

Eastern Oregon News, Baker,
July 15, 1938

DISMANTLING MILL AT QUEEN OF WEST MINES, BUILDING CCC CAMPS

Fred Makinson had a small crew of men clearing away a part of the wrecked Queen of the West mill above Cornucopia Tuesday. He is preparing to move some machinery out of the mill for R. G. Amidon. Snow crushed the mill during the winter.

Queen of West Mine Said Taken at Copia

**Big Company Would
Join from Clark Level**

Cornucopia — (Special) — According to an item in the July 30 issue of The Mining Journal, Cornucopia Gold Mines, Inc., of Seattle, is reported to have acquired the Queen of the West group of 13 gold quartz claims in the Cornucopia district from R. H. Parsons of Medford.

The property was to have been transferred on a royalty basis of 10 per cent of net concentrate returns, minimum of 1,000 shifts required annually for a 20 year \$125,000 bond and lease.

The Cornucopia company plans to extend the Clark tunnel a distance of 2,000 feet to open the Queen of the West vein at a depth of 1,600 below the out-cropping.

It also purchased the Lawrence Panter group of three patented quartz claims in the same district from the Panter estate.

The Cornucopia Gold Mines, Inc., is contemplating the installation of a 300-horse-

power Diesel unit and when the mine tonnage warrants it the mill capacity will be brought up to 400 tons daily by the addition of a secondary crusher. Bunk houses for single men may also be constructed this summer. At present the company is operating the mine and mill on a two-shift daily basis, employing about 110 men. Robert J. Cole of Cornucopia, Oregon, is general manager. Work on the road from Carson to Cornucopia is being carried on intermittently by the WPA, the forest service, and Baker County, the present one being a narrow winding mountain road. Recently the company purchased 24 two-ton mine cars from the Carl Iron Works of Denver, 18 of which have been delivered and are in use.

The Mining Journal October 15 1937

A. McGaughey of Cornucopia, Oregon, is reported to have taken a lease on the **Red Jacket** mine of the Cornucopia Gold Mines, Inc., of which McGaughey is mine foreman. Associated with him is William Zimmerman. Operations are to be started immediately. Some equipment was sold from this property to Ernest Grey of Missoula, Montana, who moved it to his Forest Queen mine last spring.

DIAMOND DRILL HOLE TAPS OLD MINE WORKINGS

Cornucopia Mine Makes
Direct Hit First Trial
With Core Drill

DRILL REACHES OLD
UNION WORKS, 506 FT.

Mill Grinding 150 Tons a
Day, Mill Being Re-
vamped and Will Go to
300 Tons a Day.

The diamond drill which has been in use at the Cornucopia mine at Cornucopia to locate and tap the workings above the Coulter tunnel on the Union vein has reached its objective, is the good news that comes from the Cornucopia Mines, Inc., this week.

"We tapped the Union vein last week from the Coulter tunnel with a one and three-eighths inch diamond drill hole, a distance of 506 feet," stated Leverett Davis, manager of the company to a News representative this week. "This is a record that is rarely attained on the first trial in mining operations. There are millions of tons of water in the upper working to be drained out and thousands of tons of milling ore in the 11 known veins."

"Continuing, he said, "The diamond drills are operating day and night with two shifts. After tapping the Union vein with the small core drill we are now following this lead with a 3-inch diamond drill core, and expect to tap and lower the water in the old workings with four 3-inch holes. When this work is accomplished we will be prepared to mill 300 tons of ore per day."

"The mill has been grinding 150 tons a day and has been showing better returns each month. We are revamping the mill now and will soon have a new up-to-date ball mill installed.

"At this time we have 60 men working on the company account and eight leasers working 40 men. The leasers are hauling the ore down the hill, from the Clark tunnel, Union, Last Chance and Red Jacket. This force will be increased as soon as we get in the upper workings and the need develops."

The successful use of diamond drills in Eastern Oregon mines has been marked in two properties in recent months. This instance at the Cornucopia is one in which the drill was used in locating the old workings which are hundreds of feet above the Coulter tunnel. With the other holes to be driven to the Union vein the water will be drained out and make it possible to complete raises to the old workings without danger to the lives of the miners should the water break through to the raises.

ty. Record Courier - Baker 4/1/37

Eight Leases Made, Cornucopia Mines Company

Work on New Levels As
Well As Old Ones to
Be Pursued by Various
Individual Mining Men

Cornucopia. — (Special). — The following leases have been let by Cornucopia Gold Mines company at Cornucopia:

1. Ben O'Frery, Louis Boyer and Gus Thor, the Whitman vein, as cut by Coulter tunnel.
2. Claud, Kermit and Blake Krigbaum, smaller veins in the Coulter tunnel.
3. Harry C. Purdy, part of lower Union vein in the Coulter tunnel.
4. Elmer Biankenship, William O'Neil, part of Red Jacket and upper Union vein.
5. Romine and Sons, a section in the Last Chance.
6. A. D. Randall and Tom Madlern, a section in the Last Chance.
7. A. McGaughey, Bill Zimmerman and Harry Thompson, upper workings of Last Chance.
8. Howard Buchanan, Vernon Yowell, Carl Whiteley and Elton Gillette, above Clark level in old Union mine.

In Baker it is understood the leasing of various portions of the extensive Cornucopia workings is supplemental to operations carried on by the company for which Leverett Davis is resident superintendent. The news would indicate considerable activity in the mining camp during the winter.

December 10, 1937

WATER DRAINS RAPIDLY FROM COPIA MINES

**Water in Union Shaft at
Cornucopia Reported
Down 300 Feet**

OLD WORKS SHOULD SOON BE DRAINED

**While Carrying on Devel-
opment Program Mine
Leads State in Produc-
tion of Gold and Silver.**

Water in the old Union workings of the Cornucopia Mines company at Cornucopia is reported to be draining out rapidly and it is expected this section of the mine will be comparatively dry in a short time. In the past few weeks it is reported the water has gone down in the old workings more than 300 feet, leaving about 600 feet of water yet to be drained to clear this part of the properties of water.

