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## PRINTED: 05/31/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: PALO ALTO PROPERTY

ALTERNATE NAMES: PATENTED CLAIMS MS 2064

YAVAPAI COUNTY MILS NUMBER: 1000A

LOCATION: TOWNSHIP 13 N RANGE 1 E SECTION 30 QUARTER NE LATITUDE: N 34DEG 28MIN 46SEC LONGITUDE: W 112DEG 18MIN 04SEC TOPO MAP NAME: POLAND JUNCTION - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY: GOLD

**BIBLIOGRAPHY:** 

USGS POLAND JUNCTION QUAD ADMMR PALO ALTO PROPERTY FILE Palo Alto Gold Mining Company

Capital Stock, 1,000,000 Shares. Par Value, \$1.00 Each. Fully Paid-Huntsville, Missouri



Showing McCabe Mining Camp. A and B being Little Jessie and Dividend Dumps

## **Officers and Directors**

W. H. SEARS, President; Druggist, Huntsville, Mo.

- GOUV MORRIS, Vice President; President Morris Coal Company, Huntsville, Mo.
- W. H HUBBARD, Secretary and Treasurer; Cashier Farmers and Merchants Bank, Huntsville, Mo.
- J. W. HUBBARD, General Manager; Mining, McCabe, Arizona. JOHN N. TAYLOR, Director; Dealer in Furniture and Musical Instruments, Huntsville, Mo.
- EDGAR HUBBARD, Director; Attorney at Law, New York Life Building, Kansas City, Mo.

HAS. E. BROWN PRINTING CO., KANSAS CITY.

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		\$1952	5477 Ab. 7577 Ab.	Sign Alag	tion to Alla

The above cut shows the position of the Palo Alto with reference to the famous Little Jessie, and the same will greatly aid the reader of the following report in arriving at a correct idea of the relation of the Jessie and Dividend veins.

# Assays and Dates of Same of Palo Alto Ores

August 15, 1902—\$12.40, \$18.80, \$38.00, \$45.90, \$109.60 per ton. November 11, 1902—\$35.27, \$87.09 per ton. November 15, 1902-\$80.10, \$503.50 per ton.

# Expert Report on Palo Alto Property

Kansas City, Mo., February 19, 1903.

Mr. Gouv. Morris,

#### 215 New York Life Bldg., Kansas City, Mo.

Dear Sir:--

I hereby have the honor to submit the following report on the Palo Alto Gold Mining Company's property, which I have carefully examined.

The mines are situated in Big Bug Mining District, Yavopai county, Arizona, twelve miles southeast from Prescott, in the foot hills of the Bradshaw Mountains, near the head of Ticonderoga Gulch, the trend of which is east to the Agua Fria River.

#### ACCESSIBILITY.

The Palo Alto mines are easy of access. A branch of the A. T. & S. F. R. R., the Prescott & Eastern, from Prescott to Huron Station, a distance of twenty-seven miles, thence by stage three and one-half miles to the mines, via McCabe P. O., which is less than one mile distant. Prescott is the source from which all mining supplies are furnished for the entire district, and in fact is the best market in the territory for such supplies. In addition to the railroad there are several good wagon roads, which afford ingress and egress to all the other mining districts in the county as well as Prescott.

#### TOPOGRAPHY.

The Palo Alto Mines are on an altitude of 5300 feet above sea level. Galena and Big Bug Creeks parallel Ticonderoga on the south and Chaparal on the north. The above gulches are in close proximity to one another, with low ridges between, gently undulating east towards the railroad. The ridges are partially covered with short scrubby brush, no timber. It is a rough mountainous country between Prescott and the mines as the pigeon would fly; hence the circuitous route taken by the railroad.

#### GEOLOGY.

The country rock is principally Granite, Porphyry, and Doloryte. The walls are Granite and Porphyry, with filling of Porphyritic Schist, altered Slate and Doloryte. Porphyritic Schist comprises the matrix of the Jessie and Palo Alto veins at the surface, and also to a considerable depth in places, before quartz is encountered, which contains the sulphides. The Dividend shows considerable quartz along the surface of the vein.

