

IBEX MINE

Cadogan Creek area

The Ibex mine explores a vein that is generally made up of several strands of quartz, each of which records a complicated history. For much of its explored length (2950 ft.) the width of the vein ranges from 3 to 7 ft., and locally the distance between walls attains 12 and even 16 ft., but only rarely does the quartz exceed 5 ft. The remainder is sheared argillite or gouge. Each of the strands of quartz shows numerous angular fragments of argillite, most of which are largely replaced by quartz. Generally, however, only one or two show sulfides. Numerous specimens from these strands record three epochs of quartz deposition. The first quartz is white and coarse and encloses partly replaced argillite fragments; the second quartz was deposited as horizontal crusted veinlets which contain sulfides (largely tetrahedrite); the latest quartz cements a breccia of the earlier material along vertical fractures. Thin sections amply confirm this interpretation but do not reveal evidence of secondary growth of the grains or recrystallization.

Hewett, 31;26

QUARTZ PROPERTY

1. Name of property IBEX-Mine
Operating company (or individual) IBEX Gold Mining Co. - Ore. Corp.
Address 300 Rogers Bldg - Vancouver B.C.
Location of property — —
Acreage of holdings 18 put claims } 10 in B.C.
15 full - 5 part. } 8 in Grant

T B MacTavish - Pres.
Vancouver - B.C.
W. C. Fellows - Vice Pres
O. Mgr.
L E Casella - Vanc.
Sec.
2. History of property, past and recent:
New level - \$54,000 - since 1935
2500' of new drift besides equip.
3. History of production:
4. Development: Number of levels, lengths of drifts and cross-cuts, raises, etc.:
5. General description and equipment on hand, topography, country rocks, elevation, timber, water, snow fall, climate, power, etc.
5200' elev. -
-100 mesh to do good work -
can walk for 6000' on croppings
6. Geology - General and local. Ore geology - type of deposit, i.e., vein, mineralized zone, bed; contact relations, attitude and orientation, vein minerals, gangue, type of mineralization, alteration, enrichment, etc.
7. Metallurgy - nature of ore, hard or soft, free-milling, base, direct shipping, etc. Kind of mill and equipment in use or planned, current daily tonnage of ore or concentrates, approximate value, freight rates to smelter, etc.
8. Remarks - economics: High or low cost, principal drawbacks, reasons for success or failure, apparent life of operation based on apparent quantity of ore available.

IBEX MINE

Cracker Creek District
Baker County

Milling operations have been started by Walter C. Fellows of Sumpter, Oregon, and associates who are operating the Ibx Mine which was reopened recently. The mine and 25-ton mill are located in the Cracker Creek district of Baker County above Sumpter, Oregon.



From The Mining Journal
Vol. 29, No. 12
November 15, 1945
Page 36.

As soon as roads are in condition for heavy hauling, work at the Bald Mountain gold mine in Baker County, near Sumpter, will be resumed on a larger scale than was possible during the war years. W.C. Fellows of Baker holds the mine under lease.

From The Mining World
Vol. 8, no. 6
May, 1946
Page 75.

Iberx Mine - Sept 2, 1937

Crude ore - Smelter lot 5111
Tonnage 55 tons

| | Cu | Pb | Zn | Ag | Au | Insol. | Fe | Sulphur | lime |
|----|-----|-----|------|------|------|--------|-----|---------|------|
| .1 | nil | nil | 9.74 | .515 | 92.4 | 2.7 | 1.4 | Tr. | |

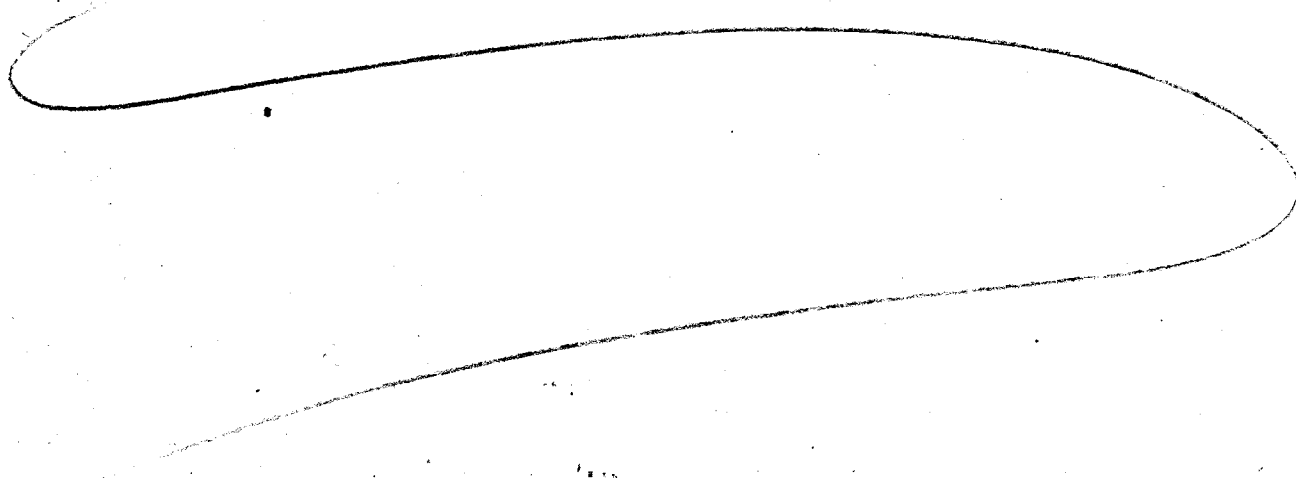
Freight. 450

| | | | | | | | | |
|-----|----|-----|-----|------|------|-----|-----|----|
| .07 | Tr | nil | 7.3 | .418 | 91.4 | 2.8 | 1.8 | Tr |
|-----|----|-----|-----|------|------|-----|-----|----|

58 tons

Crude - 5344 (Smelter lot)

Oct. 18, 1937



ENGINEER'S

REPORT

ON

IBEX

GROUP

OF

MINES

SUMPTER,

OREGON,

1913.

E. W. ISHAM, E. M.

This group of mining claims is located in Section 4, Township 9, Range 36 West of the Willamette Meridian, in Grant and Baker Counties, ten miles from the Town of Sumpter, Oregon, which is on the Sumpter Valley Railroad.

The county seat of Baker County is at Baker City, Oregon. There is a good county road from Sumpter to the mine, which in the distance of ten miles rises from forty-four hundred feet to about five thousand feet altitude.

(Original Report - Photo Mine Buildings).

This group consists of eighteen full claims and one fractional claim, viz.; Pyrites, Natchez, Ibex, Greenhorn, O.K., and Star Fraction, patented; and Pearl, Free Gold, Tellurium, High Ore, Annie, Petzite, Sumpter No. 1, Sumpter No. 2, Bullion, Climax, Star, Black Pine, unpatented, which last twelve are held under United States possessory laws. There are no conflicts and all annual assessment work has been regularly done.

(Photo - Old Shaft, No. 1 Level)
(" Tunnel Mouth " 4 ")
(" " " " 2 ")

DEVELOPMENT

The development consists of one original main shaft, three hundred feet deep, double compartment, 4 x 9 feet in the clear, from which Level No. 1 at 27-ft. station extends 450 feet Northeast and 78 feet to the Southwest to tunnel mouth. Level No. 2 at 100-ft. station extends 450 feet Northeast and 600 feet Southwest to face of drift.

Level No. 3 at 300-ft. station extends 425 feet Northeast and 500 feet Southwest to face of drift.

Level No. 4 at 450-ft. from collar of the shaft extends 600 feet Northeast of station under main shaft and 2200 feet Southwest to tunnel mouth.

There is an upraise on the vein of 26 feet, 230 feet Northeast from shaft, on the first level, 375 feet Southwest of shaft an upraise 100 feet to the surface from second level.

level there is an upraise 100 feet to surface, 375 feet Southwest from main shaft.

Third level to second level there is an upraise of 100 feet Southwest 325 feet from shaft.

Fourth Level. On the fourth level the Pyrite tunnel extends 2950 feet from tunnel portal. From portal of tunnel 2250 feet to Station No. 1, which is 175 feet Southwest from a point under the main shaft. Beyond this point the tunnel extends 700 feet.

