



CONTACT INFORMATION

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

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This report was made for Ethyl Corp
in 1938 when they were considering
(COPY) Producing their own lead.

A.B.C.

REPORT
on
WRIGLEY MINE

LOCATION.

This property is located about 16 miles north-easterly from the town of Kingman, in the Wallapai mining district, county of Mohave, State of Arizona. The road to mine is a good graveled and graded highway except for the last two miles, which can easily be put in good shape. Kingman is on the main line of the Santa Fe Railway.

HOLDINGS.

This property consists of 6 lode mining claims held by United States patent. These claims are known as the Gold, Silver, Lead, Copper Antimony and Zinc.

GEOLOGY.

The country rock of this area is granite. This granite is the main component of the Cerbat Range.

Two veins are found on this property with a general course of about north 40 degrees west. A canyon between the two veins, indicate that the vein on the south west side of the canyon has been faulted from the top of the vein on the north east side. A further indication of this being a faulted segment is that a caved shaft on the southerly end of the property did not encounter the vein below a shallow depth.

It is quite probably that the main vein on the wrigley property is a continuation of the IXL vein from which a large production of silver-lead ore was made.

ADJOINING PROPERTIES.

About one mile to the north is the C.O.L. Mine from which a large tonnage of silver-lead-zinc ores has been produced. About 2000 feet to the south-east is the IXL Mine which has produced a large tonnage of silver-lead-zinc ores. On the other side of the property to the south-west is the Keyston Mine, a large producer of silver ores.

ORE VALUES AND TONNAGE.

There is no ore of any value that has been developed.

Samples taken gave the following results:-

No.	Description	Width	Au. Osz.	Ag. Osz.	Pb. %
442	Silver Claim, 100' E. of W. end Cut.	4'	0.01	0.4	None
443	Silver Claim, Shaft 20' Deep 8' feet Down on footwall side of shaft.	3'	0.01	1.2	7.0
444	Next to #443 toward hanging wall	2'	0.08	1.5	2.0

Samples taken gave the following results:- (Continued)

No.	Description	Width	Au. Ozs.	Ag. Ozs.	Pb. %
445	Xcut tunnel, 20' south shaft at depth 20'	4'	0.03	3.1	8.4
446	Lead claim, Cut near south west end	3'	0.12	0.9	9.5
447	Grab dump of 40' shaft near south east end of lead claim.		0.03	0.3	None
448	Open cut near southwest end of Zinc Claim	8'	0.03	1.1	2.0
449	Dump from deep shaft on Zinc Claim Oxidized material on small section dump		0.01	0.1	None

ORE VALUES AND TONNAGE. (continued)

Shipping ore can be sorted from samples 443 and 445. Samples 448 and 449 are from what is probably faulted segment of main vein. Sample 446 may be from same ore shute as samples 443 and 445 or may be another ore shute.

Samples 443 and 445 were mainly galena. This was due to this zone being protected from oxidizing water by an overlying fault. Sample 446 was carbonate ore.

DEVELOPMENT.

Most of the work except for shallow cuts, shafts and tunnels was on the southwest vein or faulted segment of the north east vein. It is indicated that the shafts and inclines on this vein hit the fault zone at a shallow depth. This is indicated by the dumps. These workings were either caved or water level was close to the surface.

No depth has been attained at any point on the north east vein. The greatest depth attained at any point is in the cross-cut tunnel and this is about 20' vertically from the surface. Ore shows in this tunnel.

The deep shaft on the zinc claim is caved at the surface. It is variously reported to be 200 feet and 400 feet deep. The dump would indicate from 800 to 1000 feet of work.

EQUIPMENT.

There is no equipment on the property.

OPERATING CONDITIONS.

The operating conditions in this area are good. It is close to the town of Kingman and the railway. Water is quite plentiful and enough water can probably be developed in the canyon for a mill. All equipment and supplies can be obtained from Kingman or Coast points.

A power line with Boulder Dam power is only a short distance from the property.

CONCLUSIONS.

I believe this property has merit and on development should be a good producer of lead and lead-zinc ores. All development should be on the north-east vein which is apparently the same vein as the IXL vein to the south-east.

RECOMMENDATIONS.

I believe steps should be taken to take over this property and development should be started as soon as equipment can be installed. Some ores taken out during the development period can be shipped to the smelter. In about 90 days a regular tonnage should be obtainable. This should increase to 50 or 100 tons per day of 20% or better lead ore.

Thos. L. Chapman, E. M.

WICKMEBURG & PRESCOTT ORE MARKETS

J.W. "Jack" Branch

March 29, 1938

Settlement of Lot No. 183

Classification: Ore

Shipper: Charles S. Scholey, Trustee

Address: Prescott, Arizona

Net Weight of Lot 9688 lbs.

Moisture: 2.0 percent: 192 lbs.

Name of Claim: Wrigley

Net dry weight: 9496 lbs.

Mining District:

County:

Equivalent in tons(2000): 4.748 Tons
lbs.

PAYMENTS PER TON

Assay	Amount paid for	Rate	Value
Gold: 0.04 ozs.	All - 0.04 oz.	at \$ 32.20	\$ 1.29
Silver: 8.7 ozs.	95% - 8.265 oz.	at .64	5.29
Copper: Pet.		lbs. at	
Lead: 24.0 Pet.	405.0 lbs.	at .031	12.56

Value per ton at shipping point \$ 19.14

Freight Rate per ton: \$ 4.50
Smelter-Treatment per ton: 6.00

\$10.50 \$ 10.50

Net smelter value per dry ton: \$ 8.64

Total net smelter value of 4.748 Net Dry Tons at \$ 8.64 \$ 41.02

(Minimum \$2.00 per ton) Brokerage: \$9.50
Sampling-Assaying: 5.75

\$ 15.25 \$ 15.25

Approved by:

Net amount Due Shipper: \$25.77

PRESCOTT ORE MARKET

July 12, 1938

Settlement for Doc No. 321
Classification: Ore

Shipper: Charles Scholey
Address: Prescott, Arizona

Net weight of Lot: 1432 lbs.
Moisture: 4.4 percent: 62 lbs.

Name of Claim: Zinc
Mining District: Wallapai
County: Mohave

Net dry weight: 1370 lbs.

Equivalent in tons(2000 lbs.): 0.785 Tons

PAYMENTS PER TON

	Assay		Amount Paid for	Rate	Value
Gold:	0.03	ozs.	All - 0.03	oz. at \$32.20	.96
Silver:	7.90	ozs.	95% - 7.50	oz. at .64	\$ 4.80
Copper:		pct.		lbs. at	
Lead:	36.0	Pct.	621.0	lbs. at .03	18.63

Value per ton at shipping point: \$24.39

Freight Rate per ton: \$ 4.75
Smelter-Treatment per ton: 6.00

\$ 10.75
\$10.75

Net smelter value per dry ton \$13.64

Total net smelter value of 0.785 Net Dry tons At \$ 13.64 \$10.71

Brokerage: \$ 1.37
Sampling-Assaying: 4.00

\$ 5.37 \$ 5.37

Approved by:

Net amount Due Shipper: \$ 5.34

EXHIBIT A

to
Application of

VICTORY MINES & MILLING COMPANY

to

RECONSTRUCTION FINANCE CORPORATION

for a

PRELIMINARY DEVELOPMENT LOAN

The Victory No.2 group of mines comprising the: ZINC, LEAD, COPPER, ANTIMONY, SILVER, GOLD are situated in the Stockton Hill Section of the Wallepai Mining District, Mohave County, Arizona. To describe the location more definitely, they are located in the I.X.L. Basin about midway between the C.O.D. and Banner group of mines, T.23 N., R. 17 W., G & S.R.M., Arizona. The railroad station is at Kingman which is 17 miles distant from the mines.

The road to the mines is in good, passable condition and will offer no difficulties to the transportation operation. There is very rarely snow enough in the winter time to interfere seriously with freighting.

EXHIBIT A

The mining property held by the applicant, Victory Mines & Milling Company, under lease and option to purchase consists of 6 patented lode mines, located in Sections 32 and 33, T. 23 N., R. 17 W., G. & S.R.M., Arizona, all embraced in U.S. Mineral Survey No.3333, the names of which and the books and pages where the United States patents thereof are to be found of record in the Office of the County Recorder of Mohave County, Arizona, being as follows, to wit:

<u>NAME</u>	<u>BOOK OF DEEDS</u>	<u>PAGE</u>
ZINC	28	347
COPPER	28	347
ANTIMONY	44	189
LEAD AND East $\frac{1}{2}$ of SILVER	33	425
GOLD and West $\frac{1}{2}$ of SILVER	33	426

EXHIBIT B (A)

to

Application of

VICTORY MINES & MILLING COMPANY

to

RECONSTRUCTION FINANCE CORPORATION

for a

PRELIMINARY DEVELOPMENT LOAN

Undoubtedly the ores which may be developed in the Victory No. 2 vein system will be of similar character to those found elsewhere in the Cerbat range. These ores contain in varying relative proportions in inverse order of abundance: gold, silver, copper, lead and zinc.

There are local variations in the lead zinc ratio. Experience in milling of ores of the Cerbat Range on both sides of the range such as Stockton Hill-Chloride Goleconda sections, teaches that the ores of the several localities are equally amenable to selective flotation processes. The metallurgical methods involved in the treatment of ores from the Victory No. 2 group will be no problem, since the methods have been established by operations in other parts of the mining district. The structure of the veins on the Victory No. 2, in my opinion, is such that good bodies of milling ore may be disclosed by development work.

EXHIBIT B

to

Application of

VICTORY MINES & MILLING COMPANY

to

RECONSTRUCTION FINANCE CORPORATION

for a

PRELIMINARY DEVELOPMENT LOAN

Geology of the Victory No. 2 Group.

The prevailing rocks in the vicinity of the mines are broadly speaking members of the granitic series constituting the pre-Cambrian complex. Associated with the granitic rocks are various types of schists. The granitic rocks usually have a banded gneissoid structure. This granite was classified by Schrader (in Bulletin 397) as granite gneiss. This granite gneiss constitutes the greater part of the mountains in the Stockton Hill section. This basal granite has been intruded by various rocks such as granite porphyry, diabase quartz, monzonite and other unclassified.

