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No. 50 Co

Phoenix, Arizona,

CHAS. A. DIEHL

Jul 26 37

ARIZONA ASSAY OFFICE

Phone 3-4001

315 North First Street

P. O. Box 1148

This Certificate That samples submitted for assay by Mr. G. M. Colvocoresses contain as follows per ton of 2000 lbs. Avair.

MARKS F. F.	SILVER		GOLD		VALUE (Oz.)	TOTAL VALUE Of Gold and Silver	PERCENTAGE				REMARKS
	Ounces	Tenths	Ounces	Hundths	\$35.00						
A	2	2		.42	\$14.70						
B		3		.15	\$5.25						
C	2	3		.41	\$14.35						
D	1	2		.22	\$7.70						
E	1	8		.43	\$15.05						

Charges \$ 6.25

Assayer Arizona Assay Office. C.A.D.

No. 46 Co

Phoenix, Arizona,

CHAS. A. DIEHL

Jul 14 37

ARIZONA ASSAY OFFICE

Phone 3-4001

315 North First Street

P. O. Box 1148

This Certifies That samples submitted for assay by Mr. G. M. Colvocoresses contain as follows per ton of 2000 lbs. Avoir.

MARKS	SILVER		VALUE (Oz.)	GOLD		VALUE (Oz.)	TOTAL VALUE Of Gold and Silver	PERCENTAGE				REMARKS
	Ounces	Tenths		Ounces	Hundths							
						\$35.00						
1	FF	Trace		.12		\$4.20						Portion large of lead ore for assay day.
2	FF	.6		.07		\$2.45						Small of ore for assay day.
3	FF	1.0		.11		\$3.85						Small of old dump of tunnel opposite assay
4	FF	Trace		.02		\$.70						Small of dump on E side of Lefter gulch.
5	FF	2.3		.27		\$9.45						From cross gulch near Lefter. Small pieces from

Charges \$ 6.25

Assayer Arizona Assay Office. C.A.D.

July 17th, 1937.

Arthur Luhrs,
Luhrs Hotel,
Phoenix, Ariz.

Re FOSTER'S MINE (FORTUNA)

Dear Sir:-

Supplementing my report on this property, dated July 16th, I wish to advise you that late yesterday afternoon Foster called at my office accompanied by a man named Nunn, who seems to have an interest with Foster. Foster explained his failure to show up at his camp by saying that he had torn out the transmission of his car while crossing Mingus Mt., where he had gone on some other business.

From our conversation it seemed that he felt that I had failed to find the best showing on his claims, although it is strange that Sparling knew nothing of this and he said that I seemed to have pretty well covered every other section of his holding, including the main shaft which he termed the Poverty, ^{the} Snowdrift and Violet Mines which he had taken over from Bush. No returns had as yet been received on the small shipment of ore to Prescott. Foster said that the real Fortuna Mine was once operated by a man named Lane, who took out some rich ore and later sold it to F. X. O'Brien of Wickenburg, from whose widow he has obtained the lease.

The caved in workings described in the next to last paragraph of my report were in the north portion of this claim but he says that some distance further to the south there is a better showing where a 7' vein will assay over \$20. gold per ton

for a length of over 600' and this forms the core of a mineralized zone 75' in width which will average \$15.00 per ton.

This last statement is entirely incredible and I am sure that Foster never sampled any showing over a width of 75'. It is my impression that the 7' of high grade to which he referred is a continuation of the occurrence mentioned on page 6 of my report and if so, my last sample carrying \$9.45 per ton may be taken as representing its value at that point, although there may of course be sections or shoots of richer material.

I could not gather that Foster had properly ~~or~~ opened up this vein in a manner that would permit a proper sampling and I told him that in my opinion this should be done before any engineer should be asked to pass an opinion on his property.

Foster spoke of developing this vein by cleaning out and advancing a long tunnel which would give substantial backs on the vein, but such a procedure seemed entirely premature and certain to cost upwards of \$10,000.

According to the U. S. Geological Survey, the only production credited to Lane was made prior to 1884, when he was operating a mine 5 miles southeast of the Fortuna. Foster admitted that F. X. O'Brien never did any mining there and I can find no records of any shipments from this immediate vicinity although some were undoubtedly made by the old-timers.

