CONTACT INFORMATION
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Phoenix, AZ 85007
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http://www.azgs.az.gov
inquiries@azgs.az.gov

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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 11/27/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: BIG ZINC

ALTERNATE NAMES:
RAY INTEGRITY

PINAL COUNTY MILS NUMBER: 163A

LOCATION: TOWNSHIP 3 S RANGE 13 E SECTION 7 QUARTER SW
LATITUDE: N 33DEG 10MIN 50SEC LONGITUDE: W 111DEG 03MIN 33SEC
TOPO MAP NAME: TEAPOT MOUNTAIN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:
ZINC
LEAD

BIBLIOGRAPHY:
ADMMR BIG ZINC MINE FILE
ADMMR RAY INTEGRITY MINE COLVO FILE

BIG ZINC MINE

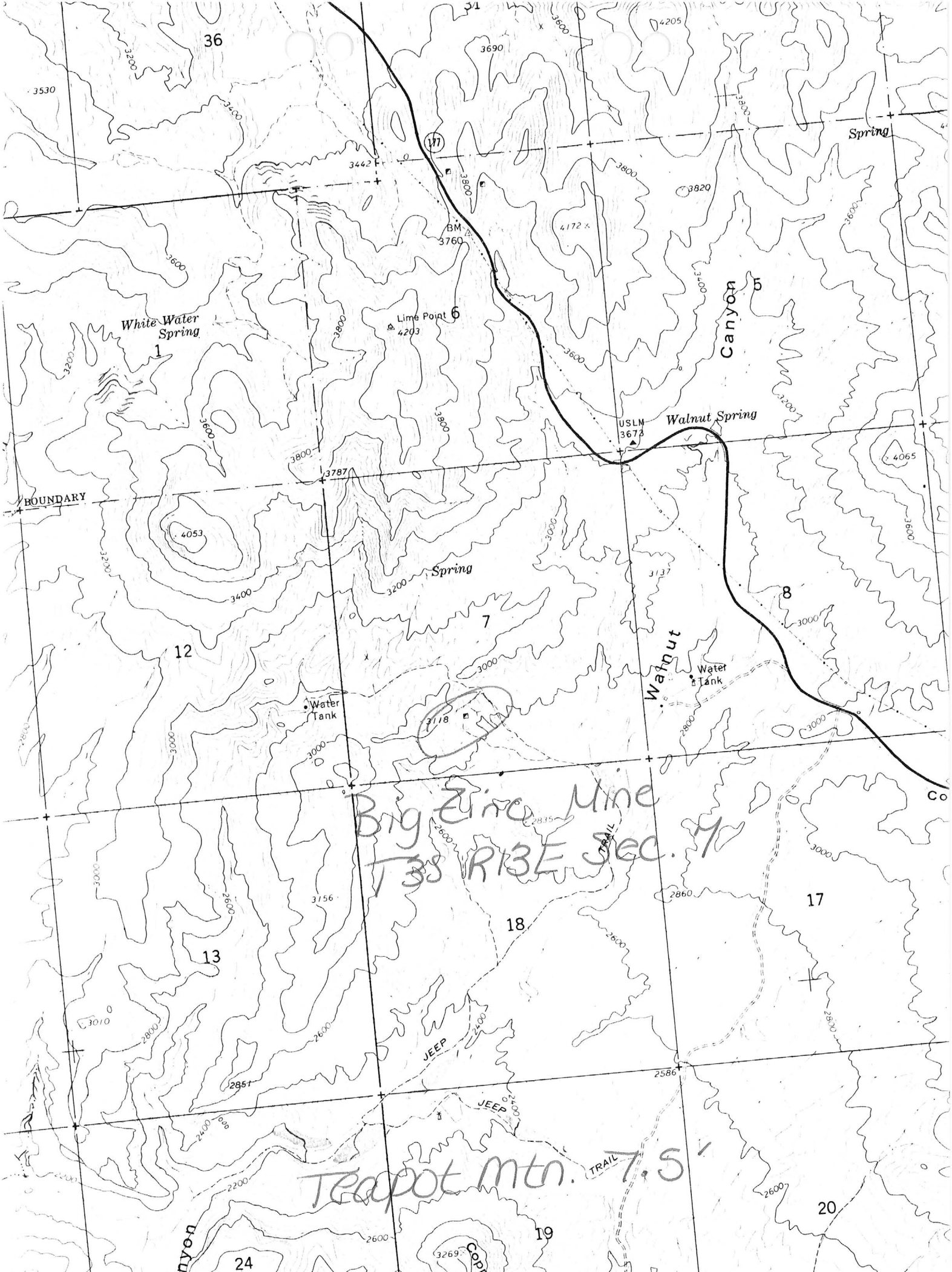
