



## **CONTACT INFORMATION**

Mining Records Curator  
Arizona Geological Survey  
1520 West Adams St.  
Phoenix, AZ 85007  
602-771-1601  
<http://www.azgs.az.gov>  
[inquiries@azgs.az.gov](mailto:inquiries@azgs.az.gov)

The following file is part of the

Arizona Department of Mines and Mineral Resources Mining Collection

## **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.

01/23/86

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: DERBY

ALTERNATE NAMES:

MADIZELLE MINING CO.  
PATENTED CLAIMS MS 3424

YAVAPAI COUNTY MILS NUMBER: 180

LOCATION: TOWNSHIP 14 N RANGE 3 W SECTION 27 QTR. S2  
LATITUDE:N 34DEG 33MIN 28SEC LONGITUDE:W 112DEG 33MIN 23SEC  
TOPO MAP NAME: IRON SPRINGS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD-PRIMARY  
SILVER-COPRODUCT  
COPPER-BYPRODUCT

BIBLIOGRAPHY:

BLM MINING DISTRICT SHEET 272 & 273  
ADMR DERBY MINE FILE  
CLAIMS ALSO IN SEC. 28, 33 & 34  
AREA PATENTED AND NOW CALLED HIGHLAND PINES,  
A LAND DEVELOPMENT  
WEED, W.H. MINES HANDBOOK VOL XII 1918 P 516  
WEED, W.H. MINES HANDBOOK 1918, P 215

DERBY MINE RUINS 1/86

PAINT MARKS IN SIDE DOWN



1 2 3 4 5  
KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060



6 7 8 9 10  
KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060



11 12 13 14 15  
KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060



16 17 18 19 20  
KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060



21 22 23 24 25  
KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060



26 27 28 29 30  
KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060 KODAK SAFETY FILM 5060

*M...  
D...  
P...  
11...  
9...  
5...*

DERBY MINE

REFERENCES

YAVAPAI COUNTY

BLM Mining District Sheets 273 a,d 272

Weed, The Mines Handbook, 1918, p. 215

MAPS - Upstairs in the rolled alphabetical rolled file (underground and assay maps)

# MINING MEN ARE GREATLY PLEASED

Delighted With The  
Showing Made On  
Properties

Especial Courtesy Shown  
Them by Ex-Senator  
Clark

During a brief visit to Prescott, Wednesday, Secretary of Arizona George U. Young conducted three prominent men of France to the United Verde mine from southern Arizona. In the party were Douglas Read of the Bank Intermediate of Paris, France, Count Alfred Du Puy Fontaine and E. F. Ayrault, two men of wealth and prominence in that republic.

These gentlemen are visiting the Southwest, and are especially attracted to the county to inspect the big copper mines of the Territory, mentioning particularly the United Verde. Their arrival at that property was opportune, for ex-Senator Clark had reached the camp the day previous.

The party was taken in charge by Senator Clark and Will Clark, the assistant general manager, and given an opportunity to inspect all surface conditions in evidence.

They were elated, and expressed themselves in flattering terms for the courtesies extended by Senator Clark in personally conducting them around. These distinguished visitors will continue their journey to the coast, and expect to devote several months to sightseeing, and will return to their country via the northern route.

Mr. Young passed yesterday at his mining camp at the Madizelle mines, which are under operation, and will return to his official duties today. He speaks in splendid terms of the revival of mining in this field, and an-

icipates an era of prosperity from now on.

In speaking of the property he has recently taken over in Pinal county, he is enthusiastic over its possibilities, and confident that when it is exploited it will prove to be one of the greatest mining enterprises in the territory. Mr. Young is also preparing to again take up his residence in this city, and anticipates returning when warmer weather arrives in the south, in a few months hence. He was given a cordial welcome from his many friends.



DERBY MINE

YAVAPAI COUNTY  
Thumb Butte Dist.

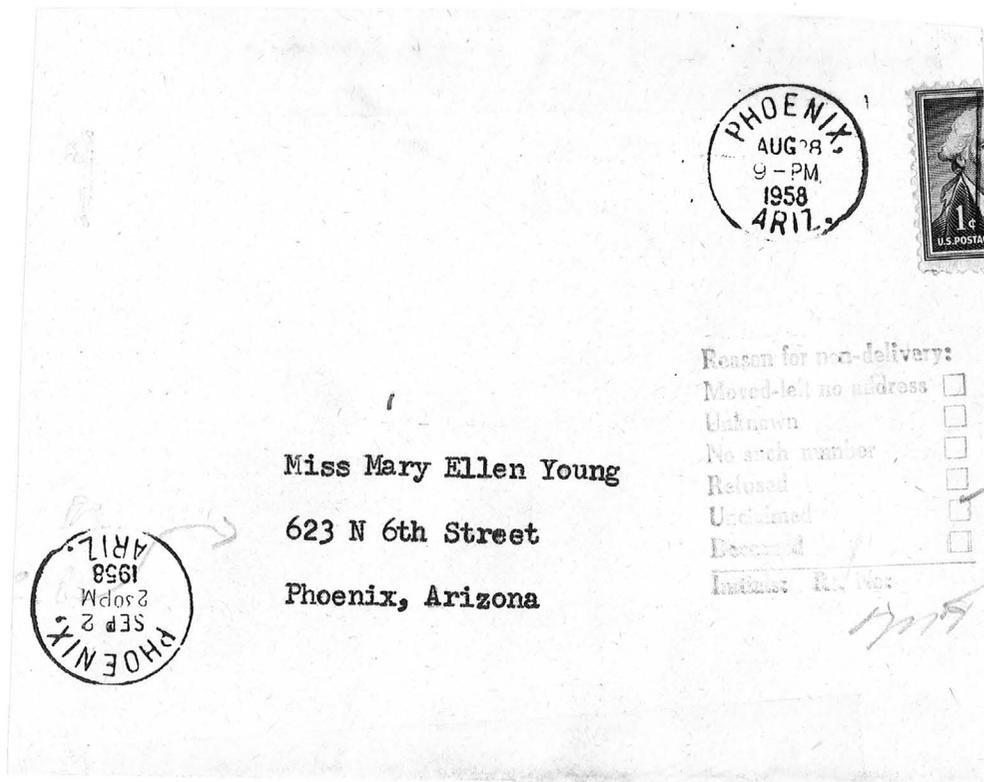
KAP WR 5/8/81 - The following patented mine properties in Iron Springs Area, Thumb Butte Dist., Yav. Co., are subdivided and have summer homes occupying the surface: Pino Alto #2 & 3, Happy Strike, Puritan or (Derby Mine), and Protection. Other patents in the same Group may also be included. An appropriate note should be made on the U.S. Bureau of Mines MILS entry.

---

NJN WR 1/24/86: Jerry Woodward visited and reported that Sharlot Hall Museum of Prescott plans on removing and restoring the stamp mill of the Derby Mine (f) Yavapai County. Some of the area around the mine is starting to be subdivided and they are removing it before any additional vandalism occurs to the mill. He allowed me to photo copy a series of current photos of the mine.

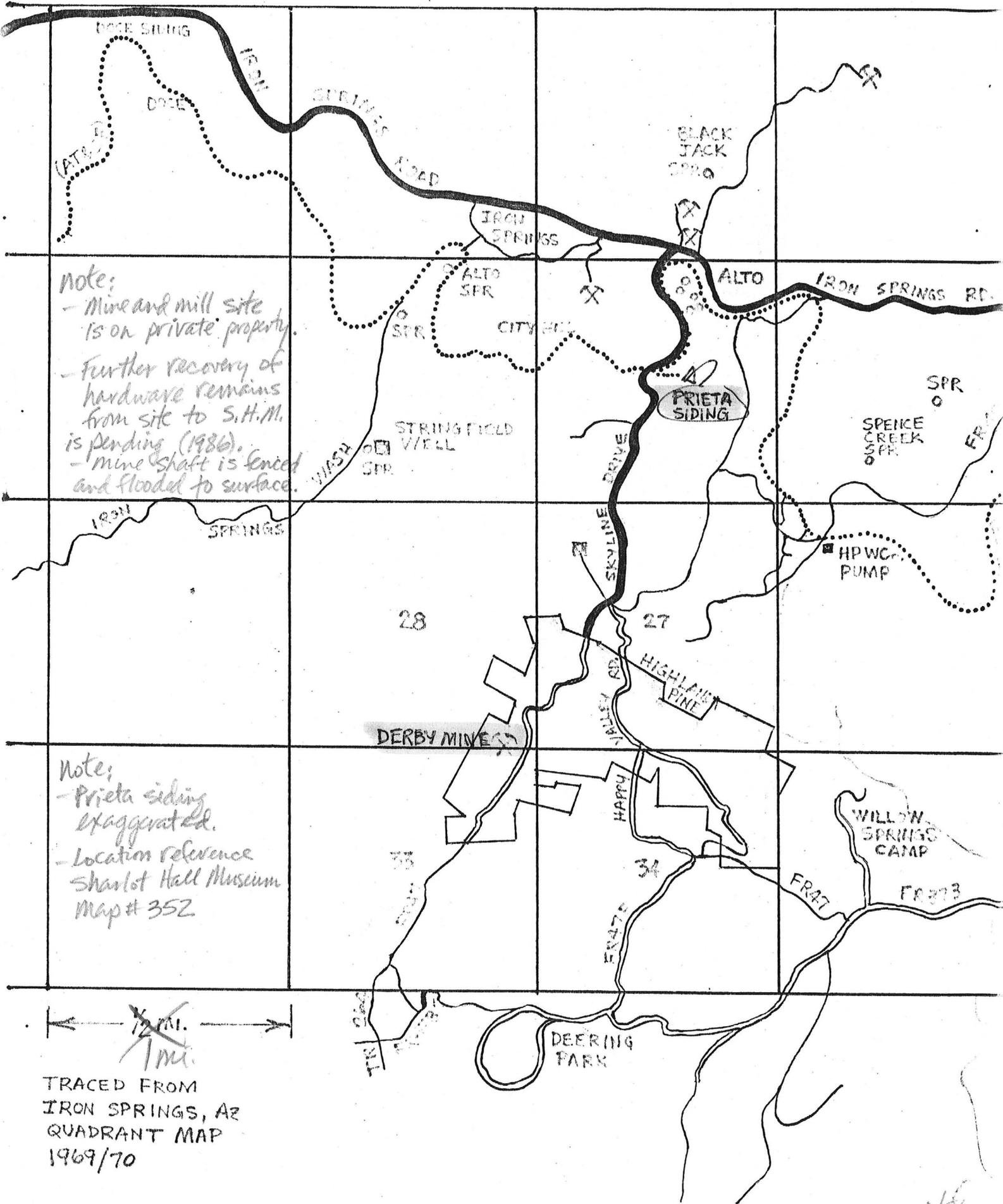
---

NJN WR 8/7/87: Sheldon Lasky (card) reported that he had claims covering Martins Wonder located in Sec 20, T14N R3W, Yavapai County, which contain gold bearing quartz veins which he would be interested in leasing/selling. The property is next to the past producing Derby Mine (file) Yavapai County.





T.141.R.3 W.



Note:  
 - Mine and mill site is on private property.  
 - Further recovery of hardware remains from site to S.H.M. is pending (1986).  
 - mine shaft is fenced and flooded to surface.

Note:  
 - Prieta siding exaggerated.  
 - Location reference Sharlot Hall Museum Map # 352

TRACED FROM  
 IRON SPRINGS, AZ  
 QUADRANT MAP  
 1969/70

4/86

\* GENERAL REFERENCES

- REFERENCE 1 F1 < USBM-ABGMT FILE A → File Data f.l.e >
- REFERENCE 2 F2 < ARIZONA DEPARTMENT OF MINERAL RESOURCES FILE DATA >
- REFERENCE 3 F3 < BLM DISTRICT SHEET # 272, SE 1/2 >
- REFERENCE 4 F4 < WEED, THE MINES HANDBOOK, 1916, V. XIII, P. 215 >

L110 < SUNNY SIDE NO. 1, SUNNY SIDE KNOCKER DOOM, SURE ENOUGH DERBY, DERBY NO. 2, DERBY NO. 3, HUGHENOT MADIZELL, PATSY ELLEN NO. 1, ELLEN NO. 2 (1909). THE PROPERTY NOW HAS 25 CLAIMS (1940) ADDED CLAIM NAMES UNKNOWN. >

M220 < ONE-HALF MILE WEST OF THE DERBY PATENTED CLAIMS. IN THE FAR SOUTHEAST CORNER OF SEC. 28, T14N, R3W THE PURITAN HAD A 200 FT SHAFT WITH OVER 300 FT OF DRIFTS, AND THE ITALIAN HAD A 365 FT SHAFT WITH AN UNKNOWN AMOUNT OF DRIFTS. >

F5 < ABGMT CLIPPINGS FILES >

U.S. CRIB-SITE FORM

RECORD IDENTIFICATION

RECORD NUMBER B10 < 81112 > RECORD TYPE B20 < X.I.M. > DEPOSIT NUMBER B40 < >

REPORT DATE G1 < 8.1.12 > INFORMATION SOURCE B30 < 12 > FILE LINK IDENT. B50 < USBM-004025 0651 >

REPORTER(SUPERVISOR) G2 < LARABA PETER (last, first, middle initial) > (DEWITT ED (last, first, middle initial) >

REPORTER AFFILIATION G5 < ABGMT > SITE NAME A10 < DERBY MINE >

SYNONYMS A11 < MADIZELL, PURITAN AND ITALIAN CLAIMS >

LOCATION

MINING DISTRICT/AREA A30 < THUMB BUTTE DISTRICT >

COUNTY A60 < YAVAPAI > STATE A60 < AZ > COUNTRY A40 < U.S. >

PHYSIOGRAPHIC PROV A63 < 12 >

DRAINAGE AREA A62 < 15060202 >

QUADRANGLE NAME A90 < IRON SPRINGS (1979) > LAND STATUS A64 < O.O.F. >

SECOND QUAD NAME A92 < ( ) > QUADRANGLE SCALE A100 < 24000 >

ELEVATION A107 < 6440 FT > SECOND QUAD SCALE A91 < >

UTM ACCURACY GEODETIC

NORTHING A120 < 3824930 > ACCURATE ACC (circle) LATITUDE A70 < >

EASTING A130 < 356000 > ESTIMATED (EST) TAKEN TO CENTER OF THE PURITAN AND ITALIAN CLAIMS LONGITUDE A80 < >

ZONE NUMBER A110 < 12 >

CADASTRAL

TOWNSHIP(S) A77 < 014N > RANGE(S) A78 < 003W >

SECTION(S) A79 < 28 >

SECTION FRACTION(S) A76 < SE OF SE OF SE >

MERIDIAN(S) A81 < GILA AND SALT RIVER >

POSITION FROM NEAREST PROMINENT LOCALITY A82 < 3.0 MILES NW OF THUMB BUTTE >

LOCATION COMMENTS A83 < THE DERBY CLAIMS WERE LOCATED ON BLM DISTRICT SHEET # 272, SE 1/2, AS WERE THE PURITAN AND ITALIAN CLAIMS >

\* ESSENTIAL INFORMATION  
+ ESSENTIAL SOMETIMES OR HIGHLY RECOMMENDED



*AZMM copy*

EXPLANATION OF DERBY MINE PHOTOGRAPHS for ASU Hayden Library, Arizona Collection

Material on these pages was compiled in 1985-86 for the Sharlot Hall Museum (SHM) Derby Mine project. Key words for these sample photos are Derby Mine, Derby Mill, Puritan Claim, Italian Claim, Derby camp (Camp Young), Fred J. Smith (FJS), SFP&P Ry., Summit, and Prieta.

Three photos © Sharlot Hall Museum, Prescott originated with the Arizona Mineral Museum (AZMM), Phoenix. The originals (no negatives) can be viewed in the AZMM Derby Mine file. Antiquarian Books, Scottsdale states the contents of this file were a donation to AZMM by Edna Young (Mrs. George Young Jr.). SHM's copy prints are enlargements, and they have negatives to make and sell reprints. As of Jan. 1987 these are the only known photos of a "standing" Derby Mill and Mine (hoist bldg)

Three photos © Highland Pine Development/Water Co. are samples of approximately 100 or more in the "Fred J. Smith Collection". Most of the FJS photos are unremarkable, being records of his visitor-friends to Derby camp during the 1930-40's. "Camp, 1933" is a better example of such, where we know the group is from Iron Springs Club. And that we know their individual names makes this picture exceptional. ~~There may be a photo of George U. Young (GUY) with FJS.~~ "Derby camp" and "Prieta, AZ/Santa Fe, Prescott & Phoenix Ry." are older and of a smaller number haphazardly documenting the mining camp. A couple of these are staged scenes: a mock hanging, a mock shooting, and drunken miners/cowboys (foreground of "Derby camp"). It is expected this "FJS Collection" of S.C. Bird (a Derby Co. stock hustler back East) letters to GUY, Derby Mining Co. receipts, etc., and FJS photos of the "caretaker years" (c.1910-c.1950) will be acquired by SHM in 1987. Together, the FJS Collection, the AZMM Derby file, and the ASU GUY Papers account for virtually all surviving documents of the Derby Mining Co. A "ledger book" of, perhaps, employee records was with the Highland Pine/FJS Collection as recently as 1983.

<sup>Nine</sup>~~Three~~ 1985 photos (of a group of 20) illustrate the present state of Derby Mill and Mine site wreckage. The stationary steam boiler once inside each building is obvious, under toppled smoke stack. Refer to the ground plan diagram for an interpretation of the mill wreck.

