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R E P O R T

on the

SUNRISE MINING PROPERTY

Mojave County, Arizona

August 19, 1938

ALVIN B. CARPENTER, E.M:

R E P O R T

on the

SUNRISE MINE

Location

The mine is located in the Chemehuevis mountains in southwestern Mojave County, Arizona, thirty-four miles southeast of Topock, and twenty-three miles south of the highway, between Needles, California and Kingman, Arizona, via Yucca.

Property

The property consists of three patented lode claims known as the Argonaut, Sunrise, and Evergreen, and of two claims recently located adjacent and on either side of the Sunrise claim.

The ownership dates back many years and, owned by the "Arizona Mining Company of Michigan," is controlled by the Estate of Frederick A. Goodrich of Detroit.

General

The terrain is typical of the Mojave desert. Water is scarce except for limited domestic use. The outcrop of the vein follows up and over a steep mountain side.

The ore is a very hard quartz with some iron stain and occasionally manganese. The values are largely in gold with some silver and appear to occur in auriferous pyrite with some small

amounts of galena and sphalerite. Some free gold may occur in the oxidized outcrops but oxidation is limited to slight depths.

The only work ever done on the property consists of some narrow trenches at various places along the outcrop of the vein, and a tunnel that was driven on the vein for a distance of 527 feet. There was never any production except what was recently sent away for tests or what has been high-graded by prospectors in the neighborhood.

Geology

The Chemehuevis range in ths vicinity of this property is what has been termed authoritatively as granitic rocks of pre-Cambrian age. The tertiary rocks that cap this formation a short distance to the west are absent.

The principal rock is apparently a muscovite granite, which is intruded by diorite dykes.

The entire formation gives very little evidence of extensive fissuring except in what appears as the Sunrise vein.

Sunrise Mine

Veins and Outcrops:

The Sunrise vein can be followed quite persistently from the north side of the ridge over the top and down the south side to and beyond the tunnel, a distance of 1200 feet.

The vein occurs in a rather irregular fracture in the granite formation. It appears partially interrupted by the diorite intrusions with but little displacement. The general strike of the

vein is about N. 7° E. Its dip varies from 45° West to vertical to 45° E; its general dip being east.

The vein is narrow, generally from from 6 to 8 inches, although it has widened occasionally to 20' as seen in the tunnel and to a width of 2 feet at two or three points on the outcrop. It is practically pinched out as it passes the diorite.

Developments:

Aside from shallow cuts and two trenches along the outcrop of the vein, the only serious development work consists of 527 feet of tunnel on the vein.

It is stated also that a winze was sunk on the vein near the portal of the tunnel to a depth of 45 feet but it has since been filled.

The Tunnel:

The vein is followed for the entire length of the working and in the present face it shows 6 inches of white quartz said to run about $3.00.

Rich ore was found at five different places in the roof of the tunnel but the shoots are narrow and not of any considerable length. These shoots have been carefully sampled by Mr. Moross and smelter returns received from three trial shipments from three of the shoots confirm the accuracy of his sampling.

The longest of the five shoots is but 20 feet. Two others are 18 feet and two were about 12 and 10 feet. The widths of the

shoots run from 8 inches to 15 or 20 inches.

With the exception of two ore occurrences that showed short lengths of narrow vein carrying values of $8.70 and $19.93, the rest of the vein ran but a few dollars or was barren.

The positions of the short high-grade ore shoots that appear in the tunnel cannot be determined definitely at the surface from any high-grade evidence with the exception of two trenches from which the outcrop has been mined for a few feet in depth and from which Mr. Moross states he shipped a number of sacks to the Tom Reed mill in Oatman. 500 pounds of clean ore from the upper trench is said to have sampled $47.00 and a small shipment from the lower trench sampled $17.00.

One sample cut across the vein in the upper trench on this examination assayed only $2.16.

What may be indicated as a good grade ore in the lower trench is undoubtedly the top of the fifth ore shoot in the tunnel. The showings in the upper trench if the ore comes down would indicate a shoot lying from 50 to 80 feet beyond the present face of the tunnel. The accompanying profile of the mine will show what I have assumed as the probable positions of the ore shoots between the tunnel and the outcrop. In order to estimate the possible tonnage in these high-grade shoots of ore on this assumption, I have taken the same dimensions for these shoots as were found in the roof of the tunnel and extended them to the surface. As but one face only is sampled the estimate can be considered only

as " probable" or "possible" ore:

Ore Shoot	Length	Avg. Width	Average Value	Tons	Gross Value
1	18 feet	10 inches	74.32	18.	$ 594.00
2	18 "	14 "	56.71	104.	5,897.00
3	18 "	14 "	56.42	174.	9,817.00
4	20 "	20 "	84.30	411.	34,647.00
5	12 "	8 "	43.05	133.	1,420.00
			Total	840.	$52,375.00

Owing to the very unfavorable conditions at this property in regard to transportation, the narrowness of the veins, cost of development and operating and climatic conditions, there is little or no ore other than the above probable estimate that can be classed as commercial and considering that this "probable" or only "possible" ore must be sent to a smelter for reduction, a rough calculation is only necessary to show that even this grade of ore will hardly give a satisfactory profit.

Possible Production Costs:

To mine so narrow and irregular a vein of ore in a satisfactory manner will cost not less than $7.00 per ton of ore.

Such short ore bodies if continuous on such narrow veins require excessive development costs to keep ahead of production with not less than $5.00 per ton on ore mined.

To move ore from the mine to camp at base of the mountain cheaply would require an expenditure of between $5000 and $10000 if it were warranted and would reduce the cost of burro haul ($5.00)

to perhaps 50 cents per ton, and with amortization of plant, to $1.00 per ton, or more.

