Earl B. Young.

ANDESITE MINING COMPANY

PRELIMINARY REPORT

December, 1934

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ANDESITE 1934. E.B. Young

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The Andesite Mining Company is a Nevada corporation the control being held by L. F. Snyder and Sons Co. of Salt Lake City, Utah. The property consists of nine mining claims, seven of which are patented, held under purchase agreements and located in the Eagle Valley Mining District, Lincoln County, Nevada, and which are variously known as the Snowflake Group - Big Buck and Little Buck Mines.

LOCATION:

A district map is submitted, herewith, which shows the position of this group of claims in Section 32, Twp. 1 N., Range 71 E., Mt. Diablo Meridian. The map also shows the neighboring mining areas of Fay, Deer Lodge, Gold Springs and farther north, the State Line District.

Modena, on the main line of the Los Angeles and Salt Lake Division of the Union Pacific System is the shipping point for these districts. Modena is eighteen miles from the Andesite Camp, and Pioche, the county seat of Lincoln County, is thirty-three miles by graded highways. The roads were reconditioned during the past year mainly to assist in the development of this area.

TOPOGRAPHY:

The area consists of irregular volcanic hills and ridges which are the Southern Extension of the Snake and Cedar Ranges. The elevation of the camp is about 7000 feet above sea level. The variation in elevation on the claims will not exceed 600 feet, although the highest peak in the area exceeds 9000 feet. There are no streams, but springs are numerous, and the hills are covered with cedars and pinion pine. At present, domestic water is hauled from Modena by truck. Evidence in the area suggests that the ground water level is about 300 to 400 feet below the surface and that an abundance of water can be developed by drilling in the draws.

PROPERTY:

The patented claims in this group are the Snowflake, Snowflake No. 2, No. 3, No. 4, No. 5 and No. 10, all with Survey

No. 4000 and Winner No. 2, Survey No. 4281. The unpatented claims are the Winner and North End.

These claims cover the outcrop of the great Snowflake Lode for 6000 feet and also that of the Little Buck vein which probably parallels the larger vein for many hundreds of feet. The Big Buck is obviously a part of the Snowflake. There are numerous other veins which either parallel or intersect the Snowflake, but which are undeveloped. (See geological map of the claims, submitted herewith).

At the camp there are the usual buildings such as hoist and compressor building, blacksmith shop, boarding house, bunk house and numerous small tent houses for the men.

HISTORY:

Prospecting began in the State Line District in 1896 and quickly extended over the entire area. Many of the fissures outcroped prominently and offered attractive locations. For several years there was considerable activity accompanied by the building of a number of mills for the treatment of the gold and silver ores.

Figures on production for the district and for individual properties are very incomplete; however, it is known that there was a considerable production of gold and silver. Quoting from Professional Paper 111 U.S.G.S. page 564 - "Many of the ore shoots, however, decreased in size and metal content with increased depth, and this, together with the necessity of pumping, resulted in the closing of most of the mines."

The districts have been idle until the last year or two, but now the depressed condition of the base metal mining industry and the new high price for gold has attracted much attention to this long neglected area. The Andesite Mining Company was formed early in 1934 and has already shipped thirty lots of gold ore.

GEOLOGY: General Features:

The rocks of the district are igneous extrusives, grouped by government geologists as latite, rhyolite and rhyolite tuff. Latites are found from Gold Springs westward to Fay and Deer Lodge. Rhyolite is the prevailing rock in the State Line District while the rhyolite tuffs are found at various places as "fine grained whitish to yellowish beds containing a few thin obsedian flows"

The rocks on the Snowflake Group have been called andesite by the local operators, but following the above classification they belong to the latites. The rock is usually

porphyritic with phenocrysts of plagioclase and orthoclase feldspar. Quartz is usually absent.

The andesites or latites are the older rocks and at one time were supposed to be the more favorable for orebodies. The folding and faulting in the district has never been thoroughly studied. Folding is probably moderate in the Snowflake area. Two large faults were seen East of the property, while fissuring is extensive and undoubtedly is associating with some movement. There are a vast number of small faults, many of them suggesting shrink cracks in the flows with practically no displacement.

In the Good Springs, Fay, Deer Lodge and Snowflake areas, the principal fissures trend northerly. Most of them dip easterly 50° to 70° although some have a westerly dip. From East to West the principal veins are the Jumbo about a mile East of Good Springs, the Independence about one-quarter mile West of the Jumbo, the Jennie about one-half mile West of Good Springs, the Talisman 600 feet West of the Jennie, the Snowflake 1000 to 1200 feet West of the Talisman and the Horse Shoe about one-half mile West of the Snowflake at Fay and the Homestake at Deer Lodge.

These northerly fissures should be divided into two groups; those striking West of North and those striking East of North. The first group named above are strong quartz, adularia calcite fissures that can be traced for long distances and which have been the big producers. The second group with northeasterly strike are largely calcite or calcite and quartz and are low grade. While the intersections of veins of the two groups seem to have an important bearing on ore deposition, the best orebodies are said to lie a short distance from the intersections along the northwesterly fissures.

MINERALIZATION:

The minerals found in the veins in the order of their abundance are quartz, calcite and adularia, the latter being the so-called vein feldspar and closely resembles orthoclase in composition. This mineral often gives a yellowish or greenish gray cast to the ore and may form as much as 50% of the vein. It seems to be the mineral with which the gold is associated. A small amount of pyrite was seen, also a little fluorite. Manganese is present as a stain on the calcite in some places.