I am very sorry that I did not see the particular showing which Foster described and if he will properly clean out the trenches on this vein, unwater the Poverty shaft and guarantee to be at his camp, I will gladly return later for a further examination as per my letter of yesterday, but even after discussing

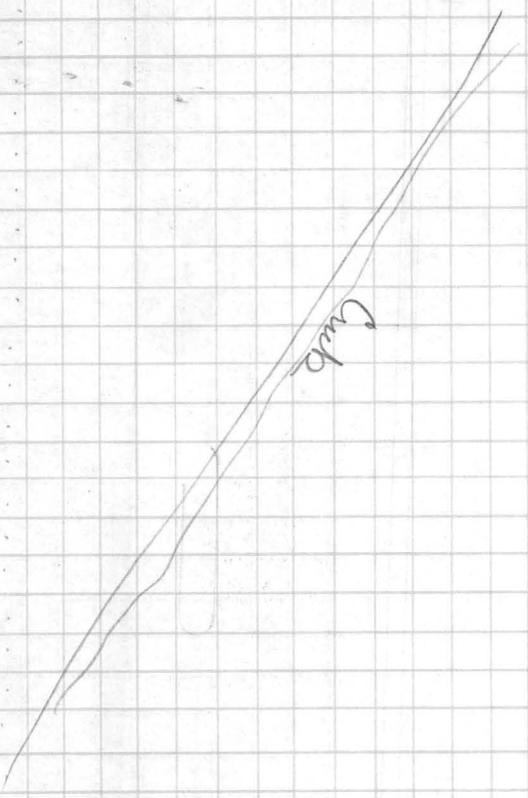
the situation with Foster and Nunn I feel that another trip would be quite useless until Foster has put things in such shape that a proper investigation can be made.

Meantime I certainly would not advise you to invest the \$4,000. which Foster tells me that he is now seeking, for even if his representations are approximately correct, I do not see what could be accomplished with such a sum of money. Cleaning out of the most attractive showings should not cost over \$200., while development of ore reserves and proper equipment for mining would run to at least \$10,000., unless Foster should abandon the Poverty shaft and move his machinery to this other vein. Should a mill be required, the investment would amount to \$50,000. or more, if an efficient plant were to be provided with sufficient capacity to operate at a low unit cost.

Yours very truly,

3 me

GMC:LM



Button

Fortune vein

Fortuna

Slope
+ open cuts

Main stop

open cuts

85' adit cut

Walt

Long X

Mehmic - Lodge



Scale 500' = 1"



North drift

Walt

Fortuna Mine

July 16th, 1937.

Arthur Luhrs,
Luhrs Hotel,
Phoenix, Ariz.

Re: Foster Mining Property

Dear Sir:-

I submit to you and your associates the following report on the mining property presented to you by L. H. Foster, which I examined on July 12th and 13th, 1937, at your request and the request of Burt Clingan.

copy

I greatly regret that my examination was limited by the fact that Foster was not present although he had definitely promised to meet me at the claims on the morning of the 12th. Actually his camp was entirely deserted on that day and on the next morning his truck driver, Sparling by name, put in an appearance and helped me to find other locations at which Foster had recently been working, but his knowledge of these was very limited and he had no information in respect to the assays of samples which Foster had taken, or the value of a four ton shipment of ore from the main shaft which he had recently hauled to Prescott. The water in the said shaft stood so high that the drift could not be entered and every other working which I visited was caved or blocked so that it is evident that no engineer could make a satisfactory examination until Foster does a lot of cleaning up and exposes the veins in such a manner that they can be properly sampled.

My samples as noted in this report were necessarily taken from the dumps and according to Sparling were representative of

the ore, but it will be noted that not one of them carries satisfactory values and if there is any pay ore on these claims it must either be well hidden or found at location unknown to Sparling.

Conclusion.

On the basis of everything which I saw or could learn in reference to this property I can see no justification whatever for any development or attempted operation and strongly advise you not to engage in this venture which I should term a very poor mining gamble.

Some small pockets or shoots of high grade ore may have been found here in the past and similar finds may be made in future but I could see no promise of any substantial body of either high grade or low grade (milling) ore and both the geology of the district and its past record strongly argue against their existence. My samples show that none of the vein material which I could find carries any substantial values in gold or silver and only traces of copper and lead were to be seen.

My opinion might be altered, - although I do not think it likely, - by a thorough inspection of the old workings, if these should be cleaned out and the ore, if any, rendered accessible. This should properly have been done before Foster asked anyone to go to the expense of sending in an engineer or made any representations in respect to values and tonnage.

Property and Location.

Apparently Foster holds two mining leases, one from Frank Lapham, covering the unpatented lode mining claims known as: Jerry, Poverty, Vermont, Ethan Allen and Black Cat and formerly known as the Fortuna Mine. The second lease is from H. J. and Viola Mae

Rush and covers unpatented lode claims known as:

X

Hiwathia	(Sec.)	#1
"		#2
Snowdrift		#1
"		#2
Violet		#1
"		#2

X Both leases were made in May of 1937.

