

For Week Ending _____ 192_____

ENG'R.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Maps

5000-5100

1000 West End to be added

5100-5200

- ① WP Inter - 10/10/10
- ② Elev Bel. - 10/56

5200-5300

- ① West End Int
 - ② Wandering Bay level -
-

5600-5700

Elev Stone Cabin 500

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2272.85
3087.84
5360.69

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lookup 400×500 Ex

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PROGRESS REPORT

192

0868.

Colled

100

200

300

400

5618.60

500

600

700

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For Week Ending

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Tono & Calif Shat

The Tonopah Mining Company of Nevada

PROGRESS REPORT

For Week Ending

Depth
from collar

192

PLACE	TOTAL DIST. REPORTED	PROGRESS FOR WEEK	TOTAL DIST.
1 st		135.83	5984
2nd		220.07	5900
3rd		410.89	5709
4th		605.04	5515
5th		636.12	5484
6th		711.76	5408
Collar must be close to 6120			
6120 136 5984	6120 220 5900	6120 411 5709	
6120 605 5515	6120 636 5484	6120 712 5408	

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PROGRESS REPORT

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Depth
from collar 192

ENG'P

Chronology of Significant Events

Tonopah Mining Company of Nevada

Source - University of Nevada Bulletin Vol XLVII, No. 1
Geology and Mining Series No. 51, 1953

Annual Reports to the Stockholders:

No. 7	1908
No. 8	1909
No. 9	1910
No. 10	1911
No. 11	1912
No. 12	1913
No. 13	1914
No. 14 17	1918
No. 27	1928
No. 40	1941

TONOPAH MINING CO. of NEVADA

1900 - 1907

Incorp. laws Delaware in June 1901
\$254,000 receipts lease royalties for last half 1901
Prod. 1,543,000 first year of production 1902.
RR from Sodaville to Tonopah early 1904 3' (" gauge - 50# rail;
Converted to std gauge next year.

1905 SP constructed cutoff from Churchill to Hazen.
Ore oxidized to over 460 ft depth - limonite, hornsilver,
hard qtz, much argentite & pyrite.

1902 Started sinking Desert Queen shaft.
do (Siebert) Mizpah shaft.
By 1907 both Desert Queen and Mizpah over 1000 ft deep.

1907 Silver Top shaft (1000 ft south Mizpah) being sunk.
Red Plume (1500 ft easterly Mizpah) being sunk.

1904 Midway mill - 10 stamp, Boss type, Hunting^{Ton}den mills -
Washoe pans - chemical treated and amalgamation - milled
few thousand tons then shut down, remodeled in 1906 by
Parsons.

1907 (May) 60 stamp in optinal Millers

1907 TMG. 3,427,357 70% district
Coal fired steam-plant-Miller; closed after 103 mile
line from Bishop, hydro-electric power.

1907 - 1910 a period of recession

Veins in Mizpah claims became impoverished on a change of formation
at 700-foot depth. Stock sold at \$20 Dec. 06 dropped to 7/50
Nov. 07
Last quarter 07 profit of \$310,000.
Sorting and shipping of richer ore to smelter discontinued.
231,986 tons ore and waste hoisted from Mizpah, Silver Top,
Red Plume shafts

1910 - 1930 The great years of heavy production

Peak production 622,364 tons; value \$9,311,560 - 1918

1911 Exploration dept established - Spurr
1913 Development work West end vein - from Red Plume and Sand Grass
shafts - connection on 6th L to Ton Ext.

