



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

The following file is part of the Cambior Exploration USA Inc. records

ACCESS STATEMENT

These digitized collections are accessible for purposes of education and research. We have indicated what we know about copyright and rights of privacy, publicity, or trademark. Due to the nature of archival collections, we are not always able to identify this information. We are eager to hear from any rights owners, so that we may obtain accurate information. Upon request, we will remove material from public view while we address a rights issue.

CONSTRAINTS STATEMENT

The Arizona Geological Survey does not claim to control all rights for all materials in its collection. These rights include, but are not limited to: copyright, privacy rights, and cultural protection rights. The User hereby assumes all responsibility for obtaining any rights to use the material in excess of "fair use."

The Survey makes no intellectual property claims to the products created by individual authors in the manuscript collections, except when the author deeded those rights to the Survey or when those authors were employed by the State of Arizona and created intellectual products as a function of their official duties. The Survey does maintain property rights to the physical and digital representations of the works.

QUALITY STATEMENT

The Arizona Geological Survey is not responsible for the accuracy of the records, information, or opinions that may be contained in the files. The Survey collects, catalogs, and archives data on mineral properties regardless of its views of the veracity or accuracy of those data.

For our file
McMillanville
Gila Co. Ariz

Arch

copy B. Amawiler



INDUSTRIES

5020 No. 1

PPG INDUSTRIES, INC. 1000 CHINDEN BOISE, IDAHO 83704/AREA 208/376-6800

September 23, 1981

Robert Miller
DeKalb Mining Co.
1000 Petroleum Bldg
110 16th Street
Denver, Colorado 80202

SEP 30 1981

10-13-81

BRUCE:
MILLER THOUGHT
YOU MIGHT WANT
TO LOOK AT THESE.

CHERI

Dear Mr. Miller:

Enclosed is a packet of information concerning our ~~McMillanville~~ property which is located approximately 15 miles north of Globe, Arizona adjacent to U.S. Highway 60.

The geology of the area is rather simple. There are two layers of gently dipping unaltered coarse-grained gabbro enclosing a thick layer of severely altered gabbro which is cut by small, irregular, fine-grained diabase dikes and sills. This sequence is cut by a later, extensive vein system.

Our original objective was the altered, blanket-like gabbro. We received some assay results from reputedly reliable assayers indicating the presence of a large body of precious metal ore from samples taken from the altered material.

At this point we leased the Guardian claims, staked a large block of PAM claims under an area of influence, and acquired control of the three patented claims-- Stonewall Jackson, Little Mc, and Hannible.

We finally had to set up our own lab at Tucson to determine that the results from the commercial labs were erroneous.

The Guardian and the PAM claims were released and the three patented claims retained. The Guardian claims have since been dropped (not filed with the BLM) and we think that the PAM claims will also be dropped this year.

Two holes were subsequently drilled on the Stonewall Jackson patented claim (M79-4 and M79-5). Results are shown on the block diagram.

If you have any questions please do not hesitate to contact me.

Yours truly,

D.R. Atkinson
D.R. Atkinson

..... (Unable to read)

Thirty-five feet above the adit level is located the 130 ft. level which has been extended for a distance of three hundred and twenty feet North East of the main shaft, which passed three bodies of ore. The North East end of this level is connected with what is known as the Starts shaft. The ground plan shows all the winzes and cross-cuts made on this level. It is hard to estimate the available ore here. At several points on this level seams of very good ore were being followed up. The next levels, the 190 and 230, as seen in the vertical section of the stopes passes through a body of ore 200 feet in length by about 30 feet in depth. This may be considered the bottom of the continuous ore body so far as is discovered. On the surface several small seams of very rich ore composed of Chloride and native silver were found, but which did not continue beyond the depth of some 120 ft. It is not necessary that I should give an elaborate description of the five other levels; they are shown in detail together with their cross-cuts later. In neither of these elaborations have there been any extensive ore bodies found. The general character of the vein matter is however the same as in the levels above where ore was found, and in places very rich. Large quantities of low-grade ore assaying from five to fifteen dollars per ton exist in all these levels, thus warranting the expectation that rich ore may be encountered by further work.

CHARACTERISTICS OF THE MINE

The character of the formation is very favorable for silver veins there can be no doubt that you have a true fissure vein. The walls are well defined and I saw no indication that the vein was weakening as depth was attained. Unfortunately I could not examine the bottom or 570 ft. level as the pump which is too small broke while I was at the mine, and consequently the lower drifts were filled with water. I was able to examine down to the depth of 550 ft. and the character of the vein matter was the same as at 470 ft. level, and the superintendent informs me that they were in a body of fine quartz carrying low grade ore. From the character shown me as coming from there the prospects for ore being found at this depth are most favorable.

RECORDS OF PROPERTY

The property has produced from a depth of one 230 ft. the sum of \$481,282.07.

According to the books of the company, the sum of \$336,282.07 has been produced since the incorporation of the company, July 31st, 1877. Messrs. Martin and Tiemny state that they extracted \$25,000 00 and Messrs. Harris and McMillan claim to have realized some \$120,000.00 before the incorporation of the company.

I am unable to verify the correctness of these last two amounts. Prior to the 1st of September 1879 the books of the company do not show the quantity of ore extracted and crushed.

I find that between September 1, 1879 to November 21st, 1881, 1800 tons of ore and 80 tons of tailings worked yielded the sum of \$118,487.12 which is at the rate of \$134.64 per ton including tailings worked.

In March 1877 I worked 4397 pounds of ore which yielded the gross amount of \$8,418.41.

Several other lots equally rich if not richer were worked by other parties. These rich lots were composed mainly of native silver interspersed through carbonates of lead and lime.

From the foregoing statement of facts it is self evident that the ore where found is very rich and from my examination I have no hesitation in stating warrants the expenditure necessary for a more thorough exploration.

RECOMMENDATIONS HOW TO DEVELOP

The mine should be supplied with additional pumping power in the shape of a six inch Cornish pump and engine and boiler to operate the same. The present volume of water is likely to increase as depth. The present volume in the mine is about 2000 gal. per hour. It is well to provide ample capacity to cope with it.

The incline shaft from the 470 ft. level should be carried to greater depth. For this purpose a small hoisting engine operated by compressed air should be placed at the mouth of the same.

An air compressor and the necessary power to drive the same should be placed at the mouth of main shaft. This would furnish air for machine drills as well as for operating the hoisting engine.

When necessary machinery to cope with the water has been placed in position the incline shaft sunk some two hundred feet deeper, then levels and cross-cuts should be extended to thoroughly explore the ground. In the meantime, it would be well to prospect the upper levels more thoroughly.

MACHINERY

On surface at main shaft 9 x 40 double hoist drum 5 ft in diameter. Boiler 18'x40', 700 ft. 3/4" steel cable, 2 buckets 800 lbs. and several cars for underground work.

Hoisting works underground; donkey engine 6 x 12 at the

mouth of incline on 470 level, steam being supplied from boiler at surface.

Four steam pumps, Acme No. 1, 2 Dean Nos. 4, 6 and 600 ft. 2" pipe. These pumps are not in good order and not adapted to cope with the water to such depth besides which they are expensive to operate.

Mill machinery, engine and boiler for sufficient power, to drive 10 stamps and necessary pans and settlers. Five stamps, 2 amalgamating pans and one settler. Capacity of the mill being 5 tons each 24 hours. The frame and building has capacity for ten stamps.

OTHER FACILITIES

Timber is abundant at distance varying from 3 to 8is obtainable from \$5.50 a cord. In view of the fact that increased facilities are sure to follow fuel will not materially increase in price, and mining timber will be available at cheap rates.

The water contained in the mine is sufficient for all purposes both mining and milling. This supply can be augmented by bringing water from a spring owned by the company some two miles distant from the mine.

IN CONCLUSION

I would state that from the past record of the property in producing large quantities of rich ore that is easily worked, the favorable geological character of the country, the vein being well defined and carrying more or less mineral to the greatest depth yet attained; and the facilities for working are very good, I have no hesitation in stating that the property has every prospect of developing into a large and permanent paying mine when sufficient explorations have been made and greater depths attained.

Respectfully submitted,

Thomas Price

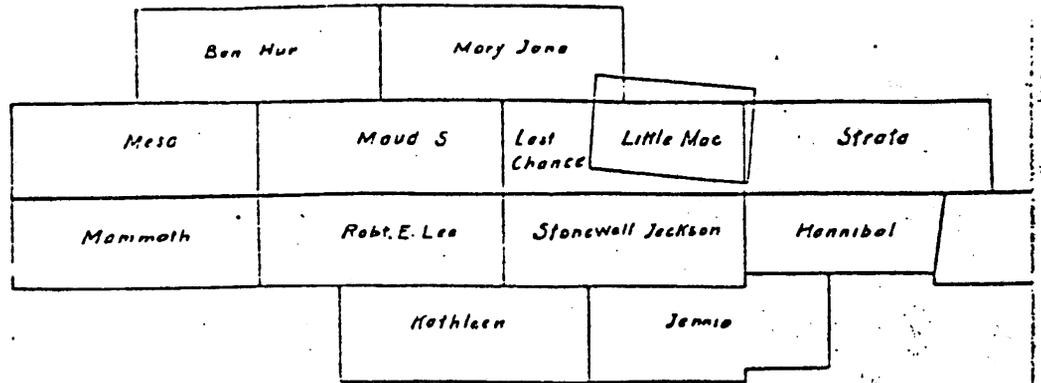
To the Directors of
The McMillan Silver Mining Co.,

San Francisco; Nov. 23, 1881.

MILLAN SILVER MINES GROUP

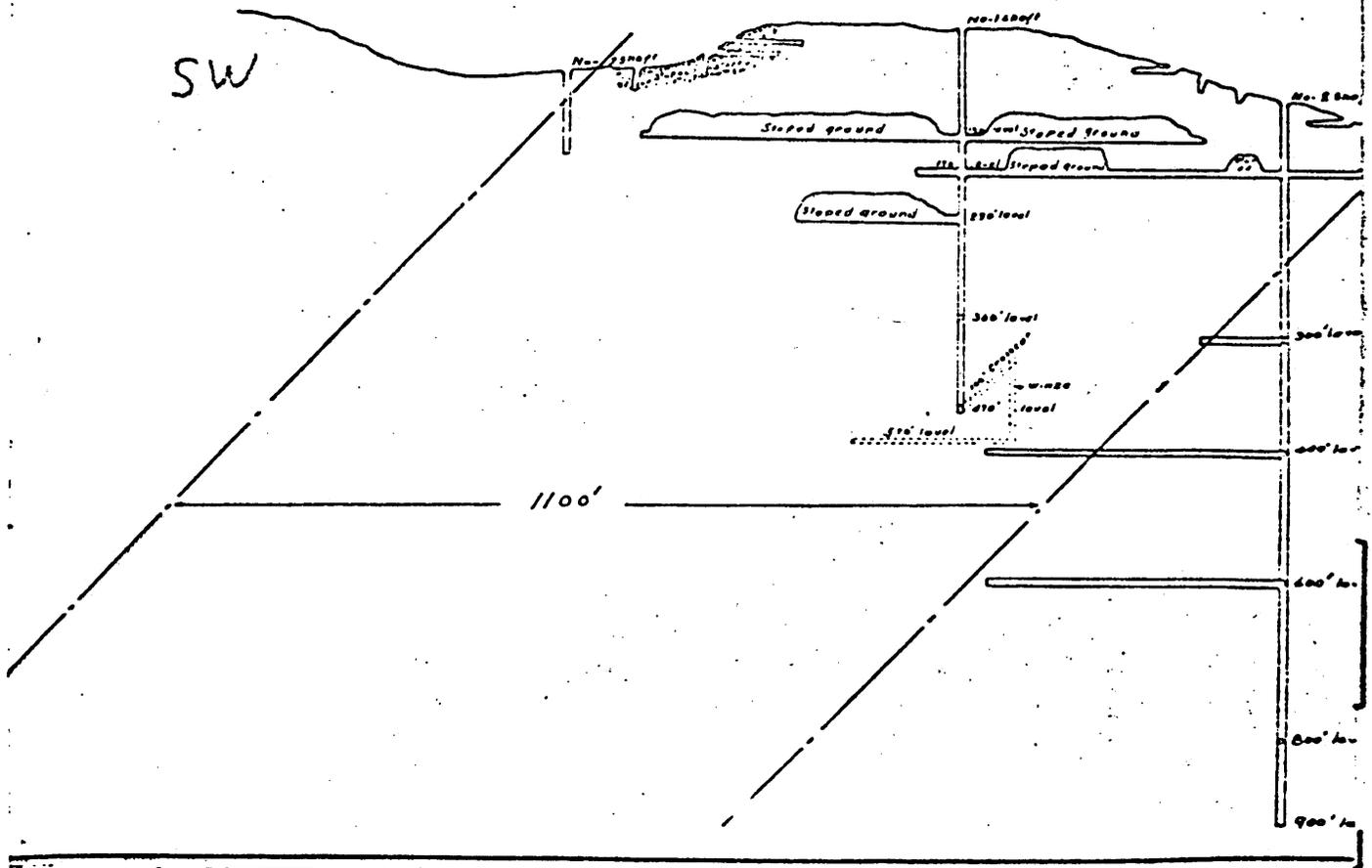
Gila County State of Arizona

Scale 1 inch = 500 feet.