The mineral bearing veins are fillings in the fissures, which almost always, in this vicinity, follow the lines of structural weakness at the contacts of the intrusive porphyries with the older granitic rocks. It would appear from the wide zones of rock brecciation and shearing and subsequent alteration that the points for mineral deposition may be anywhere within a zone 20 to 30 feet or more in width. The foot wall of the vein or fracture zone is at various points: Granite gneiss, monzonite and a rock of diorite nature provisionally classed as dioritic granite; these three classes are intruded by rocks given the field classification granite porphyry. These are medium grained to aphanitic in texture and are usually light colored and of a more acid type than the foot wall rocks. The type of the foot wall rock seems to have no bearing on the width of the vein, most of the fracturing evidently being in the granite porphyries. The outcrops show quartz and strongly altered granitic rocks extensively kaolinized and bleached. The water level stands relatively high in this neighborhood, being from 20 to 40 feet from the surface. The quartz of the outcrops shows oxides of iron and manganese; at places shows evidence of leaching by its honeycomb structure and by the presence of pyrite casts. Some of the quartz shows copper carbonate stains which indicate copper minerals at depth. All ores in the district contain some copper minerals, with the galena and zinc blend.

There are several parallel and cross veins within the boundaries of the group but, since only superficial work was done on them, no detailed study was made of them at the time of my examination of the property.

The evidence disclosed by the structure of the veins indicates rock movements of considerable magnitude. The wide zone of alteration and shearing indicates favorable condition for ore deposition.

The main vein can be easily traced by its outcrop through the claims of the Victory Group.

Steckton Hill District.
General Outline.
Location and History.

The Steckton Hill District joins the Cerbat district on the east, and is about parallel and co-extensive with it north and south, being situated on the opposite slope of the mountains. It is about four miles in width and but a little more than that in length. It ranges in elevation from 3500 ft. at the edge of the Wallapai Valley on the east to 5500 ft. at the crest of the range. The principal and oldest camp is Steckton Hill, situated in the foothills in the easterly part of the district, ten miles north of Kingman at an elevation of about 4200 ft. It dates from the early sixties, when the principal veins were first discovered and began to produce. In former days much of the ore was shipped to Sawntea Wales but later was treated in the Mineral Park and Cerbat mills and shipped to the smelter in San Francisco and to New Mexico. At present ore is hauled by wagon to Berry or Kingman, whence it is shipped, mostly to Needles. The district is reported to have produced many million dollars worth of ore.

Topography & Geology

The topography shown in part in the sketch map (fig. 16) is generally rough, but the mines are nearly all accessible by wagon roads, mostly of easy grades. The drainage issues eastward into the Hualapai Valley mainly through several short side galleys or transverse washes - the Canyon Station, C.O.D., I.X.L. (known as the I.S.L. Basin from the width and open character of its middle part), Cupel Treasure Hill and Maywell.

In their upper parts most of the washes contract into V-shaped gulches; the country rock is of the pre-Cambrian gneiss and schist complex. It is reddish brown and iron stained and is intruded by dykes of granite porphyry, diabase and other rocks of mostly basic character. The schistosity trends about N. 30 degrees East and dips usually vertically or at a steep angle to the northwest.

Quoting from Bulletin 397
Mines in I.X. L. Basin:

I.X.L. Basin is an open-like basin shaped area situated in the upper part of I.X.L. Wash, about $1\frac{1}{2}$ miles north of Steckton Hill. It contains several small mines and prospects, about all of which are situated on the same vein or lode. The principal mines (1906) are the K.P. and the J.F.T. The K.P. mine is located in the southern part of the basin on open ground at 4700 feet elevation. The mine is new. It is owned by Messrs. Kimberly and Potts, of Kingman. As the water level is at about 40 ft. below the surface the development consists of shallow shafts and surface openings.

The country rock is the pre-Cambrian gneiss complex. The deposit forms a vein or lode about 65 ft. in width, which dips about 75 degrees N.E. and is reported to have a horizontal extent of nearly two miles, many locations being made on it. The gangue or filling of the fissure consists essentially of crushed or brecciated vein quartz and crushed and altered coarse granitic quartz and feldspar. The croppings consist of similar material, locally silicified and stained reddish brown and black by iron and manganese oxides. The lode carries a width of about seven feet of concentrated ore. The ore is low grade. It contains principally galena and is said to average about 60% lead. It contains some gold, silver and copper, the copper occurring as bornite and salco-pyrite.

The J.F.T. Mine, located in the upper or northwestern part of the basin, is said to be developed to a depth of about 200 feet. It is reported to have been a good producer, and its ore is said to contain copper, silver and gold.

EXHIBIT B

to
Application of

VICTORY MINES & MILLING COMPANY

to

RECONSTRUCTION FINANCE CORPORATION
for a

PRELIMINARY DEVELOPMENT LOAN

The principal developments on the Victory No. 2 group are: a four hundred foot double compartment shaft and a shaft one hundred fourteen feet deep. Besides these there are a number of shallow shafts and open cuts along the vein; all these shallow shafts are either caved or have water in them at 15 to 20 feet depths at this date.

The collar set and two sets below the collar set of the four hundred foot shaft were originally on filled ground; the fill surrounding them has caved and blocks the shaft at the surface. The shaft could be recovered at nominal expense by replacing the caved sets. The water level at this point is about twenty feet below the surface. The shaft below the water, according to experience in the district, is most likely in good shape and the cost of recovering it should be very little more than the cost of pumping. Reports from persons who were familiar with the property at the time of the shaft was sunk agree that on the two hundred foot level there was a good showing of lead ore and that at the four hundred foot level the only work done was a seventy foot cross-cut which was not of sufficient length to penetrate the ore bearing vein.

I consider the opening of this shaft and drifting on the two hundred foot level and continuing the cross-cut on the four hundred foot as most essential development work. In the vicinity of the shaft, there are good indications for a body of lead zinc ore.

Work is now being done on the one hundred fourteen foot shaft, whose location is indicated on the accompanying map; the work consists in driving of a cross-cut to cut the quartz vein which shows an outcrop on the surface.

The samples taken were taken principally with the idea in view to test for the presence of lead at several points along the outcrop. In the shallow shaft in which Samples Nos. 2, 3 and 4 were taken was the only place where decent underground samples could be taken. The samples taken at the shaft were channel samples according to standard practice.

The topography of the vein outcrop is such that development must be done by shafts, cross-cuts and drifts as there is not sufficient difference, in surface elevations to make tunneling a practical method.

Quoting from Bulletin 397 on the Geology of the
Mineral Deposits of Mohave County:

C.O.D. Mine

The vein is well known as the C.O.D. Vein. It strikes 85 degrees West and dips about 80 degrees North, and is reported to be more than a mile in length and about six feet in average width. The gangue is mostly ...

Samples were all taken from the Victory No. 2 Group in I.X.L. Basin.
 No. 1 - was from dump of tunnel on "Lead" claim
 2 - " " shaft on "Silver" claim - sample 12" wide
 3 - " " " " " " " " 8" wide
 4 - " " " " " " " " lead streak
 5 - " " cut 175' west of discovery shaft on "Zinc" claim
 6 - " " pieces from dump of shaft, near discovery shaft
 " " " " " " " " "Copper" claim
 7 - " " pieces on dump at discovery shaft "Zinc" claim

(S) S. S. Jones

CERTIFICATE OF ASSAY FROM LABORATORY
 R. V. McALLISTER
 Kingman, Arizona

H. Frank Nelson

July 11, 1942

Office Number	Owner's Mark	GOLD PER TON Ounces	TON Value	SILVER PER TON Ounces	TON Value	Total Value Gold & Silver
9965	#1	trace	----	0.28	0.28	0.28
9966	2	0.01	0.35	2.00	2.06	2.41
9967	3	0.01	0.35	3.80	2.70	3.05
9968	4	0.02	0.70	8.40	5.96	6.66
9969	5	0.01	0.35	2.20	1.56	1.88
9970	6	trace	----	0.50	0.35	0.35
9971	7	0.02	0.70	5.60	3.97	4.67

Lead Per cent	Zinc Per cent
2.60	1.30
19.10	1.20
32.90	1.50
78.10	0.90
10.10	2.50
1.00	trace
46.20	0.80

(S) R. V. McALLISTER, Registered Assayer

width and are mostly of considerable extent. The narrow shoots are said to be usually rich and the wider ones contain large bodies of milling and concentrating ore. At the 250 foot level the ore shoot is reported to vary from 5 to 7 feet in width and to have averaged about 250 dollars per ton. The ore contains, principally, silver sulphide and gold, with some galena and zinc blende, and below the 250 foot level a little calco-pyrite. It is said to be less rich in the sulphide zone than in the oxide zone. Its run of mine roughly computed from October, 1885, to March 6, 1901, is about as follows: Silver 160. ounces and Gold 2. ounce to the ton, Lead 12 to 20%. The production is reported to be \$1,300,000 of which silver alone amounted to \$1,000,000.

Quoting from Bulletin No. 367.

Banner Group Mine.

Geology and ore deposits:

The country rock is light to iron gray, fine grained gneiss, in which the structure trends about N. 30 degrees East and dips steeply to the Northwest. Toward the veins on the footwall side the rock is red from oxidized pyrite. The fissure vein strikes N. 40 degrees West and dips about 80 degrees Northeast. The croppings consist principally of reddish-brown quartz. The vein averages about 7 or 8 feet in width, the ore varies from about 1 to 3 feet wide and usually occurs on the footwall side of the vein. In the face of the drift at the time of visit it was 2½ feet wide and associated with it on the hanging wall side was a foot or more of gangue composed principally of crushed and altered granitic material, which on being removed by blasting, leaves the intact ore bared in fine condition for loading on the cars. The shoot contains parallel seams of light colored material, which emphasizes the roughly banded character of the ore. The ore in places consists of pure galena, but usually it contains also zinc blende, calco-pyrite and pyrite. The gold in some of it amounts to several ounces a ton. The silver occurs in part as sulphide and native as masses of wire silver which interlace adjacent parts of the ore shoot. The amount of zinc increases in the deeper Northern portion of the mine.

Toward the northwest end of the surface workings occurs a large amount of reddish brown quartz ore, which seems to contain chiefly gold values. This probably represents of the body of rich gold ore reported to have been found in the surface openings of the mine. A short distance north of this locality galena and zinc blende ore with comb quartz and calco-pyrite seem to prevail.

The quotations from U.S.G.S. bulletin were made to establish the fact that there is a lead zinc district surrounding the Victory No.2 properties.

S.S. Jones

November 11, 1944

Mr. Thomas Bardon, President,
Shattuck Denn Mining Corporation,
c/o R. W. Higgins, Chicago Club,
Michigan Blvd. & Van Buren,
Chicago, Illinois.

Re: Tennessee-Schuylkill Mine

Dear Mr. Bardon:

I returned late last night after spending two days at the Tennessee-Schuylkill Mine at Chloride, Arizona.

The mine is 23 miles from the shipping point at Kingman, and trucking of concentrates is on paved road.

Equipment and improvements consist of a number of miners' houses, guest house, excellent office building, the usual number of mine structures, steel headframe, three good electric compressors, Ottumwa double drum 100 HP mine hoist, and a 150 ton selective flotation plant which is generally in good condition.

