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CHRISTMAS MINE

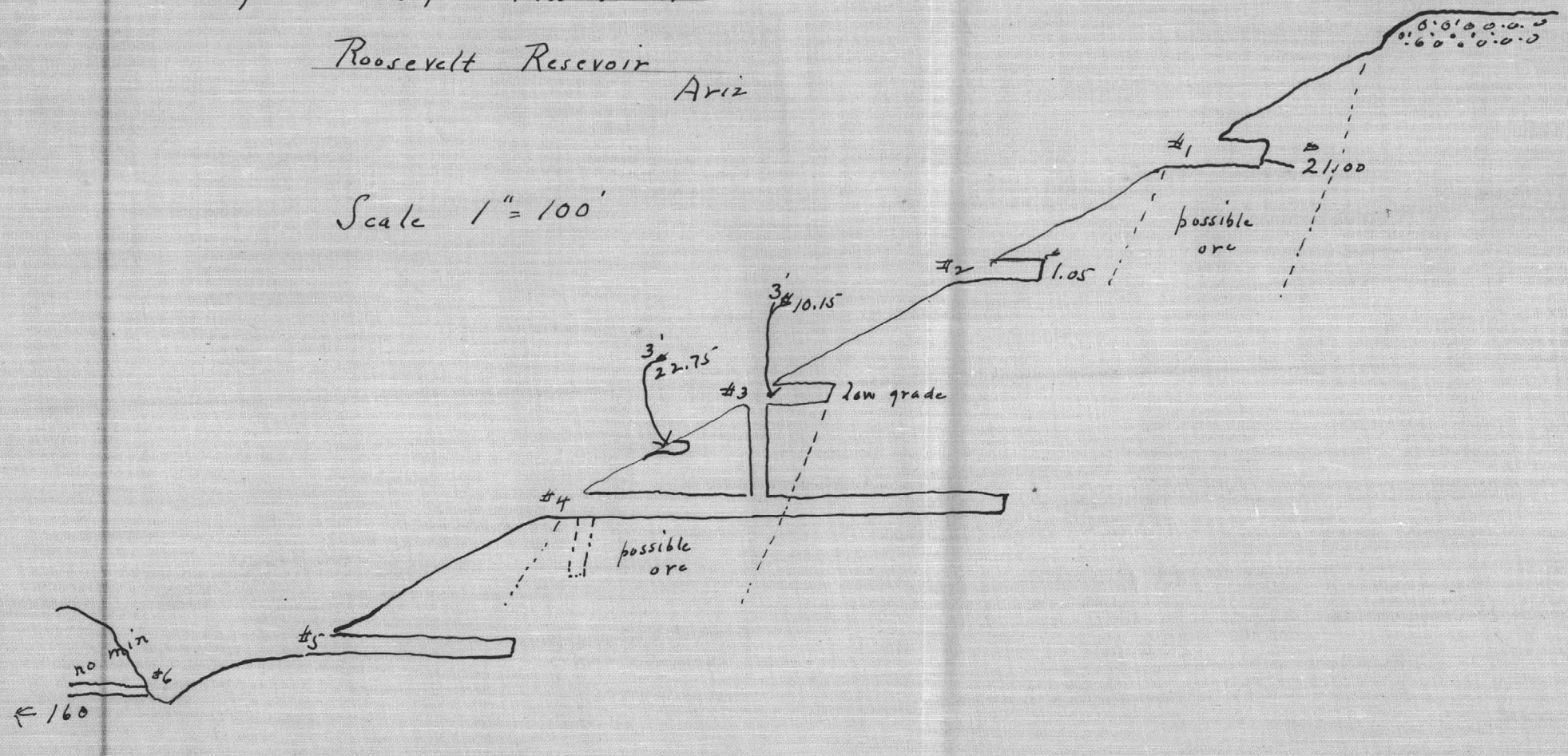
Apache Lake, - 2 miles below

Roosevelt Reservoir

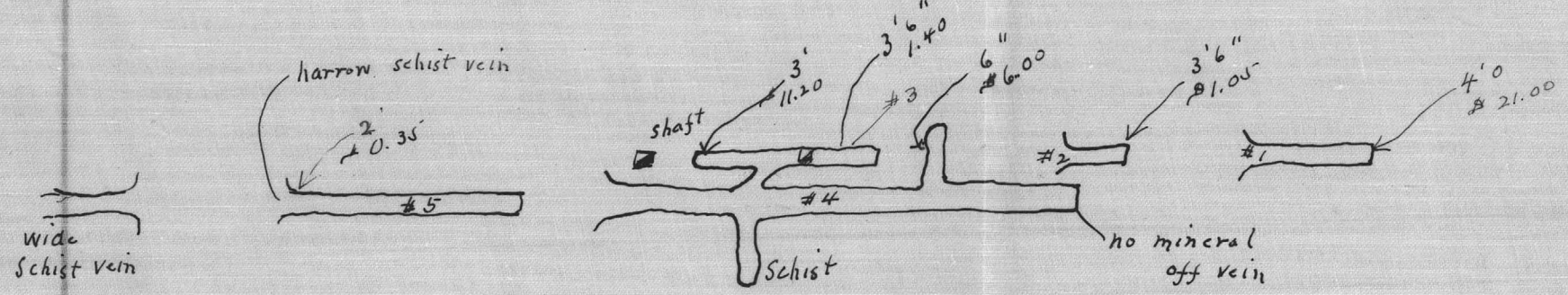
Ariz

Scale 1" = 100'