THE MILLAN SILVER MINE WORKINGS

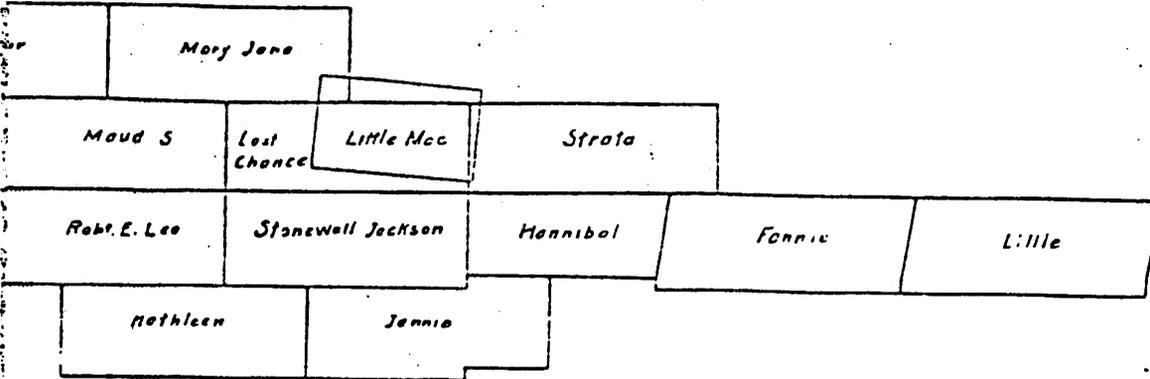
Gila County-State of Arizona



McMILLAN SILVER MINES GROUP

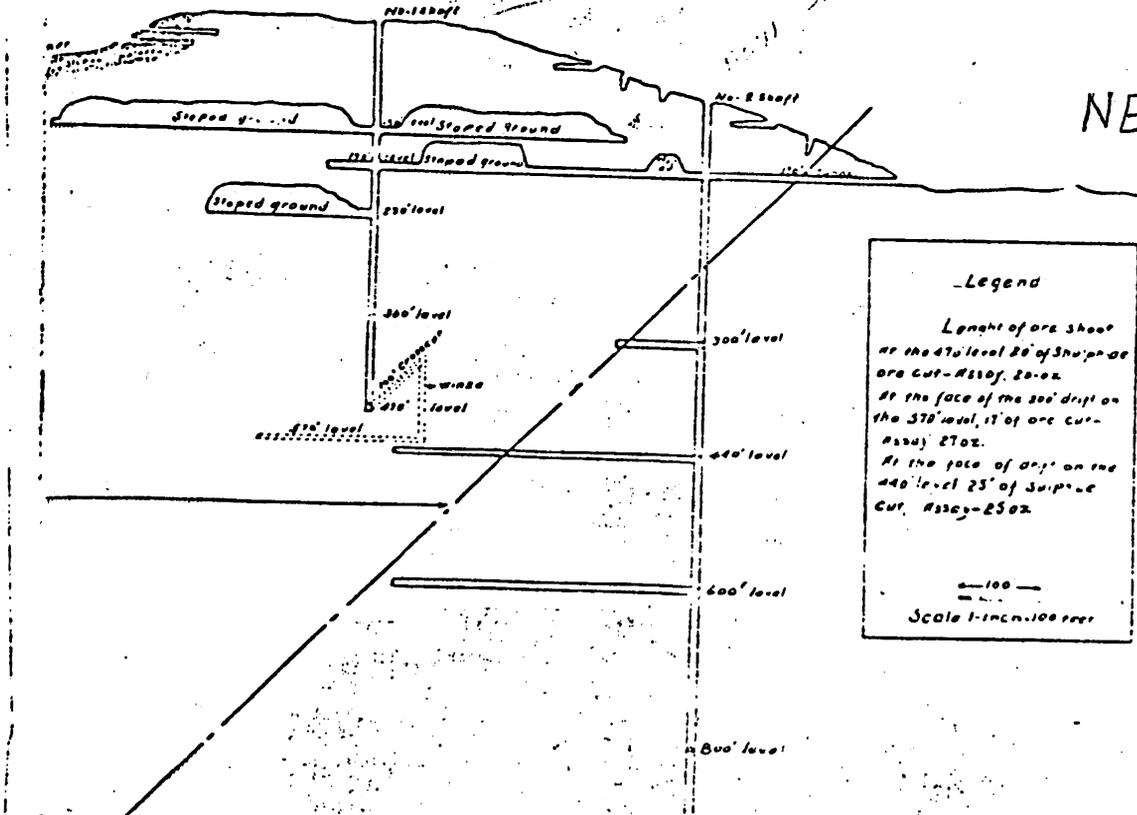
Gila County State of Arizona

Scale 1 inch = 500 feet.



THE McMILLAN SILVER MINE WORKINGS

Gila County - State of Arizona



Legend

Length of ore shoot
at the 470' level 20' of 3 1/2' per oz
ore cut - Assay - 20 oz.

At the face of the 300' drift on
the 370' level, 17' of ore cut -
Assay - 27 oz.

At the face of drift on the
440' level 25' of Surprise
Cut, Assay - 25 oz.

Scale 1-inch = 100 feet

NOTES ON THOS. PRICE'S REPORT ON THE STONEWALL JACKSON MINE
And up to date data on the Camp

McMillanville is 18 miles N.E. of Globe, Arizona, on the new highway (#60).

I hold a 5 year Lease and Option on the Stonewall and Little Mac. Patented Claims. Price \$73,000.00. I won 5 claims on the Stonewall vein, the Hannibal being patented and 5 claims on the hanging wall side of the above covering stratas of commercial ore. Also 2 claims on the foot wall side for tailing storage.

The vein is from 40' to 68' wide throughout the length of my holdings (9000 ft.) with diabase walls.

Besides many small openings along the vein and in addition to those described by Price, a new shaft sunk in 1912-1916 looking for copper, which they failed to find, but it proves to that depth (900 ft.)-no copper or other base metals to interfere with cyanide treatment; that the vein continues to that depth; and makes 50 thousand gals. of water per 24 hours. And by drifting west on the 440' level to connect with the old workings, they cross-cut 25' of 25 oz. argentite ore.

From above the 170' level an ore pocket on the 230' level the Stonewall and Little Mac produced \$600,000.00. The balance of the camp is estimated at \$150,000.00.

The ore from the 230 ft. was not as freemilling as above, hence the 80 tons of tailings mentioned by Price in his report.

Price on page 2 reports large bodies of \$5.00 to \$15.00 (4 to 12 ozs.) ore throughout all levels, and in prospecting for high grade pockets they put 20 thousand tons of 13 oz ore on the dumps and 2 thousand tons of 12 ozs. fills in the mine. He states no ore was found on the other 3 levels, (360'-470' and 570') which is true as to highgrade (60 tons and up). However, all works he examined were within an ore shoot 1100' long carrying small pockets of highgrade to the water level - 230' below which we have a large body of argentite of silver 25' wide assaying 20 to 27 ozs.

On the 360' level, no work was done than to cross-cut to the vein, finding no highgrade on the foot wall. They continued the shaft to the 470' and cross-cut to the hanging wall, the last 20' was in quartz assaying 20 ozs. Then they sank a winze along the side, or under this quartz to the 570' and drifted west 200', 8 cross-cut 17' of 27 ozs ore. As both these cross-cuts were in sulphides, they covered up the ore on the 470' and permitted the water to raise on the 570' so Price could not observe these ores, because the silver was not recoverable by the methods they had at that time, Raw Pan Amalgamation.

This information I got from James Lewis who was foreman and J.C. Newton pumpman at the time of Price's visit.

As the new shaft was sunk east of the ore shoot, most of the dump is not ore, but at the 900' level it showed by nearing the Hannibal ore shoot.

I can show the pile of ore taken from the 440' level cross-cut, which after assorting out some 334 ozs. shipping ore, still assays 12 ozs. Also I have G. H. Hays letter to me, and one to him from his wife commenting on this strike.

Some dumps have been washed away, but there is still about 16,000 tons of 8 ozs. dumps left. @ 85¢ per oz. \$83,200
2000 tons of 12 oz. fills @ 65¢ 15,600
Total on broken 98,800
Cost of tramming & milling @ \$1.50 per ton 27,000
Estimated profits on broken ore 71,800
Probable profits in old works above water 30,000
Block of virgin ground west old shaft 80,000
181,800

This estimate does not include either Haniibal or R. E. Lee ore shoots.

I have made laboratory tests on the dump crushing to 20 mesh and leaching 36 hours with 93% recovery and 1/4# cyanide consumption.

J. B. Gerand - Jimmie - of Phoenix has a power sight permit on Salt River near where Highway 60 crosses it, on which he will build a plant as soon as there is any demand for power. Survey for line crosses my ground. There is a line to

... to date data on the dump.

... 16 1/2 miles N.W. of Globe, Arizona on the new highway (200).
 I hold a 5 year lease & option on the Stonewall & Little Pac. Patented
 claims. Also 20,000.00. I own 5 claims on the Stonewall vein, the Hannibal being
 patented and 3 claims on the hanging wall side of the above covering stratas of
 commercial ore. Also 2 claims on the foot wall side for tailing storage.
 The vein is from 40' to 60' wide throughout the length of my holdings
 (2000ft.) with dense walls.

Business men came along the vein and in addition to those dis-
 covered by Price, a new shaft sunk in 1912-1916 looking for copper, which they failed
 to find, but it proves to that depth (900ft.) no copper or other base metals to inter-
 fere with cyanide treatment; that the vein continues to that depth; and makes 50
 ton dump of water per 24 hours. Said by drifting west on the 440' level to
 connect with the old workings, they cross-cut 25' of 25 ozs argentite ore.
 The dump above the 190' level and ore pocket on the 230' level the Stonewall
 a little has produced 1,000,000.00. The balance of the dump is estimated at 1,500,000.00.
 The ore from the 30' was not as free-milling as above, hence the 20 tons
 of tailings vented and by Price in his report.

Price on page 2 reports large bodies of 2.00 to 10.00 (4 to 12ozs.) ore
 throughout all levels, and in prospecting for high grade pockets they put 20 thousand
 tons of ore on the dump and a thousand tons of 12 ozs fills in the mine.
 In strata no ore was found on the other 7 levels, (300' - 470' & 570' which is true as
 to high-grade ore only, however, all works he examined were within an ore shoot
 200' long carrying small pieces of high-grade to the water level - 230' below which
 we have a large body of argentite of silver 20' wide assaying 20 to 27 ozs.

On the 300' level, no work was done than to cross-cut to the vein, finding
 no high-grade on the foot wall. They continued the shaft to the 470' and cross-cut to
 the hanging wall, the last 20' was in quartz assaying 20 ozs. Then they sank a winze
 along the side, or under this quartz to the 570' and drifted west 200', a cross-cut
 17' of 27 ozs ore. As both these cross-cuts were in sulphides, they covered up the
 ore on the 470' and permitted the water to raise on the 570' so Price could not observe
 these ores, because the silver was not recoverable by the methods they had at that time,
 now in amalgamation.

This information I got from James Lewis who was foreman and J. C. Newton
 manager at the time of Price's visit.

As the new shaft was sunk east of the ore shoot, most of the dump is not ore,
 but at the 500' level as shown by hearing the Hannibal ore shoot.

I can show the size of ore taken from the 440' level cross-cut, which after
 assaying out some 374 ozs shipping ore, still assays 10 ozs. Also I have G. L. May's
 letter to me, and one to him from his wife consenting to this strike.

Some dumps have been washed away. but there is still about 10,000 tons of
 6 ozs dump left, @ 55 per oz.

2000 tons of 12 oz. fills @ 50	100,000
Total on broken	1,000,000
Cost of breaking - milling @ 12.50 per ton	12,500,000
Estimated profits on broken ore	27,000,000
Probable profits in old works above water	71,000,000
Block of virgin ground west old shaft	30,000,000
	101,000,000

This estimate does not include either Hannibal or R.L. Lee ore shoots.
 I have made laboratory tests on the dump crushing to 20 mesh & leaching 36
 hours with 53% recovery, @ 1/2 cyanide consumption.
 J. B. Gorand - Jimmie - of Phoenix has a power sight permit on Salt River
 near where Highway No. 60 crosses it, on which he will build a plant as soon as there
 is any demand for power. Survey for line crosses my ground. There is a line to

REPORT OF THE STONEWALL JACKSON MINE
(McMillan Mine)

Geographical Position

The property is situated a little to the West of San Carlos Reservation, Gila County, Arizona, one hundred and twenty miles northeast of Maricopa, a station on the Southern Arizona Road.

The first sixty miles to Silver Ming is over a good and substantial wagon road, from thence to Menders tank, a distance of eighteen miles over a rather rough trail, thence to mine over a fair mountain wagon road. The mine may also be reached from Wilcox station of the Southern Arizona road by means of roadway, distance being some one hundred and fifty miles.

I was informed that the survey of the Atchison and Topeka Railroad now being constructed runs within three miles of the mine.

Extent of Property

Fifteen hundred feet in length by six hundred in width for which U.S. patent has been applied for with title to 320 acres of timber land and water rights in the form of a small spring.

Geological Characteristics

The mineral bearing ground is composed of feldspathic porphyry attaining one hundred and ten feet in width, intermixed with a porphyritic material is found calc spar, sulphate of baryta, carbonates of copper and lead, chlorides of silver and occasionally small quantities of sulphide of silver and native silver. The general course of the vein or ore bearing material is Northeast and Southwest dipping at an angle of sixty-five degrees to Northwest. The foot wall is gabbro, the hanging wall being porphyritic granite, a formation very favorable for permanent veins of ore.

The exploration in the mine consists as is fully shown in the accompanying maps.

A perpendicular shaft sunk to the depth of four hundred and seventy feet and an incline shaft on the four hundred and seventy foot level to the further depth of one hundred feet making in all a total depth of five hundred seventy feet.

From various points in shaft as described hereafter sundry levels and cross-cuts have been opened. Some of the upper workings I was not able to examine as the stopes and drifts were all filled up or inaccessible. The adit level has been extended for a distance of seven hundred and twenty-seven feet up to and a little beyond the shaft. The point one hundred and ninety feet being in the country rock of the foot wall at which it encountered the vein but it had to be extended a farther distance of ninety feet before I saw any evidence of ore. More I observed a small stope where ore had once existed. It is not, however, until a distance of four hundred and thirty-seven feet from the mouth of the adit has been reached that any considerable stopes were encountered as shown in the slopes of this level at airshafts on the vertical section. The next 160 feet

of the adit level is either in low grade ore or barren material. Then follow stopes 120 ft. in length by 30 ft. in height, which has passed through a large body of ore from which a large portion of the good ore of the mine was obtained as will be noted by referring to the vertical section showing the stopes. The ore body encountered on this did not extend to the surface.

Thirty-five feet above the adit level is located the 130 ft. level, which has been extended for a distance of three hundred and twenty feet NE of the main shaft, which passed three bodies of ore. The NE end of this level is connected with what is known as the Strata Shaft. The ground plan shows all the winzes and crosscuts made on this level. It is hard to estimate the available ore here. At several points on this level seams of very good ore were being followed up.