From Level No. 4 to Level No. 3 there is an upraise of 250 feet.

The three blue prints herewith marked A, B, and C in red, are old ones and show the first development work in the early days of the mine. The property was bought from the locators on the showing in the first level Northeast from the main shaft.

(Photo - Ibex Vein Out-crop).

There are four parallel veins out-cropping on the properties, known as Bullion, Ibex, Climax and Star Veins. A number of spurs connect the main veins, ~~as evidenced on the surface.~~ The strike of the main Ibex Vein is Northeast and Southwest, on which most of the work has been done. The veins are true fissures, in slate and porphyry.

The pitch is eighty to eighty-five degrees. The average width of the vein is fifteen feet. The Bullion Vein is connected by a spur with the main Vein. This Ibex Vein, known as the mother lode, extends onto the adjoining Bald Mountain property, and onto the Golconda to the northeast - Columbia, Tabor, North Pole, E & E, Highland and Elkhorn, some of which properties are now shipping, while some of them have records of several millions production, all of them having good ore showings, I am informed, at the present time.

(Photo - Continuation of Ibex Vein towards)
(Golconda, North Pole, Shippers.)

TIMBER.

There is an unlimited amount of the finest timber for all purposes, conveniently located on company roads to and from the tunnels

and on company ground.

WATER.

An abundance of water power can be developed from the three Downey Lakes on Bald Mountain.

The adjoining Bald Mountain property has 250 H. P. developed from the use of some of the water from these lakes, which is conducted through an 8 inch steel pipe to the mill with a fall of 750 feet. There is five times more water flowing down the mountain unused. These lakes are one and one-half miles distant and one of them is quite deep and covers about ten acres; the other, five and three three acres respectively. They could be equipped very cheaply at or near the lakes and electric power carried to the mines two miles. Deep Creek water is piped 200 feet to the mine buildings for boiler and household purposes.

COUNTRY ROCK.

The country rock is porphyry, slate and gray granite.

(Photos - Downey Lake No. 1, Downey Lake)
(No. 2.)
(**View towards Sumpter, ten miles,**)
(from Ixex Summit, showing Bald Mtn.)
(Mill below.)
(Engine House Dump - No. 4 Level.)

RESULTS OF SAMPLING.

See attached Assay Plat.

The one hundred samples taken in the places indicated on the Assay Plat were from 25 to 50 pounds each in weight; they were taken under my direct supervision by six men employed and were broken into nut sizes and quartered on an iron sampling plat in the tunnel house, to a one quart sample. These samples were then assayed by a competent assayer employed for the purpose in the mine assay office, which assaying was done under my direction. The cut samples were immediately taken to the office and run for values. One sample taken in one of the upraises (not showing on the plat) ran over \$700.00 in gold and \$150.00 in silver, which was not taken into consideration in computing the general average.

A computation made from the one hundred samples cited

on the assay plat give an average of \$10.89 per ton in gold and silver. I wish to state right here that twenty-nine samples entered on the assay plat and indicated by the letter "R" in red ink were taken by Mr. David Ross, the former manager of the mine, in process of development before being timbered. On account of the timbering which was very tight from the swelling by water, no samples were taken at these places, but Mr. Ross's reputation as a mining engineer of standing is a sufficient guarantee that they were correct, and on this account I do not hesitate to enter them on this plat and take them into consideration in obtaining the general average. There are some very fine showings of cinnabar on the first level. It may not be out of place to state at this point that nearly all of the development of this mine was done under Mr. Ross's direction.

ORE IN SIGHT.

I estimate there are one hundred thousand tons of ore in sight, and a reasonable conclusion is that there is a like amount of "possible" ore, ~~not computing that already extracted~~ and lying on the ore dumps. At mouth of tunnel No. 2 I estimate eleven hundred and twenty-two tons on the dump. Boulder Dump three hundred and fifty tons. Engine House Dump fifteen hundred tons.

I consider it conservative to conclude from the width and strength of the vein showing in the lower tunnel, that it continues down for one-third the distance above this level, with a "probability" of better values, as down to this level they have increased. In all the samples taken there were no blanks. In the third level there are many peculiar hard quartz nodules, from two to twenty pounds each, imbedded in the vein. These are rich.

The rejected portion of each sample taken by me was (enmasse) cut down to one sample, which gave a fire test of \$9.70, being \$1.44 in silver and \$8.22 in gold, thereby making quite a satisfactory check on the general average, sample by sample taken. The proposition can be denominated a large low-grade silver-gold property. From the result of the cyanide test and amalgamation

test on an average sample of the whole mass taken from all parts of the mine as indicated on the Assay Plat, it is evident the order of handling the ore should be: 1st, stamps; 2nd, vanners; then concentration tables and cyanide for the tails. The values are in the form of free gold, tellurium and iron pyrites. The silver is in crystal form. In the upper level some cinnabar is in evidence. For results of cyanide and amalgamation tests, see Stowell attached certificates.

(COPY)

ASSAY OFFICE OF WM. A. STOWELL & CO.
No. 501 Sprague Ave.,
Spokane, Wash., July 19, 1913.

Memo. of Assay of Rock made for
F. W. Isham, E.M.

| SAMPLE MARK. | | : Assay Val. per ton of 2,000# Avoirdupois | | | | |
|--------------------|--|---|-------------|------|------|--------|
| | | : -Silver at 60 ¢ per Oz.: Gold @ \$20.67 per Oz. | | | | |
| AMALGAMATION TEST. | | Ozs. | Dollars Cts | Ozs. | \$ ¢ | Total |
| Heads | | 2.4 | 1.44 | .40 | 8.26 | \$9.70 |
| Tails | | .8 | .48 | .32 | 6.61 | 7.09 |
| % of Extraction | | | 66% | | 20% | |

Using 1/10 of 1% cyanide (assay of
Tails)

| | | | | |
|--------------|-----|------|-----|------|
| | 1.8 | 1.08 | .16 | 3.30 |
| Silver saved | | 25% | | |
| Gold | | 60% | | |

No. 53449 C. Duplicate.
Charges \$5.00

Wm. H. Stowell & Co.
Assayers.

RECORD OF ASSAY FROM ORE SAMPLES AND WHERE TAKEN,
AS INDICATED ON ASSAY PLAT.

Commencing at the breast of the tunnel 500 ft. northeast from the main shaft:

\$3.38 across 3' of face of tunnel in the vein

\$1.30 across 5', no foot showing

\$2.50, 6' exposed, no foot showing

\$2.10 22' wide

\$1.60 across 4', no foot showing

\$2.32 3' exposed, no foot showing

\$2.58 across 12'

\$3.10 across 4', no foot showing

\$4.66 across 4' no foot showing

\$2.00 across 4', no foot showing.
\$10.12 across 10', no foot showing
\$16.30 4' on hanging, no foot showing
\$7.84 4' exposed on hanging, no foot showing
\$2.50 4' exposed on hanging
\$2.00 across 6', no foot showing

Level No. 2.; Northeast end:

\$15.50 4' from hanging, towards foot, 50' from raise E.
\$3.20 across 4' from hanging towards foot, 40' from raise
\$4.40 across 5' from hanging towards foot
\$7.00 across 4', no foot, 25' from shaft
\$2.12 across 4', no foot showing
\$11.22 across 4', no foot showing
\$10.40 across 5', no foot showing
\$31.44 across 7', no foot showing
\$8.86 across 6-1/2', no foot showing
\$21.30 across 4', no foot showing
~~\$3.88 across 4' drift~~
\$2.92 across 3' winze, east side
\$3.95 across 3' winze, west side
\$54.80 across 8' drift towards foot
\$16.80 across 6' no wall showing
\$6.00 across 6', no wall showing
\$4.42 across 6', no wall showing
\$6.40 across 6', no wall showing
\$10.05 across 6', no wall showing
\$2.00 across 6', no wall showing

In Upraise B:

\$2.00 across 6'
\$3.05 across 6'8", no wall showing
\$27.50 across 6', no wall showing
\$2.82 across 6', no wall showing
\$4.50 across 6', no wall showing
\$13.90 across 6', no wall showing
\$4.90 3' of talc and slate, west, hard ore