- 1914 Shipped dump ore to mill 30,785 tons - \$9.62 value at silver
50¢ per oz - total tonnage 147,261
Suit against Ton Ext 12,000 value \$200,000
- 1915 (March) Converted mill to all slime plant 400 tpd. 136,246
at \$13.66 grade mills.
- 1915 Option taken on Mizpah Ext. discontinued in Aug 1917
- 1916 73,544 tons at \$15.81 value from underground; 28,404 tons at
\$7.71 from dumps
Silver rose rapidly from 50¢ to 75¢ - 20,000 tons "ore house"
rejects sent to mill-sliming trouble.
Miners pay raised from \$4.00 to 4.75 per day.
- 1916 Sand Grass shaft sunk to 1500 ft. to connect with 1171 foot
level of Tonopah Merger.
Report covered only 10 months - re U S Income Tax rpt.
- 1917 109,835 tons milled at \$14.80/ton
New ore bodies mined between 1000 and 1400 ft level Sand Grass
shaft.
Gold cyaniding mill, Eden Mining Co., Nicaragua agree started March
1, 1917.
- 1918 5400 tons from underground - to New Belmont mill- favorable
treatment rate.
Up to Nov. 1 102,000 tons ore-house rejects shipped to Millers
\$5.29/ton at aver price of 96.7¢/oz.
Start retreating leaching tank residues in November but shut
down in Dec. after 11 years operation.
Mandy mine Canada and Tonopah placers, Colo. losing money
- 1919 Mine shipped 41,298 tons to Belmont mill at \$18.74 with
silver at 1.11/oz.
New discovery from crosscut south of Mizpah shaft on 400 foot
level showed width of 3 feet of \$17.32 value.
Strike August 18; returned Oct 4 - raise in pay and establishment
of commissary store to reduce cost of living. Tonopah
Divide Mercantile Co. continued in business until 1928.
- 1920 Mined 56,587 tons value \$16.93 at 1.00/oz from 68 places,
mainly on Mizpah vein - required much sorting.
First month silver sold above 1.29/oz; closing month termin-
ation of assured 1.00/oz under Pittman Act-dropped to 65¢/oz.
First months 6,979 tons dump ore at \$7.83 (and profit \$1.93 per
ton) shipped; completely removing huge dumps of second class
ore and "ore house rejects". Mill at Millers reopened to
mill company ore.

Operations-full capacity 12 hr/day (milling cost p.76).
Strike in February - returned in April with 50¢ raise, group insurance, and 1,000 death benefit for those with over one years service.

Early in 1921 silver dropped to 55¢ and operating companies cut wages 75¢ per shift.

Strike started April 16 and lasted 4 months.

1921 Mine produced 42,424 tons at \$17.25 for profit of 177,000--
8 operating months.

1922 Silver at 65 to 70¢.

Strike 2 days in Oct.-50¢ raise.

Mined 75,379 tons-profit 328,465; mill treated 11,408 tons custom ore.

Eden property closed in Oct.

Cave-in at Mizpah claim.

1923 61,615 tons ore.

1924 21,666 tons mined-of this 2400 tons refractory manganese ore shipped to smelters - balance to mill plus 41,000 custom ore.

1925 Production reported to State 19,381 tons - recovered value \$402,212

1926 19,462 tons at \$452,672.

Sale of Tonopah placer Breckenridge, Colo.

1927 25,672 value \$462,315

1928 30,499 at \$557,544

Mill treated 42,663 tons custom ore being only custom mill in district.

Profit mine and mill \$212,491

Tonopah Nicaragua Co. estimated to contain 1,500,000 tons 5% copper ore

1929 33,483 mine ore; 32,000 tons custom ore treated at mill.

