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PRINTED: 08-23-2012

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: SUNSHINE MINE

ALTERNATE NAMES:

AGUIJITO
SUNRISE

PIMA COUNTY MILS NUMBER: 210

LOCATION: TOWNSHIP 18 S RANGE 10 E SECTION 12 QUARTER SE
LATITUDE: N 31DEG 52MIN 29SEC LONGITUDE: W 111DEG 16MIN 03SEC
TOPO MAP NAME: PALO ALTO RANCH - 15 MIN

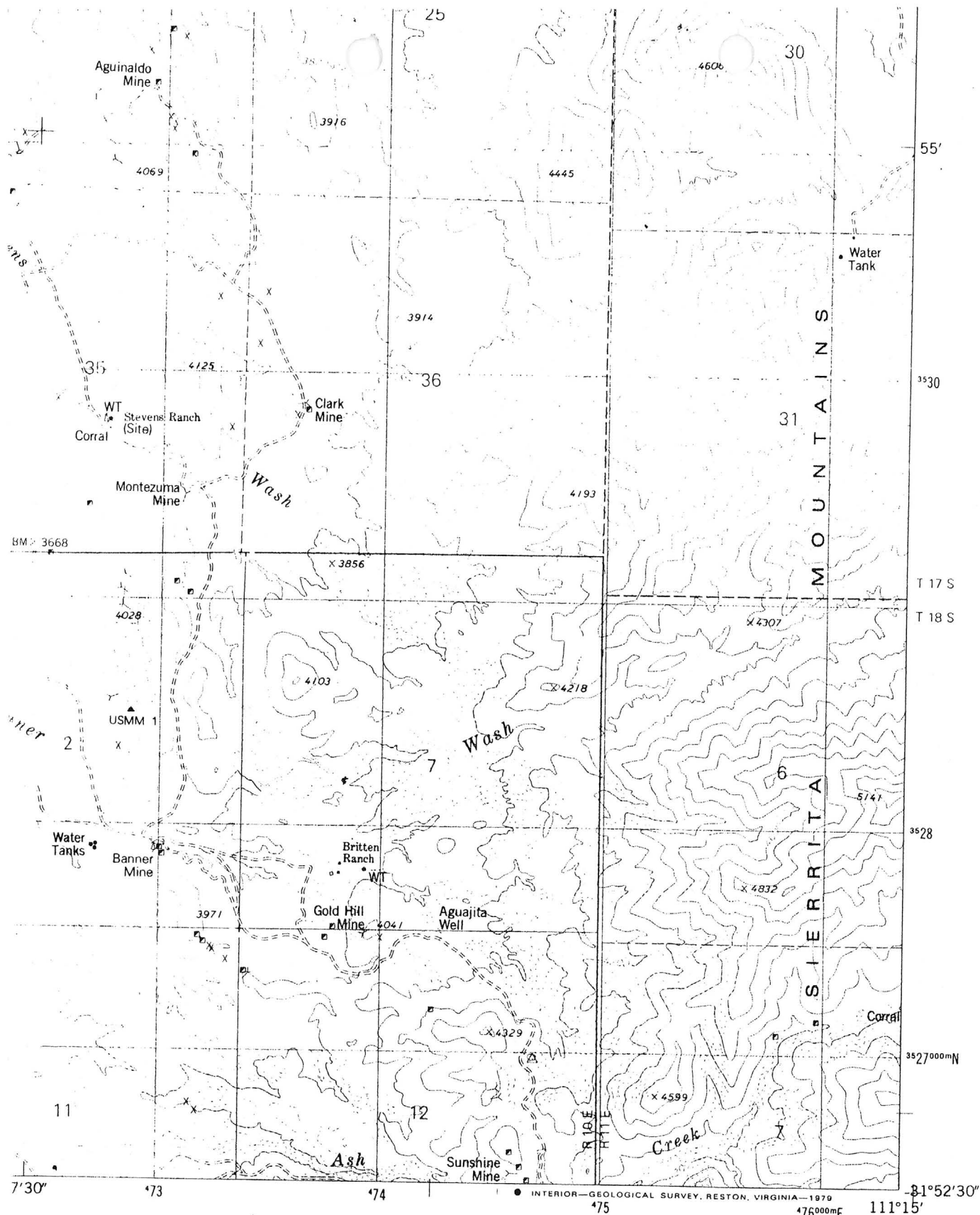
CURRENT STATUS: PAST PRODUCER

COMMODITY:

LEAD SULFIDE
SILVER
ZINC SULFIDE
COPPER
GOLD LODE
BARIUM BARITE

BIBLIOGRAPHY:

AZBM BULL. 189, P. 132, 1974
ADMMR SUNSHINE GROUP-PAPAGO DIST.-FILE
ADMMR MONTEZUMA-MARGARITA MINE FILE
ADMMR CALRK GROUP FILE
USGS BULL. 725, P. 414
ELEVATORSKI, E.A., 1978, AZ INDUSTRIAL MINERALS
ADMMR MINERAL REPORT NO. 2, P. 49.
ADMMR SUNSHINE MINE FILE



- ROAD CLASSIFICATION**
- | | |
|------------------------------------|----------------------------------------------|
| Primary highway,
hard surface | Light-duty road, hard or
improved surface |
| Secondary highway,
hard surface | Unimproved road |
- Interstate Route
 U. S. Route
 State Route



QUADRANGLE LOCATION

STEVENS MTN., ARIZ.
 NE/4 PALO ALTO RANCH 15' QUADRANGLE
 N3152.5—W11115/7.5

3751
1:62,500
(TWIN BUTTES)

SUNSHINE GROUP

REFERENCES

PIMA COUNTY
T18S R10E Sec. 12

ABM Bull. 189 p. 132

Arizona Mining Journal, June 1919, p. 77; June 1918 p. 38; Dec. 15, 1922, p. 9
MONTEZUMA - MARGARITA MINE (file)

~~MARGARITA MINE (file)~~

USGS Bull. 725-J p. 414

MILS Sheet sequence number 0040190421 (SUNRISE & SUNSHINE MINES)

Mines Handbook 1926

MILS Pima Index p. 4173 (Listed under Sunrise and Sunshine Mine)

See FITZPATRICKMINE (file) (formerly YELLOW BIRD)

BANNER MINE (file)

CLARK GROUP (file) (aka BLUE BIRD GROUP, aka BLACK BEAUTY)

Date Printed: 07/31/98

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

INFORMATION SUMMARY

Information from: John Heim

Company:

Address:

City, State ZIP: Tucson Arizona

Phone: 520-323-5157

MINE: Sunrise and Sunshine Mines

ADMMR Mine File: Sunshine Group

County: Pima

AzMILS Number: 210

SUMMARY

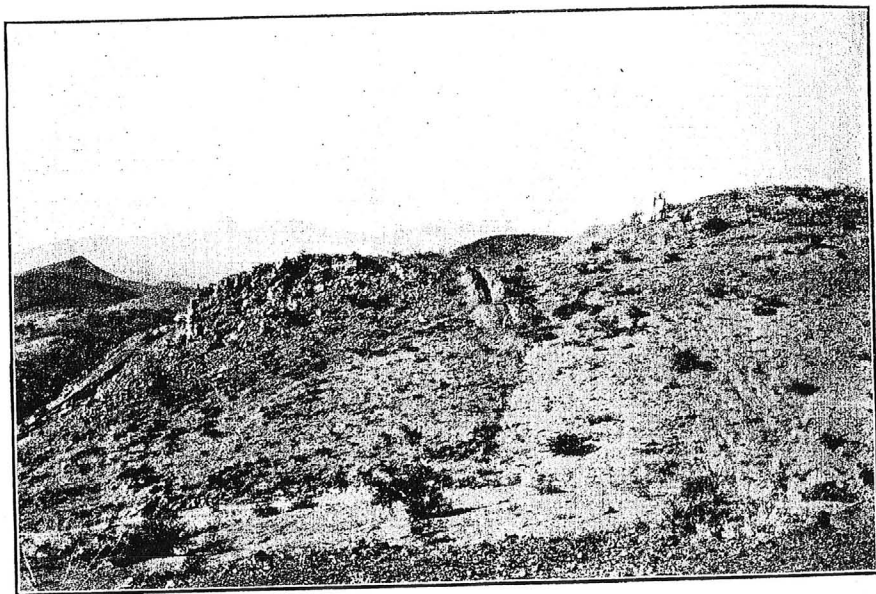
John Heim is a real estate agent and considers himself somewhat of a title specialist. He is trying to sort out the ownership of three patented claims that were once part of the Banner Sierritas Mining Company's property in Section 2, T.20S., R10E. The properties are the Banner No. 1, Second To None and Olympia.

It appears that the people paying taxes on the properties are not actually the owners, and there may be some confusion in county assessor records and/or county recorder indexes. Such problems are often compounded by privately compiled title abstract service databases.

It was suggested that he search all of the mining deeds, and mineral lands related documents at the recorder's office beginning with the patent. The three patented properties are related to the Banner Mine file [Pima AZMILS 205], the Sunshine Group file [Pima AZMILS 210], and the Montezuma-Margarita Mine file [Pima AZMILS 362].

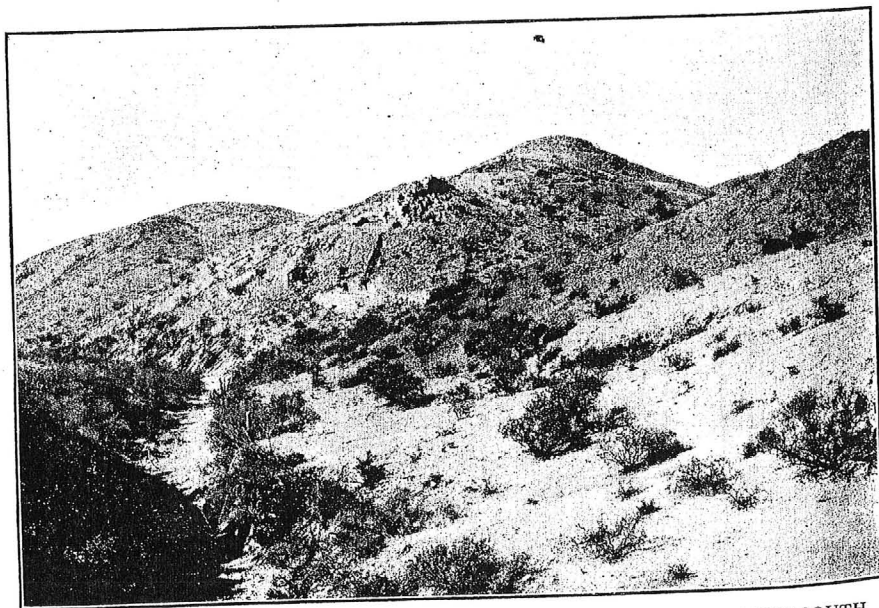
Ken A. Phillips, Chief Engineer

Date: July 31, 1998



A. WORKINGS ON THE SUNSHINE CLAIM, PAPAGO DISTRICT, ARIZ., FROM THE EAST.

To the right is the main shaft. To the left of it is an open cut across the ore-bearing limestone. In the end of the ridge, to the left, is another open cut. In the distance are the Baboquivari Range and Baboquivari Peak.



B. WORKINGS ON THE SUNSHINE CLAIM, PAPAGO DISTRICT, FROM THE SOUTH EAST, LOOKING DOWN THE DRY BED OF ASH CREEK.

ORE DEPOSITS OF SIERRITA MOUNTAIN

precipitous western front of the peak is eroded stripped fault surface. The Reef feet deep, appears to be wholly within quartzites.