\$96.23 across 5', east side of raise
 \$16.60 across 5' west side of winze over raise
 \$8.42 across 6', no wall showing
 \$6.80 across 5', no wall showing
 \$5.12 across 6', no wall showing
 \$5.20 across 6', no wall showing
 \$7.18 across 6', no wall showing
 \$4.46 across 6', no wall showing
 \$11.86 across 6', no wall showing
 \$16.54 across 6', no wall showing
 \$4.40 across 6', no wall showing
 \$2.26 across 6', no wall showing
 \$2.53 across 6', no wall showing
 \$2.20 across 6', no wall showing
 \$16.78 across 6', no wall showing
 \$1.72 across 6', no wall showing
 \$3.48 across 6', no wall showing
 \$1.80 outcrop
 \$877.10 4" wide on hanging wall, 60' Southwest of raise B, third level.
 \$1.30 across 6', no wall showing
 \$2.00 across 6', no wall showing
 \$6.30 across 6', no wall showing
 \$4.00 across 6', no wall showing
 \$9.20 across 6', no wall showing
 \$13.50 across 5', the No. 2, no wall showing
 \$56.00 across 6' drift, no wall showing
 \$20.00 across 6' drift, no wall showing
 \$4.00 across 6' drift, no wall showing
 \$4.40 across 6', drift, no wall showing
 \$10.00 across 6' drift, no wall showing
 \$4.50 across 6' drift, no wall showing
 \$2.40 across 6' drift, no wall showing
 \$3.20 across 10'6" cross cut No. 3, no foot showing.

Level No. 3, Northeast Face:

\$72.50 2' on hanging wall
\$5.50 across 4' 5' from face
\$9.00 across 4' on hanging
\$13.55 across 2'5" on hanging 30' west of face
\$12.00 across 4' on hanging
\$15.26 across 6' hanging towards foot 45' west of face
\$6.00 4' on foot towards hanging, 60' from face.
\$9.00 3' on foot 65' from face
\$3.30 3' on hanging 25' west of cross-cut 5
\$8.50 4' on hanging cross-cut No. 4
\$13.50 3' in center of vein 15' west of cross-cut No. 4
\$2.65 3'5" wide in cross-cut No. 3
\$2.55 across 5' center of vein 10' west of cross-cut No. 3
\$24.60 across 6', no wall showing
\$8.70 across 6', no wall showing
\$5.06 across 6', no wall showing
~~\$5.28 across 6', no wall showing~~
\$6.80 across 5', no wall showing
\$4.37 across 5', no wall showing

Level No. 4, Northeast Face:

\$2.00 across 6' from hanging
\$99.00 14" on hanging
\$2.00 4' next to rich streak on hanging
\$6.00 7' on hanging 90' east of cross-cut No. 24
\$34.70 5' on hanging 60' east of cross-cut No. 24
\$3.25 3' on hanging 60' east of cross-cut No. 34
\$13.15 4' on hanging 2' wide adjoining 55' east of cross-cut No. 24
\$10.00 across 6' from hanging, no foot showing
\$6.30 across 6' from hanging, no foot showing
\$20.00 across 10' from hanging, no foot showing
\$3.50 across 10', no foot showing
\$2.34 across 9', no foot showing
\$3.50 across 10', no foot showing

\$8.32 across 1'5" 80' east of cross-cut No. 23
 \$2.74 across 6', no foot showing
 \$3.40 6' exposed on hanging, no foot showing
 \$1.98 4' exposed on hanging, no foot showing
 \$5.64 4' exposed on hanging, no foot showing.
 \$7.84 4' exposed on hanging, no foot showing
 \$10.20 5' exposed on hanging, no foot showing
 \$2.40 4' exposed on hanging, no foot showing
 \$3.80 4' exposed on hanging, no foot showing
 \$2.58 5' exposed on hanging, no foot showing
 \$10.40 4' exposed on hanging, no foot showing

Upraise A:

\$10.30 across 4' 165' below 3 Level
 \$15.00 across 7' 120' below 3 Level
 \$7.20 across 6' 105' below 3 Level
 \$6.80 across 6', 90' below 3 Level.
 \$21.20 70' below 3 Level across 6'
 \$10.50 across 7', 60' below 3 Level
 \$3.00 across 5' from foot towards hanging 40' east of 15
 \$3.20 across 6' from foot towards hanging 20' from 15
 \$12.40 across 5' from foot towards hanging, 15' east of 15
 \$2.40 across 5' from foot towards hanging, 10' east of 15
 \$4.90 across 6½' north towards foot

Summary - Foot-Dollar Averages.

| Location | Samples | FT x \$ | Feet | Weighted Section |
|-----------|------------|----------------|--------------|------------------|
| Level #1 | 14 | 305.48 | 60.2 | 5.07 |
| Level #2 | 20 | 1333.58 | 101.5 | 13.14 |
| Upraise B | 24 | 1490.37 | 138.6 | 10.75 |
| Level #3 | 33 | 1716.66 | 169.5 | 10.13 |
| Level #4 | 24 | 1046.82 | 126.7 | 8.26 |
| Upraise A | 11 | 530.95 | 63.5 | 8.36 |
| | <u>126</u> | <u>6473.86</u> | <u>660.0</u> | |

9.73 - in 1913

1937 equivalent

16.60

Gold 235 Silver 277

1937
2,569,680.00

There are 600 feet of ore chutes exposed on the second level; these are in evidence on the fourth level, 387 feet below; allowing an average of ten feet as the average width of the vein (in many places it is from 15 to 20 feet wide) and then allowing 15 cu. feet for each ton of ore, we have a total of 154,800 tons of available "ore in sight", and further calculation at the average value of \$9.70 per ton, as shown by the assay sheets, we have a total of 1,500,560. Then deducting one-half of this amount for all expenses of extraction, shipping and smelter charges, we still have \$750,280. net. This is without allowing for the ore that is known to be below the lowest levels, not yet put in sight.

There are also very rich streaks of ore now showing, which have not been taken into the computation of the general average values, that will bring the returns up to better figures when the mine is running regularly. These are probabilities and possibilities that will be admitted.

METHODS OF ORE EXTRACTION.

The methods of extraction of values in the ore in mines, that are on the extended Ibez Mines series of veins, as found in the Golconda, Appomattox, Columbia, E&E, North Pole, are; first, stamps and plates, second vanners, and then Cyanide.

For production of the Golconda Mine and others see Annual Report 1900-1901 Part Two, Ore Deposits, by Charles D. Walcott, Director.

BUILDINGS:

Boiler and compressor room 28x32'; shed for receiver and to change room 7x26'; Change room and store room 14x34'; timber and tunnel shed, which also includes space for blacksmith shop, 27x68'; Powder House double walls, 10x12'; Assay Office 12x18' with shed 5x8'; three bunk houses 14x28', with 8' walls; three sheds, one to each house, 8x11'; one bunk house 10x12' with 8' walls; two tent bunk houses, one 12x18' and one 10x12'; office building 12x30' with 12' walls; containing office, bedroom and bath-room; shed 10x10';

Boarding house 18x48' with 10' walls; dining-room, kitchen and two bed-rooms; Cellar 16x24'; Meat safe 6x8'; Wood-shed 24x18'; chicken-house 10x30'; Barn 24x30'; Water tank house 14x14', shed roof;

BOARDING HOUSE: The Boarding house is equipped with a No. 58 Majestic range, double oven, and all utensils and furniture necessary to feed fifty men.

OFFICE: The office furniture is plain, home-made pine tables, etc., 1 iron bed; 1 pair springs; 1 double mattress; 1 single mattress; 6 quilts; four pair cotton blankets or sheets; 2 pair coarse wool blankets; 2 pillows; four pillow slips; 1 inside cot; 35 cots in bunk houses.

ASSAY OFFICE: 1 No. 271 Smith & Thompson button balance; 1 C. Becker pulp scales; 3 sets weights; 1 oil stove; 1 buckboard; 1 case rock breaker; 1 four crucible gasoline furnace tank and pump and other utensils, making it complete for limited, or the necessary, work of the mine.

