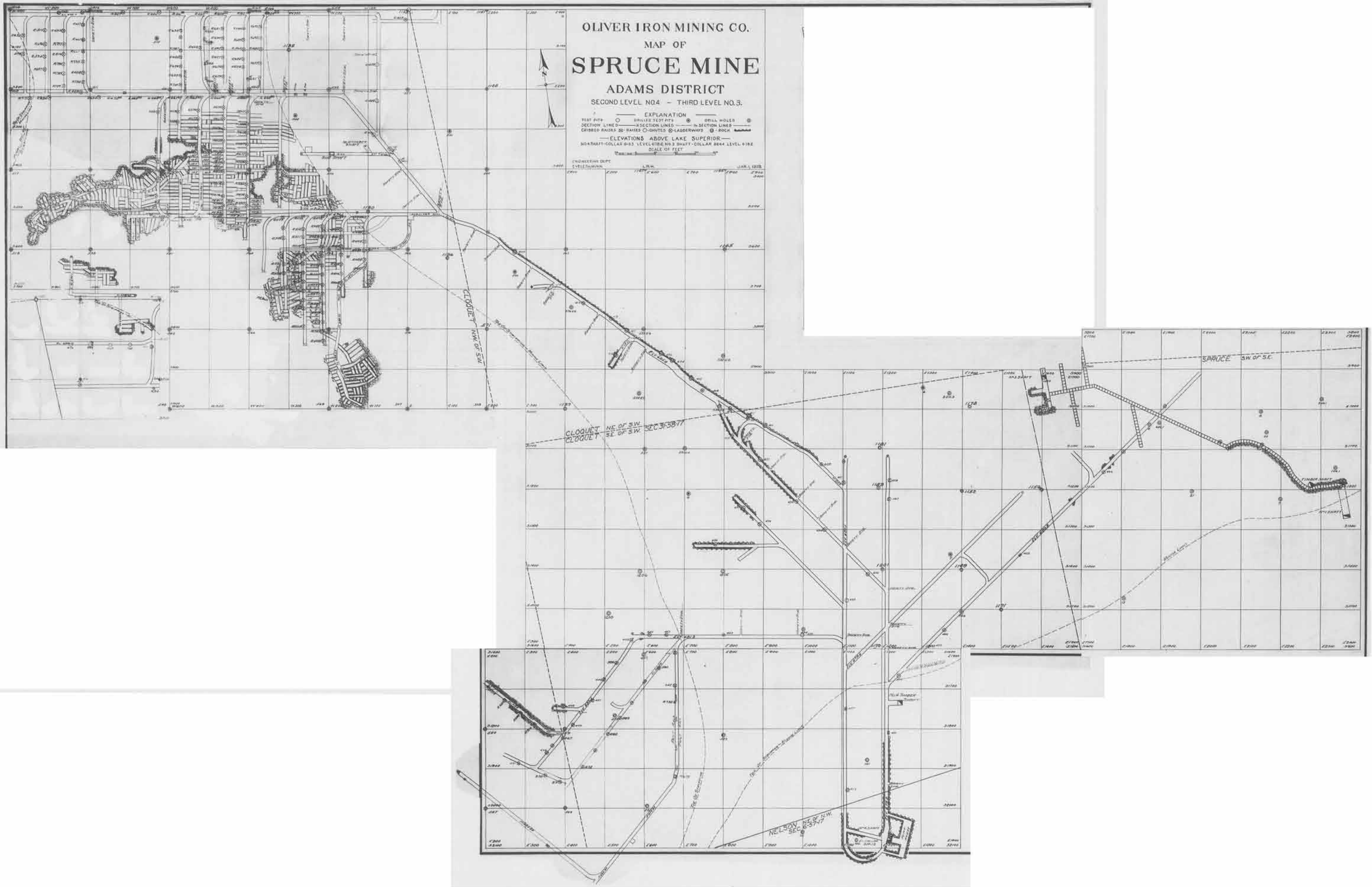
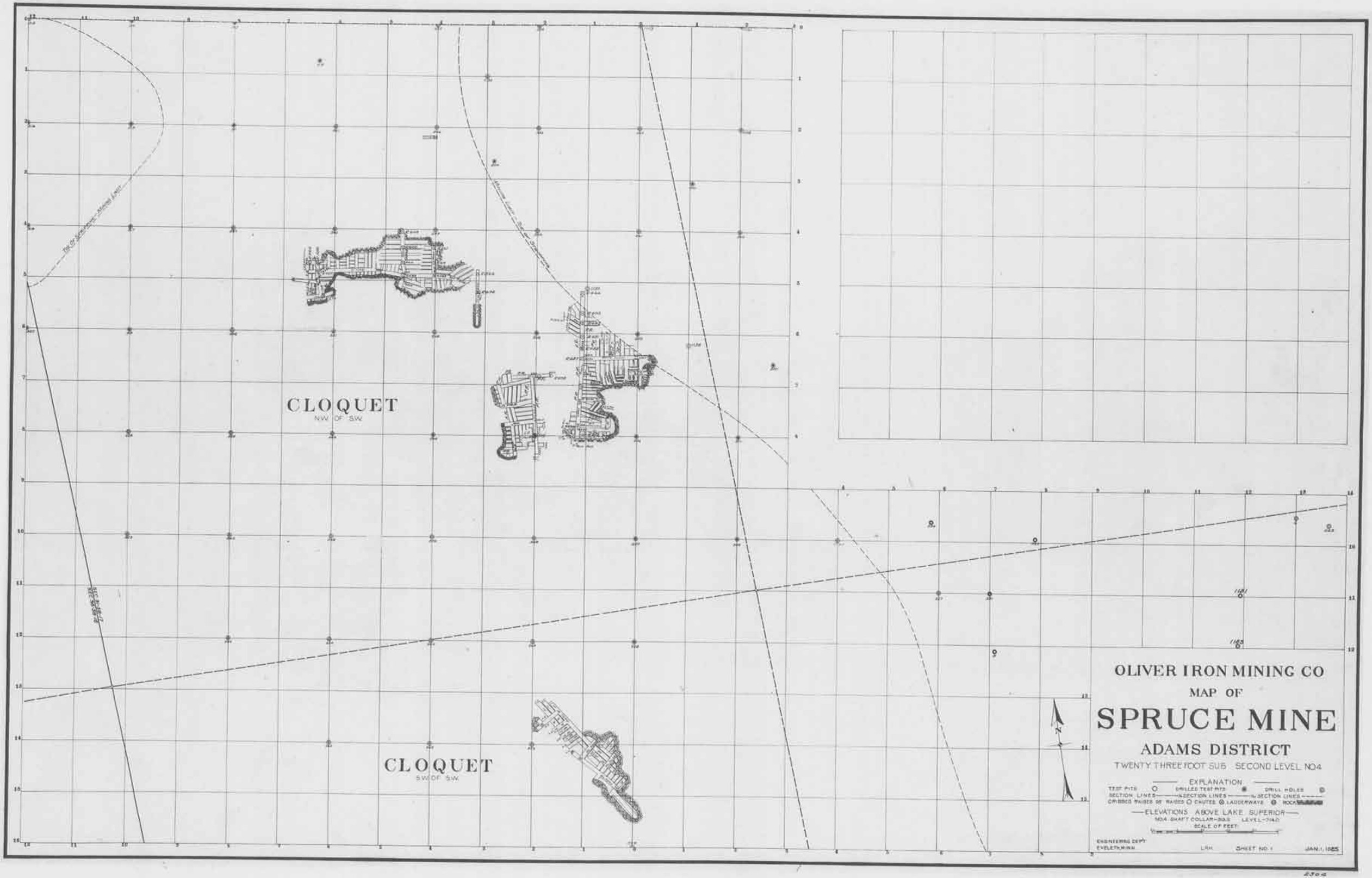
