THE POLAR STAR AND JOHNSON GROUP

LODGE MINING CLAIMS

EAGLE COUNTY

COLORADO

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MINING PROPERTY IN

EAGLE COUNTY COLORADO

LOCATION:-- This Property is located on New York Mountain, twenty miles from Eagle, in Eagle County, Colorado. The Mountain Top is two miles from Fulford, which is the Post-Office.

From Fulford to Eagle the distance is 18 miles on a gradual descent along Brush Creek Valley. This valley is from 1½ miles to 2 miles wide and for a distance of 15 miles is under a high state of cultivation.

Eagle is 6,886 feet above Sea-level. Population 500. Has a good water system, Electric Lights, Sewers and is now building a $20,000 School Building.

Eagle is the Railroad Station, located on the Denver & Rio Grande Railroad, 329 miles from Denver, Colorado, where all Mining Machinery, Repairs and Supplies are in stock and can be shipped the day ordered and be delivered at Eagle in two or three days by freight, in 24 hours by Express or Parcel-Post. Mail put in Post-Office Denver 3:30 P.M. is delivered at Eagle, Colorado, the next morning by noon.

PHYSICAL CONDITIONS:-- The Property is located beginning at below Timber Line on the North-west flank of the New York Mountain over the top and down on its easterly flank. Altitude 11,000 to 13,000 feet. The pitch of the ore-bodies is Northwest under the heavy Timber, from which point the property should be developed and where a mill can be built.

GEOLoGY:-- The formation is the same as that at Aspen, Colorado. The only difference being, that here it is all gold, while at Aspen it is silver and lead.

The Country rock is mostly schist, capped by a layer of Quartzite 300 feet thick. Then Carbonate of Lime 500 feet thick, then Shale contact between the Lime and Porphyry.

The Sedimentary formation trends Southwest and Northeast, and the pitch is Northwest about 35 degrees.

The property can be worked by tunnel to a depth of over 2,000 feet. Such a tunnel would be 4,000 to 6,000 feet long all in the Mineral Zone.

MINERALIZATION:-- The ore occurs both in Fissures and in Banded Planes (Contacts).

The Fissures trend N.E. and S.W. Of these there are seven which cut through the quartzite at about right angles, and so far as known do not break through the line, which seems to be the hanging wall of the ore bearing zone.

The Fissures vary in thickness from two to thirty feet, and they mineralise the quartzite strata forming contacts four to twenty feet thick. Of these three are proven to exist. These trend out at right angles to the Fissures and conform to the pitch of the Quartzite strata, which is 35 degrees N.W., while the Fissures stand vertical.

ORE:-- The Ore in the fissures is a ferugenous quartz and porphyry...
In the quartzites it is mostly carbonate of iron and quartz. The character of the ground is such that this oxidation ought to extend to a depth of 500 feet before Sulphides appear in appreciable quantities. As a depth of over 300 feet has been attained and no Sulphide is found, most of the ore readily shows the GOLD FREELY BY EATING and looks as though it ought to amalgamate readily, yet only 30% to 60% can thus be recovered. The ore treatment will be to amalgamate to recover the coarse gold, then the tailings will Cyanide up to 95% of the balance.

VALUES OF ORE:— I have milled over 200 tons and recovered by Amalgamation $4.50 to $24.00 per ton on the plates. When the property was discovered, in 1887, parties took an option and built a 10 stamp mill, of the Gilpin County Pattern, at Fulford, and milled 400 tons and saved $12.00 per ton. It is reported the ore averaged $30.00 per ton. Sulphur was increased to 25 stamps. In this mill concentration was proven not to save the values, satisfactorily, in this ore.

From many tests that I have made I know the ore will average $15.00 per ton.

DEVELOPMENT AND ORE IN SIGHT: A tunnel has been driven on the Polar Star Vein about 600 feet long, showing the vein varying in thickness from 8 feet to 20 feet. This tunnel gains a vertical depth of 200 feet.

At a point 100 feet in, in the tunnel, I sunk a winze 75 feet in depth on the vein and all the material taken out was milled and, by amalgamation, saved $6.00 per ton on the plates.

About 100 feet further, in the tunnel, a drift was run to the left (easterly) on one of the contacts about 40 feet long, and there a 90-ft. upraise on a 32 degree pitch. From here 5 tons of the mineralized filling was taken and milled and saved $24.00 per ton on the plates.

Beyond this (50 ft.) a drift to the right (south) 30 feet long is run, and an incline 120 feet deep at 38 degrees pitch is sunk, all in ore. I milled five tons at one time from this place and saved $12.00 per ton on the plates and three tons at another and saved $15.00 per ton on plates.

To prove the thickness of this ore, a shallow shaft, 10 feet deep, below the floor of this incline was sunk, and a drift run back under the incline 20 feet long in ore with ore in the breast proving ore as far as worked.