REFERENCES

PINAL COUNTY
MINERAL CREEK DIST.
T3S R13E Sec. 7 SW

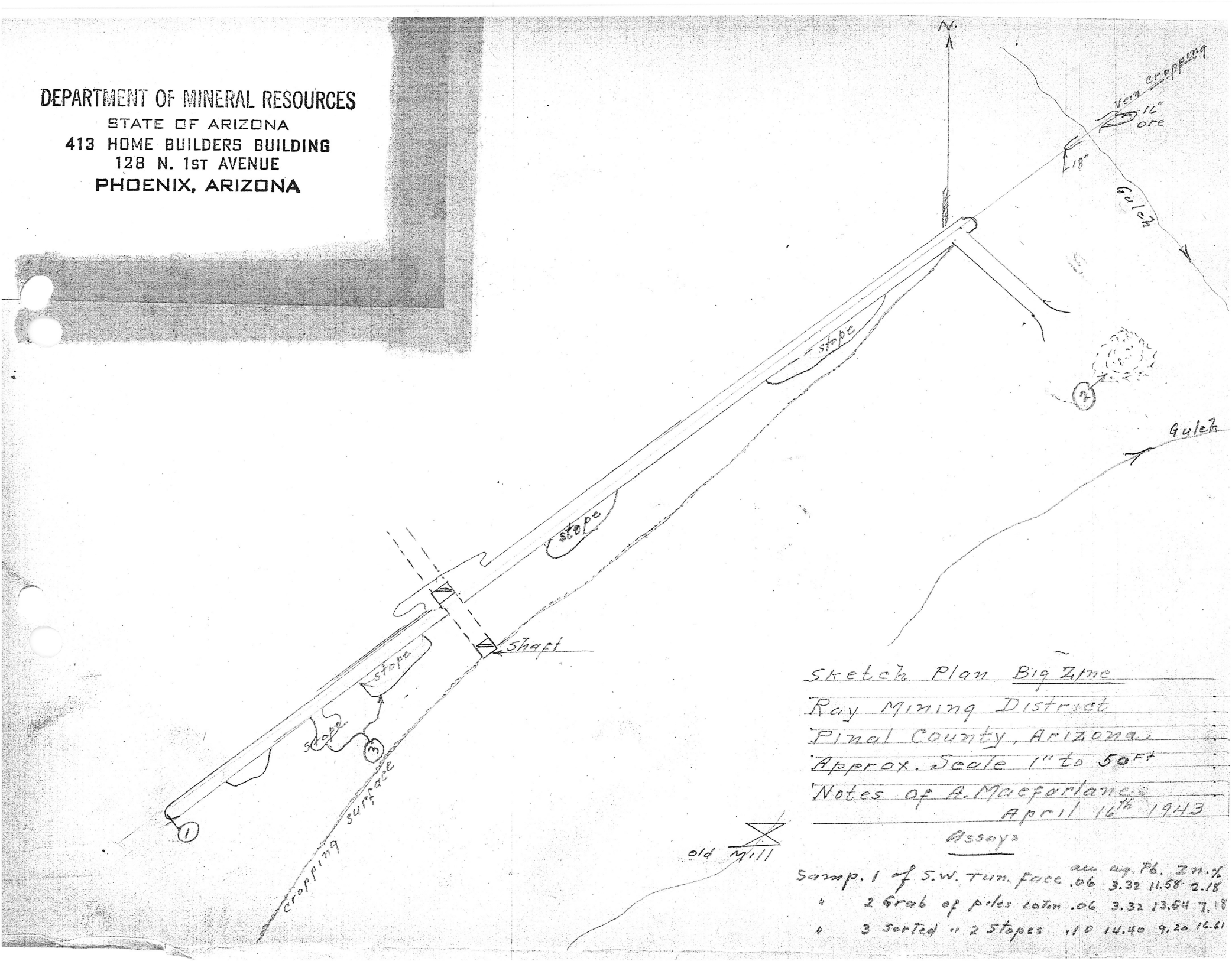
Pinal County MILS Index #163A

AKA: Ray Integrity

Teapot Mtn., AZ 7.5' Topo (included in file)


Big Eric Mine
T35 R13E Sec. 4
Teapot Mtn. 7.5'
White Water Spring
Lime Point 4203
Walnut Canyon
Walnut Spring
USLM 3673
BM 3760
BOUNDARY
Water Tank
Water Tank
Spring
Spring
JEEP
JEEP
TRAIL
TRAIL
36
1
6
5
7
8
12
13
18
17
19
20
24
3442
3787
3690
3820
4172
4205
4065
4053
3137
3118
3156
2851
2586
3269

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
413 HOME BUILDERS BUILDING
128 N. 1ST AVENUE
PHOENIX, ARIZONA



Sketch Plan Big Zinc
Ray Mining District
Pinal County, Arizona.
Approx. Scale 1" to 50 Ft
Notes of A. Macfarlane
April 16th 1943