The Cornucopia company has been working more than three years on a program to open and operate its properties through the Coulter tunnel the portal of which is at Cornucopia and opens the mine on a horizon many hundred feet below mine working of former operations. With the draining of the Union mine the raises from the Coulter level can be carried through to the old workings successfully and the future operations of the mine assured for many years to come.

While carrying on this large development program the mines have been in continuous production, being the largest gold and silver producer in the state. With the completion of the connections through the Coulter tunnel

it will be possible to greatly increase the production.

Approximately 100 men are employed in the mines, including those working for the company and employed in mine leases from the company.

Democrat Herald, Baker

Dec. 11, 1937

**Cornucopia Company
Installs Machinery**

CORNUCOPIA, Dec. 11—(Spe-

The mill at the Coulter tunnel is closed for a couple of weeks while a new ball mill is installed.

The **Cornucopia Gold Mines, Inc.**, is reported to have tapped the Union vein in a diamond drilling program. The workings on the Union vein are several hundred feet above the Coulter or main working tunnel. Drilling has been done on a two-shift basis and the mill is dressing 150 tons of ore daily. The plant is being improved and a new ball mill installed. Sixty men are employed on company account and eight lessees are employing an additional 40 men. Leasing is being done in the Clark tunnel, Union, Last Chance, and Red Jacket mines. Leverett Davis, Cornucopia, Oregon, is general manager.

Red Warrior Will Mine Copia Claims

Cornucopia—(Special) — Willard R. Davis, L. H. Fitch and Leemon Thomas have purchased the Lost Horse group of claims, located at the head of Lost Horse canyon. These claims were formerly owned by the Lawrence Painter estate. They have organized the Red Warrior Mining company with Willard Davis as manager; L. H. Fitch, assistant manager; L. H. Thomas, treasurer; and Mrs. Eunice Fitch, assistant treasurer.

Three Shifts On Copia Addition

Cornucopia—(Special) — Cornucopia Gold Mines are working three shifts to rush the completion and installation of the new ball mill and sampling plant addition. Mining of ore has been curtailed until this work is finished.

Mill Running 150 Tons Daily

Cornucopia — (Special) — The Cornucopia Gold Mine purchased a new R. D. 8 Caterpillar tractor last week. It was delivered here Sunday.

The new unit replaces the "75" Caterpillar being used to haul ore from the Last Chance mine to the Union Companion mill.

The R. D. 8 develops about 20 horse power greater than the "75" tractor.

The mill is now milling on an average of 150 tons of ore per day.

CORNUCOPIA MINES GETTING BACK IN OPERATION

Leasers Are Working in Old Sections of Last Chance Claim

USING NEW CANYON ROAD FROM

New Road Built Great Improvement District, Completed of September.

The Cornucopia Mines, Inc., are rapidly getting back into the stride of operations, under the new manager, Leemon Thomas, according to information received from the property. More than 60 men are back on work, including a number of leasers, it is stated.

The leases are in the old workings of the Last Chance claim.

Pete Rokne, well known miner of Baker county, is foreman of the underground work. Mr. Rokne has been associated with Mr. Davis in his mining operations for several years.

One improvement appreciated for the Cornucopia mines is the completion of the new road up Pine creek from the Carson bridge to the mine. The road is on the east side of the canyon. It is built on an even grade and being on a south hill slope will clear of snow much earlier in the spring than the old road.

The new road was completed several weeks ago. It was built as a WPA project with the cooperation of Baker county, the forest service and the Cornucopia mines.

The better transportation afforded over the new road will be a great assistance in the successful operation of the mines of the district.

Record Cornucopia 1/28

Copy from...

Cornucopia Mine Busy; January Output Large

Halfway, Feb. 12.—A visit to the small but very active mining town of Cornucopia at this season of the year is a thrilling experience. Leaving Halfway, only 12 miles distant, where there is no snow one travels over a dry, and in some places dusty highway to Carson, where there is a few inches of snow, on up the canyon with the depth of snow increasing every mile. Arrived at the town a mantle of from six to seven feet, covers everything and a great calm prevails.

No one would dream that beneath the mantle of snow and miles underground the biggest gold mining enterprise of the state is being carried on. Night and day, summer and winter from 100 to 200 men come and go in three eight-hour shifts.

Since the fall of 1886, when the old O. G. M. company opened its new property, situated on almost the exact spot where the present company has its entrance to the Coulter tunnel, to the inspection of the public, to the present, the Cornucopia mines have been steady gold producers, most of the time leading the state in output.

Other mills have been built, other processes tried out, but it remained for the present company, "The Cornucopia Gold Mines" with A. D. Coulter of Seattle, managing director, and Leverett Davis, manager, to build the Coulter tunnel and to replace the old processes with the latest, as well as the simplest and most economical — the flotation process.

A large ball mill was built at the entrance to the tunnel two years ago and another unit is being added in order to speed up the work.

The tunnel proper is finished and at a level 1600 feet beneath the old workings the ledge has been struck. At this point a raise of 800 to 900 feet is underway and much valuable ore has been taken out. Here stoping and cross-cutting on the ledge is being carried on and a series of holes has been made with diamond drills through the remaining distance to the old works. Through these openings many miles of stored up water has been released. Compressed air is carried through one of these openings, furnishing power to operate machinery in the tunnel as well as in the old workings above and another will carry a cable to be used as a hoist in completing the raise.

When this work is completed ore from every part of the mine will be conveyed to the mill through the tunnel and it will be possible to abandon the old road up the mountain and the outmoded buildings at the mines beside much expensive machinery now necessary for hauling ore down and supplies up the hill. At this time the work is carried on by means of caterpillars and a 25-ton capacity Le Tourneau "buggy" capable of carrying 100 tons of ore daily to the mill one and a half miles below.