Steady drop in price of silver from 57 cents in January to 48 cents in December

1930 Drop in price to 45 cents in January resulted in closing of mine and mill on February 26, 1930.

1930 to 1950 -- The declining years

- 1928 28,900 mine ore treated and 42,000 ton custom ore for profit of \$212,000.
Profit from investments 163,000
- 1929 Treated 33,482 tons mine ore and 32,000 custom ore with profit \$108,589
Last of 1929 new low price below 40¢/oz.
Mine closed February 20, 1930.
- 1930 Mine reopened under leasing system on Oct. 3, 1930
7891 tons treated at mill plus 9662 tons custom ore.
By December silver quotation was 31-1/3¢/oz.
\$4000 profit - no dividend
- 1931 Mill treated 7,095 tons from mine and 4,480 tons custom ore.
- 1932 Extreme cold damaged mill - closed in May with cleanup.
No profit from 5,952 tons shipped to mill and smelters.
- 1933 Leasers mined and shipped 4,444 tons to smelters.
Mill leased to General Metals Recovery Corp. to treat huge pile of leached-sand tailing at mill.
- 1934 Thayer Lindsley became President to 1938, and from 1942 to 1948.
8972 tons shipped from mine valued \$451,333; company recd \$85,634 royalties, with profit for year of \$63,104 plus 5,900 from mill lease.
- 1933 Silver sold at world price of 34.7 ¢/oz
On Dec. 21, 1933 govt purchase of newly mined silver was set at 64.64 ¢/oz or half coverage value of \$1.2928 per ounce, and on February 1, 1934 gold was raised from \$20.67 to \$35.00 per oz.
Value of a 30 oz silver and 0.30 oz gold ore was raised from \$11.03 in 1933 to \$20.45 in 1934 giving impetus to leasing operations.
- 1935 100 sets leasers shipped 11,821 tons, value \$522,834 - paying company 91,792 in Royalties
General Metals Resources treated 176,500 tons sand tailing producing \$243,577 and paying \$23,000 in royalty.
- 1936 13,000 tons ore at \$109,000
194,000 tons tailing - \$26,000
- 1937 12,196 tons ore at \$104,000 - tailing \$10,390
All sand tailing pile treated by Oct. 37.
Mill closed and later lease was cancelled.

1938 Decreased tonnage and lower grade profit from mining \$67,551

1939 Profit from mining \$39,661

1940 do 10,873 tons 41,947 avg. 0.364 oz Au & 31.72 oz Ag.

1941 do 9,000 tons 36,061

1942 do 16,523

1943 do 2,423

1944 Loss \$10,00 and only 7 sets leasers working.

1945 Fire at Mizpah shaft plant.

1946

1947

1948 Leased to Russell Mining Co - hauling ore from McGill.
Operation terminated Nov. 30, 1948 after 48 years
continued mining.

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Seventh Ann Rpt - 2-28-09

Install 200 gpm on 12th L. Mizpah - water encountered 1260 foot
depth in sinking.

New vein discovered on 500 ft L. near Red Plume shaft - is eastern
extension of vein mined by Ton Ext - 7-foot width or more.
(Red Plume vein).

Vein under Buckboard claim on 600 L. from Mizpah shaft - 250-ft
long and 7-ft wide.

Eighth Ann Rpt - 2-28-1910

300 HP motor on Mizpah hoist.

Water flow in Mizpah shaft increased to 75 gpm.

Deep development sinking Mizpah shaft to depth of 1517 feet; all
in lower rhyolite below 900 foot level.

Hole #5 driven vertically 653 feet in lower rhyolite from point
100 ft south of Mizpah shaft on 1500 ft level

Hole #6 run horizontally 544 ft to south from same point-in lower rhyolite

Hole #4 driven vertically from point near Silver Top shaft on 740 ft
level; ended 1393 feet below 740 ft. level in lower rhyolite -
gold at 20.67; silver at 50 ¢/oz

Stopped sinking Mizpah August 1909 - 238'
 Stopped sinking Red Plume May 1909 - 167'
 Started sinking Sand Grass Dec. 1909 - 137'

Ninth Ann Rpt 2-28-1911

Burro veins developed.
 Valley View footwall veins No. 1 & 2 discovered.
 Small amt work on Desert Queen vein on 540 L SilverTop;
 Development at Sand Grass shaft stopped.
 Hole No. 5 extended from 653 to 1316 vertically - Tonopah rhyolite -
 stopped.
 Hole No. 10 - down 224 feet at steep angle to south - in Tonopah
 rhyolite - stopped.
 Shaft sinking Sand Grass stopped October 451 ft.