Assays

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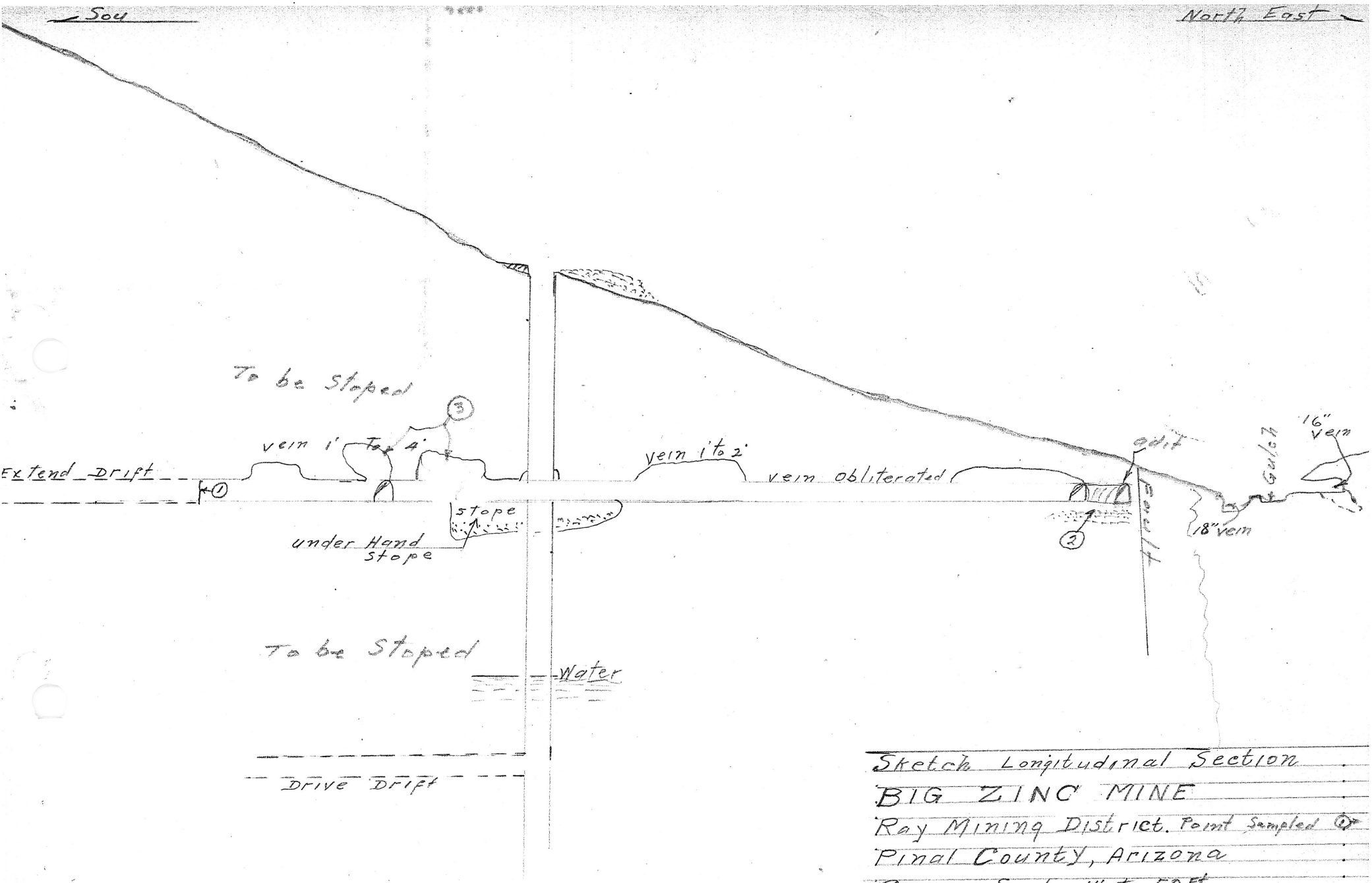

Sketch Longitudinal Section
BIG ZINC MINE
Ray Mining District. Point Sampled ①
Pinal County, Arizona
Approx. Scale 1" to 50 Ft
Notes Of A. Macfarlane
April 16th 1943 Field Engr.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
413 HOME BUILDERS BUILDING
128 N. 1ST AVENUE
PHOENIX, ARIZONA

RECONSTRUCTION FINANCE CORPORATION

WASHINGTON

325 Heard Building
Phoenix, Arizona
May 27, 1943

Mr. Earl F. Hastings
Department of Mineral Resources
413 Home Builders Building
Phoenix, Arizona

Re: Stewart O. Phillips
Docket No. Phoenix C-199

Dear Earl:

A $5,000.00 loan on the above property near Ray was reviewed by you and his request for $5,000.00 cut by you to $1500.00. Our review of your findings and recommendations seemed to disclose considerable lack of enthusiasm on your part and, carrying out that theme, we went further than you did and deleted the whole $5,000.00.

