— Au + Ag

Nye Hunt-Sill Calf County. Nevada

2900 0027

Longstreet Mine.

ITEM 27

Mine Equipment.

1st. level of mill.
- 3 Zinc Boxes 2 x 14 feet.
- 1 Filter Wheel 8 to 10 feet high.

2nd. level.
- 1 20 X 10' Wood tank.

3rd level
- 1 25'X 10' Wooden tank.
- 2 14'X 10 Wooden Tanks.
- 1 20'X 10' Wooden tank.

4th level
- 1 25'X 10' wooden tank.

5th level
- 1 Chicago P. Tool Co. Compressor and Engine. Good
- 1 Fairbanks Morse 2 cylinder Diesel Engine Old.
- 1 about 10 H.P. Gasoline Engine Condition Fair.
- 1 5'X 15' Classifier.
- 1 4'X12' Ball Mill. Good shape.
- 1 Jaw Crusher.
- All belting has been removed.
- Necessary shafts and pulleys in place.

6th level.
- 1 ore bin
- 1 Crusher.

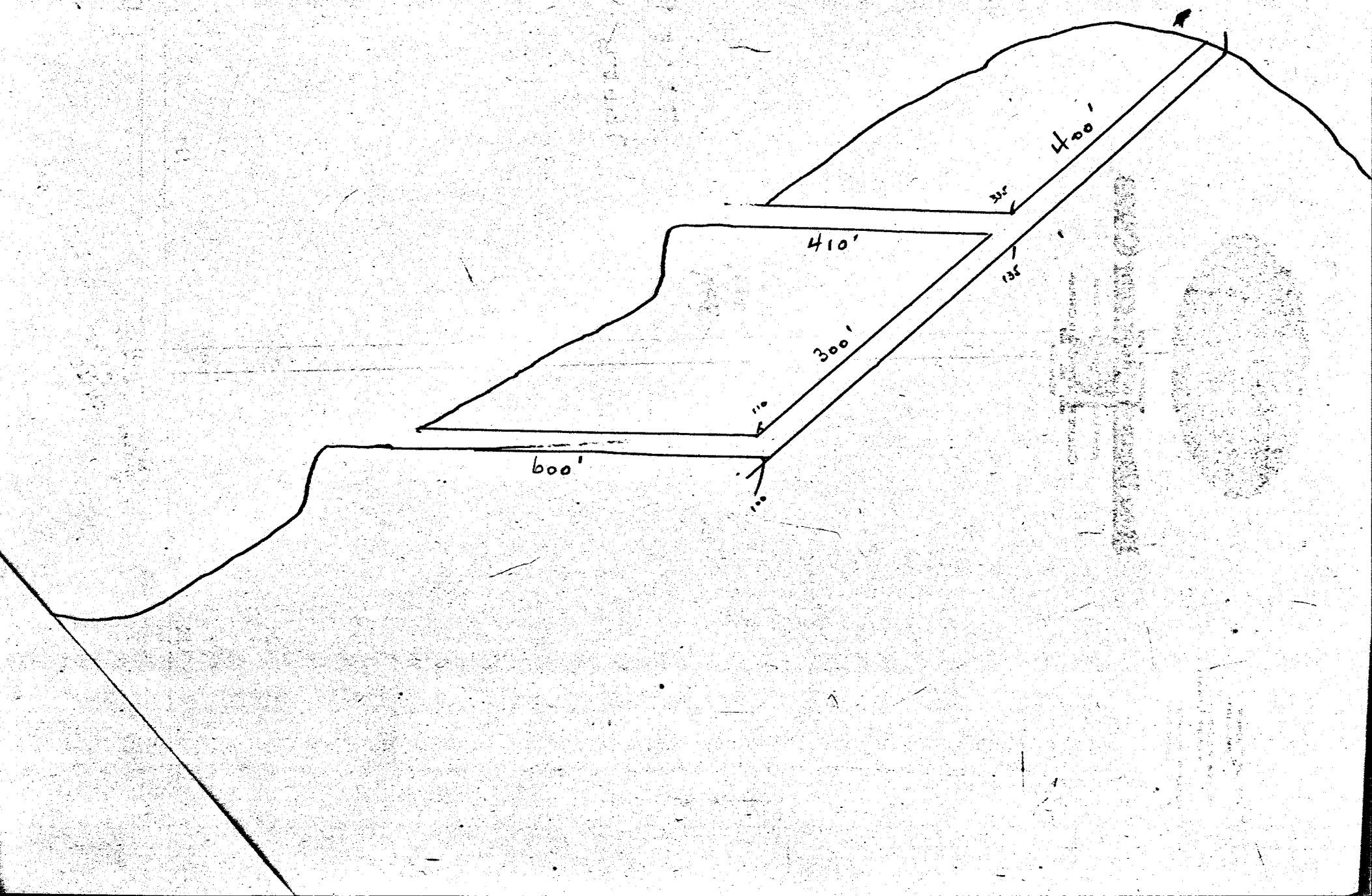
7th level
- 2 ore cars and gravity incline.
- 1 125' trestle.