Accompanying this report is a plat showing a cross section of the geology of the Jessie Mine, which is virtually the same as the Palo Alto, and Sunol.

#### PALO ALTO AND SUNOL.

The above mentioned claims comprise the property of the PALO ALTO GOLD MINING COMPANY. The Palo Alto is 1066 feet in length; 550 feet in width, and is the east extension of the Little Jessie; and is also the east extension of Dividend No. 1, which overlaps the Little Jessie vein 112 feet. The Palo Alto is paralleled on the north by the Columbia. The Sunol is a full claim in length, 1500 feet, by 550 feet in which, and is the east extension of the Palo Alto; and is paralleled on the north by the Independence mine. The Jessie and Palo Alto is a well defined true fissure vein, from ten to forty-five feet in width. The course of which is north eighty-five degrees east, with a dip of ten or twelve degrees to the south. The Jessie vein can easily be traced the whole length of the Palo Alto and Sunol, and has been traced for 7000 feet. The Dividend vein can be traced for 5000 feet. It is a very strong well defined true fissure, the course of which is due east and west, with a dip of ten or twelve degrees to the south. The Dividend vein traverses the Palo Alto the whole length of the claim 1066 feet, and also travenses the Sunol 520 feet to junction, in all 1586 feet. Within the boundary lines of the Palo Alto property there are seven distinct leads, five of which intersect the main vain, as shown on the ground plan.

#### PALO ALTO ORES.

The ores found in the Palo Alto mines are characteristic in every way with those of the Little Jessie. Porphyritic Schist carries the value at the surface, and in some places to a considerable depth before the layers of quartz appear, which leads to sulphides. In other places some sulphides are found near the surface, but I predict that 200 feet and more in depth will be necessary to find sulphides in quantity and quality; although nearly all the schist will pay to mill from the surface down.

#### DEVELOPMENTS.

The developments will be better understood by referring to the plan accompanying this report. Shaft No. 1, which is sixty-eight feet deep, is twenty-five feet from the Little Jessie end line. From the surface to the bottom of the shaft there is an average of three and one-half feet of schist with streaks of Hematite. At the bottom of the shaft there is a tunnel run ten feet to the east, and 120 feet to the west; hence ninety-five feet of it was run in the Little Jessie ground. Four feet west from the bottom of the shaft, an ore shoot was en<sup>5</sup> countered which run to the surface on the Jessie ground.

Some sulphides were found in this shoot which run from twenty-two to forty-nine ozs. gold per ton. In this shaft the foot wall is granite and hanging wall porphyry. From these workings about 225 tons of ore was shipped, which milled \$16.00 per ton, mostly schist. 270 feet east from shaft No. 1, there is a prospect pit, ten or twelve feet deep, which shows thirty inches of schist, doloryte foot wall, porphyry hanging wall. From shaft 2. No. 1 it is 487 feet east to shaft No. From the first thirty-five feet in shaft No. 2 about twenty tons of ore, mostly schist was shipped which milled over \$30.00 per ton; \$150.00 for concentrates was received on this shipment. From thirty-five to a depth of eighty feet there is good ore in the shaft; from eighty to 132 feet the shaft is in a fault, but judging from indications, the day I left the mine, they would soon be in ore again. The angle of the fault is possibly forty-five degrees to the east. At a depth of 105 feet the west drift is run twenty-two feet in the fault. The east drift on the same level is run sixty-seven feet from the shaft, and had passed several yards beyond the fault. In the face of the drift there was two feet four inches of good ore, mostly schist, some sulphides. For the present this tunnel would only be run eight feet further, then devote their energies to sinking staft No. 2. There is a prospect pit alongside of creek bed about 200 feet west from shaft No. 3; twenty-five feet exposure had been made; it is now about half filled up; fifteen tons of ore were shipped from this pit that gave mill returns of \$36.00 per ton; one and one-half tons concentrates that run eight ozs. gold per ton. This ore was taken from a pay streak of about sixteen inches. Shaft No. 3, depth 115 feet, from bottom of shaft a tunnel was run west 170 feet; ten feet west from shaft, sulphide ore was found in the bottom of tunnel, which continued forty feet west, then passed through fifty feet of schist, then sulphide ore in the bottom for twenty-five feet, then forty-five feet of broken ground. The east tunnel from shaft was run forty-five feet on the same level; vein matter 6 feet wide at end; bastard quartz was encountered here and there containing values; thirty-five tons of ore was milled from shaft No. 3 which run about \$25.00 per ton. On Sunol claim at the junction of the Dividend vein, the outcrop of schist is forty-five feet wide; the sampling from the surface of sixty pounds run \$6.00 per ton; another sample taken from different parts of the forty-five feet in width asayed \$12.40 per ton. One hundred and twenty feet east from junction of Jessle and Dividend veins is shaft No. 4, thirty-five feet deep; about thirty feet further east there is another shaft sixteen or twenty feet deep, showing three feet of ore, about fifteen inchs quartz, and twenty-one inches schist; thirty-five tons of ore was milled from the two shafts which run