Trucking and railroad freights and smelter charges are fixed, and total cost may be estimated as follows:

Mining per ton of ore	$ 7.00
Development per ton of ore produced	5.00
Transportation, tramway or road	1.00
Truck to railroad	3.50
Smelting on full carloads	6.50
Total estimate per ton	$23.00

Fgt. to Smelter 6.10

Gross value probable or possible ore estimate from present work	$52 375.00
Deduct 15% royalty	7,856.00
	$44,519.00
Deduct 10% in smelter payment	5,237.00
	$39,282.00
Deduct cost of 840 tons at $23.00	29,320.00
Net profit on estimate	$ 9,962.00

This $9,962.00 estimated profit would not pay for establishing a camp, purchase of air equipment, building road or tram to mine and it would have exhausted all ore which is even possible to recklessly estimate as "probable" at this time.

The present tunnel has penetrated practically half way through that part of the property where the outcrop shows. If one considers that the diorite dykes have influenced the genesis of the ore as is most likely, the present development work has covered the area in which these dykes have been noted and the only other dyke that is shown at the surface is at the extreme north end of the work. The

rough sampling I did on the outcrop between that part of the property opened by the tunnel and the dyke at the north end gave an average value of but $1.50 per ton and did not indicate anything favorable in that area.

Conclusion

From the foregoing it should be very evident that, notwithstanding the very high value of ore that is encountered in the tunnel, the narrowness and lack of length of the ore shoots and the preponderance of that portion of vein that is low grade or barren, as well as the very irregular character of the vein, does not permit an estimate of "probable" or "possible" ore in the partially developed part of the property that will show a sufficient profit to cover the initial investment for equipment. There is nothing to indicate that any wider or more extensive ore bodies than have already been found might be discovered with further work longitudinally or in depth.

The prospect is poor indeed that on the present showing the property could be made a commercial possibility and I would hesitate to recommend any further development in the hope of bettering the present evidence.

_____E. M.

8/10/38

Sun Rise Mine

TR.MK. REG. U.S. PAT. OFF

54.8 from Topock ①

24.4 " Yucca Hi Way.

Arrived 8.45 Left Needles 6.10

Temp at Wimberley Camp
8.45 100°

In canyon below Sun Tun. qt stringer
N 45E nearly vert.
Stringers irreg 1" to 4'.
Carry pyrites & streaks.

On Trail above Tun on S side hill
is narrow vein S N. 20 E.
Rose qtz .6'. dip E
Is narrow shear in Gr.

SR vein at 2nd cut above Tun
St. N10E d 52 E wd .6

Above that pt is big blocky
intrusive. Aurite porphyry?
intercepts vein.

Above intrusive vein outcrops
wd 1' wide qtz glassy. iron
stained N 30E St. N 15E dip 55
qtz spots of galena & sphalerite.

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LEFAX, PHILADELPHIA, PA.

TR.MK. REG. U.S. PAT. OF

(2)

Near saddle high up
Str N20E d 37 E
Vein outcrops steady for 60'+

On N Face of Mt. near top.
14' ⊥ dip. (4' in 14') = 60°
Iron stained Qt. 24" to 22'
HW + FW gr.
1 + 12' diorite on H.W.

Sample 1. chips from oc. are top of Mt. : white slightly stained.

5 + 85' apparently a pinch.
5-6 vein 10" to 6"
wd at 6 = 2.2 dip 40° E
6-7. wd 1' dip 45-55 E
7-8 outcrop .7 to 1'. 45° d.
sample 2. .6 - 8
8 to 9. 1' -

Sample 3 V in Trench near Sta 9. wd 1.2

9-10 cut ledge. 1.2
11 is on Trail.
12 top of 2" Trench.

Vein cuts out at 13. begins at 14
At 15 vein cut out by big diorite intrusion. wd. .8'

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A at Top of ⊥ Edge

A ⊥ 14'

A S26W 64.3. +30° 2

2 is moss at top of Mt.

2 S5E 55 −26° 3

3 end of moist crop.

2 − 3. 2' wide white Otz

dip 80' to 46°

3 S 71 28° 4

3 − 4 20' outcrop.

4 end of cut on vein.

4 − 4'. 10' ⊥ on dip of 50°

4' 18' S10E −0 5

Vein discontinues 5. 4+5' N Tow

5 102' S8E −25 6

6 64.5 S12W −29 7

7 105 S7W −29 8

8+53 N end Trench.

8 100' S7W −9 9

9 70' S5E −23 10

10 84 S22W −14 11

11 26 N50E — 12

11 80 S8E −18 13

13 21 S30W — 14

14 43 S15E −26 15

15	80	S 5 W.	-33		16
16	N 17 W.	18'	—	17	
17	N 5 W to N. 28' to end Tree				
16	S 10 E	95'	-33	18	
18	S 12 E	41.	-34	19	
19	N	20	—	face	
19	S	68	-33	20	
20	N 5 E	30	—	21	
21	N 12 E	100	—	22	(10
22	N 14 E	70		23	(10T)
23	N N E	28		24	
24	N 25 E	45		25	
25	N 30 E	23		26	
26	N	77		27	
27	N 5 E	38		28	
28	N 18 E	21		29	
29	N 5 E	66		30	
30	N 23 E	59		Face	

TR.MK. REG. U.S. PAT. O

15 + 60' in S side of intro diorite

17 in cut front of upper Tun -

17 + 22' end of Gr. in diorite

18 on outcrop above Tun

19 in front of cut on vein

Shows narrow 8' vein.

33 on Tun Patio -

21 portal of Tunnel.

23 below 3 shoot stope -

26 beneath ore wide

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MADE IN U.S.A.

LEFAX, PHILADELPHIA, PA.

(4)

21' from Sta 21. No 1 shoot 18'
ore end 10"
Stoped 1st 18' Smelter 76.42 ?
Otz continues for 60'

	8"	12"	13
After 1st 18'		17.88	#5 17.91
#6	15 24.22	#7 - 14 81.75	#8 - 15 47.09

9 - 12.90 10 - 16" - 29.02

A 60' end shoot cut out by dyke. Str E-W dip 35 N.

Vein comes in as a stringer at 61'.
#14 - small stringer #2.87
15 3½" #3.60
16 34.71
also 3 samples 12' L. in low grade
next 18. take
sample 17 10" 41.13
18 14½ 60.45 #3 shoot
19 15½ 48.34
Smelter return 2800# #56.42
Cut Pb Zn being 4 yards.

