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Granted

Lone Star Mine — August 15, 1942

Lone Star Mining District — J. S. Coupal

Reconstruction Finance Corporation
Preliminary Development Loan

Docket No.	Phoenix C-4	C-ND-7530 (4)
Date Application Received		July 1, 1942
Date of Field Examination		None
Date of Report		August 14, 1942

1. Name and address of applicant (correspondent):
   Lone Star Mine (a partnership)
   Albert Spalding, Safford, Arizona

2. Character of project and estimated cost thereof:
   To retimber and unwater and make accessible the 100 ft. level in the 485 ft. incline Lone Star Shaft. Estimated cost $5,000.

3. Location of Property:
   Lone Star Mining District: Sections 26 & 27. T7S,R26e, 10 miles NE of Safford, Graham County, Arizona.

4. Applicant's interest in or ownership of property:
   The applicant is a partnership - and the unpatented claims carried are held by the partners as joint locators.

5. Loan requested:
   $5,000.

6. Loan recommended:
   $5,000.

7. Comments:
   (a) I have been on the property several times during the past three years and from surface indications and history of early operations recommend the loan.
   (b) In the estimate, the $750 for assayer is out of line with the proposed operations and this item should be struck out and the sum held for sampling, assaying, mapping, etc.
   (c) If the ore anticipated along the 100 ft. level is made available, production can be started and a decision made as to complete unwatering of the 485 ft. shaft and extended development work.
   (d) The comments on the application were delayed due to writing applicant and asking him to submit his original application for "B" loan for review also.
   (e) I can vouch for the integrity of the partner Albert Spalding who has spent his own money for a number of years holding property in shape and developing the promising showings within the group of claims.

Arizona Department of Mineral Resources

J. S. Coupal, Director

325 Heard Bldg.
Phoenix, Arizona
June 6, 1944

TULLY - Asst. Chief - Mining Section RFC - Washington

Re: Lone Star Mine - Docket No. C-ND-7517

Enclosed please find "Liquidation Report",

in duplicate, on the above captioned project.

CHARLES A RASOR.
Supervising Engineer

CAR:MHW
Enc.
Liquidation Report
in duplicate

RECONSTRUCTION FINANCE CORPORATION
MINING DIVISION
LIQUIDATION REPORT

Borrower: Lone Star Mine
Docket No.: C-ND-7517
Date of Report: June 6, 1944

1. NAME AND ADDRESS OF APPLICANT:

Lone Star Mine - Safford, Arizona

2. LOCATION OF PROPERTY:

In Sec. 26 and 27, T. 7S, R. 26E, Lone Star Mining District, Graham County, Arizona.

3. AMOUNT OF LOAN AND DATE OF AUTHORIZATION:

$5,000.00 loan dated August 28, 1942

4. PURPOSES FOR WHICH LOAN WAS EXPENDED:

Retimbering and rehabilitating the underground workings, purchase of small amount of equipment and mining of 9.5 tons of copper oxide ore.

5. EQUIPMENT:

a. 1 Hoist shop built composed of the following items:

Ford V-8 Motor No. PB18 - 2137053 - Used - - - - - - - -	$ 75.00
14 inch drum & gears used - - - - - - - - - - - - - - - - -	90.00
Built and assembled by shop - - - - - - - - - - - - - - - -	225.00
TOTAL	$390.00

400 feet of half-inch steel cable used - - - - - - - - -	24.48
1 cochise stoper with oiler - used - - - - - - - - - - - -	97.00
778 feet 8 lbs. rail - used - - - - - - - - - - - - - - -	33.35
468 feet 3/4 inch pipe - used - - - - - - - - - - - - - -	38.99
201 feet 2 inch pipe - used - - - - - - - - - - - - - - -	36.16
TOTAL	$619.98

b.

	Resale value
1 shop built hoist and cable) 1 cochise stoper with oiler)	$100.00

Other supplies listed above have no resale value. All equipment and supplies on property.

c. All equipment purchased remains on property.

d. A bid of $150.00 has been received for this equipment and will be accepted.

6. PROPERTY:

The property, which consists of 27 unpatented lode mining claims, is owned by right of location under state and federal laws.

7. COMMENTS:

Operations ceased quickly after my last examination January 7, 1943. Form al decline from Reconstruction Finance Corporation on Borrower's petition was dated January 25, 1943. Borrower was not successful in revealing any ore. There is no money in Borrower's Bank Account.

8. CONCLUSION:

The project failed to reveal any material quantity of ore, and with the exception of the remaining equipment worth salvaging, the property has no apparent value consequently, except for the salvage value of the equipment, the loan should be considered a loss.

9. RECOMMENDATION:

It is recommended that this account be closed when the equipment acquired with loan funds and which is considered worth salvaging has been liquidated and the proceeds applied on borrower's indebtedness.

CHARLES A. RASOR
Supervising Engineer

CAR:MHW

Oct 31, 1942

Mr. Chas W. Jolly, Asst. Chief
Mining Section, RFC
811 Vermont Avenue, NW
Washington, D.C.

Re: Lone Star Mine, Safford, Ariz
C-ND-7517
B-ND-3956

Dear Mr. Jolly:

I am enclosing my report on the examination of the above applicants' copper property. I am unable to make a favorable recommendation on the applicants property because of the scantiness of the copper mineralization based on assay returns.

Enclosed with the report is the applicants first copy of "Supplement to Application For Development Loan" and a copy of a letter received from the applicant after the examination was made.

It appears that the applicant is in a hurry for information about the loan because of interest by outside Capital.

Yours Very Truly

Charles A Rosser
S.P.E.

Enclosures -
Supervising Engineers Report
Applicants' First Copy of Supplement to Application for Development Loan
Copy of Letter from Applicant

Reconstruction Finance Corporation
Mining Division
Report of Supervising Engineer

Docket No. - - - - - - - - - C-ND-7517
B-ND-3956

Date of Examination - - - - - - - - - Oct 19-21, 1942

Date of Report - - - - - - Oct. 30, 1942

1. Name and Address of Applicant — Correspondent

Lone Star Mines, Inc — same.
c/o S. D. Merrill
Safford, Arizona

2. Character of Project

To produce copper ore for shipping or milling by sinking 485 foot shaft an additional 115 feet and drifting 800 feet on 6 levels.

3. Location of Mine

In Sec. 26 and 27, T. 7S., R. 26E., Lone Star Mining district, Graham County, Arizona; 10 miles northeast of Safford, Arizona, the nearest railroad shipping point. The road between the mine and Safford is an unimproved dirt road.

4 Applicant

Applicant and operating personnel are competent.

5 Loan Requested

$20,000.00

6. Description of Project

A. General Features

The applicant has been and is operating under a Preliminary Development Loan (CND-7517) from the R.F.C. and so far as is known has complied with state compensation and safety-first statues. There are no impeded right-of-way facilities

or likelihood of surface or sub-surface trespass

B. Existing Development

1. Shaft mine

The applicant had neither maps nor sections of the mine. However, they did include a surface map of their holdings in their application for a Class B. loan. This engineer made a tape and compass survey of the surface outcrop of the Lone star vein for 300 feet southwest of the shaft and 600 feet Northeast of the shaft. The 100 and 150 foot levels were mapped and a section made along the vein showing the levels and stoped areas. (See map).

All samples were channel samples of the width of the ore that would be mined and were taken where the applicant claimed copper ore occurred. Where the mine foreman claimed there was no ore, samples were not taken because your engineer was in agreement that copper was not present. Four samples were taken on the surface where the applicant had exposed the vein. Two samples were taken on the 150 foot level, 6 samples on the 100 foot level and 4 samples on the 50 foot level. Assay data are shown on a map of the

The Lone star shaft, according to old reports and hearsay, is 485 feet deep and without levels below the 150 foot station. When the applicant commenced operation, the shaft collar was cared with muck and old timbers. Since then the applicant has made the shaft accessible to the 150 foot level. Below this level the condition of the shaft is unknown as it cared and filled with old timbers.