The next two levels, the 190 and the 230, as seen in the vertical section of the stopes passes through a body of ore 200 feet in length by 30 feet in depth. This may be considered the bottom of the continuous ore body so far as is discovered. On the surface several small seams of very rich ore composed of chloride and native silver were found, but which did not continue beyond the depth of some 120 feet. It is not necessary that I should give an elaborate description of the three other levels, they are shown in detail together with their crosscuts later. In neither of these elaborations have there been any extensive ore bodies found. The general character of the vein matter is however, the same as in the levels above where ore was found and in places very rich. Large quantities of low-grade ore assaying from five to fifteen dollars per ton exist in all these levels, thus warranting the expectation that rich ore may be encountered by further work.

Characteristics of the Mine

\$481,282.07

The property has produced from a depth of only 230 ft. the sum of ~~\$481.07~~. According to the books of the Company the sum of \$336,282.07 has been produced since the incorporation of the Company, July 31st, 1877.

Messers. Harris and Tiwmny state that they extracted \$25,000.00 and Messers. Harris and McMillan claim to have realized some \$120,000.00 before the incorporation of the company. I am unable to verify the correctness of these last two amounts, prior to the 1st of September 1879, the books of the Company do not show the quantity of ore extracted or crushed.

I find that between September 1st, 1879 and June 30, 1880, 250 tons of ore was extracted and milled together with 80 tons of tailings producing the gross amount of \$54,206.46. From September 1st, 1879 to November 21st, 1881, 1800 tons of ore and 80 tons of tailings worked yielded the sum of \$118,487.12 which is at the rate of \$134.64 per ton including tailings worked. In March 1877 I worked 4397 pounds of ore which yielded the gross amount of \$10,398.73. In April 1876 I worked 712 lbs. which yielded the gross amount of \$8,418.41. Several other lots equally rich if not richer were worked by other parties. These rich lots were composed mainly of native silver interspersed through carbonates of lead and lime.

From the foregoing statements of facts, it is self-evident that the ore where found is very rich and from my examination I have no hesitation in stating warrants the expenditure necessary for a more thorough exploration of the mine.

Recommendations how to develop

The mine should be supplied with additional pumping power in the shape of a six Cornish pump and engine and boiler to operate the same. The present volume of water is likely to increase as depth. The present volume in the mine is about 2000 gal. per hour. It is well to provide ample capacity to cope with it.

The incline shaft from the 470' level should be carried to greater depth. For this purpose a small hoisting engine operated by compressed air should be placed at the mouth of the same.

An air compressor and the necessary power to drive the same should be placed at the mouth of the main shaft. This would furnish air for machine drills as well as for operating the hoisting engine.

When necessary machinery to cope with the water has been placed in position, the incline shaft sunk some two hundred feet deeper then levels and crosscuts should be extended to thoroughly explore the ground. In the meantime it would be well to prospect the upper levels more thoroughly.

Machinery

On surface at main shaft 9x40 double hoist drum 5 ft. in diameter, boiler 12'x20". 700 ft. 3/4 steel cable. 2 buckets 800 lb. and several cars for underground work. Hoisting works underground, donkey engine 6 x 12 at mouth of incline on 470 level, steam being supplied from boiler at surface.

Four steam pumps, Acme No.1, 2 Dean Nos. 4, 6 and 500 ft. 2" pipe. These pumps are not in good order and not adapted to cope with the water to such depth _____ which they are expensive to operate.

Mill machinery; engine and boiler for sufficient power to drive 10 stamps and necessary pans and settlers. Five stamps 2 amalgamating pans and one settler. Capacity of the mill being 5 tons each 24 hours. The frame and building has capacity for ten stamps.

Other facilities

Timber is abundant at distances varying from 3 to 8 miles and is obtainable from 5,50 a cord. In view of the fact that increased facilities are sure to follow fuel will materially increase in price, and mining timber will be available at cheap rates. The water contained in the mine is sufficient for all purposes both mining and milling. This supply can be augmented by bringing water from a spring owned by the company some two miles distant from the mine.

In conclusion I would state that from the past record of the property in producing large quantities of rich ore that is easily worked, the favorable geological character of the country, the vein being well defined and carrying more or less mineral to the greatest depth yet attained and the facilities for working are very good. I have no hesitation in stating that the property has every prospect of developing into a large and permanent paying mine when sufficient explorations have been made and greater depths attained.

Respectfully submitted,

Thomas Price

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan 8, 1980

SAMPLE DESCRIPTION	E1 (OZ/T)	E2 (OZ/T)		
M79-5 305-310	nil	Tr		
360-365	nil	nil		
365-370	nil	nil		
370-375	nil	nil		
420-425	4.07	Tr		
425-430	3.49	nil		
-440-445	3.12	nil		
410-415	nil	nil		
390-295	nil	nil		
415-420	nil	nil		
380-385	nil	nil		
300-305	nil	nil		
385-390	nil	nil		
335-310	nil	nil		
340-345	nil	nil		
345-350	nil	nil		
355-360	nil	nil		
375-380	nil	nil		
310-315	nil	nil		

Handwritten signature/initials

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan 7, 1980

SAMPLE DESCRIPTION	E1 (OZ/T)	E2 (OZ/T)		
155-160	nil	nil		
160-165	nil	nil		
170-175	nil	nil		
215-220	nil	nil		
220-225	nil	nil		
230-235	nil	nil		
225-230	nil	nil		
235-240	nil	nil		
250-255	nil	nil		
255-260	nil	nil		
265-270	nil	nil		
270-275	nil	nil		
395-400	nil	nil		
405-410	nil	nil		
400-405	nil	nil		
- 430-435	86	nil		
- 435-440	2.00	nil		

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan. 9, 1980

SAMPLE DESCRIPTION	E1 (OZ/T)	E2 (OZ/T)		
M79-5 445-450	0.65	nil		
450-455	0.14	nil		
295-300	0.01	nil		
155-160	nil	Tr		
165-170	0.03	nil		
210-215	0.06	nil		
215-220	0.15	nil		
M79-4				
235-240	0.02	nil		
195-200	nil	nil		
160-165	nil	nil		
220-225	nil	nil		
240-245	0.30	nil		
200-205	nil	nil		
190-195	nil	nil		

Hazen

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan. 10, 1980

SAMPLE DESCRIPTION	E1(OZ/T)	E2 (OZ/T)		
m79-4				
- 225-230	nil	nil		
- 230-235	nil	nil		
- 185-190	nil	nil		
- 180-185	nil	nil		
- 175-180	nil	nil		
- 170-175	nil	nil		
- 205-210	nil	nil		
- 295-300	nil	nil		
- 270-275	nil	nil		
- 260-265	0.08	nil		
- 265-270	0.04	nil		
- 255-260	nil	nil		
- 290-295	nil	nil		
- 245-250	0.88	nil		
- 285-290	1.83	nil		
- 275-280	1.88	nil		
- 250-255	0.77	nil		
- 280-285	1.85	nil		

REPORT OF THE GEOLOGICAL SURVEY
ON THE
SILVER KING MINE

General Location:

The property is situated a little to the west of San Carlos Reservation, Gila County, Arizona, one hundred and twenty miles northeast of Maricopa, a station on the Southern Arizona Road.

The first sixty miles to Silver King is over a good and substantial wagon road, from thence to Lenders tank, a distance of eighteen miles over a rather rough trail thence to mine over a fair mountain wagon road. The mine may also be reached from Wilcox station of the Southern Arizona road by means of roadway, distance being some one hundred and fifty miles.

I was informed that the survey of the Atchison and Topoka Railroad now being constructed runs within three miles of the mine.

Extent of Property:

Fifteen hundred feet in length by six hundred in width for which U. S. patent has been applied for with title to 320 acres of timber land and water rights in form of a small spring.

Geological Characteristics:

The mineral bearing ground is composed of felspathic porphyry attaining one hundred and ten feet in width, intermixed with a porphyritic material is found calc spar, Sulphate of barite, carbonates of copper and lead, chlorides of silver and occasionally small quantities of sulphide of silver and native silver. The general course of the vein or ore bearing material is northeast and southeast dipping at an angle of sixty-five degrees to northwest. The foot wall is gabbro, the hanging wall being porphyritic granite, a formation very favorable for permanent veins of ore.

The exploration in the mine consists as is fully shown in the accompanying maps. A perpendicular shaft sunk to the depth of four hundred and twenty feet and an incline shaft on the four hundred and twenty foot level to the further depth of one hundred feet making in all a total depth of five hundred seventy feet.

From various points in shaft as described hereafter sundry levels and cross-cuts have been opened. Some of the upper workings I was not able to examine as the stopes and drifts were all filled up or inaccessible. The shaft level has been extended for a distance of seven hundred and twenty-seven feet up to and a little beyond the shaft. The point one hundred and ninety feet level in the country rock of the foot wall at which it encountered the vein but it was to be expected a further distance of ninety feet before I saw any evidence of ore. There is observed a small stope where ore had once existed. It is not, however, until a distance of four hundred and thirty-seven feet from the mouth of the shaft has been reached that any considerable stopes were encountered as shown in the slopes of this level at intervals on the vertical section. The next 100 feet of the shaft level is composed in low grade ore or barren material. Then follow stopes 150 ft. in length by 30 ft. in height, which has passed through a large body of ore from which a large portion of the good ore of the mine was obtained as will be noted by referring to the vertical section showing the stopes. The ore body encountered on this did not extend to the surface.

Thirty-five feet above the shaft level is located the 100 ft. level, which has been extended for a distance of three hundred and twenty feet to the main shaft, which passed three bodies of ore. The end of this level is connected with what is known as the strata shaft. The ground plan shows all the winzes and crosscuts made on this level. It is hard to estimate the available ore here. At several points on this level seams of very good ore were being followed up.

The next two levels, the 150 and the 200, as seen in the vertical section of the stopes passes through a body of ore 200 feet in length by 30 feet in depth.

The ... considered the bottom of the continuation ore ... far as to discover ...
in the surface ... of very rich ore composed of chlorite and native
silver ... but which did not continue beyond the depth of about 100 feet.
It is not necessary that I should give an elaborate description of the three other
levels, they are shown in detail together with their crosscuts later. In neither of
these elaborations have there been any extensive ore bodies found. The general
character of the vein matter is however, the same as in the levels above where ore was
found and in places very rich. Large quantities of low-grade ore assaying from five
to fifteen dollars per ton exist in all these levels, thus warranting the expectation
that rich ore may be encountered by further work.

Characteristics of the mine:

The property has produced from a depth of only 230 ft. the sum of \$402,077.
According to the books of the Company the sum of \$330,262.07 has been produced since
the incorporation of the Company, July 31st, 1877.

Messrs Harris and Timmly state that they extracted \$25,000.00 and Messrs
Harris and Macmillan claim to have realized some \$150,000.00 before the incorporation
of the company. I am unable to verify the correctness of these last two amounts, prior
to the 1st of Sept. 1879 the books of the Company do not show the quantity of ore
extracted or shipped.

I find that between Sept. 1st, 1879 and June 30, 1880, 250 tons of ore was
extracted and milled together with 80 tons of tailings producing the gross amount
of \$4,200.46. From Sept. 1st, 1879 to Nov. 31st, 1881, 1200 tons of ore and 60 tons of
tailings worked yielded the sum of \$116,467.12 which is at the rate of \$122.04 per ton
including tailings worked. In March 1877 I worked 43.7 pounds of ore which yielded
the gross amount of \$10,333.73. In April 1878 I worked 712 lbs. which yielded the
gross amount of \$,418.41. Several other lots equally rich if not richer were worked
by other parties. These rich lots were composed mainly of native silver interspersed
through carbonates of lead and zinc.

From the foregoing statements of facts it is self-evident that the ore where
found is very rich and from my examination I have no hesitation in stating warrants the
expenditure necessary for a more thorough exploration of the mine.

Recommendations how to develop:

The mine should be supplied with additional pumping power in the shape of
a six horse pump and engine and boiler to operate the same. The present volume of
water is likely to increase as depth. The present volume in the mine is about 2000
gal. per hour. It is well to provide ample capacity to cope with it.

The incline shaft from the 470 ft. level should be carried to greater depth.
For this purpose a small hoisting engine operated by compressed air should be placed
at the mouth of the shaft.

An air compressor and the necessary power to drive the same should be placed
at the mouth of the main shaft. This would furnish air for machine drills as well
as for operating the hoisting engine.

When necessary machinery to cope with the water has been placed in position
the incline shaft sunk some two hundred feet deeper than levels and crosscuts should
be extended to thoroughly explore the ground. In the meantime it would be well to
prospect the upper levels more thoroughly.

Machinery:

On surface at main shaft 6x10 double hoist drum 5ft. in diameter, boiler
12"x20", 700 ft. 3/4 steel cable. 2 buckets 100 lb. and several cars for underground
work. Hoisting works underground, donkey engine 6x12 at mouth of incline on 470 level,
steam being supplied from boiler at surface.

Four steam pumps, one 100 ft., 2 beam nos. 4, 6 and 800 ft. 2" pipe. These
pumps are not in good order and not adapted to cope with the water to such depth

addition to the cost of operating.
The mill is equipped with engine and boiler for sufficient power to drive 10 stamps
and 10 stamps and rollers. Five stamps 2 pulverizing pans and one settler.
Capacity of the mill being 10 tons each 24 hours. The frame and building has capacity
for 100 stamps.

Other facilities:

Timber is abundant at distances varying from 3 to 6 miles and is obtainable
from 3.00 a cord. In view of the fact that increased facilities are sure to follow
fuel will materially increase in price, and mining timber will be available at cheap
rates. The water contained in the mine is sufficient for all purposes both rising
and milling. This supply can be augmented by bringing water from a spring owned by
the company some two miles distant from the mine.

In conclusion I would state that from the past record of the property in
producing large quantities of rich ore that is easily worked, the favorable geological
character of the country, the vein being well defined and carrying more or less
mineral to the greatest depth yet attained and the facilities for working are very
good. I have no hesitation in stating that the property has every prospect of develop-
ing into a large and permanent paying mine when sufficient explorations have been
made and greater depths attained.