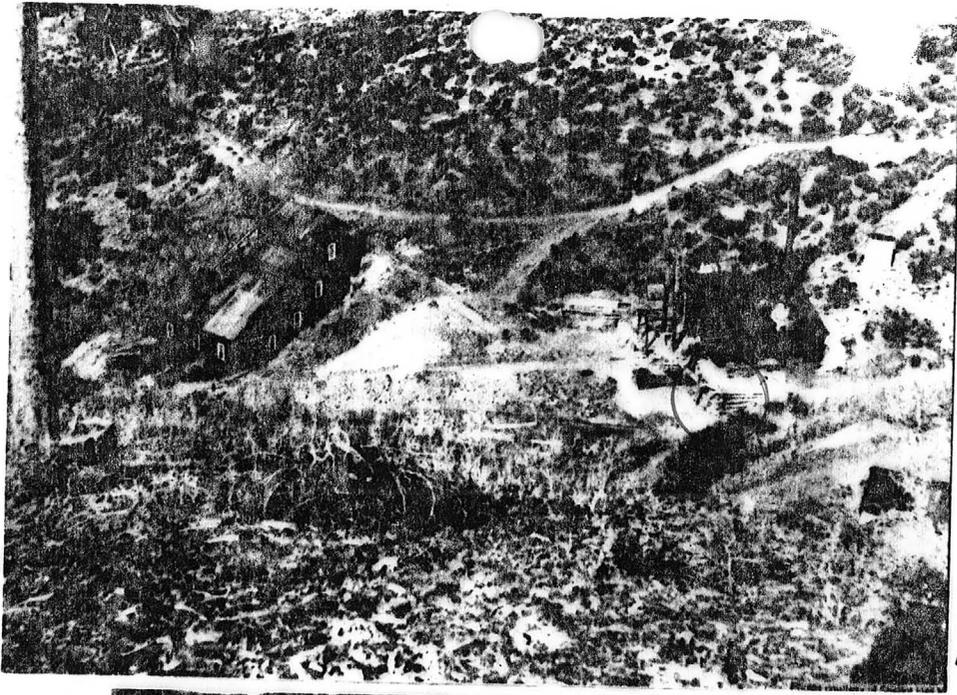
#### DETAILS

Photo M-451Pb shows the west half of Puritan Claim. The road going off-picture, north (upper right) climbed a hillside behind (north of) the mine--see M-451Pc. The horizon line here (Pc) is in the Italian Claim, and where that horizon comes down to meet the climbing road--off-right Pc--was the shaft of the Italian Claim (? Mine) and the Derby camp. The vantage point of photo Pb is near-south of Camp Young and on the west side of the ridge, atop which the camp was located. Forestation makes this view impossible in 1986.

Photo M-451Pa is from the vicinity of upper right of photo Pb, looking toward the west. The camp ridgeline is in silhouette showing, from left (north), the hoist shack and head frame at the ? Mine shaft, FJS' house of 40 years, and the other mine camp buildings strung out in a line toward the south. Photo "Derby camp" is a view from just inside the camp "south gate", looking up that row of buildings. Refer to camp fire insurance policy of 1909-10, ASU GUY Papers Box 6, folder 29 for a "buildings list".

The hanging bucket in photo Pc is above Derby shaft. Note also the log cribwork near the mine hoist building, photo Pb,c. A gully from the higher Italian Claim down to the lower Puritan Claim (evident in foreground of the camp, photo Pa) originally cut right through the area of the Derby Mine building. Refer to Arizona Historical Foundation (Hayden Library) photo negative N-2718: this is an earlier view of that "Italian-Puritan gully", looking up it to the ridge trees where Derby camp will one day be. That log cribwork at lower left N-2718 appears to be the same. The tunnels into this gully are referenced in the ASU GUY Papers, Box 8 claims map, and Oct. 12, 1902 Puritan Group report of folder 42, Box 6.

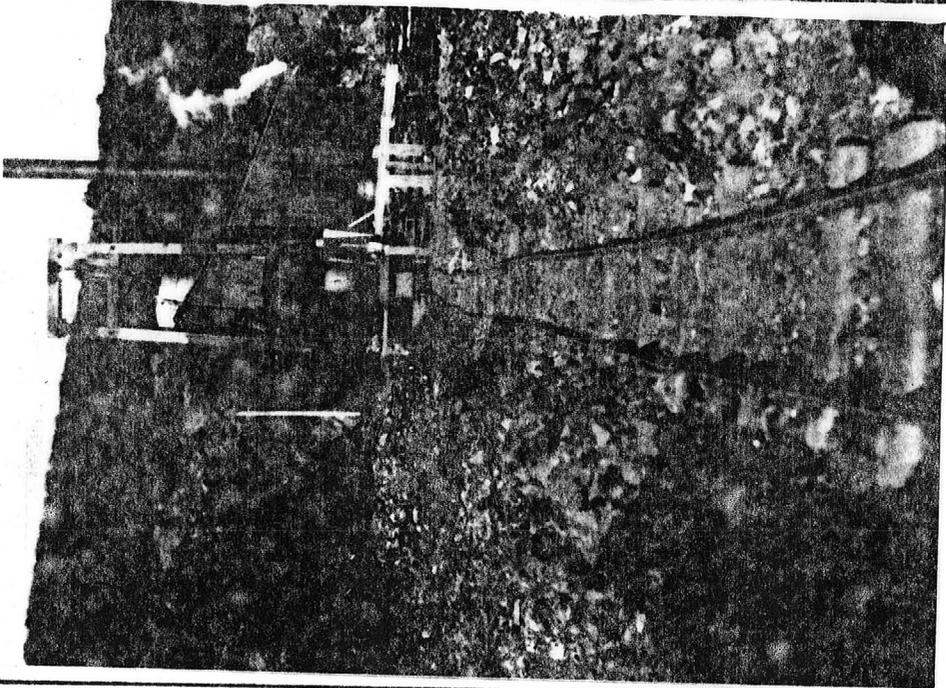
# DO NOT PHOTO COPY



log cribwork

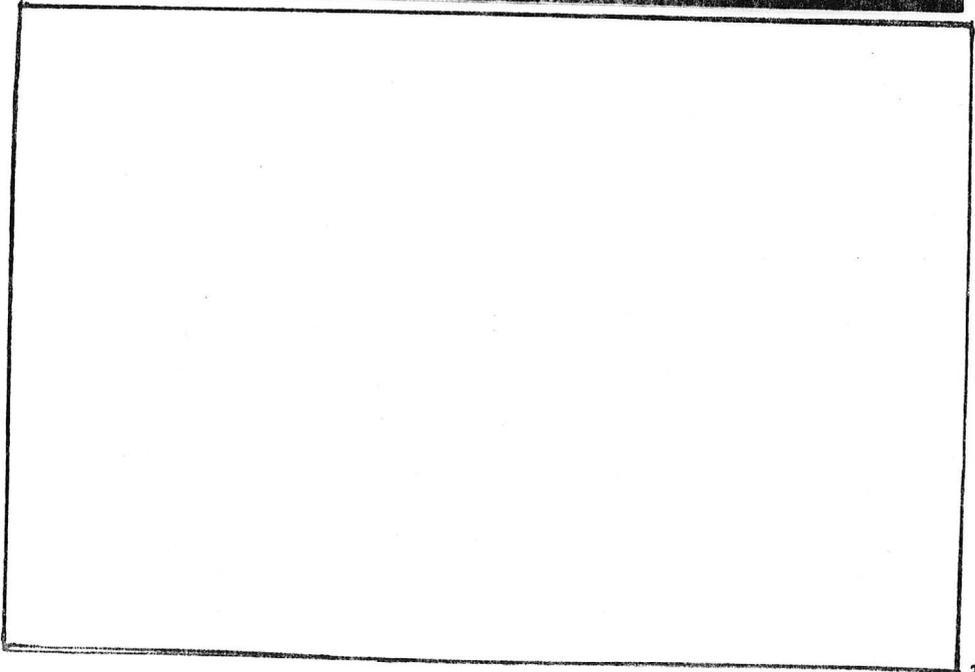
MILL (L.)  
MINE (R.)  
#M-451Pb

after  
June 1905



MINE  
#M-451Pc

c. 1905



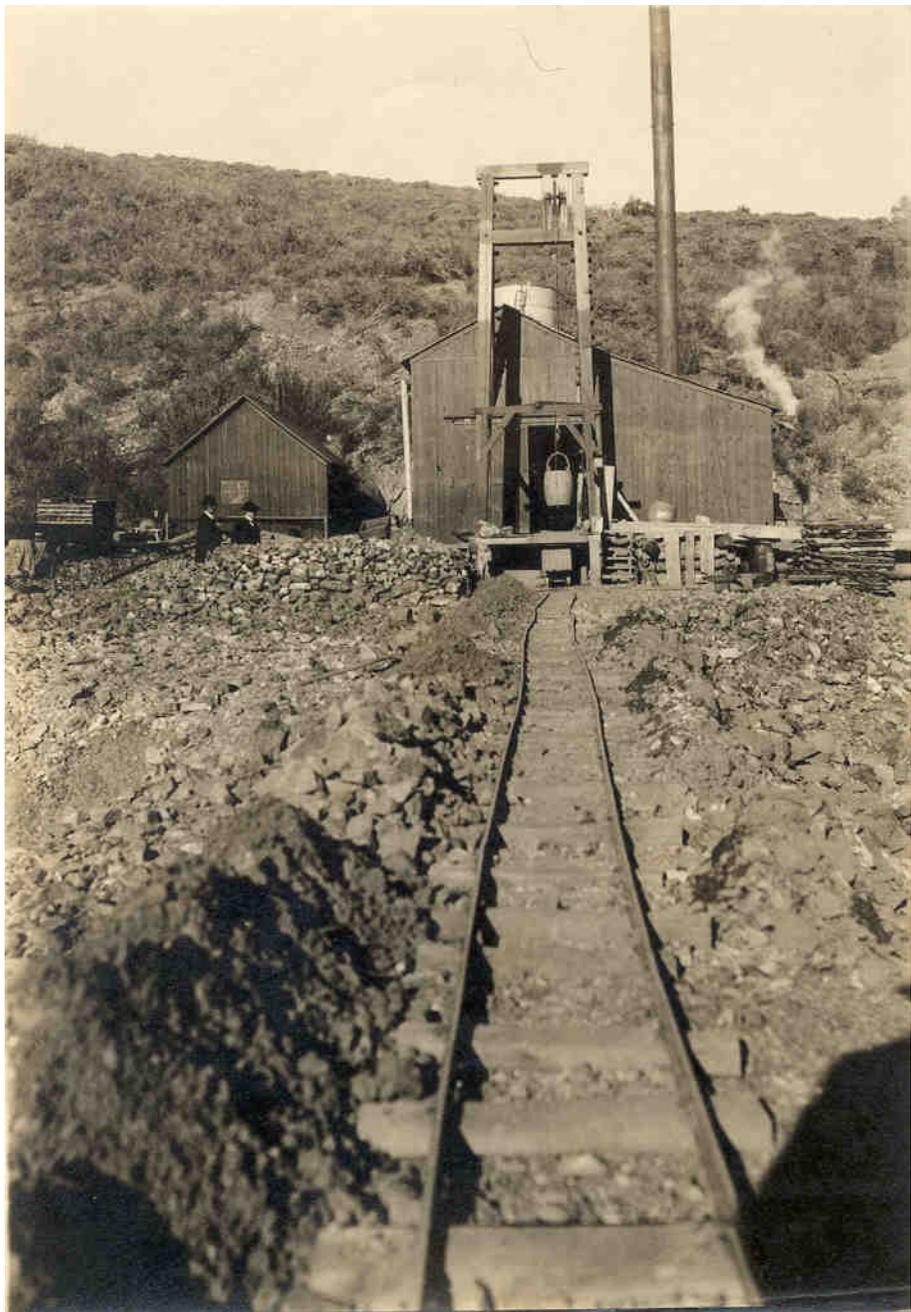
3 Originals  
at AZ Min. Mus.  
Phoenix  
"Derby" file

CAMP  
#M451Pa

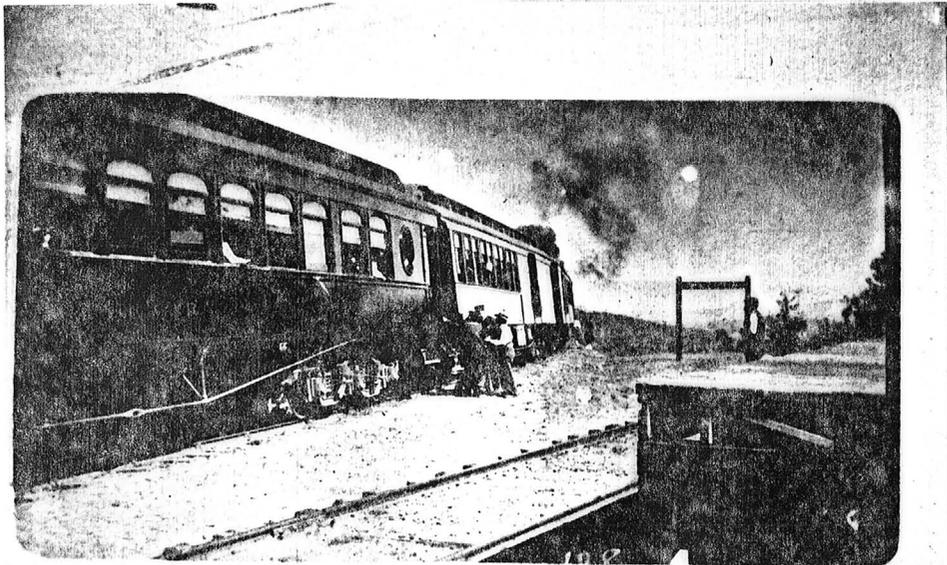
TWO IMAGES  
©1985  
SHARLOT HALL MUSEUM  
PRESCOTT, AZ 86301





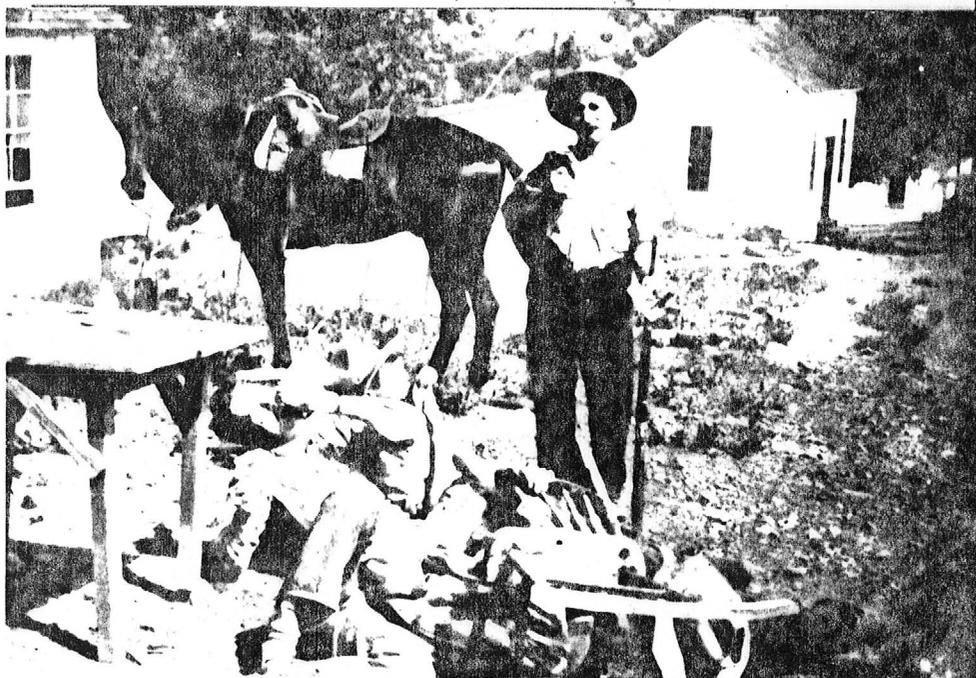


DO NOT PHOTO COPY



(SUMMIT)  
PRIETA, AZ  
SFP&P Ry

after  
Aug. 1908



DERBY  
CAMP

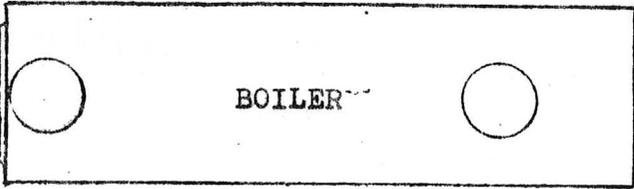
c. 1910



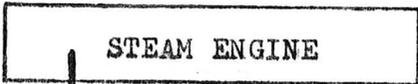
CAMP  
(1933)

Collection to be  
acquired by  
SAM, Prescott  
1987

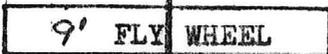
THREE IMAGES  
©1986  
HIGHLAND PINE WATER CO.  
HIGHLAND PINE, AZ  
86501-8578



BOILER

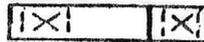


STEAM ENGINE



9' FLY WHEEL

TIMBER BENT



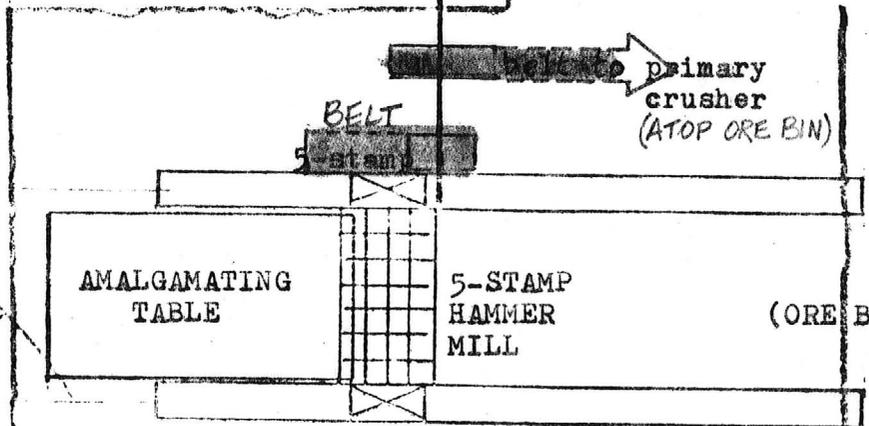
main drive belt



BELT

(PROXIMATE LOCATION)

OVERHEAD SHAFT



Primary crusher (ATOP ORE BIN)

BELT

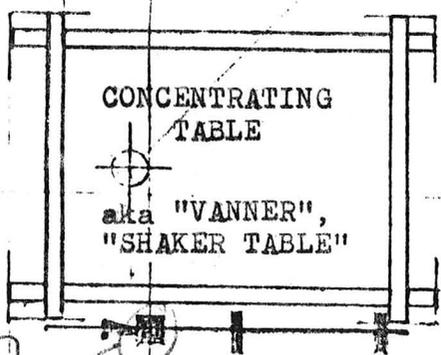
AMALGAMATING TABLE

5-STAMP HAMMER MILL

(ORE BIN)

WOOD TROUGH

RAISED-TERRACE WALL



CONCENTRATING TABLE

aka "VANNER", "SHAKER TABLE"

WATER TANK LOCATION?