From N end No 3 shoot 34' to S forming
Vein shows low ore narrow
at 20' N of #3 is 6' of ore in roof

ORIGINAL COPR. 1910 BY J. C. PARKER

TR.MK. REG. U.S. PAT. O

5

At 66' from 3 Short
qtz in roof for 8'
next 20' ran 84.30
on ledge 20" wide.
12' more ore W of this 4 short
Last short 12' long 8"
43.05

Sta 26 in center D pegmatoid

26 Sta + 25'. ore in wall
19.93 for 6'. wd 1.2'
continues N & lenses out at 47'

Quartz cover at 20'.
Sample 6' - 8.70 wd .7
This low grade short extends
17'.

Sta 28 + 11' last start begins
~~[illegible]~~ 12' 8" wd A
43.05
Follow 45' in E wall 2nd 4 of or
25' from here to Sta 3[illegible]
30 to face. .6 wh[illegible] Qtz
on E wall.
Qtz shows white pegmatite -
and black Mn
No values but #3 of
beyond 30 Sta.

MADE IN U.S.A.

LEFAX, PHILADELPHIA, PA.

9

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(6)

Ledge at face of
Lower Tun dips E 60°
width .5'

This E. wall dips E and
gets ⊥ at last ore shoot
which dips W,

Last stoop dips 83 to 85 E

at 27 Sta qtz in W wall
dips 80° E

From 20' S everything flatly
W. 45 to 55

Ore shoot ? dips 80 E
30' N of Spring. ⊥

~~2~~ on 3 Stope dips E

No 2 Stop ⊥
No 1 " E

8/10/38

Sun Rise Mine

TR.MK. REG. U.S. PAT. OFF.

34.8 from Topock. ①

24.4 " Yucca Hi way.

Arrived 8.45 Left Needles 6.10

Temp at Wimberley camp
8.45 100°.

In canyon below Sun Tun. gt stringer
N 45E nearly vert.
Stringers irreg 1" to 4".
Carry pyrites - streaks.

On Trail above Tun on S side hill
is narrow vein S N. 20 E.
Rose qtz .6'. dip E
Is narrow shear in Gr.

SR vein at 2nd cut above Tun
St. N10E d 52 E wd .6

Above this pt is big blocky
intrusive. diorite porphyry?
intercepts vein.

Above intrusive vein outcrops
wd 1' wide qtz glassy. iron
stained N 30E St. N 15E dip 55
qtz spots of galena - a sphalerite.

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A at Top of ⊥ Edge

A ⊥ 14'

A S26W 64.3 +30° 2

2 is mon at top of Mt.

2 S5E 55 −26° 3

3 end of out crop.

2 − 3. 2' wide white Qtz

dip 80° to 46°

3 S 71 28° 4

3 − 4 20° outcrop.

4 end of cut on vein

4 − 4'. 10' ⊥ on dip of 50°

4' 18' S10E −0 5

Vein discontinues a 5- 4+5' N Tun

5 102 S 8E −25 6

6 64.5 S12W −29 7

7 105 S7W −29 8

8+53 Need Trench.

8 100' S7W −9 9

9 70' S5E −23 10

10 84 S22W −14 11

11 26 N50E — 12

11 80 S8E −18 13

13 21 S30W — 14

14 43 S15E −26 15

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(2)

Near saddle high up
Str N 20 E d 37 E
Vein outcrops steady for 60' +

On N face of Mt. near top.
14' ⊥ dip. (4' ⊥ 14') = 60°
Iron stained Qt. 24" to 22'
Hw & FW qt.
1 + 12' diorite on H.W.

Sample 1. chips from o.c. over top of Mt. in hole slightly stained.

5 + 85' apparently a fresh.
5-6 vein 18" to 6"
wd at 6 = 2.2 dip 40° E
6-7. wd 1' dip 45-55 E
7-8 outcrop .7 to 1'. 45° d.
sample 2. 6-8
8 to 9. 1' -

Sample 3 V in Trench near Sta 9. wd 1.2'

9-10 out Edge. 1.2
11 is on Trail.
12 N of 2nd Trench.

Vein cuts out at 13. begins at 14
At 15 vein cut out by big diorite intrusion. wd. .8'

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15	80	S5W.	-33	16
16	N17W.	18'	—	17
17	N5Wt N.	28' to end Tm		
16	S10E	95'	-33	18 ~~19~~
18	S12E	41,	-34	19
19	N	20	—	face
19	S	68	-33	20
20	N5E	30	—	21
21	N12E	100	—	22 (100
22	N14E	70		23 (107)
23	N16E	28		24
24	N25E	45		25
25	N30E	23		26
26	N	77		27
27	N5E	38		28
28	N18E	21		29
29	N5E	66		30
30	N23E	59		Face

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15 + 60' in. side of intro diorite
17 in cut front of upper Tun -
17 + 22' end of Gr. in diorite
18 on outcrop above Tun
19 in front of cut on vein
shows narrow .8' vein.
33 on Tun Patio -

(3)

21 portal of Tunnel.

23 below 3 short stope -

26 beneath ore wide

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(4)

21' from Sta 21. No 1 shoot 18'
ore end 10"
Stoped 1st 18'. Smelter 76.42 ?
Otz continues for 60'

	8"	12"	13
After 1st 18'		17.88	#5 17.91
#6	15 24.22	#7 - 14 81.75	#8 - 15 47.07

9 - 12.90 10 - 16" - 29.02

A 60' end shoot cut out by dyke. Str E-W dip 35 N.

Vein comes in as a stringer at 61'.
#14 - small stringer #2.87
15 3½" #3.60
16 34.71
also 3 samples 12' L. in low grade
next 18. take
sample 17 10" 41.13
18 14½ 60.45 #3 shoot
19 15½ 48.34
Smelter returns 2800# #56.42
Cut Pb Zn being 4% rate.

From N end No 3 shoot 34' to S fring
Vein shows low and narrow
At 20' N of #3 is 6' of ore in roof

TR.MK. REG. U.S. PAT. OFF.