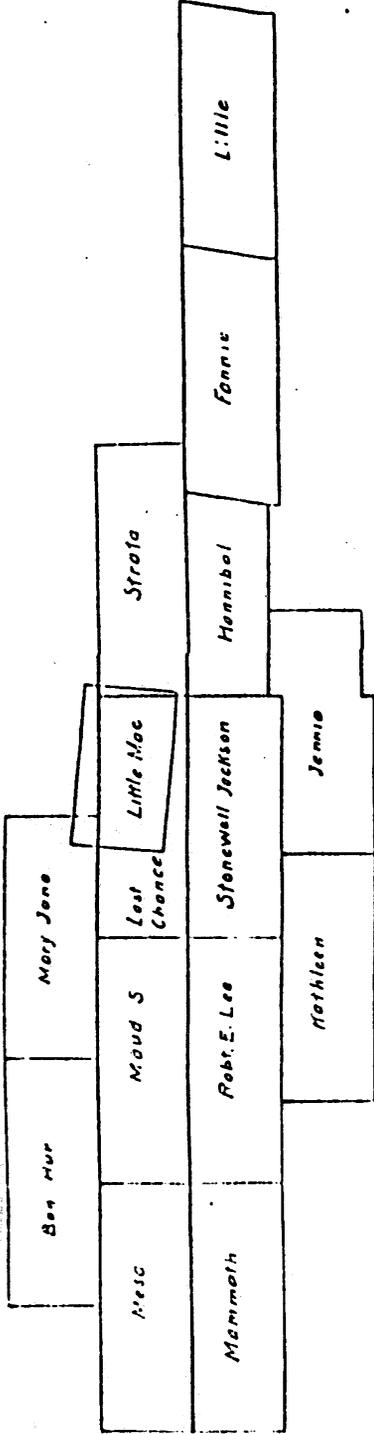
Respectfully submitted,

Thomas Rice

MEMILLAN SILVER MINES GROUP

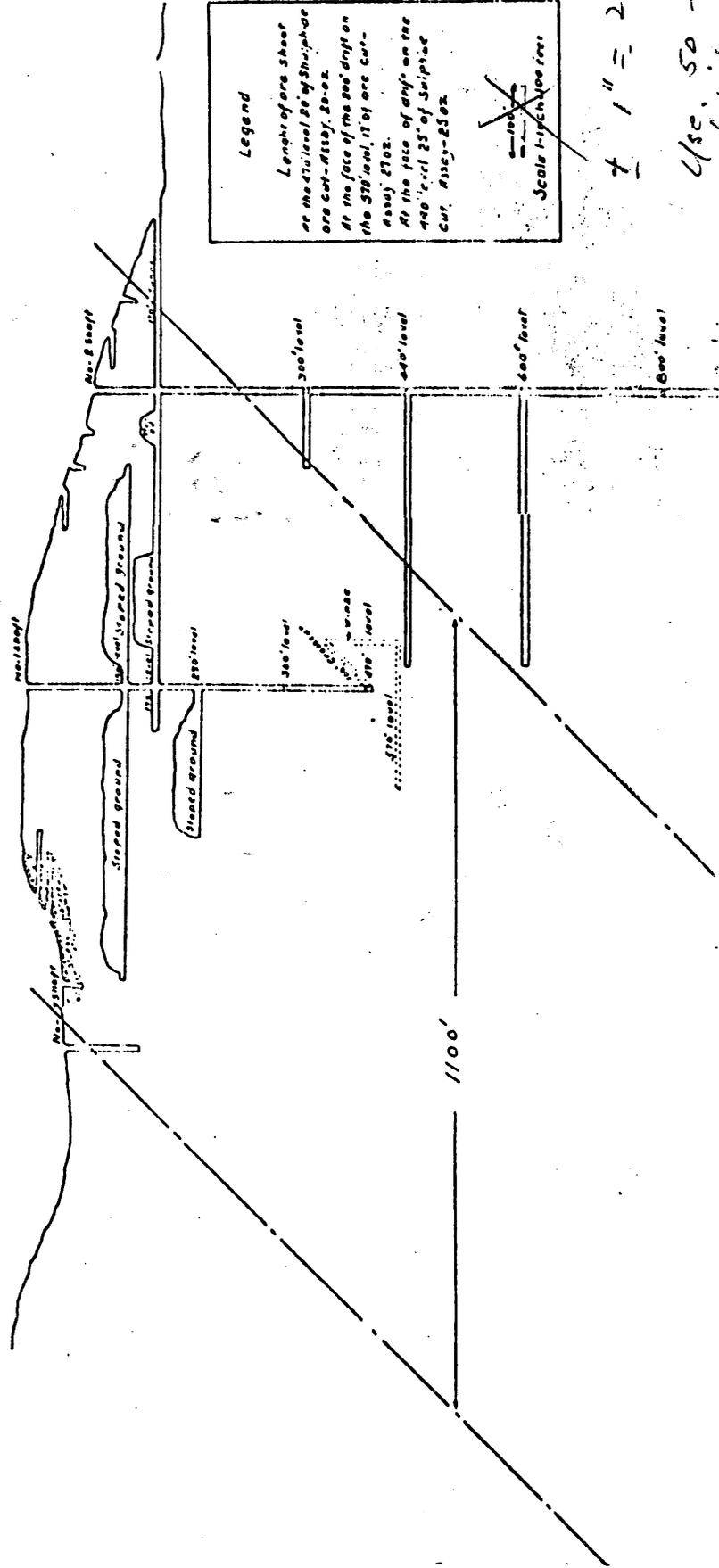
Gila County State of Arizona

Scale 1 inch = 500 feet.



THE MEMILLAN SILVER MINE WORKINGS

Gila County - State of Arizona



1" = 250'
 Use 50-mil scale

CHARACTERISTICS OF THE MINE:

The character of the formation is very favorable for silver veins there can be no doubt that you have a true fissure vein. The walls are well defined and I have no doubt that the vein was weakening in depth. Unfortunately I could not examine the bottom of the shaft as the pump which is too small broke and consequently the lower part of the shaft was unable to drain. The character of the vein matter is fine and the superintendant reports that fine quartz carrying lead and silver are coming from these depths. At this depth are most of the veins.

RECORDS OF PROPERTY:

The property has produced gross amount of 230 ft. the sum of \$336,282.07.

According to the books of the company \$336,282.07 has been produced since the incorporation company, July 31st, 1877. Messrs. Martin and Keenan claim to have realized some \$120,000.00 before the liquidation of the company.

I am unable to verify the correctness of the last two amounts. Prior to the liquidation the books of the company do not show the quantity of ore crushed.

I find that between Sept. 1st, 1880, 250 tons of ore and 80 tons of tailings were worked.

From Sept. 1st, 1880 to Sept. 1st, 1881, 250 tons of ore and 80 tons of tailings were worked valued at \$118,487.12 which is at the rate of \$13,000 per ton of tailings worked.

In March 1881, 250 tons of ore were worked yielding the gross amount of \$11,000.

worked by the company mainly of native lead and silver.

examination of the property and the surrounding area.

RECOMMENDATIONS HOW TO DEVELOP

The mine should be supplied with mechanical pump-
ing power in the shape of a six inch Cornish pump and engine
and boiler to operate the same. The present volume of water
is likely to increase as depth. The present volume of the
mine is about 2000 gal. per hour. The present capacity of the
mine is about 2000 gal. per hour.

The incline shaft from the 70 level
be carried to greater depth. The hoisting
engine operated by compressed air should be placed
at the mouth of the same.

An air compressor and the machinery to
drive the same should be placed at the mouth of the mine.
This would furnish air for machine drills as well as for
driving the hoisting engine.

When necessary machinery to work the mine
has been placed in position the incline shaft should be
hundred feet deeper, then levels and cross-cuts should be
extended to thoroughly explore the ground. In the event
it would be well to prospect the upper levels of the mine.

MACHINERY:

On surface at main shaft 12' 20' diameter boiler
drum 5 ft. in diameter. Boiler 12' 20' 700 lbs.
steel cable, 2 buckets 600 lbs. and several pieces of
ground work.

Hoisting works underground. Donkey
12 at mouth of incline on 70 level, steam boiler
from boiler at surface.

Four steam pumps in use No. 1, 2, 3, 4
600 ft. 2" pipes with these pumps are not in good
adapted to rope with the water to such depth because
they are expensive to operate.

All machinery, engine and boiler
power, to mine stamps and haulage
Five stamps, and haulage
of the mill being 24 ft. each 24 ft.
has equal

OTHER FACILITIES:

fact that increased facilities are sure to follow fuel will not materially increase in price, and mining timber will be available at cheap rates.

The water contained in the mine is sufficient for all purposes both mining and milling. This supply can be augmented by bringing water from a spring owned by the company some 20 miles distant from the mine.

IN CONCLUSION

I would state that from the vast extent of the property in producing large quantities of gold which is easily worked, the favorable geological character of the country, the vein being well defined and carrying more or less mineral to the greatest depth yet attained, and the facilities for working are very good, I have no hesitation in stating that the property has every prospect of developing into a large and permanent paying mine when sufficient explorations have been made and greater depths attained.

Respectfully submitted,

THOMAS PRICE

To the Directors of

The Monihan Silver Mining Co.

San Francisco, Nov. 23, 1881.

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan 8, 1980

SAMPLE DESCRIPTION	E1 (OZ/T)	E2 (OZ/T)		
M79-5 305-310	nil	Tr		
360-365	nil	nil		
365-370	nil	nil		
370-375	nil	nil		
420-425	4.07	Tr		
425-430	3.49	nil		
-440-445	3.12	nil		
410-415	nil	nil		
390-395	nil	nil		
415-420	nil	nil		
380-385	nil	nil		
300-305	nil	nil		
385-390	nil	nil		
335-340	nil	nil		
340-345	nil	nil		
345-350	nil	nil		
355-360	nil	nil		
375-380	nil	nil		
310-315	nil	nil		

Handwritten signature/initials

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan 7, 1980

SAMPLE DESCRIPTION	E1 (OZ/T)	E2 (OZ/T)		
11779-5 155-160	nil	nil		
160-165	nil	nil		
170-175	nil	nil		
215-220	nil	nil		
220-225	nil	nil		
230-235	nil	nil		
275-230	nil	nil		
235-240	nil	nil		
250-255	nil	nil		
255-260	nil	nil		
265-270	nil	nil		
270-275	nil	nil		
395-400	nil	nil		
405-410	nil	nil		
400-405	nil	nil		
- 430-435	86	nil		
- 435-440	2.00	nil		

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan. 9, 1980

SAMPLE DESCRIPTION	E1 (OZ/T)	E2 (OZ/T)		
m79-5 445-450	0.65	nil		
450-455	0.14	nil		
295-300	0.01	nil		
155-160	nil	Tr		
165-170	0.03	nil		
210-215	0.06	nil		
215-220	0.15	nil		
m79-4				
235-240	0.02	nil		
195-200	nil	nil		
160-165	nil	nil		
220-225	nil	nil		
240-245	0.30	nil		
200-205	nil	nil		
190-195	nil	nil		

Handwritten signature

PPG INDUSTRIES, INC.
 3768 East 43rd Place
 Tucson, Arizona 85713
 (602) 745-2808

ASSAY
 MADE
 FOR

Jeff Hazen

DATE: Jan. 10, 1980

SAMPLE DESCRIPTION	E1 (OZ/T)	E2 (OZ/T)		
m79-4				
- 225-230	nil	nil		
- 230-235	nil	nil		
- 185-190	nil	nil		
- 180-185	nil	nil		
- 175-180	nil	nil		
- 170-175	nil	nil		
- 205-210	nil	nil		
- 295-300	nil	nil		
- 270-275	nil	nil		
- 260-265	0.08	nil		
- 265-270	0.04	nil		
- 255-260	nil	nil		
- 290-295	nil	nil		
- 245-250	0.88	nil		
- 285-290	1.83	nil		
- 275-280	1.88	nil		
- 250-255	0.77	nil		
- 280-285	1.85	nil		

McMillanville Property, Arizona

Drill Hole M-79-4

Coordinates: N51,115, E49,640

- 0-20 Overburden.
- 20-35 Medium grained gabbro, trace limonite.
- 35-45 Limonitic clay, gabbro, calcite.
- 45-130 Medium grained gabbro with limonite staining and particles.
- 130-135 Fine grained gabbro with limonite.
- 135-140 Medium grained gabbro with limonite, and with tan clay.
- 140-155 Medium grained gabbro with limonite, slight chloritization.
- 155-170 Red-brown clay with limonite and gabbro. VEIN MATERIAL.
- 170-180 Gabbro with limonite and tan clay.
- 180-285 Gabbro with brown clay, hematite, calcite, limonite, kaolinized feldspars, trace of secondary copper. VEIN MATERIAL.
- 285-290 As above but with red-brown clay. VEIN MATERIAL.
- 290-330 Chloritized gabbro with large proportion of feldspar, some limonite pseudomorphs after sulfides.

McMillanville Property, Arizona

Drill Hole M-79-5

Coordinates: N51,285, E49,645

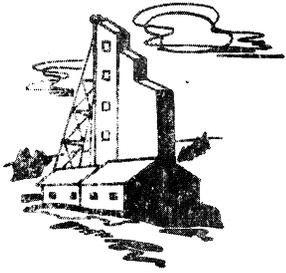
- 0-20 Overburden and surface material.
- 20-105 Medium grained gabbro, slight orange clay coatings on some feldspars, trace hematite, trace kaolinite, biotite, magnetite.
- 105-110 Medium grained gabbro as above, but with trace of limonite pseudomorphs after pyrite.
- 110-115 Gray fine grained silty alteration material.
- 115-135 Medium grained gabbro with orange limonite pseudomorphs after pyrite and trace of red hematite stain. Orange limonite stain on fracture surfaces.
- 135-140 As above but includes some gray, silty alteration material.
- 140-145 As above but with 50% silty alteration material.
- 145-150 Medium grained gabbro, fresh, a few limonitic grains
- 150-155 As above but 30% limonite.
- 155-160 Red-brown clay with some gabbro.
- 160-165 Gabbro with red-brown clay coatings.
- 165-170 Gabbro with 10% limonite stained and some hematite.
- 170-175 Red-brown clay with some gabbro fragments.
- 175-180 Gabbro fragments with clay coatings.
- 180-185 Fine grained gabbro, gray color, some limonite.
- 185-190 Gray silty material.
- 190-200 Medium grained gabbro with a few limonite grains.
- 200-205 Medium grained gabbro with slight green saussarite alteration, limonite and hematite.
- 205-210 As above but gabbro has quartz veinlets, biotite, calcite.

