



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
520-770-3500
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

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RECONSTRUCTION FINANCE CORPORATION
MINING SECTION
LIQUIDATION REPORT

Borrower: Bert L. Forbis
Docket No: MD-8694
Date of Report: January 24, 1947

1. NAME AND ADDRESS OF APPLICANT:

Bert L. Forbis
524 West Oregon Avenue
Phoenix, Arizona

2. LOCATION OF PROJECT:

In Sections 4 and 9, T. 7 S., R. 32 E., Clear Lake Mining District,
Greenlee County, Arizona, 17 miles from Duncan, Arizona.

3. AMOUNT OF LOAN AND DATE OF AUTHORIZATION:

A loan of \$2000.00 was approved September, 1946.

4. PURPOSES FOR WHICH LOAN WAS EXPENDED:

Loan was expended to unwater applicant's fluorspar mine to permit an
examination of the underground workings.

5. EQUIPMENT:

No equipment was purchased with loan funds. That used was rented.

6. PROPERTY:

Applicant is the owner of five unpatented lode mining claims.

7. COMMENTS:

Applicant's original request for a loan of \$5000.00 was declined November 8,
1944. In September, 1946, applicant received \$2000.00 to unwater the mine.
The first withdrawal was for \$1000.00, and with that amount the applicant
unwatered the mine and prepared it for examination. The examination re-
vealed a small ore body narrowing with depth and a further loan for de-
velopment was declined. On January 23, 1947, applicant surrendered the
balance of the loan - \$1000.00 - which was sent to the Federal Reserve
Bank as credit against the indebtedness of the Borrower.

8. CONCLUSIONS:

The proposed project failed to reveal any material quantity of ore, and
it is believed that the property has no value at this time. Consequently,
the remaining part of the loan should be considered a loss.

9. RECOMMENDATIONS:

It is recommended that this account be closed.

CHARLES A. RASOR
Supervising Engineer

file

XXXXXXXXXXXXXXXXXXXX

325 Heard Building
Phoenix, Arizona
November 1, 1946

TULLY - Acting Chief - Mining Section, RFC - Washington 25, DC

Re: Bert L. Forbis - Docket No. ND-8694

Enclosed please find Report of Supervising Engineer, in duplicate, covering the above captioned project, together with duplicate copy of application.

CHARLES A. RASOR
Supervising Engineer

CAR:gmk

Enc:

- 2c - Report of Sup. Engr.
w/supporting data
- 1c - Application

RECONSTRUCTION FINANCE CORPORATION
MINING DIVISION
REPORT OF SUPERVISING ENGINEER

Docket No: ND-8694
Date Authorization for
Examination Received: October 18, 1946
Date of Examination: October 22, 1946
Date of Report: October 31, 1946

PREFACE

Applicant's original request for a loan of \$5000.00 was declined on November 8, 1944. Through the intervening years the applicant has been writing letters requesting reconsideration based on a number of factors, some of which were not pertinent to the property.

During September, 1946, applicant was granted a preliminary development loan of \$2000.00 to unwater the mine and make it accessible for examination. Applicant spent \$1000.00, rented some pumping and hoisting equipment and unwatered the mine. This report considers applicant's request for additional money to develop the fluorspar showing.

1. NAME AND ADDRESS OF APPLICANT:

Bert L. Forbis
524 West Oregon Avenue
Phoenix, Arizona

Correspondent:

Same

2. CHARACTER OF PROJECT:

To sink 100-foot shaft, drift 150 feet and purchase equipment to develop a fluorspar property.

3. LOCATION OF MINE:

In Sections 4 and 9, T. 7 S., R. 32 E., G&SRM, Twin Peaks Mining District, Greenlee County, Arizona, about 17 miles from Duncan, Arizona, the nearest railroad shipping point. Ten miles of the road is paved. The other seven miles have recently been graded by the county and are passable except during heavy rain storms.

4. APPLICANT:

Applicant is an accountant by profession, and before he went into the mining business in 1937, had charge of C.C.C. camps in New Mexico and later near Duncan, Arizona. During the time he was around Duncan, Arizona, he became interested in fluorspar and obtained the mine now under investigation. He operated the mine and shipped approximately 5500 tons of metallurgical fluorspar up to June, 1941. At that time he was called into the army and the mine was closed down. The applicant appears to be capable of handling the proposed project.

5. LOAN REQUESTED:

\$13,000.00

6. DESCRIPTION OF PROJECT:

A. General Features:

1. There are no mine workings, mill or other necessary appurtenances which are not confined within applicant's ownership.
2. Project would comply with State Compansation and Safety-First statutes.
3. There are no legal discrepancies which are not covered in Engineering report.
4. Right-of-way facilities for all operations are unimpeded.
5. No likelihood of surface or sub-surface trespass during project.

B. Existing Development:

1. Shaft Mine:

a. Maps:

A tape and compass survey was made of the surface and underground workings. There are three shafts on the property. Two shafts are at each end of the surface showing of the vein, and a shaft near the middle. There is a level at the 125-foot depth measured down the North shaft and which extends to the Middle shaft. The drift extends beyond, probably to the South shaft, but there is no connection. Below the 125-foot level the North shaft extends 44 feet. A short drift extends south about 12 feet. The Middle shaft extends below the 125-foot level 35 feet to a level that runs north 112 feet. (See map.) The vein has been stoped out to the surface.

b. Sampling:

There is no ore exposed except in the floor of the lowest drift, and it is poorly exposed. From the few cuts in the floor, the vein varies in thickness from 36 inches to 8 inches. A sample of this ore was taken for analysis. It assays as follows:

CaF ₂	98.12%
CaCo ₃	1.48%
SiO ₂	.40%

This is acid grade spar and will command the highest price in the market. However, in mining this grade could not be expected as waste would enter to some extent. Nevertheless, the applicant did expect to sort out the lumps and ship them for acid grade spar.

c. Condition and accessibility of mine workings:

All the mine workings were accessible except the South shaft and the stopes. Water rises to the 125-foot level.

d. General features of deposits, ore distribution, etc.:

The property consists of five mining claims situated about 17 miles northeasterly from Duncan, Arizona, among some low foothills. One claim covers the Polly Ann vein upon which most of the work has been done.

The vein is exposed for about 350 feet where it crosses a shallow gulch, and varies in strike from N 50° W to N 10° W. Along the ridges the vein is covered with Gila conglomerate and cannot be followed. In dip the vein varies from 85° to 75° to the southwest.

The rocks which enclose the vein are volcanics; mainly andesites and volcanic tuffs. Mineralogy is simple. The most important being fluorite that varies in color from clear to light bottle green. Some calcite is present, along with minor quartz. There are no sulfides. Close to the water level there has been deposited on the fluorite some secondary manganese oxide which is believed to be psilomelane.

Structural control of the ore deposit appears to be merely filling of a fault fissure that has cut across the volcanics.

