

# Golden Ace Mining Company

An Estate of Approximately 480 Acres

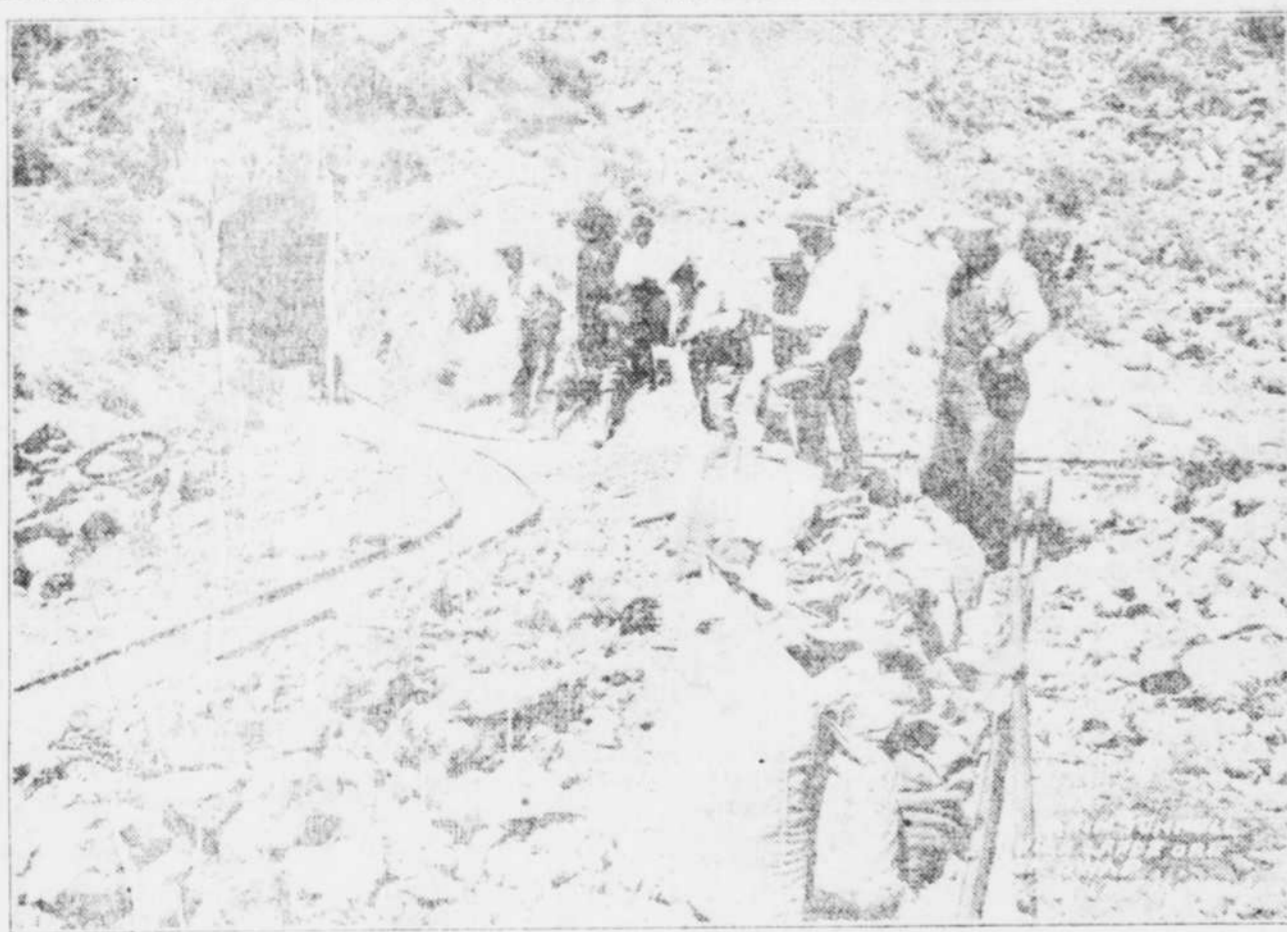
Cararra Mining District  
Nye County, Nevada