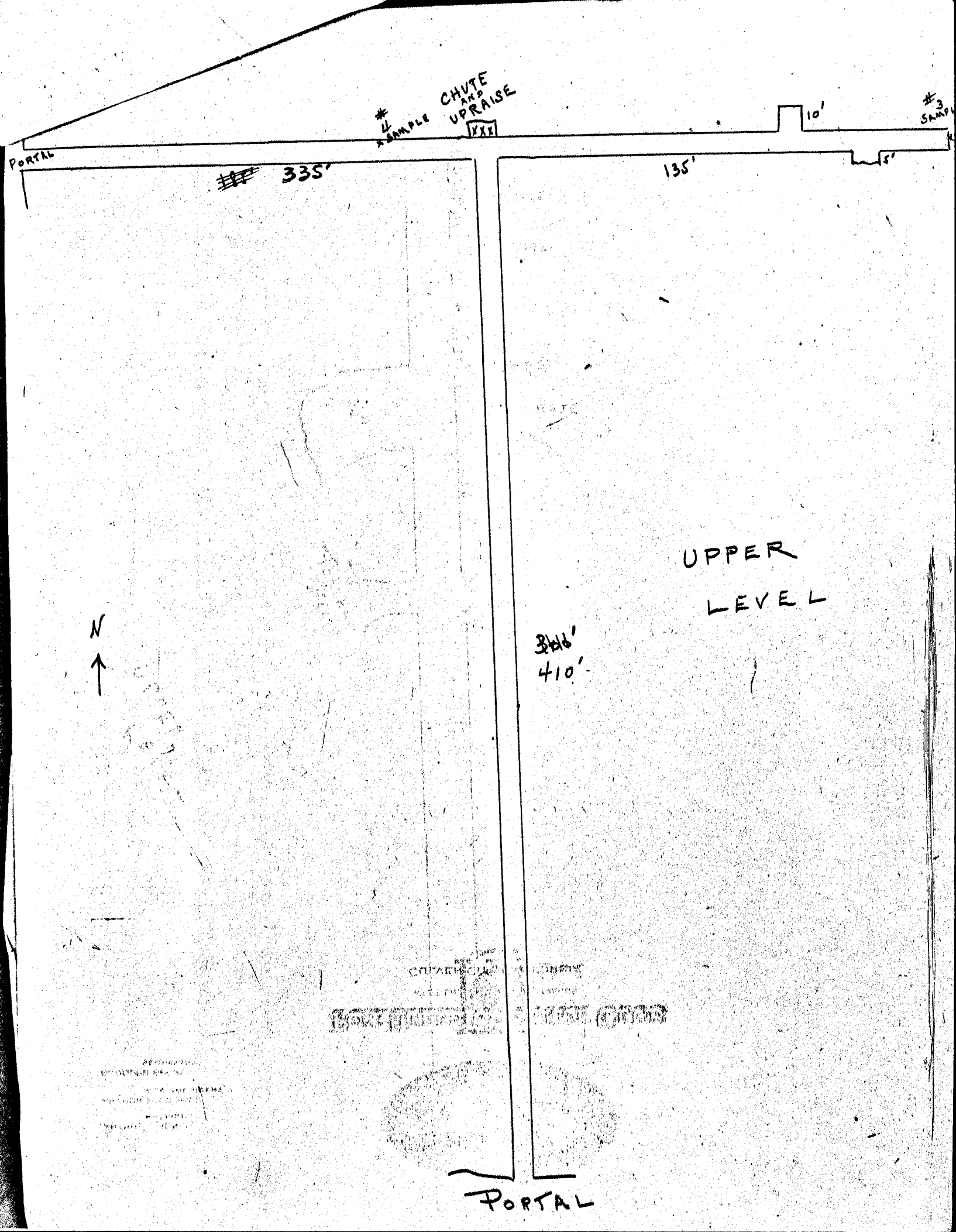
8th level
- 1 ore bin new.
- an old mill site foundation at this level with discarded con. table.
- 1 50' ore chute from level above.

