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MO HO MINE
MINERAL COUNTY, NEVADA

Report by Ferd. Meinecke, Jr.
December 15, 1934

See also map files
(3 maps)

I N D E X

M A P S

Ferd. Meinecke, Jr.,
Engineer of Mines,
Los Angeles, Calif.

December 15th, 1934.

Rico Minerals Coporation,
514 Rives Strong Bldg.,
Los Angeles, Cal.

Gentlemen:

Pursuant to your request, I have made two separate examinations of the Mo Ho mine and group of claims, and herewith submit this brief summary together with my detailed attached report.

The Mo Ho mine is situated in the Black Mountain or Belleview Mining District, Mineral County, Nevada. There are 13 claims in the group, held by location and the records show a clear title.

The ore occurs in two distinct fissures, passing north and south, through a series of andesitic flows, which were intruded into a series of quartzites.

Development work has shown an almost continuous ore shoot on the Mo Ho vein, 4000 feet in length. Besides the Mo Ho fissure there is another parallel fissure, 300 feet west which is proven by a shaft 350 feet in depth on the incline and by tunnels along a distance of 2000 feet. Ore shipments from this shaft averaged $33.84 per ton, at the present prices of gold and silver, namely, $35.00 per ounce for gold, and 64½¢ per ounce for silver. Both these fissures are true fissure veins and there is every reason to believe that the values will go to depth.

In making my report I had access to three assay maps, made by independent engineers and was able to check my sampling with theirs. The average of all samples, over 800, show an average width of 3.2'and an average value of $8.62 per ton for the two veins wherever sampled. This I believe may be considered the actual average of the ore bodies as previously worked and now opened up for further development.

From my examination and the data at hand I was able to establish the following:-

103,090 tons of positive ore including 16,000 tons of ore in dumps of a total gross value of ------	$	943,496.00
157.252 tons of probable ore of a gross value of - -----1		,344,512.00
314,601 tons of possible ore of a gross value of ------		2,711,860.00

Ample water is near at hand and mining conditions are very good. At a production of 150 tons per day mining costs should not exceed $1.50 per ton, and at the same rate milling should not exceed $1.50 per ton. With an 85% recovery through the use of cyanide there should be a net profit of $3.33 per ton, for each ton mined and milled. Taking the positive ore and the dump ore alone into consideration, there should be a net profit of $299,863.00 realized from mining and milling the positive ore and $33,600.00 in milling the dump ores or a total net profit of $333,463.00.

In my estimation it will take $150,000.00 to properly equip the property and place it on a dividend basis.

Because of the favorable operating conditions, combined with the even distribution of values throughout the two veins, I consider this property a most attractive mining investment. and one that with sufficient capital, supplied as needed, and intelligent technical management, will pay very satisfactory returns on the money invested.

Yours respectfully,

Fred. Meuneke Jr.

Engineer of Mines.

FM/BM

LOCATION

The Mo Ho mine is situated in the Black Mountain or Belleview Mining District, Mineral County, Nevada. It is about 14 miles West of Sodaville, on the Tonopah and Goldfield Railroad, and six miles northwest of Belleville, a station on the N. & C. narrow gauge railroad, running from Mina, Nevada to Keeler, California.

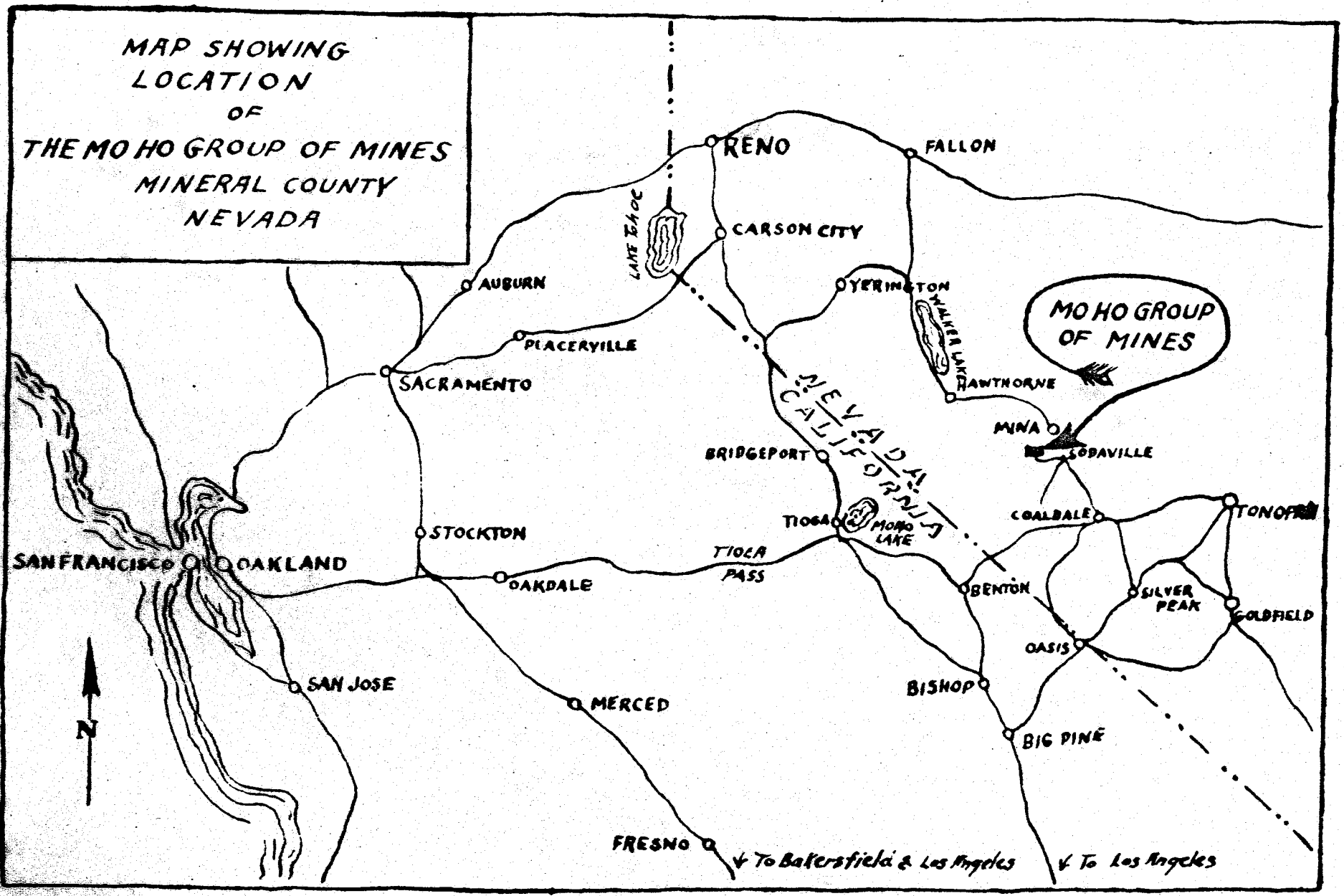
The old and rich silver camp of Candelaria is about 12 miles east, and the old camp of Marietta is about 4 miles southwest.

There is a fair road, which has several steep grades, from Sodaville to the mine. Any machinery which may be needed for operations can be easily transported over it. Sodaville is on the main highway from Bishop, California to Reno, Nevada. Mina, Nevada, a town of about 500 population is 19 miles from the mine, where some of the ordinary supplies can be purchased.

The property lies on the southern slope of the Excelsior Mountains at an elevation of between 8000 feet above sea level at the camp, to 9000 feet at the uppermost workings of the mine.

GENERAL DESCRIPTION

The property consists of 12 lode claims and a mill site held by location, approximately 245 acres, situated in Section 25 - T 5 N, R 33E, MDM and Section 30 - T 5 N, R 34 E, MDM.


MAP SHOWING
LOCATION
OF
THE MO HO GROUP OF MINES
MINERAL COUNTY
NEVADA
RENO
FALLON
LAKE TAHOE
CARSON CITY
AUBURN
YERINGTON
WALKER LAKE
MO HO GROUP
OF MINES
PLACERVILLE
SACRAMENTO
HAWTHORNE
NEVADA
CALIFORNIA
MINA
SODAVILLE
BRIDGEPORT
COALDALE
TONOPAH
TIOGA
MONO LAKE
STOCKTON
TIOGA PASS
SAN FRANCISCO
OAKLAND
OAKDALE
BENTON
SILVER PEAK
GOLDFIELD
OASIS
N
SAN JOSE
MERCED
BISHOP
BIG PINE
FRESNO
To Bakersfield & Los Angeles
To Los Angeles

The names of the locations are:

Silver	Hill	No.	1	Silver	Hill	No.	8
"	"	"	2	Freja		"	1
"	"	"	3	"		"	2
"	"	"	4	"		"	3
"	"	"	5	"		"	4
"	"	"	6				
"	"	"	7				

These claims were all surveyed by L. B. Spencer, M. E. of Mina, Nevada, in 1927 and the corners correctly placed and marked by good substantial stakes, which are still in place.

The accompanying map, Plate No. 1, will illustrate this more fully. This map was constructed from the survey made by Spencer. It is made on a scale of 1" - 200' and is fairly correct and represents the metes and bounds and claim area of the property, and also shows the relation of the underground and surface workings with respect to the claims.

HISTORY

The property was located in March 1904, and has shipped intermittenly to smelters. A portion of the record of the production is only available and shows 734 tons shipped in 1915. This is shown in detail on the next page. At the time of shipment freight was $7.70 and treatment $6.00, so it was evident that a $20.00 or better per ton ore must have been shipped. This ore, taking only the silver and gold values into consideration and disregarding the lead, at $35.00 for gold and 64½ cents for silver, would average $33.84 per ton. The owners estimate the total production at about $60,000.00 which seems likely.

According to information at hand the mine was never directly operated by the owners, but has been let out to

leasers, which accounts for the unsystematic way in which development work has been carried on. There are two leasers, with temporary leases on the property now, who have shipped 3 cars averaging $27.00 in gold and silver.

SHIPMENTS TO WESTERN ORE PURCHASING COMPANY, RENO, NEVADA. IN 1915, MOSTLY SHOEMAKER WORKINGS.

LOT NO.	WET Weight	GOLD oz.	SILVER oz.	LEAD %	SETTLEMENT PER TON	(GOLD & SILVER ONLY) @ $35. & 64½¢ oz
5095	85580	.55	6.1	6.2	$28.32	$23.22
5099	73150	.55	5.0	6.6	27.92	22.50
5101	59260	.53	7.0	7.8	31.61	23.10
5106	70120	.79	7.9	13.0	46.98	32.79
5131	25240	.88	16.3	12.6	56.54	51.49
5134	103020	.65	8.3	10.0	39.24	28.14
5164	48240	1.03	9.2	19.2	64.09	42.03
5165	43120	1.13	7.2	15.7	58.04	44.23
5163	48940	.56	7.0	6.2	29.43	24.10
5175	27920	1.28	18.4	19.5	78.99	56.76
5185	50000	.82	9.1	0.0	25.93	24.62
5210	72720	.54	9.0	0.0	20.16	24.75
5211	45940	.74	7.7	0.0	23.00	30.91
5212	86620	.80	7.6	11.1	43.57	32.94
5213	54520	.57	10.3	0.0	22.08	26.64
5220	35500	.77	12.9	9.7	45.74	35.33
5221	41100	.86	8.8	0.0	22.44	28.82
5232	41800	.56	9.4	0.0	20.98	25.71
5234	38820	.88	9.7	11.9	48.76	37.11
5236	46540	.63	7.0	0.0	20.02	26.55
5274	47840	.73	13.3	8.7	43.69	34.20
5278	30840	.57	10.3	4.0	29.13	21.64
5325	37900	.63	10.0	7.2	35.66	26.73
5327	28380	1.12	10.3	13.6	57.25	45.90
5331	50840	.50	9.5	7.0	32.09	23.68
5374	54540	1.38	12.6	2.4	78.57	56.49
5397	86340	.61	7.8	10.2	29.13	26.42
5424	32960	.65	8.6	11.8	42.63	55.90
AVERAGES		.754	9.32	8.34	$40.15	$33.84

This represents total shipments by one leaser and was taken mostly from the Shoemaker shaft. It shows that 733.9 wet tons were shipped. Treatment was said to have been $6.00 and freight $7.70 per ton, on top of which had to be put the mining, hauling and royalty.

IMPROVEMENTS

The improvements represented to me as belonging to the property consist of accommodations for about ten men. A superintendent's house, three small detached houses for the men, a cook house with fuel oil range and utensils for ten men. A complete assay office, blacksmith shop, 6 HP gasoline hoist, 600# capacity, rails, blower, air pipe, etc., in the Mo Ho tunnel. Besides a cyanide mill as described under milling.

WATER SUPPLY

On the southern slope of the mountain and to the southwest of the mill a distamce of 4400 feet, and 300 feet below the mill tanks, the water coming from an old tunnel, is run into a small reservoir and pumped to the mill and camp storage tanks by means of a 3½ by 5 Triplex Pump driven by a 10 HP Fairbanks Morse Z Type engine, burning oil of 27 gravity and pumping into a 2" buried pipe line. This pump handles from 25 to 30 gallons per minute to the tanks 300 feet above. The spring is said to be of uniform flow all the year. Its natural run fills a 1½ inch pipe, a flow I would judge of about 20 gallons per minute. This flow was observed in December when it should be at its lowest.

The spring is on patented ground and the company is paying $15.00 per month to the owners of the water right. On the same ground there are two other springs, one of which, about 100 feet lower and 1000 feet distance seemed to be flowing a like amount. These three springs formerly were connected and furnished water through a 3 inch pipe line for two fifty ton stamp mills milling ore from Candelaria, and also furnished

the town of Belleville of about 500 or more inhabitants. In my judgment there is sufficient water for a 100 ton mill with the present arrangements and with another pump at the lower spring this can be increased to a sufficient amount for 150 to 200 tons per day.

Should this water not prove sufficient or fail in any way, there is abundance of water within four miles of the property. Both flowing and standing wells, many years old, indicate its permanency. In the standing wells the water is within 20 feet of the surface.

TIMBER

The hills generally are covered by only sparse and stunted vegetation of sage and grease wood with occasional juniper trees. These could only be utilized for fire wood but the timbers required for mining, an occasional stull, will have to be brought in.

CLIMATIC CONDITIONS.

The climatic conditions are comparable to other southern Nevada points and snow or storms should not materially interfere with mining or milling operations. The snow fall is light, rarely reaching one foot at a time, and normally much less. The temperature is never exceedingly low. Neither rain, snow or low temperature should impede operations.

GENERAL GEOLOGY

The general geology of the area covered by the 12 claims consists of an irregular series of sedimentaries, in the most part quartzites, which have been broken up, tilted and

Test No. 5

Crush dry to pass 48 mesh. Screen on 65 and 150 meshes. Tables + 65 + 150 & 150. All Concentrates combined. Crush table tails to pass 100 mesh in Ball Mill. Floated. 10 lb. Na_2S per ton ore. 1 lb. H_2SO_4 per ton ore. 2 lbs. oil per ton ore.

Concentrates Assay.

	Tons	Au.	Ag.	Pb.
Combined Concentrates	14.2	1.72	11.33	15.88
Tails	85.8			

Recovery

	Au.	Ag.	Pb.
Combined Concentrates	57.59	34.90	53.24

Final Tails Assay.

	Au.	Ag.	Pb.
Tails	0.21	3.50	2.31

Test No. 5A

Table tails from test No. 5 crushed to pass 100 mesh. Agitated 24 hours with 3 pounds KCN solution 2:1 ratio and 10 pounds CaO per ton ore. 1.8 lb. KCN used.

Recovery

	Au.	Ag.
Extraction	40.37	12.09

Final Tails Assay.

