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PRINTED: 08/16/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: SILVER HILL

ALTERNATE NAMES:

SUNBEAM GROUP

LIBERTY MINE

MOHAVE COUNTY MILS NUMBER: 118B

LOCATION: TOWNSHIP 23 N RANGE 18 W SECTION 4 QUARTER SE

LATITUDE: N 35DEG 24MIN 37SEC LONGITUDE: W 114DEG 12MIN 04SEC

TOPO MAP NAME: CHLORIDE - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

LEAD SULFIDE

ZINC SULFIDE

SILVER

GOLD LODE

COPPER

BIBLIOGRAPHY:

ADMMR SILVER HILL MINE FILE

HAURY, P.S. "ZINC-LEAD, AZ" USBM RI 4101 P 20-2

ADMMR MOHAVE CUSTOM MILL PROJECT

SCHRADER, F.C. "MIN DPSTS CRBT RNGE, BLCK MTN

GRND WSH CLFS, AZ" USGS BULL 397, P 77-78

AZ MINING JNL, AUG. 1920, P. 13

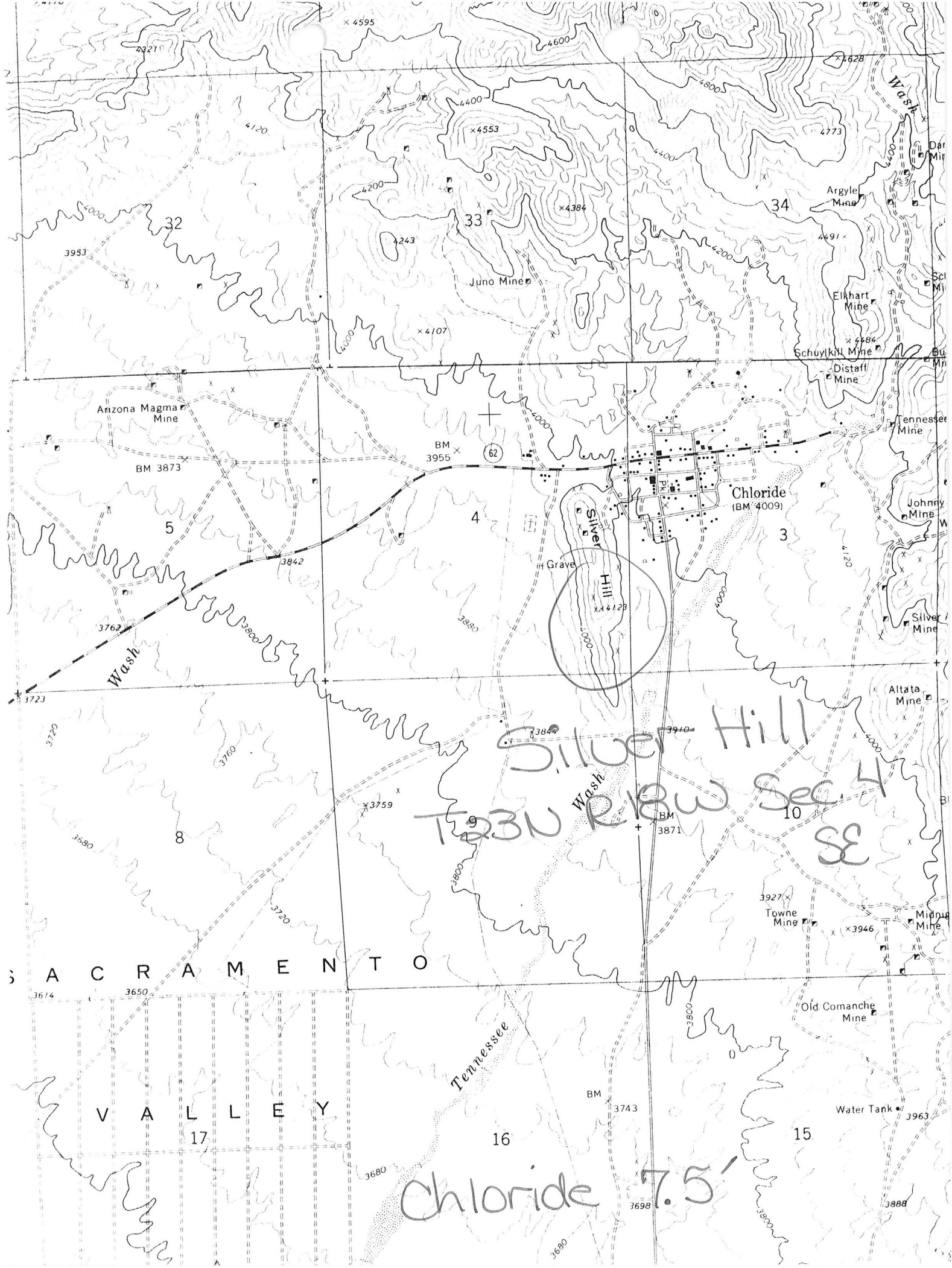
GREAT BASIN GEM JT VENTURE, VOL. 3 "MT. TIPTO
N"

ELSING, M.J. "AZ METAL PRODUCTION" AZBM BULL
140, P. 95; 1936

DINGS, M. "WALLAPAI MNG DIST, AZ" USGS BULL
978-E, P. 147; 1952

AZ. STATE MING INSP. RPT, 1940, P. 8

MALACH, R. "MOHAVE CO. MINES" P. 27; 1977



Silver Hill
T23N R18W Sec. 4 SE

Chloride 7.5'

Arizona Department of Mines and Mineral Resources

INFORMATION FROM MINE CARDS IN MUSEUM

ARIZONA

MM 3958 HALO TRICHITE

Mohave County
Silver Hills Mine

MILS #118 B

2-AKA's

Silver Hill (file)

SILVER HILL

MOHAVE COUNTY

NJN WR 10/29/82: Doug Martin reported he now owns the Silver Hill Mine, Mohave County. The property consists of 3 patented claims, 2 fractional patented claims and one patented mill site which total 65 acres. Mr. Martin brought us a copy of a report on the property less feasibility study. Three Canadian companies are reported to be interested in the property.

NJN WR 7/8/83: Doug Martin reported that he recently sampled an old face of the underground workings at the Silver Hill Mine, Mohave County. Assay of the sample was 14 oz/ton silver.

SILVER HILL

Au, Ag, Pb

Mohave

8 - 7

T 23 N, R 18 W

William S. Segar, Box 243, Chloride
unclaimed 8-5-46

The Silver Hill mine, near Chloride, Arizona, is reported to be producing ore averaging 6 per cent zinc, 4.6 per cent lead, 30 ounces gold, and 2 ounces silver. The mine is being worked under lease by W. S. Segar, Box 243, Chloride. S. M. Hedges is in charge of the work.
MINING CONC. JOURNAL 9/30/42

NAME OF MINE: SILVER HILL

COUNTY: MOHAVE

DISTRICT:

METALS: AU,ZN,AG

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

DATE:

5/1/44 Lessee: RPM Davis
2356 Hollyridge Drive
Hollywood, California
Jos. P. Klein, Supt.
Box 262, Chloride

5/1/44 Closed
RFC loan granted
1/44 Closed

NAME OF MINE: SILVER HILL

COUNTY: Mohave

OWNER:

DISTRICT:

METALS: Pb,Zn,Ag,Au

OPERATOR AND ADDRESS

MINE STATUS

Date:

Date:

6/46 Jack Miller, Box 448, Kingman

6/46 Developing
10/46 Shipping

NAME: SILVER HILL (Sunbeam Group)
(Liberty mine)

COUNTY: MOHAVE

T 23 N R 18 W SEC. 4 Elev 4085

DISTRICT: WALLAPAI
CHLORIDE

Note N end of Silver Hill?

Mineralization:

Geology: Cu Pb Zn Au Ag

Type Operation: 250'

Production: 100,000

References: Az Min Jr 2/20 Tope 7/2

USGS Bull 397

Cupping file

USBM RI 4101



MINE REPORTS/ASSAYS

(602) 246-9573

D.K. MARTIN & ASSOCIATES
Mining Development & Administration

4728 N. 21ST AVENUE

PHOENIX, ARIZONA 85015



D.K. MARTIN & ASSOCIATES

Mining Development & Administration

4728 N. 21st Avenue

Phoenix, Arizona 85015

S I L V E R H I L L M I N E

WALLAPAI MINING DISTRICT

Mohave County, Arizona

(602) 246-9573

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INTRODUCTION

The Silver Hill Property consists of three patented claims, the Valley View, Sonoma and Silver Bell, and one patented millsite, the Silver Bell Millsite, totaling 65 acres, more or less.

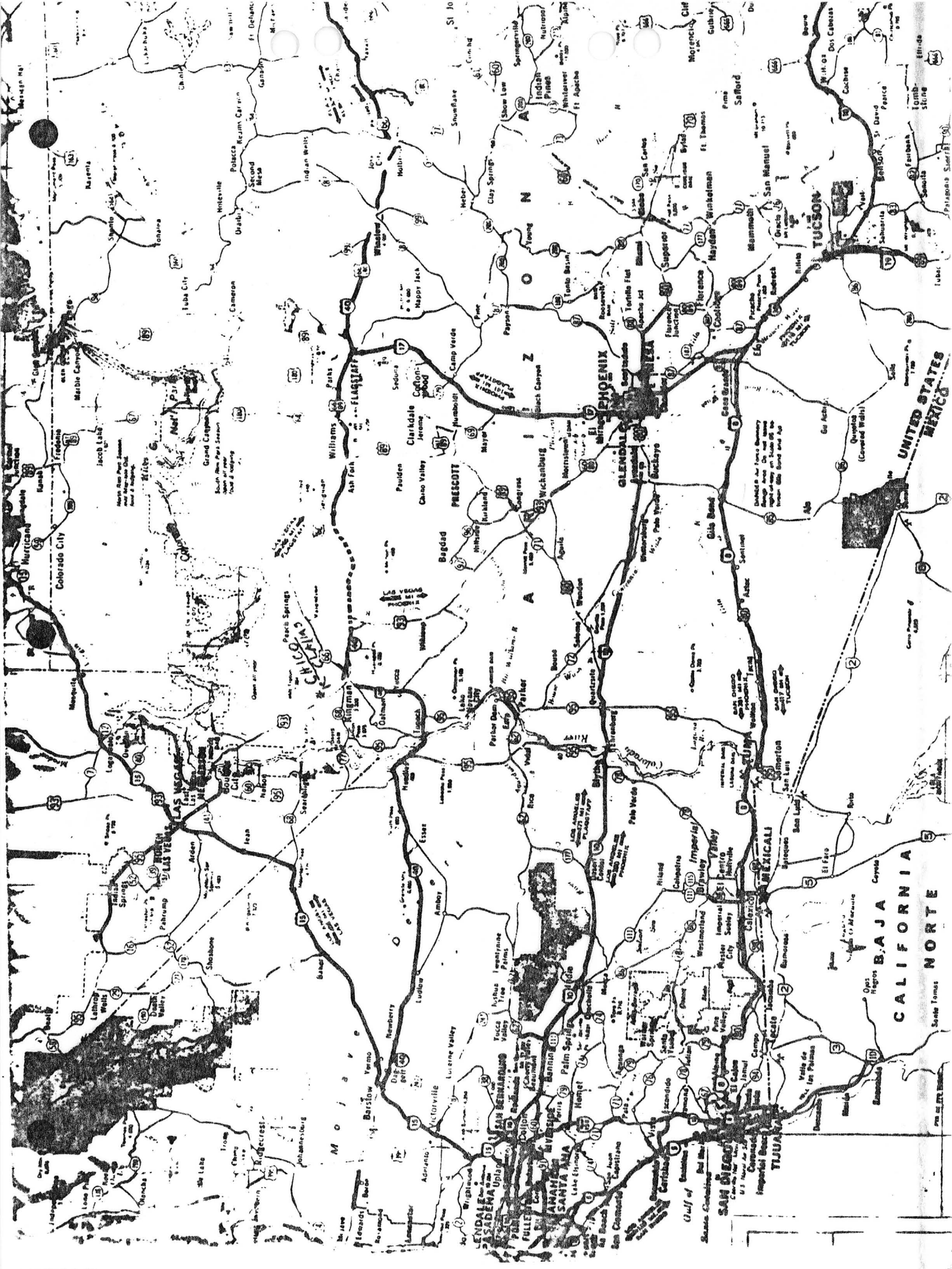
Abundant data are available from the Reconstruction Finance Corporation (RFC), Arizona Department of Mineral Resources, United States Geological Survey Bulletins, C. M. Heron Report (1941), Bureau of Mines, and D. K. Martin and Associates files. Field investigations have been made to confirm or modify existing data by S. C. Brown, Geologist.

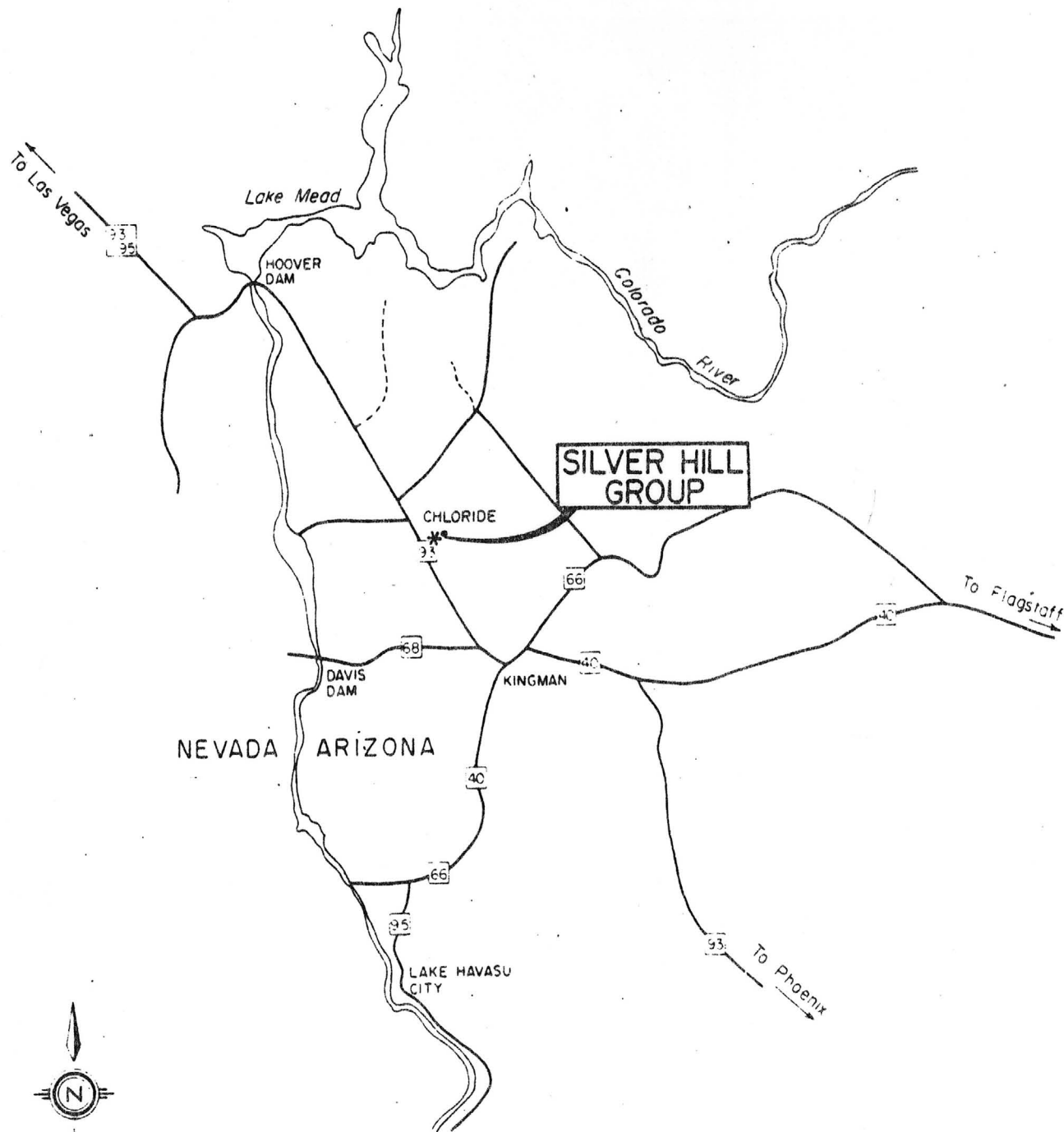
Numerous shaft, test pits, and cuts have been made along the Silver Hill Vein for a distance of about 2700 feet. All shafts and tunnels at present are caved and inaccessible. The main ore shoots occur in a brecciated (crushed) zone and locally, the silicified material has been reduced to sand and powder, which could create some local problems in any drilling program.

