

A second additional ball mill is being installed by the **Cornucopia Gold Mines**, A. D. Coulter, 1411 Fourth Avenue

3/30/38

OREGON

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.

Cornucopia Is Developing Veins From 2000 or Tunnel Level

(By Mrs. Charles A. Sneddon)

The Cornucopia district has long been famous in Oregon mining history. Although not discovered until 1880, considerably later than many of the other mining districts in the state, it is now the largest producer of gold and silver in Oregon.

The present holdings of the Cornucopia Gold Mines are situated in the Wallowa mountains near the town of Cornucopia in northeastern Baker county. A fair graveled highway extends from Baker to Carson, a distance of 70 miles. The mine is five miles north of Carson over a narrow, winding mountain road. A new road is being constructed between Carson and Cornucopia, with work being carried on intermittently by the WPA, the forest service and Baker county. At present snow condition necessitate the use of horse-drawn sleds for transportation from Carson to the mine during approximately 6 months of the year, but with the completion of the new road next month it is anticipated that truck hauling may be used the year around.

The country is mountainous and precipitous and for the most part sparsely timbered. The winters are

long with heavy snows which sometimes reach the depth of 16 feet or more.

History Shows Difficulties

The properties now owned by the Cornucopia Gold Mines include three of the older mines of the district: The Union Companion, Red Jacket, and Last Chance. The total holdings of the company include 87 claims, 66 of which are patented — aggregating about 2½ square miles. These claims are in a block covering essentially all of the known productive area, in which there have been discovered four major and seven minor gold and silver bearing quartz veins. These veins dip westerly at approximately 40 degrees into Granite Mountain and extend laterally for the full width of the property. The four major veins on which development work has been done are known as the Union Companion, Last Chance, Wallingford, and Valley View.

Transportation Costly Item

Operations began on the Union vein in 1888. Early work was crude and intermittent. In 1892 a 20-stamp mill was built and in the next few years various processes of milling were tried

and abandoned as unsuitable and inefficient. During the years from 1892 to 1907 the properties changed hands several times. Recoveries were low and costs high. Supplies and machinery had to be brought in and concentrates sent out on horse-drawn wagons over 50 miles of bad road to Baker. From there concentrates were shipped by rail to smelters.

Finally in 1907 the Cornucopia Mines company of Oregon, which had acquired the property in 1903, went into receivership. In 1908, Robert M. Betts was sent out by the receiver to make a report, and in 1909 a new company, Cornucopia Mines company of New York, acquired the property from the receiver. Betts continued as manager for the new corporation.

In 1912-1913 this company rebuilt the Union Mill into a slime cyanide plant.

During the winter of 1913-1914 the Baker Mines company was formed and leased the Last Chance, which previously had been worked very little, from the Cornucopia Mines company of New York. A surface plant, aerial tramway, hydro-electric plant, and a 20-stamp mill were erected, and in October 1914 milling of ore commenced. High operating costs and shortage of labor during the war decreased profits, and in 1918 the Cornucopia Mines company of New York withdrew from business in Oregon and a new company, The Cornucopia Mines company, an Oregon corporation, was formed. This company developed the Last Chance vein through the continuation of the

CORNUCOPIA (Cont'd)

Clark tunnel and a main transfer raise. The Lawrence tunnel was started in 1922.

Bad Luck Strikes

Then followed a series of unfortunate events. A bad cave-in, water trouble, bad ground, high labor costs, and a fire which destroyed the Last Chance surface plant, combined with other difficulties, led to the complete curtailment of operation in August, 1926.

In 1929 a Canadian company made an exhaustive examination and reopened the property. Extensive repairs were made before financial difficulties forced this company to withdraw.

In 1930, the present company, the Cornucopia Gold Mines, acquired and reopened the properties. Flotation tests indicated that a satisfactory recovery could be made by this method, so again the Union mill was remodelled, this time to use flotation, and operations began in October, 1933, on development ore from the Last Chance vein. Mining was continued on the vein, the ore being treated in the Union mill until December, 1936.

Tunnel Completed Year Ago

It had long been realized that a low level tunnel would solve many of the mine's difficulties. Accordingly, in late November of 1933 the Coulter tunnel was started. Work was continued with both company employes and contractors until July, 1936, when the

Union vein was intersected. During the summer and fall of 1936 the present camp and mill at the portal of the Coulter tunnel were built.

In addition to the mill, the plant consists of complete machine, black-

smith, and electrical shops, compressor house, warehouse, change house, assay office, central heating plant, and mine office. The company owns and operates two hydro-electric plants and a diesel unit with a total rating of 1200 horsepower.

Mines Staff Given

The present staff includes: R. J. Cole, resident manager, who took charge in March, 1936; E. A. Hassan Jr., mill superintendent; A. McGaughey, mine foreman; F. L. Ruble, mine accountant; B. D. Kitching, assistant; J. F. Kitching, master mechanic, Fay Barton, assistant; Guy Coffman, chief electrician, E. B. Jones, assistant; T. B. McClelland, engineer, J. E. Dunn, assistant, and R. G. Bassett, assayer. Leo Burke and Joe Cyrus Mullins are mine shift bosses. E. M. Calhoun is warehouseman, Nels Phillip Johnson and Christoph Schneider are blacksmiths.

The mill began operation in November, 1936, and a total of 13,500 tons of ore have been treated up to the present time. The milling process consists of crushing and grinding mine run ore, after waste picking, in a jaw crusher and ball mill respective-

ly, and in treating this product by flotation, which produces a shipping grade of gold and silver bearing sulphide concentrate. At present the mill is treating approximately 150 tons per day, producing around 2 tons of concentrates. These are shipped by truck to Robinette and thence by rail to the Tacoma smelter in Washington.

The present capacity of the mill is about 250 tons per day. It is contemplated to increase this to approximately 400 tons per day by the addition of a secondary crusher, when mine tonnage warrants.

110 Men Employed

The mill is now operating two 8-hour shifts per day, with eight men employed. The mine is being operated by two eight-hour shifts with a total of 80 to 85 men employed. The total number of employes, including staff members, is 110.

Drifting on the 2000, or tunnel level, has been continued for 700 feet to the north, and 300 feet to the south. Two main raises have been started, one to the north and one to the south of the tunnel. The north raise is up 300 feet, at which point a basalt dike and faults offset the vein 60 feet into the footwall. From the 60 foot cross-cut the 1700 drift has been driven 230 feet to the south. The south raise is up 200 feet. At the 100 foot interval the 1900 level has been driven 120 feet to the south and 200 feet to the north. Stopping and raising is being done on the 2000 and the 1900 levels.

with 12 working faces at present. Vein widths vary from two to eight feet with good values.

The 1700 level is approximately 300 feet below the 800 level of the old workings driven by the Cornucopia Mines company.

May Drill for Drainage

Below the 800 level there is 140 feet winze with a small amount of drifting at the 900 foot interval. These

old workings were completely inundated until several years ago when the Coulter tunnel operations started natural drainage from above. It was hoped that this would continue until the 900 feet of workings were cleared, but although the water dropped to the 400 level this winter it has again started filling and is now up to the 300 level. Thus artificial measures for drainage must be resorted to and this will probably be done with a diamond drill which the company plans to purchase. Aside from its use for drainage the diamond drill will be valuable as a means for underground prospecting.

Mining is being carried on by a modified open stope and stull method. Occasionally square setting is necessary. As mining continues up the vein the stopes are filled with waste. There are three drifters and eleven stopers working, air being supplied by one 800 cubic-foot Ingersoll-Rand compressor and one 700 cubic-foot Sullivan compressor. Drifting and raising are on a contract basis and stoping on a bonus system.

A new 5-ton Mancha electric storage battery locomotive is employed in main haulage using 30 2-ton side-dump ore cars, 15 to a train. Underground tramming on the main haulage level is done with a one-ton Mancha electric storage battery locomotive. All other tramming is done by hand. Two Ingersoll-Rand 2-ton air hoists are used for hoisting in the two main raises. Electric blasting is used in the very wet faces and in all other places the conventional fuse and cap method is employed. Thirty and forty-percent powder is used.

Tunnel Will Tap Other Veins

The potentialities of the Coulter tunnel are very good, both from the geological and the mining standpoint. On this level have been encountered all the known ore minerals of the district; pyrite, chalcopyrite, sphalerite, galena, tetrahedrite, tellurides, and

free gold. Operation are still in the development stage, however, with the contemplated extension of the Coulter tunnel. The Last Chance, Wallingford and Valley View veins will be opened for production and the full capacity of the mill, 400 tons per day, can be mined. A production of 250 to 300 tons a day may be reached after the old Union working are connected to the present workings, enabling Last Chance ore to be transferred to the Coulter tunnel.

This summer, if possible, bunkhouses will be built for single men. An extension on the change-house is now in process of construction. An addition of 300 horse-power will also be necessary to power production, probably another deisel installation.

Most of the unfavorable physical conditions which have led to high costs and unprofitable operation in the past now have been eliminated and with favorable circumstances in the future the outlook for profitable operations is encouraging with steady employment of many men, and one of the largest pay-rolls in Baker county.

Just value of drainage to justify that work

The Cornucopia Gold Mines credited with the largest production in the State for the past two years have recently reached their objective in the Coulter tunnel and while the reports concerning the size of the ore body and its values are meagre, the re-continuing work at that point it is said that the Baker mill will be torn down and a new plant erected at the portal of the Coulter tunnel which would indicate that engineering of shaft

The Mining Journal, July 30, 1938

According to reports, the **Cornucopia Gold Mines, Inc.**, contemplates further enlargement of the 200-ton flotation mill. The

company is operating at capacity, employing 150 men, and 40 lessees are working in the mine. The mine is being worked on a two-shift and the mill on a three-shift basis. About three carloads of concentrates, each containing approximately 65 tons, are shipped monthly to the Tacoma smelter. Average net returns are stated to be \$22,000 a car. The company generates its own electricity, amounting to about 1,500 horsepower. An infirmary with all modern equipment is now under construction and additional living quarters will be built. A. D. Coulter, 1009 Lowman Building, Seattle, Washington, is managing director and Leverett Davis is general superintendent at the property at Cornucopia, Oregon.

**CORNUCOPIA
CONTINUES TO
LEAD OUTPUT**

First Seven Months of 1938
Shows Production of
Gold \$388,000

**KEEPS COUNTY
IN GOLD FRONT**

Figures of Production for
1938 Are On Basis of
Smelter Settlements For
Concentrates.

It is the Cornucopia mines, operated by the Cornucopia Gold Mines, Inc., that are playing a leading part in putting Baker county to the front as the leading gold county of the state this year. The production of these mines is also bringing up the state production in a big jump.