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W. B. GOHRING
Supervising Engineer

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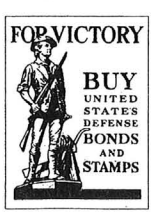

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: BIG ZINC. Pb. Zn. Formerly "Ray Integrity."
Date: May 24, 1943

District: Superior and Ray
Engineer: Earl F. Hastings

Subject: Reconstruction Finance Corporation Mine Loan

Docket No. Phoenix C-199
Date Application Received May 21, 1943
Date of Field Examination (A. Macfarlane) April 15, 1943
Date of Report May 24, 1943

1. Name and address of applicant (correspondent):
Stewart O. Phillips, Box 203, Ray, Arizona.

2. Character of project and estimated cost thereof:
Pb. Zn. Rehabilitate shaft to 100 feet below tunnel level (180 feet from surface) equip for drifting 100 feet southerly on tunnel level and 100 feet southerly from 180 foot shaft level. $5000.00.

3. Location of property:
Between Superior and Ray, Arizona.

4. Applicant's interest in or ownership of property:
Applicant is sole owner by location.

5. Loan requested:
$5000.00

6. Loan recommended:
$1500.00.

7. Comments:
(A) The Macfarlane report intimates that this property is a worthy prospect but that there is no commercial quantity of ore in the present workings. The main tunnel is at a shallow depth below surface, and the ore is not continuous along its length. Sample #1 shows the tunnel face to be worth developing, and #3 is indicative of a roughly sorted grade of shipping ore. It is economically possible to ship such ores to the custom mill of the Shattuck-Denn at Bisbee, but the margin of profit would be narrow.

(B) The major work to be performed is that of developing the vein in a southerly direction on two levels. There is no indication as to width or value of the exposure to be followed on the lower of these two projects, nor information as to the tenor of ore encountered in the shaft, which presumably follows the vein, below the tunnel level.

(C) The project resolves itself into driving along a vein which has not heretofore shown continuity of ore in width and value, and the exploration of the same vein at greater depth. It is not considered that the evidence submitted is sufficient in strength or quantity to warrant such expenditure. The limited sampling is indicative of a possible interesting production which should be more thoroughly investigates. It is considered that $1500.00 should enable the applicant to

rehabilitate the shaft both above and below the tunnel level for sampling purposes, and to methodically sample both that area and the vein along the tunnel level. Following such accessibility and sampling program the development proposal can be more intelligently considered.

Arizona Department of Mineral Resources

Earl F. Hastings, Projects Engineer

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine BIG ZINC Date April 15, 1943

District Superior and Ray Engineer A. Macfarlane

Subject: Examination - For S. O. Phillips, Owner, Box 203, Ray, Arizona.

PROPERTY: Now names Big Zinc, was formerly known as Ray Integrity. This property consists of 2 claims and was first worked starting about 1916 and for several succeeding years thereafter was worked by a small force.

MINE WORKINGS: Consists of a 30' cross-cut tunnel to cut the vein, thence by a drift about 384' long driven on the vein along its South-West course. At a point about 229' from where the cross-cut intersected the vein, a winze, better stated a shaft 2 Compt. was sunk more or less on the northerly dip of the lode; as water now stands in this shaft to a point about 80' below the tunnel floor, was unable to determine the total depth of this shaft, but estimating from size of dump and statements by owner, this shaft may have reached a total depth of 250' below tunnel floor.

A small amount of stoping has been made above the back of this South-West tunnel drift, these stopes being from 6' to 14' above tunnel back. However the ore was not continuous all along the tunnel, about 80' of the back does not show much mineralization. A little stoping was carried below the floor.

The aforementioned workings plus some small surface cuts about 50' north-east of the adit, covers the present known exploration work, but there can be drifting from the ends of the shaft, now under water.

MINERALIZATION: The vein system is continuous for 500' or more along its Northeast Southwest course, in fact both ends of the present exposed workings are still on vein matter, the length of the mineralization not yet reached.

The ores are principally a sulfide of zinc and lead with red iron stain in the fractures, giving the ore its redish color, the cross-section of the vein matter is a dark typical sulfide, complex in its composition with a quartz schist matrix or gangue.

OCCURRENCE: The Big Zinc lode is made along a black sheeted schist, probably an alteration of old granite; subsequent fissuring and quartz deposition and mineralization, forming the ores as now visible within the workings.

The dip towards the North is erratic varying from 30 degrees to 70, a firm schist forms the hanging-wall this of a lighter color, than the dark slickensided schist forming part of the lode filling.

The footwall or southeast casing, evidences an igneous flow rock, probably a diabase or dacite, of which there are a large exposures in this vicinity.

The ores filling a presistent fissure vary in width from a few inches to upwards of 3 feet, and a portion of the lead-zinc ore is disseminated into the footwall schist, and at a point about 20' southwest of the shaft, a short cross-cut and stope, opens ore of the same general tenor, as that of the main lead.

CONDITION OF WORKINGS: Only a small amount of muck is strewn along the aloor of the adit and tunnel drift and as the hanging wall if firm, not much sloughing has occurred, in fact the shaft, extending from its outside collar and passing down thru the tunnel, seems to be in fair conditi n, except the first 15' of shaft collar, this requires entire new timbering, and no doubt other and lower portions of the shaft will require timber repairs.

