

1472 County Nevada
NEVADA BUREAU OF MINES AND GEOLOGY/178

UNIVERSITY OF NEVADA, RENO
RENO, NEVADA 89557-0088 U.S.A.

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REPORT
ON THE
GRIZZLY MINE, OPHIR CANYON, NYE COUNTY, NEVADA

Introduction

An examination was made of the Grizzly Mine at the instance of Mrs. G. Lastreto of San Francisco, who is the owner of the property. The examination was made in company with Mr. Alfred L. Gilmet who has recently been in charge of the work of reopening the old tunnels and of a limited amount of sampling.

On arrival at the property and after noting the limited amount of underground work done, it appeared that the most valuable work which could be done at present would be in the nature of a study of the local geological structure, which was completed in one day (July 28). A Fenton map of the workings made and supplied by Mr. Gilmet was used.

Location

The Grizzly Mine is located in the old Ophir Mining District in Ophir Canyon, Nye County, Nevada. It is reached from the west via Reno, 176 miles to Austin on U. S. Highway 50, thence 11 miles east on U.S. 50, thence south on a paved highway toward Round Mountain for 36 miles, thence west on fair dirt road 2 miles to the foot of the east flank of Toyabe Range, thence 3 miles up a narrow and steep road in Ophir Canyon to the Ophir Mine. The portal of the lower tunnel of the Grizzly is about 1500' by steep trail to the south from the collar of the Ophir shaft and is about 300' higher.

Ophir Canyon descends from the east slope of the Toyabe Range and Ophir Creek, which traverses the canyon, feeds into Smoky Valley to the east several miles south of Mill

Ownership

In addition to the Grizzly Claim (U.S. Survey Patent No. 1734) there are also the Murphy (U.S. Survey Pat. No. 1293) and the Forlorn (U.S. Survey Pat. No. 1298) making in all a total of three patented claims owned by Mrs. G. Lastreto of San Francisco.

History

The Murphy claim covers the old Ophir Mine which was discovered in the 1860's and is said to have produced several million dollars in silver, gold and lead before 1900. Apparently the district was of considerable importance at one time, the Ophir Mine being the only one of importance, as there still exist the remains of many dwellings, larger buildings and a smelter.

The only record of activity in the district subsequent to 1900 is that Walter Trent, a mining operator, rehabilitated the camp and did an unknown amount of work in unwatering and reopening the Ophir Mine in about 1926. Little, if any production, was the result.

Later, and probably in the 1930's Roland Chase did some work in the district. The Grizzly Mine, according to U.S. Survey Patent No. 1734 was discovered or patented shortly after the patenting of the Murphy and Forlorn (Ophir Mine) claims. It is unknown when the work was done on the Grizzly and no figures are available in regard to production, although doubtless this latter was small.

It is reported that it is in only recent years that the ownership of the three claims has passed to Mrs. Lastreto. Since that time nothing has been done on the properties until May 16, 1942, when Mr. Alfred L. Gilmet was put in charge of reopening the Grizzly workings.

This involved repairing the road up Ophir Canyon, rebuilding rails, clearing out tunnel portals and doing some sampling, all of which took about a month.

Sampling revealed very irregular values and before further work was planned underground it was apparently thought that a closer examination of existing exposures should be made.

Geology

The Ophir District lies, as previously stated, in the Toyabe Range, which in turn has a N-NE trend and lies between the Reese River Valley and Smoky Valley.

A good description of the general geology of the Toyabe Range has been published in U.S. Geological Survey Bulletin No. 208, page 93, Descriptive Geology of Nevada South of the Fortieth Parallel and Adjacent Portions of California, by J. E. Spurr, 1903. Parts of this bulletin are incorporated in this report as they apply to this section of the Toyabe Range. Spurr gives no detailed geology whatever of the immediate Ophir District.

The Toyabe Range in this area is made up almost entirely of granite and Paleozoic strata, (carboniferous), the latter consisting largely of limestone, limy shales, slates, and quartzites. The crest of the range is said to be the axis of an anticline. The topography of this area is very extreme (slopes almost invariably exceed 30°) resulting in very steeply dipping strata. Crossing the range from east to west alternate outcroppings of granite, limestone, and shales are seen near Ophir, suggesting the possible presence of several pendants. Spurr quotes Emmons as stating that the stratified rocks lay in the following sequence from the original surface: limestone, slates, compact white quartzites with thin beds of limestone. Spurr further quotes Emmons as stating that he noted a syncline at Ophir Canyon, however, this cannot be near the Ophir Mine as all slates and shales in this area in a radius of at least 1500' lie practically vertical. There are some local exceptions to the latter such as at the outcrop of the Ophir vein at the Ophir shaft collar where the slates and vein strike N 300E and dip to the SE 40°+.

In the Grizzly the strike of the slates tends more E-W with a steep dip to the north. The various strikes of the slates in the Grizzly workings are indicated on the accompanying map, which was made by Gilmet, and added to by myself. Irregardless of the variation in the strike of the slates it will be noted that they are cut by at least two quartz breccia fillings which vary little in strike and, as a matter of fact, strike in a somewhat similar direction as the main Ophir outcrop several hundred feet away. They are, however, several hundred feet in the hanging wall of the Ophir outcrop and dip to the NW rather than the SE. These quartz breccias consist largely of quartz carrying varying amounts of lime and limy shale fragments. Originally the slates were cut by at least two shears and later filled with this breccia, the tendency being for the quartz to decrease to the SW to a bare stockwork and eventually for the quartz to trail off in very narrow stringers. In the vicinity of the portal of the lower tunnel, however, which is the work most NE of all the workings, are many narrow stringers of quartz which appear to have mineralized the slates to some extent. In the uppermost (SW) workings there appears to be a mineralized tear fault which strikes N75°E as compared to the breccia strike at this point of N25°E. It was at the junction of this fault and the main breccia fissure that the original mining was done. Some free gold can be noted in hand specimens from this area and also some very small amounts of chalcopyrite, malachite, berzite, and silver minerals. This mineralization covers a comparatively small area. None of these minerals are observed in the lower levels although gold is known to be present.

A feature heretofore not mentioned is the fact that the first breccia encountered in the lower tunnel is cut off by a fault and it is barely possible that the two breccias found on this level may be simply two segments of the same shear filling. In any event, with due consideration for hindsight, it appears that the only mining of ore to date has been at the junction of the main breccia and the tear fault on the

upper level, and therefore, it might seem that the best ore possibilities would be in the downward extension of this junction.

Summary

Generally speaking, the ore values recorded by sampling by the present owners to date is not encouraging. This is based on the thought that exploitation of this property would not be justified unless a considerable tonnage of \$12.00 ore could be developed.