WATER SYSTEM: This is complete and in operation to all houses. The ~~supply has been ample at all times for steam and domestic purposes.~~ It is piped a distance of nearly two thousand feet from the canyon west of the Pearl claim, to a 3250 gallon cedar supply tank, and from there is distributed under pressure. The first line is 1.5" pipe from the canyon to the tank; the second line, from the tank to the camp is 1 1/2" pipe. From the boarding house to the tunnel the line is 1" pipe.

MACHINERY EQUIPMENT:

1 - 60" x 16' 125 Lb. 80-H.P. Kewanee Boiler; 1 - No. 9 80-H.P. American Feed Water Heater; 1 - 4x2 1-2x4 Gardner Supply Boiler Feed Pump; 1 - 2x14x18" Laidlaw-Dunn-Gordon Compressor and Air Receiver for same; The boiler and its equipment is new. The compressor had seen slight service before the present campaign. This machinery is in first-class condition, all piped, connected up and ready to operate. 1 - 8-H.P. Vertical Lutton Engine; 1 Anaconda Prospecting Hoist, 1400 Lb. load capacity, with 600' of 1/2" steel cable; 1 skip or timber track; 1 No. 6. Exhaust Fan; 1 - 3-1/8" #9 Ingersoll Piston Drill;

1 - "B-104" Sargent Rock Drill; 2 Hardsocg Little Wonder Stope Drill
2 No. 8.C. Waugh Stope Drills; all in good condition; 3 Machine Bars
complete; 3 coils 1" Machine Air Hose; 3 Coils 5/8" Machine Air Hose;
2 Coils 3/4" Machine Air Hose; 1112 lbs. Steel for large drill;
250 lbs. Steel for No. B 4 and Stope Drills; 267 lbs. Hand Drill Steel

BLACKSMITH SHOP:

The forge in the blacksmith shop is usually supplied with compressed air, but it also has a Buffalo Blower as an auxiliary. It is equipped with a small drill press to bore from 1/4" to 1", and all tools necessary for ordinary mine work, pipe work, and sharpening hand and machine steel.

SUPPLIES AND OTHER TOOLS:

275 Lbs. assorted iron in stock; 7 long handle Rd. Pt. shovels; 5 can hooks; 3 cant hook handles; 1 1-ton chain blocks; 1 1/2-ton chain blocks; 3 cross-cut saws; 3 X-cut saw handles; 100 lbs. track spikes; 2 1-1/2" pulley blocks; 1 set screw plates 1/4" to 1"; six twist drills; 1 ratchet drill; 1 - 6" vise; 1 - 14" jack screw; 1 - pipe vice; 1 Forbes 4" pipe threader; 4 pipe wrenches; 3 pipe cutters; 3 Stilson wrenches; 2 machine valves for Waugh drill; 2 grindstones; 1 Jim crow; 1 old drill press in good repair; 6 mine cars, 3 one-ton, 3 -1600 lb. capacity; 2 timber trucks for mine use; 1 wood car for wood yard; 21 picks; 3 single hammers; 3 double hand hammers; 6 lanterns; 2 log chains; 23 boards 1x12x12; 2 hand saws; 1 rip saw; 3 X-cut saws; 3 broad axes; 2 pole axes; 1 hand axe; 1 hand brace; 1 set wood bits for same; 1 - 7/8" ship auger; 1 rabbit plain; 1 - 3 carpenter's slick; 24" metal level; 1 - 18" metal level; 2 carpenter squares; 1 foot adze; 2 rakes; 2 iron wedges; 1 saw set; 1 draw knife; 3 claw hammers; 2 skip pulleys; 4 timber dogs; 1 - 2-horse sleigh.

OLD EQUIPMENT THAT HAS NOT BEEN USED:

1 - 8x10 hoist; 1 small boiler feed pump; 1 No. 5 Dow sinking pump;
1 No. 9 Cameron sinking pump; 1 No. 4 blower; 1 water wheel or moto
1 No. 86 anvil;

EQUIPMENT IN PLACE IN THE MINE:

Compressed Air Pipe; 2210' in Pyrites Tunnel, 2239 in Raise for connection; 795' on 3rd level; total 3228' 2" and 2½" pipe in place; 160' 1-1/4" Compressed Air Pipe in Raises above 3rd level; 2220' 10" Ventilating Air Pipe in Pyrites Tunnel; 540' Ventilating Air Pipe on 3rd level; 2760' 10" Ventilating Air Pipe in place; 400' 6" Ventilating Air Pipe in place in Pyrites Tunnel between Station No. 2 and face of tunnel; Tee Rail, 3010' 8 and 12 lb. Tee-Rail Track in Pyrites Tunnel and on Dumps; 920' 8 and 12 lb. Tee-Rail Track on 3rd level; 1000' 8 and 12 lb. Tee-Rail Track on 2nd level; total - 4930' 8 and 12 lb. Tee-Rail Track in place.

In connection with this Ibez offering, the adjoining Bald Mountain property (whose workings are 600 feet more or less distant beyond the face of the Ibez tunnel level No. 4) should go with these Ibez holdings. They have a 200-foot shaft on top of the mountain, a fully up-to-date mill, equipped with twenty Hendie Stamps, twelve Johnson vanners, one Pelton wheel, 250-H.P. developed by a 12" steel water pipe giving 750-foot fall. There are four smaller wheels operating the electric lights, gyratory crusher and vanner tables.

)Photo - Bald Mtn. Mill, Boarding House)
(Ibez Divide.)

A long tunnel was driven 600 feet from the mill into the mountain, to tap the Ibez vein or mother lode as it appears on the Bald Mountain property. On account of the death of the owner all work was stopped and the tunnel is now caved. This tunnel would cut 158 feet below the lowest fourth level of the Ibez, the face of which is now only 600 feet from where the Bald Mountain tunnel would cut the Ibez vein on Bald Mountain property. The logical operation would be to work the Ibez property through the Bald Mountain tunnel, and mill, which saves one divide in transportation and brings all the workings three miles nearer Sumpter and the railroad. There are eleven patented claims in the Bald Mountain property and three veins showing, and unlimited amount of timber and an A-1 saw mill. An option is being secured on that property at a bare cost figure, the owner of this property, as well as the Ibez, having recently died. This Bald Mountain tunnel, if run as a fourth level on the Ibez, would cut 158 feet below its No. 4 level, and after crossing into Bullion claim ground would cut the property 600 feet deep on another vein.

(Photo - Bald Mtn. Mill & Pipe Line,)
(Saw-Mill and Timber.)

The Bald Mountain property has eleven patented claims, as follows: Fair View, East Fair View, Kitch, Sheboggan, Midnight, Bald Mountain, Saginaw, Alpine, Three Star and two others, the names of which I have not at hand. These appear on the large blue print herewith, and the dividing line between this group and that of the

Ibex properties is indicated by a dotted white line, running at the intersection of the Fair View, Bald Mountain, Saginaw and Albine claims.

(Photo - Interior Bald Mountain Mill).

POWER.

If the mine does not develop its own power at the Downey Lakes, a five mile pole line will connect with the Eastern Oregon Light & Power Company's electric line. If this line is erected by the Company, the Power line will maintain it and sell power to the Company at about \$45.00 per horse power per annum, which I consider by far the best plan.

LABOR.

Top men receive \$5.50 per day; machine men \$4.00 per day. There is no miners' union here.

(Photo - From 750 ft. above Bald Mtn. Mill)

IN GENERAL.

This property was bought by the present owners on the showing in the upper Level No. 1.

The present owners have spent some \$350,000.00 on the property, in development outside of plant, etc. It has been developed for purposes of sale. All work of development stopped when the principal owner died.

The mine will be found to be a large low-grade Gold-Silver mine. The sampling as it has just been completed as a preliminary to a later checking up will be found to have given the mine the worst of it. The sampling was done with care and fully 25 to 50 lbs. of ore were in each sample. These samples were cut down to an assay quart, more or less, and these in turn were assayed at the mine and not in town, and by an assayer employed for the purpose. I have the check samples, or pulps, from all of the assays made.

At the price asked for the property, I believe that

there is a fine profit in the ore already blocked out. If sill samples are taken with care by getting down to below the accumulation of dirt, the ore will run better than shown by my sampling. The water at the time prevented my doing this.