All previous tracking has been removed several years ago, now necessitating about 600 running feet of track, from Southwest tunnel heading to ore bin site, beyond the adit tunnel portal.

PAST OPERATION: This mine has been equipped with hoist, air drilling plant, and small concentrator, but this entire equipment has been removed.

There are a few tons of ore in small piles and dumps, but it is quite evident that the ores were shipped to a lead smelter after some hand sorting also that a few hundred tons were milled in the one table concentrator, then situated just east and below the main shaft collar.

Due to water now in shaft and no ladders, it is impossible under the mines present condition, to estimate the gonnage of ore stoped during the past operating period of this mine. However several thousand tons may have been mined.

PROPERTY REHABILITATION: This mine should be a source of lead and zinc on small commercial scale, and due to its mineralization and structural phases, can develop into a mine of fair size.

In order toobtain a lead product plus a little silver, stoping and hand sorting, will yield 60 to 100 tons monthly, as the output of about 5 miners; or if the ores can be sold to the Shattuck mill and the lead and zinc separated, the crude ores with rough sorting, would make an acceptable mill head yielding a lead, silver concentrate and a zinc product.

To place this mine into production, I recommend the following:

Advance the Southwest heading of the main tunnel, say 100' at estimated cost of $8.00 per foot	$ 800.00
Install 4 or 5 ore chutes along back of tunnel	500.00
Repair main shaft at collar and for 100' below tunnel	2000.00
Drift from southwest end of shaft 100' at $10 per ft.	1000.00

General operating reserve and mining ores prior to shipment returns. $1200.00

An initial rehabilitation fund of about $5000.00
is required

If the proposed and further development of this property should prove a commercial tonnage of these ores; then the best outcome for the complex ores of this mine, would be a flotation mill.

There is a spring of water some half mile uphill and westerly from the mine; this water should be piped to the mine and mill site.

It is stated that this spring yielded sufficient water for the past operation of the old small mill, and can be developed to supply water for a small mill now.

ROAD & TRANSPORTATION: The Big Zinc is located about 4 miles west of Ray, Arizona and is reached from Ray over 4 miles of the County Highway of Ray to Superior. At Walnut Grove ranch, the mine road follows down an easy water course for 3/4 of a mile, then a side draw comes in from the west, this is followed up course and westerly for less than 1/2 mile to the Big Zinc mine.

Only minor repairs are required on this stub road, to provide the mine with a good truck route, leading either to Ray or to the Railroad at Superior.

The attached sketch maps may serve to clarify the present condition of the property, and it is noted that as the hill extends southwest from the shaft, a substantial depth of back is attained above the tunnel level, and that by extending drifts from the shaft along the southwest strike of the vein, the possibility of a substantial tonnage of ore may here be proven.

Three samples taken of the sulfide minerals assayed as follows:

		Gold	Silver	Lead	Zinc %
No. 1	from Southwest face of Tun.	0.06	3.32	11.58	2.18
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DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

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Engineer: Earl F. Hastings

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

~~December 10, 1957~~

January 30, 1958

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

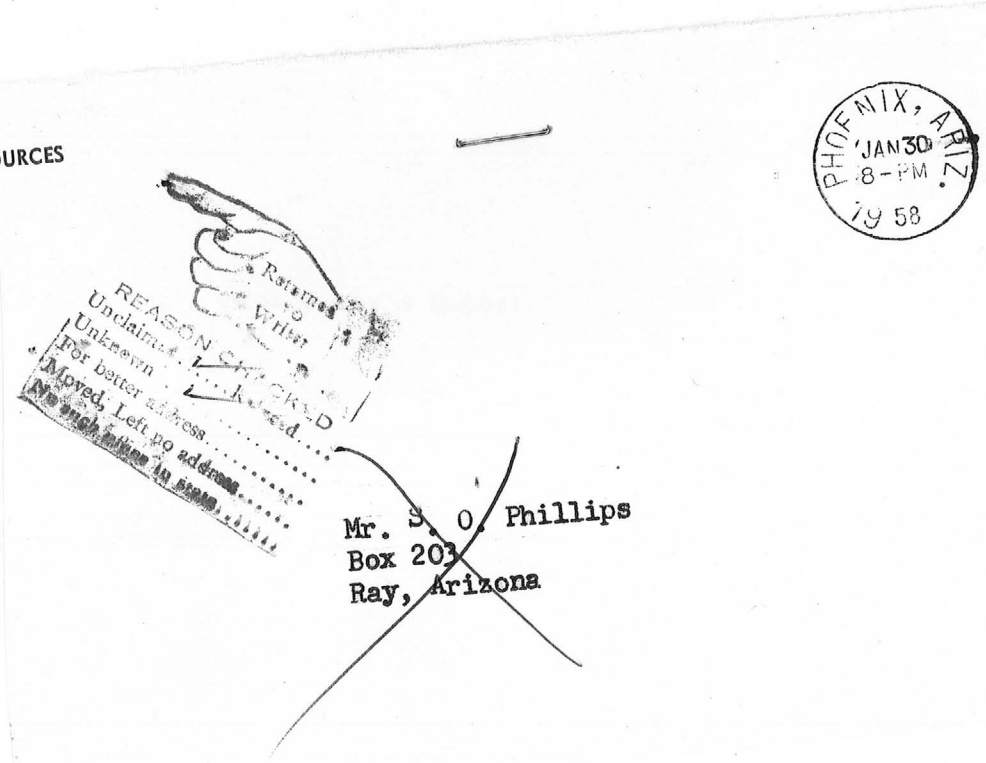
BIG ZINC (Property) — ZINC LEAD (ore)