Much credit is due the management of this enterprise which has overcome seemingly insurmountable difficulties, furnishing employment to hundreds of men and adding very materially to the nation's output of gold.

January was the best month for this company and the output has been doubled under its management.

*Journal
Sunday Feb. 13, 1928*

Cornucopia Mine Busy; January Output Large

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Ibex Mine Doing Development Work

One of the active mines during the winter in the mountains adjacent to Sumpter is the Ibex. Development has been going ahead on the lower levels during the winter.

This work has progressed to the point where there is all probability of a milling plant being installed during the summer. W. C. Fellows is manager of the mine.

Cornucopia Mines Working 100 Men

Fighting snow in the winter operation of the Cornucopia mines is one of the present problems of the management, however, the work is going along without interruption.

A large caterpillar tractor with a trailer is used in hauling ore from the Union workings to the mill at the Coulter tunnel. Snow at the mill is about eight feet deep, and at the Union workings at a much higher elevation it is reported to be about 14 feet deep. The tractor makes regular trips hauling 25 tons of ore at a trip.

The Cornucopia mines employ more than 100 men including those working for the company and those working on leases.

Record Courier, Baker

March 10, 1938

Mines Company Ships

Cornucopia Gold Mines company shipped a car of concentrates valued at \$25,000 Monday to a smelter at Tacoma.

The road to Cornucopia is almost impassable and it is reported that unless some work is done on them soon the mines will be unable to bring concentrates out, and it may be necessary to temporarily close.

Road Being Cleared

Carson — (Special)—The county is having the old west side road to Cornucopia cleared out for travel again, as the new road is getting so soft and caving in places. Rocks are rolling onto the road from above which makes it present use quite dangerous.

County officials stated the old road was to have been ready for travel Wednesday.

Record Courier, Baker

Mar. 24, 1938

New Flotation Cells Arrive; New Cars

Cornucopia — (Special) — The Cornucopia Gold Mines company is installing six new Sub A flotation cell units to supplement the present units. The additional new ball mill is being installed at the present time.

Leverette Davis, manager of the Mines company motored to Robinette Wednesday of last week on company business. He inspected two new all-steel railroad cars which the Union Pacific built and assigned for concentrate hauling service between Robinette and the Tacoma, Wash., smelter for the Mines company. These cars will be used exclusively for concentrates.

The **Cornucopia Gold Mines, Inc.**, is reported to have produced 830 ounces of gold during **January, 1938**, compared to 330 ounces in the same month of 1937. The mine is now producing from 60 to 70 tons of ore daily and employing 60 men. Installation of additional milling equipment will bring the capacity to about 175 tons

daily. Concentrates are shipped to Tacoma for smelting. **A. D. Coulter**, 1009 Lowman Building, Seattle, Washington, is managing director. **Leverett Davis** of Cornucopia, Oregon, is general superintendent.

PERMANENCE OF CORNUCOPIA IS FULLY PROVED

Production of Mines Is
Increasing Steadily In-
creased

MILL TREATING 70
TONS OF ORE PER DAY

Two or Three Carloads of
Concentrates Shipped per
Month; Mines Work-
ing 135 Men.

The permanence of the operation of the Cornucopia mines in the northern part of Baker county, has been pretty fully demonstrated during the past winter. Large ore bodies have been opened from the Coulter tunnel at a depth of more than 3000 feet below the surface and many years of operation can now be said to be ahead of the company.

"The mill is running one shift treating about 70 tons of ore per day at present," Pete Rokne, mine superintendent stated yesterday when asked "how's things going in the mountains?"

About half the ore being milled comes from the Coulter tunnel and the other 35 tons from leasers working in the old portions of the mine on the Last Chance vein, said Mr. Rokne. Five sets of leasers are working giving employment to about 35 men, while about 100 men are employed on the company account.

Leverett Davis, is general manager of the Cornucopia Gold Mines, Inc., and Mr. Rokne is mine superintendent under Mr. Davis. They took charge of the property last August and for the past several months have been stepping up the production of the property that has been most encouraging. Underground development has been continued and new ores have been opened. Mr. Rokne stated yesterday that at present they have fully six months' ore known ahead of the mill and more being added daily. With the completion of the raise from the Coulter tunnel level, to the old workings above, a distance of about 800 feet, at least 10 years will be added to the life of the mine.

The past winter has been severe with snow up to 14 feet deep on the property, Mr. Rokne says, but now settled to about 5 feet, and keeping the road open for travel has been quite a task. A large caterpillar bull-dozer has been used in this work. The new grade built last year to the mine by WPA and Baker county cooperation has been quite a help to the mine. However, there is considerable work yet to be done on the road to complete the job. This, it is hoped, will be accomplished before the summer is over.

At present the company is using the old road. With the coming of spring it was decided better to let the new road settle for a time while the snow is going off.

Plans of the company call for enlarging the mill with the addition of a new ball mill in the near future. This will step up the capacity of the plant from the present 140 tons per 24-hour day to 200 tons.

Mr. Rokne was in Baker this week receiving treatment for sinus trouble. He is one of the "pioneer" miners of the Cornucopia mines, having worked in the mines more than 30 years ago, and worked in the mine continuously from 1913 for four years. During those years he learned a lot about the ore bodies which he finds of great advantage to him in the present operations.

OREGON

A second additional ball mill is being installed by the **Cornucopia Gold Mines**, A. D. Coulter, 1411 Fourth Avenue Building, Seattle, Washington, managing director. This will bring daily milling capacity to 200 tons. During the first part of January the company produced 60 to 70 tons of ore daily and with the installation of a secondary crushing unit output was stepped up to 140 tons daily. During February, 1938, 1,513 ounces of gold were produced and 85 men employed. Concentrates are shipped to the Tacoma smelter. Leverett Davis of Cornucopia, Oregon, is general manager. Other company officials are: J. V. Paterson, president; Richard E. Fuller, vice-president and treasurer; and A. Scott Hill, secretary. Head offices are in the 1411 Fourth Avenue Building.

