

LIBRARY  
COLORADO SCHOOL OF MINES  
GOLDEN, COLORADO

REPORT  
ON  
FREE AMERICAN  
AND  
NEW YORK LODE CLAIMS

By  
J. N. McLeod,  
1901.

Report furnished by Major A. Downing,  
Ardle Tower, Md.



REPORT ON  
FREE AMERICAN & NEW YORK LODE CLAIMS.

- - -

NAME AND LOCATION

The Free American and New York Lode Claims are situated in Hawkeye Mining District, Gilpin County, Colorado, about 8 miles from Central City by wagon road and one mile from Porigo. The claims are each 150 by 1500 feet and are held by U.S. Patents Nos. 971 and 972. The New York lies parallel to the Free American (see map). Other mines in the vicinity are the Perigo, Derigo, Golden Flint, Big Ann, Claudia J., Hattie, Manhattan, Stewart, Gold Dirt and Caledonia.

GEOLOGY

The country rock is largely Gneiss and Mica Schist, with the exception of a large dike of eruptive rock running approximately parallel to the claims, which is andesite or some other closely related rock. This dike probably has a large bearing on the veins and their contents. There are two systems of veins, one running parallel to the direction of the claims and one crossing at an angle. The main vein of the Free American is continuous throughout the length of the workings and is largely smelting ore with a streak of impregnated rock or "mill dirt" accompanying it. Crossing this vein are several others all of which dip at a sharp angle towards the West. Four veins of this class are noticeable, two large and two small ones; the large ones consisting of soft rock impregnated more or less with Iron Sulphide or Pyrite and the smaller ones consisting of Pyrite and a little Quartz. These veins vary from two inches to four feet in width. Only one of these cross veins is considered of much importance here, although development might prove the others to be valuable.

The cross vein in question is the one called the Eureka Extension on the map. The rock in the mine is solid, and little timbering is required.

ORE

The ore in the main vein (Free American) is a Sulphide or Iron or Pyrite with little quartz except in a few places and is a desirable smelting ore. The ore in the cross vein (Eureka Extension) is of the same character, but not solid Pyrite, the vein being seamed with the Pyrite except on the sides where it is fairly solid. The values are almost wholly gold, with a little silver and occasionally fairly high values in copper. The values seem to be quite uniform throughout the mine as will be seen by the assays.

BUILDINGS & MACHINERY

The mine has been worked almost entirely through the deep shaft which is covered by a corrugated iron shaft house 24 x 45 ft. in size. There are two other log shaft houses, but these are some what dilapidated.

There are four good log cabins on the property, a stable and other buildings. The machinery consists of a 40 H. P. engine and a 60 H. P. horizontal boiler with 300 ft. of cable, buckets etc., The engine is large enough for about 600 ft. of sinking. There are three ore bins in connection with the main shaft house.

TIMBER ETC.

The New York claim is valuable for a large amount of timber covering both ends of the claim. Most of the trees are large, thus making good stulls and shaft timbers, but there is little small enough for lagging.



## WORKINGS

The principal work has been done on the Free American claim and consists of four shafts and several pits, the shafts ranging in depth from 20 to 212 feet. The only work on the New York outside of the discovery shaft is a tunnel now badly caved and impossible to inspect. The main working shaft on Free American is 212 feet deep and from it there have been three levels run; one at 50 feet, one at 100 feet, and the third at 200 feet. These levels are all run on the main vein.

### LEVEL NO. 1.

This level was run at 50 ft. depth and is 100 ft. long. The ground above this may be considered stoped out, although some ore remains and shows in the face of the drift. The ore from this part of the mine was stoped before the present owners bought the property and is said to have run \$70.00 per ton. The present owners bought the mine for \$50,000. when the shaft had reached this depth and this level run etc., and continued the shaft to its present depth.

### LEVEL NO. 2.

This level was run at 100 ft. depth and 183 ft. long. It shows ore all of this distance. Stopes have been started on both sides of the shaft as shown by map. The selting ore in this level varies from two to 16 inches in width with a streak of impregnated rock or mill dirt accompanying it. The cross vein shows in this level and varies from 2 to 4 ft. in width. This vein is a milling or concentrating proposition, being too low grade to ship. A drift has been started on this vein but only run a few feet. The shaft has been sunk at a small incline on the main vein and it shows the vein to be continuous from the 50 to 100 foot level, and averages about 6 inches in width of smelting ore.