5

Out 66' from 3 Shoot
qtz in roof for 8'
next 20', ran 84.30
on ledge 20" wide.
12' more ore W of this 4 shoot
Last shoot 12' long 8"
43.05

Sta 26 is center D pegatoon

26 Sta + 25'. ore in wall
19.93 for 6'. wd 1.2'
continues N & lenses out at 47'

Quartz cover at 20'.
Sample 6' - 8.70 wd .7
This low grade shoot entirely
17'.

Sta 28 + 11' last stand begins
runs 12' 8" wd A
43.05
Follows 45' in E wall 2 to 4 of ore
25' from here to Sta 3[illegible]
30 to face. is wh[illegible] Qtz
on E wall.
Qtz shows white pegmatite -
and black Mn.
No values but #3 of
beyond 30 Sta.

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Ledge at Face of
Lower Tun dips E 60°
width .5'

(6)

This E wall dips E and
gets ⊥ at last one shoot
which dips W,

Last shoot dips 83 to 85 E

at 27 Sta qtz in W wall
dips 80° E

From 20' S everything flatly
W. 45 to 55

Hore shoot? dips 80 E
30' N of Spring. ±

~~2~~ in 3 Stope dips E

No 2 Stop ⊥
No 1 " E

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Sunrise

FW. Porphyry. HW granite

Tunnel. 4550' El

Vein 15' & 21"

other wks. 40' open cuts

40 tunnels

dip 75° E

Kempf property. Greenway-

Chemehuevis

gneiss, diorite & granitic rocks - Pre Cambrian

Tunnel 540'.

For 1 Ton

4 ore-shoots

1st	wdth.	ave.	10"	must break.		3 3/4 T
2nd	"	"	14	"	"	2 1/2 T
3	"	"	14	"	"	2 1/2 T
4	"	"	20+	"	"	1.8 T

4 | 58

14.5

Mining costs if 1.50 T. per man-shift. = $2.67

say 3.00 ton breaking

2.00 development.

5.00 total.

Should count about 1 T. per man-shift.

IC 6800

Must remove 2½ tons, at 4.00 say 8.00
development, cost in raises etc 5.00
Total per Ton, 13.00

Raises, cost. 10. per ft. + timber 12.00
labor raising, 2 miners - 8.00
1 mucker - 3.50
11.50

a 50.00

Mining & development, 13.00
transportation, burro 5.00
3.50
5.00 13.50

Royalty 15%. 7.50
Smelting, 1 8.50
$ 40.50

51% of 9.50 = 4.85

Moross

Earnest A. Moress
Stansbury Ave.
near Ventura Blvd.

Mohawk.
Spanish Diggins.

Car ore 90. 50 oz

Sunrise

14" vein. to break 15 Tons ore must break
$2\frac{1}{2} \times 15$ T = 37.5 Tons
can not short hand in stripping hence
will not cost less than *3.50 T rock.
∴ Stoping will not cost less than *8.50 Ton on
a 15 T. da. production.

When vein 14" wide 1 ton from area 10 sq ft
15 Tons in area of 150 sq ft.
Must mine stope length 30' and 5' high,
or, " 50' " 3' ",

If ore is sent To Oatman to mill.
Cost.

Total. Mining & development.		9.00
Trans - burro.	5.00	
Truck	3.50	8.50
Royalty 15% gross. on 50 ore ore.		7.50

Milling Costs -
Sold at 33 = @ 90% of assayed
50 = ore at 35 = 47.19 @ 33 =
less 10% 4.71
42.48
Milling ch. 3.50
38.98

Milling costs & deducts.	11.02
Cons. Smelter charge & deduction.	5.00
	41.02
Profit.	8.98

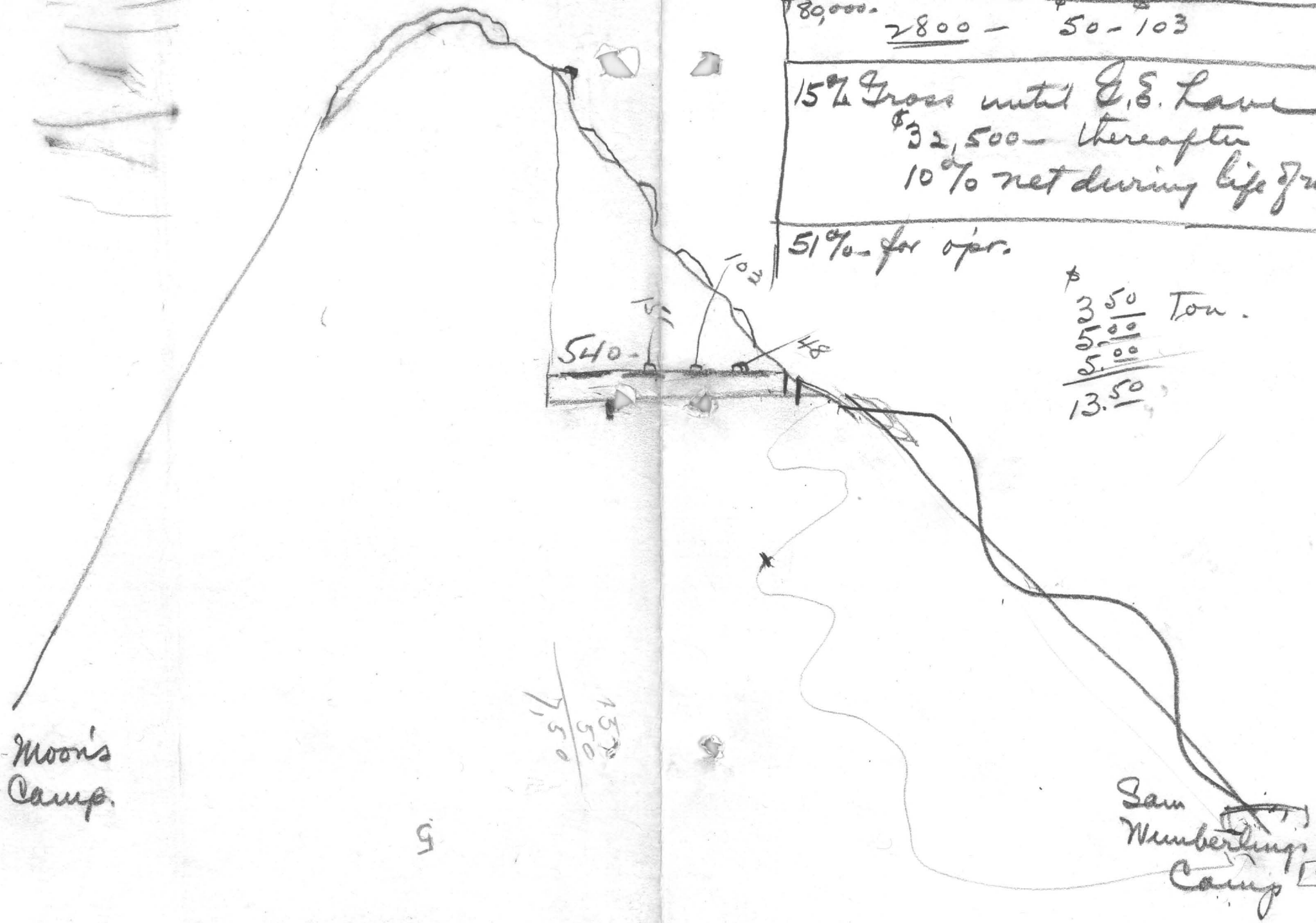
22 wk.