Figures of the Cornucopia production issued for this year through the Crawford Goodwin company of Seattle include the month of July making a comparison of the production for the same period of 1937. They follow:

	Oz.	Basis Smelter Return
1937		
First Quarter	864	\$ 27,934
Second Quarter.....	1339	44,426
July	640	21,120
1938		
First Quarter	4088	\$138,619
Second Quarter.....	5730	193,865
July	1643	55,862
Total	11,461	\$388,346

The steady progress of the mine during the year has been marked and is attracting the attention of the mining world.

Upwards of 100 men are employed at the mine. A feature of the work is the success of leases, of which there are a number working in different sections of the old workings. Ore from the leases is milled in the company plant.

The concentrates from the mill are loaded on the railroad at Robinette and shipped to the smelter at Tacoma.

Cornucopia Mines Produce \$388,000

Baker, Aug. 22.—The Cornucopia Mines, operated by Cornucopia Gold Mines, Inc., are playing a leading part in putting Baker county to the front as the leading gold county of the state this year. Figures of the Cornucopia production issued for this year through the Crawford Goodwin company of Seattle show that for the first seven months of the year \$388,000 in gold was produced. Upward of 100 men are employed.

The concentrates from the mill are loaded on the railroad at Robinette and shipped to the Tacoma smelter.

CORNUCOPIA GOLD MINES 43 YEARS OLD THIS MONTH

of First Employes of Mine Are Still Living

By GEORGIA SMITH

CORNUCOPIA, Sept. 2.—Gold, the metal men live and die for, gold, the stuff we measure men by in our modern world, is where you find it, and in Baker county the place for over 40 years where its production has been almost continuous has been at Cornucopia, tucked away in beautiful Pine creek canyon at the foot of the Granites.

Forty three years ago this month the Cornucopia Mines company started construction of its first mill, which has since been known as the Union mill. At the same time it started construction on a small power house about three quarters of a mile below the mill. This plant was the first electric plant to be built in eastern Oregon to generate electricity for the mine.

George Inman, one of the employes

by the company in 1895 when the Union mill was built, is still employed there. The mines have changed. Several processes of milling have been used. The camp boomed, died and now once again is producing. Inman said recently that as near as he could remember only six of the men who worked on the Union mill in 1895 are alive. They are William Broomhall, Bert and Jake Vaughn, N. D. Brown, Charles McCord and Inman. N. D. Brown cleared the ground at the entrance of the Union tunnel before the tunnel was driven. The tunnel then in use was higher on the hill. At present it is used by one group of lessees.

Besides razing the Union mill, the Cornucopia Gold Mines company has since June made several improvements at the Cornucopia mill, including a new assay office, which is completely equipped to make all or any required metallurgical, flotation or cyanidation tests. A new ore bin for use in storing ore has been built at the mill and changes necessary to add this unit to the mill completed. A timber shed has been built near the tunnel mouth and roads around the mill widened and improved. The road to the Union mill has been widened and in several places re-routed to improve the grade.

The caterpillar RD-8 used by the Cornucopia Gold Mines company during the winter months to draw the heavily loaded La Terneau buggy, which has a capacity of 15 tons per load, is used now only to improve roads. The ore at present is trucked from the Union mine to the Cornucopia mill. These same

company-owned trucks deliver the concentrates to Robinson.

The Cornucopia Gold Mines company of Seattle, the largest producer of gold in the state for all the years the company has been working the property, has made an excellent showing this year, according to Everett Davis, manager. The mines company has produced \$1,299,640 worth of gold and other minerals according to reliable records of production for the first seven months of this year. Davis said the company is employing 250 men at the present time and has a payroll of \$25,000 a month.

The Cornucopia mill, with a possible capacity, is running about 1,000 tons per day. Besides milling ore from the Union, Last Chance, Red Jacket and south drift veins, the Coulter tunnel and its own ore from the same mines with the exception of the Red Jacket, the company is re-milling all Coulter tunnel tailings from the old Baker mill site to the north of Cornucopia. A thousand tons of ore has already been milled and approximately a thousand more will be milled before the cleaning up of the Baker mill site is complete. These tailings assay approximately \$15 a ton and due to oxidation and oil have a lower recovery rate of 85 per cent. The average ore milled at the Cornucopia mill has a recovery rate of 97 per cent. Tailings assays are valued at 30 cents a ton.

The mines company not only is rapidly building its production but is carrying on an extensive development program. In the Coulter tunnel the operations are now at a lower level than it has ever been possible to work either the Last Chance or Union veins in the past. Miners are working 3300 feet below the surface on the dip of the Union vein and as a conservative estimate approximately 1600 feet below the surface of the dip of the Last Chance vein. The drive under way to connect the old Union workings with the Coulter tunnel has brought the connecting tunnel within 100 feet of its destination. The main Coulter tunnel, 6300 feet in length, and the adjoining 500-foot raise will some time in the next few years be the means of connecting all of the underground workings belonging to the C. G. M. company.

The mines company is now working approximately 30 miles of tunnel.

After 43 years of milling gold, old-timers say here in the mountains

known as the Granites there is gold enough for this generation and more for the next. Their statement has so far proved true. In the past two months the payroll has been increased with the addition of 50 more men.

HIGH-GRADING CHARGE FILED

Six Men Arrested on Charge
of Taking Rich Ore From
Cornucopia Mine

A once prominent art, "high-grading," which is the secreting of high grade ore from a mine and then selling it or pouncing out the gold in it for sale, allegedly has been carried on in Baker county lately, according to Sheriff Fred Spence and state police officers, who arrested six men Saturday in Cornucopia and charged them with such a practice at the Cornucopia Gold Mines.

John Blankenship, Jack Erwin, Charles Julian, Bert Curry, Frank Bucknum and Virgil Hollingshead, have been arrested and charged with the secreting and sale of high grade ore. Bucknum and Hollingshead have been released on bail. The others are in the Baker county jail. The men are alleged employees of the Cornucopia Gold Mines and have been charged with carrying on the practice whenever exceptional ore pockets have been found in the mine.

District Attorney C. T. Godwin stated today that the men would be arraigned today and a hearing set for them in the near future.

One Miner Pleads Guilty to Ore Theft

Four Others Held; Many
Cases in Court

County Sheriff F. V. Spence, two deputies, and two state police officers went mining Saturday, the object of their search being particularly directed at certain "float" allegedly as large as the result of alleged "high-grading" operations carried on at the Cornucopia Gold Mines company property by employees of the mine.

The hunt for ore began at Copia and the search continued as far away as Baker, the result being taken as evidence for the state and District Attorney C. T. Godwin in the complaint lodged against five miners, Tuesday. A sixth man was released, one was out on bail and one plead guilty up till today.

All those held waived grand jury indictment and indirectly into circuit court. Bert Curry yesterday plead guilty to a charge of robbing a quartz vein before Judge C. H. McCollish who has taken the matter of sentence under advisement. Four others, Charles Julian, Jack Erwin, John Blankenship and Frank Putnam will appear in court in the near future to make their plea.

District Attorney Godwin advises that the penalty under charges, as lodged against the miners is from one to five years, with a fine of from \$100 to \$1000.

It is known that ore at Copia of substantial value on the average is exceptionally rich in spots, running many dollars to the pound. It is such valuable ore that the state alleges was taken or secreted from the mines company.

CONTINUE MINING CASE; 2 GUILTY

Highgrading Copia Ore Admitted by Second

Baker county officers this week continued investigation into the case that involved a number of miners of the Cornucopia Gold Mines company on a charge of larceny of a mine and alleged "highgrading."

This week Charles Julian was dismissed of the charge after appearing for hearing. A second man to plead guilty was John Blankenship, who had previously asked to be given a grand jury hearing. He, with Bert Curry, who plead guilty last week, will appear in court tomorrow for sentence, District Attorney C. T. Godwin states. Jack Erwin is out on \$500 bail after pleading not guilty to the highgrading charge and is waiting the grand jury.

Officers refused to comment whether the alleged operation carried on in the big Cornucopia gold mine has yet been completely uncovered.

Robert ...

12/17-27

Draining of the old Union workings of the **Cornucopia Mines Co., Cornucopia**, is proceeding rapidly, having gone down 300 feet in the past few weeks as the result of core drill hole operations. About 100 men are employed. **Leverette Davis** is general manager.

11/11

The **Cornucopia Mines, Inc., Cornucopia**, reports that diamond drilling has tapped the workings above the **Coulter tunnel** on the **Union** vein and has accomplished its objective. A larger core drill is following up to drain the water, after which it is expected that development will increase mill tonnage from the present 150 tons to 300 tons per day, according to **Leverette Davis**, manager. Sixty company men and forty leasers are employed.

11/10

The **Cornucopia Gold Mines Co., Cornucopia**, is now using its increased mill capacity, treating more than 200 tons of ore per day from lease and company production. **P. A. Rokne** is mine superintendent. Production during the first three months of 1938 has been as follows: January, \$30,360; February, \$49,929; and March, \$64,052 for a total of \$144,341 compared with \$27,914 during the same period in 1937. **Leverette Davis**, is general manager.

11/10

Cornucopia Gold Mines, Inc., Cornucopia, produced 1,643 ounces of gold in July, making a total of 11,461 ounces, worth \$388,346 for the first seven months of 1938, compared with 2,843 ounces during the same period in 1937.

The **Cornucopia Mines, Inc., Cornucopia**, is rapidly getting back into operation under the management of **Leverett Davis**. More than 60 men are employed. **Pete Rokne** is underground superintendent. Some leases are in operation.

Record Month at Copia Mine; Raise To 1400 Level Starts Flow of Air

Although final smelter returns have not been received, officials of the Cornucopia Gold Mines company indicate that September production was the best in Cornucopia's history. This is taken to mean not only a fast stride in tonnage production but also in values tapped. Although future months may not hit the same pace, the record is indicative of the activity at the mining camp high in the Granites of Pine Valley. The ore mill is running 160 dry tons daily.

October 1 the company climaxed five years of development work when it broke through with the air raise from the Coulter level to the old 800 at the Union mine. The Coulter tunnel was begun in November 1933 and although considerable mining is now being done from this level the objective was not only to cut the veins but also to raise to the upper levels. Previous development from the Coulter drove drifts and raises up to the 1700 level. This past few months the air raise was driven 300 feet further to the old 800 level.

Cut Through Raise

The moment the four by four opening was cut, the powerful ventilating fans were stopped and the natural ventilation set in. This will facilitate work and may be followed by development pointing to increasing the raise to a double compartment haulage.

The company is putting finishing touches on the 16 new cottages, forming a double row on the new street where the highway comes into Copia. The 6th new dwelling at the tunnel is also being completed.

Finish Buildings

Also effected this summer is the erection of the new timber shed in which a two-years' supply of timber is stored. Very little out-of-doors work now faces the company in the winter time. The haulage of Union ore will be facilitated by the worn road over which the big buggy will replace trucks as soon as snow flies.