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

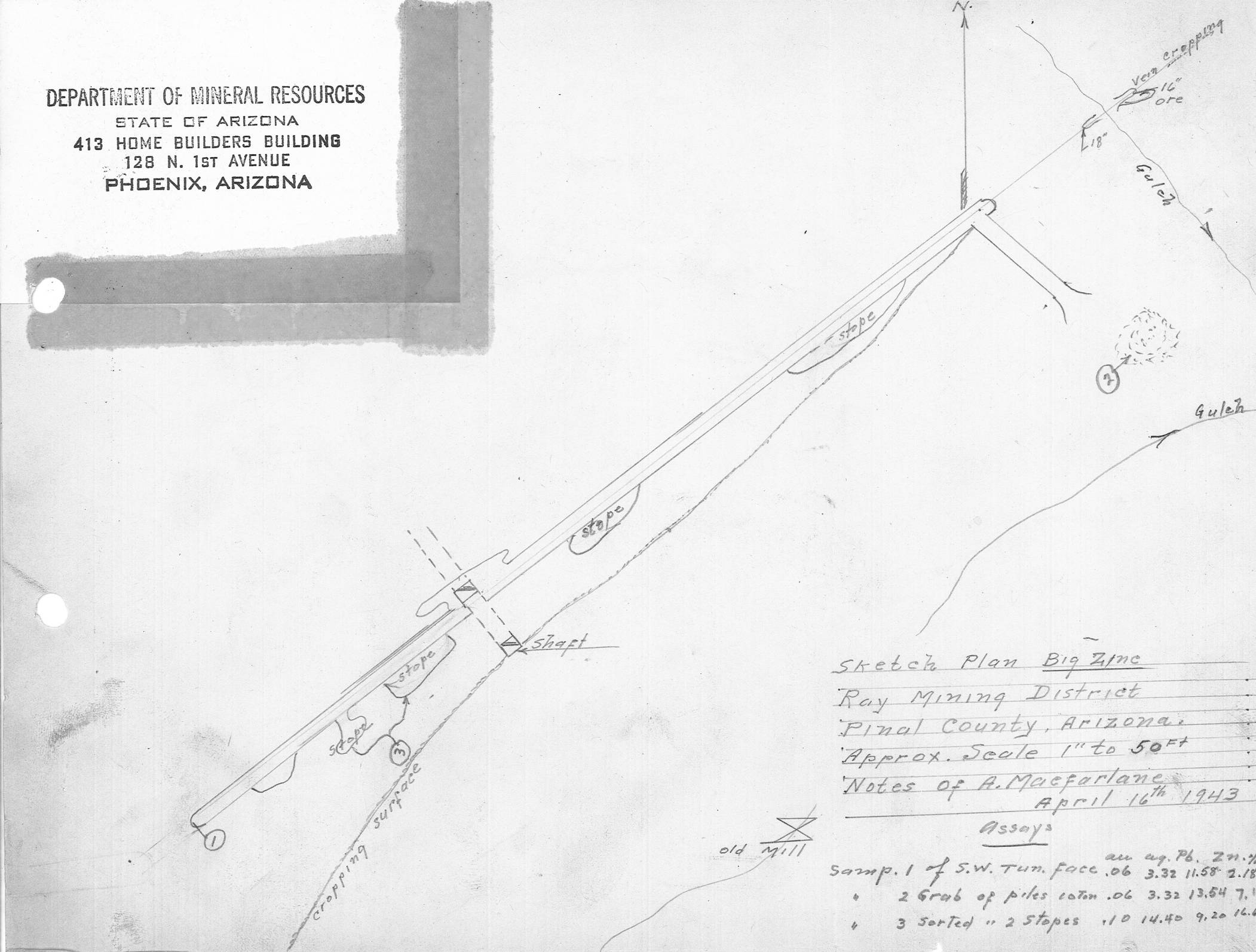
Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

FRANK P. KNIGHT,
Director.