LOCATION AND ACCESSIBILITY

The Silver Hill Property is on the western edge of the town of Chloride, Arizona, on a hill raising about 150 feet above the valley floor. Chloride is about 22 miles north by paved U. S. Highway 93 from Kingman, which is the nearest rail point and supply center.

More specifically, the Silver Hill Property is located in Sections 3, 4, 9, and 10; Township 23 North, Range 18 West, G&SRB&M, Wallapai Mining District, Mohave County, Arizona.



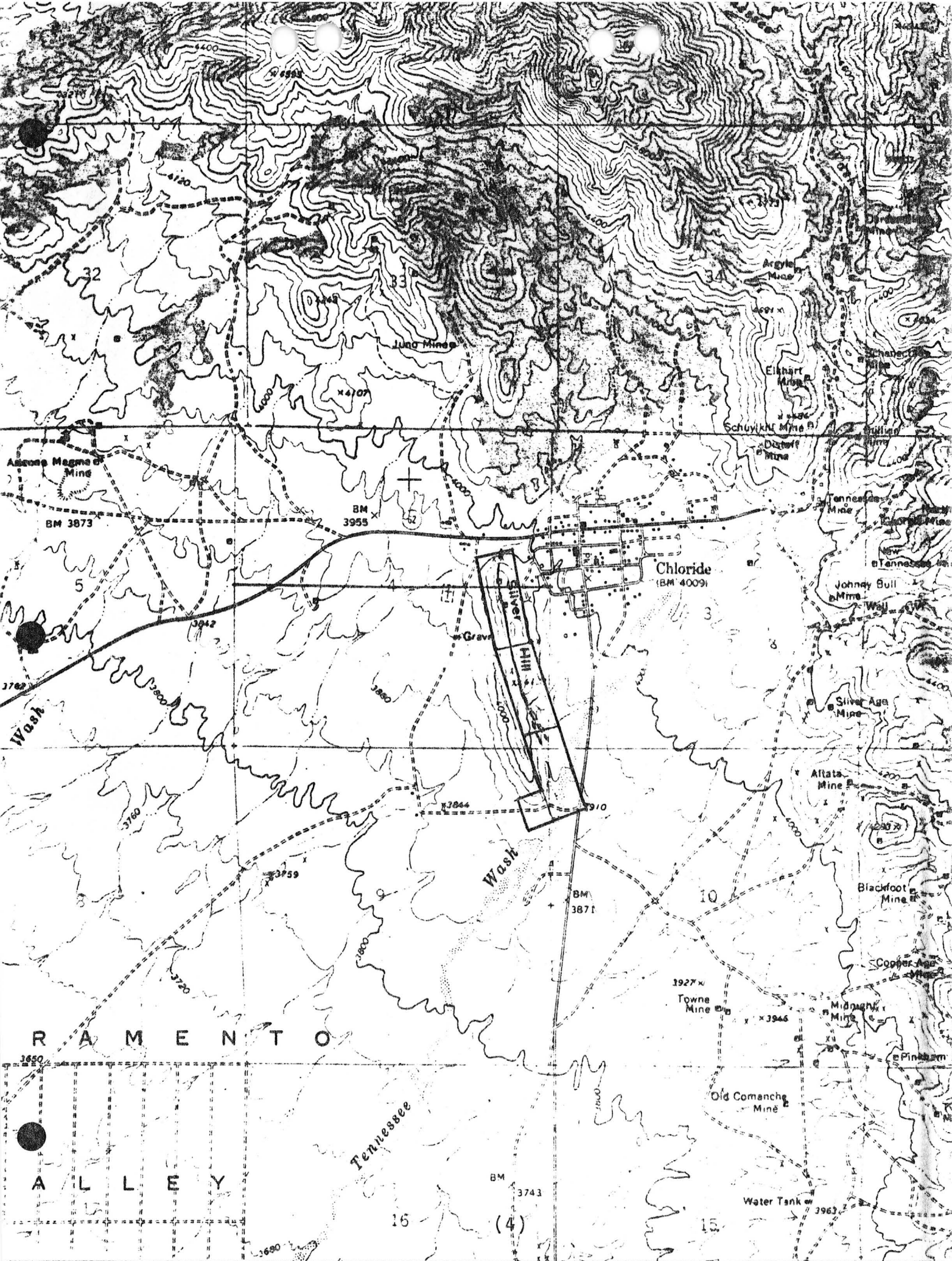


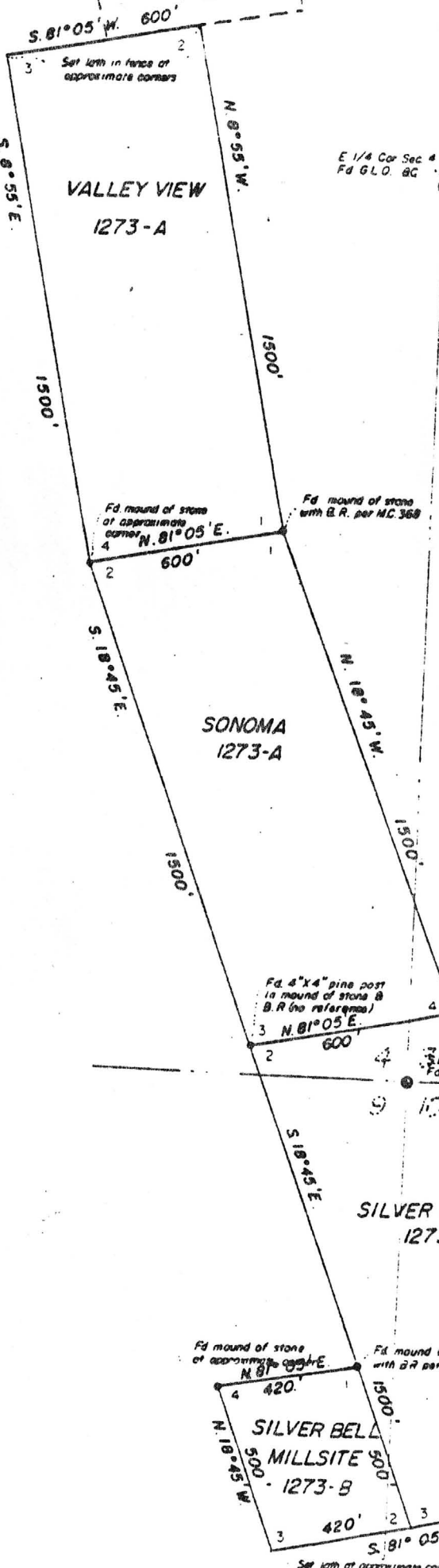
HIGHLAND QUEEN MINES LTD.

SILVER HILL GROUP
PROPERTY LOCATION
 WALLAPAI MINING DISTRICT
 MOHAVE COUNTY, ARIZONA

JOHN R. POLONI & ASSOCIATES LTD.

DRAWN	J R P	CHECKED	J R P	PLAN No
SCALE	1" = 23.4 miles	DATE	MAY 26, 1981	1





SCALE
1"=300'

PRELIMINARY SURVEY

SHOWING THE RESULTS OF A BOUNDARY SEARCH
OF MINERAL CERTIFICATE NO. 368 RECORDED
5/1/01 IN BOOK 14, PAGE 263 TO 268 AND SIT-
UATED IN SECTIONS 3, 4, 9 & 10, T-23-N, R-18-W
G&SR.M., COUNTY OF MOHAVE, STATE OF ARIZ.

Survey made in April, 1976 at the request of
Eleanor Davis

Donald C. Chambers
Donald C. Chambers L.S. 5576

Ind. 100 76

GEOLOGY OF THE SILVER HILL PROPERTY

Regional Setting

The Silver Hill Property lies in an area approximately 10 miles long and 4 miles wide called the Wallapai District. This area is highly mineralized and many mines are present. Within the Wallapai District, the ore deposits hold with depth. At the 1600 foot level of the Tennessee Mine, about one mile east of the Silver Hill and on a parallel vein, good sulfide ore is present. Many other mines in the district, indicate good commercial ore was still present at their maximum depth of 500 to 600 feet. The oxidized zone averages 150 feet in depth in the Wallapai district, however, the oxidized zone on Silver Hill is only about 70 feet in depth.

Silver Hill Geology

The surface outcrops on Silver Hill are primarily amphibolite schist and granitic rocks of pre-Cambrian age. Coarse granitic rocks of Laramide (Cretaceous-Tertiary) age have intruded the western base of the property. The Laramide complex is locally cut by dikes and stringers of garnet-bearing aplite granite and a coarse pegmatitic granite.

The schist, which occupies the western part of Silver Hill, has a strike of North 7 to 10 degrees west, and dips 60 degrees west.

The northern half of the ridge is cut by a well defined mineralized vein ranging from 2 to 12 feet or more in width. The vein or mineralized zone lies within a brecciated zone 20 to 40 feet wide, which was created by fault action. Slickenside material is prevalent in the breccia which is indicative of major fault action. The crushed (breccia) zone is primarily silicified rhyolite porphyry. The ore occurs as lenses in the crushed zone.

The main ore veins appear to be near the foot wall in the northern part of the property on the Valley View Claim. In the central part of the property, primarily on the Sanoma Claim, the vein material lies about half way between the foot and hanging walls. In the southern part of the Sanoma and northern part of the Silver Bell Claims, the vein splits into two parts, one near the foot wall and the other near the hanging wall. These veins range from

GEOLOGY (continued)

a few inches to as much as 10 to 12 feet in width. The veins can be traced on the surface along most of the Silver Hill for approximately 4000 feet. The most prominent outcrops extend for a distance of plus 2000 feet.

Mr. C. M. Heron reports: "The Silver Hill vein occurs in a strong persistent fissure or fracture zone which follows the contact of the pre-Cambrian schist and the younger granite. The Silver Hill vein or fault has a strike of North 10 degrees West and an average dip of 47 degrees East."

Subsequent field investigations show the strike to be 7 to 10° West and dips from 45° to 58° East. The younger granite intrusive is estimated to be of Laramide age (Cretaceous-Tertiary) which is considered the source of mineralization in the Chloride and adjacent areas. No attempt will be made to go into the geological sequence of events at this time, except to state the mineralization is related to the Laramide intrusives in the pre-Cambrian complex..

More than 100 samples have been collected by reliable mining personnel, and the resulting assay values are acceptable within a reasonable degree of accuracy. Many samples were taken underground before the shafts and tunnels caved and many more samples were taken from surface outcrops, dumps, etc.. Assay averages are as shown on the following pages.

SILVER HILL AND ADJACENT MINES

There is a total of 161 patented mining claims and mill sites in the Wallapai District, most of which have either mines or good prospects. Practically none of the mineralized area remains unclaimed by unpatented lode locations.

The alluvial deposits along the eastern edge of the District covers the basement complex, therefore, restricting extensive exploration work. It is believed good commercial ore veins exist in the basement rocks under the alluvium, but exploring with the drill would be too hap-hazzard and expensive.

The Juno Mine is about one-half mile north, and is on the northwest extension of the Silver Hill Vein. It has been reported to have been developed to a depth of approximately 600 feet. Production through 1948 is shown to have had the following, calculated at August 1982 values:

ADJACENT MINES (continued)

Gold	1,238 oz	\$ 350/oz	\$433,650
Silver	43,128 oz	7.00/oz	301,896
Copper	4,517 lb	0.73/lb	3,297
Lead	235,498 lb	0.28/lb	65,939
Zinc	154,138 lb	0.37/lb	57,031
			<u>\$861,813</u>

Approximately one mile to the east is the Tennessee-Schuylkill vein which lies parallel to the Silver Hill Vein. This mine is probably the largest and deepest in the Wallapai District, having a depth of about 1600 feet. Most of the other mines in the District have depths of 650 feet or less.

The total production of the Tennessee-Schuylkill Mine through 1948 with August, 1982 values are as follows:

Gold	43,383 oz	\$14,834,050
Silver	1,514,187 oz	10,599,309
Copper	839,837 lb	613,081
Lead	59,897,096 lb	16,771,186
Zinc	66,805,907 lb	24,718,185
		<u>\$67,535,811</u>

The Silver Hill Mine, which has only been explored to a depth of 200 feet or less, produced the following using August 1982 values:

Gold	708 oz	\$247,800
Silver	8,842 oz	61,894
Copper	10,722 lb	7,827
Lead	229,949 lb	64,386
Zinc	143,594 lb	53,130
		<u>\$435,037</u>

The tonnage of ore mined at the Juno is unknown. This is also true for the Silver Hill Mine. Only a few sketchy records were found from 1940 through 1944, indicating 2000 to 3000 tons were shipped. The Tennessee-Schuylkill Mine records from 1901 through August of 1944, indicate 599,058 tons of ore were mined. Through 1948 the total tonnage mined would probably be between 600,000 and 700,000 tons. Most of the records of production on other mines in the District are quite brief or non-existent.

TABLE 2.—Production of gold, silver, copper, lead, and zinc of selected mines in the Wallapai district, Mohave County, Ariz., cumulative from 1901 through 1948, in terms of recovered metals

[Compiled by Metal Economics Branch, U. S. Bureau of Mines, Salt Lake City, Utah]

Mine	Gold (oz.)	Silver (oz.)	Copper (lbs.)	Lead (lbs.)	Zinc (lbs.)
Alpha (m)	392	14,400	22,285	14,470	
Alpha and Altata Extension (c)	222	24,004	124,030	7,001	
Badger, Hercules, and Hercules group (c)	541	12,257	1,495	207,224	24,494
Banner group (c)	1,697	79,222	21,022	2,104,222	25,222
Blackfoot (cer)	185	11,222	10,017	104,222	144,222
Bloss Hill (c)	409	24,224	44,224	144,221	
Carhart (cer)	43	2,055	1,122	4,120	
Champion (cer)	222	22,222	14,221	222,222	222,222
C. O. D. (c)	1,222	121,222	22,222	222,222	22,222
Columbus-Monroe Doctrine (cer)	244	4,222	4,222	17,222	144,222
Copper Age (c)	8	1,222	222	22,222	
Danah (c)	22	22,222	1,222	144,222	
Edhart (c)	222	10,222	7,222	222,100	
Empire and Silver Union (c)	1	2,475	122		
Euclid (c)	7	2,211	2,271	22,221	22,221
Fires (cer)	422	222	172	222	
George Washington (m)	114	11,222	12,777	22	
Golconda (m)	22,722	210,122	224,722	2,224,719	22,222,222
Golden Eagle and Bobtail (m)	1,777	22,222	222	22,222	
Golden Gem (cer)	2,475	2,222	2,222	14,222	
Hidden Treasure (c)	221	2,074	7,222	122,222	222,222
Idaho (cer)	222	2,222	4,742	2,222	14,222
Juno (c)	1,222	42,122	4,217	222,222	124,122
Keystone (m)	2,722	422,222	222,772	222,222	114,222
Little Chief (c)	221	22,221	2,272	111,222	
Lucky Boy (c)	1,222	42,222	222	2,142	
Mary Bell (c)	22	222	222	12,122	22,722
Midnight (c)	44	2,222	12,722	4,122	
Minnesota-Copper (c)	2,222	222,122	22,722	122,722	71,222
Mint (m)	222	12,222			
New London (cer)	12	2,222	1,222	122,222	21,222
Nighthawk group (m)	224	12,227	2,412	1,222	
Old Colony (c)	22	2,222	224	2,272	
Paymaster (cer)	22	22,222			
Payroll (c)	122	4,104	11,224	22,222	122,127
Plunkham (c)	22	14,222	22,122	2,122	
Rainbow (c)	2,222	24,222	4,742	212,271	22,222
Redemption (c)	22	4,222	11,222		
Rico (c)	1,149	12,222	1,222	2,222	
Santa and Samson (c)	4,222	27,221	4,224	222,277	22,222
St. Louis (cer)	24	11,122	1,222	222,221	1,222
Silver Age (c)	24	2,222			
Silver Hill (c)	222	2,222	22,722	222,222	122,224
Tennessee and Schuykill (c)	42,222	1,214,127	222,227	22,227,222	22,222,222
Texas (c)	144	2,224	2,722	2,224	
Vanderbilt (cer)	1,212	2,112	227	2,222	
Washington and Washington Extension (m)	22	2,222	1,222	1,722	

c, Chisleville camp; m, Mineral Park camp; cer, Carhart camp; c, Stockton camp.