The long awaited gravelling of the Carson-Copia highway is being effected at present. This is imperative to permit travel during the winter. The company and the county cooperate in this work.

Democrat Herald, Oct. 20 1938

CORNUCOPIA HAS \$100,000 GOLD OUTPUT IN SEPT.

Mining Company Sets
Record; Now Em-
ploys 250 Men

MINERAL OUTPUT
OF COUNTY RISES

October Production to
Be Largest Manager
Davis Says

Production of gold ore at the Cornucopia Gold Mines company for September was approximately \$100,000, the largest output for a single month in the history of the operation, it was announced in Baker yesterday by Leverett Davis, manager of the company.

Mr. Davis said that during the month of September three carloads of concentrates were shipped to the smelter at Tacoma.

The production at the mines for October probably will not reach the September total, Mr. Davis told The Democrat-Herald. However, he was optimistic relative to this month's operation, and felt certain that it would reach a large total.

For the first six months the company turned out an average of \$65,000 a month in ores, giving it a rating as the second largest producing gold mine of its type in the United States.

The payroll of the company is now the largest it has ever had, with the present employment of 250 men in all of its operations.

The Cornucopia company has given the gold output of Baker county for 1938 a substantial boost, and it promises to be the largest in many years.

With the recent announcement that the Campbell-Oregon interests of New York City have formed a new company and taken over leases on numerous old producing properties in the Bourne district, mining activity in the county again gives promise of reaching a new high for years.

Mining Operators Plan State Meeting

Davis of Copia Announces Oregon Association Idea

Operators of Oregon producing mines have scheduled a meeting in Portland next week for the purpose of forming an association, word left in Baker by Leverett Davis of Cornucopia indicates.

Mr. Davis, vice-president in charge of operation of Cornucopia Gold Mines, principal mineral producing property in the state, was in the county seat on business Tuesday and Wednesday.

Regarding the call issued to all Oregonians interested in such an association, Mr. Davis said:

"The mining industry in the state of Oregon has now reached a point in production where the operators feel that an association should be formed to safeguard their legitimate interests.

"A meeting will, therefore, be held in the Green room of the Portland hotel on Wednesday, December 7, at 10 a. m. for the purpose of forming such an association. All mine operators and those directly interested in the industry will be welcome."

Mr. Davis emphasized particularly that the group would be state wide in an effort to avoid sectional differences and would serve as a clearing house for problems confronting mining in general, whether in Western or Southern as well as Eastern Oregon.

Mr. Davis has contacted a number of mining men here and expressed the prediction that a sizeable group would be on hand from Baker for the organization meeting, probably as many as ten or a dozen active local operators or persons interested in the industry.

Copia Mines Workmen Lay Over Mile Of Heavy Track in 88 Hours

Cornucopia — (Special) — The Cornucopia Gold Mines suspended ore hauling operations Tuesday April 11, to repair and replace 6200 feet of main haulage track.

The track was raised eight inches by the use of 8"x8" stringers and 2"x12" and 2"x6" cross ties spiked down to the present ties. Some of the smaller rail was replaced by 40-lb. rail.

This improvement was necessary to keep equipment out of water and make more drainage for the mine.

The job required 200,000 feet of lumber, 3500 lbs. of track spikes, 2200 lbs. of boat spikes, 1000 lbs. of nails and 1400 lbs. of track bolts.

The track was completed in 11 eight-hour shifts of continuous work. The men were given a bonus.

COPIA MINES RATES AMONG SIX LARGEST

873
Baker County Mine Had
Profitable Production in 1938

MILL TREATING 150 TONS A DAY

Electric Locomotives Used
in Trimming Ore in the
Coulter Tunnel More
Than 6000 Feet.

With more than 30 miles of underground workings, consisting of tunnels, drifts, shafts, raises, etc., the Cornucopia Gold Mines, at Cornucopia, makes one of the larger gold mines of the country. In fact the mine ranks as one of the six largest lode mines in the United States, including Alaska.

The mine is credited with a production of \$675,581 during 1938, according to reports to the stockholders, of which \$122,612 is given as net profit, after provision of \$27,487 for federal and state income taxes and \$50,196 for depreciation, depletion and amortization. The company employs about 250 men, including leasers.

The mines were discovered in the late '70s and some production was made as early as 1880. From that start the production continued for a number of years, in fact there was continuous work and production the most of the time until about the close of the World War, when the mines were closed on account of the high cost of operation and the comparatively low grade of ore available for mining at that time.

In 1930 the present Cornucopia Gold Mines took over the operation which has been continuous since. In August 1937, Leverett Davis, vice-president and manager, took charge of operations, and in 1938 the property showed a profit for the first year since 1930.

Since that start a vast amount of development, including the driving of the Coulter tunnel more than 6000 feet to cut the veins at a much greater depth than the previous development.

Modern equipment has been installed for mining large modern flotation mill, near the portal of the Coulter tunnel. This tunnel treats about 150 tons of ore a day.

Ore for the mill is trammed from the Coulter tunnel direct to the mill, and from the Clark level higher on the mountain transported by a large diesel caterpillar drawing a carry all trailer, down the steep mountain side 25 tons at a trip, to the mill where the ore is dumped in bins. The tractor ore comes from the older workings of the mine where it is mined by leasers. Blocks of ground are leased to the miners and when brought to the surface taken to the mill where it is treated. Concentrates from the mill are taken in motor trucks to the railroad at Robinette and from there shipped to the smelter at Tacoma.

A great improvement just completed is the raising of the track in the Coulter tunnel and replacing the rails with 60-pound steel. Trains of 10 and 12 cars are hauled over the tracks by electric locomotives at speeds of 15 and 20 miles an hour. The distance from the portal to the station is about a mile and quarter.

Another improvement under way is the cutting out of a large station near the intersection of the tunnel with the Union vein in which a large compressor will be installed.

Cornucopia Mine Production High

Halfway, Oct. 24.—According to a statement made recently by Superintendent Laverett Davis, the Cornucopia mines made an all-time high record during September, reaching \$100,000. He further said that for the first six months they averaged \$65,000 in ores, bringing it up to the second highest in the United States. They have now the largest payroll since the present management has had charge of the property, having in all branches of the work 250 men.

*Portland - Journal
Oct. 24, 1938*

CORNUCOPIA GOLD MINES PROFIT IN 1938 ANNOUNCED

823
Activity on Pine Creek
and at Bourne Also
Underway

A net profit of \$122,612 was made during 1938 by the Cornucopia Gold Mines, according to recent statements issued by the company.

The amount of metal recovered during the year amounted to \$675,581. Federal and state income taxes of \$24,487 were paid. For depreciation, depletion and amortization, \$50,196 was paid, an article in the latest issue of the Oregon Mining Review stated.

In 1937 the company showed an operating loss of \$249,047. This, however, was during a period of extensive construction and heavy development.

About 150 men are employed in the operation of the holdings at Cornucopia in addition to from 50 to 100 more men, who are lessees, unusually employed in the older workings of the mine. Laverett Davis is vice president in charge of operations.

In addition to the amount made in the largest largest gold ore producing mine in the state other operations, chiefly placer, have combined to produce a great deal of mining activity in the county.

(Continued on following page)

DAVIS RELATES STORY OF MINE AT CORNUCOPIA

— 773 —
300 Men Employed at
Property, Lions Are
Told

A. L. SCHROEDER
NEW PRESIDENT

Other Officers of Club
Chosen at Noon
Luncheon

Members of the Lions club elected A. L. Schroeder president, George Cunning vice president and Austin Franklin secretary-treasurer today noon at their regular weekly meeting in the Hotel Baker, at which Leverett Davis, vice president in charge of operations of the Cornucopia Gold Mines, was the principal speaker.

Mr. Davis, in speaking of the mines of which he is in charge, told the group that the mine is the largest in the northwest and is sixth in lode ore production in the nation. The mine produces 80 per cent of the gold of the state from lode ore and half of it in the northwest.

At more than 300 men are working at the mine, Mr. Davis said, at the time of the summer building program. Last year about 30 modern homes were built for the employes and this year an equal number will be constructed in addition to a large recreational hall. The recreational hall will have all the advantages of a large gymnasium with a bowling alley, pool tables and all types of facilities. A large gymnasium will be constructed as well as a solarium. The solarium is being built so that the men can take advantage of the rays of the sun all year and in the winter months and at nights sun lamps will be used. This is expected to cut down the pulmonary illness of the miners.

The property was discovered around 1870, Mr. Davis told the Lions, and has been operating continuously since that time except for a period of about three years. He estimated that the total amount taken from the property between 1907 and 1927 (computing gold and silver at today's prices) amounted to about twelve or thirteen million dollars.

In 1927 the mines closed and the present company took over the property in 1930. The mine was closed in 1927 because of the enormous expense of production caused by the necessity of pumping water and the decreased extraction through the cyanide process.

A tunnel was started above the site of the present town in 1930, which will be four miles long, when completed. The Union Companion vein is being worked at present and according to Mr. Davis it is the richest vein since the Copenhagen vein, which produced a million dollars. The vein is six feet wide and runs \$35 to the ton.

Some silver and copper is taken from the mine with the silver averaging four times as much as the gold in weight.

"The gold is worth 93 per cent of the production," Mr. Davis explained.

A flotation process is in use now instead of the cyanide. The ore is pulverized. Then chemicals are added, which adhere to the minerals to be saved. Pine oil is added and this makes a frothy mixture with many bubbles. The ore and the chemical stick to the bubbles and are skimmed off and sent to the smelter.

The mining man said that the Cornucopia property is being recognized throughout the nation at present.

(Continued from
preceding page)

In the Bridgeport region activity in placer mining has been reported on the property of Walter Givens. Givens has reported extremely high grade placer ground and has taken a great deal of coarse gold from his claims.

Pine creek has contributed some of the outstanding discoveries to the county recently. A nugget weighing 17 ounces was found recently on the John Wyant diggings. It has been purchased by the First National bank of Baker and placed on display. The value of the pure gold in it has been placed at \$270.

The nugget was found on a stream that has contributed large nuggets for the last 50 years. Last year Mr. Wyant found a 10-ounce piece of gold and a few days later Mrs. Wyant found one weighing six ounces.

George Elliott of Baker has mining claims on the same stream below the Wyant property and recently men washing gravel on this ground found a nugget valued at \$63.

A great deal of development has also been started at the old Friday mine a short distance from Baker by W. C. Fellows, Sam Anderson and associates.

Ore on the two levels of milling value shows up to \$27 per ton value. The plan of operation includes building a mill which will be ready for operation in a short time with the gold to be recovered by an amalgamation process.