A study of the longitudinal section of the vein indicates a wedging out of the fluorite at depth. The applicant does not agree to this theory, for he thinks that by driving north on the vein structure it will open up into ore again. I do not believe that it will, and it appears from the placing of the North shaft that some one else did not either. The North shaft dips down the rake of the ore, and when the north face of the 125-foot level is examined the fissure is about one inch thick and contains no fluorite. The fluorite mineralization faded out about twelve feet back from the face.

An examination could not be made of the South shaft, but it is doubtful that any stoping occurred like the applicant stated. From the Middle shaft a drift extends to a place near the projection of where the South should be. The entire distance of more than 100 feet did not reveal a trace of fluorite. The fissure is there, and the andesite is broken up by brecciation, but no ore. Applicant claimed the drift was off the vein, but that is not a plausible idea, for the drift starts away from the Middle shaft on the vein, but without mineralization, and continues the whole distance on the vein. Near the end of the drift the applicant raised and found fluorite about 50 feet up.

In the bottom of the North shaft a short drift extends south about 12 feet, where it broke into a cavernous condition. Applicant had a hose attached to a 20-foot section of pipe down this cave and in this way was unwatering the mine. There was no vein present. A little fluorite occurred on the walls, like quartz crystals in a vug. Applicant was a little distressed at my pounding around looking for the vein, and finally stated:

d. General features of deposits, ore distribution, etc.: contd.

"It don't look worth a damn, but there is ore right by."

Both he and his assistant stated that such a condition in other parts of the mine was conducive to ore in the near vicinity.

Down the Middle shaft to the lowest level there was no ore showing on the south side of the shaft. The showing was merely a repetition of what was seen south on the 125-foot level.

To the north from the bottom of the shaft a drift extended 112 feet and was connected to the short drift from the North shaft by a small air hole in the floor. From what could be seen, there is an ore shoot in the floor about 100 feet long that varies in thickness from 8 inches to 36 inches.

One of the things about the vein which should be taken into consideration is that ore was not continuous throughout the stoped area. Although there were some places where it could be observed that the vein was mined 7 feet across, there are any number of places in the stoped area where the vein pinched out and blocks of waste remain in the stoped area which cannot be mapped because of inaccessibility.

From the available data it would appear that the vein matter will disappear within a short depth below the lowest workings.

C. Proposed Development:

1. Recommended plan of development:

Applicant proposes to sink 100 feet below the present bottom of the Middle shaft and drift 150 feet along the vein.

2. Recommendations concerning applicant's mining method:

None

3. Expected capacity of operation:

- a. Mining - Applicant thinks he can mine 15 tons per day.
- b. Drift development - Applicant says he can make 6 feet per day, one shift.
- c. Shaft sinking - Applicant says he can make 4 feet per day, two shifts. Shaft is inclined at various angles - corresponding to dip of the vein.
- d. Local wage scales - Wage scales are \$1.00 per hour except foreman who will receive \$1.25 per hour.

D. Equipment:

1. Workable equipment:

There is not one piece of equipment on the property. Applicant sold all his equipment between September, 1944, and now.

2. Mine equipment recommended for purchase under project:

30 KW Diesel Generator	\$2000.00
Gasoline Hoist	500.00
Compressor	1200.00
Sinking pump	500.00
Jack hammer	325.00
2 sets air & water hose	100.00
Pipe and miscellaneous supplies	500.00
	<u>\$5125.00</u>

3. Condition of buildings:

There is one small building at the North shaft which houses the rented hoist.

4. Recommended camp or other construction:

None. Miners all live in Duncan, Arizona, and will drive. Applicant expects to build a change house.

E. Cost Estimations:

1. Warped vein deposit:

- a. Mining - \$10.00 per ton
- b. Drifting - \$15.00 per foot
- c. Shaft sinking - \$35.00 to \$40.00 per foot (Applicant's figures.)
- d. Milling - No milling costs, ore shipped crude to consumer.
- e. Hauling - \$1.50 per ton mine to Duncan, Arizona.
- f. Freight - Ore shipped F.O.B. Duncan.
- g. Timber - \$60.00 per 1000 at mine.
- h. Overhead - \$1.00
- i. Total Costs per ton - \$12.50.

F. Ore Reserves:

1. Mine has no ore reserves developed.

2. Examination of mine after unwatering the lower level indicates that the maximum length on the lowest level is not over 100 feet long, and on projecting it with depth would materially decrease. Applicant claims that it will increase as the present cavernous condition existing at the bottom of the North shaft is an indication that the ore will come in at greater width soon.

Assuming that the ore goes 100 feet more in depth and averages 1.5 feet width, the following amount of ore would be developed:

$$\frac{100 \text{ ft. (length)} \times 100 \text{ ft. (depth)} \times 1.5}{10 \text{ (cubic feet per ton)}} = 1500 \text{ tons}$$

2. Contd.

Applicant claims he can get between \$22.00 and \$28.00 per ton F.O.B. Duncan for his fluorspar.

Assume the applicant gets		\$22.00 per ton
Costs:		
Mining	\$10.00	
Hauling	1.50	
Overhead	1.00	
	<u>\$12.50</u>	<u>12.50</u>
Profit		\$ 9.50

Thus, the returns from the ore might repay the loan.

7. EMPLOYMENT:

- A. During the time the mine was being unwatered the applicant employed two men.
- B. Applicant expects to employ six men under the proposed project.
- C. Applicant proposes to work two shifts in sinking the shaft, but only one shift in mining.

8. OBJECTIONS TO PROJECT:

- A. None.
- B. General remarks on advisability of project:
It is doubtful that a sufficient quantity of fluorspar will be developed.

9. TIME SCHEDULE:

- A. It will take about 90 days to complete project.
- B. Length of operating season - 12 months.

10. ESTIMATED COST OF PROJECT:

A. Total Development:	
Shaft sinking	\$4000.00
Drifting	2250.00
	<u>\$6250.00</u>
B. Purchase of Equipment	5125.00
C. Contingencies	125.00
D. Repayment of Preliminary Loan	<u>2000.00</u>
Total	\$ 13500.00

11. COMMENTS OF SUPERVISING ENGINEER:

Applicant's mining experience has been limited to the mine under investigation, and from the time he took over in 1937 to June, 1941, worked the mine for a living. During that period he mined approximately 5500 tons of fluorspar that assayed better than 85% CaF₂.

11. COMMENTS OF SUPERVISING ENGINEER: Contd.

Applicant's original request for a loan of \$5000.00 was declined in November, 1944. Since then he has been persistent in his efforts to have the mine examined, and was successful in September, 1946, in obtaining a \$2000.00 loan to have the mine unwatered.

The bottom level shows ore varying in thickness from 8 inches to 36 inches over a drift length of 100 feet. The ore assays 98% CaF_2 , and can be expected to maintain a grade of 85% or better.

It has been estimated that should the ore extend the proposed depth of 100 feet, approximately 1500 tons of ore could be expected, and a profit between \$9.50 and \$13.50 depending on whether the price of spar was \$22.00 or \$26.00 per ton F.O.B. Duncan.

There are two obstacles for a favorable recommendation: first, the apparent wedging out of the ore and expected quantity of ore at depth; and second, the initial cost of equipping the mine, plus applicant's estimated cost of sinking the incline shaft 100 feet.