The ore amalgamates as follows: Using 1/10 of 1% cyanide (assay of tails), 1.8 silver, \$1.08; .16 Gold, \$3.30.

The amalgamation test was made upon the rejected portions of the samples taken, and is therefore correct and fair.

The ore chutes as they appear in the different levels are indicated by the marking on assay plat, where the samples were taken.

(Signed) F. W. Isham.

11 X NAME

BALD MT. -
ELKHORN
E. VEINS IN ARG.

EASTERN VEINS IN ARGILLITE

It will be observed that first is described the series of NE.-SW. veins in argillite extending from the Cougar to La Belleview, and located along the western exposed limits of the granodiorite. Next farther east is the lone Monumental vein roughly paralleling the previous ones. Still farther east are the many parallel veins in the granodiorite of Cable Cove, and still farther east, where argillite is reached again, other veins roughly paralleling the previous series are found extending from the Ibex to the Baisley-Elkhorn, a distance of some 12 miles. In between these latter groups in a series of fractures are found Bald mountain, the Mammoth, the great North Pole-Columbia lode, the Highland, the Maxwell and many other properties.

The Highland, Maxwell and the Baisley-Elkhorn are in the Rock creek mining district, which is reached from Haines in Baker valley. The Ibex and Bald mountain at the southwest extreme are reached from Sumpter by a 10-mile wagon road up McCully fork. The Mammoth is reached by a branch of the Cable Cove road on Silver creek. The mines of Cracker creek district are reached by a wagon road up from Sumpter to Bourne and Columbia.

Ibex Mine.—The vein at the Ibex mine strikes northeast with a steep dip to the southeast, and is located upon the divide between McCully's fork and Granite creek. The elevation of the croppings is about 6,300 feet, and the lowest and longest tunnel driven in from the western side of the divide is about 500 feet lower. The slopes are well wooded, as are practically all of the argillite areas, and from the croppings a fine view is obtained of Greenhorn mountains and the region to the west.

The Ibex mine near Sumpter is shipping another car of crude ore to the International Smelting & Refining Co., at Tooele, Utah.

IBEX-BALD MOUNTAIN MINE

Cracker Creek Dist.

SUMPTER DISTRICT:

Is 8 miles northwest from shipping point, Sumpter, Oregon, on the Sumpter Valley Railway. It was located about 1900 and consists of 17 patented lode claims, recorded in Baker County and Grant County. Located in a high mountain area, the country rock is argillite with hanging walls of argillite. Footwalls are also argillite; width 30 feet, length 3000 feet. Minerals are gold and silver, assayed at \$6. Water is ample; power is available from eastern Oregon Light and Power Company, nearby; timber on claims. Mine is operating; 10 men employed in new development work; is equipped with ship, 4 ore cars, Diesel power for compressor and six air drills. Developed by 6000 feet of tunnels, shaft 4 x 7-1/2 feet, 300 feet deep. Some high grade ore was shipped years ago but no records of amount are obtainable. Owner is Ibex Gold Mining Co., W. C. Fellows, operator, Baker, Oregon. (Prescott--6/1/37). See data obtained from Fellows.

BALD MOUNTAIN -
ELK HORN
E. VEINS in ARG.

The vein entirely in argillite is developed by 4 levels, all but one of which has been driven from the surface. Most of the development, which totals about 1½ miles, has been done in the last 15 years. Development work upon the vein extends over a distance of about 3,000 feet.

This vein, as far as developed, averages about 5 feet, with a maximum width of 25 feet. The vein material for this width was originally a crushed and sheared argillite, the result of crumpling and movement of the earth's crust. Into this line of crushing upward flowing solutions deposited quartz between the fragments of argillite and has replaced in variable degrees of completeness much of these fragments with quartz. After the zone had been largely cemented together and much of the argillite fragments silicified another movement in the vein fractured the quartz and silicified argillite which was cemented together again by additional silica brought up from below.

Small amounts of sulphides are found in the quartz and in the argillite fragments. These sulphides consist of pyrite and arsenopyrite. White iron or marcasite and mercurial gray copper, with small amounts of other secondary minerals, are found. The average value of the large amount of ore is said to be so low that high extraction and strict economy would be required for profitable operations. There is a wide variation in the quantity of silver present in various parts of the mine, a variation which bears little relation to the amount of gold contained.

BALD MOUNTAIN MINE (See Ibex-Bald Mountain Mine) CRACKER Ck DIST.

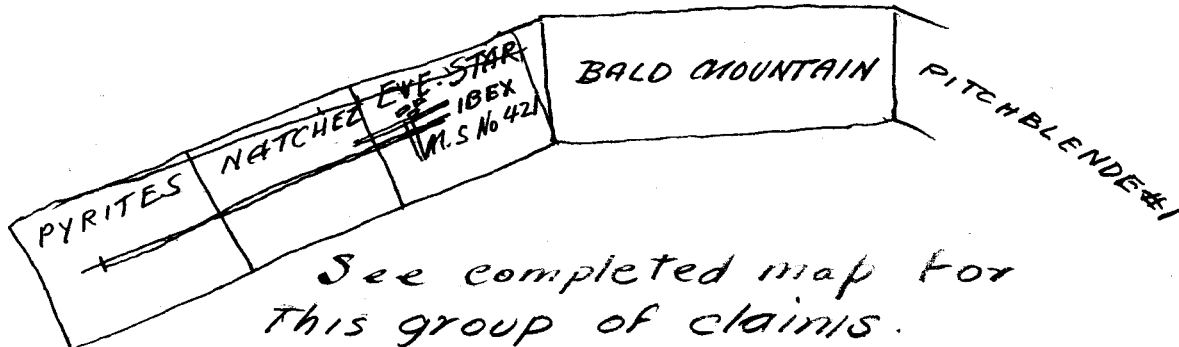
BALD MOUNTAIN
ELK HORN
E. VEINS in ARG.

The Bald Mountain mine is on the extension of the Ibex vein, and is said to be similar to it in every way with the exception that there is a greater proportion of quartz to argillite between its walls. Since the mill was built in 1901 very little has been done upon the property.

IBEX - BALD MOUNTAIN MINE, near Baker, Ore.

Elevation of mine cap 5,200'. The outcrop crosses the summit at 5800'. At one time the mine was connected to Sumpter by telephone but the wires are now down and partly removed.

Located in T 8 S R 36 E (not subdivided) Patent issued Dec. 29, 1904 Serial M.E. no. 216. Land Office La Grande. Mining Sheet 31, 32.



History

The deposit was located by Joe Michaels in 1897 but no work was done till about 1909 when some development work was done on the Ibox and some high-grade ore shipped. There are various reports re shipments made but no authentic records have been locat-

Ibox-Bald Mountain Mine.

2.

ed. Later further development was done on the Ibox and Bald-Mountain claims and a mill erected which ran a short time but though judging by the grade of the tailings the ore was good no profit could be made at \$20 gold and work was stopped. Later all the properties were amalgamated and the ground now held is shown on the accompanying map. All claims are patented with the exception of Pitchblende No. 1 and Pitchblende No. 2. Stakes of an old claim crossing these two claims have been found. As the pitchblende claims have been recently staked the other claim, if it has not lapsed, will cut out some of this ground. This matter is now being investigated.

The climate is much the same as that at about 4000 feet in southern B.C. It is healthful with about five months snow and only an occasional cold spell. Work can, therefore, be carried on all winter without any trouble. While the valley gets very hot in the summer it is always appreciably cooler at the mine.

The mine is partly in the Whitman National Forest and there is an ample supply of good timber. In order to lessen the fire risk a clearing will have to be made about the camp.

A small mountain lake is reported in the neighborhood from which it is reported an ample supply of domestic and well water can be obtained all the year. At one time it was used as a source of hydro-electric power but the flume and pipe-line have rotted.

Ibex-Bald Mountain Mine.

3.

When the mill was in operation a pole line 4.4 miles long brought power from the line of a local company. This right-of-way is still available but, to avoid tax charges, the poles were cut down. It will be necessary to dig out the holes and ~~erect~~ erect a new line which will cost about \$5000. Rates quoted are 1-1/2¢ down to 1 cent depending on the amount of power used and farther reductions are promised to apply on the installation cost. The water supply referred to in the last paragraph is not considered adequate. There is also the probability that power generated at the new Bonneville dam on the Columbia River, a project of the U. S. Government, will be available in a short time at a very low rate.