	Au.	Ag.
Tails	0.01	2.85

Total Recovery

97.96% Of the total gold.
46.99% " " " silver.
53.24% " " " lead.

intruded by various phases of andesite, mostly of a finely crystaline nature. This whole mass, during or shortly after the last intrusion, has been cut and subjected to a great shearing and crushing movemant along a north south series of fissures. These fissures are traceable on the surface for more than a mile and a half and have a rather even dip of about 50 degrees to the east. Through them the ore bearing solutions ascended from depth, apparently from the parent magma, and formed the vein filling having a composition of approximately 57% silica, 12% iron, some lime and manganese, together with lead and the precious metals gold and silver in commercial quantities.

The main fissure known as the Mo Ho is traceable for about 7500 feet and developed along three claim lengths, 4500 feet, by a series of shafts and tunnels, some 25 openings in all. The shafts vary from 25 to 90 feet on the slope of the vein. Practically all the work was done by leasers who were only allotted short stretches along the vein, and who with hand windlasses, were limited to about 90 feet in depth. This accounts for the fact that there are few connections between these workings and that the development did not extend further in depth. Their work however, shows very conclusively the continuity of the Mo Ho vein and the uniformity of the values and width, both along the length of the vein and the depth as far as developed. It proves a vein averaging 3½ feet wide with rather consistent values along most its entire length of gold, silver, and lead in commercial quantities.

The workings along this Mo Ho vein where cross cuts have been run in the foot wall show that there is another par-

allel vein about 25 feet to the west. This shows uniform values and widths but not enough work has been done to prove it from a commercial standpoint.

The Shoemaker vein, paralleling and about 300 feet west of the Mo Ho vein, has been developed by a shaft to a depth of 350 feet on the incline, in which drifts north and south on the vein have been run at about 60 foot intervals. The vein in the shaft shows about the same continuity and uniformity of values, the ore however, seems wider in some places attaining 10 feet or more, while the values, although slightly lower than those of the Mo Ho vein, are of good millable grade; in fact, much of the 1915 production of shipping ore came from these workings. At that time it was necessary to have at least $20. ore for shipment at the old price of gold.

Besides the workings in the shaft, there are pits and tunnels along up the hill, proving this vein for a distance of 2000 feet.

What is known as the east vein is another parallel vein which is shown on the surface about 250 feet east of the Mo Ho vein. There has not been enough development work on this vein to prove its value and extent.

On the property west of the Shoemaker vein are several other veins from which commercial ore has been extracted and shipped, but these, although very promising, should be kept for future development and all the work for the present at least, concentrated on the Mo Ho and Shoemaker fissures for some time to come.

By a systematic system of development enough milling ore can be developed in the Mo Ho and Shoemaker fissures to

supply a 150 ton mill for a long time. These other fissures can be kept in reserve and the ore blocked out in them after the two above described veins have been fully exploited.

ORE VALUES

At the time of my examination I had in my possession, for detailed reference, three separate reports together with sampling results and a further detailed sampling was not deemed necessary, but sufficient samples were available as checks against these reports, so that I believe I have arrived at a satisfactory and final conclusion as to what may be considered the actual average of the ore bodies as previously worked and now exposed for further development.

My own sampling was by channeling across the mineralized planes at right angles to the same and by pipe sampling the dumps so as to get an average to check with the other more complete samplings. Sixteen samples in all were taken and showed an average of $13.20 per ton in gold and silver values. Gold was taken as $35.00 per ounce and silver as 64½¢ per ounce, which values are used throughout this report. Some of these samples were cuts on both sides of the various samples taken by Mr. M. E. Bohannon and others. In their work their samples were taken in a systematic manner and numbered copper tags mark the position where these cuts were made. My values correspond fairly well with theirs wherever checked and their sampling can be taken as accurate.

In making up the average of these three samplings it was not considered necessary to throw out any high samples as there were few that ran above $50.00 and as there is a

record of a car running $58.49, we have proof that there is ore of this grade in quantity on the property.

In making up this report, besides my own samplings, I used the records and reports of three independent engineers which were made in 1914, 1917 and 1934. There were in all 819 samples taken which showed an average value in the veins of $8.62 in gold and silver and an average width of 3.2 feet.

These samplings and results are as follows:-

YEAR	ENG. IN CHARGE		NO. SAMPLES	AVG. WIDTH	AVG. VALUE
1914	E. A. Julian-Goldf. Cons.	Mgr.	185	2.7'	$8.17
1915	Jos. M. Howell-	Engineer	470	3.4'	8.64
1934	M. E. Bohannon	do	148	3.31'	9.14
			803	3.20'	$8.62

A detailed list of these samples is at the end of this report and shows the Howell and Bohannon samples figured at the present gold and silver prices, and Julian at 1914 prices.

The average, both as to width and value of these 3 samplings is remarkably close and the width of 3.2 feet and the value of $8.62 per ton, can well be taken as the average value of the ore still remaining in the mine. This is further strengthened by the fact that these samples were taken in and along the openings from which the higher grade ore had already been extracted and which the records show averaged $33.84 in gold and silver alone (not counting the lead). Taking this fact into consideration, stoping in new territory should give ore of an average of from $10.00 to $12.00 per ton. This, however, is not considered in the tonnage calculations. To further illustrate the closeness of the sampling a record of each individual shaft, tunnel or cut is herewith given.

Sampling By	Number Samples	Avg. 1934 G & S Vals.
#1 Shaft		
Julian	2	$16.10
Howell	10	28.22
Bohannon	3	15.83
#2 Shaft		
Julian	None	
Howell	15	13.89
Bohannon	7	12.35
#3 Shaft		
Julian	7	5.41
Howell	3	6.91
Bohannon	3	7.35
Compton Shaft		
Howell	3	10.53
Bohannon	none	
#4 Shaft		
Julian	4	4.91
Howell	18	9.85
Bohannon	7	11.32
#1 Tunnel		
Howell	7	13.08
Bohannon	6	15.65
#2 Tunnel		
Julian	3	6.19
Howell	6	9.16
Bohannon	7	9.78
#3 Tunnel		
Julian	3	4.52
Howell	14	6.08
Bohannon	6	9.76
#4 Tunnel		
Julian	3	8.17
Howell	4	12.70
Bohannon	15	11.27
#5, 6, 7, 8 Tunnels		
Julian	8	11.10
Howell	13	9.48
Bohannon	8	8.23

Mo Ho Tunnel

Julian	11	$6.76
Howell	58	7.39
Bohannon	not given	6.15

Shoemaker Shaft

Julian	39	6.29
Howell	240	8.34
Bohannon	18	9.62
	Average	8.08

POSSIBILITIES AS TO DEPTH OF ORE BODIES:

The work so far done proves an almost continuous ore shoot along three claim lengths, or 6000 feet on the Mo Ho vein and 2000 feet on the parallel Shoemaker vein, some 300 feet to the west.

There is very little doubt in my mind that these two veins will go to depth. In the first place, we have a true fissure vein along a break which can be followed over a mile. In the second place, along the 4000 feet there is a rapid rise of over 1000 feet and we have the same character and value of ore in workings 1000 feet below as we have on the crest of the hill, which makes it seem reasonable that these values are not surface values and we may expect, as far at least as the upper workings are concerned, that they will go down to the level of the now lowest workings. In the third place, there is a chance that the ore will increase rather than decrease in value with depth, as silver and possibly some gold has been removed by leaching, and it may be that with further explorations in depth a secondary zone of silver enrichment, as a chloride zone, will be found some 200 to 400 feet below.

ORE ESTIMATE

The three examinations and my own observation show

that there is almost a continuous vein on the property along a distance of 4000 feet, averaging 3.2 feet in width and $8.62 in gold and silver. However, there is a crushed zone in which the Mo Ho vein is broken up and somewhat displaced, as shown in the Mo Ho tunnel for a distance of about 700 feet. From all indications the present face is now beyond this zone and the vein can again be expected in place. Taking this into consideration and considering the fact that there may be blank or unminable spaces along the vein, in making up my ore estimates as to the probable and possible ore I have figured the vein as only 50% of commercial value.

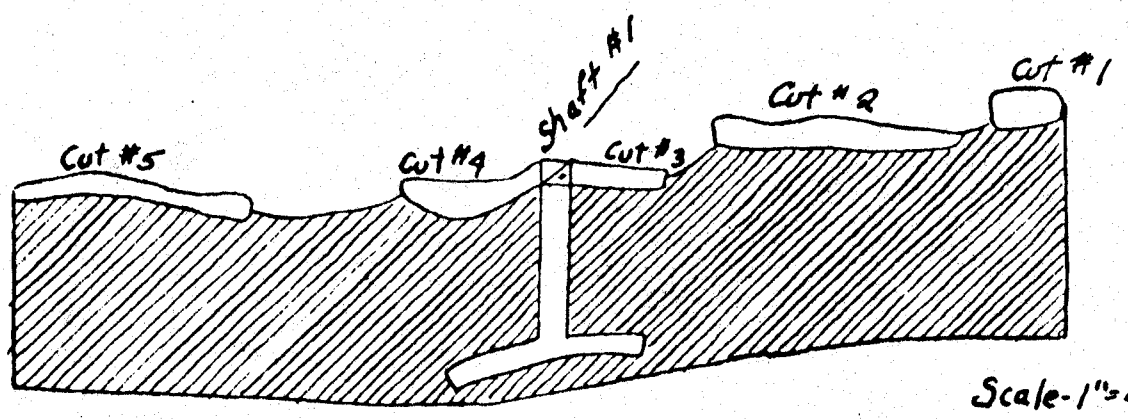
In making up the estimate of positive ore I have taken each opening, as far as practical, and averaged the width and value of the ore as far as found by these examinations and calculated the ore as extending 20 feet below the lowest workings and 20 feet ahead of the drifts on the vein, less 2000 tons as having been previously extracted by leasers.

In taking the probable ore I have figured a zone 350 feet deep along the vein for its continuous proven length, less 50% for blank spaces and sheared or broken portions of the vein, less the amount of positive ore as figured above.

In taking the possible ore I have figured a block of ground along the continuous proven length of the vein extending down to the level of the lowest workings, less 50% for blank spaces and less the positive and probable ore.

<u>POSITIVE ORE</u>

Starting on the north end of the property.

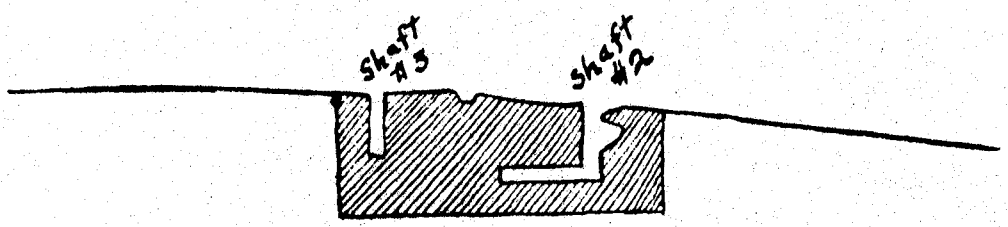


Scale-1"=40'

#1 Shaft Cuts

220' along the vein
60' on the dip of the vein
2.7' average width of vein
$21.50 average value of ore (25 samples).

$\frac{260 \times 60 \times 2.7}{15}$ 3020 tons @ $21.50 $60,980.00

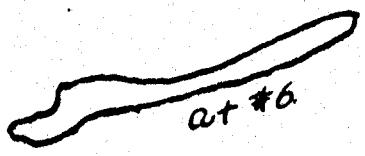


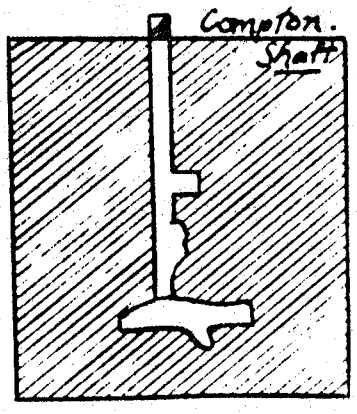
Scale-1"=100'

#2 & 3 Shafts

130' along the vein
85' on the dip of the vein
2.58' average width of the vein
$10.12 average value of the ore (45 samples)

$\frac{105 \times 170 \times 2.58}{15}$ 3075 tons @ $10.12 $31,100.00



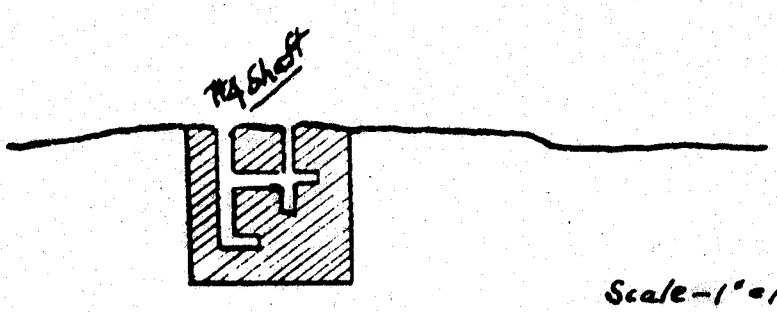


Scale-1"=40'

Compton Shaft

50' along the vein
85' on the dip of the vein
3.2' average width of vein
$10.57 average value of ore (3 samples).

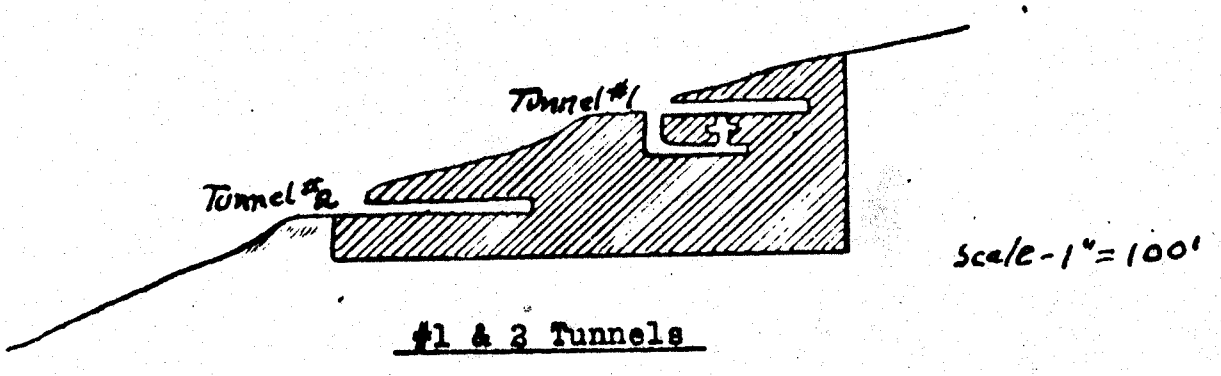
$\frac{105 \times 90 \times 3.2}{15}$ 2016 tons at $10.57 $20,120.00



Scale-1"=100'

#4 Shaft

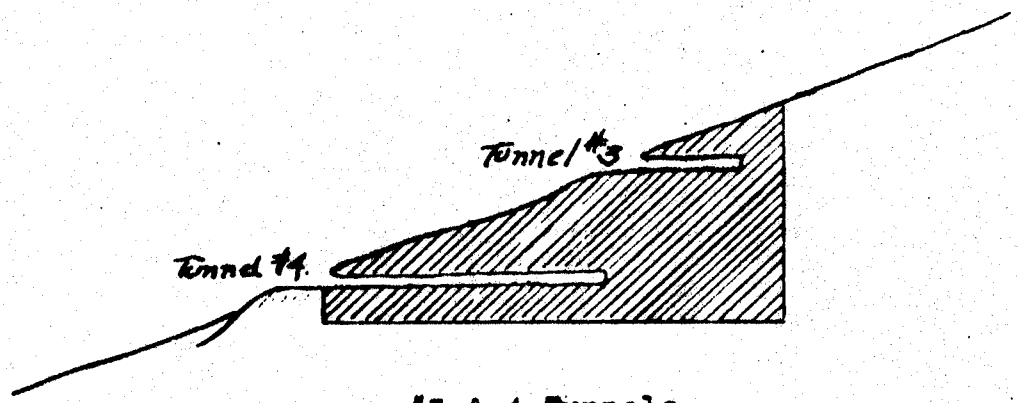
60' along the vein
85' on the dip of the vein
3.6' average width of vein
$10.58 average value of ore (29 samples)