### LEVEL NO. 3.

This level at 200 ft. depth had not been drained at the time of this examination and it was impossible to inspect it. It is said by the owners to be 190 feet long and to show good ore for 80 feet of this length. The best ore is said to have come from this level.

After leaving the 100 ft. level the shaft was sunk vertically instead of following the vein on its dip. When the shaft reached the 200 ft. level it was 12 ft. away from the vein. Instead of cross-cutting direct to the vein, a drift was run at an angle through the country rock and this left considerable barren ground above the level before the vein was reached. The vein should be driven on behind the shaft and the vein exposed.

## PLANS FOR DEVELOPMENT

The fact that all the cross veins pitch to the west, that the ore seems to be wider and of higher grade in that direction, that the surface workings show a wider vein and better values to the west, and that the owners claim that these shafts (now full of water) showed the widest and best ore, make it seem advisable to drift to the west from the 100 ft. level.

The vein shows strong at the west breast, and as every foot driven gives a depth on the ore of 100 ft., a little drifting will open up good ore reserves.

The cross vein should be driven on and a large shipment made to one of the neighboring mills to determine its value. There are several mills in close proximity where custom work is done.

As the drift on the cross vein approaches the dike above the claim, there is liable to be an increase of value in the vein and smelting ore may be encountered. As the company claims are prior locations to that covering the cross vein, there will be 300 feet of this vein accessible to the Free American Company.



The 200 ft. level should be drained and drifting done towards the West. Stopping can be continued on the 100 ft. level and also 200 ft. level when the latter is drained. The water in the mine is largely surface water, and when it is once drained the workings can be kept dry by hoisting a little water each day. No pump is needed.

ASSAYS FROM MINE

VALUE IN GOLD PER TON

10 in. W. End 50 Ft. Stope	\$ 37.40
4 " " " " " "	43.60
4 " 10" Ft. below 50 ft. level	47.20
4 " 15 " " " " "	24.40
7 " 25 " " " " " (2 Streaks)	19.60
10 " 35 " " " " "	16.00
4 " 40 " " " " "	28.00
Breast of 100 ft. level (West) 8 in ore	40.00
6 in. ore East of W. Breast 100 ft. level No. 1	40.40
4 " " " " " No. 1 100 ft. " No. 2	40.00
6 " " " " " No. 2 100 ft.	24.00
12 " " in West 100 ft. stope	46.57
14 " " " " " "	23.22
4 " " near East " " " ( E. of cross vein)	40.00
12 " " near E. end of E. Stope 100 ft. level	18.40
Average of 15 samples	32.58
" " 100 ft. drift 7 stope (7 in. ore)	34.07
Main Cross vein average sample 4 ft. wide	6.00
Concentrages from general sample (7.6 into 1)	43.20

NOTE:

These assays are for gold only, the silver contents amounting to about \$2.00 per ton.

It will be seen that these assays show lower results than the smelter returns, although the ore smelted came from all parts of the mine, and was taken out in development and should show the true value better than hand samples.

The difference may be accounted for by the fact that the ore smelted was closely sorted, while the samples for assay were average of quartz and all, and although they show but 7 inches of ore, the mill dirt and all often amount to two feet.

SMELTER RETURNS

The following are net returns taken from the Company's books and show ore taken out after the present owners took charge in 1887 and 1888. The ore came largely from development as but little stopping was done. Smelting charges in those days were about \$12.00 per ton, making gross value over \$60.00 per ton.

<u>NET WEIGHT</u>	<u>PRICE PER TON NET</u>	<u>AMOUNT RECEIVED</u>
11, 984 lbs	\$30.32	\$184.07
10, 283	54.10	378.15
10, 500 (dump)	17.20	90.30
12, 620	59.00	372.29
13, 433	9.85	66.66
1, 723	84.50	72.79
4, 965	40.00	99.30
9, 222	46.00	212.10
6, 398	42.50	135.95
8, 213	29.45	120.93
11, 476	35.35	203.98
2, 605	37.95	49.41
7, 098	50.20	178.15
21, 073	50.60	533.15
6, 747	47.95	161.75
		<u>\$ 2,859.99</u>

138,340



Average per Ton Net..... \$42.90

Returns from sale of gold bullion taken from plates and resulting from treatment of mill ore shows a total value of \$2,451.62. Concentrates resulting from the milling of the ores show a net smelter return of \$414.77 Total production of which record was kept amounted to \$5,725.38 net.

Considering the small amount of stoping done and the smelter charges in force at the time the ore was shipped this may be considered as a very good record, and proves the property to be a valuable one.