The quartz occurs in various ways, sometimes as large white masses very fine grained and quite brittle, sometimes as small stringers running in innumerable directions through silicified latite, sometimes as dike or sill-like masses resembling a jasper, sometimes chalcedonic and suggesting hot water deposition.

There is evidence to indicate at least two ages of calcite mineralization and two of quartz.

1. Calcite is found next to the walls in fissures showing banding and is believed to have been formed by the first solutions. Further, there are many calcite casts which show replacement of the calcite by silica.

2. The next solutions to enter the fissures probably brought the adularia, gold and silver and much of the quartz.

3. The northeasterly veins are often largely calcite and as there veins sometimes displace the others, there may be a second calcite mineralization in these veins. They are low in gold values.

4. There seems to have been a final deposition of silica in some of the fissures which is also low in gold content. These relations are suggested rather than proved. Further, we have no data as yet on the age of the large siliceous dikes or sills that occur on Buck Mountain west of the Snowflake. I believe they are earlier than the veins and may have been important as barriers to the flow of solutions.

FAULTING:

Information on the faulting is difficult to get. My impression is that there is some premineral faulting, but that the movement is usually small. There also seems to be small movements that were post-mineral or which occurred between the times of the various mineralizations.

In workings at some distance from the property large faults were seen which were probably post-mineral. The small N 50° W fault showing at the north end of the 135 and 185 levels of the Little Buck is believed to be premineral with a small post-mineral movement.

SECONDARY ENRICHMENT:

In a number of veins the gradual decrease in gold values as depth increases, the small holes left by oxidation and removal of the original pyrites, and the presence of manganese stains on the calcite crystals, lead one to conclude that secondary enrichment of the veins has been an important process in the area. The effects of this enrichment do not seem to extend much below a depth of 200 feet.

It may be significant in this connection that there are no placers in this area. Perhaps the gold was carried downward along the vein in solution more rapidly then it could be removed by the forces of erosion to form placers.

THE SNOWFLAKE VEIN:

This vein can be traced across the property for 6000 feet. At places it is covered by slide rock or soil, but its identity seems quite evident. Its width varies from 25 ft. to nearly a hundred. The strike is about N 20° W with a dip believed to average about 70° to the East. Please refer to the geological map of the claims for details.

The vein is not one continuous band of ore, but varies materially from place to place. At times there is a great mass of quartz, at others silicified latito with stringers of quartz; while at others there is a broad banding of quartz with quartz-adularia. At still other places calcite is abundant. Northeast fissures of calcite and of calcite-quartz intersect at several points. The gold and silver values vary materially along the vein.

At one point on the Snowflake claim there is a large quarry from which several thousand tons were mined in the early days. One lot of 550 tons taken from an underhand stope and milled at Fay is said to have returned $9.91 per ton. This was in the days of gold at $20.00 per ounce. That ore now would bring $15.00 per ton, or more. A small map is submitted showing the workings and geology at this point.

The tunnel which was driven to cut the ledge at a depth of about 180 ft. failed to show the vein although it seems to have been driven far enough. I believe a flat northwest fault passes underneath the quarry and has displaced the vein. The evidence is found in the topography and consists (1) in a small draw which passes southeasterly near the portal of the tunnel and (2) In the low divide at the head of the draw. Raising from the tunnel should solve the mystery and lead to finding of the continuation of the ore.

The assays taken around the quarry both by myself and by other engineers indicate a substantial tonnage of ore that will run about .185 oz. in gold and 2.2 oz. in silver; at $35.00 gold and 64¢ silver this would have a gross value of $7.65. Calculation of tonnage is difficult, but assuming a block 150 feet long by 50 feet wide by 100 feet in depth and 13 cubic feet to the ton will give 57,000 tons. One engineer reports a sample across 25 feet that ran $4.80 in gold and 3 ounces silver at the old price of gold. At current prices this is $10.00 ore.

A map is submitted, herewith, showing that portion of the vein extending from the Red Eagle workings to the Moore Shaft on Snowflake No. 2 and Snowflake No. 5. Numerous samples were taken wherever openings and exposures made sampling possible. The results are shown on this map. While being far from complete these figures suggest a probable ore block 25 feet wide, a thousand feet long and assaying 0.22 oz. gold and 1.4 oz. silver. This is $8.50 ore at present metal prices.

Assuming that the values will extend for 100 feet in depth there is a tonnage of nearly 200,000 tons; and if extended for 200 feet nearly 400,000 tons. In addition there is in this area a large amount of lower grade ore that could be handled at a profit. At one place the vein is exposed over a width of 100 feet measured down the 25° slope of the hill. This gives an actual vein width of nearly 80 ft. This ore can be mined very cheaply either by quarry or glory hole methods. The intersection of the north-east fissuring at the Red Eagle workings with the Snowflake Vein should be prospected.

The northern portion of the Snowflake Vein, West of the Little Buck Shaft, is low grade where exposed, but it is exposed for nearly 1200 feet and shows a width of 25 to 30 feet. It is recommended that this vein be prospected by a crosscut from the 135 level of the Little Buck as shown on the map.

LITTLE BUCK VEIN:

At present mining of shipping ore is the program at the Little Buck Shaft. Values on the 270 level were disappointing but as drifting north is progressing better values are being reported. The map and section submitted, herewith, show the details.