#1 & 2 Tunnels

260' along the vein
40' average backs on the vein
4' average width of the vein
$12.04 average value of the ore (29 samples)

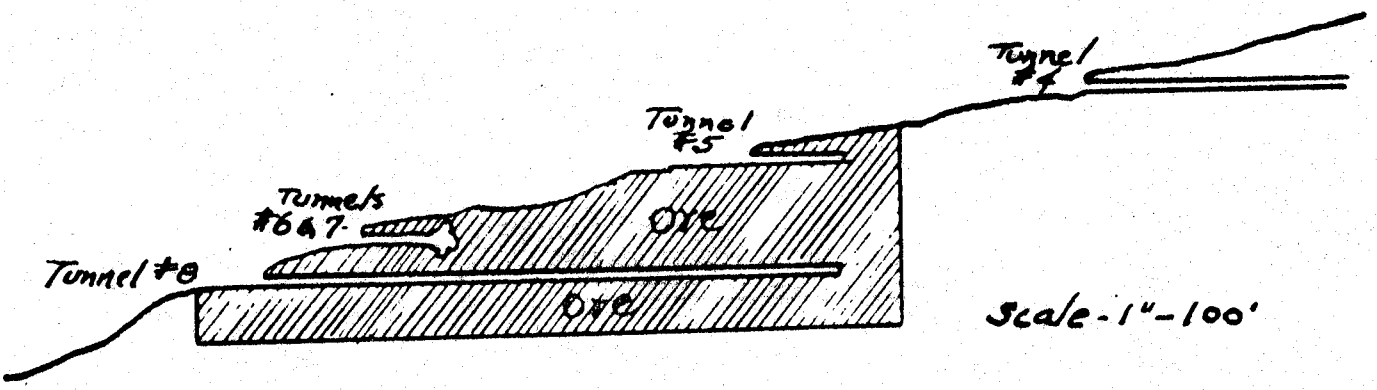
$\frac{300 \times 60 \times 4'}{15}$ 4800 tons @ $12.04 $57,800.00



#3 & 4 Tunnels

250' along the vein
55' average backs on the vein
3' average width of vein
$9.03 average value of the ore (42 samples)

$\frac{290 \times 75 \times 3'}{15}$ 4350 tons @ $9.03 $40,300.00



#5, 6, 7 & 8 Tunnels

350' along the vein.
45' average backs on the vein.
3.5' average width of the vein.
$9.43 average value of the ore (29 samples).

$\frac{370 \times 65 \times 3.5}{15}$ 5611 tons @ $9.43 $51,911.00

Mo Ho Tunnel

Taking in only the first 400 feet of the 1200 foot tunnel and the tunnels #14, 15 and 16 above it.

400' along the vein
100' average backs on the vein.
4.5' average width of the vein.
$7.20 average value of the vein (69 samples).

$\frac{400 \times 120 \times 4.5'}{15}$ 14,400 tons @ $7.20 $103,800.00

Mo Ho Shaft (at portal of Mo Ho Tunnel)

40' along the vein
80' on the dip of the vein
4.2' average width of the vein.
$14.30 average value of the ore (6 samples).

$\frac{100 \times 80 \times 4.2}{15}$ 2240 @ $14.30 $ 32,000.00

LEASERS SHAFT (South of Mo Ho Shaft)

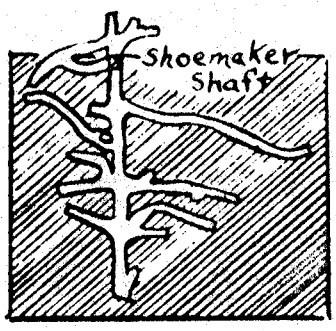
60' along the vein
60' on dip of the vein
4.54' average width of the vein
$9.98 average value of the ore (5 samples)

$\frac{80 \times 100 \times 4.54}{15}$ 2425 @ $9.98 $24,200.00

Incline 35' deep (next south)

10' along the vein
35' on dip of the vein
1.8 average width of the vein
$8.40 average value of the ore (5 samples)

$\frac{55 \times 50 \times 1.8}{15}$ 333 tons at $8.40 $2,800.00



Scale - 1" = 200'

Shoemaker Shaft

360' along the vein
350' on dip of the vein
4.5' average width of the vein
$9.55 average value of the ore (297 samples)

$\frac{370 \times 400 \times 4.5}{15}$ 44,300 tons less 1000 tons shipped or
43,300 tons @ $9.55 $413,515.00

POSITIVE ORE SUMMATION

Shaft #1	3,020 tons	$60,980.00
Shafts #2 & 3	3,075 "	31,100.00
Compton Shaft	2,016 "	20,130.00
Shaft #4	2,520 "	26,200.00
Tunnels #1 & 2	4,800 "	57,800.00
" #3 & 4	4,350 "	40,300.00
" #5, 6, 7, & 8	5,611 "	51,911.00
Mo Ho Tunnel	14,400 "	103,800.00
Mo Ho Shaft	2,240 "	32,000.00
Leasers Shaft	2,425 "	24,200.00
35' Incline	333 "	2,800.00
Shoemaker Shaft	44,300 "	413,515.00
	89,090 "	$864,736.00 (Avg-8.71
Less 2000 tons shipped by leasers	2,000 "	
	87,090	$847,496.00

****

Ore in dumps 16,000 tons @ $6.00 per ton	$96,000.00
GROSS VALUE POSITIVE ORE & DUMP ORE	943,496.00 (Avg.9.16
TOTAL TONS POSITIVE ORE & DUMP ORE	103,090 Tons

PROBABLE ORE: (Mo Ho Vein)

Figuring the ore as extending 350' in depth along the slope of the vein, as it has been so proven in the Shoemaker Shaft, and taking the entire 4000 feet of the vein as proven ore, 3.2 feet wide and of a value of $8.62 per ton in gold and silver, less 50% for blank spaces, broken vein material, etc., less 90,049 tons of positive ore, and less 1000 tons shipped by leasers, we have ;-

$\frac{4000 \times 350 \times 3.2}{15}$ 298,600 tons

Less 50% or 149,400 "

less 47,749 Total 102,551 " 102,551 2 probable ore in the Mo Ho Vein.

SHOEMAKER VEIN:

This vein as far as developed, 2000 feet along the vein, and 350 feet on the incline, if we figure it will continue another 100 feet in depth, it would represent a block of ore of an average of $8.08, 3.3 feet wide, as follows;-

$\frac{2000 \times 450 \times 3.3}{15}$ 198,000 tons.

Less 50% for blank spaces etc., 99,000 tons

Less 44,300 positive ore 54,700 tons probable ore in Shoemaker Vein.

SUMMATION OF PROBABLE ORE ON THE PROPERTY:

Tons probable ore in the Mo Ho Vein	102,552
" " " " " Shoemaker Vein	54,700.
TOTAL PROBABLE ORE ON THE PROPERTY	157,252 Tons.

POSSIBLE ORE: (MO HO VEIN)

Figuring that the ore may come down to the same level as the Shoemaker tunnel or 1600 feet on the dip of the vein, as backs from the highest point, there is a possibility of 755,000 tons, less the positive and probable ore or 247,301 tons of possible ore in the Mo Ho vein.

SHOEMAKER VEIN

The possible ore in the Shoemaker vein I would figure 200 feet on the incline below the bottom of the shaft or a block of ore;-

$\frac{550 \times 2000 \times 3.3}{15}$ 242,000 tons

Less 50% for blank spaces 121,000 tons

Less 53,700 tons probable ore 67,300 tons

POSSIBLE ORE 67,300 tons in the Shoemaker Vein

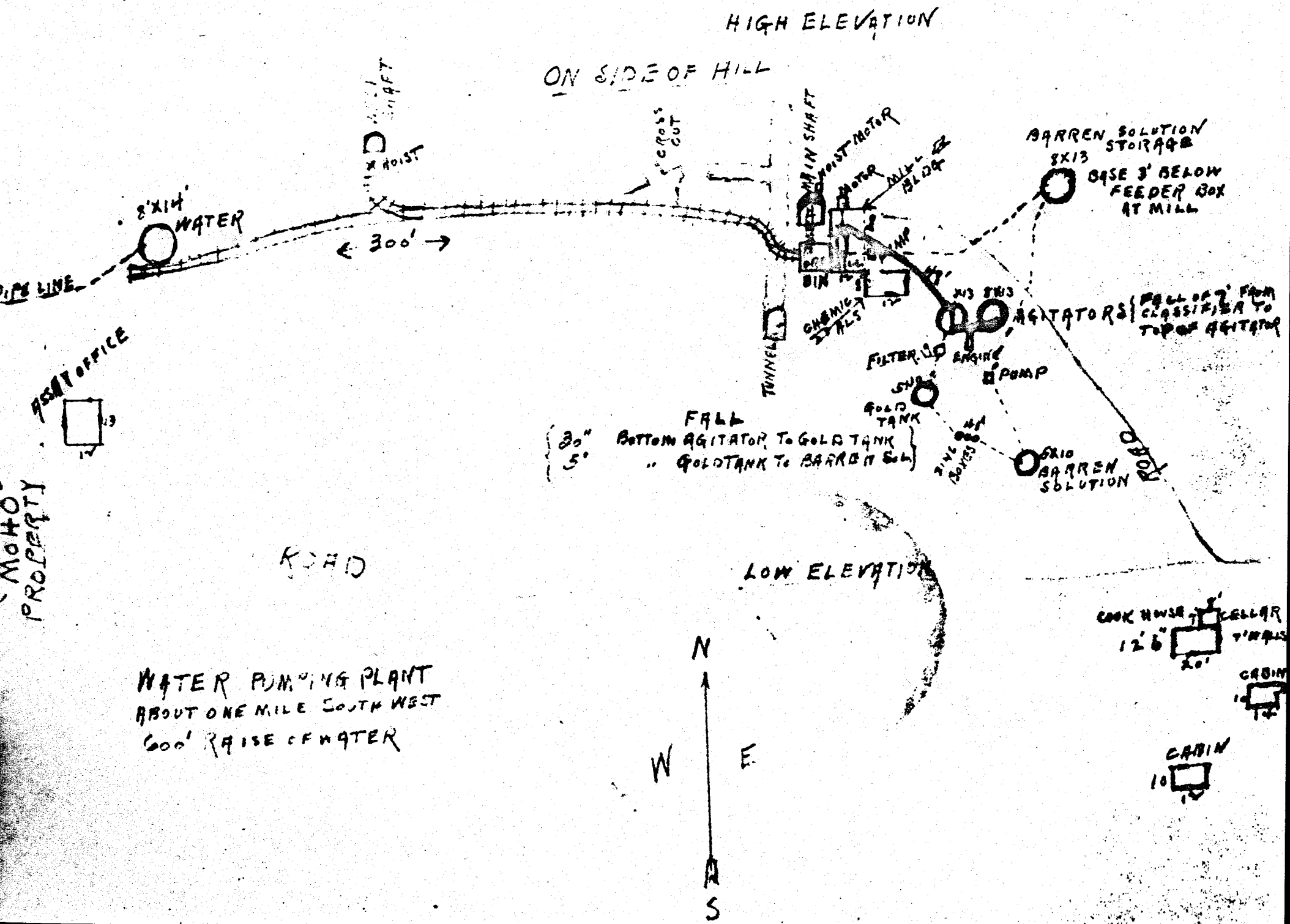
SUMMATION OF POSSIBLE ORE ON THE PROPERTY:-

Tons possible ore in the Mo Ho Vein	247,301. tons.
" " " " " Shoemaker vein	67,300 "
TOTAL POSSIBLE ORE ON THE PROPERTY	314,601. Tons.

ORE IN DUMPS:

Pipe and grab samples of the dumps gave an average of $8.88 in gold and silver. This seems rather high and I believe to be conservative a $6.00 figure should be used in calculations.

Starting from the north end of the property I estimate the dumps as follows;-



WATER PUMPING PLANT
ABOUT ONE MILE SOUTH WEST
600' RAISE OF WATER

ORE IN ALL DUMPS:

Shaft #1	300 tons
" #2	300 "
" #3	500 "
Compton Shaft	200 "
Shaft #4	500 "
Tunnel #1	300 "
" #2	300 "
" #3	200 "
" #4	500 "
" #5	200 "
" #6 & #7	200 "
" #8	2000 "
" #10 to 16	500 "
Mo Ho Tunnel	5000 "
Shoemaker Shaft	5000 "
Total Ore In Dumps	16000 Tons
Gross Value @ $6/00 ton	$96,000.00

MINING

The mining of the ores in both the Mo Ho and Shoemaker veins can in most places be done by the shrinkage system. The angle of dip, 45 to 50 degrees is such that the ore will easily run to chutes and the wall rock is sufficiently hard so that its sloughing off will not materially interfere with the operations. The veins in the most part are of sufficient width to allow standing room for the men on top of the ore. The parts of the vein where more selective mining must be resorted to can be mined as open stopes as an occasional stull will suffice, both as a means of getting up and down to the stopes and for the sake of safety.

Much of the ore can be drilled by the use of augers, but still the ground is such, that none of the working openings and very few of the tunnels will require timbering. Under these conditions the full cost of mining, including tramming to the portals of the tunnels, should not exceed $1.50 per ton.

MILLING

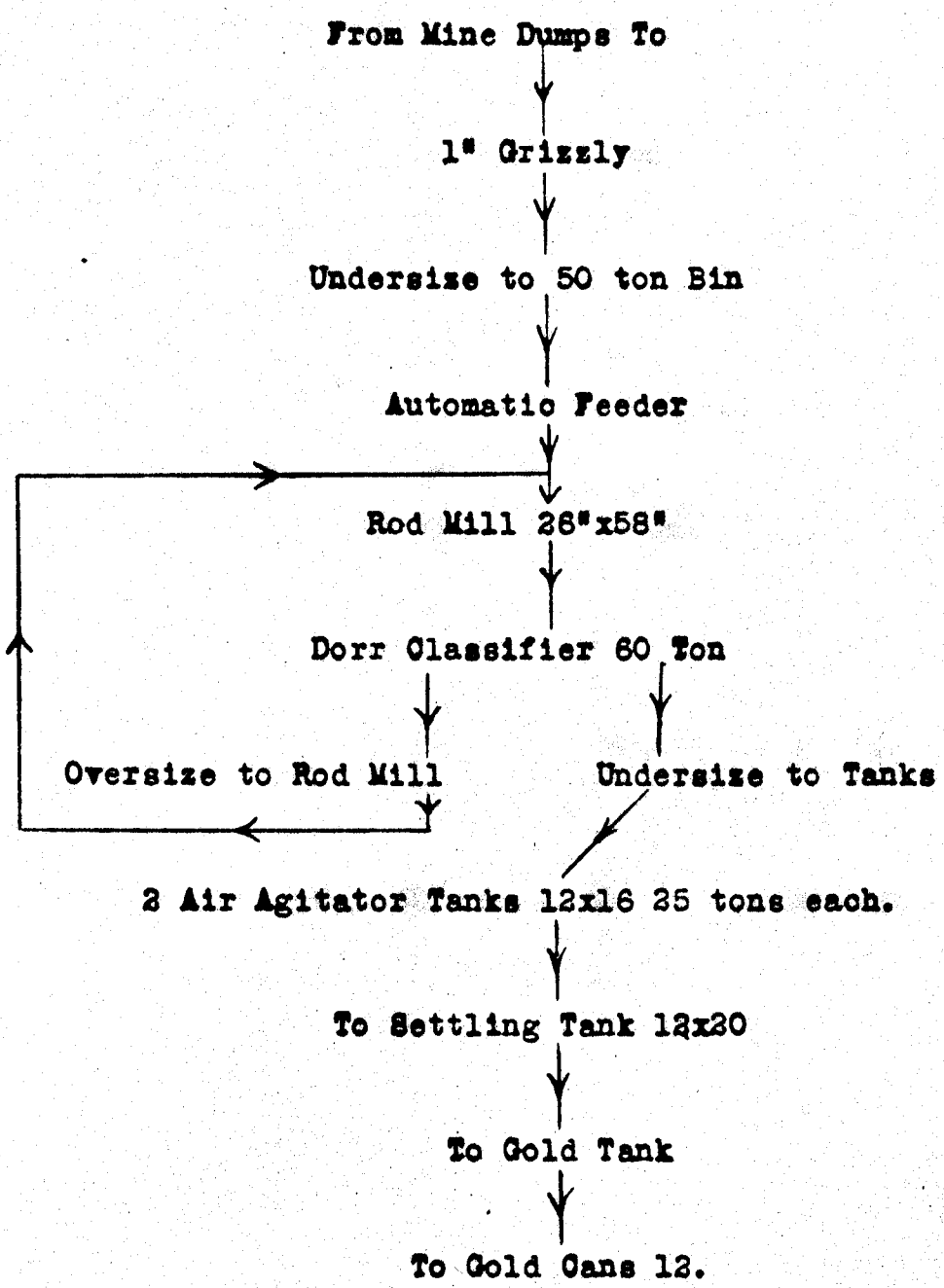
That the ore can be treated successfully in a mill on the ground is shown by the tests made by the Merrill Metallurgical Company of San Francisco and the General Engineering Company of Salt Lake City. Results of these tests are made a part of this report and attached hereto.