The outline of the present stope would indicate that the ore would pinch out before the 100-foot depth is reached.

Equipment which the applicant proposes to buy probably will cost more than listed, but he claims he can get most of it from W.A.A. at one-half of the original costs. I discussed with the applicant the advisability of renting the equipment, but he was not keen about the idea.

If the applicant had not sold off all his equipment, a loan of \$5000.00 to \$6000.00 might be justified. The mine is the most extensive in the district, and certainly more worthy than the prospects examined under Dockets ND-8244 and ND-5743. However, it is believed that the mine is practically bottomed and not worthy of serious recommendation of a loan.

Applicant is a little bit on the "cry boy" side - "give me a loan or put me on the payroll", and in all probability will not take the decline graciously.

CHARLES A. RASOR
Supervising Engineer

CAR:gmk

Attachments:
Assay Certificate
Map

LAB FORM 1A

ARIZONA TESTING LABORATORIES

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS

PHONE 3-6272

823 EAST VAN BUREN STREET

P. O. BOX 1888

CERTIFICATE OF ANALYSIS

Phoenix, Ariz., October 26, 1946

61947

No. 61947
Sample of Fluorspar Received October 26, 1946
From Mr. C. A. Rasor, Supervising Engineer, RFC
Marked Bert Forbis #1 Phoenix
Docket #ND 8694

We have employed official methods in the examination of the above sample, and find the results as follows:

Calcium Fluoride (CaF_2)	98.12%
Calcium Carbonate (CaCO_3)	1.48%
Silica (SiO_2)	0.40%

Respectfully submitted,
ARIZONA TESTING LABORATORIES,

By Claude H. McLean Chief Chemist

C.M.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine POLLYANN CaF₂ Date October 7, 1944
District Clear Lake Engineer Earl F. Hastings
Subject: R.F.C. Mine Loan

Docket No. Phx C-284
Date Application Received October 5, 1944
Date of Field Examination (N. Wolcott) October 19, 1939
(A. Macfarlane) September 26, 1944
Date of Report October 7, 1944

1. Name and address of applicant (correspondent):
Bert L. Forbis, 524 West Oregon Avenue, Phoenix, Arizona.
2. Character of project and estimated cost thereof:
CaF₂. Rehabilitate 170 foot main shaft and prepare for sinking and stoping.
\$5,000.00.
3. Location of property:
Clear Lake or Steeple Rock Mining District, near Duncan, Greenlee County,
Arizona.
4. Applicant's interest in or ownership of property:
Applicant is owner of seven years standing by location.
5. Loan requested:
\$5,000.00.
6. Loan recommended:
\$5,000.00.
7. Comments:
 - (A) Added to the docket are:
 1. Report by Newton Wolcott, Field Engineer, Department of Mineral Resources, dated October 19, 1939.
 2. Report and sketch by A. Macfarlane, Field Engineer, Department of Mineral Resources, dated September 26, 1944.
 - (B) The Macfarlane report indicates a probable 4,500 tons of \$20 plus material to be gained at a minimum of time and expense; a yield of \$90,000.

While the applicant's estimate of \$7.50 per ton production cost may be low in that there will be a considerable development and preparation charge against limited production for a period following expenditure of loan fund, there still appears to be an ample margin of profit to make the enterprise financially feasible.

- (C) The applicant is an experienced mining man and has operated this particular property in the past. It is considered that he is capable of intelligent disbursement of loan funds.

October 7, 1944

- (D) Major equipment items are owned by the applicant, a fact greatly expediting early operations.
- (E) The future of fluorspar, both immediate and post war, appears to favor the continual operation of mines able to meet metallurgical grade requirements.
- (F) While development is not extended beyond areas previously partially, if not wholly, stoped, conditions for a northerly extension on the strike and a downward continuation are favorable to additional quantities of marketable material.
- (G) All circumstances appear favorable to self-liquidation of this loan and it can be recommended without reservation.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

Earl F. Hastings, Projects Engineer

8694

Pollyann (Fluorspar)

Bert L. Forbis

Sec 4 & 9, T7S, R32W
Clear Lake Mining District

} west of Two other
properties examined.

Neighbors - NW → R.T. Ellis, west white, Wiley AKers
SE → Forrest Sanders

Production	May 10, 1937 - Dec 31, 1938	1913.74 tons
	1939	1624.67
	1940	1728.51
	1941	247.00
		<hr/>
		5513.92 - 85/5 on better

Shaft 100 — 4500	— 40 per foot	4000
Drifting — 150 x 150		2550
Equipment 30KW generator	2000 from War assets	6250
50KW Diesel		
Run pump compressor	4200	may get this cut in half WAA
Morales Heart	500	
Machini, gold hammer	125	
Sulphur pump	500	
2 sets air hose	100	
Pipe & manifold	300	
compressor New 105	600	WAA
	<u>9525</u>	
	6250	
	<u>12775</u>	
	225	
Contingencies	<u>13000</u>	

To rent equipment on 30KW generator etc. good deal on 6 months
 year basis - but for 60-90 days, 25% of value, guarantee to keep
 equipment in good shape. Price -

36
 15
 32
 8

 731
 18

484

 218
 252
 124
 284

2
 22

1 1/2 x 100 x 100
 150000
 10 / 150000
 15000

218 Wagon
 124 frame
 258 - Bunker
 142 - frame
 194

9652

 281
 182
 2414

 828
 1530

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Preface

Applicant's original request for a loan of \$5000 was declined on November 8, 1944. Through the intervening years the applicant has been writing letters requesting reconsideration based on a number of factors some of which were not pertinent to the property.

During September 1946 applicant was granted a preliminary development loan of \$5000 to unwater the mine and make it accessible for examination. Applicant spent \$1000, rented some pumping and hoisting equipment and unwatered the mine. This report considers applicant's request for additional money to develop the ~~flawless~~ ~~paper~~ showing

59113.6
59097
16.0

131
11.2

R. F. C. ①
Mining Division

Report of Supervising Engineer

Docket No NO-8694

Date authorization for Exam Rec. Oct 18, 1946

Daily Examinations Oct 22, 1946

Daily Report

→ Preface

1. Name and Address of Applicant

Bert. L. Forbis

534 West Oregon Avenue

Phoenix, Arizona

Correspondent

Same.

2. Character of Project

To sink 100 foot shaft, drift 150 feet and purchase equipment to develop a fluor spar property.

3. Location of Mine

In sec. 4 and 9, T. 7 S., R. 32 E., G & S R M
Twin Peaks mining district, Greenlee County,
Arizona about 17 miles from Duncan, Arizona,
the nearest railroad shipping point. Ten
miles of the road is paved. The other
seven miles have recently been graded
by the county and are passable except
during heavy rain storms.

(2)

4. Applicant

Applicant is an accountant by profession and before he went into the mining business in 1937, had charge of C.C.C. Camps in New Mexico and later near Dumas^{Arizona}. During the time he was around Dumas, Arizona he became interested in fluorapatite and obtained the mine, ^{now} under investigation. He operated the mine and shipped approximately 5500 tons of metallurgical fluorapatite up to June 1941. At that time he was called into the army and the mine was closed down. The applicant appears to be capable of handling the proposed project.