Above this 30 foot drift and incline there is a 90-foot upraise in the contact, which at its head or top terminates in a drift. This drift is 110 feet long, connecting with an upraise from the main tunnel below, all in the fissure vein. From this upraise it runs south 120 feet. At this point I sunk a winze or incline in the contact 70 feet deep. This ore averaged $40.00 per ton. This incline is caved full. I milled out of the drift over 100 tons and saved $10.00 per ton on the plates.

The cutcrop of this ore is on the easterly side or face of the mountain, from 50 feet to 100 feet under the crest of the mountain. These stopes extend between the fissures and show at least 2,000 feet long and 20 to 40 feet thick, of ore that will mill $5.00 per ton on the plates.

I have been describing only one vein. There are seven parallel veins in an area of 2,000 feet x 2,000 feet covered by ten claims, of which five are patented.

JOHNSON GROUP:— This group is composed of seven claims and lays South of the Polar Star Group 1,500 feet and at the same altitude. A tunnel 350 feet long is driven on a fissure, and about 80 feet in, in the tunnel, a contact 10 feet thick was crossed. The ore in this contact assayed $4.00 to $25.00 per ton of ore.

A drift 75 feet long was driven south in the contact, showing clay and decomposed quartz 80 feet thick and assayed $2.00 to $4.00 per ton. One man can pick down 10 tons a shift. The breast of this
tunnel cut into the contact between the schist and quartzite. So far it has penetrated 25 feet. The owner who did the work says it will average $8.00 per ton. It is easy ground to work and the tonnage can be made 100 tons or 200 tons per day.

A good road is built to within 300 feet of the tunnel. From here to where a mill can be built below the Polar Star Group is, say a mile. A span of horses could haul 6 tons of ore.

RECAPITULATION: As far as "ORE IN SIGHT", if based on "blocked out ore" then there is none-BUT PROVEN ORE; I am warranted in saying there are at least 600,000 tons that will mill $7.00 per ton on the plates, which is $4,200,000.00 and allowing as cost of production $2.50 per ton of ore there is $2,700,000.00 net in sight.

My basis of arriving at this value is as follows:

Taking the croppings of the quartz ledge or contact laying between the fissures at only 1,000 feet long x 30 feet wide and out in the tunnel driven on the Polar Star vein 300 feet deep this is 9,000,000 cu. ft. per ton of ore makes a result of 600,000 tons. 600,000 tons @ $7.00 per ton is $4,200,000.00 which I claim. I have made no estimate of the ore in fissure veins, which assay $10.00 to $600.00 per ton, and none of the ore in sight in the contact inlines and upraises, nor for that which is cut in the Johnson Tunnel at a depth of over 400 feet.

Now I want to refer to what I believe to be the greatest asset in this enterprise and that is the tunnels from the south end of the mountain, which would trend along the mineral zone northerly, say 6,000 feet which would carry it under the Johnson and Polar Star Groups at a depth of 4,000 feet on the pitch of the sedimentary formation and fully 2,000 feet vertically of the fissures.

At the point where the tunnel enters the mountain on the Jack-Pot Claim, this is 200 feet above the bottom or flat. This tunnel is 600 feet long driven through the lime into and through the quartzite strata, and is just entering the Archaean rocks. About 100 feet in, in the tunnel, the contact between lime and quartzite was cut. An incline shaft was sunk 90 feet deep in ore that will assay $20.00 per ton. Near the bottom of the incline an oxide of iron in the foot-wall assayed $416.00 per ton. This contact was raised on above the tunnel 75 feet. The ore chute is 8 feet thick and averages $10.00 a ton.

Towards the face of the tunnel or say 400 feet further in beyond this incline and upraise, a cross-cut into a vein which so far as shown parallels this tunnel here, the first sulphides are shown.

The vein of mill ore is 8 feet wide carrying a sulphide streak one to two feet wide. It is a yellow copper stained iron.

Up the mountain above timber line, say 1500 feet higher is lots of float ore. I broke a piece off a chunk that would weigh 3,000 lbs. This sample assayed $4,282.00 per ton. Three other samples assayed $25.00 per ton.

Below this Jack-Pot tunnel 180 feet a tunnel has been driven 350 feet long. It has not passed through the Lime, but some ore is found in the breast. This tunnel should be the principle workings of the mountain as it is the deepest point to be attained where the work is practically on the vein or contact and where a fine site for a big mill just under the tunnel can be built in fine timber, and within 2,000 feet a water power of fully 500 Horse power can be had.

Respectfully submitted,
(Signed)William J. H. Miller.
THE POLAR STAR GROUP
THE JOHNSON GROUP
GOLD MINING CLAIMS

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NO. 1 Winze 70 feet deep.
NO. 2-Drift South 43 feet in bedded vein.
NO. 2-Drift South 56 feet in bedded vein.
NO. 2-Upper 90 feet high.
NO. 2-Drift running South 100 feet.

Lower Proposed Tunnel.

Tunnel on Polar Star vein 600 feet long.