The Tennessee Shaft, near the south end of the ore zone, is vertical, 1400 feet deep, and is sunk in the foot-wall. The Schuylkill Shaft, 1450 feet north of the Tennessee Shaft, is 800 feet deep at an 80 degree incline in the ore zone. At present it is used only for ventilation and emergency mine exit.

The vein is a fissure in granite and gneiss, often associated with a quartz porphyry dike. The vein gangue is mostly quartz. Galena and sphalerite are the economic minerals, together with minor quantities of gold, silver and copper. The vein also contains about 10% of pyrite.

The stoped area is about 2000 feet long and extends down to the 1200 foot level with some stoping above the 1300 foot level at the north end of the mine. About one half of the vein area has been stoped, the intervening areas, because of small widths and low grade are not minable. Total extract-

Mr. Thomas Bardon:

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November 11, 1944

ion to date is 541,750 tons, covering a period from 1901 to the present.

The values in the south or Tennessee end of the vein are chiefly lead and zinc, with but little gold and silver. The Schuylkill ore has more gold, silver and lead than the south end.

Ore reserves as of January 1, 1944 showed 31609 tons of probable ore with a net smelter-mill value of \$8.38 per ton, and assay of Gold .06, Silver 2.22, Lead 4.08 and zinc 7.72. A block of ore north of the winze, estimated at 1600 tons, is typical of the better ores on the north end, assays Au. .22, Ag. 4.0, Pb. 9.1, Zn. 7.5, with a net smelter-mill value of \$16.27 per ton. Ore in this area must be hoisted through the winze to the 1200 foot level and trammed 1500 feet to the hoisting shaft.

The mine makes about 40 gallons of water a minute. The water contains enough sulfates and acid so that it is rather bad on pumps, pipe lines and mine rails.

The vein is moderately hard, though somewhat shattered. The hanging wall next to the vein is very soft for a depth of several inches to several feet. In general, the ground is heavy, caused by wall swell and the settling down of large blocks of vein on the timber. Stopes must be timbered with square sets and filled. Present costs of mining one square set containing about 13 tons is \$35 per set, with about \$15 more for filling. Most of the remaining blocks of ground will be expensive to recover, and to properly develop the north end of the mine at depth will entail a program so expensive that it is doubtful if this cost could be returned from proceeds of the ore developed.

Rather than submit more than a general brief report, I have prepared the enclosed figures from the available monthly reports on file at the mine office. The production is based on mill reports and may be slightly different than actual smelter returns. The costs do not include depreciation depletion or general administrative. A study of the monthly costs and net smelter returns indicates for 1943 \$10.67 per ton and \$6.75 per ton respectively. For eight months of 1944 the costs are \$16.47 per ton, net smelter returns of \$6.13, an operating revenue including "A" premiums, of \$9.73 per ton, and a loss even with "C" premiums.

Mr. Thomas Bardon:

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November 11, 1944

While costs of operation could be reduced a little, and perhaps some improvement made in mill performance, these could not by any means cover the difference between costs and income with an "A" premium. It is doubtful that future prices will be as much as present ceiling plus "A" premiums.

While the mine is not bottomed, it appears that stope areas on the lower levels are becoming smaller with depth and that remaining ore will be small as compared with past production. Mining at greater depths will mean a high development cost and problems in haulage and ventilation which would offset any possible reduction in present operating cost.

In conclusion, I recommend that we do nothing with the property.

Yours very truly,

SHATTUCK DENN MINING CORPORATION

By

HFM:B

Manager

c.c. S. D. M. Corp.,
New York.

SHATTUCK DENN MINING CORP.
TUMBLETON, ARIZ.

Aug 31, 1944.

MEMORANDUM OF TENNESSEE SCHUYLKILL MINE - CHLOTTON, Arizona.

Year 1943 Vined and milled 32,286 tons.	Total cost	476,700
Sales, including Premium metal		747,770
Freight, treatment etc.		177,140
Net sales		<u>566,630</u>
Profit before depletion, Federal taxes etc.		37,330
Net profit to surplus approximately		28,500

Heads	Lead Cons	Zinc Cons
Au. .036	0.32	.04
Ag. 2.0	31.0	2.4
Lead 3.7 %	43.	1.3
Zinc 5.9 %	--	51.9 %
32286 tons	3015 tons	3100 tons.

	<u>Recoveries %</u>			
	<u>Gold</u>	<u>Silver</u>	<u>Lead</u>	<u>Zinc</u>
Lead Cons	60.9	27.7	91.7	6.1
Zinc Cons	2.4	9.5	2.8	71.1
Tailings	21.7	6.8	5.5	22.8

Estimating freight and treatment, it would appear that annet smelter return of \$6.39 per ton of head was made from both concentrates. Total return is \$14.89, indicating about \$2.50 per ton in premiums. The mine is operating at present under "C" zinc and "D" lead premiums. Total cost amounts to \$12.72 per ton.

Cost items are as follows:

Miscellaneous taxes	2640.
Milling	34072.
Mining	304214
Overhead	40819.
Administration	30831.

Among the assets are:

Buildings	\$ 190,911.
Staff House	5,449.
Office	5,125.
	<u>201,485.</u>
Depreciation	57,547
	<u>143,938.</u>
Mng. Prop. & Dev.	174,863
Less Depletion	<u>106,535</u>
	68,328
Supplies	17,216.

Liabilities:

Payable and Payroll	55,253
Trade Acct.	10,930
Notes	21,194
Acc. Taxes	29,724
Reserve for Taxes	14,322
Cap. Stock	200,000
Surplus (-)	<u>52,833</u>
	<u>147,107</u>
	278,590.

TENNESSEE-SCHUYKILL MINE REPORTS

Month 1943	Tons	Assays ^{4%}				Operating Cost	Per Ton	Net Smelter Value Concts.	Per Ton	Value with Premiums		
		Au.	Ag.	Pb.	Zn.					A	B	C
Jan.	3990					\$ 28329.00	7.10	\$ 20034.00	5.02			
Feb.	2769	.05	1.7	3.4	7.8	25578.00	9.23	21017.00	7.59			
Mar.	3730	.044	2.0	4.3	8.3	29384.00	7.86	29918.00	8.02			
Apr.	3434	.03	2.0	4.2	6.6	24343.00	7.08	29059.00	8.46			
May	2690	.03	1.8	3.6	6.9	30390.00	11.30	17577.00	6.53			
June	3191	.02	1.6	3.1	5.2	33111.00	10.38	15797.00	4.95	\$25884	35891	
July	3471	.03	1.7	2.8	5.2	38035.00	10.96	16810.00	4.84	27033	37387	
Aug.	3906	.03	1.9	3.3	6.7	39835.00	10.20	26443.00	6.74	42747	59247	67163
Sept.	3289	.04	2.1	3.4	6.8	37765.00	11.48	24321.00	7.39	38960	53599	60282
Oct.	3403	.03	2.3	3.4	6.4	46500.00	13.60	24143.00	7.09	38399	52655	58619
Nov.	2877	.03	2.1	2.8	6.8	44000.00	15.29	18412.00	6.39	29904	41395	46348
Dec.	2685	.04	2.5	4.8	7.2	43511.00	16.20	22812.00	8.50	36566	50320	55227
	39435					420781.00	10.67	266343.00	6.75			
1944												
Jan.	2298	.04	2.8	4.8	8.1	45459.00	19.78	19803.00	8.61	\$32394	44985	49476
Feb.	1982	.04	2.8	4.6	8.1	41175.00	20.77	17794.00	8.98	29016.	40239	44421
Mar.	1978	.04	1.9	3.8	6.0	41911.00	21.19	12815.00	6.48	21210	29604	31767
Apr.	2683	.03	1.8	3.3	6.9	38808.00	14.46	15474.00	5.77	26803		42440
May	3019	.024	1.2	2.6	4.8	36464.00	20.78 ^{12.07}	9716.00	3.22	17103		26174
June	2407	.032	1.9	3.5	6.7	36160.00	15.02	15035.00	6.24	25214		38890
July	2480	.030	1.5	3.3	5.8	38154.00	15.38	13942.00	5.62	23531		38772
Aug.	2170	.030	1.3	3.3	5.3	35114.00	16.18	11975.00	5.51	19867		32254
	19017					\$ 313145.00	16.47	116554.00	6.13	\$ 185138		\$ 304194
										9.73 Per Ton		

LEASE OF MINING CLAIM

TENNESSEE-SCHUYLKILL CORP.,

To

ROBERT H. BECK.

Dated October 11, 1939.

P.O. Box 1029

CARL G. KROOK

ATTORNEY AT LAW

KINGMAN

ARIZONA

000
001
06
061

LEASE OF MINING CLAIM

from

Lessor: TENNESSEE-SCHUYLKILL CORPORATION, a corporation, of
Chloride, Arizona, hereinafter called "lessor";

to

Lessee: ROBERT H. BECK, of the same place, hereinafter called
"lessee".

Lessor hereby leases to the lessee a certain portion of the
mine hereinafter described, for the term and upon the payment of
rentals and upon the covenants and conditions following:

1. PROPERTY. All that portion of the SCHUYLKILL pat-
ented mine lying above the 900 ft. level therein,
said SCHUYLKILL patented lode mining claim being
situate in the Wallapai Mining District, Mohave
County, Arizona, and the U. S. Patent thereof ap-
pears of record in Book 4 of Deeds, on page 652,
in the office of the Recorder of said Mohave Coun-
ty, to which reference is made for a more partic-
ular description.

2. TERM. One year, beginning on October 11, 1939,
and ending October 10, 1940, unless sooner aband-
oned or terminated, as herein provided, with the
privilege of renewal for one year.

3. USE AND OCCUPANCY. (a) Lessee is granted the im-
mediate possession of said premises and the right
to explore, operate and work the same and to ex-
tract the ores therefrom above said 900 ft. level,
subject to the payment of royalties as hereinafter
provided.

(b) Lessee shall commence active and continuous
work upon said property immediately upon the date
hereof, or as soon thereafter as is reasonably
practical, and thereafter shall prosecute the same
continuously and without interruption, unless pre-
vented by causes over which the lessee has no con-
trol.

(c) All work shall be performed in a minerlike
fashion and in a manner necessary to good and econ-
omical mining so as to produce the largest amount
of ore possible, with due regard, however, to the
development, exploration and preservation of the
premises as a workable mining property.

(d) Cessation of operations of the premises by
the lessee for ten (10) consecutive days at any one

time during the term of this lease, without the written consent of the lessor, and not the result of causes for which lessee is not responsible, shall constitute a ground upon which the lessor may in its discretion declare this lease at an end.