The vein varies in width from a few inches to nearly three feet. At some places there is a splitting or feathering out of the vein, but after a few feet the average width again develops. While the strike averages N 20° W with a dip of 70° to the East there are variations of 10° to 15° locally. At the south end of the ore shoot on the 185 level a N 10° E calcite vein intersects the vein. If it is desired to prospect farther on this level it is recommended that the drift be continued on the small stringer showing in the drift. Then if values do not appear within 10 or 15 ft. crosscut both East and West for say 10 feet to find the best stringer on which to continue drifting southerly.

At the north end of the 135 level and of the 185 level there is a fault striking N 50° E and dipping 38° northeasterly on the 135 and about 50° on the 185 level. This fault is probably premineral with a small post-mineral movement. A notable feature is the bending of the stopes above the 70 level and above the 185 level to follow this fault both in strike and dip. Northwest faults with northeasterly dips were seen in two other places in the mine.

In a stope above the 270 south drift there is a displacement of the vein of about 5 feet north-side being shifted easterly. On the 270 level this fault is found but with no displacement of the vein. The other northwest fault is found on the 135 level near the shaft where an old drift follows it for some distance. The horizontal displacement on this fault was about four feet with the north-side moved westward relatively.

The fault in the face of the 185 ft. level is

believed to have small displacement but as the ground on the hangwall may be broken and the Little Buck vein hard to identify, I suggest driving northerly a few feet then crosscutting both East and West to find the most favorable stringer. Surface indications seem quite conclusive that the Little Buck extends northerly for several hundred feet. Development should be done on either the 135 or 185 level in order to keep within the zone of secondary enrichment.

There seems to be a possibility of a primary ore shoot which lies in the footwall of the N 50° W pre-mineral fault. The ore shoot has taken a rake that closely parallels the dip of the fault, and some pyrite was found recently in the ore shoot.

RECOMMENDATIONS AND CONCLUSIONS:

1. The Snowflake Vein can be followed on the property for 6000 feet and shows a width varying from 25 ft. to 80 ft. A large tonnage of low grade gold ore is in sight. In the south portion of the property, assuming values to extend downward 200 feet there is a possible 400,000 tons of vein matter which the assays indicate may average $8.00 per ton or more, at present metal prices. There is an additional similar amount of low grade material that is set at $4.00 per ton. Assuming a mining and milling cost of $2.50 per ton and a 90% recovery the above tonnages and values show a probable profit of 2½ million dollars. At the Quarry there is an additional tonnage, say 57,000 tons of $7.00 to $8.00 rock. Then there is an additional 4500 feet of the big vein to prospect with the possibility of finding additional shoots of profitable grade.

2. Mining of the orebodies can be started at once by either quarry or glory hole methods. This means cheap mining. The topography is such that a tunnel can be started on the vein and driven along it to secure the desired depth.

3. Flotation and cyanidation tests should be made to determine the most efficient milling for this type of ore. I have been told by a former mill operator in the district that the ore cyanides readily.

4. The results of my geological mapping and sampling call for further exploration. This can be done either by a program of diamond drilling or by the driving of a tunnel in the footwall of the vein with occasional crosscuts across to the hangwall. If diamond drilling is attempted I would suggest a series of holes, average depth about 300 ft. to crosscut the vein at depths of 100 and 200 feet from the surface. Drilling can be contracted for at somewhat less than $3.00 per foot. At least 3000 feet of drilling would be required.

5. Since beginning operations the Andesite Mining Company has shipped 1,369 dry tons which netted $29,932.51. It is quite probable that there are other veins parallel to the general system of fissuring which are just as valuable as the Little Buck. The maps show some of these veins and others may be covered by the soil. I wish to suggest a crosscut on the 135 level westerly to cut the Snowflake Vein and also the veins immediately west of it. Length would be 250 to 300 feet.

6. There are a number of veins in this area similar to the Snowflakes and which have been productive. If a large mill for the treatment of low grade gold ores is built at the property, it is quite probable that a substantial tonnage can be obtained from the other properties, and that handsome profits can be realized. The possibilities of these outside properties should be studied thoroughly.

7. In conclusion, the Snowflake vein seems to present an unusual opportunity. The surface showings and assays, while not conclusive, warrant the expenditure of additional sums in diamond drilling or other forms of exploration. Plans for milling should wait until the anticipated tonnages are definitely proved. In view of our present knowledge, I consider it very attractive and as holding possibilities for a large and very profitable operation.

Respectfully submitted,

Carl B. Young

Earl B. Young, Mining Geologist.

EBY:MG

MAPS IN ENVELOPE

#1 Map showing Location of Claims in the Eagle Valley, Gold Springs, and State Line Mining Districts, Lincoln County, Nevada and Iron County, Utah.
Scale 1" equals 1/2 mile.

#2 Geological Map and Section of Snowflake Group - Andesite Mining Company.
Scale 1" equals 200 feet.

#3 Southern Portion of Snowflake Lode with Assays.
Scale 1" equals 100 feet.

#4 Plan and Section at Quarry Snowflake Claim.
Scale 1" equals 50 feet.

#5 Sketch showing relative position of Little Buck Workings and "Big Buck" or Snowflake Vein Outcrop.
Scale 1" equals 50 feet.

#6 Longitudinal Projection - Little Buck Vein.
Scale 1" equals 50 feet.