Two factors, however, would seem to justify a more thorough sampling of the exposed workings at this time.

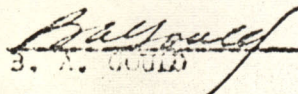
Considering that the owner has gone to some expense in reopening the workings, it should be an opportune time to find out what values exist here before it caves again which will be a matter of a very few years.

Secondly, a more complete sampling may reveal some consistency or a pattern of values which would be helpful in the layout of a comparatively cheap exploratory program of development on the lower tunnel level that might find ore. Although it is an extremely optimistic viewpoint, it is conceivable that this mineralization might eventually be connected with that of the main Ophir Mine.

This sampling has been completely discussed with Mr. Gilmet and would not involve either much time or expense.

General operating conditions at this location, with the exception of the problem of ore transportation from the mine to the bottom of the canyon, should not be difficult. There is water in abundance in Ophir Creek, however, there is no mine timber in the area. The mine is only 3 miles from paved highway although the last 3 miles is not good and would involve some repair work. The winters are quite severe, usually from November or December through April or May, due to snow conditions.

The Grizzly Mine, at this stage, is not one of particular merit, but the further sampling mentioned above is suggested as the work would be done by and for the owner of the property.


S. A. GOULD

August 11, 1949.

The Ophir Canon Mines Company

Incorporated Under the Laws of Arizona

Authorized Capital, \$2,000,000.00

Officers and Directors

President, E. J. Ullrich
Vice-President, M. F. Stark
Secretary, C. C. Spicer
Treasurer, M. S. Lewis
Director, . . . J. D. G. Crampton

Stock Outstanding, \$800,000.00
Stock in Treasury, \$1,200,000.00
Par Value of Shares, \$1.00 per Share

MINES

Ophir Canon, Nye County, Nevada

Registrar of Stock

The Colorado Title and Trust Company
Colorado Springs, Colorado

References

First National Bank, Colorado Springs, Colo.
Colorado Title and Trust Company,
Colorado Springs, Colo.

General and Transfer Office, Colorado Springs, Colo.

Arizona Office, care C. H. Aker, Phoenix, Arizona

Resident Agent in Nevada, Geo. S. Nickerson, C. E., Reno, Nevada

INTRODUCTORY STATEMENT

In issuing the following statement concerning The Ophir Canon Mines Company, we desire to emphasize at the outset that the Company is strictly a business corporation. Every step taken in acquiring property, in organizing the Company and in planning the re-opening and the extensive development and operation of this valuable group of mines, has proceeded carefully and under the best advice the Company could procure. The chief object of this corporation is to put these mines again on a dividend paying basis at the earliest possible moment; and to that end modern machinery will be installed; old drifts and shafts will be cleared out and extended; the Company's valuable water rights will be developed to provide power at a minimum cost; and

the drainage and operating tunnel will be driven to unwater the mines, to explore the virgin ground, and to provide the cheapest means for handling the immense quantities of low-grade ores standing in the stopes of the old workings.

The ore is there, and the task of this Company is one of converting a crude commodity into a refined product, differing from the work of a great manufacturing concern only in this, that the output never need search for a market.

In the prosecution of these plans funds are required. All who desire to participate in the extensive development scheme the Company has undertaken are invited to subscribe for Treasury stock.

THE DISTRICT.

Ophir Canon first became known to the mining world some forty-five years ago, when several prospectors working South from Austin along the Toyabe Range, found there rich veins of gold and silver. These pioneers were followed by other fortune-seekers, and soon the Twin River Mining District was organized, which embraced that portion of the Toyabe Range lying for several miles on either side of Ophir Canon. In their prospecting these early miners uncovered the famous Murphy vein, and the news of this rich strike, heralded far and wide, prompted a stampede to reach the new camp, which was very appropriately called Ophir.

The next few years saw the production of millions of dollars' worth of gold and silver from the Murphy vein, and from surrounding properties. Then came the decline in the price of sil-

ver, the metal chiefly sought in that day, the mines encountered water as depth was reached, necessitating the installation of expensive machinery, fuel became scarce as the mountains were stripped of timber, miners became discouraged with the dismal failure of methods known in that day to save the values in the ore. In some cases the streaks of high-grade ore became too narrow to pay the cost of mining, and the immense veins of lower grade ore could not be handled at a profit. The boom subsided and the district slept, like the neighboring camps of Northumberland, Jefferson and Belmont.

Strange as it may seem, the old silver camps of forty years ago are the rich gold camps of today; Jefferson has become Round Mountain, the old mines of the Toquima Range have become Manhattan, and the gold which was overlooked in the search for silver is pouring forth from these districts, millions every year.

Ophir, the bonanza of forty years ago, has been lying dormant while the press has aroused the world with the stories of Tonopah, Goldfield and Bullfrog, which lie in a chain directly to the South. At length Ophir's day has come, and the

next year will witness the awakening of the old camp to renewed activity, and its veins will again give forth their millions, but in a manner and to an extent the miners of the sixties little dreamed of.

THE COMPANY'S HOLDINGS—MINES, MILL SITES, WATER RIGHTS

The Ophir Canon Mines Company was organized in 1906 under the laws of Arizona, and immediately qualified as a foreign corporation under the Nevada Statutes. This corporation was created to acquire and develop a very valuable group of mines in Ophir Canon, together with mill sites, water rights and such other properties and privileges as might enhance the value and assist in the development of the mines. The Company has acquired twenty-one claims, one mill site, and the ownership of the water of Ophir, Wisconsin and Last Chance Canons for mining, milling and power purposes. In addition