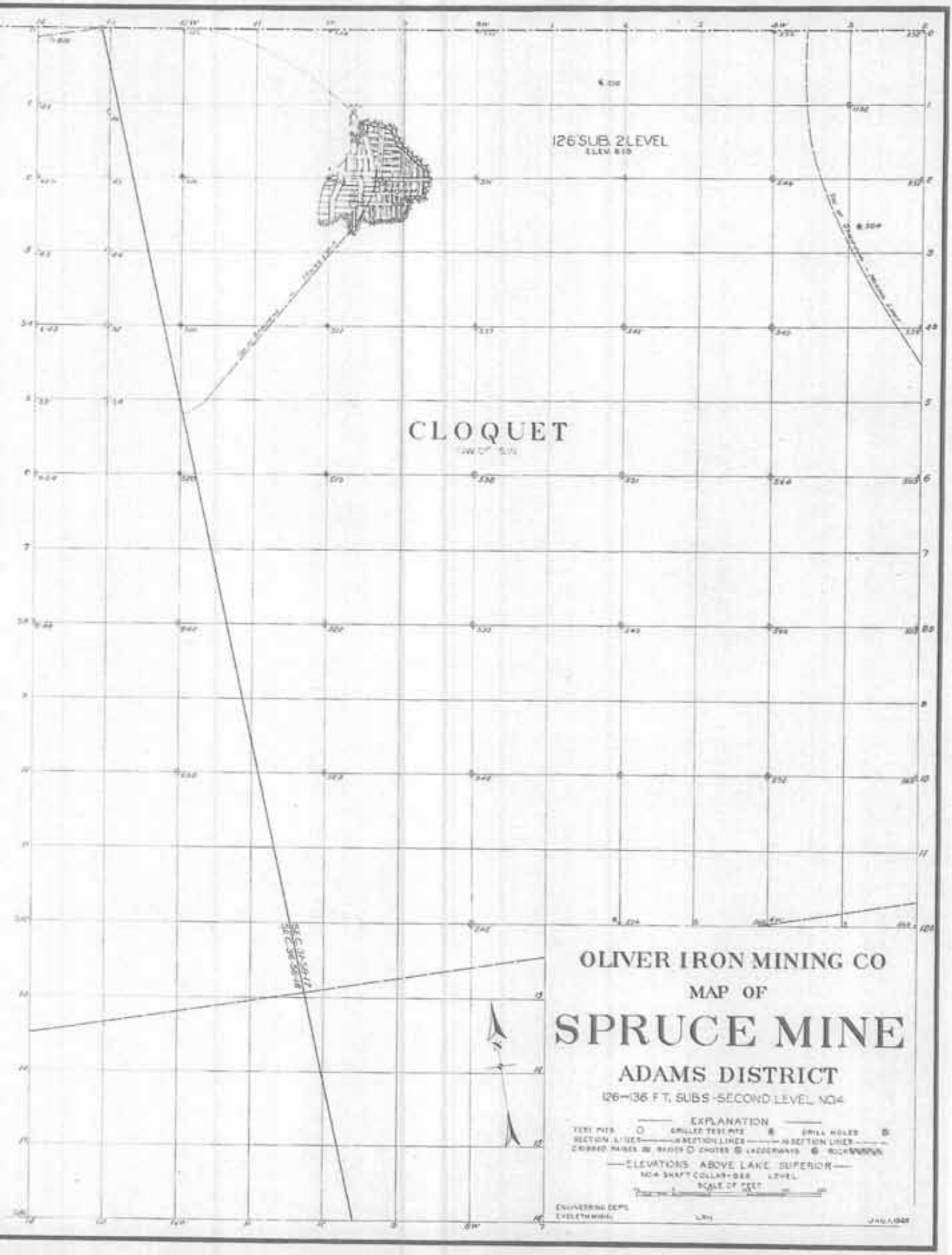