over \$25.00 per ton. About 200 feet west from shaft No. 3 there is a shaft twenty-five feet deep, in the Dividend vein, which shows three feet of ore; two feet of schist and one foot of quartz; thirty-five tons of ore was shipper from this shaft which milled \$15.00 per ton.

### SUMMARY OF ORES MILLED.

The folowing is an approximation of what Mr. Parker realized from the sale of ores, from the Palo Alto mines, prior to the organization of the company:

From shaft No. 1, 225 tons at \$16.00 per ton\$3	,600.00
From shaft No. 2, twenty tons at \$30.00 per ton	600.00
From shaft No. 2, concentrates	150.00
From creek bed, fifteen tons at \$36.00 per ton	540.00
From creek bed, concentrates	240.00
From shaft No. 3, thirty-five tons at \$25 per ton	875.00
From shaft No. 4, thirty-five tons at \$25 per ton	875.00
From twenty-five foot shaft on Dividend vein,	
thirty-five tons at \$15.00	525.00

\$7,405.00

#### ASSAYS.

The following is a list of assays made by Dr. Jea	an R.
Moechel from samples taken from the Palo Alto m	ines:
No. 2; from waste dump of shaft No. 1; cullings of sulphides and schist; tested for gold only; 0.66 oz\$	13.20
No. 3; from waste dump of shaft No. 1; mostly	
schist; tested for gold only; 0.31 oz No. 4; from ten foot shaft; 270 feet east from shaft No. 1; two feet six inches across the	6.20
vein: two feet six inches from the surface:	
tested for gold only; 0.42 oz.	8.40
schist; tested for gold only; 0.62 oz No. 6; sulphides and schist taken from shaft No.	12.40
2 in sinking from surface to a depth of sixty feet; tested for gold only; 2.40 oz	48.00
No. 7; sulphide ore from shart No. 2; taken out in sinking from fifty feet to eighty feet in depth;	
gold, 1.82 oz.; silver, 10.96 oz No. 8; from waste dump of shaft No. 3; from west drift, from over the sulphides: gold, 0.26	41.88
oz.; silver, 1.18 oz.	5.79
from shaft in sinking; mostly schist; tested	E CO
No. 10; from pick of cullings on waste dump of ore shipped from shaft No. 3; ore taken from west drift: mostly sulphides: some schist:	5.60
gold. 1.10 oz.: silver. 2.84 oz.	23.42