Past Production About 700 Tons of Ore of the

Value of Approximately \$165.00 Per Ton

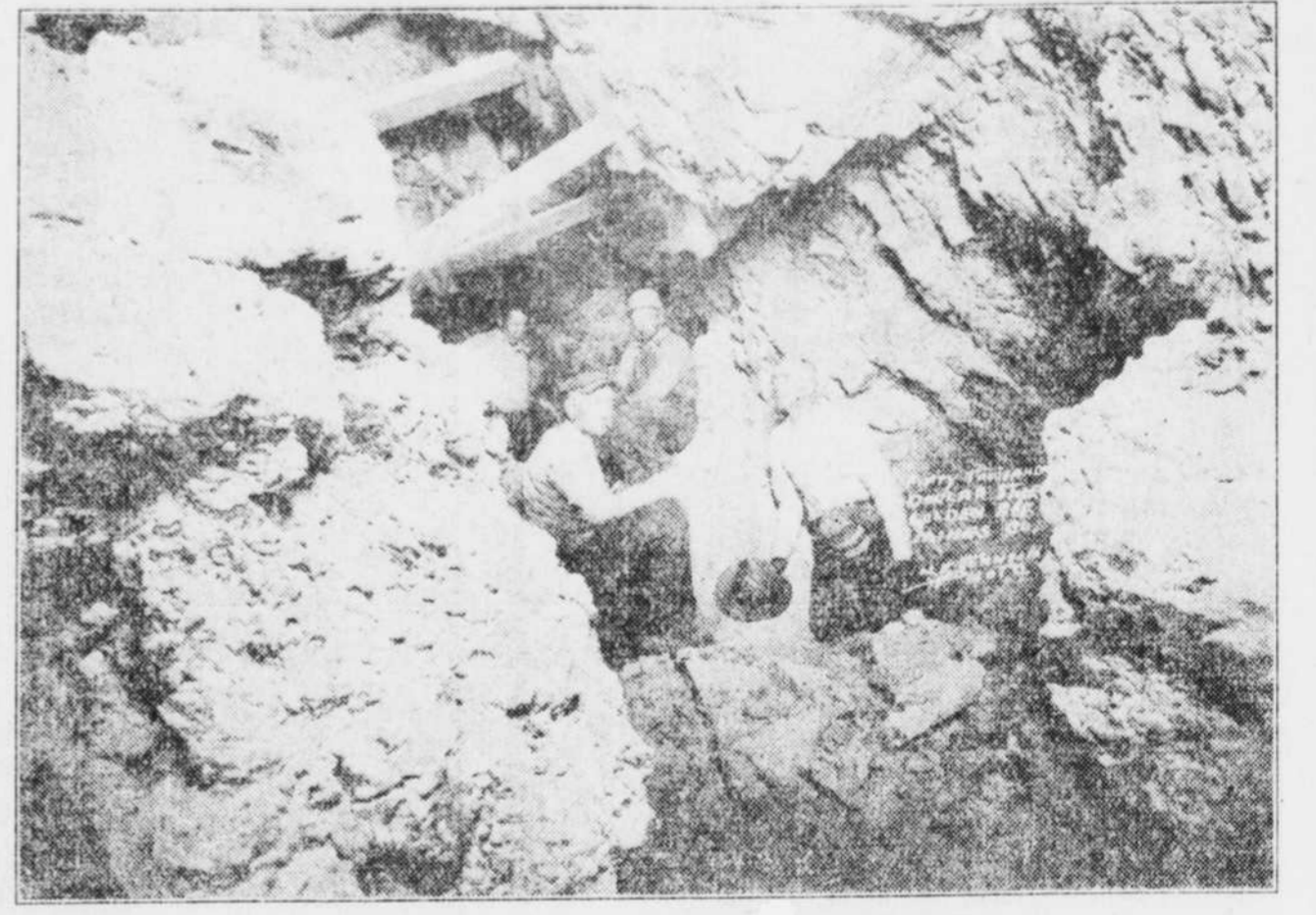
Large Body of Mill Grade Ore on Dumps and in Mine

Full Equipment of Machinery Now Being Placed on Property



MAIN WORKING TUNNEL

From which a large tonnage of high-grade was extracted and from which high-grade shipping ore is now being drawn.