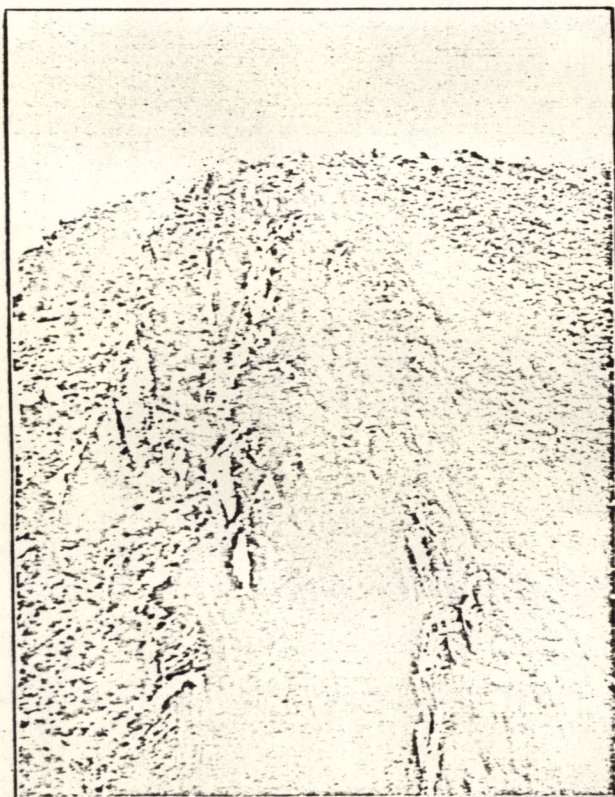
it has a contract for deeds to two claims, one mill site and the complete plant of machinery, mining and milling equipment which was used in the operation of the old Murphy Mine. In the payment of all these properties, 800,000 shares of the Company's capital stock have been issued, out of an authorized capitalization of 2,000,000 shares, and negotiations are under way for the transfer of title to the properties held under contract. The remaining 1,200,000 shares have been left in the Treasury of the Company, to be disposed of as the corporation deems best. The holdings of the Company are shown by the accompanying plats and photographs.

THE MINES.

The territory embraced in the twenty-three lode claims amounts to something over 400 acres. Both in the extent of acreage and in the remarkable network of enormous fissure veins, the property is one of the greatest in Nevada. The group is crossed by numerous highly mineralized ledges, carrying gold, silver, copper and lead, and these ledges are almost invariably of great width, and their outcrop can be traced for long distances. The surface showing on this system of veins is truly extraordinary, and the rich ore mined from the Murphy vein is a fair criterion of what the other ledges will produce with depth.

Intermittently for forty-five years this great Murphy vein, varying in width from 15 to 30 feet, has been yielding ore running into the thousands of dollars per ton. The vein, which has a strong dip, has been worked to a depth of a little over three hundred feet, or about one hundred

and eighty feet vertically, and drifts have been run on six levels, several hundred feet each way from the shaft. The ore produced from these workings is variously estimated from \$3,500,000 to \$6,000,000. This production was entirely prior to 1888, and the mine was worked chiefly for silver, but the bullion shipments from the mill on the property and the assays taken recently in the old workings show the ore to be rich in gold. The Secretary of this Company, in making a personal examination of the mine, found between the first and second levels ore running thirteen dollars in gold and five dollars and twenty cents in silver, showing that in some parts of the mine the gold values predominate. Samples taken from the croppings of several veins which intersect the Murphy vein panned well in gold. Forty-two tons mined just outside the lines of this group, on a vein crossing the Captain and Wedge Claims, netted \$11,886.50 in



One of the many large Ledges crossing the Company's Claims. These strong, bold Outcrops are a feature of the Landscape.

gold. Another instance of the predominance of gold values is on a strong, clearly defined copper ledge which crosses claims Nos. 10 and 11. There is a tunnel one hundred feet in length on this vein, on claim No. 10, and samples taken there gave the following values:

Sample

No.	Gold	Silver	Copper %	Values
1	\$7.60	\$4.81 (Assay omitted)		\$12.41
2	....	....	7.1	21.30
3	6.00	2.60	3.2	18.20
4	....	3.38	11.8	38.78

On Gold Crown Claims Nos. 4 and 6, and crossing the Wedge and the Captain, are two veins of fine-looking quartz, which gave five and six dollars on surface croppings.

These ledges will all be cut at depth by the tunnel hereafter described, as shown by the accompanying plat. It is a significant fact that of twenty-six assays taken on this group, almost all

of them on outcrops, not one failed to show values, the lowest being \$1.30 and the highest \$342.82.

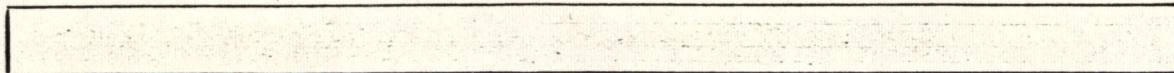
Neighboring properties are rapidly being developed and are producing steadily. The extent of the mineral bearing zone in this locality is

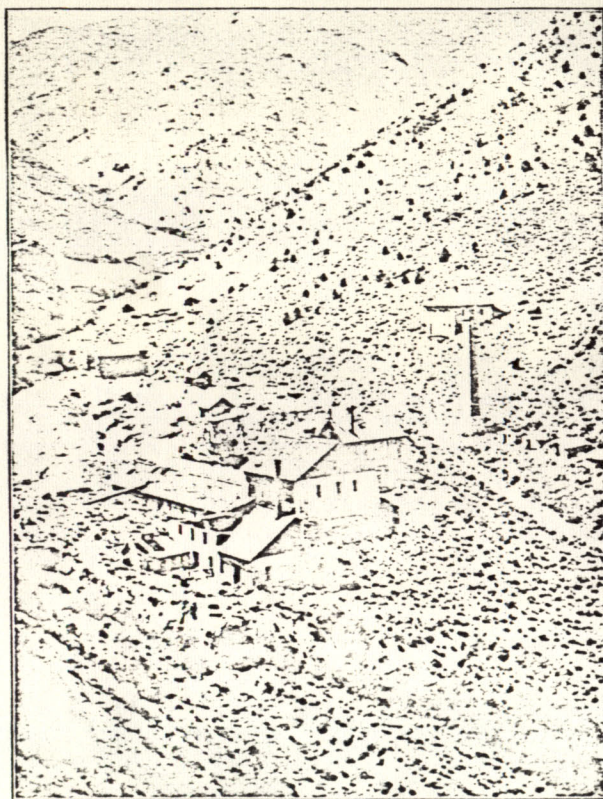
phenomenal, and all who are familiar with the district predict that it will shortly be second to none in the state in the production of precious metals. The ground has scarcely been scratched over, and as prospecting continues new strikes are of daily occurrence.

MILL SITES AND EQUIPMENT.

The mill sites are located, one at the mouth of Ophir Canon, where a hydro-electric plant can be installed to develop power for operating the mines and mills, and one at the mines, where the ores can be handled and treated just as they are produced. The mill buildings, and the machinery installed at the mines, were in good condi-

tion at the time the mines were closed down, but in recent years have fallen into disrepair. Much of this equipment, however, can be put to immediate use. When new, these buildings and the mining and milling machinery cost in excess of \$400,000.





Photograph taken in 1906, after the Mines had been idle for 20 years. The Portal of the Proposed Tunnel is near the Stream, just to the right of the photograph.