5. Loan Requested

\$13000.00

6. Description of Project

A. General Features

1. There are no mine workings, mill, or other necessary appurtenances which are not confined within applicant's ownership.
2. Project would comply with State compensation and safety-feet

(3)

statutes.

3. There are no legal discrepancies which are not covered in Engineering report.
4. Right-of-way facilities for all operations are unimpeded.
5. No likelihood of surface or sub-surface trespass during project.

B. Existing Development

1. Shaft mine

a. maps

a tape and compass survey was made of the surface and underground workings. There are three shafts on the property. Two shafts are at each end of the surface showing of the vein and a shaft near the middle. There is a level at the 125 foot depth measured down the North shaft and which extends to the Middle shaft. The drift extends beyond probably to the South shaft but there is no connection. Below the 125 foot level the North shaft extends 404

(4)

feet. a short drift extends south about 12 feet. The main shaft extends below the 125 foot level 35 feet to a level that runs north 112 feet. (See maps). The vein has been stoped out to the surface.

b. Sampling

There is no ore exposed except in the floor of the lowest drift and it is poorly exposed. From the few cuts in the floor the vein varies in thickness from 36 inches to 8 inches. a sample of this ore was taken for analysis. It assays as follows.

CaF_2 - 98.12%

$CaCO_3$ 1.48%

SiO_2 .40%

This is acid grade spar and will command the highest price in the market. However, in mining this grade care not be expected as waste will enter to some extent. Nevertheless the applicant did expect to sort out the lumps and ship them for acid grade spar.

(5)

c. Condition and accessibility of mine workings
all the mine workings were accessible except the South shaft and the stopes. Water rises to the 125 foot level.

d. General features of deposits, ore distribution, etc

The property consists of 5 mining claims situated about 17 miles northwesterly from Duncan Arizona among some low foothills. One claim covers the Polly Ann vein upon which most of the work has been done.

The vein is exposed for about 350 feet, ^{when it crosses a shallow gulch} and varies in strike from $N50^{\circ}W$ to $N10^{\circ}W$. Along the edges the vein is covered with silica conglomerate, and cannot be followed. In dip the vein runs from 85° to 75° to the southwest.

The rocks which enclose the vein are volcanics; mainly andesites and volcanic tuffs. Mineralogy is simple. The most important being fluorite that varies in color from clear to light brown green. Some calcite is present along with minor quartz. There are no sulfides. Close to the water level there has been deposited on the fluorite some secondary manganese oxide which is believed to be psilomelane.

Structural control of the ore deposit appear to be merely filling of a fault fissure that has cut across the volcanics.

6.

a study of the longitudinal section of the vein indicates a wedging out by the fluorspar at depth. The applicant does not agree to this theory, for he thinks that by drawing water on the vein structure it will open up into ore again. I do not believe that it will and it appears from the placing of the north shaft that some ore else did not enter. The north shaft dips down the strike of the ore and when the north foot of the 125 foot level is examined, the fissure is about one inch thick and contains no fluorspar. The fluorspar mineralization faded out about 12 feet back from the face. An examination could not be made of the south shaft but it is doubtful that any stoping occurred like the applicant stated. From the middle shaft a drift extends to a place near the projection of ^{where} the south should be. The entire distance of more than 100 feet did not reveal a trace of fluorspar. The fissure is there and the evidence is broken up by brecciation but no ore. Applicant claimed the drift was off the vein, but that

is not a plausible idea for the drift starts away from the Madell shaft on the vein, but without mineralization and continues the whole distance on the vein. Near the end of the drift the applicant crossed and found flusubs about 50 feet up.

On the bottom of the North shaft a short drift extends south about 12 feet where it broke into a cavernous condition. Applicant had a hose attached to a 20 foot section of pipe down this cave and in this way was examining the mine.

There was no vein present. a little flusubs occurred on the walls like quartz crystal in a vein. Applicant was a little distressed at my pounding around looking for the vein and finally stated;
"It don't look worth a damn but there is ore right by".

Both he and his assistant stated that such a condition in other parts of the mine was conducive to ore in the near vicinity.

Down the Madell shaft to the lowest level there was no ore showing on the south side of the shaft. The showing was merely a repetition of what

was seen south on the 125 foot level.

To the north from the bottom of the shaft a drift extended 112 feet and was connected to the slight drift from the north shaft by a small air hole in the floor. From what could be seen there is an ore sheet in the floor about 100 feet long that varies in thickness from 8 inches to 36 inches.

One of the things about the vein which should be taken into consideration is that ore was not continuous throughout the stope area. Although there were some places where it could be observed that the vein was several feet across there are any number of places in the stope area where the vein pinched out and benches of waste remain in the stope area which cannot be mapped because of inaccessibility.

From the available data it would appear that the vein ^{might} ~~will~~ disappear within a short depth below the lowest workings.

(9)

C. Proposed Development

1. Recommended plan of development
Applicant proposes to sink 100 feet below the present bottom of the middle shaft and drift 150 feet along the vein

2. Recommendations concerning applicant's mining method
None

3. Expected capacity of operation

a. Mining - applicant thinks he can mine 15 tons per day.

b. Drift Development - applicant says he can make 6 feet per day one shift.

c. Shaft sinking. applicant says he can make 4 feet per day two shifts. Shaft is inclined at various angles - corresponding to dip of the vein.

d. Local wage scales - wage scales are 1.00 per hour except for men who will receive 1.25 per hour.

v

D. Equipment

1. workable equipment

There is not one piece of equipment on the property. Applicant sold all his

equipment between Sept 1944 and now.

2. Mine equipment recommended for purchase under project.

30 KW Diesel generator	2000.00
Gasoline Hoist	500.00
Compressor	1200.00
Sinking pump	500.00
Sack Hammer	325.00
2 sets air & water hose	100.00
Pipe & miscellaneous supplies	500.00
	<hr/>
	5125.00

3. Condition of buildings

There is one small building at the North shaft which houses the rented hoist.

4. Recommended camp or other construction
None. Miners all live in Duncan, Arizona and will drive. Applicant expects to build a change house.

E Cost Estimations

1. Warped vein deposit

a Mining 10.00 per ton -

b Drifting 15.00 per foot

c shaft sinking - 35 to 40 per-foot (Applicants' figures)

(1)

- d. Milling - No milling costs - ore shipped
Crude to consumer.
- e. Hauling. \$1.50 per ton mine to Duncan,
Arizona
- f. Freight - ore shipped F.O.B. Duncan.
- g. Timber \$60 per 1000 at mine.
- h. Overhead. \$1.00
- i. Total costs per ton \$12.50

F. Ore Reserves

1. Mine has no ore reserves developed.
2. Examination of mine after unwatering
the lower level indicates that the maximum
length on the lowest level is not over
100 feet long and on projecting it
with depth would materially decrease.
Applicant claims that it will increase
as the present cavernous condition
existing at the bottom of the North shaft
is an indication that the ore will come in at
greater width soon.