Besides laboratory tests made on the ore, the present owners have erected a small mill in order to treat by the cyanide process some of the ores from the Shoemaker and the Mo Ho tunnel dumps. The mill from all appearances and reports does not seem to have been correctly designed or adjusted to save the values commercially. The crushing, in only one stage in a small rod mill is insufficient, and there should be additional thickeners provided and possibly a filter below the agitators. The loss in cyanide is said to have been only one half pound per ton of ore treated which is low.

It is the writers opinion, that although a cyanide mill can be constructed to save 85% or better of the gold and a little less of the silver values, additional laboratory work should be done on the ore along the line of flotation. There is about 2·2% lead in these ores which I believe could be saved by the proper method. Since flotation tests have been made on this ore carbonates and oxides have been floted by the use of the proper sulphidizers and I have no doubt that the proper reagent can be found to properly treat and save the lead values which otherwise would go to waste.

A flow sheet of the present mill follows on the next page.-

MO HO CYANIDE MILL



Barren solution returned by a 1½" centrifugal pump direct connected to a 6 HP Z Type Gas Engine.

Mill machinery run by a 60 HP 4 cylinder Holt Gas Engine.

From the results of the mill tests and the laboratory data I would say that at least an 85% saving of the gold and silver values is possible.

This on an ore averaging $8.62 would mean a recovery of $7.33 per ton or ore milled.

Milling costs in a 150 ton mill should not exceed $1.50 per ton.

POSSIBLE PROFITS

With a mill of 150 tons daily capacity, making a saving of 85% of the gold and silver values, there would be a recovery of $7.33 on an ore averaging $8.62 per ton, or;-

	EXPENSES PER DAY	RETURNS PER DAY
150 tons x $7.33		$1,099.50
150 tons x $1.50 for mining	$225.00	
150 tons x $1.50 for milling	225.00	
150 tons x $1.00 for overhead	100.00	600.00
TOTAL EXPENSES PER DAY	$600.00	
TOTAL ESTIMATED PROFIT PER DAY - - - - - - - - - -		$499.00

Figuring a run of 300 days per year, the yearly profit on milling 45,000 tons would be $149,850.00.

There are developed 90,049 tons of positive ore, which plus the ore in the dumps, 16,000 tons would allow a mill run of 2.3 years. As the positive ore was figured as extending 20 feet beyond any present working it would mean taking out the ore only 20 feet to the sides and below any present working face or tunnel.

The estimated net profit for extracting and milling this ore would be $333,463.00.

Taking the probable ore into consideration, 157,252 tons, the mine would have an additional life of 3½ years or a total of 5.8 years.

Considering the possible ore, 314,601 tons, there would be an added life of 7 years to the property.

RECOMMENDATIONS

First:- I would recommend that $150,000.00 be raised, $100,000.00 of which is to be used for a mill of 150 tons daily capacity, and $50,000.00 for additional development of the mine and as working capital.

Second:- To make such changes in the present mill so as to ascertain the best treatment for the ore, then moving the mill below the Shoemaker tunnel.

Third:- To extend the Shoemaker tunnel to intersect the Shoemaker vein, possibly 150 feet of tunnel, and extend it on 300 feet to the Mo Ho vein.

Fourth:- To extend number 8 tunnel on the Mo Ho vein to intersect the vein which is proven in number 4 tunnel above. To first straighten out the turns in the Mo Ho tunnel and then extend it on the vein now appearing in the face. To put in the necessary chutes, run raises, etc., necessary to get the mine ready for an uninterrupted production of 150 tons per day. To put in trams, etc., required to deliver the ore from the upper workings to the mill.

CONCLUSION

In reviewing the foregoing report, the material facts concerning the Mo Ho mine and its future may be briefly summed up as follows:-

1. The Mo Ho vein, a true fissure, is traceable for over a mile on the property and developed by shallow shafts, tunnels, and cuts, over an almost continuous distance of 4000 feet.

2. Three separate and independent examinations, as well as my own check sampling, established the fact that this vein for almost the entire 4000 feet, averages 3.2 feet wide and has an average value of $8.62 per ton in gold and silver.

3. There is asecond parallel vein on the property, the Shoemaker, averaging 3.4 feet wide which has an average value of $8.08 in gold and silver.

4. In these two veins are 90,049 tons of positive ore with a value of $776,222.00; 157,252 tons of probable ore with an estimated value of $1,344,512.00; and 314,601 tons of possible ore.

5. A recovery in gold and silver of 85% is possible; Milling should not exceed $1.50 per ton; and mining can be done for about $1.50 per ton.

6. If sufficient capital, at least $150,000.00 can be arranged, and is available as required, a mill of 150 tons daily capacity can be erected on the property and the underground work can be laid out to produce an uninterrupted tonnage for the mill.

It is my honest opinion, that if the above mentioned capital is raised and the work carried out as recommended by intelligent technical management, the property should be a dividend payer for many years to come and will pay excellent results on the capital invested for the mill and development.

Respectfully submitted,

Fred Meinecke Jr.

Ferd Meinecke, Jr., E.M.
444 North Curson Avenue,
Los Angeles, Calif.

December, 1934.

MO HO MINE SAMPLES.

Accompanying the reports of

E. A. Julian, E. M. (1915)
J. M. Howell, E. M. (1917)
M. E. Bohannon, E. M. (1934)

E. A. JULIAN SAMPLES

Sample Number	WIDTH	1914 Values Gold & Silver	Location of Sample
1	3.5	$6.75	Shoemaker Shaft & Drifts
2	0.6	2.85	" " "
3	1.8	3.40	" " "
4	1.5	1.20	" " "
5	2.8	0.75	" " "
6	3.3	3.80	" " "
7	3.1	2.36	" " "
8	2.6	1.45	" " "
9	2.5	1.90	" " "
10	2.3	16.40	" " "
11	1.4	1.25	" " "
13	4.8	1.20	" " "
14	3.7	7.90	" " "
15	1.0	1.70	" " "
16	3.6	1.75	" " "
17	3.3	2.85	" " "
18	3.9	4.20	" " "
19	1.6	8.75	" " "
20	2.2	0.85	" " "
22	2.9	2.95	" " "
23	2.4	0.85	" " "
24	2.7	4.55	" " "
25	3.2	6.75	" " "
26	2.0	0.60	" " "
27	1.4	19.25	" " "
28	3.0	8.75	" " "
29	1.1	14.40	" " "
30	2.0	7.35	" " "
31	2.4	3.90	" " "
32	3.7	6.35	" " "
33	5.4	0.70	" " "
34	1.0	3.25	" " "
35	1,6	2.85	" " "
36	2.2	11.20	" " "
37	2.5	0.30	" " "
38	2.1	0.25	" " "
39	1.9	0.30	" " "
40	3.0	3.65	" " "
39 Samples average 2.5' wide and $6.61 @ 1934 prices.			
41	3.9	5.50	Tunnel #9
42	0.2	14.15	Cut #7
43	4.4	Tr	Cut #9
44	2.4	0.70	Cut #8
45	2.8	18.25	Tunnel #15
46	9.0	2.60	" 14
47	2.0	11.66	" 15
48	2.9	1.90	" 15

E. A. Julian Samples

Sample Number	Width	1914 Values GOLD & SILVER	LOCATION OF SAMPLES
49	2.4	$8.45	Tunnel #16
50	3.4	9.25	Mo Ho Tunnel
59	2.7	7.25	" " "
60	7.2	8.20	" " "
61	2.8	2.30	" " "
62	2.9	6.90	" " "
63	5.0	1.95	" " "
64	5.8	3.60	" " "
65	5.2	2.75	" " "
66	4.2	3.25	" " "
67	3.4	2.05	" " "
68	2.8	0.80	" " "
69	3.6	1.45	" " "
70	2.6	3.30	Tunnel #2
71	2.9	2.70	" "
72	3.0	6.65	" "
75	6.6	1.45	Shoemaker Shaft
76	6.9	0.35	" "
77	6.0	1.00	" "
78	5.7	1.20	" "
79	5.2	1.70	" "
80	4.4	3.20	" "
81	4.3	3.60	" "
82	3.4	10.10	" "
83	5.9	7.45	" "
84	4.0	1.80	" "
85	3.6	0.80	" "
86	4.6	1.45	" "
87	6.5	4.50	" "
88	6.0	7.60	" "
89	3.8	15.35	" "
90	3.0	4.40	" "
91	3.5	1.85	" "
92	4.5	3.35	" "
93	4.9	15.75	" "
94	2.7	12.75	" "
95	6.3	2.05	" "
96	7.0	1.95	" "
97	5.0	1.75	" "
98	5.2	1.45	" "
99	5.2	7.20	" "
100	5.2	8.90	" "
101	6.8	5.65	" "
102	6.4	5.30	" "
103	3.1	5.00	" "
104	3.4	8.10	" "
105	4.8	6.70	" "
106	4.4	11.25	" "
107	2.8	8.16	" "
108	2.7	7.25	" "
109	5.3	9.45	" "

11 Samples 1934 ave. $5.46--4.1' ave. width.

48 samples 1934 ave. $9.20--4.4' ave width.

E. A. JULIAN SAMPLES.

SAMPLE NUMBER	WIDTH	1914 VALUES GOLD & SILVER	LOCATION OF SAMPLES	
110	4.9	$11.05	Shoemaker Shaft	
111	4.5	17.45	" "	
112	2.4	1.95	" "	
113	2.3	4.10	" "	
114	2.0	19.10	" "	
115	3.0	36.25	" "	
116	5.1	2.00	" "	
117	2.2	1.50	" "	
118	3.2	3.40	" "	
119	4.7	1.00	" "	
120	3.2	3.40	" "	
121	2.9	3.45	" "	
122	---	----	" "	
123	1.0	2.95		
124	1.7	0.40	Shaft south of Mo Ho Tunnel	
126	1.1	5.50	Tunnel #3	
127	1.0	0.60	" "	
128	2.0	8.55	" #4	
129	1.8	1.90	" "	
130	1.9	6.10	" "	
131	---	---		
132	---	---		
133	2.8	2.65	Tunnel #5	
134	2.9	16.00	" "	
135	3.6	15.35	" #6	
136	3.4	6.15	" #7	
137	4.0	11.00	" #8	
138	2.2	3.80	" #8	
139	1.2	1.00	" "	
140	2.5	1.80	" "	
141	5.2	5.25	Mo Ho Tunnel	
142	3.7	1.85	" " Shaft	
143	3.7	0.70	" " "	6 samples
144	1.0	2.90	" " "	1934 ave $6.71
145	5.4	6.45	" " "	
146	1.8	13.90	" " "	
147	2.3	1.40	" " "	
148	1.8	1.00	Leasers Shaft	
149	1.4	6.45	" "	5 samples
150	2.9	3.10	" "	1934 ave $13.20
151	1.5	13.30	" "	
152	1.3	1.50	" "	
153	1.4	0.75	Cut #11	
154	1.1	1.50	Tunnel #17	
163	0.5	23.60	Cut #1	
164	2.6	1.80	Cut #3	
165	1.2	6.25	" "	
166	0.9	1.00	" #2	
167	2.0	15.40	Shaft #1	
168	2.0	27.20	" "	
169	2.0	7.75	" "	
170	1.7	20.95	" "	

E. A JULIAN SAMPLES

SAMPLE NUMBER		1914 VALUES GOLD & SILVER	LOCATION OF SAMPLES
171	2.0	$17.45	Cut #4 at Shaft #1
172	1.2	50.90	" " " "
173	1.0	1.50	" #5
174	1.2	7.00	" "
175	1.9	3.40	" #6
176	1.9	11.40	" "
177	1.1	2.30	" "
178	2.8	7.80	Oroville Shaft
179	3.3	8.00	" "
180	4.5	1.85	" " 7 samples
181	5.0	1.10	" " 1934 ave. $5.41
182	4.5	3.30	" " ave width 3.6'
183	1.4	2.80	" "
184	3.6	0.50	" "
185	4.0	0.75	Lame Horse Tunnel
186	3.9	0.50	" " "
187	3.9	0.50	" " "
188	3.9	1.05	Cut #16
189	2.9	1.55	" "
190	2.7	0.25	" #15 (15)
191	0.8	Tr.	
192	2.0	2.05	
193	3.0	1.00	Shaft #4 & Cut #12
194	1.9	1.00	" " " " "
195	2.2	7.20	" " " " "
196	2.0	4.05	" " " " "
197	7.8	2.70	" #3
201	2.8	4.50	Tunnel #18
202	2.1	0.85	" "
203	2.4	15.15	" "
204	3.0	2.45	Shaft #2
205	1.8	Tr.	Tunnel #13
206	2.2	Tr	Doucher Tunnel
207	1.6	Tr	" "
208	2.3	3.40	" "
209	3.6	2.10	" "
211	3.0	5.65	Cut #10
212	2.7	2.70	Tunnel #11

185 Samples were taken by Julian the 1934 average of which would be $8.17 using gold at $35 and silver at 64½¢.

ASSAYS OF JOS. M. HOWELL, JULY 1917

Gold and silver values with gold at $35 and silver at 64½¢ per ounce shown in last column. Values for lead not included.