#### CONCLUSIONS

The fact that the main working shaft is already sunk, levels run, machinery installed, shaft houses built, cabins for miners on the ground, timbers for mining purposes convenient, mills in close proximity, and a great deal of ground easily opened by a little development, with considerable ore in sight and ready for stoping, makes this an attractive proposition.

I consider it a good investment at the price asked.

(Signed) J. N. McLeod, E.M.

Denver, Colorado. Feb. 10th, 1901.

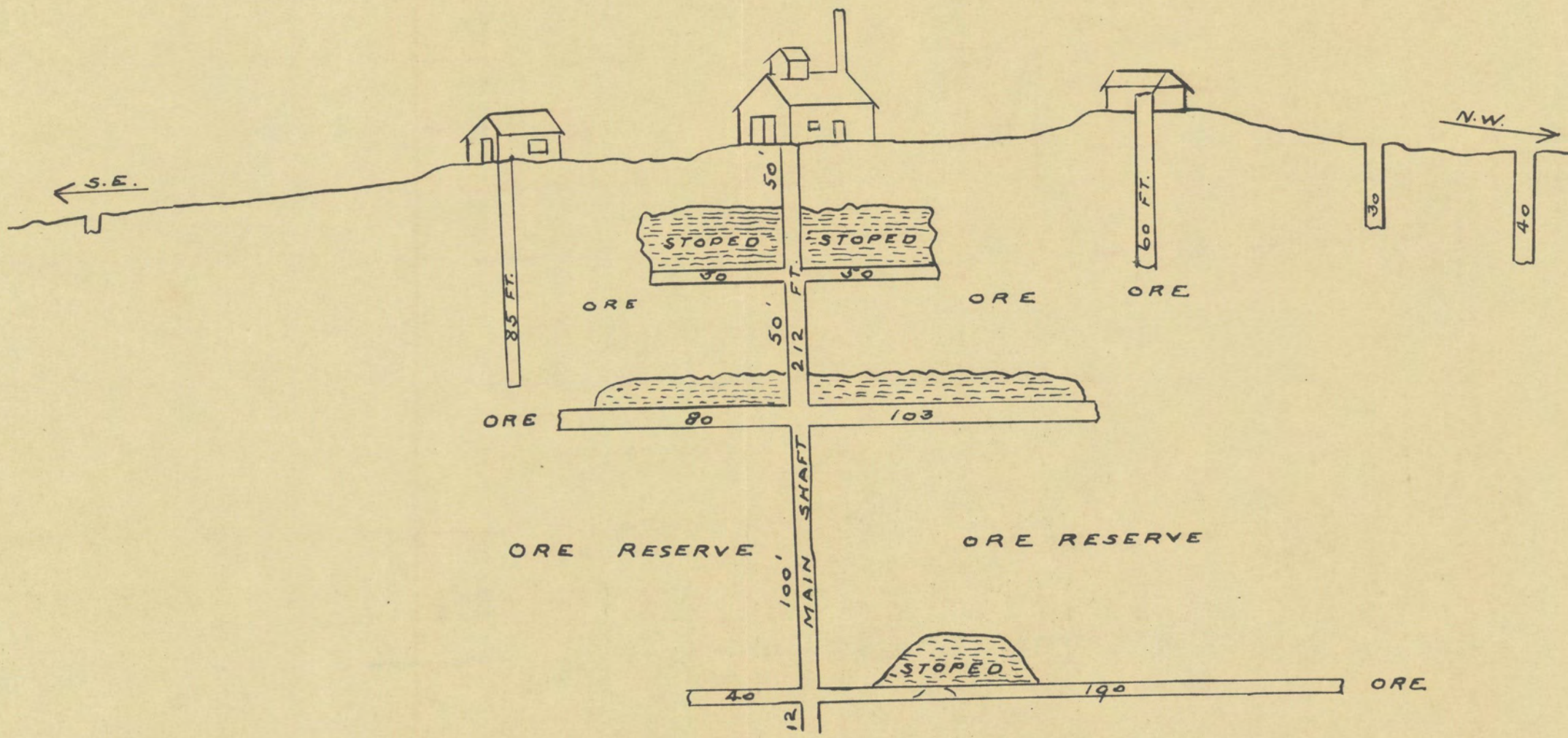
No work has been done on the property since this report was made. When level No. 3 was driven the shaft was found to be in foot wall 12 ft. from the vein. This level was started eastward from shaft bearing gradually toward the vein which was reached in 25 ft. showing ore to be from 12 to 14 inches wide at intersection.