The 150 level consists of two drifts from the shaft each 25 feet long. On the 100 foot level the applicant has cleaned up the drift Northeast from the shaft for 100 feet and has laid track. Most of this distance the drift is lagged and timbered supporting a filled stope above. The remainder of the drift (47 feet) has not been cleaned and muck in places lies nearly to the roof. From the 100 foot level a manway leads to the 50 foot level. South west from the shaft on the 100 ft level a drift extend 40 feet, 30 feet of which is heavily timbered and lagged, supporting a stoped area above. This stope was inaccessible at the time of the examination.

The 50 foot level is accessible from the shaft, but is much easier entered by way of the manway from the 100 foot level. The floor of the 50 foot level is the stope fill.

The property lies in an area of slight mineralization in which the rocks consist of rhyolites, andesites and younger volcanics. Cutting through these rocks and exposed on the applicants property are at least two parallel fissure veins known as the Lone Star vein and the Shamrock vein. These veins are fairly continuous over a distance of 3600 feet, for along these veins numerous open cuts have been made exposing the mineralization. From these open cuts some shipments of copper oxide have been made, but most of the dumps contain the red iron oxide which was mistaken for the red copper oxide believed present. The mineralization is spotty and is usually observed on one or the other of the walls of the vein. The width of the vein material observed varied from a mere gouge slip up to 1 to 4 feet.

The mineralization varied in width from 4 inches on each wall to 27 inches in the center of the vein. The main copper mineral was chrysocolla with minor amounts of malachite and possibly cuprite. These minerals were associated intimately with quartz and iron oxide. Sulfides were not observed in any of the ore from The Lone Star Mine. Some 3600 feet east of the Lone Star shaft, at the Portland tunnel, the ore consisted of chalcocite, chalcopyrite and pyrite in a quartzose gangue and iron oxides.

Old reports and hearsay state that a small body of black sulfide of copper (chalcocite) was taken from the stope near the shaft on the 100 foot level. The ore is gone, but examination of an ore exposure on the 150 foot level revealed only chrysocolla associated with iron oxide and quartz.

C. Proposed Development

The applicant proposes to reopen the shaft which is cared at the 150 foot level and retimber the remaining depth of the shaft. After this the applicant proposes to sink the shaft an additional 115 feet in the hope that a rich body of enriched copper ore will be found at the water level. The Applicant has no idea at what depth water will be encountered. Furthermore the applicant proposes to drift 200 feet both ways on the 100 foot level, start a station on the 200 foot level and drift each way 100 feet, start a station on the 300, 400, 500 and 600 levels and drift each way 25 feet. All of this development is based on the Theory that on reaching water

level it is thought that a permenent enrichment of the vein in sulfide ores will be encountered.

The applicant proposes to mine the ore selectively for the ore appears to be frozen to one wall. By first blasting out the waste, the ore can then be stripped from the hanging wallwithout much dilution.

D. Equipment

Applicant has a good hoist powered by a Ford V-8 motor and enough cable to reach to the 100 foot level. There is not enough cable to reach to the 150 foot level. Any reopening of the shaft below the 150 foot level will require a much larger hoist and cable. The applicant has ~~one~~ one bucket, one ore car and other small mine tools. The applicant has constructed a new head frame and has done an excellent job of retimbering the shaft and the 100 foot station.

The applicant proposes to purchase a large compressor, a stoper and other mining machinery. In addition the applicant would need a new hoist and cable to work to the 600 foot level.

E Cost Estimations

① vein deposit

The applicant states that he can sink the shaft for $20.00 per foot, drift for $12.00 per foot and mine and transport the ore to the smelter for $13 per ton. Since the applicant has never mined or shipped ore

These statements may be low. Smelter treatment per ton of copper ore will vary between $3.50 and $6.00.

F. Ore Reserves

Ore reserves are limited to a small area above the 50 and 100 foot levels northeast of the stoped area. Here five samples outline a small body of ore. Below are the calculations on this body.

Sample No	width	% cu	width % cu.
11	6"	5.95	35.70
12	6"	3.25	19.50
13	10"	4.50	45.00
14	6"	7.30	43.80
15	6"	11.70	70.20
Total	34"		214.20
Average	6.8"	6.3%	

Length of body above 50 level = 85 feet
height " " " " " = 20 "
width of ore = .57 feet
Allowing 11 cu.ft per ton, there will be 88 tons of ore

Length of body above 100 level = 40 feet
Height " " " " = 45 "
width of ore .57 "
Allowing 11 cu.ft. per ton, there will be 93 tons of ore.

Thus it is seen there will be 181 tons of 6.3% copper ore. The applicant does not claim that there will be much ore until water level is reached, and enrichment has occurred. The presence of shipping ore on the present levels is discouraging. In none of the fores except the 50 foot level was there any trace of copper mineralization. Some of these fores were sampled, others were not because the applicant stated that the vein lacked copper mineralization.

On the surface there are a number of open holes and cuts on the vein. None of the cuts east of the shaft showed the presence of copper mineralization. West of the shaft the vein is covered by the dump for 210 feet. Beyond the end of the dump for 40 feet the applicant uncovered two places for sampling. Four samples were taken which varied in width from 4 to 12 inches. One sample assayed 34% copper. The width was 4.5 inches.

The best gross value the applicant could get on 6.3 per cent copper from the smelter would be $15.15 per ton. The minimum treatment charge would be $3.50 per ton. Since the applicant claims he can get the ore to the smelter for $13.00 per ton, there would be a loss on every ton shipped.

The applicant claims to be stock piling high grade ore during the cleaning out process. At the time of the examination, less than 100 pounds were stocked and appeared no richer in value than the stringers sampled underground.

7. Employment

The applicant has five men employed on the property in the following capacities: two miners, one topsman, one hoistman and the superintendent, Mr. Kuchar. Mr. Kuchar is a capable man and has done an excellent job with the shaft. In addition Mr. J. D. Merill stated that he was paying his brother Paul Merill, who is manager of the local radio station and Mr. Albert Spalding, an electrician for the water company small salaries. These men are partners with J. D. Merill in the mining venture. However, they did not appear to be working at the property and it seems unreasonable that they should receive compensation from the Government when they have positions of merit.

12. Comments of Supervising Engineer.

The applicant has done an excellent job in retimbering the shaft and opening up the levels through the efforts of Mr. Kuchar, the superintendent. From observations and conversations, it appears that none of the partners know very much about mining except Mr. Albert Spalding, who is the promoter of the mine.

The history of this property is shrouded in various promotions that have extended over a period of 40 years. During this time a number of shafts were sunk varying in depth from 175 feet to over 500 feet without encountering water or sulfide mineralization. However, from the Lone Star shaft some copper ore was extracted, but the returns are not available.

With funds from a Class C Loan, the applicant has reopened the the Lone Star Shaft to the 150 foot level and has made accessible for examination and sampling stopes east of the shaft. Although the applicant was allowed $750 for sampling and assaying, apparently little was used for that purpose. Your engineer sampled all available places that indicated copper mineralization. These samples suggested that a small body of ore might be present east of the stoped area. However, the average width of this body is a little over 6 inches and has an average grade of 6.3 percent copper. Thus the size of this body and the grade of the ore are to small to be of commerical value.

Your engineer does not recommend that a Class B Loan be granted for the following reasons:

1. Sampling of exposed ore reveals that the grade of copper is to lean.
2. Width of ore is to narrow.
3. Lack of drifts exposing rein for determination of continuity of copper mineralization.
4. Surface exposures have revealed only near surface concentration of oxide copper.
5. Proposed plan of development as outlined by the applicant is speculative prospecting, the applicant does not have data indicating that excellent values will be disclosed at the water level. Should excellent values be encountered at water level, there is no evidence to indicate that the rein will be any wider there than exposed on the upper levels.

6. Water for mining operations and drinking purposes must be hauled in barrels from Safford, Arizona as there is no source of water for mining operations on the property or near by properties.