M-79-5 continued

- 210-215 Medium grained gabbro with quartz, some saussarite, calcite.
- 215-220 Red-brown clay, kaolinite, hematite veinlets, soft orange stained feldspars, calcite. VEIN MATERIAL.
- 220-230 As above but with blue-green secondary copper colored clay particles. VEIN MATERIAL.
- 230-240 Brown clay with limonite and hematite particles, calcite. VEIN MATERIAL.
- 240-245 Brown clay, limonite and gabbro, calcite. VEIN MATERIAL.
- 245-250 Gabbro with some altered, orange stained feldspars, hematite, calcite.
- 250-255 Brown clay, some gabbro, limonite, calcite.
- 255-260 Red-brown clay and slightly saussaritized gabbro. VEIN MATERIAL.
- 260-265 Saussaritized gabbro, limonite, hematite.
- 265-280 Brown clay, gray gabbro with altered feldspars, hematite, limonite, trace secondary copper at 275-280. VEIN MATERIAL.
- 280-295 Gray gabbro with altered feldspars, limonite, hematite, calcite or ankerite.
- 295-305 Brown clay with limonite. VEIN MATERIAL.
- 305-315 Gray gabbro, brown clay, trace secondary copper.
- 315-330 Saussaritized gabbro with 25% feldspar, limonite, calcite.
- 330-335 Saussaritized gabbro with phlogopite, chlorite, limonite, hematite, calcite, kaolinite.
- 335-350 Brown clay, trace secondary copper, altered feldspars. VEIN MATERIAL.
- 350-355 Saussaritized and chloritized gabbro, limonite, calcite.
- 355-400 Red-brown clay with gabbro fragments. VEIN MATERIAL.

M-79-5 continued

- 400-410 Tan clay, gabbro fragments, trace secondary copper.
- 410-420 Gabbro, saussaritized and chloritized with 40% feldspar. Pyrite or chalcopyrite.
- 420-425 Feldspar, calcite, chloritized mafic minerals, secondary copper.
- 425-445 Red-brown clay, calcite, secondary copper minerals. VEIN MATERIAL.
- 445-455 Tan clay with chloritized gabbro, hematite, calcite.



DEKALB Mining, Inc.

January 26, 1982

Mr. Gary A. Parkison
958 Antelope Avenue
Albuquerque, New Mexico 87122

Dear Gary:

I am sending some material on the McMillanville area near Globe, Arizona if you should have any interest. So far as I know, no action is needed and you can keep this material for your file.

Sincerely,

DEKALB Mining, Inc.

A handwritten signature in cursive script that reads "Archbold".

N. L. Archbold
Senior Geologist

NLA:smp

Enclosure



SEP 30 1981

INDUSTRIES

5020 No. 1

PPG INDUSTRIES, INC. 1500 CHINDEN BOISE, IDAHO 83704/AREA 208/376-6800

September 23, 1981

Robert Miller
DeKalb Mining Co.
1000 Petroleum Bldg
110 16th Street
Denver, Colorado 80202

10-15-81

*BRUCE:
MILLER THOUGHT
YOU MIGHT WANT
TO LOOK AT THESE.*

CHERI

Dear Mr. Miller:

Enclosed is a packet of information concerning our McMillanville property which is located approximately 15 miles north of Globe, Arizona adjacent to U.S. Highway 60.

The geology of the area is rather simple. There are two layers of gently dipping unaltered coarse-grained gabbro enclosing a thick layer of severely altered gabbro which is cut by small, irregular, fine-grained diabase dikes and sills. This sequence is cut by a later, extensive vein system.

Our original objective was the altered, blanket-like gabbro. We received some assay results from reputedly reliable assayers indicating the presence of a large body of precious metal ore from samples taken from the altered material.

At this point we leased the Guardian claims, staked a large block of PAM claims under an area of influence, and acquired control of the three patented claims-- Stonewall Jackson, Little Mc, and Hannible.

We finally had to set up our own lab at Tucson to determine that the results from the commercial labs were erroneous.

The Guardian and the PAM claims were released and the three patented claims retained. The Guardian claims have since been dropped (not filed with the BLM) and we think that the PAM claims will also be dropped this year.

Two holes were subsequently drilled on the Stonewall Jackson patented claim (M79-4 and M79-5). Results are shown on the block diagram.

If you have any questions please do not hesitate to contact me.

Yours truly,

D.R. Atkinson
D.R. Atkinson

..... (Unable to read)

Thirty-five feet above the adit level is located the 130 ft. level which has been extended for a distance of three hundred and twenty feet North East of the main shaft, which passed three bodies of ore. The North East end of this level is connected with what is known as the Starts shaft. The ground plan shows all the winzes and cross-cuts made on this level. It is hard to estimate the available ore here. At several points on this level seams of very good ore were being followed up. The next levels, the 190 and 230, as seen in the vertical section of the stopes passes through a body of ore 200 feet in length by about 30 feet in depth. This may be considered the bottom of the continuous ore body so far as is discovered. On the surface several small seams of very rich ore composed of Chloride and native silver were found, but which did not continue beyond the depth of some 120 ft. It is not necessary that I should give an elaborate description of the five other levels; they are shown in detail together with their cross-cuts later. In neither of these elaborations have there been any extensive ore bodies found. The general character of the vein matter is however the same as in the levels above where ore was found, and in places very rich. Large quantities of low-grade ore assaying from five to fifteen dollars per ton exist in all these levels, thus warranting the expectation that rich ore may be encountered by further work.

CHARACTERISTICS OF THE MINE

The character of the formation is very favorable for silver veins there can be no doubt that you have a true fissure vein. The walls are well defined and I saw no indication that the vein was weakening as depth was attained. Unfortunately I could not examine the bottom or 570 ft. level as the pump which is too small broke while I was at the mine, and consequently the lower drifts were filled with water. I was able to examine down to the depth of 550 ft. and the character of the vein matter was the same as at 470 ft. level, and the superintendent informs me that they were in a body of fine quartz carrying low grade ore. From the character shown me as coming from there the prospects for ore being found at this depth are most favorable.

RECORDS OF PROPERTY

The property has produced from a depth of one 230 ft. the sum of \$481,282.07.

According to the books of the company, the sum of \$336,282.07 has been produced since the incorporation of the company, July 31st, 1877. Messrs. Martin and Tiemny state that they extracted \$25,000 00 and Messrs. Harris and McMillan claim to have realized some \$120,000.00 before the incorporation of the company.

I am unable to verify the correctness of these last two amounts. Prior to the 1st of September 1879 the books of the company do not show the quantity of ore extracted and crushed.

I find that between September 1, 1879 to November 21st, 1881, 1800 tons of ore and 80 tons of tailings worked yielded the sum of \$118,487.12 which is at the rate of \$134.64 per ton including tailings worked.

In March 1877 I worked 4397 pounds of ore which yielded the gross amount of \$8,418.41.

Several other lots equally rich if not richer were worked by other parties. These rich lots were composed mainly of native silver interspersed through carbonates of lead and lime.

From the foregoing statement of facts it is self evident that the ore where found is very rich and from my examination I have no hesitation in stating warrants the expenditure necessary for a more thorough exploration.

RECOMMENDATIONS HOW TO DEVELOP

The mine should be supplied with additional pumping power in the shape of a six inch Cornish pump and engine and boiler to operate the same. The present volume of water is likely to increase as depth. The present volume in the mine is about 2000 gal. per hour. It is well to provide ample capacity to cope with it.

The incline shaft from the 470 ft. level should be carried to greater depth. For this purpose a small hoisting engine operated by compressed air should be placed at the mouth of the same.

An air compressor and the necessary power to drive the same should be placed at the mouth of main shaft. This would furnish air for machine drills as well as for operating the hoisting engine.

When necessary machinery to cope with the water has been placed in position the incline shaft sunk some two hundred feet deeper, then levels and cross-cuts should be extended to thoroughly explore the ground. In the meantime, it would be well to prospect the upper levels more thoroughly.

MACHINERY

On surface at main shaft 9 x 40 double hoist drum 5 ft in diameter. Boiler 18'x40', 700 ft. 3/4" steel cable, 2 buckets 800 lbs. and several cars for underground work.

Hoisting works underground; donkey engine 6 x 12 at the

mouth of incline on 470 level, steam being supplied from boiler at surface.

Four steam pumps, Acme No. 1, 2 Dean Nos. 4, 6 and 600 ft. 2" pipe. These pumps are not in good order and not adapted to cope with the water to such depth besides which they are expensive to operate.

Mill machinery, engine and boiler for sufficient power, to drive 10 stamps and necessary pans and settlers. Five stamps, 2 amalgamating pans and one settler. Capacity of the mill being 5 tons each 24 hours. The frame and building has capacity for ten stamps.

OTHER FACILITIES.

Timber is abundant at distance varying from 3 to 8is obtainable from \$5.50 a cord. In view of the fact that increased facilities are sure to follow fuel will not materially increase in price, and mining timber will be available at cheap rates.

The water contained in the mine is sufficient for all purposes both mining and milling. This supply can be augmented by bringing water from a spring owned by the company some two miles distant from the mine.

IN CONCLUSION

I would state that from the past record of the property in producing large quantities of rich ore that is easily worked, the favorable geological character of the country, the vein being well defined and carrying more or less mineral to the greatest depth yet attained; and the facilities for working are very good, I have no hesitation in stating that the property has every prospect of developing into a large and permanent paying mine when sufficient explorations have been made and greater depths attained.

Respectfully submitted,

Thomas Price

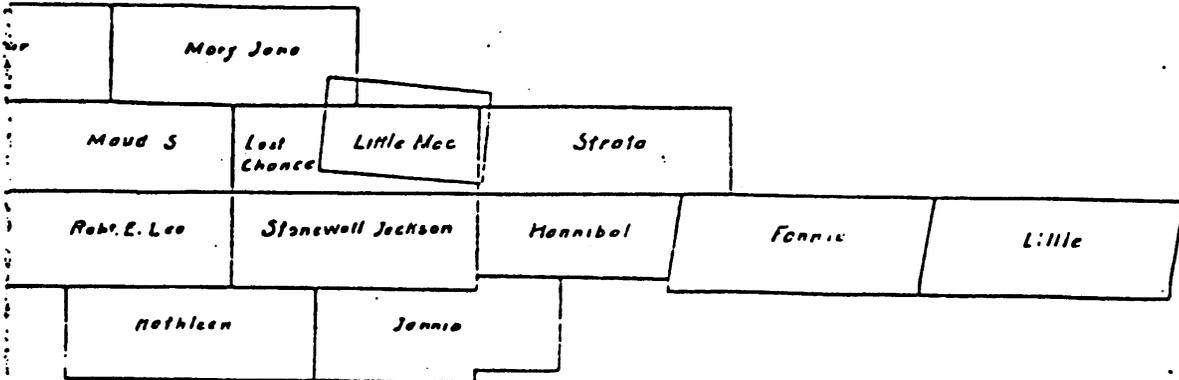
To the Directors of
The McMillan Silver Mining Co.,

San Francisco; Nov. 23, 1881.

MEMILLAN SILVER MINES GROUP

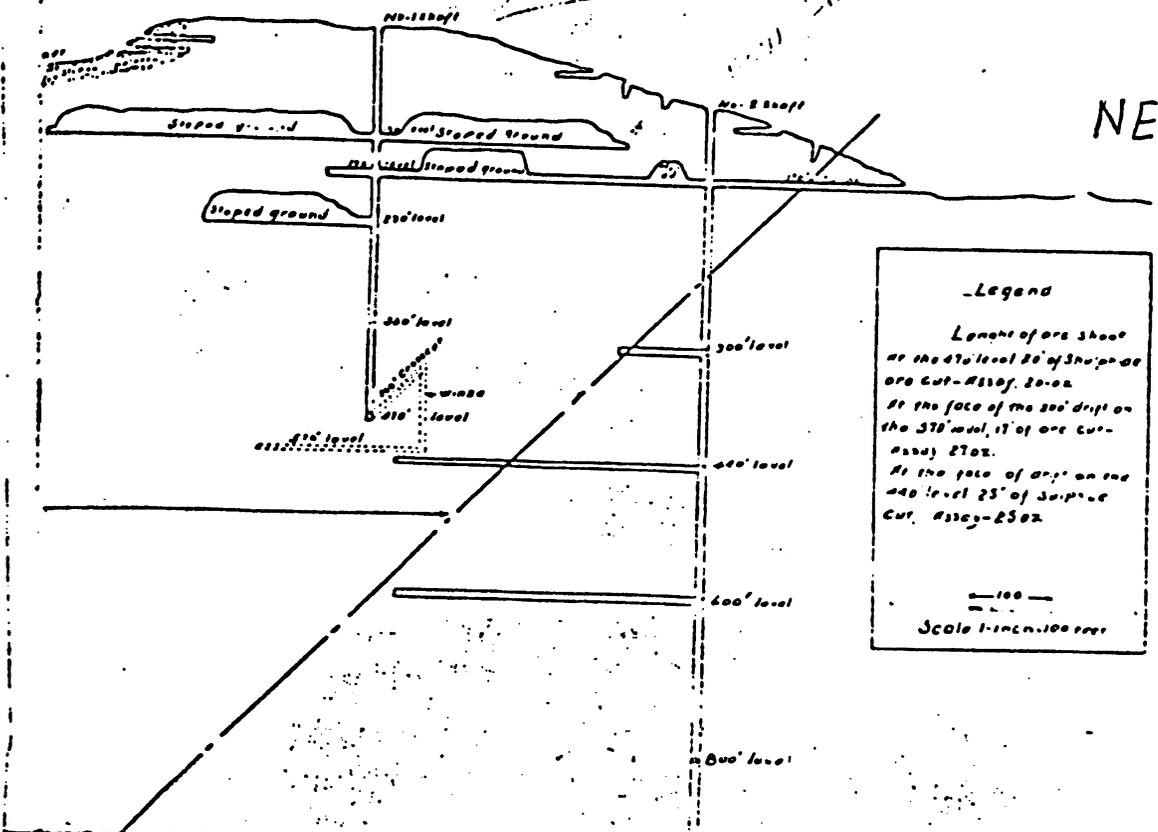
Gila County State of Arizona

Scale 1 inch = 500 feet.