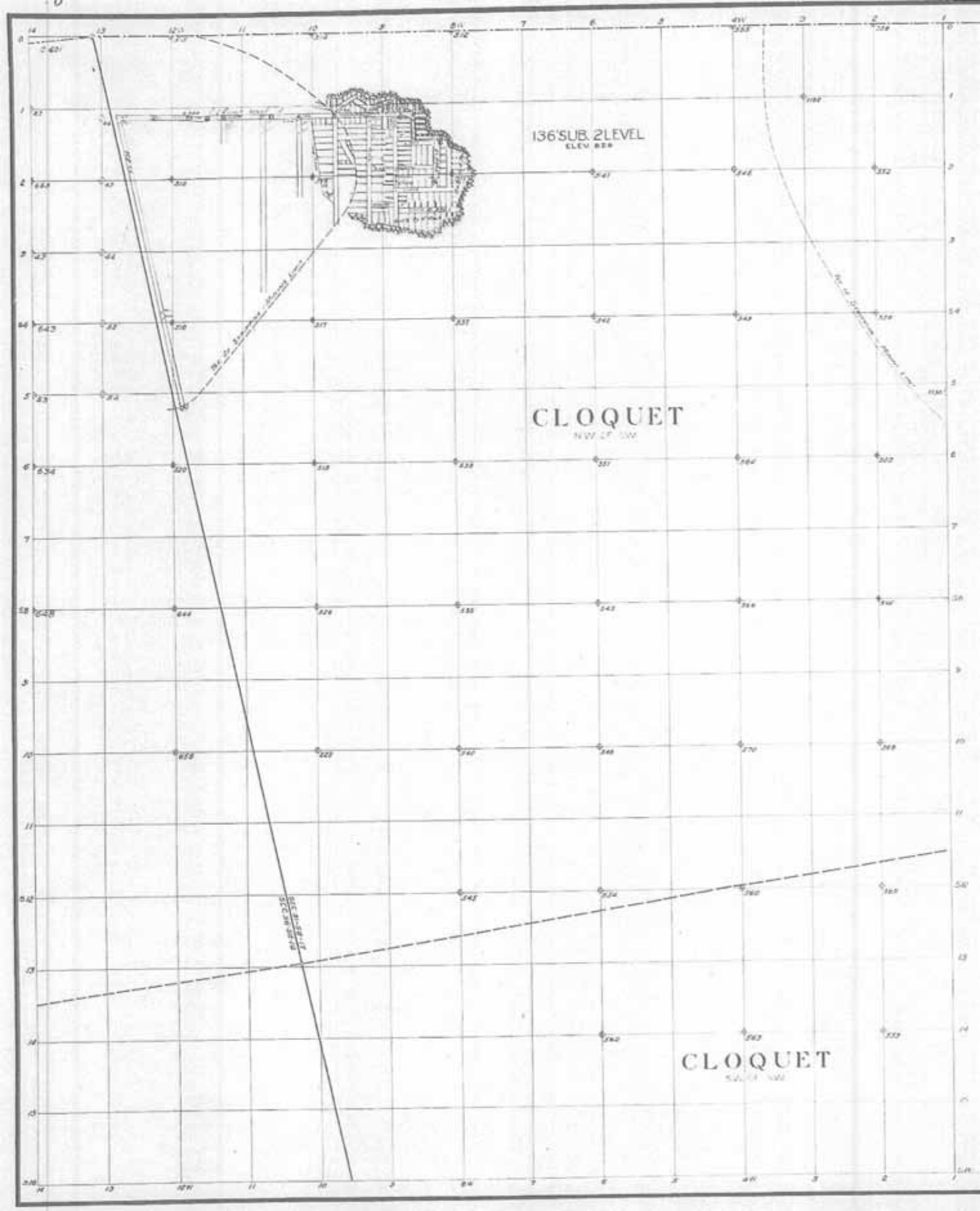
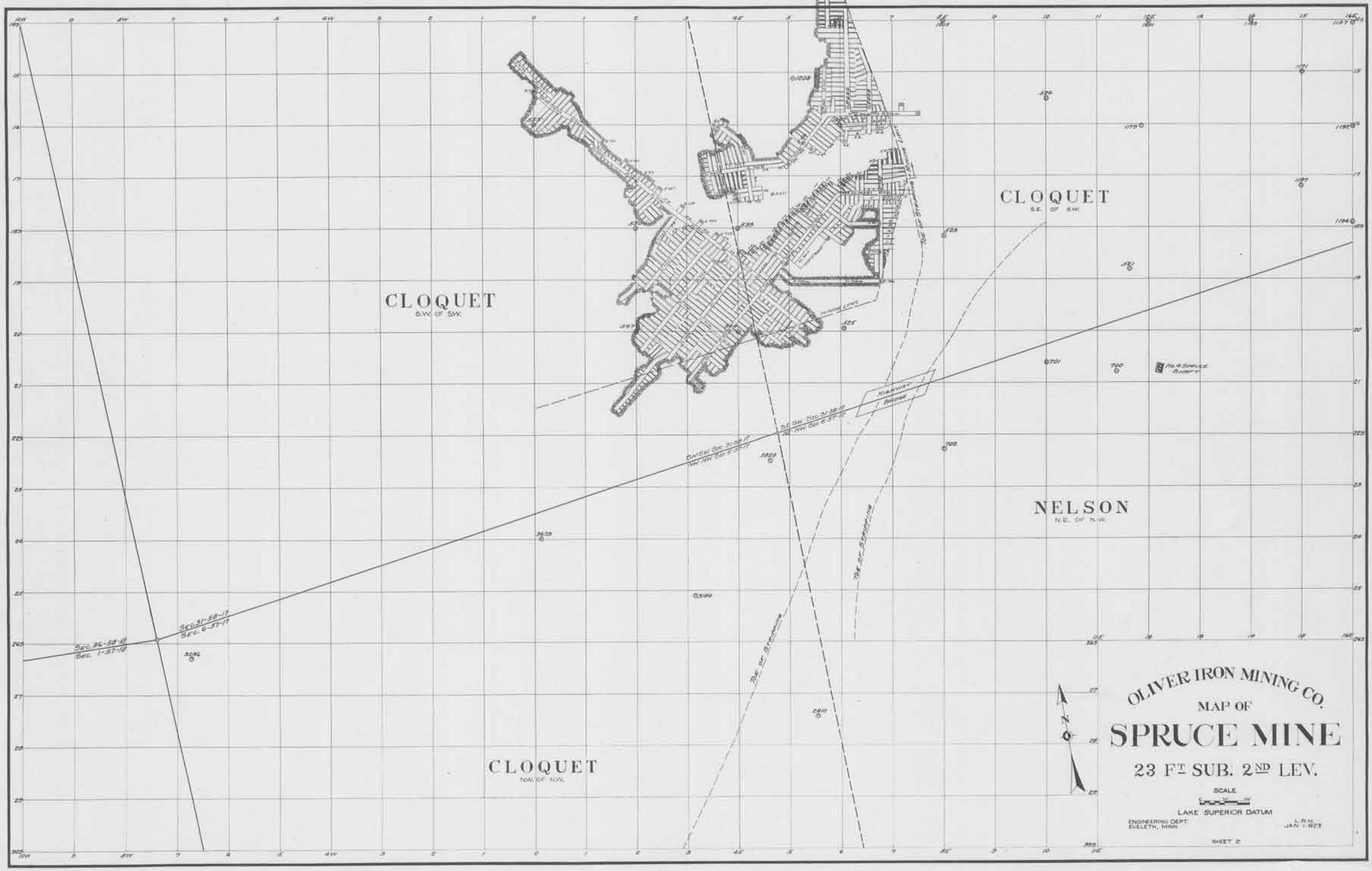

OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT
SECOND LEVEL NO.4 – THIRD LEVEL NO.3.
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
SECTION LINES
SECTION LINES
CRIBBED RAISES
RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
SCALE OF FEET
ENGINEERING DEPT
J.R.H.
JAN. 1, 1923
CLOQUET N.W. OF S.W.
CLOQUET N.E. OF S.W.
CLOQUET S.E. OF S.W.
SPRUCE S.W. OF S.E.
NELSON N.E. OF N.W.

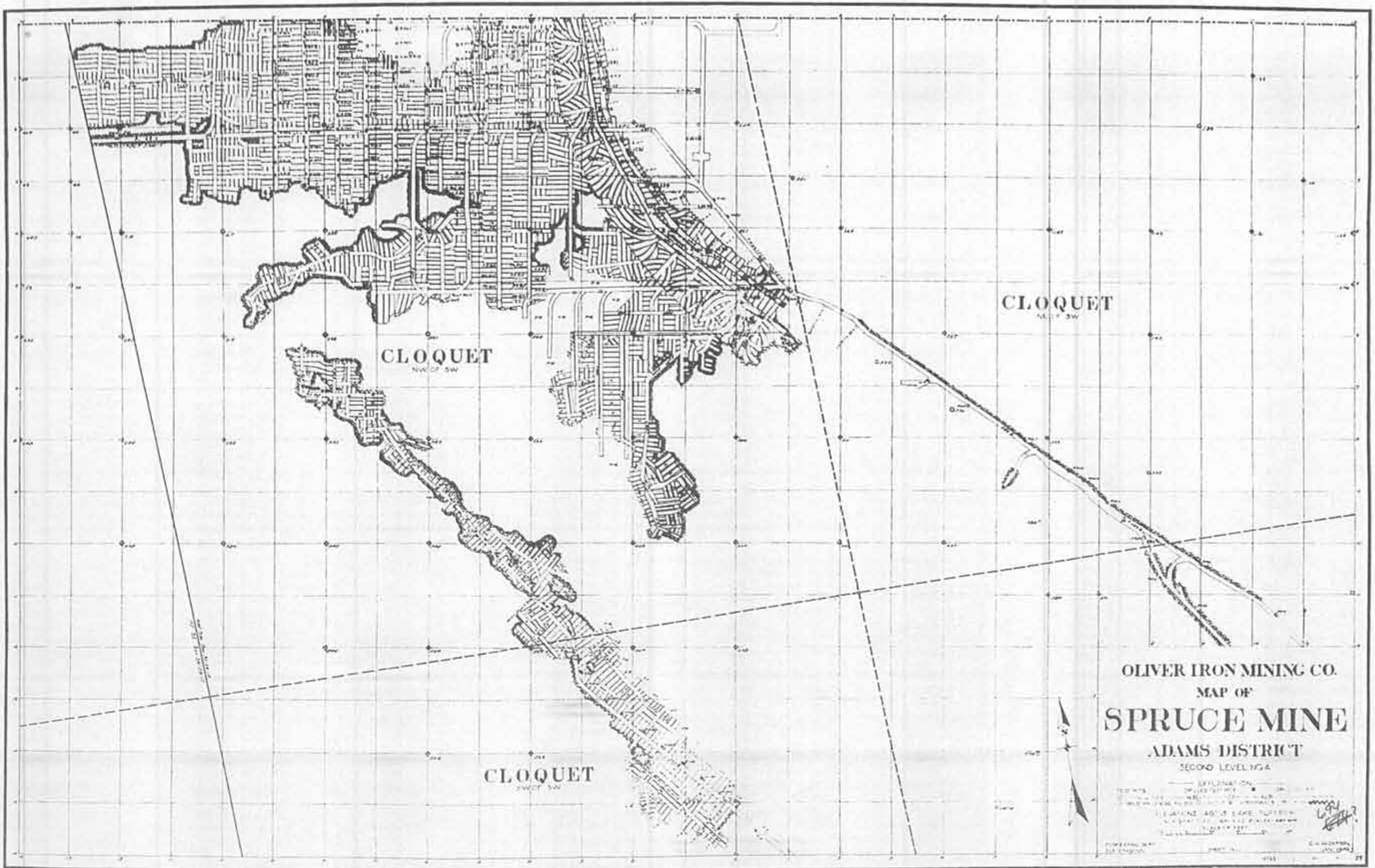

CLOQUET
NW OF SW
CLOQUET
SW OF SW
OLIVER IRON MINING CO
MAP OF
SPRUCE MINE
ADAMS DISTRICT
TWENTY THREE FOOT SUB. SECOND LEVEL NO.4
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
SECTION LINES
SECTION LINES
ORIGINAL RAISES OR RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
NO.4 SHAFT COLLAR-863
LEVEL-1140
SCALE OF FEET
ENGINEERING DEPT
EVELETH MINN
LRH
SHEET NO. 1
JAN. 1, 1925


126' SUB. 2 LEVEL
ELEV. 810
CLOQUET
OLIVER IRON MINING CO
MAP OF
SPRUCE MINE
ADAMS DISTRICT
126–136 F.T. SUBS.-SECOND LEVEL NO.4
EXPLANATION
ELEVATIONS ABOVE LAKE SUPERIOR
NO.4 SHAFT COLLAR-888 LEVEL
SCALE OF FEET
ENGINEERING DEPT.


136' SUB. 2 LEVEL
CLOQUET
CLOQUET


CLOQUET
S.E. OF S.W.
CLOQUET
S.W. OF S.W.
NELSON
N.E. OF N.W.
CLOQUET
N.W. OF N.W.
Highway Bridge
No. 4 Spruce Shaft
Sec. 36-58-18
Sec. 1-57-18
Sec. 31-58-17
Sec. 6-57-17
Toe of Stripping
Toe of Stripping
OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
23 FT. SUB. 2ND LEV.
SCALE
LAKE SUPERIOR DATUM
ENGINEERING DEPT.
EVELETH, MINN.
L.R.H.
JAN. 1 1923
SHEET 2