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G & S Value	Location of Sample
1	9.25	.14	4.38	4.4	$7.74	Mo Ho Tunnel
2	6.50	.14	.94	1.2	5.51	" "
3	3.50	.24	1.68	2.9	9.49	" "
4	4.17	.24	1.12	3.0	9.13	" "
5	4.17	.12	.60	.9	4.59	" "
6	8.82	.12	.68	.4	4.77	" "
7	7.50	.12	1.40	1.0	5.11	" "
8	6.50	.08	.72	2.9	3.27	" "
9	4.50	.20	1.76	2.3	8.14	" "
10	4.50	.32	1.40	3.4	12.11	" "
11	3.50.	.28	4.12	5.0	12.48	" "
12	5.43	.28	7.24	3.8	14.50	" "
13	4.74	.12	2.68	3.3	5.94	" "
14	6.50	.16	5.68	3.9	6.41	" "
15	2.50	.16	1.24	TR	.28	" "
16	3.50	Tr.	.44	TR	10.48	" "
17	4.17	.28	1.04	Tr	5.37	" "
18	4.00	.12	1.80	1.0	7.57	" "
19	4.33	.20	.88	Tr	7.57	" "
20	4.17	Tr	.32	.9	.20	" "
21	2.00	.12	.20	Tr.	4.33	" "
22	3.00	.40	8.52	2.8	19.53	Mo Ho Shaft
23	2.50	.18	4.68	1.6	9.34	" "
24	2.00	.20	2.80	2.0	8.82	" "
25	5.00	.24	4.15	.6	11.08	" "
26	7.00	.24	5.88	2.3	13.22	" "
27	10.75	.84	9.76	6.4	35.74	" "
28	6.50	.44	9.88	3.5	21.82	" "
29	4.17	.20	3.00	1.0	8.95	" "
30	6.50	.00	2.44	1.0	1.59	" "
31	7.00	.20	6.20	1.9	11.03	" "
32	7.33	.28	3.84	1.0	12.29	" "
33	8.00	.72	1.56	.9	26.21	Shoemaker Shaft
34	6.67	.08	.40	1.0	3.05	" "
35	4.43	.28	2.60	1.6	11.47	" "
36	5.67	.28	1.32	1.0	10.65	" "
37	6.00	Tr.	Tr	2.5	0.00	" "
38	5.00	.20	3.36	5.0	9.15	" "
39	6.83	.20	1.40	1.0	7.90	" "
40	6.17	.16	2.20		7.02	" "
41	4.17	.36	9.84	14.0	18.92	" "
42	5.38	.12	6.20	3.2	8.19	" "
43	6.00	.20	2.32	4.6	8.15	" "
44	8.00	.48	6.64	6.6	21.07	" "
45	3.50	.00	1.28	1.0	.82	" "
46	4.43	.08	4.88	1.0	5.94	" "
47	6.17	.24	2.18	1.4	9.80	" "
48	4.33	.32	3.32	3.5	.38	" "
49	5.17	.28	2.48	2.0	4.97	
					0. 0	

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G & S Value	Location of Sample
50	7.50	Tr.	.60	.80	0.38	Shoemaker Shaft
51	3.33	.12	1.20	1.3	4.97	" "
52	4.83	.00	Tr	.9	0.00	"
53	2.50	.20	3.44	1.0	2.92	"
54	3.17	.08	1.28	.8	3.62	"
55	2.83	.08	1.52	.9	3.78	" Tunnel North
56	2.50	.60	1.00	3.0	2.75	" " "
57	2.17	.64	.28	3.5	22.58	" " "
58	4.00	.96	8.41	1.5	39.02	Shaft #1
59	3.00	1.24	9.16	1.8	49.30	"
60	4.00	.28	2.64	1.0	11.49	"
61	2.00	.40	3.20	1.9	3.46	"
62	2.50	.36	1.76	1.4	13.72	"
63	3.25	.20	1.76	1.0	1.91	"
64	3.00	.32	2.44	.9	12.76	Shaft #2
65	3.00	.20	1.24	1.0	1.49	"
66	4.17	.24	1.22	1.0	9.18	"
67	4.00	.12	1.08	1.0	4.85	"
68	4.00	.24	1.56	1.2	9.40	"
69	3.50	.28	2.40	2.0	11.34	"
70	2.75	.08	1.20	1.8	3.57	"
71	3.00	.08	.40	1.7	3.05	"
72	2.00	.24	1.20	1.0	9.17	"
73	2.00	.70	3.62	1.0	5.79	Shaft #3
74	3.00	.20	1.40	Tr	1.60	Shaft #4
75	3.00	.84	3.68	1.0	28.25	"
76	3.00	.20	1.80	Tr	1.86	"
77	5.00	.44	4.84	1.3	18.51	Shaft #5
78	5.33	.44	3.16	.9	17.42	"
79	5.00	1.52	7.40	2.0	21.86	"
80	3.00	.16	1.64	1.0	6.55	"
81	5.75	.68	16.32	14.6	34.32	Tunnel #1
82	5.33	.20	2.68	4.0	8.40	"
83	4.00	.12	1.80	1.0	5.36	"
84	6.50	.16	6.24	4.8	9.49	"
85	4.17	.16	6.84	6.3	10.00	Tunnel #2
86	4.25	.16	4.24	3.6	8.33	Tunnel #3
87	6.58	Tr	3.32	1.2	2.13	"
88	4.50	.00	1.72	.7	1.11	"
89	4.00	.08	3.20	3.5	4.22	"
90	3.83	.12	.82	1.7	4.73	Tunnell #4
91	3.00	.12	1.56	1.0	5.20	"
92	2.50	.12	1.60	1.0	5.23	Tunnel #5
93	4.50	.16	3.56	3.6	7.89	"
94	3.00	Tr.	Tr.	1.0	0.00	Tunnel #6
95	3.00	.16	2.04	1.5	6.91	"
96	6.00	.28	6.72	3.8	14.13	Tunnel #7
97	4.00	.12	2.32	4.3	5.70	"
98	3.00	.28	4.32	1.8	12.59	Tunnel #8
99	3.50	.28	9.24	2.7	15.73	"
100	4.17	.20	2.60	4.9	7.67	Tunnel #9
101	5.00	Tr	.40	1.0	.25	"
102	3.00	.00	Tr	1.2	.00	Doucher Tunnel
103	2.50	.32	3.40	5.3	13.39	Tunnel #7

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G. & S. Value	Location of Sample
104	3.0	.12	2.68	2.5	$ 5.92	Tunnel #7
131	.8	.73	9.85	2.2	31.92	Shoemaker Shaft
132	3.9	.16	2.10		6.95	
133	1.8	.07	1.00		3.05	
134	1.3	.03	.40		1.40	
135	3.1	.12	1.60		5.23	
136	1.7	.014	.20		.62	
137	.8	.02	.30		.89	
138	.1	.06	.80	do	2.61	
139	3.0	.04	.60		1.78	do
140	8.5	.27	3.70		11.38	
141	4.4	.06	.80		2.61	
142	3.0	.037	.50		1.52	
143	.5	.16	2.15		6.97	
144	6.5	.13	1.80		5.71	
145	3.6	.10	1.30		4.34	
146	2.4	.07	.95		3.05	
147	1.0	.06	.70		2.20	do
148	4.0	.05	.70		2.20	
149	4.5	.10	1.40		4.40	
150	1.6	.15	2.00		6.54	
151	3.2	.04	.60	do	1.78	
152	2.0	.037	.50		1.62	
153	4.5	.03	.40		1.30	
154	2.3	.33	4.50		14.45	
155	3.7	.06	.80		2.61	do
156	4.2	.037	.50		1.62	
157	5.6	.014	.20		0.62	
158	1.8	.09	1.20		3.92	
159	4.5	.06	.80		2.61	
160	1.0	.18	2.40		7.84	
161	3.0	.09	1.20		3.92	
162	2.0	.02	.30		.89	
163	2.3	.04	.60		1.78	
164	1.5	.15	2.05		6.56	
165	2.5	.05	.65		2.17	
166	2.2	.037	.50		1.62	do
167	3.6	.06	.80		2.61	
168	3.0	.09	1.20		3.92	
169	3.3	.06	.80		2.61	
170	4.3	.05	.70		2.20	
171	10.3	.16	2.10		6.95	
172	4.0	.19	2.55		8.30	
173	3.0	.12	1.60		5.23	
174	3.4	.17	2.30		7.43	
175	3.4	.17	2.30		7.43	
176	3.6	.03	.35		1.27	do
177	5.6	.07	1.20		3.03	
178	4.5	.02	3.00		9.63	
179	5.2	.26	3.50		11.35	
180	2.5	.42	5.70		18.38	
181	4.5	.24	3.30		10.52	
182	2.0	.03	.40		1.30	
183	3.5	.70	9.40		30.55	
184	3.6	.35	4.70		15.28	
186	2.7	.19	2.60		8.32	do

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G & S Value	Location of Sample
187	2.7	.27	3.60	2.2	$11.77	Shoemaker Shaft
188	4.8	.23	3.10		10.04	
189	5.0	.07	1.00		3.09	
190	2.6	.066	.90		2.78	
191	1.0	.10	1.40		4.40	
192	2.8	.15	2.00		6.54	do
193	4.5	.18	2.40		7.84	
194	4.5	.17	2.30		7.43	
195	5.5	.26	3.50		11.25	
196	4.0	.19	2.60		8.32	
197	5.0	.14	1.85		6.08	
198	3.0	.15	2.00		6.54	do
199	2.2	.18	2.40		7.84	
200	2.3	.096	1.30		4.19	
201	4.2	.11	1.50		4.82	
202	2.0	.03	.40	do	1.30	
203	5.3	.12	1.60		5.23	do
204	5.5	.30	4.10		13.14	
205	4.4	.29	3.90		12.66	
206	4.5	.16	2.10		6.95	
207	6.4	.19	2.50		8.26	
208	5.9	.16	2.20		7.02	
209	3.9	.03	.40		1.30	do
210	6.2	.34	4.60		14.86	
211	5.4	.07	.90		3.03	
212	8.0	.21	2.80		9.15	
213	4.0	.30	4.00		13.08	
214	6.2	.38	4.80		15.76	
215	6.2	.09	1.20		4.92	do
216	5.7	.06	.80		2.51	
217	7.5	.06	.86		2.65	
218	6.0	.27	3.70	do	11.93	
219	6.7	.38	4.90		15.76	
220	5.1	.18	2.40		7.91	
221	5.8	.25	3.40		10.94	do
222	7.0	.26	3.45		11.32	
223	6.0	.58	7.80		25.32	
224	3.0	.04	.50		1.73	
225	3.6	.08	1.00		3.44	
226	3.4	.36	4.80		15.69	
227	4.0	.29	3.89		12.66	do
228	3.3	.13	1.90		5.71	
229	4.5	.25	3.40		10.94	
230	3.0	.14	1.95		6.15	
231	3.8	.13	1.80		5.81	
232	*--	---	----		-----	
233	3.0	.14	1.90	do	6.12	do
234	2.7	.18	2.40		7.84	
235	3.3	.41	5.60		17.96	
236	3.4	.04	.50		1.72	
237		.36	4.85		15.72	
238	3.8	.03	.40		1.30	
239	3.0	.14	1.90		6.12	do
240	5.6	.13	1.90		5.71	
241	6.0	.15	2.00		6.54	

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G & S Value	Location of Sample
242	6.0	.21	2.80	2.2	$ 9.15	Shoemaker Shaft
243	11.0	.01	.20		.47	
244	7.0	.18	2.40		7.84	
245	4.6	.10	1.40		4.40	
246	8.0	.27	3.70		11.83	
247	6.0	.01	.10		.41	
248	4.5	.28	3.80	do	12.25	do
249	4.5	.33	4.40		14.39	
250	1.5	1.18	16.80		51.62	
251	1.5	1.35	18.20		58.99	
252	4.5	.19	2.60		8.32	
253	8.0	.38	5.10		16.59	
254	5.7	.04	.60	do	1.78	
255	2.8	.34	4.60		14.86	do
256	10.0	.44	6.00		19.27	Mo Ho Tunnel
257	5.1	.42	5.70		18.38	
258	4.3	.45	6.10		19.78	
259	4.8	.10	1.40		4.40	
260	6.0	.06	.80	do	2.61	
261	5.7	.32	4.30		13.97	
262	4.0	.16	2.10		6.95	do
263	4.4	.31	4.20		13.56	
264	3.7	.25	3.40		10.94	
265	3.1	.06	.85		2.65	
266	4.0	.05	.70	do	2.20	
267	3.6	.07	.93		3.05	
268	6.6	.12	1.60		5.25	do
269	5.6	.14	1.90		6.12	
270	5.0	.13	1.80		5.71	
271	2.0	.03	.45		1.33	
272	6.2	.03	.40	do	1.30	
273	6.1	.01	.10		.41	
274	5.8	.21	2.90		9.15	do
275	2.2	.15	2.00		6.54	
276	3.7	.25	3.30		10.87	
277	2.8	.08	1.10		3.51	
278	3.0	.04	.60	do	1.78	
279	6.5	.10	1.30		4.34	
280	4.0	.01	.20		0.47	do
281	4.2	.14	1.95		6.15	Mo Ho Shaft
282	5.0	.04	.50		1.72	
283	1.6	.10	1.40		4.40	
284	1.6	.09	1.15	do	3.90	
285	5.0	.25	3.40		10.34	
286	5.0	.02	.30		.89	
287	3.6	1.01	13.60		44.19	do
288	2.0	.15	2.00		6.54	
289	3.9	.20	2.70		8.74	
290	5.0	.11	1.50		4.82	
291	6.0	.16	2.15		6.97	
292	7.1	.01	.30		.47	
293	2.0	.26	3.45		11.32	do
294	5.0	.02	.30		.89	
296	3.6	.15	2.00		6.54	

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	C & S Value	Location of Sample
297	2.0	.07	.90	2.2	$ 3.03	Mo Ho Shaft
298	3.4	.98	13.30		42.87	" "
299	12.0	.20	2.65		8.70	Tunnel #5
299	5.0	.21	2.80		9.15	" "
300	6.2	.20	2.65		7.70	" #6
301	4.8	.23	3.10		10.04	Tunnel #4
302	6.0	.09	1.20		4.92	" "
303	3.0	.10	1.35		4.37	" "
304	3.6	.04	.60		1.78	" "
305	1.5	.04	.50		1.72	" "
306	3.0	.14	1.09		2.62	" "
307	5.0	.30	4.10		13.14	" "
308	9.0	.46	6.20	do	20.09	Tunnel #2
309	2.6	.10	1.30		4.34	" "
310	3.6	.28	3.80		12.25	Tunnel #1
311	5.6	.27	3.60		11.77	" "
312	1.3	.32	4.30		13.97	" "
313	3.0	.10	1.30		4.34	Shaft #5
314	2.7	.18	2.40	do	7.84	" "
315	2.3	.40	5.40		17.48	" "
316	4.6	.24	3.20		10.46	" "
317	4.6	.35	4.40		14.39	" "
318	5.0	.08	1.10		3.51	" "
319	6.7	.26	3.50		11.35	" "
320	3.5	.25	3.37	do	10.91	Shoemaker Shaft
321	0.6	.11	1.42		4.76	
322	1.8	.13	1.70		6.64	
323	1.5	.04	.60		1.78	
324	2.8	.03	.37		1.27	
325	3.3	.14	1.90		6.12	
326	3.1	.09	1.17	do	3.90	do
327	2.6	.05	.72		2.16	
328	2.5	.07	.85		3.01	
329	2.3	.61	8.20		26.63	
330	1.9	.05	.62		2.15	
331	3.5	.11	1.42		4.76	
332	4.8	.04	.60	do	1.78	do
333	3.7	.29	3.95		12.69	
334	1.0	.06	.85		2.65	
336	3.6	.06	.87		2.66	
337	4.2	.09	1.20		3.92	
338	1.6	.32	4.37		14.00	
339	2.2	.03	.42	do	1.31	do
340	2.9	.11	1.47		4.80	
341	2.4	.03	.42		1.32	
342	1.7	.08	1.02		3.45	
343	2.8	.17	2.27		7.40	
344	3.2	.25	3.37		10.90	
345	2.0	.02	.30	do	.89	
346	1.4	.71	9.62		31.05	do
347	3.0	.32	4.37		14.00	
348	1.1	.53	7.20		23.18	
349	2.0	.27	3.67		11.80	
350	2.3	.14	1.95	do	6.15	do

