

DESCRIPTIVE STATEMENT & REPORT OF THE ASSETS
AND RESOURCES OF THE LONGSTREET MINE & MILL
WHICH ARE THE PRINCIPAL ASSETS OF THE GOLDEN
LION MINING & MILLING CORPORATION.

LOCATION & PROPERTY: The property is situated in the Longstreet Mining District in the north central part of Nye County, about 60 miles from Tonopah, the County Seat and Railroad point for the property. Forty miles of the road between the mine and Tonopah is a gravel surfaced state highway. The other 20 miles is a road (desert road) and is kept in repair by the County & Company. The mine is 7000 feet above sea level and is on the NE slope of the Monitor Mountains. A plentiful supply of pinion (native pine) surrounds the camp. This pinion assures a supply of wood for camp purposes, also for mine timber. Water from a natural spring (about 80 degrees) is piped by gravity from a distance of 2 miles to the property. This warm water is wonderful thing for the property for it prevents freeze-ups in the winter and also keeps the solutions hot in the mill and greatly aids the extraction in the metallurgical process to which the ores are subjected. There is sufficient water piped to the mine from the spring to run a 500 ton plant and also supply all water for camp use.

The property consists of the following Lode Claims:- Mountain Lion's 1 to 7, also three placer claims known as the Golden Seals 1 to 3. This placer ground has considerable merit and should be developed into a valuable holding by the company.

TITLE TO CLAIMS: The title to the seven Mountain Lode claims is held by the Company on a QUIT-CLAIM DEED paid in full to Jack Longstreet and O.K. Reed. This gives the company complete right to the ground. The water rights and Placer claims are included in this Deed. This makes seven mining claims, 60 acres of placer ground that are held by the company by Deed and from the original locators.

GEOLOGY & VEINS: The general country rock is rhyolite consisting of two distinct flows. The upper or capping flow is of later, or new rhyolite; it is dark reddish brown in color with a coarse grain structure.

The second or ore bearing rhyolite is an older flow of rhyolite; it is fine grained having a grayish white color, comparable in structure to the Oddie Rhyolite of Tonopah. It has been ruptured by numerous dykes on the footwall side. A porphyritic intrusion in this rhyolite forms the hanging wall of the main vein. The porphyritic intrusion has in itself been ruptured by several large veins which are approaching the main vein from an angle of about 45 degrees, or from a NW direction. The first of these porphyry veins should intersect the main rhyolite vein in the 1000 foot level at about 250 feet west of the lower X cut, and a greatly enlarged and enriched ore body should be encountered at this point. The vein is a true fissure vein having an east and west trend, with a dip of 50 degrees to the North. Both walls are well supplied with a talc gouge ranging from one inch to several feet in thickness.

The ore is a crushed material composed of quartz interlaced with talc. The ore was apparently formed by upward percolation of ore bearing solutions and should extend to great depth. The upper portion of the mine is a highly oxidized state. The mineral is free gold and horn silver, or cerargyrite, and argentite or silver sulphide.

The gold is the predominating mineral in the upper or oxidized zone, while the transition zone the silver becomes the more predominate. The ore becomes a silver ore in the sulphide zone with gold as the accessory mineral. This condition shows that the upper zone has been leached of part of its silver value. This silver has been reprecipitated as a secondary sulphide in the sulphide zone and with more depth the sulphide zone should be considerably richer than the sulphides that are now exposed. I make this statement because the sulphides that are now exposed, are still in the transition zone as evidenced by oxidized and semi-oxidized places in the lower level. This oxidation will ease with depth and the true sulphides will come in with probable secondary enrichment of the primary sulphides that should extend to considerable depth. The porphyritic veins on the hanging side have values scattered here and there, and with depth should become valuable producers.

ECONOMIC MINING: The upper portions of the ore body are well developed. The vein is opened for a distance of 600 feet on the 700 foot level, ALL MILL ORE. A X cut having its portal at the mills cuts the vein at an additional depth of 300 feet. A raise on the ore connects this level with the upper level. Drifts in both east and west directions are out about 100 feet on the lower level. These drifts are in ORE ALL THE WAY. A raise connecting with the shaft 400 feet above the upper level gives a good air supply as well as making 400 feet more of ore available for sampling. The outcroppings are still 300 feet above this point and from ore exposed in the open cuts on the outcroppings I would say the actual ore opened up is of a depth of 1000 feet from the lower level to the outcropping.

An enriched mineralized zone starts from the outcropping and dips to the west. This zone was cut on the 700 foot level and some stoping was done there. It is also cut about 200 feet above the 1000 foot level in the connecting raise and the west drift on the lower level should enter this zone in another 100 feet of work. This enriched zone or ore chute makes an excellent reserve to draw on to keep the mill heads up to a maximum value. The vein is 4 feet wide at the eastern portal of the 700 foot level, and is 14 feet wide at the western heading of the 700 foot level. This western heading is 780 feet from the portal at the present writing.