West of the above-described sediments from the South San Xavier mine southward generally decomposed and altered rock the rhyolite. As exposed at the surface the kaolinized or sericitized granite porphyry with secondary quartz. In many places the rock are black with a thin coating of iron oxidized specimen from the dump of a shaft shows abundant disseminated pyrite, and this mineral that the general alteration of a rock, as exposed at the surface, are evidently

Thin sections, examined microscopically mainly quartz, with considerable sericite grains. Some of these are in close interlocking quartzite; others are separated from one another by fine grained aggregates. No trace of igneous and the rock has evidently undergone contact metamorphism. Whether it was originally an arkosic sandstone porphyry can not be definitely determined collected.

About a quarter of a mile south of the corner of the Prosperity group of claims, the country is altered and is, in part at least, an andesitic country rock of the Paymaster mine, which at a depth of about 300 feet by a moderately competent becomes the surface rock a short distance westward tends up to the east base of the Sierrita Mountain. This rock to the granitic rocks of the Sierrita Mountain the granite that is intrusive into the Paleozoic sedimentary rocks near Twin Butte. The granite near the Paymaster mine may be

In the vicinity of Twin Buttes gray limestone of Carboniferous age, with associated quartzite. Moderately coarse gray granite with phenocrysts rather abundant biotite in irregularly bounded scales. Near the mines the granite contains disseminated crystals and the feldspar might be supposed from the inspection of contact metamorphism is more intense in the

been increased in efficiency to a marked degree within the last few years. The cost of a well and pumping plant is considerable, and to the man without means it is almost as impossible to reclaim the desert land with a well and pump as it is to build dams across the streams, nevertheless there is a great deal of development of this kind and will continue to be.

As reservoirs are built and hydro-electric power developed, this power becomes available for pumping and is the cheapest power which can be had for operating the pumps. It may thus be seen that the building of reservoirs, the development of gravity irrigation projects, will be the greatest factors in the development of lands by wells and pumps and in consequence will increase our available area of agricultural lands.

These factors may be discouraging to the homeseeker, but it is only right that he should understand fully the situation and should not have illusions of obtaining from the government or from the state a home under those same favorable conditions which the homeseekers had who settled the plains of Kansas or the prairies of the Dakotas during the past generation. To the homeseeker who has capital to live upon while he acquires title, who has a vision of the possibilities of the future, and can select land which some day will be in the path of some big irrigation project, there are still opportunities, but to the poor man who must produce a living from the land upon which he locates, the desert with all its charms is forbidding.

MINERAL WEALTH OF PAPAGO

AND PIMA DISTRICTS DESCRIBED

Large bodies of lead-silver, copper and zinc ores, which are very accessible, characterize the Pima and Papago districts of the Sierrita mountains, a short distance from Tucson, according to a bulletin recently issued by the United States geological survey. The article, relating in detail the position and nature of orebodies in the Sierrita district, southwest of Tucson, was prepared as the result of a special survey conducted by F. L. Ransome.

Frequent cuts of the districts described are contained in the pamphlet. The Papago district is 3 miles southwest of Tucson, the Ajo and Sasabe roads being followed to reach this area. At King's ranch, on the Sasabe road, a branch road turns off to the east and ascends the gentle slope of the foothill belt into the Papago mining district.

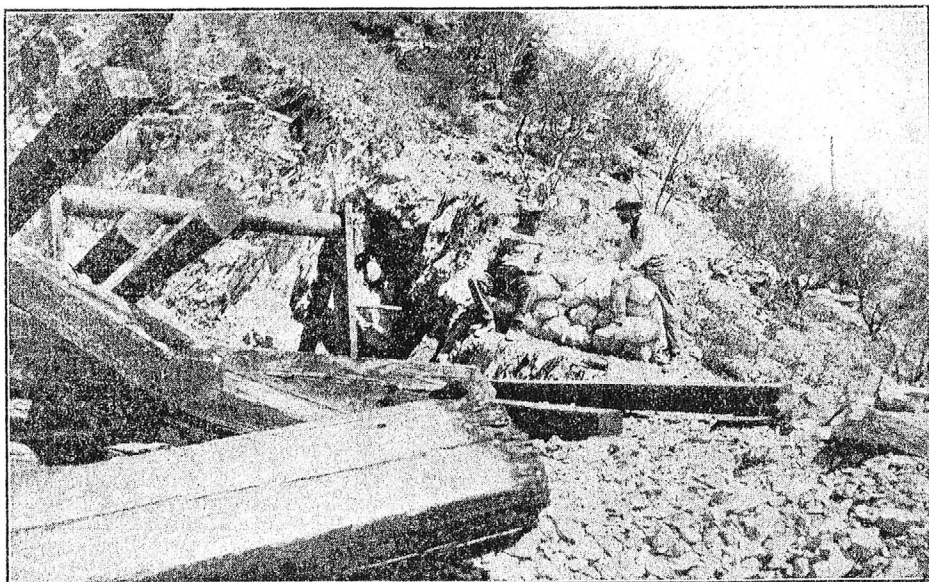
Long recognized as the location of valuable orebodies, this district comparatively

connects the districts. The following general information regarding the Sierrita range opens the report:

"The Sierrita mountains constitute one of the smaller of the nearly meridional mountain ranges of southern Arizona. They separate the Santa Cruz valley on the east from Altar valley on the west. The range has a length between 13 and 14 miles and a width roughly estimated at four miles. The height of the dominating summit, Samaniego peak, has, so far as known, not been accurately determined. Apparently no part of the range rises more than 2,000 or 3,000 feet above the upper margin of the flanking than 6,500 feet above sea level. Its slopes carry little or no timber, and in compari-

vision between the valleys of the Santa Cruz and Altar watersheds, is described as follows:

"The Sierrita mountains consist essentially of an intrusive granite core flanked by more or less metamorphosed rocks of sedimentary and eruptive origin. These flanking rocks are notably different in character on the two sides of the range. On the east are rather massive gray limestones, with quartzites, shales and altered andesite volcanic rocks. These rocks are folded and faulted, have been invaded by granite, and in places show pronounced contact metamorphism. On the west the rocks are prevailingly schistose, have been more closely compressed, and have been affected by metamorphism of regional



Purcell Property in Southern Pima County

son with the Santa Rita mountains to the east or the Baboquivari range to the west, the Sierrita mountains are of minor topographical importance and are scenically unimpressive.

On the west side of the Sierrita mountains, mainly in a rather definite belt of foothills, is a group of prospects within what is known locally as the Papago district, although they appear to be included within what has also been called the Sierritas district. On the east side of the

character in contrast with the more intense but local contact action on the east. These schists are varied in character and include rocks that were at one time conglomerate, sandstone, shale, limestone, rhyolite, and tuff. They appear to be older than the beds to the east, but no fossils were found in them, and consequently their age is uncertain.

"The crest and higher slopes of the range were not closely examined, but distant views and the material in the stream beds indicate that the entire western

ARIZONA DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA

October 16, 1958

To the Owner or Operator of the Arizona Mining Property named below:

✓ SUNSHINE GROUP (Pima County) lead
(Property) (ore)

We have an old listing of the above property which we would like to have brought up to date.

Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

Frank P. Knight

FRANK P. KNIGHT,
Director.

Enc: Mine Owner's Report

AMJ 611918, p. 38
" 611919, p. 77

SOURCES

unds



REASON FOR RETURNED
Unclaimed _____
Unknown _____
For better address _____
Moved, Left no address _____
No such office in state _____

10/16/58

Mr. J.C. Bacon

Patagonia

Arizona

SOURCES

nds



Mr. Bridget Breidler
General Delivery
Tucson, Arizona

B

ARIZONA DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA

September 25, 1958

To the Owner or Operator of the Arizona Mining Property named below:

Sunshine Group	(Pima County)	lead
(Property)		(ore)

We have an old listing of the above property which we would like to have brought up to date.

Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

Frank P. Knight

FRANK P. KNIGHT,
Director.

Enc: Mine Owner's Report

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 5/12/45
 Name of Mine Sunshine Mine
 Owner or Operator Henry Burdette
 Address 35 W. Plummer, Tucson
 Mine Location Quartzite Mts 45 mi. SW Tucson

Filing Information

File System.....
 File No.....
 This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production ☒; Development.....; Financing.....; Sale of mine.....;
 Experimental (sampling).....; Owner's occasional trip.....;
 Other (specify).....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months

Approx. present rate per 3 months

Anticipated rate next 3 months

If in distant future check (X) here

720,000 lbs lead

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars
Light or Service Trucks
Ore Hauling Trucks
Compressors
Other Mine or Mill Eqpt.

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Lead

REMARKS:

* This company is desirous of purchasing a new Ford Pick up truck. This department is familiar with this operation and in view of the critical nature of lead, favorable consideration of this application is recommended.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By.....

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 5/12/45
 Name of Mine Sunshine Mine
 Owner or Operator Henry Burnham
 Address 38 West Pennington Tucson
 Mine Location Maricopa Dist

Filing Information

File System _____
 File No. _____
 This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production _____; Development _____; Financing _____; Sale of mine _____;

Experimental (sampling) _____; Owner's occasional trip _____;

Other (specify) _____

Building concentration plant

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months _____

Approx. present rate per 3 months _____

Anticipated rate next 3 months _____

If in distant future check (X) here _____

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars	_____	_____	_____
Light or Service Trucks	_____	_____	_____
Ore Hauling Trucks	_____	_____	_____
Compressors	_____	_____	_____
Other Mine or Mill Eqpt.	_____	_____	_____

Barley engine 60 hp

Garbans horse 2 hp

Bridge engine 30 hp

110 H.P. White engine

3000 gal/mo

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Lead silver

REMARKS

This is a new operation and will be in production at once. Gasoline for off highway purposes recommended as above

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By _____

George A. Ballan

738 East McKinley St.
PHOENIX, ARIZONA

Mr. H. T. Gilbert -
Prescott Arizona.

1053 FRONT ST
SAN DIEGO CALIF.

Dear Sir:

I have just received
report on big Silver lead property
in Pima Co. which I enclose
herewith.

Please bear in mind
that this report does not cover
any of the development that has
been carried on since date of
report. which is of vast importance
as it has proven the continuity
of the large Ore bodies.

If report does not interest you
clients please return same at your
earliest convenience. as I have
other parties to I wish to submit it.

Yours Very truly
R. C. Farnsworth

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 4-11-45

Name of Mine Sunshine

Owner or Operator Don L Peters Employee

Address 9. Judy Fickel 4010 Remington

Mine Location Sierra Mts

Filing Information

File System _____

File No. _____

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production _____; Development _____; Financing _____; Sale of mine _____;

Experimental (sampling) _____; Owner's occasional trip _____;

Other (specify) Building mill

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months _____

Approx. present rate per 3 months _____

Anticipated rate next 3 months _____

If in distant future check (X) here _____

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars	<u>1938 Chev</u>	<u>800</u>	
Light or Service Trucks			
Ore Hauling Trucks			
Compressors			
Other Mine or Mill Eqpt.			

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Lead

REMARKS:

* This man is employed by H. Barnham who is building a mill on this property

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By

[Signature]

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date 3/31/45
 Name of Mine Serrana Mining Co
 Owner or Operator Henry Burnham
 Address % Judge Fickett Tucson
 Mine Location Serrana Mts

Filing Information

File System.....

File No.....

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production.....; Development.....; Financing.....; Sale of mine.....;

Experimental (sampling).....; Owner's occasional trip.....;

Other (specify).....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months

Approx. present rate per 3 months

Anticipated rate next 3 months

If in distant future check (X) here

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars
Light or Service Trucks
Ore Hauling Trucks	<u>37 Ford Dump</u>	<u>200 miles</u>
Compressors
Other Mine or Mill Eqpt.