GEOLOGY

A shear zone, in places 30 feet wide, cuts a series of hard siliceous argillites. A granite intrusion is reported nearby. Shearing has been so intense in many places that slickensides occur where the faces have an eminent polish. From the workings examined a persistent hanging wall strand of quartz, usually of about six feet in width, is the outstanding feature. There is a good chance that this is commercial almost in its entirety. Recent development to the west shows a good strand of ore along the footwall with a low grade band between. Details as to grade are given on the assay plan. Improving conditions prevail in the west and it may be that the drift is entering an ore shoot of appreciably higher grade.

4.

Ibex-Bald Mountain Mine.

The commercial minerals are free gold, pyrite, arsenopyrite, tetrahedrite, and pyrargyrite. The free gold is generally alloyed with such a high percentage of silver as to lose its characteristic color, though metallics with the characteristic gold color are found. The sulphide content is small and just what proportion of the gold and silver is contained in the sulphides is not yet known. The small proportion of sulphides and metallics mean a high ratio of concentration. The gold-silver ratio varies from 1 to 2 to 1 to 1 to nearly 100, on the basis of the assays now available.

The report by Lindgren, covering the geology in much detail, has been referred to.

DESCRIPTION OF THE MINES.

An extended outcrop is reported by Lindgren to be three miles long, not all on this property, but due to the heavy snow it could not be examined. No assay maps are available of this outcrop and, aside from the statement by Lindgren that with some exceptions it is low grade, no information was available.

Nor are satisfactory assay plans available in regard to the old mine workings. A thorough sampling and mapping is necessary to give a good picture of the problem. Extensive development has been done on the Ibex side of the property and though the lowest level is connected with the surface the portal is caved. The mine, however, is drained of this means. The level marked "Adit-X-Tunnel" is reached by a cross-cut tunnel and it can be examined in part. Generally, however, the backs of the drifts are lagged. Workings below this level should have their ladderways overhauled

Ibex-Bald Mountain Mine.

and some platforms put in before further examination is made. The map shows attractive oreshoots. A pile of sacked ore can be seen at the portal of the tunnel. A dozen sacks were opened and a grab sample taken which went 0.88 oz. gold and 21.1 oz. silver. The sample was carefully examined and it showed negligible free gold. Some pieces were, however, found which showed considerable free gold and these were excluded from the sample. The vein on this level is from three to five feet wide though in some cases the shear extends in excess of ten feet in width.

The Bald Mountain workings were not visited. Not only were they covered with deep snow but all portals are reported caved and the shaft full of water. As the new main tunnel hits the vein almost immediately below and is wet along the footwall it is quite possible that the shaft referred to will be found to be free from water when opened up. The collar of this shaft is reported to be about 800 feet above the portal of the working tunnel. The dump at the collar of this shaft is reported to run \$12 per ton.

The working tunnel (800 ft. level) passed through 1575 feet of very hard siliceous argillite before striking the vein. This is a much longer cross-out than is indicated on the first map. It then went through about 30 feet of vein and mineralized rock before striking the real footwall. Details are given on the assay plan. The figures given on this plan were prepared at the mine. Some check sampling was done and it was found to agree closely with the mine work. Pulps assayed at the mine were also assayed at Vancouver by Eldridge and Williams. There was a very close check on the silvers, in fact the mine was slightly low.

Ibex-Bald Mt. Mine.

In the case of the hanging-wall golds, however, the mine was high and it has been considered advisable to make a minus correction of \$1 per ton to apply on the hanging wall assays given on the map. The figures for the footwall strand are close and the figures given can stand.

The ore is somewhat friable, drills easily and breaks well. When the back is barred down it stands for some time when pieces are liable to break off and timbering is often necessary particularly along the hanging wall. The footwall area where opened up is stronger and little timbering has been necessary.

THE MILL.

A 20-stamp mill, with capacity for 40 stamps, was erected many years ago. Other equipment includes Wilfley tables and frue vanners. The present day value of the mill consists in the building which is well built, in good condition, and large enough for a daily output of from 300 to 500 tons. Equipment of value includes a primary gyratory crusher, good motors, wiring, belting, etc. Treatment tests, using latest methods, have not been used, but no trouble is anticipated.

Above from report of G. M. Campbell, M.E. of Vancouver, B. C.

Regarding the map obtained, he says

"This map will give a good idea of the project, but it is not correct in detail. Thus, the crosscut from the mill to the vein is 1575 feet long and where it hits the vein it is nearly underneath the shaft at a point 727 feet below the collar of the shaft.

Ibex-Bald Mountain Mine.

The vein at this point will average five to six feet wide and it has now been drifted on for 80 feet to the east and about the same distance to the west. The average grade is doubtful. While a few samples taken showed an average of 0.09 oz. gold and 0.75 oz. silver, the average reported by the mine is about \$8 per ton in gold and silver. Even the low grade mentioned is milling ore as mining costs are very low. Much more drifting is needed to disclose the grade of the ore.

Regarding the Assay Plan--800 ft. level, Campbell said: "Work is now going ahead with one machine and is concentrated in the west in order to make connection with the Ibex Mine and its reported tonnages of good ore. This plan will also provide ventilation.

Regarding this Property, Lindgren states:

P. 602. "The fifth type, and the most interesting, includes the gold and gold-silver veins in the argillite series. Among them are found the richest and the strongest of the veins of Eastern Oregon. They are chiefly developed in the Sumpter, Cracker Creek, Cracker Creek, Granite, Alamo, and Bonanza districts. Their peculiarities are due to the action of a strong dislocating force on the brittle siliceous argillites, so extensively developed in these districts.

"In their simplest type they form strong and continuous fissures, with well-defined walls two to five feet apart. The vein filling is, however, not exclusively quartz, but a shattered mass of argillite, cemented by single veinlets or by a perfect

Ibex-Bald Mountain Mine.

network of veinlets with mineral quartz filling. Though altered and impregnated with pyrite, the slate does not often carry the pay which is usually concentrated in the quartz seams."

"In the Ibex and Bonanza veins the same type prevails but the vein is wider, up to 40 feet, and of the composite type. There are sometimes several parallel walls and parallel masses of ore consisting of shattered and cemented argillite. Frequent cross-cutting is necessary; otherwise important orebodies may escape attention. Most of the gold is contained in the quartz filling, but part of the ore also consists of a silicified argillite mud, which largely fills the fissures. Sometimes the breasts show a mass of argillite fragments embedded in massive quartz".

"This type attains its extreme development in the North Pole vein, upon which some of the most celebrated of the Blue Mountain mines are located. It is a crushed zone absolutely for at least 4 miles and having a width of from a few feet up to 200 feet, averaging perhaps 25 feet."

"The veins of the Blue Mountains are very little affected by subsequent disturbances. Faults are not common and, when occurring, are of slight throw."

Page 607.

"At the Ibex Mine, continuous for three miles a great number of pay shoots have been found which, however, are usually of less extent along the strike of the vein than those of the North Pole vein, and which also as a rule, are more irregular and show rapid variation in their tenor. In a distance of 4500 feet in the

Ibex-Bald Mountain Mine.

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Ibex and Bald Mountain Mines at least six shoots occur which, like those of the North Pole vein, pitch southwest in the vein, the latter having a steep southerly dip."

Page 610.

"Regarding the permanency of the veins there are very good reasons for believing that the strong, well-defined veins upon which most of the important mines are located will continue to the greatest depths yet attained in gold mining. It is also probable that pay ~~sh~~ shoots will continue with depth through the unbroken continuity of one and the same ore shoot should not be relied on with confidence; barren levels will occasionally interrupt the richest and most extensive ore shoots. Taken as a whole the strength of the vein systems and the mineralizing action are important factors in favor of the future of this mining region."

Page 613.

"It is an interesting fact that adjoining pay shoots in one and the same vein may differ considerably in the character of the ore. This appears particularly in the North Pole and Ibex veins. In the Ibex mine three payshoots show successive variation of the relative proportion of gold and silver. The first shoot contains 90 percent gold and 10 percent silver and at last 40 percent gold and 60 percent silver.