FUTURE ECONOMIC IMPORTANCE OF THE DISTRICT

It is believed that the future economic importance of the district will lie chiefly in the base-metal content of the fissure veins. Most of the veins have not been explored sufficiently at depth to test the base-metal content and particularly the zinc content. On the basis of a geologic study of the veins in the district there is no reason for assuming that any of several other veins will not be as productive of lead and zinc as the Tennessee or Golconda veins. Future development work, particularly at greater depths, on the many miles of veins in the district may disclose several that will prove to be their equal or better.

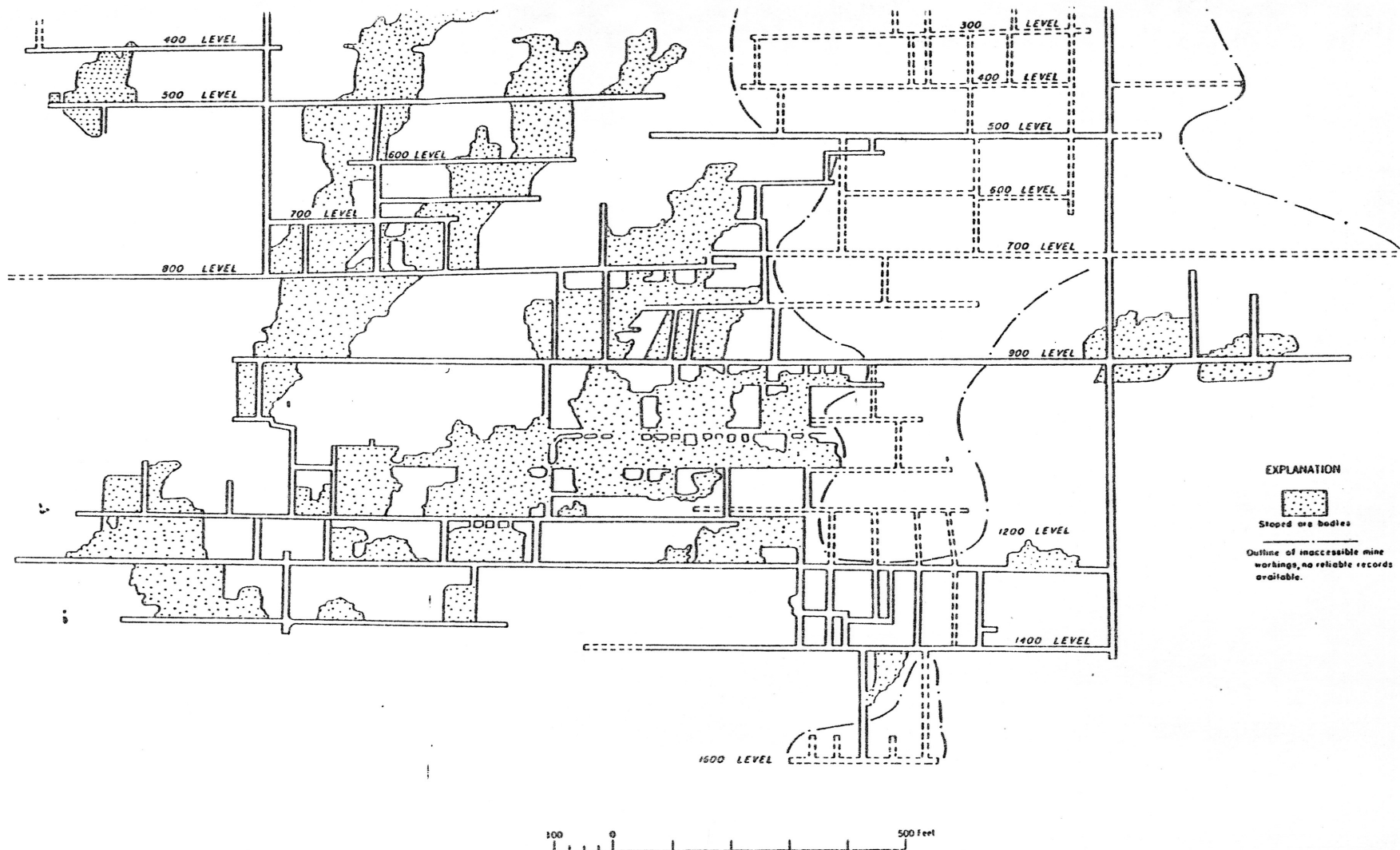
PATENTED MINING CLAIM INDEX

Wallapai District

- | | | | |
|-----|-----------------------|-----|------------------------------|
| 0. | VALLEY VIEW | 41. | GRAY EAGLE |
| 1. | SONOMA | 42. | HAMLIN |
| 2. | SILVER BELL | 43. | HAMLIN MILL SITE |
| 3. | SILVER BELL MILL SITE | 44. | EMERSON |
| 4. | SCHUYLKIL | 45. | CONDOR |
| 5. | SCHUYLKIL MILL SITE | 46. | ARASTA |
| 6. | WILLACE-BULLION BECK | 47. | "97" |
| 7. | GREAT LEAD | 48. | HOBSON |
| 8. | TENNESEE | 49. | AURORA |
| 9. | PEGGY | 50. | BERKLEY |
| 10. | BULLION SOUTH | 51. | RAINBOW |
| 11. | BURLOCK | 52. | LOOK OUT |
| 12. | BLACK PRINCE | 53. | LINGREN |
| 13. | RAMBLER | 54. | GRAND VEIN |
| 14. | PAY ROLL | 55. | MONTCLAIR |
| 15. | MOLLY GIBSON | 56. | OLD TIMER |
| 16. | TERMINAL | 57. | SILVER COIN |
| 17. | JOHNNY BULL | 58. | LUCKY BOY |
| 18. | MONTANA | 59. | LUCKY BALDWIN |
| 19. | ARIZONA | 60. | QUEEN |
| 20. | SILVER KNIGHT | 61. | BRIGHTER DAYS |
| 21. | SILVER AGE | 62. | SAMOAN |
| 22. | LITTLE GIANT | 63. | RURAL #2 |
| 23. | ALTATA | 64. | METALLIC ACCIDENT |
| 24. | CINCO DE MAYO | 65. | GOLDEN STAR |
| 25. | COPPER BAR #1 | 66. | LONE STAR |
| 26. | COPPER BAR | 67. | SABBATH BELL-GOLDEN FRACTION |
| 27. | COPPER WONDER | 68. | GOLDEN FRACTION MILL SITE |
| 28. | COPPER GLANCE | 69. | ARK |
| 29. | WONDER | 70. | ANTONE |
| 30. | BRYAN | 71. | TRUE BLUE |
| 31. | TOWNE | 72. | COPPER APEX |
| 32. | BUCKEY ONEIL | 73. | GOLD |
| 33. | MIDNIGHT | 74. | SILVER |
| 34. | READY CURE | 75. | LEAD |
| 35. | PINKHAM | 76. | ANTIMONY |
| 36. | 20th CENTURY | 77. | COPPER |
| 37. | RELIEF | 78. | ZINC |
| 38. | BILLIGAN | 79. | SKY SCRAPER |
| 39. | EMPRESS | 80. | SILVER MONSTER |
| 40. | BUFFER | | |

GOLD, SILVER, COPPER, LEAD and ZINC RECOVERED FROM ORES
at the
TENNESSEE - SCHUYLKILL MINE
Chloride, Arizona
from
1901 to 1943

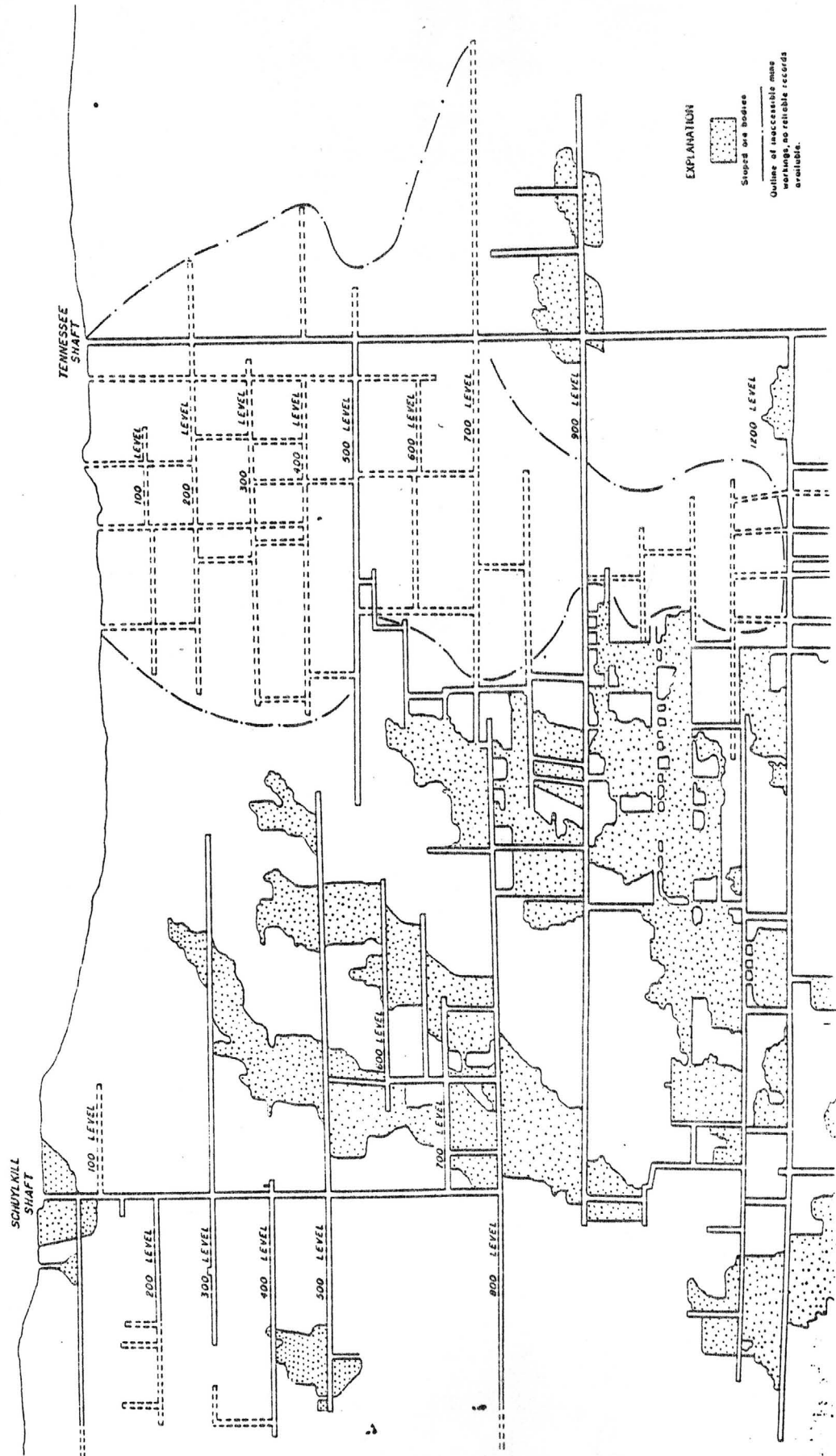
Year	TONS Ore	Conc	OUNCES Gold	Silver	Copper	POUNDS Lead	Zinc
1901	25,805		8.87	2,469		4,421,678	
1902	7,567		85.89	29,448		1,619,640	
1903	1,090		15.86	4,360		279,468	
1907	154		23.89	2,047	235	90,960	
1910	70	10	3.28	127		6,654	
1911	998	328	78.63	2,638	1,837	97,572	87,486
1912	1,358	988	266.67	13,127	2,361	459,771	260,966
1913	29,486	14,360	1,370.29	106,924	2,361	4,740,278	4,233,641
1914	22,081	12,671	739.15	74,748	11,981	3,657,302	4,932,108
1915	47,633	22,187	2,191.00	171,366	45,000	6,034,998	8,351,839
1916	47,013	19,777	1,564.00	135,158	32,285	5,086,177	7,517,627
1917	41,133	21,347	1,914.00	160,981	55,300	5,039,156	8,352,860
1926	164	71	12.71	819	435	32,024	32,697
1929	58	29	4.41	307	183	15,142	13,008
1936	12,233	3,239	2,870.00	40,850	24,300	1,433,000	1,000,000
1937	59,990	12,777	10,467.00	138,960	100,000	4,553,000	3,414,000
1938	54,092	11,340	9,642.56	107,720	86,500	3,792,450	5,449,656
1939	11,762	3,197	1,088.60	24,198	22,280	676,560	1,624,000
1940	55,577	17,581	3,249.51	132,775	19,880	4,607,740	9,543,100
1941	45,150	10,990	2,843.28	113,061	11,340	4,854,860	4,330,580
1942	40,055	7,552	2,278.08	100,194	17,160	3,284,880	3,383,980
1943	38,286	6,115	1,079.63	71,698	58,521	2,677,185	3,492,209
	541,755	163,406	41,796.65	1,433,975	506,166	57,460,495	66,019,758



Compiled from maps and records of the Tennessee-Schuyldkill Corp 1943

LONGITUDINAL VERTICAL SECTION OF TENNESSEE-SCHUYLDKILL MINE, WALLAPAI DISTRICT, ARIZONA, THROUGH TENNESSEE AND SCHUYLDKILL SHAFTS, WITH PROJECTION OF MINE WORKINGS AND STOPPED ORE BODIES

954714 O - (In pocket)



EXPLANATION



Stippled ore bodies

Outline of inaccessible mine workings, no reliable records available.

Report on the
Silver Hill Group
Wallapai Mining District
Mohave County, Arizona
for
Highland Queen Mines Ltd.

by

John R. Poloni, B.Sc., P. Eng.

May 26, 1981

John R. Poloni & Associates Ltd.
1512B - 56th Street
Delta, B.C.
2A8

JOHN R. POLONI P. Eng.
Consulting Geologist

5.0 Chloride, having a population of a few hundred, has only limited services, including a bar-restaurant, service station, post office and grocery store. Electricity, however, is present a few hundred feet north of the Silver Hill group.

6.0 History

The property dates back to the early 1860's when the showings were initially explored by surface pits and declines. The claims were brought to patent on February 16, 1900, having Patent No. 32094.

Ownership changed hands frequently.

Much of the initial underground development work was completed around the turn of the Century and possibly prior to bringing the claims to patent.

The best documented period of activity occurred in the early 1940's when development ore from drifting, and winzing below the Segar level, and stope ore were shipped to Midvale, Utah. Total development amounts to:

	<u>Shaft</u>	<u>X-Cut</u>	<u>Drift</u>	<u>Rse</u>	<u>Winze</u>
Segar level & No. 3 Shaft	60'	430'	225'		95'
No. 1 & No. 2 Shaft	240'		350'		
North Adit			50'		

Reference is made to Plans No. 4 - 7 inclusive included in Appendix E.