The mine will probably be known as the Double D mines, it is reported. It was worked 40 years ago and produced considerable high grade ore.

R. M. Goodmiller and associates from Boise have leased the Red Devil claims from Gifford and Johnson and are starting work.

In the Bourne section work is progressing rapidly, with the Campbell Oregon Gold Mining corporation supplying the impetus. The corporation has had men working on the claims in that district for months to reopen them so that thorough examinations can be made.

Activity in that region is expected to go forward at full speed this spring and that region is expected to enjoy the biggest boom since its discovery. A program of diamond drilling may also be started by the company.

Baker
Democrat - Herald
April 6, 1939

CORNUCOPIA, IA A CITY WITHOUT DEBT OR TAX

Mining Town of Baker County Has Over 500 Inhabitants

HOLDS REGULAR CITY ELECTIONS

Has no Bonds or Other Indebtedness and Carries Surplus of Funds in the Treasury.

In the Wallowa, or Cornucopia mountains, as known locally, there is a thriving little town that is unique among incorporated cities. It is Cornucopia, and has a full set of officers, mayor, recorder, treasurer, and full council. The mayor is Chris Schneider, who has held the office for several terms. Cornucopia holds regular city elections.

It is a little city with something over 500 inhabitants. The reason for the city is the pay roll of the Cornucopia Gold Mines, numbering approximately 250 men, including those who are leasing sections of the mine. Every house in Cornucopia is occupied and there is always demand for more homes.

Cornucopia has its own water system, and this is its principal source of income. From the receipts of the water system the expenses of the city corporation are paid. This revenue is such that Cornucopia has no tax levy, nor does it have a bonded indebtedness or other unpaid obligations. At the same time there is a surplus of money in the city treasury. Surely this is something to cause other municipalities to at least pause and wonder "how come."

While nestling high in a rugged mountain canyon, mid evergreen forests with granite mountain peaks rising thousands of feet above its streets, Cornucopia is far from being the "jumping-off place." The inhabitants have electric service for lights and power, a water system that brings pure, cold, mountain water to their houses, and all modern conveniences found in many larger cities. There is the picture show, dances and the usual social activities for entertainment.

In fact Cornucopia is a good place to live and enjoy life.

History of Cornucopia Property Is Told by Washington Newspaper Man

BY J. W. S.
In Chronicle-Dispatch

Recently there appeared in the Walla Walla paper a short article by A. W. Nelson, the rambling reporter, on the Cornucopia mines in eastern Oregon. Since the mines have become the best paying property in the state of Oregon within the past two years, several articles with more detail have appeared from time to time in Oregon papers.

But in none of them have we been able to read anything of the exact name of the discoverer or for that matter any of the early history of the Cornucopia.

It so happens that now living in Dayton is the wife and daughter of the late W. T. Burdett who was the discoverer of the Cornucopia gold mines. The following brief sketch by Mrs. Burdett tells exact details of the discovery. And some points worth noting in the colorful history of the camp.

Mr. Burdett, who was a lawyer, was a graduate of Prince Albert college, Belleville, Ontario, Canada. Being a younger brother of the late S. B. Burdett, MP, Q.C. William Burdett naturally had every facility at hand to study and follow the profession of the law, but life sometimes takes odd turns. And in the days of Mr. Burdett's schooling a young man was required to study diligently and oftentimes carried more than one subject in college. It so happened that Mr. Burdett was attracted by the subject of mineralogy, and so carried that subject and geology with his law course.

Not being any too strong of stature and growing more and more attached to the study of mineralogy, he decided to follow the mining profession which would take him out of doors.

He first went to Colorado and thence to the silver mining district of Wood River, Idaho, where he made some locations. From there he went directly to Baker City, Oregon. The mountains in that country immediately proclaimed to him, with his knowledge of mining, that they would be mineralized, and so he gathered prospective equipment and began to trek through the spur of the Blue mountains.

Within a few days he came upon a large rock protruding from the ground, and chipping off a few pieces thus was the discovery of the Red Jacket mines, one of the group of four which formed the original group of Cornucopia mines. Here we will add that Mr. Burett being an ardent reader and a Canadian, he named one discovery the Red Jacket, one the Whitman and one the Union with its companion mine called the Companion.

He then took samples to Baker City where Mr. Basche, a hardware

man, equipped with an assay outfit, assayed the samples, finding them rich in gold content. Soon afterwards there came to Embryo Camp, several mining men from Nevada. Among them Mrs. Burdett's cousin, J. T. Boles, who mentioned to Mr. Burdett that there was a small mining town in Nevada called Cornucopia, meaning Horn of Plenty. The name appealed to Mr. Burdett and he then decided to call the district Cornucopia.

Mr. Burdett undertook the development of the mines and the camp working for 12 years, greatly against odds and weather conditions, and ready funds to develop the property. He then decided to sell, after finding the nature of the ore, made it exceedingly hard to treat—it being what is called tellurium, a fine gold, which at that time little was known of the treatment for such ores. And it was wasteful and expensive to haul the 80 miles to Baker City, where it was sent to Tacoma and Omaha, Nebraska, to the smelters.

Although he was instrumental in getting the road built from Cornucopia to Union, thereby making a shorter route to the railroad, he became discouraged and having an offer to sell he sold the Red Jacket and the Whitman to several bank presidents who became interested from Louisville, Kentucky, who saw the ore at the smelter in Omaha. The two mines brought \$25,000. He then went back to Canada on a visit, returning in a few months to develop the Union-Companion mines, which he afterwards sold to W. A. Clark of Montana for the president of the Searls Sugar company, for the sum of \$32,000. They allowed him to sample his own mine. This was in 1886.

Now leaving the early history of the camp, we will say briefly that after laying idle for a number of years, in 1937 the mines were again opened by the present company of the Cornucopia Gold mines with A. D. Coulter of Seattle, managing director, and Leverett Davis, assistant. They are replacing the old equipment with the most economical process with great success. This is called the flotation process to save the ore.

There are about 300 men who are employed on eight-hour shifts. The large mill was built and recently another unit added to speed up the work. The mine gives employment to hundreds of men.

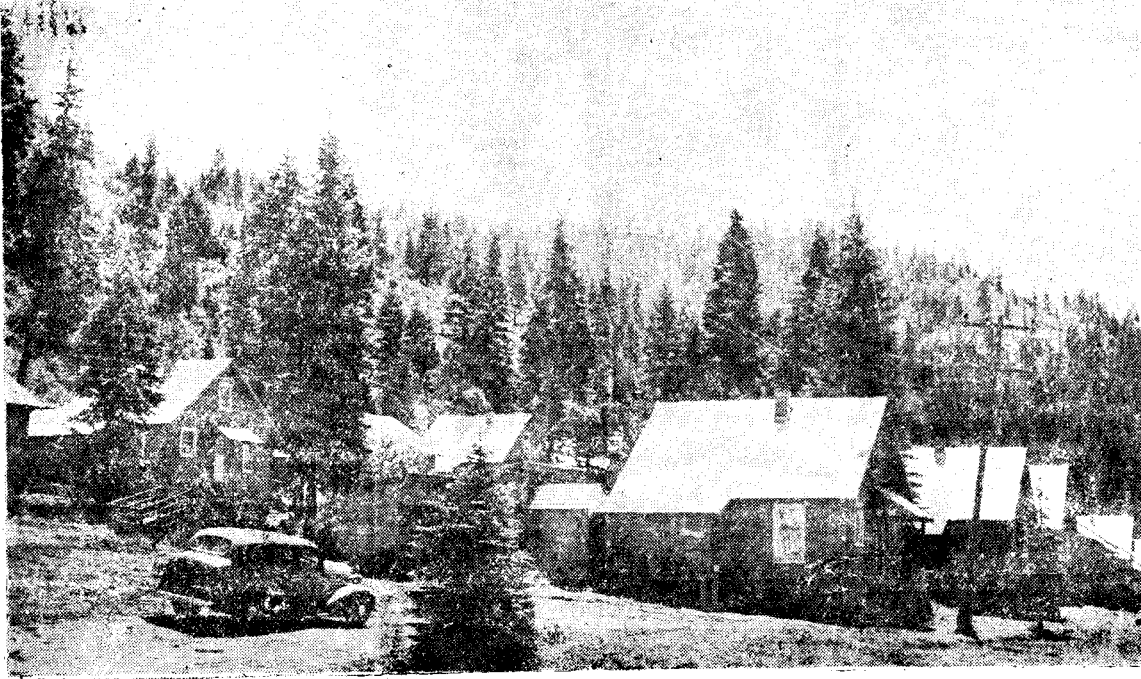
For many years the district was quite isolated but today modern facilities and equipment make shipping easy to the smelters in Robinette about 25 miles on a good highway.

Conditions are very different from which Mr. Burdett first discovered the mine of Cornucopia.

*Baker News
May 5, 1939*

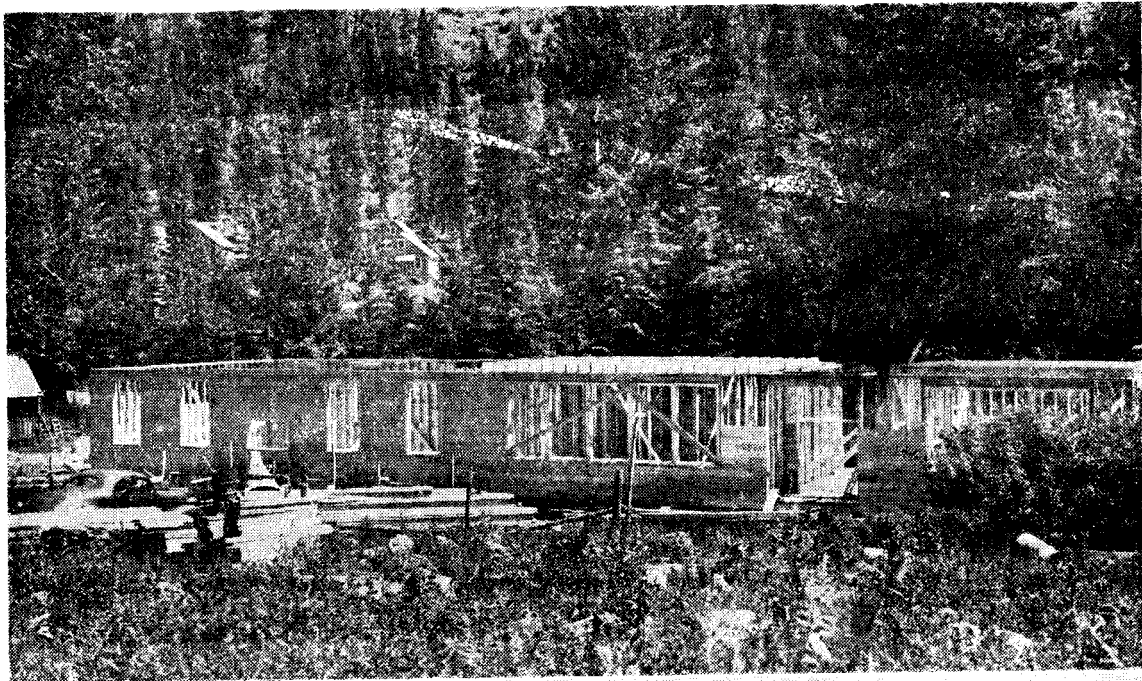
*Baker - Democrat Herald
June 28, 1939*

CORNUCOPIA ACTIVITY OUTSTANDING



(Continued on following page)