The vein on the 1000 foot level is 4 feet wide in the eastern heading and over 20 feet wide in the western heading. A tremendous ore body should be encountered in another 250 feet of drifting west from this point, for it would be where the porphyry vein makes a junction with the rhyolite vein. Samples from the vein indicate that it is getting richer as it penetrates to the west. The ore should be at its maximum value at this junction.

There are no breaks in this ore body and with raises already penetrating it mining should be done for \$0.75 per ton or cheaper. The ore is shot down and flows with gravity down the 50 degree raises to a lower level and is thence trammed to the mill. The hanging and footwalls both stand well and only a minimum amount of timbering is required. The ore is soft and the caving or shrinkage system can be used through the whole of the upper part of the vein. These natural conditions and developments already made by the Company make for the cheapest kind of ore extraction.

The ore in the lower level is on a whole of better average value than that of the upper level and should be explored and developed by the Company. A shaft should be sunk at a point about 200 feet lower than the lower tunnel level and another cross-cut run to intersect the vein. This shaft should be at least 200 feet deep as this would make an additional 400 feet of depth on the vein and this crosscut should hit the vein in the enriched zone of primary sulphides. The ore that is already exposed and ore that could be exposed by future development should make this property one of the largest gold and silver producers in Southern Nevada.

WORKINGS: The total amount of workings surveyed amounted to 2, 554.9 feet. The only such workings as were on the mineralized part of the vein were sampled.

SAMPLING & ASSAYING: The following comprises a table of the samples taken and their value. The numbers from 1 to 245 are indicated and correspond with the map submitted.

NUMBER	TOTAL VALUE Gold & Silver	NUMBER	TOTAL VALUE Gold & Silver
1	\$ 7.30	2	\$ 5.05
3	5.20	4	10.95
5	10.10	6	15.35
7	11.40	8	14.05
9	11.90	10	18.65
11	16.40	12	14.90
13	-----	14	10.40
15	9.70	16	8.40
17	9.00	18	8.05
19	25.30	20	32.70

NUMBER	TOTAL VALUE Gold & Silver	NUMBER	TOTAL VALUE Gold & Silver
21	12.95	22	29.25
23	26.15	24	23.90
25	31.10	26	15.60
27	57.95	28	9.85
29	13.70	30	19.90
31	8.30	32	7.05
33	7.45	34	.75
35	6.00	36	10.70
37	13.20	38	7.60
39	6.35	40	3.85
41	3.80	42	10.30
43	11.55	44	12.95
45	3.80	46	7.50
47	18.40	48	13.80
49	7.35	50	6.30
51	14.20	52	31.10
53	20.80	54	3.20
55	8.60	56	8.15
57	3.85	58	2.65
59	3.90	60	6.10
61	4.70	62	7.85
63	9.15	64	12.90
65	9.05	66	8.55
67	6.10	68	6.15
69	8.15	70	3.85
71	30.25	72	30.15
73	23.00	74	18.20
75	15.95	76	7.10
77	8.00	78	7.40
79	6.20	80	7.00
81	9.60	82	7.20
83	5.90	84	16.30
85	8.10	86	7.10
87	6.95	88	6.15
89	10.00	90	11.30
91	12.50	92	10.40
93	10.15	94	10.60
95	12.10	96	9.40
97	8.07	98	5.10
99	7.85	100	6.60
101	19.40	102	15.60
103	12.75	104	8.50
105	6.55	106	5.70
107	3.70	108	6.00
109	9.15	110	10.00
111	7.35	112	10.10
113	19.40	114	18.65
115	9.85	116	5.80
117	8.85	118	7.80
119	9.70	120	12.50
121	8.60	122	11.90
123	26.80	124	22.60
125	21.30	126	6.55
127	5.80	128	5.40
129	4.80	130	5.30
131	7.30	132	8.07
133	55.95	134	7.40
135	16.45	136	1.25
137	2.50	138	8.55
139	7.60	140	9.50
141	10.40	142	8.30
143	8.65	144	6.90
145	5.65	146	11.65

