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THE ATLANTA MINE

Lincoln County, Nevada.

LOCATION. This property lies on a spur of the Fortification Mountain Range about fifty miles north of Pioche, Lincoln County, in Southern Nevada. Pioche is the nearest railroad station, with post office, telegraph and telephone offices, stores, etc.

ROADS. The first thirty miles north of Pioche (to Pony Springs) is over U. S. Highway No. 93, all graded and graveled and largely paved. The road from Pony Springs to the mine (about twenty miles) is better than the average Nevada mountain road. In dry weather heavy machinery and supplies can be moved to the mine on trucks with little trouble. With the mine in operation the road can be put in satisfactory shape for all yea use at small cost.

ALTITUDE. The property lies between 6000 and 7000 feet above sea level.

CLIMATE. Hot days and cool nights in summer. Moderately cold winters. Heavy rains at irregular intervals in summer are followed by a quick run-off which washes out roads, etc. Winter snow storms are at times heavy enough to block the roads temporarily. These conditions do not suspend operations, but do add to the cost of mining and milling.

WATER. The mine itself is dry. There are no live streams close by. Domestic supply comes from wells. Water for milling will require a six-mile pipe line, but will come in by gravity.

TIMBER. There is a fair stand of juniper and pinon on the property and better stands on north hillsides in the vicinity, but it has small value for mining purposes. Good mine timber will have to come in from Oregon, Washington or Northern California. Fortunately the ground stands so well that little timber will be required.

GEOLOGY. The ore bodies in this property exist as breccias in one or more shatter zones lying in or near a major North-South fault. This fault can be traced for nearly two miles, with limestone on the east and quartzite on the west, with important occurrences of porphyry as dikes, sills and irregular masses in and near the fault zone. In its larger structural features the geology is comparatively simple, but there are some unsolved minor problems connected with the mineralization which only time will solve. As an illustration, note that the angular fragments making up the breccia are of all sizes and sorts. Many of these fragments have the appearance of having escaped the general alteration, silicification, mineralization and change of color, so that they might be discarded from a picking belt after coarse crushing--a profitable step where possible--but a series of tests gives small hope on this ore. Fresh, clean pieces will often assay nearly as much as the average of the ore.

Screening tests at various sizes also give unsatisfactory results, the oversize always carrying too much value to permit discarding it.

On the 200-foot level near No. 4 cross-cut, there is a minor displacement of the ore zone caused by a fold or fault. The surface conditions indicate a fault. It does not appear to have affected the mineralization and is probably of no importance. No other cross faulting was noted.

The gold and silver were probably deposited originally in different zones or at different times. Erosion and other causes have directly or indirectly caused migration of these metals, so that the ratio of gold to silver is not the same on different levels. It also varies to some extent on the same level, influenced by such accompanying elements as manganese and iron in various forms. The recognition and use of this association is of importance because it permits ore of a more uniform analysis to be sent to the mill, giving a better recovery with less mill trouble.

The ore is thoroughly oxidized, no sulphides having been seen, even at the bottom of the mine, on the 400-foot level. Its gold values yield readily to the cyanide process; the silver values not so well. No interfering elements were noted except a small showing of copper at the west and of No. 3 cross-cut on the 200-foot level.

DEVELOPMENT. This brecciated zone has been opened by two shafts, with some 2500 feet of drifts, cross-cuts, raises and winzes. Practically no stopping has ever been done. Number One shaft is vertical, 400 feet deep, with two compartments, recently

retimbered, with good head frame, hoist, cage and auxiliary equipment, all in good condition.

From No. 1 shaft, levels have been run at depths of 100,200 and 400 feet from surface, details of which are shown on the accompanying assay maps.

Number Two shaft is the old original discovery shaft. It is 82 feet deep, not quite vertical, has short levels at 20, 55 and 82 feet below surface is not timbered except for necessary ladder supports, and is connected on the 82-foot level with the 100-foot level of No. 1 shaft by a short raise.