Charles A. Rison
Supervising Engineer

Attachments:

Map of Lone Star underground workings
Assay certificates

B-ND-3956
C-ND-7517

Date of Examination Oct 20, 21

1 Name and Address of Applicant

Lone Star Mines, Inc
c/o J. D. Merrill
Safford, Arizona

Correspondent Same

2 Character of Project

To produce copper ore for shipping or milling by sinking shaft additional 100 feet and drifting on 800 ft six levels -

3 Location of mine

In Sec 26 and 27, T. 7 S., R. 26 E, Lone Star Mining District, Graham County, Ariz.; 10 miles northeast of Safford, Ariz, the nearest railroad shipping point

A. E Almind May 20, 1930 ME.

Rich oxide and carbonate ores are said to have been exposed on the surface as bold outcrops. The copper content was from 15 to 60 percent

I L. Qualey promoter, Boston, Mass -
caused to be mined the rich black sulfide ore body which had been encountered near the Lone Star shaft on the 100 ft level. (This would indicate sulfide enrichment at just below 100 ft) why go to 600 ft or water level)

Miles, Clara, Elsie shafts 200 - 500 ft
spalding says " 117 feet From this point on down as far as we went 485 feet - the vein is continuous without a break cu - trace to 4 and 5 percent
and it was at that time my firm conviction that another 50 - 100 feet of depth would put us into commercial

ore -- that is shipping ores-

~~production~~

Stated to be about 1200 tons of 15 to 60% cu ore.
(no records are available)
whereas the sulfide ores have been developed at some points, none of the above productions can be credited to sulfide ore

Country rocks

acid intrusive volcanics
E 15 to 40° N with dips of nearly vertical
porphyritic schist — younger volcanics
andesite porphyry — basalt, rhyolite tuff
qt por
diabase & diorite — qtz - second time large
bodies of silica

numerous veins 2' to 20' in width NE - SW -
There are probably 10 or more veins

Minerals

pyrite - marcasite
chalcopyrite
chalcocite

The only sulfide mineral observed within the veins was chalcocite
" In depth at permanent water level, the enriched secondary copper ores are unquestionably in these main veins to be opened by the deeper development of the veins "

assured Minerals

With the number of shafts on the property of depths up to 500 feet, we would expect to find an important tonnage of assured or blocked out ore. But because of the occurrence in the veins at shallow depths, of shipping value of ores, practically all of the available tonnage has been mined and shipped to the smelters
The development of the richer ore horizon of the veins has not yet been accomplished. Without doubt the level of sulfide ores will be encountered within the next one or 200 feet - while at the depth of 50 to 100, 15% to 60% cu shipments of ore were made

it is reasonable to expect that the richer ore as shipped from the veins in depths will carry from 15 to 40 % cu. with the opening of the sulfide ore horizon an important tonnage of shipments of excellent grade of cu ore can be maintained

The development of a large tonnage of cu ores disseminated in the quartz porphyry or in the large shear zone that diagonals across the porphyry is the ultimate to accomplish for the making of a very large copper mine

Water - No water supply -
Domestic water.
Carried from Sifford -

Engineer Almind not underground! how does he know that by sinking shaft 200 feet deeper on the vein sulfide ore will show -

NO	width	70 cu	mult x 70 cu.
11	6"	5.95	35.70
12	6"	3.25	19.50
13	10"	4.50	45.00
14	6"	7.30	43.80
15	6"	11.70	70.20
15)	34"		214.20
	6.8"		

.57
12) 6.8
60
80
24

6.39
34) 214.2
204
102
102

85 x 20 x .57 / 11 — 88

40 x 45 x .57 / 11 — 93

181 ton 6.39 cu

85
20
1700
.57
119
85
11) 969.00 (88
88
89
88

45
40
1800
.57
126
90
11) 1026. (93
99
36
33

63
2000
126 lbs.
del. 10
1156
90
104.40
.14.5
5220
4176
1044
15.138

17
25
14.5

15.14

Reconstruction Finance Corporation
Mining Division
Report of Supervising Engineer

①

Docket No	B--ND 3956
Date Authorization for Examination Rec'd	Nov 24, 1942
Date of Examination	Jan 7, 1943
Date of Report	Jun 1943

1. Name and Address of Applicant
Refer to original Supervising Engineer's Report and Engineer Examiner's Report.

2. Character of Project
To drift on 100 and 150 foot levels some 250 feet to developed and produce Copper ore of shipping grade

3 Location of Mine
Same as stated in previous reports.

4 Applicant
There is no change in status of Applicants competency.

5 Loan Requested.
Amended application received in washington, D.C. October 26, 1942 asked for $20,000. Application was declined. A petition from the applicant was received in Washington, D.C. Nov 25, 1942 requesting that reconsideration be given to its application for a development loan. Hence it is assumed that the same sum is being asked.

C. Description of Project

A. General Features: Same as before.

B. Existing Development

The attached map showing plan of levels and longitudinal section along plane of vein gives the length of drifts and the approximate outline of the old stopes some of which are caved and inaccessible. Since the first examination the applicant has retimbered the shaft below the 100 foot level to the 150 foot level and has drifted west on the 100 level an additional 85 feet. Also the applicant opened the surface west of the shaft for a distance of 20 feet and a depth of 5 feet.

The above work resulted in the applicant finding that former lessees had depleted available ores from the upper workings. However, in driving the drift west on the 100 foot level a small body of ore was encountered that averaged 14 inches in thickness and about 15 feet long. The ore from here together with about one ton from the surface slope and one ton from above the 50 foot level made a small shipment of approximately 9.4 dry tons averaging 17.22 per ton. This value was increased to

$27.81 per ton with the 5 cents per pound bonus. Stoping was not done on the small body of ore encountered, thus leaving fines to be sampled.

Your engineer took five additional samples: two in the center of the stope exposed on the 100 foot level, two from the surface stope and one from the 150 foot level. They are recorded below as well as on the longitudinal section of the mine.

No17. Six inch vein exposed in floor of drift. assay 3.1 oz Ag and 12.52 % Cu.

No18. Fifteen inch vein exposed in roof of drift directly above No 17.
Assay 4.0 oz. Ag and 21.50 % Cu.

No19. Twelve inch vein exposed in face of west drift. assay 0.4 oz Ag and 1.41 % Cu. Face showed some indication that copper mineralization was coming in ahead and sample was taken for that reason.

No20 Four inch vein exposed in surface stope. assay 19.4 oz Ag and 23.22 % Cu.

No 21. Ten inch vein exposed in surface stope 9 feet east of Sample No 20, assay 6.7 oz Ag and 10.80 % Cu.

C. Proposed Development

1. Recommended plan of development

The applicant proposes to drift west on the 100 foot level 135 feet and intersect the stope extending down from the surface; to drift west on the 150 foot level 50 feet to intersect the downward extension of the ore exposed on the 100 foot level; and to drift east on the 150 level 75 feet to intersect the possible extension of the worked out stopes above the 100 foot level.

D. Equipment

Copy list submitted by applicant

E Cost Estimations

1. vein deposit

(a) Mining costs not known (possibly 3.00 per ton)
(b) Drifting 12.00 per foot (5 x 7)
(c) Crosscutting (none contemplated)
(d) Raising (" ")
(e) Winze (" ")
(f) Shaft sinking (" ")

(g) Milling (not applicable)
(h) Haulage, crude ore
Mine to railway $1.00 per ton
Mine to Smelter 6.00 " "
(i) Freight crude ore to smelter
$1.85 per ton Safford, Ariz to Miami, Ariz.
(j) Smelter Treatment
Treatment charge $3.50 per ton
Excess metal values are $15.00 10%.
Sampling 1.00 per ton
(k) other Costs: none anticipated
(l) Timber 50.00 per 1000 cu ft mine
(m) Total cost per ton $13.25.

F. Ore Reserves

Work above the 50 foot level disclosed that lessees had taken out all but a few patches of ore. However additional drifting has disclosed a small ore body about 15 feet long and 14 inches wide. On the surface a small stope was developed showing a vein of copper oxide ore varying from 4 to 10 inches wide. On such small showings it is impossible to estimate any ore reserves.

The value of the ore mined will not doubt be as favorable as that shown by the applicants liquidation sheet from the smelter, but the quantity of such

a grade is doubtful when the ore varies between 4 and 15 inches wide. The ore mined to date has cost approximately $530 a ton.

Based on smelter returns one shipment of 9.4 tons let us assumed that all future ore will average $27.50 per ton which includes the 5 cents per pound bonus.