6.0 The total development amounts to approximately 300 feet of shafts, 430 feet of X-cuts, 625 feet of drifting and 95 feet of winzing.

Assay data from historical information shows excellent widths and grades of gold, silver, lead, and zinc. In a letter, Jim Hutchinson reports compiling data on 130 assays from old documents which showed an average of 0.34 Au oz/T, 2.87 Ag oz/T, 4.12% Pb and 4.91% Zonc.

Hedges, S.M. reportedly shipped 49.6 tons of winze ore which averaged 0.525 Au oz/T, 4.4 Ag oz/T, 8.9% Pb and 6.2% Zinc. This material was mined from the Segar level winze between the level and a depth of 17 feet with shipping ore width averaging 2.0 feet. On the level the ore shoot was about 70 feet long, had an average width of 3.4 feet and an average value of 0.30 Au oz/T, 2.0 Ag oz/T, 4.5% Pb and 6.0% Zn.

Several progress letters signed by J.P. Klein dated between July 30th and November 14th, 1943, describe development progress in the winze. Excellent grades are reported.

William Segar in July 1943 had obtained a governmental development loan of \$20,000.00 which was used for mine rehabilitation, water supply, buildings, raising, and winzing. The winze had been driven to 110 feet below the Segar level at an average dip of 47°. Production amounted to 587 tons of ore and 97 tons of waste. A shipment of 155 tons was made to Midvale, Utah, which reportedly had a head assay of 0.34 Au oz/T,

JOHN R. POLONI P. Eng.
Consulting Geologist

- 6.0 3.5 Ag oz/T, 4.2% Pb and 4.4% Zn. Sockpiled ore is reported to have amounted to 432 tons with an average grade of 0.25 Au oz/T, 2.0 Ag oz/T, 2.4% Pb, and 4.8% Zn.

Carload shipments reported to Asarco are as follows:

<u>Date</u>	<u>Tons</u>	<u>Au oz/T</u>	<u>Ag oz/T</u>	<u>PB %</u>
3/19/42	41.96	0.78	3.7	5.25
5/21/42	22.98	0.915	5.15	9.45
7/21/42	40.84	0.565	3.4	6.4
9/21/42	27.32	0.572	4.9	8.05
11/23/42	42.67	0.52	4.25	6.9

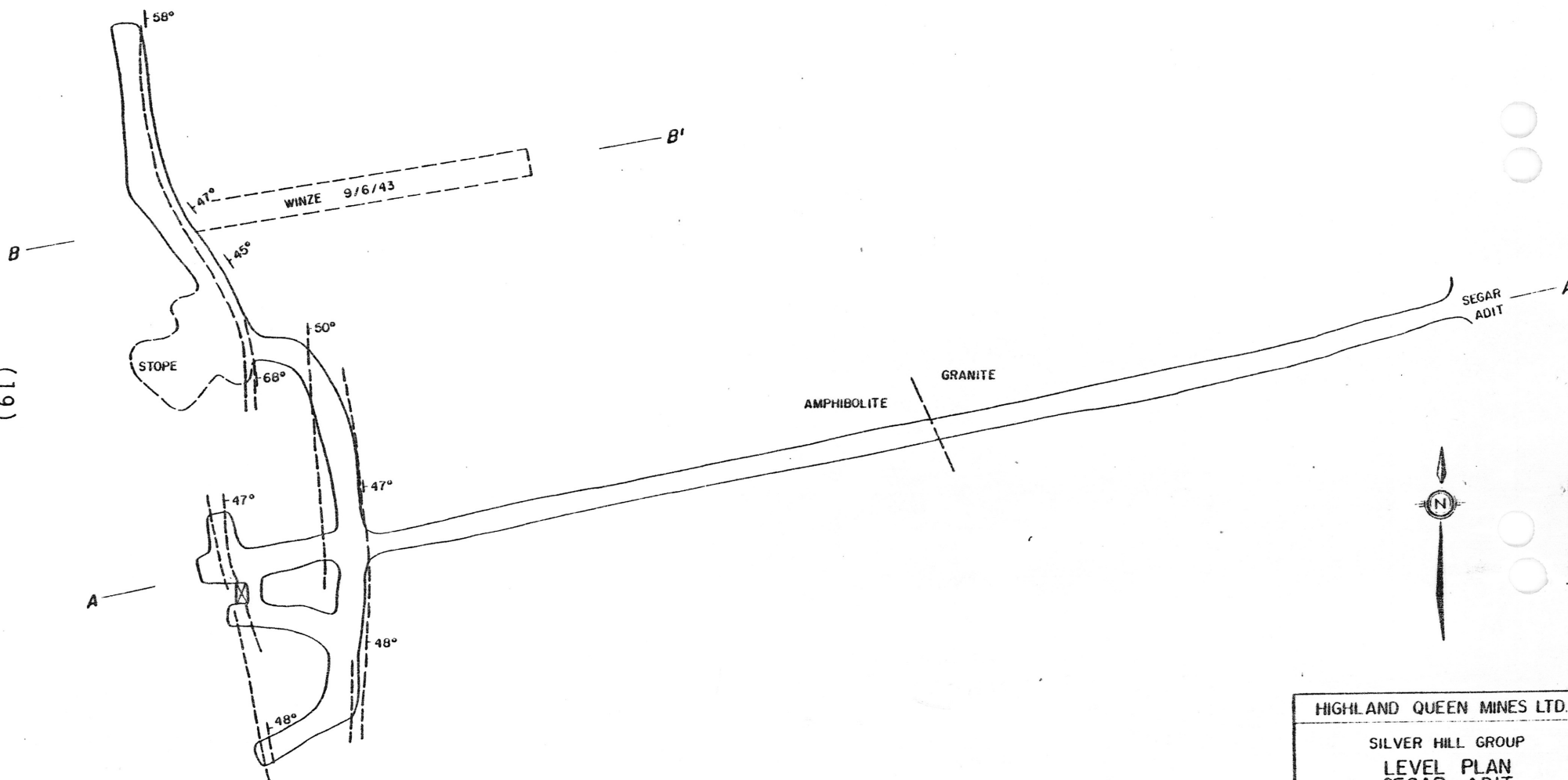
Plan No. 6, redrafted from old data, indicates that much of the hangwall zone had not been explored. Six jack leg drill holes show excellent grades and widths, Plan No. 6.

As described by Heron, C.M., 1941,

"The Silver Hill vein was one of the very early discoveries of the district. Jacobson's report quotes Schrader's report as follows: 'The Silver Hill mine from 1880 to 1930 produced 700,000 pounds of lead, \$5,000 in gold and \$10,000 in silver, a total of \$50,000.00.' William S. Segar acquired the mine in 1936, and during the ownership most of the work was done on the tunnel level, the adit of which is on the east side of the hill."

JOHN R. POLONI P. Eng.
Consulting Geologist

(19)



HIGHLAND QUEEN MINES LTD.

SILVER HILL GROUP
LEVEL PLAN
SEGAR ADIT
WALLAPAI MINING DISTRICT
MOHAVE COUNTY, ARIZONA

JOHN R. POLONI & ASSOCIATES LTD.

Drawn J R P	Checked J R P	Plan
Scale 1" = 30'	Date May 26, 1981	4

B
WEST

B'
EAST

140' LEVEL (SEGAR)

100'

200'

WINZE ALONG
FOOT WALL

DRILL HOLE SAMPLES IN BACK

80 1 0.13 1.8 1.3 6.1
80 0.22 1.0 3.6 5.5
4.0 0.4 1.4 0.8 4.0
GRAB 0.17

FACE 9/6/43

NOTE

MINED ORE FROM WINZE 587 TONS OF WHICH
-SHIPPED 155 TONS AT 0.34 Au, 4.4 Ag, 3.3 Pb, 6.1 Zn
-STOCKPILED 432 TONS AT 0.25 Au, 2.0 Ag, 2.4 Pb, 4.8 Zn

HIGHLAND QUEEN MINES LTD.

SILVER HILL GROUP
SECTION B-B'
LOOKING NORTH
WALLAPAI MINING DISTRICT
MOHAVE COUNTY, ARIZONA

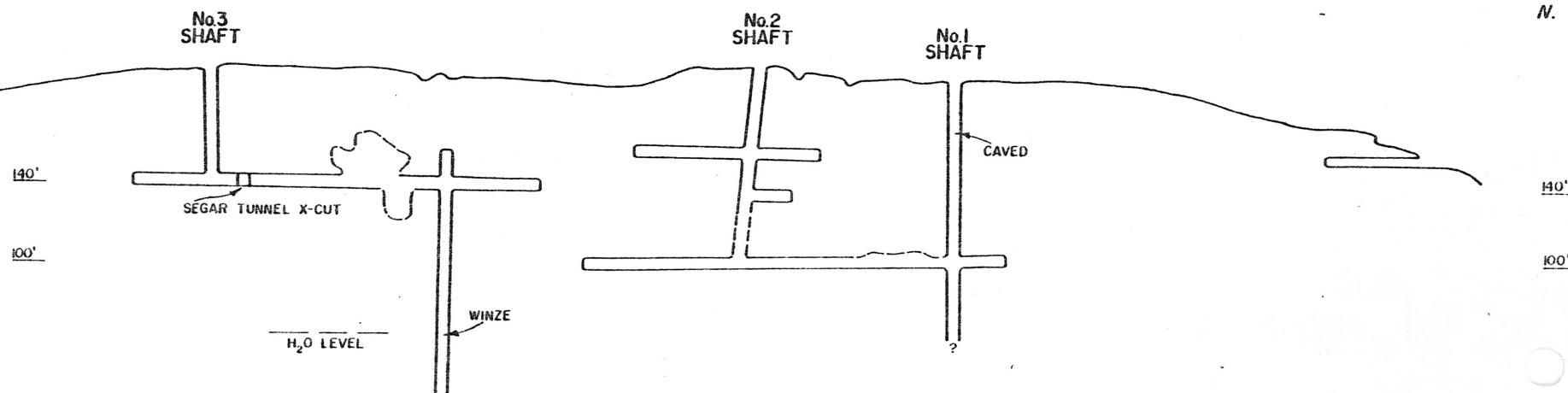
JOHN R. POLONI & ASSOCIATES LTD.

Drawn	J R P	Checked	J R P	Plan No.
Scale	1" = 30'	Date	May 26, 1981	6

(20)

S.

N.



HIGHLAND QUEEN MINES LTD.

SILVER HILL GROUP
LONGITUDINAL SECTION
LOOKING WEST

WALLAPAI MINING DISTRICT
MOHAVE COUNTY, ARIZONA

JOHN R. POLONI & ASSOCIATES LTD.

Drawn	J R P	Checked	J R P	Plan No
Scale	1" = 60'	Date	May 26, 1981	7

A
WEST

A'
EAST

No.3
SHAFT

MINERALIZED
ZONE

SUB
DRIFT

FAULT

AMPHIBOLITE

AMPHIBOLITE

GRANITE

140' LEVEL

100'

SCHIST
MINERALIZED
ZONE

AMPHIBOLITE
GRANITE

100'

HIGHLAND QUEEN MINES LTD.

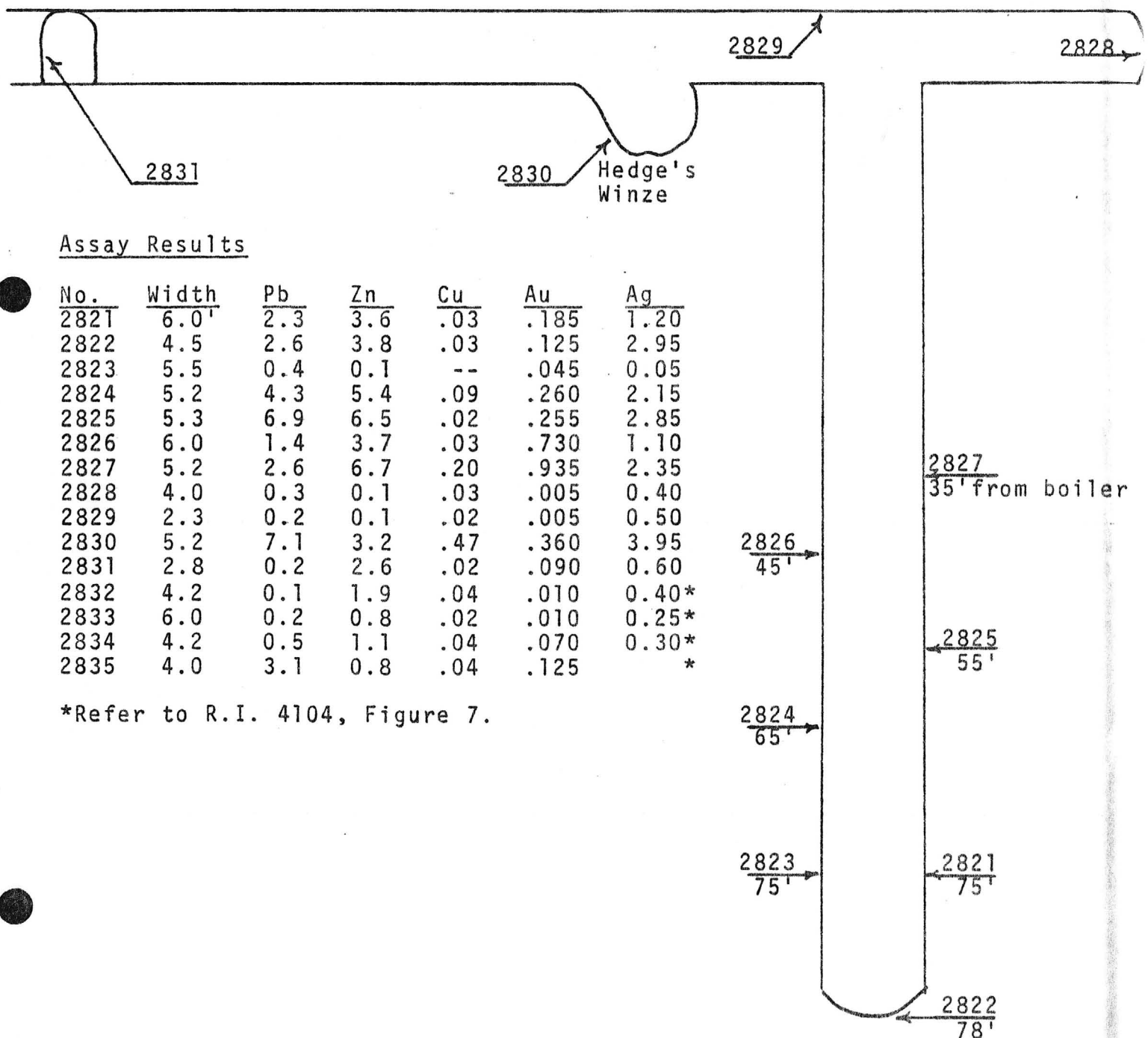
SILVER HILL GROUP
SECTION 4-4'
LOOKING NORTH
WALLAPAI MINING DISTRICT
MOHAVE COUNTY, ARIZONA

JOHN R. POLONI & ASSOCIATES LTD.

Drawn	J R P	Checked	J R P	Plan No.
Scale	1" = 30'	Date	May 26, 1981	5

DAVIS SHAFT

Bureau of Mines
July 1943
R.I. 4104
(reproduction)



Assay Results

No.	Width	Pb	Zn	Cu	Au	Ag
2821	6.0'	2.3	3.6	.03	.185	1.20
2822	4.5	2.6	3.8	.03	.125	2.95
2823	5.5	0.4	0.1	--	.045	0.05
2824	5.2	4.3	5.4	.09	.260	2.15
2825	5.3	6.9	6.5	.02	.255	2.85
2826	6.0	1.4	3.7	.03	.730	1.10
2827	5.2	2.6	6.7	.20	.935	2.35
2828	4.0	0.3	0.1	.03	.005	0.40
2829	2.3	0.2	0.1	.02	.005	0.50
2830	5.2	7.1	3.2	.47	.360	3.95
2831	2.8	0.2	2.6	.02	.090	0.60
2832	4.2	0.1	1.9	.04	.010	0.40*
2833	6.0	0.2	0.8	.02	.010	0.25*
2834	4.2	0.5	1.1	.04	.070	0.30*
2835	4.0	3.1	0.8	.04	.125	*

*Refer to R.I. 4104, Figure 7.

ment of chalcocite on the pyrite and chalcopyrite. The vein at this point stands about vertical or dips very steeply northeast instead of southwest, its normal direction.