Assuming that the ore goes 100 feet more
in depth and averages 1.5 feet width,
the following amount of ore would be
developed.

$$\frac{100 \text{ feet (length)} \times 100 \text{ feet (depth)} \times 1.5}{10 \text{ (cubic feet per ton)}} = 1500 \text{ tons}$$

12.

Applicant claims he can get between $\$22.00$ and $\$28.00$ per ton F.O.B. Duncan for his fluorspar.

assume the applicant gets. $\$22.00$ per ton.

Costs -

Mining 10.00

Hauling 1.50

Overhead 1.00

12.50

12.50

Profit

9.50

Thus, the returns from the ore might repay the loan.

7. Employment

A. During the time the mine was being rewatered the applicant employed two men

B. applicant expects to employ 6 men under the proposed project.

C. applicant proposes to work two shifts in sinking the shaft, but only one shift in mining.

8 Objections to Project

A. None

(13)

B. General remarks on advisability of project
It is doubtful that a sufficient
quantity of fluorapatite will be developed.

9. Time schedule

A It will take about 90 days
to complete project.

B. Length of operating season 12 months.

10 Estimated Cost of Project

A Total Development

shaft sinking \$ 4000

Drifting 2250

\$ 6250

B. Purchasing Equipment 5125

C contingencies 125

D Repayment of Preliminary Loan 2000

Total \$ 13,500

11 Comments of Supervising Engineer

quantity of ore at depth; and second, the initial cost of equipping the mine plus ^{estimated cost of} and approximately sinking the incline shaft 100 feet.

The outline of the present steps used indicate that the ore would punch out before the 100 foot depth is reached.

Equipment which the applicant proposes to buy probably will cost more than listed but he claims he can get most of it from W.A.H. at ^{very} ~~low~~ ^{low} of the original costs. I discussed with the applicant the advisability of renting the equipment, but he was not keen about that idea.

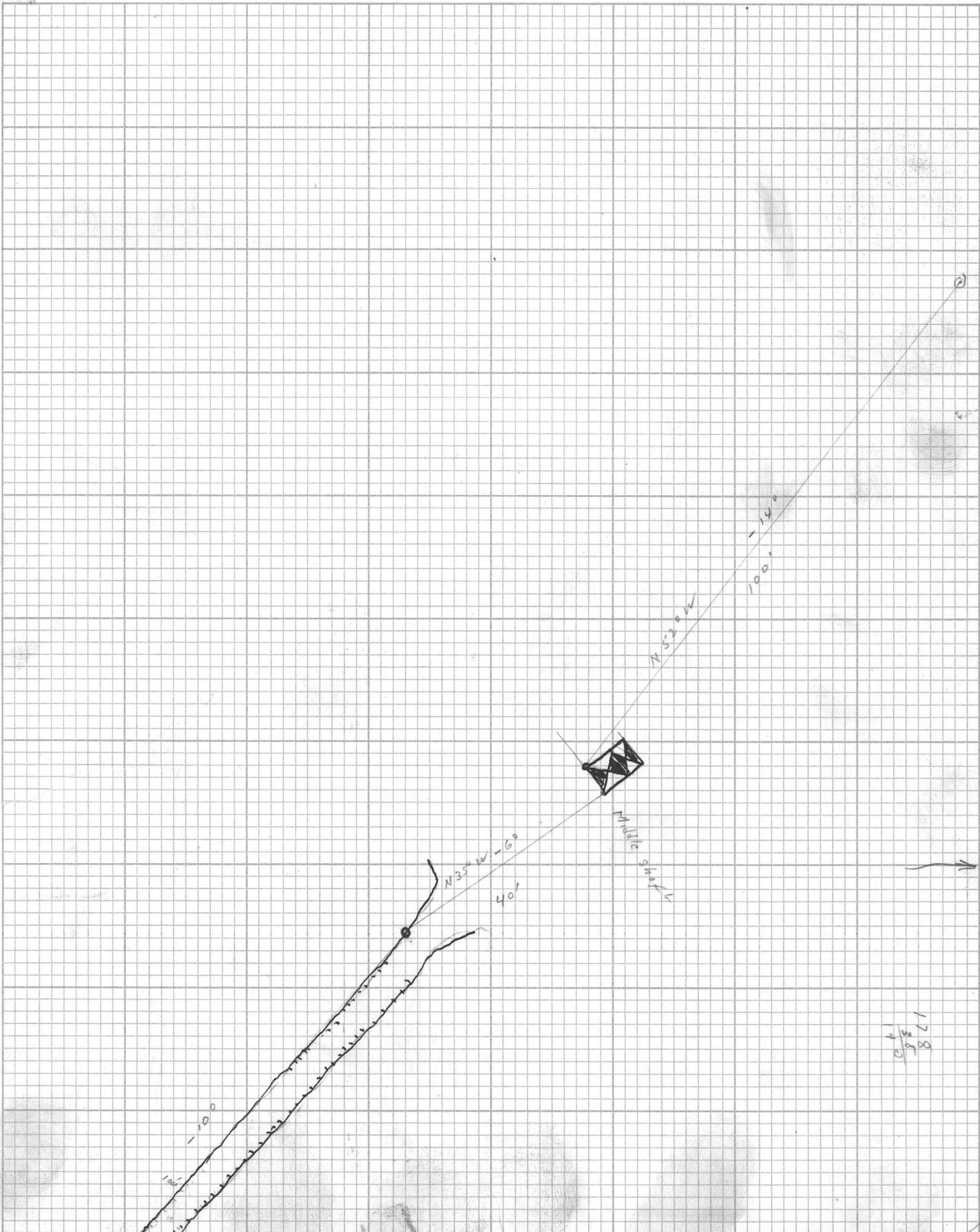
If the applicant had not sold off all his equipment a loan of \$5000 to \$6000 might be justified. The mine is the most extensive in the district and certainly more worthy than ~~the~~ the projects examined under Decrets ND-8244 and ND-5743. However, it is believed that the mine is practically exhausted and ~~that~~ not worthy of serious recommendation of a loan.