	Gold	Silver	Copper	Total
1.....	\$ 2.40	\$ 1.76	..	\$ 4.16
2.....	trace	1.30	..	1.30
3.....	1.00	4.00	..	5.00
4.....	2.60	3.38	..	5.98
5.....	2.00	1.82	..	3.82
6.....	3.00	trace	..	3.00
7.....	8.40	2.41	..	10.81
8.....	7.60	4.81	no assay	12.41
9.....	no assay	no assay	7.1	21.30
10.....	6.00	2.60	3.2	18.20
11.....	trace	2.67	..	2.67
12.....	trace	1.95	..	1.95
13.....	2.00	.65	..	2.65
14.....	no assay	24.70	..	24.70
15.....	3.00	19.50	..	22.50
16.....	1.80	3.77	..	5.57
17.....	1.20	34.44	..	35.64
18.....	trace	9.24	..	9.24
19.....	13.00	5.20	..	18.20
20.....	37.60	305.22	..	342.82
21.....	1.60	28.48	..	30.28
22.....	14.40	40.02	..	54.42
23.....	264.80	7.68	..	272.48
24.....	168.00	2.40	..	170.40
25.....	6.00	6.50	..	12.50
26.....	42 tons mined here ran \$472 a ton.			

WATER RIGHTS.

The property has all been carefully surveyed by a United States Deputy Mineral Surveyor, and a copy of his plat of the mines accompanies this statement. This Deputy Mineral Surveyor, Mr. Geo. S. Nickerson, of Reno, Nevada, and the State Engineer, have also made a survey of the Company's water rights, and they report the flow of each stream as two second feet at time of low water. A plat of the water rights will be found herewith, and a copy of the consulting engineer's report on the development of the water rights and installation of an electric plant will be furnished upon application to the Secretary, the report being too voluminous to print here. The plan is to pipe the waters of Wisconsin, Ophir

and Last Chance Creeks from the heads of the canons to a point near the mouth of Ophir Canon, the power site previously referred to. At times of lowest water a minimum horse-power of 400 can be generated from these pipes, and during a large portion of the year 1,000 horse-power can be developed. These water rights make possible the treatment of the immense low grade ore bodies at a good profit, as they will provide the one essential requisite, cheap power. A demand exists today, and will constantly be increasing, for all the Company's surplus power, and an immediate market is available at ten dollars per horse-power per month.

GOVERNMENT REPORT.

For a technical report on the geology of this section reference should be had to Bulletin No. 208 of the United States Geological Survey, which deals with the descriptive geology of that

section of Nevada lying South of the Fortieth parallel. See the chapter on the Toyabe Range at page 93.

HISTORY OF THE PROPERTY.

Old reports and other documents in the possession of the Company tell best the past of the old Forlorn and Murphy Mines. The richness and value of these mines has never been questioned, and among those most eager to see them again producing are a number of men who worked in the mines just prior to their closing down in 1887. These men know the history and the possibilities of these properties, and are enthusiastic in their predictions as to the future. Daily reports made by the Superintendent in charge to the General Manager, and covering the year just prior to the closing of the mines, are in the possession of the Company. These reports describe the stopes, width and richness of the ore bodies, trend of the ore chutes, and give an excellent idea of the great value of the property. From this correspondence one letter will be quoted as an illustration. Writing under date of February 18, 1887, Mr. Oliver says:

Dear Sir:—The ore on the first level South has varied from two to six feet, average assay value about 200 oz. We are drifting under the ore at present, am compelled to leave it standing on account of the bad ground. The ledge is about 15 feet thick here, ore from 12 to 18 inches thick. The cut we made in drifting is about 60 feet from the surface. The strike on fifth level South is of more importance than any previous strike made in the mine. We found it in drifting South on the fifth level three hundred feet from the surface and about 325 feet from the incline shaft. The ore came in on the hanging wall, narrow at first, but has steadily improved both in quantity and quality; in drifting sixty feet it has increased from a narrow streak of low-grade ore to four feet of ore that goes 50 to 1,000 oz. per ton. We are stoping here at present, and the ore holds the same as we raise towards the fourth level. If anything, I think the ore is the best below, going down to the sixth level. The prospects on this level are, no doubt, of considerable importance, and if it continues as good as at present for 100 feet farther, which I have no doubt it will, it will be of great value. Think there is at least Five Hundred Thousand Dollars in sight on this level alone. The sixth level is showing up better than I had expected for the distance run, as we still lack forty feet of being far enough South to expect ore. Still we have had ore for fifty feet. It is low grade, but improving daily; is four feet thick at present. By the time we get under the body of ore on the fifth level, should have five or six feet of good ore. If it proves as good as indi-

cations show at present, this level is of vastly greater value than the level above. I have but little doubt about the matter at present. Think the mine is worth at least a Million Dollars today. Will write further particulars soon. The mills have been closed down two days for repairs; will start up in the morning.

Yours respectfully,

T. A. OLIVER, Superintendent.

We may add that if the property was worth \$1,000,000 in 1887, and we believe it was, the property is worth \$5,000,000 in 1907. Attention is called to the fact that only the high-grade vein matter is here given the name "ore"—the bulk of the vein, low-grade ore which today can be handled at great profit, was entirely neglected

in the Eighties. One should also notice that no mention is made of gold values. The writer speaks always of the number of ounces per ton the ore ran in silver. The copper and gold were lost.

The Secretary of The Ophir Canon Mines Company recently interviewed Mr. Oliver regarding the condition of the mine, and found him today as positive as he was 20 years ago of the immense value of the ore bodies in this property. Mr. Oliver is firm in his belief that millions will again be shipped from this group of mines.

FUTURE OPERATIONS.

The installation of modern machinery for mining and refining ores, the utilization of the mountain streams and the development of electric power, and the application of business principles and approved scientific methods to the operation of the mines, will now yield hundreds

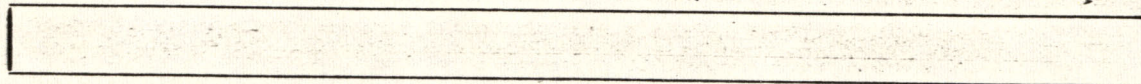
of thousands of dollars annually in the treatment of ore which twenty years ago could not be handled with profit. But the prime factor in the speedy and economical development of the Company's property is the proposed drainage and working tunnel. This tunnel will have its portal

about the East end line of the Captain Claim and within 1,000 feet will cut the Murphy vein, below the deepest workings of the old incline shaft, and up under the high ridge which rises between Ophir and Wisconsin Canons. The total depth on the vein at the point it will be encountered will be about 750 or 800 feet. This is all virgin ground, and with this immense tonnage overhead to stope, millions should be rapidly produced. This tunnel will at the same time unwater the workings of the old mines and make it possible to break down the ore left standing in the stopes, of which there are thousands of tons running from \$15 to \$35. The tunnel will be driven as speedily as possible, and the work will

be pushed to an early completion. Through it the Company can systematically explore and develop the entire group of claims.