THE MEMILLAN SILVER MINE WORKINGS

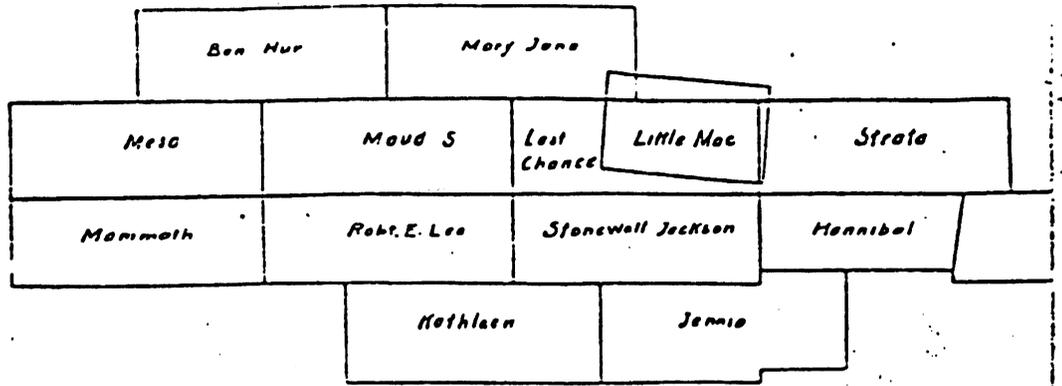
Gila County-State of Arizona



McMILLAN SILVER MINES GROUP

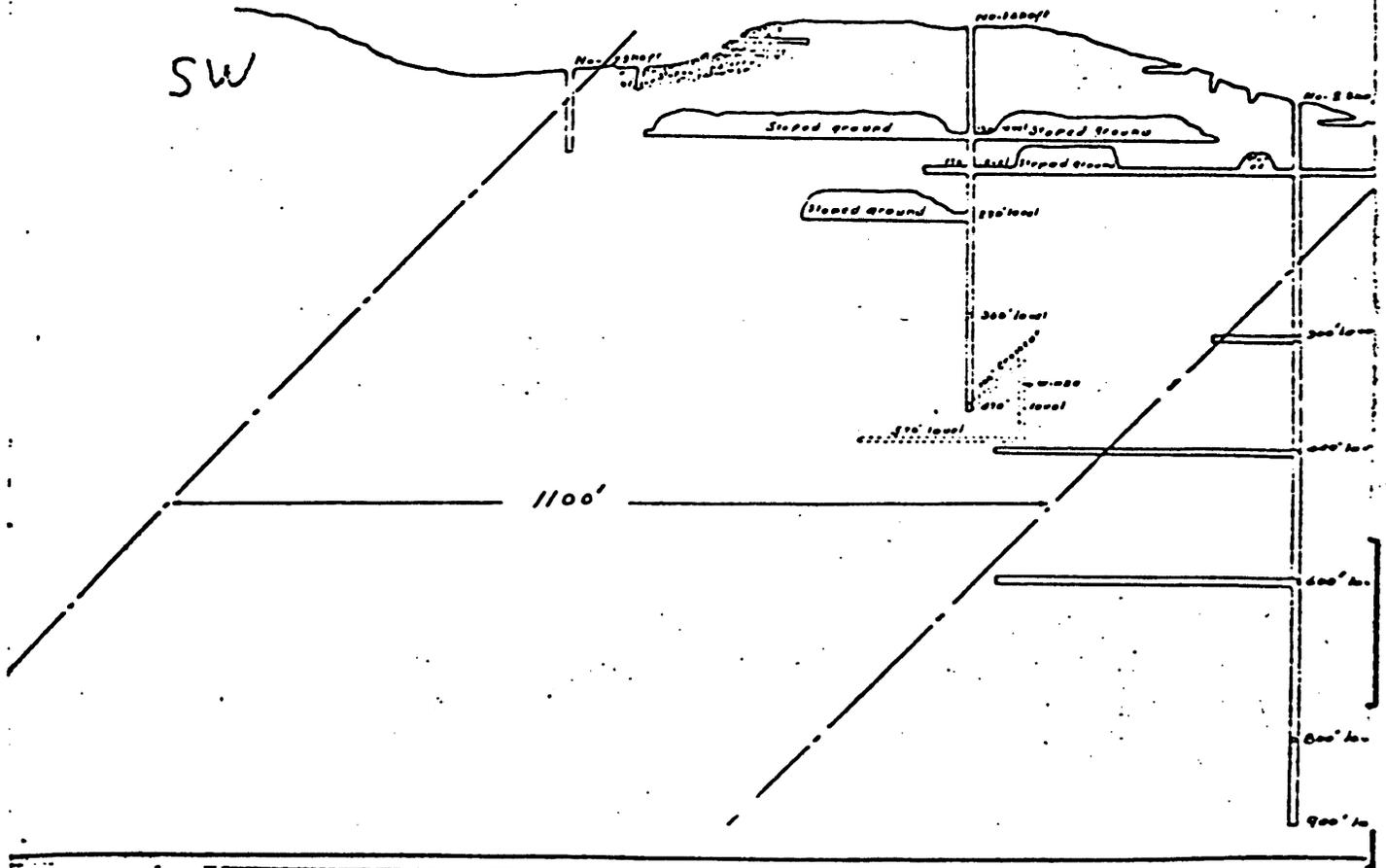
Gila County State of Arizona

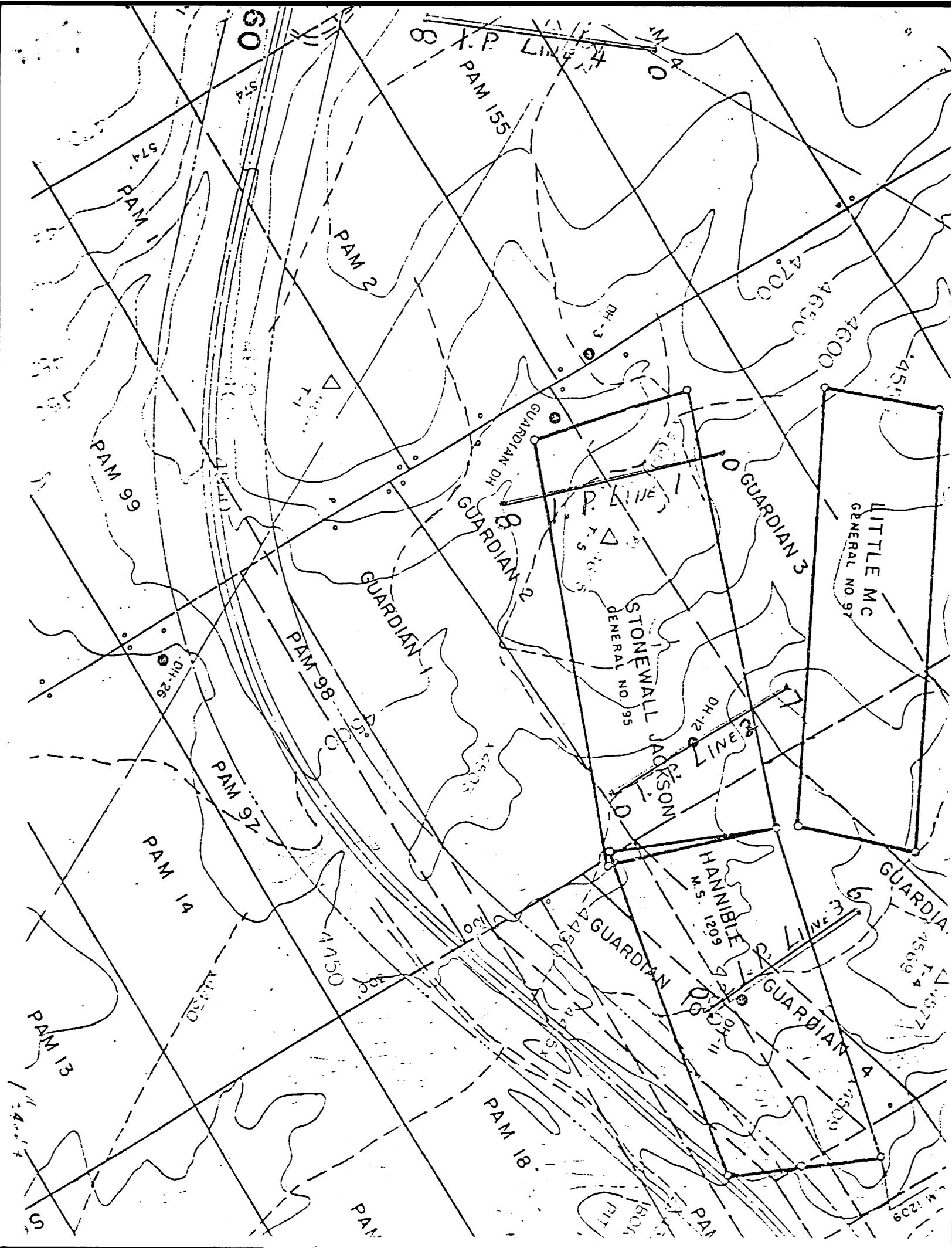
Scale 1 inch = 500 feet.