"90° TWIST" DRIVE BELT



WELBY  
GROUND PLAN/MILL  
FOR SHM, PRESCOTT  
1986

*These are very similar to S.H.M.  
staff-member photos of 10/84*

## MINE

- 17A West side boiler w/ rock enclosure remains; hoist engine; only remains (a corner) of wood mine head building; ~~unidentified~~ machinery on ground at lower right (see 21A).
- 19A From SE corner of former mine head building, rock boiler enclosure remains; blacksmith shop background left; shaft just off camera, left.
- 23A North end boiler, combination smoke box and fire box; raised letters: HENDRIE & BOLTHOFF MFG & SUP'Y CO. 1903 DENVER, COLO.

## MILL

- 15A General view wreckage; crushed steel water tank lower left center; five-stamp frame w/ belt drum laying center; concentrator ("shaker") table buried below stamp frame, right of water tank. Looking N/NW.
- 26A Looking diagonally down wreckage from near raw ore entrance to mill; primary crusher upended at left (see 34A).
- 29A Wreckage, diagonally upward from stationary boiler; belt drive transfer axle w/ drums at left (see 36A).
- 33A Ore feeder resting on five-stamp frame. Looking to W.
- 34A "Gyratory"-type primary ore crusher attached to top of ore bin; belt drive shaft; output spout at lower left.
- 37A "Frue Vanner"-type concentrator table, partly uncovered of debris.

## Other proof sheet views:

## MINE

- 16A West side stationary boiler, hoist engine; corner of blacksmith shop at far left; shaft just off camera, right center.
- 18A North end stationary boiler/ rock enclosure.
- 20A Head frame hoist engine.
- 21A ~~Unidentified~~ machinery, from boiler rock wall. Hanging-type shaft water pump.
- 22A West side hoist engine.

## MILL

- 24A Telephoto; east side stationary engine and boiler; toppled smoke stack; large flywheel, small belt wheels.
- 25A Telephoto (blurred?) of 15A.
- 27A Ruin from road atop of mill site; broken five-stamp frame.
- 28A West side stationary engine; large steel spoked flywheel.
- 30A Another view of 24A.
- 31A Concentrator ("shaker") table, buried; see 37A.
- 32A Ore feeder to five-stamp, resting on stamp frame; see 33A; looking to E.
- 35A "Gyratory" primary ore crusher; belt drum drive shaft entering crusher; bevel gear.
- 36A Belt drive transfer shaft w/ belt wheels.

Derby (c.1900)/ Madizelle (1905-1937) Mining Co.

T14N R3W Sec 28 (SE qtr) Yavapai County, AZ

Thumb Butte Mining District

1-1/2 road miles (approx.) south of Santa Fe, Prescott &amp; Phoenix/ AT&amp;SF Ry. (c.1894-1962)

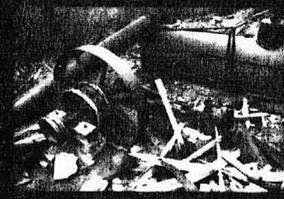
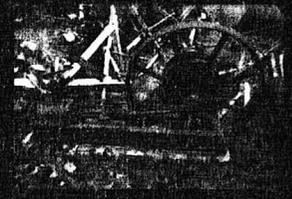
primary: gold  
coproduct: silver  
byproduct: copper

8/85

STYLE NO. 35

INSERT EMULSION SIDE(DOWN)

KODAK SAFETY FILM 5060



→ 28A

→ 29

→ 29A

→ 30

→ 30A

→ 31

→ 31A

→ 32

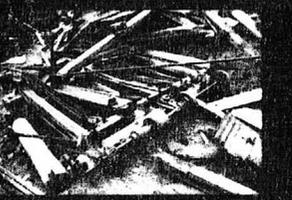
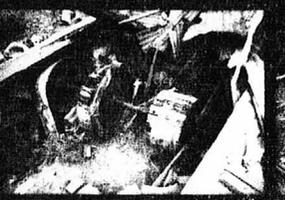
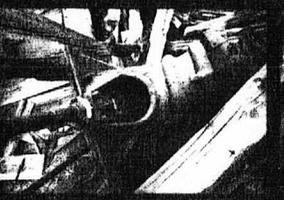
→ 32A