Average grade of ore		$27.50 per ton
Cost of mining	3.00 per ton	
Hauling to Smelter	6.00 " "	
Smelting	4.25 " "	
Overhead costs	2.00 " "	
Total cost per ton	15.25	15.25
Net profit per ton		$12.25

To pay back the $5000 on the class C loan and the $3000 on this loan ~~drift 250 feet at $12.00 per foot~~ will take 653 tons of ore. Where is this ore to come from? First, on the 100 foot level a short 15 feet long and 6 foot average width for 100 feet will bring approximately 136 tons and on the surface a stope 20 feet long and 1 foot average width for 100 feet will bring approximately 18.1 tons. This is less than one half the tons necessary for paying back the loan. ~~This engineer is not going on record as believing that the ore will~~

~~be continuous for 100 feet in depth~~.
However there may be possibilities of additional stopes if the proposed plan of development as laid out by this engineer was followed, but the possibility of ore being continuous for 100 feet in depth is not considered as being favorable.

7. Employment.

The same number of men will be employed as was originally stated.

8. Comments of Supervising Engineer

Since the first examination by this engineer the applicant has retimbered the shaft from the 100 level to the 150 foot level; driven the drift west on the 100 level 85 feet; mined 9.4 tons of ore from the surface and underground workings; built an ore bin and has made other minor improvements.

The new ore exposures are no wider than other exposures sampled previously, although the grade of the ore is somewhat higher. This does not indicate that the grade of ore to be mined will be higher than that shipped to the smelter.

I have indicated to the applicant that the chances of additional funds are not too good. However I have laid out a development program to the applicant on the following basis:

Drive drift west on 100 foot level 100 to

125 feet, Drift on 150 foot level, 50 feet west and 705 feet east. Total drifting 250 feet at $12.00 per foot - $3000.00.

The above program is agreeable with the applicant, but this engineer can not see where sufficient ore will be developed to repay the loan.

Charles A. Rosa
Super. Engineer

Attachments

Map of Lone Star underground working
assay certificate

Reconstruction Finance Corporation
Mining Division
Report of Supervising Engineer

Docket No	ND-5242
Date authorization for Exam. Rec.	Dec 29, 1942
Date of Examination, inclusive	Jan 7, 1943
Date of Report	Jan 1943

A preliminary development loan of $5,000 was made under Docket No-CNB-7517 and approved on August 28, 1942 to the captioned borrower. The purpose of the loan was to retimber and rehabilitate the underground workings of the applicant's copper mine, the Lone Star mine, near Safford, Arizona. With the funds obtained, the applicant was able to retimber 150 feet of the 485 foot shaft, drift 85 feet, mine 9.4 tons of copper ore and rehabilitate the surface and underground workings. During this work the applicant ascertained that lessees last working in the mine had practically exhausted all the ore in sight. Such a condition was evident to your engineer at the time of his examination and an adverse report was made. Upon learning of the decline on their Class B loan application (Docket No B-ND-3956) the applicant

petitioned November 20, 1942 for reconsideration of their application for a development loan on the basis that the applicant had encountered bodies and lodes of ores of merchantable grade subsequent to my examination. Submitted with the application was a smelter liquidation sheet showing that 9.4 tons of ore had been shipped.

Consequently this office received a letter authorizing a subsequent examination. On Dec 6., 1942 Mr D. F. Campbell, Supervising Engineer in this office stopped in Safford, Ariz on his way back from examinations in New Mexico to make the authorized examination. Mr. J. D. Merrill, pres. of the company considered that an examination at that time would be of little help as none of the ores were in ore. Hence an examination was not made.

The poor showing in the mine caused the applicant to consider another method of reopening the caved portion of the shaft below the 150 foot level. This method took the form of an <u>Application For A Supplemental Preliminary Development Loan</u> dated Dec. 12, 1942. for an additional $5000, on the theory that on some Class B Loans an additional $10,000 could be granted.

The applicant submits that the specific purpose of the application was to retimber, make accessible, make preliminary development of mine workings and to sample and assay ore from portions of the same mine as the original grant, but not included within the first class C plan for the reason that sufficient funds were not available from a $5,000 loan. The proceeds of this loan will be applied to the following specific objectives namely:

Retimber 335 feet of shaft	
Lumber and timber	$ 2000.00
Labor	2000.00
Fuel, operating costs	1000.00
Total	$ 5000.00

This file does not have any of the original data upon which the original $5000 loan was granted. Undoubtedly some reports must have been submitted to indicate mineralization of sufficient strength to warrant this $5000, again the applicant does not submit any additional information concerning the grade of any ore that might be found in the bottom of the shaft except to state that the additional funds will make accessible and reveal sufficient

mineral showings to warrant the making of a development loan to the applicant and be advantageous to the national defense.

This engineer can not see where any good will result from reopening a hole in the ground. There are at least four other deep shafts in the near vicinity and a close examination failed to reveal any copper mineralization that could be seen with the eye. ~~There was some evidence of pyrite disseminations on the dumps.~~

Lessees working in the mine no doubt dumped waste down the shaft and that may be one of the reasons why the shaft is so filled with muck at the 150 foot level.

The evidence gathered during this examinations made on this property does not warrant further expenditures in reopening the shaft below the 150 foot level.

Charles A. Rosser
S. E.

Have new 600' Cable
" 2 air hose
" air hose & water hoses.

250
12
50
25
3000

No 18 15" vein cu oxide in roof widest part of vein

No 17 6" vein cu oxide in floor widest part

1 Con from open cut
8 " " drift
where cu oxide shows
1 con from stope 50' level.

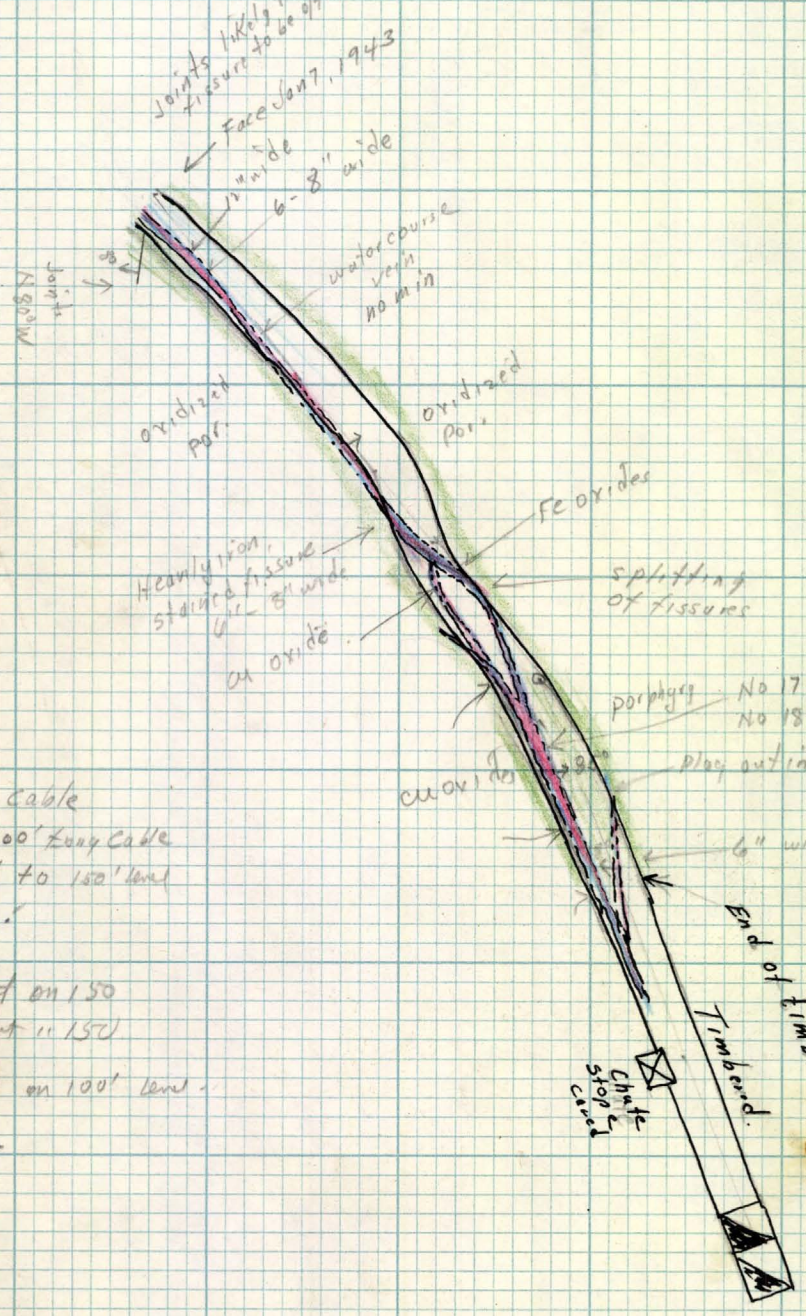
1 - 3" pipe to 100 and 150'
1 - 2" pipe to face 100' west
1 - 2" in stope 50 level

No 19 12" vein west face 150' level.
cu stain H.W
heavy iron stain F.W.