9th level
- 1 ore bin new.
- 1 Blacksmith shop
- 3 mine cars.
- 1 blower and hand steel small tools.
- entrance to lower level.

Other Equipment.
- 2 Fuel oil tanks about 700 gallons. Metal
- 2 Fresh water tanks 1000 galons. Wood

# CROSS CUT SECTION.




#4 SAMPLE
CHUTE AND UPRAISE
10'
#3 SAMPL
PORTAL
335'
135'
5'
UPPER
LEVEL
N
410'
PORTAL

EAST PORTAL

185

14' STOPE

3'

ORE CHUTE

18'

ORE STOPE

20'

20' ORE CHUTE

15'

30' STOPE

5

ORE CHUTE

25'

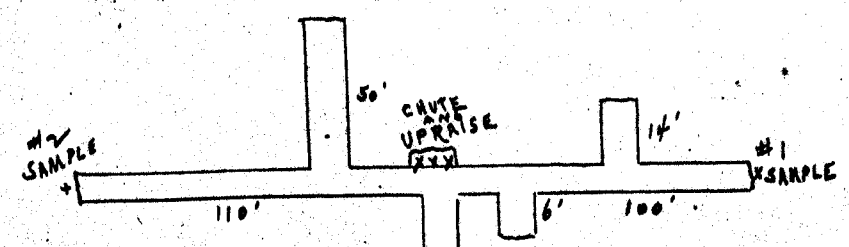
54

XX

UPRAISE

TO PORTAL NORTH

UPPER LEVEL




LOWER LEVEL

600'

N

General Conditions.

Mine is absolutely dry in every particular. water level will be found about three hundred feet below lower workings.

A 2" pipe line brings a supply of mine water that is said to be sufficient for milling purposes from up the canyon 4 miles. this water is warm and does not freeze in winter.

All tunnels are in fine condition. each has tracks and air lines in good condition.

Mine needs no timbering, standing well for many years to come. A supply of small pines on the property for camp use.

On the property are buildings to house a crew of twenty men. all in good condition. consists of Mess Hall, five houses, stable and office building.

Snow in the winter never exceeds four feet and roads can be kept open with little work.

Property is 21 miles off the main Ely highway 28 miles north east of Tonapah. 427 miles from Los Angeles.

Mill is poorly located, should be rebuilt and placed 300 feet lower. Tunnel should be driven at this level to strike vein about 600 feet.

Vein on both upper and lower tunnels very badly leeched. better values should occur at depth.

Vein is well defined with hanging wall and is from six to fifteen feet in width.

Vein piches to the north at about 50 degrees. Foot wall not well defined.

Upper levels Gold about 60% silver 40% Lower levels the reverse holds true.

Assay map of 254 samples show average value of $10.90 based on gold $20.67 and silver $ .90 ounce. At todays price of gold and silver this would equal 12.11

Mine has never had a chance to operate profitably. used as a promotion by men other than mining men.

Samples were made at the end of the drifts on the lower level, about thirty pounds picked from accross the face and on each wall taken with no effort to seperate quartz from rhiolite. these ran $ and $ . per ton gold and $ . and $ . Silver.

