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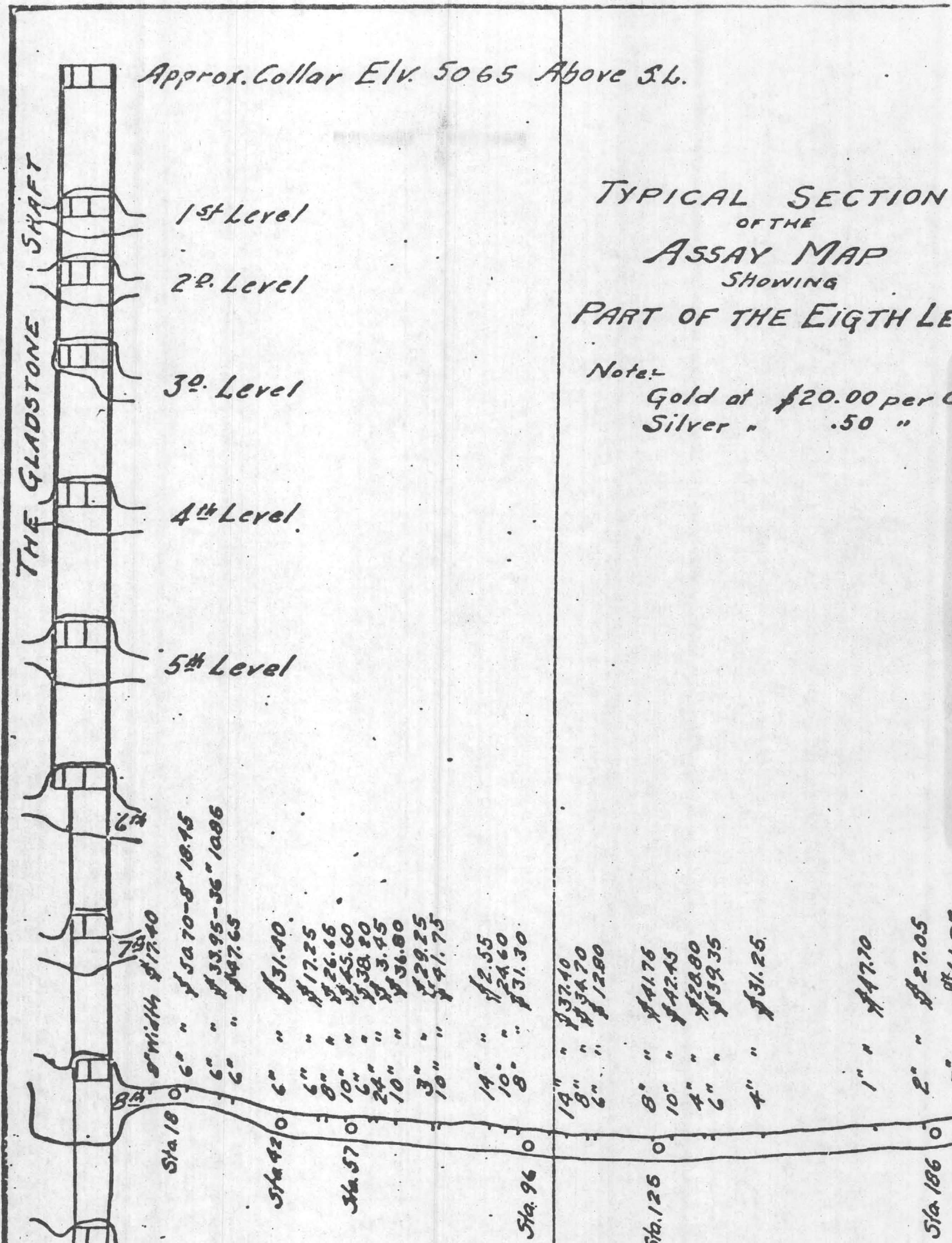


Approx. Collar Elv. 5065 Above S.L.
THE GLADSTONE SHAFT
1st Level
2d Level
3d Level
4th Level
5th Level
6th
7th
8th
9th
TYPICAL SECTION OF THE ASSAY MAP SHOWING PART OF THE EIGTH LE
Note:-
Gold at $20.00 per C
Silver " .50 "
Sta. 18
Sta. 42
Sta. 57
Sta. 96
Sta. 126
Sta. 186
3" width $17.40
6" " $50.70-8" 18.15
6" " $33.95-36" 10.86
6" " $47.65
6" " $31.40
6" " $17.25
3" " $29.25
10" " $41.75
14" " $2.55
10" " 24.60
8" " $31.30
14" " $37.40
8" " $34.70
6" " $12.80
8" " $41.76
10" " $42.45
4" " $28.80
6" " $39.35
4" " $31.25
1" " $47.70
2" " $27.05
3" " $61.85
FROM THE OFFICE OF
LLOYD T. EMORY
CONSULTING ENGINEER
4 S. 15TH ST., PHILA. PA.

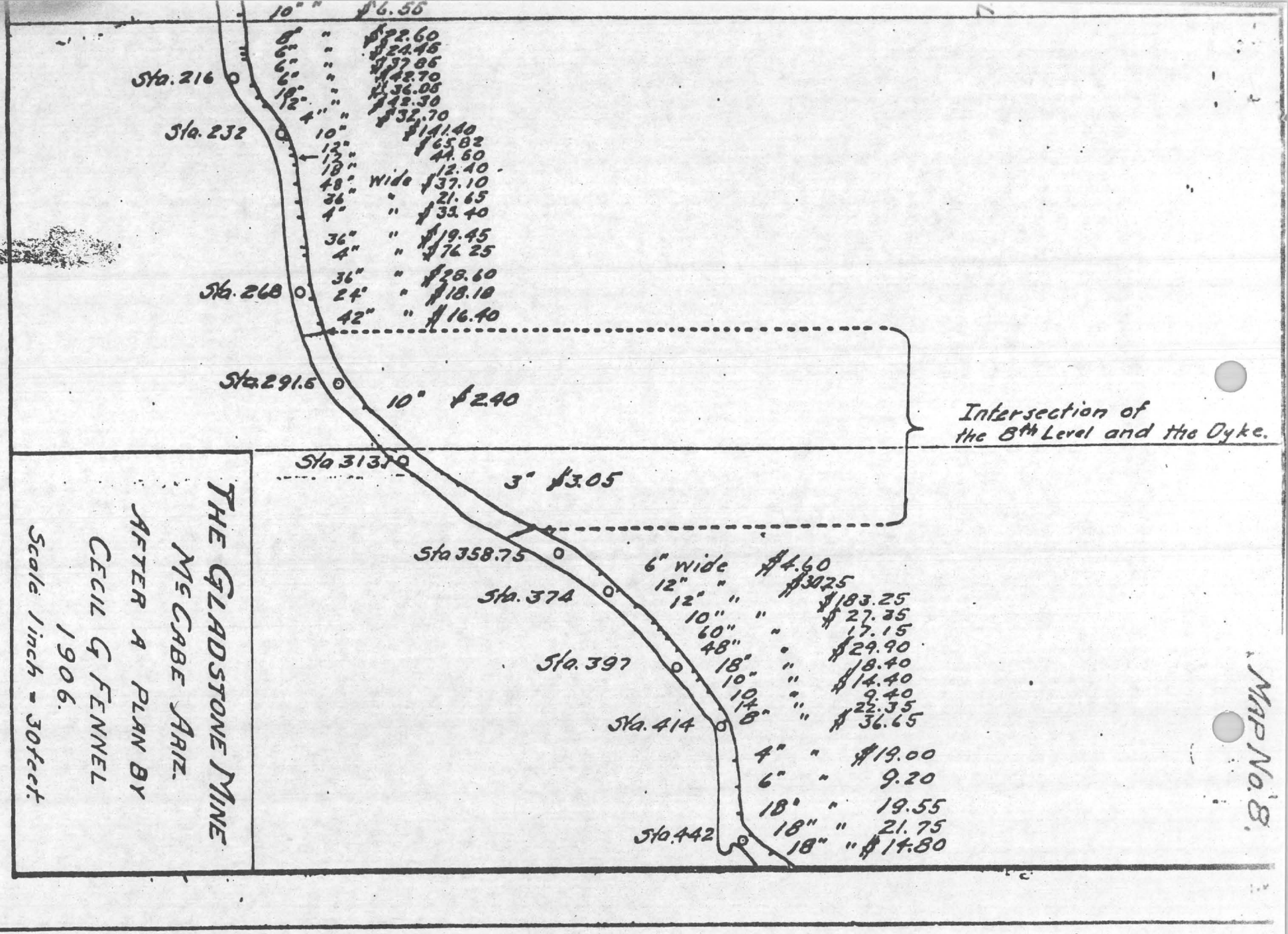
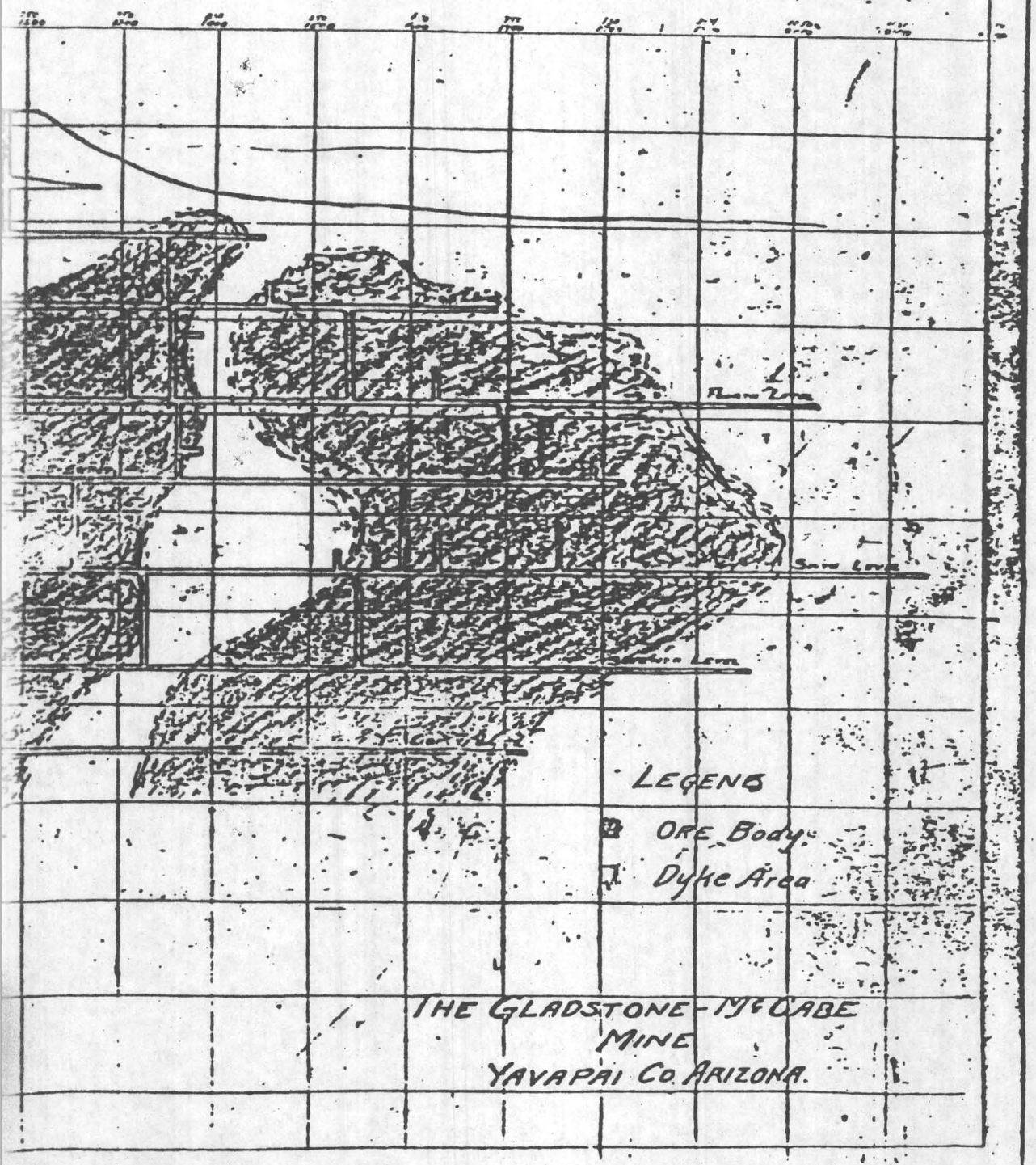
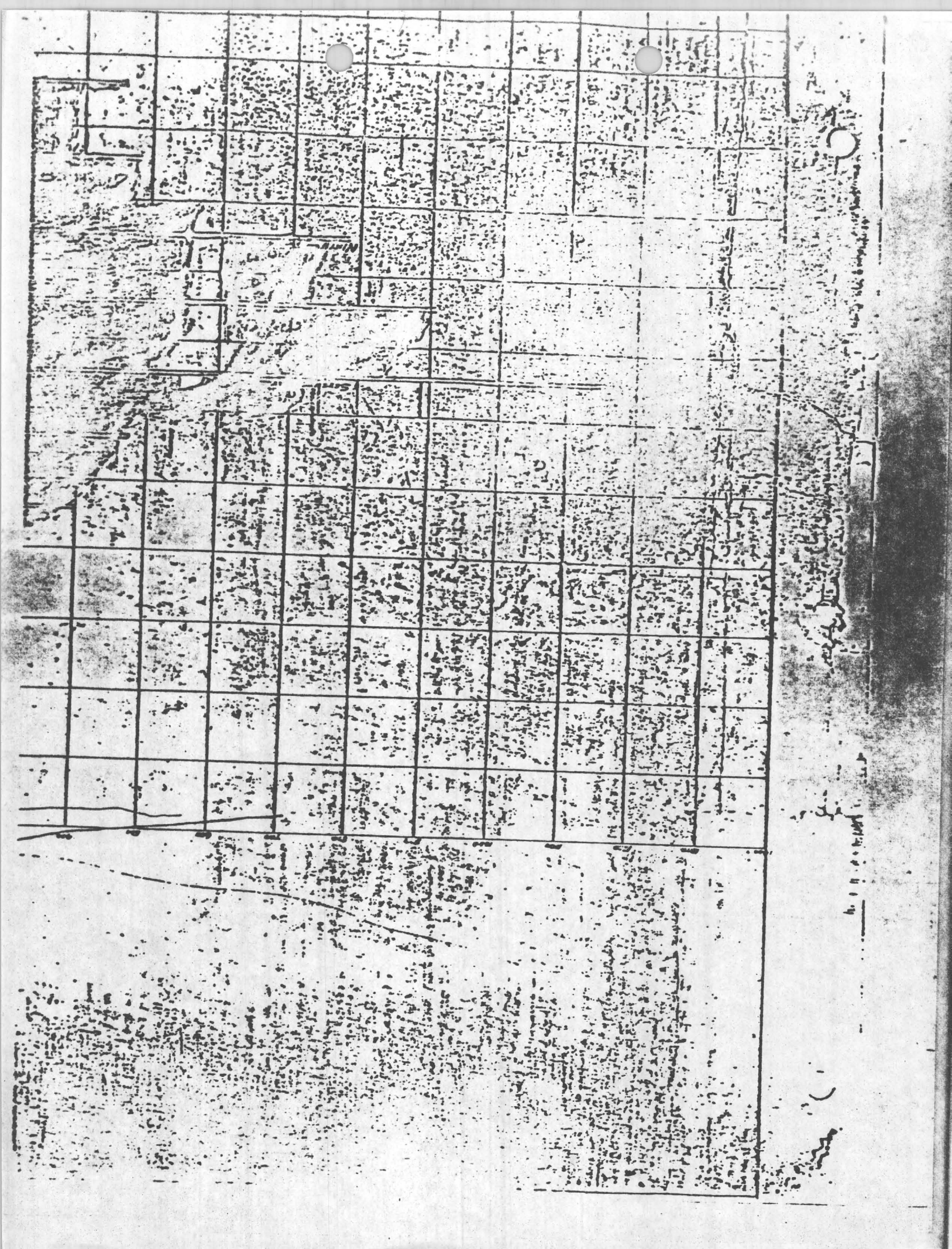

10" $6.56
6" " $2.60
6" " $2.46
6" " $3.85
6" " $2.70
12" " $6.08
12" " $2.30
4" " $2.70
Sta. 216
Sta. 232
10" $1.40
12" $5.82
12" 4.60
18" 2.40
48" Wide $7.10
36" " 1.65
4" " $3.40
36" " $1.45
4" " $6.25
36" " $8.60
Sta. 268
24" " $8.10
42" " $6.40
Sta. 291.6
10" $2.40
Intersection of the 8th Level and the Oyke.
Sta 313.0
3" $3.05
Sta 358.75
6" Wide $4.60
12" " $3.25
Sta. 374
12" " $3.25
10" " $7.35
60" " 7.15
48" " $9.90
Sta. 397
18" " $8.40
10" " $4.40
10" " 9.40
14" " $2.35
8" " $6.65
Sta. 414
4" " $9.00
6" " 9.20
18" " 9.55
18" " 1.75
Sta. 442
18" " $4.80
THE GLADSTONE MINE
McCABE ARIZ.
AFTER A PLAN BY
CECIL G FENNEL
1906.
Scale 1 inch = 30 feet.
Map No. 8.

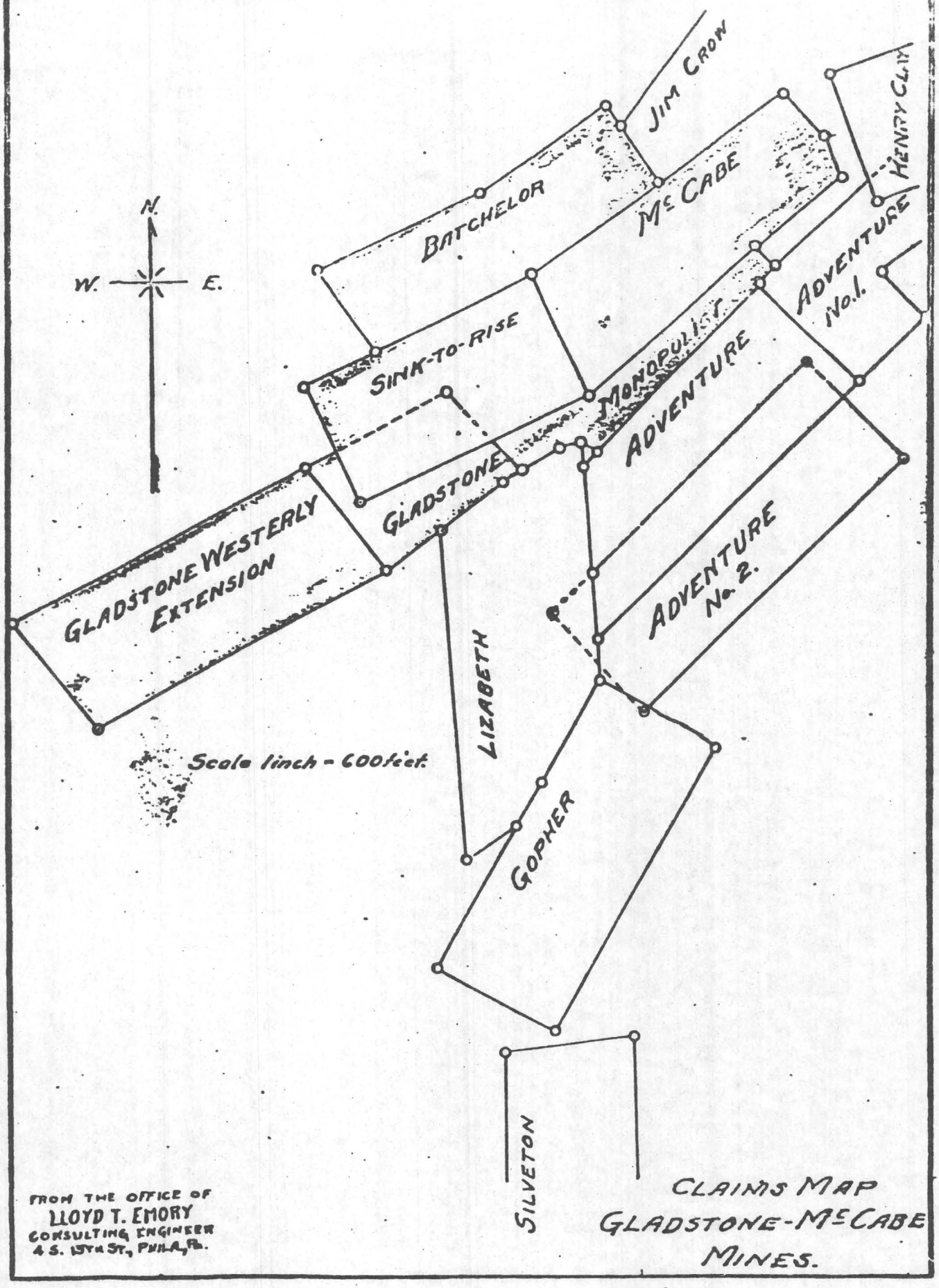
PLATE NO.