No 20 4" wide
4' from edge of old cut
cu - oxide

No 21 10" vein
13' from edge of cut
open cut 20' long
5' deep 4' wide

air line to cut new ore bin
Compressor
light plant.



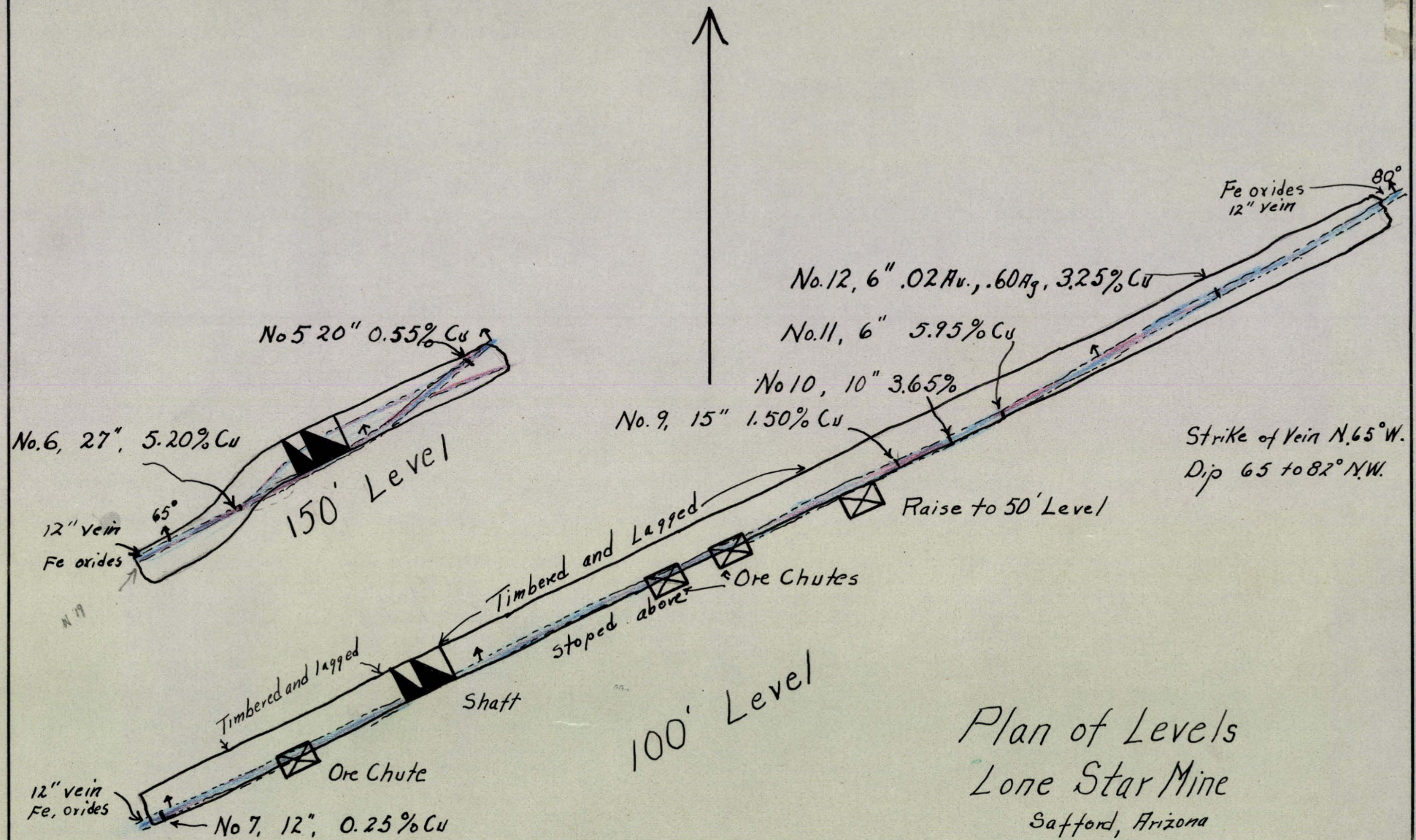
Traded old cable
have new 600' Long Cable
Shaft fixed to 150' level
marked out.

100' east on 150
50' west " 150
100' west on 100' level.

Blower -

Lone Star Mine
Jan 7, 1943
Scale 1" = 20'

MADE IN U.S.A.
KEUFFEL & ESSER CO., N.Y.
10 × 10 to the inch.