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G & S Value	Location of Sample
351	3.7	.23	3.12	2.2	$10.07	Shoemaker Shaft
352	5.4	.03	.35		1.27	
353	1.0	.12	1.62		9.45	
354	1.6	.11	1.42		8.64	
355	2.2	.41	5.60		17.96	
356	2.1	.01	0.13		.43	
357	1.9	.01	0.15	do	.44	do
358	3.0	.14	1.83		6.10	
359	3.9	.20	2.75		8.76	Tunnel #9
360	2.8	.68	9.63		30.00	" #8
361	1.9	.10	1.30		4.34	" "
362	2.0	.43	5.78		18.77	" "
363	2.9	.07	.97	do	3.06	" "
364	2.0	.31	4.23		13.59	Tunnel #6
365	3.4	.34	4.62		14.88	" "
366	2.7	.27	3.68		11.80	Ho Ho Tunnel
367	7.2	.30	4.10		13.14	" "
368	2.8	.09	1.15		3.89	" "
369	2.9	.26	3.45	do	11.31	" "
370	5.0	.07	.97		3.07	" "
371	5.8	.13	1.80		5.71	" "
372	3.2	.10	1.38		4.38	" "
373	4.2	.12	1.62		5.25	" "
374	3.4	.08	1.03		3.45	" "
375	2.8	.03	.40	do	1.30	" "
376	3.6	.05	.73		2.21	" "
377	2.6	.12	1.65		5.26	Tunnel #2
378	2.9	.10	1.35		4.36	" "
379	3.0	.25	3.33		10.90	" "
380	6.6	.05	.72		2.31	Shoemaker Shaft
381	6.9	.01	.18	do	.46	" "
382	6.0	.04	.50		1.72	" "
383	5.7	.04	.60		1.78	" "
384	5.2	.06	.85		2.65	" "
385	4.4	.12	1.60		5.23	" "
386	4.3	.13	1.90		5.71	" "
387	3.4	.37	5.05	do	16.19	" "
388	5.9	.28	3.73		12.20	" "
389	4.0	.07	0.90		3.03	" "
390	3.6	.03	.40		1.30	" "
391	4.6	.05	.72		2.21	" "
392	6.5	.17	2.25		7.40	" "
393	6.0	.28	3.80	do	12.25	" "
394	3.8	.57	7.68		24.89	" "
395	3.0	.16	2.20		7.02	" "
396	3.5	.07	.92		5.49	" "
397	4.5	.14	1.98		6.10	" "
398	4.9	.58	7.87		25.37	" "
399	2.7	.47	6.38	do	20.55	" "
400	6.3	.08	1.02		3.45	" "
401	7.0	.07	.98		3.08	" "
402	5.0	.06	.87		2.67	" "
403	5.2	.05	.73		2.16	" "
404	5.2	.27	3.60		11.72	" "

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G & S Value	Location of Sample
405	5.6	.33	4.45	2.2	$14.42	Shoemaker Shaft
406	6.8	.21	2.82		9.16	
407	6.4	.20	2.65		8.70	
408	3.1	.19	2.00		7.94	
409	3.4	.30	4.05		13.11	
410	4.8	.25	3.35		10.90	
411	4.4	.42	5.63	do	18.33	do
412	2.9	.30	4.07		13.12	
413	2.7	.27	3.63		11.79	
414	5.3	.35	4.72		15.30	
415	4.9	.41	5.53		17.92	
416	4.5	.65	8.72		28.27	
417	2.4	.07	0.98	do	3.07	do
418	2.3	.15	2.05		6.56	
419	2.0	.71	9.55		31.01	
420	3.0	1.34	18.63		58.92	
421	5.1	.07	1.00		3.09	
422	2.2	.06	0.75		2.58	
423	3.2	.13	1.70	do	5.64	do
424	4.7	.04	0.50		1.72	
425	3.9	.26	3.52		11.37	
426	2.9	.13	1.78		5.68	
427	1.0	.11	1.48		4.83	
428	1.7	.01	0.20		0.47	do
429	1.1	.20	2.75	do	8.76	Tunnel #4
430	1.0	.02	0.30		0.89	" "
431	2.0	.32	4.27		13.95	" "
432	1.8	.07	0.95		3.05	" "
433	1.9	.23	3.05		10.01	" "
434	2.8	.09	1.28		3.97	Tunnel #5
435	2.9	.59	8.00	do	29.31	" "
436	3.6	.57	7.67		28.38	Tunnel #6
437	3.4	.23	3.48		10.03	" "
438	4.0	.41	5.50		19.92	" "
439	2.2	.14	1.90		6.12	Tunnel #7
440	1.2	.04	0.50		1.72	" "
441	2.5	.07	0.90	do	3.03	" "
442	5.2	.19	2.62		8.35	Mo Ho Shaft
443	3.7	.07	0.93		3.05	" "
444	4.0	.03	0.35		1.27	" "
445	4.0	.11	1.45		4.13	" "
446	5.6	.24	3.23		10.48	" "
447	3.8	.51	6.95	do	23.34	" "
448	5.0	.05	0.70		2.10	" "
449	1.8	.04	0.50		1.72	Incline s of M H
450	1.4	.24	3.23		10.49	" Tunnel
451	2.9	.11	1.55		4.84	"
452	1.5	.49	6.65		22.44	"
453	1.3	.06	0.75	do	2.57	"
454	1.4	.03	0.37		1.27	Cuts S of M H Tu.
455	1.1	.09	1.25		3.95	"
456	0.5	.87	12.80		38.70	Shaft #1
457	2.6	.07	0.90		3.03	" "
458	1.2	.23	3.13		10.07	" #2

Sample Number	Width	Gold Oz.	Silver Oz.	Lead %	G & S Value	Location of Sample.
459	0.9	.04	.50	2.2	$ 1.72	Shaft #2
460	2.0	.07	7.70		7.41	Shaft #1
461	2.0	1.01	13.60		44.12	" "
462	2.0	.29	3.87		12.63	Shaft #2
463	1.7	.78	10.48		34.05	" "
464	2.0	.65	8.72		5.62	" "
465	1.2	1.89	25.45	do	79.75	" "
466	1.0	.06	0.75		3.58	Compton Shaft
467	1.2	.26	3.50		11.35	" "
468	1.9	.13	1.70		5.64	
469	1.9	.42	5.70		18.38	
470	1.1	.09	1.15		3.88	
471	2.8	.29	3.90	do	12.66	Shaft #4
472	3.3	.30	4.10		13.14	" "
473	4.5	.07	0.93		3.05	" "
474	5.0	.04	0.55		1.75	" "
475	4.5	.12	1.65		5.25	" "
476	1.4	.10	1.40		4.40	" "
477	3.6	.02	0.25	do	.86	
478	3.9	.04	0.52		1.74	
479	2.9	.06	0.78		2.60	
480	2.7	.01	0.12		0.42	
481	2.0	.08	1.03		3.45	
482	3.0	.04	0.50		1.72	Tu. N of Shoemaker
483	1.9	.04	0.50	do	1.72	"
486	7.8	.10	1.35		4.36	"
487	2.8	.17	2.25		7.41	"
488	2.1	.03	0.42		1.31	"
489	2.4	.56	7.58		41.97	"
490	3.0	.09	1.22		3.93	"
491	2.3	.13	1.70	do	5.64	Doucher Tunnel
492	3.6	.08	1.05		3.48	"
493	3.0	.21	2.83		9.17	Tunnel W of #5
494	2.7	.10	1.35	do	4.36	Tunnel #10

Record of 470 samples.

Average gold .198 oz. at $35 is	$6.98
Average silver 2.568 oz at 64½¢ is	1.66
Total Gold & Silver 1934 prices	$8.64

M. E. BOHANNON SAMPLES

Sample Number	Width	Gold @ $20.	Silver oz.	Gold & Silver @ $35 & 64¼¢	Location of Sample
1	3.0	$5.60	tr.	9.31	#4 Shaft
2	5.0	3.20	1.2	7.20	" "
3	2.5	17.60	6.2	33.89	" "
4	3.5	2.80	tr	4.76	" "
5	5.0	0.80	tr	1.36	" "
6	2.0	8.80	1.6	15.96	" "
7	2.0	4.00	tr	6.79	" "
8	2.5	4.80	tr	8.15	#3 Shaft
9	3.0	2.40	1.4	4.97	" "
10	3.2	4.80	1.2	8.92	" "
11	3.0	6.00	1.0	10.83	#2 Shaft
12	3.0	4.00	1.0	7.44	" "
13	2.0	16.80	2.6	30.17	" "
14	3.0	4.00	2.8	8.60	" "
15	3.0	6.40	2.3	12.35	" "
16	5.0	4.00	1.6	7.83	" "
17	5.0	4.40	2.8	9.27	" "
18	2.5	14.00	2.6	25.44	#1 Shaft
19	3.0	8.00	1.6	14.61	" "
20	3.0	4.00	1.0	7.44	" "
21	4.0	4.00	2.6	8.47	#1 Tunnel
22	5.0	5.60	4.6	12.48	" "
23	4.0	14.00	11.0	30.88	" "
24	5.0	8.00	7.4	18.44	" "
25	4.5	5.60	5.8	13.25	" "
26	4.5	4.00	5.6	10.41	" "
27	5.0	4.80	6.6	12.40	#2 Tunnel
28	3.0	2.40	0.0	4.07	" "
29	3.0	6.00	5.7	13.87	" "
30	5.0	2.40	2.6	5.74	" "
31	1.5	0.00	1.8	1.16	" "
32	2.5	3.20	3.4	7.62	" "
33	3.5	4.80	4.0	10.73	" "
34	3.0	12.00	1.8	21.51	#3 Tunnel
35	2.0	8.00	1.2	14.35	" "
36	4.0	0,00	0.0	0.00	" "
37	4.0	5.60	1.4	9.90	" "
38	1.3	11.00	1.2	19.45	" "
39	4.5	2.40	1.6	5.10	" "
40	3.5	9.50	2.5	17.74	#4 Tunnel
41	2.5	3.30	1.0	6.25	" "
42	2.5	9.92	6.6	20.92	" "
43	3.0	3.30	3.8	8.05	" "
44	1.0	1.65	0.8	3.31	" "
45	4.0	3.72	2.9	8.18	" "
46	4.0	2.40	0.8	4.72	" "
47	2.0	8,68	3.0	16.67	" "
48	4.0	6.40	0.8	11.38	Shoemaker 1st Level
49	3.0	2.40	0.8	4.58	" " "
50	5.0	4.00	2.6	8.46	" " "

M. E. BOHANNON SAMPLES

Sample Number	Width	Gold @ $20.	Silver oz.	Gold & Silver @ $35 & 64¢	Location of Sample.
51	3.0	$4.80	3.4	$10.34	Shoemaker Shaft 1st Level
52	4.0	4.00	1.4	7.69	" " " "
53	2.5	3.20	1.4	6.33	" " " "
54	8.0	1.60	1.0	3.37	" " " "
55	4.5	13.22	1.2	13.99	" " " "
56	7.0	10.40	1.8	18.82	" " " "
57	5.7	6.00	2.8	11.99	Shoemaker Shaft 3rd Level
58	5.0	6.80	0.7	11.99	" " " "
59	3.5	4.00	1.0	7.43	" " " "
60	7.0	4.00	0.5	7.11	Shoemaker Shaft 6th Level
61	4.0	9.60	1.4	17.20	" " " "
62	1.2	4.00	0.0	6.79	" " " "
63	4.0	6.00	0.8	10.70	Shoemaker Shaft Last Part
64	4.0	4.80	1.0	8.79	" " " "
65	2.5	4.00	0.5	7.11	" " " "
66	2.0	4.00	1.6	7.82	Tunnel #5
67	3.5	1.60	1.0	3.37	" "
68	3.5	2.80	0.5	5.07	" "
69	3.0	6.40	2.8	12.67	" "
70	6.0	4.80	8.2	12.14	Tunnel #8
71	4.0	7.60	7.4	17.66	" "
72	2.0	11.20	0.6	19.38	" "
73	4.0	2.80	1.6	5.79	" "
74	4.0	6.00	2.8	11.99	" "
75	3.0	4.00	1.6	7.82	" "
76	4.0	8.00	1.6	14.61	" "
77	5.5	2.40	tr	4.07	" "
78	3.0	4.00	4.6	9.75	Mo Ho Shaft
79	4.5	8.00	5.6	17.19	" "
80	4.5	5.60	6.6	13.77	" "
81	2.0	8.00	7.4	18.34	" "
82	7.0	6.80	3.6	12.49	" "
88	4.0	2.85	1.0	5.40	Tunnel #4
89	5.0	4.40	4.7	10.50	Tunnel #8 Center
90	2.0	1.20	0.5	2.36	" " "
91	3.0	12.00	8.0	25.55	" " "
92	2.0	3.10	2.1	6.65	Tunnel #4
95	1.0	8.47	7.1	18.94	" "
96	1.3	13.23	6.9	27.90	" "
97	2.5	7.85	3.2	15.41	" "
98	2.5	5.18	3.7	11.18	" "
99	2.0	2.48	3.4	6.36	" "
100	2.0	3.92	2.7	8.48	" "
102	2.0	1.24	0.8	2.84	" "
103	2.0	7.85	1.8	14.47	Tunnel #4 Center
133	3.2	11.51	6.2	23.50	Tunnel #8 Center
134	2.7	2.89	1.6	5.92	" " "
135	4.0	1.03	0.6	2.13	" " "
136	3.5	0.82	0.6	1.77	" " "
137	3.0	4.10	1.3	7.85	" " "
138	3.0	5.16	3.7	11.28	" " "
139	3.5	0.41	0.4	.95	" " "
140	3.0	1.25	0.7	2.35	" " "

M. E. BOHANNON SAMPLES

Sample Number	Width	Gold @ $20.	Silver oz.	Gold & Silver @ $35 & 64¼¢	Location of Sample
141	3.5	1.24	0.7	$2.55	Tunnel #8
145	4.0	0.93	0.4	1.83	" "
146	5.0	1.44	0.0	2.44	" "
147	1.0	0.31	0.2	65	" "
148	4.0	2.16	0.9	4.25	" "
149	4.0	2.00	0.9	3.98	" "
150	3.0	2.29	0.6	4.27	" "
151	3.5	15.29	6.9	30.39	" "

111 samples.

Average all samples $10.35 gold & Silver 1934 prices.

" " " 9.14 gold.

" " " 1.22 silver.

" " " 1.89 oz. silver.

" " " .261 oz. gold.

For every $1.00 gold at $35.00 per oz. there is .1332 cents in silver.

METALLURGICAL TESTS.

ON ORES FROM THE

MO HO MINE.

by

MERRILL METALLURGICAL COMPANY, (1915).

San Francisco, Cal.

&

THE GENERAL ENGINEERING COMPANY, (1917).

Salt Lake City, Utah.

Test No. 831-A I & II

Ore Received from J. H. Miller, MO - Ho MINE Test begun July 18, 1915
Date Received June 28 1915. Test completed July 22.
Test made by P. H. Chubb
Assay Heads 0.68 oz. Gold 7.06 oz. Silver
Nature of test Amalgamation, concentration, Cyanidation, Middle Dump Ore.

Experiment No. 1, by amalgamation and cyanidation on Middle Dump Ore.
1700 grams ground thru 100 mesh in jar mill with water, then amalgamated.

	Au.	Ag.
Ore Heads	0.68 ozs.	7.06 oz.
Amalgamated Tails	0.52 "	6.75 "
Amalgamation Extraction	23.53%	2.97%

Tails from amalgamation air agitated at S:L ratio 1:2 in KCN solution.

	KCN %	P. A.	Au. Oz.	Ag. Oz.
Start	0.22	35	0.52	6.75
24 hours	.20	30	.05	3.09
48 hours	.17	20	.025	3.16 (lime added
72 hours	.15	42	.030	2.95

Cyanide extraction on amalgamation tails, 94.23% Au. 56.30% Ag.
Total assay extraction by amalg. & cyanid. 95.59% " 58.21% "
KCN consumption per ton of ore - 2.8 pounds.

Experiment No. II by concentration and cyanidation on Middle Dump Ore.
1700 grams ground thru 100 mesh in jar mill with water, then concentrated on canvas table.

			ASSAY.	
PRODUCT	WEIGHT		AU.	AG.
Concentrator Heads	1700 grams	100%	0.68 oz.	7.06 oz.
" Concentrates	145 "	8.53%	1.20 "	14.86 "
" Tails	1553 "	91.47%	0.42 "	5.78 "
" Extraction			15.05%	17.95%

Concentrator tails air-agitated at S:L - 1:2 in KCN solution.