With the accomplishment of these plans the Company will have reopened the treasure vaults of these old mines and exposed new ore bodies as great as any known in the day when Ophir headed the list of great producers in this section of Nevada.

The Secretary will gladly furnish further information to anyone desiring to more fully investigate the Company's holdings, and he will supply all data regarding the production of the mines and the plans of the Company.



VALUES IN THE ORE DUMP.

Writing to the Secretary under date of September 11, 1906, from Reno, Nevada, Mr. George S. Nickerson, the Company's consulting engineer, speaks as follows:

My Dear Captain:—This morning I had the pleasure of a long visit with Mr. Jacob Gooding. He has had a wider experience in Southern Nevada as a mining man than any other pioneer I have ever talked with, as he has operated and sold many of the old prominent mining properties. He is experienced in all the old methods of treating various silver ores and has been assaying since 1868. During a large portion of the four years Mr. Gooding was operating in Ophir he was watchman and keeper of the Murphy mining property. He sampled the old Murphy dump very carefully. He dug holes, made cuts and endeavored to obtain a fair sample of the old dump so as to ascertain its milling value. Gooding says that in making this average of the dump he took 20 tons and worked it in his three-stamp mill. He obtained 9 ounces per ton on the plates and the concentrates netted him 93 ounces per ton.

He says that a portion of the ore was free milling and yielded the 9 ounces, and that the remainder was the very finest concentrating ore he ever saw, as the tailings after concentration did not average over 20 cents to the ton in value. He could not remember just how many tons of ore were required to make a ton of concentrates, but thought he might remember after studying over the matter for a while. The old dump in my opinion contains at least 4,000 tons of this iron sulphide ore such as Mr. Gooding mentions, although he thinks there are at least 8,000 tons in the old dump that will yield as good as the 20 tons worked by him.

Gooding also says that there is a large body of comparatively low grade ore which will pay well to work with modern methods, still to be found in the Murphy workings to the south of the incline. That the ore lies in a very large ledge where the drifts of the old workings end towards the South. He also thinks that the gold ledge will be encountered on the north side of the canon by the tunnel which your Company proposes driving.

Very truly yours,

GEORGE S. NICKERSON, C. E.

ONE MONTH'S PRODUCTION FROM MURPHY MINE.

As an illustration of the percentages of gold and silver saved from the ores, and of the rate of production maintained when the mines were last in operation, we quote the shipments of bars of bullion for one month. It should be noticed that bars numbered 226 to 230 are missing. The shipments for most of the rest of the time the mines were in operation may be seen at the Company's office.

Date of Shipment.	Bar No.	Weight, Troy Oz.	Gold Fine.	Silver Fine.
January 3, 1887.....	222	1,024	2.5	844
January 3, 1887.....	223	1,038	2.6	844
January 3, 1887.....	224	1,023	2.5	826
January 3, 1887.....	225	1,047	2.4	824
January 21, 1887.....	231	1,046	2.2	840
January 21, 1887.....	232	1,006	2.3	845
January 21, 1887.....	233	1,013	2.4	848
January 21, 1887.....	234	991	2.4	840
January 21, 1887.....	235	1,006	2.3	831
January 21, 1887.....	236	1,002	2.3	824
January 29, 1887.....	237	1,011	2.1	756
January 29, 1887.....	238	1,033	2.0	757
January 29, 1887.....	239	1,022	2.0	708
January 29, 1887.....	240	1,011	2.0	708

January 31, 1887.....	241	1,030	2.0	742
January 31, 1887.....	242	1,005	2.0	737
January 31, 1887.....	243	1,004	2.0	741
January 31, 1887.....	244	1,016	2.0	744
January 31, 1887.....	245	988	2.0	730

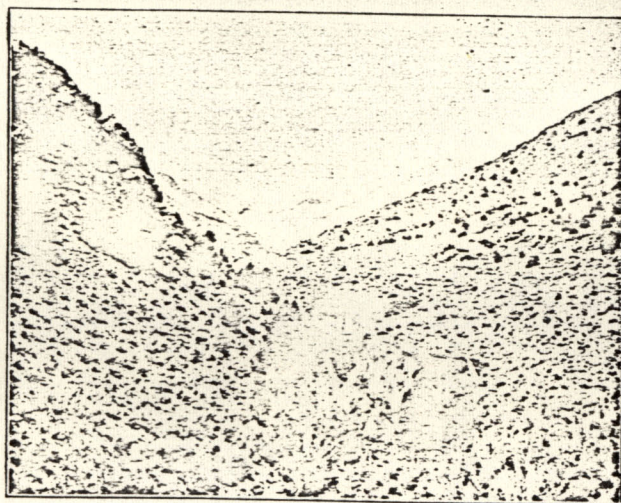
Total No. bars, 19; weight, gold 42 oz., silver 14,989 oz.

Average per bar, weight, gold 2.2 oz., silver 789 oz.