THE GLADSTONE-McCABE MINE
YAVAPAI CO. ARIZONA.



MAP 3



FROM THE OFFICE OF
LLOYD T. EMORY
CONSULTING ENGINEER
45. 13TH ST., PHILA., PA.

CLAIMS MAP
GLADSTONE-McCABE
MINES.

COPPER: Deduct from the wet copper assay eight pounds and pay for ninety-five per cent of the remaining copper at the daily net refinery quotations for electrolytic cathodes, as published in the Engineering and Mining Journal of New York, averaged for the calendar week including the date of arrival of the material at the plant of the BUYER, less a deduction of 2.5 cents per pound of copper accounted for. Nothing paid for copper if less than one-half per cent by wet assay.

No payment will be made for any metal or content except as above specified.

From the total of the above make the following.

DEDUCTIONS

BASE CHARGE: Three dollars per net dry ton of 2000 pounds; provided the sum of the payments for gold, silver, lead and copper does not exceed $100.00 per ton. Add to the base charge ten per cent of the excess over $100.00 to a maximum base charge of five dollars per ton.

The base charge is for ores containing at least eight pounds of copper per ton; when a smaller quantity is contained there will be added to the base charge a sum equivalent to the value or the deficiency between actual contents and eight pounds per ton computed according to the terms specified herein for copper payment.

ZINC: Allow five units free; charge for the excess at thirty cents per unit, fractions in proportion

ARSENIC: Allow five units free; charge for excess at fifty cents per unit, fractions in proportion.

ANTIMONY and TIN COMBINED: Allow one unit free; charge for excess at one dollar and fifty cents per unit, fractions in proportion.

BISMUTH: Allow one-tenth unit free; charge for excess at fifty cents per pound, fractions in proportion.

MOISTURE: A minimum deduction of one per cent will be made from the wet weight; when over one per cent contained the actual moisture will be deducted.

LABOR: This contract is based upon present existing scale for common labor at El Paso Smelting Works of thirty cents per hour. Any increase or decrease in this rate shall be for SELLER'S account, and to adjust add or deduct four cents per dry ton for each one cent per hour increase or decrease in wages, fractions in proportion.

REPORT
ON THE
GLADSTONE-McCABE MINE PROPERTY
BIG BUG MINING DISTRICT,
YAVAPAI CO.
ARIZONA

INTRODUCTION.

The purpose of this investigation was to determine from a personal examination of the surface, underground workings that are accessible, office records and other sources, the present condition of the Gladstone-McCabe property and to condense in an orderly form such data as will assist in determining the advisability of re-opening the mine.

Field work at McCabe was commenced on February 15th and concluded on March 5th. To Mr. John L. Davis of McCabe, the present manager of the property our thanks are due for his hearty co-operation while we were examining the property and records, also for much of the past history of the district.

LOCATION AND ACCESSIBILITY

The property is located in the Big Bug Mining District of Yavapai County, Arizona. It is 4½ miles southwest of the town of Humboldt and 2½ miles northwest from Huron Siding on the Prescott and Middleton Branch of the Atchison Topeka and Santa Fe Railway. It is easily reached over fair country roads from either place. Owing to the very limited passenger train service on the railway, it is much better to motor out from Prescott which is only 20 miles from Humboldt over a state highway. Humboldt is only a smelter town and the shopping facilities are limited, but practically any supplies or light equipment can be purchased in Prescott the county seat of Yavapai County or in

Jerome which is 20 miles northeast also over a state highway. Jerome is the center of a group of rich and producing copper mines of which the United Verde, a Clark property, is the largest. Yavapai County has an annual production from its mines amounting to $20,000,000 a large part of which comes from the Bradshaw and Jerome quadrangles.

TOPOGRAPHY AND CLIMATE.

The Big Bug Mining District is located on the northeast slope of the Bradshaw mountains and the part in which the Gladstone-McCabe group of claims is located might be termed the foot-hill area. A few miles further north the country flattens out into the south end of Lonesome Valley and the view to the northward is almost unlimited. The San Francisco peaks marking the northern horizon are over 70 miles away. Around McCabe the general appearance is of well rounded low hills covered with scrub oak and manzanita. The elevation at the mines is approximately 5200 feet above sea level. The ground rises rapidly to the south west to the summit of Mt. Elliott with an elevation of nearly 7,000 ft.

The climate is temperate and dry so that the extremes which hamper mining operations in so many parts of the world are not experienced. The average rain fall is around 18 inches. The few snows during the winter do not last long below the elevation of 6,000 feet and while the country roads are slippery for a short time after a snow fall or shower, a day of sunshine puts them in a passable condition.

GEOLOGY.

The oldest rock of the district is the Yavapai Schist interpreted as a metamorphosed sediment. Intruded through and at the present time standing above the Schist is the Bradshaw granite, of which

the Bradshaw mountain group is largely composed. The marginal phase of the granite consists of diorite, grano-diorite and monzonite. The general geology is described in the U. S. Geological Survey Atlas, * published some years ago. The geology is described more in detail and considerable information regarding the production of the mines of the district is given in a recently issued bulletin by Waldemar Lindgren.**

The veins carrying the mineral deposits of the district can be divided into two general classes. Quartz-pyrite veins, whose principal values are in gold and silver and quartz and barite veins, whose principal values are in silver, lead and zinc. There are other deposits consisting of pyritic copper deposits in the schist and contact metamorphic deposits, but as the Gladstone-McCabe belongs to the vein type first mentioned these others will not be considered.

The Gladstone-McCabe group is located on the margin of an area of quartz diorite which is intruded into an amphibolitic schist. The Gladstone-and McCabe veins cut across Galena Gulch at so slight an angle that they are nearly parallel to the general trend of the stream. The principal interesting feature of the situation is a rhyolite porphry dyke which cuts the Gladstone and McCabe veins between the two shafts. From what could be learned from the records of the underground work this dyke seems to have been post mineral. However, it has undoubtedly exerted considerable influence on the present ore bodies which will be discussed further on.

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* Folio, #126, Bradshaw Mountains, by Jaggar and Palache 1925.

** U. S. Geological Survey Bulletin, #782. Ore Deposits of the Jerome and Bradshaw Mountain Quadrangles 1926.

PAST HISTORY.

The Sink to Rise claim was located in 1883 by Frank McCabe and the Gladstone by W. C. Parsons. The two locaters shortly afterwards formed a partnership and operated the properties together for some time. Later the Gladstone group which was composed of the Gladstone, the western end of the Sink to Rise and the Gladstone Westerly Extension was worked by W. C. Parsons and Henry McCrum of San Francisco under the partnership arrangement which continued until 1900 when they sold out to a New York syndicate organized by Duncan N. Hood and incorporated under the name of the Ideal Mining and Development Co.

The Ideal Company sank the Gladstone shaft 600 feet and did some drifting, but failed to develop any large ore body. (See Plate No. 4). Owing to the discouraging results obtained they ceased operations and leased their property in 1903 to Cecil G. Fennel.

In 1888 Judge E. W. Wells of Prescott and a Mr. Packard became interested in the McCabe claim and 491 feet of the east end of the Sink to Rise. In conjunction with McCabe and Parsons they organized the McCabe Mining Company, adding the Monopolist claim to the group.

In 1901, the McCabe Mining Company was sold to the Model Mining Company. In 1905, the McCabe mine was shut down during an excessively wet season when their pumping equipment was not adequate to handle the combined mine water and the seepage from the surface.

The McCabe group was purchased in December 1905 by the Ideal Mining and Development Company and combined with the Gladstone under the Fennell lease.

Most of the underground work as now shown on the plans

was done during the Fennell operation. Owing to the 1907 panic and the closing down of the Humboldt smelter cutting off his market and also tying up about $20,000 in an unpaid account Fennell became involved and had to cease operations. At the close of the Fennell term the Gladstone shaft had been sunk to the 10th level and some sloping done above the 10th level drift.

The Ideal Company kept the mine unwatered until August 1908 when the property was leased for a year to Massey, Flammer and Company. During this lease the Gladstone shaft was deepened 100 feet to the 11th level. The 11th level drifts were driven 361 feet east of the shaft and 420 feet west. All ore developed was mined and the reserve left by Fennell also taken out.

The Massey, Flammer and Company did not renew their lease at the end of the year. The Ideal Company resumed the pumping and kept the mine unwatered until November 1910. During this period some little work seems to have been done probably by leasers as the last reports show the 11th level heading as 478 feet east from the Gladstone shaft. Since 1910 the mine has been flooded.

A lease was taken on the property in 1915 by the C. M. Wolf Arizona Copper Company and although they did some surface work, they did not unwater the mine or make a serious attempt to operate it.

The property has since been idle except for the leasing of the McCabe mill dumps and a small amount of work which has been done by some leasers west of the Gladstone shaft between the 100 foot level and the surface.

PRESENT DEVELOPMENT.

The surface lay-out and general plan of the property is

shown on Map No. 4. From this plan it will be seen that the Gladstone and McCabe veins are roughly parallel about 250 feet apart on the surface. They are connected half way between the Gladstone and McCabe shafts, which are about 500 feet apart by what is known as the cross vein. The underground workings as they existed at the time the mine was closed down in 1910 are shown on Plan No. 5 which is a vertical longitudinal section taken parallel to the veins. This plate also shows the location of the ore shoots and gives the best general view of the underground work.

Plans Nos. 6 and 7 are horizontal projections of the different levels on a base plane. These Plans give a very good idea of the variation in the dip of the veins which averages 77 degrees S.E. for the McCabe and 72 degrees S.E. for the Gladstone.. The general strike of both veins is N. 56 degrees E. The ore bodies as shown by the workings, followed the Gladstone vein to its intersection with the cross vein thence along the latter to the McCabe vein thence east on the McCabe. The plans almost suggest that the two veins and cross vein are one continuous system. The underground situation in the vicinity of the cross vein is somewnat obscured by the intersection of the so called Gopher dyke.

This dyke which is classified by Lindgren * as rhyolite porphry cuts the cross vein at a slight angle between the Gladstone and McCabe veins. It is apparently post mineral as the cross vein near the intersection was metamorphosed, reducing the sulphides to the metallic state. The dyke itself is practically barren of values except where it seems to have absorbed mineralization from the cross vein. This fracture zone probably extends to great depth and may be the explanation for the ore bodies in its vicinity.

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* Page 130, U. S. Geological Survey Bulletin 782. (1926) by Waldemar Lindgren.

UNDERGROUND CONDITIONS.

At the time of our visit the water level was just below the 100 foot level in the Gladstone shaft and nearer the collar of the McCabe as the latter shaft is on lower ground. Considering the length of time since the timbering in the Gladstone shaft has been in place, the part above the water level is in very good shape and not a great deal of it would have to be replaced. Mr. Davis informed us that he thought some timber would have to be replaced further down.

As we could not investigate the lower levels our opinion of them is based on the company's books which are in excellent shape, smelter returns, assay records and previous reports. The following is an extract from a report prepared by Messrs. E. L. Bartholomew and J. L. Davis in July 1910 while the pumps were still going and the lower levels accessible.

"The 1100 foot level has been driven 478 feet east of the Gladstone shaft and encountered the first ore shoot of commercial value at a distance of 80 feet from the shaft. This was stoped for a length of 30 feet and a height of 13 feet. The ore in this stope shows a total width of 12" and while it was not of sufficient value to warrant further stoping for shipping purposes, the values in the 1000' level immediately above this stope and of which this is supposed to be a continuation were of fair average. This ore shoot has been a very consistent one.

"The second ore shoot was encountered at a distance of 356 feet from the shaft and extends to the face of the drift where further drifting of approximately 100 feet should continue in ore before reaching the end of this shoot at the junction with the Sink to Rise vein. A cut out stope has been taken out for a length of 45 feet along the drift and a height of 8 feet.

"The ore at the back of this stope shows an average width of 23" while in the drift the average wicth was 13".

"The ore shipped from this shoot amounted to 94.41 tons and yielded a gross value of $1872.17.

"This shoot is known as the Boundary Ore Shoot and lies

between the Gladstone and the McCabe Mines in the Cross Vein that joins the Sink to Rise and the Gladstone Veins and which has been consistently stoped from the 1000' level to the surface.

"The 1100 foot L.W. has been driven 421 feet west from the shaft. At a distance of 180 feet a raise was put through to the 1000 foot level and at 290 feet a stope was started which ran for 52 feet along the drift to a height of 26 feet. At 312 feet a winze was sunk to a depth of 11 feet but was discontinued on account of water.

"The drift, from the intersection of the cross cut from the shaft to the face - 421 feet - shows mineral throughout but is of such a disseminated character that its value for shipping purposes is prohibitive and at best woubd resolve itself into a milling proposition. This condition also holds true in the raise and stope.

"The average width of the ore along the drift for its entire length is 10.2 inches averaging in value $19.98. The ore in the raise averaged in width 15 inches for an assay value of $10.50.

"On the 1000 foot level there is also a body of second class ore containing approximately 650 tons of an average value of about $12, between 80' and 210' west of the shaft."

Regarding the ore in sight the above mentioned report gives the following:-

"With the exception of a block of ground, 100 feet west of the face of the 800 foot level east, in the McCabe mine, about one third of which has been stoped, all of the ore so far developed has been exhausted. The face of the 800 foot L.E. shows 12" of ore of an assay value of 1.14 oz. gold and 2.2 oz. silver, and the highest point in the stope shows 6" of ore assaying 2.10 oz. gold and 1.0 oz. silver.

"In the Gladstone Mine, with the exception of a small pillar containing about 13 tons assaying $40 per ton, between the 400 foot L. and the 500 foot L. and included within chutes 6 and 8 on the 500 foot L; four small pillars between the 800 foot and the 900 foot levels containing approximately 50 tons, assaying $30 per ton and included within chutes 5 and 13 on the 900 foot L.E.; and a small pillar between the 1000 foot and the 900 foot levels and situated between chutes 7 and 14 on the 1000 foot L.E.; all the ore between the McCabe and the Gladstone shafts above the 1000 ft. L. has been exhausted.

"On the 800 foot L.W. from 734' to 912' three pillars of ore have been left containing approximately 70 tons assaying $30 per ton. On the 900 foot L.W. from 500' to 710' five pillars still remain containing approximately 66 tons of an assay value of $30. On the 1000' L.W. from 258' to 500', five pillars still remain containing 55 tons of a value of $30 per ton.

50 Tons

"In addition to this first grade ore, it is probable that some second class ore can be obtained in the vicinity of No. I chute 1000' L. measuring approximately 20' x 25' x 15'."

From the above it will be seen that the blocked out ore reserve is not very large. If the mine is re-opened expectations will have to be based on ore to be opened up by new development with the best prospects apparently on the west end of the property and below the 11th level.

TYPE OF ORE.

The vein material is principally quartz massive rather than drusy. The metallic sulphides usually occur in the central part of the fissure and are present in quantity in the order named: pyrite, arsenopyrite, sphalerite, galena and chalcopyrite. An average analysis of the shipping ore is as follows:- *

Silica	31.4 %
Copper	2.0 %
Lead	2.1 %
Zinc	4.7 %
Iron	24.6 %
Arsenic	3.9 %
Antimony	1.0 %
Sulphur	20.4 %
Gold	1.6 ounces per ton.
Silver	10.2 " " "

"The mill concentrates contained in 1907, for instance 1.1 ounces of gold and 4.1 ounces of silver to the ton. The ore is said to contain also some bismuth."

The veins vary in width from 3 to 15 feet. The average width of the shipping ore streak seems to be around 16". However, it is reported that on the 11th level especially to the west of the Gladstone shaft there is considerable ore disseminated through the vein in sufficient quantity to make it a millable product. According to the

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* From page 132, U.S.Geological Survey Bulletin No. 732.

office records the shipping ore developed in driving the IIth level west from the Gladstone shaft over a distance of 370' had an average width of IO.2 inches with gold and silver values amounting to $I9.96 per ton. When the drift was being driven all the vein filling taken out varying from 3 to 5 feet was sent to the mill. The assays show this material averaged 0.392 oz. of gold and 3.54 oz. of silver per ton or a gross value of $9.46 per ton, in these two metals.

PAST PRODUCTION.

From various sources believed to be reliable and the books of the company the following production figures were obtained:

"The gross value of the ores extracted by the locaters and subsequent owners, before the mines came under lease to Cecil G. Fennell is unknown, but from the most reliable information obtainable it is estimated as between $I,000,000. and $I,500,000.

"The gross values extracted by Cecil G. Fennell and the subsequent leasers, as shown by the statement herein, is over $I,490,000. which would make the total production of the property, nearly $3,000,000.

"The gross production of the Gladstone from March, I903, and of the Gladstone and McCabe jointly, from I906, was as follows:

	First class ore.			Concentrates.		
Year	Tons	Gro. Values	Average	Tons	Gro. Values	Average
I903	2738.3I	$ 57824.I3	$ 2I.II	I8.I8	$ 766.49	$ 42.I5
I904	4976.5I	I82083.42	36.59	384.66	I3070.I2	33.98
I905	4002.I4	I7033I.87	42.56	359.85	I8795.36	32.98
I906	I4634.82	432I64.74	29.43			
I907	III90.I6	336383.67	30.06	4I4.75	I2395.56	29.89
I908	2353.24	.74051.58	3I.44	3I.24	872.73	27.93
I909	4I6I.67	I43673.66	34.52	387.53	I2932.69	33.37
"	98.7I	2833.89	28.7I	) These lots were taken out		
I9I0	85.25	3430.40	40.24	) by contractors after ex-		
	44290.8I	$I402782.36	$3I,67-I806.22	) piration of lease.	$58835.95	$32.57

Year	Second Class Ore. Tons	Gro. Value	Average
1906	345.42	$10035.41	$11.67
1907	1889.77	21074.10	11.15
	2735.19	$31112.51	$11.36

Total values, $1,492,730.82

To the above figures which contain shipments down to the close of operations in 1910 may be added $3,802.53 obtained from ore resulting from dump sorting and $45,138.78 representing 3,026 tons of tailings which have been shipped. There have also been removed by leasers during the past two years 8,430 tons of tailings from the McCabe mill dump for which we do not have the gross figures, so the total production of $2,691,672.00 is probably less than the actual amount.