These claims are located in the Tiger Mining District of Yavapai County, Arizona and in the west central portion of Minnchaha Flat, - a basin on the southwest slope of the Bradshaw Mountains.

The elevation is about 5500', climate excellent except for short periods during the winter and there is a good domestic water supply from springs and creeks. The district is well timbered with pine, juniper and oak and thickly covered with underbrush.

The property is reached by way of Wagoner from the White Spar Highway (U. S. #89) the distance from the highway being 31 miles. The last 14 miles of road is very bad and trucking to the railway at Kirkland costs about \$5.00 per ton, and would constitute a serious handicap to all mining operations in this district until a very substantial expenditure is made for road improvement.

Geology

The country is mostly Bradshaw Granite and Crooks Complex of Pre Cambrian age and some distance west of the property there is a large outcrop of Yavapai schist. The ores are mostly those of gold and silver, associated with quartz and spar in which is found iron sulphide oxidizing near the surface.

History

The district was first explored in the 70's and small

(3)

placer and lode mines were worked at intervals until about 1910, since which date there had been practically no activity until very recently. A portion of Foster's holdings was once known as the Fortuna Mine, another portion was known locally as the Lapham and in their immediate vicinity were the Button and Boaz Mines. None of the operations in this district proved to be permanent and it is apparent that they must have consisted principally in the extraction of high grade pockets which, like nearly all of the precious metal mines of the Bradshaws, resulted from local effects of secondary enrichment and have rarely yielded any profit except to the old "chloriders" who gouged out the rich surface pockets and shipped small quantities of high grade ore or treated it locally in arrastras of which the remains are still in evidence.

Equipment.

At the Foster property there are three small shacks and two tents. Some 8 or 10 men could be housed during the summer but there are no accommodations suitable for cold weather except the small Lapham house, one half mile distant.

At the Fortuna Shaft Foster has installed a small hoist and a portable Ingersoll Rand compressor, a blower, rotary pump with engine, and forge. He has some drills and several small engines and accessories lying about. All the machinery is used but appears to be in fair condition and serviceable.

Workings and Ore Showings

An old shaft (presumably the Fortuna) has been reopened by Foster. This is said to have a depth of about 40' but when visited the water had risen to within 25' of the collar. I was told that there was a 60' drift to the northward on the 40' level.

and that Foster had mined from the vein along this drift some 4 tons of ore which was sent to Prescott. From some of the ore which was left on the dump and which Sparling informed me was representative of the material mined I selected two samples; the first supposed to be high grade, carried .12 oz. gold and trace of silver value \$4.20 per ton. The second or average sample carried .07 oz. gold and 0.6 oz. silver value \$2.45 per ton. If the Prescott shipment contained higher values I would judge that it must have been carefully sorted.

The vein on which this work was done is composed of crushed wall rock and quartz and spar, with some iron oxide and sulphide. It has a width near the surface of about 3', strikes N. 30 degrees E. and dips about 80 degrees to the northwest; the walls are granite. There are some surface pits along this vein and a long crosscut tunnel, now caved, was run in to intersect it from the west.

A tunnel in the hillside north of the shaft was said to have yielded high grade ore but my sample of this from the dump carried only .11 oz. gold and 1.0 oz. silver value \$3.85 per ton.

None of the surface pits or cuts appeared to have exposed any better looking vein matter.

On both sides of the creek which runs by Lapham's home parallel veins are found and many years ago these were opened up to some extent by adit tunnels and shafts, all of which are now caved or filled with waste, so that no proper inspection can be made.

From the dumps of two tunnels on the south side of the creek I took a grab sample which only carried 0.70 per ton but if

any better material was mined at these points it had evidently been entirely removed.

From the workings on the north side of the gulch a little iron stained quartz was collected which Sparling assured me was high grade ore. This assayed 0.27 oz. gold and 2.3 oz. silver, value \$ 9.45 per ton. It did not appear to me that any substantial quantity of similar material had been found, - merely narrow stringers and in any event I do not believe that in this remote district it would pay to attempt to develop any ore with a value of less than \$20.00 per ton unless there were reason to expect that lower grade material would be found in great quantity permitting large scale mining and milling operations at low unit cost.

I could find no indication whatever that justified the hope of finding either high grade or low grade ore to the extent that might form the basis of any profitable mining.

Yours very truly,

J. McArthur

Note re Foster Fortune Mine

The shipment of about $4\frac{1}{2}$ tons which Foster made to Purcell for the Percy Shaft ran

$$\begin{array}{r} \text{Cu} = 0.67 = 23.45 \\ \text{Ag} = 4.00 = \frac{3.08}{26.53 \text{ p.t.}} \text{ While} \end{array}$$

is much better than I expected.