No. 11; from a separate pile of sulphide ore lay-	
ing west of dump of shaft No. 3; taken from	
west drift; gold, 8.40 oz.; silver, 16.38 oz 1	76.19
No. 12; from a width of forty-five feet across the	
surface at the junction of the Dividend and	
Jessie veins; tested for gold only: 0.36 oz	7.20
No. 13; from a width of two feet four inches	
across the face of east drift, sixty-seven feet	
from shaft No. 2; mostly schist; gold, 0.39 oz.:	
silver, 1.42 oz	8.51
No. 14; sulphides and schist from shaft No. 2;	
thirty-five to sixty-five feet in depth; gold, 0.44	
oz.; silver, 4.48 oz	11.04
No. 15; heavy sulphide ore from shaft No. 2;	
gold, 1.90 oz.; silver, 3.76 oz	39.88
No. 16; hemanite ore from shaft No. 2; gold, 3.64	
oz.; silver, 8.20 oz	76.90
No. 17; schist ore from shaft No. 2; gold, 1.12	
oz.; silver, 3.16 oz	23.98
No. 18; black sample which cozed from hanging	
wall in shaft No. 2; gold, 0.09 oz.; silver, 3.64	
Oz	3.62
The seven sample I had tested for gold only	havo

The seven sample I had tested for gold only, have run so much higher in gold than I anticipated, I regret I did not have tests made for silver also.

#### ORE DUMPS.

It is a difficult matter to make a close estimate of the tonnage of ore in dumps, when there is a certain per cent of waste material mixed with the ore; however, to be conservative, I will reduce the assay value about one-third, and allow \$1.50 per ton for handling and milling same.

Dump at shaft No. 1; 500 tons at \$4.50 per ton \$2,250.00Dump at shaft No. 2; 250 tons at \$5.50 per ton 1,375.00Dump at shaft No. 3; 750 tons at \$4.00 per ton 3,000.00. Higher grade ore on dumps at shafts No. 2 and

3;	twenty	tons at	\$30.00	per ton	· • • • • • • • • • • •	600.00
	•					\$7,225.00
Cost	of milli	ng 1,520	tons a	t \$1.50 p	er ton	. 2,280.00
Ne	et procee	edis	· · · · · · · ·		di d	.\$4.945.00

#### FURTHER DEVELOPMENTS.

For the present I would advise sinking shaft No. 2 as far as practicable with the horse hoister; then move it to shaft No. 1, and go ahead sinking there; fifteen or twenty feet more in depth an ore chute will be encountered. Should the Fairbanks-Morse gasoline hoister, which has been installed at the Leland Mine, prove a success, and give entire satisfaction, from an economic standpoint, I would advise installing a hoist of the same make, of five or ten horse power more, at shaft No. 2, and continue sinking there until a depth of three to four hundred feet or more is reached, then cross cut to the Dividend vein, with a view of devloping sufficient water to run a small mill; after you reach the 200 or 300 foot levels, stopes can be opened up so as to enable you to ship the high grade sulphide ore to the Val Verde smelter and apply the proceeds in sinking until sufficient water is developed for a ten stamp mill, or at least five stamps.

#### TREATMENT OF ORES.

As soon as a sufficient amount of water is developed, a five or ten stamp mill should be erected, use copper amalgamating plates, and cyanide tanks. A heavy per cent of gold in the ores is free, especially in the schist, and would amalgamate on the plates. All the high grade sulphide ore should be assorted and shipped to the smelter, and treat the lower grade in the mill. There are suitable mill sites on either side of the gulch near shaft No. 3 with sufficient drainage for the tailings.

#### SMELTER.

The Val Verde smelter is four miles distant, and their charge for treatment is \$14.00 per ton. Their reputation for fair dealing is good. It is a down hill pull most of the way from the mine to the smelter. The haulage costs \$4.00 per ton for job lots; large quantities could be contracted for at a less price. One dollar per ton to the Jessie mill:

#### FUEL.

Cordwood, \$6.00 per cord; fuel coal, \$7.00 per ton; blacksmith coal from England, \$40.00 per ton.