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Lead

REMARKS:

* Mr Burnham has applied for gas-DDJ- on new CWN recommended by this office. It has been approved in Phoenix and has not yet been returned. This operation is seriously held up pending receipt of CWN. It is recommended that supplemental gas be issued pending receipt.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By George Ballman

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date..... 3/24/45
 Name of Mine..... Dunsham
 Owner or Operator..... Henry Burnham
 Address..... % Judge Fickett, W. Pennsylvania
 Mine Location..... Secruda Mts. 4 1/4 mi. SW 2 mi.

Filing Information

File System.....

File No.....

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production.....; Development.....☒; Financing.....; Sale of mine.....;

Experimental (sampling).....; Owner's occasional trip.....;

Other (specify).....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months

Approx. present rate per 3 months

Anticipated rate next 3 months

If in distant future check (X) here

50-100 tons per day

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars			
Light or Service Trucks			
Ore Hauling Trucks	<u>Ford dump 5 1/2 tons</u>		<u>900 gal / mth</u>
Compressors			
Other Mine or Mill Eqpt.			

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Lead

REMARKS:

* The Dunsham Mines Co. is installing a mill on this lead property and will be producing concentrated ore. Application recommended for approval.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By.....

George A. Ballman

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT

Date.....

Name of Mine.....

Owner or Operator.....

Address.....

Mine Location.....

Filing Information

File System.....

File No.....

This chart to be used for gallons of gasoline required per month.

PRESENT OPERATIONS: (check X)

Production.....; Development.....; Financing.....; Sale of mine.....;

Experimental (sampling).....; Owner's occasional trip.....;

Other (specify).....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months.....

Approx. present rate per 3 months.....

Anticipated rate next 3 months.....

If in distant future check (X) here.....

EQUIPMENT OPERATED:

Type

Quantity or
Horse Power

Miles or Hours
Per Month

Gallons Required
Per Month

Personal Cars.....

Light or Service Trucks.....

Ore Hauling Trucks.....

Compressors.....

Other Mine or Mill Eqpt.

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

REMARKS:

This operation ran short of gas for the above truck. Recommended issue of supplemental gas until eligible to renewal.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By.....

Dec. 3-1934

Mr. H. J. Peterson
927-26th. Street
San Pedro, Calif.

My Dear Mr. Peterson:-

I am sending you the name of a gentleman that has a silver lead property of merit from the looks of the report that I have seen. Now that lead is becoming more active it might be well for you to call on this man and go into the matter with him direct.

The address of this party is R. C. Furguson 1053 Front Street, San Diego, Calif.

If Mr. Furguson does not have any extra reports on this property let me know and I will make some copies and send them to you.

Tell Mr. Furguson that I had this property up to some good people but at that time lead was so inactive that they were not muchly interested.

Let me hear from you when you find time to write,

Yours truly,

MINERAL RESOURCES
AUG 1 1946

MERTZON, TEXAS
Box 60

July 28, 1946

Department of Mineral Resources,
304 Home Builders Bldg.,
Phoenix, Arizona.

Gentlemen:

Would like to have name and address of key
number

MS-62

Would like to get one of those blue sheets
giving description of the mine.

Yours very truly,

M. S. Cooper
M. S. Cooper

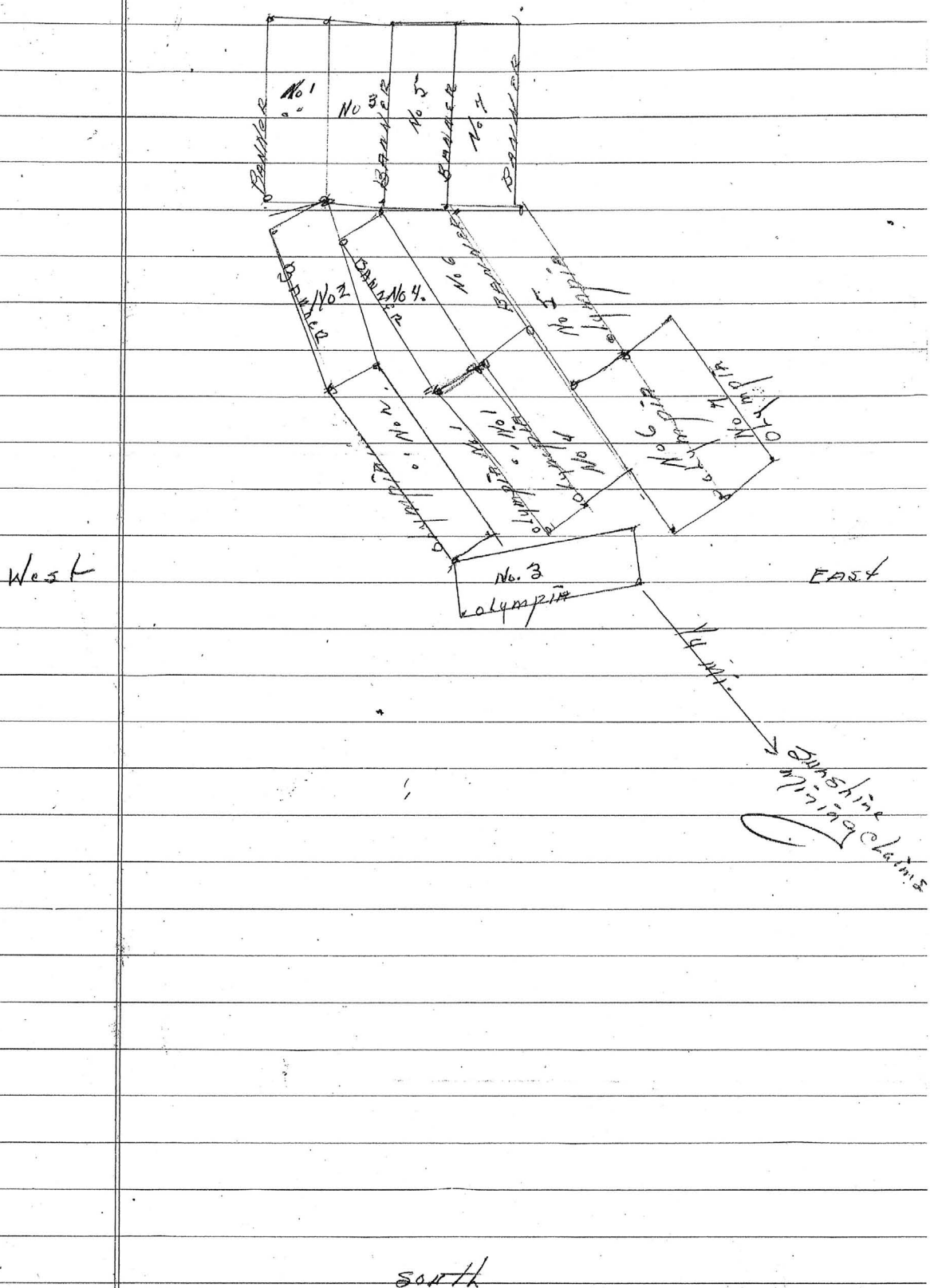
Scale $\frac{1}{2}'' = 600'$
 $1'' \frac{1}{2}'' = 1500'$

North

BANNER & Olympia Mining Claims

14

Drawn By George F. Lajtha



Scale $\frac{1}{2}'' = 600'$

ii $1\frac{1}{2}'' = 1500'$

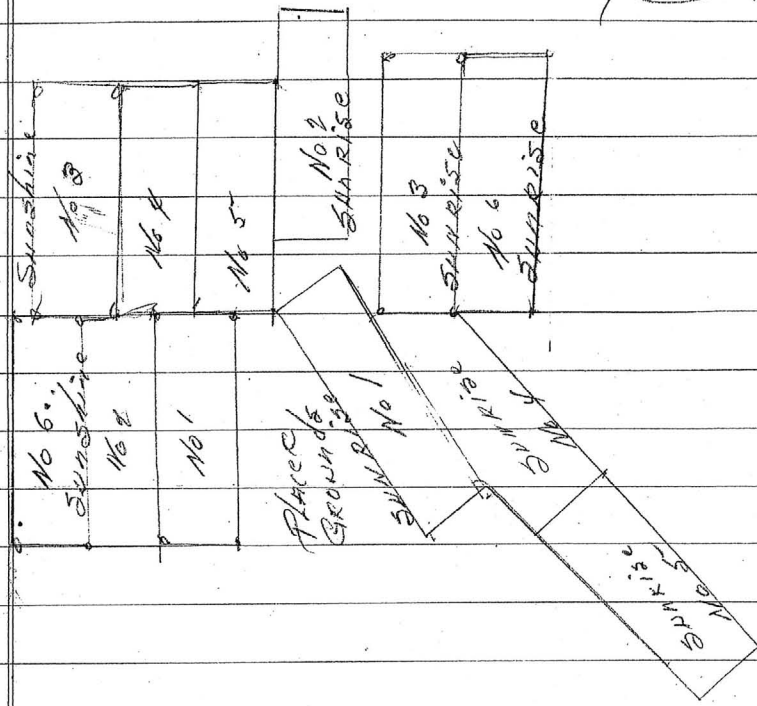
North

Drawn By

George Tala-jeeh

12 C Lains

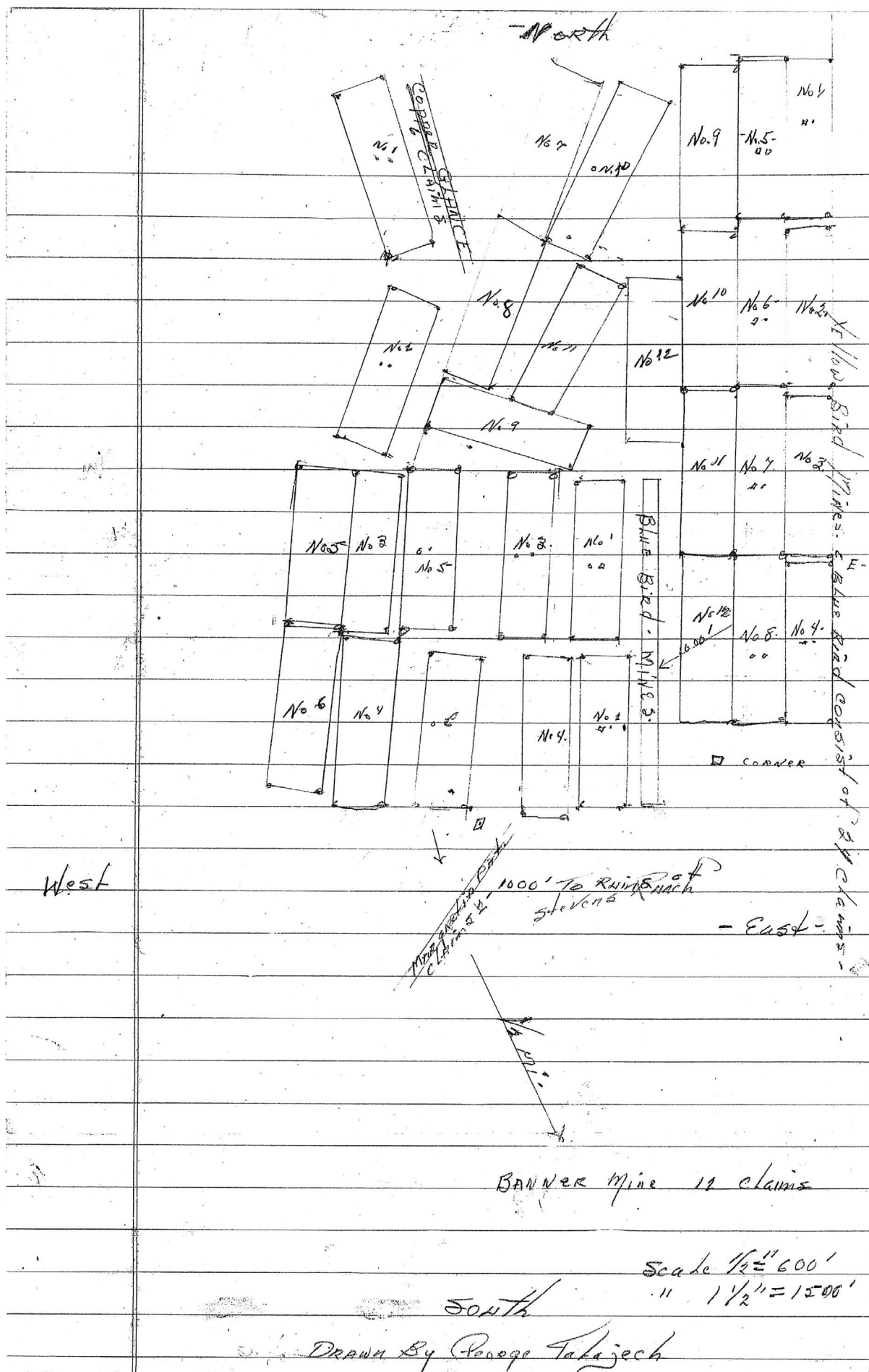
Sunshine & Sunrise joining chains



West

East

South



The Montezuma in 1881 was credited with a substantial production of silver,^{1/} and in 1883 it was reported that a 50-foot shaft showed a three-foot vein of copper and silver.^{2/}