OURCES



DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
413 HOME BUILDERS BUILDING
128 N. 1ST AVENUE
PHOENIX, ARIZONA



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Pinal County, Arizona.
Approx. Scale 1" to 50 Ft
Notes of A. Macfarlane
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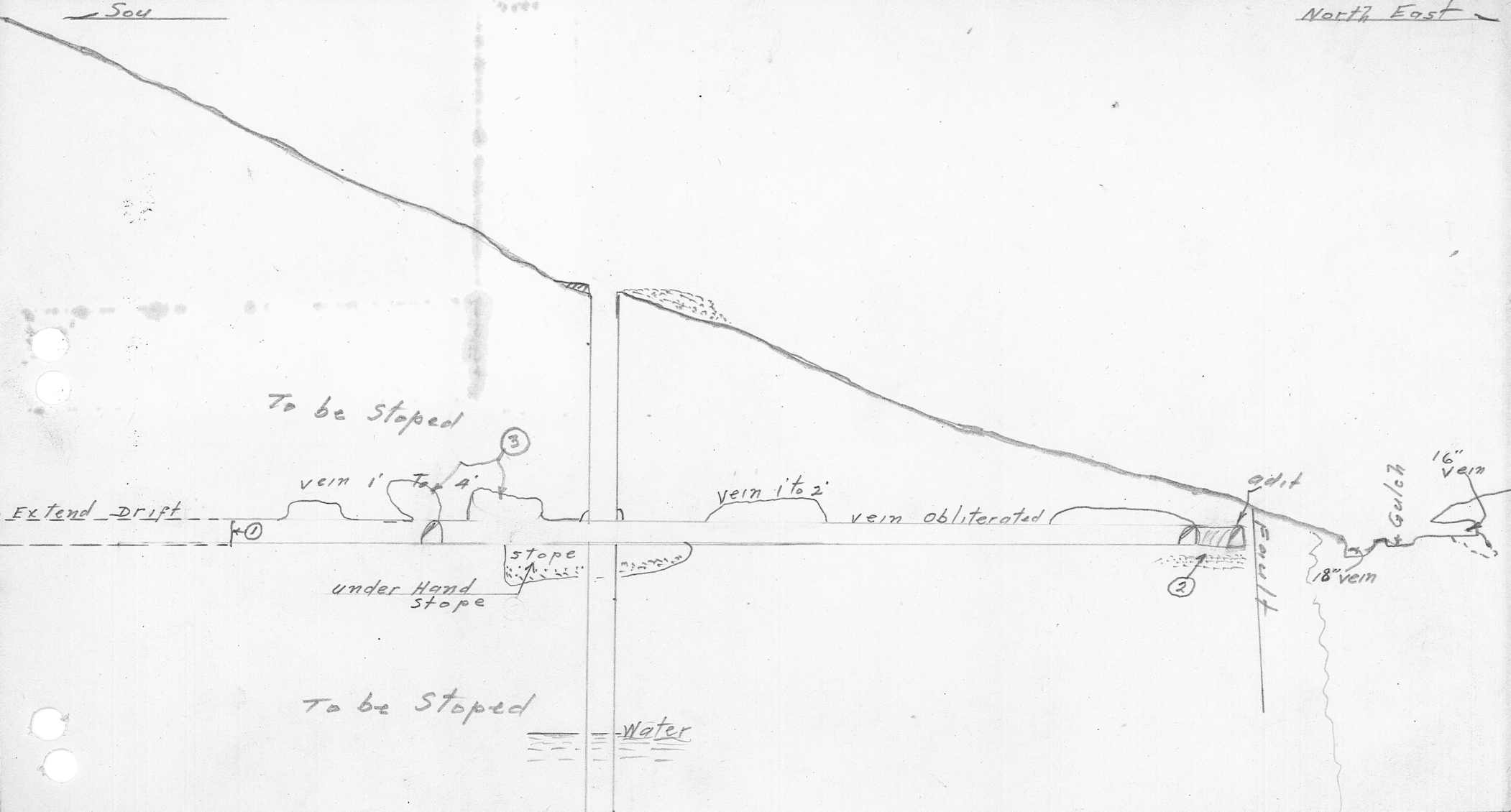

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BIG ZINC MINE
Ray Mining District. Point Sampled ②
Pinal County, Arizona
Approx. Scale 1" to 50 Ft.
Notes Of A. Macfarlane
April 16th 1943 Field Engr.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
413 HOME BUILDERS BUILDING
128 N. 1ST AVENUE
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DEPARTMENT OF MINERAL RESOURCES
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PROPERTY; Now named Big Zinc, was formerly known as"Ray Integrity" this property consists of 2 claims and was first worked starting about 1916 and for several succeeding years thereafter was worked by a small force.

MINE WORKINGS; Consists of a 30' cross-cut tunnel to cut the vein, thence by a drift about 384' long driven on the vein along its South-West course. At a point about 229' from where the Cross -Cut intersected the vein,a winze, better stated a shaft 2 Compt. was sunk more or less on the northerly dip of the lode;as water now stands in this shaft to a point about 80'below the tunnel floor, was unable to determine the total depth of this shaft, but estimating from size of dump and statements by owner, this shaft may have reached a total depth of 250'below tunnel floor.

A small amount of stoping has been made above the back of this South-West tunnel drift, these stopes being from 6' to 14'above tunnel back. However the ore was not continuous all along the tunnel, about 80'of the back does not show much mineralization. A little stoping was carried below the floor.