It seems probable that much of this development work was planned and carried out in the hope of finding high grade ore--a hope not realized. What it has accomplished, however, is the opening up of a large section of the deposit in such a way that fairly adequate sampling can be done with closer accuracy than an examining engineer usually finds possible.

Development is most extensive on the 200-foot level where the breccia has been opened up for slightly more than 500 feet in length by a main drift, and in width from 45 to 130 feet by six cross-cuts. Practically every sample taken in this area carries gold and silver, and the mass may properly be called ore, as described and limited below.

Both ends of the 500-foot drift are still in this ore. Nearly all the development on all the levels lies to the south of No. 1 shaft. But not only are the north ends of the 100 and 200-foot levels at the No. 1 shaft still in theore, but the outcrops on surface to the north of the shaft are large and promising and deserve the attention they apparently have never had.

These outcrops are bold, rugged and irregular and cannot be accuractely sampled by hand. This situation is discussed below under "Recommendations."

SAMPLING. After a careful inspection of the mine and a study of the results of previous samplings, it was decided that the property could and should be so sampled as to show two possibilities: First, that there exists a vein or band of ore within the brecciated zone, roughly parallel to the major North-South fault, ten to thirty feet wide, of sufficient value to permit mining by shrinkage stoping (or allied methods) and milling at the rate of, say, 100 tons per day: Second, that the entire body of brecciated material might be shown to have tonnage and value enough to permit mining the surface ore by power shovel, followed by gloryhold methods for the underlying ore, on the basis of 500 to 750 tons per day.

Taking into consideration all the factors entering into the result of a 100-ton daily output, including a respectable profit, the ore should show a gross value of at least $7.00 per ton. The assay maps show, marked in blue, a small body of ore near No. 2 shaft on the 20-foot level assaying $8.16. Below this, on the 55-foot level this ore body assays $12.34, but on the 82-foot level, just below, the assays are down aroung $3.00. On the 100-foot level, east of No. 1 shaft is a fair body of $7.00 ore but no other ore of this grade has been out on this level. This may be largely due to the lack of systematic cross-cutting.

On the 200-foot level, the cross-cuts show the following widths and values:

CROSS-CUT	#3	WIDTH:	22 feet	VALUE:	$ 7.75 per ton
"	4	"	17 "	"	7.31 " "
"	5	"	40 "	"	11.45 " "
"	6	"	10 "	"	6.87 " "

(Cross-cuts #1 and #2 show only lower grade ore)

Beyond much doubt this band of ore, averaging about 20 feet wide, assaying around $8.00 in gold and silver, will be found to be continuous for 300 feet or more in length. But no corresponding ore body has been opened up on the 100-foot level above, nor on the 400-foot level below.

We the first possibility (of a minable band of $7.00 ore) remains a possibility, although no tonnage can be definitely assured without some further development aimed at getting a third dimension on this assumed ore shoot.

The second possibility (of mining by cheaper methods the entire breccia mass) was soon decided to be the more promising, and the greater part of the samples taken were taken with that fact in mind.

More than 400 samples were taken by standard methods. In almost all cases, channels were cut at five-foot intervals, with due regard to keeping them at the proper angle to the strike of the formation which varies locally due to fracturing, corss-bedding, etc. Between five and ten pounds of rock per running foot of channel were taken, a five-foot sample weighing from 30 to 50 pounds. Each sample was immediately tagged and sealed. Full notes were taken as each sample was cut. In hard rock, hammer and moil were used; in softer material, a small pick was used. Some samples were caught in powder boxes, some on canvas sheets. The entire sample, as cut and sacked, was sent to surface where in a small power-driven crusher it was crushed to about one-half inch size, split once or twice in a Jones sampler, recrushed to about one-quarter inch size, split again until down to about 2 pounds, which was then sacked, sealed and sent to San Francisco to be assayed.

At regular intervals, check samples were cut and assayed in Salt Lake City. Also, at the end of the sampling of each level all the rejects at the crusher for that level were combined, thoroughly mixed, split down to duplicate assay samples, which went out as checks, both on the sampling and on the assaying. In practically all cases, the checking was satisfactory.