MILL CAPACITY AT CORNUCOPIA NOW INCREASED

New Ball Mill Steps Up
Plant to 200 Tons of
Ore Per Day

MILL RUNNING TO FUEL CAPACITY

Coulter Tunnel Proves
Long Life of District
with Production Increasing
Monthly

An additional ball mill has been installed by the Cornucopia Gold Mines during March. The work was completed and the new mill put in commission last week. This steps up the capacity of the plant from a capacity of 140 tons to more than 200 tons per day.

Since the first of the year the mill has been treating 140 tons a day running to capacity. Of this ore about 35 tons is lease ore and the remainder produced by company employees. In an account of the Cornucopia operation printed two weeks ago it was stated the mill was running part time treating 75 tons per day. This was an error.

The production of the mines has steadily increased each month since the first of January and is now approaching the high point when the camp was at its best a number of years ago.

Ores opened up in the mine in the past several months by Superintendent P. A. Rokne, have made enlarging the plant feasible. In the old workings of the Last Chance claim high grade milling ore has been found which is being mined by leasers and company account.

The development from the Coulter tunnel has also advanced to where large bodies of profitable ore is assured for the plant. From this level ore has been found at a depth of more than 2500 feet.

Through the Coulter tunnel the future of the Cornucopia mines for deep mining has been definitely proven and a long life for the mines of the district demonstrated.

At this season of the year with deep snows transportation is one of the problems of the Cornucopia camp. Last year a new auto road was completed to the camp following the right side of Pine creek. The work was not completed until late and there will probably be more required to get it in good condition in the spring.

The road was built as a WPA and county project.

MINING ORES AT A DEPTH OF 3350 FEET

Cornucopia Proves East-Oregon Ores Go To Great Depth

PLAN TRUCKING THE PRODUCT TO SMELTER

High Water Washing Tailings Into Power Plant When Dam Breaks at Cornucopia

No longer can the skeptics say that the Eastern Oregon gold fields do not "go down." At Cornucopia the Cornucopia Gold Mines are mining ore from the Coulter tunnel level which cuts the East Chance vein at a depth of 3200 feet on the pitch of the vein. In addition to this a winze from the Coulter level has good ore 150 feet below the tunnel, making a total of 3350 feet.

This depth would be considered deep mining in most any country. The mill at the mine is now treating more than 200 tons of ore per day. The first seven days of April the mill turned out a carload of high grade concentrates.

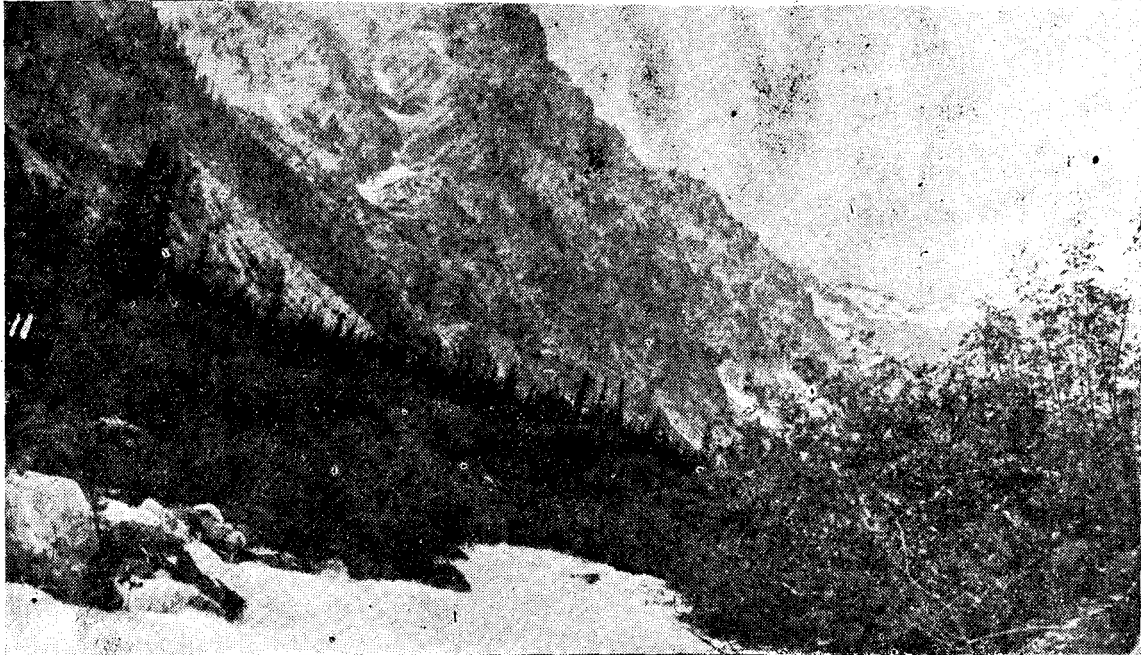
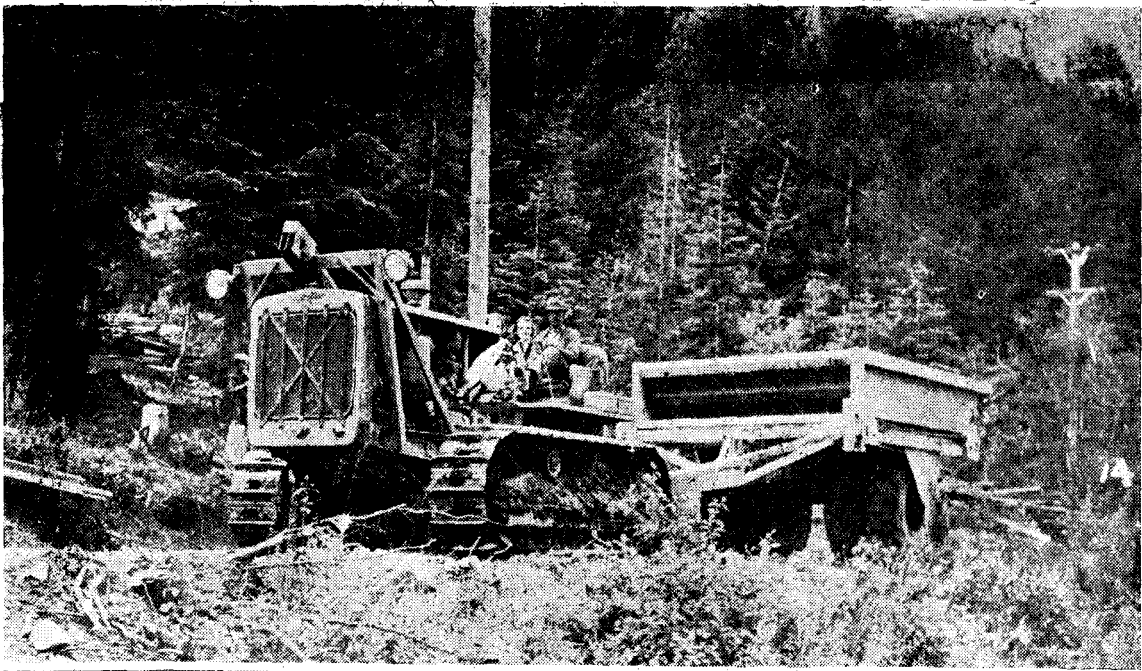
High water in Pine creek recently broke the tailing dam below the mill and washed tailings into the power plant with the result the plant was closed for a few days while repairs were being made and the debris cleared from the power plant.