(Continued from preceding page)



Part of the delegation making the chamber of commerce goodwill trip to the Panhandle this month appears at the mill in Cornucopia. Appearing in the group is Dorothy Greer, queen of the Baker Mining Jubilee and Rodeo (center in light colored dress), girl members of the Cecilian ensemble to her left and Robert Crabill, member of the ensemble, whose face is visible between Queen Dorothy and Mayor J. C. Sturgill, the tallest man in the crowd. In the second picture from the top is seen several of the cottages built by the Cornucopia Gold Mines company for the workmen and their families. Several buildings of a similar type are under construction. The third picture shows the partly constructed school house. In the background may be seen two of the cottages shown in the view above. The mining camp is shown in the lower picture. Because of the location of Cornucopia in the canyon and the great mass of trees it is impossible to secure a panoramic view of the town and camp. In the left foreground is the assay office, back of it the rear of a new garage and then the office buildings. In the far background is the machine shops. At the lowest point is located the electric sub-station and back of it the mill. A barn is located at the extreme right.

Baker - Democrat - Herald

June 28, 1939

Cornucopia Area Throbs With New Mining Activity

Mining Company Im-
proves Property in
Mine and in Camp

MANY BUILDINGS
ARE CONSTRUCTED

Compressor Room Con-
struction Feature of
Improvements

By KLASS V. POWELL

Extensive developments in the underground workings of the Cornucopia Gold Mines and construction of additional camp buildings have converted the old town of Cornucopia, located high in the Cornucopia mountains, into a veritable bee-hive.

The successful operation of the extensive property by the company has prompted increased activity in the town of Cornucopia outside of the mining camp itself, and of course, is having a beneficial influence over a wide area.

The increase in the population of Cornucopia, resulting from operation of the mine, has made necessary the construction of a new school building, which will contain two classrooms and a large assembly room.

Additional mining activity is also underway along Pine creek below Cornucopia. Two drag-line companies and several individual placer miners are operating along the creek.

The Cornucopia Gold Mines company has been so successful during the last few years that it has been able to meet the strict requirements for entrance of stock on the New York curb market. The Cornucopia stock was placed on the curb last month.

In addition to constructing many buildings in the camp, the company has also made at least two major improvements in the mine during the last year.

The company has raised the track in the Coulter tunnel, which involved the laying of 8 by 8 inch stringers tied in every six feet with cross ties, and then laid heavy rails, the lightest of 40-pound weight. This project gave the company extra water clearance for the tunnel, so that it was possible to carry almost twice as much water in the ditch as before the track was raised. The

On the old slum dam. The dam has been filled in with earth and all that remains to be done is to level the ground.

The company is milling steadily between 165 and 175 tons of ore a day. A good share of the production at the present time is secured from the individual lessees, supplemented by the ore secured mainly from the company's development faces.

The monthly "take" is about the same as last year, approximately \$65,000 a month. The May production this year was 1922 ounces of gold and 7624 ounces of silver.

From two to three cars of concentrates, trucked to Robinette and placed in specially constructed steel cars, are shipped to Tacoma each month.

The company is operating the mill with two crushing and three operating shifts. The mine is operated on the basis of two shifts.

As the ore is taken from the mine, it drops onto a conveyor, which has an automatic weighing device, and goes through a jaw crusher to a vibrating screen. The under-size of the screen goes into fine ore bins and is sampled at this point by an automatic sampler. The over-size goes back through a set of rolls and proceeds back through the screen. The crushed ore is fed by automatic feeders into a ball mill, from whence it passes over jigs and through a float flotation cell to a classifier, which is in closed circuit with two ball mills.

The overflow of the classifier passes into a series of six flotation cells, from whence "rejects" go to the tailing ponds and the concentrates go to a thickener, from whence they are pumped to a drum vacuum filter, which extracts the larger percentage of the moisture. The concentrates are then shoveled into trucks and taken to Robinette.

In the summer time the ore from the Last Chance workings is hauled to the mill in trucks and in the winter by means of a 100 horsepower caterpillar with a trailer, mounted on pneumatic tires. The trailer, equipped with tires that cost \$400 each, holds from 15 to 20 tons of ore.

Officers of the company are as follows: General Manager, Leverett Davis; president, R. E. Fuller of Seattle; secretary-treasurer, A. Scott Hill of Seattle; general superintendent, A. V. Quine; mill superintendent, T. S. Bailey; construction foreman, J. H. Donley; master mechanic, A. Ginther; chief electrician, A. F. Fosterling; mine accountant, Ever-

see - Democrat Herald

June 28 1939

Cornucopia Mines Launch New Development; To Cut Third Vein

City of New Buildings Appears in Camp; Gold Producer Rounds Out Current Program

From a mining camp to a community—that is the outward way of expressing the progress made at Oregon's largest mine, the Cornucopia Gold Mines company operation in northeastern Baker county, during the past year.

But the actual progress is more graphic to the miner when he gets a glimpse of the "proving" development carried on one mile under the solid rock of the Granite mountains — work that apparently verifies the expectations of operators and observers in general that Cornucopia will be one of the major gold mines of the United States for a number of years to come.

During the year the company proved its ore to a depth of 284 feet below previous levels and at the same time carried development into the south end of the vein to prove a section of the vast workings which in recent years has been a problem to company geologists.

During the year the pilot raise from the Coulter level to the old 800 level of the Union mine was driven through and ventilating air began to flow through the tunnel and the upper mine without the aid of the powerful electric fans. Previously diamond drilling the same route had drained the upper levels and the new raise, 4 feet by 4 feet in size assured adequate drainage. Only other use now made of it is for transfer by one lessee's ore.

IMPROVEMENTS NOTED

Increased demand during the year on the Coulter tunnel for both haulage and drainage necessitated the installation this spring, during April, of 6400 feet of new steel, raised up on 8 by 8 timbers over the old ties and with new 2 by 6 cross-ties, thus doubling the capacity of the tunnel to carry water. The new steel is 40, 60, and 80-pound, which with new switches permits fast hauling by the five-ton Mancha electric battery locomotive with its train of 15 to 20 cars.

Proving Ore Below

After sinking below the Coulter level, the company ran a drift from the winze at a point 200 feet below and drifted 500 feet south. The vein is described as "strong and wide" going down with decent ore maintaining to the depth. Here as in higher drifts the vein runs from three to five feet in width.

An ore shoot 300 feet in length has been opened on the 1700-foot level 320 feet above the Coulter where the continuous ore body so far exposed is still showing at both ends. It was from this level that a footwall split-off of the Union vein was picked up by the geologists with the aid of diamond drilling. Here the company is proving the south end of the Union vein and the vein encountered parallel to it and so recently located; the results of the work are described as opening up the entire south end, where development will continue.

Mining Upper Stopes

In addition to Coulter ore, the company mill is running ore from lessee mining on the Last Chance Vein of the old Union mine, above the Clark level. This ore is hauled by truck from the Union portal down through Cornucopia and to the mill. However, the huge tractor and 15-ton capacity pneumatic tired trailer are utilized during

the winter months when haulage is not possible by truck because of snow and when wear on the expensive trailer tires is considerably less.

Big Jobs Ahead

For the immediate present, two major projects are being undertaken. The first is the installation of the two big compressors in the specially constructed room underground at the Coulter junction, which when completed will save a distance of the 6400-foot tunnel length in the air lines.

The big room cut out of the rock is 60 feet long, about 18 feet wide and 15 feet in height with a shorter "L" room about 25 feet long. The compressors deliver about 1800 cubic feet of air per minute and will probably be completely moved from the outside to the new underground plant within a month. The big room is to be of concrete, reinforced with steel; and the smaller portion of it will be a heated lunch room for miners.

The second project calls for laying 40-pound steel in the Clark tunnel of the old workings, a length of 4500 feet. When this is done, the Clark tunnel will be driven 2000 feet further to intercept the Wallingford vein, which will be the third major vein then included as a producer and as a reserve. Work on the 10- by 8-foot extension will begin within a few months and is expected to be completed in 1940. This will cut the Wallingford about 1600 feet below the previous work on the vein.

The company will change its tools to detachable bit equipment this season and is installing hot milling equipment to keep the bits in shape. Another addition is the facilities for microscopic analysis of the ore from cross-section samples and from which geologists and mill men gain considerable information.

The company's mill is treating 160 to 175 dry tons of ore daily and the run is now in its third year at the new plant. From two to three tons of concentrates are shipped to Tacoma each month from Robinette in specially constructed steel cars.

In the mill the ore is weighed automatically, crushed, sampled automatically and fed into the ball mills and through the modern flotation routine that extracts concentrate from the raw, pulverized ore. The mill is one of the finest in operation anywhere.

The mines company produces about \$65,000 per month, although one month last fall an exception production of about \$100,000 was recorded. During May 1932 ounces of gold and 7624 ounces of silver were extracted and since the first of the year about \$390,000 has been mined. Last year the company showed a small net profit, although the previous year an operating deficit with extensive development work on was naturally incurred.

Near 300 Men

The mill is run three shifts with about 10 men employed while the mine is operated two shifts with between 90 and 100 men working on leases and a number working for the company. Altogether the company has about 200 men on the payroll which is about \$22,000 monthly which with the lease operations brings the Cornucopia worker-list to near 300 men.

This payroll will fluctuate, being high at the present time when the extensive improvement program at the camp is being continued. Present outside work included erection of 12 more company houses to add to the 16 completed last year for workmen; five additional staff houses to add to the five built at the Coulter site last year; and will also include a new dry room and recreation hall. This latter will house a new locker room and solarium to provide artificial sunshine to the miners.

Completed since last summer are the new assay office, the new bunkhouse, the new 'cat' storage, additions to the mill and the snow shed at the mill. Completed so far this year are the new substation for the company's own power plant, the new six-car garage, the new timber shed and the engineering office. To be started in July is the new bunkhouse at the upper mine.