In spite of all care and precaution, hand sampling is not a satisfactory method of getting an accurate valuation on a large low-grad gold bearing deposit, complicated in this case by important silver values which do not run concurrently with the gold. Two facts, however, tend strongly to offset this objection: First, the gold is all very fine and much more uniformly distributed than is usually the case. Repeated panning of material from widely separated spots in all but two cases showed fine gold, but in no sample was coarse gold found. Second, the mine has been sampled several times by a reputable and experienced engineers, done in different ways with different ends in view. A comparison of these results is most interesting because of their uniformity.

ENGINEER NO.	AVERAGE VALUE PER TON
1	$ 5.69
2	5.91
3	6.77
4	7.02
5	7.26

In but one case was the 400-foot level included and, as a matter of fact, no ore much below the 200-foot level was considered. The tonnages to which these values apply vary widely and so do the sampling methods; yet, after doing a little adjusting to make the figures cover as closely as possible the same data, the results are as shown just above. In a general way, it is safe to say that the larger the tonnage allowed, the lower is the value per ton.

TONNAGE. Taking up first the possibility of mining and milling a $7.00 ore, the irregular ore body around No. 2 shaft from and including the 82-foot level to surface can be made to produce, according to the recent sampling, the following mill ore:

Plan	Tons	Gold Value	Silver Value	Total Gross Value
1	39400	$ 4.94	$ 0.60	$ 5.54
2	32470	5.42	0.58	6.00
3	20040	6.77	0.71	7.48

PLAN NO. 1 includes the ore on and below the 82-foot level--all low grade as far as exposed.

PLAN NO. 2 omits all ore on the 82-foot level.

PLAN NO. 3 is based on selective mining at increased cost, taking only the $7.00 ore of better--must be based on careful and thorough sampling day by day, as mined.

It is not technically correct to claim this ore to be "positive", "in sight" or "assured", because it is not exposed on 3 or 4 sides, but while classed here as "probable ore" there is little doubt as to its existence, tonnage and grade. The same statement will apply to the selected ore listed below.

On the 100-foot level, North end, near No. 1 shaft, it is reasonably safe to expect 7000 tons, with a gold value of $8.85 and silver value of $0.88, a total gross value of $9.73 per ton.

On the 280-foot level, in cross-cuts Nos. 3, 4, 5 and 6, outlined in blue, there is shown what probably is a continuous

ore shoot about 300 feet long and from 10 to 40 feet wide assaying $5.68 gold and $3.40 silver, total $9.08 per ton. Nothing is known of its vertical extent, but assuming it to be fifty feet, there is here a reasonable expectation of about 22000 tons assaying $9.08 per ton.

On the 400-foot level, with its limited development, the sampling shows no ore of any commercial grade.

A summary of the ore assaying $7.00 or more, as described above, is made up in the following way:

LOCATION	TONS	GOLD VALUE	SILVER VALUE	TOTAL VALUE
No. 2 Shaft	20,040	$ 6.77	$ 0.71	$ 7.48
100' Level	7,000	8.85	0.88	9.73
200' Level	22,000	5.68	3.40	9.08
TOTAL	49,040			
AVERAGE		$ 6.57	$ 1.94	$ 8.51

Several metallurgical tests have been made on this ore, details of which are given below. They show a 90% recovery of the gold and a 35% recovery of the silver.

Gold	-$6.57 @ 90% recovery =	$5.92	per ton
Silver	-$1.94 @ 35% " =	.68	" "
Total recovered value		$6.60	" "

Mining this material ought not to cost more than $2.50 per ton on an output of 100 tons per day provided a little further development proves its vertical extension. It must always be borne in mind that the entire cost of a milling plant should be positively in sight before the plant is built. Assuming the cost of an adequate water supply is not excessive, milling should be done for $1.50 per ton.

This total operating cost estimate of $4.00 per ton cares for all local plant overhead but does not include any provision for a business or financial office in California or elsewhere, nor for the payments on the purchase price of the property.