Eleventh Ann Rpt 2-28-13

Red Plume shaft sunk 100.5 in Oct & Nov. - station cut corresponding
 to 8th L. Mizpah
 New vein encountered in westerly portion of Red Plume.
 Sand Grass shaft being sunk to develop large flat-dipping vein which
 lies on upper contact West End rhyolite.
 Diamond drill holes - one assay value \$9.26 small stringer; other
 7.94 vein of some size qtz rhodonite and silver sulfide - same
 as flat vein mentioned?
 New veins encountered on 600-foot L Red Plume.

Twelfth Ann Rpt 2-28-1914

San Grass shaft sunk additional 448 feet.
 Connection on 6th L. (550 ft point) to Ton Ext complete; direct
 communication with Red Plume 7th Lev.

Total mining costs - labor	\$1.977
supplies	<u>.720</u>
power	<u>.269</u>

Direct	2.996
Indirect	<u>.312</u>

Total \$3.278

Last Chance Vein - Red Plume shaft - opened from 4th L. (capping)
to 7th L. - very high grade.
West End Vein - 6th L. value 15.00 ton.
Sand Grass shaft - cross cut at 1,000 ft. L. has cut vein - same as
worked in West End, MacNamera, Tonopah Extension & Merger.
100 stamp mill optd continuously 95.9% of time with 4.95 tons ore
ore mill per stamp per 24 hours.
Milling costs 14 ¢ high due to lower tonnage and higher copper in
Red Plume ore; consumption of cyanide .54 lbs more per ton;
added 10¢ to milling costs.

Thirteenth Ann Rpt 2-28-15

Option on Mizpah Extension as of 1-17-15 for 2 yrs.
Discontinued night shift work at older shafts.
Starting to ship dump ores May 1, 1914 at 3000 dry tons/month.
Filter equipment not making satisfactory saving of dissolved metal values.
No shaft sinking - no D.D.- no excavation

Seventeenth Ann Rpt 12-31-18

Mining operations carried on continuously thru Mizpah, Silver Top
and Sand Grass shafts.
150 tons shipped to Belmont mill from Mizpah & Silver Top.
Mine operations consisted essential of recovering old pillars, trying
ends and backs of stops which had been discontinued when the
price of silver was low and underhand stoping of blocks of ore
below old drifts -- resulted in discovery of considerable amount
of high grade ore.

cost - labor	3.214
supply	.994
power	.347
	<hr/> 4.555
	.690
	<hr/> 5.245

Several parallel shoots of ore near Mizpah and Silver Top shafts opened.
Resumption of work on Mizpah Fault vein on 500 L Mizpah developed con-
siderable body of ores.
San Grass - development from winze below 1140 level failed to locate
bodies of commercial ore.

Twenty-seventh Ann. Rpt

Fortieth Ann Rpt

Leasing system - 9838 dry tons shipped to smelter.

Individual leases 35; decrease of ten.

Millers plant sold.

As usual, greater part of tonnage mined from small streaks, pillars,
reclaiming ore from caved areas, and from backs and ends of old stope.

In 1939 TMCO became part owner of the
Ventures Ltd., of Canada.

mine in Nicaragua with

In 1940 dismantled Millers mill and all the tailing about 2 million tons
slime were sold to Technical Operators, Inc. Mark Bradshaw and
Albert Silver.

Closed down with sale of equipment.

Burned.

TMCo produced greatest tonage - approx 2 1/2 million tons

Greatest dollar output 50 million

Largest dividends - 17 million (over 1/3 gross prod)

50 mile development work

513,000 oz Au.

45,000,000 oz Ag.