Concentrates are trucked from the mine to the railroad at Robinette and shipped to the smelter at Tacoma. It is reported the company is considering putting on a fleet of trucks to transport the concentrates direct from the mine to the smelter.

By News

Richard E. Fuller, who has been vice-president and **treasurer** of the Cornucopia Gold Mines Company, was recently **elected** president of the concern, succeeding **J. V. Paterson**. Other officials for the coming year are: **H. W. Burchard**, vice-president; **A. Scott Hill**, secretary-treasurer; and **A. D. Coulter**, managing director. Head of-

ices are at 1411 Fourth Avenue Building, Seattle, Washington, and the property is at Cornucopia, Oregon.



In one of the most unusual pictures taken in Baker county, Baker junketeers are shown in raincoats, oiled hats and boots more than 6200 feet from the mouth of the Coulter tunnel, part of the Cernucopia Gold Mines property. Leverett Davis, second from right in front row and incidentally smoking a cigar, escorted the group through the mine and mill. The second view from the top shows the office building at the left, shop buildings in the distance and the mill in the right foreground. The caterpillar and LeTourneau buggy are used in hauling ore from the upper levels to the mill at the mouth of the Coulter tunnel. The buggy has a capacity of 25 tons. The lower photo shows the giant mountain bowl above Cornucopia with traces of snow in the background, despite the fact the picture was taken last week. The photographs were taken by Bill Huffman of Baker.

Edgar Demore & Family June 24, 1937

CORNUCOPIA AS IT APPEARS IN PICTURES



Largest Mining Plant in Oregon is at Cornucopia

Property Sixth Largest Lode Producer in U. S. Alaska

MONTHLY "TAKE" ABOUT \$65,000

Property Has Longest Production Record in Oregon

By KLASSE V. POWELL

CORNUCOPIA, Or., June 29.—

Amid the splendor of the towering Cornucopia mountains, capped by snow several months of the year, operators of the Cornucopia Gold Mines are producing every month an average of \$65,000 in gold and silver to excel the combined production of all other mines in the state. In the little town of Cornucopia, with its colorful and checkered history, the company has established a bee-hive of activity, in which nearly 200 men are employed. Baker county and the state in general are benefitting financially from this extensive operation. The work Cornucopia has been a large factor in the maintenance of Baker county's payroll during the depression and has been a great benefit to business firms throughout this section of the state.

The Cornucopia property is the eighth largest producer of gold in the United States and Alaska with placers included and is sixth in production in that territory among lode mines. From it is produced more than half of the gold extracted from the mines of Oregon. The mine, which includes more than 30 miles of underground workings, has a longer production record than any mine in the state, according to Levere Davis, vice president in charge of operations.

The Cornucopia is one of three mines in the world in which competent geologists anticipate that deposition will extend to a greater depth than the ingenuity of man will be able to produce. The other two districts are St. John del Rey in Brazil, now down to a vertical depth of 7500 feet and Grass Valley, California, down to the dip of the vein, a distance of 9000 feet.

Since January 1 the company, known as the Cornucopia Gold Mines, has produced approximately \$375,000 in gold and silver.

Tabulation of production for the first four months of the year follows:

	ore dry ton	con. tons	gold oz.	silver oz.
Jan.	2053	96	831	3000
Feb.	3284	114	1514	5792
March ...	3259	146	1653	6300
April	3636	158	1908	8128

Totals . . . 12,232 514 5906 23,220

The production in May was 1914 ounces of gold and 8140 ounces of silver. The returns for June are expected to be about the same in gold and silver.

The company is shipping three cars of concentrates, each containing approximately 65 tons, to the Tacoma smelter every month. The net returns after all costs of transportation and treatment are paid average \$22,000 a car. The Union Pacific System has built two specially-constructed all-steel cars, which are consigned to concentrate service between Robinette and Tacoma for the exclusive use of the Cornucopia Gold Mines.