#### WATER.

There is a never-failing spring which flows from the Dividend vein alongside of creek bed, 150 feet northwest from shaft No. 2. This water is as clear as crystal, and is par excellence for drinking and domestic purposes. There is also water in shafts No. 1, 2 and 3.

#### IMPROVEMENTS, ETC,

Box building 14x28 feet, two rooms; blacksm th shop 12x15. No. 3 Davis whim for hoisting; mining tools and camp outfit.

#### LUMBER AND MINE TIMBERS.

All lumber and mine timber is shipped from Flagstaff, Arizona; job lots of mine timbers 6x6, 14 to 16 feet long, \$31.50 per thousand; 2x12, 5 feet long (lagging), \$28.00 per thousand; boards, scantling and planks \$35.00 per thousand. Lumber and timber at the above prices are delivered at the mine.

#### OTHER SUPPLIES.

At Prescott, T rails \$3.75 per 100 lbs.; powder, Hercules No. 2, \$15.00 per hundred; fuse, 50 cents per 100 feet; caps, 90 cents per box; drill steel, 16 cents per lb.

### LABOR AND CONTRACTS.

Miners' wages, sinking shafts, \$4.00 per day; miners' wages, drifting, \$3.50 per day; top men and trammers, \$3.00 per day; board, \$1.00 per day. Contract work, sinking, \$12.00 to \$18.00 per foot; contract work, drifting, \$5.00 per foot.

#### NEW SMELT,ER.

The George A. Treadwell Mining Company have erected a new smelter at Mayer Station, five miles south of Huron; coal oil is used for fuel; onyx is used for flux in place of limestone. The fire brick from St. Louis which they used in the furnace would not stand the intense heat. Magnesian brick will have to be substituted. As soon as they get the defects remedied, and in proper working order, they claim that they will be able to treat, or at least matte refractory ores, for \$3.00 per ton.

### ACTIVITY.

Never before in the history of the Big Bug Mining District has there been such a display of activity as at the present time. Reduction plants are to be found on every hand. Paying mines are numerous, and many more will be put on a paying basis this year. It is a proven district. What is needed in most instances is more depth.

#### IMPORTANT FACTORS.

In time the Palo Alto will prove to be of more importance than the Jessie, as the main ore chutes in the Jessie pass within the end line of the Palo Alto. The Jessie and Dividend veins in close proximity to one another, traverse the Palo Alto nearly 1,600 feet. The two veins can be worked jointly at a great saving of expense. I have already stated that the Jessie and Palo Alto yeins dip to the south, also the Dividend, Columbia and Independence, and other parallel veins on the north dip towards the Jessie vein, while the parallel veins on the south dip to the north towards the Jessie, hence the Jessie vein is considered to be the mother lode in that immediate vicinity. Doloryte dykes are found within the granite walls of the Jessie-Dividend, Columbia and Independence veins, while Doloryte dykes are not to be found paralleling the other veins north or south of the Jessie, Dividend and Columbia. Wherever the Doloryte appears the ore is of higher grade. Doloryte is of eruptive origin and has been forced up into the lateral fractures. Doloryte and other igneous intrusions have evidently acted as stimuli to the flow of ore bearing solutions. Large and very rich ore bodies will be encountered with depth. Deep and permanent mining can be counted on.

#### EXPERT OPINIONS.

During the early part of 1899 Mr. A. W. Warwick, F. C. S., London, Member American Institute Mining Engineers, and Montana Society of Engineers, made an exhaustive examination and report on the condition of the Little Jessie mine, and I will quote extracts from that report, which are as follows:

"During the time the property has been operated very large sums have been realized from the workings. The shipping returns have been gone through and from them it can be seen that \$615,000.00 have been realized, partly in bullion and partly in ore shipments. When the plans are examined and the small amount of ore extracted is considered, it will be realized that the ore is very rich. By far the greatest portions of the values received have come from the Little Jessie. The stopes which have been worked are packed with the filling of the vein, and this packing consists of ore broken down and ready for milling. Taking the mine level by level, the outlook at the bottom of the shaft is better than at the upper levels. The total amount of ore in sight is 153,400 tons."