Later a fine body of high-grade copper sulphide ore, 18 to 24 inches in width, was opened in extending the drift northwestward on the fourth or 140-foot level. This ore averaged about 9 per cent of copper and 60 ounces of silver to the ton.

On the fifth or 230-foot level, which is practically the bottom of the mine, the vein dips about 70° SW. and is from 4 to 6 feet in width. The face of the drift, 100 feet northwest of the shaft, shows a width of 8 feet with the foot wall not yet in sight. Here the vein consists of coarsely streaked or irregularly banded ore, crushed quartz, and altered country rock, all pretty soft and containing 4 to 6 inch gouge seams.

South of the shaft the vein is mineralized for a width of 20 feet or more, and at the end of a 40-foot crosscut into the hanging wall there is a good looking small vein 1½ feet wide, which dips steeply to the northeast.

MIDNIGHT MINE.

The claim of the Midnight mine practically joins that of the Pinkham mine on the northwest, as shown in Plate III, and, like the Pinkham, is situated on open, gently sloping ground. (See Pl. VI, B.) The mine was discovered prior to 1866. The original owner was a pioneer named Carpenter, who in early times hauled some of the ore to the Mineral Park mill. Later the mine was owned by Heimrods, McDuffee & Gilleland, and still later by the partners Darius Brown, Robert Gibson, James Boyd, and John St. Charles. Finally, about 1898, John St. Charles and his brother Keene became the sole owners. They alone have done most of the development, and have shipped ore from the deeper levels.

The mine is developed principally by inclined shafts, drifts, and crosscuts, and is equipped with a gasoline hoist. The main shaft is 200 feet deep, and the drifts, crosscuts, and stopes aggregate several hundred feet of workings.

The same country rocks prevail as in the Pinkham vein, being principally pressed and crushed microcline-biotite granite, and this is also intruded by the same classes of diabase and granitic dikes in or near the mine, the diabase apparently being the later of the intrusives (fig. 11). The vein or lode is less well defined than the vein in the Pinkham mine. As shown in figure 10, it strikes in general about N. 65° W. and on the southeast seems to join the Pinkham vein. It has a width of 50 to 75 feet and contains much low-grade ore. As seen in the mine, it contains two main veins or ore bodies, of which the principal or south one strikes about northwest and dips irregu-

larly southwest at angles of 35° or more. The second vein strikes about N. 80° W. and dips steeply to the north.

A large amount of good ore is shown in the mine, but it contains much zinc, and considerable disturbance, including lateral faulting, has taken place, by reason of which further development is needed before the structure can be worked out. The ore contains silver, copper, gold, zinc, and iron. The silver occurs mostly in chalcopyrite, the rule being the more chalcopyrite the more silver. Some bornite is present. The gold is found principally in the pyrite. The zinc blende, though more or less mixed with the ore, occurs also in a relatively pure 3-inch shoot on the hanging wall in the northeastern part of the mine.

For some years past the mine has been shipping copper ore in a small way. This ore was rich and averaged about \$1,500 a ton, but some of it contained 5 or 6 per cent more of zinc than the 10 per cent allowed by the smelters and was accordingly penalized. It seems probable that by the

use of a suitable magnetic separator the zinc could be extracted and profitably marketed as zinc ore. In certain parts of the mine the ore contains 30 to 40 per cent of zinc, and is so low in other values that it will be shipped as zinc ore. A recent

carload shipment of the ore averaged 66 ounces in silver and \$2.50 in gold to the ton and 4.5 per cent of copper. Under the present management the mine has produced about 300 tons of ore, with a total value of about \$7,000. The ore is reported to mill about 5 to 1.

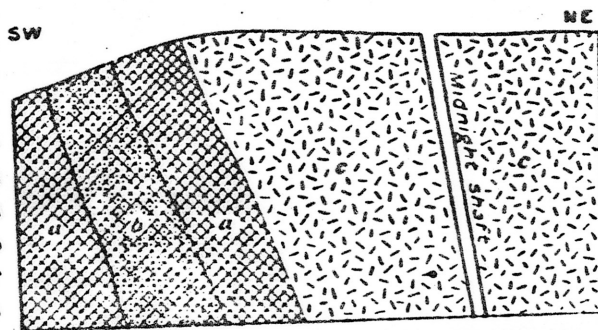


FIGURE 11.—Diagram showing intrusions near Midnight shaft. a, Aplitic; b, diabase, intrusive into aplitic; c, granite.

SILVER HILL VEIN.

The Silver Hill vein is located on Silver Hill, a prominent elongated ridge just southwest of Chloride and rising about 150 feet above it. It extends southward nearly to the railroad station. The ridge trends about north and south, is about three-fourths of a mile long and one-eighth of a mile broad, and is composed almost wholly of dark amphibolite schist. A coarse granitic rock appears to be intruded in its western base, and it is locally traversed by dikes and stringers of the garnet-bearing aplitic granite and also by a coarse pegmatitic granite. The schist dips about 60° E. and is cut by a well-marked sheeting that dips about 35° W.

As shown by openings and croppings, the northern or main half of the ridge is traversed longitudinally just west of the crest by a well-marked vein or mineral zone, varying from 2 to 12 feet or more in width, whose croppings, hardly rising above the surface, consist of brownish, yellowish, or greenish stained quartz, and seemingly altered dike material, which in places is calcareous and brecciated. The foot wall consists of a bowldery or brecciated schist.

The vein strikes N. 7° W. and dips steeply east. It is opened at intervals along its extent by five or six inclined shafts, some of which attain a maximum depth of about 100 feet. The work was done mostly in pioneer times, as this was among the first veins worked in the district. The ore contains silver, lead, and gold and is reported to carry about 2 ounces of gold to the ton, but the principal production is stated to be a small amount of lead.

JUNO MINE.

The Juno mine is situated in the low foothills about three-fourths of a mile northwest of Chloride, and is supposed to be located on the northward continuation of the Silver Hill vein. It is one of the early locations and was worked intermittently until about five years ago, when the shaft caved in, since which time work has been suspended. It was developed to the depth of 600 feet and equipped with a steam hoist. It is owned by E. T. Lloyd and B. Miller.

The vein dips steeply to the northeast. It is said to have been large on the surface, and the ore on the whole is rich. The surface ore was treated by a leaching process. The mine is stated to have produced much good ore and is regarded as a good property. Several operators have derived good returns from it.

MERRIMAC MINE.

The Merrimac mine is situated about a mile west of Chloride, at the border of the foothills and the Sacramento Valley, on open ground. It is one of the early discoveries and is owned by the Minnesota-Connor Mining Company. It is developed to the depth of about 200 feet and is equipped with a hoist and concentrating mill, but has not been worked for some time. The concentrating tables have been removed from the mill, and the mine has the appearance of being abandoned.

The country rock is pre-Cambrian coarse porphyritic gneiss. It is traversed by numerous veins or stringers, which are opened by prospect pits and shallow workings. The vein on which the mine is located seems to trend about N. 60° W. and dips to the northeast. The gangue is hard quartz and the ore contains silver and gold associated with pyrite. Much of the ore is banded and hard. The

high-grade ore contains ruby silver with a small amount of gold. Difficulty is said to have been encountered in concentrating the low-grade ore. A large dump shows that much work has been done, and the mine is reported to have produced considerable good ore.

TUCKAHOE MINE.

The Tuckahoe mine, one of the early discoveries, is 1½ miles west of Chloride, on the main road to White Hills. It is located on open ground, like the Merrimac mine, at an elevation of about 3,000 feet and in about the same class of porphyritic pre-Cambrian granite, which a few hundred yards east of the mine is cut by a diabase dike. Some basalt debris is strewn upon the surface. The mine is developed by a 45° inclined shaft, 200 feet deep, sunk upon the vein, and is equipped with a windmill hoist. It is owned by John Barry.

The vein strikes about N. 25° W. and dips about 45° NE. Certain irregularities suggest that other associated veins or stringers may be present near by, as at the Merrimac mine. The gangue is hard quartz and a mixture of quartz and country rock, locally crushed and recemented in the form of a breccia or conglomeratic mass, with many of the rock fragments rounded or pebble-shaped. The ore contains principally silver values, but some gold and galena are also present, all in association with iron pyrite.

The mine has produced a considerable amount of good ore. It was worked some years ago by the hyposulphite leaching process and \$10,000 is said to have been extracted in one year. The latest ore shipped is stated to have averaged \$10 in gold and 75 ounces of silver to the ton, and 17 per cent of lead. The mine is now producing in a small way.

TINTIC MINE.

The Tintic mine is situated on open ground in Sacramento Valley, about 1½ miles west of Chloride and half a mile south of the Tuckahoe mine. It is said to be located on a nearly flat-lying vein, which dips to the northeast and is from 2 to 10 feet thick. Water is said to be encountered at a depth of 40 feet below the surface.

The ore values are almost exclusively in gold and are said to average about \$150 a ton in carload lots. The production is reported to be many thousand dollars, most of which has been obtained within a distance of about 200 feet, extending horizontally along the vein.

OTHER MINES.

Besides the mines already described there are in the district probably a score or more of small mines and promising veins, such as the Century group, Bobby Burns, Roger Boy, Goldback, and others, concerning whose locations and character data adequate for descrip-

ASSAY SUMMATION

	Au oz/ton	Ag oz/ton	Pb %	Zn %	Cu %
Smelter Returns					
1941	0.358	2.30*	3.70*		0.19*
1942	0.780	3.70	5.25	3.20*	0.44
	0.910*	5.15	9.45*	6.20*	0.65
	0.560	3.40	6.40	5.30	0.36
	0.570	4.90	8.05		
	0.520	4.25	6.90		
1943	0.530	4.02	8.90	6.20*	0.55*
	0.264	4.69	6.70	6.05	0.45
1944	0.350	3.45	3.80	4.65	0.36
1945	0.190*	6.69*	4.85	4.94	0.21
1946	0.252	2.98	4.35	4.78	0.28
AVERAGES	0.465	4.06	6.13	3.18	0.41

*Highest and lowest values deleted from averaging

SAMPLES NOT KEPT OVER 30
DAYS EXCEPT BY REQUEST

SAMPLES SENT US BY MAIL WILL
RECEIVE PROMPT ATTENTION

CERTIFICATE OF ASSAY FROM LABORATORY OF
R. V. McALLISTER
ASSAYERS, CHEMISTS, METALLURGISTS
FRONT STREET
KINGMAN, ARIZONA

FLOTATION TESTS
CYANIDE TESTS

PHONE BLUE 282

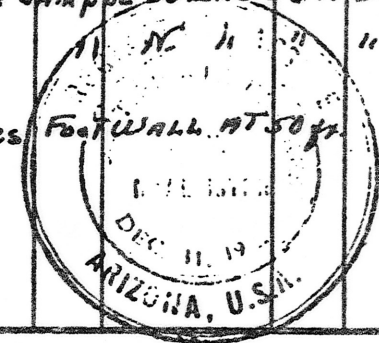
Liberty Mines Operator

Aug. 13, 1943

194

MOHAVE MINER PRINT

OFFICE NUMBER	OWNER'S MARK		GOLD. PER TON		SILVER. PER TON		TOTAL VALUE GOLD & SILVER	COPPER PER CENT		LEAD PER CENT		ZINC PER CENT		PER C
			OUNCES	VALUE	OUNCES	VALUE								
10843	Silver Hill #	1 8/11	0.31		2.20	Grat Sample 48 ft - Down		2.45		6.50				
10844	"	2 "	0.24		2.20	" " 51 ft "		3.30		5.50				
10845	"	3	0.72		3.40	Hanging Wall Drillings 3 ft - 53' Down		4.90		9.25				
10846	"	4	0.18		2.60	Grat Sample - 55' Down		4.30		6.95				
10847	"	5	0.27		4.90	Face Sample So End 58 ft Down		8.80		6.70				
10848	"	6	0.54		5.50	" " " " " " 7' Wide		12.50		5.65				
10849	"	7	0.23		1.30	Fines Foot Wall at 50 ft		0.75		5.10				



GOLD \$35 PER OUNCE
SILVER 71 CENTS PER OUNCE

R. V. McAllister

REGISTERED ASSAYER

ASSAY RECORD**MINE RUN SAMPLES
FROM DEVELOPMENT WORKSILVER HILL MINE

Samples taken from ore used in mill-run test made in June 1940; ore taken from the new Segar North Drift Level; work done since that time in driving drifts and upraise to complete #3 Shaft connection show higher values.

<u>Date</u>	<u>Number</u>	<u>Description</u>	<u>Gold</u>	<u>Silver</u>	<u>Pb & Zn</u>
1940					
4/22	57	1st 10 cars - South Drift	.52	1.38	
4/24	60	24 cars - face South Drift, up-raise	.38	1.86	
5/01	63	18 cars - face South Drift, up-raise	.19	1.81	
5/03	65	24 cars " " " "	.27	1.81	
5/04	65	(recheck by Jacobson)	.58	2.98	
5/04	66	(recheck by Jacobson of 57,60,63)	.145	2.38	
5/06	68	9 cars North Drift CC	.14	2.36	3.8
5/06	69	14 cars South Drift & Upraise	.66	4.94	2.7
5/06	69	(recheck by Jacobson)	.49	7.43	4.7
5/08	71	10 cars North Drift CC	.18	1.22	3.6
5/13	--	Check by Nelson North Drift CC	.24	1.76	
5/08	71	Recheck	.645	2.22	3.2

Note: From #63 to 71 totaling 75 mine cars, our first carload of ore to AS&RCO, El Paso, averaged 0.315 Au, 215 Ag; shipped May 10; AS&RCO averaged 0.325 Au and 2.6 Ag.

5/10	72	6 cars South Drift	.375	6.87	3.6
5/13	73	14 cars South & North Drifts	.335	3.37	
5/16	76	10 cars 1st round North Drift	.40	3.60	6.7
5/21	77	11 cars South & 30 cars North CC	.295	2.03	2.4 3.2

Note: From #72 to 77, 78 cars - our second carload shipment to AS&RCO at Hayden, Arizona, averaged 0.315 Au and 2.9 Ag; shipped May 24th; AS&RCO paid for 0.275 Au and 1.7 Ag

5/25	78	14 cars, North Drift	.30	1.50	
5/26	80	11 cars, North Drift	.37	1.87	
5/27	81	11 cars, North Drift	.262	2.14	
5/29	83	41 cars, North Drift	.345	3.33	5.2
6/03	84	60 cars, North Drift	.365	2.66	
6/05	86	36 cars, North Drift	.38	2.34	
6/08	88	60 cars, North Drift	.295	2.71	
6/10	89	54 cars, North Drift	.365	2.26	

Note: Assay averages remain close to an average of 0.33 Au, 2.5 Ag, and 2.5% to 3% lead. The same average obtained from the sampling done in the 200 feet of the 100 foot level drift north from #1 Shaft.