Section

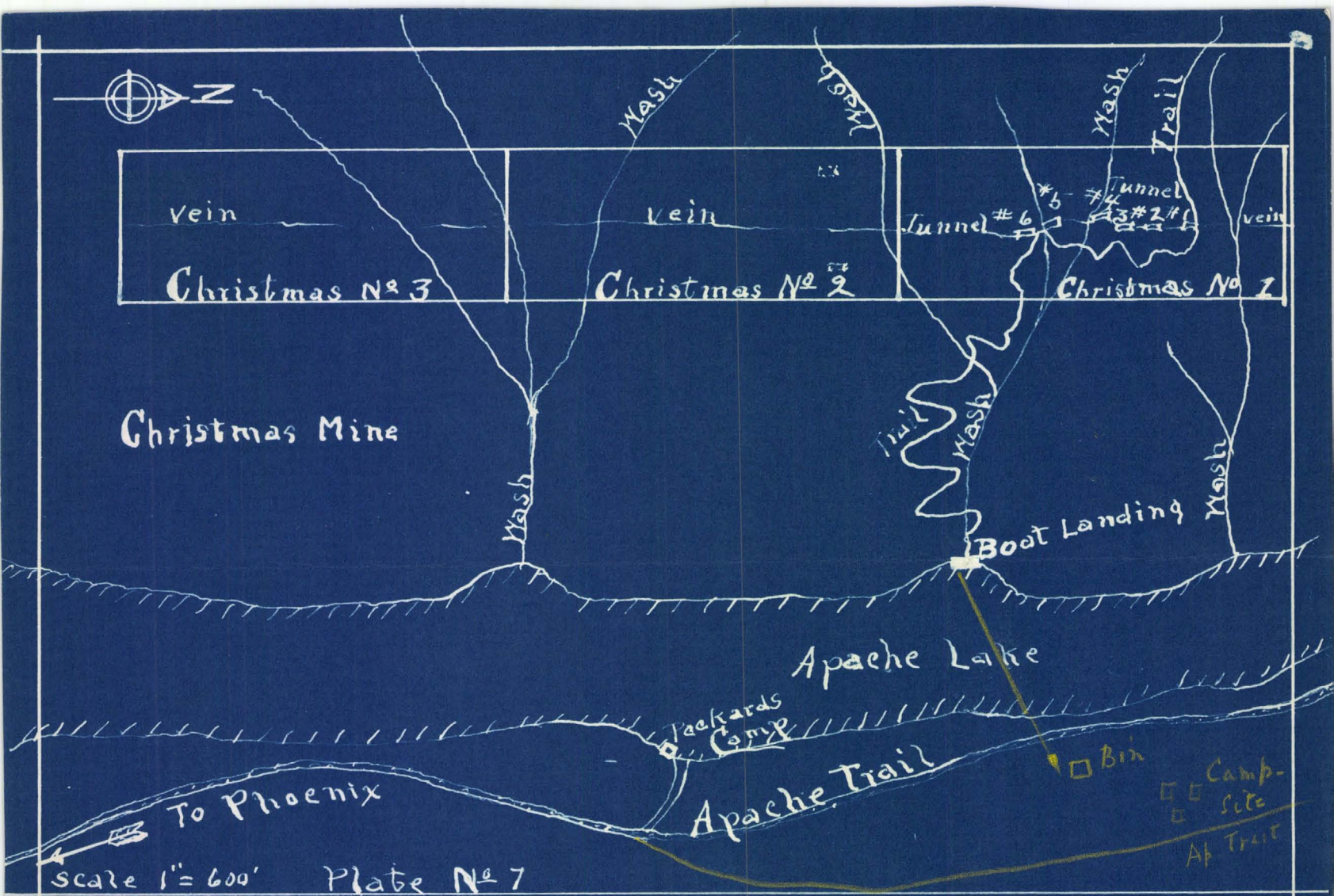