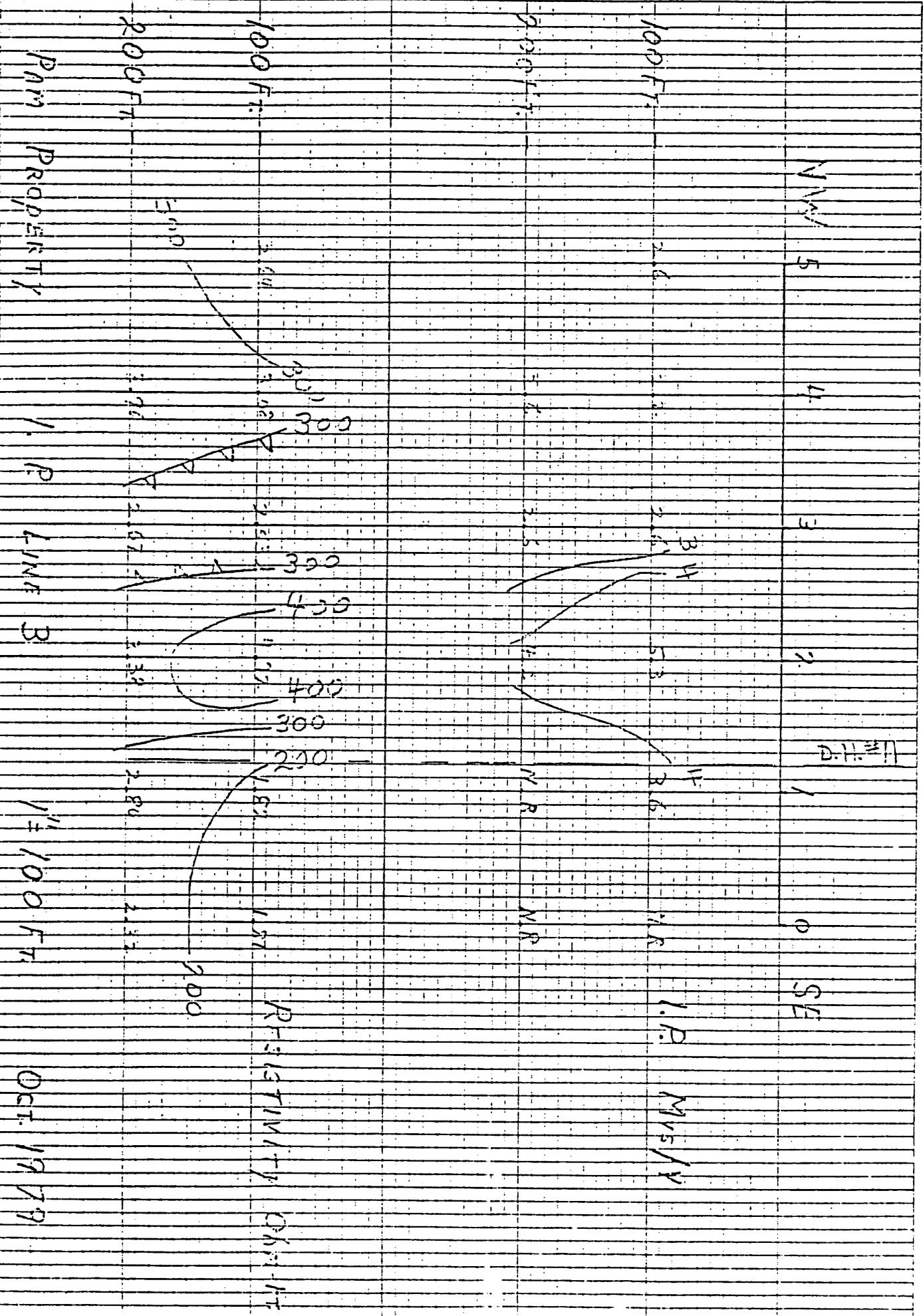


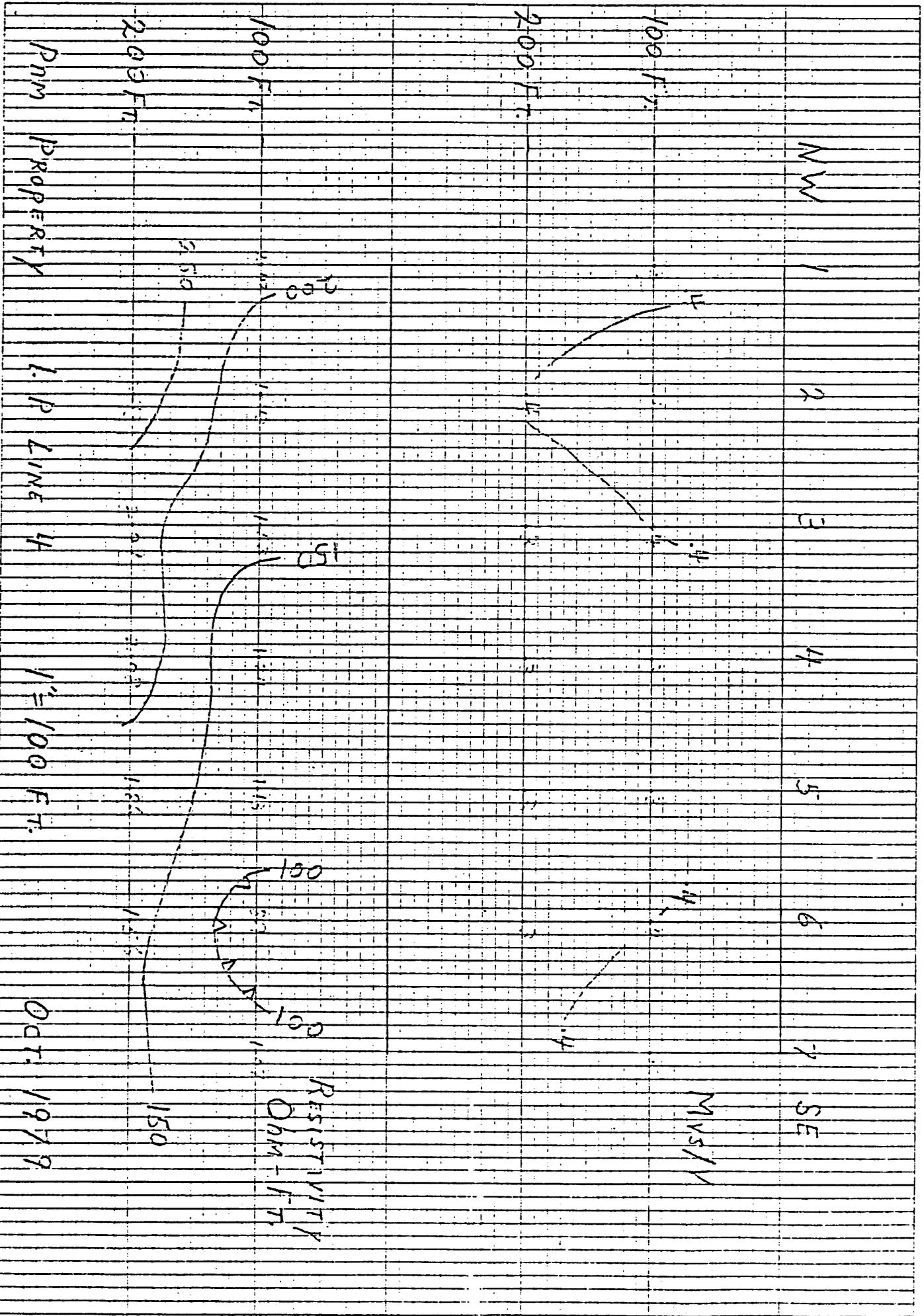
THE McMILLAN SILVER MINE WORKINGS

Gila County - State of Arizona









NW

1

2

3

4

5

6

7

SE

MVS/V

RESISTIVITY
Ohm-ft

300 FT

100 FT

200 FT

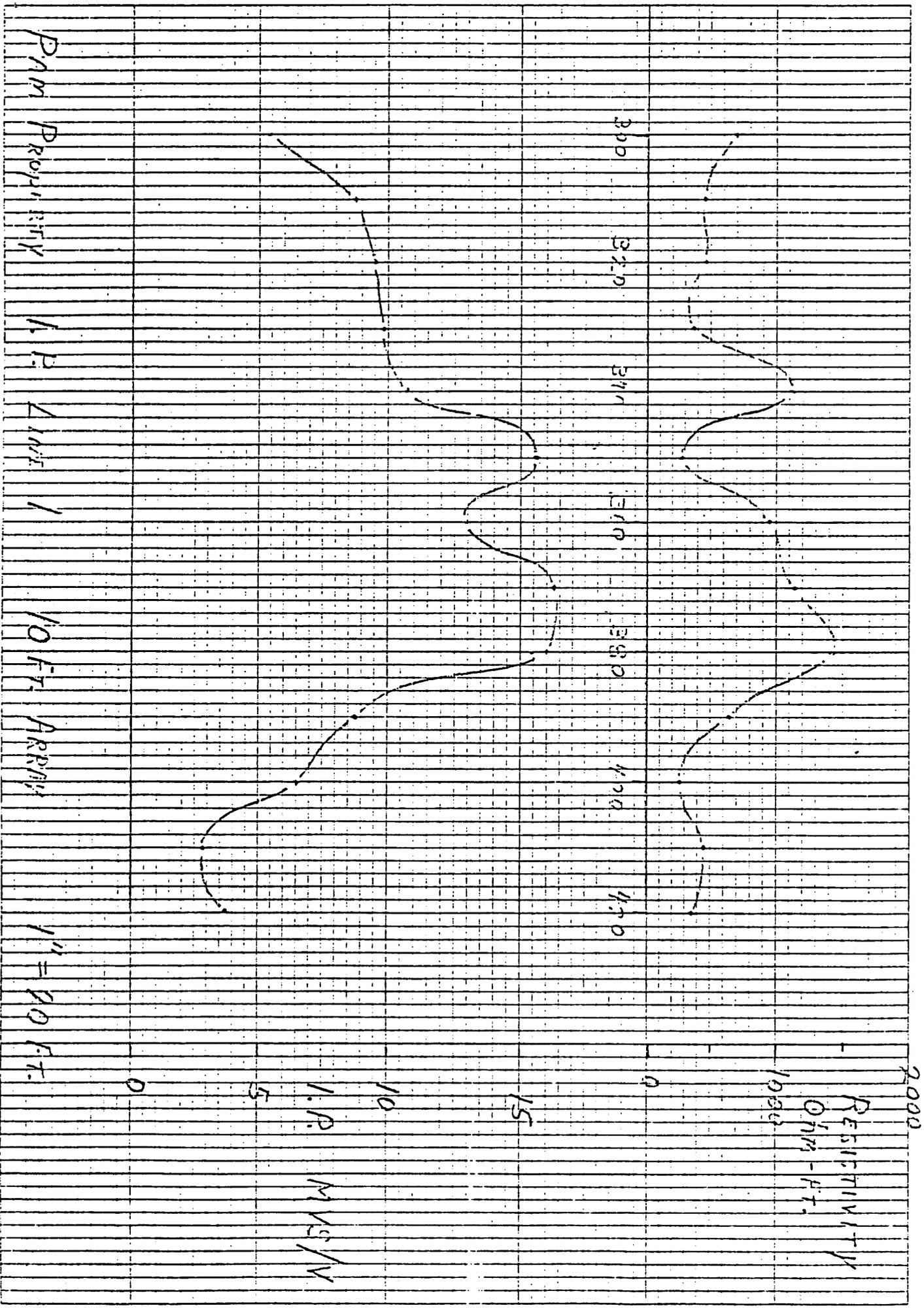
100 FT

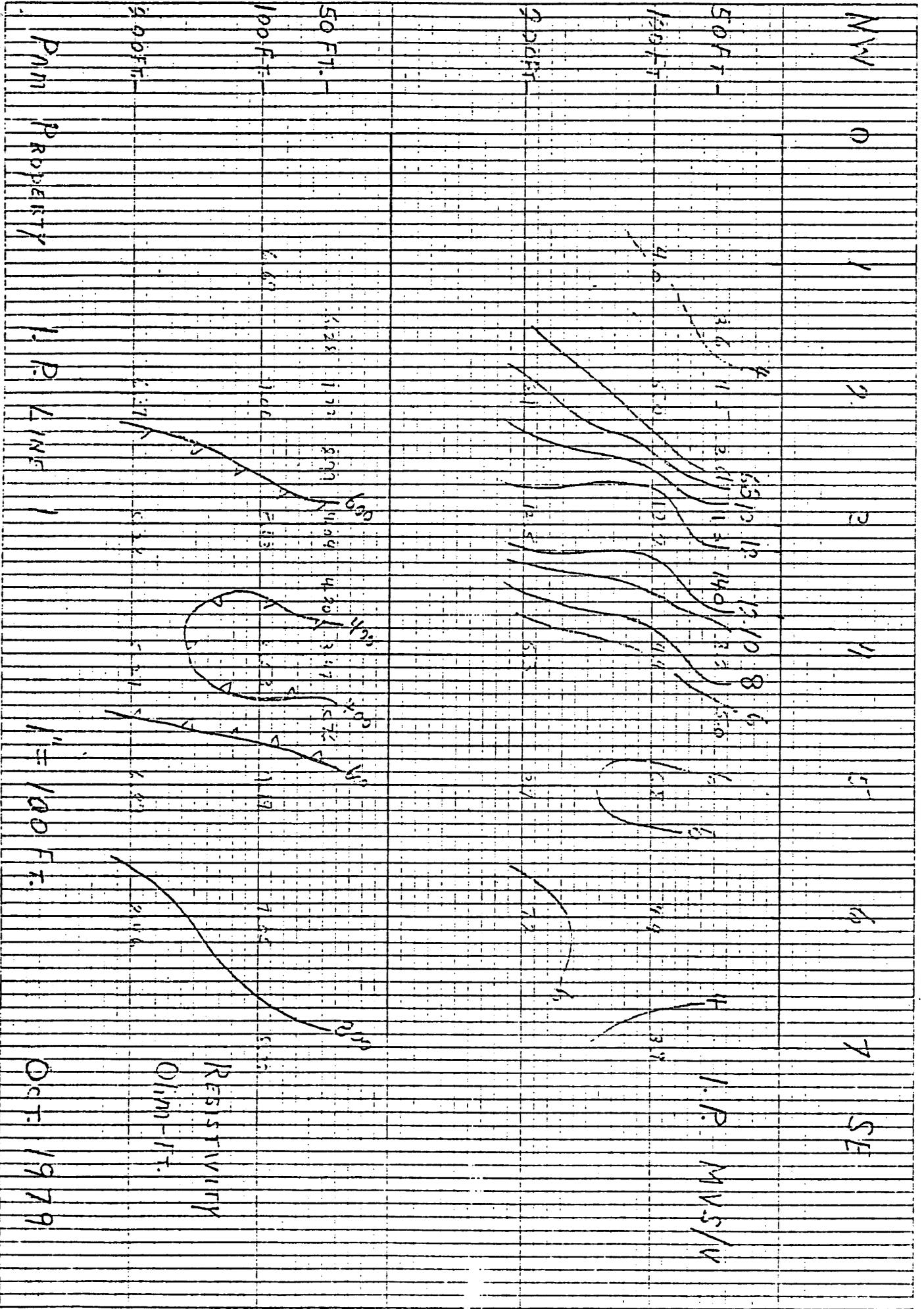
P.M. PROPERTY

L.P. LINE 4

1" = 100 FT.

OCT. 1979





I.P. MVS/V

RESISTIVITY
Ohm-ft.

OCT. 1979

I.P. PROPERTY

I.P. PROPERTY

I.P. PROPERTY

NOTES ON THOS. PRICE'S REPORT ON THE STONEWALL JACKSON MINE
And up to date data on the Camp

McMillanville is 18 miles N.E. of Globe, Arizona, on the new highway (#60).

I hold a 5 year Lease and Option on the Stonewall and Little Mac. Patented Claims. Price \$73,000.00. I won 5 claims on the Stonewall vein, the Hannibal being patented and 5 claims on the hanging wall side of the above covering stratas of commercial ore. Also 2 claims on the foot wall side for tailing storage.

The vein is from 40' to 68' wide throughout the length of my holdings (9000 ft.) with diabase walls.

Besides many small openings along the vein and in addition to those described by Price, a new shaft sunk in 1912-1916 looking for copper, which they failed to find, but it proves to that depth (900 ft.) no copper or other base metals to interfere with cyanide treatment; that the vein continues to that depth; and makes 50 thousand gals. of water per 24 hours. And by drifting west on the 440' level to connect with the old workings, they cross-cut 25' of 25 oz. argentite ore.

From above the 170' level an ore pocket on the 230' level the Stonewall and Little Mac produced \$600,000.00. The balance of the camp is estimated at \$150,000.00.

The ore from the 230 ft. was not as freemilling as above, hence the 80 tons of tailings mentioned by Price in his report.

Price on page 2 reports large bodies of \$5.00 to \$15.00 (4 to 12 ozs.) ore throughout all levels, and in prospecting for high grade pockets they put 20 thousand tons of 13 oz ore on the dumps and 2 thousand tons of 12 ozs. fills in the mine. He states no ore was found on the other 3 levels, (360'-470' and 570') which is true as to highgrade (60 tons and up). However, all works he examined were within an ore shoot 1100' long carrying small pockets of highgrade to the water level - 230' below which we have a large body of argentite of silver 25' wide assaying 20 to 27 ozs.

On the 360' level, no work was done than to cross-cut to the vein, finding no highgrade on the foot wall. They continued the shaft to the 470' and cross-cut to the hanging wall, the last 20' was in quartz assaying 20 ozs. Then they sank a winze along the side, or under this quartz to the 570' and drifted west 200', 8 cross-cut 17' of 27 ozs ore. As both these cross-cuts were in sulphides, they covered up the ore on the 470' and permitted the water to raise on the 570' so Price could not observe these ores, because the silver was not recoverable by the methods they had at that time, Raw Pan Amalgamation.

This information I got from James Lewis who was foreman and J.C. Newton pumpman at the time of Price's visit.

As the new shaft was sunk east of the ore shoot, most of the dump is not ore, but at the 900' level it showed by nearing the Hannibal ore shoot.

I can show the pile of ore taken from the 440' level cross-cut, which after assorting out some 334 ozs. shipping ore, still assays 12 ozs. Also I have G. H. Hays letter to me, and one to him from his wife commenting on this strike.

Some dumps have been washed away, but there is still about 16,000 tons of 8 ozs. dumps left. @ 85¢ per oz.	\$83,200
2000 tons of 12 oz. fills @ 65¢	15,600
Total on broken	<u>98,800</u>
Cost of tramping & milling @ \$1.50 per ton	27,000
Estimated profits on broken ore	<u>71,800</u>
Probable profits in old works above water	30,000
Block of virgin ground west old shaft	80,000
	<u>181,800</u>

This estimate does not include either Haniibal or R. E. Lee ore shoots.

I have made laboratory tests on the dump crushing to 20 mesh and leaching 36 hours with 93% recovery and 1/4# cyanide consumption.

J. B. Gerand - Jimmie - of Phoenix has a power sight permit on Salt River near where Highway 60 crosses it, on which he will build a plant as soon as there is any demand for power. Survey for line crosses my ground. There is a line to

... to date on the dump.

... 10 miles west of Globe, Arizona on the new highway (100).
 I have a year lease option on the Stonewall & Little Lac. Patented
 and 3 claims on the hanging wall side of the Stonewall vein, the Hannibal being
 commercial ore. Also 2 claims on the foot wall side for tailing storage.
 The vein is from 40' to 60' wide throughout the length of my holdings
 (1000ft.) with glass walls.

... in addition to those dis-
 covered by Price, a new shaft sunk in 1918-1920 looking for copper, which they failed
 to find, but it goes to that depth (900ft.) so copper or other base metals to inter-
 fere with cyanide treatment; that the vein continues to that depth; and raises 50
 to 60 tons of water per 24 hours. and by drifting west on the 440' level to
 connect with the old workings, they cross-cut 20' of 25 ozs argonite ore.