RECOMMENDATIONS.

In order to put the property on a working basis, practically all the necessary equipment would have to be purchased new. A list of the present equipment is attached. This list represents nearly everything that was in use at the time the property was closed down. In looking through the plant even a casual examination discloses that a number of the principal units were in bad repair when last in use. If they had been in good shape at the time of closing down and had the best of care during the intervening sixteen years, they would by this time be so out of date that it is questionable whether a new operator could afford to use them.

The Arizona Power Company now have a transmission line within one mile of the property. If reasonable rates could not be secured from them, which we are quite sure is the case, then an in-

stallation of two or more power units of the deisel or semi-deisel type would be necessary.

The pumping problem is one which should be given careful consideration, but in the light of present day equipment should not present any unusual problems. According to the records the mines seem to have an inflow of water varying from 60 to 80 gallons per minute. The higher figure is for the wet season which is limited in length. A pump capacity of not less than 160 gallons a minute should be provided, so arranged in two units that one could carry the load with the other as a stand-by and reserve.

With the increase in the cost of supplies and labor we do not consider it would be possible to operate as was done in the past, when shipping ore was hand-sorted in the stopes. Under present day practice all material removed from a working width would be sent to a mill operating on the selective flotation principal. This mill should be on the property. It is reported that the Humboldt mill is being altered to handle complexed ores, in which event it might be convenient to sell to them until such time as an ore reserve could be blocked out sufficiently large to justify the erection of a mill.

What has been produced by a mine is little upon which to base predictions as to the future out-put. If the values in lead and zinc are considered, which would be the case if the ore were milled in a flotation mill and an average assay of 0.4 oz. of gold, 3.5 oz. of silver 0.6 % copper, 0.7 % lead 1.5 % zinc, which seems to be indicated from the material taken from the west end of the eleventh level, then the gross value would be $14.21 per ton. Ore of this value handled

Today's price appr. 229.75

at the rate of 250 tons per day should yield a good profit provided competent management and sufficient funds are provided.

Respectfully submitted,

Philadelphia, Pa.
March 31, 1927.

Lloyd T. Emory

Lloyd T. Emory, Consulting Engineer.

Fred Gibbs

Fred Gibbs, E.M.

SUMMARY.

While the dumps will not give a large profit in excess of the cost of the property, and the money required to equip the property, they will return these outlays figuring gold at Par. If the premium on gold holds as it is today a good profit could be made from just working the dumps.

The water will be taken out of the mine in milling the dumps. The real profit would be made from operating the mine. Have made a careful study of the mine records, and all indications are that the mine contains a considerable tonnage of ore that it will pay to mill, without sinking the shaft deeper. With the five ore bodies going down strong, as they do the outlook for more ore in depth is very good. One of these ore bodies has been worked from surface to the 1100 foot level. It is not reasonable to expect it to cut out at this level. ---

I have maps of the mine, a reconstructed assay map of the lower levels, copies of mill records, and other information that I will gladly show anyone interested. Also list of machinery, buildings etc now on the property.

Would suggest the following to anyone interested. First make check flotation tests of the average dump material here in the East. I have about 50 lbs taken from the test pits, which is as fair an average as I could get. Second, duplicate these tests in Arizona, using water from the mine.

This is too small for the larger operating companys, but is ideal for a few men banded together, as the risk has been eliminated by the sampling work done, as set forth above. The mine has had a good production from hand sorted ore, and with a modern mill, everything points to a good profit from the unmined ore left by former operators.

I am not looking for any commission, but do want the job of running the property, and an interest, after whoever puts up the money gets it all back with interest.

Hopewell, N.J.
September. 18, 33

J.P.Labaw

J.P.Labaw

SILAS C. BROWN & ASSOCIATES

GEOLOGICAL CONSULTANTS

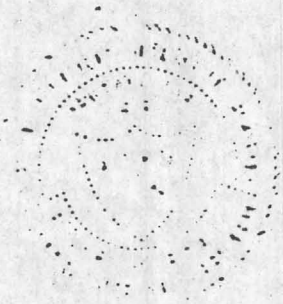
PRELIMINARY GEOLOGICAL REPORT OF THE McCABE-GLADSTONE MINE PROPERTY Yavapai County, Arizona

FOR:

Mr. Richard Schrimsher
Prescott, Arizona

BY:

Silas C. Brown
Geologist



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INTRODUCTION

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The writer made a field sispection of the property on October 1, 1978 with Mr. Richard Schrimsher and Mr. Dutch Seebolt of Prescott, Arizona. Because of the flooding and caving conditions of the shafts, most data were acquired from reliable sources such as the U.S.G.S. Folios, Bulletins and files and from the Department of Mineral Resources files. Additionsl data were obtained from consulting reports by J. P. Lebaw and Lloyd T. Emory.

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A map of the patented claims involved is not included with this report, however, the complete legal description is available with Mr. Schrimsher of Prescott.

LOCATION AND ACCESSIBILITY

The property is located about 4½ miles southwest of the town of Humboldt. The road from Highway I-17, through the Iron King property, is a dirt road which could be made

passable for heavy equipment with only limited road work. One culvert would have to be built in Galena Wash to make the road passable throughout most of the year.

Most equipment and supplies are available at Prescott, about 20 miles away, or at Phoenix about 70 miles to the south. Super Highways between both cities pass within 3½ miles of the property.

GENERAL GEOLOGY

The McCabe-Gladstone property lies in a highly mineralized belt in the Bradshaw Mountains. Higher gold concentration generally occurs where abundant iron oxides are present. The iron content of the shipping ore from the McCabe and Gladstone mines averaged 24.6%.

The country rock is primarily Yavapai Schist and the ore bearing dikes are mostly rhyolite-porphyry. Quartz diorite outcrops to the west and south. A quartz diorite stock was reported in the mine.

The intersection of two veins is always a good place to explore. This theory has been proven by the stoping of the Boundary Ore shoot from the 1000-foot level to the surface. Below that depth, new ore should be encountered.

The Gladstone dike has an average strike of 56° East and dips 72° SE while the McCabe dike has the same strike and a dip of 77° SE. The cross-dike may be a fault offset of only one dike. The Gladstone and Cross veins intersect on the east line of the Sink to Rise claim and the south line of the Gladstone claim. The Cross dike strikes roughly north-south. Emory thinks the cross vein connects and is part of the McCabe-Gladstone veins, however, a fault is more likely.

The dikes have an average width of about 15 feet,

the veins average about 3½ feet and the ore shoots average about 12 inches thick. Assays along the 8th level of the Gladstone mine showed the ore shoots to range from 6 inches to 60 inches and values from $2.40 to $183.25 using $20/oz gold and .50/oz silver. Present day prices would average more than 10 times that. The average value of all the assays for a distance of 442 feet along the 8th level would be over $40/ton or over $400/ton at todays prices.

PRESENT PROPERTY CONDITIONS

The Gladstone shaft was frooded from 1910 to 1934 when it was unwatered for a short time. In June, 1934, mine ore, mixed with old gob and dump material, was treated in a 200-ton flotation mill operated by H. Fields and Associates. No data are available as to the amount of ore milled, its value or how long the mill operated.

The dumps have a volume of an estimated 200,000 tons, plus or minus 10%. Various assays ranged from $2.50 to $6.00 per ton with an average of about $4.00. At todays prices, the dump is expected to average near $40.00 per ton taking into consideration the value of gold, silver, copper. lead and zinc. Using a rather conservative figure of $30.00 per ton, the dump is worth approximately $6,000,000.

In addition to the dump, an estimated 100,000 tons (plus or minus 10%) of tails are present with an estimated value of about $35.00 per ton. This average value is based on various reports and records of assays taken over the years but mostly prior to 1913. Some extreme values were not used as they were no doubt hand picked rather than cross section samples.

Since the mines have not been worked for the past 65 to 70 years, the mines are full of water and the tailings dump eroded by runoff and flash floods. Large blocks of tails

is still easily available for treatment

A more accurate estimate of the tails and dump is impossible without a more detailed survey and is recommended before machinery is moved in for operations. More complete and reliable samples should also be taken for assay.

Water from the mine shafts could be used in the milling operation and athe same time dewater the mine. This would open the mine so that gob could made available to the mill. Various reports as to the amount of gob available could not be confirmed.

CONCLUSIONS AND RECOMMENDATIONS

The dump and tails should be milled using about a 200-ton mill. All data available on the assays indicate the dump and tails should average over $30.00 per ton at todays prices. The present estimates of 200,000 tons of dump and 100,000 tons of tails should be given an error of plus or minus 10%.

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Mr. Lloyd T. Emory, in a report dated 1926, also recommended the dump material be milled. Based on this a good sampling of the tails and dump should be made as soon as possible.

Most of the ore above 1100 feet in the Gladstone mine has probably been removed. Good ore shoots were encountered at the 1100 foot level and were strongly developed so these shoots no doubt continue downward. Deeper horizons and lateral extensions, particularly westward, should be explored to outline new and extended ore bodies.

Because of the location of the property in the

mineralized belt of the Bradshaw Mountains, the data available showing good concentration of marketable ore and the easy accessibility to the property adds up to a very good prospect for above average profits. Good management and sufficient funds are necessary for a successful operation.

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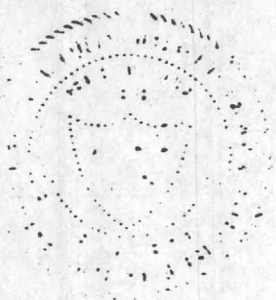

365
2.5

Tailings

Mining 300,000 Surface 1.75 — 525,000
Milling 15.00 — 4,500,000
Trucking 7,500 (40:1) — 15,000
Surface Equip — 30,000
Mill — 600,000
Eng — 8 000
Elect — 10,000

5,678,000
851 700
6,529,700

4 1/2 yrs

70' = Escape hole 12

4.5
9.0
4.5
54.0

100' slip

$35 10,050 tons

mining	$ 351,750	mining
milling	150,750	milling
Mill	600,000	
Surface Equip	30,000	
Eng	10,000	
Elect	10,000	
truck	2500	
initial mining	60,000	
	1,215,000	
	182250	
	$ 1,397,250	

1 1/2 months

300 x 100

$ 2,010,000
1 397,250
$ 612,750

797,250

FOR LETTER

Location – See Brown Report
History
produced $2,691,672 conservatively through 1907
assays of .04 Au 3.5 Ag .06% Cu .07% Pb .15% Zn
Reported 6,000,000 tons remaining
Elect available 1 1/2 miles
Mine makes adequate water

A phase
Geological evaluation
Block out known ore bodies (escape hole) + →
flow sheets
1) Tails
2) Ore

B) Construct 200 TPD Concentrating Mill

C) Develope Mine

D) Mine Ore & Tails

e) Process through mill

f) Ship to refinery (State contracts are negotiable) [illegible]

G) Market

Cost Projections

(GLR)	Escape Hole expense	Mill	Tailings	projected income	projected net profit
3 months	797,250	600,000	329,430	2,010,000 499,990 [illegible] 2,509,990	$783,310

1,726,680

300,000 min tailings = $30
1,500,000 net profit
450,000
100 ton/hr

× Location
History - Production
Geology development
Ore
mining - Train & equipment
marketing - T rucked
net return

40:1
5 TPD
1300

2600
6000

376
460

326
7430
456

Location See Brown Report
History & Pro Systems
2,691,672 in concentrates though 1407
reported removed ~~1910~~.
mill produced adequate with
Estimate today Stocks in sight
mag depth available
w/in 1/2 mile
Ore in Vein - .04 Au 3.5 Ag .067 Cu .07% Pb .15% Zn
It is reported 10' × 1000 × 5000 = 6 million Tons remaining

a Mill capable of concentrate 200 TPD - using new equip = $600,000
used approx $450,000

to begin with ship Conc to Alhambra Calif for a charge of $8/oz Au $.50/oz Ag

These same people will enter into contract to erect Refinery on property

Mining Surface Tailing & Ore at approx $3.5 per ton = 1,050,000

Milling at $25/Ton = $~~1,050,000~~ $7,500,000
mining Surface equip = 30,000
underground equip
200 TPD = 4 1/2 years tailings

direct cost trucking — 2500 | 2500
Summary 525,000 | 525 000
Mining 300,000 Surface 1.75 ~~1,050,000~~ | 600,000
Milling — - $15 (4,500,000) 600,000 ~~7,500,000~~ | 4,500,000
Mill 600,000 | 30,000
Surface equip Mining 30,000 | 10,000
Setup Engineering 10,000 | 5,000
Electric preliminary 5000 | 1,775,500
Contingency 15% 9,198,000 | 273525
1 379 700 | 2,049,025
10,577,700

Estimated Return 300 000 Surface
$30
$ 9,000,000

Pat Patterson 10/24/78

McCabe Mine

Near Iron King 3-4 miles west

Seibold - owner

1000 + 800' shaft

Water to 100' on @

closed 1930 - litigation - Good record

Skyline - Pile of ore

Au - 0.220 $40

Ag - 3.82 $20

Cu 0.66

Pb - 0.63 } $20 → $80 / ton gross

Zn - 5.16

Alhambra Calif refinery } Hector, Bill Haskell, Tim Fields

200+ tons tailings

stockpile

1. objective 200,000 ton/day on surface stockpiled + tailings

2. Mine underground

$1.75 mill → drilling - Exploration

$250,000 property

2 contracts outstanding

Tailings @ $200/T80 = $16,000/day gross

$ Cost $6500.00/day (40%)

$9500/day

$150,000/yr land payment

? Refining costs

? Depletion

Seebold

Seebolt?

owner

McCabe Gladstone

Escapule test

24 48.72 test Au Ag

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2.5

Tailings

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Milling			15.00
Trucking	7,500	(40:1)	
Surface equip			
Mill			
Engr			
elect			

525,000
4,500,000
~~45~~,000
30,000
600,000
8 000
10,000
5,678,000
851 700
6,529,700

4 1/2 yrs

70' = Escape hole 12 4.5 90 45 54.0

100' ship

$35 10,050 mining
milling
Mill
Surface Equip
Engr
elect
truck
initial mine

1 1/2 months

300 x 100

$351,750 mining
150,750 milling
600,000
30,000
10,000
10,000
2500
60,000
1,215,000
182250
$ 1,397,250

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Reported 6,000,000 tons remaining
Elect available 1½ miles
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1,726680

300,000 min Tailings $30
1,500,000 net profit
450,000
100 ton / hr

× Location
History - Production
Geology development
Ore
mining - Tons & expense
marketing - needed
net returns

40:1
5 TPD
1,500

2600
600,000

376
460

Location See Brown Report
History & Pro Duction
2,691,672 in concentrate reported through 1907 removed 1910
Estimate to by tonnage in sight
Ore in Mine - .04 Au 3.5 Ag .067% cu .07% Pb .15% Zn
It is reported 10' × 1000 × 5000 = 6 million tons remaining

(margin: not produce adequate water; no electricity available w/in ½ mile)

a Mill capable of continually 200 TPD - using new equip = $600,000
used approx $450,000

to begin with ship cons to Alhambra Calif for a charge of $8/oz Au $.50/oz Ag

These same people will enter into contract to erect Refinery on property

Mining Surface tailings & ore at approx $3.5 per ton = 1,050,000

Milling at $25/ton = ~~$1,050,000~~ $7,500,000
mining surface equip $30,000
underground equip
200 TPD - 4½ years tailings

direct cost	trucking —	2500	2500
Summary		525,000	525,000
Mining 300,000 surface 1.75		~~1,050,000~~	600,000
Milling —	- $15 (4,500,000)	~~7,500,000~~ 600,000	4,500,000
Mill		600,000	30,000
Surface equip Mining		30,000	10,000
Setup Engineering		10,000	8,000
elect preliminary		8000	1,775,500
contingency 15%		9,198,000	273525
		1379700	2,049,025
		10,577,700	

Estimated Return 300 000 Surface
$30 $9,000,000

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Near Iron King 3-4 miles west

Seibold - owner

1000 + 800' shaft

water to 100' on @

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Cu 0.66		
Pb - 0.63	$20	$80 / TON GROSS
Zn - 5.16		

Partners Bill Haskels, Jim Fields } Alhambra Calif refinery

200+ tons Tailings

Stockpile

1. objective 200,000 tons / day on surface stockpiled + tailings

2. Mine underground

$1.75 mill → drilling - Exploration

$250,000 property

2 contracts outstanding

Tailings @ $200/TPD = $16,000/day Gross

\# Cost $6,500.00/day (40%)

$9500/day

$150,000/yr land payment

? Refining costs

? Depletion

TYPICAL SECTION OF THE ASSAY MAP SHOWING PART OF THE EIGHTH LE

Note:- Gold at $20.00 per c
Silver " .50 "

Approx. Collar Elv. 5065 Above S.L.

THE GLADSTONE SHAFT

1st Level
2d. Level
3d. Level
4th Level
5th Level

9th | 8th | 7th | 6th

Sta 18
8" Width $17.40
6" " $5a.70-8" 18.45
6" " $33.95-36" 1086
6" " $47.65

Sta 42
6" " $31.40
6" " $17.25
8" " $26.66
10" " $45.60
6" " $38.20
24" " $3.45
10" " $36.80
3" " $29.25
10" " $41.75

Sta 57
14" " $2.55
10" " 24.60
8" " $31.30

Sta. 96
14" " $37.40
8" " $34.70
6" " $12.80

Sta. 125
8" " $41.76
10" " $42.45
4" " $28.80
6" " $39.35
4" " $31.25

1" " $47.70

Sta 186
2" " $27.05
3" $61.85

FROM THE OFFICE OF
LLOYD T. EMORY
CONSULTING ENGINEER
4 S. 15TH ST., PHILA. PA.