(e) Lessee shall well and sufficiently timber the workings at all points where proper and necessary in accordance with good mining and in compliance with the mining laws of the State of Arizona and the Rules and Regulations of the office of the State Mine Inspector, and shall repair all old timbering when it may become necessary, and the main workings shall be kept free of rubbish and debris and in good condition for continuous operation as a workable mine.

(f) All mine timbers, blocks and wedges shall be furnished by lessee at his own expense.

Track, ties, air and water pipe and ventilation pipe shall be furnished by lessor, and lessee is permitted to move the track and pipe-lines now in the workings of the leased premises from place to place as his operations may require.

Lessor shall furnish to lessee the use of the necessary drill steel, but lessee shall furnish his own drills and also small tools, such as picks, shovels, hammers, etc., and also shall furnish carbide, powder, caps and fuse at his own expense, and if lessee shall use individual electric batteries for lighting purposes he shall pay the rental therefor.

The SCHUYLKILL hoist and shaft equipment may be used by lessee without charge, except the charge for air as hereinafter provided, and except that he shall keep the hoist and said equipment in good repair and working order at all times during the life of this lease at his own expense.

4. ROYALTY. (a) Lessor shall at all times during the life of this lease have the exclusive right to the purchase of all ores mined by lessee in said leased property, and lessee shall not remove or dispose of any of the products of said premises in any other manner.

(b) As rental for the use and occupancy of said leased premises the lessee shall pay the lessor a royalty on all ores delivered to lessor of 15% of lessor's purchase price of the ore, which purchase price shall be computed on the following basis:

Gold: at \$24.00 per ounce;
Silver: at \$0.45 per ounce on present silver price;

Lead: no payment unless the grade runs 2% or over, and on ores of a grade of 2% or over payment will be made at the rate of 56% of the market price, less 1½¢ per lb.

Zinc: no payment unless grade 4% or over and then the price shall be governed by the market.

Lead and zinc to be paid for on a monthly market average as shown by the New York Engineering and Mining Journal.

5. MILLING, TRAMMING, SUPPLIES, ETC. Lessor agrees to mill lessee's ores, perform the necessary tramming, assaying and tool sharpening, and furnish material and supplies to the lessee during the life of this lease upon the terms and conditions following:

- (a) Milling charge per dry ton, \$2.50;
- (b) Tramming from the ore shutes on the 900 ft. level and hoisting same to bin at 35¢ per ton;
- (c) Air for drills proportionate to number of machines used in mine, at \$1.00 per hour per drill. Lessee to furnish his own air drills.
- (d) Air for SCHUYLKILL hoist at \$1.00 per hour.
- (e) Sharpening steel at 0.10 per bit, 0.35 per shanks. Steel to be delivered at and picked up at blacksmith shop.
- (f) Assaying, gold and silver combined, at 0.30 per sample; lead at 0.30 per sample; zinc at 0.30 per sample.
- (g) Powder, caps, fuse, timber, carbide and other material and supplies shall be sold by lessor to lessee at cost, plus 10%.

6. WASTE. Gob or waste produced by lessee will be accepted by lessor free of charge, if and when it can use the same in its own mining operations. If, however, it has no use for waste and the waste produced by the lessee has to be hoisted, then the same shall be subject to a charge for tramming and hoisting of 35¢ per ton.

7. DEVELOPMENT WORK. In the event the lessee finds that he has to perform certain exploratory and

development work, and the purchase price of the ores from such development work shall be between \$6.00 and \$8.00 per ton, then the royalty shall be reduced to 10%, but such reduction shall apply to development ores only and not to ores taken from stopes.

8. ARBITRATION. In the event of any dispute arising between lessor and lessee, such controversy shall be submitted to arbitration, each party selecting an arbitrator and the two arbitrators thus chosen shall select a third, and their findings shall be conclusive and binding upon the parties.
9. TERMINATION OF LEASE. This lease shall terminate on either of the following grounds:
- (a) If the metal market drops below profitable operations either of the leased premises or lessor's mill.
 - (b) At the option of either party on sixty (60) days written notice.
 - (c) On the sale of lessor's SCHUYLKILL and TENNESSEE property, in which event the lessee shall be entitled to thirty (30) days written notice.
10. INSPECTION OF PREMISES. Lessor reserves the right through its authorized agents to enter upon said leased premises and the workings therein at all reasonable times for the purpose of inspection, survey, or taking samples therefrom, and in that behalf the lessee shall extend proper assistance, but the lessee shall not be put to any expense by reason thereof, nor shall he be held responsible for any personal injury sustained by lessor's agents without his fault.
11. ASSIGNMENT - SUBLETTING. This lease, or any renewal thereof, shall, at the option of the lessor, be forfeited and terminated if the term in whole or in part of the lease is assigned, transferred or set over by the act of the lessee, or by process or operation of law, or in any other manner whatsoever, or if any part of said leased premises is sublet, without the written consent of the lessor.
12. NON-LIABILITY OF LESSOR. Lessee shall at all times during the life of this lease keep said premises free and clear of all liens, claims and debts, and the lessor shall in no event be responsible for any labor or material bills incurred by lessee in connection with his operation of said leased premises, nor for any personal injury or damage that may be

sustained by the men employed by lessee, and if for any reason a claim or lien is filed against said premises on account thereof, or any suit shall be filed against the lessee for non-payment of same, or any suit shall be filed for the foreclosure of such lien, or any suit shall be filed against the lessor in connection with any such claim, such act or acts shall constitute a breach of this lease and subject the same to termination as for default.

13. COMPENSATION INSURANCE. Lessor shall not be liable for any loss, injury or damage to lessee, or his employees, or to his equipment or property used by him in connection with his operation under this lease, and the lessee shall at all times during the life of this lease comply with the provisions of the Workmen's Compensation Law of the State of Arizona, and, insofar as it may apply, with the Federal Social Security Act, and any law of the State of Arizona appertaining thereto.
14. EQUIPMENT - REMOVAL. All machinery, equipment and tools placed by lessee in or on said premises during the life of this lease shall be subject to removal by him within thirty (30) days from the date of the expiration of the term of this lease, or from the date of the termination of this lease by default or otherwise: PROVIDED, that all buildings and headframes, if any, and underground timbering and rails and pipe shall not be removed, but shall remain on said premises and belong to lessor. If such machinery, equipment and tools are not removed from the premises within said period of 30 days, then such failure of removal shall operate as a transfer of title to the lessor, and the lessor shall thereupon become and remain the owner thereof.
15. BROKEN ORE. Lessor reserves the title to any and all broken ores remaining on the premises or in the workings thereof on the expiration of the term of this lease, or on the termination thereof prior thereto in any manner, and lessee expressly waives any right, title, claim or interest therein.
16. REPRESENTATIONS. Lessee has entered into this lease relying on his own judgment or knowledge of said leased premises, and not upon any representations made by lessor's agents, employees or representatives, touching the merits, character or quality thereof.
17. SURRENDER OF POSSESSION. The lessee shall deliver to the lessor quiet and peaceable possession of

said leased premises in good order and condition, with all drifts, tunnels, or other passages thoroughly drained and cleared of loose rock and rubbish, without demand or further notice, on the expiration of the term of this lease, or any renewal thereof, or in the event of the sooner termination of this lease for any cause whatsoever.

18. DEFAULT. Upon the violation of any covenant, condition or provision herein contained, this lease shall at the option of the lessor expire and terminate, and the lessor, through its agents or representatives, may thereupon, after demand in writing, have possession, enter upon said premises, and dispossess all persons occupying the same, with or without force, and with or without process of law, or at the option of the lessor the lessee and all persons occupying said premises, or any part thereof, may be proceeded against as guilty of unlawful detainer.

IN WITNESS WHEREOF, said lessor and said lessee have executed this lease in duplicate this 11th day of October, 1939.

TENNESSEE-SCHUYLKILL CORPORATION

By Jacob Schoder
Mgr.
Lessor.

R. H. Beck
Lessee.

STATE OF ARIZONA)
) ss.
COUNTY OF MOHAVE)

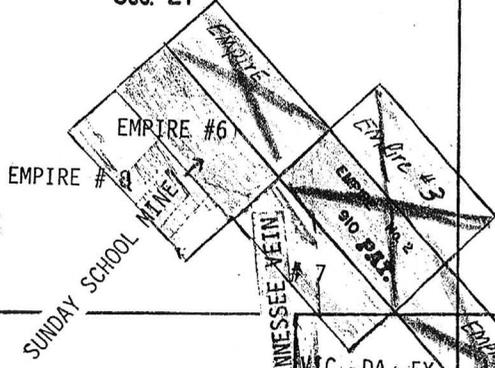
The foregoing instrument was acknowledged before me this 11th day of October, 1939, by JACOB SCHODER, as manager of TENNESSEE-SCHUYLKILL CORPORATION, lessor, and by ROBERT H. BECK, lessee.

My commission expires July 15, 1943.

Lucy G. Gresham
Notary Public

Sec. 27

Sec. 26



SUNDAY SCHOOL MINE

EMPIRE #6

EMPIRE #4

EMPIRE #3

EMPIRE #5

VICT. DARD.

SILVER UNION MINE

Sec. 34

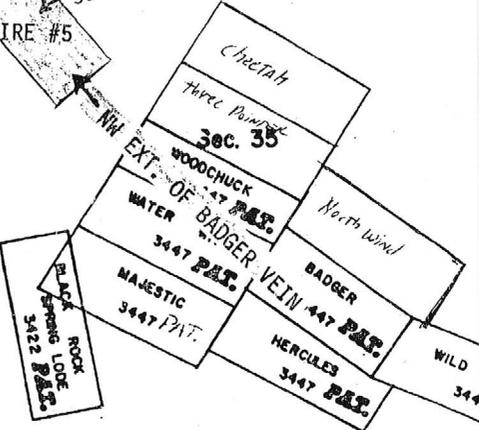
TENNESSEE-SCHUYLKILL NORTHERN EXTENSION

LEAD GREAT NORTHERN EXTENSION

MERCHANT 3449 PAT.

ARGYLE

SENECTARY EXTENSION 2204 PAT. ARGYLE



Chetah

Three Pound

WOODCHUCK

WATER

MAJESTIC

HERCULES

WILD

3422 PAT.

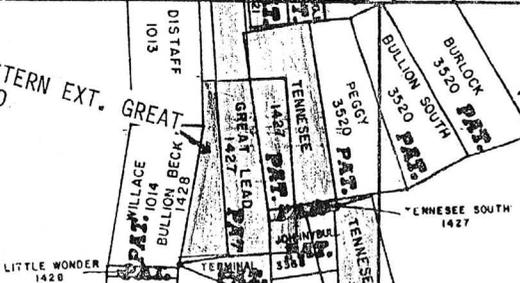
3447 PAT.