Cu has mostly quartz with some
lim used as bulid, it had probably been

Carefully Sorted

NOTES IN REFERENCE TO JUDGE TUTTLE'S OPINION
(1811 in the case of H. Henderson, plaintiff,
vs. Western Precipitation Company.)

Referring to Paragraph One:

The plaintiff and his associate, Hendricks, testified specifically that they had called at our office at Howland Flat on a Monday morning and had requested that our heavy run of water through the sluice should be delayed for four or five days, by which time they would be able to complete the clean-up of their boxes. They testified that the flood of water which caused the damage was released on a Friday evening just before sunset, i.e. more than four days after they made their request. The above would certainly not seem to support the last statement in this paragraph of the opinion and the inference which might be drawn from the testimony is that the plaintiff had ample time in which to make his clean-up, but deliberately delayed doing so in order to be able to claim damages. This appears all the more probable since they admitted that they had cleaned up three of the eight boxes, but chose to start with the lower boxes whereas most of the values were naturally contained in the upper boxes, but Henderson and his Attorney failed to establish by proper testimony the amount of gold which he expected to have cleaned up if the flood had not destroyed his sluice.

Referring to Paragraph Two of the Opinion:

Taylor did not testify that he went on the ground alone or that he could only locate two of the Natalee stakes, actually he had one or two assistants with him and they found all four stakes of what they believed to be the Natalee Tailings Claim. Undoubtedly these were really the stakes of the Natalee, although Henderson in rebuttal testified that his stakes were located in a different st portion and he claimed that when he staked out the Natalee in May of 1926 he was guided by a stake

SUPPLEMENTARY REPORT ON ~~FOSTER'S MINE.~~
(FORTUNA)

(Fortuna Mine)
July 27th, 1937.

Arthur Luhrs & Associates,
Phoenix,
Arizona.

Gentlemen:-

CLM

As per recent arrangements, I revisited this property on July 25th in company with Burt Clingan and on this occasion we were met by Foster at his camp and he personally conducted us over the showings. He was correct in saying that I had previously visited only the northern section of the Fortuna Claim and that all of the other workings which I had examined, being located on the Lapham Group or Viola Group were not comprised in the particular property which he has presented to you and which he terms the Fortuna Mine, but since these claims adjoin the other two groups the remarks in my report of July 16th, regarding general location, history, geology, etc. are all applicable and need not be repeated.

X

The Fortuna Group consists of one patented claim, the Fortuna, and four unpatented claims known as the Button, Walt, Minnie, Lode and Long X, and from the sketch made by Foster it would appear that the Fortuna and Long X cover the strike of the Fortuna vein for a distance of 3000' while the other three claims lie along the eastern edge of the two first mentioned, extending also some distance further to the south.

The outcrop follows along the crest of a ridge some 300' in

height and the vein appears to have been formed in a contact fissure between the country granite, which forms the hanging wall and a rather narrow dyke of diorite which forms the foot-wall. The strike of the vein is north 30 degrees east and the dip about 70-80 degrees to the north-west. The width varies to a substantial extent but along the surface it seemed to be generally from 5 to 7', while it was considerably narrower in the only underground workings that were accessible, but these were so few and far between that no figure can be even approximately established.

The filling of the vein is, for the most part, a mixture of crushed wall rock with quartz with which are associated sulphide and oxide of iron. Some of the quartz is honeycombed and the appearance is generally favorable as a carrier of gold, at least for a short distance below the surface, where there has been an opportunity for secondary enrichment.

A very substantial amount of development and mining had been done on this vein, apparently many years ago. There are a number of pits and surface trenches and some stopes which except in one instance are now inaccessible. There is an adit drift at the north end of the ridge which is probably 150' long but now entirely caved and the dumps which were sampled on my first visit (described as being on the south side of Lapham Creek) show no values.

Most important of all is a cross cut adit tunnel about 85' below the outcrop at a point near the main stopes, which is now caved some distance in from the portal but according to Foster the cave could probably be cleaned out with small expense, and if this were done an examination of the vein at this depth would be of the utmost importance and permit one to draw conclusion that should be definitely

favorable or unfavorable to the probable existence of a substantial body of ore.

According to Foster, most of this work was done by a man named Lane (now dead) who mined the ore and treated it in a small mill which he had erected in Minnehaha Creek. But Foster has no detailed information on this point and I have been unable to find any records which mention such a production, although it may well have been made.

The samples which we took were as follows:-

(A)- South face of vein in main stope about 40' below surface width, 11 inches. Gold, 0.42 oz., silver 2.2 oz., total value \$16.39 per ton.

(B)- Exposure of vein in main stope, about 40' underground and 60' north of (A), width 18". Gold, 0.15 oz., silver 0.3 oz., total value \$5.25 per ton.