\$50,000.00 HIGH-GRADE STOPE

More than 300 tons of ore averaging about \$165 per ton was taken from this stope. A large tonnage of high-grade and mill ore is still awaiting extraction.

WALTER G. CLARK  
Mining Engineer  
Los Angeles, California

May 22, 1929.

Mr. H. H. Pursel, President,  
Golden Ace Mines Company,  
Las Vegas, Nevada

Dear Sir:

In accordance with instructions issued to me by Mr. James McCoy, your Vice-President and General Manager, your property located on the east slope of Bear Mountain, in Nye County, Nevada, has been examined and reported on, as per the sheets hereunto attached. All field work has been conducted personally by Mr. C. Colcock Jones, Mining Engineer, of Los Angeles, California, in accordance with instructions issued by me.

After carefully considering all the data collected by Mr. Jones, and reviewing all of the available data, I am pleased to advise you:

First, that the formations in which the values occur on your property are indicative of a continuation of valuable ore bodies to considerable depths.

Second, that the formation holding values is well defined and under carefully supervised operations may be followed without difficulty.

Third, the exposed ore bodies on your property are, so far as can be determined, the apex of this system of veins and fissures, and the property is sufficiently extensive, so in my opinion you are fully protected against any possible legal litigation.

Fourth, the showings on your property fully warrants the expenditure required to properly explore the ore bodies now in evidence or indicated on your property.

Fifth, the exposed ore and the probable or indicated ore bodies warrants the expenditure of \$50,000.00, but I am of the opinion that a lesser sum, expended under proper engineering supervision and direction will disclose extensive ore bodies.

Sixth, the low grade ore, at present in sight, warrants the installation of a cyanide plant of limited capacity, to be installed in such a manner that it may, without change or alteration, be extended as the available ore warrants.

Seventh, the record of the property and examination of ore bodies at present in sight, indicates that the mine may be expected to yield a considerable tonnage of high-grade ore, therefore, the ore should be selected as mined, the high grade shipped for smelting, and the low grade extracted at a mill located on, or near, the property.

This is a property of unusual promise, and I am of the opinion that under proper direction and development, can be made to yield a very satisfactory profit.

Respectfully submitted,  
WALTER GORDON CLARK,  
Consulting Engineer.

Report on Property of  
THE GOLDEN ACE MINES COMPANY  
By  
C. COLCOCK JONES  
Mining Engineer  
1929

C. COLCOCK JONES  
Consulting Engineer  
Los Angeles, California  
May 20, 1929.

Mr. Walter Gordon Clark,  
Consulting Engineer,  
Insurance Exchange Bldg.,  
Los Angeles, California

Dear Sir:

In accordance with your instruction, I have examined the mine of the Golden Ace Mines Company in the new Carrara Mining District near Beatty, Nevada, and herewith hand you my report and findings.

The property consists of 24 claims, approximately 250 acres situated on the East slope of Bear Mountain, Nye County, Nevada, and the mine camp by automobile is 114 miles north of Las Vegas and 14 miles southeast of the town of Beatty, on the Tidewater and Tonopah Railway. The discovery of the Diamond Queen Mine, now known as the Golden Ace Mines, resulted from the experience and work of Mr. Joseph Biddecome, who in 1907 leased from the owners of the ground. Owing to the fact that the geological description of the Bare Mountain District as described in Bulletin 308 by Sidney H. Ball of the U. S. Geological Survey was published in 1907 on field work previously done in 1905, there was no mention of the Diamond Queen Mine, which at that time was not opened.