The property is operated on the basis of two shifts in the mine, three shifts in the mill and three shifts drilling. Although the payroll varies some, the company is employing an average of 150 men. In addition to these men, 40 lessees are working part of the company's ground. The payroll approximates \$20,000 a month, which does not include the salaries of the officers.

The company generates all of its own electricity, amounting to approximately 1500 horse-power.

The buildings now in use include the main mill, the dry house, where the employes change clothes between shifts, machine shop, blacksmith shop, electric shop, compressor house, powder magazine, office buildings and laboratory. An infirmary, which will be modern and equipped with X-ray and such other equipment as is necessary to give adequate care to sick and injured employes, is now under construction. A doctor has been employed to

care for the employes. A trained nurse will be on duty in the infirmary.

Mr. Davis said the company also contemplates making improvements and enlargements on the mill. Structures to be erected include a number of small, comfortable cottages for employes and their families. The cottages, which will be modern in every respect, will relieve the present congestion in the town. Two large bunk houses for single employes will also be built.

The Cornucopia district was first opened about 1880. Production was somewhat erratic and recoveries were low in the early days, Mr. Davis said. In 1895 the first 20-stamp mill was erected in conjunction with a chlorination plant.

In 1912 the first cyanide plant was built. Recovery was good, but costs were high. The second cyanide plant was erected in 1915 and the property was operated until 1924 at a profit. During that time, according to H. H. Bradt, the mine produced and recovered in excess of \$7,500,000. After 1924, due to excessive costs of materials and supplies and the fact that operations were conducted from the top of the mountain through shafts, the operation became unprofitable and the mine was closed in 1927. In 1930 the present company was organized and it took over the assets of the old Cornucopia Gold Mines of Oregon.

The Cornucopia Gold Mines drove the Coulter tunnel a distance of more than 6300 feet. The tunnel now taps the Union-Companion vein measured on the dip of the vein at 3200 feet below the highest cropping.

The present flotation plant, constructed at the mouth of the Coulter tunnel, has a capacity of approximately 200 tons of ore a day. Work is in progress to connect the Coulter tunnel with the old workings above. As soon as this is accomplished a very large tonnage of profitable ore will be available.

The Union-Companion vein is one of 11 that transverse the property. Of the 11 major veins taken in order of their occurrence from east to west are: Whitman, Union-Companion, Last Chance, Wallingford and Valley View. The Valley View vein outcrops at an elevation of 8400 feet and when intersected by the Coulter tunnel will make available 4800 feet on the dip of the vein accessible for mining. Production to date has been almost entirely from two veins only, the Union-Companion and the Last Chance, although a small production has been made from each of the other veins. It is estimated that approximately 15 per cent of the ore in the property has been mined.

The usual modern methods are used in the extraction of the ore. The ore is hauled to the mill from the Coulter tunnel in cars pulled by a dry battery locomotive. In the mill it is crushed and then sent through the process of concentration. The concentrates are hauled to Robinette for shipment to Tacoma in company trucks.

An interesting piece of equipment used by the concern in hauling ore from some of the property to the mill is a LeTourneau buggy pulled by an RB 8 tractor. The buggy, one of the largest of its kind used in mining, has a capacity of 25 tons. When inflated, each of the four tires is 18 inches wide.

Officers of the company in addition to Mr. Davis, are: R. E. Fuller of Seattle, president; A. Scott Hill, secretary-treasurer, and A. D. Coulter, managing director. The local staff includes A. V. Quine, mine superintendent; T. S. Baisley, mill superintendent; J. H. Donely, construction foreman and master mechanic; A. F. Posterling, chief electrician; Everett McKellar, mine accountant, and J. E. Dunn, chief engineer.

Sixth Largest Gold Lode Producer Now Fifty Years Old

Coulter Adit Pilot Raise Being Driven To Reach Old Workings

The pick of a miner first pierced Union vein in the Granite mountains in 1888. Today, exactly 50 years later, after an almost continuous production record, broken only by short intervals, Cornucopia—Baker county's largest mine, Oregon's number 1 mine, sixth largest lode mine in the United States and Alaska—Cornucopia yields up her gold and silver, pouring fourth beneficial wealth along the relatively short road of the yellow metal between the snow-capped peaks of Oregon and the vaults of Kentucky mountains.

For fifty years the activity in the typical mining camp of upper Pine creek canyon has employed men, contributed to prosperity and levelled the low spots of depression.

And the mine that has done all this heretofore has not been worked below the 700 level in a region where geologists predict values go deeper than man in his present knowledge can bore into Mother Earth.

Only 15 Percent Mined

Operators of the mine estimated that 15 percent of the ore from the property's 11 known veins has been mined. Only the Union-Companion and the Last Chance have been touched to any great extent, although the Whitman, on the extreme east, the Wallinford beyond the first mentioned two, and the Valley View have also yielded some at the very top.

The history of the mine is one that takes it through many ups and downs. It was a pioneer enterprise that until 1907 battled the high cost of mining 50 miles from a railroad in the face of milling processes that had not yet passed the chlorination stage and its attendant heavy loss of values. In 1892 the first 20-stamp mill. In 1912-1913 the slime cyanide plant at the Union mill. In 1913-14 the Baker mill to run Last Chance vein ore. In 1918 Clark Tunnel and main transfer raise to tap Last Chance ore. In 1922 the Lawrence tunnel. In the early twenties fire in the Last Chance surface plant, a cave-in and other difficulties forced a temporary shut down which was broken in 1929 when a Canadian company began extensive repairs.

1930 the present company tested with the flotation milling process and between 1933 and 1936 operated the Union mill with this equipment.

Development Extensive

In 1930 the present company tested the Union mill with this equipment. Simultaneous with this production, the company began a development program which places the property in the position it now occupies.