(C)- Ore from dump of short drift some 500' north of main stope; gold, 0.41 oz., silver 2.3 oz., value \$16.12 per ton.

(D)- Chip sample across 6' outcrop of vein on surface further to the north, showing much quartz and iron oxide and sulphide. Gold, 0.22 oz., silver 1.2 oz., value \$8.62 per ton. (It was at this point that Nunn claimed to have taken a sample across a width of 7' which ran \$26.00 per ton.)

(E)- Sample of sorted ore with sulphides from dump of another short drift still further to the north and about 400' from the north end of the crest of the ridge; Gold, 0.43, silver 1.8 oz., value \$16.44 per ton.

Needless to say that these samples show far better ore than anything which I saw on my previous visits and indicate that the Fortuna Vein does carry some good values near the surface and of a

grade that might pay to mine and mill at the present price of gold,- the silver values being in all cases very small.

It is however to be noted that none of the material represented by these samples would pay to ship crude and the operation of this property would of necessity involve the erection and operation of a mill, which brings up the question of tonnage and particularly the permanence of the width and grade of the ore with depth on which point unfortunately very little evidence can be obtained until certain of the old workings are reopened.

From what I could see in the one old stope and the few tunnels which we were able to visit, I do not believe that either the width or values of this vein will hold up in depth. It is significant that nearly all of the trenches and open cuts seemed to have been very shallow, that the vein had narrowed from say 5' on surface to less than two feet in the underground stope 40' below. Little, if any mining appeared to have been done from the cross cut tunnel which is supposed to have cut the vein at a depth of 85'.

On the other hand it must be recognized that all of this previous work was done during a period when the district was much less easily accessible than it is today and when the value of gold was \$20.67 in place of \$35.00 per oz.

I did not attempt to investigate the values in the wall rock as this would have involved a lot of extensive sampling, but I am very well satisfied that none of this material would pay to work and that operations would have to be confined to the vein itself.

If a continuous ore shoot with a length of several hundred feet, width of 4' or more and value of about \$15.00 per ton should actually be developed, the operation of this property, when equipped with a small mill, should be moderately profitable. From all appearances,

the great bulk of the gold is free milling and sufficient water could be obtained near-by. There is a good mill-site at the portal of the caved north tunnel and it is quite possible that some small mill of suitable character could be picked up second hand and installed at no great expense. The actual working cost of mining from a 4' vein and milling 25 tons or more per day may be estimated at about \$4.00 per ton and the total cost including overhead, taxes, etc. at about \$6.00 per ton, so that a profit of \$6.00 per ton might be earned if a recovery of \$12.00 was made.

A shoot of such ore as I have described 1000' long, 4' wide and 100' in depth would represent 30,000 tons.

But it is my personal opinion that no such expectations will ever be realized because ⁽¹⁾ I think that the vein is of at least partially of the type known as a gash-vein and that it will narrow and tighten with depth and will not have an average width of more than 2 to 3' at from 30 to 60' below the outcrop.

(2) I believe that the values are largely secondary, as has so often proved to be the case in the Bradshaws, - and that the values will either be greatly reduced with depth or will only continue downward in short shoots which may pitch to the north as Foster thinks probable.

For the above reasons I would not feel justified in recommending any substantial investment in this venture of which I still hold an unfavorable opinion.

But I again wish to emphasize that my opinion is still based upon very inadequate data and if, without committing yourselves to anything further, you feel that you are willing to gamble a few hundred dollars to find out the true conditions, then I think that in doing this, you would be taking a fair gamblers chance ^{and} on this basis, only, I should advise that:-

(1) The one open stope should be cleaned out so that all exposures of the vein will be accessible particularly in the north end where it is now completely blocked.

(2) The 85' crosscut adit should be opened through the cave and if possible the raises or stope connections to the main stope should be cleaned sufficiently to make them passable.

(3) If (1) and (2) should develop favorable showings, but not otherwise, I advise that the north adit drift (near to which Foster proposes to erect a mill) should be cleaned out and followed to and along the vein.

The cost of (1) and (2) and sampling all the ore that would then be made accessible should not exceed \$400. to \$500. and might be less. The cost of (3) would depend on the condition of the tunnel which cannot well be judged at present and the length of ore which might be developed along the vein, but no such expense need be undertaken unless the results of (1) and (2) exceed my expectations. My present unfavorable conclusion is still merely an opinion and one in which I may well be mistaken, and the results of reopening these old workings (1) and (2) should at least be interesting and instructive.

Yours very truly,

G. M. C.
(Enclosed is a rough pencil sketch, which may be helpful in explaining this report, but it is not guaranteed to be accurate.)

GMC:LM

FORTUNA MINE

July 16th, 1937.