SAMPLES TAKEN BY E. B. YOUNG

NOVEMBER - DECEMBER, 1934

ASSAYED BY EARL T. GODBE, PIOCHE, NEVADA

No.	Description	Gold Ozs.	Silver Ozs.
1	Grab from Ore Dump, Big Buck Shaft. Quartz, some adularia	0.04	1.3
2	" " Dump on North End Claim. Quartz, adularia calcite	0.03	0.6
3	Small Fissure North End Claim. May be Little Buck Vein	0.01	0.2
4	Stringer in Discovery tunnel Winner Claim	0.72	0.5
5	Snowflake Claim 15.0' along trench - Quartz	0.02	1.3
6	" 15' along trench, East of #5 Sample	0.01	0.8
7	" 15' in trench East of #6	0.07	0.9
8	" 15' quartz in trench East of #7	0.02	0.6
9	" 15' " " " East of #8	0.01	0.8
10	" 15' " " " East of #9	0.02	0.6
11	" 10' East end of trench	0.03	1.1
12	" 8' cut in tunnel, Quartz, adularia calcite	0.04	0.4
13	" 5' Across N 25 E fissure in tunnel, $CaCO_3$ and Quartz	0.03	1.2
14	" 12' South side of tunnel altered latite, quartz	0.05	0.8
15	" Quarry 11' West dipping Quartz fissure	0.04	0.9
16	" 14' Across East dipping quartz fissure	0.10	1.5
17	" Quarry 8' quartz and adularia	0.15	2.2
18	" North quarry 12' face quartz & adularia	0.16	2.2
19	" Quarry 12' Quartz and adularia	0.14	1.1
20	" " 6' Quartz and adularia	0.38	1.6
21	" 4.0' Quartz cut	0.04	0.7
22	" Cut on N 25 W grab from ore dump	0.02	0.3
23	" #2 Claim, Quartz in cut 12' on N 20-30° E Fissure	0.02	0.5
24	Red Eagle Tunnel 9' Quartz and Calcite	0.01	0.5
25	" " " 6' brown vuggy quartz-3' Adularia & quartz	0.06	1.5
26	" " " 2' " " " - 4' " " "	0.02	0.9
27	15' Red Eagle West Drift- Quartz, adularia, calcite	0.03	1.3
28	6' Across quartz in cut above Red Eagle Tunnel	0.04	0.9
29	Grab from dump Snowflake No. 5 Moore Incline	0.08	1.3
30	11' Cut Snowflake No. 5 - Quartz, adularia	0.24	1.5
31	7.5' " " " East of No. 30 Sample- Quartz, Adularia	0.34	1.7
32	13' Across N 20 E Newhall Shaft - Adularia Quartz, calcite	0.39	1.6
33	Upper cut Newhall shaft 13' footwall - East of No. 32	0.16	1.5
34	55' Across siliceous outcrop Snowflake #5 above Newhall Shaft	0.01	- -
35	2.5' Vein N 30 E on Snowflake No. 10	0.02	0.7
36	2.5' Quartz N 30 E on Snowflake No. 10, 10' SE of #35	0.01	0.3
37	Talc	Tr.	- -
38	Snowflake #2 Moody workings 14', Adularia, Quartz	0.02	0.9
39	" " " " 12', East of #38, Adularia, Quartz	0.26	0.5
40	Snowflake #2 Moody workings 20', East side Snowflake Vein, Adularia, Quartz	0.26	1.9

No.	Description	Gold Ozs.	Silver Ozs.
41	Snowflake #5 - Pit near Discovery, Sample represents 8' Vein	0.12	0.8
42	Snowflake No. 2 - 95' across vein down 25° slope, alternating broad bands of quartz and a mixture of quartz adularia	0.07	1.4
43	20' Vein in Dwyer Tunnel on North End Claim. Quartz, broken, altered latite, some adularia. Iron oxide in stringers	0.02	0.3

ASSAYS AND SAMPLES

AS GIVEN IN REPORT ON SNOWFLAKE GROUP

BY JAMES E. TALMADGE in 1906

No.	Description	Gold Ozs.	Silver Ozs.
	Series "A" - Snowflake Claims:		
1	Open cut A. near Blacksmith Shop; about 400' South from North End Line, solid gray quartz from face of cut over 3'x4'	0.19	3.58
2	Floor of same cut, solid quartz in place, iron stain predominant, area about 20'x4'	0.055	3.15
3	Easterly wall of same cut on second or lower terrace massive quartz, varied colors, area 20'x4'	0.20	1.56
4	Westerly wall same cut, practically footwall, altered and disintegrated country rock - Taken to test possible mineralization of the porphyry	None	None
5	Same cut, open extension in western wall where quartz intrudes footwall 5' x 4'	0.055	0.89
6	Open cut B. below last named and East from such rock from face, dark iron stained quartz, solid 8'x16'	0.08	1.00
7	Same cut; west wall 20' long x 4' high	0.03	1.25
8	Same; east wall 15' x 3' exclusive of stringers of porphyry	0.05	0.5
9	Ore in same cut, large blocks piled in heap (Apparently taken from excavation in west wall)	0.425	4.57
10	Big open cut easterly from last named; as to direction it is a continuation of Underhand Stope named below; rock from face 8'x10'; Gray quartz with spar	0.10	1.36
11	Floor of same cut 5-15' below soil; 30'x10' quartz with streaks of spar	0.155	1.8
12	Underhand Stope; Solid rock in place along hanging wall at bottom; 50' along wall, covering zone of 12' above floor	0.12	2.75
13	Same; from 2' above bottom of 7' along entire hanging wall	0.23	3.00
14	Same; north end of stope; bottom to 4' above excluding fissure filling in N.E. Corner, heavily iron stained -	0.34	2.00
15	Same N.E. Corner of stope, local fissure extending from surface down to present floor - 1½" - 2' wide filled with iron oxide with quartz fragments cemented by iron oxide, sample area from floor up to 10'	0.34	3.36
16	South end of same stope; zone of calcite; spar only, 2' x 3' area, taken to test mineralization of spar	0.08	1.7
17	Open trench above blacksmith workings across vein about 72' long E. & W. direction revealing quartz bedrock, East half	0.01	0.5
18	Same trench west half	Tr.	0.05
19	From excavation at or close to intersection of Early May and Snowflake side lines	0.12	1.4
20	Bald cliffs near same place; called West Dike, mostly elvanite; taken to determine mineralization of igneous dikes	None	None