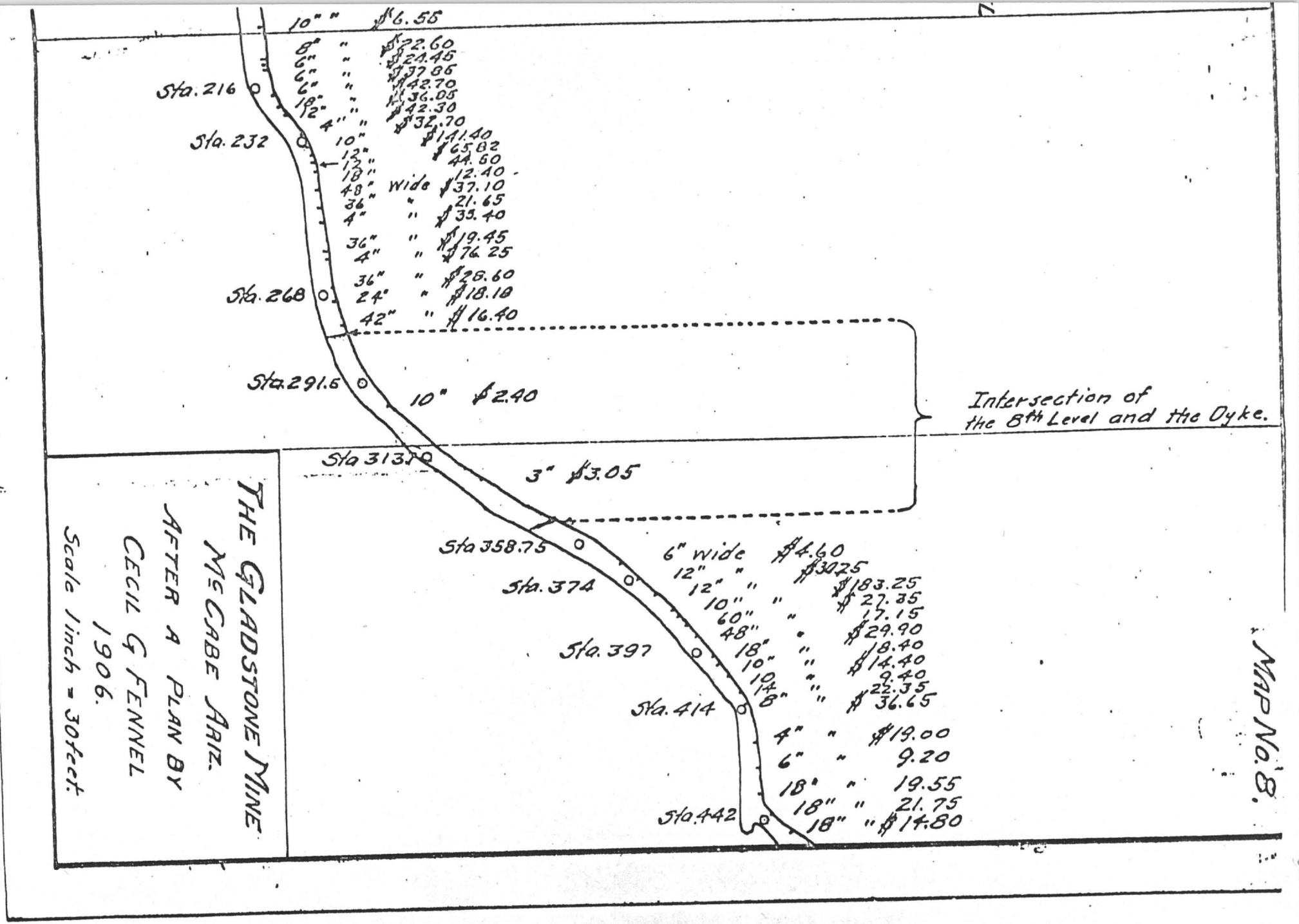

10" " $6.55
8" " $22.60
6" " $24.45
6" " $37.95
6" " $42.70
18" " $36.05
4" " $42.30
10" $32.70
12" $14.40
13" $65.82
18" $44.60
48" Wide $12.40
36" " $37.10
4" " $21.65
36" " $35.40
4" " $19.45
36" " $76.25
24" " $28.60
42" " $18.18
$16.40
Sta. 216
Sta. 232
Sta. 268
Sta. 291.6
10" $2.40
Sta 313.0
3" $3.05
Intersection of the 8th Level and the Oyke.
Sta 358.75
6" Wide $4.60
12" " $30.25
12" " $183.25
10" " $27.35
60" " $17.15
48" " $29.90
18" " $18.40
10" " $14.40
10" " $9.40
14" " $22.35
8" " $36.65
Sta. 374
Sta. 397
Sta. 414
4" " $19.00
6" " 9.20
18" " 19.55
18" " 21.75
18" " $14.80
Sta. 442
THE GLADSTONE MINE
McCABE ARIZ.
AFTER A PLAN BY
CECIL G FENNEL
1906.
Scale 1 inch = 30 feet.
MAP No. 8.

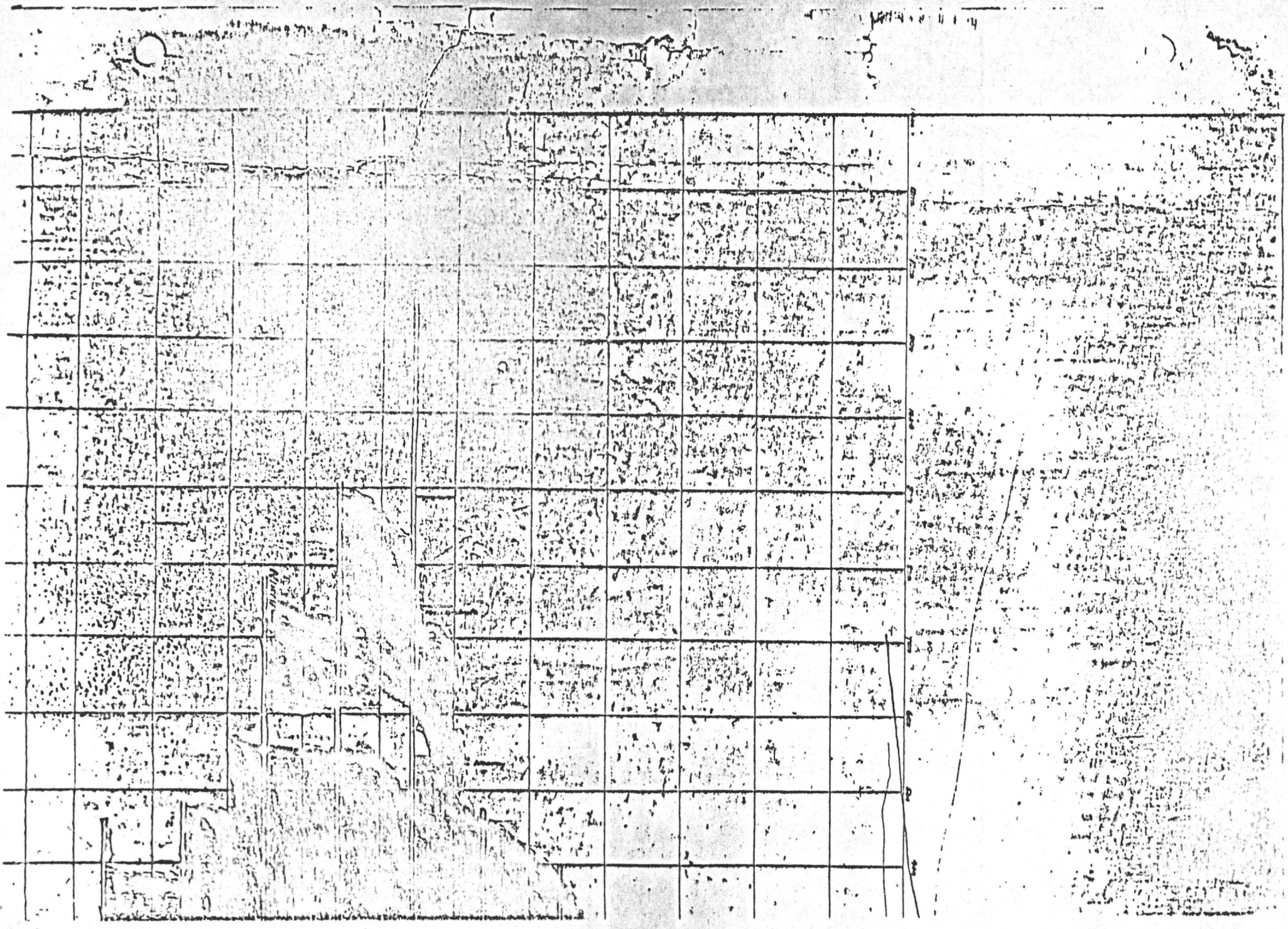
PLATE No. 5.

LEGEND

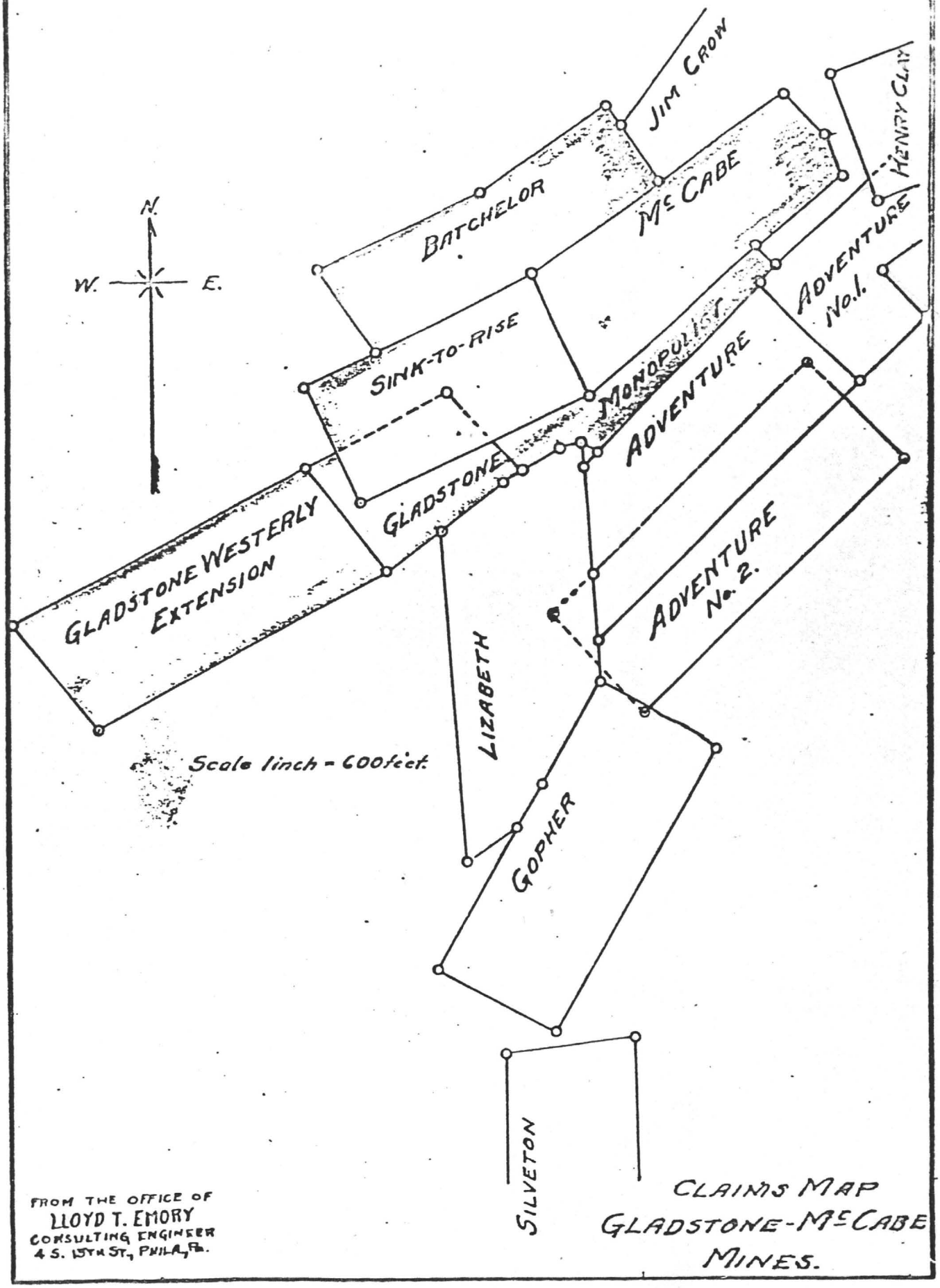
Ore Body

Dyke Area

THE GLADSTONE-McCABE MINE
YAVAPAI CO. ARIZONA.



MAP 3



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CLAIMS MAP
GLADSTONE-Mc CABE
MINES.

COPPER: Deduct from the wet copper assay eight pounds and pay for ninety-five per cent of the remaining copper at the daily net refinery quotations for electrolytic cathodes, as published in the Engineering and Mining Journal of New York, averaged for the calendar week including the date of arrival of the material at the plant of the BUYER, less a deduction of 2.5 cents per pound of copper accounted for. Nothing paid for copper if less than one-half per cent by wet assay.

No payment will be made for any metal or content except as above specified.

From the total of the above make the following.

DEDUCTIONS

BASE CHARGE: Three dollars per net dry ton of 2000 pounds; provided the sum of the payments for gold, silver, lead and copper does not exceed $100.00 per ton. Add to the base charge ten per cent of the excess over $100.00 to a maximum base charge of five dollars per ton.

The base charge is for ores containing at least eight pounds of copper per ton; when a smaller quantity is contained there will be added to the base charge a sum equivalent to the value or the deficiency between actual contents and eight pounds per ton computed according to the terms specified herein for copper payment.

ZINC: Allow five units free; charge for the excess at thirty cents per unit, fractions in proportion

ARSENIC: Allow five units free; charge for excess at fifty cents per unit, fractions in proportion.

ANTIMONY and TIN COMBINED: Allow one unit free; charge for excess at one dollar and fifty cents per unit, fractions in proportion.

BISMUTH: Allow one-tenth unit free; charge for excess at fifty cents per pound, fractions in proportion.

MOISTURE: A minimum deduction of one per cent will be made from the wet weight; when over one per cent contained the actual moisture will be deducted.

LABOR: This contract is based upon present existing scale for common labor at El Paso Smelting Works of thirty cents per hour. Any increase or decrease in this rate shall be for SELLER'S account, and to adjust add or deduct four cents per dry ton for each one cent per hour increase or decrease in wages, fractions in proportion.

REPORT
ON THE
GLADSTONE-McCABE MINE PROPERTY
BIG BUG MINING DISTRICT,
YAVAPAI CO.
ARIZONA

INTRODUCTION.

The purpose of this investigation was to determine from a personal examination of the surface, underground workings that are accessible, office records and other sources, the present condition of the Gladstone-McCabe property and to condense in an orderly form such data as will assist in determining the advisability of re-opening the mine.

Field work at McCabe was commenced on February 15th and concluded on March 5th. To Mr. John L. Davis of McCabe, the present manager of the property our thanks are due for his hearty co-operation while we were examining the property and records, also for much of the past history of the district.

LOCATION AND ACCESSIBILITY

The property is located in the Big Bug Mining District of Yavapai County, Arizona. It is 4½ miles southwest of the town of Humboldt and 2½ miles northwest from Huron Siding on the Prescott and Middleton Branch of the Atchison Topeka and Santa Fe Railway. It is easily reached over fair country roads from either place. Owing to the very limited passenger train service on the railway, it is much better to motor out from Prescott which is only 20 miles from Humboldt over a state highway. Humboldt is only a smelter town and the shopping facilities are limited, but practically any supplies or light equipment can be purchased in Prescott the county seat of Yavapai County or in

Jerome which is 20 miles northeast also over a state highway. Jerome is the center of a group of rich and producing copper mines of which the United Verde, a Clark property, is the largest. Yavapai County has an annual production from its mines amounting to $20,000,000 a large part of which comes from the Bradshaw and Jerome quadrangles.

TOPOGRAPHY AND CLIMATE.

The Big Bug Mining District is located on the northeast slope of the Bradshaw mountains and the part in which the Gladstone-McCabe group of claims is located might be termed the foot-hill area. A few miles further north the country flattens out into the south end of Lonesome Valley and the view to the northward is almost unlimited. The San Francisco peaks marking the northern horizon are over 70 miles away. Around McCabe the general appearance is of well rounded low hills covered with scrub oak and manzanita. The elevation at the mines is approximately 5200 feet above sea level. The ground rises rapidly to the south west to the summit of Mt. Elliott with an elevation of nearly 7,000 ft.

The climate is temperate and dry so that the extremes which hamper mining operations in so many parts of the world are not experienced. The average rain fall is around 18 inches. The few snows during the winter do not last long below the elevation of 6,000 feet and while the country roads are slippery for a short time after a snow fall or shower, a day of sunshine puts them in a passable condition.

GEOLOGY.

The oldest rock of the district is the Yavapai Schist interpreted as a metamorphosed sediment. Intruded through and at the present time standing above the Schist is the Bradshaw granite, of which

the Bradshaw mountain group is largely composed. The marginal phase of the granite consists of diorite, grano-diorite and monzonite. The general geology is described in the U. S. Geological Survey Atlas, * published some years ago. The geology is described more in detail and considerable information regarding the production of the mines of the district is given in a recently issued bulletin by Waldemar Lindgren.**

The veins carrying the mineral deposits of the district can be divided into two general classes. Quartz-pyrite veins, whose principal values are in gold and silver and quartz and barite veins, whose principal values are in silver, lead and zinc. There are other deposits consisting of pyritic copper deposits in the schist and contact metamorphic deposits, but as the Gladstone-McCabe belongs to the vein type first mentioned these others will not be considered.

The Gladstone-McCabe group is located on the margin of an area of quartz diorite which is intruded into an amphibolitic schist. The Gladstone-and McCabe veins cut across Galena Gulch at so slight an angle that they are nearly parallel to the general trend of the stream. The principal interesting feature of the situation is a rhyolite porphry dyke which cuts the Gladstone and McCabe veins between the two shafts. From what could be learned from the records of the underground work this dyke seems to have been post mineral. However, it has undoubtedly exerted considerable influence on the present ore bodies which will be discussed further on.

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* Folio, #126, Bradshaw Mountains, by Jaggar and Palache 1925.

** U. S. Geological Survey Bulletin, #782. Ore Deposits of the Jerome and Bradshaw Mountain Quadrangles 1926.

PAST HISTORY.

The Sink to Rise claim was located in 1883 by Frank McCabe and the Gladstone by W. C. Parsons. The two locaters shortly afterwards formed a partnership and operated the properties together for some time. Later the Gladstone group which was composed of the Gladstone, the western end of the Sink to Rise and the Gladstone Westerly Extension was worked by W. C. Parsons and Henry McCrum of San Francisco under the partnership arrangement which continued until 1900 when they sold out to a New York syndicate organized by Duncan N. Hood and incorporated under the name of the Ideal Mining and Development Co.

The Ideal Company sank the Gladstone shaft 600 feet and did some drifting, but failed to develop any large ore body. (See Plate No. 4). Owing to the discouraging results obtained they ceased operations and leased their property in 1903 to Cecil G. Fennel.

In 1888 Judge E. W. Wells of Prescott and a Mr. Packard became interested in the McCabe claim and 491 feet of the east end of the Sink to Rise. In conjunction with McCabe and Parsons they organized the McCabe Mining Company, adding the Monopolist claim to the group.

In 1901, the McCabe Mining Company was sold to the Model Mining Company. In 1905, the McCabe mine was shut down during an excessively wet season when their pumping equipment was not adequate to handle the combined mine water and the seepage from the surface.

The McCabe group was purchased in December 1905 by the Ideal Mining and Development Company and combined with the Gladstone under the Fennell lease.

Most of the underground work as now shown on the plans

was done during the Fennell operation. Owing to the 1907 panic and the closing down of the Humboldt smelter cutting off his market and also tying up about $20,000 in an unpaid account Fennell became involved and had to cease operations. At the close of the Fennell term the Gladstone shaft had been sunk to the 10th level and some sloping done above the 10th level drift.

The Ideal Company kept the mine unwatered until August 1908 when the property was leased for a year to Massey, Flammer and Company. During this lease the Gladstone shaft was deepened 100 feet to the 11th level. The 11th level drifts were driven 361 feet east of the shaft and 420 feet west. All ore developed was mined and the reserve left by Fennell also taken out.

The Massey, Flammer and Company did not renew their lease at the end of the year. The Ideal Company resumed the pumping and kept the mine unwatered until November 1910. During this period some little work seems to have been done probably by leasers as the last reports show the 11th level heading as 478 feet east from the Gladstone shaft. Since 1910 the mine has been flooded.

A lease was taken on the property in 1915 by the C. M. Wolf Arizona Copper Company and although they did some surface work, they did not unwater the mine or make a serious attempt to operate it.

The property has since been idle except for the leasing of the McCabe mill dumps and a small amount of work which has been done by some leasers west of the Gladstone shaft between the 100 foot level and the surface.

PRESENT DEVELOPMENT.