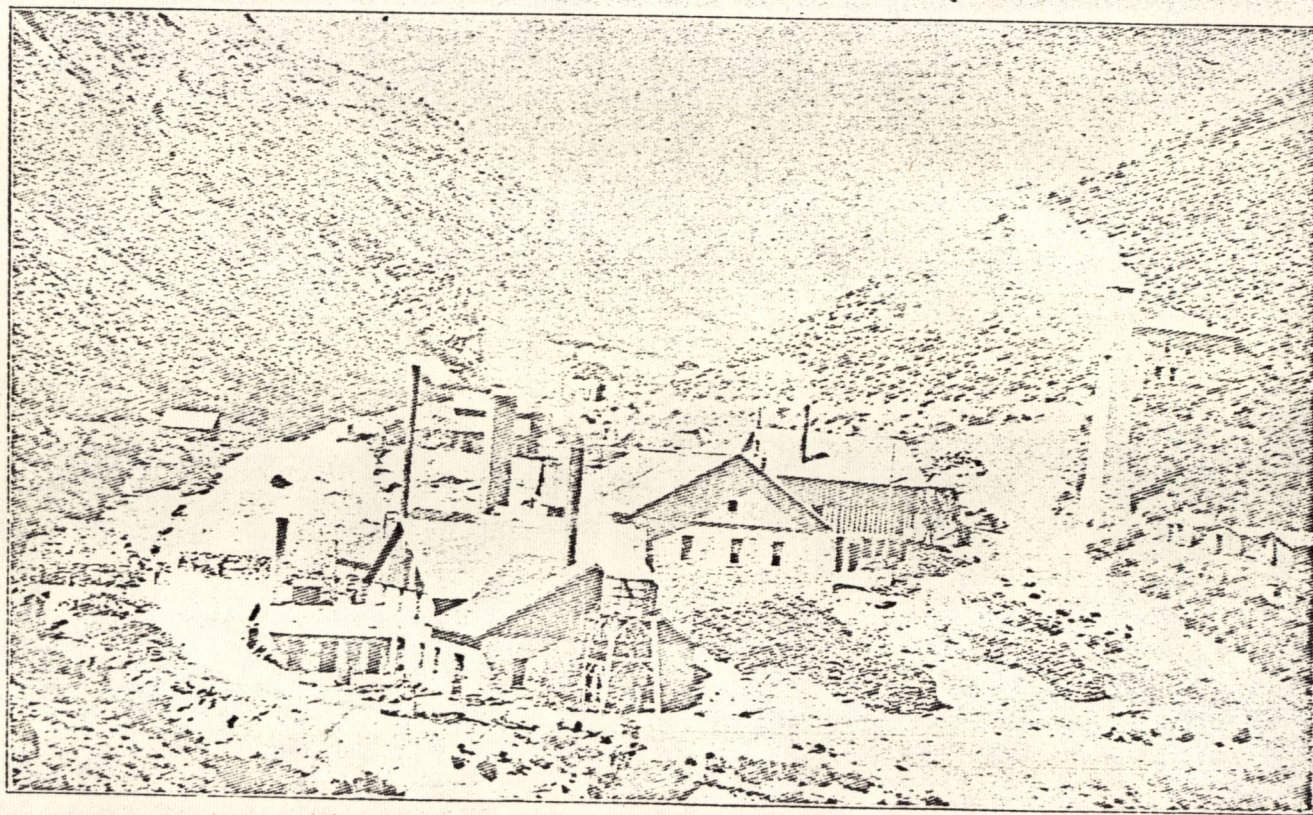
Av. weight 5 missing bars, gold 11 oz., silver 3,945 oz.

Total weights and values for month: Gold, 53 oz., \$1,060; silver, 15,778 oz., \$15,778. Total, \$16,838.

Eighteen bars were shipped in the preceding month, and 17 in the succeeding month. Between August 17, 1886, and May 31, 1887, the date of the last records in the Company's possession, 171 bars of bullion were shipped from this property. Taking the values in the January shipments as a basis for a rough estimate of production, the Murphy mine produced \$177,096 in the year just prior to its closing down. To this sum should be added about \$75,000 in order to get the gross production of the property, as practically one-third of the values were lost in treating the ores.



Looking up Ophir Canon from a point about a half mile
below the Mines.



Photograph of the Mines taken in 1886. In the foreground is the Mill. The large Stone Building to the right is the Office. Just beyond the Mill is the great dump of low-grade Ore, and back of that is the Shaft House. Farther up the Canon are the Stables, Blacksmith Shop and Assay Office.

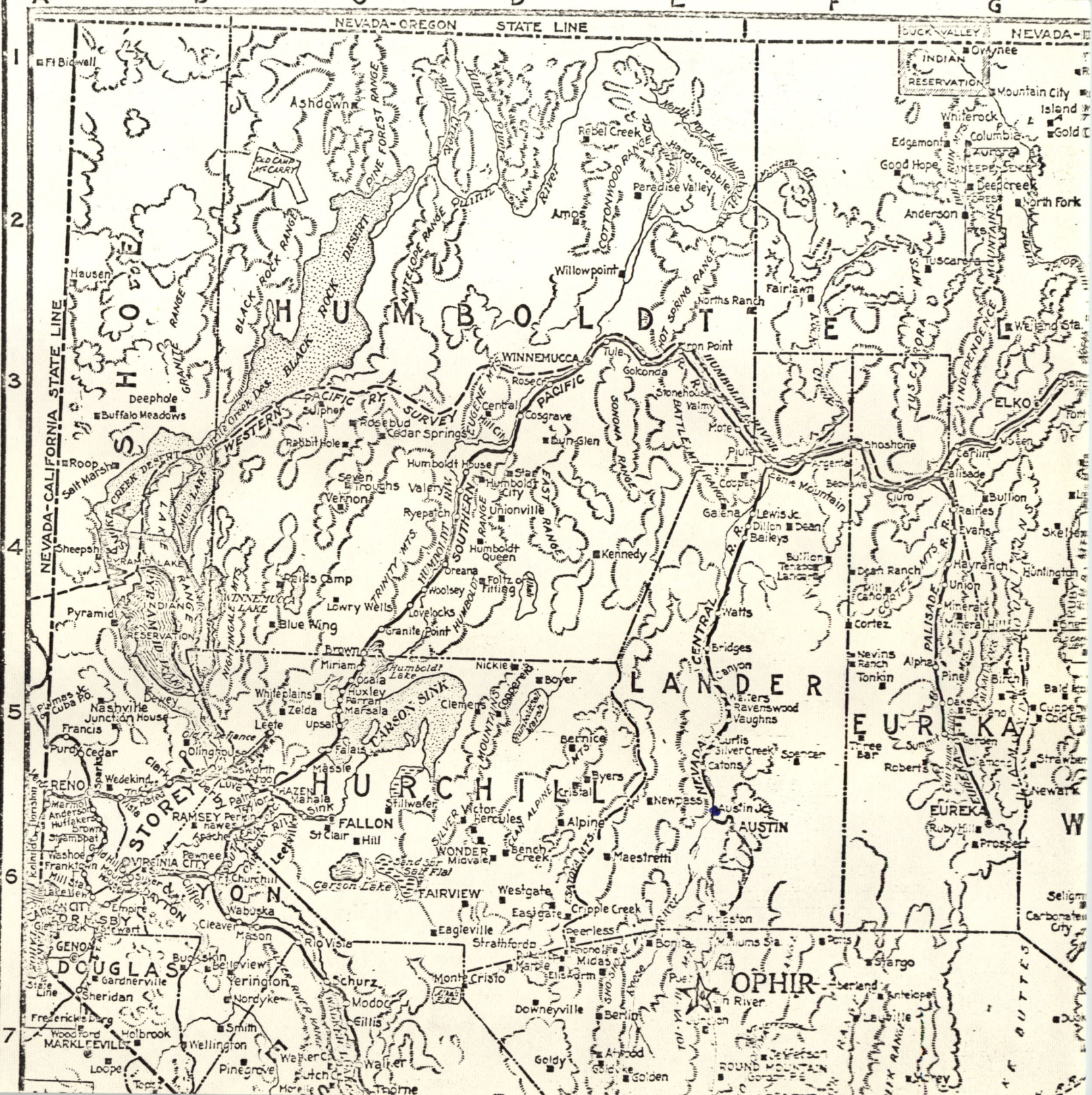
p Indicates post-office.
mp Indicates money-order post-office.
r Indicates railroad stations.
t Indicates W. U. Telegraph Stations.