Officials Listed

R. E. Fuller is president of the company, Dr. G. E. Goodspeed of the University of Washington staff is consulting geologist and a member of the board. Leverett Davis is vice-president and general manager; A. V. Quine is general superintendent; T. S. Bailey, mill superintendent and J. H. Donley is in charge of outside construction. A. W. Fosterling is chief electrician; A. H. Ginther, chief mechanic; Everett McKeller, accountant and office manager; J. L. Dunn, engineer; Clark March and Mr.

Baker

Record-Courier

June 29, 1939

Local Mines Production May Be \$2,000,000 During 1939

Payroll of \$65,000 Monthly Shown In Summary of Current Producers

Looks Like Increase in Baker County Gold Output Over \$1,300,000 Figure Mined in 1938

Mining for gold and other minerals in the Northeastern Oregon mineral belt surrounding Prineville is reaching a new high point this summer with increased activity in the state's producing regions and renewed production by many properties during 1939.

Observers, acquainted with the industry, place a conservative estimate on the monthly payroll to persons employed in the local mining industry at \$65,000, or an annual payroll of about \$700,000. Leading the list are the Cornucopia payroll of \$22,000 monthly and the payroll of the Oregon Portland Cement company at Elsie with \$10,000 monthly.

Two huge gold dredges, five large "doodlebug" dredges, a half-dozen smaller hydraulic operations and probably ten other lode producers are included in the list of active properties in or immediately adjacent to Baker county.

PRODUCE \$1,300,000 IN 1938

Although the 1938 figures are slightly under the 1939 prediction, bureau of mines reports show that the county produced \$1,300,000 in gold, alone, last year, in addition to production from mines in adjacent counties. Oregon mineral production totalled \$2,900,000 in 1938. It is predicted that if current operations maintain until the end of the year the total may be over two millions for 1939.

Attention is directed at the present time to the district about Sumpter where placering with dredge equipment is at its height. In addition to the 8000 yards daily being handled by the Sumpter Valley dredge at the unprecedented low cost of between 5 and 6 cents per yard, the new four-foot Porter & Company all steel electric dredge has been running steadily since September on Bull Run creek above Granite. The company has about 2774 acres in the area and has invested \$350,000 in dredge and land.

Also at Granite is the S. K. Atkinson dragline operation and in the near future the Silbaugh land dredge will also get under way on Granite creek. West of Sumpter the Harmon hydraulic operation is washing ground. Up Cracker creek, Consuelo-Oregon company is making fine progress with its electric "doodle bug." Below Sumpter the Little-Wolfinger and Harris "doodle bug" and the Nutting plant are handling considerable ground.

Two placer operations are running on Pine creek below Cornucopia, one being a hydraulic. In the Chicken creek section M. P. Gifford of the Gold Cluster, A. V. Lovejoy of the Gleason and La-Fran brothers at the Little Hill mine all have been producers of gold on a small scale.

Considerable research has been done on Homestead ore the past six months, as with the Dixie Meadows mine near Prairie City, although work has not been concluded.

This current week, the testing of dredge ground on North Powder river in the Muddy Creek section by Sumpter Valley Dredging company engineers is under way. Al Razor, representing Boise interests has been brought here by Otto Simons to sample the Oregon Chief mine of the Cable Cove section.

Word from Mormon Basin indicates additional development work will be done on the Sunday Hill mine.

Down in the Malheur section E. H. Seaver and J. L. Danziger of Los Angeles are testing extensive placer ground. They have been encourage enough that additional, modern sampling equipment is being added to that in use the past three weeks.

Baker Record Courier

June 29, 1939

Many State Mining Engineers Coming

After a tour to mining property in central and Eastern Oregon, a party of mining men, members of the American Institute of Mining and Metalurgical Engineers, Oregon section, will arrive in Baker Sunday afternoon for the Jubilee, word from Earl K. Nixon of the state mining department states.

Included in the party will be: S. H. Williston, of the Horse-Heaven mercury mine; Messrs. Cullers and Porter of the two big local dredges; Drs. Smith and Hodge and Prof Batchelor of the state college and Mr. Allison of the University; Al Burch; Libby, Swartley, Thresher and Nixon of the state mining offices of Portland; H. F. Byram; the managers of the two Grant county dredges, and many other members of the group.

After a public banquet Sunday evening the group will hold a brief business session. They may visit Cornucopia mines Monday during their visit.

Baker Record Courier

June 29, 1939

Activity Be \$/ Record- Jubilee

(continued from Page 1, Sec. One)
at 2300, giving 350 feet of added depth on both. Although only two men are employed in the crosscut it is hoped to press the work along with current development.

Altogether 25 men, with eight on the development and 10 in outside construction, are employed.

BUFFALO SHIPPING

The Buffalo mine several miles beyond the Independence began milling ore last week, with first concentrates being trucked to Sumpter Sunday along with high-grade crude ore from the Constitution claim on the property. This property, belonging to Bruce Dennis of Portland, boasts a revamped mill set up by W. F. Allen Jr., well-known mining man, for the particular ore encountered.

Other properties showing activity are the Bi-Metallic and the Snow creek in charge of M. C. Carson and Wm. Cooper, respectively.

TESTING CONTINUES

In the Bourne vicinity H. C. Wilmot, new owner of half-interest along with the Parkers in the Argonaut mine, is going ahead with work after completing a new road. A 100-ton mill is contemplated.

The Campbell-Oregon company which took an option on the entire Bourne holdings, including the E. and E., North Pole, Columbia, and other claims is at present making extensive diamond drill testings after sampling the old E and E. mine down to water level.

According to Mr. Chestnut who has been in charge since the work got under way last fall, the Sullivan Machinery company, contractors, has the first hole in 1400 feet.

The rig is located just above Bourne and the hole is being driven into the footwall of the vein at 58 degrees which should strike the vein 100 feet below the old Columbia mine, our informer explained.

Two other holes were planned. However, the extremely hard drilling has caused considerable grief in the first try. The first hole is expected to reach its destination momentarily, Mr. Chestnut stated

early this week, although failure of it to "flatten" has necessitated a little further distance than was contemplated.

Should the testing prove the property satisfactory, a major operation would result, it is said.

OTHER MINOR PROPERTIES

On Virtue flat the Friday mine which has produced some shipping ore the past year is now managed by W. R. Christensen with prospects that a small mill equipment taken to the property may be set up. Nearby is the Hidden Treasure mine, also shipper. Macy Mine near Richland is under lease from Geo. V. Whittle to Sam and Lloyd Anderson. It has been running for over a year.

Scouting for prospects has been an active pastime in practically every district. Unusual activity has been noted in the Bridgeport section. Two placer operations are running on Pine creek below Cornucopia, one being a hydraulic. In the Chicken creek section M. P. Gifford of the Gold Cluster, A. V. Lovejoy of the Gleason and La-Fran brothers at the Little Hill mine all have been producers of gold on a small scale.

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*Take note
June 29, 19*

Many State Engineers

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Included in the party S. H. Wiliston, of the F en mercury mine; Mess and Porter of the two dredges; Drs. Smith and Prof Batchelor of college and Mr. Allison iversity; Al Burch; Lib ley, Thresher and Nix state mining offices of H. F. Byram; the man two Grant county dis many other members of

After a public banquet evening the group will business session. They Cornucopia mines Mor their visit.

*Casey Keen
June 29,*

Cornucopia Mines Launch New Development; To Cut Third Vein

City of New Buildings Appears in Camp; Gold Producer Rounds Out Current Program

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During the year the pilot raise from the Coulter level to the old 800 level of the Union mine was driven through and ventilating air began to flow through the tunnel and the upper mine without the aid of the powerful electric fans. Previously diamond drilling the same route had drained the upper levels and the new raise, 4 feet by 4 feet in size assured adequate drainage. Only other use now made of it is for transfer by one lessee's ore.

IMPROVEMENTS NOTED

Increased demand during the year on the Coulter tunnel for both haulage and drainage necessitated the installation this spring, during April, of 6400 feet of new steel, raised up on 8 by 8 timbers over the old ties and with new 2 by 6 cross-ties, thus doubling the capacity of the tunnel to carry water. The new steel is 40, 60, and 80-pound, which with new switches permits fast hauling by the five-ton Mancha electric battery locomotive with its train of 15 to 20 cars.

Proving Ore Below

After sinking below the Coulter level, the company ran a drift from the winze at a point 200 feet below and drifted 500 feet south. The vein is described as "strong and wide" going down with decent ore maintaining to the depth. Here as in higher drifts the vein runs from three to five feet in width.

An ore shoot 300 feet in length has been opened on the 1700-foot level 320 feet above the Coulter where the continuous ore body so far exposed is still showing at both ends. It was from this level that a footwall split-off of the Union vein was picked up by the geologists with the aid of diamond drilling. Here the company is proving the south end of the Union vein and the vein encountered parallel to it and so recently located; the results of the work are described as opening up the entire south end, where development will continue.

Mining Upper Stopes

In addition to Coulter ore, the company mill is running ore from lessee mining on the Last Chance Vein of the old Union mine, above the Clark level. This ore is hauled by truck from the Union portal down through Cornucopia and to the mill. However, the huge tractor and 15-ton capacity pneumatic trailer are utilized during

the winter months when haulage is not possible by truck because of snow and when wear on the expensive trailer tires is considerably less.

Big Jobs Ahead

For the immediate present, two major projects are being undertaken. The first is the installation of the two big compressors in the specially constructed room underground at the Coulter junction, which when completed will save a distance of the 6400-foot tunnel length in the air lines.

The big room cut out of the rock is 60 feet long, about 18 feet wide and 15 feet in height with a shorter "L" room about 25 feet long. The compressors deliver about 1800 cubic feet of air per minute and will probably be completely moved from the outside to the new underground plant within a month. The big room is to be of concrete, reinforced with steel; and the smaller portion of it will be a heated lunch room for miners.

The second project calls for laying 40-pound steel in the Clark tunnel of the old workings, a length of 4500 feet. When this is done, the Clark tunnel will be driven 2000 feet further to intercept the Wallingford vein, which will be the third major vein then included as a producer and as a reserve. Work on the 10- by 8-foot extension will begin within a few months and is expected to be completed in 1940. This will cut the Wallingford about 1600 feet below the previous work on the vein.

The company will change its tools to detachable bit equipment this season and is installing hot milling equipment to keep the bits in shape. Another addition is the facilities for microscopic analysis of the ore from cross-section samples and from which geologists and mill men gain considerable information.

The company's mill is treating 160 to 175 dry tons of ore daily and the run is now in its third year at the new plant. From two to three tons of concentrates are shipped to Tacoma each month from Robinette in specially constructed steel cars.

In the mill the ore is weighed automatically, crushed, sampled automatically and fed into the ball mills and through the modern flotation routine that extracts concentrate from the raw, pulverized ore. The mill is one of the finest in operation anywhere.