Prof. John F. Blandy, ex-territorial geologist, in commenting on Mr. Warwick's report, says: "I fully endorse all he has said, and consider his estimates rather conservative."

#### REMARKS.

I can fully recommend the present management of the mine, and can speak in the highest terms of the officials, who accompanied me on my trip to Arizona, for their kindness and courtesies extended, and for the able assistance rendered and facilities afforded for the prosecution of my examination of the mines.

#### **RECOMMENDATIONS**,

As a result of my examinations of the Palo Alto mines, and the rich mines adjoining the same, and taking into consideration the geological structure, the dyke system caused by great eruptive forces, which is well understood, calculating and deducting for erosion, pertaining to exposure of the mineral zone, together with local conditions, increase in gold values with depth, I can speak of it only in the highest terms, being of high merit geologically or otherwise, and I sincerely recommend the property, even at the present stage of development; that the same has every feature and evidence for the promise of making a heavy producer, and dividend paver.

> Respectfully submitted, J. C. LOWDEN, M. E.

# No. 2 Main Shaft



Showing Jessie Hoist and Dump, and Palo Alto Shafts Nos. 1 and 2. Division line between Jessie and Palo Alto is 24 feet above Shaft No. 1.

When Mr. Lowden examined the Palo Alto property the main working shaft was 132 feet deep. The present depth of same is 200 feet, and development work is being vigorously prosecuted.

Mr. Lowden states in his report that "in time the Palo Alto will prove to be of more importance than the Jessie."

The Palo Alto Company has no debts and owns the property herein described.

A small block of treasury stock is now offered to stockholders and friends and the proceeds of stock sales will be expended in carrying out the recommendations of the foregoing report.

Would you like to join us? If so, further information will be gladly furnished by . any of the officers or directors of the Company.





Palo Alto Gold Mining Co. ISSUED TO DATED 00 C ForValue Received \_\_\_\_hereby sell, assign and transfer unto Shares of the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint to transfer the sould Stock on the books of the within named Corporation with full power of substitution in the premises. Dated In presence of 

 $\mathbf{S}_{\mathbf{r}}^{(\mathbf{r})} = \mathbf{s}_{\mathbf{r}}^{(\mathbf{r})} = \mathbf{s}_{\mathbf{r}}^{(\mathbf{r})}$ for sourcery up. NOTICE. THE SIGNATURE OF THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME BE ARRITTEN UPON FACE OF THE CERTIFICATE. N EXERP ARTICULAR WITH ALTERATION OR ENLARGEMENT, OR ANY CHANGE WHATEVE. papers 06/ ζευλιοιαγιου αληγι γληγ βααιος εξ σαζογιματίου του γίμε γναυσσεος το γιασστος γία σάτας 5 γεαρ, του γία γεαρίο τη γία αληγαίο σασσας 10 גנקואותנדער אונות דעם אידינקאיא דיגונדידער דינוס אונותו דעות דעאורטער אורגעי דיא קצור געאונקורן בא קטירצי הבאידובי בעוקנדע צוא צעור דעיד אונין אייניג' he county; 3 3 11/11 3 -----ALE ALEALE ALEAA Palo Alto Gold Gm SISSUED Mining Co. 5 HARES OF THE DATED 000 N'A 3 TO 150 Les kij. 10 2.4 ᢙᡀᠿᡐᠧᡄᢂᡆ᠊ᢨᠻᡆᠧᠫᢂᡁ᠋ᢖᢂᡁ᠄ᢂᡕ᠋᠄᠖ᡀ᠄ᢂᡁ᠋᠄ᢂᡁᢄᢂᡵ᠍ᡗᢂᠼ᠍ᢂᠼ᠁ᡬᡀ 6) 3 6 3 e) Purisual calcult calcult