In 1933 contractors began the Coulter tunnel which in July, 1936, under company workmen, intersected the Union vein 6300 feet into the hill and 3200 feet below the outcrop. Further into the mountain the Coulter level development will eventually intersect the other veins, making ore available even further on the

dip below the respective outcrops. Depth—That is what the new Crosscut has assured.

In November, 1936 the present mill at the mouth of this tunnel began operation. Of 200 tons capacity, the plant is now treating from 150 to 175 tons of ore daily, having run 40,000 tons of ore since last fall. From three to six tons of concentrate are produced daily.

Ore is sorted in the mine, brought by a five-ton Mancha electric battery locomotive over the main haulage in trains of 15 cars, crushed at the mill, run through the ball mill and treated by flotation, to become a shipping grade gold-silver sulphide concentrate.

Employ 150 Men

The mill is run three shifts and employs eight men. The mine is operated two shifts with 60 to 75 men underground. The payroll of the company varies from 135 to 150 men depending upon outside construction which at present is heavy. About \$20,000 a month, exclusive of salaries is paid out in

wages, and about 40 additional men are engaged in individual block-leasing in the stopes which are also worked in other sections by the company.

Drifting on the 2000 or tunnel level has been continued north 850 feet and south 330 feet and is still in progress. A north raise is up 300 feet, a south raise 200 feet. At the 100 interval work has been done and stoping and raising is being done on the 2000 1900 and 1800 levels, besides the hundreds of feet of development done.

Sink from Coulter

Sinking operations below Coulter level have reached 137 feet where a wide vein and good values have been encountered all along.

Present operations also include the Last Chance vein on the Clark level from which approximately half of the production is secured, surface haulage to the Coulter mill being resorted to. The big crawler tractor with the 25-ton LeTourneau pneumatic-tired buggy, custom built for the company, is used for this purpose.

Development is being carried on to the south, several large and high grade ore shoots having been encountered.

During the past year, through diamond drilling from below the lower level of the old workings, was cleared of water. Heavy spring thaws have partially filled this but within six weeks they are expected to be again dry. The drilling equipment of the company has also been valuable in underground prospecting.

Raise Link Important

Maximum production may be reached after the old upper Union workings are connected to the present Coulter level, enabling Last Chance ore to be transferred to the tunnel.

This connection between the Coulter level and the old 700 level was started June 18 and the 290-foot relatively small pilot raise for air and initial transportation is now being driven and may be completed within a month. Plans will be then rushed for the three-compartment haulage raise, which will eliminate practically all surface haulage from the old Union and Last Chance workings.

Improving Buildings

Manager Leverett Davis states that contemplated outside improvements include several comfortable employee cottages, completion of the company houses, probably two larger bunk houses, and an assay office. An infirmary with adequate equipment is also to be erected, a doctor being already employed. As outside work is completed the number of men employed will naturally fall off slightly. All buildings at the mill are new during the past few years.

Since the first of this year, up to June 1, the mine has produced \$265,000 in gold and silver. During May the production totalled 1914 ounces of gold and 8150 ounces of silver. June returns are expected to be about the same.

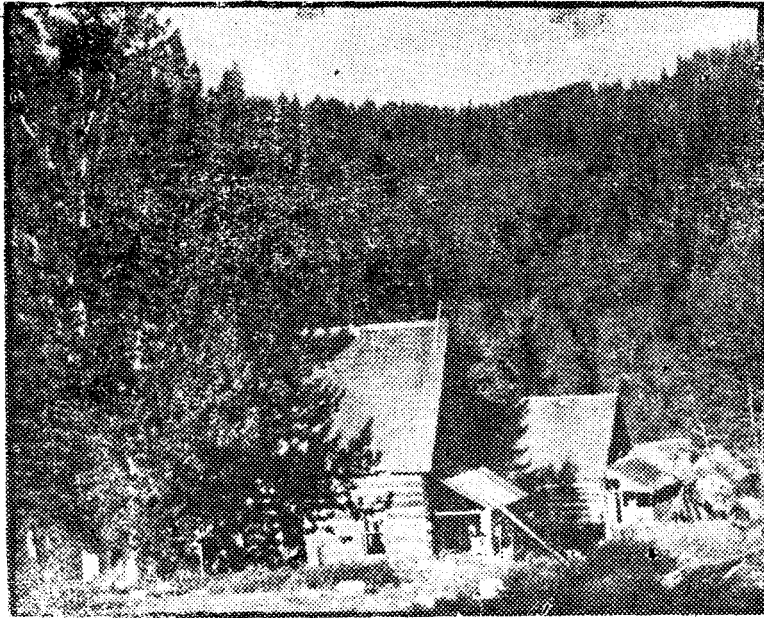
Mines Personnel

Dr. Richard Fuller of Seattle was recently chosen president of the Cornucopia Gold Mines company. Dr. G. E. Goodspeed of the University of Washington geology department is consulting geologist. Mr. Fuller and A. D. Coulter, managing director were at Copia June 20. Dr. Goodspeed and family arrived recently.

Vice-president in charge of operations is Leverett Davis. A. V. Quine is mine superintendent, T. F. Bailey, mill superintendent; J. H. Donley, outside construction superintendent; A. W. Fosterling, is chief electrician in charge of power which is furnished by the Pine Creek hydroelectric plant supplemented by the diesel-electric installation made a little over a year ago; Everett McKeller, mines accountant and office manager; J. E. Dunn, chief engineer.

The company owns and operates two hydro-electric plants, which with the diesel unit produce a total rated horse-power of 1200.