→ 33

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060



→ 33A

→ 34

→ 34A

→ 35

→ 35A

→ 36

→ 36A

J.F. Woodward  
50 Sleepy Hollow Dr.  
RR 4  
Prescott, AZ 86301-8598

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060



→ 15A

→ 16

→ 16A

→ 17

→ 17A

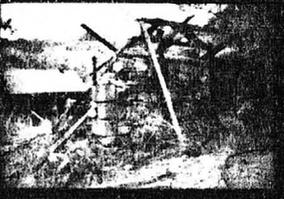
→ 18

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060



→ 18A

→ 19

→ 19A

→ 20

→ 20A

→ 21

→ 21A

→ 22

→ 22A

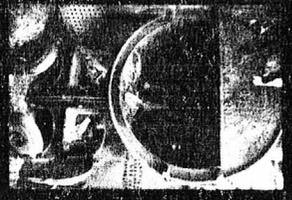
→ 23

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060

KODAK SAFETY FILM 5060



→ 23A

→ 24

→ 24A

→ 25

→ 25A

→ 26

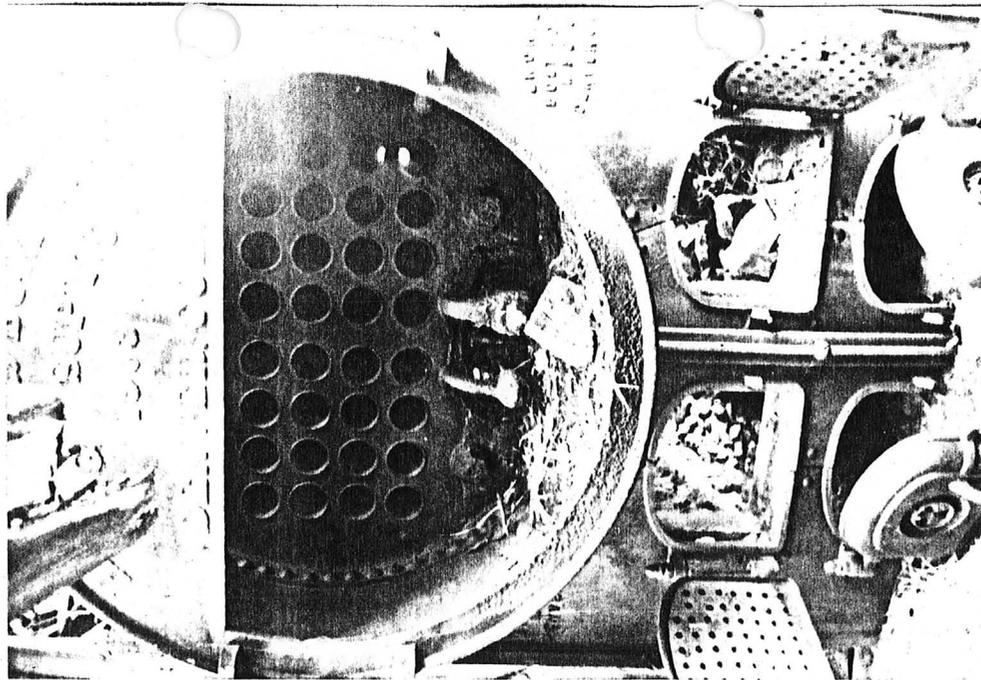
→ 26A

→ 27

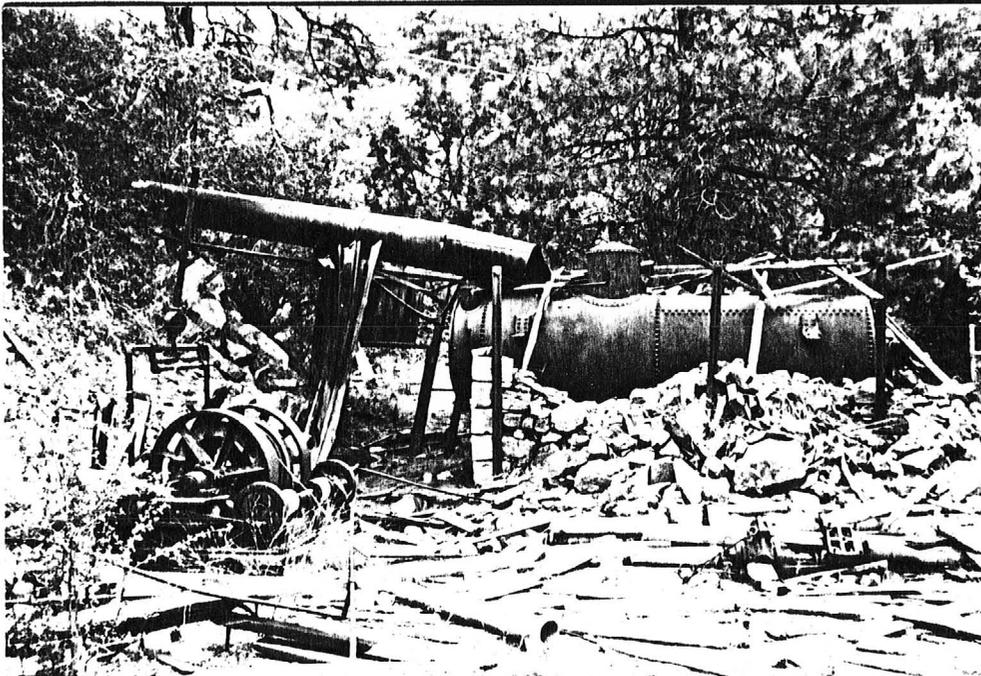
→ 27A

→ 28

5/85

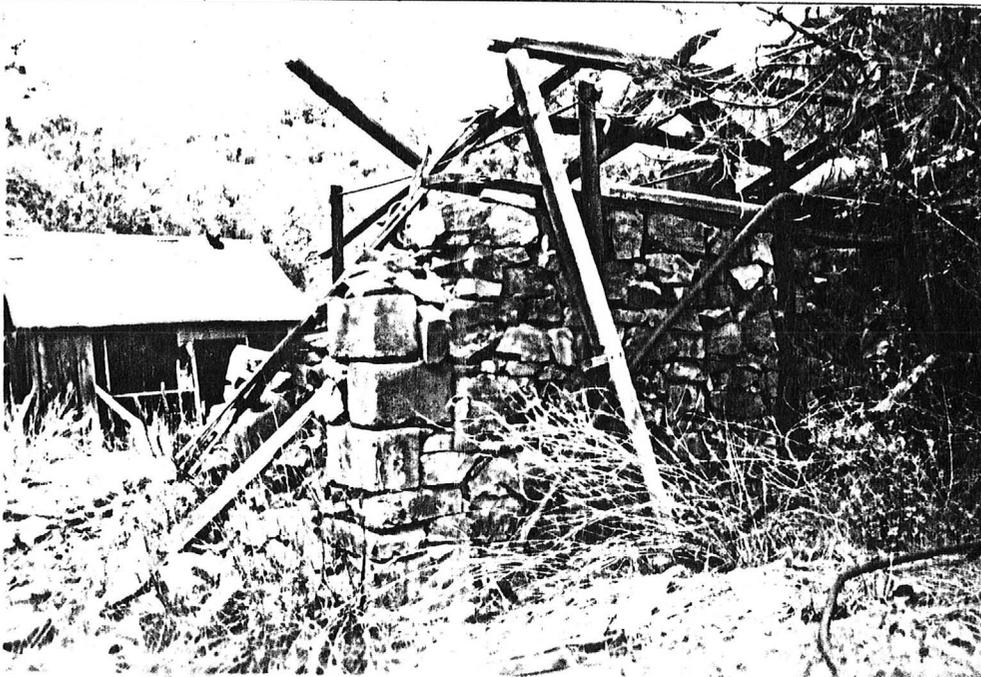


23A



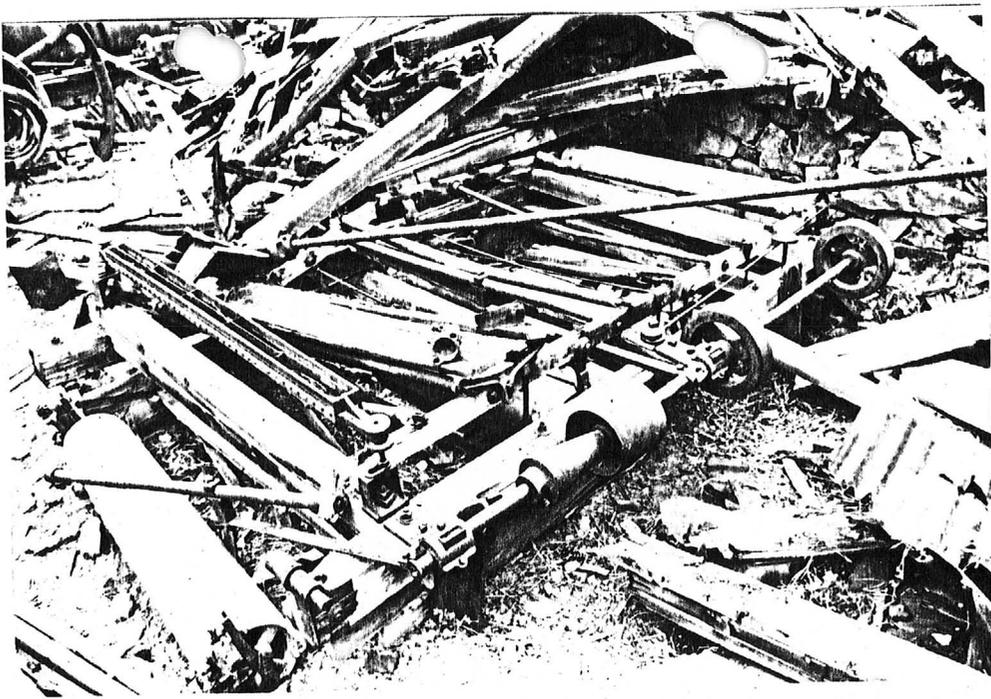
hoist eng  
removed  
to SHM.  
10/85

17A



19A

8/85



37A



29A

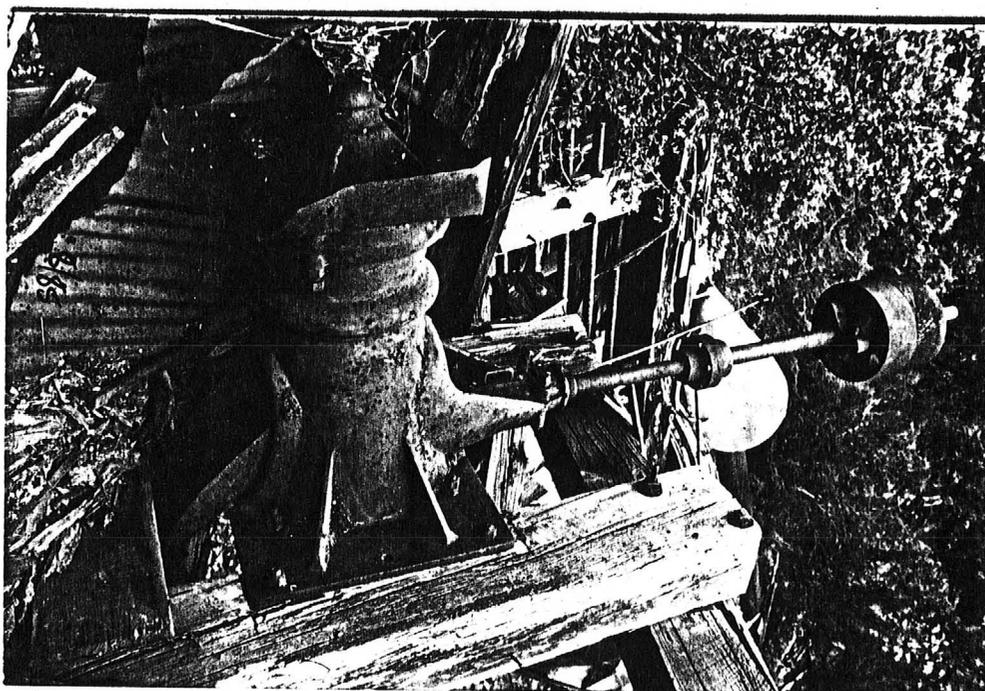


15A

8/85

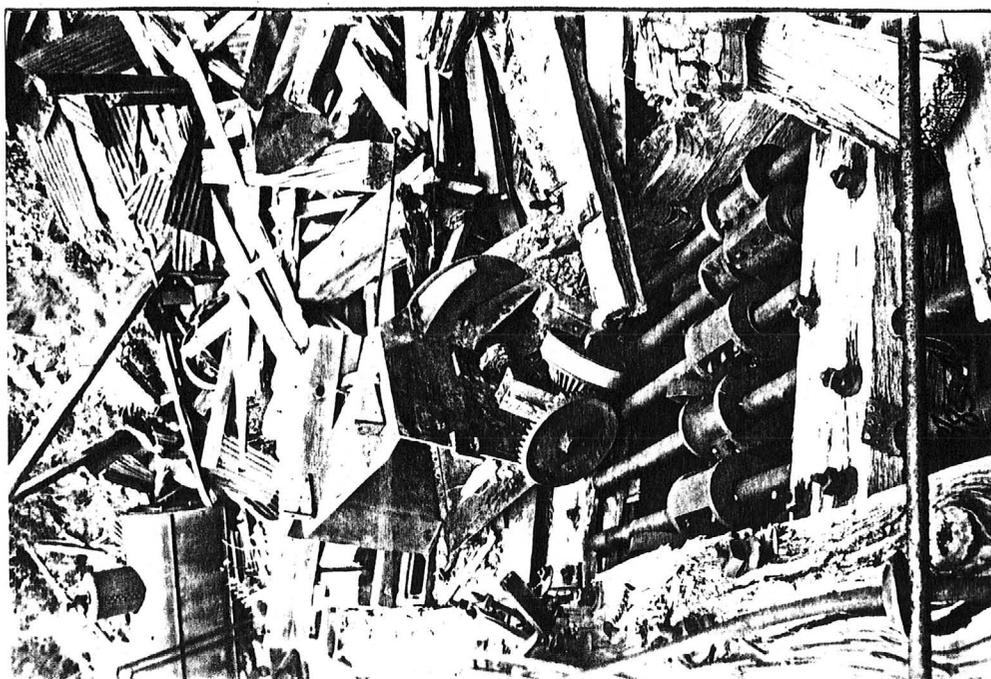


26A



Crusher  
Removed to  
S.H.M.  
10/85

34A



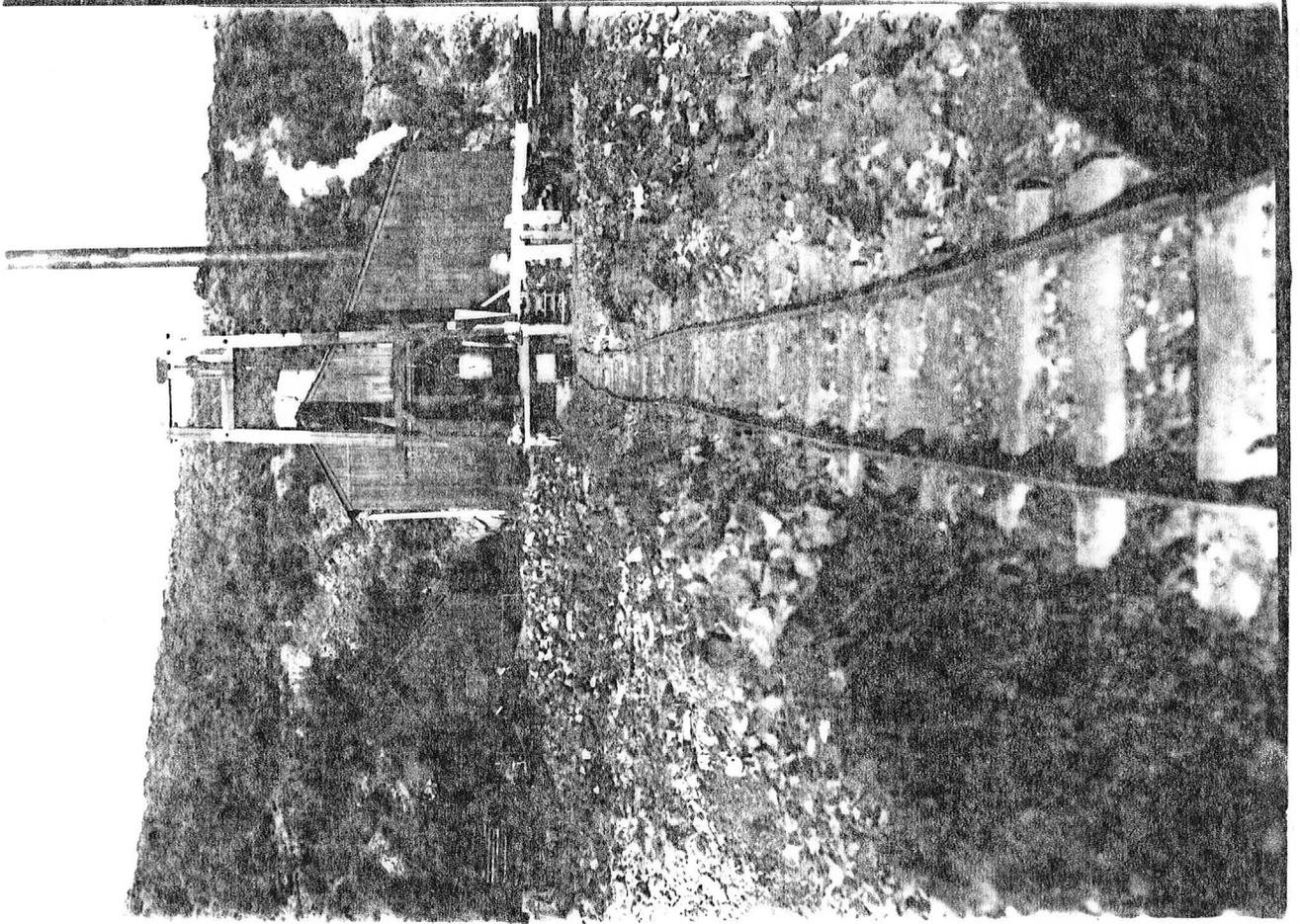
33A

Ore feeder  
Removed to  
S.H.M.  
10/85

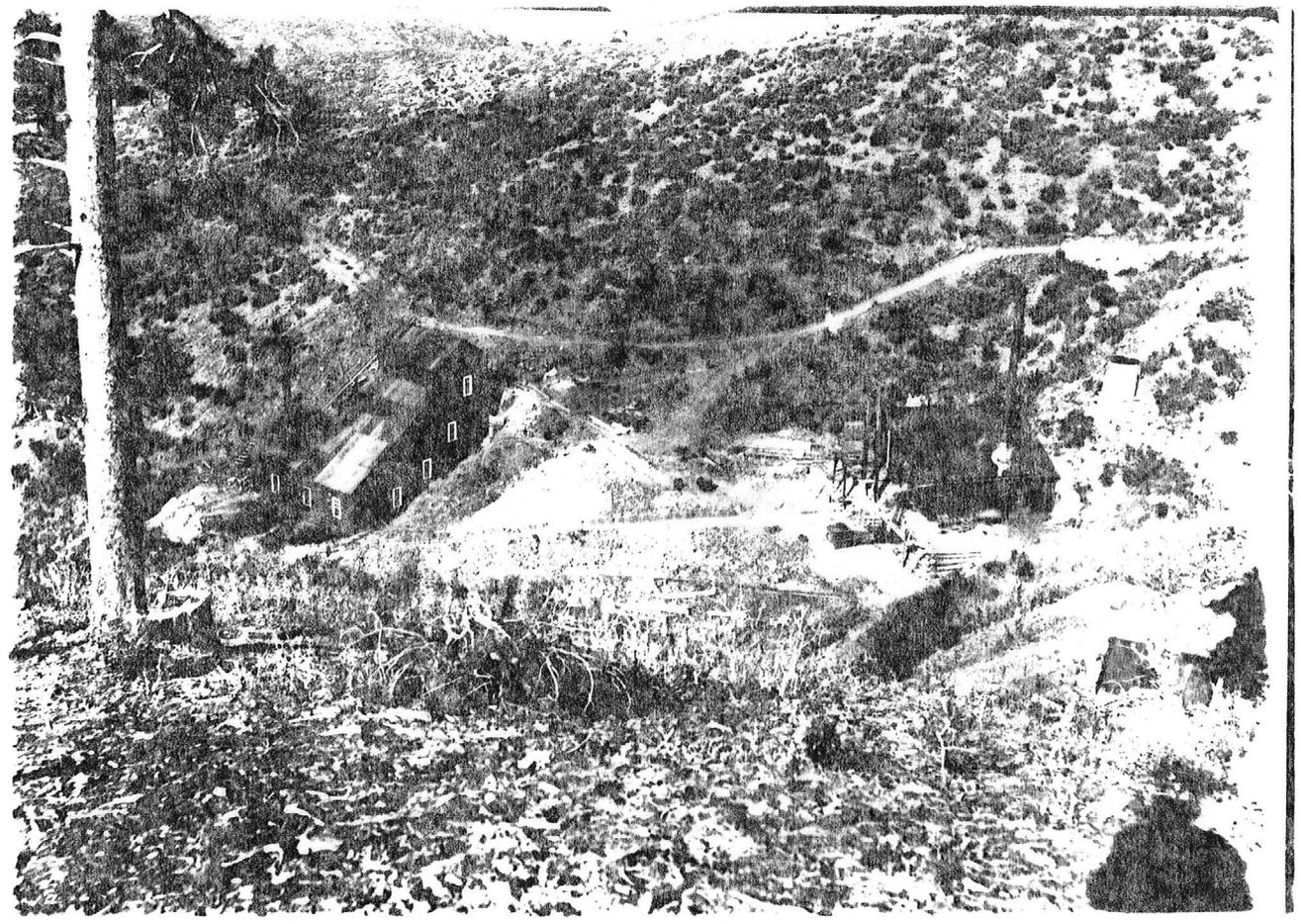
8/85

originals in picture file

PURITAN SHAFT

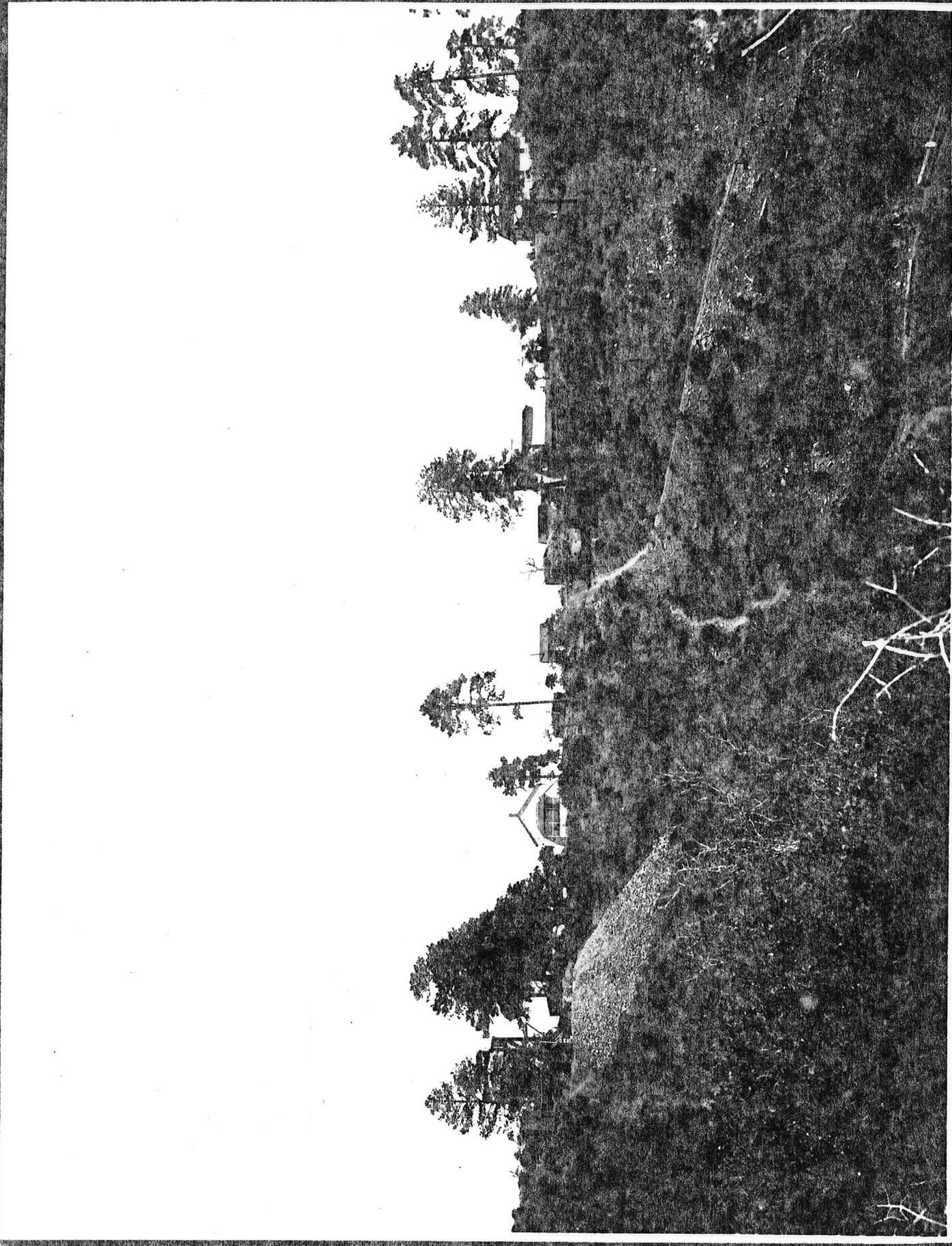


DERBY MILL



originals in picture file

ITALIAN SHAFT, (BACKGROUND = CAMP YOUNG)



GEORGE U. YOUNG PAPERS  
papers, 1894-1922

Collection #AC - 105  
4.5 linear feet

Accession #88-105  
Prepared by: JS

Mr. Charles Cain  
4246 N. Scotts Rd  
177-5535

The papers of George U. Young were purchased from Antiquarian Books, Scottsdale, in September 1985 and opened for research in November 1985.

George U. Young was born in 1867 and in 1890 came to Arizona where he worked on the railroad being built between Ashfork and Phoenix. With Buck O'Neill, he was one of the originators of the Santa Fe Grand Canyon Railroad.

Active in politics, Young was Secretary of the Territory, Mayor of Phoenix, member of Draft Board during WWI, and an Arizona gubernatorial candidate. He wrote numerous articles on northern Arizona and the Grand Canyon.

George U. Young owned and promoted the Derby, <sup>(AKA</sup> Madizelle and Yankee) and Goldfield mines.

CONTENTS

- 6 Manuscript Boxes
- 1 Scrapbook Storage Box
- 4 Blueprints *(orig folder)*

Series I, Boxes 1-5

- Correspondence 1894-1922
- Invoices and Receipts 1901-1921
- Cancelled checks arranged chronologically
- Material relating to personal life, politics, and mining

Series II, Box 5

Articles

Mine and mining materials

City of Phoenix papers

Timber and Livestock contracts arranged chronologically

Series III, Box 7 *not seen - possible*

Scrapbook - clippings 1900-1920s political, historical and mining articles

Series IV, Box 8

Blueprints 1903-1911, mining related materials

two photographs transferred to Small Collections. - very small portrait US Grant

*William?*  
*42 star*  
*flag*  
- a multistory stone schoolhouse(?)  
w/ staff, students(?) in front,  
"on open ground"

*1 pg Not Copied: (37)*

*Box 1: 1919-1922 Correspondence*

*Box 2: 1918 Correspondence*

Box 3

- folder: 1. 1917 Correspondence  
2. 1917 Invoices and Receipts  
3. 1916 Correspondence - December & November  
4. 1916 Correspondence - October  
5. 1916 Correspondence - September  
6. 1916 Correspondence - August  
7. 1916 Correspondence - July  
8. 1916 Correspondence - January - June  
9. 1916 Invoices and Receipts  
10. 1915 Correspondence  
11. 1915 Invoices and Receipts  
12. 1914 Correspondence  
13. 1914 Invoices and Receipts  
14. 1912 Correspondence  
15. 1911 Correspondence - December  
16. 1911 Correspondence - November  
17. 1911 Correspondence - September

Box 4

- folder: 1. 1911 Correspondence - August  
*Dec 1/2/11* 2. 1911 Correspondence - January - July  
3. 1911 Invoices and Receipts  
4. 1909 Correspondence - July - December  
5. 1909 Correspondence - January - June *earliest ref: Fred Smith 2/24/09*  
6. 1909 Invoices and Receipts  
7. 1908 Correspondence  
8. 1908 Invoices and Receipts - June - December *8/1/08 bill for grading site of Arista platform*  
9. 1908 Invoices and Receipts - January - May  
10. 1907 Correspondence *ref: Col. John Mine, separate from Daily; Jerry Lilly Stage*  
11. 1907 Invoices and Receipts - October - December  
12. 1907 Invoices and Receipts - September  
13. 1907 Invoices and Receipts - April - August *more Pract 100 & Telephone long distance slips*

Box 5

folder:

1. 1907 Invoices and Receipts - March
2. 1907 Invoices and Receipts - February
3. 1907 Invoices and Receipts - January
4. 1906 Correspondence
5. 1906 Invoices and Receipts - November - December
6. 1906 Invoices and Receipts - January - October
7. 1905 Correspondence
8. 1905 Invoices and Receipts
9. 1904 Correspondence
10. 1904 Invoices and Receipts
11. 1903 Correspondence
12. 1903 Invoices and Receipts
13. 1902 Correspondence
14. 1902 Invoices and Receipts
15. 1901 Correspondence
16. 1901 Invoices and Receipts
17. 1899 Coconino Records & Documents
18. 1897 Cancelled checks
19. 1894 Correspondence
20. Miscellaneous Correspondence

*ing Dist. in ... Switzer ...  
Prescott ... Telephone*

*12/1905 ...  
11/1905 ... "Mrs. Smith" ...  
12/1905 ... (Deby) ...  
11/1905 ... Derby ... Summit ...*

SERIES II

Box 5

folder:

1. Articles
2. Mammoth Mines sale - no date *ref to Mr. J. P. Hayes*
3. Mammoth Group known as Goldfield Mines - no date
4. Anita Copper Mines - no date *Anita ... ref ...*
5. Information required when considering purchase of mining properties - no date
6. Notices - locate and claim for mining purposes - no date
7. Report - Pride of Arizona Group, Yavapai County - no date *not T.B. McDevitt*
8. Young Mines Company - Contract - no date *properties; Superstition claims*
9. 17th Annual Session - American Mining Congress Address - no date