The Olympia mine was located on generally the same ground as the Margarita mine in later years, and Ransome reported:^{3/}

"About a mile north of the Banner is the Olympia shaft, apparently about 200 feet deep. This is on the Olympia group of 14 claims, which adjoins the Banner on the north and is reported to be owned by the Olympia Mining Co., of Chicago. No work was in progress at the time of visit. The Olympia is on the same belt of partly silicified limestone as the Banner and McKinley mines, which here determines the crest of a rather prominent ridge. No persistent vein could be seen, but the limestone has been irregularly fissured, contains bunchy quartz veins, and is itself more or less silicified."

Sunshine-Sunrise Group

The Sunshine-Sunrise group was described by Ransome as follows:^{4/}

"The most southerly of the principal groups examined is the Sunshine-Sunrise group, comprising about seventeen claims and two mill sites and owned principally by Judge S. W. Purcell, of Tucson. This group has a length of 6,500 feet and an average width of 2,200 feet. The principal exploratory work has been done on the Sunshine No. 1 claim and includes a shaft 140 feet deep with a short drift and crosscut at the 100-foot level. (See Pl. XVII, A.) South of the shaft, as the illustration shows, is an open crosscut, and south of this, at the south end of the ridge in which the workings are situated, is another open cut and under it a tunnel run in a northerly direction into the hill, from Ash Creek. The ore occurs in beds of limestone, apparently about 50 feet in total thickness, which strike N. 20° W. and dip about 65° W. This limestone, which does not appear to cross Ash Creek to the south, is apparently a lenticular member of the schistose series. On Sunshine Hill it lies about 800 feet west of the granite, from which it is separated by a belt of the gray schist described on page 410. West of the limestone are alternations of similar schistose and slaty rocks with belts of schistose rhyolite. The ore consists mainly of galena with a little chalcocite and occurs partly as a filling of irregular fractures in the limestone and partly as a replacement of their walls. At the slight depth attained the galena is generally accompanied by cerusite, anglesite, cerargyrite, and other products of oxidation. Surface cuts and pits along the outcrop of the limestone show the presence of more or less galena for a length of 500 to 700 feet, but not enough work has been done to prove the existence of a continuous ore body along the line of these

1/ Report of the Director of the Mint, op. cit., 1881, p. 309 (Plf. Exh. No. F-10, p. 12)

2/ Hamilton, P., op. cit., 1883, p. 133 (Plf. Exh. No. F-18, p. 58)

3/ Ransome, F. L., op. cit., p. 416 (Plf. Exh. No. F-11, p. 30)

4/ Ibid, pp. 414-415 (Plf. Exh. No. F-11, p. 29)

Date April 25, 1963

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from Larry Drake & personal visit.

References Report of Southwestern Mining & Milling Co. mill --- Aug. 10, 1954.

Location 18.6 miles S. of Three Points. From Three Points, drive S. on Hwy. 286 for a distance of 11.3 miles to Britten Ranch sign. Turn left and drive 7.3 miles to mill.

Owners Fred W. Fickett, atty., 36 N. Stone Ave., Tucson ---administrator .

Lessees "D" Mining Co. ---- Larry Drake, et. al., 1902 E. Irene Vista, Tucson, Ariz.

<u>Number of Claims</u>	Sunshine Mine --- 18 unpatented claims.
	Banner Mine ---- 3 patented claims and 12 unpatented claims.

Principal Minerals Lead and silver. The lead is in the form of galena.

Present Mining Activity Mill repairs ---- 4 men working, 6 days per week.

Ore Values Stockpile on the Sunshine runs from 6 to 8 % in lead, and from 6 to 8 oz. in silver, according to Mr. Drake.

Ore in Sight & Probable (a) About 13,000 to 18,000 tons of ore is broken and stockpiled in the open-cut at the Sunshine Mine, according to Mr. Drake.

(b) Mr. Drake also states that approximately 100,000 tons of additional ore can be mined by open pit operations at the Sunshine, before it will be necessary to start underground operations at the Sunshine, or underground at Banner.

Milling The old mill, which was constructed by the Southwestern Mining & Milling Co. in 1954, was later acquired by the owners of the Sunshine-Banner Mines, Fred W. Fickett, administrator; and is now being repaired by the new lessees, Larry Drake, et. al.

The milling equipment is substantially the same as described in my report of Southwestern Mining & Milling Co. mill on Aug. 10, 1954, except that the classifier, ball mill, and one set of screens appear to be missing. The remaining equipment has been cleaned, oiled and repaired where found necessary. However, it shows effects of corrosion by sun and rain, and some of it may have to be replaced soon with new equipment.

The lessees started repairs on the mill about 2 months ago, and hopes to have it ready for operation in a short time. A few mill tests have been made, but the results were not considered to be satisfactory. They plan to install a set of screens and a classifier before attempting full time operation.

Water is being obtained by pumping from a winze in the main adit of the Banner Mine. Mr. Drake claims that this will provide sufficient water for the mill. The old Banner Mine shaft, which is 200 ft. deep and vertical, now appears to be in bad shape, but could yield a considerable amount of additional water, if this can be used.

Field Engineers Remarks Some changes in the milling equipment, which should provide more efficient operation and result in an increase in mill capacity is suggested:

(1) Grizzly opening at the top of the crude ore bin should be increased to 10 or 12 inches, thus eliminating the breaking of the larger rocks with a sledge.

(2) To take care of this larger size mill feed, an additional crusher should be installed, crushing the ore down in 3 steps instead of 2.

(3) The screw conveyor and bucket elevator, which now conveys the ore to the top of the fine ore bin in 2 operations, should be replaced by a conveyor belt.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Sunshine-Banner Mines

Date Mar. 11, 1964

District Papago District, Pima County

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from Larry Drake

References Report of April 25, 1963.

Owners Fred W. Fickett, atty., 36 N. Stone Ave., Tucson ----administrator.

Lessees "D" Mining Co. --- ~~administrator~~ Larry Drake, et. al., 108 W. Blackledge, Tucson.

Number of Claims --- Sunshine Mine --- 18 unpatented claims
Banner Mine ----- 3 patented and 12 unpatented claims.

Principal Minerals Lead and silver. The lead is in the form of galena.

Present Mining Activity Mine is reported to be idle. Mr. Drake stopped work on the property in October, 1963. He gives his reasons for closing down the operations as lack of finances to develop the Sunshine Mine, and to make improvements on the mill. Some concentrates (5 to 10 tons) were sold to B. S. & K. Co. at the time of closing operations. According to Mr. Drake, the lease is still retained by "D" Mining Co.

Mr. Fickett has leased the Sunshine and Banner Mines to Messrs Brant and Fleming.

GWI Quarterly Report 3/1969

The Salvation Mining Co. (a Nevada Corp), Herb Fleming in charge., Mailing address 201 Avenida De La Vista, Tucson, Arizona 85710. Have two men working at present at the old Banner property on the west side of the Sierritas - plus the Sunshine. Have a little mill, will try and find out more when I get back.

GWI Note 7/16/69

Mr. Wm Brown, President of Salvation Mining Co., H. F. Flemington, Sec'y-Treas.

GWI WR 10/25/69

Banner Mine west side of Sierrita's doing some work. Salvation Mining Co.

GWI Quarterly Report 2/27/70

See 1965 Bulletin 705.3 Page 414

Memo:-
 refer to file
 "Birmingham Memo"
 (Pinner - maby)

7-11-47
 4-398a
 Tp. 10 S Range 10 E 7-11-47 Mer.
 Land Dist.

	6	5	4	3	2	1
12	7	8	9	10	11	12
13	13	17	16	15	14	13
24	19	20	21	22	23	24
25	30	29	28	27	26	25
36	31	32	33	34	35	36
	6	5	4	3	2	1

lots 1, 2, 3, 4, 5, 6, 7, SW¹/₄ NE¹/₄,
 S¹/₂ NW¹/₄ NE¹/₄ SE¹/₄, N¹/₂ SW¹/₄,
 SW¹/₄ SE¹/₄ Sec. 1 leased
 to C. C. Britten
 lots 8, 9 Sec. 1 - Pat.
 U. S. reserved minerals
 lot 1, SE¹/₄ NE¹/₄, S¹/₂ NW¹/₄, S¹/₂
 Sec. 2 - leased to
 H. Manning

7-11-47
 4-398a
 Tp. 10 S Range 11 E 7-11-47 Mer.
 Land Dist.

	6	5	4	3	2	1
12	7	8	9	10	11	12
13	13	17	16	15	14	13
24	19	20	21	22	23	24
25	30	29	28	27	26	25
36	31	32	33	34	35	36
	6	5	4	3	2	1

Sec 6 - State
 U. S. reserved
 minerals
 SE¹/₄ SE¹/₄ Sec 7 Pat.
 U. S. reserved min.
 lots 1, 2, 3, 4, S¹/₂ W¹/₄ NE¹/₄,
 N¹/₂ SE¹/₄ SW¹/₄ SE¹/₄ Sec. 7
 U. S. State reserved

7-11-47
 4-398a
 Tp. 10 S Range 10 E 7-11-47 Mer.
 Land Dist.

	6	5	4	3	2	1
12	7	8	9	10	11	12
13	13	17	16	15	14	13
24	19	20	21	22	23	24
25	30	29	28	27	26	25
36	31	32	33	34	35	36
	6	5	4	3	2	1

Sec. 26 - S¹/₂ H. Manning
 " 26 - N¹/₂ - Alice M. Hall
 Pat. M. L. 3004 to Ineson
 Con. Copper Co.
 Sec. 27 - NE¹/₄ NE¹/₄, W¹/₄ NE¹/₄,
 SE¹/₄ NE¹/₄, NW¹/₄ - State
 State had minerals
 S¹/₂ Sec. 27 - leased to
 H. Manning

" Front "

Memo:-
 refer to file
 "American Mine"
 (Dinner - mth)

Pat. 2,3,4, 5, 6, 7, 8, 9
 See. 2 - State
 re. 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 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426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 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1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 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2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 223

NAME OF MINE: ☒ SUNSHINE
OWNER:

COUNTY: Pima
DISTRICT: ☒
METALS: Pb

OPERATOR AND ADDRESS		MINE STATUS	
Date:		Date:	
4/45	H. Burnham, 38 W. Pennington, Tucson (Ariz. Lead Mines Co.)	4/45	Building mill
		9/45	Milling
		3/46	Idle

9/13/47

To: Director, Dept. Mineral Resources
From: George A. Ballam

Sunshine Mine, Papago Dist., Pima Co.