No.	Description	Gold Ozs.	Silver Ozs.
21	Rattlesnake Tunnel; sample from main tunnel from junction with branch to within 1' of face, both walls and roof	0.14	0.5
22	Same Tunnel;face and one foot back broken material, not lode matter	Trace	None
23	Same Tunnel; branch from main tunnel,both sides and roof from junction to 15' in	0.06	1.00
24	Same branch of tunnel; extension into broken wall material; not vein matter	None	1.00
25	Open cut directly above Rattlesnake Tunnel floor about 10' above roof of tunnel named. General sample 20'x12'	0.70	3.25
	Series "B":		
101	Snowflake #5, cliff of quartz forming surface outcrop about 350 southerly from north end line, slope of Mill Gulch, sample consists of chips broken from cliffs,strictly surface material	0.12	1.25
102	Same claim about 200 south from last collection, open cut 12' long x 3' deep, sample from walls & floor	0.04	0.75
103	Same claim; from Mill Gulch southerly for 100', surface exposure dark stained quartz lying East of main ledge	0.01	0.7
104	Same exposure continued southerly for another 100' stretch	0.2	1.4
105	Beginning about 75 ft. S. of last; thence forward about 75', stained, surface material easterly from main ledge	0.12	0.3
106	Following area of last collection, surface material 60' x 75'	Trace	None
107	Following southerly from last; Area of collection 100' x 25' surface blocks on outcrop	Trace	None
108	Quartz outcrop over area 100' x 25' ending at place of ledge disappearance under sedimentary deposits on Snowflake #5 as described	Trace	None
109	Snowflake #2 at lower Red Eagle Tunnel; sample from main tunnel crosscutting the Snowflake ledge from wall to wall - 12'	0.41	2.33
110	Lower Red Eagle Tunnel, branch drift, general collection throughout its length of 39', broken material	0.03	0.4
111	Upper Red Eagle Workings, open cut 24' to edge of shallow shaft or pit	Trace	0.3
112	From shallow shaft last named 5' square x 5' deep	0.05	1.25
113	Upper Red Eagle Tunnel, North wall, portal to breast	Trace	1.5
114	Ore dump at Upper Red Eagle Workings, estimated 45 tons in blocks here piled, sample consists of fragments taken from these blocks at random	0.66	5.84
115	Ditto; Lower Eagle dumps, ore and waste mixed, grab sample including much fine material	0.15	1.00
116	Moody workings on Snowflake #2, near South end line and about 300 ft. inside West line of claim. This sample from broken material in open cut 5'x5'	Trace	1.35

No.	Description	Gold Ozs.	Silver Ozs.
117	Outcropping ledge near Moody workings, chip sample from surface rock over area 100'x25'; ledge here exposed presents surface width of over 100 ft. on the natural slope of the hill	0.20	3.00
118	Near Moody workings surface outcrop 100' across sample from belt 50' wide across entire exposure (Miller sample)	0.46	1.6
119	Near Moody workings, miscellaneous cuttings from surface material mixed and broken near wall west of ledge (Miller Sample)	0.06	3.6

Mill run returns 550 tons taken from Underhand Stope show a yield of $9.91 in gold and silver.

January 17, 1935.

Mr. George M. Snyder,
Salt Lake City, Utah.

ANDESITE MINING COMPANY

Dear Mr. Snyder:

Supplementing my recent report on the Andesite Mining Company and answering your request for a statement of positive ore, I submit the following estimate based on my recent geological mapping and sampling on the Snowflake Lode:

		Oz. Au.	Oz. Ag.
Quarry 25,000 tons	———	.20	2.0
Moody Workings: $\frac{200' \times 16' \times 50'}{13}$	= 12,300 tons ———	.16	1.1
$\frac{150' \times 8' \times 50'}{13}$	= 4,600 tons ———	.12	0.8
Newhall Shaft: $\frac{100' \times 26' \times 50'}{13}$	= 10,000 tons ———	.275	1.5
Moore Shaft Area: $\frac{100' \times 18\frac{1}{2}' \times 50'}{13}$	= 7,100 tons ———	.29	1.6
Totals: Quarry 25,000	———	.20	2.0
South End 34,000	———	.251	1.0

Consider only the South orebody. Assuming 50 feet as the depth on the orebody, 90% recovery on the gold and 50% on the silver, we have then 34,000 tons with a recoverable value of $8.00 per ton.

Surely mining and milling can be done for not over $5.00 per ton, so that there should be a net of $3.00 per ton or $100,000 on the 34,000 tons.

To: George W. Snyder
Andesite Mining Company #2

A 100-ton mill should treat nearly this tonnage in a year. The cost of the mill, power plant, wells and mine equipment may be placed at about $75,000. Hence, the operation should more than return the money invested the first year. Remember, this figures only the orebodies now known at the South end and leaves the tonnage at the quarry for additional profit. In addition other orebodies will be discovered as work progresses and in all probability the values will extend far below the 50-foot depth assumed.