Plan of Levels
Lone Star Mine

Safford, Arizona

Scale 1" = 20' Oct. 1942

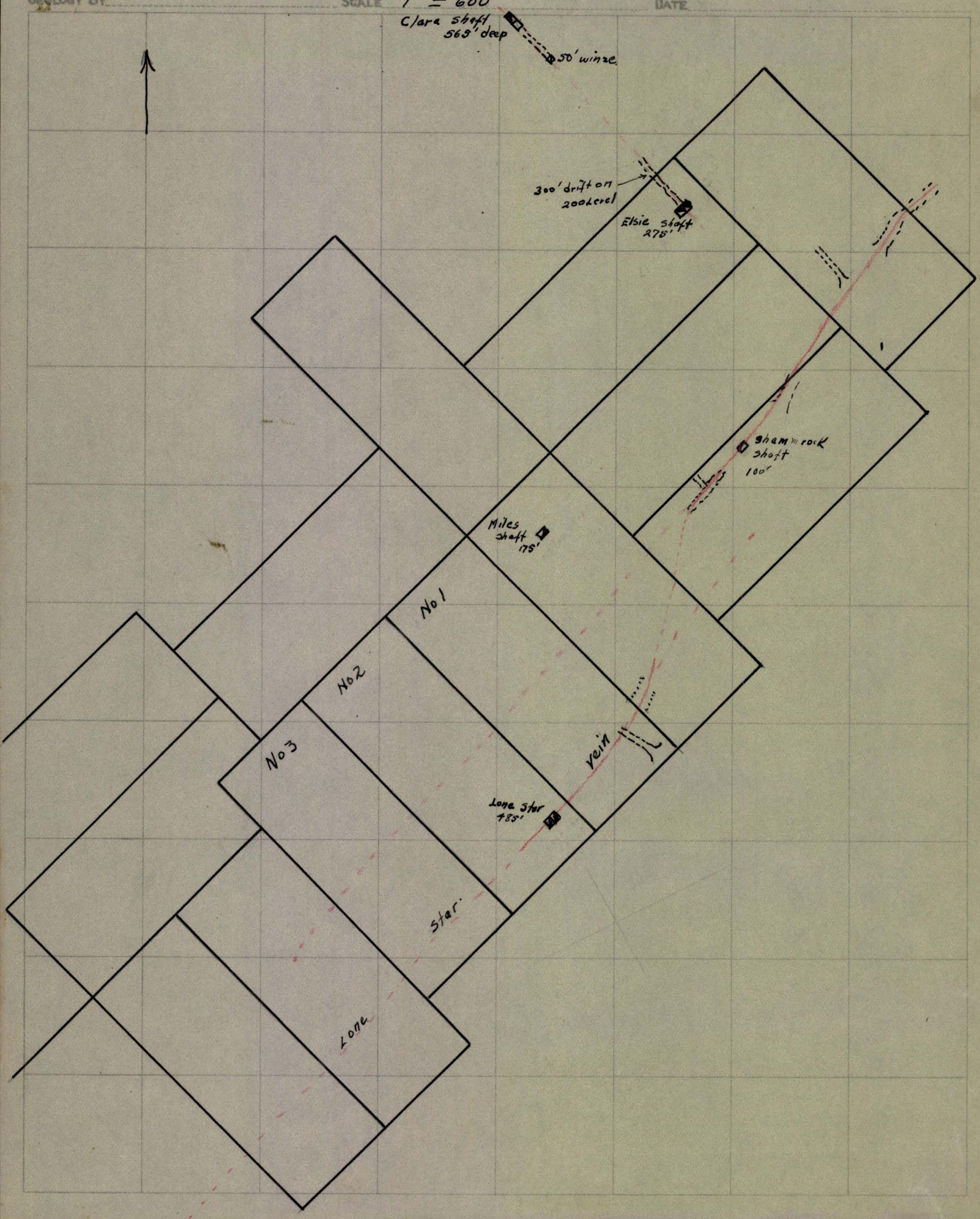
C-ND-7517

B-ND-3956

Charles A. Rasor

Examined Oct. 19 and 20, 1942

LOCATION Safford, Arizona MINE Lone Star LEVEL
SURVEY POSITION
GEOLOGY BY SCALE 1" = 600 DATE



Lone Star

Retimber	385' shaft	1925.00
Labor	260 man shaft	2175.00
Sinking	115' @ 20	2300.00
purchase compressor		4000.00
Drifting	@ 1/2/ft 800	9600.00
		20,000.00

Huist powered Ford engine
30' head frame
retimbering
new station
hoist house
dump car
work on road

Shallow shaft East Lone Star
12' deep vein N 54° E dip 82° NW
vein about 18" wide
Half way between Lone star and Clara
on No 26 Kalonized rock. many tiny seams
cu SiO_2 in narrow seams - appears not to be
go very deep.
chalcocite 1/4" seams near surface with green silicate
on each side

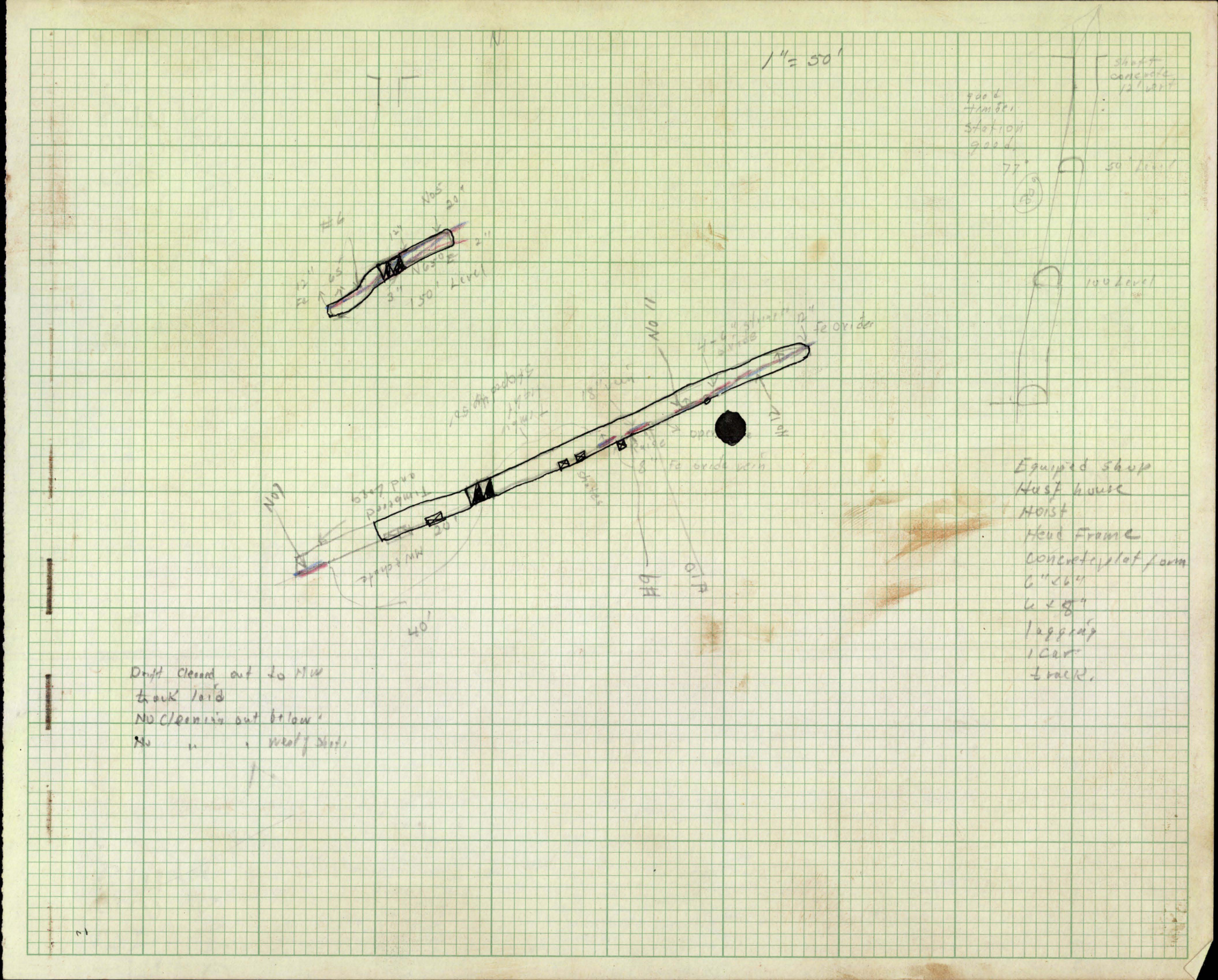
Elsie
~~Clara~~ shaft. very old
275' deep - 300' drift on 200' level -
dump covered with yellow and red iron stained
rock - on breaking to fresh surface Rock show
dissemination of minute specks of pyrite
along seams of rock. conc of pyrite to 1/8" thick
Rock fine-grained rhyolite porphyry.
At least this shaft got below zone of oxidation
no evidence of cu present here -
This shaft at least 200' higher than Lone star -

Clara shaft Dump yellow iron oxide.
Tunnel on vein 2" streak - where cu ore came from
No ore came from dump or deep shaft
in Tunnel, shaft ~~with~~ with water. deep shaft

Prosperity shaft
30' deep dump shows cu silicate
possible some red + black cu oxide
Fe oxides
N 30° W dips 85° NE

Miles shaft
working shaft centrally located
175' deep
material on dump dessiminated pyrite
in rock, oxidized typically yellow on surface
characteristic color of any pyrite rock altering
on surface no evidence of cu seen -

over


1" = 50'
N
#6
No5
20"
12"
2"
N65°E
12"
65
3"
150' Level
No 11
4-6" stringer oxide
12" Fe oxides
18" vein
Raise
8" Fe oxide vein
No 12
No 7
Timbered and Lagged
20'
40'
#9
#10
good timber
station good
77°
50' Level
100 Level
Shaft concrete 12' vert
Equiped shop
Hoist house
Hoist
Head Frame
concrete platform
6"x6"
6x8"
lagging
1 car
track.
Drift cleaned out to MW
track laid
No cleaning out below
No " " west of shaft

Sample #1.
4" cut on H W of vein
green stain.

Sample #2
4½" cut on F W of vein
which is 4' across.
green silicate.
no mineral in between.

Sample #3
4½" vein black oxides
Probably from oxide + silica.

Sample #4
12" vein 5' below surface
in E face of cut
doesn't look good.

Sample #5
20" vein 150' level
20' east of station
Fe oxide Pyrite
vein Banded

Sample #6
27" vein East face
Fe, cu oxides

Sample #7
12" vein in F.W of
Drift W. from 100' Level
Fe oxides.