Paid small dividend yearly for last 10 years (1900)

The Tonopah Mining Company of Nevada

History and production.- The property of the Tonopah Mining Company of Nevada includes the original eight claims staked by Jim Butler and in addition 30.2 acres of ground originally owned by the Merger Company but given to the Tonopah Mining Company as a result of their apex litigation with the Tonopah Extension Company. The total acreage of the company at Tonopah is 160.13 acres. More than 50 miles of underground workings have been driven from the five shafts in this area. The Mizpah shaft, which originally extended to a depth of 1500 feet but is now closed below the 600-foot level, is the main shaft. The Silver Top shaft to the south, bottoming on the 700 foot level, and the Sandgrass shaft to the east, extending to the 1140-foot level were both used in 1930. The Red Plume shaft between the Mizpah and the Sand Grass is bottomed on the 800-foot level but has not been used for hoisting to the surface for many years. A small auxilliary hoist on the 600-foot level was used to raise ore from the two bottom levels in 1929. The fifth shaft, the Desert Queen, reached the 1100-foot level, but has been leased to the Belmont Company the greater part of the time since it was sunk. In recent years it appears to have been used only to lower or hoist ores to the 1,000-foot level of the Belmont shaft. All five shafts are interconnected on one or more levels

but the 600-foot level of the Sand Grass is equal to the 700-foot levels of the Mizpah, Red Plume, and Silver Top shafts and to the 800-foot level of the Desert Queen shaft.

The company acquired possession of the Butler claims in 1901 but did not start shipments until the first part of 1902. Development work was actively prosecuted during the succeeding few years and ore shipments were relatively small until the completion of the Tonopah and Goldfield Railroad, financed by the Company, late in 1904. The completion of a 100-stamp mill, 12 miles west of Tonopah at Millers, in October, 1906, caused another large increase in the tonnage of ore mined. After reaching a maximum production of 4,700,000 ounces of silver and 52,000 ounces of gold in 1909 the production gradually declined through 1919. In that year the mill was closed and ore was shipped to the Belmont mill for treatment. Early in 1920, however, the Millers plant was reopened as a custom mill, and has operated nearly continuously since then. The mine production since 1919 has been rather erratic ranging from 400,000 to 860,000 ounces of silver annually until the cessation of company operation on February 26, 1930. In October, 1930, the mine was reopened for leasing.

The company through 1929 had paid \$16,875,000 in dividends and had in addition retired preferred stock amounting, with interest, to \$380,557.51. It had in addition either a large or controlling interest in a number of mining properties in Canada, Nicaragua, and Colorado, as well as its interests in the Tonopah and Goldfield Railroad, and local water, power, and mercantile companies.

The following production figures for the company, collected
by the U. S. Geological Survey and the U. S. Bureau of Mines, are published
by permission of Mr. H. A. Johnson, superintendent for the company at
Tonopah:

Production of the Tonopah Mining Company of Nevada

Year	Tons	Gold in ounces	Silver in ounces	Oz. Au per 100 oz. Ag
1900	2	?	?	
1901 ^{1/}	2,534	9,774.35	623,516	1.567
1902 ^{2/}	11,553	27,112.00	2,412,088	1.124
1903 ^{3/}	4,067	12,577.50	1,185,864	1.061
1904	8,020	? 7,831.38	1,060,000	.738
1905	43,752	31,702.92	2,855,068	1.112
1906	58,527	34,742.93	3,190,570	1.088
1907	140,755	32,793.99	3,016,880	1.087
1908	156,814	50,142.04	4,475,191	1.120
1909	164,987	52,462.00	4,705,542	1.115
1910	175,813	50,279.00	4,587,221	1.097
1911	174,919	46,762.00	4,293,592	1.088
1912	177,964	37,329.00	3,460,424	1.079
1913	168,283	37,225.00	3,137,054	1.187
1914	120,473	35,013.00	2,875,988	1.218
1915	143,685	27,625.00	2,406,817	1.148
1916	97,113	17,636.00	1,497,518	1.176
1917	109,263	16,929.00	1,443,368	1.173
1918	171,425	14,486.71	1,396,074	1.038
1919	41,306	6,504.00	598,662	1.086
1920	63,566	7,440.00	665,165	1.118
1921	44,318	6,284.61	564,601	1.113
1922	75,069	9,595.00	859,000	1.117
1923	61,714	8,990.00	850,415	1.057
1924	24,067	5,941.00	571,649	1.040
1925	19,728	4,351.25	426,565	1.021
1926	19,491	5,678.00	511,823	1.109
1927	25,625	6,676.58	610,992	1.093
1928	? 28,898			
1929	? 33,483	? 6,765.00 6,681.00	? 684,584 636,988	1.049
1930				
1931				
1932				

^{1/} Entirely production by lessees.