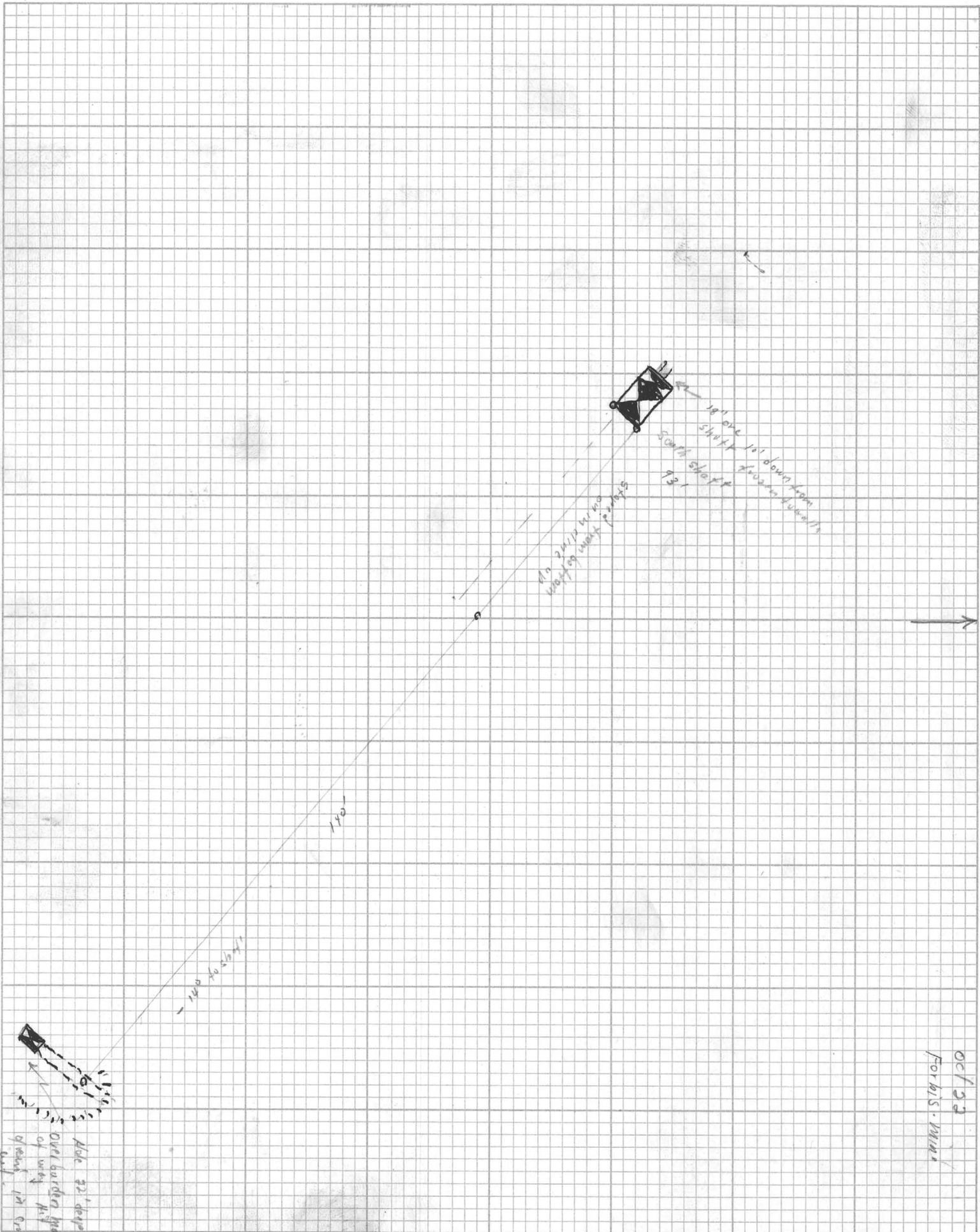
16

Applicant is a little bit on the "cry baby" side - "give me a loan or put me on the payroll" and in all probability will not take the decline graciously.