Bare Mountain is a rugged mass of Pogoan Limestone of Ordovician Division of the Paleozoic, with areas of Eureka quartzite overlying it. Reference to the attached topographic sheet of the U. S. Geological Survey will show the area of Bear Mountain and its length north and south to be about 15 miles with the greatest width of 8 miles at the north end and tapering to a point at the south end. According to Mr. Ball there are at least two profound faults of over 1000 feet displacement, and which are indicated on topographic sheet, and other faults of almost equal magnitude exist; small faults, both normal and reverse, are common. Joints traverse all the formations, but are particularly developed in the quartzite. As indicated on the topographic sheet the area comprised in the property of the Golden Ace Mines Company lies a short distance south of the great fault running northwest from Crater Flat to Gold Center, and one of the chief structural features governing the Golden Ace Mine is a subsidiary fault intersecting the great fault, which, as relates to the Golden Ace ore deposit, constitutes a major northwest-southwest

fault line. This fault line intersects and cuts through a prominent dike of quartz-monzonite porphyry just east of the mouth of the main tunnel of the Golden Ace Mine, and the series of above movements is further favorably amplified, so far as the ore deposits are concerned, by horizontal movements breaking through the limestones and forming flat dipping veins connected with the main ore channel and of very high tenor in gold, and in the first instance these flat veins served as the markers which led to the main ore channel.

From the above general description, it will be seen that all the necessary elements were present to open fissures and channels, along which replacement ore deposits might be developed in the limestones, and the close connection of these with an igneous dike or dikes has afforded a favorable condition for deposit of ore.

Reference is made to the attached sketch map of the Golden Ace ore body so far as at present known. It consists of an ore channel dipping to the south starting at point "A" near the fault and paralleling the porphyry dike and occupying a fissured zone in these parallel north-south fissures, but one of these channels has so far been worked on a dip of 30 degrees for a distance of 300 feet. With an average cross section of this ore channel of 628 feet the open slope now left, from Point A to B, represent where the shipments made by Biddecome and other leasers come from. Biddecome's records show that he shipped 13 cars of 50 tons each, or 650 tons, averaging \$165.00 per ton, or a gross of \$107,250.00, and as an approximation the other leasers must have shipped in the neighborhood of 300 or 350 tons, or a gross of 109,500 tons, and approximately a gross of \$180,000. In panning this ore no concentrate or free gold can be obtained and the explanation would seem to be that it is a combination with cinnabar, which in many places in the mines is in evidence. This fault will render the mill ore ideal for cyaniding, and I anticipate high extraction by that process.

From the opening in the north end of the mine just above the main tunnel at Point K, from which a number of carloads were shipped and from the occurrence on this line at the south end of ore in what seems to be the same north-south fissure, it is most probable that a parallel ore shoot slightly lower than the one so far worked, can be readily opened, and I anticipate that there will be successive ore channels in depth along the north and south fissures, as well as parallel in the fissured zone about 300 feet wide east and west.

At the present time, while there is considerable ore on the dumps and in the mine of a milling grade, the shipping ore is only shown at several points, two of them to the north of the cross cut tunnel at Points J and K, and at the south end in the two faces below the tunnel level, at B, at points C, E, and F, and G.

At the 100 foot shaft, 115 feet south of the main tunnel, 15 and 30 feet east from the face of the tunnel, ore is shown in appreciable quantities together with a north-south fissure.

The development of primary importance should be undertaken at the 100 foot shaft, by equipping it with hoist, compressor and air drills so it can be rapidly put down to the 200, 300 and 400 foot levels. While this is progressing the first work should be to extend the drift west to intersect the ore channel indicated at G and any intermediate ore channels, and by upraises connect to the ore bodies in the workings south of Point B. Such connections will permit of extracting ore at a minimum cost.

One of the earliest considerations should be an exact survey of the mine, with working maps based on it in order to expedite the work properly.

I have no hesitation in advising that I believe the ore body possesses every feature of permanence in depth and that the remarkable returns from the ores shipped from the comparatively limited workings will be duplicated many times.