In round numbers, there can without much doubt be quickly and cheaply put in sight about 50,000 tons of ore yielding $6.60 per ton with an operating cost of $4.00, leaving $2.60 per ton (or $130,000 total) margin to apply on development, plant cost and purchase price. This is not a particularly rosy picture. The only way to improve it on a 100-ton basis is to develop more ore. If does not seem likely the 400-foot level will show anything but low-grade material, but the chances are good both to the North and to the South on the 100 and 200-foot levels--just how good, only development will tell.

LARGER SCALE OPERATION: On the accompanying assay maps, the areas enclosed by the red lines show the following ore:

TONNAGE	GOLD VALUE	SILVER VALUE	TOTAL VALUE
665,850	$ 3.07	$ 1.80	$ 4.87

It is not necessary to burden this report with the details of this calculation. The method of sampling has been described above. Map areas were measured and checked by planimeter. Samples were weighed in accordance with their length, geological position and distance apart. Gold is valued at $35. per tounce, silver at 77 cents.

Gold Recovery is	92%	of $3.07 =	$2.82	per ton
Silver "	" 35%	" 1.80 =	.63	" "
			$3.45	

It may be stated here that these recoveries are based on grinding to 65-mesh. Finer grinding will improve the gold recovery, but the silver has been stubborn in all tests so far made.

This body of ore comes much nearer to being classified as "positive" or "assured" ore than does the better grade ore described above. While still not technically blocked out, it shows on every level as a continuous ore body, developed over a length of 500 feet, with the faces at each end still in ore.

The 400-foot level shows the same breccia, but it is too low grade to be considered. Better ore down there is not an impossibility, but that is in the future.

Little is knows as to the real assay valueof the outcrops above this 500-foot length of ore body. These outcrops are bold, rugged, wide, and carry gold and silver. If this deposit is to be mined by power shovel, this outcrop ore, above the level of the collar of No. 1 shaft, must be taken first. It amounts to about 90,000 tons for the 500 feet in length which lies directly above the developed ore in the mine. There is every reason to believe this outcrop ore will carry values about like those developed below, but it should be made certain. This can be done in two ways. First, drive two or more short cross-cuts from the level of the No. 1 shaft collar eastward under the outcrops to the limit of the breccia zone. This will not cost much nor take long. Equipment to drive one cross-cut at a time is

already in place, but it would pay to rent a portable compressor and run two or three at once. These cross-cuts should be 100 feet apart, and should be so spaced as to avoid what may be a pocket of better than average grade around No. 2 shaft.

The second or alternative method would be to put a series of diamond drill holes into this same ground. On most gold ores, drilling results are not as reliable as are cross-cuts, expecially in broken ground near the surface.

In driving these cross-cuts, the sampling should be most carefully and accurately done. If not so done, there is little use driving the cuts at all.

Assuming that this 90,000 tons of outcrop will pay the own way, the mining of the 500 feet in length on the deposit by power shovel works out as follows:

Total underground ore, as above		665,850 tons
Add the outcrop ore		90,000 "
Total Ore		775,850 "
Power shovel ore--outcrop	90,000 tons	
" " " in pit under outcrop ore, 128 ft. deep	395,500 "	
Total power shovel ore	485,500 "	485,500 "
Leaving, to be mined by glory hole		270,350 "

All this ore, classed herein as probable, lies within a length of about 500 feet in the breccia along the strike of the major fault. Both ends of the present development work are still in this material, so that important extensions are indicated underground which possibility is much increased by the fact that the outcrops over these extensions are just as conspicuous as they are over the partly developed section. There is at present no safe way of estimating this possible

tonnage, Including the outcrop ore, the existing development work has indicated about 1500 tons of ore per feet of length along the strike of the fault. Omitting the outcrops, the figure for underground ore only, is about 1300 tons per running foot, with a gross value of $4.87 per ton. This gives a reasonable basis on which tc plan further development. There is no guarantee of success because, for one reason, little is known about the local effects of the porphyry on the mineralization, but some chances have always to be taken in mining, and the stake here is worth playing for. The possible tonnage, both to the North and to the South, is undoubtedly large and can be developed rapidly and cheaply.