Sunrise - Goodrich Estate
Detroit.

$80,000.	$	$
2800 -	50 -	103

15% Gross until E.S. Lane
$32,500 - thereafter
10% net during life of m.

51% - for oper.



$ 3.50 Ton.
5.00
5.00
13.50

Tonnage Est.

5	133 x 43.05	=	1420.65
4	411 x 84.30	=	34.647.00
3	174 x 56.42	=	9.817.00
2	104 x 56.71	=	5.897.00
	18 x 74.32	=	594.00
	840		52375.00 gross

840 | 52375.00 | ave. 62.30
5040
1975
1680
2950

43,05
133
12915
12915
1420.65

84.30
411
8430
843
3372
34,647,30

56.42
174
22568
39494
5642
9817,08

56.71
104
22684
56710
5897.84

74.32
18
594,56

Report
on the
Waterloo Group of Mines
Coarse Gold District
Madera County, California
April 20, 1938

by

Costs

Mining, ton.	7.00
Development	5.00
Trans. bancro 5.00	8.50
To Tofack. 3.50	
RR. fgt.	6.50
Smelting	7.50
	34.50 Ton.
	840
	138000
	27600
	28,980.00 fgt + treatment

52,375.00
15 ~~15~~
261875.
52375
7856.25

28980.00
7856.00
5237.
Costs = 42,073

paid. 35.00
31.81
35) 3.19 [9
315
39

W

the intensely disturbed condition in the lower horizon that is shown in the lower tunnel can be expected to obtain in the deeper developments on the other properties should such be attempted.

Without the expectation of ore at reasonable depths and with known ore shoots exhausted above old tunnel levels there is little that can encourage a renewal of work on these properties.

B. Survey.
Sun Rise Mine.
8/11/38

				Distance LV	Distance LH	
A	—	14	⊥			
A-2	S26W	64	+30	+32.	55.3	
2-3	S5E	55	-26	-24	49.4	
3-4	S	71	-28	-33.3	62.6	
4-5	S10E	11	—	—	11	
5-6	S8E	102	-25	-43	92.4	
6-7	S12W	64	-29	-31	56	
7-8	S7W	105	-29	-51	92	
8-9	S7W	100	-9	-16	99	
9-10	S5E	70	-23	-27	64	
10-11	S22W	84	-14	20	81.5	
11-12	N60E	26	-2	—	26	
11-13	S8E	80	-18	25	76	
13-14	S30W	14	—	—	14	
14-15	S15E	43	-26	19	40	
15-16	S5W	80	-33	44	69	
16-17	N17W	17	—	—	14	x
17	N5W	28	—	—	28	x
16-18	S10E	95	-33	52	80	
18-19	S12E	41	-34	23	34	
19	N	20	—	—	20	Face cut
19-20	S	68	-33	37	57	
20-21	N5E	30	—	—	30	Tunnel
21-22	N12E	100	—	—	100	
22-23	N14E	70	—	—	70	
23-24	N16E	28	—	—	28	
24-25	N23E	45	—	—	45	
25-26	N30E	23	—	—	23	
26-27	N	77	—	—	77	

27-28	N5E	38	
28-29	N18E	21	
29-30	N5E	66	
30	N23E	59	to Face Tunnels

14" wd.

To break 15 Tons ore day must break 37.5 Tons rock

Can not shoot strong. hence to break rock without breaking ore ( ) will cost not less than 3.50 and stoping ore (15 Tons) will cost 8.75 Ton.

Ore 14" wide.

Then 10 sq ft. of vein 14" (1.17') wide = 1 Ton

For 15 Tons per day must break area 150 sq ft.

~~ore~~ a stope length of 30 ft. + hight of 5'

or " " " " 50 ft. + " of 3'.

	Mining Total.	9.00
Transport.		
Burro.	5.00	
to Topoc.	3.50	
To Oatman	5.00	
		13.50
	Royalty.	7.50
	Mill deductions and cost.	12.02
		42.02

Ore are 50.00
Royalty 15% 7.50
42.50

Milling costs
Gold at 33.00 + 90% assay val.
Silver 90% @ 60¢
Milling 4.50
$50.00 ore at $35 oz = 47.19 @ $33.00
less 10% 4.71
42.48
Milling 4.50
37.98