3447 PAT.

3449 PAT.

ORISKANY STARR 3448

WESTERN EXT. GREAT LEAD



DISTAFF 1013

BULLION 3520

PEGGY 3520

BLACK PRINCE 4009

PAY ROLL 3449

RATTLER MINE 850

LITTLE WONDER 1428

MONTANA 3363

ARIZONA 3363

BRUNSWICK 3571

CENTURY 3571

SILVER AGE 2203

LITTLE 3073

ALTATA 3073

GIANT 3073

CINCO DE MAYO 3073

3448

3448

3448

3448

Sec. 2

Sec. 3

BELL

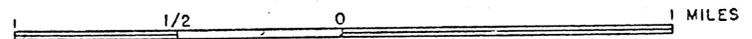
MILL SITE 2998 PAT. 2 MERSO 20

CONJUR GEN. 218 PAT. ARATA 2968 PAT.

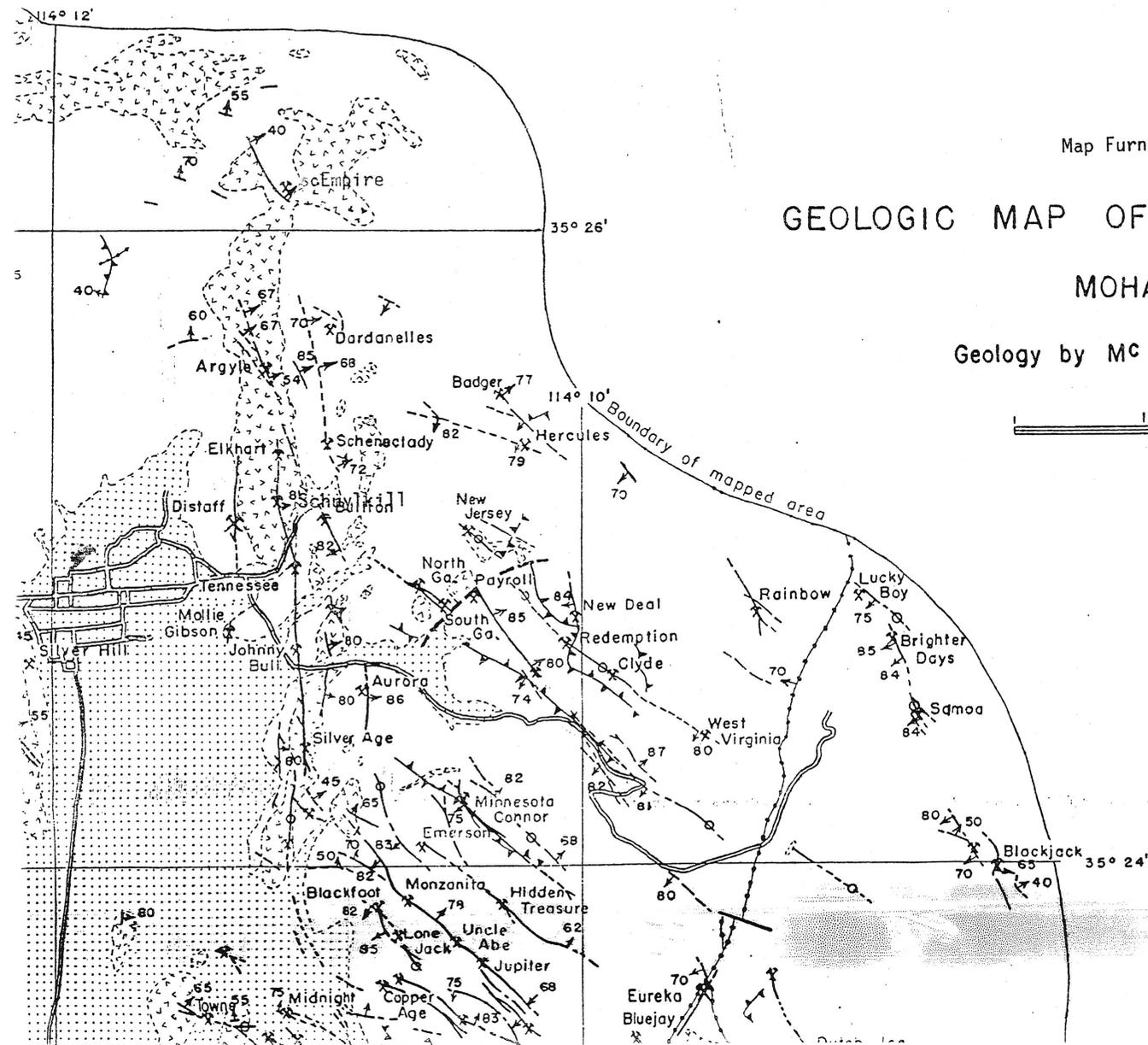
Map Furnished by TENNESSEE SCHUYLKILL CO.

GEOLOGIC MAP OF THE WALLAPAI MINING DISTRICT MOHAVE COUNTY, ARIZONA

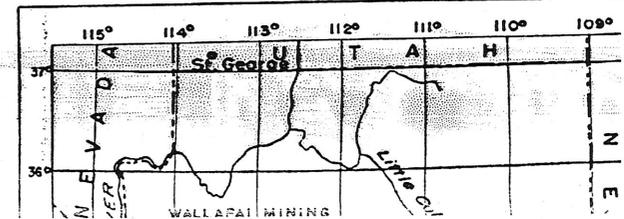
Geology by Mc Clelland G. Dings and Paul K. Sims



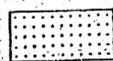
1943



Index Map



EXPLANATION



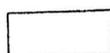
Alluvium



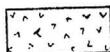
Gabbro



Granite



Chiefly gneissoid granite (also includes some pegmatite, schist and gneiss)



Amphibolite (also includes minor bodies of hornblende schist, biotite schist, chlorite schist and diorite gneiss)



Rhyolite dike, showing dip



Intermediate to basic dike, showing dip



Vein, showing dip



Vein with vertical dip



Fault



Mine



Open pit turquoise mine

QUATERNARY

LATE MESOZOIC (?)

PRE-CAMBRIAN

35° 22'

Emerald

114° 12'

35° 20'

I drove to the Tennessee-Schulykill property in Chloride for a cursory examination of the dumps and tailing ponds. VBD WR 6/19/76

George Fass and I drove to the Tennessee dumps at Chloride. We sunk a 3" auger hole to 21 feet near the center of the Tennessee tailing dump and made two grab samples from a jig tailing dump. The assays from these samples will provide preliminary data to decide if these dumps should be thoroughly sampled. VBD WR 6/23/76

Rick Doss and I drove to Tennessee tailing dump and augered a sample from a single hole for metallurgical tests. VBD WR 7/14/76

George Fass, Rick Doss and I augered 3 sample holes into the Tennessee tailing pond after we established a 200' interval grid for sampling. Dave Rabb and Sam Rudy assisted in the sampling after familiarizing themselves with the project files in Kingman. VBD WR 8/19/76

We augered two more sample holes into the Tennessee tailing pond. VBD WR 8/20/76

I drove to Chloride and collected preliminary grab samples from the Schulykill shaft dump. VBD WR 8/22/76

George, Rick and I augered 2 holes in the Tennessee tailing pond. VBD WR 8/23/76

We completed sampling of the Tennessee tailing pond. VBD WR 8/24/76

George, Rick and I drove to the Schulykill mine dump a short distance north of Chloride where we cut samples all day. VBD WR 9/17/76

Rick Doss, George Fass and I completed sampling at Schulykill dump. VBD WR 9/20/76

NJN Mine Report 4/14/83: Dump material from the Tennessee-Schulykill, Payroll, Keystone & Ark Mines is being crushed and screened at the Tennessee-Schulykill dump site. It is then trucked to the PAC Mill Site where it is ground, crushed by a cyclone, jigged, tabled and floated, producing various sulfide concentrates containing galena, sphalerite, arsenopyrite, pyrite, silver and gold. Heads are averaging .025 oz Au/ton. Most gold values are being caught in the jigs with the table and float cells making lead and zinc sulfide concentrate. The operating company is Mountain States Resources from Lakewood, Colorado, Lee Mining Corporation, P.O. Box 3849, Kingman, Arizona 86401, is the contractor.

Hulse Engineering, Inc.

Post Office Box 700
Pioche, Nevada 89043
Phone 702-962-5180
July 1, 1982

Mr. Nick Tanno
1055 East Tropicana
Suite 550
Las Vegas, Nevada 89109

Tennessee Mine dump: 300,000 tons plus

Dear Nick:

This letter will confirm the points we discussed in our Las Vegas meetings on June 29th and 30th.

After reviewing the reports and information on the Tennessee and Goldconda claims, visiting with Mr. Joe Davis of Cimetta Engineering, and Mr. Eldon Lee of Mountain States Resources Development, the following points and recommendations are forth coming.

Mr. Joe Davis, Mining Engineer for Cimetta Engineering and Construction Co. Inc., has thoroughly reviewed the above-mentioned data, and I feel the tonnage figures indicated on page 5, paragraph 7 of 300,000 tons are valid.(Tennessee Mine)

It is my understanding Cimetta is currently conducting metallurgical tests on dump material from the Wallapai District. The results of this project is essential to future planning.

Mr. Davis has used a figure of \$65.00/ton Gross Metal Value in his evaluation. After reviewing the data, I would concur and expected Net Smelter Value for Lead-Zinc ores would yield approximately \$49.00/ton or 75% of the Gross Metal Value figure indicated. The following recoveries might be expected:

For Au. (gold)	90%
For Ag. (silver)	75%
For Pb. (lead)	85%
For Zn. (zinc)	75-80%

Average Assay are expected to be: Tennessee Dump

Au.	=	0.05 oz/ton
Ag.	=	1.75 oz/ton
Pb.	=	40 lb/ton or 2%
Zn.	=	100 lb/ton or 5%

Metal prices used to calculate the expected Net Smelter Value is as follows:

Au.	=	\$700.00/oz.
Ag.	=	6.00/oz.
Pb.	=	\$0.20/lb.*
Zn.	=	\$0.26/lb.*

Mr. Nic. Tanno
1 July 82
Page 2

* These values must be determined with each individual smelter contract.

Smelter charges are expected to be \$100-\$150.00/ton of concentrate shipped, and is estimated at \$5.00/ton on dump ores.