Since, if power shovels are to be used, the outcrop ore must be taken first, it should be the first to be developed, as already suggested.

COSTS. Ten years ago to get at accurate figures on power shovel costs, an engineer had to go either to the porphyry copper mines or the Minnesota Iron Mines, both large scale operations. But today there are several gold properties being worked profitably with shovels, and since the market for gold is not a competitive one their detailed costs are available, although not always published.

1 - At Virginia City, Nevada, at the Arizona Comstock Mine, ore is being mined by shovel and delivered by trucks to the mill under contract for about 32 cents per ton. Waste is put on the dumps for about 26 cents. More than one ton of waste

is taken for each ton of ore mined. (There has been a good deal of fluctuation in this ratio.) About 300 tons of ore were milled daily. Flotation is the process used, hence milling costs are not comparable. The ore assays about $6.00 per ton, probably 60% gold and 40% silver. Recoveries are poor. Total cost under $2.00 per ton.

2 - At the Carson Hill mine on the Mother Lode, California, open cut ore is drilled, blasted, power-shoveled and delivered nearly a mile away for about 24 cents per ton on a 200-ton output. This ore assays about $2.40 per ton.

3 - At the Mountain Copper Company plant near Redding, Shasta County, California, the gossan ore going to the mill assays around $2.15 gold. On a production of 600 tons per day, they have mined by shovel and delivered to the mill in trucks for as little as 21 cents per ton, but recently, when 3 to 4 tons of waste have had to be moved for each ton of ore mined, the mining costs have gone up around 50 cents.

(It should be stated here that very little waste need be taken at the Atlanta Mine. If a shovel can be used at all, it will be on ore alone for a long period).

4 - At the Dairy Farm mine near Lincoln, Placer County, California, a small shovel working in cramped quarters in a narrow pit and producing about 125 tons per day made a cost, delivered by trucks to the mill, of 46 cents per ton. The milling cost was 45 cents, and the overhead -- everything included -- was 38 cents. Total cost $1.29. The ore assayed

$2.33, and recovery was about 72%, or $1.68. The deposit was small but paid for its equipment and operation plus a small dividend to the operators, who were experienced men.

After having compared the costs listed above with the conditions existing at the Atlanta mine, and having myself operated power shovels under most unfavorable conditions, I estimate the cost of mining the outcrop ore and the open pit ore lying beneath it at 44 cents per ton based on an output of 500 tons per day. Repairs, maintenance and its proper proportion of plant overhead are included.

A similar estimate on the ore underlying the open pit, indicates a mining cost by gloryhold methods of 48 cents per ton. Ore mined below the 200-foot level will take a higher cost, but apparently the amount of such ore is limited and it should be a long time before it is reached. The promise of the mine is in increased length along the strike, and not at depth.

MILLING. Numberous tests on this ore have been made by several processes. Cyanidation is the only one giving worth while results. Flotation will give a high-grade concentrate, but the tailings are also high-grade and would have to be cyanided. Straight cyaniding is simpler and cheaper. On the basis of 500 tons per day ground to 65 mesh, the milling cost should be about 68 cents, including plant maintenance and overhead.

About 29 cents per ton should be allowed for general overhead--taxes, insurance, legal expense, experimental work, royalties and property payments, amortization of plant, etc. This estimate may then be summarized as follows:

Net recoverable value in gold and silver, per ton		$3.45
Mining Cost - power shovel	$0.44	
Milling cost--cyaniding	0.68	
Overhead	0.29	
Total	$1.41	1.41
Margin per ton		
Total margin on 750,000 tons = $1,500,000		$2.04

These estimates are all based on the use of a power shovel and on the outcrop ore giving as good assays as does the underlying ore.