Two samples taken on upper level in similar manner ran $ and $ per ton gold and $ and $ Silver.

# Longstreet Mine.

This mine was started in 1904 by a man by the name of Longstreet, where it gets its name. Longstreet was a Cowman of Nevada and did well in that line. money made there he sunk into this mine for about twenty years. In the early tweenties he gave it up as a bad job.

About 1924 O.K.Reed relocated the property and for some reason gave Longstreet a ½ interest. At that time Reed and Longstreet spent a few thousand dollars and took out about twenty tons of high grade ore picked from the mine averaging $50.00 per ton.

In 1926 These men sold the mine to Tom Clark and associates. who formed a Company known as the Golden Lion Mining Co.. sold 500,00 shares of stock, spent $60,000.00 for a mill. paid themselves large salaries, knew little or nothing about the mining business. in order to sell this stock a report was written by Jim Butler and 254 assay samples were made. very little confidence can be put in either at this time. knowing the purpose for which they were obtained. Under their operation 600 tons were milled which ran heads of $4.80 and with every effort made to keep heads up. understand only 50% extraction was made. No reason known why such low recovery was made.

In Aug. 1932 the Golden Lion Mining Co. made a bond and lease with R.J.Van Houten, who also formed a Company and sold stock, the amount not learned. $40,000.00 of this money was spent in drifting another hundred feet on the vein on the lower level and repairs to the mill. The name of this Company was the Longstreet Mines Inc. During this operation 90 assays were made that ran from $4.80 to $6.40 based on gold at $20.67 and silver at $ .30 They only ran the mill two days and folded up. What recovery they made is undetermined.

In Oct. 1933 a bond and lease was made by the Golden Lion Mining Co. with John B. Haley but at this writing he has done nothing with the lease except trying to turn it as he is a mine promoter of Reno Nev. and not an operator.

The reputation of the mine has been injured by these promotions and the further fact that many persons have been trying to peddle it during the past three years.

The mine has possibilities and under proper management can be made to return h goode profits.

A study which has never been made of the ore to determine the proper method of extraction, with the necessary changes in mill equipment would be required.

The vein which is from 6' to 15' is mixed with quartz, clay and rhiolite. the clay and quartz carrying the values. A drift on the vein on the upper level is 470' long, vein is straight along this course and no doubt extends through to the west side of the mountain another 500 feet.

254 Samples taken for promotion for the Golden Lion were by local assayer named West now deceased. therefore nothing could be located to substantiate these figures.

90 assays were taken for the Longstreet Mines Inc. were by assayer by the name of Noyes and figures were vouched for by Joe Clifford who helped in this work. A man of reputation living at Stone Cabin seven mines from the property.

Also heard that 27 samples were taken by some New York crowd and they went around $5.00

After due consideration given to these statements I believe assays at this time would run about $5.00 om the old basis which would be $9.85 at todays price.

On a basis of 100 tons per day, cost would run near $4.50 per ton. while a larger operation would cut this figure some it can be seen that a nice profit can be made from the smaller operation.

Weather conditions are ideal, being at an altitude of 7000 feet, the temperature rarely exceeds 80 degrees during the summer. during the winter only two or three light snow falls are experienced with temperatures of about ten above. zero weather might occur every four or five years.

A further investigation should me made in the water supply, particularly during summer months. water is very scarce in Nevada as a rule.

I recommend that Mr. Harley Sill make a through survey of this vein, a study of the ore deposition and sample sufficiently to prove the above statements.

I recommend that he leave right away.

COPY

Tonopah, Nevada

To THE GOLDEN LION MINING & MILLING CORP.,
Thomas, J. Clark, President,
Tonopah, Nevada.

Descriptive Statement and Report of the assets and resources of The Longstreet Mill & Mine 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 rail-road point for the property. Forty miles of the road between the mine and Tonapah is a gravel surfaced state highway, the other 20 miles is a good desert road and is kept in repair by the County and the company. The mine is about 7000 ft. above sea level and is on the Northeast slope of the Monitor Range of Mountains. A plentiful supply of pinion, (native pine) surrounds the camp. This pinion assures a supply of wood for camp purposes, also mine timber. Water from a natural warm spring (about 80 deg. F) is piped by gravity from a distance of about two miles to the property. This warm water is a wonderful thing for this property for it pre-vents 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 ore is sub-jected. 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 com-pany.