Milling rate is expected to be 200 tons/day, 310 days/year (85% operating time, leaving 55 days/year for repairs and maintenance); therefore, annual production is estimated at 200 tpd X 310 days/year = 62,000 tpy. Expected yearly gross yield (before hauling, milling, and smelting) is 62,000 tpy X 49.00 = \$3,038,000. Expected cost to mine, haul and process is given as follows:

A. Mining--1)	Dumps(surface)	
	Load & Haul	\$5.00/ton
	2) Open Pit	\$25.00/ton
	3) Underground	\$60.00/ton
B. Milling		
	1) Crushing	\$8.50/ton
	2) Milling	\$5.50/ton
	3) Smelting	\$5.00/ton
		<hr/>
		\$19.00/ton

A \$5.00/ton Royalty charge has been added below for clarify and may or may not apply to individual mines.

To recap expected costs in dumps only:

Mining & Hauling	\$5.00/ton
Milling & Crushing	\$19.00/ton
Royalty(where applicable)	\$5.00
	<hr/>
	\$24.00/ton*

*depends on Royalty

Based on the above data:

Dump would be expected to yield
\$49.00/ton - \$25.00/ton(costs) or \$24.00/ton

It is quite obvious open pit and underground mining is not feasible at current metal prices or grade figures indicated above.

Dumps mentioned in the reports reviewed by myself and Mr. Davis can be expected to yield the following:

300,000 tons X \$24.00/ton = \$7,200,000 at a mining/milling rate of 200 tpd or 62,000 tpy. Expected yield is 4.8 years or \$1,500,000/year.

Mr. Nick Tanno
1 July 82
Page 3

Based on these estimates, it appears the chance of your investors recapping their investment in two years is very good. I would recommend you proceed with your joint venture arrangement with Mountain States Resources Development through Mr. Eldon Lee.

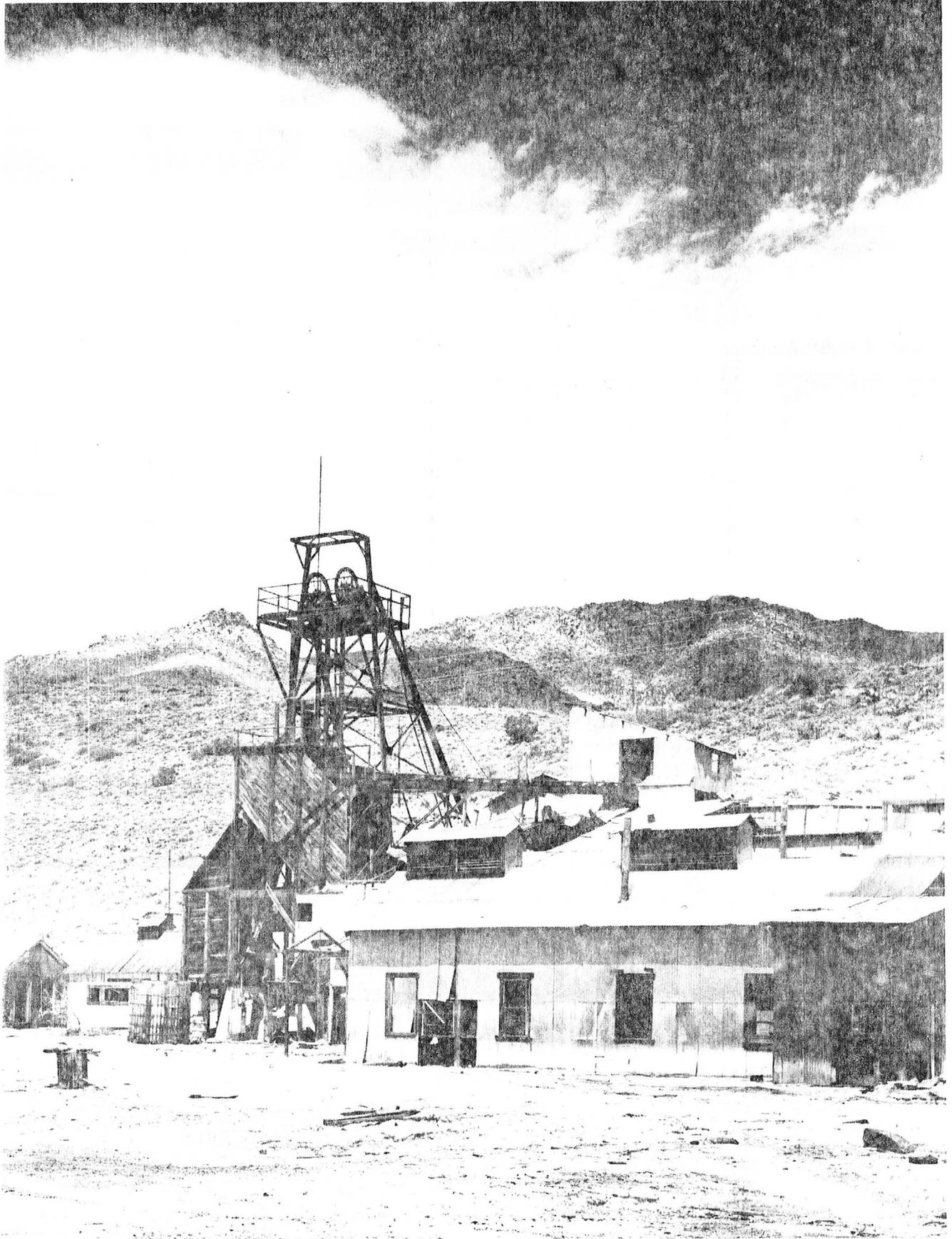
An additional point to be considered is the loading and hauling costs. Over the next two years, \$620,000 will be expended for loading and hauling. Planning and development should include the possibility of developing better grade ores from underground and surface sources and construction of a plant closer to the Wallapai Mines.

Thanks again for the opportunity to work with you and your group. We are looking forward to reviewing the Pioche East Side Project with Mr. Lee.

Respectfully Submitted,



Philip C. Hulse, P.E. (Mining)
Hulse Engineering



The Tennessee Mine at Chloride, 1970.

TENNESSEE-SCHUYLKILL

MOHAVE COUNTY

KAP WR 12/11/87: Dick Genova, 823 W. Earl, Phoenix, Arizona 85013, phone 274-8013 reported he has acquired the Tennessee Schuylkill Mine (file) Mohave County. He is assembling a submittal package in an effort to interest Echo Bay Mining Co. in the old property. He may also be interested in trying to option or sell the property to anyone able to develop the mine. He was asked to supply us with a copy of his submittal package.

NJN WR 4/8/88: Dick Genova who works for the Department of Corrections, phone 255-4435, called and reported that he owns the Tennessee-Schuylkill (file) Mohave County and was assisted by being provided with companies interested in lead/zinc base metal properties.

KAP WR 4/22/88: Dick Genova, 823 W. Earl, Phoenix, ARizona 85013, owner of the Tennessee Schuylkill Mine (file), Mohave County provided considerable information for the department's file on the property. Additionally the information contained data of which copies will be put in a number of files with a note on the appropriate "rumor" pages. The property should be re-evaluated as a zinc deposit in light of the current high zinc prices. There are indications of a zinc reserve of over 16,000,000 pounds.

Echo From Oatman's Past

George Getz of Scottsdale, owner of the Getz Ranch in the Hualapai Mountains near Kingman, called Malach with a request of copies of the two editions of the Oatman publication. With the call, came the background of the request.

Getz plans to send those books to his friend, Olive Carry, over 80 years old, and widow of Harry Carry, well known actor of western movies. According to Getz, Olive Carry, former movie actress, lived in Oatman, made movies with her husband in that area, and, in general, holds many memories of that former mining town. Getz hopes to revive her memories of Oatman.

Getz keeps contact with Malach for some ten years and has the collection of all his 28 publications.

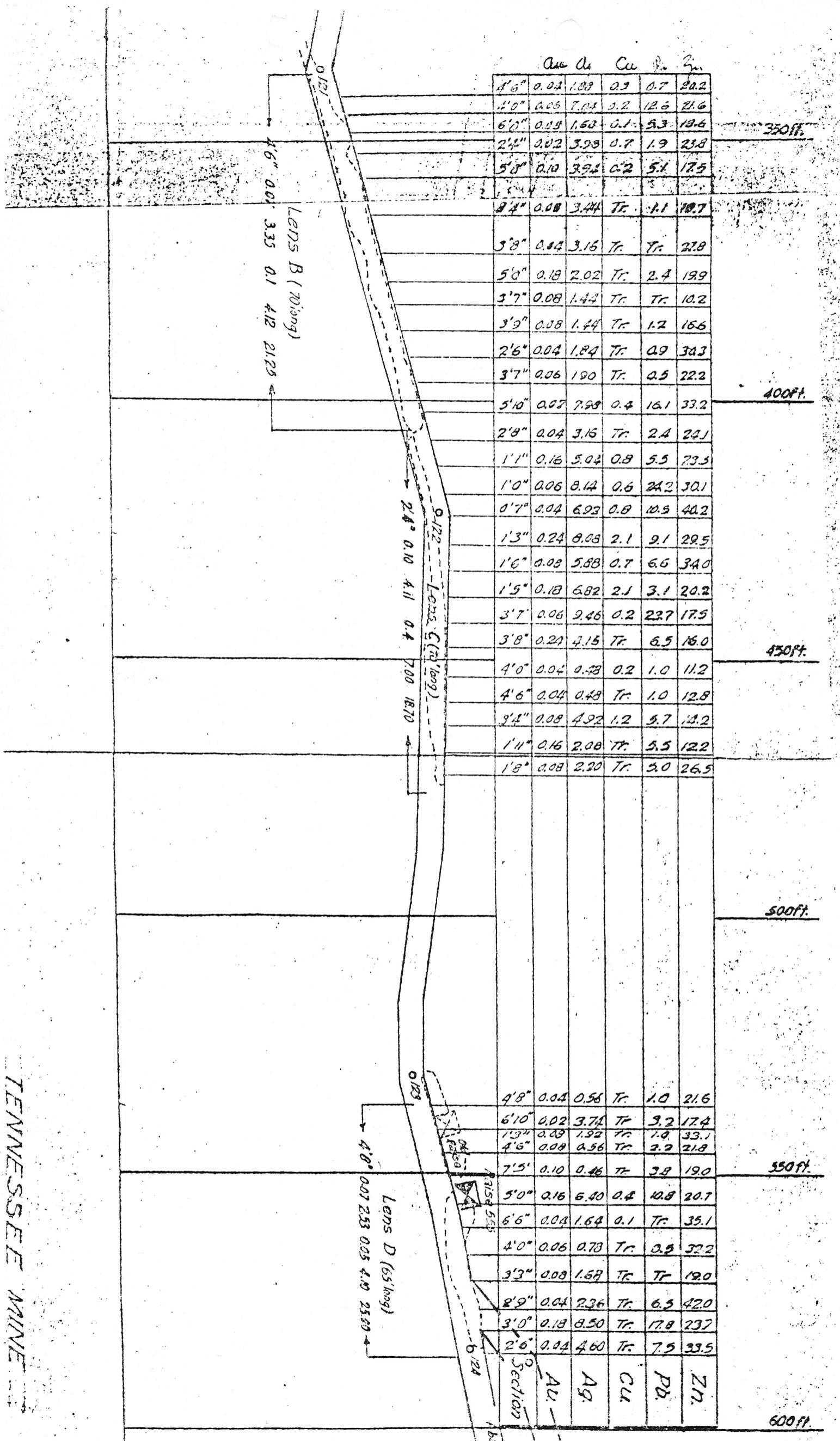
Work At Tennessee Mine

Malach visited the Tennessee Mine in Chloride on March 30, 1983 and found works in progress on the enormous dumps. According to J.R. Trout, superintendent, the Tenhart Resources Co. from Montana has in operation the screening of the dump material through elaborate process, cleaning all waste and retaining the fine particles of the crushed ore from previous operations.