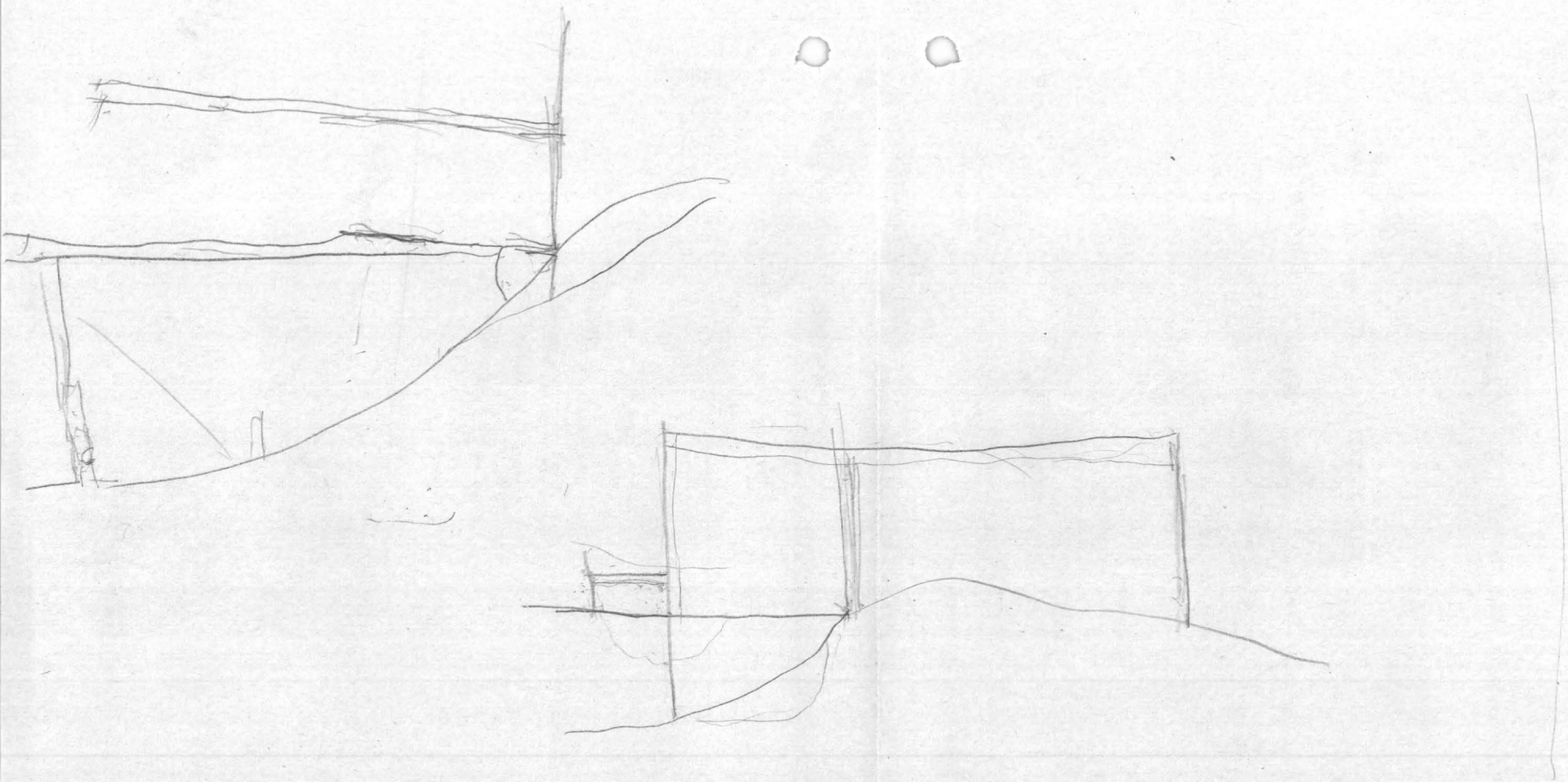
Smelter fgt. + cost on concentrates may amount to 25 oz ton conc. = 4 oz, 5 oz ton of ore.

no profit.

.05
3.00
15.00

.065
1200000
12000
65
$77,000.00

4 | 26
6.5



Prospecting, Developing and Operating Mining Properties

ERNEST A. MOROSS

Assays and Smelter returns.

Number Marks	GOLD Oz's	GOLD Value	SILVER Oz's	SILVER Value	Total Value	Width of Ledge.	Length of Payshoot	Average assay Smelter return
(1)	2.80	$98.00	2.88	$2.13	$100.13	8"	6Ft.)	Assay average
(2)	1.68	58.80	2.24	1.65	60.45	10"	6") 18ft.	$64.28
(3)	0.90	31.50	1.02	0.76	32.26	12"	6")	Smelter ret. $74.32

Note: Smelter return July 9th, 37. Selby Lot 4026 29 sacks. Gross weight 2230 lbs. Tare 40 lbs. Moisture 1.0% 22 lbs. Dry Weight 2168 Gold 2.55 Silver 2.55 ozs. at $31.81663 for gold. 44 3/4 for silver $81.13
.69

Base charge $7.50
Value of 2168 lbs. at $74.32 per ton $80.56
Sampling and assaying $10.00 Freight $11.38 ret. empty sacks .60 Total cost $23.29 Net Proceeds $57.27

(6)	0.68	$23.80	0.57	$0.42	$24.22	13"	6ft.)	Average assays
(7)	2.28	79.84	2.44	1.81	81.65	14"	6ft.) 18 ft.	$50.98
(8)	1.32	46.20	1.18	0.87	47.07	15"	6ft.)	Smelter return $70.21

Note: Shipment was of approx 2.200 lbs. of which about 800 lbs came from ore from dump, balance from No. 2 payshoot.

(17.)	1.15	$40.25	1.19	0.88	$41.13	10"	6ft.)	Average assays $49.97
(18.)	1.69	59.15	1.76	1.76	60.45	14 1/2"	6ft.) 18feet.	Smelter returns
(19.)	1.35	47.25	1.47	1.09	48.34	15 1/2"	6ft.)	$56.71

Note: Smelter return Sept. 28' 37. Selby Lot. 4732 28 sacks gross wt. 2555 lbs Tare 20 lbs. Moisture 1% 25 lbs. Net dry weight 2510 lbs.
Gold 2 oz per ton at $31.81663 or $63.63 Value in gold. Silver at 44 3/4 per oz. Silver value .58 Total value $64.21 Base charge $7.50
Burning and grinding $11.88 Return of empty sacks .62
Value of 2510 lbs. at $56.71 per ton makes total value $71.17
Net proceeds $48.67 after paying freight and all smelter costs.