## TITLE TO CLAIMS

The title to the seven Mountain Lion Lode Claims are held by the company on a Quit-claim deed paid in full to Jack Longstreet and O. E. 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 or 144.27 acres of lode ground and three full placer claims or 60 acres of placer ground that are held by the company by deed from the original locaters.

## 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, compar-able in structure to the Oddie Rhyolite of Tonopah. It has been ruptured by numer-ous dikes on the footwall side. A porphritic intrusion in this rhyolite forms the hanging wall of the main vein. The prophritic intrusion has in itself been rup-tured by several large veins which are approaching the main vein from an angle of about 45 degrees or from a northwest direction. The first of these porphyry veins should intersect the main rhyolite vein in the 1000 ft. level at about 350 ft. west of the lower cut X, 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 deg. to the north. Both walls are well supplies with a talc gangue ranging from one inch to several ft. in thickness. The ore is a crush-ed material composed of quartz interlaced with talc. The ore was apparently formed by upward percolation of ore bearing solutions and should extend to a great depth.

The upper portion of the mine is in a highly oxidized state. The mineral is free gold, and hornsilver or cerargyrite, and argentite or silver sulphide.

The gold is the predominating mineral in the upper or oxidized zone while in 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 and sulphide zone should be considerable 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 oxidization will ease with depth and the true sulphides will come in with probable secondary enrichment of the primary sulphides that should extend to a considerable depth. The porphritic 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 ft. on the 700 level, all mill ore. A crosscut having its portal at the mill cuts the vein at an additional depth of 300 ft. A raise on the ore connects this level with the upper level. Drifts in both east and west directions are out about 100 ft. on the lower level. These drifts are in ore all the way. A raise connecting with a shaft 400 ft. above the upper level gives a good air supply as well as making 400 ft. more of ore available for sampling. The out croppings are still 300 ft. above this point and from ore exposed in open cuts on the out croppings I would say the actual ore opened up is of a depth of 1000 ft. from the lower level to the outcropping.

An enriched mineralized zone starts from the out-cropping and dips to the west. This zone was cut on the 700 level and some stoping was done there. It is also cut about 200 ft. above the 1000 ft. level in the connecting raise and the west drift on the lower level should enter this zone in another 100 ft. 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 four ft. wide at the eastern portal of the 700 level and is 14 ft. wide at the western heading of this 700 level, this western heading is 780 ft. from the portal at the present writing.

The vein on the 1000 ft. level is 4 ft. wide in the eastern heading and over 20 ft. wide in the western heading. A tremendous ore body should be encountered in another 250 ft. 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 on this junction.

There are no breaks in this ore body and with raises already penetrating it, mining should be done for 75 cents per ton or cheaper. The ore is shot down and flows by gravity down the 50 degree raises to the lower level and is thence trammed directly into the mill. The hanging and foot walls 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 a 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 ft. lower than the lower tunnel level and another cross cut run to intersect the vein. This shaft should be at least 200 ft. deep as this would make an additional 400 ft. of depth on the vein and this cross cut 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 properties in Southern Nevada.