This fine material is hauled to the mine camp near Chloride, where it is processed in a mill, resulting in gold-silver concentrates, which will be shipped to the El Paso smelter for turning into bullion.

Supt. Trout expects to have enough of the Tennessee Mine dump material for two years of operation. The company picks also dump material from other mine dumps in the surrounding area for processing. The Tenhart Resources Co. has other mining operations. Right now, some 11 men have employment at the Tennessee Mine.

TENNESSEE MINE
 600' LEVEL ASSAYS



Section	Length	Au	Ag	Cu	Pb	Zn
A	4'6"	0.04	1.89	0.9	0.7	20.2
B	4'0"	0.05	7.04	3.2	12.6	21.6
C	6'0"	0.05	1.58	0.1	5.3	18.4
D	2'6"	0.02	3.98	0.7	1.9	23.8
E	5'8"	0.10	3.52	0.2	5.1	17.5
F	8'4"	0.08	3.44	Tr.	1.1	18.7
G	3'8"	0.04	3.15	Tr.	Tr.	22.8
H	5'0"	0.18	2.02	Tr.	2.4	19.9
I	3'7"	0.08	1.44	Tr.	Tr.	10.2
J	3'9"	0.08	1.44	Tr.	1.2	16.6
K	2'6"	0.04	1.84	Tr.	0.9	30.3
L	3'7"	0.06	1.90	Tr.	0.5	22.2
M	5'10"	0.05	7.98	0.4	16.1	33.2
N	2'8"	0.04	3.16	Tr.	2.4	24.1
O	1'1"	0.16	5.04	0.8	5.5	73.5
P	1'0"	0.06	8.14	0.6	24.2	30.1
Q	0'7"	0.04	6.93	0.8	10.9	40.2
R	1'3"	0.24	8.08	2.1	9.1	29.5
S	1'6"	0.03	5.88	0.7	6.6	34.0
T	1'5"	0.18	6.82	2.1	3.1	20.2
U	3'7"	0.06	2.46	0.2	22.7	17.5
V	3'8"	0.21	4.15	Tr.	6.5	16.0
W	4'0"	0.04	0.58	0.2	1.0	11.2
X	4'6"	0.04	0.48	Tr.	1.0	12.8
Y	3'4"	0.08	4.92	1.2	5.7	13.2
Z	1'11"	0.16	2.08	Tr.	5.5	12.2
AA	1'8"	0.08	2.20	Tr.	5.0	26.5
AB	4'8"	0.04	0.56	Tr.	1.0	21.6
AC	6'10"	0.02	3.71	Tr.	3.2	17.4
AD	1'3"	0.03	1.92	Tr.	1.8	33.1
AE	4'6"	0.08	0.56	Tr.	2.2	21.8
AF	7'5"	0.10	0.46	Tr.	3.8	19.0
AG	5'0"	0.16	6.40	0.4	10.8	20.7
AH	6'6"	0.04	1.64	0.1	Tr.	35.1
AI	4'0"	0.06	0.78	Tr.	0.9	32.2
AJ	3'3"	0.08	1.68	Tr.	Tr.	19.0
AK	8'9"	0.04	2.36	Tr.	6.5	42.0
AL	3'0"	0.18	8.50	Tr.	17.8	23.7
AM	2'6"	0.04	4.60	Tr.	7.5	33.5

Lens B (70' long)
 16" 0.01 3.35 0.1 4.12 21.25

Lens C (70' long)
 2'8" 0.10 4.11 0.4 7.00 18.70

Lens D (65' long)
 4'0" 0.07 2.53 0.05 4.19 25.99

350ft.
 400ft.
 450ft.
 500ft.
 550ft.
 600ft.

Section
 Au.
 Ag.
 Cu.
 Pb.
 Zn.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Tennessee

Date May 1, 1985

District Wallapai

Engineer Ken A. Phillips

Subject: Production

Recorded production from the Wallapai mining district,
MOHAVE County according to an abstract of U. S. Bureau of Mines
data was obtained from the Arizona Bureau of Geology and Mineral Technology.

Production is recorded for the period

Cumulative totals are:	Tons of ore	534,942
	Pounds of copper	850,704
	Pounds of lead	60,163,169
	Troy ounces of gold	41,265
	Troy ounces of silver	1,525,723
	Pounds of zinc	67,449,501

The following mines or mining claims in the district contributed to the
production: Tennessee AKA: Tennessee Schuykill

SPECIMEN L-15

K104

Cabinet
Section
Shelf

f, 6

Presented by Tennessee Schuylkill Corporation
Collected by Robert E. Morrow
Date received November, 1940

Class (principal mineral) Lead

Name of mine or claim Tennessee Mines Corp.

Other minerals Zinc

Group

District

Cerbat

Language

County

Mohave

Depth at which specimen taken 1070-1170 ft.

Location (distance and direction by highway
from what town) Chloride

Approximate mineral content (in terms of
average per ton)

Quantity

Value \$ 50.00

Mine active or inactive Active

If inactive, when operated

Owner Tennessee Schuylkill Corporation

Operator

Notes: The mines in the Cerbat mountains in the northwestern corner of the State have been the largest producers of lead ore of any in Arizona. Most of the lead has been produced as a by-product of silver. The Cerbat range north of Kingman has several mining camps which have produced notably in the past. The principal ones are the Chloride, Mineral Park, Golconda, Cerbat, and Stockton Hill. Probably 70,000,000 pounds of lead constitutes the reserve within Mohave county.

The zinc deposits of Arizona are of two major types, those associated with lead and those associated with copper. Those of Mohave county are associated with lead and are considered

This specimen is now in the ADMR Museum - see (number 16.0 x 13.5 x 2.5)

SPECIMEN L-15

K104

Cabinet Presented by Tennessee Schuylkill Corporation
 Section Collected by Robert E. Morrow
 Shelf E 6 Date received November, 1940

Class (principal mineral)	Lead	Name of mine or claim	Tennessee Mines Corp.
Other minerals	Zinc	Group	
Gangue		District	Cerbat
Depth at which specimen taken	1070-1170 ft.	County	Mohave
Approximate mineral content (in terms of average per ton)		Location (distance and direction by highway from what town)	Chloride
Quantity	Value \$ 50.00	Mine active or inactive	Active
		If inactive, when operated	
		Owner	Tennessee Schuylkill Corporation
		Operator	

Notes: The mines in the Cerbat mountains in the northwestern corner of the State have been the largest producers of lead ore of any in Arizona. Most of the lead has been produced as a by-product of silver. The Cerbat range north of Kingman has several mining camps which have produced notably in the past. The principal ones are the Chloride, Mineral Park, Golconda, Cerbat, and Stockton Hill. Probably 70,000,000 pounds of lead constitutes the reserve within Mohave county.

The zinc deposits of Arizona are of two major types, those associated with lead and those associated with copper. Those of Mohave county are associated with lead and are considered

This specimen is now in the ADMR Museum - see K number 16.0 x 13.5 x 2.5

the most important in the state. The principal mines are the Tennessee-Schuykill, Golconda, Ore Plata, Stockton Hill, and Jim Cane. The total reserve has been estimated at 170,000,000 pounds.

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304 xx

April 6, 1944

Handwritten signature

Tennessee-Schuylkill Corporation
70 Pine Street
New York 5, New York

Attention: Dorothy A. Decker, Secretary .

Gentlemen:

I am sending under separate cover a copy of
the annual report of the Department of Mineral
Resources for the year July 1, 1942 to June 30, 1943,
as requested.

Yours very truly,

J. S. Coupal, Director

JSC:LP

December 27, 1943

Mr. N. A. Wimer
Tennessee-Schuylkill Corp.
70 Pine Street
New York City 5, N. Y.

Dear Mr. Wimer:

Thank you for your letter of December 23 and for the full information regarding the labor situation. The inefficiency of labor is going to be one of our great difficulties in getting back to normal and it would seem as though we must continue with premiums until we can get our costs and production per man back to where they belong.

The custom mill plan for Chloride is a problem and we are trying to see what can be done regarding it. We are keeping close watch on any cutbacks on premiums on metals and I believe will be in position to soften any cutback which may occur. The present position of zinc makes it rather hopeless to get any Government aid and also rather difficult to interest any sound private capital in a plan for a custom mill, even though the small mines in the Chloride area would be benefitted.

With best wishes for the New Year, I am

Very truly yours,

J. S. Coupal, Director

JSC:LP

December 15, 1943

Mr. N. A. Wimer
Tennessee-Schuykill Corp.
70 Pine Street
New York City 5, N. Y.

Dear Mr. Wimer:

I was in Chloride last week and was informed that your labor problem has been greatly eased during the past month.

The Chloride Council and the operators in that district would like to have a custom mill to treat their various ores and I believe a decision on this hinges on the question of available labor for your operations.

I would appreciate a statement from you regarding this and advice as to whether or not your labor shortage is still critical.

Yours very truly,

J. S. Coupal, Director

JSC:LP

CC: Chloride, Arizona

October 25, 1943

Mr. William J. Bloxham
Tennessee-Schuylkill Corporation
70 Pine Street
New York, New York

Dear Sir:

I am sending a copy of the Fourth Annual Report of the Department of Mineral Resources as requested. This is a preliminary copy and a printed report will be sent you as soon as they are received from the printers which will be shortly.

Very truly yours,

J. S. Coupal, Director

JSC:JES

June 24, 1943

Mr. N. A. Winer, President
Tennessee Schuykill Corp.
70 Pine Street
New York, N. Y.

Dear Mr. Winer:

As requested in your letter
of June 22nd I am forwarding a copy of the
bulletin on Maximum Royalties on Copper,
Lead and Zinc Ores to your New York office.