Page 667.

Ibex Mine "The group of three claims, Ibex, Natchez, and Pyrites comprising the mine is located on the high divide separating McCully Fork of Powder River from the waters running into Granite Creek and the north fork of the John Day River. The el-

Ibex-Bald Mountain Mine.

10.

levation of the shaft is 6270 feet. A short distance northward Bald Mountain rises to a height of 8330 feet. The property was bought a few years ago for a sum reported to be \$60,000. Since then a great deal of development has been done consisting chiefly of a shaft 300 feet deep, with two tunnel levels, as well as a third and lowest level 800 feet long and driven 500 feet below the shaft on the Pyrites claim. Total development work is 3000 feet. There is as yet no mill on the property.

"The country rock is the usual black, hard argillite. Sometimes, as at the Pyrites tunnel, it shows the stratification very plainly. At this place its strike is nearly east-west and it dips steeply. A short distance northward the contact with the granodiorite of Bald Mountain begins. The vein is very strongly marked with large outcrops of argillite and quartz. Its strike is N 25 degrees N and its dip 60 degrees S.E. on top of the hill increasing to 80 degrees in the bottom of the shaft. The outcroppings are said to be poor but in one spot the quartz showed free gold and a considerable amount of pyrargyrite. The vein is from six to ten feet wide and in general consists of a zone of crushed black argillite between two usually welldefined walls. The argillite is filled with irregular quartz seams sometimes showing plain comb structure. In other places the argillite occurs as inclusions in the quartz and is partly silicified and filled with pyrite. The pay is contained in the white quartz and is chiefly in the sulphides which consist of pyrite and arsenopyrite. The gold when occurring is of rather pale color and is worth only \$13 per oz. Pyrargyrite and cinnabar have been found the latter in

several places as apparently secondary seams in the quartz.

"The mine is reported to contain three shoots. The first, struck near the mouth of the second tunnel, 150 feet below the shaft, and called the Boulder shoot, carries no free gold nor sulphurets, but the ore cyanides well after roasting. The ore is said to carry 95 percent of its value in gold. The next shoots nearer the shaft lie in hanging wall and are from 3 to 5 feet wide. The second shoot contains 60 percent gold and 40 percent silver and includes a smaller 8-ft. long lens, the coarse gold chimney, known from the surface and the second tunnel levels. Finally, the most easterly shoot is said to carry 60 percent silver and 40 percent gold. The pay in the vein is believed to be rather irregular and pockety but is thought to possibly average \$10 per ton.

BALD MOUNTAIN MINE.

"This is located east of the Ibex, on the same vein. The elevation of the shaft is 6300 feet. The mine has been developed but recently though the vein has been known and slightly prospected for many years. The intention is announced to shortly erect a 20 stamp mill on the property.

"Most of the following data regarding the shoots and development were kindly furnished by the manager, Mr. H. S. McCallum:

"The Bald Mountain owns 38 claims of which two, the Bald Mountain and the Midnight, are on the Ibex vein, taking in 3000 linear feet of this. The principal vein is developed by a tunnel 500 feet long and by a perpendicular shaft at the mouth of this

tunnel. Two levels are turned from this shaft at 100 and 200 feet and sinking is in progress below the later level. The vein is exceedingly strong and well-defined from one to 30 feet wide and averaging several feet. The gangue is white massive quartz and the vein is sometimes filled with solid quartz though more commonly, especially in the wider portions, much of the vein matter is shattered argillite cemented by auriferous quartz. The vein shows in its structural features a great resemblance to the Ibex, of which it is the extension. Besides free gold and a very small percentage of pyrite the quartz occasionally contains bunches of cinnabar.

"Secondary changes apparently have had little influence except for a distance of 25 to 50 feet from the surface. Several ore shoots are known, all of them carrying a certain proportion of free gold and appear to pitch steeply southwest on the vein. The first shoot near the mouth of the tunnel continues for 60 feet carrying 50 percent of the free gold and equal quantities by weight of gold and silver. The vein is from eight to ten feet wide and the tenor of the ore is stated to be from \$8 to \$10 per ton. A second pay shoot 75 feet long of lower grade is met with 190 feet from the mouth of the tunnel. A third shoot 300 ft. from the mouth is 200 feet long the width varying from 4 to 50 feet and the value from \$6 to \$50 per ton.

~~"The first shaft level the pay shoot was found a short~~

"On the first shaft level the pay shoot was found a short distance from the shaft its width of 8 feet gradually decreasing to 18 inches. Thirty percent of the gold is here free. After cut-

Ibex-Bald Mountain Mine.

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ting through the shoot the drift follows the partially pinched vein in quartz for 210 feet with low values of from \$1 to \$3 per ton. The second and third shoots have not been reached. To the east the level continues in ore for 14 feet.

"On the second level the first shoot was met 100 feet from the short cross-cut to the vein. ~~The~~ To the east on this level there is another ore-shoot 80 feet from the shaft that has been drifted on for 60 feet. It is proposed to open the vein by means of a 1500 ft. cross-cut lower down the slope giving backs of 900 feet, the mill to be placed at the mouth of the adit.

"A short distance north of the main deposit are two strong veins said to carry good ore, which may be off shoots of the principal fissure. They are called Fairview No. 1 and No. 2. In a small tunnel on the latter granite forms the walls, this being probably a dike or smaller intrusive mass in the prevailing argillite.

"On the same strongly marked vein as the Ibex and Bald Mountain and half a mile eastward from the latter is the Grand Trunk on which Ibex had a bond in 1899..Some 1200 feet of development work was done. The vein is said to be similar in character to those of the two mines already described.

From an article by D. F. Hewitt, Geologist for the U.S.G.S., entitled "Zonal Relations of Lodes of Sumpter Quadrangle" published in Transactions A.I.M.M.E., for 1911, page 345.

"From both the extent of underground explorations in length and depth and relation of the fractures to the geologic features

Ibex ~~and~~-Bald Mountain Mine.

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of the region, it is clear that the veins of the Sumpter region have more than average persistence horizontally, and it seems that they should persist vertically much deeper than they have explored so far, especially those veins that are grouped about the Bald Mt. batholith. Considerable information largely unpublished is at hand concerning the grade of the ore mined, the yield and grade of concentrates shipped, the extent of shoots and assay maps. From these data it seems clear that the ore from the mines that have supplied a very large part of the production of the district has contained metals, largely gold, worth from \$5 to \$15 per ton".

NOTE: Since the above was written gold has advanced 75 percent so that the statement re metal content would now read \$8.75 to \$26.25 . There has also been a very slight increase in the price of silver in the United States. In so far as the Ibex vein is concerned we have stated that anything above \$3. will show an operating profit if the entire vein can be treated. A good profit is therefore indicated even at the lowest figure. Also, since the above was written, the long cross-cut tunnel on the Ibex has cut the vein at depth and it shows up so strongly that much greater depth can be expected.

In 1934, Mr. W. C. Fellows made a report on this property at a time when the Ibex workings were accessible, and his conclusions were so favorable that he interested himself in the formation of the present company. Dealing with the Ibex, he said:

"I have finished the final checkup on the Ibex. The result from 427 assays shows approximately 52,000 tons of milling ore with

an average value of \$20 per ton. In addition to the milling ore there is quite a lot of shipping ore. This shipping ore has a value from \$100 to several hundred dollars a ton. Just the ratio of this shipping ore to the milling ore is rather hard to determine but as near as I can get at it it is something like 30 tons of milling ore to one ton of shipping ore. This 52,000 tons of ore is blocked out in three ore shoots. Outside these three shoots there is a large tonnage of ore that will assay from \$6 to \$10 per ton. It would require several hundred more assays to determine the exact tonnage and value."

Dealing with the proposed cross-cut tunnel, which has since been completed, he said;

"By drifting to the west on the vein the drift will come under the Ibex workings approximately 127 feet below the lowest level. The lowest level on the Ibex has a depth of 600 feet. You would then have a depth on the Ibex claim of 727 feet and 1000 feet on the Bald Mountain claim. The Bald Mountain claim is nearly 300 feet higher than the Ibex."