WORKINGS

The total amount of workings surveyed amounted to 2554.9 feet. 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 of Ag-Au | Number | Total value of Ag-Au |
|---|---|---|---|
| 1 | 7.30 | 20 | 32.70 |
| 2 | 5.05 | 21 | 12.95 |
| 3 | 5.20 | 22 | 29.25 |
| 4 | 10.95 | 23 | 25.15 |
| 5 | 10.10 | 24 | 23.90 |
| 6 | 15.35 | 25 | 31.10 |
| 7 | 11.40 | 26 | 15.60 |
| 8 | 14.05 | 27 | 57.95 |
| 9 | 11.90 | 28 | 9.85 |
| 10 | 18.65 | 29 | 13.70 |
| 11 | 16.40 | 30 | 19.90 |
| 12 | 14.90 | 31 | 8.30 |
| 13 | | 32 | 7.05 |
| 14 | 19.40 | 33 | 7.45 |
| 15 | 9.70 | 34 | .75 |
| 16 | 8.80 | 35 | 6.00 |
| 17 | 9.00 | 36 | 10.70 |
| 18 | 8.05 | 37 | 13.20 |
| 19 | 25.50 | 38 | 7.60 |
| 39 | 6.35 | 72 | 30.15 |
| 40 | 3.85 | 73 | 23.00 |
| 41 | 3.80 | 74 | 18.20 |
| 42 | 10.30 | 75 | 15.95 |
| 43 | 11.55 | 76 | 7.10 |
| 44 | 12.95 | 77 | 8.00 |
| 45 | 3.80 | 78 | 7.40 |
| 46 | 7.50 | 79 | 6.20 |
| 47 | 18.40 | 80 | 7.00 |
| 48 | 13.80 | 81 | 9.60 |
| 49 | 7.35 | 82 | 7.20 |
| 50 | 6.30 | 83 | 5.90 |
| 51 | 14.20 | 84 | 16.20 |
| 52 | 31.10 | 85 | 8.10 |
| 53 | 20.80 | 86 | 7.10 |
| 54 | 8.20 | 87 | 6.95 |
| 55 | 8.60 | 88 | 6.15 |
| 56 | 8.15 | 89 | 10.00 |
| 57 | 3.85 | 90 | 11.30 |
| 58 | 2.65 | 91 | 12.50 |
| 59 | 3.90 | 92 | 10.40 |
| 60 | 6.10 | 93 | 10.15 |
| 61 | 4.70 | 94 | 10.60 |
| 62 | 7.85 | 95 | 12.10 |
| 63 | 9.15 | 96 | 9.40 |
| 64 | 12.90 | 97 | 8.70 |
| 65 | 9.05 | 98 | 5.10 |
| 66 | 8.55 | 99 | 7.85 |
| 67 | 6.10 | 100 | 6.60 |
| 68 | 6.15 | 101 | 19.40 |
| 69 | 8.15 | 102 | 15.60 |
| 70 | 3.85 | 103 | 12.75 |
| 71 | 30.25 | 104 | 8.60 |

LAS Nye County



| Number | Total value of Ag- Au |
|---|---|
| 105 | 6.55 |
| 106 | 5.70 |
| 107 | 3.70 |
| 108 | 6.00 |
| 109 | 9.15 |
| 110 | 10.00 |
| 111 | 7.25 |
| 112 | 10.10 |
| 113 | 19.40 |
| 114 | 18.65 |
| 115 | 9.85 |
| 116 | 5.80 |
| 117 | 6.85 |
| 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 | 5.10 |
| 128 | 5.40 |
| 129 | 4.80 |
| 130 | 5.30 |
| 131 | 7.20 |
| 132 | 8.70 |
| 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 | 8.80 |
| 143 | 8.65 |
| 144 | 6.90 |
| 145 | 5.45 |
| 146 | 11.65 |
| 147 | 10.25 |
| 148 | 9.35 |
| 149 | 8.83 |
| 150 | 10.00 |
| 151 | 7.80 |
| 152 | 6.65 |
| 153 | 7.55 |
| 154 | 8.60 |
| 155 | 6.50 |
| 156 | 4.70 |
| 157 | 11.15 |
| 158 | 14.65 |
| 159 | 14.20 |
| 160 | 13.45 |
| 161 | 10.75 |
| 162 | 11.50 |
| 163 | 20.20 |
| 164 | 19.50 |
| 165 | 6.90 |
| 166 | 6.60 |
| 167 | 7.50 |
| 168 | 5.75 |
| 169 | 9.60 |
| 170 | 4.10 |