The surface lay-out and general plan of the property is

shown on Map No. 4. From this plan it will be seen that the Gladstone and McCabe veins are roughly parallel about 250 feet apart on the surface. They are connected half way between the Gladstone and McCabe shafts, which are about 500 feet apart by what is known as the cross vein. The underground workings as they existed at the time the mine was closed down in 1910 are shown on Plan No. 5 which is a vertical longitudinal section taken parallel to the veins. This plate also shows the location of the ore shoots and gives the best general view of the underground work.

Plans Nos. 6 and 7 are horizontal projections of the different levels on a base plane. These Plans give a very good idea of the variation in the dip of the veins which averages 77 degrees S.E. for the McCabe and 72 degrees S.E. for the Gladstone.. The general strike of both veins is N. 56 degrees E. The ore bodies as shown by the workings, followed the Gladstone vein to its intersection with the cross vein thence along the latter to the McCabe vein thence east on the McCabe. The plans almost suggest that the two veins and cross vein are one continuous system. The underground situation in the vicinity of the cross vein is somewhat obscured by the intersection of the so called Gopher dyke.

This dyke which is classified by Lindgren * as rhyolite porphry cuts the cross vein at a slight angle between the Gladstone and McCabe veins. It is apparently post mineral as the cross vein near the intersection was metamorphosed, reducing the sulphides to the metallic state. The dyke itself is practically barren of values except where it seems to have absorbed mineralization from the cross vein. This fracture zone probably extends to great depth and may be the explanation for the ore bodies in its vicinity.

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* Page 130, U. S. Geological Survey Bulletin 782. (1926) by Waldemar Lindgren.

UNDERGROUND CONDITIONS.

At the time of our visit the water level was just below the 100 foot level in the Gladstone shaft and nearer the collar of the McCabe as the latter shaft is on lower ground. Considering the length of time since the timbering in the Gladstone shaft has been in place, the part above the water level is in very good shape and not a great deal of it would have to be replaced. Mr. Davis informed us that he thought some timber would have to be replaced further down.

As we could not investigate the lower levels our opinion of them is based on the company's books which are in excellent shape, smelter returns, assay records and previous reports. The following is an extract from a report prepared by Messrs. E. L. Bartholomew and J. L. Davis in July 1910 while the pumps were still going and the lower levels accessible.

"The 1100 foot level has been driven 478 feet east of the Gladstone shaft and encountered the first ore shoot of commercial value at a distance of 80 feet from the shaft. This was stoped for a length of 30 feet and a height of 13 feet. The ore in this stope shows a total width of 12" and while it was not of sufficient value to warrant further stoping for shipping purposes, the values in the 1000' level immediately above this stope and of which this is supposed to be a continuation were of fair average. This ore shoot has been a very consistent one.

"The second ore shoot was encountered at a distance of 356 feet from the shaft and extends to the face of the drift where further drifting of approximately 100 feet should continue in ore before reaching the end of this shoot at the junction with the Sink to Rise vein. A cut out stope has been taken out for a length of 45 feet along the drift and a height of 8 feet.

"The ore at the back of this stope shows an average width of 23" while in the drift the average wicth was 13".

"The ore shipped from this shoot amounted to 94.41 tons and yielded a gross value of $1872.17.

"This shoot is known as the Boundary Ore Shoot and lies

between the Gladstone and the McCabe Mines in the Cross Vein that joins the Bink to Rise and the Gladstone Veins and which has been consistently stoped from the 1000' level to the surface.

"The 1100 foot L.W. has been driven 421 feet west from the shaft. At a distance of 180 feet a raise was put through to the 1000 foot level and at 290 feet a stope was started which ran for 52 feet along the drift to a height of 26 feet. At 312 feet a winze was sunk to a depth of 11 feet but was discontinued on account of water.

"The drift, from the intersection of the cross cut from the shaft to the face - 421 feet - shows mineral throughout but is of such a disseminated character that its value for shipping purposes is prohibitive and at best would resolve itself into a milling proposition. This condition also holds true in the raise and stope.

"The average width of the ore along the drift for its entire length is 10.2 inches averaging in value $19.98. The ore in the raise averaged in width 15 inches for an assay value of $10.50.

"On the 1000 foot level there is also a body of second class ore containing approximately 650 tons of an average value of about $12, between 80' and 210' west of the shaft."

Regarding the ore in sight the above mentioned report gives the following:-

"With the exception of a block of ground, 100 feet west of the face of the 800 foot level east, in the McCabe mine, about one third of which has been stoped, all of the ore so far developed has been exhausted. The face of the 800 foot L.E. shows 12" of ore of an assay value of 1.14 oz. gold and 2.2 oz. silver, and the highest point in the stope shows 6" of ore assaying 2.10 oz. gold and 1.0 oz. silver.

"In the Gladstone Mine, with the exception of a small pillar containing about 13 tons assaying $40 per ton, between the 400 foot L. and the 500 foot L. and included within chutes 6 and 8 on the 500 foot L; four small pillars between the 800 foot and the 900 foot levels containing approximately 50 tons, assaying $30 per ton and included within chutes 5 and 13 on the 900 foot L.E.; and a small pillar between the 1000 foot and the 900 foot levels and situated between chutes 7 and 14 on the 1000 foot L.E.; all the ore between the McCabe and the Gladstone shafts above the 1000 ft. L. has been exhausted.

"On the 800 foot L.W. from 734' to 912' three pillars of ore have been left containing approximately 70 tons assaying $30 per ton. On the 900 foot L.W. from 500' to 710' five pillars still remain containing approximately 66 tons of an assay value of $30. On the 1000' L.W. from 258' to 500', five pillars still remain containing 55 tons of a value of $30 per ton.

50 Tons

"In addition to this first grade ore, it is probable that some second class ore can be obtained in the vicinity of No. I chute 1000' L. measuring approximately 20' x 25' x 15"."

From the above it will be seen that the blocked out ore reserve is not very large. If the mine is re-opened expectations will have to be based on ore to be opened up by new development with the best prospects apparently on the west end of the property and below the 11th level.

TYPE OF ORE.

The vein material is principally quartz massive rather than drusy. The metallic sulphides usually occur in the central part of the fissure and are present in quantity in the order named: pyrite, arsenopyrite, sphalerite, galena and chalcopyrite. An average analysis of the shipping ore is as follows:- *

Silica	31.4 %
Copper	2.0 %
Lead	2.1 %
Zinc	4.7 %
Iron	24.6 %
Arsenic	3.9 %
Antimony	1.0 %
Sulphur	20.4 %
Gold	1.6 ounces per ton.
Silver	10.2 " " "

"The mill concentrates contained in 1907, for instance 1.1 ounces of gold and 4.1 ounces of silver to the ton. The ore is said to contain also some bismuth."

Quartz

The veins vary in width from 3 to 15 feet. The average width of the shipping ore streak seems to be around 16". However, it is reported that on the 11th level especially to the west of the Gladstone shaft there is considerable ore disseminated through the vein in sufficient quantity to make it a millable product. According to the

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* From page 132, U.S.Geological Survey Bulletin No. 732.

office records the shipping ore developed in driving the IIth level west from the Gladstone shaft over a distance of 370' had an average width of IO.2 inches with gold and silver values amounting to $I9.96 per ton. When the drift was being driven all the vein filling taken out varying from 3 to 5 feet was sent to the mill. The assays show this material averaged 0.392 oz. of gold and 3.54 oz. of silver per ton or a gross value of $9.46 per ton, in these two metals.

PAST PRODUCTION.

From various sources believed to be reliable and the books of the company the following production figures were obtained:

"The gross value of the ores extracted by the locaters and subsequent owners, before the mines came under lease to Cecil G. Fennell is unknown, but from the most reliable information obtainable it is estimated as between $I,000,000. and $I,500,000.

"The gross values extracted by Cecil G. Fennell and the subsequent leasers, as shown by the statement herein, is over $I,490,000. which would make the total production of the property, nearly $3,000,000.

"The gross production of the Gladstone from March, I903, and of the Gladstone and McCabe jointly, from 1906, was as follows:

	First class ore.			Concentrates.		
Year	Tons	Gro. Values	Average	Tons	Gro. Values	Average
I903	2738.3I	$ 57824.I3	$ 2I.II	I8.I8	$ 766.49	$ 42.I5
I904	4976.5I	I82083.42	36.59	384.66	I3070.I2	33.98
I905	4002.I4	I7033I.87	42.56	389.85	I8795.36	32.98
I906	I4684.82	432I64.74	29.43			
I907	III90.I6	336388.67	30.06	4I4.75	I2398.56	29.89
I908	2353.24	74051.58	3I.44	3I.24	872.73	27.93
I909	4I6I.67	I43673.66	34.52	387.53	I2932.69	33.37
"	98.7I	2833.89	28.7I	) These lots were taken out		
I9I0	85.25	3430.40	40.24	) by contractors after ex-		
	44290.8I	$I402782.36	$3I,67-I806.22	) piration of lease.	$58835.95	$32.57

Year	Second Class Ore. Tons	Gro. Value	Average
1906	845.42	$10038.41	$11.87
1907	1889.77	21074.10	11.15
	2735.19	$31112.51	$11.36

Total values, $1,492,730.82

To the above figures which contain shipments down to the close of operations in 1910 may be added $3,802.53 obtained from ore resulting from dump sorting and $45,138.78 representing 3,026 tons of tailings which have been shipped. There have also been removed by leasers during the past two years 8,430 tons of tailings from the McCabe mill dump for which we do not have the gross figures, so the total production of $2,691,672.00 is probably less than the actual amount.

RECOMMENDATIONS.

In order to put the property on a working basis, practically all the necessary equipment would have to be purchased new. A list of the present equipment is attached. This list represents nearly everything that was in use at the time the property was closed down. In looking through the plant even a casual examination discloses that a number of the principal units were in bad repair when last in use. If they had been in good shape at the time of closing down and had the best of care during the intervening sixteen years, they would by this time be so out of date that it is questionable whether a new operator could afford to use them.

The Arizona Power Company now have a transmission line within one mile of the property. If reasonable rates could not be secured from them, which we are quite sure is the case, then an in-

stallation of two or more power units of the deisel or semi-deisel type would be necessary.

The pumping problem is one which should be given careful consideration, but in the light of present day equipment should not present any unusual problems. According to the records the mines seem to have an inflow of water varying from 60 to 80 gallons per minute. The higher figure is for the wet season which is limited in length. A pump capacity of not less than I60 gallons a minute should be provided, so arranged in two units that one could carry the load with the other as a stand-by and reserve.

With the increase in the cost of supplies and labor we do not consider it would be possible to operate as was done in the past, when shipping ore was hand-sorted in the stopes. Under present day practice all material removed from a working width would be sent to a mill operating on the selective flotation principal. This mill should be on the property. It is reported that the Humboldt mill is being altered to handle complexed ores, in which event it might be convenient to sell to them until such time as an ore reserve could be blocked out sufficiently large to justify the erection of a mill.

What has been produced by a mine is little upon which to base predictions as to the future out-put. If the values in lead and zinc are considered, which would be the case if the ore were milled in a flotation mill and an average assay of 0.4 oz. of gold, 3.5 oz. of silver 0.6 % copper, 0.7 % lead I.5 % zinc, which seems to be indicated from the material taken from the west end of the eleventh level, then the gross value would be $I4.2I per ton. Ore of this value handled

Today's price appr. $29.75

at the rate of 250 tons per day should yield a good profit provided competent management and sufficient funds are provided.

Respectfully submitted,

Philadelphia, Pa.
March 31, 1927.

Lloyd T. Emory, Consulting Engineer.

Fred Gibbs, E.M.

SUMMARY.

While the dumps will not give a large profit in excess of the cost of the property, and the money required to equip the property, they will return these outlays figuring gold at Par. If the premium on gold holds as it is today a good profit could be made from just working the dumps.

The water will be taken out of the mine in milling the dumps. The real profit would be made from operating the mine. Have made a careful study of the mine records, and all indications are that the mine contains a considerable tonnage of ore that it will pay to mill, without sinking the shaft deeper. With the five ore bodies going down strong, as they do the outlook for more ore in depth is very good. One of these ore bodies has been worked from surface to the 1100 foot level. It is not reasonable to expect it to cut out at this level. ---

I have maps of the mine, a reconstructed assay map of the lower levels, copies of mill records, and other information that I will gladly show anyone interested. Also list of machinery, buildings etc now on the property.

Would suggest the following to anyone interested. First make check flotation tests of the average dump material here in the East. I have about 50 lbs taken from the test pits, which is as fair an average as I could get. Second, duplicate these tests in Arizona, using water from the mine.

This is too small for the larger operating companys, but is ideal for a few men banded together, as the risk has been eliminated by the sampling work done, as set forth above. The mine has had a good production from hand sorted ore, and with a modern mill, everything points to a good profit from the unmined ore left by former operators.

I am not looking for any commission, but do want the job of running the property, and an interest, after whoever puts up the money gets it all back with interest.

Hopewell, N.J.
September. 18, 33

J.P. Labaw

J.P.Labaw

Nov. 1981

review and input by all interested and

FILE No._____

CONTRACT No. 811

HARBUD MINES COMPANY

Humboldt, Arizona.

CONCENTRATES

Contract Begins March 1, 1934
Contract Expires March 1,1937

AMERICAN SMELTING & REFINING CO.

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"The gross values extracted by Cecil G. Fennell and the subsequent leasers, as shown by the statement herein, is over $I,490,000. which would make the total production of the property, nearly $3,000,000.

"The gross production of the Gladstone from March, I903, and of the Gladstone and McCabe jointly, from 1906, was as follows:

	First class ore.			Concentrates.		
Year	Tons	Gro. Values	Average	Tons	Gro. Values	Average
I903	2738.3I	$ 57824.I3	$ 2I.II	I8.I8	$ 766.49	$ 42.I5
I904	4976.5I	I82083.42	36.59	384.66	I3070.I2	33.98
I905	4002.I4	I7033I.87	42.56	389.85	I8795.36	32.98
I906	I4684.82	432I64.74	29.43			
I907	II190.I6	336388.67	30.06	4I4.75	I2398.56	29.89
I908	2353.24	74051.58	3I.44	3I.24	872.73	27.93
I909	4I6I.67	I43673.66	34.52	387.53	I2932.69	33.37
"	98.7I	2833.89	28.7I	) These lots were taken out		
				) by contractors after ex-		
I9I0	85.25	3430.40	40.24	) piration of lease.		
	44290.8I	$I402782.36	$3I,67-I	806.22	$58835.95	$32.57

Year	Second Class Ore. Tons	Gro. Value	Average
I906	845.42	$I0038.4I	$II.87
I907	I889.77	2I074.I0	II.I5
	2735.I9	$3III2.5I	$II.36

Total values, $I,492,730.82

To the above figures which contain shipments down to the close of operations in I9I0 may be added $3,802.53 obtained from ore resulting from dump sorting and $45,I38.78 representing 3,026 tons of tailings which have been shipped. There have also been removed by leasers during the past two years 8,430 tons of tailings from the McCabe mill dump for which we do not have the gross figures, so the total production of $2,69I,672.00 is probably less than the actual amount.

RECOMMENDATIONS.

In order to put the property on a working basis, practically all the necessary equipment would have to be purchased new. A list of the present equipment is attached. This list represents nearly everything that was in use at the time the property was closed down. In looking through the plant even a casual examination discloses that a number of the principal units were in bad repair when last in use. If they had been in good shape at the time of closing down and had the best of care during the intervening sixteen years, they would by this time be so out of date that it is questionable whether a new operator could afford to use them.

The Arizona Power Company now have a transmission line within one mile of the property. If reasonable rates could not be secured from them, which we are quite sure is the case, then an in-

stallation of two or more power units of the deisel or semi-deisel type would be necessary.

The pumping problem is one which should be given careful consideration, but in the light of present day equipment should not present any unusual problems. According to the records the mines seem to have an inflow of water varying from 60 to 80 gallons per minute. The higher figure is for the wet season which is limited in length. A pump capacity of not less than I60 gallons a minute should be provided, so arranged in two units that one could carry the load with the other as a stand-by and reserve.

With the increase in the cost of supplies and labor we do not consider it would be possible to operate as was done in the past, when shipping ore was hand-sorted in the stopes. Under present day practice all material removed from a working width would be sent to a mill operating on the selective flotation principal. This mill should be on the property. It is reported that the Humboldt mill is being altered to handle complexed ores, in which event it might be convenient to sell to them until such time as an ore reserve could be blocked out sufficiently large to justify the erection of a mill.

What has been produced by a mine is little upon which to base predictions as to the future out-put. If the values in lead and zinc are considered, which would be the case if the ore were milled in a flotation mill and an average assay of 0.4 oz. of gold, 3.5 oz. of silver 0.6 % copper, 0.7 % lead I.5 % zinc, which seems to be indicated from the material taken from the west end of the eleventh level, then the gross value would be $I4.2I per ton. Ore of this value handled

This test was run by Mr. W.W.Watson of Miami, Arizona.

Gladstone - McCabe Dump Composit.

	Wt.gms.	Au oz	Gm-oz Value	Frothing time min.	Ratio of conc.	% Recovery
Heads	1500	.104	156			
Conc.	13	3.44	44.7	5	43:1	77.3
Mids. 1	41	1.30	53.3	5		
Mids. 2	29	.76	22.0	5		
Tails	1417	.025	35.4			

Reagents

10.0 lbs/ton Lime before a 15 minute grind.
.09 " Pine oil)
.20 " Areo Brand Cyanide) Before floating concentrates.
.10 " Butyl Aerofloat)

.10 " Copper sulfate before floating first Mids.
.10 " Amyl Xanthate " " second Mids.

Concentrate slimy. % solids 27.5

This test run by S.R.Burdick of Miami, Arizona.

Gladstone-McCabe Dump Composit.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery	Ratio of conc.
Heads	5848	.134	7836	7	78.9	43.6:1
Conc.	111.2	4.48	4990			
#1 Cl.Tails	292.0	.19	554			
#2 "	264.	.24	634			
Rougher Tails	5180	.032	1658			

Reagents

0.1 lbs/ton Pine oil
.1 " Secondary Buytl Xanthate before floating concentrates.
.1 " " " " " " mids.

Ground 5 minutes in ball mill. Added .1 lb/ton Secondary Butyl Xanthate and .1 lb/ton pine oil. Conditioned 4 min. Frothed 7 min. for concentrates. Added .1 lb/ton Secondary Butyl Xanthate, conditioned for 4 min. and frothed for 8 min. for mids. Refloated mids to clean, and added to rougher conc. Cleaned combined conc. F Feed all -65 mesh. Pulp 27.5% solid.

The following test was run by Mr. D.C.Minton of Tucson, Arizona.

Composit Dump Sample.

	Wt. Gms.	Au zo	Gm-oz Value	% recovery	Conc. ratio
Heads	2000	.135	271		
Conc.	180	1.20	216	80.	9.3;1
Tails	1820	.03	55		

Reagents.

12.0 lb/ton	Soda ash before grinding
.2 "	Pine oil
.3 "	Sodium Xanthate
.2 "	Sodium Aerofloat

The following test was run by Mr. W.W.Watson of Miami,Arizona.

McCabe Dump Sample.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery.
Heads	1500	.094	141		
Conc.	31.5	1.44	45.4	7	79.6
Mids	25.5	2.64	67.3	8	
Tails	1443	.02	28.9		

Reagents

8.0 lb/ton	Na_2CO_3 to ball mill before a 10 minute grind.
.09 "	Pine oil
.02 "	Secondary Butyl Xanthate before floating concentrates.
.08	" " " " " middlings.