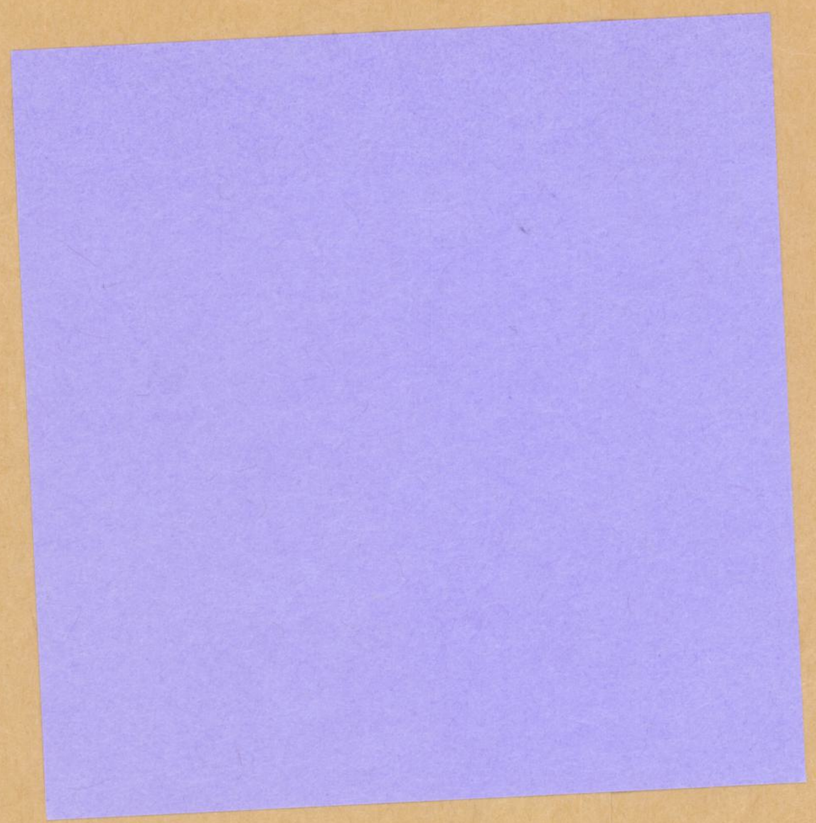
As a precaution, I am suggesting that additional trenching and sampling be carried on to check values in the above blocks.

Yours very truly,

Earl B. Young.

Earl B. Young,
Mining Geologist.

EBY:MG



1.75
1.50
1.50
37

ANCHOR CLASP ENVELOPE
A product of Wilson-Jones Co., Chicago, U. S. A.
K 83 8½ x 11½

#2

GEOLOGICAL MAP AND SECTION
ANDESITE MINING CO.
EAGLE VALLEY MINING DISTRICT.
LINCOLN CO. NEVADA
SCALE 1"=200' DEC. 1934
E.B.H.

WINNER

SNOWFLAKE NO. 10
SUR. NO. 4000

SNOWFLAKE NO. 3.
SUR. NO. 4000

SNOWFLAKE NO. 4
SUR. NO. 4000

NORTH END

WINNER NO. 2
SUR. NO. 4261

SNOWFLAKE
SUR. NO. 4000

SNOWFLAKE NO. 2
SUR. NO. 4000

SNOWFLAKE NO. 5
SUR. NO. 4000

Covered with Soil

Covered by Slide Rock

Jasper Dike or Sill

Red Eagle Workings

Moody Workings

Newhall Shaft

Hoosac Tunnel 3 mi.

Vertical Projection of Snowflake Lode
Average Strike N20°W. Dip. 70° E.

Little Buck

Big Buck

Quarry

Red Eagle Workings

Newhall Workings

Moore Workings

7200
7100
7000
6900
6800
6700

Gulch.

#28-6'-.04-0.9
7'-.03-1.1

Dump

90°

12'-.08-2.6

#24-9'-.01-0.5

#25-9'-.06-1.5

#26-6'-.02-0.9
10'-.065-1.6

#27-15'-.03-1.3

85°

70°

75°

Red Eagle Workings.

Wardner Report. 8 samples. Ave. 7'-$1.92. (Probably figured at 1oz Gold =$20.00)
Talmadge Report. 7 " Au. 1863; Ag 1.89.

N

#38-14'-.02-0.9
#39-12'-.26-0.5
16'-.08-1.0

#40-20'-.26-1.9
17'-.475-2.1

#42-95' across Outcrop: 25° slope
.07-1.4

Moody Workings.

Wardner Report. 5 samples 13.4'-$2.57
Talmadge Report. surface 100'x25' Au. 20 Ag. 3.00 3
" " " 100x50 ". 46 ". 1.6 3.

1 5

#41 Grab from Dump. 8' Vein-matter
shows in pit
-0.12-0.8
10'-.145-1.9

1

4

2

Wardner Report. 12'-$2.45

Newhall Shaft Area.

Wardner Report. 5 samples 5.6'-$4.05.
Talmadge Report. Surface Sample Au. 123 Ag 1.2503.

#32-13'-.39-1.6
#33-13'-.16-1.5

#34-55' across Outcrop.
.01---

Shaft. 16'-.22-1.1
16'-.295-1.8

Gulch.

Moore Shaft Area.

Wardner Report. 12'-$5.55
Talmadge " 12'-.04-.73

#30-11'-.24-1.5

#31-7½'-.34-1.7

Talmadge Surface 100'-Au 0.2
Ag 1.4

Talmadge Surface Au. 01 Ag 0.7

#29-Grab from Dump.
.08-1.3

Shaft

Wardner 4'-$4.75

Shaft 5'-.04-2.8
6'-Tr-4.45
7'-.465-1.0

14'-.18-2.70
16'-.04-.90

Talmadge Surface. 95'
Au. 0.12 Ag. 0.3

Talmadge Surface Trace

Assay Order.