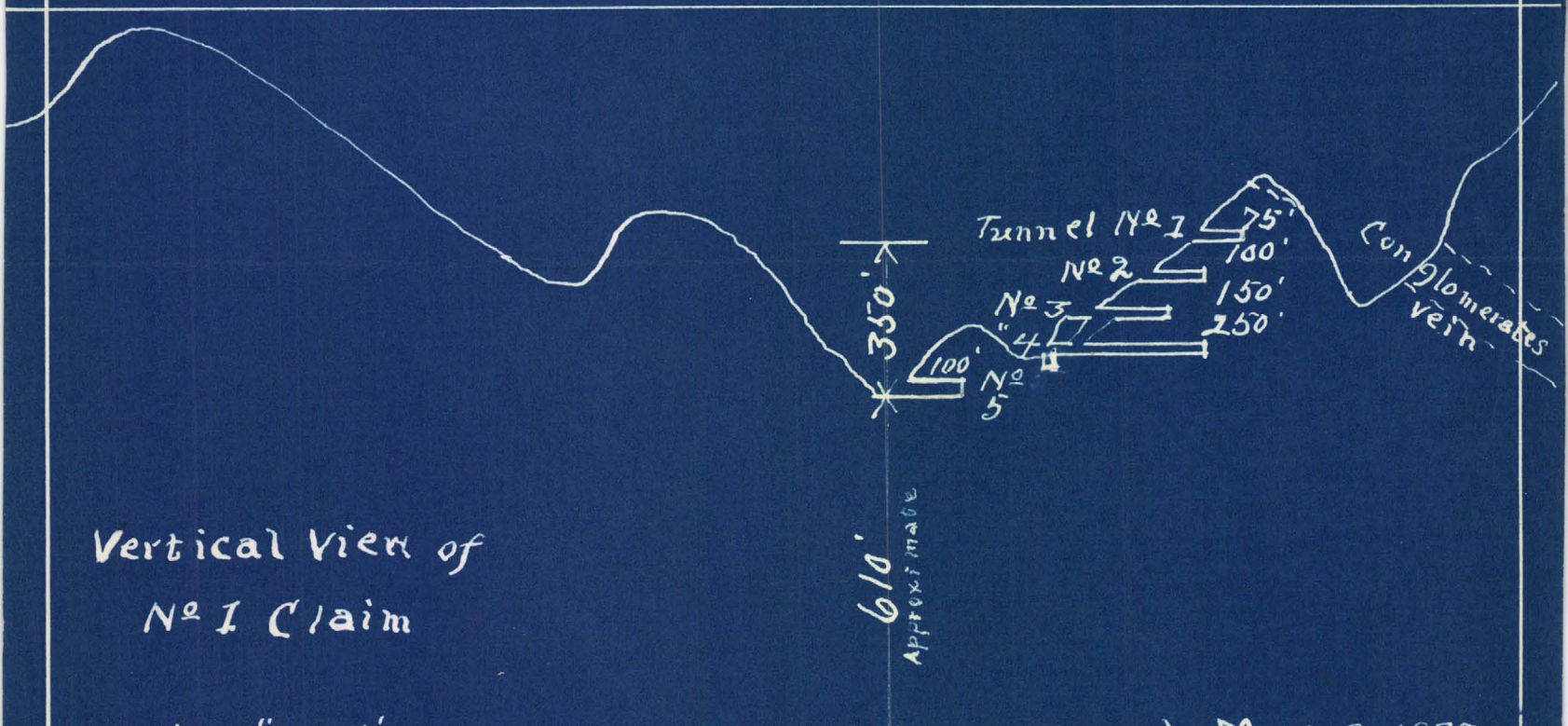
Plan



Owned by Mrs Rhoda Packard.