I submit to you and your associates the following report on the mining property presented to you by L. H. Foster, which I examined on July 12th and 13th, 1937, at your request and the request of Burt Clingan.

I greatly regret that my examination was limited by the fact that Foster was not present although he had definitely promised to meet me at the claims on the morning of the 12th. Actually his camp was entirely deserted on that day and on the next morning his truck driver, Sparling by name, put in an appearance and helped me to find other locations at which Foster had recently been working, but his knowledge of these was very limited and he had no information in respect to the assays of samples which Foster had taken, or the value of a four ton shipment of ore from the main shaft which he had recently hauled to Prescott. The water in the said shaft stood so high that the drift could not be entered and every other working which I visited was caved or blocked so that it is evident that no engineer could make a satisfactory examination until Foster does a lot of cleaning up and exposes the veins in such a manner that they can be properly sampled.

My samples as noted in this report were necessarily taken from the dumps and according to Sparling were representative of the ore, but it will be noted that not one of them carries satisfactory values and if there is any pay ore on these claims it must either be well hidden or found at location unknown to Sparling.

CONCLUSION

On the basis of everything which I saw or could learn in reference to this property I can see no justification whatever for any development or attempted operation and strongly advise you not to engage in this venture which I should term a very poor mining gamble.

Some small pockets or shoots of high grade ore may have been found here in the past and similar finds may be made in the future but I could see no promise of any substantial body of either high grade or low grade (milling) ore and both the geology of the district and its past record strongly argue against their existence. My samples show that none of the vein material which I could find carries

any substantial values in gold or silver and only traces of copper and lead were to be seen.

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PROPERTY AND LOCATION.

Apparently Foster holds two mining leases, one from Frank Lapham, covering the unpatented lode mining claims known as: Jerry, Poverty, Vermont, Ethan Allen and Black Cat and formerly known as the Fortuna Mine. The second lease is from H. J. and Viola Mae Rush and covers unpatented lode claims known as:

Hiwathia	(Sic.)	#1
"		#2
Snowdrift		#1
"		#2
Violet		#1
"		#2

Both leases were made in May of 1937.

These claims are located in the Tiger Mining District of Yavapai County, Arizona and in the west central portion of Minnehaha Flat, - a basin on the southwest slope of the Bradshaw Mountains.

The elevation is about 5500', climate excellent except for short periods during the winter and there is a good domestic water supply from springs and creeks. The district is well timbered with pine, juniper and oak and thickly covered with underbrush.

The property is reached by way of wagoner from the White Spar Highway (U. S. #89) the distance from the highway being 31 miles. The last 14 miles of road is very bad and trucking to the railway at Kirkland costs about \$5.00 per ton, and would constitute a serious handicap to all mining operations in this district until a very substantial expenditure is made for road improvement.

GEOLOGY:

The country is mostly Bradshaw Granite and Crooks Complex of

Pre Cambrian age and some distance west of the property there is a large outcrop of Yavapai schist. The ores are mostly those of gold and silver, associated with quartz and spar in which is found iron sulphide oxidizing near the surface.

HISTORY

The district was first explored in the 70's and small placer and lode mines were worked at intervals until about 1910, since which date there had been practically no activity until very recently. A portion of Foster's holdings was once known as the Fortuna Mine, another portion was known locally as the Lapham and in their immediate vicinity were the Button and Boaz Mines. None of the operations in this district proved to be permanent and it is apparent that they must have consisted principally in the extraction of high grade pockets which, like nearly all of the precious metal mines of the Bradshaws, resulted from local effects of secondary enrichment and have rarely yielded any profit except to the old "chloriders" who gouged out the rich surface pockets and shipped small quantities of high grade ore or treated it locally in arrastras of which the remains are still in evidence.

EQUIPMENT:

At the Foster property there are three small shacks and two tents. Some 8 or 10 men could be housed during the summer but there are no accommodations suitable for cold weather except the small Lapham house, one half mile distant.

At the Fortuna shaft Foster has installed a small hoist and a portable Ingersoll Rand compressor, a blower, rotary pump with engine, and forge. He has some drills and several small engines and accessories lying about. All the machinery is used but appears to be in fair condition and serviceable.

WORKINGS AND ORE SHOWINGS

An old shaft (presumably the Fortuna) has been reopened by Foster. This is said to have a depth of about 40' but when visited the water had risen to within 25' of the collar. I was told that there was a 60' drift to the northward on the 40' level and that Foster had mined from the vein along this drift some 4 tons of ore which was sent

to Prescott. From some of the ore which was left on the dump and which Sparling informed me was representative of the material mined I selected two samples; the first supposed to be high grade, carried .12 oz. gold and trace of silver value \$4.20 per ton. The second or average sample carried .07 oz. gold and 0.6 oz. silver value \$2.45 per ton. If the Prescott shipment contained higher values I would judge that it must have been carefully sorted.