According to instructions I visited the Sunshine Mine this week. Mrs. Bridget Breidler, who claims to hold these claims by virtue of location following the death of Judge Purcell, was contacted at the Lincoln Camp nearby. There seems to be considerable doubt about the ownership of the property. One Burnham, had been operating a gravity mill without success and had abandoned the property. According to non-liability notice the Burnham lease was made by Fred Fickett, attorney and executor for the Purcell estate. Mrs. Breidler is represented by Otho Books, attorney. Both sides seem to claim all of the old Purcell properties including the Banner, Sunshine, Lincoln, Clark, Yellowbird, etc. Mrs. Breidler admits being an alien, although Mr. Books thinks she might be a citizen through one of her former marriages prior to 1922. So much for the involved title.

The report by C.H. James made in 1920 is attached for file. There may have been ~~some ore showings~~ ^{at that time} ~~and~~ replacements in the original outcropping line. At present the tunnel referred to as Ash tunnel, has been gouged out of the side of the hill some 60 feet wide and open to the surface for a considerable distance back. At the face some 150 feet in, the hole is 10 to 20 feet high, with no ore showing. Some knife-edge seams ^{schist} showing the source of mineralization, are to be seen in this face. No ore was found to sample except low grade lead specimens in the broken rock removed from the workings. Perhaps 2500 tons of this ^{rock} remain on the dump having been broken high and wide and removed by slusher. A tailing dump shows that a few hundred tons were run through the jigs and apparently some low-grade concentrates were shipped.

The property is reached by several miles of very rough road. In view of the inaccessibility, the lack of ore showing in the tunnel or open cuts examined, and the general opinion prevailing in this locality that the property has little value, I advised Mrs. Breidler to abandon this property in preference to others of the group if by such action she may be able to retain a more desirable group of claims.

Mrs. Breidler's son, George Talajesh, has opened up several feet of low-grade lead ore in a claim known as the Columbia, at the Lincoln Camp where both reside. The showing is wide, about 60 feet as replacement in a lime outcrop. It warrants additional work, and I have advised him to locate the claim in his own name and continue development.

George A. Ballam

*

1. Sunshine Mine
2. Papago District, Pima County, Arizona
3. Purcell Estate, Fred Fickett, Administrator
4. Messrs. Hernon and Jones
5. Visited March 15, 1947
6. Lead-zinc
7. Should opportunity arise, it would be well to map the main workings to further check the general impression that the property has little merit.
8. _____

* * * * *

THE EAGLE-PICHER MINING & SMELTING COMPANY
MIAMI, OKLAHOMA



INTRA-COMPANY
CORRESPONDENCE

TO Grover Duff - Tucson Office
FROM John W. Chandler - Miami Office
SUBJECT: Exploration Work

DATE April 6, 1951

Dear Grover:

We are presently compiling a record of all the mines and prospects which we have examined for the Company during the past 10 years.

Starting with 1940, and listing the work done by years, such as 1940, 1941, 1942, etc., we would like to have the following information tabulated:

1. Name of property
2. Location - (State and County)
3. Who it was submitted by
4. Who made the examination
5. Time spent on the examination
6. Metals involved
7. General conclusions drawn from examination
8. Remarks - Under this heading could be shown whether we have done drilling or any other work in addition to the examination. Give brief outline. If the property subsequently became a mine unit and was operated so state.

We do not have a complete file in this office on all properties examined by the Company and we will combine your report with the one being made up from our files to make the final report complete. I would appreciate it if you could put someone on this work until it is completed, sending me three copies of your tabulation.

Best regards,

Jack.

John W. Chandler.

JWC/jm

4-25-51 - Mr. Chandler will send us a list of the properties on which they have reports in their files, and we will then send him the information on the others.

GJD

Sum time - Sum me

\$100,000.00 Net

4 years time

Monthly payments 1st year?

10%	each at	12	mo - payments	
20	"	24	"	"
30	"	36	"	"
40	"	48	"	"

10% net matter returns to
offer an purchase price

Develop ton for ton estimated

R. C. Ferguson Agent
1053 Front Street
San Diego Calif.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine SUNSHINE MINE

Date September 13, 1947

District Papago District, Pima Co.

Engineer George A. Ballam

Subject: Examination

According to instructions, I visited the Sunshine Mine this week. Mrs. Bridget Breidler, who claims to hold these claims by virtue of location following the death of Judge Purcell, was contacted at the Lincoln Camp nearby. There seems to be considerable doubt about the ownership of the property. One Burnham had been operating a gravity mill without success and had abandoned the property. According to non-liability notice the Burnham lease was made by Fred Fickett, attorney and executor for the Purcell estate. Mrs. Breidler is represented by Otho Books, attorney. Both sides seem to claim all of the old Purcell properties including the Banner, Sunshine, Lincoln, Clark, Yellowbird, etc. Mrs. Breidler admits being an alien, although Mr. Books thinks she might be a citizen through one of her former marriages prior to 1922. So much for the involved title.

The report by C. H. James made in 1920 is attached for file. There may have been at that time ore showings as replacements in the original out-cropping lime. At present the tunnel referred to as the Ash tunnel has been gouged out of the side of the hill some 60 feet wide and open to the surface for a considerable distance back. At the face some 150 feet in, the hole is 10 to 20 feet high, with no ore showing. Some knife-edge seams in schist, showing the source of mineralization, are to be seen in this face. No ore was found to sample except low grade lead specimens in the broken rock removed from the workings. Perhaps 2500 tons of this rock remain on the dump, having been broken high and wide and removed by slusher. A tailing dump shows that a few hundred tons were run through the jigs and apparently some low-grade concentrates were shipped.

The property is reached by several miles of very rough road. In view of the inaccessibility, the lack of ore showing in the tunnel or open cuts examined, and the general opinion prevailing in this locality that the property has little value, I advised Mrs. Breidler to abandon this property in preference to others of the group if by such action she may be able to retain a more desirable group of claims.

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GEORGE A. BALLAM

SUNSHINE MINE

Pima County

Papago District

Arizona

A short time was spent at this property by permission of the watchman, in the course of examination of other properties. It was examined along with other properties of the Papago Dist. by F. H. Lerchen, in 1938.

Reports of ore values indicate 8% lead-zinc (more lead than zinc) and 8 to 10 ozs silver. However production records are very incomplete. Samples taken by Lerchen and his table of concentrate shipments (jig) show silver-lead ratios of about 2 to 5. Lead to zinc ratio from same data is about 5 to 1 but sorted ore and gravity concentrates may fail to indicate true ratios. Jig heads at time of Lerchen's visit, and two character samples taken by him assay:

	Au	Ag	Pb	Zn
Jig heads	0.01	1.4	4.3	4.2
5' cut sample	0.01	1.0	4.0	4.1
6' " "	0.02	2.1	6.1	3.0

The rocks at and near the mine include reddish slates and phyllites on the east, and sheared arkoses and other schistose rocks to the west. Between the two is an elongated lense of limestone about 40 feet thick at the mine proper. All these rocks are apparently members of the Cretaceous series. The limestone strikes from about north to northwest and dips 50 to 60 degrees west. The walls of the limestone mass show movement at the contact and within the adjacent sheared rocks.

The oreshoot is localized at a bend in the limestone as seen in plan. Other oreshoots could not be studied but appear to be very small from available data. Their localization is not known. The main oreshoot at the abrupt change in strike of the limestone is composed of limestone, apparently but little altered during mineralization, cut by stringers carrying galena, sphalerite, quartz and carbonate. The limestone walls strike about N 20 W ~~XX~~ at the oreshoot and dip westerly, but the stringers strike ~~XX~~ in various directions averaging about north and dip flatly in an easterly direction. A few steeper stringers and a little disseminated galena were noted. The area in which mining has been done in the main oreshoot is about 125 feet long and 30 to 40 feet wide in maximum dimensions. From this must be subtracted pillars, other rock in place, and considerable material of unknown grade removed during operations and stored as a waste dump.

The oreshoot was cut by a tunnel near creek level about 120 feet below the floor of the open cut-glory-hole. The country below the oreshoot was fairly well explored by these workings and but little ore was found. A couple small narrow stopes were attempted on the strongest of the steep sulfide bearing shears. Apparently the oreshoot failed to go down due to some dip-factor as the change in strike is still indicated on the tunnel level.

The Sunshine mine is part of the Purcell Estate, Fred Fickett, administrator. It has been held by various people on lease and is still tied up by Los Angeles people. Should opportunity arise, it would be well to map the main workings to further check the general impression that the property has little

merit.
Visited: 3/15/47- WRJ & RMH

Robert M. Hernon

and oxidation product

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine SUNSHINE MINE

Date September 13, 1947

District Papago District, Pima Co.

Engineer George A. Ballam

Subject: Examination

According to instructions, I visited the Sunshine Mine this week. Mrs. Bridget Breidler, who claims to hold these claims by virtue of location following the death of Judge Purcell, was contacted at the Lincoln Camp nearby. There seems to be considerable doubt about the ownership of the property. One Burnham had been operating a gravity mill without success and had abandoned the property. According to non-liability notice the Burnham lease was made by Fred Fickett, attorney and executor for the Purcell estate. Mrs. Breidler is represented by Otho Books, attorney. Both sides seem to claim all of the old Purcell properties including the Banner, Sunshine, Lincoln, Clark, Yellowbird, etc. Mrs. Breidler admits being an alien, although Mr. Books thinks she might be a citizen through one of her former marriages prior to 1922. So much for the involved title.

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GEORGE A. BALLAM

MEMORANDUM.

Re BANNER MINE

✓ COPPER GLANCE GROUP

✓ BLUE BIRD GROUP

✓ SUNSHINE MINE

✓ YELLOW BIRD MINE

all located in

Pima county; and all

owned or controlled by

✓ Bridget Breidler,
General Delivery,
Tucson, Arizona.

Mrs. Breidler states she has resided upon some of these claims for 17 years.

It appears that she has relocated some of these groups; others are her original locations.

She states that she will make an attractive offer to any legitimate mining operator.

The files show a rather complete report on the SUNSHINE mine by C.E. James, E. M. From this report it would appear that a considerable tonnage of lead ore can be mined. The report is dated in 1920. It is not known, nor does the file indicate, whether subsequent operations have removed this ore.

The Banner Mine was once surveyed for patent, but no patent application appears to have been filed in the U.S. Land Office. If the files of Paul Fernald, surveyor, of Tucson, (now deceased) could be examined they will doubtless contain map of the property. Old workings here are approximately 200 ft deep.

Mrs. Breidler lives on the Yellow Bird group, about 42 miles S.W. of Tucson, and in approximate Sec. 26, T. 17 S., R. 10 E.

* See file under SUNSHINE MINE for sketch map of claims made by George Talajech who accompanied Mrs. Breidler on her visit to office July 11, 1947.

memo by J.E. Busch.