The ground has so far been worked only in lesser fashion and enough is now known from that work to project with confidence the further development and warrant the expenditure of the necessary sums called for, and my recommendation is that they be provided and systematic exploration and development proceed.

I have dealt above only with the Golden Ace Mines, but a property of the size of the Golden Ace Mines Company has vast potential possibilities under the existing geological conditions, and reference is made to the following report for some details on this score as well as facts on which the above summary is based.

Respectfully submitted,  
C. COLCOCK JONES,  
Mining Engineer.

## Property and Location

The property comprising the Golden Ace Mines consists of 24 claims in a compact group, as shown on attached map. These claims are all situated on the east slope of Bear Mountain, about 14 miles southeast of Beatty, Nye County, Nevada, in the Carrara Mining District. The property lies at an elevation ranging from 2500 to 4500 feet, overlooking Crater Flat to the east.

## Accessibility

The Golden Ace Mines property is reached from Las Vegas, Nevada, by good automobile road on the former grade of the Las Vegas and Goldfield Railroad, at a distance of 114 miles. An automobile road also connects the mine with Beatty, Nevada, the present terminus of the Tonopah and Tidewater Railroad, a distance of 14 miles. Supplies are easily brought in from either Las Vegas or Beatty.

## History

During the gold and silver excitement at Rhyolite and Bullfrog, Nevada, near Beatty, in 1905, considerable prospecting was done in outlying ranges, and it was probably about this time that the first locations were made on the Diamond Queen, now the Golden Ace Mine. In 1907 the only work at that time was what was called the Flourspar opening, which is shown by the lower dump 100 feet below

the dump of the Golden Ace and about 100 feet above the present camp.

The ore at this point was too low grade to be profitable at that time. In February, 1907, Joseph Biddecome, an experienced miner from Eureka, Utah, took a lease with the result of the discovery and opening of the Diamond Queen Mine, now known as the Golden Ace. During 1907, 1908 and 1910 he personally shipped 13 cars of ore averaging \$165 per ton in gold, the total approximating \$110,000 on smelter returns from the Utah smelters. Other leasers during the same period of time produced an unknown quantity of ore, but from the best sources of information it must have amounted to about half the amount shipped by Mr. Biddecome. In 1925, through internal troubles among the parties originally owning the claims, the ground became open and was legally located by Joseph Biddecome, Victor Ritter and Otto Dieckelman, and from these owners title has been transferred to the Golden Ace Mines Company. An examination of title did not come within the scope of this investigation, but the above are the facts as I find them.

## Topography

Bare Mountain is a rugged mass of limestone capped by a thin layer of quartzite, rising from the desert elevation of about 3000 feet to a total elevation at Diamond Queen Peak of 6235 feet. This mountain has an extreme length of about 15 1/2 miles, with its greatest width of 8 miles at the north end, and coming to a point at the south end, forming a triangular mass. It is entirely bare of any vegetation, hence the name.

Reference is made to the attached Topographic map by the U. S. Geological Survey of this section.

## Geology

The geology of Bare Mountain is described in Bulletin 308 of the U. S. Geological Survey by Sidney H. Ball, published in 1907 on work completed in 1905, entitled "A Geologic Reconnaissance in Southwestern Nevada and Eastern California." There is no mention of any mines in Bare Mountain, as they did not exist until after 1907. Bare Mountain is a rugged mass of Paleozoic sedimentary rock, strongly folded and faulted, and referable to the Ordovician Period. There are two members of the Ordovician, the lower and predominant, one being the Pogoan Limestone, which according to Ball attains a thickness of 3000 to 4000 feet, overlying which is the Eureka Quartzite, represented on the Golden Ace property by a few patches not over 100 feet thick.