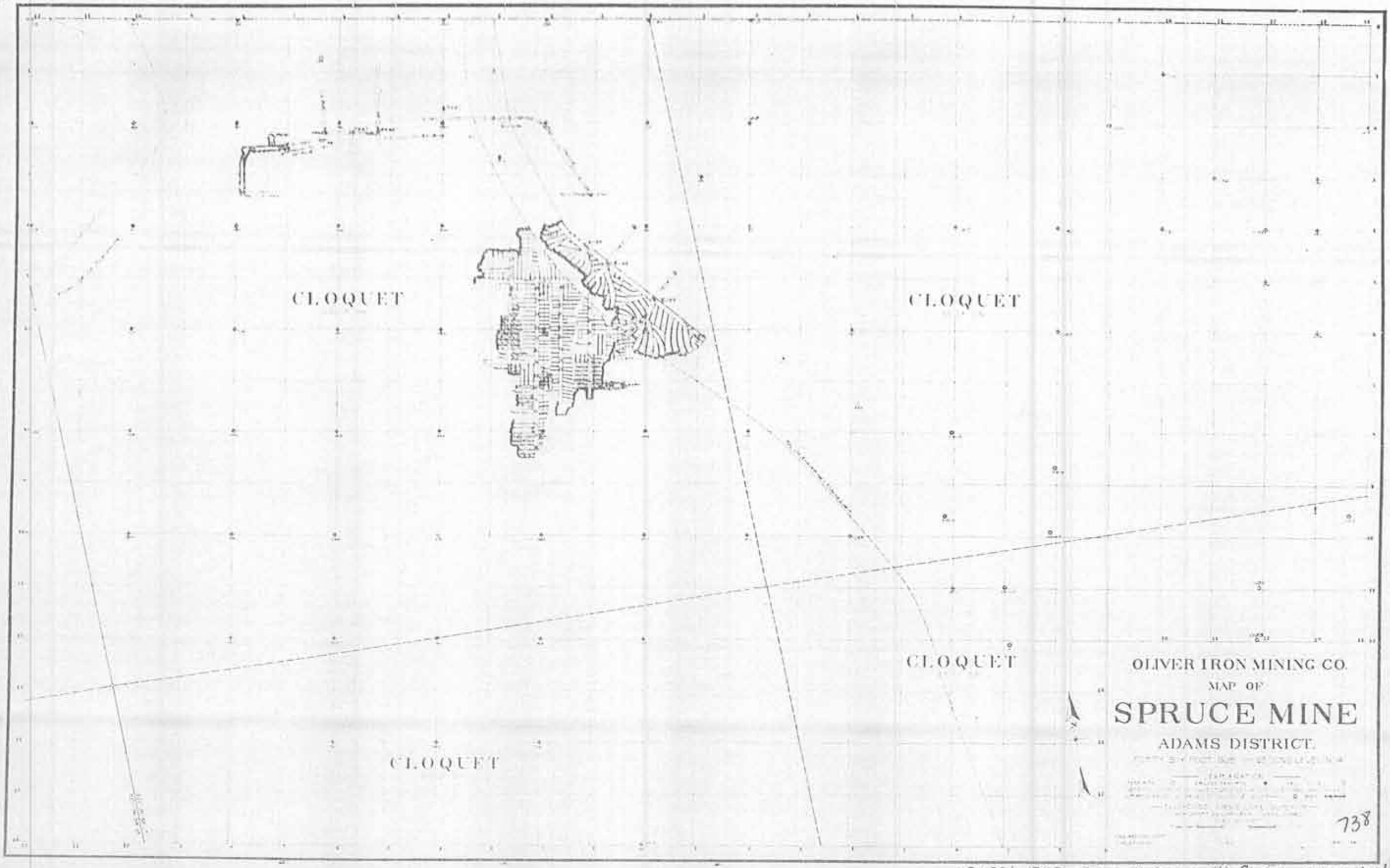
N 699



09 1531 1-1-40 Spruce 2nd lev No 4 A-98

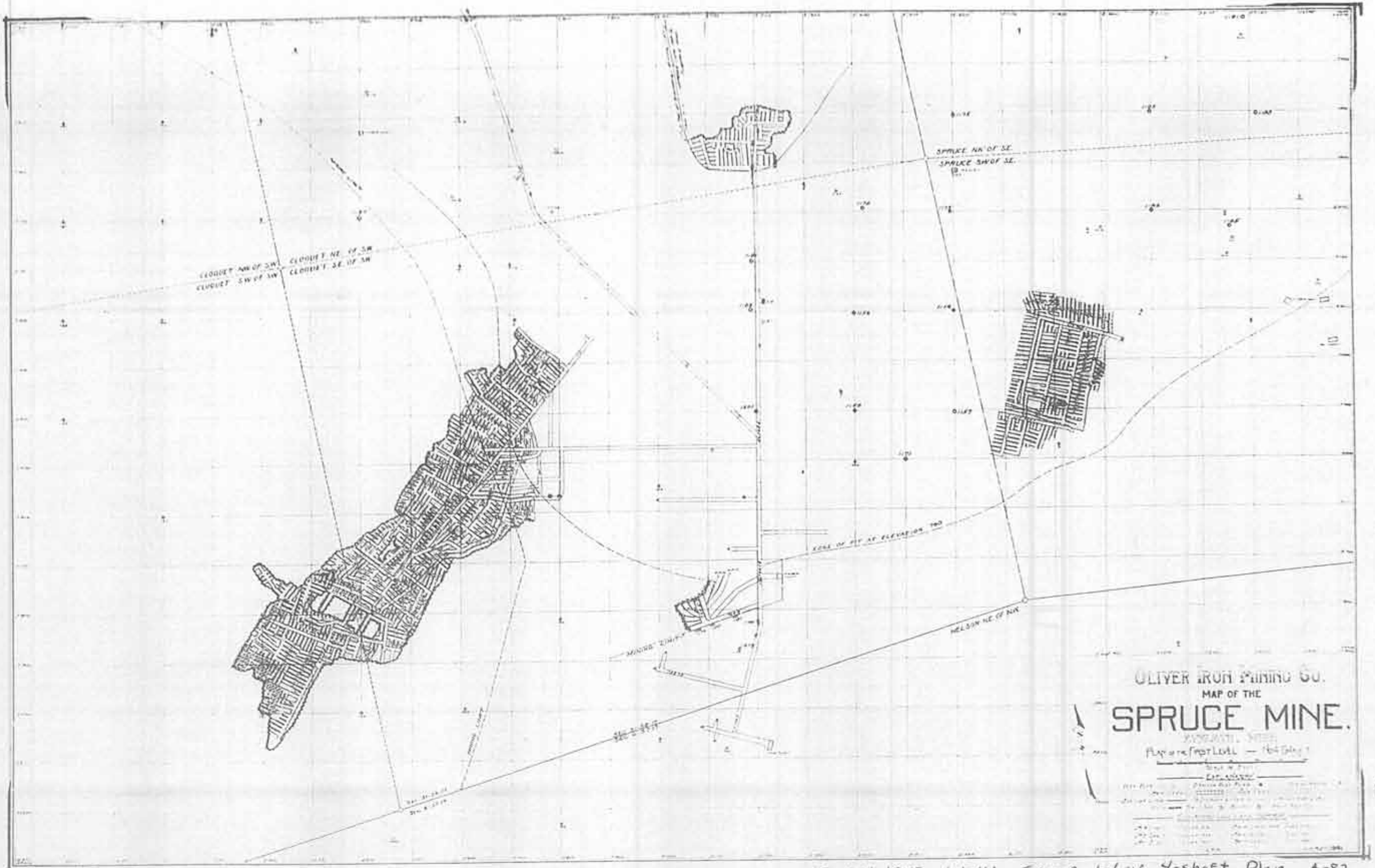