	KCN %	P.A.	AU.	AG.
Start	0.20	33	0.42 ozs.	5.78 ozs.
24 hours	.18	32	.02 "	2.94 "
48 hours	.17	28	.02 "	2.68 "
72 hours	.15	30	.025 "	2.65 "

Cyanide extraction on concentrator tails 94.05% Au. 51.15% Ag.
Total assay extraction by conc. & Cyanidation 96.6% " 85.7% "

KCN consumption per ton of ore 1.83 pounds

THE GENERAL ENGINEERING COMPANY
CONSULTING ENGINEERS
J. M. CALLOW, and MANAGER.

Salt Lake City, Utah. Feb. 1917

LOT 739 B-C
Test summary
of Flotation, Concentration & Cyanide.

ORE TESTING DEPARTMENT
ASSAYS AND CALCULATIONS
Test on Ore From Mr. B. F. Tibby.

S U M M A R Y O F A L L T E S T S

Test No. 1.

Crush in Ball Mill to pass 100 mesh.

Float 2 pounds Na_2S per ton.

4 lb. oil per ton.

****

Concentrates Assay

	Tons	Au.	Ag.	Pb.
Concentrates	1.31	4.96	33.6	41.5
Tails	98.69			

Recovery

	Tons	Au.	Ag.	Pb.
		19.62	9.30	13.0

Final Tails Assay.

	Au.	Ag.	Pb.
Tails	0.27	4.35	3.0

Test No. 2.

Crush in Ball Mill to pass 150 mesh.

Float, 10 lbs. Na_2S per ton.

1.8 lbs. oil per ton. Tables Flot. Tails.

****

Concentrates Assay

	Tons	Au.	Ag.	Pb.
Combined Concentrates	4.91	1.39	12.25	23.35
Tails	95.09			

Recovery

	Au.	Ag.	Pb.
Combined Concentrates	21.01	13.66	27.05

Final Tails Assay.

	Au.	Ag.	Pb.
Tails	0.27	4.00	3.25

****

Test No. 3.

Crush dry to pass 100 mesh.
Agitated 2 hours with 2:1 ratio 3 lbs. KCN solution.

CONSUMPTION

lb. CaO per ton ore	0	3	5	7	9
lb. KCN per ton ore	3.5	2.9	1.92	2.19	0.80

Test No. 4.

Crush dry to pass 100 mesh.

Agitated with 3 pounds KCN solution at 2:1 ratio, and 10 pounds CaO per ton.

Concentrates Assay.

24	hour	Agitation	3.6	lb.	KCN
36	"	"	5.1	"	"
48	"	"	4.6	"	"

Recovery

Au.	Ag.
87.18	27.48
84.62	28.58
84.62	28.58

Final Tails Assay

Au.	Ag.
0.05	3.3
0.06	3.25
0.06	3.25

Test No. 5

Crush dry to pass 48 mesh.
Screen on 65 and 150 meshes. Tables + 65 + 150 & 150. All Concentrates combined. Crush table tails to pass 100 mesh in Ball Mill. Floated. 10 lb. Na_2S per ton ore. 1 lb. H_2SO_4 per ton ore. 2 lbs. oil per ton ore.

Concentrates Assay.

	Tons	Au.	Ag.	Pb.
Combined Concentrates	14.2	1.72	11.33	15.88
Tails	85.8			

Recovery

	Au.	Ag.	Pb.
Combined Concentrates	57.59	34.90	53.24

Final Tails Assay.

	Au.	Ag.	Pb.
Tails	0.21	3.50	2.31

Test No. 5A

Table tails from test No. 5 crushed to pass 100 mesh. Agitated 24 hours with 3 pounds KCN solution 2:1 ratio and 10 pounds CaO per ton ore. 1.8 lb. KCN used.

Recovery

	Au.	Ag.
Extraction	40.37	12.09

Final Tails Assay.

	Au.	Ag.
Tails	0.01	2.85

Total Recovery

97.96% Of the total gold.
46.99% " " " silver.
53.24% " " " lead.

SPECIAL TEST

Crush in Ball Mill to pass 120 Mesh. Float.

2 lb. oil per ton

Concentrates Assay.

	Tons	Au.	Ag.	Pb.
Concentrates	9.8	1.99	7.95	5.23
Tails	90.2			

Recovery

	Au.	Ag.	Pb.
Concentrates	40.37	17.78	11.62

Final Tails Assay

	Au.	Ag.	Pb.
Tails	0.32	4.0	4.32

HEADS BY ASSAY

	Gold Ozs.	Silver Ozs.	Lead %
Composite of B & C 50% each	0.39	4.55	4.62

Test No. 6

Crushed to 35 mesh and tabled.

Concentrates Assay.

	Tons	Au.	Ag.	Pb.
Concentrates	6.81	1.93	12.20	25.56
Tails	93.13			

Recovery

	Au.	Ag.	Pb.
Comentrates	51.15	18.46	37.67

Final Tails Assay.

	Au.	Ag.	Pb.
Tails	0.20	3.94	3.09

Tailings from above crushed in Ball Mill to 200 mesh with 1 lb. KCN solution and 10 lb. CaO. 0.6 pounds KCN consumed.

	Recovery	Final Tails Assay.	
	Au.	Au.	Ag.
Extraction	42.87		
Tails		0.025	3.94

Ball Mill Tails agitated 24, 36 and 48 hours in 2 lb. KCN solution. 2.6 to 1, 10 lb. CaO & 0.53 lbs. Lead Acetate.

	KCN CONSUMED	Recovery		Final Tails Assay	
		Au.	Ag.	Au.	Ag.
24 hours agitation	.37 lb. KCN		25.63	0.025	2.70
36 " "	1.58 " "	1.12	25.63	0.020	2.70
48 " "	1.39 " "	2.39	27.69	0.015	2.60

TOTAL RECOVERY

96.41% of the total gold.
46.15% " " " silver.
37.67% " " " lead.

Test Number 6 (Special)

Sample Ball Mill Tails agitated 48 hours with 6.6 lbs. KCN 0.4 lbs. Lead Acetate, 10 pounds CaO, 2 to 1 pulp.

	Recovery		Final Tails Assay	
	Au.	Ag.	Au.	Ag.
Extraction	2.39	30.4		
Tails			0.015	2.47

KCN Consumed 6.6 lbs.

TOTAL RECOVERY

96.41% of the total gold
48.86% " " " silver.
37.67% " " " lead.

Sample furnished by Mr. B. F. Tibby.

Remarks Assaying bythe Union Assay Office.

Test No. 1
Of Flotation.

B & C SAMPLES COMBINED IN EQUAL PROPORTIONS

An average 684 grams crushed inBall Mill to pass 100 mesh and treated in a Callow Pneumatic Flotation Machine using oil mixture; and sodium sulphide at rate of 2 pounds per ton of feed.

P Oils Used.
G.E #1 50%
G.E #2 50%
4 lbs. per ton of feed.

TABLE I

		%	Au.	Ag.	Pb.
2	Flotation Concentrates	1.31	4.960	33.6	41.58
3	" Tails	98.69	.270	4.35	3.67
1	Heads (by products)	100.00	.331	4.73	4.16
	Flotation Concentrates		6.497	44.01	54.47
	" Tails		26.646	429.30	362.19
	Heads (by products)		33.143	473.31	416.66
	Flotation Concentrates		19.62	9.30	13.09
	" Tails		80.38	90.70	86.91
	Heads (by products)		100.00	100.00	100.00

Showing that out of every 100 tons of material treated there would be produced; 1.31 tons of concentrates ratio of concentration 76.33 to 1 Sample #2.

Assaying		Containing.
Gold ozs.	4.960	19.62% of the total gold.
Silver "	33.600	9.30% " " " silver.
Lead %	41.580	13.09% " " " lead.

and

98.69 tons of tailings. Sample #3.

Assaying.		Containing.
Gold Ozs.	0.270	80.38% of the total gold.
Silver "	4.350	90.70% " " " silver.
Lead %	3.670	86.91% " " " lead.

HEADS OF TEST.

	Gold oz.	Silver oz.	Lead %	Iron%	Insoluble %
By Assay "B"	0.245	4.00	None	8.6	66.3
"C"	0.540	5.00	6.30	9.0	66.9
Composite	0.392	4.50	3.15	8.8	66.6
By products	0.331	4.73	4.16		

Test #2
Of Flotation & Concentration.

An average portion of sample ground to 150 mesh in Ball Mill with oil mixture, and 10 pounds of Na_2S per ton. Sample floted in Callow Pneumatic Flotation machine.

OILS USED.

G.E. #2 40%
G.E. #14 20%
G.E. #40 40%
1.8 lb. per ton of feed.

TABLE I.

	%	Au.	Ag.	Pb.
2 Flotation Concentrates	2.61	1.400	9.65	15.78
3 Flotation Tails	97.39	0.296	4.26	3.93
1 Feed (by products)	100.00	0.325	4.40	4.23
Flotation Concentrates		3.654	25.19	41.19
" Tails		28.848	415.32	382.46
Feed (by products)		32.502	440.51	423.65

	Au.	Ag.	Pb.
Flotation Concentrates	11.24	5.72	9.72
" Tails	88.76	94.26	90.28
Feed (by products)	100.00	100.00	100.00

Sample #3 (Flotation Tails) tabled on Wilfley.

TABLE II

	%	Au.	AG.	Pb.
Table Concentrates	2.30	1.38	15.20	31.92
" Tails	95.09	0.27	4.00	3.25
Flotation Tails	97.39	0.296	4.26	3.93
Table Concentrates		3.174	34.96	73.42
Table Tails		25.674	380.36	309.04
Flotation Tails		28.948	415.32	382.46
Table Concentrates		9.77	7.94	17.33
" Tails		78.99	86.34	72.95
Flotation Tails		88.76	94.28	90.28

SUMMARY OF PRODUCTS & REJECTIONS.

TABLE III

	%	Au.	Ag.	Pb.
2 Flotation Concentrates	2.61	1.400	9.65	15.78
4 Table Concentrates	2.30	1.380	15.20	31.92
5 " Tails	95.09	0.270	4.00	3.25
1 Feed	100.00	0.325	4.40	4.23
Flotation Concentrates		3.654	25.19	41.19
Table Concentrates		3.174	34.96	73.42
" Tails		25.674	380.36	309.04
Feed		32.502	440.51	423.65
Flotation Concentrates		11.24	5.72	9.72
Table "		9.77	7.94	17.33
" Tails		78.99	86.34	72.95
Feed		100.00	100.00	100.00

FINAL SUMMARY

Table IV

		%	Au.	Ag.	Pb.
2 + 4	Concentrates	4.91	1.390	12.25	23.35
5	Tails	95.09	0.270	4.00	3.25
1	Feed (by products)	100.00	0.325	4.40	4.23
	Concentrates		6.828	60.15	114.61
	Tails		25.674	380.36	309.04
	Feed (by products)		100.00	100.00	100.00

Showing that from every 100 tons of feed there would be produced; 4.91 tons of concentrates. Ratio of concentration 20.4 to 1.

Sample # 2 & #4 combined.

Assaying		Containing	
Gold Ozs.	1.39	21.01%	of the total gold.
Silver "	12.25	13.65%	" " " silver.
Lead %	23.35	27.05%	" " " lead.

HEADS OF TEST.

	Gold Ozs.	Silver Ozs.	Lead %
By Products	0.325	4.40	4.23
By Assay	0.390	4.55	4.62

Test 3 Of Consumption

B & C SAMPLES COMBINED IN EQUAL PARTS.

1 An average portion of sample as received crushed dry to pass 150 mesh and agitated 2 hours with 2 to 1 of a 3 pound cyanide solution.

Cyanide consumption 3.50 pounds per ton of ore.

2 Do. but lime at rate of 3 pounds per ton of feed added before agitation.

Cyanide Consumption 2.90 pounds per ton of ore.

3 Do. but 5 pounds lime.
Cyanide consumption 1.92 pounds per ton of ore.

4 Do. but 7 pounds lime.
Cyanide consumption 2.19 pounds per ton of ore.

5 Do. but 9 pounds of lime.
Cyanide consumption 0.80 pounds per ton of ore.

Test 4
Of Cyanide. B & C SAMPLES COMBINED IN EQUAL PROPORTIONS.

An average portion of sample crushed dry to pass 130 mesh and agitated 24 hours with 2 to 1 of a 3 pound cyanide solution. Lime at rate of 10 pounds per ton of ore being added before agitation.

Cyanide consumption 3.6 pounds per ton of ore.

TABLE I

	%	Au	Ag	Au	Ag	Au	Ag
Cyanide Feed (Heads)	100.00	0.390	4.55	39.00	455.00	100.00	100.00
Cyanide Tails	100.00	0.350	3.30	5.00	330.00	12.82	72.52
Cyanide Extraction	100.00	0.340	1.25	34.00	125.00	87.18	27.48

Showing an extraction by cyanidation of ; 87.18% of the total gold, 27.48% of the total silver.

Do. but 36 hours agitation.

Cyanide Consumption 5.10 pounds per ton of ore.

TABLE II

	%	Au	Ag	Au	Ag	Au	Ag
Cyanide Feed (Heads)	100.00	0.390	4.55	39.00	455.00	100.00	100.00
Cyanide Tails	100.00	0.060	3.25	6.00	325.00	15.38	71.42
Cyanide Extraction	100.00	0.330	1.30	33.00	130.00	84.62	28.58

Showing an extraction by cyanidation of 84.62% of the total gold, 28.58% of the total silver.

Do. but 48 hours agitation.

Cyanide consumption 4.6 pounds per ton of ore.

TABLE III

	%	Au	Ag	Au	Ag	Au	Ag
Cyanide Feed (Heads)	100.00	0.390	4.53	39.00	455.00	100.00	100.00
Cyanide Tails	100.00	0.060	3.25	6.00	325.00	15.38	71.42
Cyanide Extraction	100.00	0.330	1.30	33.00	130.00	84.62	28.58

Showing an extraction by cyanidation of 84.62% of the total gold, 28.58% of the total silver.

HEADS BY TEST

	Gold ozs.	Silver Ozs.	Lead%
By Assay	0.390	4.55	4.62

Test 5
Of Concentration &
Flotation Test on Ore.

B & C SAMPLES COMBINED IN EQUAL PROPORTIONS.

An average portion of sample crushed to pass 48 mesh and screened on 65 mesh and 150 mesh.

TEST I

		Au	Ag	Pb	Au	Ag	Pb
IA	+ 65 mesh 23.04						
IB	+150 mesh 22.58						
IC	+150 mesh 54.38						
Heads (by Products)	100.00	4.25	4.61	4.24	42.48	461.28	423.81
— 65 mesh							
—150 "							
—150 "							
Heads (by products	100.00	100.00		100.00			

All of above products tabled separately and all concentrates thrown together.

TABLE II

	%	Au	Ag	Pb	Au	Ag	Pb
2 Table Concentrates	6.00	2.30	13.30	28.54	13.80	79.80	171.2
3 Table Tails	94.00	0.305	4.06	2.69	28.68	381.48	252.5
I Feed (by products)	100.00	0.425	4.61	4.24	42.48	461.28	423.8
Table Concentrates		32.490	17.30	40.40			
Table Tails		67.510	82.70	59.60			
Feed (by products)		100.00	100.00	100.00			

Sample #3 (Table Tails) was split and a portion ground in Ball Mill to 100 mesh with oil mixture, and 10 lb. Na_2S and 1 lb. H_2SO per ton. Sample floated in Callow Pneumatic Flotation machine.

OILS USED.

G.E. #1 50%
G.E. #2 50%
2 lbs. per ton of feed.

TABLE III

Flotation Concentrates	8.20	1.30	9.90	6.63	10.66	81.18	54.37
Flotation Tails	85.80	0.21	3.50	2.31	18.02	300.30	198.20
Table Tails	94.00	0.305	4.06	2.69	28.68	381.48	252.57
Flotation Concentrates		25.10	17.60	12.84			
Flotation Tails		42.41	65.10	46.76			
Table Tails		67.51	82.70	59.60			

SUMMARY OF PRODUCTS & REJECTIONS.