With best wishes and kindest
personal regards.

Very truly yours

J. S. Coupal, Director

cc-Chloride, Arizona

Washington, D.C.
June 3, 1943

U.S. DEPT. MINERAL RESOURCES
RECEIVED
JUN 7 1943
PHOENIX, ARIZONA
C

SUBJECT: Tennessee-Schuylkill Corporation

Senator Hayden dumped in my lap his copy of the Willis letter to Wimer and of course, I got one as well.

I am letting Hayden do the answering, as I think is proper under the circumstances, and prepared a memo from which to write a letter.

For your information,

WPB Zinc branch will consent to the preliminary expenditure of 20 to 25 thousand dollars for improvements in the Tennessee mill and for expansion.

It is not felt that the expenditure of materials for a completely new plant is warranted at this time.

When the improved old plant proves the existance of enough custom ore to warrant a new mill, together with increased Tennessee production, this will then be considered.

In the meantime, Bureau of Mines is to make a preliminary survey, and I have asked Jim Douglas to write you for the material you may have on the district.

I think a strong report from you will help the situation a lot.

I don't think Douglas is cold to expansion at all. In fact he has supported our expansionist policies in the Coordinating Committee and he has fought L-208 also.

Benedict I can't say so much for. He has always had the feeling of the big Company. I wouldn't, as I stated years ago, have him on a small mine on a bet. He may be a crackerjack big copper geologist, but it has to be 100 feet wide and half a mile deep as a minimum for him to see it. He is the one who told me Gladiator is a "drop in the bucket" and intimated it was not worth wasting his time on.

Bill Broadgate

Tennessee Schuykill

May 14, 1943

Mr. N. A. Wimer, President
Tennessee-Schuykill Corporation
70 Pine Street
New York City

Dear Mr. Wimer:

Thank you for your letter of May 12. I wish to express my hearty approval of your plan to increase the capacity of the mill at Chloride so as to accommodate custom ore. I believe the district thoroughly warrants such an expansion.

I am turning your letter over to Mr. Willis as he is in close contact with the officials in Washington. We will also advise W. C. Broadgate, who is Assistant Director for the Department at Washington.

On your next trip to Washington, I suggest that you contact Mr. Broadgate at the Hotel Harrington. I know that he can be of real assistance to you as he is very familiar with the Chloride situation and he has personal contacts and knows how to assist in any such project as you have in mind.

With best wishes and kindest regards, I am

Very truly yours,

J. S. Coupal, Director

JSC:kk

April 15, 1943

Mr. N. A. Wimer
Tennessee Schuylkill Mines
Chloride, Arizona

Dear Mr. Wimer:

I am sorry to have missed you on your visit to the office on April 12 as I would like to have talked over your present plans. I was also very pleased to get your note saying that you had received the advanced premiums on zinc.

We were able to present to the sub-committee on mining of the Senate Small Business Committee sufficient evidence of the difficulties encountered by the smaller mines so that they are equipped with enough information to justify them in trying to simplify the procedure and assist us in getting out increased production.

I have not entirely given up hopes of some day seeing a zinc reduction plant in the Kingman area.

With best wishes and kindest personal regards, I am

Very truly yours,

J. S. Coupal, Director

JSC:kk

March 5, 1943

Mr. N. A. Wimer
Tennessee-Schuylkill Corporation
70 Pine Street
New York, New York

Dear Mr. Wimer:

Your letter of March 1 was received during my absence and the three copies on "Federal Aids for War Mineral Production" were mailed to you.

We have been very busy here in Phoenix on our general plans and I would say that there are now three or four groups who are considering plans for custom mills in the Kingman-Cerbat area. They are all looking for Federal aid and I hope something may develop from it.

If I can be of any further service to you at any time on any of your problems, I will be most glad to do so. We have a man in Washington, W. C. Broadgate, who is Assistant Director and who is liaison man between the Department and the various boards in Washington. If you have any special problems, we will be glad to work with you. Mr. Broadgate's address is Hotel Harrington, Washington, D. C.

If there is any special problem and you care to submit full details to us, we will forward it to Broadgate for his action. If, however, you are in Washington and contact him, he, undoubtedly, will be able to work directly with you.

Very truly yours,

J. S. Coupal, Director

JSC:kk

From Arizona Bureau of Mines Bulletin # 140

	Cu	Pb (lbs)	Au	Ag	Total Value
Tennessee 1890-1930	1,000,000 lbs	30,000,000	\$50,000	\$650,000	\$5,500,000*
Schuylkill 1900-1930	-	2,000,000	5,000	20,000	125,000

* includes about 20,000,000 lbs Zn

Tennessee - Schuylkill

Tons %Cu Pb Zn Au Ag

Remarks

Produced

T-S one of 34 mines producing 14,775 tons

1931-5

None

1936

7 59,990

60 ton mill Pb-Zn, T-S 2nd largest Pb producer in Ariz.

8 54,092

9 11,588

Closed Jan. to Oct.

1940 55,521

1 45,150

150 Ton mill. 2nd in Pb 3rd in Zn

2 40,055

3 38,286 0.1 3.7 5.65 .04 2.01

4 20,300

Closed Oct. 6 "lack of labor"

5 11,523 6.01 7.17 .075 2.517

Jan 1 - Oct 20 by Mines Operating Co.

6 3,555 4.15 7.03 .105 2.5

Mines Co-op Assoc.

7 11,797 3.60 6.50 .02 1.95

"

8 13,231 2.74 6.04 .024 1.48

Closed Dec 1948

None since

Total 1931-1948 365,088

(From U.S.B.M. MINERALS YEARBOOKS)

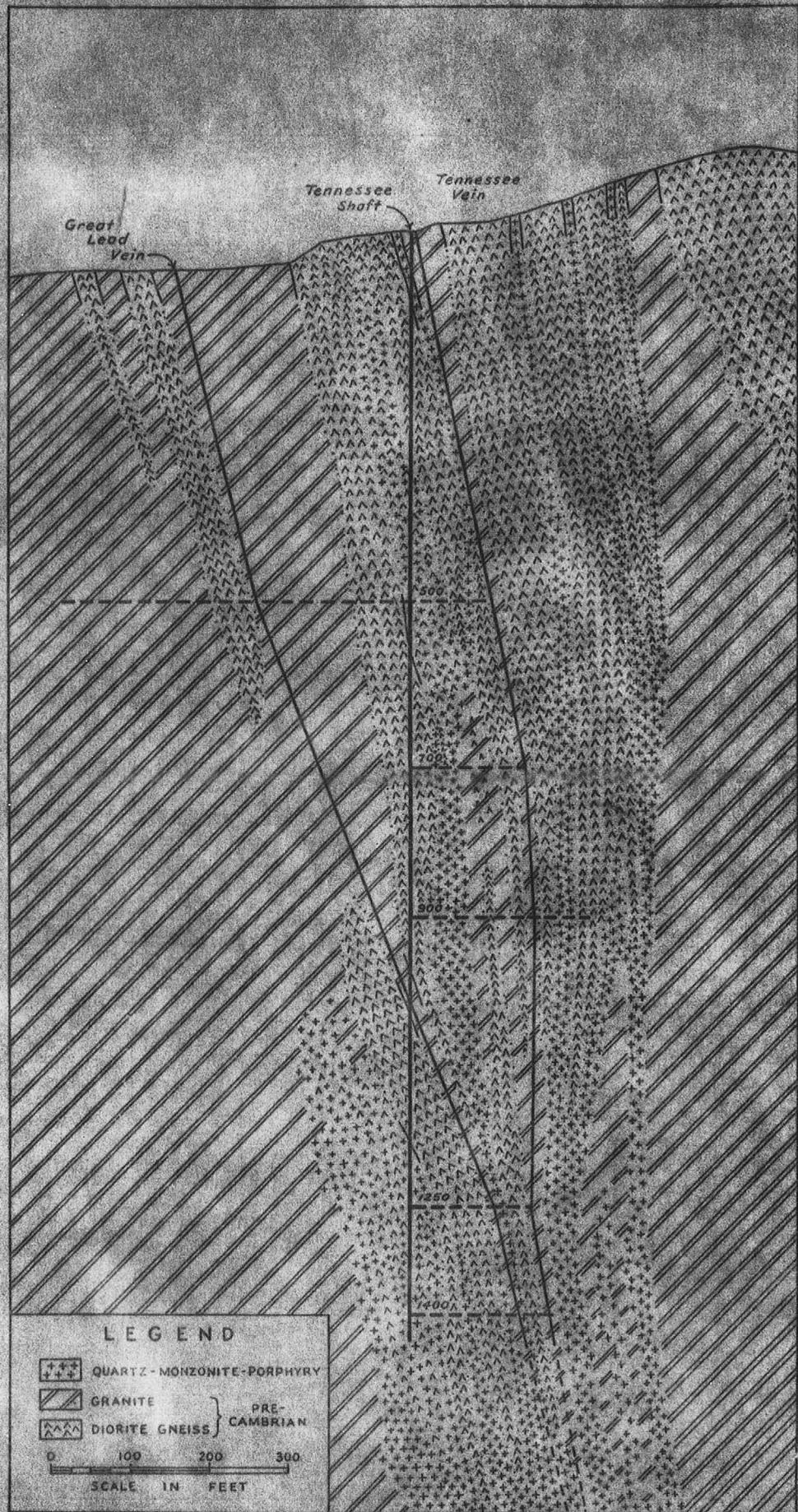
From Arizona Bureau of Mines Bulletin # 140

	Cu	Pb (lbs)	Au	Ag	Total Value
Tennessee 1890-1930	1,000,000 lbs	30,000,000	\$50,000	\$650,000	\$5,500,000*
Schuylkill 1900-1930	-	2,000,000	5,000	20,000	125,000

* includes about 20,000,000 lbs Zn

It is reported that a company to be formed called Mohave Enterprises, headed by Henry J. Olson, Chloride, Arizona, has arranged with the court to operate the Tennessee mill - that several men are now employed in reconditioning the plant. It is further reported that this company expects to operate several mines in the area as a source of ore. Mr. Olson was not in Arizona so no direct information was obtainable.

From Mark Gemmill
January 1954



LEGEND

- | | |
|--|---------------------------|
| <div style="display: flex; justify-content: space-around; width: 10px;"> +++ </div> | QUARTZ-MONZONITE-PORPHYRY |
| <div style="display: flex; justify-content: space-around; width: 10px;"> /// </div> | GRANITE |
| <div style="display: flex; justify-content: space-around; width: 10px;"> ▲▲▲ </div> | DIORITE GNEISS |
- | | |
|---|--------------|
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0 100 200 300
SCALE IN FEET

Plate XXXI.—Tennessee-Schuylkill Mine, cross section.