733

22032

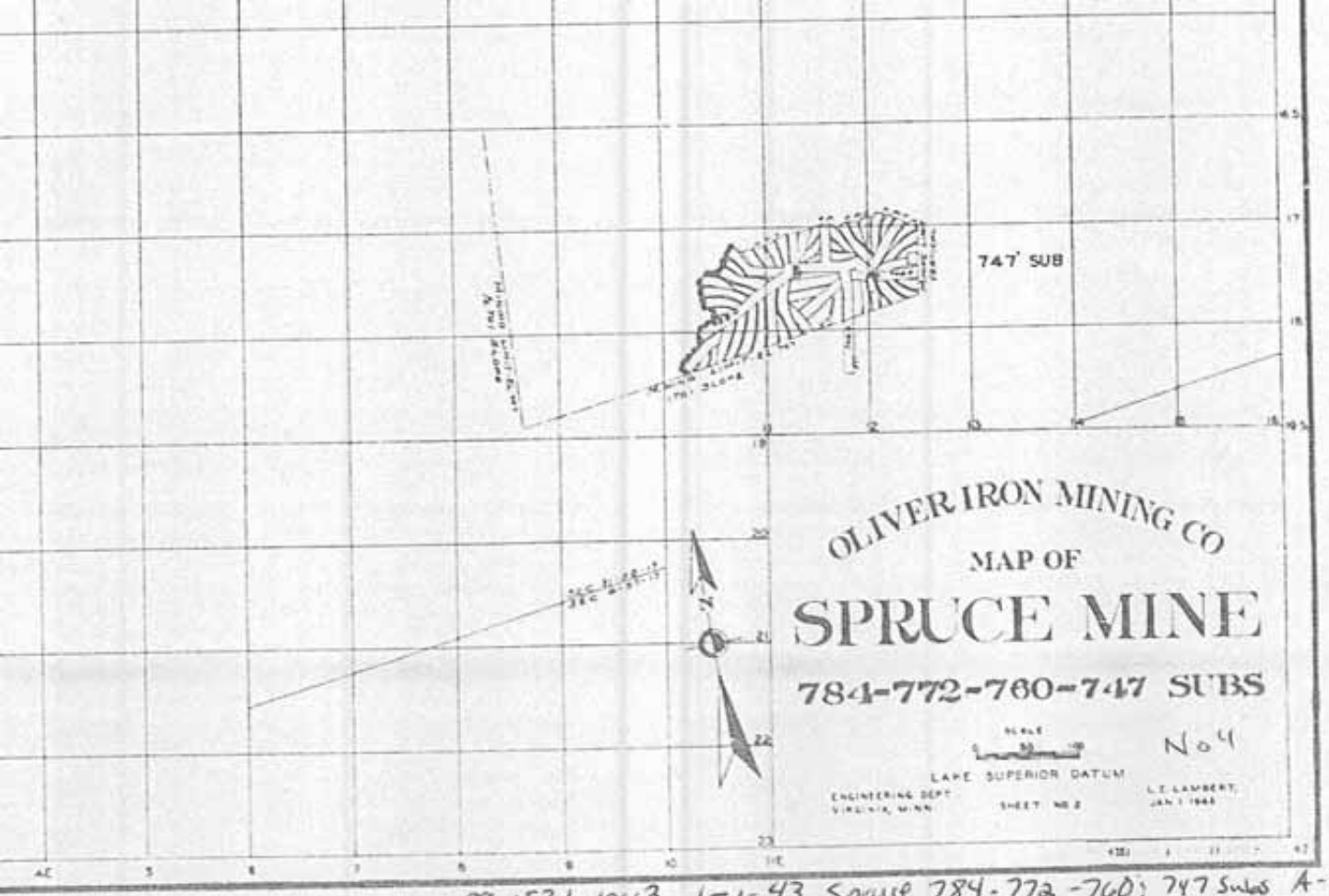


091531 1943 8-1-41 Spruce 46 ft Sub 2-6V No 1
A-82