This level was continued until 190 ft. East of shaft, 80 ft. in ore and a like distance in barren ground until within 4 ft. of the terminus, when a narrow streak of ore appeared, widening to 6 inches, when work was suspended.

Work was then transferred to opening the level westward and the vein was cut at 30 ft. from shaft where ore was from 18 to 24 inches wide. For about 50 ft. on the vein back of shaft there should be a continuous streak of ore of good size and value, the same as opening in 1st and 2nd levels.

No stoping of consequence was done in the third level. Since above was written the shaft house and derriek have blown down and all other buildings are in bad repair.





UNDERGROUND  
WORKINGS

OF

# FREE AMERICAN MINE

SCALE

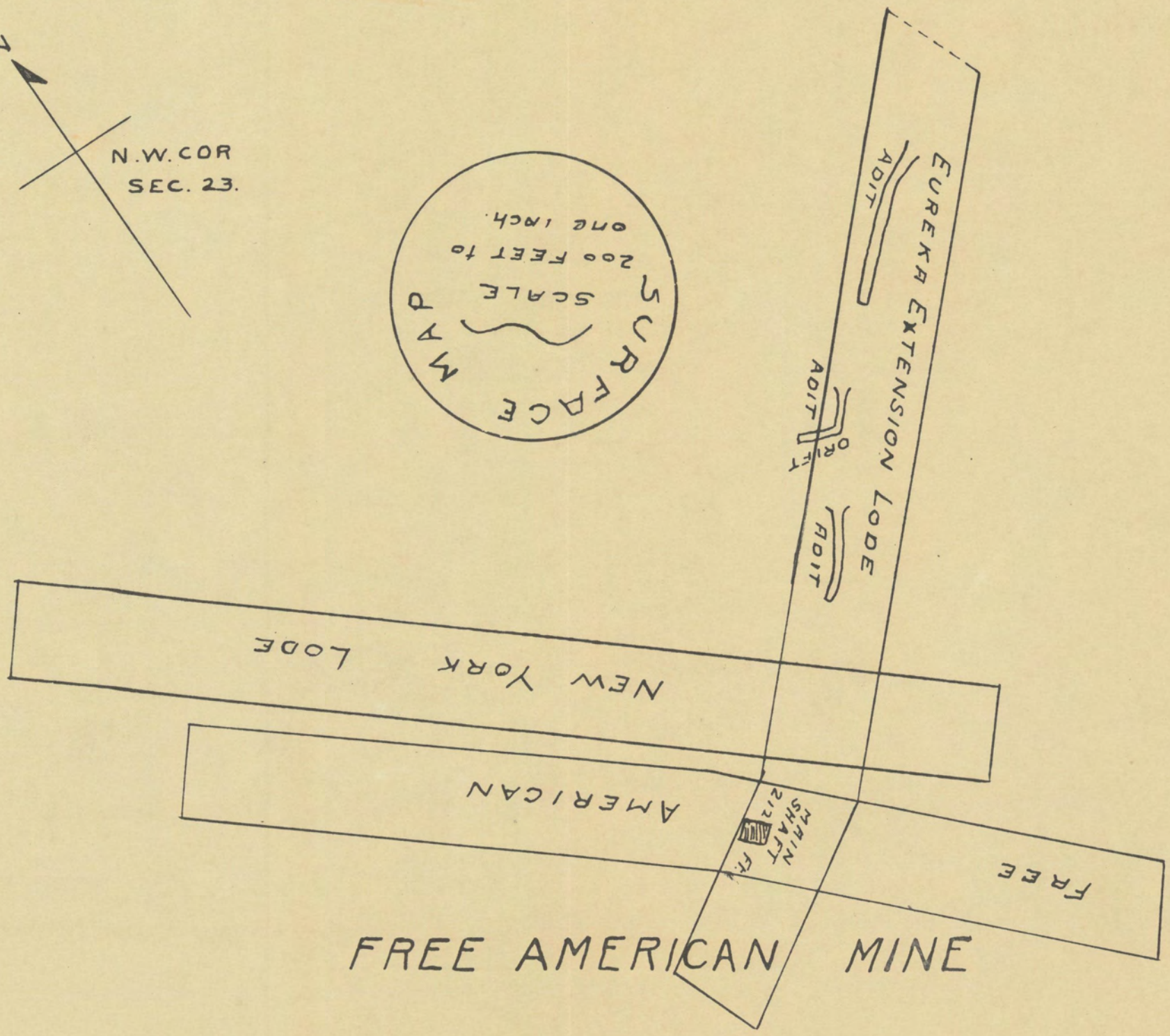
100 FT. To  
2 INCHES



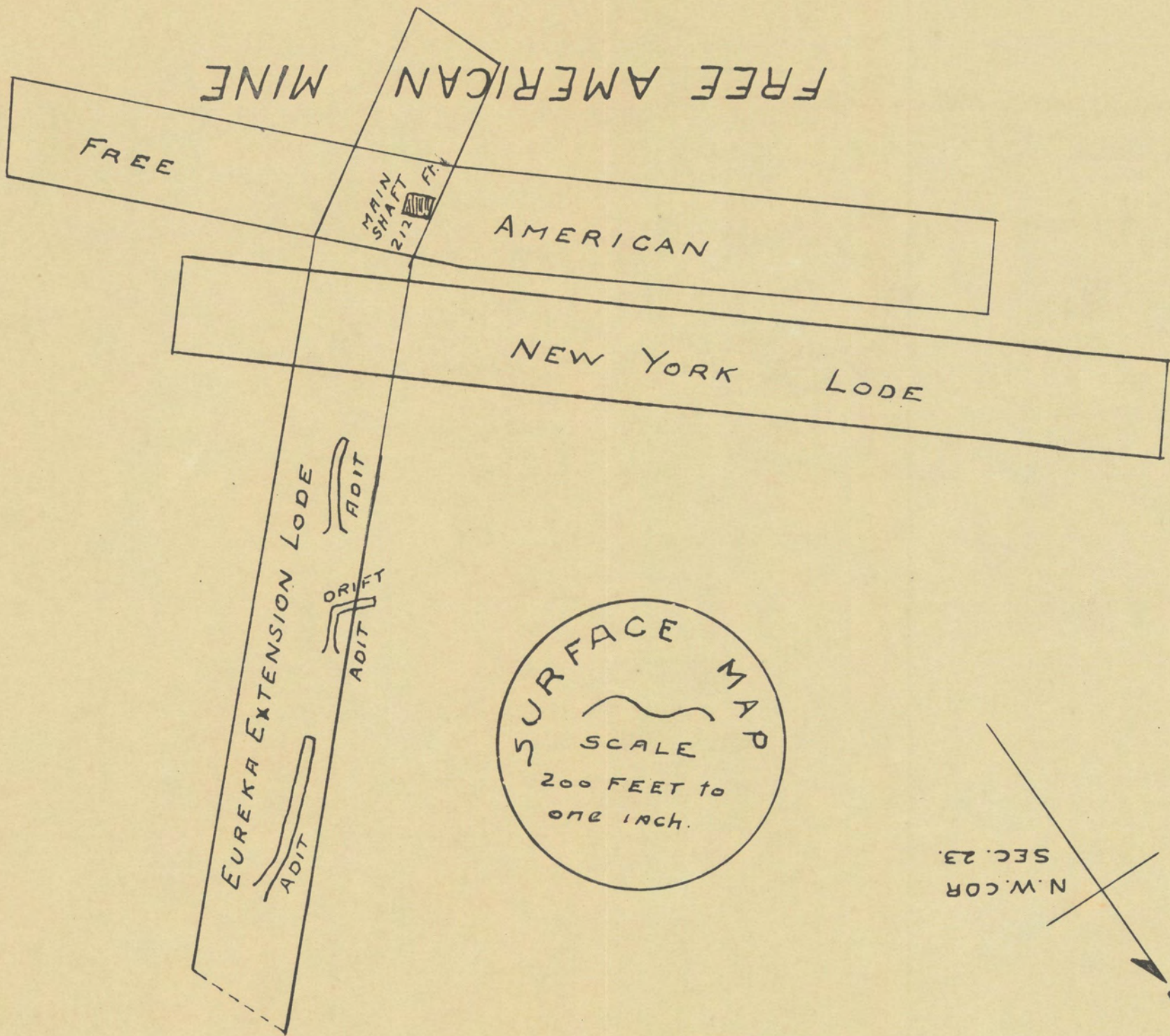


SCALE  
200 FEET to  
ONE INCH.

SURFACE  
MAP







SURFACE MAP  
SCALE  
200 FEET to  
one inch.

SEC. 23  
N.W. COR  
2