The vein on which this work was done is composed of crushed wall rock and quartz and spar, with some iron oxide and sulphide. It has a width near the surface of about 3', strikes N. 30 degrees E. and dips about 80 degrees to the northwest; the walls are granite. There are some surface pits along this vein and a long crosscut tunnel, now caved, was run in to intersect it from the west.

A tunnel in the hillside north of the shaft was said to have yielded high grade ore but my sample of this from the dump carried only .11 oz. gold and 1.0 oz. silver value \$3.85 per ton.

None of the surface pits or cuts appeared to have exposed any better looking vein matter.

On both sides of the creek which runs by Lapham's home parallel veins are found and many years ago these were opened up to some extent by adit tunnels and shafts, all of which are now caved or filled with waste, so that no proper inspection can be made.

From the dumps of two tunnels on the south side of the creek I took a grab sample which only carried \$0.70 per ton but if any better material was mined at these points it had evidently been entirely removed.

From the workings on the north side of the gulch a little iron stained quartz was collected which Sparling assured me was high grade ore. This assayed 0.27 oz. gold and 2.3 oz. silver, value \$9.45 per ton. It did not appear to me that any substantial quantity of similar material had been found, - merely narrow stringers and in any event I do not believe that in this remote district it would pay to attempt to develop any ore with a value of less than \$20.00 per ton unless there were reason to expect that lower grade material would be found in great quantity permitting large scale mining and milling

operations at low unit cost.

I could find no indication whatever that justified the hope of finding either high grade or low grade ore to the extent that might form the basis of any profitable mining.

Yours very truly,

(signed) G. M. Colvocoresses

FORTUNA MINE

July 27th, 1937

As per arrangements, I revisited this property on July 25th in company with Burt Clingan and on this occasion we were met by Foster at his camp and he personally conducted us over the showings. He was correct in saying that I had previously visited only the northern section of the Fortuna Claim and that all of the other workings which I had examined, being located on the Lapham Group or Viola Group were not comprised in the particular property which he has presented to you and which he terms the Fortuna Mine, but since these claims adjoin the other two groups the remarks in my report of July 16th, regarding general location, history, geology, etc. are all applicable and need not be repeated.

The Fortuna Group consists of one patented claim, the Fortuna, and four unpatented claims known as the Button, Walt, Minnie, Lode and Long X, and from the sketch made by Foster it would appear that the Fortuna and Long X cover the strike of the Fortuna vein for a distance of 3000' while the other three claims lie along the eastern edge of the two first mentioned, extending also some distance further to the south.

The outcrop follows along the crest of a ridge some 300' in height and the vein appears to have been formed in a contact fissure between the country granite, which forms the hanging wall and a rather narrow dyke of diorite which forms the foot-wall. The strike of the vein is north 30 degrees east and the dip about 70-80 degrees to the north-west. The width varies to a substantial extent but along the surface it seemed to be generally from 5 to 7', while it was considerably narrower in the only underground workings that were accessible, but these were so few and far between that no figure can be even approximately established.

The filling of the vein is, for the most part, a mixture of crushed wall rock with quartz with which are associated sulphide and oxide of iron. Some of the quartz is honeycombed and the appearance

is generally favorable as a carrier of gold, at least for a short distance below the surface, where there has been an opportunity for secondary enrichment.

A very substantial amount of development and mining had been done on this vein, apparently many years ago. There are a number of pits and surface trenches and some stopes which except in one instance are now inaccessible. There is an adit drift at the north end of the ridge which is probably 150' long but now entirely caved and the dumps which were sampled on my first visit (described as being on the south side of Lapham Creek) show no values.

Most important of all is a cross cut adit tunnel about 85' below the outcrop at a point near the main stopes, which is now caved some distance in from the portal but according to Foster the cave could probably be cleaned out with small expense, and if this were done an examination of the vein at this depth would be of the utmost importance and permit one to draw conclusion that should be definitely favorable or unfavorable to the probable existence of a substantial body of ore.

According to Foster, most of this work was done by a man named Lane (now dead) who mined the ore and treated it in a small mill which he had erected in Minnehaha Creek. But Foster has no detailed information on this point and I have been unable to find any records which mention such a production, although it may well have been made.

The samples which we took were as follows:-

(A) - South face of vein in main stope about 40' below surface width, 11 inches. Gold, 0.42 oz., silver 2.2 oz., total value \$16.39 per ton.

(b) - Exposure of vein in main stope, about 40' underground and 60' north of (A), width 18". Gold, 0.15 oz., silver 0.3 oz., total value \$5.25 per ton.