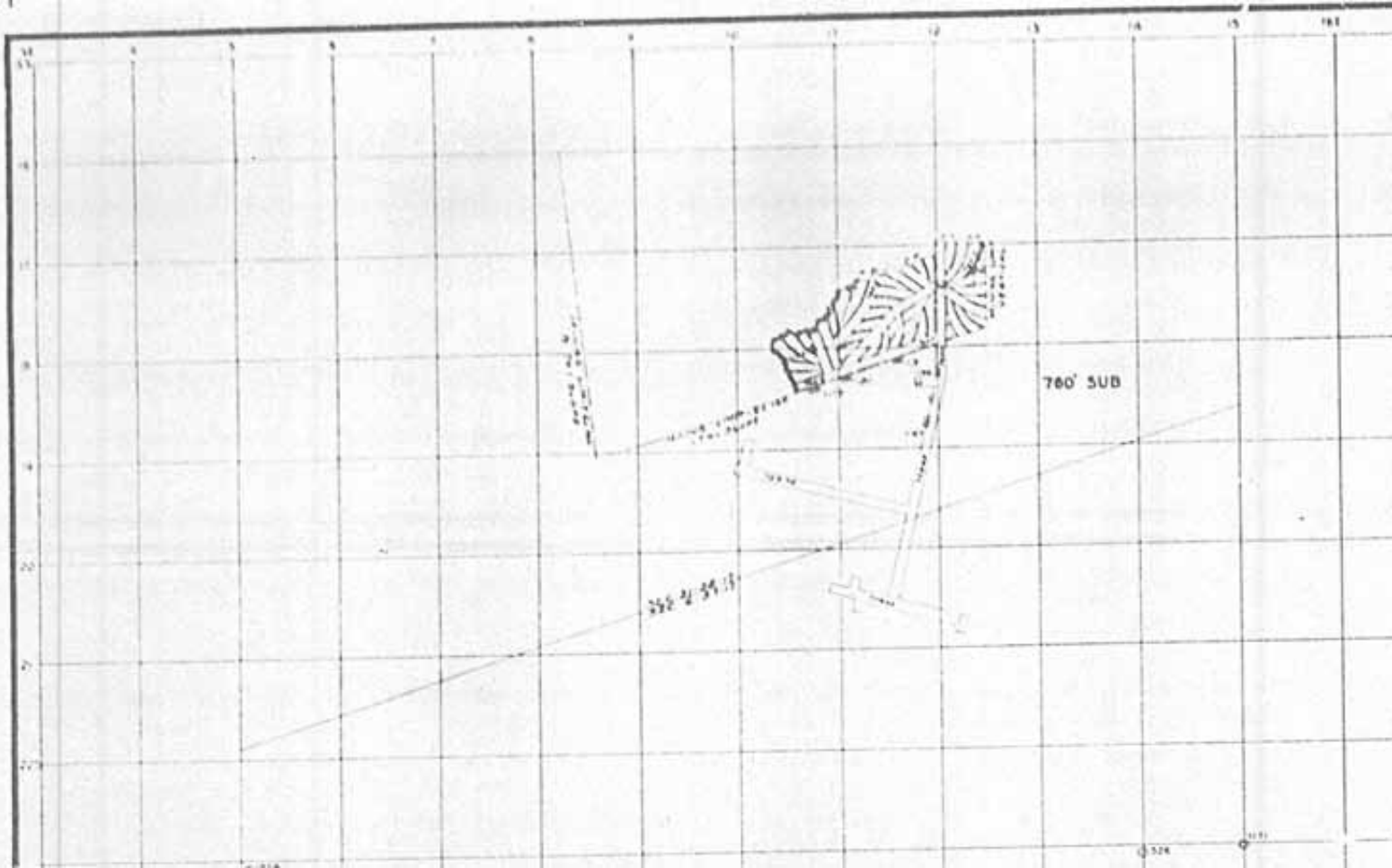
760



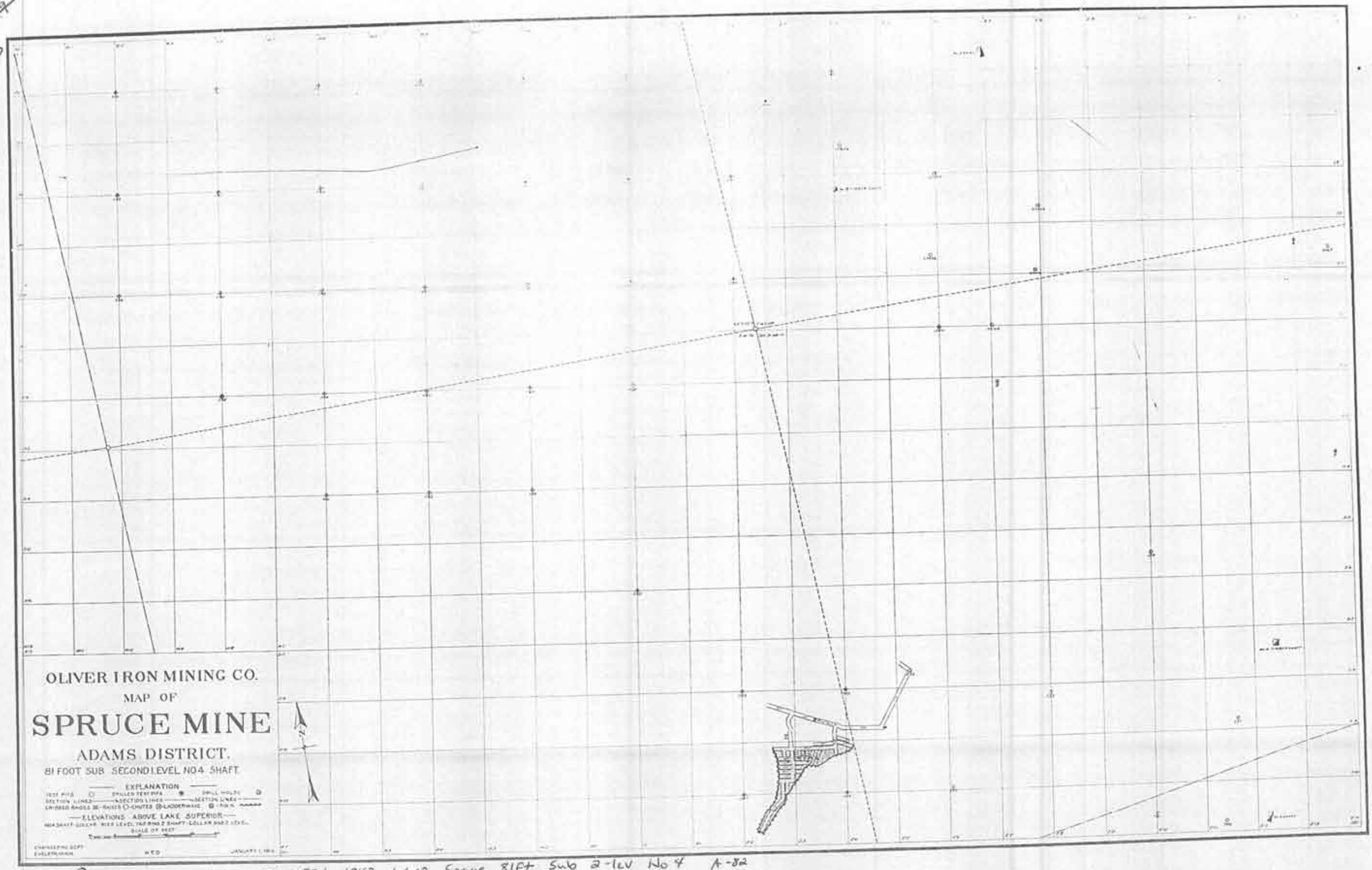
09 1531 1943 1-1-41 Spruce 1-Lev 4-shaft Plan A-82