C
O
P
Y

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
MINE OWNER'S REPORT

- Date _____
1. Mine *Dunshin group*
 2. Location *40 miles S of W from Popago - Pima, Tucson - Popago mining district - Pima Co. Ariz.*
 3. Mining District & County *Popago - Pima, Tucson - Popago mining district - Pima Co. Ariz.*
 4. Former name _____
 5. Owner *JW Purcell & Associates*
 6. Address (Owner) *Tucson Hotel Tucson*
 7. Operator *JW Purcell*
 8. Address (Operator) *" " " "*
 9. President, Owning Co. _____
 - 9A. President, Operating Co. _____
 10. Gen. Mgr. _____
 14. Principal Minerals *Gold Silver Lead Zn*
 11. Mine Supt. _____
 15. Production Rate _____
 12. Mill Supt. _____
 16. Mill: Type & Cap. _____
 13. Men Employed _____
 17. Power: Amt. & Type _____
 18. Operations: Present *shaft & tunnel - open cuts etc etc about 2,500 feet of work*
 19. Operations: Planned _____
 20. Number Claims, Title, etc. *Eighteen (18) unpatented title from fact - annual labor done and filed since 1917*
 21. Description: Topography & Geography *Mountains similar to Pinal and other Ariz. localities*
 - * 22. Mine Workings: Amt. & Condition *See answer 18*

23. Geology & Mineralization

Limstone - and eruptives
Folgs 4 to 100 feet wide
500 to 3000 feet length

24. Ore: Positive & Probable, Ore Dumps, Tailings

20,000 in dumps - 400 thousand

24A. Dimensions and Value of Ore body

See answer 23

25. Mine, Mill Equipment & Flow-Sheet

26. Road Conditions, Route

Highway within 12 miles
thru mountain rd.

27. Water Supply

Sufficient for 100 ton mill

28. Brief History

Not been worked for many years
but poorly conducted - needs a good
man and plant

29. Special Problems, Reports Filed

Milling of Lead Silver ore -

30. Remarks

about \$60,000 of ore shipped to El
Paso & Douglas Smelters

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

411 - price and terms
to meet reliable parties

32. Signature

Dr. J. W. Fickert

33. Use additional sheets if necessary.

Address, Judge F. W. Fickert
Atty. General of

Terrebonne Hotel

MS-62

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date

1. Mine Sunshine group
2. Mining District & County Papago - Pima County
3. Former name
4. Location 40 miles west from Tucson .
Papago mining district, Pima Co. Ariz.
5. Owner S. W. Purcell and Associates ✓
6. Address (Owner) Tucsonia Hotel, Tucson,
Arizona.
7. Operator S. W. Purcell ✓
8. Address (Operator) same
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals Gold, silver, lead and copper ✓
14. Men Employed
15. Production Rate
16. Mill: Type & Cap.
17. Power: Amt. & Type
18. Operations: Present Shafts and tunnels - open cuts etc. About 2,500 feet of work.
19. Operations Planned
20. Number Claims, Title, etc. Eighteen (18) unpatented. Title perfect. Annual labor done
and filed since 1917.
21. Description: Topography & Geography Mountainous, similar to Bisbee and other Arizona
localities.
- * 22. Mine Workings: Amt. & Condition See answer 18.

23. Geology & Mineralization Limestone and eruptives. Ledges to 100 feet wide;
500 to 3,000 feet, length.
24. Ore: Positive & Probable, Ore Dumps, Tailings 20,000 on dump - 200 thousand
- 24-A Vein Width, Length, Value, etc. See answer 23
25. Mine, Mill Equipment & Flow Sheet
26. Road Conditions, Route Highway within 12 miles through mountain road.
27. Water Supply Sufficient for 100 ton mill.
28. Brief History Has been worked for many years, but poorly conducted. Needs a good
man and plant.
29. Special Problems, Reports Filed Milling of lead, silver ores.
30. Remarks About \$50,000 of ore shipped to El Paso and Douglas Smelters.
31. If property for sale: Price, terms and address to negotiate. Yes, price and terms to meet reliable
parties.
32. Signed /sd/ S. W. Purcell
Tucsonia Hotel, Tucson, Arizona.
33. Use additional sheets if necessary.
Address: Judge F. W. Fickett, Att'y., Tucson, Arizona.

APACHE HOTEL

SYLVESTER WALDEN PURCELL

ATTORNEY AND COUNSELLOR AT LAW

~~XXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXX~~
TUCSON, ARIZONA

November 30, 1937.

Mr. J. E. Busch,
Special Agent, Div of Inv., U.S.
260 Federal Bldg.,
Phoenix, Arizona.

Dear Sir:

I have been at the mines for several days, therefore did not answer your letter of the 18th, which I shall now endeavor to do.

The Sunshine and Sunrise group of mining claims consisting of sixteen in number were located in the year 1917, and the annual labor has been performed upon said claims for each and every year since 1917, the affidavits of which appear of record in the County Recorder's office of Pima County, Arizona, giving the names of the persons who performed the work and where the work was done.

These claims are located approximately in Sec. 12, T. 18 S., R. 10 E. and have had performed upon them in actual work approximately \$100,000.00, consisting of shafts, drifts, open cuts, etc. There have been shipped approximately \$40,000 from these properties. They have been partially closed since the depression of 1929-30, though work has been continuous and a watchman has always been upon the property.

There is in addition to the claims, two millsites and water rights; also an exclusive water right extending 2,000 feet up and down Ash Canyon. These claims and rights were filed prior to any other in the district and have been maintained continuously and I cannot see how the Taylor Act or any other act can take away my constitutional right of property. The Supreme Court of the United States has held that a mining claim properly located and maintained holds against any title of any kind whatsoever, even against the United States of America. I am also informed that the Supreme Court of Arizona has also held accordingly. The reason I bring this up is because I have information that one Pasqual S. Hernandez made a stock raising entry #073353 Sept. 12, 1933, for all Sec. 12, T. 18 S., R. 10 E. What is the ruling of your department in this regard? Can he or can he not legally file such a claim? Can he divest me of my vested rights according to law? I sincerely protest against it. So kindly give me a complete and full answer to these questions.

I gave Mr. R. M. Pacheco the right to use the water on Sunrise 12 Claim, known as Aguaajito, also the right to use the water from the well in Ash Canyon while I was not using the same.

apn. H. L.
SYLVESTER WALDEN PURCELL

ATTORNEY AND COUNSELLOR AT LAW

56 NORTH CHURCH STREET

POST OFFICE BOX 546

TUCSON, ARIZONA

No exclusive right or privileges are extended Mr. Pacheco or anyone else, he to cease using the water at any time upon notice from me.

I intend to commence operations in the very near future and will necessarily have to use the water. However, in that event there will be an overflow no doubt. Also, inform me if I can permit Mr. Pacheco or anyone else, by lease or otherwise, to use these waters for watering his stock. I shall particularly like to know this point at once, if the ruling of your department is contrary to the leasing of these waters for watering stock. I shall notify Mr. Pacheco to that effect. However, I have no objection to Mr. Pacheco using the water at the present time if he is in need of same to preserve his stock.

On account of the complications that have arisen out here in this regard, I will most anxiously urge an immediate reply, that I may be able to properly and legally handle this situation at this end.

Yours very truly,

S. W. Purcell
S. W. Purcell

SWP/M

Albuquerque, N. M.,
Dec. 3, 1937.

Judge S. W. Purcell,
Apache Hotel,
Tucson, Ariz.

Dear Sir:-

I have your letter of Nov. 30th and thank you for the information therein. I am glad to know you have maintained the claims.

With respect to the Pasqual S. Hernandez homestead: two courses of action may be taken. (1) you can file a contest against the entry on the grounds that a portion of the entered land was included within valid and subsisting mining claims at the date of filing (and of final proof -- if made), and, (2nd) you can file a sworn and corroborated protest against the entry in the Phoenix land office, or with the Commissioner of the General Land Office, Washington, and ask an investigation prior to issuance of patent. Such protest should set forth all the pertinent facts relative to the claims, such as date of location, that they have been legally maintained under the law, that they are valid as to discovery, etc. Usually, following such protest, an investigation is ordered, tho' I cannot promise such will be the case because of some change in procedure lately.

A third way to bring the matter to a head, and cause the Govt to make investigation, would be to apply for mineral patent.

I am fully in accord with your views re valid mining claims, as, I think, you realize from our conversation of about 2 years ago.

If the claim upon which you have water is valid as to discovery, and has been legally maintained, it is your property; and, in my opinion, so is the water. So long as Mr. Pacheco leases from you he thereby acknowledges your ownership, ie, landlord and tenant status. You might, for your own protection, secure a copy of the State water code.

I expect to be back in Tucson about Jan. 3rd and will be glad to have a talk with you on these matters.

Very truly yours,

J.E.Busch,
Special Agent,
Box 1299.

Report Covering Inspection of the ~~SUNSHINE-SUNRISE~~ MINES
Aquaijito, Papago District, Pima County, Arizona
By C. H. James, E. M.

10th September, 1920

The following covers results of my investigation of the above property and a reconnaissance of the district in connection therewith.

Attention was mainly directed to the ore bodies of Sunshine No. 1, that being more developed and in better condition to approximate probable ore quantities, values, costs and returns.

A thorough sampling of the principal ore bodies though advisable at the present time, was not attempted by me, being outside the scope and instructions of my investigation. My sampling covered sufficient check and "pilot" samples to arrive at a general confirmation of the more comprehensive former samplings by Messrs. W. A. Wishon, C. S. Attix and others. In ore bodies of this description, large bulk samples, preferably mill runs, are necessary to arrive at correct average values.

DESCRIPTION OF PROPERTY

This comprises sixteen contiguous claims totalling about 300 acres and two mill-sites, situated in the north-westerly foothill spurs of the Sierrita mountains and about 34 miles southeast of Tucson, the county seat and most convenient railroad point for the mines.

The well known producing centers of Twin Buttes and Mineral Hill, respectively, nine miles south-easterly and twelve miles northeasterly of the property.

Present communications is by 24 miles southeasterly along the paved Ajo highway; thence 8 miles south along the Sasabe county road and thence southeasterly by desert and mountain road via Lincoln and Banner camps for a farther distance of 9 miles, or 44 miles in all. Proposed improvements and shortening of the road from Clark Mine to Sunshine Camp will considerably lessen this distance.

The holdings occupy a length of 6,500 feet and a breadth averaging 2,200 feet along an intensively mineralized and altered belt of limestone, rhyolites, quartzites and shales, abutting against granite masses of late age. The irregular topography enables exploration by tunnelling to moderate depth in the principal line of ore bodies.

Adequate water supply for present and immediate future purposes is assured from shallow wells in the adjacent canyons and in a kaolin belt parallelling the main ore formation; also from deeper development of the ore bodies.

Working conditions are good. The ore occurs in long shoots of easily mined material and good standing walls and the ore is amenable to simple table or flotation concentration yielding a high grade clean concentrate.

* The extent and value of the Sunshine ore body is established beyond a doubt at surface, and incompleated deeper development proves the ore body to persist in size and in several unconnected points, to a depth of 200 feet below the main outcrop exposures.

The ore bearing mass is wider in the lower levels, but sufficient work, particularly cross cutting, has not yet been done under the proven ore bodies at surface to determine their width and value at depth. It is probable that the further lateral development recommended at the present tunnel level will speedily open up

additional resources of milling ore out of all proportion to the already assured ore reserve above the assumed level of 75 feet to the surface. When this has been satisfactorily accomplished, the Sunshine No. 1 mine will be in sound condition for a full milling equipment and consequent steady profit earning.

With present ore showings alone there would be no undue risk in installing a small unit mill of, say 30 to 50 tons per day, but unless financial reasons require a revenue at the earliest date, considerable further development should be carried out first.

Geological conditions and mineralization point to deepseated origin of the ore bodies with consequent permanency in depth.

Development to date has resulted in opening a comparatively large amount of pay ore in relation to the footage accomplished. Titles to the property are in order and unencumbered.