The aforementioned workings plus some small surface cuts about 50'north-east of the adit, covers the present known exploration work, but there can be drifting from the ends of the shaft, now under water.

MINERALIZATION;. The vein system is continuous for 500' or more along its Northeast Southwest course, in fact both ends of the present exposed workings are still on vein matter, the length of the mineralization not yet reached.

The ores are principally a sulfide of zinc and lead withred iron stain in the fractures, giving the ore its redish color, the cross-section of the vein matter is a dark typical sulfide,complex in its composition with a quartz schist matrix or gangue.

OCCURRENCE; The Big-Zinc lode is made along a black sheeted schist, probably an alteration of old granite; subsequent fissuring and quartz deposition and mineralization,forming the ores as now visible within the workings.

The dip towards the North is erratic varying from 30 degrees to 70 , a firm shhist forms the hanging-wall,this of a lighter color, than the dark slickensided schist forming part of the lode filling.

The footwall or southeast casing, evidences an igneous flow rock, probably a diabase or dacite,of which there are large exposures in this vicinity.

BIG TIME

The ores filling a presistent fissure vary in width from a few inches to upwards of 3 feet, and a portion of the lead-zinc ore is disseminated into the footwall schist, and at a point about 20' southwest of the shaft, a short cross-cut and stope, opens ore of the same general tenor, as that of the main lead.

CONDITION OF WORKINGS: Only a small amount of muck is strewn along the floor of the adit and tunnel drift and as the hanging wall is firm, not much sloughing has occured. In fact the shaft, extending from its outside collar and passing down thru the tunnel, seems to be in fair condition, except the first 15' of shaft collar, this requires entire new timbering, and no doubt other and lower portions of the shaft will require timber repairs.

All previous tracking has been removed several years ago, now neccessitating about 600 running feet of track, from Southwest tunnel heading to ore bin site, beyond the adit tunnel portal.

PAST OPERATION: This mine has been equipped with hoist, air drilling plant, and small concentrator, but this entire equipment has been removed.

There are a few tons of ore in small piles and dumps, but it is quite evident that the ores were shipped to a lead smelter after some hand sorting, also that a few hundred tons were milled in the one table concentrator, then situated just east and below the main shaft collar.

Due to water now in shaft and no ladders, it is impossible under the mines present condition, to estimate the tonnage of ore stoped during the past operating period of this mine. However several thousand tons may have been mined.

PROPERTY REHABILITATION: This mine should be a source of lead and zinc on small commercial scale, and due to its mineralization and structural phases, can develop into a mine of fair size.

In order to obtain a lead product plus a little silver, stoping and hand sorting, will yeild 60 to 100 tons monthly, as the output of about 5 miners; or if the ores can be sold to the Shattuck mill and the lead and zinc seperated, the crude ores with rough sorting, would make an acceptable mill head yeilding a lead, silver concentrate and a zinc product.

To place this mine into production, I reccomend the following:

Advance the Southwest heading of the main tunnel, say 100' at estimated cost of $8.00 per foot	$ 800.00
Install 4 or 5 ore chutes along back of tunnel	500.00
Repair main shaft at collar and for 100' below tunnel	2000.00
Drift from southwest end of shaft 100' at $10. per ft.	1000.00

BIG ZINC.

General operating reserve and mining ores prior to shipment returns. $1200.00

An initial rehabilitation fund of about ..... $5000.00 is required.

If the proposed and further development of this property should prove a commercial tonnage of these ores: then the best outcome for the complex ores of this mine, would be a flotation mill.

There is a spring of water some half mile uphill and westerly from the mine; this water should be piped to the mine and mill site.

It is stated that this spring yeilded sufficient water for the past operation of the old small mill, and can be developed to supply water for a small mill now.

ROAD & TRANSPORTATION; The Big Zinc is located about 4 miles west of Ray, Arizona and is reached from Ray over 4 miles of the County Highway of Ray to Superior. At Walnut Grove ranch, the mine road follows down an easy water course for 3/4 of a mile, then a side draw comes in from the west, this is followed up course and westerly for less than 1/2 mile to the Big Zinc mine.

Only minor repairs are required on this stub road, to provide the mine with a good truck route, leading either to Ray or to the Railroad at Superior.

The attached sketch maps may serve to clarify the present condition of the property, and it is noted that as the hill extends southwest from the shaft, a substantial depth of back is attained above the tunnel level, and that by extending drifts from the shaft along the southwest strike of the vein, the possibility of a substantial tonnage of ore may here be proven.

Three samples taken of the sulfide minerals assayed as follows;.

No.		Gold	Silver,	Lead	Zinc %
1	from Southwest face of Tun.	0.06	3.32	11.58	2.18
2	Grab of small piles dump	0.06	3.32	13.54	7.18
3	" of sorted ore, random	0.10	14.40	9.20	16.61

Assayer : Ross C. Finley, Globe

These three samples are indicative of the general tenor of the partially cleaned sulfide ores of this mine.