Evidently not enough Xanthate to put the bulk of the gold in the concentrates.

FILE No. _____

CONTRACT No. 811

HARBUD MINES COMPANY

Humboldt, Arizona.

CONCENTRATES

Contract Begins March 1, 1934
Contract Expires March 1, 1937

AMERICAN SMELTING & REFINING CO.

The following test was run by Mr. D.C.Minton of Tucson, Arizona.

Composit Dump Sample.

	Wt. Gms.	Au oz	Gm-oz Value	% recovery	Conc. ratio
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.03	"	Pine oil
.02	"	Secondary Butyl Xanthate before floating concentrates.
.08		" " " " " middlings.

Evidently not enough Xanthate to put the bulk of the gold in the concentrates.

HARBUD MINES COMPANY (Seller)

AMERICAN SMELTING AND REFINING COMPANY (Buyer), supplementing the sting agreement between the same parties, March 1, 1934, the sale and purchase of the product of the Seller, hereinafter lled the "original contract".

WHEREAS, at the time the original contract was made, and for ny years prior thereto, the market price of gold was determined th reference to the fixed price of $20.67/ per fine ounce, paid by ne United States for gold delivered at the Mints, hereinafter called he "mint price", and the said price specified in the original con- ract was agreed to in consideration of the said mint price and the ontinuance thereof; and

WHEREAS, by reason of the existing uncertainty in respect to the gold standard as a basis for the currency of this country and the currencies of other countries, and of the possibility of changes in the monetary policy of the Government of the United States and of other governments in relation to gold, gold may cease to be purchased freely for treasury or central bank purposes, or may be purchased in smaller quantities and at different prices, with the result that the market price of gold may cease to be determined in accordance with the price established by governmental purchases, and may be greater or less than the said mint price heretofore fixed in the United States, and may be a fluctuating price; and

WHEREAS, at the present time, in consequence of the Executive Order of the President dated August 29, 1933, the market price of gold recovered from natural deposits in the United States or any place subject to the jurisdiction thereof will, so long as such Executive Order remains in effect, differ materially from the market price prevailing at the time the original contract was made, and will vary in amount from time to time;

SEPT 8, 1978

DUTCH SEEBOLD

PRESCOTT VALLEY, ARIZ

DEAR DUTCH:

ENCLOSED ARE YOUR MAPS & REPORTS ON THE McCABE PROPERTIES.

THANK YOU AGAIN FOR YOUR GENEROUS HOSPITALITY DURING MY VISIT. I ENJOYED MEETING YOUR WIFE & FAMILY,

BEST REGARDS,

George Eliopulos

GEORGE J. ELIOPULOS

AGREEMENT

HARBUD MINES COMPANY SELLS and AMERICAN SMELTING & REFINING COMPANY BUYS.

PRODUCT: The output of concentrates from the McCabe-Gladstone Mine and from other properties leased, controlled or owned by SELLER in the Big Bug Mining District, Yavapai County, Arizona, which SELLER agrees to ship and deliver regularly and currently as produced.

ANALYSIS: SELLER agrees to make such output into a product of substantially the following analysis:

Au	Ag	Pb	Cu	SiO2	Fe	Zn	S	As
1.5	5	4	1.5	46	20	6	10	3.5

TONNAGE: Up to 300 tons per month; tonnage in excess of this amount included at option of BUYER, otherwise excluded.

DURATION: The period covered by this contract is from March 1, 1934 to March 1, 1937, both dates included.

DELIVERY: F.O.B. cars at unloading bins of BUYER'S smelter at El Paso, Texas.

PRICE: The purchase price of the product is the sum of the payments less the sum of the deductions next below specified.

PAYMENTS

GOLD: If three-hundredths of an ounce per dry ton or over, pay for all at nineteen dollars and fifty cents per Troy ounce, except that when the gold content is two and one-half ounces per dry ton or over, pay for all at twenty dollars per Troy ounce. Nothing paid for gold if assaying less than three-hundredths of a Troy ounce per dry ton.

SILVER: Pay for ninety-five per cent at the average of the Handy and Harman New York silver quotations for the calendar week including date of arrival of the material at the plant of the BUYER, less a deduction of one and one-half cents per ounce. Minimum deduction one-half Troy ounce per dry ton.

LEAD: Pay for fifty per cent of the lead contained by wet assay at the average of the daily published quotations of the American Smelting and Refining Company for common desilverized domestic lead for delivery in New York City for the calendar week including date of arrival of last car of each lot at plant of BUYER, less a deduction of 2.5¢ per pound of lead accounted for. Nothing paid for lead if assaying less than five per cent by wet assay.

BULLION FREIGHT: This contract is based on the present all rail freight rate on lead and copper bullion to New York of $12.00 per ton. Any increase or decrease in this rate shall be for SELLER'S account and proper deduction or credit to the respective extent of lead and/or copper paid for shall be made accordingly.

FREIGHT: Deduct freight and other advances made by BUYER.

TAXES: Taxes, Federal or State, now or hereafter imposed in respect to or measured by the product purchased hereunder, or the production, extraction, smelting, refining, sale, transportation, proceeds or value thereof, or of the metals derived therefrom, other than income taxes levied upon the BUYER, shall be for account of the SELLER and shall be deducted from the purchase price payable hereunder.

SAMPLING: Deduct a charge of ten dollars for sampling lots of less than ten tons.

SACKS: Deduct fifty cents per ton for product shipped in sacks.

OTHER TERMS

SETTLEMENT: BUYER will make cash settlement on all shipments without delay following the obtaining of all necessary information.

SAMPLING & ASSAYING: Weighing and sampling (at which SELLER or a representative may be present) as done by BUYER according to standard practice, promptly after receipt of product, will be accepted as final. The absence of SELLER or a representative shall be deemed a waiver of the right in each instance. After sampling, the product may be placed in process, commingled, or otherwise disposed of by BUYER. In case of disagreement on assays, an umpire shall be selected in rotation from a list mutually agreed upon whose assays shall be final if within the limits of the assays of the two parties, and if not the assay of the party nearer to the umpire shall prevail. Losing party shall pay cost of umpire. In case of SELLER'S failure to make or submit assays BUYER'S assays shall govern.

FORCE MAJEURE: Prevention or delay in the performance hereof caused by act of nature, strike, fire, flood, traffic interruption, delay in transportation, insurrection or mob violence, requirement or regulation of Government, financial crisis, cessation of operation at smelter for failure of ore supply or any other reason, or any disabling cause, without regard to the foregoing enumeration, beyond the control of either party, includ-

During the dryer parts of the year the 100 foot level of the Gladstone is just above the water. Since 1910 leasers have done a little work on this level, sorting out some shipping ore. This, in a part of the mine that the former operators considered too low grade to work.

While there is very little ore that one can call blocked out, the outlook for ore below the lowest levels is very good. Also, it seems there is a large tonnage that will pay to mill under todays methods, left in the stopes, and in the vein beyond the boundries of the stopes. Unwatering is the only way to tell just how much of this ore will pay to mill.

The reconstructed essay map gives an idea of the values in the pay-streak on the bottom levels, and what might be expected in depth.

MILL TAILINGS AND MINE DUMPS. There are on the property two mill tailings piles, and four mine dumps that contain gold values as follows:

Tailings. There have been two mills on the property. The first burned after treating a few thousand tons. The tailings pile from this mill was shipped without further treatment a few years ago and averaged just under $15 per ton. This is of interest in showing what must have been the values their mill ore at that time. There are only a few tons of this pile left.

The second mill is still on the property. The tailings from this mill have been sampled by Mr. Starbird, who shipped 8400 tons of them, averaging $7.34 per ton. There are left in this pile about 5600 tons, that bore sampling show to average $4.10 per ton.

Mine Dumps.

The four mine dumpe are known as the Parsons, McCabe Mill, McCabe Shaft and Gladstone Shaft dumps. The first three have been sampled by the A.S.&R& and checked sampled by Burdick. This sampling has been such that the values contained can be accepted as having been established.

The A.S.& P. put down 64 test pits, a great many of them over 20 feet in depth. Each pit was sampled and plotted. I have these dump maps. Also 1/10 of all the material taken from these pits was sent to the smelter, and put through the sampler, one sample from the Parsons dump, one from the McCabe Mill dump and two from the McCabe Shaft dump. I think these samples are more reliable then the pit samples.

The value of the Gladstone dump has been taken as $2.40 per ton. This is based on samples taken from shallow pits and cuts. This dump being 50 feet deep in places testpitting would be very costly. In working very little of the ore hoisted from this shaft was sent to the mill. The shipping ore being sorted out and the rest put in the dump. The mill was connected with the McCabe shaft. From what I am told this has always been considered a little higher grade then the McCabe Shaft dump, so I think taking the value as $2.40 is safe.

In sampling it was found that 75% of the material will pass a 3/4 inch screen.

It is something over 900 feet from the lower part of the Gladstone dump to the lower part of the McCabe Shaft dump. The other mine dumps being between these two. The tailings pile is some 600 feet below the McCabe Shaft dump.

ing, without limitation upon the generality of the foregoing, any cause which would produce a financial loss to either party through performance hereof, in mining, smelting, refining or otherwise, shall entitle the party affected to suspend this contract. In the event of the suspension of this contract under this clause by one party for a continuous period of one hundred days, the other party may at its sole option cancel this contract.

FINITIONS: A ton is 2,000 pounds. A unit is 1% of a ton, or 20 pounds.

VERSION: BUYER may sell or divert the product to any other smelter, and any increase or decrease in freight as against above delivery shall be for BUYER'S account.

SPENSION OF QUOTATIONS: In the event of a suspension of quotations for any cause, resulting in the absence of quotations for the period or date above specified as applicable to any lot of product, the quotations to be used in the case of each such lot will be those for the period or date occurring that number of days later as shall equal the number of days during which quotations were suspended; and settlement will be made in respect to any metal or metals so affected as soon as such deferred quotations are available.

JCCESSION: This contract shall bind and inure to the benefit of the parties hereto, their executors, administrators, legal representatives, successors or assigns, and shall be a covenant running with the land.

This contract shall come into force and effect when signed by both parties and approved by Executive Committee of BUYER.

Signed and dated as of March 1, 1934.

ITNESS: E. J. Sweeney — HARBUD MINES COMPANY
By Howard H. Fields, President

ITNESS: V R Marble — AMERICAN SMELTING & REFINING CO.
By Brent N. Rickard, Manager.

Approved: [signature]
Secretary Executive Committee.

REPORT

ON THE

GLADSTONE-McCABE MINE PROPERTY

BIG BUG MINING DISTRICT

YAVAPAI CO.

ARIZONA

by

LLOYD TILGHMAN EMORY

CONSULTING ENGINEER,

&

FRED GIBBS, E.M.

PHILADELPHIA, PA.

MARCH THE THIRTY-FIRST

1927

~~Dec. 5, 1978~~
December 5, 1978

~~STATEMENT~~
STATEMENT

For: Mr. Richard Schrimsher
Professional
128 South Mountain View
Prescott, Ariz. 86301

Professional Services: October 1-5, 1978

Field work, research and preliminary geological report of the McCabe-Gladstone mine property, Yavapai, Co., Ariz. $700.00

Expenses:

Field milage	209		
Local milage	44		
	253	@ .15 = 41.05	41.00
		Total	$741.00

Thank you,

S. C. Brown
Silas C. Brown
Geologist

October 15, 1978

STATEMENT

For: Mr. Richard Schrimsher
128 South Mountain View
Prescott, Ariz.

Professional Services: October 1-5, 1978

Field work, research and preliminary geological report of the McCabe-Gladstone mine property, Yavapai, Co, Ariz. $700.00

Expenses:

Field milage	209	
Local milage	44	
	253 @ .15 = $41.0Ø	41.00
	Total	$741.00

Thank you,

Silas C. Brown
Geologist

Field - 7 hours
Research
& report 21 "

CONCLUSIONS AND RECOMMENDATIONS

The Gladstone mine has probably been depleted from 1100 foot levels to the surface. ~~however, deeper horizons and lateral extensions, especially westward are very promising for new ore.~~ Good oreshoots were encountered at the 1100 foot level in the Gaadstone mine and there is no reason to believe the ore stops there. Deeper horizons and lateral extension, particularly westward should be explored to outline new ore bodies.

The dumps and tails should be milled using about a 200-ton mill. All data available on the assays indicate the dump and tails material to average at least $30.00 per ton. Present estimates of the volume is 200,000 tons of dump and 100,000 tons of tails, plus or minus 10%.

Mr. J. P. Lebaw in his report of 1933 made the following statement: "If the premium on gold holds as it is today a good profit could be made from just working the dumps".

The Lloyd Emory report of 1926 also recommended the dump material be milled. So A good sampling program should be made as soon as possible.

Because of the location of the property in the mineralized belt of the Bradshaw mountains, the data available showing a good concentration of marketable ore and the easy accessibility to the property all adds up to a good property. A large part of the property still has prospects with depth and lateral extensions from the present mines. Good management and sufficient funds are necessary for a successful operation.

Silas C. Brown
Geologist

PRELIMINARY GEOLOGICAL REPORT 25-14
OF THE 63 MINE
McCABE-GLADSTONE/PROPERTY 30-13
YAVAPAI COUNTY, ARIZONA 23-12

INTRODUCTION

The McCabe-Glasstone mine property consists of eight (8) patented lode claims totaling approximately 160 acres. These claims are located in Sections 21, 29 & 30, T 13 N, R 1 E., G & SRPM., Yavapai County, Arizona.

The writer made a field inspection of the property on October 1, 1978 with Mr. Richard Schrimsher and Mr. Dutch Seebolt of Prescott, Arizona. Because of the flooding and caving conditions of the shafts, most data was acquired from reliable sources such as U. S. Geological Survey Folios, and bulletins, Department of Mineral Resources files, and previous engineering reports.

The property has not been worked since 1934 when a 200-ton flotation mill was used to treat old gob and dump material. The Gladstone shaft was unwatered at that time and some gob removed. No data are available as to the amount of material milled or its value.

A map of the patented claims involved is not included with this report, however, the complete legal description of the acreage involved is available with Mr. Schrimsher of Prescott.

LOCATION & ACCESSIBILITY

The property is located about 4½ miles southwest of the town of Humboldt. The road from Highway I-17, through the Iron King property, is a dirt road which could be made passable for heavy equipment with only limited road work. One culvert should be built in Galena Wash to make the road passable throughlou most of the year.

Most equipment and supplies are available at Prescott, about 20 miles away, or at Phoenix about 70 miles to the south. Super Highways are present to both cities and pass within 3½ miles of the property.

GENERAL GEOLOGY

~~Insert 1~~ The McCabe-Gladstone property lies in a highly mineralized belt in the Bradshaw Mountains. Higher gold concentratio n generally occurs where abundant iron oxides are present. The iron content of the shipping ore from the McCabe and Gladstone mines averaged 24.6%

The country rock is primarily Yavapai Schist and the ore bearing dikes are mostly rhyolite-porphyry. Quartz diorite outcrops out to the west and south. A quartz diorite stock was reported in the mine.

The intersection of two veins is always a good place to explore. This theory has been proven by the stoping of the Boundary Ore shoot form the 1000-foot level to the surface. Below that depth, new ore should be encountered.

The Gladstone dike has an average N 56 E strike and dips 72°SE while the McCabe dike has an average N 56 E strike and a dip of 77° SE. A cross dyke, with a roughly a N-S strike, intersects the McCabe vein near the center of the east half of the Sink to Rise claim. The Gladstone and cross veins intersect on the east line of the Gladstone claim and the south line of the Sink to Rise claim. Emory thinks the cross vein connects and is part of the Gladstone-McCabe veins, however, a core drilling program should be set-up to explore the possible extensions of the cross vein.

The dikes have an average width of about 15 feet, the veins average about 3½ feet and the ore shoots average about 12 inches thick. Assays along the 8th level of the Gladstone mine showed the ore shoots to range from about 6 inches to 60 inches and values from $2.40 to $183.25 using $20/oz. gold and .50/oz silver. Present day prices would average more than 10 times that. The average value of all the assays for 442 feet along the 8th level would be over $40/ton or over $400/ton at todays prices.

PRESENT PROPERTY CONDITIONS

The Gladstone shaft was flooded from 1910 to 1934 when it was unwatered for a short time. In June, 1934, mine ore, mixed with old gob and dump material, was treated in a 200-ton flotation mill operated by H. Fields and Associates. No data are available as to the amount of ore milled, its value or how long the mill operated.

The dumps have a volume of an estimated 200,000 tons, plus or minus 10%. Various assays have ranged from $2.50 to $6.00 per ton with an average of about $4.00. At todays prices the dump is expected to average near $40.00 per ton, taking into account the value of gold, silver, copper, lead and zinc. Using a rather conservative value of $30.00 per ton value, the dump is worth approximately $6,000,000.

In addition to the dump, an estimated 100,000 tons (plus or minus 10%) of tails is also present with an estimated value of about $35.00 per ton. This average value is based on various records of assays taken over the years but mostly prior to 1913. Some of the extreme values were not used as they were no doubt hand picked samples rather than a cross-section of the ore body.

Since the mines have not been worked for the past 65-70 years, the mine is full of water, caved in many places, and the tailings dump has been eroded and breached in many places by runoff and flash floods. Even though the tailing dump is cut up by erosion, large sections do exist and easily available.

A more accurate estimate of the tails and dump is impossible without a more detailed survey and is recommended before machinery is moved in for operations. More complete and reliable samples should also be taked and assayed.

Water from the mine shafts could be used in the milling operation and at the same time dewater the mine. This open up some old gob in the mine. Various extimates of available gob has been given up to 100,000 tons, however, no data are available to varify any amount.

REPORT
ON THE
GLADSTONE-McCABE MINE PROPERTY
BIG BUG MINING DISTRICT,
YAVAPAI CO.
ARIZONA

INTRODUCTION.

The purpose of this investigation was to determine from a personal examination of the surface, underground workings that are accessible, office records and other sources, the present condition of the Gladstone-McCabe property and to condense in an orderly form such data as will assist in determining the advisability of re-opening the mine.

Field work at McCabe was commenced on February 18th and concluded on March 5th. To Mr. John L. Davis of McCabe, the present manager of the property our thanks are due for his hearty co-operation while we were examining the property and records, also for much of the past history of the district.

LOCATION AND ACCESSIBILITY

The property is located in the Big Bug Mining District of Yavapai County, Arizona. It is 4½ miles southwest of the town of Humboldt and 2½ miles northwest from Huron Siding on the Prescott and Middleton Branch of the Atchison Topeka and Santa Fe Railway. It is easily reached over fair country roads from either place. Owing to the very limited passenger train service on the railway, it is much better to motor out from Prescott which is only 20 miles from Humboldt over a state highway. Humboldt is only a smelter town and the shopping facilities are limited, but practically any supplies or light equipment can be purchased in Prescott the county seat of Yavapai County or in

Jerome which is 20 miles northeast also over a state highway. Jerome is the center of a group of rich and producing copper mines of which the United Verde, a Clark property, is the largest. Yavapai County has an annual production from its mines amounting to $20,000,000 a large part of which comes from the Bradshaw and Jerome quadrangles.

TOPOGRAPHY AND CLIMATE.

The Big Bug Mining District is located on the northeast slope of the Bradshaw mountains and the part in which the Gladstone-McCabe group of claims is located might be termed the foot-hill area. A few miles further north the country flattens out into the south end of Lonesome Valley and the view to the northward is almost unlimited. The San Francisco peaks marking the northern horizon are over 70 miles away. Around McCabe the general appearance is of well rounded low hills covered with scrub oak and manzanita. The elevation at the mines is approximately 5200 feet above sea level. The ground rises rapidly to the south west to the summit of Mt. Elliott with an elevation of nearly 7,000 ft.