Sketch & assays by C.T. Griswold, 1935





Vertical View of
No 1 Claim

Scale 1" = 300'

Plate No 2

G.E. Garnet
Phoenix Arizona

THE CHRISTMAS MINE

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The vein structure proper consists of a large shear zone that has occurred along a contact, the hanging wall of which is a coarse grained, felspathic granite and the foot wall principally a grano-diorite. However, previous to the shearing action, or very possibly at the same time, rhyolite intrusions occurred in both hanging and footwall of the contact, and on their strike converge at sharp angles to the contact and in some instances become a part of the shear itself. This is particularly true where ore occurances are more extensive. This condition leads to the believe that these rhyolite intrusions were the real agencies that caused the gold and iron mineralization, as alteration and replacement took place along the crushed and sheared rocks of the contact. The greater alteration took place in the sheared footwall grano-diorite and it is in the material that the ore is more regular and continuous. However, some ore is found in the sheared granite, though more irregular and variable in value.

Due to stresses caused by the shearing action the ore is very schistose. The sheared rock has been greatly altered and has become quite kaolinized and very light in color. The gold content is in proportion to the percentage of iron mineralization. Hematite and Limonite are the iron minerals and the gold is very intimately associated with and contained in them. Quartz occurs in small seams and crystals in the schist, and when iron is contained this quartz becomes the best part of the ore. The gold, practically all free in development to date, is quite fine and very heavy. There is practically no flaky gold and even the finest particles are nuggets in form and in density.

DEVELOPMENT AND PRODUCTION.

The ore bodies are exposed by a series of four adit tunnels driven on the vein. These may be seen on the accompanying maps and are self explanatory. The mountains into which these tunnesl are driven is very steep, and depth below the surface is attained rapidly. This allows for rapid blocking of ore and is very economical development. The greater tonnage of ore so far extracted or developed, has been found along the footwall of the shear, However, some ore has been extracted from the hanging area of the shear, though when this occurs there is usually a horse or block of waste, between it and the footwall enrichment.

The property has been worked previous to the summer of 1938 periodically for many years. The production up to this time is reported to be in the neighborhood of $30,000.00. This was from selected ore of not less than $30.00 per ton, at the old price of gold (20.67 per oz.) as the ore had to be carried by pack train for several miles over very rough country. It was then milled through a small mill on Tonto Creek. All ore of less grade was necessarily left in place or in the dumps.

The latest operation was started in the summer of 1938 and at that time ore was shipped to the International Smelter at Miami, Ariz. by truck. This ore was also somewhat selected, thus leaving a goo mill grade ore still in the mine. The ore shipped at this time was approximately 800 tons, with an average value per ton of $16.38. The smelter settlement sheets are evidence of this production. In the present openings there is exposed a considerable tonnage of mill grade ore. This is of a known value of from $5.00 to 12.00 per ton, or about a $10.00 average mill-head.

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SUGGESTED DEVELOPMENT.

No. 5 tunnel, now in well over 100', should be extended under and beyond the portal of No. 4 tunnel. It may develop some ore before reaching that point, but most certainly will enter the downward extension of the ore shoot now exposed in No. 4 tunnel and intact in the floor of this tunnel . An advance of about 160' in No. 5 tunnel should reach this ore and when continued further should reach and enter the ore exposed in levels Nos. 1, 2, & 3. This on the downward extension of the ore.

No. 6 tunnel on the same horizon as No. 5, though to be driven in the opposite direction, should be extended into the hill southwest of that into which the other levels are driven. This heading, now in about 100', should be turned to the right in order to hit the footwall ore zone that is exposed by open cuts on the surfact above. If turned to the right about 45 degrees of the present course, it should enter the above mentioned zone in about 70' or less. Surface values, exposed in open cuts on the surface above this heading, are very encouraging and indicative of a large body of good ore. Average assays taken over a 5' width are as follows: $6/65, $7.99 & $8.75. A selected sample from a 6" quartz stringer gave $31.50. This ore is typical in character to that already exposed in the main workings. As expressed above these 2 headings with a combined advance of not over 230' should enter the ore mentioned.