... level and ore pocket on the 230' level the Stonewall
 & Little Lac produced 1,000,000.00. The balance of the camp is estimated at 1,150,000.00.
 The ore from the 30' was not as free-milling as above, hence the 20 tons
 of tailings mentioned by Price in his report.

Price on page 2 reports large bodies of 15.00 to 18.00 (4 to 12ozs.) ore
 throughout all levels, and in prospecting for high grade pockets they put 20 thousand
 tons of ore on the dump and in the next 20 tons of 12 ozs fills in the mine.
 He states no ore was found on the other 7 levels, (300' - 470' & 570' which is true as
 to high-grade ore, however, all works he examined were within an ore shoot
 200' long carrying small amounts of argonite to the 470' level - 230' below which
 he has a large body of argonite of silver 20' wide carrying 20 to 27 ozs.

On the 300' level, he was the first to cross-cut the vein, finding
 no high-grade on the foot wall. They continued the shaft to the 470' and cross-cut to
 the hanging wall, the last 20' was in quartz assaying 20 ozs. Then they sank a mine
 along the side, or under this quartz to the 570' and drifted west 200', a cross-cut
 20' of 27 ozs ore. As both these cross-cuts were in schist, they covered up the
 ore on the 470' and permitted the water to raise on the 570' so Price could not observe
 these ores, because the silver was not recoverable by the methods they had at that time,
 now the situation.

This information I got from James Lewis who was foreman and J. C. Weston
 partner at the time of Price's visit.

As the low shaft was sunk east of the ore shoot, most of the dump is not ore,
 but at the 440' level it showed by hearing the Hannibal ore shoot.

I can show the pile of ore taken from the 440' level cross-cut, which after
 assaying but some was ore, still assays 12 ozs. Also I have G. L. Day's
 letter to me, and one to him from his wife concerning this strike.

Some dumps have been washed away. But there is still about 15,000 tons of
 6 ozs dump left, 100,000 of 20 oz.

2000 tons of 12 oz. fills - 1000	200,000
Total on broken	200,000
Cost of tracing & milling @ \$1.50 per ton	20,000
Estimated profits on broken ore	180,000
Probable profits in old works above water	30,000
Block of virgin ground west old shaft	100,000
	510,000

This estimate does not include either Hannibal or Red Ice ore shoots.

I have had laboratory tests on the dump crushing to 20 mesh & leaching 30
 hours with 5% recovery, and cyanide consumption.

J. B. Gerard - Jimmie - of Lockix has a power sight permit on Salt River
 near where Highway No. 50 crosses it, on which he will build a plant as soon as there
 is any demand for water. Survey for line crossed by ground. There is a line to

REPORT OF THE STONEWALL JACKSON MINE
(McMillan Mine)

Geographical Position

The property is situated a little to the West of San Carlos Reservation, Gila County, Arizona, one hundred and twenty miles northeast of Maricopa, a station on the Southern Arizona Road.

The first sixty miles to Silver Ming is over a good and substantial wagon road, from thence to Menders tank, a distance of eighteen miles over a rather rough trail, thence to mine over a fair mountain wagon road. The mine may also be reached from Wilcox station of the Southern Arizona road by means of roadway, distance being some one hundred and fifty miles.

I was informed that the survey of the Atchison and Topeka Railroad now being constructed runs within three miles of the mine.

Extent of Property

Fifteen hundred feet in length by six hundred in width for which U.S. patent has been applied for with title to 320 acres of timber land and water rights in the form of a small spring.

Geological Characteristics

The mineral bearing ground is composed of feldspathic porphyry attaining one hundred and ten feet in width, intermixed with a porphyritic material is found calc spar, sulphate of baryta, carbonates of copper and lead, chlorides of silver and occasionally small quantities of sulphide of silver and native silver. The general course of the vein or ore bearing material is Northeast and Southwest dipping at an angle of sixty-five degrees to Northwest. The foot wall is gabbro, the hanging wall being porphyritic granite, a formation very favorable for permanent veins of ore.

The exploration in the mine consists as is fully shown in the accompanying maps.

A perpendicular shaft sunk to the depth of four hundred and seventy feet and an incline shaft on the four hundred and seventy foot level to the further depth of one hundred feet making in all a total depth of five hundred seventy feet.

From various points in shaft as described hereafter sundry levels and cross-cuts have been opened. Some of the upper workings I was not able to examine as the stopes and drifts were all filled up or inaccessible. The adit level has been extended for a distance of seven hundred and twenty-seven feet up to and a little beyond the shaft. The point one hundred and ninety feet being in the country rock of the foot wall at which it encountered the vein but it had to be extended a farther distance of ninety feet before I saw any evidence of ore. More I observed a small stope where ore had once existed. It is not, however, until a distance of four hundred and thirty-seven feet from the mouth of the adit has been reached that any considerable stopes were encountered as shown in the slopes of this level at airshafts on the vertical section. The next 160 feet

of the adit level is either in low grade ore or barren material. Then follow stopes 120 ft. in length by 30 ft. in height, which has passed through a large body of ore from which a large portion of the good ore of the mine was obtained as will be noted by referring to the vertical section showing the stopes. The ore body encountered on this did not extend to the surface.

Thirty-five feet above the adit level is located the 130 ft. level, which has been extended for a distance of three hundred and twenty feet NE of the main shaft, which passed three bodies of ore. The NE end of this level is connected with what is known as the Strata Shaft. The ground plan shows all the winzes and crosscuts made on this level. It is hard to estimate the available ore here. At several points on this level seams of very good ore were being followed up.

The next two levels, the 190 and the 230, as seen in the vertical section of the stopes passes through a body of ore 200 feet in length by 30 feet in depth. This may be considered the bottom of the continuous ore body so far as is discovered. On the surface several small seams of very rich ore composed of chloride and native silver were found, but which did not continue beyond the depth of some 120 feet. It is not necessary that I should give an elaborate description of the three other levels, they are shown in detail together with their crosscuts later. In neither of these elaborations have there been any extensive ore bodies found. The general character of the vein matter is however, the same as in the levels above where ore was found and in places very rich. Large quantities of low-grade ore assaying from five to fifteen dollars per ton exist in all these levels, thus warranting the expectation that rich ore may be encountered by further work.

Characteristics of the Mine

\$481,282.07

The property has produced from a depth of only 230 ft. the sum of ~~\$481.07~~. According to the books of the Company the sum of \$336,282.07 has been produced since the incorporation of the Company, July 31st, 1877.

Messers. Harris and Timmy state that they extracted \$25,000.00 and Messers. Harris and McMillan claim to have realized some \$120,000.00 before the incorporation of the company. I am unable to verify the correctness of these last two amounts, prior to the 1st of September 1879, the books of the Company do not show the quantity of ore extracted or crushed.

I find that between September 1st, 1879 and June 30, 1880, 250 tons of ore was extracted and milled together with 80 tons of tailings producing the gross amount of \$54,206.46. From September 1st, 1879 to November 21st, 1881, 1800 tons of ore and 80 tons of tailings worked yielded the sum of \$118,487.12 which is at the rate of \$134.64 per ton including tailings worked. In March 1877 I worked 4397 pounds of ore which yielded the gross amount of \$10,398.73. In April 1876 I worked 712 lbs. which yielded the gross amount of \$8,418.41. Several other lots equally rich if not richer were worked by other parties. These rich lots were composed mainly of native silver interspersed through carbonates of lead and lime.

From the foregoing statements of facts, it is self-evident that the ore where found is very rich and from my examination I have no hesitation in stating warrants the expenditure necessary for a more thorough exploration of the mine.

Recommendations how to develop

The mine should be supplied with additional pumping power in the shape of a six Cornish pump and engine and boiler to operate the same. The present volume of water is likely to increase as depth. The present volume in the mine is about 2000 gal. per hour. It is well to provide ample capacity to cope with it.

The incline shaft from the 470' level should be carried to greater depth. For this purpose a small hoisting engine operated by compressed air should be placed at the mouth of the same.

An air compressor and the necessary power to drive the same should be placed at the mouth of the main shaft. This would furnish air for machine drills as well as for operating the hoisting engine.

When necessary machinery to cope with the water has been placed in position, the incline shaft sunk some two hundred feet deeper then levels and crosscuts should be extended to thoroughly explore the ground. In the meantime it would be well to prospect the upper levels more thoroughly.

Machinery

On surface at main shaft 9x40 double hoist drum 5 ft. in diameter, boiler 12'x20". 700 ft. 3/4 steel cable. 2 buckets 800 lb. and several cars for underground work. Hoisting works underground, donkey engine 6 x 12 at mouth of incline on 470 level, steam being supplied from boiler at surface.

Four steam pumps, Acme No.1, 2 Dean Nos. 4, 6 and 500 ft. 2" pipe. These pumps are not in good order and not adapted to cope with the water to such depth _____ which they are expensive to operate.

Mill machinery; engine and boiler for sufficient power to drive 10 stamps and necessary pans and settlers. Five stamps 2 amalgamating pans and one settler. Capacity of the mill being 5 tons each 24 hours. The frame and building has capacity for ten stamps.

Other facilities

Timber is abundant at distances varying from 3 to 8 miles and is obtainable from 5.50 a cord. In view of the fact that increased facilities are sure to follow fuel will materially increase in price, and mining timber will be available at cheap rates. The water contained in the mine is sufficient for all purposes both mining and milling. This supply can be augmented by bringing water from a spring owned by the company some two miles distant from the mine.

In conclusion I would state that from the past record of the property in producing large quantities of rich ore that is easily worked, the favorable geological character of the country, the vein being well defined and carrying more or less mineral to the greatest depth yet attained and the facilities for working are very good. I have no hesitation in stating that the property has every prospect of developing into a large and permanent paying mine when sufficient explorations have been made and greater depths attained.

Respectfully submitted,

Thomas Price

McMillanville Property, Arizona

Drill Hole M-79-4

Coordinates: N51,115, E49,640

- 0-20 Overburden.
- 20-35 Medium grained gabbro, trace limonite.
- 35-45 Limonitic clay, gabbro, calcite.
- 45-130 Medium grained gabbro with limonite staining and particles.
- 130-135 Fine grained gabbro with limonite.
- 135-140 Medium grained gabbro with limonite, and with tan clay.
- 140-155 Medium grained gabbro with limonite, slight chloritization.
- 155-170 Red-brown clay with limonite and gabbro. VEIN MATERIAL.
- 170-180 Gabbro with limonite and tan clay.
- 180-285 Gabbro with brown clay, hematite, calcite, limonite, kaolinized feldspars, trace of secondary copper. VEIN MATERIAL.
- 285-290 As above but with red-brown clay. VEIN MATERIAL.
- 290-330 Chloritized gabbro with large proportion of feldspar, some limonite pseudomorphs after sulfides.

McMillanville Property, Arizona

Drill Hole M-79-5

Coordinates: N51,285, E49,645

- 0-20 Overburden and surface material.
- 20-105 Medium grained gabbro, slight orange clay coatings on some feldspars, trace hematite, trace kaolinite, biotite, magnetite.
- 105-110 Medium grained gabbro as above, but with trace of limonite pseudomorphs after pyrite.
- 110-115 Gray fine grained silty alteration material.
- 115-135 Medium grained gabbro with orange limonite pseudomorphs after pyrite and trace of red hematite stain. Orange limonite stain on fracture surfaces.
- 135-140 As above but includes some gray, silty alteration material.
- 140-145 As above but with 50% silty alteration material.
- 145-150 Medium grained gabbro, fresh, a few limonitic grains
- 150-155 As above but 30% limonite.
- 155-160 Red-brown clay with some gabbro.
- 160-165 Gabbro with red-brown clay coatings.
- 165-170 Gabbro with 10% limonite stained and some hematite.
- 170-175 Red-brown clay with some gabbro fragments.
- 175-180 Gabbro fragments with clay coatings.
- 180-185 Fine grained gabbro, gray color, some limonite.
- 185-190 Gray silty material.
- 190-200 Medium grained gabbro with a few limonite grains.
- 200-205 Medium grained gabbro with slight green saussarite alteration, limonite and hematite.
- 205-210 As above but gabbro has quartz veinlets, biotite, calcite.

M-79-5 continued

- 210-215 Medium grained gabbro with quartz, some saussarite, calcite.
- 215-220 Red-brown clay, kaolinite, hematite veinlets, soft orange stained feldspars, calcite. VEIN MATERIAL.
- 220-230 As above but with blue-green secondary copper colored clay particles. VEIN MATERIAL.
- 230-240 Brown clay with limonite and hematite particles, calcite. VEIN MATERIAL.
- 240-245 Brown clay, limonite and gabbro, calcite. VEIN MATERIAL.
- 245-250 Gabbro with some altered, orange stained feldspars, hematite, calcite.
- 250-255 Brown clay, some gabbro, limonite, calcite.
- 255-260 Red-brown clay and slightly saussaritized gabbro. VEIN MATERIAL.
- 260-265 Saussaritized gabbro, limonite, hematite.
- 265-280 Brown clay, gray gabbro with altered feldspars, hematite, limonite, trace secondary copper at 275-280. VEIN MATERIAL.
- 280-295 Gray gabbro with altered feldspars, limonite, hematite, calcite or ankerite.
- 295-305 Brown clay with limonite. VEIN MATERIAL.
- 305-315 Gray gabbro, brown clay, trace secondary copper.
- 315-330 Saussaritized gabbro with 25% feldspar, limonite, calcite.
- 330-335 Saussaritized gabbro with phlogopite, chlorite, limonite, hematite, calcite, kaolinite.
- 335-350 Brown clay, trace secondary copper, altered feldspars. VEIN MATERIAL.
- 350-355 Saussaritized and chloritized gabbro, limonite, calcite.
- 355-400 Red-brown clay with gabbro fragments. VEIN MATERIAL.

M-79-5 continued

- 400-410 Tan clay, gabbro fragments, trace secondary copper.
- 410-420 Gabbro, saussaritized and chloritized with 40% feldspar. Pyrite or chalcopyrite.
- 420-425 Feldspar, calcite, chloritized mafic minerals, secondary copper.
- 425-445 Red-brown clay, calcite, secondary copper minerals. VEIN MATERIAL.
- 445-455 Tan clay with chloritized gabbro, hematite, calcite.