**The above was copied from data supporting a request for a Governmental Loan (RFC).

REPRESENTATIVE SAMPLES TAKEN SINCE JANUARY 1941:

Number	Description	Ounces		Percent	
		Gold	Silver	Lead	Zinc
A25	1st contact new ore-south drift	.19	16.53		
B 9	6' upper outside edge, new ore				
	22' above drift level	.355	1.14		
B10	7' Breast, across vein, drift	.485	2.34		
B11	From fault next to ore,	.215	1.59		
B13	4' lower half, face in drift,				
	under ore body	.24	6.40		
B14	4' upper half, ditto above	.21	2.00		
B15	Grab sample, from breast of				
	drift around B13, B14, A25	.40	4.60		
B16	Breast sample 7' wide	.70	6.10		
B17	32 cars - after blasting breast				
	shown in B16	.44	2.84		
B18	4' upper part of stope	.23	1.40		
B19	5' lower part of stope	.64	6.20		
B20	18 cars - all taken on break of				
	B18, B19 - broke through main				
	tunnel, taking much fault				
	material	.39	4.60		
#14	In north drift, driving to connect				
	with #1 shaft	.23	4.80	9.02	4.46
#15	ditto	.91	3.60	6.16	10.60
#16	"	.04	0.20		
#17	"	.23	0.90		
#18	"	.58	3.40	4.12	8.03
#19	"	.32	5.40	4.95	
#20	"	.61	0.70		
#21	"	.56	6.50	3.47	11.60
#23	"	.97	1.90		
#24	"	.47	1.80		
#25	" - 4' oxides, top of drift	.67	1.60		
#26	" - 4' oxides, next to top	.56	1.60		

CARLOAD SHIPMENTS TO AS&RCO:

3/19/42	41.96 tons	.78 Au, 3.7 Ag, 5.25% Pb	- Value=\$30.39 per ton		
5/21/42	22.98 tons	.915 Au, 5.15 Ag, 9.45% Pb	-	"	39.45 "
7/21/42	40.84 tons	.565 Au, 3.4 Ag, 6.4 % Pb	-	"	24.24 "
9/21/42	27.32 tons	.572 Au, 4.9 Ag, 8.05% Pb	-	"	26.98 "
11/23/42	42.67 tons	.52 Au, 4.25 Ag, 6.9 % Pb	-	"	23.82 "

NOTE: Until recently it was necessary to cob out the zinc because the Smelter fined us for anything in excess of 5%; now we have a contract with USS&RCO to pay for the zinc as well, and are just sending them a carload of ore containing zinc as well as the gold, silver and lead.

RECOMMENDATIONS

PHASE I

The first requirement for an exploration venture on this property is a detailed geological field study. This study would include the mapping of the types of rock outcrops, formation contacts, faults, vein systems, dips and strikes of the mineralized ore bodies, structural folds and any other conditions pertinent to ore deposits. During the preliminary field study, a drilling program would be proposed based upon assay results from surface samples and known values obtained from previous sampling. The shafts and tunnels are inaccessible due to caving and certain previous mineralized zones may be checked with the drill.

The results of this field study would determine the advisability of going into phases III and IV, although, all research to date indicates commercial ore to the depth mined. Regional studies indicate commercial ore will continue with depth which should be determined by deeper drilling.

PHASE II

It is further recommended that about 2,000 feet of drilling be initiated. The drilling equipment should be a down-the-hole hammer type, as diamond drilling would have difficulty penetrating and recovering adequate samples from the crushed ore zone.

The drilling should be concentrated near the old shafts and easterly towards the easterly property line to delineate the depth, grade, width and dip of the known mineral bearing vein.

Some commercial ore may be blocked out with the drilling program. A few deeper holes will determine if the ore holds with depth as regional studies indicate.

PHASE III

Rehabilitation of the Segar Tunnel should be done, in order to gain access to the exposed vein in the drifts, winzes and raises. Resampling and mapping should be done.

RECOMMENDATIONS (continued)

PHASE IV

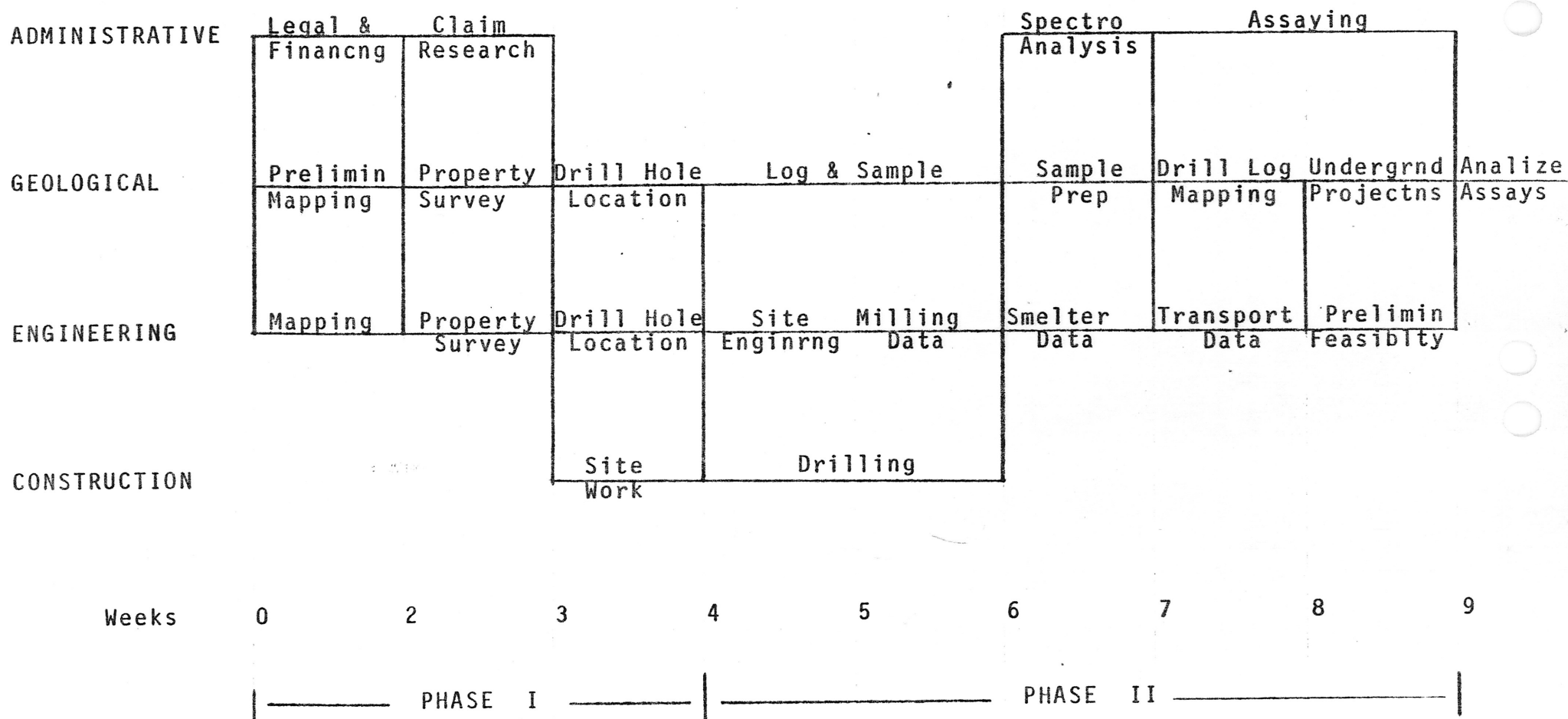
Further metallurgical testing should be carried out on dumps and engineering studies should be carried out to evaluate the methods of treating this material. It is emphasized strongly that such studies have frequently a tendency to underestimate the capital and operating cost along with over estimating the recoverable values. Heavy capital costs should not be incurred without a very healthy projected profit margin and it is felt that such margin will not be reached until good grade material has been opened by exploration and development.

From the available assays and reports, it seems likely that good commercial grade material was left in the undeveloped parts of the mine.

The first two phases of the recommendations should be initiated at the onset, while phases III and IV could be carried out only if the drilling exploration results are positive.

SILVER HILL MINE

Development Schedule



PHASE I
EXPLORATION TARGETS

There is one major vein on the property which was worked in the past. New ore can probably be discovered at depth, below the old workings. There is no evidence or indication that the deposit diminishes with depth. As stoping was carried out on the upper levels, the old reports state there was no diminishing of grade with depth. The vein extensions below the old workings offer the best possibility for new ore.

The logical primary exploration target should be the north drift of the "Segar Tunnel". Source of the highest grade ore on the property came from this area. One area is reported to have averaged 0.50 ounces of gold and 5.50 ounces of silver per ton. There is possibly an extension of this faulted vein yet to be found. The mine has only been worked to a vertical depth of less than 200 feet, and stoping on the lower levels was apparently just begun. Approximately 708 ounces of gold and 8,842 ounces of silver were produced prior to 1948, according to the USGS.

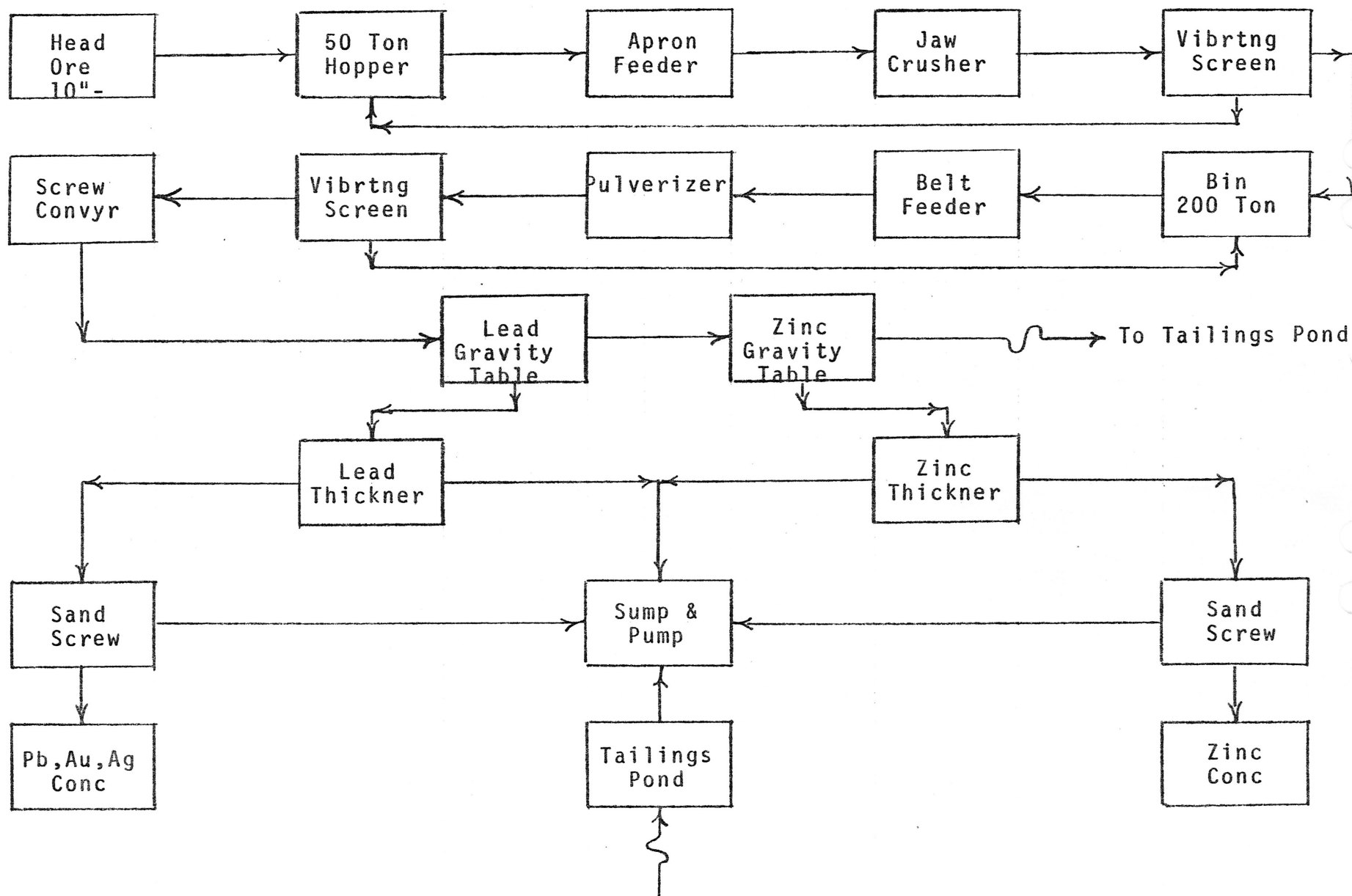
PHASE III

UNDERGROUND DEVELOPMENT

It is reported the widths of ore exposed in the winze above the Segar Tunnel ranged from 12 feet to a minimum of 4 feet, with an average of about 7.5 feet. This ore is exposed along the Segar Adit level for a distance of 110 feet, 60 feet to the south and 50 feet to the north of the winze to the face of the drift. Judging from the assay maps of R. C. Jacobson and R. D. Leisk of the old 100 foot level from Number 1 shaft (now inaccessible), this ore shoot could persist for another 200 feet north of the face of the Segar Adit level. The ore shoot thus has a possible or indicated length of some 300 feet. Should it be found to have a length of 200 feet and with an average width of 7.5 feet; it would produce about 125 tons per foot of depth. Should the proposed development program, here-in outlined, prove successful, it would on the above basis, put in sight about 28,000 tons of ore averaging approximately: 0.34 Au, 3.06 Ag, 4.7% Pb, and 5.89% Zn. This should yield a gross total value of ore at \$21,300 per one hundred tons.

Travis P. Lane, Supervising Engineer of the Liberty Mine (Silver Hill), suggested a raise from the north end of the ore shoot on the 100 foot level and would be an excellent project to pursue. The raise would start in ore and, if the old records are reliable, it should continue in ore into the workings from the Number 2 shaft at a point some 50 feet above it's starting point. This might be an easy means for proving up a substantial block of ore, and, if the old workings are made accessible, the ore situation there might afford a valuable guide for further development from the present winze.

FLWSHEET FOR GRAVITY CONCENTRATOR



(41)

8/8/82

NT OF MINERAL RESOURCES
TATE OF ARIZONA
HOME BUILDERS BUILDING
PHOENIX, ARIZONA

RETURNED

REASON CHECKED

Unclaimed ☐ Refused ☐

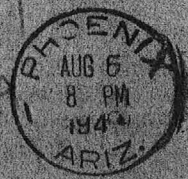
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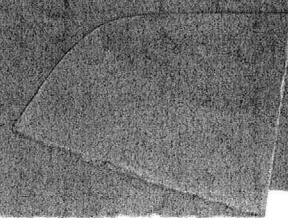
Moved ☐

No such office in state ☐

Second report 8/12
Vivian S. Hedger
Box 243
Chloride



Mr. William S. Segar
Box 243
Chloride, Ariz.



September 5, 1945

Miss Barbara Karrell
Acme Exploration Company
153 North La Peer Drive
Los Angeles 36, California

Dear Miss Karrell:

We have your letter regarding the Silver
Hill Mine at Chloride. The only information we
have in our files is two reports by our former
field engineer, Mr. Elgin Holt.

We are enclosing copies of these reports
and trust they will be of value to you.

Yours sincerely,

Chas. H. Dunning
Director

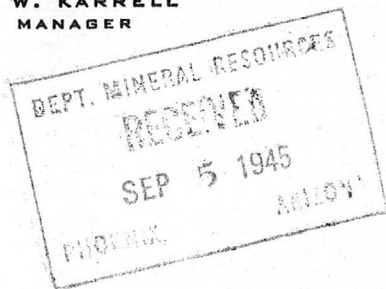
CHD:LP
Enc. 2

ACME EXPLORATION COMPANY

MINE DEVELOPMENT - OPERATION

~~117 SOUTH HILL STREET~~
LOS ANGELES 13, CALIF.

B. W. KARRELL
MANAGER



153 No. La Peer Drive
Los Angeles 36, Calif.
August 31, 1945.

Mr. Charles H. Dunning
Dept. of Mineral Resources
304 Home Builders Building
Phoenix, Arizona

Dear Mr. Dunning:

I am interested in securing information on the Silver Hill Mine at Chloride.

The R.F.C. made a \$30,000 loan on this property some time ago. I have reports by R.C. Jacobsen, E.M. and Willis Lawrence, E.M. and an assay map by William H. Blackburn, E.M. but theses are very old. The report I am most interested in securing is by Mr. Herron, when he was with the Harvey Mudd Company, in about 1940.

Any additional information will be greatly appreciated.

With kindest personal regards to you all, I am

Sincerely yours,

Barbara W. Karrell

BK:eh

Box 322
Chloride, Ariz
Aug 23, 1946

Dept. of Mineral Resources,
Phoenix, Arizona.