Sample #8
8" vein 4' below
100' Level W. drift
hard cu oxide vein

Sample #9
13" vein 4' E of
M W to 50' Level
Fe Oxide 2%

Sample No 10
6' East of #9
4' higher
10"

Sample No 11
20' W of 100' station
100 level.
6" vein of hard cu
oxide

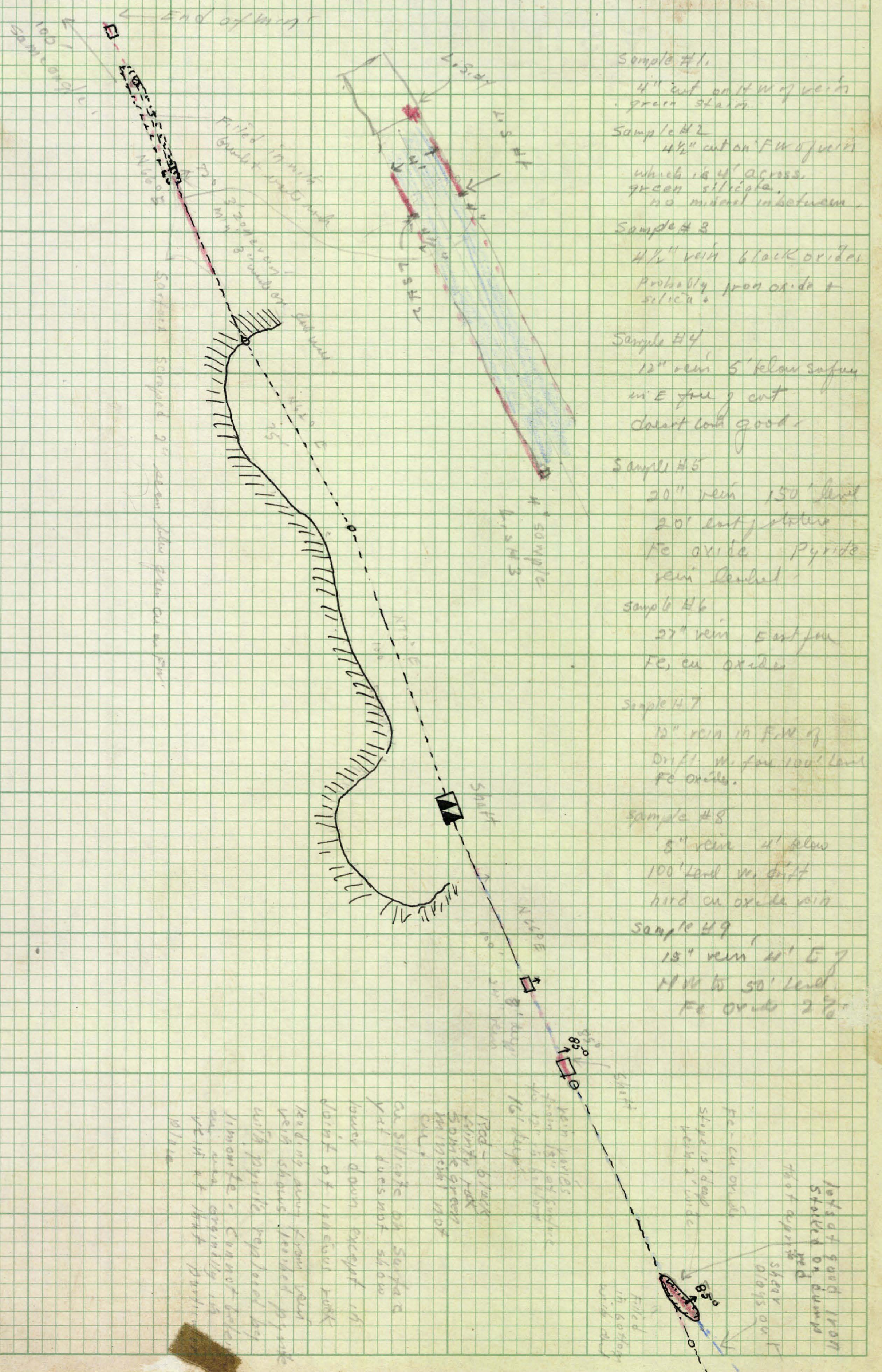
Sample No 12
6" vein
35' East of
100' station
100 level.
Rich, Fe, cu oxide

Sample No 13
10" vein face of
50' Level East
hard ore Fe-cu oxide

Sample No 14
6" vein 10' East of
M.W. 50' Level
hard ore.
between 13-14 fair
vein

Sample No 15
6" vein hard
Cu-Fe oxide
Over M.W.

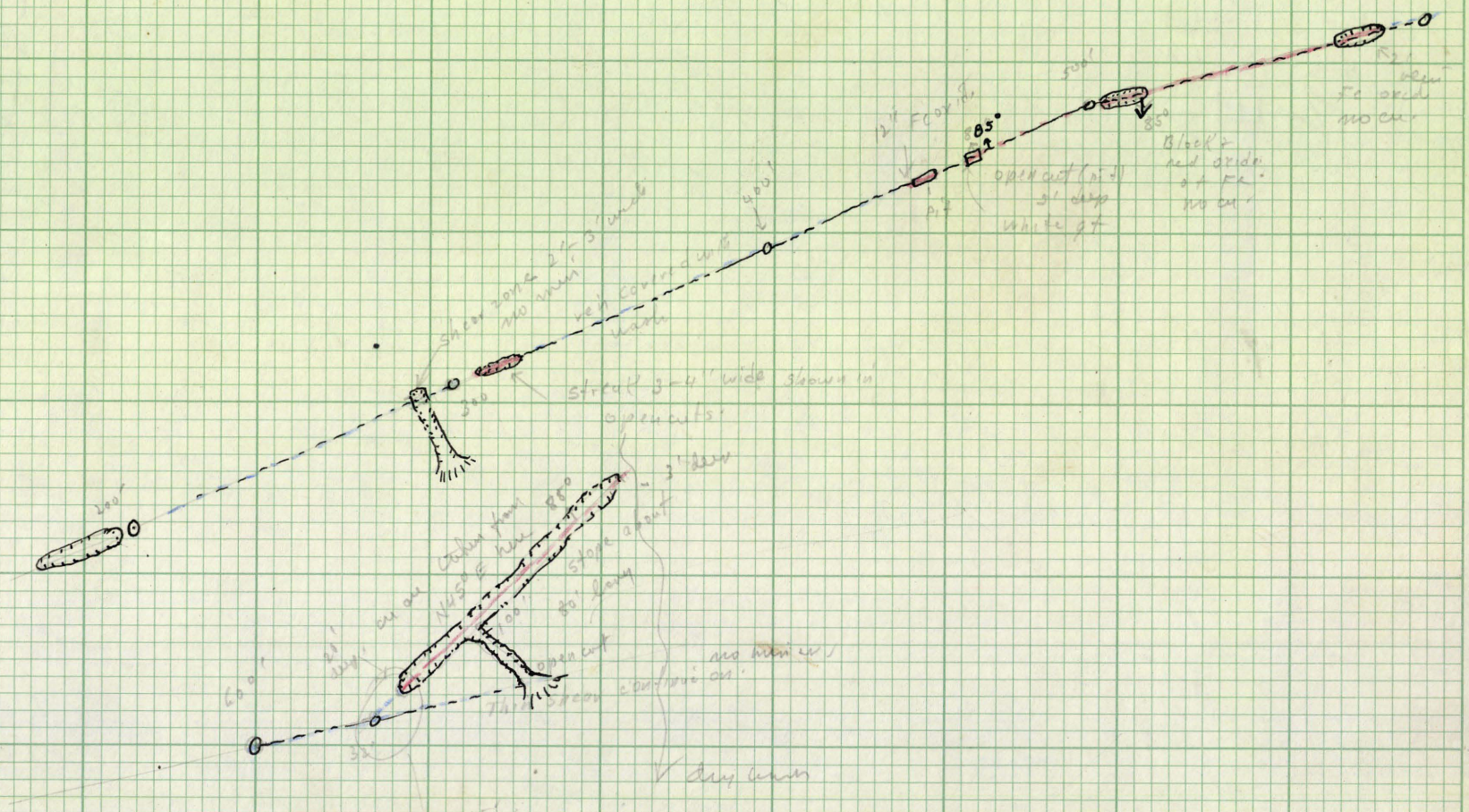
Sample No 16
6" vein 10' West
M.W. 50' level.