*"Mull operating" ...  
look in repts. for further details, sheet*

*Rec'd around this time?*

*(G...)*

- 977
10. City of Phoenix - Charter Revision - no date
  11. City of Phoenix - Specification for proposed Incinerating Plant - no date
  12. 1916 Affidavit of Labor Performed and Improvements Made
  13. 1916 City of Phoenix vs Mort Anderson
  14. 1916 Proclamation - Pay-up Week
  15. 1916 Equity Information Blank
  16. 1915 Goldfields - Mammoth Group at Goldfield
  17. 1915 Orr & Miller Company Articles of Incorporation
  18. 1915 City of Phoenix - Resolution re Costs and Operations
  19. 1915 Testimony - charges against City Manager
  20. 1915 City of Phoenix - Resolution of City Manager
  21. 1915 City of Phoenix - Balance Sheet for August
  22. 1915 City of Phoenix - Changes in City Hall
  23. 1914 Detroit Copper Mining Company concentrator
  24. 1914 City of Phoenix - Balance Sheet for December
  25. 1914 City of Phoenix - Balance Sheet for November
  26. 1911 Specifications of machinery and equipment - Twenty Stamps and Cyanide Process Plant *Col. in 2nd Col. 2nd. (see blueprint)*
  27. 1911 Synopsis - Mammoth Mine *1/20/11*
  28. 1911 Young Mines Company, LTD - employees
  29. 1910 Madizelle Mining Company - Insurance policy *(copy) of (Camp structure)*
  30. 1909 Madizelle Mining Company *1/20/11 report (same as AR min)*
  31. 1909 Certificate of Assay
  32. 1909 Articles of Incorporation - the Avondale Improvement Group
  33. 1907 The Mazatzal Group
  34. 1907 Notices of Mining Location - lode claims *1/20/11 Derby #13*
  35. 1907 Timber Sales *1/20/11 S&S 1/20/11 No 37 (S&S 1930)*
  36. 1906 Notices of Mining Location - lode claims *1/20/11 Person's #3*
  37. 1904 and 1903 Derby Mining Company - stock certificates *604, 605, 606*
  38. 1903 Amended Location Certificate *Person's #3*
  39. 1903 Protest - Copy of bill or note
  40. 1902 Mining deed: *1/20/11 (a L. 1/20/11 1/20/11)*
  41. 1902 Reports on Lowry-Hill Group of Mines *1/20/11*  
*1/20/11 1/20/11 1/20/11 1/20/11*

- 42. 1902 Puritan Group of Mines *copy of H. O. ...*
- 43. 1901 Mining deed
- 44. 1900 Notices of Mining Location *copy of ...*
- 45. 1894 Livestock Contract *copy of ...*
- 46. Business Card - George U. Young, Mayor (H)

SERIES III

Box 7 Scrapbook of clippings 1900-1920s; political, historical and mining articles

*two profiles  
to some papers*

SERIES IV

Box 8 Blueprints:

- 1. Main workings on Puritan Claim, November 1, 1903 *copy of ...*
- 2. Survey No. 2424, Arizona Land District, June 20-30, 1907 *copy of ...*
- 3. Preliminary Arrangement Plan for Twenty Stamp Cyanide Plant *copy of ...*
- 4. Property of the Derby Mining Company, Arizona *copy of ...*

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Derby Mine

Date September 20, 1960

District Thumb Butte *Yanqui Co.*

Engineer Travis P. Lane

Subject: Visit of Sept. 13, 1960.

This old property, located about 7 miles westerly from Prescott and comprising 25 patented mining claims, recently became a real estate development, known as "Highland Pine." Fifty-seven homes have been constructed or are building, and others are planned.

The main mine shaft is the water source for the development. A short time ago the water was exhausted in the shaft to the level at which the pump was set (110') and the shaft was found to be bridged with debris just below this point. Mr. Wilson visited this office to discuss the problem and to look over our report file describing the lower workings of the mine. Later he was able to work a hole through the bridge and run the pump down to 285' (TD of the shaft is 365') where it hung up, apparently on the steep footwall of the shaft. At this point the water supply is again satisfactory. However, in time it will probably become necessary to lower the pump to the bottom which may require substantial shaft repair. If this is done, the old lowest workings which are quite extensive could be completely unwatered and certain reported ore showings investigated.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date January 20, 1940.

Mine Derby Mine  
District Thumb Butte, Yavapai County Location Prescott, Arizona  
Former name Madizelle Mining Company  
Owner ✓ Mary Ellen Young ✓ Address 623 N 6th Street, Phoenix, Arizona  
Operator Mary Ellen Young Address " " # " "  
President Mary Ellen Young Gen. Mgr. None  
Mine Supt. None ✓ Mill Supt. None  
Principal Metals Gold, Silver and Copper ✓ Men Employed None  
Production Rate None Mill: Type & Cap. None  
Power: Amt. & Type None  
Operations: Present None

DERBY MINE

Au, Ag, Cu

Operations Planned

None

Yavapai 13 - 4 T 14 N, R 3 W

Mary Ellen Young, 623 N. 6th St., Phoenix

'40

Number Claims, Title, etc.

Twenty-five patented Mining Claims.

Description: Topog. & Geog.

See reports by Booth, Garrett & Blair

Mine Workings: Amt. & Condition

One shaft 500 feet, one shaft 300 feet: intermediate levels and cross cuts;  
numerous prospect holes on other claims.

(over)

Geology & Mineralization

See attached reports by Booth, Garrett & Blair.

Ore: Positive & Probable, Ore Dumps, Tailings

Property was closed down in its primary stages of development.  
(See attached reports)

Mine, Mill Equipment & Flow Sheet

One ten Stamp Mill, fair condition.

Road Conditions, Route

Three miles from Iron Springs highway, mountainous good road. Eight miles to Prescott, Arizona; Santa Fe R. R. siding, Prieta, one and one - half miles from mine camp. Good road.

Water Supply

Drinking water from permanent natural spring, good water. With pumps pipes and tanks for storage to camp. Mining shafts furnish plenty of water for mill operations.

Brief History

See attached reports.

Special Problems, Reports Filed

None

Remarks

This property was operated by the late Geo, U. Young, was closed down in 1909 while in the stages of development. Little or no production. See reports of Assays and shipping sheets of Wickenburg & Prescott Ore Markets for values and prospect work carried on in 1936 and 1937.

If property for sale: Price, terms and address to negotiate.

Will discuss any reasonable offers, at the following address;

Mr. Geo, U. Young, Jr., 623 N 6th Street, Prescott, Arizona. *Phoenix*

The originals and maps may be seen at the above address.

Signed *Mary Ellen Young*  
*by Geo Young Jr.*

Use additional sheets if necessary.

PROGRESS REPORT  
on  
THE BERBY MINING CLAIMS  
Thumb Butte Mining District  
Yavapai County, Arizona, U.S.A.

by  
Booth, Garrett & Blair,  
Philadelphia, Pa.

Dec. 14, 1906

Dec. 13, 1906.

Mr. Charles M. Taylor, Jr., - *Is this the former Mine Co. deceased?*

316 Bourse Bldg., Phila.

Dear Sir:-

On the return of our Mr. Whitfield from Arizona where he spent three days, December 6th, 7th and 8th, accompanied by you, in inspecting the work done on the Derby Mine since his last visit in November, 1905, he has the following to report as to the present condition of the work and the improvements made in the interval.

From the numerous communications received from Mr. George U. Young it was imagined that an important find was struck on a new ledge and our visit was purposely made at this time to verify this. We found that one of the many small seams or top stringers so abundant on these claims, had been developed by a shaft to a depth of 50 ft. and a drift toward the East at this level, on the seam, for about 40 ft. showing a quartz seam varying from 4" to 10" in width against the North or foot wall and a mud or gouge seam of about 4" against the south or hanging wall, leaving a rock mass of approximately 24" between them. These two seams, of course, continuing upward to the surface which at the tunnel face represented 60-65 ft. and downward to unknown depth.

During our stay of three days the face of the drift was advanced 9 ft. by three shots and showed the rock mass between the seams to be lessening by reason of the seams coming together and widening. When we left on the morning of Dec. 8th, 1906 the quartz seam had an average width of 9" and the mud seam had developed into a mass of disintegrated quartz and rock of about 12" in width. From experience in these matters we would look for the coming together of the two seams at a few feet further advance when the rock separation would be eliminated and the seams then approximate 16" to 20" in thickness. As at this

level this seam will run out of the hillside toward the East at about 100 ft. further, it is advised that work be continued until this point is reached as the labor will be greatly lessened by the discharge of ore and waste material from the mouth of the tunnel on the hillside instead of having to raise it by the horse-whim now used at the mouth of the shaft. Then the sinking of a winz at any desirable point on the seam can be carried on with comparatively little expense.

From this working there has been taken about 40 tons of fine ore of a minimum value of \$30.00 per ton and some of it running over \$60.00 per ton, and as in three days some eight tons of ore were taken from the shaft, this at a value of \$30.00 per ton, would represent \$240.00 for three days work at a cost of production of, say, \$23.00, and if this ore was milled at an additional expense of one dollar per ton, the entire cost of reclaiming \$240.00 would be \$31.00, leaving a profit of approximately \$200.00 for three days work, which we consider as a very fair profit for the amount of expenditure, and considering further that the 40 tons of selected ore have a value of from \$1200.00 to \$2500.00 the profit that would be derived from the milling of this ore would more than warrant the apparent great estimate of Mr. Young as the ore in place between the working level and the surface, at the time of our visit would be worth by actual calculation at a value of \$30.00 per ton, \$3000.00.

This seam that is at present being worked in a very small way is on the "Italian" claim and is an up-thrust through, and directly across the formation of rock forming the hill on which the Derby camp is situated and as its general direction is parallel to the vein on which the original Derby workings have been done on the "Puritan" claim and the dip of this seam and the

one in the old mine is such as to bring them together at a greater depth, rather than to separate them, we are of the opinion that where they join will be found the main ore body of this section. This idea is also supported by the fact that the natural contour of the hill shows that, toward the North and toward the South, the ore seams are supported by rock walls of great thickness between which for a distance of some 200 ft. there are numerous outcroppings of gold bearing quartz all trending in the same direction and dipping at about the same angle, while bordering this section on the South across the "Iona" claim which at present is not held by you but can be bonded at no expense, is a hill formed by rock dipping toward the South at an angle of 50° or in the opposite direction from those to the North. This fact together with the presence of an immense iron dyke occurring immediately to the north of this latter formation and parallel to the general trend of the ore veins confirms us in the opinion that the great mass of gold bearing material is contained between this point toward the South and the railroad toward the North, while the great profits which have been derived from former placer work within the confines of this gulch also prove that there is a large amount of gold bearing rock in this locality, and we feel confident that east and west from the "saddle" on which the Derby Camp is situated will eventually prove to be the great gold producing point of this section.

Taking in consideration the present conditions of the property we would say that, although no great amount of work has been done since our last visit, the indications are that the property is of considerable value and should, if worked, make a profitable return for all money so far advanced or if sold on its merits should realize for you at least \$250,000.00 for the few immediate claims adjoining the present workings. By this we mean,

that after satisfying all outstanding debts it would be advisable to sell only such claims as pertain especially to the land now being worked together with those on which the former work was done.

We find that during the past year Mr. Young has secured for your interest 18 claims embracing all the land between the 17 claims of the Derby Co. and the track of the St. Fe, P. & P. R.R. one and one-half miles toward the North from the Camp and on which there are numerous test pits and development shafts which from a very superficial examination are apparently of considerable value but which on further development may prove of great value and could be sold in lots at your convenience or if preferred, worked to an advantage. The only expense to be incurred in order to hold these claims until January, 1908 being the assessment work amounting to \$100.00 per claim, and in doing this work it will be learned whether or not the different claims are worth holding but the fact that by retaining these claims you hold the key to the railroad facilities of the entire group including the Derby should not be overlooked.

In conclusion we wish to say that although no great progress has been made in the development of this section during the past year, we are still of the opinion that this property is well worth holding and will eventually repay you for the trouble and expense you have seen fit to take upon yourself.

Respectfully submitted,

Booth, Garrett & Blair

J. E. Whitfield

COPY

WICKENBURG & PRESCOTT ORE MARKET  
Operated By

Wm. L. "Bill" Branch

BILL & JACK  
November 21, 1936

J. W. "Jack" Branch

Settlement for lot No. 1115  
Classification: Ore

Shipper: Mary Ellen Young  
Address: 623 N. 6th Street, Phoenix Ariz.

Net weight of lot: 5602 lbs.  
Moisture: 4.4 percent: 246 lbs.

Name of Claim: Derby Mine  
Mining District: Thumb Butte  
County: Yavapai

Net dry weight: 5236 lbs.

Equivalent in tons (2000 lbs); 2.618 Tons

PAYMENTS PER TON

Assay	Amount	Paid For	Rate	Value
Gold; 2.68 ozs.	All -	2.68 oz at	\$ 32.20	\$ 86.30
Silver 0.90 ozs	nsv.	oz at		
Copper: Pct.		lbs at		
Lead: Pct.		lbs at		

Value per ton at shipping point: \$ 86.30

Freight Rate per ton:	\$ 5.75
Smelter-Treatment per ton:	6.00
	<u>\$ 11.75</u>
Net smelter value per dry ton:	\$ 74.55

Total net smelter value of 2.618 Net Dry tons at \$ 74.55 \$ 195.17

Brokerage:	\$ 19.52
Sampling- Assaying:	4.50
	<u>\$ 24.02</u>
	\$ 24.02

Approved By: (SGD) J. W. Branch Net Amount Due Shipper: \$ 171.15

C O P Y

W KENBURG & PRESCOTT ORE MARKERS

Operated By  
BILL & JACK  
Dec. 12, 1936

Wm. L. "Bill" Branch

J. W. "Jack" Branch

Settlement for Lot No. 1215  
Classification: Concentrate

Shipper: Mary Ellen Young  
Address: 623 N. 6th. St., Phoenix, Arizona

Net weight of Lot: 6907 lbs.  
Moisture: 2.4 percent: 165 lbs.

Name of Claim: Derby Mine  
Mining District: Thumb Butte  
County: Yavapai

Net dry weight: 6742 lbs.

Equivalent in tons (2000 Lbs.): 3.371

Assay	PAYMENTS PER TON				Value
	Amount Paid For		Rate		
Gold: 1.20 ozs.	All	- 1.20	oz at \$ 32.20	\$ 38.64	
Silver: 1.60 ozs.	95%	- 1.5	oz at .44	.66	
Copper: Pct.			lbs. at		
Lead: Pct.			lbs. at		

Value per ton at shipping point: \$ 39.30

Freight Rate per ton:	\$4.00	
Smelter-Treatment per ton:	<u>5.93</u>	
	\$9.93	\$ 9.93
Net smelter value per dry ton:		<u>\$ 29.37</u>

Total net smelter value of 3.371 Net Dry Tons at \$ 29.37 \$ 99.01

Brokerage:	\$ 9.90	
Sampling-Assaying:	4.92	
	<u>\$ 14.82</u>	\$14.82

Approved By:	Net Amount Due Shipper:	\$ <u>84.19</u>
Hauling to Kelley 3.475 gross tons (including sax)		
@ \$ 2.50		<u>8.68</u>
Balance due shipper:		\$ 75.51

WICKENBURG & PRESCOTT ORE MARKETS

J. W. "Jack" Branch

Aug. 14, 1937

Settlement for Lot No. 265  
Classification: Concentrate

Shipper: Mary Ellen Young  
Address: 623 N. 6th. St., Phoenix, Arizona

Net weight of Lot: 2950 lbs.  
Moisture: 4.4 percent: 130 Lbs.

Name of Claim: Derby Mine  
Mining District: Thumb Butte  
County: Yavapai

Net dry weight: 2820 Lbs.

Equivalent in tons (2000 lbs.): 1.41 Tons

PAYMENTS PER TON

Assay	Amount	Paid For	Rate	Value
Gold: 1.20 ozs.	All	- 1.20 oz at \$	32.20	\$ 38.64
Silver: 1.00 ozs.	no pay			
Copper: 3.20 Pct.		41.8 lbs. at	.10669	4.46
Lead: Pct.				

Value per ton at shipping Point \$ 43.10

Freight Rate per ton: \$ 4.15  
Smelter-Treatment per ton: 6.00  
\$10.15

Net smelter value per dry ton: \$ 10.15  
\$ 32.95

Total net smelter value of 1.41 Net Dry Tons at \$ 32.95 \$46.46

Brokerate: \$ 4.65  
Sampling-Assaying: 4.75

\$ 9.40      \$9.40

Net Amount Due Shipper: \$ 37.06

Approved by: \_\_\_\_\_

H. C. Smoot  
 Chemist and Assayer  
 Registration No. 460

CUSTOM ASSAY OFFICE  
 ASSAY CERTIFICATE

C  
 O  
 P  
 Y

For Geo. U. Young Prescott, Arizona 8-23-37

Description	Gold per Ton		Silver per Ton		Gold and Silver Value	Other Metals	
	ozs. Troy	Value	Ozs. Troy	Value		Per cent	Value
SAMPLE	.36	\$ 12.60	1.5	\$ 1.16	13.76		
Assay picked by Mr. Fennell from mill fines vien in upper drift under house. Width of vein 10" wide.							

MARKET VALUES

Gold per oz	Silver per oz.	Copper Per Lb.	Leads Per Lb	Zinc Per Lb	Charges \$
35.00	.77				1.25

(SGD) H. C. SMOOT

H. C. Smoot  
 Chemist and Assayer  
 Registration No. 460

CUSTOM ASSAY OFFICE  
 ASSAY CERTIFICATE

C  
 O  
 P  
 Y

For Geo. U. Young Prescott, Arizona 7-31-37

Description	Gold per Ton		Silver per Ton		Gold and Silver Value	Other Metals	
	ozs. Troy	Value	ozs. Troy	Value		Per cent	Values
Sample	.59	\$ 20.65	2.0	\$ 1.55	22.50		
Assay from upper tunnel under house shipping ore width of vein 5" Assay taken by Mr. Fennell							

MARKET VALUES

GOLD PER OZ	SILVER PER OZ	COPPER PER LB	LEAD PER LB	ZINC PER LB	Charges \$
35.00	.77				1.25

(SGD) H. C. SMOOT

December 30, 1909.

The property is situated six miles west of Prescott, Yavapai County, Arizona, and about a mile and one half from Summit Station ( at present called Prieta) on the St. Fe., P. & P. Railroad which is the nearest railroad point. The mine was formerly known as the "Derby" but since the present owners have taken over all holdings of this old Co. it is at present called the Madiselle Mining Company.