The climate is temperate and dry so that the extremes which hamper mining operations in so many parts of the world are not experienced. The average rain fall is around 18 inches. The few snows during the winter do not last long below the elevation of 6,000 feet and while the country roads are slippery for a short time after a snow fall or shower, a day of sunshine puts them in a passable condition.

GEOLOGY.

The oldest rock of the district is the Yavapai Schist interpreted as a metamorphosed sediment. Intruded through and at the present time standing above the Schist is the Bradshaw granite, of which

the Bradshaw mountain group is largely composed. The marginal phase of the granite consists of diorite, grano-diorite and monzonite. The general geology is described in the U. S. Geological Survey Atlas, * published some years ago. The geology is described more in detail and considerable information regarding the production of the mines of the district is given in a recently issued bulletin by Waldemar Lindgren.**

The veins carrying the mineral deposits of the district can be divided into two general classes. Quartz-pyrite veins, whose principal values are in gold and silver and quartz and barite veins, whose principal values are in silver, lead and zinc. There are other deposits consisting of pyritic copper deposits in the schist and contact metamorphic deposits, but as the Gladstone-McCabe belongs to the vein type first mentioned these others will not be considered.

The Gladstone-McCabe group is located on the margin of an area of quartz diorite which is intruded into an amphibolitic schist. The Gladstone-and McCabe veins cut across Galena Gulch at so slight an angle that they are nearly parallel to the general trend of the stream. The principal interesting feature of the situation is a rhyolite porphry dyke which cuts the Gladstone and McCabe veins between the two shafts. From what could be learned from the records of the underground work this dyke seems to have been post mineral. However, it has undoubtedly exerted considerable influence on the present ore bodies which will be discussed further on.

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* Folio, #126, Bradshaw Mountains, by Jaggar and Palache 1925.

** U. S. Geological Survey Bulletin, #782. Ore Deposits of the Jerome and Bradshaw Mountain Quadrangles 1926.

6/28/63 Return to Fred Gibbs.

REPORT
ON THE
GLADSTONE - McCABE MINE PROPERTY
YAVAPAI COUNTY
ARIZONA

INTRODUCTION

The object of this report is to set forth, in as brief and orderly a manner as possible, such information as we have, that will assist in determining the advisability of purchasing the property, and equipping it with a mill, to treat the low grade material now in the surface, and later ore from the mine.

The mine has been filled with water since 1910, so no inspection could be made of the underground workings. Mr. J.L.Davis, the former resident agent of the owners, and later caretaker of the property, gave some information as to the underground conditions when the mine shut down, the rest was taken from the mine records, which are quite complete.

My connection with this property started in June, 1932, at which time I visited the property for the owners, to report to them on the condition of the property, and assist in arriving at a fair price for the mine, as they wished to dispose of it.

As a result of this work an option was given to Mr. S.R.Burdick, one of the former engineers of the Miami Copper Co. Mr. Burdick's backers failed him, after he had checked-sampled the dumps and made a lot of flotation tests. His option expired last spring.

In the fall of 1931 the A.S.& R. had an option on the property. Under this option they sampled the dumps in avery thorough manner, but finding the average less than they thought (they expected at least a $4 gold average) did not go ahead. This summer they came back in the picture, asking for a lease, but the owners will not do this. Later they asked the right to cart away 100 tons of the dump material to have a mill run made. This request was granted. Up to Sept. the 14th they had not started to take this 100 tons away. They have no option on theproperty.

PROPERTY

The property consists of six claims, five patented, and one held under location.

LOCATION

The property is in Galena Gulch, in the Big Bug Mining District of Yavapai County, Arizona, 41/2 miles southwest of Humboldt, and 21/2 miles from Huron siding on the Prescott and Middleton branch of the A.T.&S Fe.R.R.

TOPOGRAPHY AND CLIMATE

The mine is in the foot hills of the Bradshaw Mountains, at an elevation of about 4900 feet. The hills are well rounded and covered with brush.

The climate is fairly dry, with an average rainfall of about 18 inches. Snow does not last long below 6000 feet elavation. Nothing to interfere with year around surface work.

HISTORY

The first claim was located in 1883. The cropping having been found in the bottom of the gulch as a result of placer mining. Later other claims were located, and two, or more operations started. Some very rich ore was taken out. Later the six claims were consolidated under the present ownership.

The present owners never operated the mine themselves, but always had it operated under lease, as a rule at a high royalty.

C.G. Fennell operated it from March 1903 to 1907, then Massey, Flannery and Company for a year starting in August 1908. After this the owners kept the water out till the fall of 1910, when the pumps were taken out.

PAST PRODUCTION

The production up to the time of the Fennell lease is unknown, but from the most reliable information obtainable it was something over $1,000,000.

The McCabe was consolidated with the Gladstone in 1906.

The production of the Gladstone from March 1903, and the McCabe from 1906 was as follows:

	Tons	$/ton	Gross Value
First class ore	44,291	$31.67	$1,402,782.
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Concentrates	1,806	32.57	58,836.
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Tailings, lower pile	8,400	7.34	61,656.
Dump sorting			3,802.
		Total	$1,603,328.

It is safe to say that the total production has been in excess of $2,600,000.

GEOLOGY

I did not make a study of the geology of the property. This point is covered in Geological Survey Atlas, Folio 126 by T.A. Jagger, Jr., and Chas. Palache, also in Bulletin 782 U.S. Geological Survey, by Waldemar Lindgren. The latter gives considerable information about this property.

DEVELOPMENT

The mine was operated through two main shafts, the Gladstone, 1100 feet deep, and the McCabe 900 feet deep. These shafts are about 940 feet apart, but connected on several levels. In addition to these there are three small connecting shafts along the vein.

From the mine maps, one gathers there are over 20,000 feet of drifts, but almost no cross-cuts.

The vein has been opened for a length of about 3000 feet, in that length they had five ore bodies. The vein is reported to be from 3 to 10 feet wide. Walls said to stand well.

VEIN

The Vein contains a rich pay streak of shipping ore, this is what the operators were after. This seems to have averaged 16 inches wide through-out

the mine. The vein filling is quartz with sulfides.The sulfides are pyrite, chalcopyrite,galena,sphalerite,arsenopyrite,with possibly very small ammounts of other sulfide minerals.

The vein filling outside of the pay streak carrys some values,but they did not sample it,so it is impossible to state the value,except as stated below.

There are small quartz veins showing on surface that have not been prospected from the mine. These have produced some shipping ore from shallow shafts. On the Western end of the property the main vein cropping shows some copper carbonate,this has not been prospected.

BLOCKED OUT ORE

The former operators were all leasers. All sampling seems to have been confined to the pay streak,so it is impossible to say how much milling ore was left in the mine.

The method of working was to break as little of the low grade ore as possible in getting the high grade,sorting this high grade in the stopes, leaving the milling ore as filling. The stopes are full of this low grade ore, there is a considerable tonnage of it,but as to grade it is impossible to say. The former mine Supt. claims it will run from $4.gold,up. This is impossible to check.

From the records we know low grade ore extends beyond the stopes along the vein,but there are not enough assays in the records to warrent any estimate of either tonnage or value.

We have assays on the lower levels of the unmined pay streak,which the last leasers could not mine under the terms of their lease, this figuring the widt h of the pay streak only gives:

	in/wide	Tons	$/ton	Total
Between the 1000 and 900 levels	Davis est.	650	12.00	7,800
West of the Gladstone shaft ----------				
Between the 1000 and 1100ft levels				
West of Gladstone shaft ----------	11.1	2500	16.20	40,500
East of Gladstone shaft ----------	10.7	1370	20.00	27,400
Between the Gladstone 1000 ft level				
and McCabe 900 ft level ----------	12.6	1400	20.45	28,600
Above McCabe 800 ft level ----------	13.4	450	27.90	12,500
Total		6370	18.35	116,800

On the bottom levels the five ore bodies seem to be going down strong. They have a total length of over 1600 feet along the vein.

In running the 1100 foot level West from the Gladstone shaft for a distance of 368 feet they mined all the vein. It was from 3 to 5 feet wide. All this material was hoisted,and after picking out the larger pumps of shipping ore,the rest was put through the mill. This averaged just under $8 in gold. We do not know just how much was sorted out,nor its value,but if you figure there was none sorted out,and take an average width of 31/2 feet,which I am informed is about correct, And using the widths and assays of the pay-streak as given in the records,the vein material outside the pay-streak must have averaged $6.10 per ton in gold.

During the dryer parts of the year the 100 foot level of the Gladstone is just above the water. Since 1910 leasers have done a little work on this level, sorting out some shipping ore. This, in a part of the mine that the former operators considered too low grade to work.

While there is very little ore that one can call blocked out, the outlook for ore below the lowest levels is very good. Also, it seems there is a large tonnage that will pay to mill under todays methods, left in the stopes, and in the vein beyond the boundries of the stopes. Unwatering is the only way to tell just how much of this ore will pay to mill.

The reconstructed essay map gives an idea of the values in the pay-streak on the bottom levels, and what might be expected in depth.

MILL TAILINGS AND MINE DUMPS. There are on the property two mill tailings piles, and four mine dumps that contain gold values as follows:

Tailings. There have been two mills on the property. The first burned after treating a few thousand tons. The tailings pile from this mill was shipped without further treatment a few years ago and averaged just under $15 per ton. This is of interest in showing what must have been the values their mill ore at that time. There are only a few tons of this pile left.

The second mill is still on the property. The tailings from this mill have been sampled by Mr. Starbird, who shipped 8400 tons of them, averaging $7.34 per ton. There are left in this pile about 5600 tons, that bore sampling show to average $4.10 per ton.

Mine Dumps.

The four mine dumpe are known as the Parsons, McCabe Mill, McCabe Shaft and Gladstone Shaft dumps. The first three have been sampled by the A.S.&R& and checked sampled by Burdick. This sampling has been such that the values contained can be accepted as having been established.

The A.S.& R. put down 64 test pits, a great many of them over 20 feet in depth. Each pit was sampled and plotted. I have these dump maps. Also 1/10 of all the material taken from these pits was sent to the smelter, and put through the sampler, one sample from the Parsons dump, one from the McCabe Mill dump and two from the McCabe Shaft dump. I think these samples are more reliable then the pit samples.

The value of the Gladstone dump has been taken as $2.40 per ton. This is based on samples taken from shallow pits and cuts. This dump being 50 feet deep in places testpitting would be very costly. In working very little of the ore hoisted from this shaft was sent to the mill. The shipping ore being sorted out and the rest put in the dump. The mill was connected with the McCabe shaft. From what I am told this has always been considered a little higher grade then the McCabe Shaft dump, so I think taking the value as $2.40 is safe.

In sampling it was found that 75% of the material will pass a 3/4 inch screen.

It is something over 900 feet from the lower part of the Gladstone dump to the lower part of the McCabe Shaft dump. The other mine dumps being between these two. The tailings pile is some 600 feet below the McCabe Shaft dump.

The values and tonnages of the several dumps is given below.

Dump	Tons	Pit sample average	1/10 bulk average
Parsons	5800	$3.50	$2.90
McCabe Mill	13000	2.29	2.20
McCabe shaft	51,800 lower	3.31	2.60
	upper	2.32	2.60
Tailings	5600	4.13	-
	66,200	This has all been sampled in a thorough manner.	
Gladstone	30,000	Estimated to average $2.40 per ton.	

The analysis of the four bulk samples taken by the A.S.& R. are given below:

	Parsons	McCabe Mill	McCabe shaft	McCabe shaft
Dry tons	13.47	8.27	4.27	31.66
Insoluable	62.4%	65.00 %	64.8 %	68.6 %
Silica	49.4	48.6	50.2	51.6
Alumina	12.0	14.7	14.6	13.6
Zinc	.8	.7	.8	---
Sulphur	2.6	3.2	3.6	----
Iron	15.0	11.0	11.2	10.8
Lime	.7	1.5	1.5	1.5
Copper	.1	.3	.8	.1
Gold oz.	.145	.11	.13	.13
Silver oz.	.56	.65	.49	.43

FLOTATION TESTS

Flotation tests have been made by several parties. The results are given below.

Test run by Mr. W.E.Sands of the Nev. Cons.Copper Co.

	Heads			Tails			Concentrates			
	Wt	Au	Ag	Wt	Au	Ag	Wt	Au	Ag	% Recovery
Bulk	2456	.57	2.38	1922	0.06	0.67	534	2.43	8.05	Au 92.1 Ag 74.1

	Mids									
Cleaner	534	2.43	8.05	176	0.50	1.51	358	3.38	11.26	

Concentrates (Au 86.4, (Ag 69.0

Middlings (Au 6.3, (Ag 4.6

Reagents.

12.2 lbs Soda ash)
0.1 " Sodium Areofloat) 10 minute grind before flotation
0.8 " Copper sulfate)

0.2 lb/t		Amyl Xanthate
2.4	"	Soda ash in cleaner
0.13	"	Pine oil.

The next two tests were run by Mr. C.R.King of the United Verde Copper Co.

Mine dump composit.

Heads		Tails		Concentrates				Conc. Ratio	% recovery Au
Gms	Au oz	Gms	Au oz	Gms	Au oz	Ag oz	cu%		
495.2	0.16	470.	0.025	25.2	2.68	6.50	.8	19.7:1	85.2

Reagents

12.0 lbs/ton		Trona	) Before grinding.
0.6	"	Copper sulfate	) 15 minute grinding.
0.1	"	Sodium Aerofloat	)
0.2	"	Ethyl Xanthate	
.1	"	Sodium silicate	
.1	"	Pine oil.	

Note.

Froth watery, but well flocculated; screen analysis of feed was all through 60 mesh and 18% plus 200 mesh.

McCabe Mill Tailings.

Heads			Tails			Concentrates				Conc. Ratio	% recovery
Gms	Au oz	Ag oz	Gms	Au oz	Ag oz	Gms	Au oz 30	Ag oz	% cu		
493.	0.205	1.46	456	.035	.50	37.	2.9	13.2	2.3	13.3:1	Au 84.3 Ag 68.3

Reagents

16 lbs/ton		Trona. Before a 10 minute grind.
0.3	"	Ethyl Xanthate
0.1	"	Amyl Xanthate
0.15	"	Pine oil.

Note.

Indications are that trona can be cut to about 8 lbs per ton. Froth well mineralized. Screen analysis was all through 60 mesh with 25% on 200 mesh.

The following test was run by Mr. D.C.Minton of Tucson, Arizona.

Composit Dump Sample.

	Wt. Gms.	Au zo	Gm-oz Value	% recovery	Conc. ratio
Heads	2000	.135	271		
Conc.	180	1.20	216	80.	9.3;1
Tails	1820	.03	55		

Reagents.

12.0 lb/ton	Soda ash before grinding
.2 "	Pine oil
.3 "	Sodium Xanthate
.2 "	Sodium Aerofloat

The following test was run by Mr. W.W.Watson of Miami,Arizona.

McCabe Dump Sample.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery.
Heads	1500	.094	141		
Conc.	31.5	1.44	45.4	7	79.6
Mids	25.5	2.64	67.3	8	
Tails	1443	.02	28.9		

Reagents

9.0 lb/ton	Na_2CO_3 to ball mill before a 10 minute grind.
.03 "	Pine oil
.02 "	Secondary Butyl Xanthate before floating concentrates.
.08	" " " " " middlings.

Evidently not enough Xanthate to put the bulk of the gold in the concentrates.

This test was run by Mr. W.W.Watson of Miami, Arizona.

Gladstone - McCabe Dump Composit.

	Wt.gms.	Au oz	Gm-oz Value	Frothing time min.	Ratio of conc.	% Recovery
Heads	1500	.104	158			
Conc.	13	3.44	44.7	5	43:1	77.3
Mids. 1	41	1.30	53.3	5		
Mids. 2	29	.76	12.0	5		
Tails	1417	.025	35.4			

Reagents

10.0 lbs/ton Lime before a 15 minute grind.
.09 " Pine oil)*
.20 " Areo Brand Cyanide) Before floating concentrates.
.10 " Butyl Aerofloat)

.10 " Copper sulfate before floating first Mids.
.10 " Amyl Xanthate " " second Mids.

Concentrate slimy. % solids 27.5

This test run by S.R.Burdick of Miami, Arizona.

Gladstone-McCabe Dump Composit.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery	Ratio of conc.
Heads	5848	.134	7836	7	78.9	43.6:1
Conc.	111.2	4.48	4980			
#1 Cl.Tails	292.0	.19	554			
#2 "	264.	.24	634			
Rougher Tails	5180	.032	1658			

Reagents

0.1 lbs/ton Pine oil
.1 " Secondary Buytl Xanthate before floating concentrates.
.1 " " " " " " mids.

Ground 5 minutes in ball mill. Added .1 lb/ton Secondary Butyl Xanthate and .1 lb/ton pine oil. Conditioned 4 min. Frothed 7 min. for concentrates. Added .1 lb/ton Secondary Butyl Xanthate, conditioned for 4 min. and frothed for 8 min. for mids. Refloated mids to clean, and added to rougher conc. Cleaned combined conc. Feed all -65 mesh. Pulp 27.5% solid.

It will be seen by the foregoing tests, that there is no question about floating this ore. It seems that one can expect a recovery of 80%, or better with the grade of concentrate around $100.

Panning tests on the dumps show a little free gold. I think it very possible to increase the total recovery by taking care of this free gold before it goes to the foltation machine. There are several ways this can be done at very slight cost.

COST OF MILLING

In figuring the cost of milling I do not know just the wages that are being paid in this section under the N.R.A., but feel I have figured high enough. I have the power rate from the power company, a power line crosses the property.

These figures are based on using a small shovel, and two small dump trucks to get the material in the mill bin.

Labor	$0.41 Per ton
Power	.27
Supplies	.14
Marketing	.37
Total	$1.19

These figures may seem low, but the ore is soft and grinds easily.

The above figures are based on milling 3600 tons per month.

The marketing cost is high, and is based on shipping the concentrates to El Paso. It may be possible to ship to a smelter much nearer. The United Verde and the United Verde Extention smelters are not over 50 miles from the mine,

Cost of Mill

By using good second hand machinery I estimate a mill of 150 tons daily capacity can by put on the property togather with the dump equipment, for not over $40,000. This will have to be checked by getting actual bids on machinery. The present mill building could be used, also there is quite a lot of other stuff on the property that can be used, thus saving money.

PROFIT IN DUMPS

In figuring the profit to be made from working the dumps all figures are based on gold at par, and no account is taken for silver or copper values which will be in the concentrates. From what we know there will always be a few ounces of silver present, and in some cases enough copper to be paid for.

The profits are figured on a concentrate running $100 per ton, an 80% gold recovery endmilling cost of $1.20 per ton. It seems reasonably sure that a little better recovery than this can be made, but this is safe.

In figuring the value of the dumps I have taken the 1/10 bulk dump samples as taken by the A.S.&R& for the three dumps so sampled by them, as I think this is the most reliable sampling.

Dump	Tons	$Gold Value	80%	Milling	Profit	Total Profit
Tailings	5600	$4.10	$3.28	$1.20	$2.08	$11,648.
Parsons	5800	2.90	2.32	1.20	1.12	6,496
McCabeMill	2000	2.48	1.98	1.20	.78	1,560
McCabeShaft	43000	2.60	2.08	1.20	.88	37,840
Gladstone	30000	2.40	1.92	1.20	.72	21,600
Totals	86400					$79,141

While I have taken the values of the three dumps sampled by the A.S.& R as shown by their total samples I have deducted almost 10,000 tons from their estimate for parts of the dump that showed to be quite a-bit-below the average. this should give a higher average mill feed then I have figured. I have not figured a few hundred tons of much higher grade material that will be milled.