The cost of a cyanide plant to treat 500 tons per day depends a good deal on the development of new ore. If built for a 5-year life to treat only the tonnage now estimated as probably (175,000 tons per year x 4.3 years = 750,000 tons), a cheap plant partly second hand might be justified. If enough new ore is developed quickly to give say a ten-year life, first-class equipment and construction will pay well. The cost of such a plant will also depend to a considerable extent on larger tests than those so far made on small samples in the laboratories. To illustrate: The laboratory tests were made in the usual way on duplicate samples, one kept in the cyanide solution 24 hours, the other 48 hours. In each trial on this ore, the 24 hour contact gave higher gold extraction than did the 48 hour run. On the face of things, this indicates that only about half as much tank capacity, pumps, piping, etc. will be necessary as for a 48

hour contact. It also suggests that on gold as uniformly fine as this seems to be a 12 to 18 hour contact might be about as satisfactory as the 24 hour result.

Keeping in mind the variations in data just suggested, a reasonable estimate of the cost of a suitable 500 ton cyanide plant will lie between $125,000 and $200,000.

To equip the mine with power shovel, heavy drilling equipment and trucks to handle 500 tons in 8 hours, with the mill located not more than2500 feet from the pit entrance (to limit road construction), will cost from $50,000 to $70,000.

PROPERTY. There are fourteen claims in a compact group, ten of which are patented. They cover the outcrops very well.

TITLE. No investigation of the titles was made. This should properly be done by a competent and experienced attorney, preferably living in Lincoln County, and I understand has been done.

WINTER. There is one objection to mining such a property as this by gloryhole, Drifting snow finds a fine resting place in all such pits. In winter it interferes with cheap mining, reports with the ore at the bottom, thaws and freezes, and causes mill troubles. In spring when it melts, it makes a nasty mess on the haulage level. In some places gloryholes are worked only in summer, underground mining by caving, top slicing or shrinkage stoping being called on to supply stand-by tonnage. This is particularly

applicable where there are stretches of vein too narrow to gloryhole.

SILVER. The price of silver used in calculating values has been 77 cents per ounce--the present figure. It is claimed by some bankers that international currency stabilization will bring the price down to 40 cents. If so, it is also said that as an offset labor and supply costs should fall to some extent. They do not today look for much change in the price of gold.

WATER. A 500-ton cyanide mill on the average requires from one to two tons of new water per ton of daily capacity, which is roughly 10 to 20 gallons per minute. Concentration and flotation plants take several times as much. The 10 to 20 gallons are vital, however, to this enterprise and should be made sure of before much money is spent.

MILL LOCATION. This depends a good deal on how the deposit is to be mined. If by power shovel, keep the mill as close to the pit as is safe, to reduce truck haul, and to concentrate all possible activity under a single supervision.

DRILLING. Until recently, churn drills have been most extensively used in open pit work but such air-operated drills as the Ingersoll-Rand X-71, drilling 3½ inch holes 31 feet deep, are getting better results at lower cost.

RECOMMENDATIONS:

1 - That as many cross-cuts as possible be driven into the outcrop ground above the collar of No. 1 shaft. These cuts to go the limit of the pay ore ineach case. Such evidence as exists indicated that these cross-cuts will run in length from 100 to 200 feet. They are recommended as one way to get accurate data on ground too rough and irregular to sample on surface.

Sampling these cross-cuts must be thoroughly and carefully done.

2. - As an alternative, prospect this same ground by diamond drilling, putting in as many flat holes as possible. (See below for another alternative.)

3 - Make certain that an adequate water supply can be had at a reasonable cost.

4 - Employ the most competent and experienced mine manager you can find; back him up to the limit and then hold him responsible for results. He should live on the property and give all his time to it, at least until it is paying regular dividends. The right man will save you time and money, far above what you pay him. He should be under no obligation to give a job at the mine or mill to any man, but should have a free hand in hiring and firing his crew. There are occasions when even the best of managers need expert advice from outside the organization. He should have it, if the Directors approve, but he should agreeto follow such advice.

PAPERS, MAPS, ETC., Accompanying this report are the following papers, etc.:

1.	Assay Sheets	- giving location of cuts, assays and values.
2.	Metallurgical Tests.	- Only the best results are included, there being nothing to gain by including the poor work done while experimenting with various methods.
3.	Property Map	- Showing the several claims.
4.	Assay Map	- No. 2 shaft area.
5.	" "	- No. 1 shaft; 100-foot level.
6.	" "	- " 1 " ; 200-foot level.
7.	" "	- " 1 " ; 400-foot level.