RESUME OF DISTRICT

The locality was one of the earliest mined areas in the southwest, but operations of the early Spanish Mexicans, and later American miners, were confined to small scale highgrading and pocket-mining of the easily found and mined surface silver-lead-copper ores. Later in the seventies and eighties, several properties, including the Sunshine, Banner and Lincoln, were worked on a similar lines though larger scale, but whereas the greater portion of the ores are silicious and require concentration before marketing, no serious milling operations have been undertaken.

The Banner mine, adjacent to the Sunshine group, was profitably operated over a number of years until abruptly closed by a heavy strike of water, followed soon after by litigation. Credible reports show that the wide lode continued to carry shoots of primary sulphide ore of good value in the deepest (200 feet) level.

The lenticular deposits of silver-bearing copper glance and carbonate ores in the serictic schist belt of the Lincoln were intermittently, but profitably worked by high grading methods over a number of years, but have never been adequately explored at depth for larger bodies of concentrating ore, and the Yellow Bird quartz ledge of the same group was similarly high-grade to moderate depths for shipping ores.

North of the Sunshine and on the silver-limestone-quartz belt, the Clark property was worked in a small way by pocket miners. It has recently been acquired by Eastern interests who are preparing to develop the indicated large bodies of copper-silver-lead impregnations in the altered limestone. In short, the most promising veins and deposits in the district have been only superficially prospected and worked for high grade ores, while their main potential values rest in the development of the wider bodies of lower grade ores. The Sunshine No. 1 is in a more advanced stage of development than the other mines of the camp.

GEOLOGY AND ORE OCCURRENCES

* The rock structure of the district broadly consists of a wide series of limestones, shales, quartzites and other sedimentaries, altered in great part by schisting, silicification and tilting by extensive intrusions of rhyolite, quartzite. Portions of the continuous sedimentary series have been broken away from the main series by the granitic upheaval and now form outlying "islands" or lenticular masses of limestone and quartzite surrounded by igneous rocks. Under certain conditions the sedimentary masses, particularly when limestone, having been intensely shattered and fissured along and adjacent to their contacts with the igneous masses and by extensive dikes within

them. Mineralization has accompanied or followed this fracturing and re-silicification of the fractures, forming ore bodies of which the Sunshine No. 1 is typical.

The sedimentaries adjacent to the schist and often the rhyolite intrusive masses are schisted and also show mineralization, but the limestone being a little more receptive for mineral deposition by replacement, contains the principal ore shoots and "stock-work" deposits.

The metal carrying solutions in most cases have followed the rhyolite and diorite shoots and dikes, and from them have ascended along the more fractured portions of limestone and the narrower but more even fissures in the quartzites.

In other cases mineralization has been effected by direct contact and alteration of the sedimentaries with and from the granite magmas.

There is every reason to assume that the Sunshine No. 1 limestone body extends to great depth and with it its fissured condition; therefore we can also expect ore deposition to continue downwards to similar depth.

The copper bearing granite-epidote-diabase contact band traversing the property and paralleling the main limestone belt is typical of the copper bearing contacts of Twin Buttes and Mineral Hill, and its further investigation and exploitation by some diamond drilling is justified and with a reasonable chance of finding enrichment in commercial degree such as resulted from deep exploration of the similar mineralized contacts at Twin Buttes, but at the present this is of secondary consideration.

The mineralization of the Sunshine No. 1 and No. 2 is mainly a deposition of galena with a less amount of blende, pyrite and chalcopyrite in the intensely fissured portions of the limestone and particularly along the main fissures or water courses. Mineralization has not intimately penetrated the harder limestone, and deposition by replacement is not extensive carbonates, the proportion of which to galena should be determined. The lower workings show increasing amounts of blends and not a sufficient quantity to offer treatment troubles.

The zone of oxidation is shallow, galena usually occurring a few feet below the surface, except on the main water courses where oxidation reaches deeper. A series of cross faults has disrupted the strata and ore deposition is greatest in their vicinity.

The general strike of the mineral belt is N-W-S-E and except where locally varied by later intrusions, and the dip is from 70 degrees to 48 degrees southwesterly.

A large mass of ferruginous, altered diabase known as Iron Mountain and reported to contain gold-copper ore in places occurs on Sunrise No. 7, 2800 feet east of Sunshine No. 1 and deserves investigation at a later date.

* The main ore occurrences consists of fractured, silicified and mineralized lime contact zone underlain by schisted rhyolite and andesite on the foot wall and silicious schist of probably sedimentary origin on the hanging wall. It strikes N. W. dips 50 degrees to 75 degrees southwest and outcrops for a continuous length of 700 feet. The width of commercial ore is exposed by numerous cuts, shafts and faces, ranges from 6 feet to 43 feet, Near its southern limit it outcrops boldly over 30 feet above the wall rocks and there shows good milling ore for the greater part of its extent.

A considerable portion of the main ore body as opened at the near surface and at several points in the lower workings, shows values above the minimum average recoverable value accepted at a basis for following estimates of values, costs and returns, and estimates of general average values stated in previous reports are considerably higher. However, pending a more thorough sampling of all the workings and showing and some bulk mill tests. I believe the lower average assumed by me, while safe, is nearer the actual average of the ore body as a whole.

Mr. W. W. Wishon reported the general mine run average as silver 12.2 ozs; gold \$.55 and lead 13.4%. In a report by the late C. S. Attix, E. M., covering an examination some years ago, no definite ore reserves are stated and no general average value is given, but a list of his sampling results included indicate a much higher tenor than the values I have assumed for the present purposes.

Mr. E. P. Spaulding in a report estimates the average value of a large portion of the Sunshine ore body including much of the lower grade material opened by the cross-cuts from Ash tunnel as : silver 5.46 ozs; gold \$1.10 and lead 9.8%. Apparently the few samples he took were well placed, large and covered considerable widths and probably form a fair basis for provisional estimates pending more complete sampling. Spaulding's sampling is as follows.

1/150' level winz 4' sampled	silver 8.4 oz.	gold \$1.60 pb	13.11%
2/ Sorted ore, so. cliff cuts "	51.2 "	" 2.20 "	52.83%
3/ " " " " " "	26.4 "	" 4.40 "	64.16%
4/ Ash Canyon tunnel 20' cross cut"	5.2 oz.	" 1.20 "	8.98%
5/ " " " 2nd. cross" "	4.8 "	" 0.80 "	7.32%
6/ So. Cliff face 30' high x 10'W"	4.4 "	" 0.80 "	13.11%

It will be noted that the apparently low grade material opened by crosscuts from Ash tunnel showed values approaching my provisionnal estimate of 7 oz. silver, gold \$1.00 and lead 8%.

At 230 feet north of main shaft and 50 feet from the northerly limit of the limestone, a deep surface cut exposes 4 feet of ore as saying: silver 7.8 oz gold \$1.00 and lead 21.1% with hanging wall unexposed.

At 180 feet north of shaft a 60 foot incline follows the main foot wall ore streak; the shaft ends and the dump showing milling ore. Wishon reports a dump of partly selected ore from this as assaying: silver 16 oz. gold \$1.10 and lead 33.6% and for the remaining dump, after being high-graded, silver 3.2 oz. gold \$0.40 and lead 5.6%.

At 100 feet north, a cut exposes 6' to 8' wide of the same class of ore assaying: silver 4.6 oz. gold \$0.80 and lead 8.1%.

The main shaft is sunk in the foot wall of the limestone belt to a depth of 140 feet.

* At 65 feet drifts are run 25 feet north and 25 feet south but are inaccessible. Wishon's report states the north drift t show 6 ft. wide or ore assaying: silver 121 oz., gold \$.40 and lead 17% with low grade concentrating ore adjoining this ore bank, That report also states the shaft bottom to assay: silver 14.1 ox, gold \$1.40 and lead 10.4% but it is doubtful if bulk sampling will confirm this grade. Most of the shaft sinkage is in hard, slightly fractured limestone with a general light galena mineralization.

At 100 ft. level the mineralized lime is crosscut west for 50 feet and shows galena and blende mineralization throughout the hard altered limestone with sufficient enrichment within the more fractured zone to be profitable stoped, though only proper bulk sampling can determine the actual average value.

At 30 feet west of shaft a south drift follows, low grade but possibly milling ore for 28 ft. where crosscut exposes 20 ft. side of the same irregularly mineralized material. The foot wall crosscut shows more fissuring with consequent heavier mineralization and a 25' winze follows this down showing of 4 ft. across bottom assayed: silver 8 oz. gold \$1.80, lead 12%, and a small dump of ore, roughly selected from this winzing assays: silver 21.4 oz. gold \$1.80, lead 32%. This development is interesting, being the deepest work in the central portion of the ore body.

Other developments at the 100 ft. level are mostly filled with material broken in winzing and crosscutting.

60 ft. south of main shaft a shallow incline exposes 10 ft. of ore with hanging wall not exposed. The faces and dumps have been highgraded for shipping but the balance of dumps and sides of incline show milling ore. The mineralized limestone here is over 30 ft. wide with stringers of galena at intervals across it.

At 130 ft. south of shaft a cut 18 ft. deep and 60 ft. long exposes 6 to 8 ft. of ore, the richer seams of which have been highgraded. The dump of ore from this work shows very good milling ore and a cut across 6 ft. of the vein assay: silver 6.7 oz, gold \$.90, lead 9%.

300 ft. south of the shaft the ore body is exposed by an abrupt east-west face over 20 ft. high for its full width of 47 ft. and shows a good mineralization of galena in seams and impregnation from wall to wall. The intermittent shipments of smelting ore mined in the early days were mainly sorted out of material broken down across the "southcliff" and a considerable amount of ore of very good milling grade remains in the dumps. The ore body is intensely fractured and many of the galena filled fractures range from 6" to 18" thick.

A short cut on foot wall shows good ore and on hanging wall side of deposit a flat incline 40 ft. long, 16 to 22 ft. wide and 8 ft. to 12 ft. high expresses good ore throughout. A sample of roughly sorted ore streaks exposed in the face and sides of this flat incline assays: silver 26.8 oz. gold \$1.80, lead 74%, and forms a fair indication of the value of mill concentrates from this portion of the property.

Farther south and below this work, the limestone outcrops over 50 feet wide, showing light mineralization in sections and at about 100 feet south its southern limit is reached. The winze and raise development in Ash Tunnel are within and slightly below this somewhat poor looking outcrop and the more highly mineralized mass of the south cliff exposure has not yet been opened at tunnel level. If the proposed development at the latter proves the width and value to be as at surface, a very substantial gain in ore reserves will result.

On the foregoing surface and shallow showings are based the provisional estimates of 60,000 tons of good milling ore already assured above 75 feet level along the 700 ft. of exposed outcrop, and I believe that when mined, this block of ground will yield a considerably greater tonnage, also that the approximate grade of 7 oz. silver, \$1.00 gold and 8% lead will be more than maintained.

PROPOSED ADDITIONAL DEVELOPMENT

To quickly increase ore reserves and convert the present large quantity of partly developed and indicated ore at definite reserves with the least expenditure and time, I recommend that the Ash Canyon tunnel be extended into and along the ore zone to the locality of the main shaft where a short raise would connect the shaft bottom and the adit drift then extended to the northern limit of No. 1 ore body.

Concurrently with drifting, crosscuts should be run out westerly across the limestone at intervals of not greater than 100 ft. and the principal shoots or bands of pay ore, as located by these crosscuts, then connected by drifts within the main ore or shoots.

A main raise should be put up to hole within the large mass of ore in the south cliff outcrop and other raises and winzes should be started when the most suitable point for them have been determined by the proposed drifts and crosscuts at tunnel level.

The present tunnel will need some stripping, retracking, etc. before starting this work.