It is also well to figure on time of milling,and premium of gold. In milling, one would mill the tailings pile first,this would be followed by the Parsons dump and the McCabe shaft dump. Figuring on milling 3600 tons per month, we have:

Dump		Time to mill	Profit Gold at par	Additional profit for each $1 premium per oz.
Tailings	5600	1.55months	$11,648,	$840.00
Parsons	5800	1.61	6,496	672.00
McCabe shaft dump is so large we will figure the profit made-per month.				
	3600	1.0	3,168.	374.00

In other words the first years milling would give a profit of$46149 with gold at par,and an additional profit of $4818 for each $1 premium on gold.

The water for milling will have to be pumped from the mine. The mine makes from 60 to 80 gallons per minute,thus to run the mill you would lower the water slowly,and get into the successive levels to sample the stope fillings and lower grade ore left by the former operators. This at no additional cost, except the actual sampling. If this sampling comes up to what one is lead to expect from the records the shaft can be put in shape to hoist ore.

From what one can find out the Gladstone shaft should be in fairly good condition,except possible for about 100 feet between the 300 and 400 foot levels, above the water the timbers seem in good shape. The McCabe shaft would probably be found in rather bad shape. It is stated that the walls of the vein stand well.

OWNERSHIP

This property is owned by the Estate of Mr. C.M.Chapin and Mr. Arthur W Turnbull. Mr. Turnbull is getting along in years,and does not care to operate the mine,and the Chapin Estate could not do it very well,so the property is for sale.

PRICE. The owners realize it is impossible to examine the mine workings,and do not care to put them in shape for examination,so have based their price on the net value of the mine dumps. The price will be such that the working of the dumps will pay for the property,repay the investment required to put a mill on the property,and give a small profit in addition. A small cash payment may be asked, theother payments being so arranged that they can be made out of profits.

SUMMARY.

While the dumps will not give a large profit in excess of the cost of the property, and the money required to equip the property, they will return these outlays figuring gold at Par. If the premium on gold holds as it is today a good profit could be made from just working the dumps.

The water will be taken out of the mine in milling the dumps. The real profit would be made from operating the mine. Have made a careful study of the mine records, and all indications are that the mine contains a considerable tonnage of ore that it will pay to mill, without sinking the shaft deeper. With the five ore bodies going down strong, as they do the outlook for more ore in depth is very good. One of these ore bodies has been worked from surface to the 1100 foot level. It is not reasonable to expect it to cut out at this level. ---

I have maps of the mine, a reconstructed assay map of the lower levels, copies of mill records, and other information that I will gladly show anyone interested. Also list of machinery, buildings etc now on the property.

Would suggest the following to anyone interested. First make check flotation tests of the average dump material here in the East. I have about 50 lbs taken from the test pits, which is as fair an average as I could get. Second, duplicate these tests in Arizona, using water from the mine.

This is too small for the larger operating companys, but is ideal for a few men banded together, as the risk has been eliminated by the sampling work done, as set forth above. The mine has had a good production from hand sorted ore, and with a modern mill, everything points to a good profit from the unmined ore left by former operators.

I am not looking for any commission, but do want the job of running the property, and an interest, after whoever puts up the money gets it all back with interest.

Hopewell, N.J.
September. 18, 33

J.P.Labaw
J.P.Labaw

6/28/65 Return to Fred Gibbs.

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ON THE
GLADSTONE - McCABE MINE PROPERTY
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INTRODUCTION

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The mine has been filled with water since 1910, so no inspection could be made of the underground workings. Mr. J.L.Davis, the former resident agent of the owners, and later caretaker of the property, gave some information as to the underground conditions when the mine shut down, the rest was taken from the mine records, which are quite complete.

My connection with this property started in June, 1932, at which time I visited the property for the owners, to report to them on the condition of the property, and assist in arriving at a fair price for the mine, as they wished to dispose of it.

As a result of this work an option was given to Mr. S.R.Burdick, one of the former engineers of the Miami Copper Co. Mr. Burdick's backers failed him, after he had checked-sampled the dumps and made a lot of flotation tests. His option expired last spring.

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It is safe to say that the total production has been in excess of $2,800,000.

GEOLOGY

I did not make a study of the geology of the property. This point is covered in Geological Survey Atlas, Folio 136 by T.A. Jagger, Jr., and Chas. Palache, also in Bulletin 782 U.S. Geological Survey, by Waldemar Lindgren. The latter gives considerable information about this property.

DEVELOPMENT

The mine was operated through two main shafts, the Gladstone, 1100 feet deep, and the McCabe 900 feet deep. These shafts are about 940 feet apart, but connected on several levels. In addition to these there are three small connecting shafts along the vein.

From the mine maps, one gathers there are over 20,000 feet of drifts, but almost no cross-cuts.

The vein has been opened for a length of about 3000 feet, in that length they had five ore bodies. The vein is reported to be from 3 to 10 feet wide. Walls said to stand well.

VEIN

The Vein contains a rich pay streak of shipping ore, this is what the operators were after. This seems to have averaged 16 inches wide through-out

the mine. The vein filling is quartz with sulfides.The sulfides are pyrite, chalcopyrite,galena,sphalerite,arsenopyrite,with possibly very small ammounts of other sulfide minerals.

The vein filling outside of the pay streak carrys some values,but they did not sample it,so it is impossible to state the value,except as stated below.

There are small quartz veins showing on surface that have not been prospected from the mine. These have produced some shipping ore from shallow shafts. On the Western end of the property the main vein cropping shows some copper carbonate,this has not been prospected.

BLOCKED OUT ORE

The former operators were all leasers. All sampling seems to have been confined to the pay streak,so it is impossible to say how much milling ore was left in the mine.

The method of working was to break as little of the low grade ore as possible in getting the high grade,sorting this high grade in the stopes, leaving the milling ore as filling. The stopes are full of this low grade ore, there is a considerable tonnage of it,but as to grade it is impossible to say. The former mine Supt. claims it will run from $4.gold,up. This is impossible to check.

From the records we know low grade ore extends beyond the stopes along the vein,but there are not enough assays in the records to warrent any estimate of either tonnage or value.

We have assays on the lower levels of the unmined pay streak,which the last leasers could not mine under the terms of their lease, this figuring the width of the pay streak only gives:

	in/wide	Tons	$/ton	Total
Between the 1000 and 900 levels	Davis est.	650	12.00	7,800
West of the Gladstone shaft ----------				
Between the 1000 and 1100ft levels				
West of Gladstone shaft ----------	11.1	2500	16.20	40,500
East of Gladstone shaft ----------	10.7	1370	20.00	27,400
Between the Gladstone 1000 ft level				
and McCabe 900 ft level ----------	12.6	1400	20.45	28,600
Above McCabe 800 ft level ----------	13.4	450	27.90	12,500
Total		6370	18.35	116,800

On the bottom levels the five ore bodies seem to be going down strong. They have a total length of over 1600 feet along the vein.

In running the 1100 foot level West from the Gladstone shaft for a distance of 368 feet they mined all the vein. It was from 3 to 5 feet wide. All this material was hoisted,and after picking out the larger bumps of shipping ore,the rest was put through the mill. This averaged just under $8 in gold. We do not know just how much was sorted out,nor its value,but if you figure there was none sorted out,and take an average width of 31/2 feet,which I am informed is about correct, And using the widths and assays of the pay-streak as given in the records,the vein material outside the pay-streak must have averaged $6.10 per ton in gold.

PAST HISTORY.

The Sink to Rise claim was located in 1883 by Frank McCabe and the Gladstone by W. C. Parsons. The two locaters shortly afterwards formed a partnership and operated the properties together for some time. Later the Gladstone group which was composed of the Gladstone, the western end of the Sink to Rise and the Gladstone Westerly Extension was worked by W. C. Parsons and Henry McCrum of San Francisco under the partnership arrangement which continued until 1900 when they sold out to a New York syndicate organized by Duncan N. Hood and incorporated under the name of the Ideal Mining and Development Co.

The Ideal Company sank the Gladstone shaft 600 feet and did some drifting, but failed to develop any large ore body. (See Plate No. 4). Owing to the discouraging results obtained they ceased operations and leased their property in 1903 to Cecil G. Fennel.

In 1888 Judge E. W. Wells of Prescott and a Mr. Packard became interested in the McCabe claim and 491 feet of the east end of the Sink to Rise. In conjunction with McCabe and Parsons they organized the McCabe Mining Company, adding the Monopolist claim to the group.

In 1901, the McCabe Mining Company was sold to the Model Mining Company. In 1905, the McCabe mine was shut down during an excessively wet season when their pumping equipment was not adequate to handle the combined mine water and the seepage from the surface.

The McCabe group was purchased in December 1905 by the Ideal Mining and Development Company and combined with the Gladstone under the Fennell lease.

Most of the underground work as now shown on the plans

The values and tonneges of the several dumps is given below.

Dump	Tons	Pit sample average	1/10 bulk average
Parsons	5800	$3.50	$2.90
McCabe Mill	3000	2.29	2.20
McCabe shaft	51,800 lower	3.31	2.80
	upper	2.32	2.60
Tailings	5600	4.13	
	66,200	This has all been sampled in a thorough manner.	
Gladstone	30,000	Estimated to average $2.40 per ton.	

The analysis of the four bulk samples taken by the A.S.& R. are given below:

	Parsons	McCabe Mill	McCabe shaft	McCabe shaft
Dry tons	13.47	8.27	4.27	31.66
Insoluable	62.4%	65.00 %	64.8 %	68.6 %
Silica	49.4	48.6	50.2	51.6
Alumina	12.0	14.7	14.6	13.6
Zinc	.8	.7	.8	---
Sulphur	3.6	3.2	3.6	----
Iron	15.0	11.0	11.2	10.8
Lime	.7	1.5	1.5	1.5
Copper	.1	.3	.8	.1
Gold oz.	.145	.11	.13	.13
Silver oz.	.56	.65	.49	.43

FLOTATION TESTS

Flotation tests have been made by several parties. The results are given below.

Test run by Mr. W.E.Sands of the Rev. Cons.Copper Co.

	Heads			Tails			Concentrates			
	Wt	Au	Ag	Wt	Au	Ag	Wt	Au	Ag	% Recovery
Bulk	2458	.57	2.38	1922	0.06	0.67	534	2.43	8.05	Au 82.1 Ag 74.1
				Mids						
Cleaner	534	2.43	8.05	176	0.50	1.51	358	3.38	11.26	
							Concentrates			(Au 86.4 (Ag 69.0
							Middlings			(Au 6.3 (Ag 4.6

Reagents.

12.2 lbs Soda ash)
0.1 " Sodium Areofloat) 10 minute grind before flotation
0.8 " Copper sulfate)

0.2 lb/t Amyl Xantheta
2.4 " Soda ash in cleaner
0.13 " Pine oil.

The next two tests were run by Mr. C.R.King of the United Verde Copper Co.

Mine dump composit.

Heads		Tails		Concentrates				Conc. Ratio	% recovery Au
Gms	Au oz	Gms	Au oz	Gms	Au oz	Ag oz	cu%		
495.2	0.16	470.	0.025	25.2	2.68	6.50	.8	19.7:1	65.2

Reagents

12.0 lbs/ton Trona) Before grinding.
0.6 " Copper sulfate) 15 minute grinding.
0.1 " Sodium Aerofloat)
0.2 " Ethyl Xanthate
.1 " Sodium silicate
.1 " Pine oil.

Note.
Froth watery, but well flocculated; screen analysis of feed was all through 60 mesh and 18% plus 200 mesh.

McCabe Mill Tailings.

Heads			Tails			Concentrates				Conc. Ratio	% recovery
Gms	Au oz	Ag oz	Gms	Au oz	Ag oz	Gms	Au oz	Ag oz	% cu		
493.	0.205	1.46	456	.035	.50	37.	3.0 (30)	13.2	2.3	13.3:1	Au 84.3 Ag 68.3

Reagents
16 lbs/ton Trona. Before a 10 minute grind.
0.3 " Ethyl Xanthate
0.1 " Amyl Xanthate
0.15 " Pine oil.

Note.
Indications are that trona can be cut to about 8 lbs per ton. Froth well mineralized. Screen analysis was all through 60 mesh with 25% on 200 mesh.

The following test was run by Mr. D.C.Minton of Tucson, Arizona.

Composit Dump Sample.

	Wt. Gms.	Au zo	Gm-oz Value	% recovery	Conc. ratio
Heads	2000	.135	271		
Conc.	180	1.20	216	80.	9.3;1
Tails	1820	.03	55		

Reagents.

12.0 lb/ton	Soda ash before grinding
.2 "	Pine oil
.3 "	Sodium Xanthate
.2 "	Sodium Aerofloat

The following test was run by Mr. W.W.Watson of Miami,Arizona.

McCabe Dump Sample.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery.
Heads	1500	.094	141		
Conc.	31.5	1.44	45.4	7	79.6
Mids	25.5	2.64	67.3	8	
Tails	1443	.02	28.9		

Reagents

8.0 lb/ton	Na_2CO_3 to ball mill before a 10 minute grind.
.09 "	Pine oil
.02 "	Secondary Butyl Xanthate before floating concentrates.
.08	" " " " " middlings.

Evidently not enough Xanthate to put the bulk of the gold in the concentrates.

This test was run by Mr. T.F.Tatson of Miami, Arizona.

Gladstone - McCabe Dump Composit.

	Wt.gms.	Au oz	Gm-oz Value	Frothing time min.	Ratio of conc.	% Recovery
Heads	1500	.104	155			
Conc.	13	3.44	44.7	5	43:1	77.3
Mids. 1	41	1.30	53.3	5		
Mids. 2	29	.76	12.0	5		
Tails	1417	.025	35.4			

Reagents

10.0 lbs/ton Lime before a 15 minute grind.
.09 " Pine oil)
.20 " Areo Brand Cyanide) Before floating concentrates.
.10 " Butyl Aerofloat)

.10 " Copper sulfate before floating first mids.
.10 " Amyl Xanthate " " second mids.

Concentrate slimy. % solids 27.5

This test run by S.R.Burdick of Miami, Arizona.

Gladstone-McCabe Dump Composit.

	Wt Gms	Au oz	Gm-oz value	Frothing time	% recovery	Ratio of conc.
Heads	5848	.134	7836	7	78.9	43.6:1
Conc.	111.2	4.48	4980			
#1 Cl.Tails	292.0	.19	554			
#2 "	264.	.24	634			
Rougher Tails	5180	.032	1658			

Reagents

0.1 lbs/ton Pine oil
.1 " Secondary Buytl Xanthate before floating concentrates.
.1 " " " " " " mids.

Ground 5 minutes in ball mill. Added .1 lb/ton Secondary Butyl Xanthate and .1 lb/ton pine oil. Conditioned 4 min. Frothed 7 min. for concentrates. Added .1 lb/ton Secondary Butyl Xanthate, conditioned for 4 min. and frothed for 8 min. for mids. Refloated mids to clean, and added to rougher conc. Cleaned combined conc. Feed all -65 mesh. Pulp 27.5% solid.

It will be seen by the foregoing tests, that there is no question about floating this ore. It seems that one can expect a recovery of 80%, or better with the grade of concentrate around $100.

Panning tests on the dumps show a little free gold. I think it very possible to increase the total recovery by taking care of this free gold before it goes to the foltation machine. There are several ways this can be done at very slight cost.

COST OF MILLING

In figuring the cost of milling I do not know just the wages that are being paid in this section under the N.R.A., but feel I have figured high enough. I have the power rate from the power company, a power line crosses the property.

These figures are based on using a small shovel, and two small dump trucks to get the material in the mill bin.

Labor	$0.41 Per ton
Power	.27
Supplies	.14
Marketing	.57
Total	$1.19

These figures may seem low, but the ore is soft and grinds easily.

The above figures are based on milling 3600 tons per month.

The marketing cost is high, and is based on shipping the concentrates to El Paso. It may be possible to ship to a smelter much nearer. The United Verde and the United Verde Extention smelters are not over 50 miles from the mine,

Cost of Mill

By using good second hand machinery I estimate a mill of 150 tons daily capacity can by put on the property together with the dump equipment, for not over $40,000. This will have to be checked by getting actual bids on machinery. The present mill building could be used, also there is quite a lot of other stuff on the property that can be used, thus saving money.

PROFIT IN DUMPS

In figuring the profit to be made from working the dumps all figures are based on gold at par, and no account is taken for silver or copper values which will be in the concentrates. From what we know there will always be a few ounces of silver present, and in some cases enough copper to be paid for.

The profits are figured on a concentrate running $100 per ton, an 80% gold recovery and milling cost of $1.20 per ton. It seems reasonably sure that a little better recovery than this can be made, but this is safe.

In figuring the value of the dumps I have taken the 1/10 bulk dump samples as taken by the A.S.&R. for the three dumps so sampled by them, as I think this is the most reliable sampling.

Dump	Tons	$Gold Value	60%	Milling	Profit	Total Profit
Tailings	5600	$4.10	$3.28	$1.20	$2.08	$11,648.
Parsons	5800	3.00	2.32	1.20	1.12	6,496
McCabeMill	2000	2.48	1.98	1.20	.78	1,560
McCabeShaft	43000	3.60	2.08	1.20	.88	37,840
Gladstone	30000	3.40	1.92	1.20	.72	21,600
Totals	88400					$79,141

While I have taken the values of the three dumps sampled by the A.S.& R as shown by their total samples I have deducted almost 10,000 tons from their estimate for parts of the dump that showed to be quite a bit below the average. this should give a higher average mill feed then I have figured. I have not figured a few hundred tons of much higher grade material that will be milled.

It is also well to figure on time of milling,and premium of gold. In milling, one would mill the tailings pile first,this would be followed by the Parsons dump and the McCabe shaft dump. Figuring on milling 3600 tons per month, we have:

Dump		Time to mill	Profit Gold at par	Additional profit for each $1 premium per oz.
Tailings	5600	1.55months	$11,648,	$840.00
Parsons	5800	1.61	6,496	872.00
McCabe shaft dump is so large we will figure the profit made per month.				
	3600	1.0	3,168.	374.00

In other words the first years milling would give a profit of$46149 with gold at par,and an additional profit of $4818 for each $1 premium on gold.

The water for milling will have to be pumped from the mine. The mine makes from 60 to 80 gallons per minute,thus to run the mill you would lower the water slowly,and get into the successive levels to sample the stope fillings and lower grade ore left by the former operators. This at no additional cost, except the actual sampling. If this sampling comes up to what one is lead to expect from the records the shaft can be put in shape to hoist ore.

From what one can find out the Gladstone shaft should be in fairly good condition,except possible for about 100 feet between the 300 and 400 foot levels, above the water the timbers seem in good shape. The McCabe shaft would probably be found in rather bad shape. It is stated that the walls of the vein stand well.

OWNERSHIP

This property is owned by the Estate of Mr. C.M.Chapin and Mr. Arthur T Turnbull. Mr. Turnbull is getting along in years,and does not care to operate the mine,and the Chapin Estate could not do it very well,so the property is for sale.

PRICE. The owners realize it is impossible to examine the mine workings,and do not care to put them in shape for examination,so have based their price on the net value of the mine dumps. The price will be such that the working of the dumps will pay for the property,repay the investment required to put a mill on the property,and give a small profit in addition. A small cash payment may be asked, theother payments being so arranged that they can be made out of profits.