Disregarding all geological and technical points contained in two early reports made by me to the present owners, I will say that the property consisted originally of 18 twenty acre claims, and that on my second visit in Dec. 1906, I advised the taking up of eight more claims so that the property would be connected with the railroad, so that at present the plat consists of twenty-five claims on each of which there is a well defined metal bearing vein, but practical development work has been done only on two adjoining claims known as the "Puritan" and the "Italian". At the time of my first visit in Nov. 1905, there was a shaft 200 ft. deep on the Puritan claim with a drift of 700 ft. towards the east at the 100 ft. level, below this the shaft was full of water. Work was then being carried on about midway on the 700 ft. drift in sinking a winze which was then 20 feet deep and showed a 24 inch vein of ore which assayed some \$40.00 per ton. The average assay of the whole distance of the 700 feet on this drift was \$7.00 in Gold with some Silver and Copper.

At this time there was on the property a five stamp mill, amalgamating plate, a concentrating table, and boilers and engine enough to furnish power for a mill twice this size. There was also a shaft house furnished with boiler, automatic hoist and air compressor. The camp consisted of bunk house, dining room and kitchen, a small comfortable house for the Manager and his family, besides store houses, stables, etc.

My next visit to this property was in Dec. 1906. when I found that a shaft had been sunk on a small surface vein showing on the Italian claim adjacent to the Puritan claim, and at the top of the hill on which the camp was situated, some 250 feet above the opening of the shaft on the Puritan claim. Work at this point was carried on for about a year,

and a shaft of a depth of 365 feet was sunk. At the 50 foot level there is a drift of about 400 feet in length which passes through the hill from the west to the east. This work is all in oxidized ore, and some of the values are exceptionally high. In two or three places samples taken by myself and assayed here in Philadelphia showed from four to five thousand dollars per ton in Gold alone, and there is very little Copper showing. This vein on the Italian claim stands almost perpendicular, with a slight dip towards the one on the Puritan claim, and I anticipate at about the 600 foot level they will be pretty nearly together. There are drifts of from fifty to one hundred feet at the 100 and the 150 foot levels, all showing good oxidized ore of fair quality. An Exhaustive sampling of the ore taken from this working and piled on the surface gave, 18 months ago, a minimum value of \$60.00 per ton in Gold alone, so that at this value if the vein matter averaged 6" in width for 400 feet: from the 100foot level to the surface, taking only 50 feet to compensate for the curve of the surface, there would be approximately \$40,009.00 in this space alone, while at the same time we know that the ore will run any where from \$60.00 to \$4,000.00 per ton and that the seams are all over 6" in width, while the distance is considerably more than 400 feet on this level. Our estimate is therefore extremely conservative. This shaft is fitted with a gasoline hoist and being kept free from water is in shape to resume working at a moment's notice.

When the Italian shaft had reached a depth of 365 feet it was decided to rest the work here and proceed with work on the Puritan or lower claim, and since that time the shaft has been put down to 356 ft. The shaft is made 7' x 9' or 4' x 7' clear of timbers, fully timbered, lined with 1" boards, and completely lagged with both sawed and split lagging. There is at present 557 feet of drift on the 300 foot level. The camp has been improved by new buildings and the installation of three fire hydrants on a pipe line connected with two new gasoline engines which pump water through this line of pipe at a good pressure for fire purposes. An excellent wagon road with very greatly reduced grades has been constructed connecting the camp with the railroad station.

The ore shows in lenses and pipes on the 100 foot level in this work and they are well defined. On the 300 foot level these lenses have increased to four feet in width absolutely proving the unusually rapid

3.

widening of these lenses as greater depth is attained, and this is further verified by following these veins toward the west, across two and one half claims to a point on the railroad where the mine known as "Martins Wonder" has been open for some time, and showed at my last visit a working ledge of some 18 feet in width, and as this point would be about 600 feet below the top of the hill at the "Derby" camp, we have imagined that a depth of 600 feet would be necessary before the large deposit of was reached. Again about one mile toward the east is the "Derby" claim of this group, on which at 30 feet is a well developed 4 foot wide deposit of Copper Sulphide of rich value, which is traced from the Puritan workings with only two slight breaks in this whole distance.

On all the claims comprising this property there has been assessment work done sufficient to prove the value of each deposit. Some of them are in oxidized ore, but most are the characteristic chalcopyrite of this district, to which all the surface ore eventually will lead when sufficient depth is attained. The majority of the veins showing on the surface trend S.E. and N.W., but there is a large North and South vein which cuts this property and can be traced from south of the camp to the railroad, a distance of approximately two miles. Besides this, the surface of the ground seems to be made up of a net work of stringers and veins from all of which good values can be obtained, and from which the flint that has been taken by the many placer workers in the canyons both to the east and west of this location for many years originated.

A report of a competent engineer's investigation of this property would naturally convey to you <sup>a</sup> better idea of the amount of development work which has been done on these two claims of the group than any I could get together at this time for your information, but I will say that there has been approximately \$100,000.00 put into the development of these two claims alone, and which I consider has been expended to a very good purpose in showing that the veins are increasing rapidly as increased depth and also proving more valuable.

The property is in charge of Mr. Geo. U. Young, one of the owners, whose address is Phoenix, Arizona. Mr. Young has a superintendent and six men working on the property now, and I understand visits there himself twice each month.

Yours very truly,  
(sgd) J. Edward Whitfield

DIZELLE MINING COMPANY

Following in a partial list of samples taken during development work from July 6, 1904 to October 16, 1909.

THIS CERTIFIES that the sampler of ore assayed for Geo. U. Young yielded the following results, per ton, of 2000 pounds:

		Gold Oz.	Value	Silver Oz.	Value	Copper%	Total
July 6, 1904	#1	none		none			
	#2	"		"			
	#3	0.20	\$4.13	trace			\$4.13
July 8, 1904	#1	trace		4.80	\$2.40		2.40
	#2	0.10	2.06	4.80	2.40		2.46
	#3	trace		trace			
	#4	0.15	3.10	20.00	10.00		13.10
13, "	#1	0.28	5.78	0.20	.10		5.88
	#2	trace		trace			
Dec., 17, 1904	#1	none		none			
	#2	"		"			
	#3	"		"			
	#4	"		"			
	#5	"		"		none	
	#6	trace		trace			
	#7	"		"			
	#8	0.08	1.65	"			1.65
	#9	none		none			
	#10	trace		trace			
19, "	#1	"		"			
	#2	"		"			
	#3	"		"			
	#4	0.04	0.82	"			0.82
	#5	trace		trace			
	#6	"		"			
	#7	"		"			
	#8	0.06	1.24	"			1.24
Drift	#1	trace		trace			
"	#2	"		"			
"	#3	"		"			
"	#4	"		"			
"	#5	none		none			
"	#6	"		"			
"	#7	"		"			
Dec. 24,	#1	trace		trace		trace	
	#2	"		"		"	
	#3	"		"		"	
Dec. 29,	#1	0.10	2.06	17.60	10.56	"	12.62
	#2	0.42	8.68	199.60	119.76		128.44
	#3	0.38	7.85	86.30	51.78		59.63
	#4	0.30	6.20	41.70	25.02		31.22
	#5	0.72	14.88	119.50	71.70		86.58
	#6	0.70	14.46	176.70	106.02		120.48
	#7	0.66	14.05	272.20	163.32		117.37
	#8	0.76	15.70	203.00	121.80		137.50
	#9	0.12	2.48	72.30	43.38		45.86
Jan. 16, 1905	#1	1.56	32.24	0.70	0.42		32.66
	#2	1.60	33.07	0.40	0.24		33.31
	#3	trace		trace			
20, "	#1	3.60	74.41	0.40	0.24		74.65
	#2	0.20	4.13	0.40	0.24		4.37
	#3	0.26	5.37	0.30	0.18		5.55
	#4	trace		trace			
	#5	3.92	81.03	0.50	0.30		81.33
	#6	trace		trace			
	#7	0.28	5.78	"			5.78

5.

Jan. 28, 1905	#1	0.62	13.81	0.20	0.12	\$	12.93
	#2	0.68	14.05	1.40	0.84		14.89
	#3	1.00	20.67	1.60	0.96		21.63
	#4	5.80	119.89	1.00	0.60		120.49
	#5	0.96	19.84	1.90	1.14		20.98
	#6	4.64	95.91	0.60	0.36		92.67
Feb. 1, 1905	#1	trace		2.60	1.56	15%	31.56
	#2	1.72	35.55	0.30	0.15	trace	35.70
	#3	1.20	24.80	6.80	4.08	14%	58.08
	#4	3.46	71.52	trace		trace	71.52
	#5	0.22	4.54	"		9.7%	23.94
Feb. 6, 1915	#1	0.20	4.13	132.00	79.20		83.33
	#2	trace		2.80	1.68		1.68
	#3	"		2.90	1.74		1.74
	#4	"		0.24	0.24		0.24
17,	#1	"		2.20	1.32	10.0%	21.32
	#2	"		3.00	1.80	5.6%	13.00
18,	#3	"		113.20	67.92		67.92
	#2	"		1.40	0.84		0.84
Mar. 17	#1	2.30	47.54	0.70	0.42		47.96
	#2	1.04	21.50	2.20	1.32	10.0%	21.32
	#3	trace		0.40	0.34		0.24
	#4	"		0.30	0.18		0.18
31	#1	"		5.50	3.30	13.8%	30.90
	#2	"		6.50	3.90	15.3%	34.50
	#3	0.95	19.63	5.10	3.06	18.0%	58.69
Apr. 22	#1	trace		1.00	0.60		0.60
	#2	1.70	33.13	0.70	0.42		35.55
	#3	1.00	20.67	0.30	0.18		20.85
May 6,	#1	0.46	9.50				9.50
	#2	0.20	4.13				4.13
	#3	0.32	6.61				6.61
	#4	0.26	5.37				5.37
	#5	0.16	3.30				3.30
June 26	#1	trace					
	#2	1.49	30.80	1.00	0.60		31.40
	#3	0.10	2.06				2.06
Sept. 15	#1	1.30	26.86	5.70	3.42	36.2%	103.69
Oct. 16	#1	0.84	17.36	3.80	2.28	5.4%	19.64
Oct. 27, 1906	#1	0.28	5.78	9.90	0.63		6.41
	#2	1.44	29.76	1.20	0.84		30.60
	#3	1.55	31.00	1.30	0.91		31.91
	#4	0.76	15.71	1.10	0.77		16.48
	#5	2.20	45.47	1.40	0.98		46.45
30	#1	1.00	20.57	1.20	0.84		21.51
	#2	0.61	12.60	0.80	0.56		13.16
	#3	0.46	9.50	0.80	0.56		10.06
	#4	0.08	1.65	0.60	0.42		2.07
Nov. 16	#1	0.60	12.40	1.40	0.98		13.38
	#2	2.90	56.94	0.90	0.63		60.57
	#3	2.00	41.34	0.50	0.35		41.69
	#4	0.10	2.06	trace			2.06
19	#1	5.72	118.24	1.70	1.19		119.43
	#2	9.40	194.31	3.40	2.38		196.69
	#3	1.28	26.46	0.40	0.28		26.74
	#4	1.10	22.73	trace			22.73
21	#1	10.80	223.26	3.60	2.52		325.78
	#2	3.91	80.82	1.10	0.77		81.59
	#3	5.82	120.31	1.60	1.12		121.43
	#4	2.00	41.34	1.20	0.84		42.81
	#5	2.21	45.58	0.60	0.42		46.10
	#6	0.92	19.01	trace			19.01
26	#1	1.50	31.00	1.70	1.19		32.19

From Certificate of Assay - Bamharts Ass. Office  
 Pres. Arizona

COPY

THIS CERTIFIES that the samples of ore assayed for Geo. U. Young yielded the following results, per ton of 2,000 pounds:

	Gold oz.	Value	Silver oz.	Value	Copper %	Total
May 12, 1909	#1-1.00	\$20.67	0.10	.05		\$20.72
	#2-0.82	16.95	0.10	.05		17.00
	#3-0.41	8.47	trace			8.47
	#4-0.49	10.12	0.20	.10		10.22
April 24, "	#1-1.12	23.15	0.50	.25		23.40
17 "	#1-0.62	12.81	0.10	.05		12.86
	#2-0.46	9.50	0.10	.05		9.55
12 "	#1-1.90	39.27	2.50	1.25		40.52
	#2-0.26	5.37	0.30	.15		5.52
	#3-15.64	323.31	2.00	1.00		324.31
	#4-6.51	134.57	1.70	.85		135.42
	#5-0.16	3.30	0.70	.35		3.65
July 15, 1904	#1-None		None			
	#2- "		"			
	#3-0.20	4.13	trace			4.13
July 8 "	#1-Trace		4.80	\$2.40		2.40
	#2-0.10	2.06	4.80	2.40		4.46
	#3-Trace		trace			
	#4-0.15	3.10	20.00	10.00		13.10
13 "	#1-0.28	5.78	0.20	.10		5.88
	#2-Trace		trace			
Dec. 17 "	#1-None		none			
	#2- "		"			
	#3- "		"			
	#4- "		"			
	#5- "		"		None	
	#6-Trace		trace			
	#7- "		"			
	#8-0.08	1.65	"			1.65
	#9-None		none			
	#10-Trace		trace			
Dec. 19 "	#1- "		"			
	#2- "		"			
	#3- "		"			
	#4-0.04	0.82	"			0.82
	#5-Trace		trace			
	#6- "		"			
	#7- "		"			
	#8-0.06	1.24	"			1.24
Drift	#9-Trace		trace			
"	#2- "		"			
"	#3- "		"			
"	#4- "		"			
"	#5-None		None			
"	#6- "		"			
"	#7- "		"			
Dec. 24	#1-Trace		Trace		Trace	
	#2- "		"		"	
	#3- "		"		"	
29	#1-0.10	\$2.06	17.60	\$10.56		12.62
	#2-0.42	8.68	199.60	199.76		128.44
	#3-0.38	7.85	86.30	51.78		59.63
	#4-0.30	6.20	41.70	25.02		31.22
	#5-0.72	14.88	119.50	71.70		86.58
	#6-0.70	14.46	176.70	106.02		120.48
	#7-0.68	14.05	274.20	163.32		177.37
	#8-0.76	15.70	203.00	121.80		137.50
	#9-0.12	2.48	72.30	43.38		45.86
Jan. 16, 1905	#1-1.56	32.24	0.70	0.42		32.66
	#2-1.60	33.07	0.40	0.24		33.31
	#3-Trace		trace			

Jan. 20, 1905	#1-	3.60	\$74.41	0.40	\$0.24		\$74.65
	#2-	0.20	4.13	0.40	0.24		4.37
	#3-	0.26	5.37	0.30	0.18		5.55
	#4-	Trace		Trace			
	#5-	3.92	81.03	0.50	0.30		81.33
	#6-	Trace		Trace			
	#7-	0.28	5.78				5.78
28	#1-	0.62	12.81	0.20	0.12		12.93
	#2-	0.68	14.05	1.40	0.84		14.89
	#3-	1.00	20.67	1.60	0.96		21.63
	#4-	5.80	119.80	1.00	0.60		120.49
	#5-	0.96	19.84	1.90	1.14		20.98
	#6-	4.64	95.91	0.60	0.36		96.27
Feb. 1	#1-	Trace		2.60	1.56	15.0%	31.56
	#2-	1.72	35.55	0.30	0.15	Trace	35.70
	#3-	1.20	24.80	6.80	4.08	14.6%	58.08
	#4-	3.46	71.52	Trace		Trace	71.52
	#5-	0.22	4.54	"		9.7%	23.94
" 6	#1-	0.20	4.12	132.00	79.20		83.33
	#2-	Trace		2.80	1.68		1.68
	#3-	"		2.90	1.74		1.74
	#4-	"		0.40	0.24		0.24
" 17	#1-	"		2.20	1.32	10.0%	21.32
	#2-	"		3.00	1.80	5.6%	13.00
	#3-	"		3.60	2.16	5.8%	13.76
" 18	#1-	"		113.20	67.92		67.92
	#2-	"		1.40	0.84		0.84
Mar. 17	#1-	2.30	47.54	0.70	0.42		47.96
	#2-	1.04	21.50	2.20	1.32		22.82
	#3-	Trace		0.40	0.24		0.24
	#4-	"		0.30	0.18		0.18
" 31.	#1-	"		5.50	3.30	13.8%	30.90
	#2-	"		6.50	3.90	15.3%	34.50
	#3-	0.95	19.63	5.10	3.06	18.0%	58.69
Apr. 22	#1-	Trace		1.00	0.60		0.60
	#2-	1.70	35.13	0.70	0.42		35.55
	#3-	1.00	20.67	0.30	0.18		20.85
May 6	#1-	0.46	9.50				9.50
	#2-	0.20	4.13				4.13
	#3-	0.32	6.61				6.61
	#4-	0.26	5.37				5.37
	#5-	0.16	3.30				3.30
June 26	#1-	Trace					
	#2-	1.49	30.80	1.00	0.60		31.40
	#3-	0.10	2.06				2.06
Sept. 15	#1-	1.30	26.87	5.70	3.42	36.2%	102.69
Oct. 16	#1-	0.84	17.36	3.80	2.28	5.4%	19.64
" 27, 1906	#1-	0.28	5.78	0.90	0.63		6.41
	#2-	1.44	29.76	1.20	0.84		30.60
	#3-	1.50	31.00	1.30	0.91		31.91
	#4-	0.76	15.71	1.10	0.77		16.48
	#5-	2.20	45.47	1.40	0.98		46.45
Oct. 30, 1906	#1-	1.00	20.67	1.20	0.84		21.51
	#2-	0.61	12.60	0.80	0.56		13.16
	#3-	0.46	9.50	0.80	0.56		10.06
	#4-	0.08	1.65	0.60	0.42		2.07
Nov. 15	#1-	0.60	12.40	1.40	0.98		13.38
	#2-	2.90	59.94	0.90	0.65		60.57
	#3-	2.00	41.34	0.50	0.35		41.69
	#4-	0.10	2.06	Trace			2.06
" 19	#1-	5.72	118.24	1.70	1.19		119.43
	#2-	9.40	194.31	3.40	2.38		196.69
	#3-	1.28	26.46	0.40	0.28		26.74
	#4-	1.10	22.73	Trace			22.73