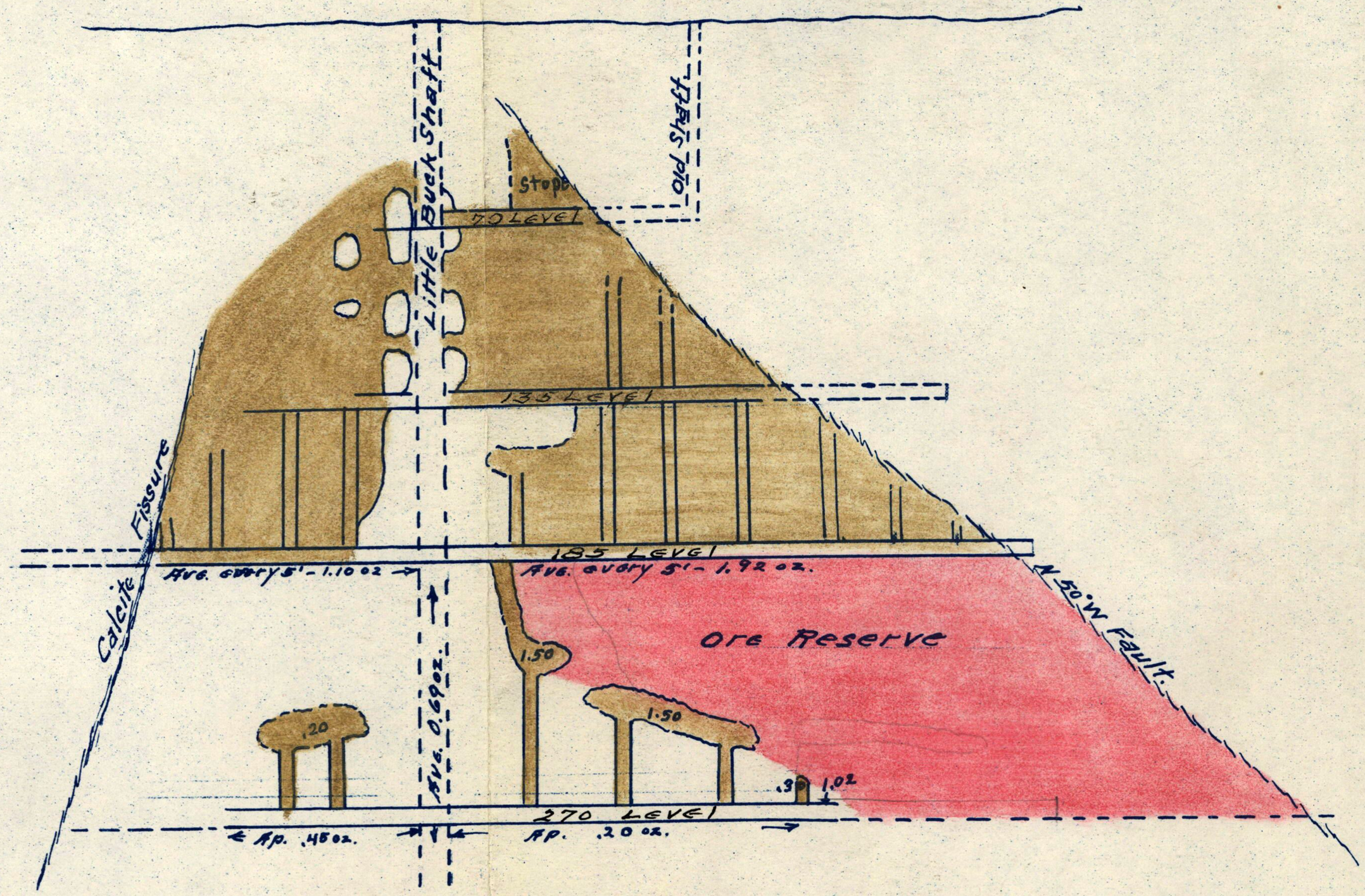
Number of Sample
Width in feet
Gold in ounces.
Silver in ounces.

#3

SOUTHERN PORTION OF SNOWFLAKE LODE

Scale 1"-100' Dec. 1934.

E.B.M.



ANDESITE MINING CO.

Longitudinal Projection - Little Buck

Scale 1" = 50'

Dec. 1934.

E.B.J.

#6

N50°W Fault projected to 270 Level 50° dip.

N50°W Fault 50°

2' Vein

270

185

135

70

Old Shaft?

Stope

Little Buck Vein

Dump.

Dump

Powder House.

Probable Little Buck Vein

Road

Trench.

Castella Fissure

30' Quartz Adularia Calcite

Silicified Andesite. plus Quartz.

Snowflake Lode.

1' Qtz.

Cut

25' Vein Quartz, Calcite Adularia with blocks of silicified Andesite. 20' - Au .02 Ag .3g.

Grab from Dump Au .03 Ag Leg

½-2' Quartz Adularia.

I

Sketch showing relative position of Little Buck Workings and "Big Buck" or "Snowflake Lode Outcrop.
ANDESITE MINING COMPANY.
Scale 1"=50' Dec. 1934.
E.B.M.