To carry out this work effectively, it will be necessary to install a 2 to 3 drill compressor near Ash Canyon tunnel portal, together with tool sharpening equipment, ore cars, bins and means of raising the dumping into the latter, the tunnel mouth being very close to creek bed. The compressor could be driven by an oil burning engine of Fairbanks Morse "Y" type or a self-powered machine of the Chicago Pneumatic "hot head" could be selected. Much of the rock is hard and I recommend at least one Dnber Turbre Drill and two Jack hammer drills, surplus air power should be allowed for air pumps and pushing development at several points.

The usual bunkhouse, boarding house for at least 15 men are required and a good sampling and assay plant is essential at the outset, Water supply for the camp and compressor plant is obtainable by sinking wells near the adjacent creek bed.

Before installation of this plant can be started the road from Clark Mine must be improved for efficient truck haulage through to Ash Canyon.

As an alternative to developing from Ash Canyon, the main shaft could be equipped with hoist, headframe, compressor etc. and work started at the end of the ore body and this may eventually be advisable, but the main requirement at present is to definitely block out a large tonnage in ore reserve to justify a 100 ton per day mill installation and therefore the objective can be attained with the least delay and cost by extensive lateral work from Ash Canyon.

The cost of the development equipment will depend largely upon the size and power of the compressor plant and within reason the larger this is, the better.

* Exclusive of road repair and camp buildings, the cost of the complete development equipment, including a two or three drill compressor, engine house, water supply, drills, mountings, still cars, etc. will be about \$7,000.00 erected and running though a heavier plant is advisable and fully justified.

It will be found advisable to equip the main shaft or the proposed raise to south cliff with a hoist to enable getting rid of rock and ore broken in development in the north and save the long tram haul, when development has progressed to that end of the ore body. Allowing for a minimum development footage of 1,100 feet to fully cover this program, and estimating all operating charges when running three or more faces,

the cost of the lateral work and raising would be about \$13,750.00 I feel confident that with proper equipment and careful estimate and that the results attained will open up a reserve of ore in quantity to fully warrant the further equipment of the property with a full mining and milling plant on the lines advocated in the previous reports on the property.

ASH CANYON TUNNEL

This has started near creek bed level 500 feet south and 160 feet below level of collar set off main shaft. It penetrates footwall schist for 80 ft. then continues in mineralized limestone where a pay ore shoot over 50 ft. long and 6 ft. wide is opened the tunnel and raise and winze off latter. The mineralization extends westerly across the limestone from this footwall shoot for a proven width of over 30 ft. Portions of the mineralized material are of milling grade, but sampling is necessary to determine the proportion of ore and waste. The raise is in good ore and the winze (now flooded) is credibly reported to have shown good ore in bottom. The several crosscuts put out in the mineralized mass northeasterly of the raise show light mineralization, but this work is all to the south cliff outcrops. If the dip of the latter is maintained to the tunnel level, the ore should be found northwesterly of the present tunnel crosscuts, which have merely prospected the downward continuation of the poorer southermost limestone outcrop.

The tunnel drift continues in footwall schist to 260 feet from portal and is about 300 ft. south of mainshaft, to the locality of which it could be driven quickly in the schist or more slowly, but with better effect, by trending it into adjacent limestone and then extending the drift in the latter.

The time required to carry out this work will be from 6 to 8 months according to air power and mills available, after equipment is completed. Exploring the limestone formation at depth by diamond drilling would be quick, cheap and fairly reliable, providing a sufficient number of holes are put down, but owing to the irregular concentration of the galena in fissures and streaks and to the very friable nature of the mineral in comparison to the tough fissured lime, results might be low and misleading. Development of the interesting Sunshine No. 2 ore body could follow at a later stage.

ORE TREATMENT

This character of ore will yield a good percentage recovery with high ratio of concentration and clean concentrates by medium crushing and concentration, or fine crushing and flotation or preferably a combination of both. When lead carbonate appears in appreciable amounts, table concentration should precede flotation.

Thorough laboratory and working treatment tests will be necessary to evolve the most satisfactory flow sheet and in the meantime a fairly simple and cheaply operated concentration process can be relied on.

A small testing mill of say 10 to 12 tons per 24 hours would be invaluable for running mill tests on the ores and would certainly pay for its cost and operation when running on the richer ores.

* A suitable little mill for this purpose could be installed complete for \$4,000.00 to \$7,000.00 according to design and completeness. This is a matter for consideration after the development work is proceeding.

If, for financial or other reasons, it proves desirable to install an entire mill unit of say, 30 to 50 tons daily, capacity before the full development policy is carried out the present indicated and assured reserves are sufficient to make this a safe investment, though I advise deferring production until further development work warrants larger operations.

QUANTITIES, VALUES, PROBABLE COST AND PROFITS

There are at least 60,000 tons of ore in the No. 1 ore body alone from surface to an assumed depth of 75 ft. proven and indicated by the partial development within this block to date. It ranges from 6' to over 40' wide at surface.

A careful consideration of previous samplings and my own "pilot" samples justifies the following estimated minimum values for this tonnage: silver 7 oz. gold \$1.00, lead 8%.

Portions of the ore body included in the above will carry considerably higher values over local areas.

The assay value of the ore as above estimated is:

Silver, 39 ozs. per ton concentrate @ 90¢	\$35.10	
Gold	5.40	
Lead, 48%, less 2%, 46%, 90 or 46% @ 6¢ lb.	<u>41.40</u>	41.68
Market value, one ton concentrate	<u>81.90</u>	90.18
Less treatment charge.		

On a basis of 100 tons milled per day, 16.66 tons of concentrates would be produced per day having a market value of, less treatment and freight, \$1,356.00 per day.

To produce one ton of concentrates would cost about as follows: (when mine is fully developed and equipped.)

Mining:	6 tons @ \$1.50 ²	\$9.00
Milling, transportation to mill,	6 tons @1.50	9.00
Development, 6 tons		1.50
General trucking		.30
Concentrate		<u>3.50</u>
Per ton concentrate		23.00
Add freight and treatment charges		23.00

\$46.00

The above approximation for future consideration, but on the foregoing figures show a margin of profit on ore carrying 7 oz. silver, \$1.00 gold and 8% lead of \$6.20 per ton of ore or \$37.25 per ton of concentrates.

* On the higher average values accepted in previous reports, the approximated profits would of course be proportionately higher as the working costs would remain about the same.

[illegible]

Memo:-

refer to file "

"Sunshine Mine"

(Pima county)

7-11-47

4-398a.
Tp. 10 S Range 10 E 7-11-47 Mer.
Land Dist.

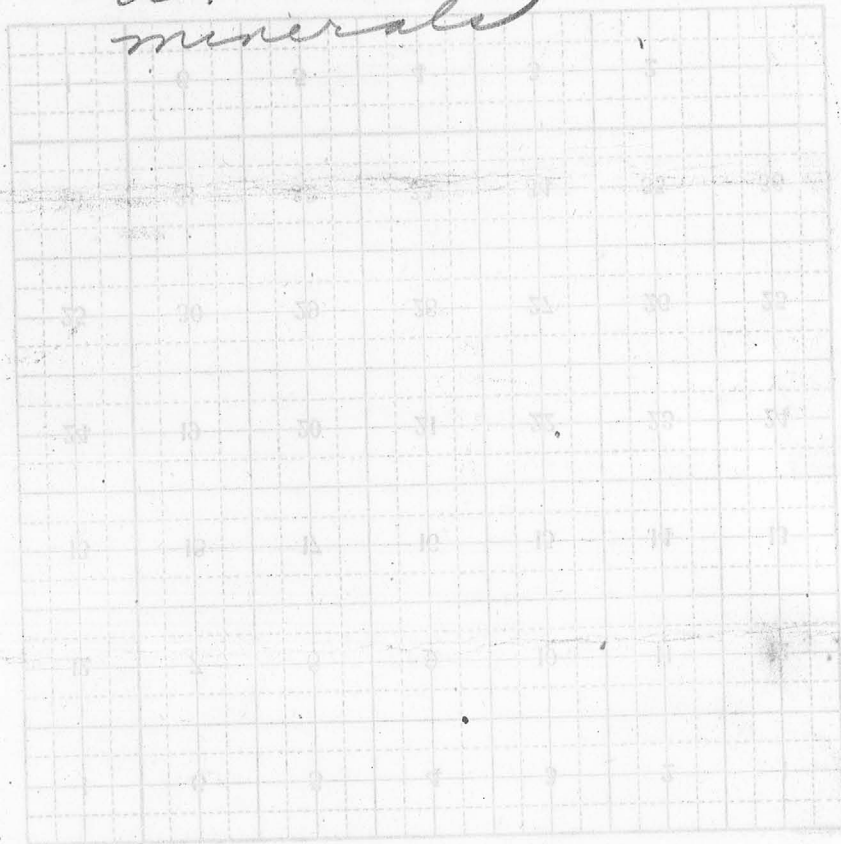
		6	5	4	3	2	1
12	7	8	9	10	11	12	
13	18	17	16	15	14	13	
24	19	20	21	22	23	24	
25	30	29	28	27	26	25	
36	31	32	33	34	35	36	
		6	5	4	3	2	1

Lots 1, 2, 3, 4, 5, 6, 7, Sw⁴ 7⁴,
S² 7⁴ 7⁴ 8⁴ 7² Sw⁴,
Sw⁴ Sw⁴ Sec. 1. leased
to C. C. Britten

lots 8, 9 Sec. 1 - Pat.
U. S. reserves minerals
lot 1, 8⁴ 7⁴ 8⁴ S² 7⁴ 8²
Sec. 2 - leased to
H. Manning

Lots 2, 3, 4, Sw 4 NE 4
Sec. 2 - State

W 1/4 NW 4, SE 4 NW 4, SW 4
Lots 1, 2, 3, 4, 5, 6, 7 Pat.
U. S. reserved
minerals



16 Range 4-388-4 4-11-4 Mer.

Tp. 18S Range 11E ^{4-398a} 7-11-41 Mer. 17
 Land Dist.

	1	6	5	4	3	2	1
12		7	8	9	10	11	12
13		18	17	16	15	14	13
24		19	20	21	22	23	24
25		30	29	28	27	26	25
36		31	32	33	34	35	36
	1	6	5	4	3	2	1

Sec 6 - State
 U. S. reserved
 minerals

SE⁴ SE⁴ Sec 7 Pat.
 U. S. reserved min.
 later 1, 2, 3, 4, NW², NE⁴,
 N² SE⁴ SW⁴ SE⁴ Sec 7
 in State exchange

7-11-41 Mer.

4-3882

Dist.

H. S. Price

Regional Administrator,
Bureau of Land
Management,

P.O. Box 1695,
Albuquerque,
New Mexico

not put in
recovered material

7-11-47

4-398a.

Tp. 17 S Range 10 E 7-11-47 Mer.

Land Dist.

1	6	5	4	3	2	1
12	7	8	9	10	11	12
13	18	17	16	15	14	13
24	19	20	21	22	23	24
25	30	29	28	27	26	25
36	31	32	33	34	35	36
1	6	5	4	3	2	1

Sec. 26 - S - H. ² ^{leased} ^{to} ^{James} ^{McAllister} ^{Pat. M.S. 3004} ^{to} ^{Ineson} ^{Con. Copper Co.}
 " 26 - 7² - Alice ^{McAllister}
 Sec. 27 - NE¹ NE² W¹ NE²
 SE¹ NE² NW¹ - State
 State has minerals
 S² Sec. 27 - leased to
 Hamlet McAllister

Sec 34 - S² State
State has minerals

Sec 34 - N² - leased
to H. Manning

Sec. 35 - N² SW⁴,
NE⁴ SE⁴, S² SE⁴ leased
to Howell Manning

NW⁴ SE⁴ Sec. 35 -
patented. minerals
went with patent