On the attached Topographic map, Bare Mountain is shown, and I have indicated the major faults described by Ball in Bulletin 308 as having over 1000 feet displacement, and he sites that in addition to these faults, other faults of almost equal magnitude exist, and that smaller faults, both normal and reverse, are common, and that joints traverse all its formations, but are particularly developed in the quartzite. As indicated on this Topographic sheet, the area comprised in the property of the Golden Ace Mines Company lies a short distance south of the great fault running northwest from Crater Flat to Gold Center, and one of the chief structural features governing the Golden Ace ore deposit is a subsidiary fault running N. 30 W., S. 30 E. and joining or intersecting the great fault a short distance north of mine. It is probable that this fault is an off-shoot from the major northwest fault, and subsequent work will determine this point. Traversing the property of the Golden Ace Mines Company in a north-south direction, is one prominent quartz-monzonite porphyry dike, which in conjunction with the fault above mentioned, has influenced the ore depositions in the Golden Ace Mines. In addition to this are other subsidiary porphyry dikes of the same character, or portions of the original dike displaced in an easterly direction, from fifty to several hundred feet, and the probable bearing of these on any other ore deposits which may be opened can be determined in the future.

The combination of the factors of intrusion of igneous dikes, faulting on a large scale, fissuring at an angle to the fault lines and horizontal thrust movements in the limestones have created a most favorable surrounding for ore deposition.

## Ore Deposits and Developments

The ore deposits of the Golden Ace mine belong to but one type—that of gold-bearing replacement deposits in limestone.

The particular type represented is rather an uncommon one, in that there is almost a total absence of silver and no matter how high the grade of ore in the hundreds of dollars per ton in samples, and up to \$175.00 per ton in carload shipments, no visible gold is present nor can it be obtained by panning.

There is evidence of the presence of mercury in many places as a film of cinnabar on the ore, and doubtless it is the combination of gold and mercury that prevents the presence of free gold.

This particular property of the ore will be of assistance in cyaniding it.

The ore deposits so far as developed in the Golden Ace Mine consist of one main ore channel worked by leasers from the Point A, on sketch map of mine, at an elevation of 4300 feet, which plunges to the south at an average angle of 25 degrees and reaches the main tunnel level at 4200 feet elevation at Point B, a distance of 280 feet.

There would seem to be some slight displacement below Point B and an additional, more or less east and west, channel or channels of ore is shown on sketch map. These conditions below Point B have very greatly simplified the possibilities in the further development of this main ore channel in depth.

At Points F and G, at the lowest point attained in workings, is disclosed a strong north-south fissure, with a strike parallel to the main fissure, two feet of ore which assays \$34.31. Just above this, at collar of wings, the ore coming down from D to F merges into the fissure, or rather begins from this point of fissure on its upward extension, and 4 feet of ore at collar near G assayed \$41.75 per ton.

At other end of workings at Point C, 18 inches of face of ore assayed \$35.13 and a considerable body of adjoining mill ore assayed \$19.34.

Between C and G has been a continuous run of high grade shipping ore that has gone to the smelters, and as is customary with

leasers, no attempt has been made to keep work ahead of development, especially under such inconvenient methods of getting ore to surface as obtained below point B.

Systematic work will pick up the main ore channel below point B, either by exploration there or by the west cross cut from bottom of shaft and an upraise in the fissured limestone.

As indicated on map, 115 feet south of main entry to mine a 100 foot shaft has been sunk and a west cross cut at bottom driven 87 feet. Shaft is altogether in the porphyry dike, and on the 100 foot level west side of shaft is 15 feet east of contact between porphyry and limestone. On account of dip of porphyry dike to east, shaft will eventually be entirely in the lime.

The west drift from bottom of shaft should cross cut completely the 200 to 300 foot width of fissured ore-bearing limestone, and on east side of shaft a similar cross cut to east should be run which will disclose conditions between the porphyry dike and fault, and beyond the intersection of fault will disclose conditions between that point and the Flouride Pit.

In addition to the main fissure and ore channel A, B, a parallel one on a lower inclined plane is indicated in the work in slope K which may be the same as the fissure shown at F, G at southwest end of mine, striking parallel to the fissure and channel A-B.