The key letter and figure on the right hand of the
sumn refer respectively to the letters of the top and
stem of the map, and the figures on each side, in-
dicating location upon the map.

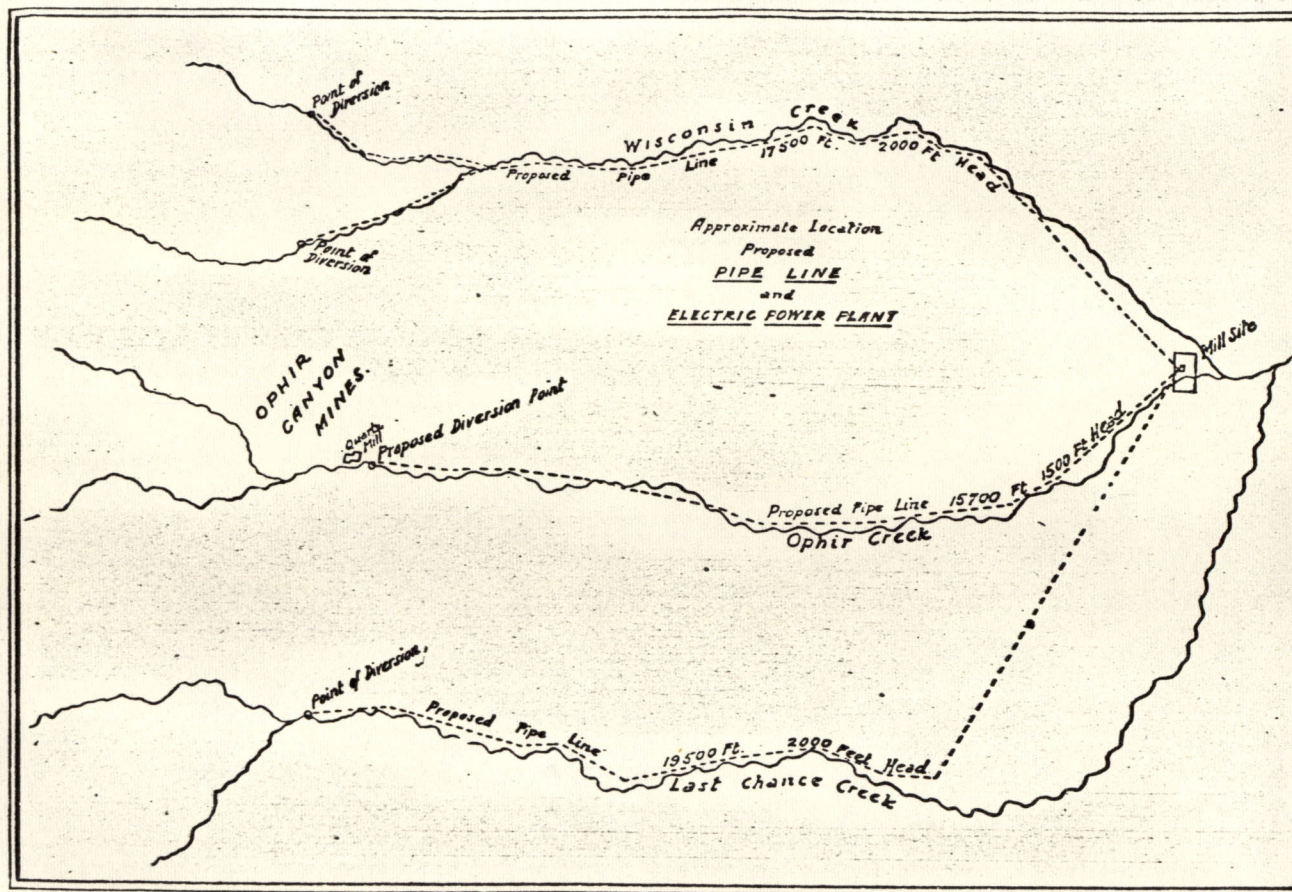
CALIFORNIA

Dean	.....	F	D-10	Iroy	.....	r	p	D-11				
Ed	.....	p	t	J	.....	r	t	H-13				
	.....			Javanah	.....	p	t	H-11				
	.....			Kieker	.....	r	p	D-11				
	.....			King	.....	r	p	H-14				
	.....			E-12	Kerena	.....	r	H-14				
	.....			F	G-14	King City	.....	F	G-14			
	.....			L	L	.....	r	t	D-12			
Well St.	.....	t	H-14	Leatal	.....	r	t	D-14				
	.....			C-9	Lee	.....	r	F-11				
	.....			C-10	Lookout	.....	m	p	t	E-12		
	.....			m	p	t	H-10	Lorena	.....	r	H-14	
			p	p	t	H-10	Lundy	m	p	t	B-8	
	.....			p	p	t	B-8	Lyons	.....	r	H-13	
	.....			p	p	t	B-8	Mania	.....	r	H-14	
Port	.....			p	p	t	B-8	Manix	.....	r	H-14	
City Seat Mon. Co.			p	p	t	B-8	Manvel	r	m	p	t	H-14
	.....			p	p	t	B-8	Mart	.....	r	H-14	
	.....			p	p	t	B-8	Modock	.....	r	E-12	
Ranch	.....			p	p	t	B-8	Mohave	.....	r	H-14	
			p	p	t	B-8	Mohave	r	m	p	H-14	
Basin	.....			p	p	t	B-8	Moore	.....	r	H-13	
			p	p	t	B-8	Niption	r	p	t	H-13	
			p	p	t	B-8	Niption	r	p	t	H-13	
	.....			p	p	t	B-8	Olancha	.....	p	D-12	
	.....			p	p	t	B-8	Panamint	.....	E-12		
			p	p	t	B-8	Panorama	r	p	D-10		
			p	p	t	B-8	Paradise	r	p	H-13		
Mont Sp.	.....			p	p	t	B-8	Quartette	.....	H-13		
	.....			p	p	t	B-8	Rosale	.....	H-13		
	.....			p	p	t	B-8	Round Valley	.....	C-10		
	.....			p	p	t	B-8	Sand	.....	F-14		
	.....			p	p	t	B-8	Scott	.....	r	G-14	
			p	p	t	B-8	Tate	E-12				
Wauder			p	p	t	B-8	Tecopa	G-13				
			p	p	t	B-8	Tenacama	p	D-10			