Dear Sirs:

I am returning your form
on Silver Hill, as I am no
longer connected with the
mine.

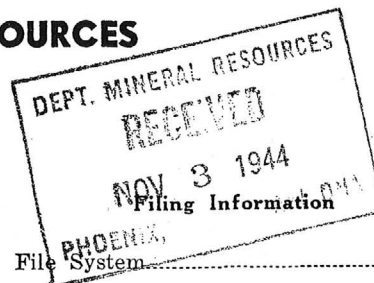
I don't know the name
or address of the person
who has it now.

Yours very truly,
Mrs. Nora L. Helges-McDonald



DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT



Date.....November 1, 1944.....

Name of Mine.....Silver Hill.....

Owner or Operator / Caretaker: Nora L. Hedges,

Address.....Box 243,
Chloride, Ariz.

Mine Location.....

File No.....

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

PRESENT OPERATIONS: (check X)

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

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

Other (specify).....Caretaker.....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months.....

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

Anticipated rate next 3 months.....

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

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars	One 1-HP pump	90	15
Light or Service Trucks
Ore Hauling Trucks
Compressors
Other Mine or Mill Eqpt.

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Applicant is caretaker of this mine, and needs gasoline to
run a small pump for the purpose of home use and fire hazard
REMARKS: at mine.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By.....Elgin B. Holt.....

Elgin B. Holt, Field Engr.

September 23, 1942

Mr. Sterling M. Hedges
Silver Hill Mine,
Chloride, Arizona.

Dear Mr. Hedges:

I have a letter from Brent M. Richard relative to your difficulties in getting ore hauled and he asks that I write and give you some suggestions as to where and with whom you should file a protest.

Under the law we have certain trucking outfits that are given exclusive franchises for certain districts and the basic condition of this law is that those who are given these exclusive franchises must equip themselves and give all of the service demanded for the district or additional franchises will be given or truckers will be allowed to come in and compete.

This law is under the Arizona Corporation Commission and when a person who has a trucking franchise in a district fails to give adequate service to the shippers in the section it is entirely proper that a complaint be made to the Motor Truck Division of the Arizona Corporation Commission. Of course, in making such a complaint you would have to state the full details of your case and it might possibly be well to suggest an alternate solution, if you have one. We will be glad to cooperate with you before the Arizona Corporation Commission in assisting in remedying your situation.

With kindest regards, I am

Yours very truly,

CHARLES F. WILLIS, Chairman
Board of Governors

CFW:MII

AMERICAN SMELTING AND REFINING COMPANY

SOUTHWESTERN ORE PURCHASING DEPARTMENT

810 VALLEY BANK BUILDING

P. O. BOX 2229

TUCSON, ARIZONA

BRENT N. RICKARD
MANAGER

September 22, 1942

Mr. Charles F. Willis
528 Title and Trust Bldg.
Phoenix, Arizona

ORE TRUCKING DIFFICULTIES, KINGMAN-
CHLORIDE DISTRICT

Dear Mr. Willis:

Mr. Sterling M. Hedges at the Silver Hill Mine, Chloride, writes me that he and other shippers in the district are having considerable difficulty in getting truckers to haul their ores. The trouble seems to be on account of two large projects in the vicinity now under way freezing the trucks and allowing them to haul ore only on Sunday. He states that there is only one trucker in the district, R. G. Hall, who holds an interstate license. Because of this situation Mr. Hedges' lead ore shipments are being held up, as well as shipments from other mines in the district.

Mr. Hedges asks what he should do to rectify this situation and with whom he should file protest. I have suggested that he discuss his difficulties with Mr. Elgin Holt at Kingman. Anything you can do to alleviate the situation will be appreciated.

Yours very truly,

Brent N. Rickard

BRENT N. RICKARD

cc:Mr. Elgin B. Holt
Dept. Mineral Resources
Kingman, Arizona

Mr. S. M. Hedges
Box 243, Chloride

PRODUCTION POSSIBILITY
SURVEY

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

TYPE NO. 1

Mine SILVER HILL & VALLEY VIEW

Date October 2, 1942

District Chloride, Mohave Co.

Engineer Elgin B. Holt

Subject:

PRODUCTION POSSIBILITY

OWNER: William S. Segar, Chloride, Arizona. *unclaimed 8-5-46*

CUSTODIAN: S. M. Hedges, Chloride, Arizona. Hedges is working ~~the~~ the mine and is making regular ore shipments. The crew consists of Hedges himself and Mrs. Hedges. Both work in the mine, doing the drilling, mucking, tramming and sorting of the ore for shipment. Mrs. Hedges is a first class driller and operates on the business end of a single Jack hammer.

METALS: Zinc, lead, copper, gold and silver.

LOCATION

This property is located at the western edge of the town of Chloride. It consists of 4 patented and 2 unpatented mining claims and one patented mill site.

DEVELOPMENT WORK

The vein strikes N. 7 degrees W., and dips steeply E. It is opened at intervals along its extent by five inclined shafts, sunk to the following depths: 78', 75', 80', and 155'; the No. 1, or main shaft, being sunk on vein to a depth of 225 feet. A cross-cut tunnel was driven by Segar some two years ago from the east side of the hill. This tunnel has a length of 400' and cuts Shaft No. 3 at 80' depth. A drift was then run north on vein 190' and south 70'. Also a winze has been started, in north drift, and is now 12' deep on ~~xxx~~ vein, which is 37 feet wide. Ore occurs in lenses up to 90' long and 4' wide. Sulphide ore comes in below the said cross-cut tunnel level.

DEPARTMENT OF MINERAL RESOURCES

State of Arizona

Field Engineer's Report

Mine SILVER HILL

Date July 20, 1943

District Wallapai, Mohave Co., Arizona

Engineer Elgin B. Holt

Subject

B R I E F R E P O R T

LESSEE: Liberty Mine; R.P.M. Davis, principal owner, 2356 Hollyridge Drive, Hollywood, California; L. L. Farnham, General Manager, Mayer, Arizona; Joseph P. Klein, Superintendent, Box 262, Chloride, Arizona.

METALS: Zinc, lead, gold and silver. Character of ore: Above the Cross-cut Tunnel level, the ore is oxidized material; but below that level, the ore is complex sulphide material, suitable for treatment by selective flotation.

LOCATION & AREA: This property is located at the western edge of the town of Chloride. It consists of 4 patented and 2 unpatented mining claims and one patented mill site.

MINE WORKINGS: The vein strikes N. 7 degrees W., and dips steeply E., or at an angle of 45 degrees. It is opened at intervals along its extent by five inclined shafts, sunk to the following depths: 78', 75', 80', and 155'; the No. 1, or main shaft, being sunk on vein to a depth of 225 feet. A cross-cut tunnel was driven by W. S. Segar some 3 years ago from the east side of the hill. This tunnel has a length of 345 feet and cuts Shaft No. 3 at 80' depth. At point where the cross-cut tunnel cuts vein there is a crushed and faulted ore zone about 20 feet wide. Drifts were run north on vein 200 feet and south 70 feet.

ORE SHOOT: Per an assay map furnished me by Mr. Klein, in the north drift mentioned there is an ore shoot 70 feet in length, by 2.4 feet wide. This shoot of ore is oxidized above drift and is all sulphide material below drift, mainly galena and sphalerite. On the said assay map a number of samples are plotted, showing the average metal values of this shoot to be as follows, to-wit:

<u>Width</u>	<u>Zn-%</u>	<u>Pb-%</u>	<u>Au-oz</u>	<u>Ag-ozs</u>
2.4 ft.	5.67	4.40	0.32	1.80

PRODUCTION: As to the ore production of this property, when it was operated years ago, there are no records available.

1941 PRODUCTION: One car was shipped to the Hayden smelter, with following results:

<u>Tons</u>	<u>Au-oz</u>	<u>Ag-ozs</u>	<u>Cu-%</u>	<u>Pb-%</u>	<u>-----Net returns</u>
36.6	0.358	2.3	0.19	3.70	----- \$217.55

1942 PRODUCTION: During 1942, S. M. Hedges and wife shipped 4 or more car loads of ore from this property to the El Paso Smelting Works, of which the following is the records of 3 of these car shipments:

<u>Tons</u>	<u>Au-oz</u>	<u>Ag-ozs</u>	<u>Cu-%</u>	<u>Pb-%</u>	<u>Zn-%</u>	<u>Net returns</u>
42.8	0.78	3.70	0.435	5.25	3.20	\$860.96
23.2	0.91	5.10	0.650	9.45	6.20	652.50
41.2	0.56	3.40	0.360	6.40	5.30	533.67

SILVER HILL MINE

1943 PRODUCTION: The total production for 1943 is not available. However, Mr. Klein furnished me with the following record of a car load of ore shipped during the said year from an underhand stope on the sulphide ore shoot mentioned above and located in the north drift from the said cross-cut tunnel level:

<u>Tons</u>	<u>Au-oz</u>	<u>Ag-ozs</u>	<u>Cu-%</u>	<u>Pb-%</u>	<u>Zn-%</u>
49.6	0.53	4.40	0.55	8.90	6.20

ORE RESERVES

Per another assay map of this property, furnished me by Mr. Klein, there are now blocked out, more or less, in the oxidized ore zone, above the said cross-cut tunnel level, between Shafts Nos. 1 & 3, 19,700 tons of ore, averaging: Gold, 0.167 ounces, and silver, 2.55 ounces per ton; lead and zinc values not being given. However, as this ore tonnage is oxidized material, the same, of course, could not be used as a source of ore to supply any custom mill that may be erected in this area and using selective flotation, which would have to be operated on sulphide ores and not on oxidized ores.

SULPHIDE ORE RESERVES:

There are no sulphide ore reserves now blocked out in this mine. However, on the sulphide ore shoot a winze has recently been started by Mr. Klein, and which will be put down to water level in the mine, expected at from 100' to 150', before drifting on the ore vein is started, with the end in view of blocking out a considerable reserve of desirable sulphide milling ore, which should assay equal to or better than the average assays set forth in the paragraph above, captioned "ORE SHOOT".

INSERT A: On February 10, 1944, I had another interview with Mr. J. P. Klein, who was Superintendent of the Silver Hill mine at the time this report was prepared, and he informed me that later work resulted in developing about 5,000 tons of Sulphide ore assaying approximately as follows:

<u>Zn-%</u>	<u>Pb-%</u>	<u>Au-oz</u>	<u>Ag-ozs</u>
5.67	4.40	0.32	1.80

RFC LOAN: This property is now being developed by funds furnished by RFC; 12 men being employed.

ESTIMATED DAILY PRODUCTION: As stated, while there is now no sulphide ore blocked out in this property, Mr. Klein stated, in sinking the winze mentioned, around 2 tons of sulphide milling ore should be produced daily for each foot of sinking, during which time, or while the winze is being sunk to at least a depth of 100 feet, no stoping of ore could be carried on. However, after the said winze has reached around 100 feet in depth, below the cross-cut tunnel level, drifts would be run both to the north and to the south on the ore vein, and then stoping of ore could start.

In other words, it is believed that this mine can be put in shape within a period of 90 days to supply at least 25 tons of ore daily for a custom mill, while further development work is progressing. Also, within a period of one year this mine could be developed to a stage where it should produce around 75 tons daily, of ore assaying not less than: 5.67% zinc; 4.40% lead; 0.32 ounce gold; and 1.80 ounces silver, as above set forth.

/s/ Elgin B. Holt
Elgin B. Holt
Field Engineer

1941 PRODUCTION

One car was shipped to Hayden smelter, and gave the following results:

Tons	Au, oz	Ag, ozs.	Cu, %	Pb, %		Net returns
36.6	0.358	2.3	0.19	3.7	-----	\$217.55

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During 1942, Hedges and wife have shipped three car loads of ore to the El Paso Smelting Works, with following results:

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41.2	0.565	3.4	0.360	6.4	5.3 -----	533.67

Also another car, consisting of 36 tons, has been shipped to El Paso, recently; but returns on the same had not been received at the time of visit, Oct. 1, 1942. Hedges states that this car should average about as follows: Gold, 0.70 oz.; silver, 5.50 ozs.; copper, nothing; lead, 12.0%; and zinc nothing.

PLANS FOR INCREASING PRODUCTION

Hedges stated that Mr. Segar is now making financial arrangements to sink a winze from the cross-cut tunnel level to a depth of 100 feet on vein and then drift on vein north 300' and south 300'. Also, that Segar plans to sink a two-compartment shaft, in hanging wall, vertically to a depth of 200', with cross-cuts to vein at 100-foot and 200-foot intervals. Then drifts would be run on vein in order to block out ore. Furthermore, that Segar is planning to erect a 200-ton selective flotation mill at property, when and if he succeeds in financing the above outlined development work. While this property has more than usual merit, it is now in the development stage; its main needs being capital with which to carry out the above plans to develop the mine in a large way and then equip it with a mill.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine SILVER HILL & VALLEY VIEW +

Date October 2, 1942

District Chloride, Mohave Co.

Engineer Elgin B. Holt

Subject: PRODUCTION POSSIBILITY SURVEY

OWNER: William S. Segar, Chloride, Arizona.

CUSTODIAN: S. M. Hedges, Chloride, Arizona. Hedges is working the mine and is making regular ore shipments. The crew consists of Hedges himself and Mrs. Hedges. Both work in the mine, doing the drilling, mucking, tramping and sorting of the ore for shipment. Mrs. Hedges is a first class driller and operates on the business end of a single Jack hammer.

METALS: Zinc, lead, copper, gold and silver.

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Elgin B. Holt.

SILVER HILL

Au, Ag, Pb

Mohave

8 - 7

T 23 N, R 18 W

William S. Segar, Box 243, Chloride
unclaimed 8-5-46

'42

The Silver Hill mine, near Chloride, Arizona, is reported to be producing ore averaging 6 per cent zinc, 4.6 per cent lead, 30 ounces gold, and 2 ounces silver. The mine is being worked under lease by W. S. Segar, Box 243, Chloride. S. M. Hedges is in charge of the work.

MINING CONC. JOURNAL 9/30/42

NAME OF MINE: SILVER HILL

COUNTY: MOHAVE

DISTRICT:

METALS: AU, ZN, AG

OPERATOR AND ADDRESS:

MINE STATUS

DATE:

DATE:

5/1/44

Lessee: RPM Davis
2356 Hollyridge Drive
Hollywood, California
Jos. P. Klein, Supt.
Box 262, Chloride

5/1/44

Closed

RFC loan granted

1/44 Closed

NAME OF MINE: SILVER HILL
OWNER:

COUNTY: Mohave

DISTRICT:

METALS: Pb, Zn, Ag, Au

OPERATOR AND ADDRESS

MINE STATUS

Date:

Date:

6/46

Jack Miller, Box 448, Kingman

6/46

Developing

10/46

Shipping

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

304 HOME BUILDERS BUILDING

PHOENIX, ARIZONA

RETURNED

REASON CHECKED

Unclaimed

Unknown

For better address

Moved

No such office in state



Handwritten address:
Mr. William S. Segar
Box 243
Chloride, Ariz.

Mr. William S. Segar

Box 243

Chloride, Ariz.

September 5, 1945

Miss Barbara Karrell
Acme Exploration Company
153 North La Peer Drive
Los Angeles 36, California

Dear Miss Karrell:

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Yours sincerely,

Chas. H. Dunning
Director

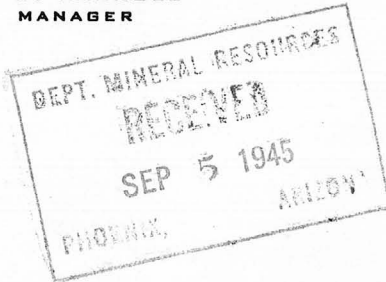
CHD:LP
Enc. 2

ACME EXPLORATION COMPANY

MINE DEVELOPMENT - OPERATION

~~117 SOUTH HILL STREET~~
~~LOS ANGELES 13, CALIF.~~
LOS ANGELES 13, CALIF.