Charles A. Resor
Superintendent Engineer

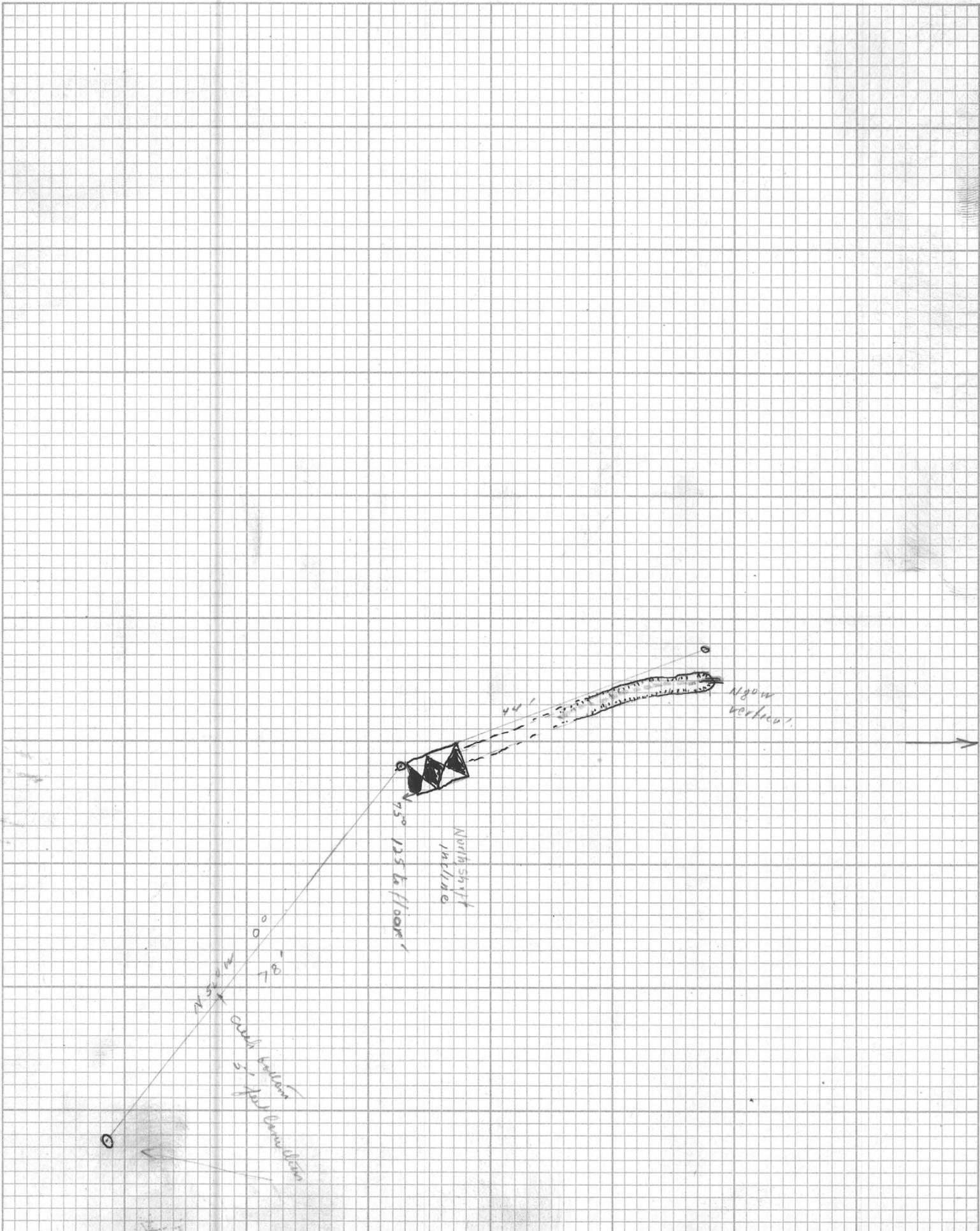
Assay certificate
Map

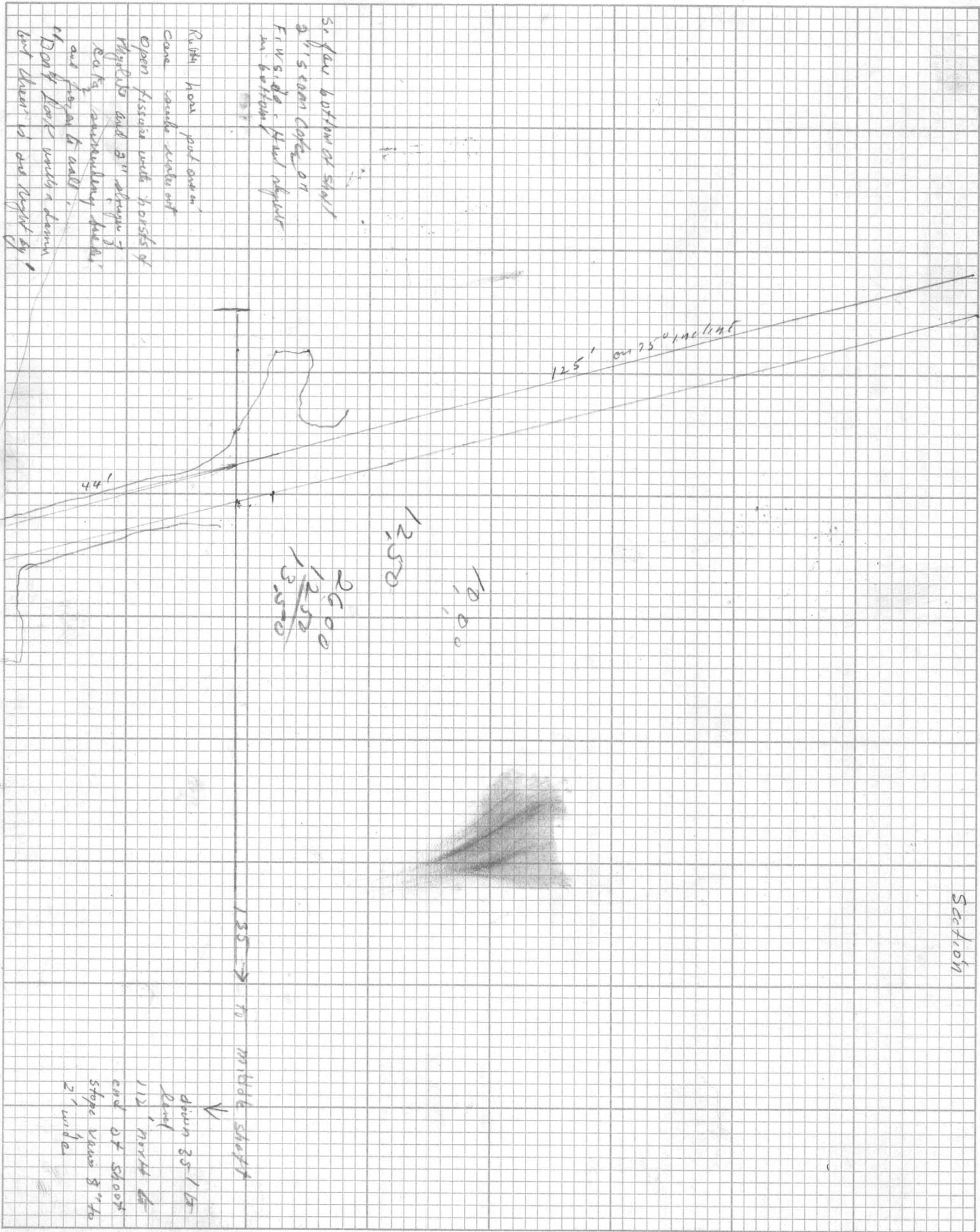




Hole 22' deep
 Overhauled most
 of way to top
 of shaft in cross
 cut

Oct 22
 Forb's. Minn.





5' from bottom of shaft
 3 1/2' from top on
 E.W. side. Hand digger
 in bottom

Rough hole put over
 cone inside water out
 Open fissure with 5' out of
 14' shaft and 3" diameter
 rock surrounding hole
 and from 1/2 wall
 130' deep with a down
 but there is one right by

125' on 75° incline

2600
~~1250~~
 1350

1250

1000

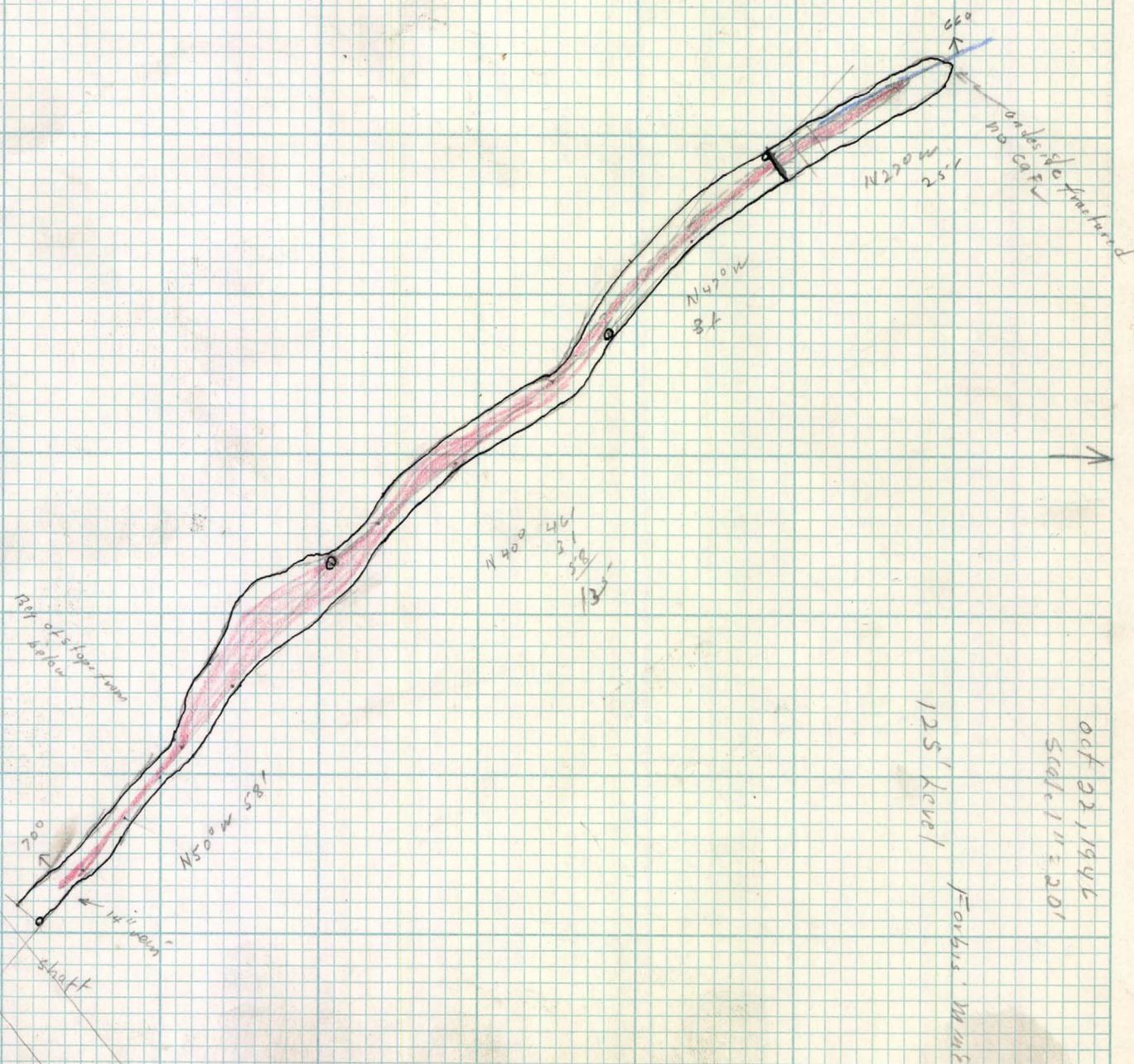
44'