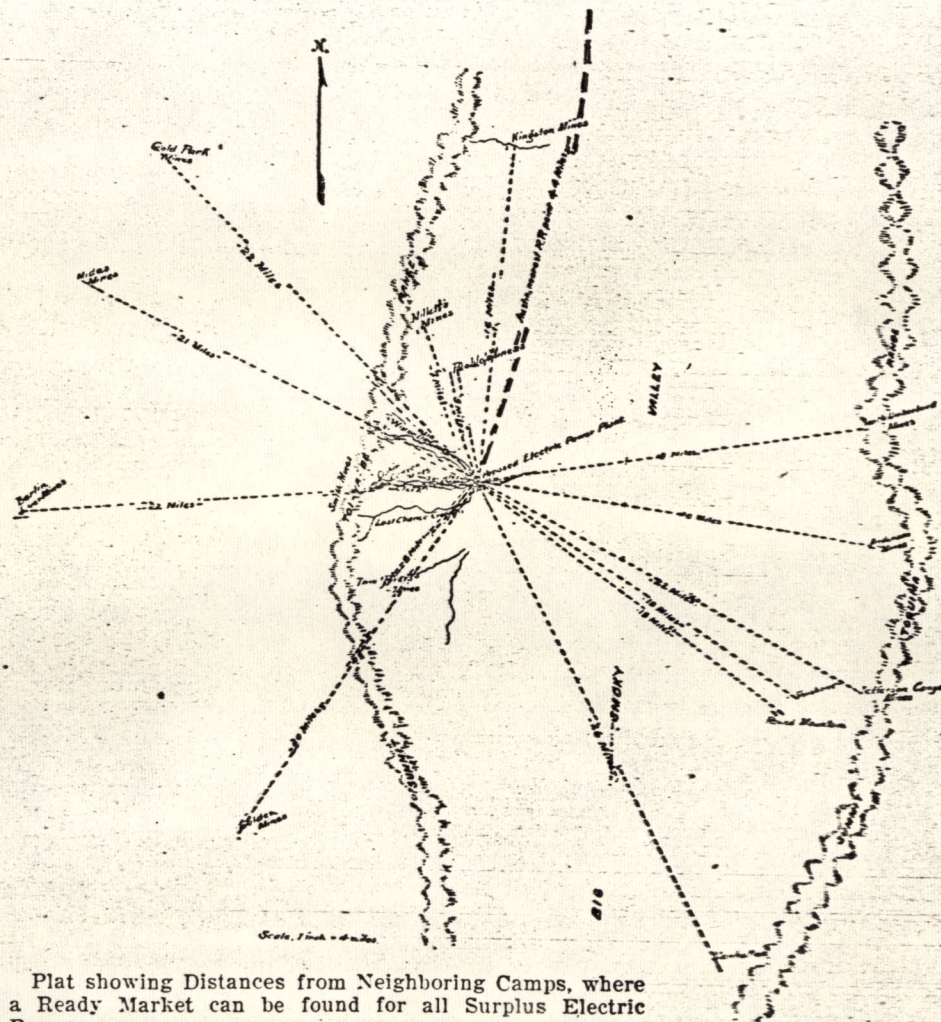
NEVADA

[illegible]

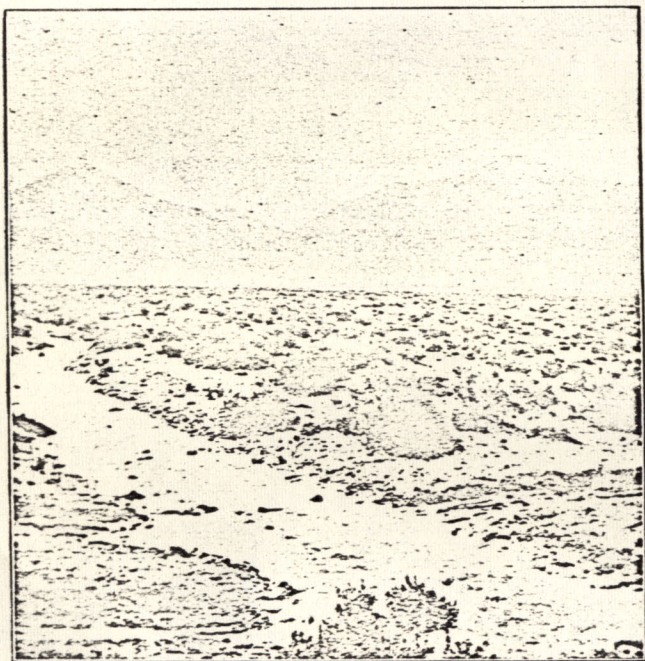
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DENVER COLORADO



Plat of the Streams owned by the Company, and the Pipe Lines which will be constructed to develop Power.

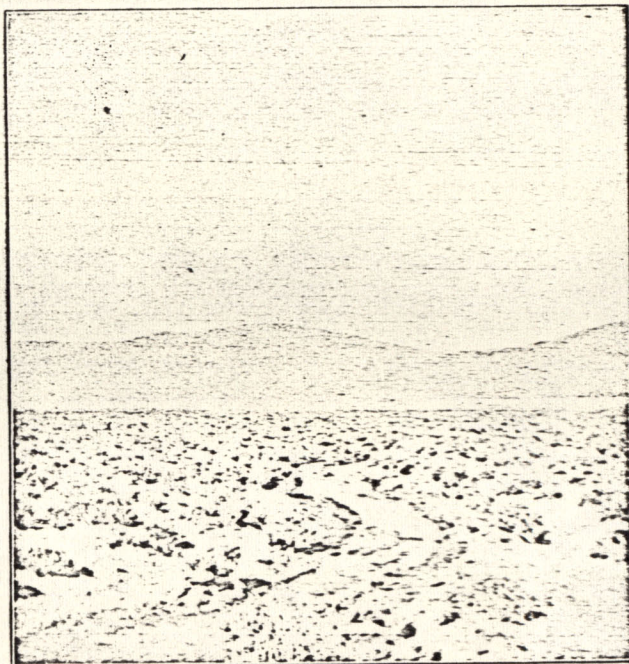


Plat showing Distances from Neighboring Camps, where a Ready Market can be found for all Surplus Electric Power.



Ophir Creek, greatly diminished by Seepage through the coarse gravel of the Desert. The Power Plant will be located at the Mouth of the Canon shown here.

Last Chance Creek, several miles below the point where its Waters will be used in the Electric Plant.





View of the Toyabe Mountain Range from Big Smoky Valley, showing, from left to right, the mouths of Last Chance, Ophir and Wisconsin Canons. The Company's Mines are located about $2\frac{1}{2}$ miles up Ophir Canon.

