each of the other shifts.

This size mill would produce not to exceed two tons of concentrates per day, having a value in gold and silver between \$150.00 and \$250.00 per ton.

By the time Spring was far enough advanced for road building, the experimental days would be over as far as milling was concerned; and the mine would be developed enough to supply with ore a mill with a capacity of 250 tons or more daily. This ore could be mined for less than fifty cents per ton and with a large mill could probably be mined and milled for the sum of one dollar per ton until a shaft became necessary. After that

time the cost would be one dollar plus the cost of hoisting the ore to the tunnel level. This ore is not difficult to float.

Aug. 26, 1918 (Signed) Lee H. Skeels E.M.

Further ... Aug. 26, 1918 ... so much closer ... the ... several ... depend ... and has been ...

There are a large number of ... the ... of the ... is ... and ...

The ... of the ...

copies from the Dec. 1914 issue of the Oregon Bureau of Mines and Geology.

Report on E.B. Reed group of claims known as the "Pioneer" group in Sec. 7, Tp. 10, SR 34 E. The country rock is granodiorite cut by numerous rather coarse-grained dikes of granodiorite-porphry. These dikes are so much closer grained than the granodiorite that they remain hard after the granodiorite alongside has become quite soft in the altered zones. This altered zone is the peculiar thing about this property. It strikes N. 35 degrees S., has a vertical dip and a width of something over 200 feet, and has been traced for several hundred feet. It is a soft mass of extremely altered granodiorite, in which the ferromagnesian minerals have been nearly decomposed and the feldspars have been kaolinized.

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Denver, Colorado, Sept. 25th, 1923.

B Reed,

Austin, Oregon.

We have run your sample by mill run with the following steps and results.

Pulverized to 40 mesh

Unlocked through a BEAM retort

Cooked then brought to a boil with water to remove any volatiles

After removing this water then cyanide with a 12 lb. stock for hour

Boiling that long, filter follow with one light wash water to get

all the Cyanide, then precipitate filter the precipitates burn

filter in Scorifier, add 1/2 oz test lead 2 milligrams C.P.

Silver cupel weigh adding a blank silver on beam opposite

to button add excess weight as silver gained from ore

part with acid then weigh gold subtract the gold weight

from the first silver weight and you have the correct

Recovery.

Gold recovered per ton

.425 ----- \$8.50

Silver 6.00 oz ----- 3.60

\$12.10

This is a remarkable ore for this treatment, in one hundred ton lots after the ore is delivered into mill the entire cost to bullion should not under any circumstances run over \$1.50 per ton, with a recovery of 99 1/2% of the entire gold and silver values. This radiated unlocking takes the gamble out of mining, as you are as sure to recover the values as you are sure the values are there.

Signed

A Mills Beam

Charles H. Withers, Sel 1225
2407 S.E. Brooklyn St.,
Portland, Oregon.

C O P Y

SOME ASSAYS BY LEE H SKEELS

<u>GOLD</u>	<u>SILVER</u>	<u>ASSAY</u>	<u>WIDTH OF VEINS</u>
.15	2.50	5.50	4½ ft.
.16	14.50	17.90	8 "
.22	1.75	6.15	6 "
.40	1.50	9.50	24 "
.10	9.50	14.35	8 "
.20	10.50	17.65	2 "
.30	.50	6.65	60 "
.15	4.00	8.20	45 "
.08	.50	2.25	15 "
.12	14.50	20.85	
.15	8.50	14.55	
.15	8.50	11.25 - 1½% Antimony	
.25	.50	11.15 - 2.75 "	
.15	58.50	79.05	

CONCENTRATION TEST BY FLOTATION

.50	7.00	17.00	Heads
1.00	55.00	75.00	Concentrates
.15	Trace	3.00	Tailings

Test made by Lee H. Skeels
Mining Engineer.