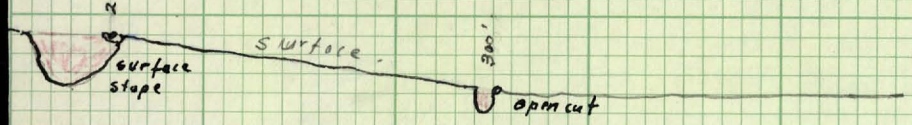


Lone Star Mine

Scale 1" = 50'

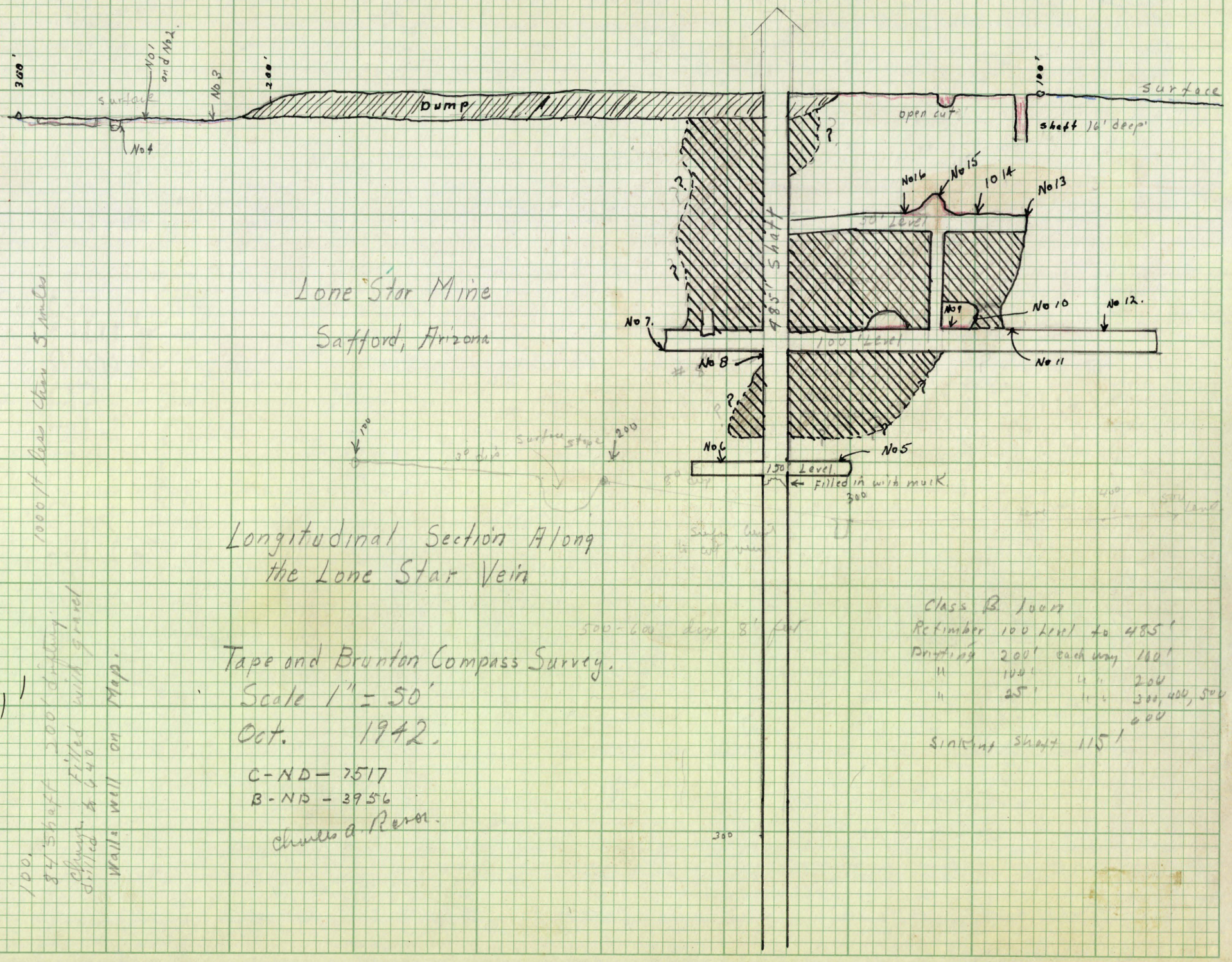
Oct 20, 1942



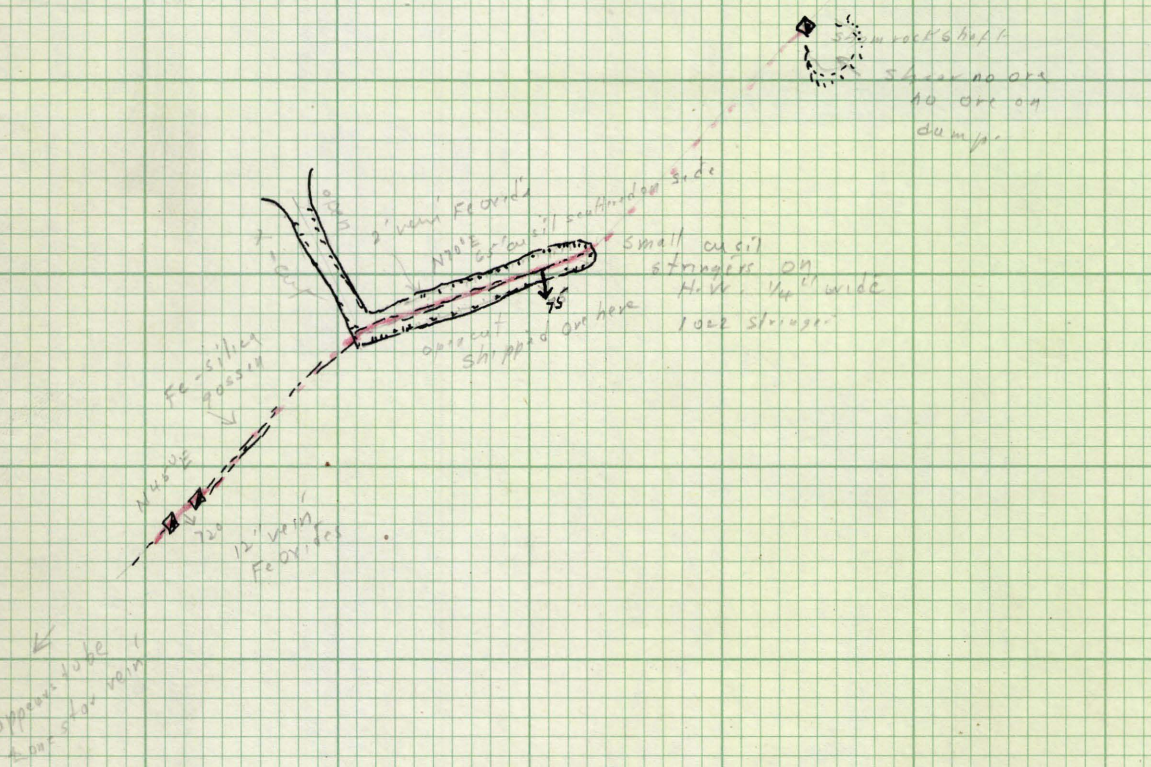


Sample No	Width	Assay value: Au oz	Ag oz	Cu %
No1	4"			
No2	4½"			
No3	4½"			
No4	12"			
No5	20"			
No6	57"			
No7	12"			
No8	8"			
No9	15"			
No10				
No11	6"			
No12	6"			
No13	10"			
No14	6"			
No15	6"			
No16	6"			

Lone Star Mine



Shammrock

Oct 20, 1942
Scale 1" = 50'

Scale 1" = 50'
14° Dec