The mines company produces about \$65,000 per month, although one month last fall an exception production of about \$100,000 was recorded. During May 1932 ounces of gold and 7624 ounces of silver were extracted and since the first of the year about \$390,000 has been mined. Last year the company showed a small net profit, although the previous year an operating deficit with extensive development work on was naturally incurred.

Near 300 Men

The mill is run three shifts with about 10 men employed while the mine is operated two shifts with between 90 and 100 men working on leases and a number working for the company. Altogether the company has about 200 men on the payroll which is about \$22,000 monthly which with the lease operations brings the Cornucopia worker list to near 300 men.

This payroll will fluctuate, being high at the present time when the extensive improvement program at the camp is being continued. Present outside work included erection of 12 more company houses to add to the 16 completed last year for workmen; five additional staff houses to add to the five built at the Coulter site last year; and will also include a new dry room and recreation hall. This latter will house a new locker room and solarium to provide artificial sunshine to the miners.

Completed since last summer are the new assay office, the new bunkhouse, the new 'cat' storage, additions to the mill and the snow shed at the mill. Completed so far this year are the new substation for the company's own power plant, the new six-car garage, the new timber shed and the engineering office. To be started in July is the new bunkhouse at the upper mine.

Officials Listed

R. E. Fuller is president of the company, Dr. G. E. Goodspeed of the University of Washington staff is consulting geologist and a member of the board. Leverett Davis is vice-president and general manager; A. V. Quine is general superintendent; T. S. Bailey, mill superintendent and J. H. Donley is in charge of outside construction. A. W. Fosterling is chief electrician; A. H. Ginther, chief mechanic; Everett McKeller, accountant and office manager; J. E. Dunn, engineer; Clem March and Mr. Anderson, geologists.

New Schoolhouse

Cornucopia at present is witnessing construction of the new PWA grade school which will be two rooms and a large indoor recreation room for use in assemblies and during the long winter months indoors.

A new ball diamond on the slum dam is also to be enjoyed by the town.

Complete Copia Track Improvement

Haulage in Last Chance Modernized; New Gym

Cornucopia — (Special) — The Cornucopia Gold Mines has been changing and relaying the main haulage track in the Last Chance mine; 40-lb. rail was laid to replace the 20-lb. rail.

The entire main track has been changed from 18" to 20" gauge track to make possible the exchange of equipment between the Last Chance and the Union Companion mines.

(At the time this improvement was begun it was announced that the new track, which is about 4500 feet in length in the Clark tunnel, would facilitate the company's plan to drive the addit 2000 feet farther from the Last Chance to the Wallingford vein).

Add Buildings

A full sized gymnasium and recreation hall is under construction as well as a dry and change room near the portal of the Coulter tunnel.

A cement and steel reinforced powder house has been completed, and the finishing work is being done on ten new homes for employees, making a total of fifteen new homes.

The new bunk house at the Last Chance mine will be completed and painted this week.

Cornucopia Gold Mines Win Profits

Cornucopia Gold Mines Co. continues to win profits. That for the first half of 1939 is reported as \$71,578 before income taxes. This compares with \$92,885 profit earned in corresponding period of 1938. Alaska Juneau Gold Mining Co. in first seven months of 1939 earned \$658,500 before depletion and income taxes, vs. \$1,192,800 last year.

Baker Record Courier Sept. 21 1939

Mining Company Maps Granite Mt.

When Geologist John Eliot Allen of the state mining laboratory in Baker returned from a field trip to the small mining operations of the Eagle and Cornucopia mountains Tuesday he reported that the big Cornucopia Gold Mines company is just completing a geologic and topographic map of the entire Granite mountain.

Clem Marsh and Ferrel Anderson of the company's staff have been working on the project all summer. Mr. Allen predicts the detailed map will be invaluable to the mine in its study of veins, faults and dike systems of the area being mined.

Mine Union Claims Majority at Copia .

Says 65 Percent of Men Signed with Local

Word from Cornucopia states the mining operation there has been unionized for the first time in its history. The extent of the unionization is not known except that the AFL organizer was in the camp for some time and is expected back to continue the work.

The union is chartered as gold mines union No. 22214 and according to the information it claims a membership of about 65 percent among the company employees and slightly less than a majority at present among the lease operations.

After further preliminary negotiations and organization the leaders expect to apply for bargaining rights. It is not announced whether any demands are being made upon the company in regard to wages and hours or working condition but word from the camp indicates the union is protesting alleged discharge of several men.

Doyle Connal is chairman of the local; John Wellingham is financial secretary; John Fredericks, recorder; and Cecil Westervelt is treasurer, we are informed.

Cornucopia

CORNUCOPIA'S SHOWING

A financial report on the Cornucopia Gold Mines of Baker county which has just come to hand indicates that the state's largest gold operation enjoyed a good year in 1939 and is in splendid financial condition, also that even a successful "gold mine" is not quite that, being forced to content itself with a rather small margin of profit after all.

The Cornucopia, according to its statement, sold \$673,919 worth of metal compared with \$674,51 in 1938. Its operating expenses increased from \$450,165 to \$495,989, due to increased development work. Net profit amounted to \$81,977, about 12 cents on each dollar of production, comparable with that of many successful competitive businesses.

Particularly encouraging from the standpoint of future prospects is the proof of conservative management conveyed in the revelation that a \$150,000 mortgage has all been paid off. Cash on hand at the end of the year amounted to \$76,756. Production for the year amounted to 32,870 tons of ore with a yield of 19,646 ounces of gold, and 77,982 ounces of silver.

Aerial Tramway Planned To Bring Simmons Mine At Copia Into Production

Davis Announces Retirement; Will Develop New Mine

**Simmons Ore Would
Be Treated by Present
Cornucopia Co. Mill**

A new mining development in the Granite mountains, lode of the big Cornucopia Gold mines, was in the making this week, when plans were formulated for operation of the Simmons prospect.

The announcement followed the news from Cornucopia that Leverette Davis, for several years general superintendent of the Cornucopia Mines company, had resigned the active management of the state's biggest mining operation and would devote his time to his own mining interests, acting only as consulting engineer for the Cornucopia company in the future.

Mr. Davis, contacted in Baker this afternoon, indicated his local program called for development of the Simmons property, located above Cornucopia, with work getting under way as soon as the snow leaves and permits access to the high ridge, which lies between the east and west forks of Pine creek.

Tramway Is Planned

Principal feature of the new operation for the Eastern Oregon gold belt will be aerial tramway, 4000 to 4200 feet in length, by which Simmons ore can be dropped from the precipitous site down to the creek from which a short truck haul can bring it to the Cornucopia company's modern ore reduction mill at the mouth of Coulter tunnel. It will be treated as custom work at the mill, Mr. Davis indicated.

Just when the property would be ready for production is not definite. However an effort will be made to have the installation complete by fall, it was stated. The Simmons property, long a known prospect, is considered to have ore of good value, in definite vein systems which have been determined to be extensive even at the elevation encountered. Substantial tonnage is available, Mr. Davis said.

The principal owner of the property has been Mrs. Mires of Cornucopia.

A. V. Quine, mine superintendent for the Cornucopia Gold Mines company, has been named acting manager to succeed Davis.

In addition to the Simmons operation, Mr. Davis will devote some time at his mining interests in both Utah and Colorado, he stated in retiring from the Mines company position this week.

Cornucopia
Baker

Baker Democrat Herald March 23, 1933

Leverett Davis Quits Mine Job At Cornucopia

Leverett Davis, for the last two years operating manager of the Cornucopia Gold Mines, has resigned his post, effective April 1, he announced in Baker today. Mr. Davis, who is vice president of the company, will continue in an advisory capacity.

A. B. Quine, who has been with the company at Cornucopia for more than a year as engineer and superintendent, will take Mr. Davis' place as manager for the present, pending action by the board of directors.

Mr. Davis will operate the Simmons group of mines in the Cornucopia district, which consist of some of the better-known properties in the district. He will also devote part of his time to two mining properties in Utah.

Cornucopia
Baker

Grants Pass Courier May 3 1940

Gold Mines Told To Pay \$13,000 For Back Wages

SEATTLE, May 3—(P)—District Judge Lloyd L. Black today directed the Cornucopia Gold Mines, Inc., of Baker county, Ore., to pay its employes approximately \$13,000 because the company failed to observe the wage and hour act as to minimum hours and overtime pay. The executive offices of the company are in Seattle.

The mine employs 283 persons, 37 of whom work for it under the indenture lease plan whereby they work their own portion of ground. However, the court ruled they also must come under the wage hour act and whoever they hire to work for them likewise come under it.

Judge Black said the miners may not work more than 42 hours a week between now and October 24 and after October 24 not more than 40 hours a week. Time and a half must be paid for overtime.

John E. Ryan, attorney for the company, said the mine was not guilty of a wilful violation of the law. He said the principal issue was whether miners should be paid from the time they entered the mine portal or whether pay should begin when they actually start digging. The court held pay should start at the time they enter the mine.

Baker Democrat Herald May 3 1940

283 MINERS AT CORNUCOPIA TO GET BACK PAY

Judge Orders Com- pany to Observe Wage-Hour Law

LESSEES ARE UNDER RULES

Attorney States No Wilful Violation Intended

SEATTLE, May 3.—(AP)—District Judge Lloyd L. Black today directed the Cornucopia Gold Mines, Inc., of Baker county, Oregon to pay its employes approximately \$13,000 because the company failed to observe the wage and hour act as to minimum hours and overtime pay. The executive offices of the company are in Seattle.

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The company agreed to a consent decree and restraining order which Judge Black signed. The complaint charged violations of the act began in October, 1939, and continued until the action was filed by Miss Dorothy M. Williams of San Francisco, regional attorney for the wage and hour division, department of labor.

"Several more such actions will be filed in Seattle," she said. "We are going to insist on strict observance of the law."

Three-Quarters Million in Gold Mined During 1939; Underground Connections Made; Mine Goes Deeper Than Ever

New System of Mechanical Slushing Inaugurated On Trial; Mining Town Now Sixth Largest City of Baker County

(Continued from Page One)
Section One

pany's engineers project from day to day the progress made at various drifts and ore bodies. Colored area on the map revealed current production. Little tips of yellow and orange and pink at the outer reaches of the intricate maze of underground workings were a graphic record of current development work to block out ore beyond.

From such a map Manager Quine pointed out that the gold this year is largely coming from ore bodies via the Coulter tunnel, although considerable ore is still hauled on the surface from the upper Union levels to the mill at the mouth of the Coulter tunnel. But for the present the company is stopping within several hundred feet in many directions from the junction of the tunnel with the vein (known as the "20" level). There are large stopping operations on the 17 and 16 levels north and on the 19 south and there is also mining on the 21 level south.