NUMBER	TOTAL VALUE Gold & Silver	NUMBER	TOTAL VALUE Gold & Silver
147	10.25	148	9.35
149	8.85	150	10.10
151	7.80	152	6.55
153	7.55	154	8.60
155	6.50	156	4.70
157	11.15	158	14.55
159	14.20	160	13.45
161	10.75	162	11.50
163	20.20	164	19.50
165	6.90	166	6.50
167	7.50	168	5.75
169	9.60	170	4.10
171	4.40	172	5.90
173	7.00	174	4.56
175	5.10	176	6.36
177	3.00	178	4.00
179	4.30	180	4.35
179	4.30	180	4.35
181	5.50	182	4.20
183	4.35	184	5.20
185	2.20	186	6.30
187	4.40	188	3.85
189	2.60	190	5.90
191	6.00	192	4.40
193	4.60	194	5.80
195	5.10	196	4.90
197	4.70	198	5.30
199	4.80	200	4.20
201	4.60	202	4.40
203	10.25	204	4.30
205	1.90	206	1.50
207	2.20	208	2.60
209	2.10	210	2.10
211	4.05	212	10.00
213	7.35	214	16.16
215	10.10	216	8.10
217	15.30	218	4.25
219	5.45	220	26.80
221	3.20	222	7.35
223	4.55	224	4.95
225	4.00	226	4.65
227	3.10	228	12.90
229	21.70	230	31.00
231	8.85	232	2.75
233	8.30	234	0.95
235	9.60	236	14.25
237	15.80	238	7.40
239	19.90	240	8.50
241	10.40		

Surface cuts

242	Cut No. 1	9.25	243	Cut No. 2	9.75
244	Cut No. 3	17.85	245	Cut No. 4	3.60

All samples were taken at intervals of six feet on the vein on the 700 foot level, at five feet intervals on the 1000 foot level, and five feet intervals on the raises. Each sample measured exactly five feet in length and was cut with a hammer and moil.

The Average of the Above samples as computed is in the amount of the sum of \$10.90 per ton.

TONNAGE: To measure to an exact certainty the amount of positive milling tonnage in sight would be quite impossible without a great deal of time being spent for that particular purpose. Therefore, from such measurements as I have been able

to take there is an excess of 410,000 tons ~~with an excess of \$10.90 per ton and allow-~~
~~ing~~ of milling ore in sight that can be mined for \$0.75 per ton or cheaper.
It has a computed value of \$10.90 per ton. Or, estimating 410,000 tons with a
value of \$10.90 per ton and allowing 6% metallurgical loss there is roughly \$4,172,
660.00 worth of positive ore exposed on three sides. This ore will run the present
mill for ten years. Roughly four million one hundred seventy two thousand six
hundred and sixty dollars in sight of positive ore exposed on three sides.

MILLING: Milling as practiced at present consists of crushing run of mine rock in
a Blake type jaw crusher. Primary grinding in a Hardinge ball mill, with
cyanide solution, fine grinding in Allis type tube mill in a closed circuit with a
Dorr Classifier. Classifier overflow goes to a Dorr thickener and thence to three
Devereaux agitators and two more Dorr thickeners. Tailings from last Dorr thick-
ener are filtered on a 100 ton Oliver Filter to insure a further reduction of sol-
uble losses. The continuous counter current decantation system is used throughout
the mill.

Pregnant solutions are precipitated with zinc shavings, 100 tons of ore per 24
hours is the capacity of the present mill. An extraction of 94.5% is being made
at the present and the cost is about \$3.00 per ton. This cost includes hauling
mill supplies and oil for the engines. The mill is arranged so that a line shaft
and counter shaft drives all the machinery. The prime mover is a 100 H.P. Fair-
banks Morse type Semi-Diesel. The mine compressor of seven drill capacity is lo-
cated in the mill building and is belt driven, by a 75 H.P. Verin Severin engine
of the same type as the mill engine.

A further reduction of costs can be made by milling in a flotation unit, although
the ore is well adapted to cyanidation and would offer no objection to the cyanide
process except in the increased consumption of cyanide.

RECOMMENDATIONS: I would recommend you to build a 100 ton addition to the present
mill of 100 ton capacity to increase capacity to 200 tons per day
and to cut costs of milling to a lower figure.

Build a 100 ton flotation unit with room for expansion to take care of the sul-
phides at present developed and that can be developed.

Sink a 200 foot shaft at a point 200 feet lower than the lower tunnel level and
cross cut the vein in the sulphide zone, also drift both ways on the vein on this
level.

Extend the present cross cut on the 1000 foot level until the foot wall dykes are
cut. Float found above the present outcrop indicates a vein parallel to the pres-
ent vein somewhere in the footwall.

CONCLUSIONS: From the foregoing it can be seen that the raising of money to in-
crease this capacity of the mill and for further developments of the
mine could not rightfully be termed a speculative venture, and the writer unhesita-
tingly recommends the property of the GOLDEN LION MILLING & MINING CORPORATION as
one of merit.

Feb. 16, 1929

Respectfully submitted,

J.M. Butler, E.M.
Consulting Engineer.

NOTE: A correction is to be noted in the above report. At this date of reproduc-
tion, 1936, the distance from Tonopah to the mine is 50 miles. Of this
distance there is now 16 miles of pavement and the remainder of the main highway
used is to be paved in the very near future. Leaving but 20 miles of other than
a highly improved highway to be used.

C.G.B.