(C) - Ore from dump of short drift some 500' north of main stope; gold, 0.41 oz., silver 2.3 oz., value \$16.12 per ton.

(D) - Chip sample across 6' outcrop of vein on surface further to the north, showing much quartz and iron oxide and sulphide. Gold, 0.22 oz., silver 1.2 oz., value \$8.62 per ton. (It was at this point that Nunn claimed to have taken a sample across a width of 7' which ran \$26.00 per ton.)

(E) - Sample of sorted ore with sulphides from dump of another short drift still further to the north and about 400' from the north end of the crest of the ridge; Gold, 0.43, silver 1.8 oz., value \$16.44 per ton.

Needless to say that these samples show far better ore than anything which I saw on my previous visits and indicate that the Fortuna Vein does carry some good values near the surface and of a grade that might pay to mine and mill at the present price of gold, -the silver values being in all cases very small.

It is however to be noted that none of the material represented by these samples would pay to ship crude and the operation of this property would of necessity involve the erection and operation of a mill, which brings up the question of tonnage and particularly the permanence of the width and grade of the ore with depth on which point unfortunately very little evidence can be obtained until certain of the old workings are reopened.

From what I could see in the one old stope and the few tunnels which we were able to visit, I do not believe that either the width or values of this vein will hold up in depth. It is significant that nearly all of the trenches and open cuts seemed to have been very shallow, that the vein had narrowed from say 5' on surface to less than two feet in the underground stope 40' below. Little, if any mining appeared to have been done from the cross cut tunnel which is supposed to have cut the vein at a depth of 85'.

On the other hand it must be recognized that all of this previous work was done during a period when the district was much less easily accessible than it is today and when the value of gold was \$20.67 in place of \$35.00 per oz.

I did not attempt to investigate the values in the wall rock as this would have involved a lot of extensive sampling, but I am very well satisfied that none of this material would pay to work and that operations would have to be confined to the vein itself.

If a continuous ore shoot with a length of several hundred feet, width of 4' or more and value of about \$15.00 per ton should actually be developed, the operation of this property, when equipped with a small mill, should be moderately profitable. From all appearances, the great bulk of the gold is free milling and sufficient water could be obtained near-by. There is a good mill-site at the portal of the caved north tunnel and it is quite possible that some small mill of suitable character could be picked up second hand and installed at no great expense. The actual working cost of mining from a 4' vein and milling 25 tons or more per day may be estimated at about \$4.00 per ton and the total cost including overhead, taxes, etc. at about \$6.00 per ton, so that a profit of \$6.00 per ton might be earned if a recovery of \$12.00 was made.

A shoot of such ore as I have described 1000' long, 4' wide and 100' in depth would represent 30,000 tons.

But it is my personal opinion that no such expectations will ever be realized because (1) I think that the vein is of at least partially of the type known as a gash-vein and that it will narrow and tighten with depth and will not have an average width of more than 2 to 3' at from 30 to 60' below the outcrop.

(2) I believe that the values are largely secondary, as has so often proved to be the case in the Bradshaws, - and that the values will either be greatly reduced with depth or will only continue downward in short shoots which may pitch to the north as Foster thinks probable.

For the above reasons I would not feel justified in recommending any substantial investment in this venture of which I still hold an unfavorable opinion.

But I again wish to emphasize that my opinion is still based upon very inadequate data and if, without committing yourselves to

anything further, you feel that you are willing to gamble a few hundred dollars to find out the true conditions, then I think that in doing this, you would be taking a fair gamblers chance and on this basis, only, I should advise that:-

(1) The one open stope should be cleaned out so that all exposures of the vein will be accessible particularly in the north end where it is now completely blocked.

(2) The 85' crosscut adit should be opened through the cave and if possible the raises or stope connections to the main stope should be cleaned sufficiently to make them passable.

(3) If (1) and (2) should develop favorable showings, but not otherwise, I advise that the north adit drift (near to which Foster proposes to erect a mill) should be cleaned out and followed to and along the vein.

The cost of (1) and (2) and sampling all the ore that would then be made accessible should not exceed \$400. to \$500. and might be less. The cost of (3) would depend on the condition of the tunnel which cannot well be judged at present and the length of ore which might be developed along the vein, but no such expense need be undertaken unless the results of (1) and (2) exceed my expectations. My present unfavorable conclusion is still merely an opinion and one in which I may well be mistaken, and the results of reopening these old workings (1) and (2) should at least be interesting and instructive.

Yours very truly,

(signed) G. M. Colvocoresses

(Enclosed is a rough pencil sketch, which may be helpful in explaining this report, but it is not guaranteed to be accurate.)