SUMMARY. This is one of the few properties examined in forty years of active work where the sampling and assaying check reasonable well with the claims made.

It is not common to find a property with several thousand feet of development, largely done in ore, where no stoping has been done, nor any attempt made to mill the better grade material.

Neither is it common to find such uniform gold content over such large areas.

There is exposed here a large body of ore from which have been taken more than 400 large samples. These samples have been used in a conservative way in estimating the tonnage and value of this ore. It is possible by selective mining, even by power shovel, to raise the grade of ore taken, from $4.87 to about $6.00 per ton, but the tonnage available would be reduced about 25% and the costs would be 20 to 25 cents higher.

Before it can be said positively that power shovels can be used at all, the outcrops must be sampled. Cross-cutting and diamond drilling have been discussed above. There is an alternative procedure possible: Remove by power shovel as much of the outcrop as may be necessary to leave a clean smooth floor or a series of benches. This might cost less than cross-cuts. The spoil from the shovel could be cheaply wasted.

The work could be done by contract or the equipment could be rented. Results would come faster than by cross-cuts. Probably not over 10,000 tons of rock would have to be moved. Much of it could be side-cast over to ground already sampled.

There is every reason to expect this property to pay its way out at the rate of $350,000 per year as soon as it is known positively that power shovel mining can be used and the property is properly equipped. I consider it a most promising enterprise.

W. G. SWART

W. G. Swart, E. M.
Alameda, California
September 30, 1936

AUGUST 1936

NO. 1 SHAFT
100-FOOT LEVEL
CROSS-CUT AT SHAFT

ATLANTA MINE
SAMPLE DATA

NO.	SAMPLE TYPE	LENGTH	ASSAYS OZS. GOLD	ASSAYS OZS. SILVER	VALUES GOLD	VALUES SILVER	VALUES TOTAL
229	WH	5.0'	0.015	0.88	$ 0.52	$ 0.52	$ 1.20
230	"	"	.015	.98	.52	.75	1.27
1	"	"	.015	1.01	.52	.78	1.30
2	"	"	.02	2.98	.70	2.29	2.99
3	"	"	.025	.46	.87	.35	1.22
4	"	"	.02	.14	.35	.11	.46
235	"	"	.05	.27	1.75	.21	1.96
6	"	"	.02	.40	.70	.31	1.01
7	"	"	.05	1.33	1.75	1.02	2.77
8	"	"	.01	.43	.35	.33	.68
9	"	"	.005	.19	.17	.15	.32
240	"	"	.04	.28	1.40	.22	1.62
1	"	"	.15	.97	5.25	.75	6.00
2	"	"	.08	.72	2.80	.55	3.35
3	WV	8.0'	.56	.71	19.60	.55	20.15
4	"	8.1'	.18	.96	6.30	.74	7.04
245	"	6.5'	.25	1.01	8.75	.78	9.53
6	"	6.0'	.05	1.11	1.75	.85	2.60
7	WH	3.5'	.10	.69	3.50	.53	4.03
8		5.0'	.09	.41	3.15	.32	3.47
9		"	.04	.68	1.40	.52	1.92
250		"	.11	.46	3.85	.35	42.20
1		"	.03	.39	1.05	.30	1.35
2		"	.03	.39	1.05	.30	1.35
3		"	.03	.79	1.05	.30	1.66
4		"	.025	.85	.87	.65	1.52
255		"	.02	.73	.70	.56	1.26
6		"	.02	.28	.70	.22	.92
7		"	.04	.19	1.40	.15	1.55
8		"	.04	.14	1.40	.11	1.51
TOTAL					74.17x	16.04	90.21
AVERAGE (30)		5.2'	.07	.70	$ 2.47	$ .53	$ 3.00

GOLD @ $35 Per ounce
SILVER 77¢ " "

This one sheet means nothing in phys. data