COSTS. These tunnels should be driven, cost of equipment included, for not over $10.00 per ft. this for footage of course, of about 350'. Due to the rugged character of the area it is rather difficult to transfer equipment from the highway to the point of operation. However , by taking machinery apart it can be taken across the river and up to the ore road, by cable tramway now installed. A short truck haul from tram terminal to the portal of No. 5 tunnel, where reassembling and setting may be accomplished easily. Associated operating costs should be nominal.

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FACILITIES: Water may be pumped from the river to point of operation at small expense for installation. Power may be obtained from the Salt River Valley Water Users Assn. as their power line is but a short distance from the property. Diesel engine power may be installed if found desirable, timber for construction and mining use may be delivered at the property for about $25.00 per M. A good hiway connects both with Globe and Miami one way and with Phoenix and valley towns the other way. Open year round.

CONCLUSION. The foregoing discussion of the general features, found during a three day visit to the Christmas property, has convinced me that there are decidedly favorable conditions prevailing. This applies particularly to the structure and occurance of the ore body. The shear zone occured previous to the disposition of the later sedimentary conglomerates and limestones now lying in strata over and above the more ancient formations.

The shear extends up to the sedimentaries but this does not enter or disturb. them. The mineralization also should have occurred previous to this period. The iron minerals of oxidation indicate primary sulphides to be encountered when deeper development is completed. Thia of course should be somewhere below the No. 5 tunnel horizon and such development would be by shaft or lower cross cut tunnel, the former preferably.

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put the property on a profitable basis of operation.

Development to greater depth could be carried on as conditions justified, without any interference with regular mill production. Mill tonnage about tunnels Nos. 5 and 6 should be very material and a good profit realized therefrom. The suggested development is well justified and should be made. The results therefrom will be the necessary information for deciding on deeper work. The least to be expected from these tunnels would be a fair return from ores above when milled.

I can see no indication that the ore bodies should become smaller below this level, neither is there any reason to suppose that they will be of lower grade.

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No. 5 tunnel, now in well over 100', should be extended under and beyond the portal of No. 4 tunnel. It may develop some ore before reaching that point, but most certainly will enter the downward extension of the ore shoot now exposed in No. 6 tunnel and intersect in the floor of this tunnel. An advance of about 150' in No. 5 tunnel should reach this ore and when continued further should reach and enter the ore exposed in levels Nos. 1, 2, & 3. This on the downward extension of the ore.

No. 6 tunnel on the same horizon as No. 5, though to be driven in the opposite direction, should be extended into the hill southwest of that into which the other levels are driven. This heading, now in about 100', should be turned to the right in order to hit the footwall ore zone that is exposed by open cuts on the surface above. If turned to the right about 45 degrees of the present course, it should enter the above mentioned zone in about 70' or less. Surface values, exposed in open cuts on the surface above this heading, are very encouraging and indicative of a large body of good ore. Average assays taken over a 5' width are as follows: $6\/6b, $7.99 & $8.75. A selected sample from a 6" quartz stringer gave $31.50. This ore is typical in character to that already exposed in the main workings. As expressed above these 2 headings with a combined advance of not over 230' should enter the ore mentioned.

COSTS. These tunnels should be driven, cost of equipment included, for not over $10.00 per ft. this for footage of course, of about 330'. Due to the rugged character of the area it is rather difficult to transfer equipment from the highway to the point of operation. However, by taking machinery apart it can be taken across the river and up to the ore road, by cable tramway now installed. A short truck haul from tram terminal to the portal of No. 5 tunnel, where reassembling and setting may be accomplished easily. Associated operating costs should be nominal.

ORE TREATMENT. This ore should be very easy to treat either by barping and flotation or by cyanidation. I would suggest the former as more logical, as the cost of the plant would be much less and operating cost lower. As the mine up to date, is a decided milling proposition, I would recommend mill installation immediately upon completion of the suggested tunnel work, conceding as I expect will be the case, that the ore will be encountered in quantity and value. The mill should be designed to treat not over 50 tons per 24 hour de, this to be decided upon exposure of ore tonnage. However, I think this would be sufficient capacity.

FACILITIES: Water may be pumped from the river to point of operation at small expense for installation. Power may be obtained from the Salt River Valley Water Users Assn. as their power line is but a short distance from the property. Diesel engine power may be installed if found desirable, timber for construction and mining use may be delivered at the property for about $25.00 per M. A good hiway connects both with Globe and Miami one way and with Phoenix and valley towns the other way. Open year round.