Where the Ore Goes

This ore is raised or shot to points along the 2700 feet of drifting that runs at right angles to the Coulter tunnel at the 20 level. It is hauled by the big electric locomotive in long trains over the heavy rail a distance of over a mile to daylight. The ore is treated by the modern mill by flotation process and reduced to a high-grade gold concentrate which contains nearly all the gold of the original ore but only a small part of the rock and other "dead weight." The mill treats at least 150 dry tons every day and the resulting concentrate is shipped to Utah smelters at about three carloads per month.

During the past year the company has extended the 40 miles of underground workings considerably. Altogether, about 8397 feet of work is shown on the charts as being driven in 1939. Added to this is 3700 feet of diamond drilling, a facility which the company uses continuously, according to Mr. Quine.

To New Depths

Proving the Union vein to new depths, the work was carried 140 feet deeper than ever before, this sinking being done since the first of the year. Drifting has been continued since the first of the year on the north end on the 21 level and 400 feet south on the Coulter or 20 level.

During May a connection was completed by a 90-foot raise from stopes on the new 17 level south

from the 17 level to the old 7 level or present 1300 level was completed, linking more of the old workings with the Coulter outlet. Drifting has already been carried 250 feet north on the 13 which has resulted in opening good ore bodies directly above stopes on the 16 level below.

New Stopping System

A new stopping system has been inaugurated at Cornucopia. The company has obtained three "mechanical slushing scraper" hoists. These devices, operating by compressed air on a mine car, act as a small underground dragline. A peg holds a block at the extreme face of a stope and the power unit moves the ore scraper by cables from the block to cars at the haulage.

The sulshers operate with a radius of about 75 feet and are easily moved. The equipment now in use consists of two small units and one large unit, the latter being used at present to facilitate dumping at the Union mine where it has been impractical to lay track. The scraper distributes the dumped ore over the precipitous canyon from the point where a permanent track brings the cars from the tunnel portal.

Large Compressor Capacity

Over a mile in the mountain the company last summer completed its new compressor room, cut in solid rock and concreted to seal out water. This houses two 900 cubic foot per minute electric compressor units and by saving over a mile of air line as used when the compressors were located at the surface, prove vastly more efficient. The company also runs 1300 cubic feet of air from the upper mine and produces 500 from another station inside.

Adjacent to the compressor room is a heated lunch room, and 300 feet up in the mine is a smaller lunch room, electrically heated.

Also "Produces" Water

Water—gallons of it—is a by-product of the gold mine, as a trip inside will show. Few portions of the entire mountain there are that are not saturated even at the great depth and the company pumps constantly 250 gallons per minute from its lowest shaft and drains by gravity from 1500 to 2000 gallons of water per minute out of the Coulter tunnel. Incidentally, a farmer holds water rights to the water and it goes to produce crops in Pine Valley.

Cornucopia mine, by the nature of the geology of its major mineralized veins cut by dikes and pre-

of the vein or rock are ground flat cemented to glass and then ground to the thickness of one three-hundredth of a millimeter or practically transparent. Examined through the microscope at this thinness the rock gives the geologist clues as to relative micro-brecciation and he knows that the likelihood of mineralization follows the paths of that most brecciated rather than that where rock crystals are relatively intact.

Thin-section studies have not long been applied to this mine but have proven to be a practical aid.

For the most part, outside construction at Cornucopia is completed after about three years of work since the erection of the new mill and adjacent shops, sheds, etc. The company has about 50 dwellings in all, besides bunk houses, office, assay building, modern dry room with showers, several large staff houses and the large new Donley hall gymnasium-auditorium where moving pictures are held twice a week. Cornucopia has just completed one term in its large two-room school, built in 1939.

The staff of the Mines company includes, besides Mr. Quine, who took over the management several months ago upon the resignation of Leverett Davis: Eddy Miles, mine foreman; T. S. Bailey, mill superintendent; H. F. Anderson, geologist; J. E. Dunn, chief engineer; Jack Turnbull, shaft foreman; A. W. Fosterling, chief electrician; A. E. Ginther, master mechanic; Robert Bassett, assayer; and W. K. Dinnick, construction foreman. E. G. Thompson is mine accountant. R. E. Fuller of Seattle is president of the company and A. Scott Hill is secretary-treasurer.

Cornucopia
Baker

State Department Building, June 7, 1934

CORNUCOPIA AT PEAK OUTPUT; WAGES BOOSTED

**July Record May be
Broken This Mo.,
Quine Says**

**PAY RAISE IN
FORCE AUG. 1**

**Work on New 4500
Foot \$75,000 Tun-
nel to Start**

Production at the Cornucopia Gold Mines Co. reached a peak for the past several years in July and may set another record in August, A. V. Quine, general superintendent of the operation, revealed while in Baker last night with a party of boosters for the Baker county fair to be held in Halfway early next month.

Quine also announced that effective August 1 the company increased the wages of all its employes who are paid at hourly rates, the boost averaging about 11 per cent. The company's monthly disbursements for labor and supplies are running close to the \$50,000 a month point, he added. About 350 men are working, including those on independent contracts.

200 tons of ore are taken from the famous old mine in the Granite mountains nearly 75 miles northeast of Baker daily and three cars of concentrates are now being shipped monthly to the smelter at Garfield, Utah.

Quine also announced a big new construction program to start within a month, a 4500 foot crosscut to tap the last two major veins in the

district, to continue the Clark tunnel on the upper workings. The work will require about ten months and will cost about \$75,000, Quine estimated.

Several years ago the company began work on the 6500 foot Coulter tunnel, which was completed at a cost of about \$100,000 and from which the ore is now taken from the mine on tram cars. The new tunnel job will be comparable in magnitude and is expected to tap large new ore bodies, providing a long period of operation.

The Cornucopia gold mine is the largest lode mine in the Pacific northwest, including Alaska, and is the seventh largest in the United States. Operated off and on for the past 60 years, the present large scale development began a little more than five years ago.

Cornucopia
Baker

Cornucopia Mine Sets 54,000-Ton Record for the Month of August

190 Tons Per Day Treated; 4500-Foot Tunnel Extension Begun

Cornucopia Gold Mines company during August set a new all-time record in volume of its mining operations, A. V. Quine, general manager and superintendent, stated when in Baker Friday. After setting a good record in July of this year the company exceeded that in August when its flotation mill treated 54,000 dry tons of gold ore.

This production, amounting to 190 tons per day, is said to be the culmination of the program of the past few months which organized underground operations to lay open the large bodies of ore at the Coulter tunnel levels of the mine. The large volume permits the utilization of considerable quantities of the lower grade ore encountered from time to time, the superintendent indicated, stating that the volume is expected to maintain for some time.

Besides the part the mine operation has played in stepping up the volume, a gradual improvement of the milling operation has likewise increased capacity, it is said. Grinding capacity, particularly, has been improved, Quine indicated.

New Tunnel Undertaken

On August 23 the Mines company launched a new development program which is nearly as far-reaching as that effected between 1933 and 1936 when the 6400-foot Coulter tunnel was driven. It will extend the Clark level tunnel by a distance of 4500 feet and tap for the first time at depth the Wallingford and the Valley View veins of the mountain. The Clark tunnel, itself, was opened into Last Chance vein territory about 1918 and principal production during the mine's first 52 years of history has come from the Union-Companion and the Last Chance veins. There are eleven major veins in the mountain.

The Clark tunnel extension project is being pressed by a three-shift operation employing 24 men. Roy Jellison, who comes from Colorado where he was assistant on the big Thompson tunnel of the city water system at Denver, is superintendent of the new development.

The extension will cost \$75,000, will be an 8- by 8-foot tunnel and will be fitted with about 40-pound rail. The crews are fully equipped with modern tools and machines and will probably complete the job in about nine months, Mr. Quine stated.

A. B. Weston is the new mine foreman at Cornucopia. He was formerly with the Custer Consolidated people at Sunbeam, Idaho.

A third shift in the crosscut tunnel, now in around 2,000 feet, has been added by the **Cornucopia Gold Mines, Inc.**, 1411 Fourth Avenue Building, Seattle, Washington. At present the company's main working tunnel is the Coulter 6,227-foot adit, completed in 1936. The Clark tunnel is being extended, and the crosscut will be driven 4,500 feet. A. V. Quine of Cornucopia is general superintendent. Besides development work, the company is producing about 200 tons of gold, silver, and copper ore daily and employs around 250 men.

The **Cornucopia Gold Mines, Inc.**, reports a net profit for 1940 of \$108,330 after taxes, depreciation, and depletion, which compares with \$81,976 for the previous year. The company treated 48,952 tons of ore, recovered 22,426 ounces of gold and 93,851 ounces of silver, which shows a 50 per cent increase in the tonnage treated over the 1939 figures. During the year the company signed a contract with the A. F. of L. which will run until August 1, 1941. A. V. Quine of Cornucopia, Oregon, is general manager, employing a crew of about 250 men. Head offices are at 1411 Fourth Avenue Building, Seattle, Washington.

Arizona Mining Journal
June 17 - 1942

Carl M. Stolle, East 1006 Overbluff, Spokane, Washington, was elected president of the **Cornucopia Gold Mines, Inc.**, at the company's recent annual meeting held in Seattle. E. Crawford Goodwin of Seattle is the new vice-president, while John M. Baker, Old National Building, Spokane, has been named secretary and treasurer of Cornucopia Gold. Page M. Gilbert of Mineral, Washington, and Dale I. Hayes, Old National Building, Spokane, were elected to serve with Stolle, Goodwin, and Baker on the company's board of directors. Cornucopia Gold Mines, Inc., operated a gold mine at Cornucopia, Oregon, until work at the mine and mill were discontinued in the fall of 1941. The company is planning to keep the mine in shape for future production; supplies on hand are being liquidated and some machinery is being sold.

Oregon Mining Journal
June 16, 1941

Oregon

According to reports, the **Cornucopia Gold Mines, Inc.**, 1411 Fourth Avenue Building, Seattle, Washington, has closed down operations at its gold mine and mill at Cornucopia, Oregon. The ore has not been of sufficient grade to meet rising costs, it is reported. The company has been handling about 300 tons of ore at its mill daily, employing around 250 men. Chris Dobson, Cornucopia, was recently appointed mine manager for the company following the resignation of A. V. Quine.

Mining Journal
1942
Fall 1942

The **Cornucopia Gold Mines**, 1411 Fourth Avenue Building, Seattle, Washington, is reported to have been awarded a refund of federal tax payments in the amount of \$2,203 by the U. S. Treasury Department. The amount was for the fiscal year which ended with the close of June 1942. The company suspended gold mining and milling operations in the fall of 1941 when rising costs made operations unprofitable. The property, situated at Cornucopia, Oregon, is being maintained in good condition for future operation. Carl M. Stolle, East 1006 Overbluff, Spokane, is president.