Nov. 21, 1906	#1	10.80	\$223.26	3.60	\$2.52		\$225.78
	#2	3.91	80.82	1.10	0.77		81.59
	#3	5.82	120.31	1.60	1.12		121.43
	#4	2.00	41.34	1.20	0.84		42.18
	#5	2.21	45.58	0.60	0.42		46.10
	#6	0.92	19.01	Trace			19.01
" 26	#1	1.50	31.00	1.70	1.19		<del>32.19</del>
Dec. 14 "	#1	10.21	211.05	2.60	1.82		212.87
May 24, 1907	#1	0.10	2.06	Trace			2.06
	#2	0.16	3.30	"			3.30
	#3	1.32	27.28	0.90	0.58		27.86
	#4	2.36	48.78	1.70	1.10		49.88
	#5	0.36	7.44				7.44
	#6	0.56	11.57	0.10	0.06		11.63
	#7	Trace			Trace		
	#8	2.72	56.22	1.70	1.10		57.32
	#9	1.52	31.42	1.30	0.84		32.26
	#10	Trace		Trace			
	#11	0.36	7.44				7.44
June 15 "	#1	1.30	26.87	0.70	0.46		27.33
	#2	9.83	203.20	2.40	1.58		204.78
	#3	12.42	256.74	3.00	1.98	5.6%	281.12
	#4	1.12	23.15	1.20	0.79	2.0%	31.94
Mar. 18, 1908	#1	1.80	37.20	1.00	0.50		37.70
	#2	0.16	3.30	2.00	1.05		4.35
	#3	0.22	4.54	0.60	0.30		4.84
Jan. 25, 1909	#1	0.08	1.65	Trace			1.65
	#2	2.20	45.47	1.80	0.90		46.37
	#3	3.28	67.80	1.40	0.70		68.50
	#4	0.47	9.71	0.80	0.40		10.11
Feb. 15, "	#5	0.08	1.65	0.60	0.30		1.95
	#2	Trace		Trace			
" 23 "	#1	0.28	5.78	0.40	0.20		5.98
	#2	Trace		Trace			
Mar. 26 "	#1	0.46	9.50	0.60	0.30		9.80
	#2	0.40	8.26	0.40	0.20		8.46
Apr. 12 "	#1	1.90	39.27	2.50	1.25		40.52
	#2	0.26	5.37	0.30	0.15		5.52
	#3	6.51	134.57	1.70	0.85		135.42
	#4	0.16	3.30	0.70	0.35		3.65
" 17 "	#1	0.62	12.81	0.10	0.05		12.86
	#2	0.46	9.50	0.10	0.05		9.55
" 24 "	#1	1.12	23.15	0.50	0.25		23.40
May 12 "	#1	1.00	20.67	0.10	0.05		20.72
	#2	0.82	16.95	0.10	0.05		17.00
	#3	0.41	8.47	Trace			8.47
	#4	0.49	10.12	0.20	0.10		10.22
Sept. 16, "	#1	0.05	1.03	Trace			1.03
	#2	0.04	0.82	"			0.82
	#3	0.22	4.54	"			4.54
	#4	Trace		"			
	#5	0.06	\$ 1.24	"			1.24

Sample Number	Owner's mark	oz.	Gold Value	oz.	Silver Value	Total Value \$ Cts.
555	#8	.48	\$9.91	.60	\$0.30	10.22
556	#9	.08	1.65	3.40	1.70	3.35

Geo. W. Sarano Assayer.

No. 590

P R E S C O T T - A S S A Y - O F F I C E.

Metallurgical and Chemical Laboratory

Prescott, Arizona, Oct. 10th, 1902.

THIS CERTIFIES that the sample assayed for THE SOUTHWESTERN

EXPLORATION AND DEVELOPMENT COMPANY

yielded the following results per ton of 2,000 lbs.

Owner's Mark "PURITAN MINE"

GOLD....48.80.....Ozs., Value, \$1008.69

SILVER...9.00.....Ozs., Value, \$ 4.50

LEAD.....Ozs., Value, \$ \_\_\_\_\_

COPPER.....Ozs., Value, \$ \_\_\_\_\_

TOTAL VALUE . . . . . \$1013.19

Assayer Geo. W. Sarano.

BOARD OF GOVERNORS:  
CHARLES F. WILLIS, PHOENIX  
CHAIRMAN  
DR. N. H. MORRISON, PHOENIX  
VICE-CHAIRMAN

SHELTON G. DOWELL, DOUGLAS  
J. HUBERT SMITH, KINGMAN  
LLOYD C. EDMONSON, GLOBE

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
CAPITOL BUILDING  
PHOENIX, ARIZONA



J. S. COUPAL, PHOENIX  
DIRECTOR

W. J. GRAHAM, PHOENIX  
ASSISTANT TO THE DIRECTOR  
AND SECRETARY TO THE  
BOARD OF GOVERNORS

FIELD OFFICES AT  
GLOBE - KINGMAN  
PRESCOTT - TUCSON

19 August 1941

REPLY TO

Mr. George U. Young, Jr.,  
623 North 6th Street,  
Phoenix, Arizona.

My dear Mr. Young:

I am enclosing herewith for your records a copy of Mine Owners Report which you have filed with the Department of Mineral Resources covering your property.

Any time that you have additional information on this property, I should suggest that you forward it to this office for our records,

I shall be glad to submit this report to anyone making inquiry for a property such as yours.

Assuring you of my desire to be helpful, and with best wishes, I am

Yours very truly,

*J. S. Coupal*  
J. S. Coupal  
Director.

JSC-jrf

*James*

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
OWNERS MINE REPORT

Date January 20, 1940

Mine Derby Mine  
District - Thumb Butte District Location - Prescott, Arizona  
Yavapai County  
Former Name - Madizelle Mining Company  
Owner - Mary Ellen Young Address - 623 North 6th Street  
Phoenix, Arizona  
Operator - Mary Ellen Young Address - Same  
President - Mary Ellen Young Gen. Mgr. - None  
Mine Supt. - None Mill Supt. - None  
Principal Metals - Gold, Silver and Copper Men Employed - None  
Production Rate - None Mill: Type & Cap. - None  
Power: Amt. & Type - None  
Operations: Present - None

Operations Planned - None

Number Claims, Title, etc. - 25 patented mining claims.

Description: Topography & Geography - See reports by Booth, Garrett & Blair.

Mine Workings: Amt. & Condition - One shaft 500 ft.  
One shaft 300 ft.  
Intermediate levels and crosscuts  
Numerous prospect holes on other claims.

SIGNED - Mary Ellen Young  
By Geo. J. Young, Jr.

Geology & Mineralization - See attached report by Booth, Garrett & Blair.

Date January 20, 1940

Ore: Positive & Probable, Ore Dumps, Tailings - Property was closed down in its primary stages of development. (See attached reports)

Mine, Mill Equipment & Flow Sheet - One ten Stamp Mill, fair condition.

Road Conditions, Route - Three miles from Iron Springs highway, mountainous, good road. Eight miles to Prescott, Arizona. Santa Fe R.R. siding, Prieta, 1 1/2 miles from mine camp. Good road.

Water Supply - Drinking water from permanent natural spring, good water. With pumps, pipes and tanks for storage to camp. Mining shafts furnish plenty of water for mill operations.

Brief History - See attached reports.

Special problems, Reports Filed - None

Remarks - This property was operated by the late Geo. U. Young, was closed down in 1909 while in the stages of development. Little or no production. See reports of assays and shipping sheets of Wickenburg & Prescott Ore Markets for values and prospect work carried on in 1936 and 1937.

If property for sale: Price, terms and address to negotiate - Will discuss any reasonable offers, at the following address: Mr. Geo. U. Young, Jr., 623 North 6th Street, Phoenix, Arizona. The originals and maps may be seen at the above address.

SIGNED - Mary Ellen Young.  
By Geo. U. Young, Jr.

December 30, 1909.

The property is situated six miles west of Prescott, Yavapai County, Arizona, and about a mile and one half from Summit Station (at present called Prieta) on the St. Fe. P. & P. Railroad which is the nearest railroad point. The mine was formerly known as the "Derby" but since the present owners have taken over all holdings of this old Co. it is at present called the Madizelle Mining Company.

Disregarding all geological and technical points contained in two early reports made by me to the present owners, I will say that the property consisted originally of 18 twenty acre claims, and that on my second visit in Dec. 1906, I advised the taking up of eight more claims so that the property would be connected with the railroad, so that at present the plat consists of twenty-five claims on each of which there is a well defined metal bearing vein, but practical development work has been done only on two adjoining claims known as the "Puritan" and the "Italian". At the time of my first visit in Nov. 1905, there was a shaft 200 ft. deep on the Puritan claim with a drift of 700 ft. towards the east at the 100 ft. level, below this the shaft was full of water. Work was then being carried on about midway on the 700 ft. drift in sinking a winze which was then 20 feet deep and showed a 24 inch vein of ore which assayed some \$40 per ton. The average assay of the whole distance of the 700 feet on this drift was \$7 in gold with some silver and copper.

At this time there was on the property a five stamp mill, amalgamating plate, a concentrating table, and boilers and engine enough to furnish power for a mill twice this size. There was also a shaft house furnished with boiler, automatic hoist and air compressor. The camp consisted of bunk house, dining room and kitchen, a small comfortable house for the Manager and his family, besides store house, stables, etc.

My next visit to this property was in Dec. 1906, when I found that a shaft had been sunk on a small surface vein showing on the Italian claim adjacent to the Puritan claim, and at the top of the hill on which the camp was situated, some 250 feet above the opening of the shaft on the Puritan claim. Work at this point was carried on for about a year, and a shaft of a depth of 365 feet was sunk. At the 50 foot level there is a drift of about 400 feet in length which passes through the hill from the west to the east. This work is all in oxidized ore, and some of the values are exceptionally high. In two or three places samples taken by myself and assayed here in Philadelphia showed from four to five thousand dollars per ton in gold alone, and there is very little copper showing. This vein on the Italian claim stands almost perpendicular, with a slight dip towards the one on the Puritan claim, and I anticipate at about the 300 foot level they will be pretty nearly together. There are drifts of from fifty to one hundred feet at the 100 and the 150 foot levels, all showing good oxidized ore of fair quality. An exhaustive sampling of the ore taken from this working and piled on the surface gave, 18 months ago, a minimum value of \$60 per ton in Gold alone, so that at this value if the vein matter averaged 6" in width for 400 feet; from the 100 foot level to the surface, taking only 50 feet to compensate for the curve of the surface, there would be approximately \$40,009 in this space alone, while at the same time we know that the ore will run any where from \$60 to \$4,000 per ton and that the seams are all over 6" in width, while the distance is considerably more than 400 feet on this level. Our estimate is therefore extremely conservative. This shaft is fitted with a gasoline hoist and being kept free from water is in shape to resume working at a moment's notice.

When the Italian shaft had reached a depth of 365 feet it was decided to rest the work here and proceed with work on the Puritan or lower claim, and since that time the shaft has been put down to 356 feet. The shaft is made 7' x 9' or 4' x 7' clear of timbers, fully timbered, lined with 1" boards, and completely lagged with both sawed and split lagging. There is at present 557 feet of drift on the 300 foot level. The camp has been improved by new buildings and the installation of three fire hydrants on

(over)

a pipe line connected with two new gasoline engines which pump water through this line of pipe at a good pressure for fire purposes. An excellent wagon road with very great reduced grades has been constructed connecting the camp with the railroad station.

The ore shows in lenses and pipes on the 100 foot level in this work and they are well defined. On the 300 foot level these lenses have increased to four feet in width absolutely proving the unusually rapid widening of these lenses as greater depth is attained, and this is further verified by following these veins toward the west, across two and one half claims to a point on the railroad where the mine known as "Martins Wonder" has been open for some time, and showed at my last visit a working ledge of some 18 feet in width, and as this point would be about 600 feet below the top of the hill at the "Derby" camp, we have imagined that a depth of 600 feet would be necessary before the large deposit of ore was reached. Again about one mile toward the east is the "Derby" claim of this group, on which at 30 feet is a well developed 4 foot wide deposit of copper sulphide of rich value, which is traced from the Puritan workings with only two slight breaks in this whole distance.

On all the claims comprising this property there has been assessment work done sufficient to prove the value of each deposit. Some of them are in oxidized ore, but most are the characteristic chalcopyrite of this district, to which all the surface ore eventually will lead when sufficient depth is attained. The majority of the veins showing on the surface trend SE and NW, but there is a large North and South vein which cuts this property and can be traced from south of the camp to the railroad, a distance of approximately two miles. Besides this, the surface of the ground seems to be made up of a net work of stringers and veins from all of which good values can be obtained, and from which the float that has been taken by the many placer workers in the canyons both to the east and west of this location for many years originated.

A report of a competent engineer's investigation of this property would naturally convey to you a better idea of the amount of development work which has been done on these two claims of the group than any I could get together at this time for your information, but I will say that there has been approximately \$100,000 put into the development of these two claims alone, and which I consider has been expended to a very good purpose in showing that the veins are increasing rapidly as increased depth and also proving more valuable.

The property is in charge of Mr. Geo. U. Young, one of the owners, whose address is Phoenix, Arizona. Mr. Young has a superintendent and six men working on the property now, and I understand visits there himself twice each month.

Yours very truly,

(SIGNED) J. Edward Whitfield

COPY

PROGRESS REPORT ON THE DERBY MINING CLAIMS

Thumb Butte Mining District, Yavapai Co., Arizona, U.S.A.

By

Booth, Garrett & Blair, Philadelphia, Pa.

\*\*\*\*\*

Dec. 13, 1906

Mr. Charles M. Taylor, Jr.,  
316 Bourse Bldg., Phila.

Dear Sir:-

On the return of our Mr. Whitfield from Arizona where he spent three days, December 6th, 7th, and 8th, accompanied by you, in inspecting the work done on the Derby Mine since his last visit in November, 1905, he has the following to report as to the present condition of the work and the improvements made in the interval.

From the numerous communications received from Mr. George U. Young it was imagined that an important find was struck on a new ledge and our visit was purposely made at this time to verify this. We found that one of the many small seams or top stringers so abundant on these claims, had been developed by a shaft to a depth of 50 ft and a drift toward the East at this level, on the seam, for about 40 ft. showing a quartz seam varying from 4" to 10" in width against the north or foot wall and a mud or gouge seam of about 4" against the south or hanging wall, leaving a rock mass of approximately 24" between them. These two seams, of course, continuing upward to the surface which at the tunnel face represented 60-65 ft. and downward to unknown depth.

During our stay of three days the face of the drift was advanced 9 ft. by three shots and showed the rock mass between the seams to be lessening by reason of the seams coming together and widening. When we left on the morning of Dec. 8th, 1906 the quartz seam had an average width of 9" and the mud seam had developed into a mass of disintegrated quartz and rock of about 12" in width. From experience in these matters we would look for the coming together of the two seams at a few feet further advance when the rock separation would be eliminated and the seams then approximate 16" to 20" in thickness. As at this level this seam will run out of the hillside toward the East at about 100 ft. further, it is advised that work be continued until this point is reached as the labor will be greatly lessened by the discharge of ore and waste material from the mouth of the tunnel on the hillside instead of having to raise it by the horse-whim now used at the mouth of the shaft. Then the sinking of a winze at any desirable point on the seam can be carried on with comparatively little expense.

From this working there has been taken about 40 tons of fine ore of a minimum value of \$30 per ton and some of it running over \$60 per ton, and as in three days some eight tons of ore were taken from the shaft, this at a value of \$30 per ton, would represent \$240 for three days work at a cost of production of, say, \$23 and if this ore was milled at an additional expense of one dollar per ton, the entire cost of reclaiming \$240 would be \$31, leaving a profit of approximately \$200 for three days work, which we consider as a very fair profit for the amount of expenditure, and considering further that the 40 tons of selected ore have a value of from \$1200 to \$2500 the profit that would be derived from the milling of this ore would more than warrant the apparent great estimate of Mr. Young as the ore in place between the working level and the surface, at the time of our visit would be worth by actual calculation at a value of \$30 per ton, \$3,000.

This seam that is at present being worked in a very small way is on the "Italian" claim and is an up-thrust through, and directly across the formation of rock forming

the hill on which the Derby camp is situated and as its general direction is parallel to the vein on which the original Derby workings have been done on the "Purtitan" claim and the dip of this seam and the one mine is such as to bring them together at a greater depth, rather than to separate them, we are of the opinion that where they join will be found the main ore body of this section. This idea is also supported by the fact that the natural contour of the hill shows that, toward the North and toward the South, the ore seams are supported by rock walls of great thickness between which for a distance of some 200 ft. there are numerous outcroppings of gold bearing quartz all trending in the same direction and dipping at about the same angle, while bordering this section on the South across the "Iona" claim which at present is not held by you but can be bonded at no expense, is a hill formed by rock dipping toward the South at an angle of 50° or in the opposite direction from those to the North. This fact together with the presence of an immense iron dyke occurring immediately to the north of this latter formation and parallel to the general trend of the ore veins confirms us in the opinion that the great mass of gold bearing material is contained between this point toward the South and the railroad toward the North, while the great profits which have been derived from former placer work within the confines of this gulch also prove that there is a large amount of gold bearing rock in this locality and we feel confident that east and west from the "saddle" on which the Derby Camp is situated will eventually prove to be the great gold producing point of this section.

Taking in consideration the present conditions of the property we would say that, although no great amount of work has been done since our last visit, the indications are that the property is of considerable value and should, if worked, make a profitable return for all money so far advanced or if sold on its merits should realize for you at least \$250,000 for the few immediate claims adjoining the present workings. By this we mean, that after satisfying all outstanding debts it would be advisable to sell only such claims as pertain especially to the land now being worked together with those on which the former work was done.

We find that during the past year Mr. Young has secured for your interest 18 claims embracing all the land between the 17 claims of the Derby Co. and the track of the St. Fe, P. R.R. one and one-half miles toward the North from the Camp and on which there are numerous test pits and development shafts which from a very superficial examination are apparently of considerable value but which on further development may prove of great value and could be sold in lots at your convenience or if preferred, worked to an advantage. The only expense to be incurred in order to hold these claims until January, 1908 being the assessment work amounting to \$100 per claim, and in doing this work it will be learned whether or not the different claims are worth holding but the fact that by retaining these claims you hold the key to the railroad facilities of the entire group including the Derby should not be overlooked.