CONCLUSION. The foregoing discussion of the general features, found during a three day visit to the Christmas property, has convinced me that there are decidedly favorable conditions prevailing. This applies particularly to the structure and occurrance of the ore body. The sheer zone covered previous to the disposition of the later sedimentary conglomerates and limestones now lying in strata over and above the more ancient formation.

The sheer extends up to the sedimentaries but this does not enter to disturb. them. The mineralization also should have occurred previous to this period. The iron minerals of oxidation indicate primary sulphides to be encountered when deeper development is completed. This of course should be somewhere below the No. 5 tunnel horizon and such development would be by shaft or lower cross cut tunnel, the former preferably.

The Nos. 5 and 6 tunnels should be extended and should develop a very material tonnage of good ore. The cost of this work would be very nominal and potential ore development very great in proportion to exploration. Mill construction upon completion of suggested tunnel work, should

put the property on a profitable basis of operation.

Development to greater depth could be carried on as conditions justified, without any interference with regular mill production. Mill tonnage about tunnels Nos. 5 and 6 should be very material and a good profit realized therefrom. The suggested development is well justified and should be made. The results therefrom will be the necessary information for deciding on deeper work. The least to be expected from these tunnels would be a fair return from ores above when milled.

I can see no indication that the ore bodies should become smaller below this level, neither is there any reason to suppose that they will be of lower grade.

(Signed)(D. R. Finlayson
Mining Engineer.

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(Signed) D. R. Finlayson
Mining Engineer.

CHRISTMAS MINE

Messrs. Murphy and Garner,
Phoenix, Arizona

Phoenix, Arizona
2246 N. Mitchell St.,
May 15th, 1937

Gentlemen:

In compliance with your instructions of recent date, I have made a preliminary investigation of the property known as the "Christmas Mine" and herewith submit the results of this hurried examination, together with such observations as seem pertinent under the circumstances.

The property consists of three full mining claims lying end to end on the lead and covering it for a distance of forty-five hundred feet in length. The claims are known and recorded as the "Christmas No. 1" , the "Christmas No. 2" and the "Christmas No. 3". The assessment work has been done, the title records kept up properly.

The property is located on the west side of the Salt River about two miles below the Roosevelt Dam and about one thousand feet west of the river. The strike of the lead parallels the course of the river very closely. The principal workings are approximately five hundred feet above the river channel and about nine hundred feet below the crown of the hills to the west. The country in the vicinity is extremely precipitous and shows the effect of intense movement and heavy erosion.

The mine is reached by way of the Apache Trail, a very good road for automobile or trucks to a point on Apache Lake which now occupies the former channel of the Salt River. From this point by boat about one-half mile across the lake to a landing on the west side. Thence by a rather steep but negotiable pack trail to the workings. At the time of my visit to the property the operators were packing ore down to the wateredge then ferrying it over to the road for shipment to the smelter.

The country rock in the vicinity of the mine is a reddish, iron stained porphyry with dykes of quartz-porphyry and diorite having a north south strike in a general way. The lead or vein on which the principal openings are located follows one of these dykes very closely and the mineralization of the ore bodies is very probably intimately associated with these dykes all through the property.

All the workings investigated were on the "Christmas No. 1" and it is evident the original discovery was made near this point. Tunnel No. 1 is located near the top of a ridge leading down to the river and has a length of seventy five feet. Three samples were taken at this tunnel.

No. 1 Channeled across 36" floor. Gold Value $26.95

No. 2 General sample from pile of ore. " " 26.95

No. 3 Hard red and brownish quartz. " " 33.60

Above Tunnel No. 1 is about one-hundred and fifty feet of possible backs. One hundred feet below Tunnel No. 1 is the portal of Tunnel No. 2 with a total length of about one hundred feet. One sample was taken at this tunnel.

No. 4 Channeled across 2 feet. Gold Value $ 2.10

About seventy five feet below Tunnel No. 2 is Tunnel No. 3 which has a length of one hundred and fifty feet with some small stopes and a winze connecting with the No. 4 tunnel below. One sample was taken at this place.