TABLE IV

Table Concentrates	6.00	2.30	13.30	28.54	13.80	79.80	171.24
Flotation Concentrates	8.20	1.30	9.90	6.63	10.66	81.18	54.37
Flotation Tails	85.80	0.21	3.50	2.31	18.02	300.30	198.20
Feed (by products)	100.00	0.425	4.61	4.24	42.48	451.28	423.81
Table Concentrates		32.49	17.30	40.40			
Flotation Concentrates		25.10	17.60	12.84			
Flotation Tails		42.41	65.10	46.76			
Feed (by products)		100.00	100.00	100.00			

FINAL SUMMARY

TABLE V.

	%	Au	Ag	Pb	Au	Ag	Pb
Concentrates	14.20	1.72	11.33	15.88	24.46	160.98	225.61
Tails	85.80	0.21	3.50	2.31	18.02	300.30	198.20
Feed (by products)	100.00	0.425	4.61	4.24	42.48	461.28	423.81
Concentrates		57.59	34.90	53.24			
Tails		42.41	65.10	46.76			
Feed (by products)		100.00	100.00	100.00			

HEADS OF TEST.

	Gold Ozs.	Silver Ozs.	Lead %
Composite B & C by Assay	0.390	4.55	4.62

Showing that out of every 100 tons of material treated there would be produced:-

14.20 tons of concentrates. Ratio of concentration 7.04 to 1. Samples #2 and #4 combined.

Assaying		Containing
Gold Ozs.	1.72	57.59% of the total gold
Silver "	11.33	34.90% " " " silver
Lead %	15.88	53.24% " " " lead

and 85.80 tons of tailings. SAMPLE #5.

Assaying		Containing
Gold Ozs.	0.21	42.41% of the total gold
Silver "	3.50	65.10% " " " silver
Lead %	2.31	46.76% " " " lead

An average portion of the tails #5 Test #5 crushed to pass 100 mesh and agitated 24 hours with 2 to 1 of a 3 pound Cyanide Solution, lime at rate of 10 pounds per ton of feed being added before agitation.

Cyanide consumption 1.8 pounds per ton of ore.

TABLE IA

	%	Au	Ag	Au	Ag	Au	Ag.
Cyanide Feed	85.80	0.21	3.50	18.02	300.30	42.41	65.10
Cyanide Tails	85.80	0.010	2.85	0.85	244.53	2.04	53.01
Cyanide Extract	85.80	0.200	0.65	17.16	55.77	40.37	12.09

Showing an extraction by cyanidation of ; 40.37% of the total gold, 12.09% extraction of the total silver, obtained as follows:

By Flotation & Concentration:	57.59% of the total gold,	34.90% of total silver.
	40.37% " " " "	12.09% " " "
Total	97.96% of the total gold,	46.99% of total silver.

Test Special
Of Flotation.

An average 1020 grams crushed in Ball Mill to pass 120 mesh and treated in a Callow Pneumatic Flotation machine using oil mixtures.

OILS USED.

G. E. #1 50%
G. E. #2 50%
2 lbs. per ton of feed.

FINAL SUMMARY

TABLE I

	%	Au	Ag	Pb	Au	Ag	Pb
Flotation Concentrates	9.80	1.990	7.95	5.23	19.502	77.91	51.25
Flotation Tails	90.20	.320	4.00	4.32	28.864	360.80	389.66
Heads (by products)	100.00	.483	4.38	4.41	48.366	438.71	440.91
Flotation Concentrates		40.370	17.78	11.62			
Flotation Tails		59.63	82.22	88.38			
Heads (by products)		100.00	100.00	100.00			

Showing that out of every 100 tons of material treated there would be produced: 9.80 tons of concentrates.

Ratio of Concentration 10.20 to 1. Sample #2.

Assaying		Containing
Gold Ozs.	0.320	40.37% of the total gold.
Silver "	7.950	17.78% of the total silver
Lead %	5.230	11.62% of the total lead.

and 90.20 tons of tailings. Sample #3.

Assaying		Containing
Gold Ozs.	0.320	59.63% of the total gold.
Silver "	4.000	82.22% " " " silver
Lead %	5.230	88.38% " " " lead

HEADS OF TEST

	Gold Ozs.	Silver Ozs.	Lead %
Composit B & C By Assay	0.390	4.55	4.62
By Products	0.483	4.38	4.41

Test 6
Of Concentration
& Cyanide.

Average portion of sample crushed to 35 mesh and tabled.

TABLE I

	%	Au	Ag	Pb	Au	Ag	Pb
2 Table Concentrates	6.81	1.93	12.20	25.56	19.56	83.08	174.06
3 Table Tails	93.19	0.20	3.94	3.09	19.05	366.92	287.94
1 Feed	100.00	0.39	4.50	4.62	39.00	450.00	462.00
Table Concentrates		51.15	18.46	37.67			
Table Tails		48.85	81.54	62.32			
Feed		100.00	100.00	100.00			

Sample #3 Table Tails, crushed in Ball Mill to 200 mesh with 1 lb. Cyanide solution and 10 lbs. CaO.
Ball Mill consumption 0.6 lbs. KCN

TABLE II

	%	Au	Ag	Pb	Au	Ag	Pb
4 Ball Mill Recovery	93.19	.175			16.72		
5 Ball Mill Tails	93.19	.025	3.94		2.33	366.92	
3 Table Tails	93.19	.200	3.94	3.09	19.05	366.92	287.94
Ball Mill Recovery		42.87	0.00				
Ball Mills Tails		5.98	81.54				
Table Tails		48.85	81.54	62.32			

Sample #5, Ball Mill Tails, was measured and solution made up to 2 lb. KCN, 10 lb. CaO added and 0.53 lb. Lead Acetate. Agitated 24 36, and 48 hours. KCN consumption. 0.37 lb. KCN + 0.6 lb. in Ball Mill which is 0.97 lb. altogether.

TABLE III

	%	Au.	Ag.	Au.	Ag	Au	Ag
6 24 hr. recovery	93.19		1.24		115.31		25.63
7 24 hr. tails	93.19	.025	3.70	2.33	251.61	5.98	55.91
5 Ball Mill Tails	93.19	.025	3.94	2.33	366.92	5.98	81.54

KCN Consumption 1.58 lb. + 0.6 lb. in Ball Mill a total of 2.18 lbs.

Took 100 grams of Ball Mill Tails from Test #6 and added 0.40 lbs. Lead Acetate and 10 lbs. CaO, 200 c.c. 6.6 lb. KCN and agitated 48 hours. KCN consumption 6.6 pounds.

		%	Au	Ag	Au	Ag	Au	Ag
5	Ball Mill Tails	93.13	.025	3.94	2.33	366.92	5.98	81.54
13	Tails	93.13	.015	2.47	1.40	230.03	3.59	51.14
12	Recovery	93.13	.010	1.47	0.93	136.89	2.39	30.40

TABLE IV

		%	Au	Ag	Au	Ag	Au	Ag
8	36 hr. Recovery	93.19	.005	1.24	0.466	115.31	1.12	25.63
9	36 hr. Tails	93.19	.020	2.70	1.864	251.61	4.78	55.91
5	Ball Mill Tails	93.19	.025	3.94	2.33	366.92	5.98	81.54

KCN Consumption 1.39 + 0.60 in Ball Mill or 1.99 pounds

TABLE V

		%	Au	Ag	Au	Ag	Au	Ag
10	48 hr. Recovery	93.19	.010	1.34	0.93	124.63	2.39	27.69
11	48 hr. Tails	93.19	.015	2.66	1.40	242.29	3.59	53.85
5	Ball Mill Tails	93.19	.025	3.94	2.33	366.92	5.98	81.54

Showing that out of every 100 tons of material treated there would be produced: 6.81 tons of concentrates. Ratio of concentration is 14.5 to 1. Sample #2.

Assaying		Containing
Gold Ozs.	0.20	48.85% of the total gold.
Silver "	3.94	81.54% " " " silver
Lead %	3.09	62.32% " " " lead.

Showing a recovery of:-

96.41% of the total gold, 46.15% of the total silver.

Obtained as follows:

By Concentration 51.15% of the total gold, 18.46% of silver.
By Cyanidation in Ball Mill 42.87% " " " "
By Cyanide Agitation 2.39% " " " " 27.69% " "

TOTAL 96.41% of the total gold, 46.15% of total silver

C. COLCOCK JONES
Consulting Engineer
725 South Figueroa Street
Los Angeles, Calif.

January 28, 1935.

Rico Mineral Corporation
514 Rives Strong Bldg.
Los Angeles, Calif.

Gentlemen:

In answer to your inquiry I beg to say that I have known Mr. Ferd Meinecke, Jr., for some time and have read with a great deal of interest his report on the Mo Ho Mine in Mineral County, Nevada.

I visited this property with Mr. Meinecke in October 1934 and spent two days in going through the various developments and in studying the geology and possibilities of the property.

In studying his report it is my opinion that his method of estimating the probable ore is more than conservative and a large proportion of it should be added to estimate of positive. His final estimate on both the probable and possible ore is in conformity with the conditions shown on the property and good engineering practice.

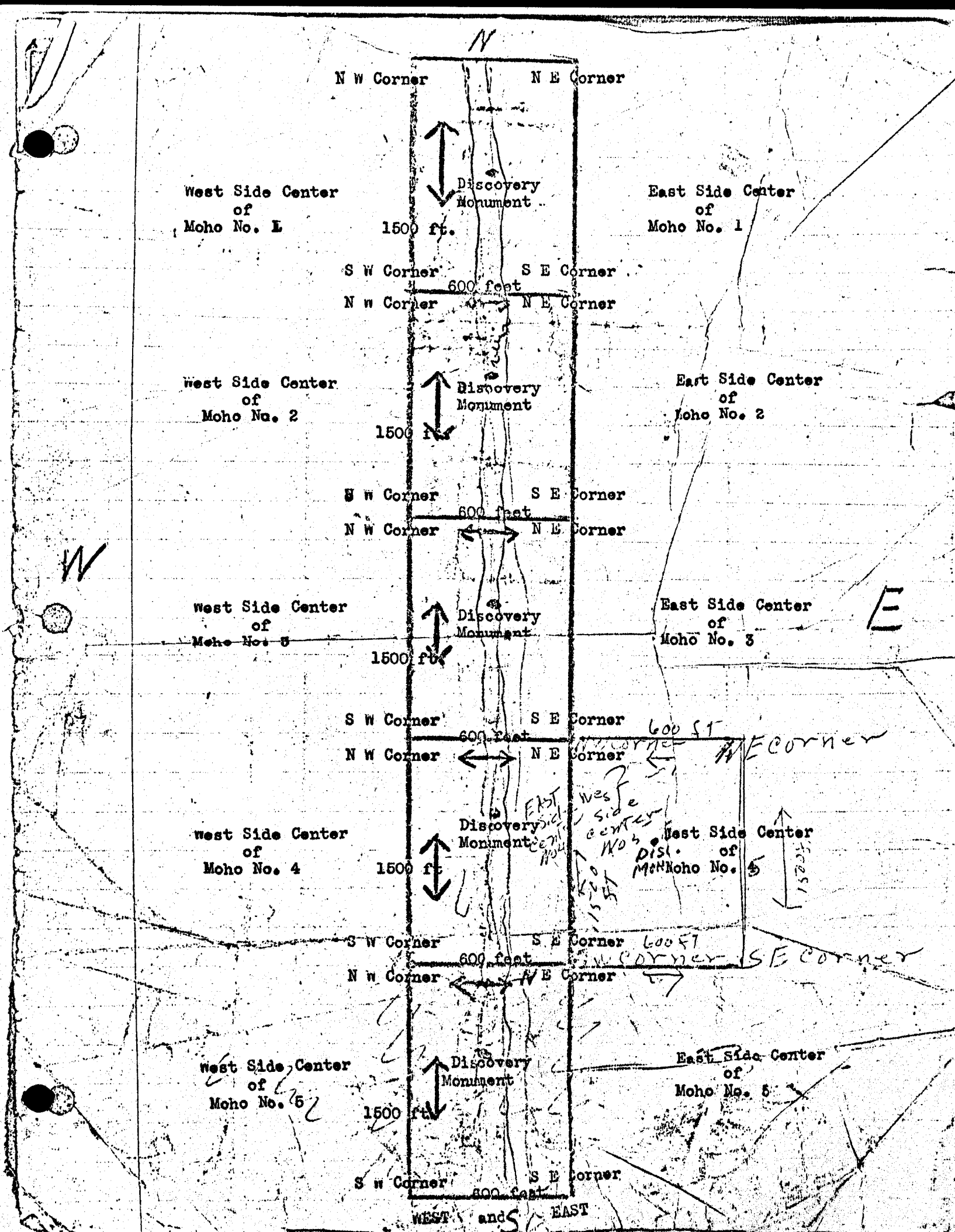
The cost for mining and milling should not exceed those set forth in the report and the principal suggestion that I have to make in order to put this property on a producing basis is that ample funds for development and equipment should be provided.

I trust this answers your questions and I am very much impressed with the possibilities of the property on account of its situation in a very definite and highly productive mineral territory.

Very truly yours,

(Signed) C. Colcock Jones, E. M.

CCJ:JV


N
N W Corner
N E Corner
West Side Center of Moho No. 1
Discovery Monument
1500 ft.
East Side Center of Moho No. 1
S W Corner
S E Corner
600 feet
N W Corner
N E Corner
West Side Center of Moho No. 2
Discovery Monument
1500 ft.
East Side Center of Moho No. 2
S W Corner
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600 feet
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W
West Side Center of Moho No. 3
Discovery Monument
1500 ft.
East Side Center of Moho No. 3
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600 feet
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West Side Center of Moho No. 4
Discovery Monument
1500 ft.
East Side Center of Moho No. 4
S W Corner
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600 feet
N W Corner
N E Corner
West Side Center of Moho No. 5
Discovery Monument
1500 ft.
East Side Center of Moho No. 5
S W Corner
S E Corner
600 feet
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N E Corner
WEST and EAST

NEVADA BUREAU OF MINES
UNIVERSITY OF NEVADA
RENO, NEVADA

Moho Mine

April 14, 1961

Mr. Josie Marion
472 21st Street
San Pedro, California

Dear Sir:

We are presently preparing a report for publication that describes the geology and mines of Mineral County. This report will be published in two or three months. You will be notified of its publication.

Mining activities in the Blue Mountain district, better known as the Marietta district, are described in "Reconnaissance of mining districts in Mineral County, Nevada", U. S. Bureau of Mines Information Circular 6941, by W. O. Vanderburg, 1937. The following is quoted from that publication.

"The Moho mine, on the south slope of the Excelsior Mountains, is accessible by automobile road from Mina 15 miles distant. The mine was located in 1903, and considerable work was done in searching for shipping ore. Property is credited with a production of $75,000, made mostly by lessees.

"With the increase in the price for gold, interest in the property was renewed. It was sampled by Earl Bohannon; and a small company, called the Federal Mining and Engineering Co., acquired 12 unpatented claims. In 1935, a pilot milling plant employing cyanidation was erected. This plant has a capacity of 25 tons per day, and up to October 1936 about 1,500 tons of dump ore had been milled.

"Mine development consists of one tunnel driven 1,200 feet on a vein, nine shorter tunnels, and several shafts, the deepest of which is 300 feet. Total underground workings comprise 3,500 feet.

"The formation is mainly andesite. The ore occurs in a series of veins that average 3 1/2 to 4 feet in width and dip about 70°. One vein is traceable on the surface for a distance of 1 mile. The values are chiefly in gold, with some silver. Lead in the form of cerussite is present in the ore in amounts averaging about 2 percent."

Very truly yours,

VIRNON E. SCHEID, Director

Robert C. Horton

Robert C. Horton
Mining Engineer

RCH:hm