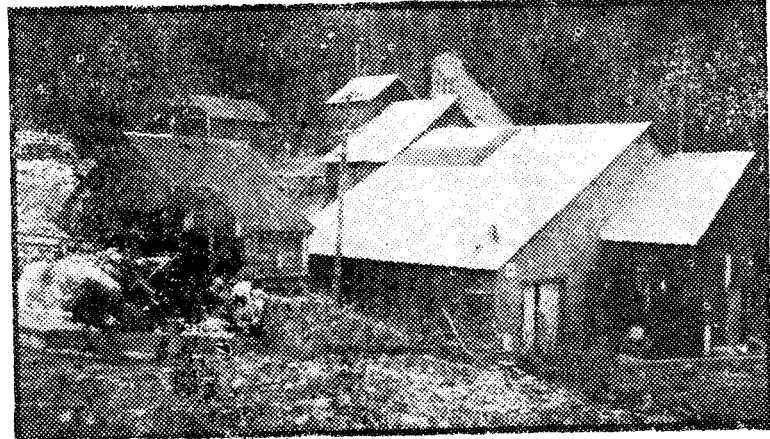
Old Buildings Beside New Ones



—Courtesy the Oregonian.

The old log houses of Cornucopia remain useful in a booming place where houses are scarce. This picture taken a short time ago shows the high peaked roofs used to ward off heavy winter snows. These old buildings stand amid the newer structures, including during the past several years a new store and restaurant, a number of new private dwellings, the new mill and company group of buildings to which will be added an assay office and other structures this summer, three new company residences now under construction and likely severely new employee-quarters. Yes, and Copia before long hopes to boast a new school and community center.

Mill At Mouth of Coulter Tunnel



From 150 to 175 tons of ore run through this compact, modern flotation plant and mill every day, producing gold concentrates which are shipped to the smelter. This new mill replaces the old Baker mill, a mile up the canyon which at one time received Last Chance ore over the then longest aerial tramway, and the old Union-Companion mill high up the mountain. This new plant is at the mouth of the 6300-foot Coulter tunnel which crosscuts the Union-Companion vein at the new lower level. Later the Last Chance vein will be tapped by the same tunnel and very soon the raise the the upper Union-Companion mill will be complete. The mill is thus ideally located in the new development at Cornucopia Gold Mines. —Illustration taken by the Oregonian.

Typical Scene Many Months of Year



No group of pictures of Cornucopia would be complete without a scene such as the above taken in mid-winter. This mining town is visited by snows in October or November of each year, sometimes earlier, and for seven or eight months lives under the blanket.

100 Percent Increase Noted In Carloadings From Local Point

Robinette — With the complaint that business in some places is slack, this section can boast along with other parts of Baker county that its own record is far from pessimistic.

An increase of 100 percent has been shown in carloadings out of this shipping division over last season. This is indicative of increased production of many lines locally and indicative of a vastly increased cash income to local producers. At the same time purchases from the outside are up 25 percent this season, indicating continued purchasing power and preparation for future and continued production.

Chief contributors to the 1938 shipping volume are the mines. The Silver Still mine across from Home continues production of crude ore and on May 20 shipped 118,940 pounds of ore with a similar shipment in recent weeks.

By far the largest shipper from the Union Pacific branch down Snake river is the Cornucopia Gold Mines with valuable concentrates in a volume of about 250 tons a month or a car every week. For this shipper the rail road constructed two special cars, dust-tight to avoid loss of the fine concentrates. These two cars shuttle back and forth between Robinette and Tacoma, Wash., on expedite service making the round trip to smelter and return in about eight days.

In recent weeks the annual movement of wool stepped up carloadings and the usual weekly livestock shipments are heavy from the Panhandle, as are the shipments of butter from the Pine-Eagle cooperative creamery.

Another mine, the River Queen, ships below Homestead crude ore the past year and has a carload in its bins at present ready for movement to Utah.

CORNUCOPIA MINES LEAD OREGON GOLD OUTPUT

Baker Business Men
Visit to Cornucopia
Inspect Mine

**PRODUCING \$65,000
MONTH GOLD, SINCE**

**Company Has Monthly
Roll of \$20,000, Ships
Three 65-Ton Cars Con-
centrates a Month.**

When a gold mine reaches the place where it is producing \$65,000 per month it becomes an operation worthy of note. This is the present point of the Cornucopia Gold Mines and can be expected to be increased as the operation at the property can be expanded.

The Cornucopia has been known for several years as the largest producer of gold in the state and the expansion since the first of the year has aided in taking in more territory.

A large group of Baker business men visited the mine last Thursday on a good will trip in boosting the Mining Jubilee and Rodeo. They returned boosting the mine and with a greater realization of the value of the mineral wealth to the business life of the county. They became mining minded.

They were guests of Manager Leverett Davis, general manager, and the staff of the company and had the privilege of inspecting the milling plant and a number of them riding on the tram 6500 feet into the mountain where they were 3000 feet below the surface of the mountain. There they saw how the ore was blasted from the vein and transported to the mill. It was more than a sight seeing excursion; it was an education on the way the miner lives and works.

Since the first of January the Cornucopia is credited with producing approximately \$375,000 in gold and silver.

The company is shipping three cars of concentrates, each containing approximately 65 tons, to the Tacoma smelter every month. The net returns, after all costs of transportation and treatment are paid average \$22,000 a car. The Union Pacific System has built two specially-constructed all-steel cars, which are consigned to concentrate service between Robinette and Tacoma for the exclusive use of the Cornucopia Mines.

The property is operated on the basis of two shifts in the mine, three shifts in the mill and three shifts drilling. Although the payroll varies some, the company is employing an average of 150 men. In addition to these men, 40 lessees are working part of the company's ground. The payroll approximates \$20,000 a month, which does not include the salaries of the officers.

The Mining Journal, July 15 1938

The **Cornucopia Gold Mines Company** is reported to have received smelter returns amounting to \$265,680 for the first five months of 1938, which compares with \$56,987 for the same period of 1937. The company has a daily milling capacity of 200 tons and employs between 60 and 70 men. Leverett Davis is general superintendent at Cornucopia, Oregon. A. D. Coulter, 1411 Fourth Avenue Building, Seattle, Washington, is managing director.