No. 5 Cut across 5 feet in roof. Gold Value $64.40

No. 4 tunnel has a length of two hundred and fifty feet and has produced some merchantable ore from some small stopes and from a raise that connects with the No. 3 tunnel above. One sample was taken at this place.

No. 6 Channeled across 4' in roof of tunnel No. 4

Gold Value $ 4.20

No. 7 General sample pile of ore at landing for shipment. " " 28.70

(There were 15 tons of ore in the shipment where sample No. 7 was taken and the Smelter paid $40.57 per ton.)

Examination of the sketch map of the ground which you have in connection with these assays will indicate a schute of ore with a length of three hundred feet in the vein and possible extension to the north and a definite depth of two hundred and fifty feet with possible extension indefinitely downward.

The width of the vein is fairly uniform and ranges from three to five feet in all the openings and exposures observed. The

ore is a highly kaolinized schistose material with much quartz. The gold is largely "free" and very fine. It is said that some forty years ago, ore was mined from the old workings mantioned and packed over the mountain to a five stampe mill on Tonto Creek above the Roosevelt Dam and milled with a recovery on the plates of $23.00 per ton and loss in the tailings of $8.00 per ton at the old price of gold.

It is very possible that a systematic examination and prospecting program would uncover more ore shchutes along the dykes showing on the ground. The conditions are very favorable for such development and the necessary expenditures for such an undertaking are fully warranted by the facts.

A complete and careful sampling and examination of the present ore body will be of great assistance in the future attempt to locate further orebodies on the ground. If it should prove to be as good as is indicated by the preliminary work, a small milling plant is fully warranted to dress and market the present ore.

Further development and exploration of the property could thus be financed from production which is a most satisfactory method.

Yours very truly,

(Signed) Bert Roby, E. M.

April 5th, 1939

Mr. C. T. Griswold
1500 Las Lomas Road
Albuquerque, New Mexico

Re: Christmas Mine

Dear Griswold:

Many thanks for your letter of April 3rd together with sketches which I am herewith returning after having taken note of the workings and assays of samples which you obtained.

The party who brought this property to my attention claims that it can now be purchased at a very much lower figure than was offered to your clients and I have thought that it might possibly interest some friends of mine who are seeking to take over a small gold property which can be worked without a concentrating mill.

However, it appears to me that the values in the Christmas are extremely erratic and I am not at all sure that it will meet with their requirements.

Should anything tangible develop in this contact, I will try to see that you eventually receive some compensation for the data which you have furnished me and for which in the meantime I will again express my sincere thanks and a desire to reciprocate at any time.

Personal regards.

Sincerely,

GMC:MF
Enc.

C 4/5, 39

April 3,1939.

My dear Colvocoresses:

At the time I examined the Christmas property,I was ready to negotiate on a price basis between $7500 and $10,000. One of the conditions was that I employ the Packard boy(oldest) as foreman. He was a good boy and able except for any mining experience. Their idea of the value of the property was so at variance to mine that I did not make an offer.

I am enclosing the rough sketches which I made at the time showing the workings,width of samples and values. When these have served your purpose please return them for my file.

With kindest regards,I remain

Yours sincerely,

C. T. Griswold

C

CHRISTMAS MINE near Apache Lake, Arizona

Presented by Garner, an associate of Ralph Murphy in July, 1937.

A report by Bert Robie says that there are several adit tunnels on a steep hillside, the lower one having a length of 250'. The vein as developed has a width of three to five feet and an average value of $20 in gold for a length of 300' and a height of 250'.

Fifteen tons of ore from the dump were shipped and assayed $40.00 per ton.

Needs equipment and may be promising property but values would have to be checked by proper sampling. Can get more data from Garner.

Griswold stated, 9/16. 35 [illegible] a family named Packard & now friend of a Real Estate man Bill Passey of Mesa.

Price asked is $40,000 x-ray to [illegible] & 1 [illegible] for a [illegible] at a smaller figure. Try to get additional data for Garner whose price was $12000. & to be [illegible]

Garner 137. [illegible] 6/

Phone 33754

Small [illegible] in [illegible]!

Over

C. T. Griswold / Albuquerque formerly Engineer of the Santa Fe

called in 358 said that he had looked

at this property & thought well of it for a

very small operation but price asked his

principals was too high

bought interest Lucas.

3/30/39

Tanner now associated with Marvin Smith

phone 31545