My observation is that to the west of fissure A-B there is a zone of parallel fracture across from 200 to 300 feet, in which there has been intense metamorphism of the limestone into marble, and future cross cutting this country at proper levels will explore it, with favorable results.

The ore deposits are a result of the sequence of geologic occurrences described under geology, which are briefly:

- (1) Uplifting and contortion of the lime strata.
- (2) Intrusion of quartz monzonite dikes.
- (3) Faulting, largely normal, with some slight thrusts horizontally across the limestones.
- (4) Development of a fracture zone north and south with a width east and west of 200 or 300 feet. This zone roughly parallels the intrusive porphyry dike and is largely a consequence of the northwest southeast fault, and the downthrow and lateral movement to the southeast of the block east of the fault.

Ore channel A-B is the only one so far opened to any extent, but the indications are that other like channels will be uncovered by systematic development.

This type of ore deposit requires a close observation throughout the work to avoid passing or losing branch veins, offshoots, chambers or enlargements of the known channel.

The earliest work on the property is shown by a large open cut and tunnel and winze at the Flouride Pit 100 feet below the Golden Ace. The braeciated, jasperized limestones with vugs and coatings of purple fluorite crystals carries irregular values in gold sometimes high, sometimes negligible, and not affording a dependable ore for shipments without close assaying.

The development of this section of the property will undoubtedly block out much mill ore. This country can be conveniently cross cut from the 100 foot shaft above and will prospect from the porphyry to the fault and the tertiary east of fault to Flouride Pit.

At the south end of property is a badly faulted section in which a segment of the schifed lime shows values about a width of 20 feet, running from \$5 to \$8 per ton; this also is a matter for the future when such ore can be milled at a profit, and the locality is worthy of systematic investigation.

Until the cross cuts from shaft are completed to tap and explore territory below Point B, work will be confined to extracting the high grade shipping ores at J and K, and extending the indicated ore channels which may be connected with but seem to be independent of ore channel A-B.

Systematic exploration should put much ore in sight in various parts of the mine.

## Ore Reserves

As this mine has heretofore been worked by leasers alone, their natural practice was to extract all shipping high-grade ore, from \$80 to \$160 per ton, as rapidly as it was opened and developed, and no attempt was made to block out ore for the future. The character of the ore and the way it rendered it easy to make a very clean extraction along the ore shoot or channel, and therefore there is but a comparatively small amount left that can be classed as positive ore.

No great number of samples were taken by me and these were largely to ascertain if there was any amount of mill ore.

One of the best points for development of high-grade ore as well as milling ore is in Slope J just above the main level in north end of mine. Two samples of mill ore in this stope assayed \$10.75 and \$5.37 gold respectively, while ore being sacked from the ore proper assayed \$19.37. Work in this stope should be pushed both on the upward and downward extension of the ore channel, which is either a separate channel to channel A-B some distance above, or will connect up to channel A-B. Several carloads of ore averaging \$165 per ton are said to have been shipped from this stope; apparently there is considerable mill ore being left in the stope.

The next and perhaps most important development is slope K, which is on a parallel fracture to A-B.

Several carloads of high grade ore are said to have been shipped from this stope and my samples of ore now being sacked assayed \$148.42. There is considerable mill ore being left in stope.

At south end of mine below Point B at bottom of slope C, 1.5 feet of mill ore assayed \$35.13, and a sample of the mill fines rejected assayed \$19.34.

From the west channel at south end at point G, 2 feet of ore in north-south fissure assayed \$34.21 gold, and at point E at collar of winze where ore shoot, followed down from D, originates and branches from the north-south fissure, 3 feet of ore assayed \$41.75 gold.

A number of carloads averaging \$163 are said to have been shipped from this south end work. To extract ore now below the main tunnel level is slow and costly, and this territory can be thoroughly explored and developed by coming under it from the west cross cut at bottom of shaft. In all samples only a trace of silver occurs.

(Golden Ace Mines Company, Continued on page 5)