| Number | Total value of Ag - Au |
|---|---|
| 171 | 4.40 |
| 172 | 3.90 |
| 173 | 7.00 |
| 174 | 4.60 |
| 175 | 5.10 |
| 176 | 6.35 |
| 177 | 3.80 |
| 178 | 4.00 |
| 179 | 4.20 |
| 180 | 4.35 |
| 181 | 5.60 |
| 182 | 4.20 |
| 183 | 4.35 |
| 184 | 3.20 |
| 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 | 3.80 |
| 195 | 5.10 |
| 196 | 4.90 |
| 197 | 4.70 |
| 198 | 5.20 |
| 199 | 4.80 |
| 200 | 4.20 |
| 201 | 4.60 |
| 202 | 4.40 |
| 203 | 10.25 |
| 204 | 4.20 |
| 205 | 1.80 |
| 206 | 1.50 |
| 207 | 2.20 |
| 208 | 2.60 |
| 209 | 3.10 |
| 210 | 3.10 |
| 211 | 4.05 |
| 212 | 10.00 |
| 213 | 7.35 |
| 214 | 16.60 |
| 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 | .95 |
| 235 | 8.60 |
| 236 | 14.25 |
| 237 | 15.30 |

| Number | Total Value of Ag - Au |
|---|---|
| 238 | 7.40 |
| 239 | 19.90 |
| 240 | 8.50 |
| 241 | 10.40 |

Surface Cuts

| | | | |
|---|---|---|---|
| Cut # | 1 | Sample | 242 |
| " | 2 | " | 243 |
| " | 3 | " | 244 |
| " | 4 | " | 245 |

| | |
|---|---|
| 242 | 9.25 |
| 243 | 9.75 |
| 244 | 17.85 |
| 245 | 3.50 |

All samples were taken at intervals of six feet on the vein on the 700 level, 5 ft. intervals on the 1000 level, and 5 ft. intervals on the raises and each sample measured exactly 5 feet in length and were cut at right angles to the hanging and footwall. All samples were cut with a hammer and moil. The average of the above samples as computed is in the amount of Ten Dollars and ninety cents ($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 four hundred and ten thousand tons of milling ore in sight that can be mined for seventy-five cents per ton or cheaper. It has a computed value of ten dollars and ninety-cents per ton. Or estimating 410,000 tons with a value of $10.90 a ton and allowing six percent 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.

## 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 grading in Allis Chalmers Type tube mill in a closed circuit with a Dorr Classifier, Classifier oreflow goes to Dorr thickener and thence through three Devereux Agitators and two Oliver filter to insure a further reduction of soluble losses. The continuous counter current decantation system is used throughout the mill. Pregnant solutions are precipitated in zinc shavings. One hundred tons per 24 hours is the present capacity of the mill. An extraction of 94.5% is being made on the ore at present, and the cost is about $3 per ton. This cost includes hauling of mill supplies and oil for the engines. The mill is arranged so that a line shaft and counter shaft drive all of the machinery. The prime mover or mill engine is a 100 HP Fairbanks-Morse type Semi Diesel. The mine compressor of seven drill capacity is located in the mill building and is belt driven, by a 75 HP Verin Severin engine of the same type as the mill engine. A further reduction of costs can be made by doubling the capacity of the mill. The sulphides can be milled much cheaper in a flotation unit altho they are well adapted to cyanidation and would offer no objection to the cyanide process except in increased consumption of cyanide.

## RECOMMENDATIONS

I would recommend you to build a 100 ton addition to the present 100 ton mill to increase capacity to 200 tons per day and to cut the present milling cost to a

lower figure. Build a 100 ton flotation unit with room for expansion to take care of the sulphides at present developed and that can be developed. Sink a 200 ft. shaft at a point 200 ft. lower than the lower tunnel level and crosscut the vein in the sulphide zone, also drift both ways on the vein on this level. Extend the present crosscut on the 1000 ft. level until the footwall dikes are cut. Float found on the Hillside above the present outcrop indicates a vein parallel to the present vein somewhere in the footwall.

CONCLUSIONS

From the foregoing it can be seen that the raising of money to increase this capacity of the mill and for further development of the mine could not rightfully be termed a speculative venture and the writer unhesitatingly recommends the property of the Golden Lion Mining & Milling Corporation as one of merit.

Respectfully submitted,

(Signed) J. M. BUTLER
Cons. Engineer

Dated:

February 16, 1929.