"D"	2.38	$83.30	2.18	1.61	$84.91	20"	20 feet in length

Note: No shipment made to smelter from this payshoot best in the mine.

"A"	1.23	$43.05	1.27	0.93	$43.98	8"	12 feet in length.

Note this is the last payshoot in mine and farthest from the portal toward the face. No ore shipped from this pay shoot.
Various sections six feet in length have been assayed and are not classed on this list as they are under an average of $40. per ton in value. Of which there is approx $200.000 in value. The value of the above estimated ore is approx $80.000 in this assay plan.

P. S. Freight rate carload lots, minimum carload 30 tons. Franconia or Topock to Selby $6.10 pr ton for $40.00 ore. Smelter cost $6.50 per ton for $40.00 ore by carload lots.

Address When in the Field:

Mine Record & Report

Name of Mine	"Sunrise"
Operated by;	non operative.
Location	Chemehuevis Mountains
Mining District	
County - State	Mojave County, Arizona
Ore production.	No regular production, no stoping. Ore mined from a few small ore shoots in tunnel and trenches on outcrop has been shipped out for tests. Some ore has been high graded.
Type of product,	a very hard quartz, iron stained in place, carrying auriferous pyrites, some galena and sphalerite. rarely any copper mineral
Under contract;	To Earnest A Moroz.
Owners;	Arizona Mining Company of Michigan & the estate of Fredk. A. Goodrich.
Properties consist of	3 patented mining claims; Sunrise, Argonaut and Evergreen. Two claims one on each side of Sunrise. held by location
Equipment;	none
Examined by.	Alan B. Carpenter
Date.	11. August 1938

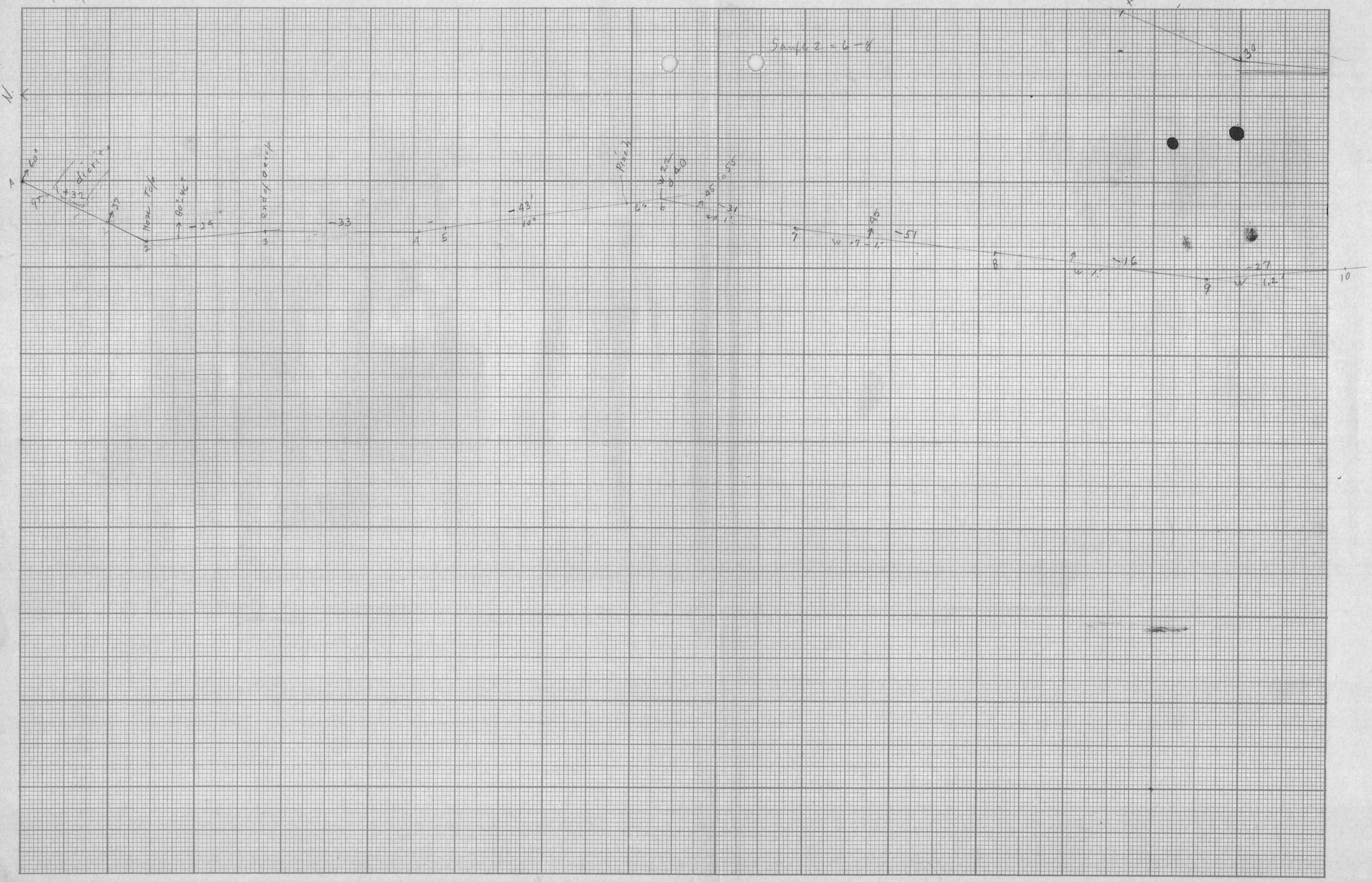
Directors
A. B. CARPENTER . President
M. L. McCRAY . Vice-President
M. L. NEELY, Secretary-Treasurer
E. E. McINTYRE
INGLE CARPENTER