135' TO MIDDLE SHAFT

down 35' to
 end of shaft
 slope runs 3' to
 2' wide

OPEN CHANES

Section



Oct 22, 1946
 Scale 1" = 20'

Farbes

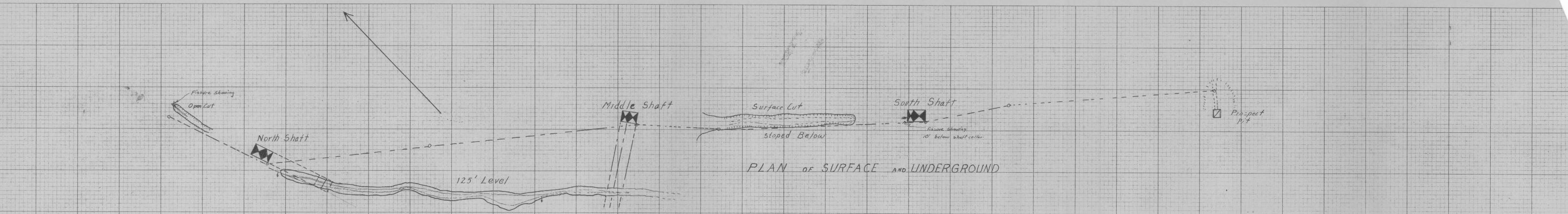
15 tons mining per day,
 Sinking 2 shafts 4 feet per day
 Drifting 6 feet per day -
 Wage scale 1.00 per hour
 Men working 6 to seven working
 Sinking 35-40 feet
 after the develop 4.5 down per ton
 Mining development 7-8 per ton

ore is passed over screens the
 lumps remaining is put over for
 waste what is thrown out will
 try and pick out some lumps for
 acid grade ore -

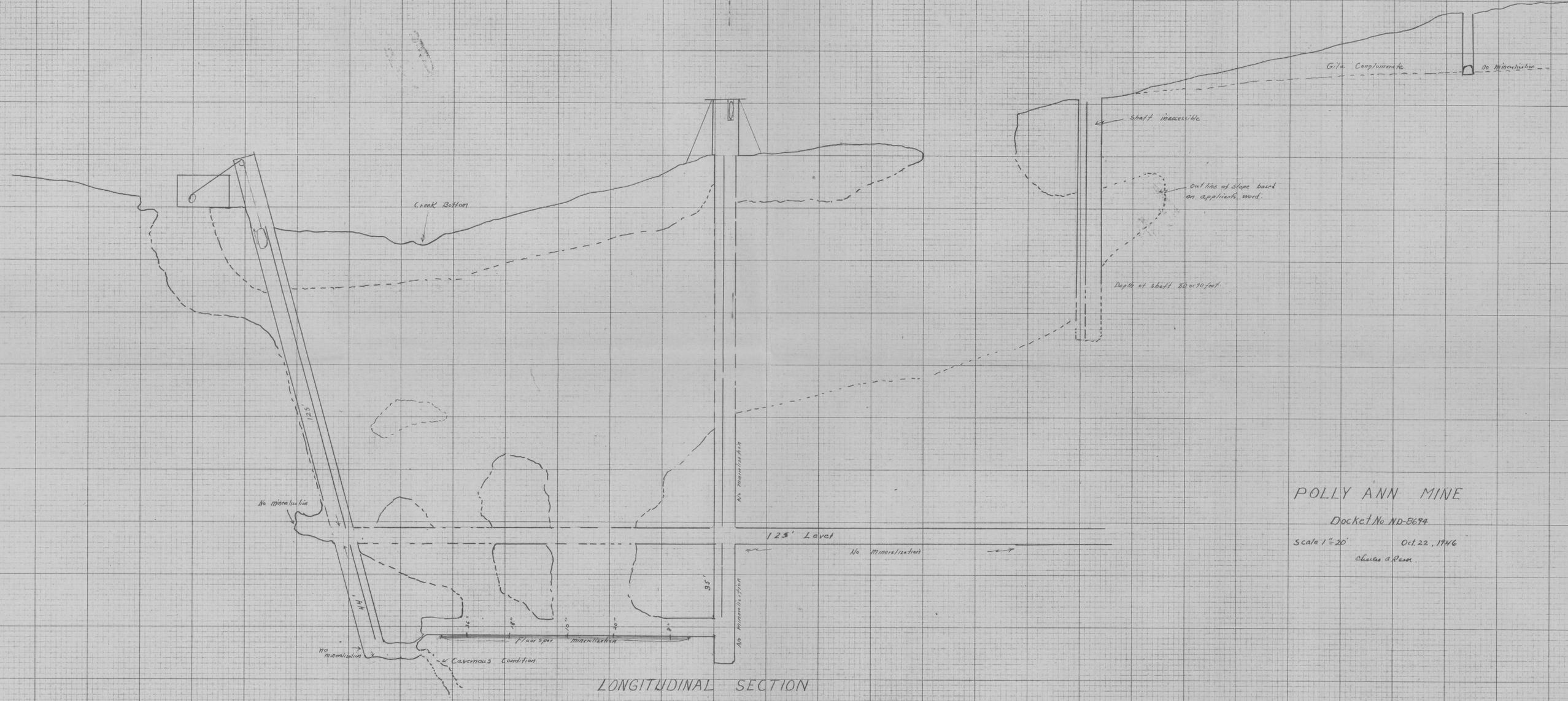
mine to Duran 1.50 hauling
 ore 22-28 per ton F.O.B. depending
 on what part of the country the ore
 is sent

no construction except change room
 Timber cost \$60 per thousand

Shaft sinking	4000
Drifting	2250
Equipment	5125
	<hr/> 11375
Loon	2000
	<hr/> 13375
contingents	125
	<hr/> 13500



PLAN OF SURFACE AND UNDERGROUND



LONGITUDINAL SECTION

POLLY ANN MINE

Docket No. ND-5694

Scale 1" = 20'

Oct. 22, 1946

Charles A. Rose

1960-01-0168-01
BESM