In conclusion we wish to say that although no great progress has been made in the development of this section during the past year, we are still of the opinion that this property is well worth holding and will eventually repay you for the trouble and expense you have seen fit to take upon yourself.

Respectfully submitted,

Booth, Garrett & Blair

J. E. Whitfield.

COPY

MADIZELLE MINING COMPANY

Following in a partial list of samples taken during development work from July 6, 1904 to October 16 1909.

This certifies that the samples of ore assayed for Geo. U. Young yielded the following results, per ton, of 2000 pounds:

		<u>Gold Oz.</u>	<u>Value</u>	<u>Silver Oz.</u>	<u>Value</u>	<u>Copper %</u>	<u>Total</u>
July 6, 1904	#1	none		none			
	#2	"		"			
	#3	0.20	\$ 4.13	trace			\$ 4.13
July 8, 1904	#1	trace		\$ 4.80	\$ 2.40		2.40
	#2	0.10	2.06	4.80	2.40		2.40
	#3	trace		trace			
	#4	0.15	3.10	20.00	10.00		13.10
July 13, 1904	#1	0.28	5.78	0.20	0.10		5.88
	#2	trace		trace			
Dec. 17, 1904	#1	none		none			
	#2	"		"			
	#3	"		"			
	#4	"		"			
	#5	"		"		none	
	#6	trace		trace			
	#7	"		"			
	#8	0.08	1.65	"			1.65
	#9	none		none			
	#10	trace		trace			
Dec. 19, 1904	#1	"		"			
	#2	"		"			
	#3	"		"			
	#4	0.04	0.82	"			0.82
	#5	trace		trace			
	#6	"		"			
	#7	"		"			
	#8	0.06	1.24	"			1.24
Drift	#1	trace		trace			
"	#2	"		"			
"	#3	"		"			
"	#4	"		"			
"	#5	none		none			
"	#6	"		"			
"	#7	"		"			
Dec. 24, 1904	#1	trace		trace		trace	
	#2	"		"		"	
	#3	"		"		"	
Dec. 29, 1904	#1	0.10	2.06	17.60	10.56	"	12.62
	#2	0.42	8.68	199.60	119.76		128.44
	#3	0.38	7.85	86.30	51.78		59.63
	#4	0.30	6.20	41.70	25.02		31.22
	#5	0.72	14.88	119.50	71.70		86.58
	#6	0.70	14.46	176.70	106.02		120.48
	#7	0.66	14.05	272.20	163.32		117.37
	#8	0.76	15.70	203.00	121.80		137.50
	#9	0.12	2.48	72.30	43.38		45.86
Jan. 16, 1905	#1	1.56	32.24	0.70	0.42		32.66
	#2	1.60	33.07	0.40	0.24		33.31
	#3	trace		trace			

(over)

		Gold Oz.	Value	Silver Oz.	Value	Copper %	Total
Jan. 20, 1905	#1	3.60	\$74.41	0.40	\$ 0.24		\$ 74.65
	#2	0.20	4.13	0.40	0.24		4.37
	#3	0.26	5.37	0.30	0.18		5.55
	#4	trace		trace			
	#5	3.92	81.03	0.50	0.30		81.33
	#6	trace		trace			
	#7	0.28	5.78	"			5.78
Jan. 28, 1905	#1	0.62	13.81	0.20	0.12		12.93
	#2	0.68	14.05	1.40	0.84		14.89
	#3	1.00	20.67	1.60	0.96		21.63
	#4	5.80	119.89	1.00	0.60		120.49
	#5	0.96	19.84	1.90	1.14		20.98
	#6	4.64	95.91	0.60	0.36		92.67
Feb. 1, 1905	#1	trace		2.60	1.56	15%	31.56
	#2	1.72	35.55	0.30	0.15	trace	35.70
	#3	1.20	24.80	6.80	4.08	14%	58.08
	#4	3.46	71.52	trace	trace	trace	71.52
	#5	0.22	4.54	"		9.7%	23.94
Feb. 6, 1915	#1	0.20	4.13	132.00	79.20		83.33
	#2	trace		2.80	1.68		1.68
	#3	"		2.90	1.74		1.74
	#4	"		0.24	0.24		0.24
Feb. 17, 1915	#1	"		2.20	1.32	10.0%	21.32
	#2	"		3.00	1.80	5.6%	13.00
Feb. 18, 1915	#3	"		113.20	67.92		67.92
	#2	"		1.40	0.84		0.84
Mar. 17, 1915	#1	2.30	47.54	0.70	0.42		47.96
	#2	1.40	21.50	2.20	1.32	10.0%	21.32
	#3	trace		0.40	0.34		0.34
	#4	"		0.30	0.18		0.18
Mar. 31, 1915	#1	"		5.50	3.30	13.8%	30.90
	#2	"		6.50	3.90	15.3%	34.50
	#3	0.95	19.63	5.10	3.06	18.0%	58.69
Apr. 22, 1915	#1	trace		1.00	0.60		0.60
	#2	1.72	33.13	0.70	0.42		35.55
	#3	1.00	20.67	0.30	0.18		20.85
May 6, 1915	#1	0.46	9.50				9.50
	#2	0.20	4.13				4.13
	#3	0.32	6.61				6.61
	#4	0.26	5.37				5.37
	#5	0.16	3.30				3.30
June 26, 1915	#1	trace					
	#2	1.49	30.80	1.00	0.60		31.40
	#3	0.10	2.06				2.06
Sept. 15, 1915	#1	1.30	26.86	5.70	3.42	36.2%	103.69
Oct. 16, 1915	#1	0.84	17.36	3.80	2.28	5.4%	19.64
Oct. 27, 1906	#1	0.28	5.78	0.90	0.63		6.41
	#2	1.44	29.76	1.20	0.84		30.60
	#3	1.55	31.00	1.30	0.91		31.91
	#4	0.76	15.71	1.10	0.77		16.48
	#5	2.20	45.47	1.40	0.98		46.45
Oct. 30, 1906	#1	1.00	20.57	1.20	0.84		21.51
	#2	0.61	12.60	0.80	0.56		13.16
	#3	0.46	9.50	0.80	0.56		10.06
	#4	0.08	1.65	0.60	0.42		2.07
Nov. 16, 1906	#1	0.60	12.40	1.40	0.98		13.38
	#2	2.90	56.94	0.90	0.63		60.57
	#3	2.00	41.34	0.50	0.35		41.69
	#4	0.10	2.06	trace			2.06

MADIZELLE MINING COMPANY (Continued)

		<u>Gold Oz.</u>	<u>Value</u>	<u>Silver Oz.</u>	<u>Value</u>	<u>Copper %</u>	<u>Total</u>
Nov. 19, 1906	#1	5.72	\$113.24	1.70	\$ 1.19		\$119.43
	#2	9.40	194.31	3.40	2.38		196.69
	#3	1.28	26.46	0.40	0.28		26.74
	#4	1.10	22.73	trace			22.73
Nov. 21, 1906	#1	10.80	223.26	3.60	2.52		325.78
	#2	3.91	80.82	1.10	0.77		81.59
	#3	5.82	120.31	1.60	1.12		121.43
	#4	2.00	41.34	1.20	0.84		42.81
	#5	2.21	45.58	0.60	0.42		46.10
	#6	0.92	19.01	trace			19.01
Nov. 26, 1906	#1	1.50	31.00	1.70	1.19		32.19

COPY

From Certificates of Assay -- Barnhart's Assay Office  
 Prescott, Arizona.

THIS CERTIFIES that the samples of ore assayed for Geo. U. Young yielded the following results, per ton of 2,000 pounds:

		Gold Oz.	Value	Silver Oz.	Value	Copper %	Total
May 12, 1909	#1	1.00	\$ 20.67	0.10	\$ .05		\$ 20.72
	#2	0.82	16.95	0.10	.05		17.00
	#3	0.41	8.47	trace			8.47
	#4	0.49	10.12	0.20	.10		10.22
April 24, 1909	#1	1.12	23.15	0.50	.25		23.40
April 17, 1909	#1	0.62	12.81	0.10	.05		12.86
	#2	0.46	9.50	0.10	.05		9.55
April 12, 1909	#1	1.90	39.27	2.50	11.25		40.52
	#2	0.26	5.37	0.30	.15		5.52
	#3	15.64	323.31	2.00	1.00		324.31
	#4	6.51	134.57	1.70	.85		135.42
	#5	0.16	3.30	0.70	.35		3.65
July 6, 1904	#1	none		none			
	#2	none		none			
	#3	0.20	4.13	trace			4.13
July 8, 1904	#1	trace		4.80	2.40		2.40
	#2	0.10	2.06	4.80	2.40		4.46
	#3	trace		trace			
	#4	0.15	3.10	20.00	10.00		13.10
July 13, 1904	#1	0.28	5.78	0.20	.10		5.88
	#2	trace		trace			
Dec. 17, 1904	#1	none		none			
	#2	none		none			
	#3	none		none			
	#4	none		none			
	#5	none		none		none	
	#6	trace		trace			
	#7	trace		trace			
	#8	0.08	1.65	trace			1.65
	#9	none		none			
	#10	trace		trace			
Dec. 19, 1904	#1	trace		trace			
	#2	trace		trace			
	#3	trace		trace			
	#4	0.04	0.82				0.82
	#5	trace		trace			
	#6	trace		trace			
	#7	trace		trace			
	#8	0.06	1.24	trace			1.24
	Drift #9	trace		trace			
	Drift #2	trace		trace			
	Drift #3	trace		trace			
	Drift #4	trace		trace			
	Drift #5	none		none			
	Drift #6	none		none			
	Drift #7	none		none			
Dec. 24, 1904	#1	trace		trace		trace	
	#2	trace		trace		trace	
	#3	trace		trace			
Dec. 29, 1904	#1	0.10	2.06	17.60	10.56		12.62
	#2	0.42	8.68	199.60	119.76		128.44
	#3	0.38	7.85	86.30	51.78		59.63

(over)

Date		Gold Oz.	Value	Silver Oz.	Value	Copper %	Total
Dec. 29, 1904	#4	0.30	\$ 6.20	41.70	\$ 25.02		\$ 31.22
	#5	0.72	14.88	119.50	71.70		86.58
	#6	0.70	14.46	176.70	106.02		120.48
	#7	0.68	14.05	276.20	163.32		177.37
	#8	0.76	15.70	203.00	121.80		137.50
	#9	0.12	2.48	72.30	43.38		45.86
Jan. 16, 1905	#1	1.56	32.24	0.70	0.42		32.66
	#2	1.60	33.07	0.40	0.24		33.31
	#3	trace		trace			
Jan. 20, 1905	#1	3.60	74.41	0.40	0.24		74.65
	#2	0.20	4.13	0.40	0.24		4.37
	#3	0.26	5.37	0.30	0.18		5.55
	#4	trace		trace			
	#5	3.92	81.03	0.50	0.30		81.33
	#6	trace		trace			
	#7	0.28	5.78				5.78
Jan. 28, 1905	#1	0.62	12.81	0.20	0.12		12.93
	#2	0.68	14.05	1.40	0.84		14.89
	#3	1.00	20.67	1.60	0.96		21.63
	#4	5.80	119.80	1.00	0.60		120.49
	#5	0.96	19.84	1.90	1.14		20.98
	#6	4.64	95.91	0.60	0.36		96.27
Feb. 1, 1905	#1	trace		2.60	1.56	15.0%	31.56
	#2	1.72	35.55	0.30	0.15	trace	35.70
	#3	1.20	24.80	6.80	4.08	14.6%	58.08
	#4	3.46	71.52	trace	trace	trace	71.52
	#5	0.22	4.54	trace	trace	9.7%	23.94
Feb. 6, 1905	#1	0.20	4.12	132.00	79.20		83.33
	#2	trace		2.80	1.68		1.68
	#3	trace		2.90	1.74		1.74
	#4	trace		0.40	0.24		0.24
Feb. 17, 1905	#1	trace		2.20	1.32	10.0%	21.32
	#2	trace		3.00	1.80	5.6%	13.00
	#3	trace		3.60	2.16	5.8%	13.76
Feb. 18, 1905	#1	trace		113.20	67.92		67.92
	#2	trace		1.40	0.84		0.84
Mar. 17, 1905	#1	2.30	47.54	0.70	0.42		47.96
	#2	1.04	21.50	2.20	1.32		22.82
	#3	trace		0.40	0.24		0.24
	#4	trace		0.30	0.18		0.18
Mar. 31, 1905	#1	trace		5.50	3.30	13.8%	30.90
	#2	trace		6.50	3.90	15.3%	34.50
	#3	0.35	19.63	5.10	3.06	18.0%	58.69
Apr. 22, 1905	#1	trace		1.00	0.60		0.60
	#2	1.70	35.13	0.70	0.42		35.55
	#3	1.00	20.67	0.30	0.18		20.85
May 6, 1905	#1	0.46	9.50				9.50
	#2	0.20	4.13				4.13
	#3	0.32	6.61				6.61
	#4	0.26	5.37				5.37
	#5	0.16	3.30				3.30
June 26, 1905	#1	trace					
	#2	1.49	30.80	1.00	0.60		31.40
	#3	0.10	2.06				2.06
Sept. 15, 1905	#1	1.30	26.87	5.70	3.42	36.2%	102.69
Oct. 16, 1905	#1	0.84	17.36	3.80	2.28	5.4%	19.64
Oct. 27, 1906	#1	0.28	5.78	0.90	0.63		6.41

(Assays Continued)

		<u>Gold Oz.</u>	<u>Value</u>	<u>Silver Oz.</u>	<u>Value</u>	<u>Copper %</u>	<u>Total</u>
Oct. 27, 1906	#2	1.44	\$ 29.76	1.20	\$ 0.84		\$ 30.60
	#3	1.50	31.00	1.30	0.91		31.91
	#4	0.76	15.71	1.10	0.77		16.48
	#5	2.20	45.47	1.40	0.98		46.45
Oct. 30, 1906	#1	1.00	20.67	1.20	0.84		21.51
	#2	0.61	12.60	0.80	0.56		13.16
	#3	0.46	9.50	0.80	0.56		10.06
	#4	0.08	1.65	0.60	0.42		2.07
Nov. 1, 1906	#1	0.60	12.40	1.40	0.98		13.38
	#2	2.90	59.94	0.90	0.65		60.57
	#3	2.00	41.34	0.50	0.35		41.69
	#4	0.10	2.06	trace			2.06
Nov. 19, 1906	#1	5.72	118.24	1.70	1.19		119.43
	#2	9.40	194.31	3.40	2.38		196.69
	#3	1.28	26.46	0.40	0.28		26.74
	#4	1.10	22.73	trace			22.73
Nov. 21, 1906	#1	10.80	223.26	3.60	2.52		225.78
	#2	3.91	80.82	1.10	0.77		81.78
	#3	5.82	120.31	1.60	1.12		121.43
	#4	2.00	41.34	1.20	0.84		42.18
	#5	2.21	45.58	0.60	0.42		46.10
	#6	0.92	19.01	trace			19.01
Nov. 26, 1906	#1	1.50	31.00	1.70	1.19		32.19
Dec. 14, 1906	#1	10.21	211.05	2.60	1.82		212.87
May 24, 1907	#1	0.10	2.06	trace			2.06
	#2	0.16	3.30	trace			3.30
	#3	1.32	27.28	0.90	0.58		27.86
	#4	2.36	48.78	1.70	1.10		49.88
	#5	0.36	7.44				7.44
	#6	0.56	11.57	0.10	0.06		11.63
	#7	trace			trace		
	#8	2.72	56.22	1.70	1.10		57.32
	#9	1.52	31.42	1.30	0.84		32.26
	#10	trace		trace			
	#11	0.36	7.44	trace			7.44
June 15, 1907	#1	1.30	26.87	0.70	0.46		27.33
	#2	9.83	203.20	2.40	1.58		204.78
	#3	12.42	256.74	3.00	1.98	5.6%	281.12
	#4	1.12	23.15	1.20	0.79	2.0%	31.94
Mar. 18, 1908	#1	1.80	37.20	1.00	0.50		37.70
	#2	0.16	3.30	2.00	1.05		4.35
	#3	0.22	4.54	0.60	0.30		4.84
Jan. 25, 1909	#1	0.08	1.65	trace			1.65
	#2	2.20	45.47	1.80	0.90		46.37
	#3	3.28	67.80	1.40	0.70		68.50
	#4	0.47	9.71	0.80	0.40		10.11
Feb. 15, 1909	#5	0.08	1.65	0.60	0.30		1.95
	#2	trace		trace			
Feb. 23, 1909	#1	0.28	5.78	0.40	0.20		5.98
	#2	trace		trace			
Mar. 26, 1909	#1	0.46	9.50	0.60	0.30		9.80
	#2	0.46	8.26	0.40	0.20		8.46
April 12, 1909	#1	1.90	39.27	2.50	1.25		40.52
	#2	0.26	5.37	0.30	0.15		5.52
	#3	6.51	134.57	1.70	0.85		135.42

(over)

Date	Concentration	Value	Gold Oz.	Value	Silver Oz.	Value	Copper %	Total
April 12, 1909	#4	0.16	\$ 3.30	0.70	0.35			\$ 3.65
April 17, 1909	#1	0.62	12.81	0.10	0.05			12.86
	#2	0.46	9.50	0.10	0.05			9.55
April 24, 1909	#1	1.12	23.15	0.50	0.25			23.40
May 12, 1909	#1	1.00	20.67	0.10	0.05			20.72
	#2	0.82	16.95	0.10	0.05			17.00
	#3	0.41	8.47	trace				8.47
	#4	0.49	10.12	0.20	0.10			10.22
Sept. 16, 1909	#1	0.05	1.03	trace				1.03
	#2	0.04	0.82	trace				0.82
	#3	0.22	4.54	trace				4.54
	#4	trace	trace	trace				trace
	#5	0.06	1.24	trace				1.24