B. W. KARRELL
MANAGER



153 No. La Peer Drive
Los Angeles 36, Calif.
August 31, 1945.

Mr. Charles H. Dunning
Dept. of Mineral Resources
304 Home Builders Building
Phoenix, Arizona

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Any additional information will be greatly appreciated.

With kindest personal regards to you all, I am

Sincerely yours,

Barbara Karrell
Barbara W. Karrell

BK:eh

September 23, 1942

Mr. Sterling M. Hedges
Silver Hill Mine,
Chloride, Arizona.

Dear Mr. Hedges:

I have a letter from Brent N. Richard relative to your difficulties in getting ore hauled and he asks that I write and give you some suggestions as to where and with whom you should file a protest.

Under the law we have certain trucking outfits that are given exclusive franchises for certain districts and the basic condition of this law is that those who are given these exclusive franchises must equip themselves and give all of the service demanded for the district or additional franchises will be given or truckers will be allowed to come in and compete.

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With kindest regards, I am

Yours very truly,

CHARLES F. WILLIS, Chairman
Board of Governors

CFW:MH

AMERICAN SMELTING AND REFINING COMPANY

SOUTHWESTERN ORE PURCHASING DEPARTMENT

810 VALLEY BANK BUILDING

P. O. BOX 2229

TUCSON, ARIZONA

BRENT N. RICKARD
MANAGER

September 22, 1942

Mr. Charles F. Willis
528 Title and Trust Bldg.
Phoenix, Arizona

ORE TRUCKING DIFFICULTIES, KINGMAN-
CHLORIDE DISTRICT

Dear Mr. Willis:

Mr. Sterling M. Hedges at the Silver Hill Mine, Chloride, writes me that he and other shippers in the district are having considerable difficulty in getting truckers to haul their ores. The trouble seems to be on account of two large projects in the vicinity now under way freezing the trucks and allowing them to haul ore only on Sunday. He states that there is only one trucker in the district, R. G. Hall, who holds an interstate license. Because of this situation Mr. Hedges' lead ore shipments are being held up, as well as shipments from other mines in the district.

Mr. Hedges asks what he should do to rectify this situation and with whom he should file protest. I have suggested that he discuss his difficulties with Mr. Elgin Holt at Kingman. Anything you can do to alleviate the situation will be appreciated.

Yours very truly,

Brent N. Rickard

BRENT N. RICKARD

cc:Mr. Elgin B. Holt
Dept. Mineral Resources
Kingman, Arizona

Mr. S. M. Hedges
Box 243, Chloride

Box 322
Chloride, Ariz
Aug 23, 1946

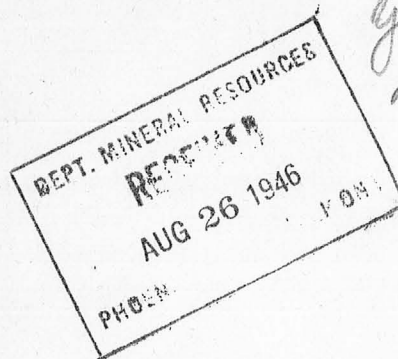
Dept. of Mineral Resources,
Phoenix, Arizona.

Dear Sirs:

I am returning your form
on Silver Hill, as I am no
longer connected with the
mine.

I don't know the name
or address of the person
who has it now.

Yours very truly,
Mrs. Howard L. Hedges-McDonald



DEPARTMENT OF MINERAL RESOURCES

State of Arizona

Field Engineer's Report

Mine SILVER HILL

Date July 20, 1943

District Wallapai, Mohave Co., Arizona

Engineer Elgin B. Holt

Subject

B R I E F R E P O R T

LESSEE: Liberty Mine; R.P.M. Davis, principal owner, 2356 Hollyridge Drive, Hollywood, California; L. L. Farnham, General Manager, Mayer, Arizona; Joseph P. Klein, Superintendent, Box 262, Chloride, Arizona.

METALS: Zinc, lead, gold and silver. Character of ore: Above the Cross-cut Tunnel level, the ore is oxidized material; but below that level, the ore is complex sulphide material, suitable for treatment by selective flotation.

LOCATION & AREA: This property is located at the western edge of the town of Chloride. It consists of 4 patented and 2 unpatented mining claims and one patented mill site.

MINE WORKINGS: The vein strikes N. 7 degrees W., and dips steeply E., or at an angle of 45 degrees. It is opened at intervals along its extent by five inclined shafts, sunk to the following depths: 78', 75', 80', and 155'; the No. 1, or main shaft, being sunk on vein to a depth of 225 feet. A cross-cut tunnel was driven by W. S. Segar some 3 years ago from the east side of the hill. This tunnel has a length of 345 feet and cuts Shaft No. 3 at 80' depth. At point where the cross-cut tunnel cuts vein there is a crushed and faulted ore zone about 20 feet wide. Drifts were run north on vein 200 feet and south 70 feet.

ORE SHOOT: Per an assay map furnished me by Mr. Klein, in the north drift mentioned there is an ore shoot 70 feet in length, by 2.4 feet wide. This shoot of ore is oxidized above drift and is all sulphide material below drift, mainly galena and sphalerite. On the said assay map a number of samples are plotted, showing the average metal values of this shoot to be as follows, to-wit:

<u>Width</u>	<u>Zn-%</u>	<u>Pb-%</u>	<u>Au-oz</u>	<u>Ag-ozs</u>
2.4 ft.	5.67	4.40	0.32	1.80

PRODUCTION: As to the ore production of this property, when it was operated years ago, there are no records available.

1941 PRODUCTION: One car was shipped to the Hayden smelter, with following results:

<u>Tons</u>	<u>Au-oz</u>	<u>Ag-ozs</u>	<u>Cu-%</u>	<u>Pb-%</u>	<u>-----Net returns</u>
36.6	0.358	2.3	0.19	3.70	----- \$217.55

1942 PRODUCTION: During 1942, S. M. Hedges and wife shipped 4 or more car loads of ore from this property to the El Paso Smelting Works, of which the following is the records of 3 of these car shipments:

<u>Tons</u>	<u>Au-oz</u>	<u>Ag-ozs</u>	<u>Cu-%</u>	<u>Pb-%</u>	<u>Zn-%</u>	<u>Net returns</u>
42.8	0.78	3.70	0.435	5.25	3.20	\$860.96
23.2	0.91	5.10	0.650	9.45	6.20	652.50
41.2	0.56	3.40	0.360	6.40	5.30	533.67

SILVER HILL MINE

1943 PRODUCTION: The total production for 1943 is not available. However, Mr. Klein furnished me with the following record of a car load of ore shipped during the said year from an underhand stope on the sulphide ore shoot mentioned above and located in the north drift from the said cross-cut tunnel level:

<u>Tons</u>	<u>Au-oz</u>	<u>Ag-ozs</u>	<u>Cu-%</u>	<u>Pb-%</u>	<u>Zn-%</u>
49.6	0.53	4.40	0.55	8.90	6.20

ORE RESERVES

Per another assay map of this property, furnished me by Mr. Klein, there are now blocked out, more or less, in the oxidized ore zone, above the said cross-cut tunnel level, between Shafts Nos. 1 & 3, 19,700 tons of ore, averaging: Gold, 0.167 ounces, and silver, 2.55 ounces per ton; lead and zinc values not being given. However, as this ore tonnage is oxidized material, the same, of course, could not be used as a source of ore to supply any custom mill that may be erected in this area and using selective flotation, which would have to be operated on sulphide ores and not on oxidized ores.

SULPHIDE ORE RESERVES:

There are no sulphide ore reserves now blocked out in this mine. However, on the sulphide ore shoot a winze has recently been started by Mr. Klein, and which will be put down to water level in the mine, expected at from 100' to 150', before drifting on the ore vein is started, with the end in view of blocking out a considerable reserve of desirable sulphide milling ore, which should assay equal to or better than the average assays set forth in the paragraph above, captioned "ORE SHOOT".

INSERT A: On February 10, 1944, I had another interview with Mr. J. P. Klein, who was Superintendent of the Silver Hill mine at the time this report was prepared, and he informed me that later work resulted in developing about 5,000 tons of Sulphide ore assaying approximately as follows:

<u>Zn-%</u>	<u>Pb-%</u>	<u>Au-oz</u>	<u>Ag-ozs</u>
5.67	4.40	0.32	1.80

RFC LOAN: This property is now being developed by funds furnished by RFC; 12 men being employed.

ESTIMATED DAILY PRODUCTION: As stated, while there is now no sulphide ore blocked out in this property, Mr. Klein stated, in sinking the winze mentioned, around 2 tons of sulphide milling ore should be produced daily for each foot of sinking, during which time, or while the winze is being sunk to at least a depth of 100 feet, no stoping of ore could be carried on. However, after the said winze has reached around 100 feet in depth, below the cross-cut tunnel level, drifts would be run both to the north and to the south on the ore vein, and then stoping of ore could start.

In other words, it is believed that this mine can be put in shape within a period of 90 days to supply at least 25 tons of ore daily for a custom mill, while further development work is progressing. Also, within a period of one year this mine could be developed to a stage where it should produce around 75 tons daily, of ore assaying not less than: 5.67% zinc; 4.40% lead; 0.32 ounce gold; and 1.80 ounces silver, as above set forth.

/s/ Elgin B. Holt
Elgin B. Holt
Field Engineer

DEPARTMENT OF MINERAL RESOURCES

PRODUCTION POSSIBILITY
SURVEY

STATE OF ARIZONA

FIELD ENGINEERS REPORT

TYPE NO. 1

Mine SILVER HILL & VALLEY VIEW

Date October 2, 1942

District Chloride, Mohave Co.

Engineer Elgin B. Holt

Subject:

PRODUCTION POSSIBILITY

OWNER: William S. Segar, Chloride, Arizona. *unclaimed 8-5-46*

CUSTODIAN: S. M. Hedges, Chloride, Arizona. Hedges is working ~~the~~ the mine and is making regular ore shipments. The crew consists of Hedges himself and Mrs. Hedges. Both work in the mine, doing the drilling, mucking, tramming and sorting of the ore for shipment. Mrs. Hedges is a first class driller and operates on the business end of a single Jack hammer.

METALS: Zinc, lead, copper, gold and silver.

LOCATION

This property is located at the western edge of the town of Chloride. It consists of 4 patented and 2 unpatented mining claims and one patented mill site.

DEVELOPMENT WORK

The vein strikes N. 7 degrees W., and dips steeply E. It is opened at intervals along its extent by five inclined shafts, sunk to the following depths: 78', 75', 80', and 155'; the No. 1, or main shaft, being sunk on vein to a depth of 225 feet. A cross-cut tunnel was driven by Segar some two years ago from the east side of the hill. This tunnel has a length of 400' and cuts Shaft No. 3 at 80' depth. A drift was then run north on vein 190' and south 70'. Also a winze has been started, in north drift, and is now 12' deep on ~~the~~ vein, which is 37 feet wide. Ore occurs in lenses up to 90' long and 4' wide. Sulphide ore comes in below the said cross-cut tunnel level.

1941 PRODUCTION

One car was shipped to Hayden smelter, and gave the following results:

Tons	Au, oz	Ag, ozs.	Cu, %	Pb, %		Net returns
36.6	0.358	2.3	0.19	3.7	-----	\$217.55

1942 PRODUCTION

During 1942, Hedges and wife have shipped three car loads of ore to the El Paso Smelting Works, with following results:

Tons	Au, oz.	Ag, ozs.	Cu, %	Pb, %	Zn, %	Net returns
42.8	0.78	3.7	0.435	5.25	3.2 -----	\$860.96
23.2	0.91	5.1	0.650	9.45	6.2 -----	652.50
41.2	0.565	3.4	0.360	6.4	5.3 -----	533.67

Also another car, consisting of 36 tons, has been shipped to El Paso, recently; but returns on the same had not been received at the time of visit, Oct. 1, 1942. Hedges states that this car should average about as follows: Gold, 0.70 oz.; silver, 5.50 ozs.; copper, nothing; lead, 12.0%; and zinc nothing.

PLANS FOR INCREASING PRODUCTION

Hedges stated that Mr. Segar is now making financial arrangements to sink a winze from the cross-cut tunnel level to a depth of 100 feet on vein and then drift on vein north 300' and south 300'.

Also, that Segar plans to sink a two-compartment shaft, in hanging wall, vertically to a depth of 200', with cross-cuts to vein at 100-foot and 200-foot intervals. Then drifts would be run on vein in order to block out ore. Furthermore, that Segar is planning to erect a 200-ton selective flotation mill at property, when and if he succeeds in financing the above outlined development work. While this property has more than usual merit, it is now in the development stage; its main needs being capital with which to carry out the above plans to develop the mine in a large way and then equip it with a mill.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine SILVER HILL & VALLEY VIEW +

Date October 2, 1942

District Chloride, Mohave Co.

Engineer Elgin B. Holt

Subject: PRODUCTION POSSIBILITY SURVEY

OWNER: William S. Segar, Chloride, Arizona.

CUSTODIAN: S. M. Hedges, Chloride, Arizona. Hedges is working the mine and is making regular ore shipments. The crew consists of Hedges himself and Mrs. Hedges. Both work in the mine, doing the drilling, mucking, tramming and sorting of the ore for shipment. Mrs. Hedges is a first class driller and operates on the business end of a single Jack hammer.

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DEVELOPMENT WORK: The vein strikes N. 7 degrees W., and dips steeply E. It is opened at intervals along its extent by five inclined shafts, sunk to the following depths: 78', 75', 80', and 155'; the No. 1, or main shaft, being sunk on vein to a depth of 225 feet. A cross-cut tunnel was driven by Segar some two years ago from the east side of the hill. This tunnel has a length of 400' and cuts Shaft No. 3 at 80' depth. A drift was then run north on vein 190' and south 70'. Also a winze has been started, in north drift, and is now 12' deep on vein, which is 37 feet wide. Ore occurs in lenses up to 90' long and 4' wide. Sulphide ore comes in below the said cross-cut tunnel level.

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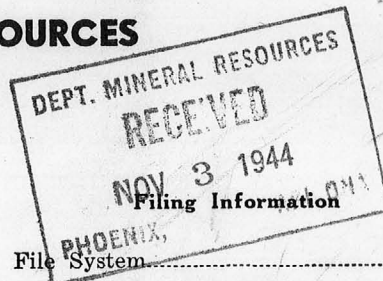
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Elgin B. Holt.

DEPARTMENT OF MINERAL RESOURCES

REPORT TO OPA ON ACTIVE MINING PROJECT



Date.....November 1, 1944.....

Name of Mine.....Silver Hill.....

Owner or Operator / Caretaker: Nora L. Hedges,

Box 243,
Address.....Chloride, Ariz.....

Mine Location.....

PHOENIX,
File System.....

File No.....

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

not connected with mine
8-23-46

PRESENT OPERATIONS: (check X)

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

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

Other (specify).....Caretaker.....

PRODUCTION: Past and Future.

Tons

Approx. tons last 3 months.....

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

Anticipated rate next 3 months.....

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

EQUIPMENT OPERATED:

Type	Quantity or Horse Power	Miles or Hours Per Month	Gallons Required Per Month
Personal Cars	One 1-HP pump	90	15
Light or Service Trucks
Ore Hauling Trucks
Compressors
Other Mine or Mill Eqpt.

PRODUCT PRODUCED OR CONTEMPLATED: Name metals or minerals.

Applicant is caretaker of this mine, and needs gasoline to
run a small pump for the purpose of home use and fire hazard
REMARKS: at mine.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

By.....

Elgin B. Holt, Field Engr.

T
23
N

ARIZ. STATE HWY

SILVER HILL-3

1500'

GRAVEYARD

SILVER HILL - C

SILVER

SILVER HILL-4

VALLEY VIEW PAT.

1500
W. 255' N.

SILVER HILL-1

SILVER HILL-2

PAT. 3500000

SILVER HILL-8

SILVER HILL-8

~~SILVER HILL~~

SILVER HILL - TO
1100'

SILVER HILL-1

August, 1983

AT & SF R of W