The situation in regard to the Bald Mountain mine is covered in the following statement:

"While it is true that the old Bald Mountain workings are caved beyond the point where one can enter, there is still to be found good ore on all dumps."

"The most important point in the above is that in addition to the 52,000 tons of good milling ore there is a large tonnage of \$6 to \$10 ore. Due to anticipated low costs the \$6 grade would be profitable milling ore. In other words, the outlook for the inclusion of practically the entire vein in the ore reserves is good.

Office, assay office, cook camp, bunk house, mill (60' x 70' with a 30' x 30' wing. Necessary new equipment could be put in place and in operation in a very short time). On the lower floor of the mill there are Wilfley tables and a frue vanner. The stamps are on the floor above.

SUMMARY AND CONCLUSIONS:

Accessible workings indicate a persistent vein structure with a width running up to 30 feet and not less than 3000 feet long on this property. Two mines, the Ibex and Bald Mountain were opened up on this vein many years ago. Recently the vein was opened up at depth by a long cross-cut which struck the vein at a point averaging 800 feet below the outcrop. A large tonnage is therefore indicated.

Some of this tonnage is high grade as shipments have been made of sorted ore. Milling operations of many years ago indicate a good grade of ore as a sample of the tailings still impounded went 0.11 oz. gold and 1.2 oz. silver. The ore occurs in shoots and the indications are that the great bulk of the tonnage between the shoots is of milling grade. On the 800-ft. level referred to the low grade section between the shoots has been opened up for 300 feet in length. A hanging wall strand six feet wide shows an average of four dollars. There is then a 12-foot ~~wide~~ band of doubtful grade but probably not commercial followed by a footwall strand of ore about 12 feet wide averaging over \$5 per ton. This last band of ore has been developed for about 100 feet only though it still continues to the west. In view of the fact that operating costs will approximate only \$250 per ton on a 100-ton basis and close to \$1.50 per ton on a \$ 500-ton basis even this grade

of ore shows an operating profit. Assuming the occurrence of ore shoots the prospects for an attractive operation are bright.

Due to lack of finances the operating company has not put these mines in shape for examination but indications do not show the need for anything more costly than the removal of minor caves at the entrances to tunnels, the construction of safe ladderways, and the removal of some of the top lagging in order to allow sampling to be done. The vein is ~~mainly~~ vertical, the dip being about 80 degrees to the south. The ore is quartz with free gold carrying a considerable percentage of silver and with a small amount of pyrite, arsenopyrite, tetrahedrite and ruby silver. No treatment handicap is indicated. Climate, transportation, water, power, timber, labor, etc., are all in favor of the operation. The main development has been done, a mill building and considerable mill equipment is available, and attractive terms are offered.

The project is obviously not a certainty but is recommended as warranting expenditure for further development and examination with the strong likelihood that a profitable operation will result. Work is going ahead in the tunnel with diesel equipment good for one machine. This development should be carried on into the spring as it is opening up virgin ground. The surface will then be accessible and there will be adequate time to fix up and make a thorough examination of the other workings. Treatment tests will have to be made. Should these investigations be satisfactory it is then only a matter of weeks when production can be reached.

A very valuable report by Lindgren for the U.S.G.S. covering this area and these particular properties, was published in 1901 and excerpts from it form part of the statements above. If Lindgren's comments in regard to the grade of the ore can be established, and there is no reason to question these statements, this ~~mine~~ mine should due to better prices and better methods, be an unqualified success.

This report must be properly executed and filed with the Corporation Commissioner on or before July 1, 1930, in order to entitle a corporation mining for any of the precious metals, coal, or prospecting or operating for oil, or operating an oil well, to pay a license fee of only \$10. If not so filed, such corporation must pay the same license fees as are required to be paid by other corporations for gain.—Section 6890, Oregon Laws.

Annual Report to the Corporation Department

FOR THE YEAR ENDING JUNE 30, ~~1930~~ 1937

Of IBEX GOLD MINING COMPANY
(Give legal name in full)

a corporation organized and existing under and pursuant to the laws of the State of Oregon.

The location of its principal office is at No. 201 Sommer Bldg., Street,
 in the city of Baker, in the state of Oregon

The names and addresses of principal officers, with the postoffice address of each, are as follows:

| NAMES | OFFICE | BUSINESS ADDRESS |
|----------------|-----------|-----------------------------------|
| P. D. McTavish | President | 310 Rogers Bldg., Vancouver, B.C. |
| L. E. Guselle | Secretary | do |
| | Treasurer | |

The date of the annual election of officers is

The date of the annual election of directors is

| | Common With Par Value | Common No Par Value | Preferred |
|--|-----------------------|---------------------|--------------|
| Amount of authorized capital stock | \$ 50,000.00 | Shares | \$ 70,000.00 |
| Number of shares of authorized capital stock | 3,000,000 | | 7,000 |
| Par value of each share | \$.01 | xxxxxx | \$ 10.00 |
| Amount of capital stock subscribed | \$ 6,000.00 | Shares | \$ 40,400.00 |
| Amount of capital stock issued | \$ 21,000.00 | Shares | \$ 40,400.00 |
| Amount of capital stock paid up | \$ 21,000.00 | Shares | \$ 40,400.00 |
| Price at which no par value stock issued | xxxxxx | \$ | xxxxxx |

State amount of capital, represented by stock of no par value, with which
 the corporation began business \$

Total amount of its properties in Oregon (name of claims, lodes, or placers)

Ibex, Natchez, Pyrites, O.K., Green Horn, Evening Star, Pearle Lode, Bald Mountain,
Saginaw, Albine, Three Star, Fairview, Kitchi, Cheboygan, Kenton, Whitehall,
Reed and Meadow

The location of its properties Grant and Baker Counties

The amount of work done thereon and improvements made thereon since the time of filing
 last report approximately 1000 feet of tunnelling

The amount of output or products of the mines or wells of such corporation from January 1,
¹⁹³⁶ 1929 to December 31, ¹⁹³⁶ ~~1929~~, inclusive, None

The value of output or products of the mines or wells of such corporation from January 1,
¹⁹³⁶ 1929 to December 31, ¹⁹³⁶ ~~1929~~, \$ None

IN WITNESS WHEREOF, I, Lionel Edgar Guselle, Secretary

of said corporation, have signed this report, this

[CORPORATE SEAL]

.....26th day of June....., A. D. 1937.....

(signed) Lionel E. Guselle

Ibex Gold Mining Co.

Bald Mountain

Gold - Silver

NAME

OLD NAMES

PRINCIPAL ORE

MINOR MINERALS

T9S

R36E

Sec.3-4

PUBLISHED REFERENCES

T

R

S

Lindgren 01:667
 Parks & Swartley 16:24,127
 Pardee & Hewett 14:95,97
 Swartley 14:144
 Hewett 31:8,10,26,17
 Lorain 38:19,22
 Ore. Metal Mines Handbook 144 pp. 37

MISCELLANEOUS RECORDS

Baker

COUNTY

Cracker Creek

AREA

6300

ELEVATION

ROAD OR HIGHWAY

7 mi. Sumpter

DISTANCE TO SHIPPING POINT

Ibex Gold Mining Co.

PRESENT LEGAL OWNER (S)

P. D. McTavish

Address 310 Rogers Bldg., Vancouver, B.C.

OPERATOR

Name of claims

Area

Pat.

Unpat.

Name of claims

Area

Pat.

Unpat.

EQUIPMENT ON PROPERTY

Bald Mountain ^{also} ✓ (see ^{Ibex})

Pu

NAME OLD NAMES PRINCIPAL ORE MINOR MINERALS

95 36E 3
T R S

PUBLISHED REFERENCES

Parks & Swarthly 16-24

Baker COUNTY

Quecher Creek AREA

ELEVATION

ROAD OR HIGHWAY

7 mi. Sumpter DISTANCE TO SHIPPING POINT

MISCELLANEOUS RECORDS

PRESENT LEGAL OWNER (S)

~~.....~~ *Idex gold Mining Co*
McTear
Beed. m. Mining Co

Address

310 Rogers Bldg. TACOMA WASH.

OPERATOR

as above

Name of claims Area Pat. Unpat.

Name of claims Area Pat. Unpat.

EQUIPMENT ON PROPERTY