A. B. CARPENTER
Engineer
M. L. NEELY
Managing Director

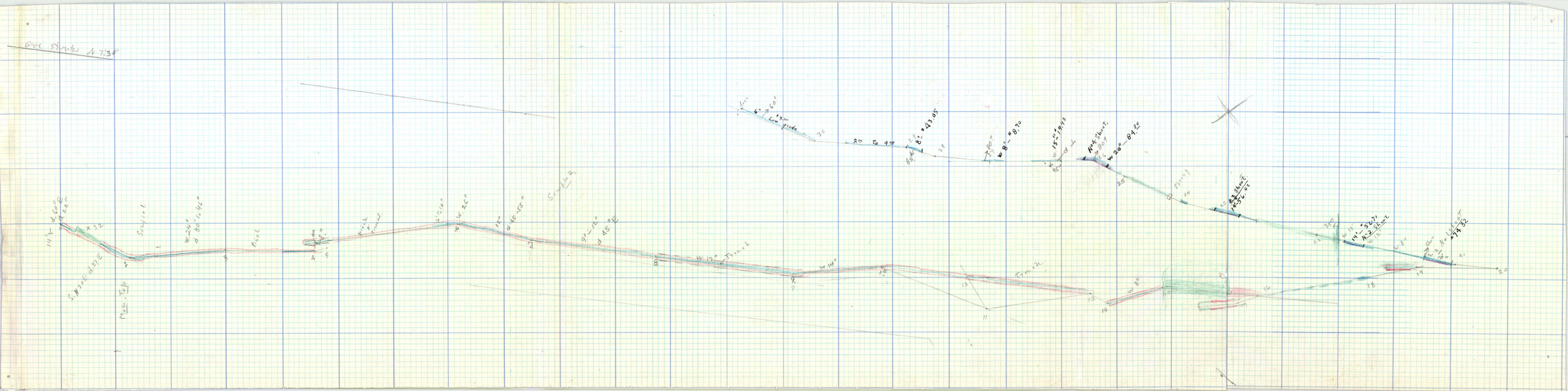
Avawatz Consolidated Mines

532 Citizens National Bank Building
Telephone 66770
LOS ANGELES, CAL.

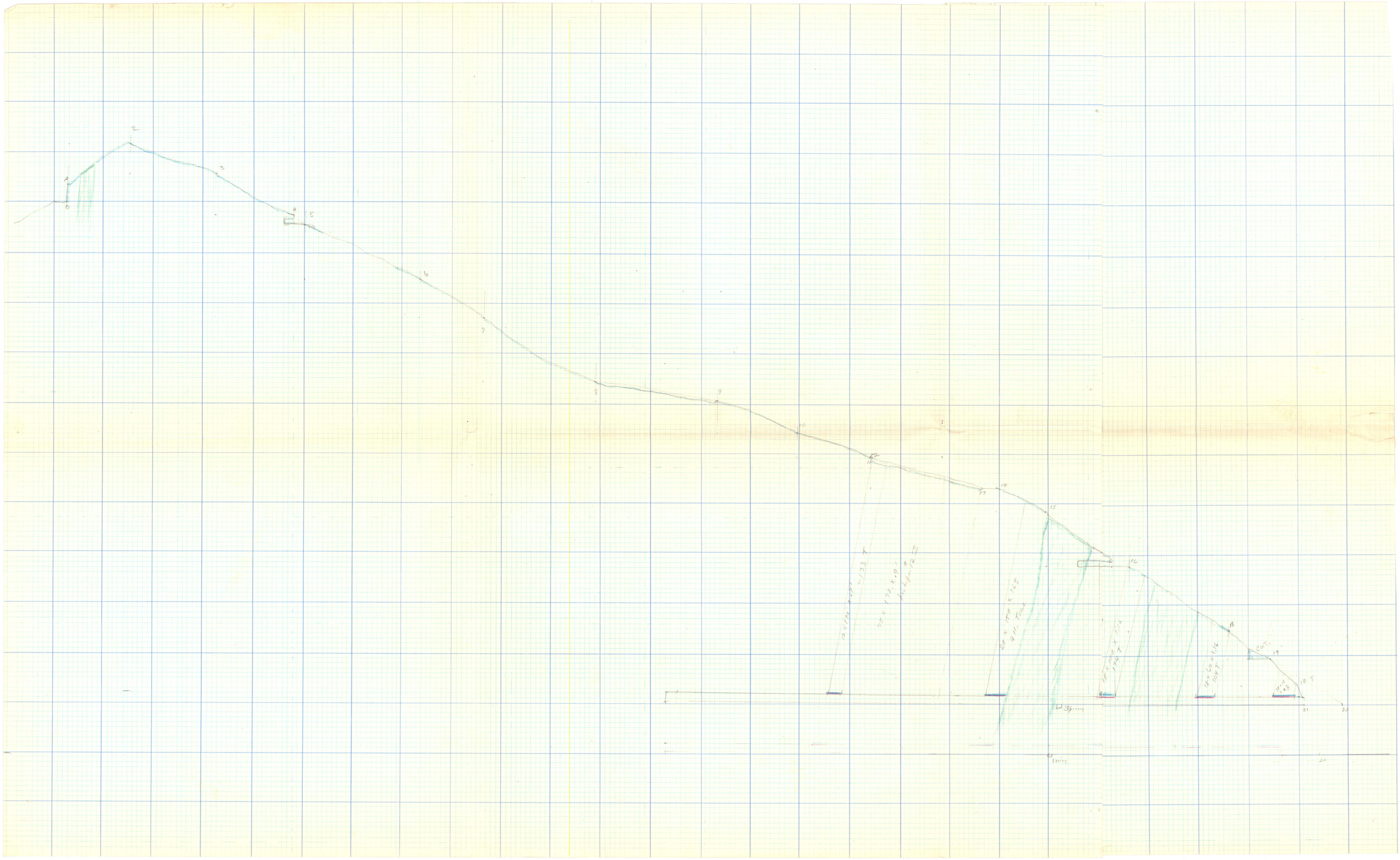
THE FREDERICK POST CO
No 320-0
CHICAGO



THE FREDERICK POST CO No. 320-0 CHICAGO



Arc Strike N 7.30
Sample 1
Sample 2
Trench
Trench
Low grade
No 4 Shoot
No 2 Shoot
No 1 Shoot



Spring
Spring