^{2/} Company production reported to be about one-sixth of this amount. Balance by lessees.

^{3/} Lessees in 1903 shipped 3500 tons of ore containing 9675.00 ounces gold and 1,523,809 ounces silver. Most of this probably came from Tonopah Mining Company property.

Annual production of the Tonopah Mining District, Nevada, 1900-1932.

Year	Tons	Gold in ounces	Silver in ounces	Value in dollars	Ag price
1900 ^{1/}	2	3 50	5	\$600 Lincoln	\$0.62
1901 ^{2/}	DM 2,534	9,774.35	623,518	576,145 DM	0.60
1902 ^{3/}	USGS 11,682	27,425.35 26,462.58	2,437,118 2,434,453	1,837,290 calc	0.53 50?
1903 ^{3/}	9,065	25,225.04 25,279.60	3,025,512 2,548,430	1,898,728 calc	0.54 53
1904 ^{4/}	18,592	18,665.84	2,108,278	1,594,893	.58
1905	81,396	58,356.94	5,369,439	4,449,487	.61
1906	106,491	63,113.76	5,697,928	5,122,289	.68
1907	214,357	57,250.36	5,334,086	4,739,966	.66
1908	273,176	78,584.75	7,172,422	5,425,861	.53
1909	278,743	67,742.46	7,872,967	5,494,600	.52
1910	365,139	111,441.58	10,422,869	7,932,475	.54
1911	404,375	114,479.19	10,868,268	8,126,677	.53
1912	479,421	107,580.08	10,144,987	8,463,079	.615
1913	574,542	126,444.68	11,563,437	9,598,733	.604
1914	531,278	128,137.32	11,388,452	8,946,987	.553
1915	516,337	107,827.05	10,171,374	7,385,870	.507
1916	455,140	93,917.21	8,734,726	7,688,891	.658
1917	470,122	74,474.72	7,068,737	7,364,168	.824
1918	? 501,190	62,294.70	5,929,920	7,217,665	1.00
1919	268,658	37,336.05	3,568,875	4,768,944	1.12
1920	387,489	51,131.68	4,816,055	6,306,486	1.09
1921	367,909	48,331.15	4,623,901	5,622,995	1.00
1922	472,865	57,048.74	5,436,080	6,615,382	1.00
1923	371,946	53,567.03	5,176,306	5,351,900	.82
1924	285,707	56,211.42	5,032,043	4,533,462	.67
1925	197,409	33,070.26	3,070,409	2,814,487	.694
1926	127,252	21,965.48	2,052,956	1,735,120	.624
1927	125,790	22,254.60	2,167,694	1,689,127	.567
1928	103,109	check 20,079.10	1,900,315	1,526,719	.585
1929	121,447	check 20,059.41	1,965,595	1,462,291	.533
1930	114,499	406,306 19,655.07	1,931,194	1,149,848	
1931	16,534	9,582.15	650,000	437,004	
1932			400,000		

- ^{1/} Lincoln, F. C., Mining districts and mineral resources of Nevada, p. 186, 1923.
- ^{2/} Annual Report Director of the Mint, Production of Precious Metals in the United States for 1902, p. 164, 1903. Unpublished figures of the U. S. Geological Survey for this year show a production of 2,398 tons containing 7,215.00 ounces of gold and 541,926 ounces of silver.
- ^{3/} Unpublished figures of the U. S. Geological Survey. The Report of the Director of the Mint (Production of Precious Metals in the United States for 1902) gives the production for 1902 as 11,258 tons containing \$558,858.30 in gold and \$1,234,270.99 in silver.
- ^{4/} Annual reports on the Mineral Resources of the United States prepared by the U. S. Geological Survey until 1924 and by the U. S. Bureau of Mines since 1924.