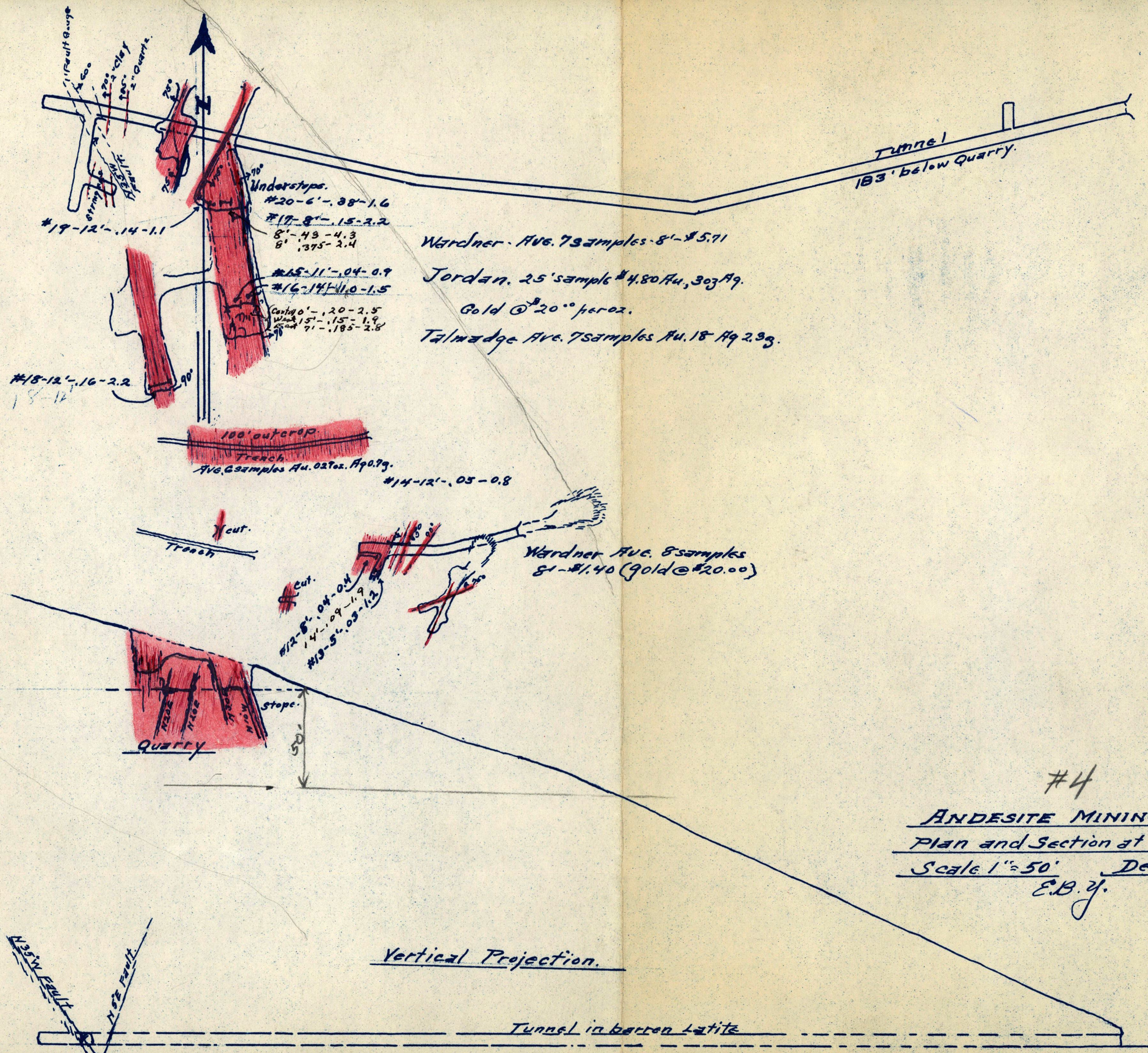
#5

ANDESITE MINING COMPANY

SAMPLES TAKEN BY A. M. JENSEN

MARCH 11, 1935

	Description	Au.	Ag.
No.1	From cut in center of Snowflake No. 5 Claim 14 foot face	.18	2.70
No.2	Same cut as #1 Andesite & Quartz 16 foot face	.04	.9
No.3	Moore shaft, 5 foot face 35 ft. below collar	.04	2.8
No.4	Moore shaft, 6 " " 25 " " "	Tr.	4.45
No.5	" " 7 " " Collar of shaft	.465	1.0
No.6	Newhall shaft 16-foot face	.22	1.1
No.7	Open cut near Newhall shaft 16-foot face	.255	1.8
No.8	10-foot cut at Rattlesnake Post	.145	1.9
No.9	17- " face South cut Moody workings	.475	2.1
No.10	16- " face Tunnel Moody workings	.08	1.0
No.11	10- " face South drift Red Eagle Workings	.065	1.6
No.12	12- " face Entrance to " " "	.08	2.6
No.13	7- " face Cut West of " " "	.03	1.1
No.14	13-foot face 350 feet North of Red Eagle Workings	.01	0.5
No.15	14- " " tunnel South of Quarry	.09	1.9
No.16	75- " " trench South of Quarry	repeat	-
No.17	10- " " South center cut in Quarry	.20	2.5
No.18	15- " " West side -South face in Quarry	.15	1.9
No.19	7- " " East " " " "	.185	2.8
No.20	8- " " Center of Quarry	.43	4.3
No.21	8- " " " " 10 ft. North #20	.375	2.4



#4

ANDESITE MINING CO.

Plan and Section at Quarry.

Scale 1" = 50' Dec. 1934

E.B.Y.