09 1531 1943 1-1-43 Spruce 784-772-760; 747 Subs A-82

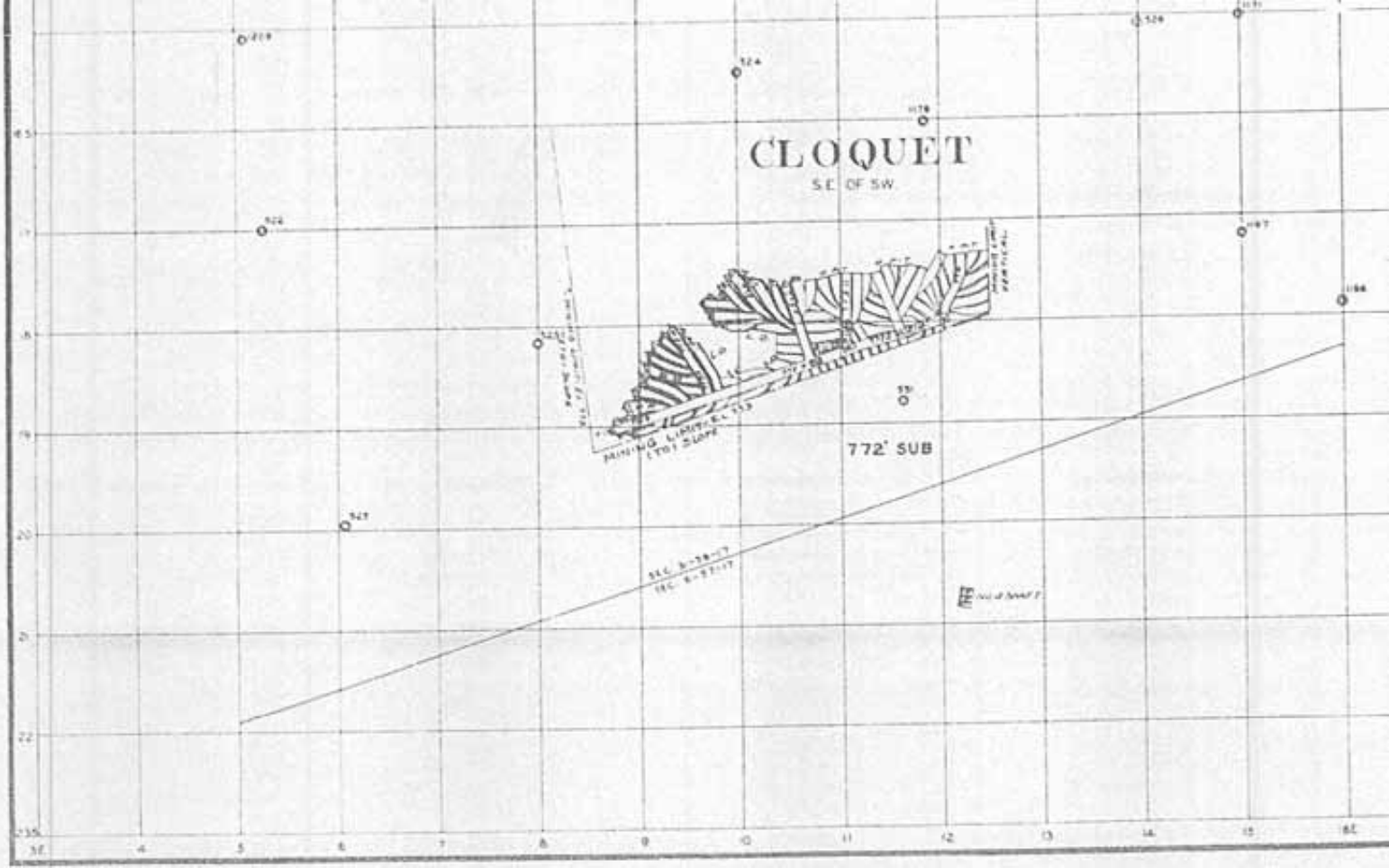

760' SUB

~~7659~~
7665



165.9

09 1531 1943 1-1-13 Spruce 81ft Sub 2-lev No 4 A-82


CLOQUET
S.E. OF S.W.
772' SUB
MINING LIMITS EL 253
(701 SLOPE
SEC. 8-58-17
SEC. 8-57-17
OLD SHAFT
524
1178
524
1187
1166
547
3
4
5
6
7
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11
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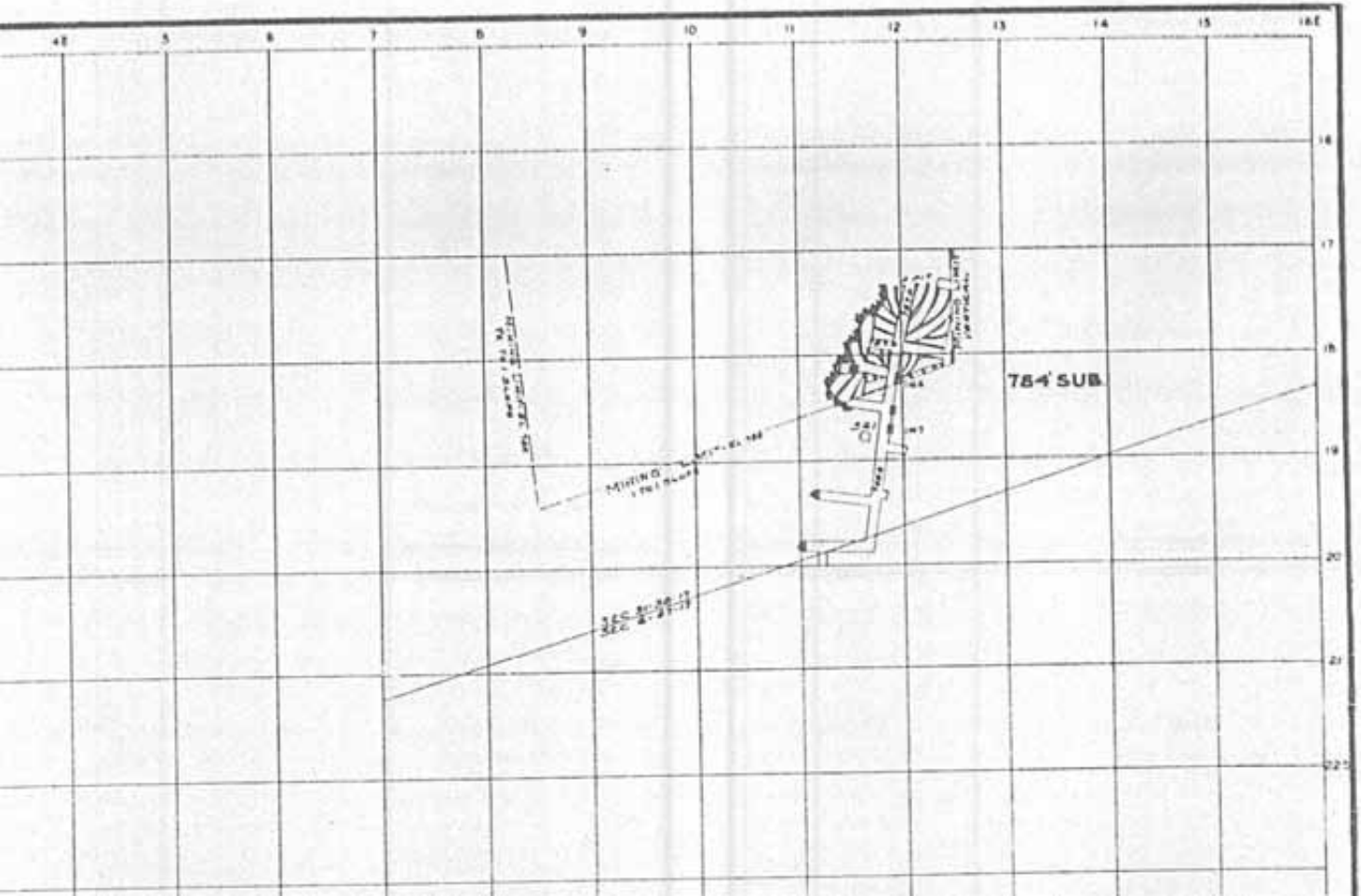
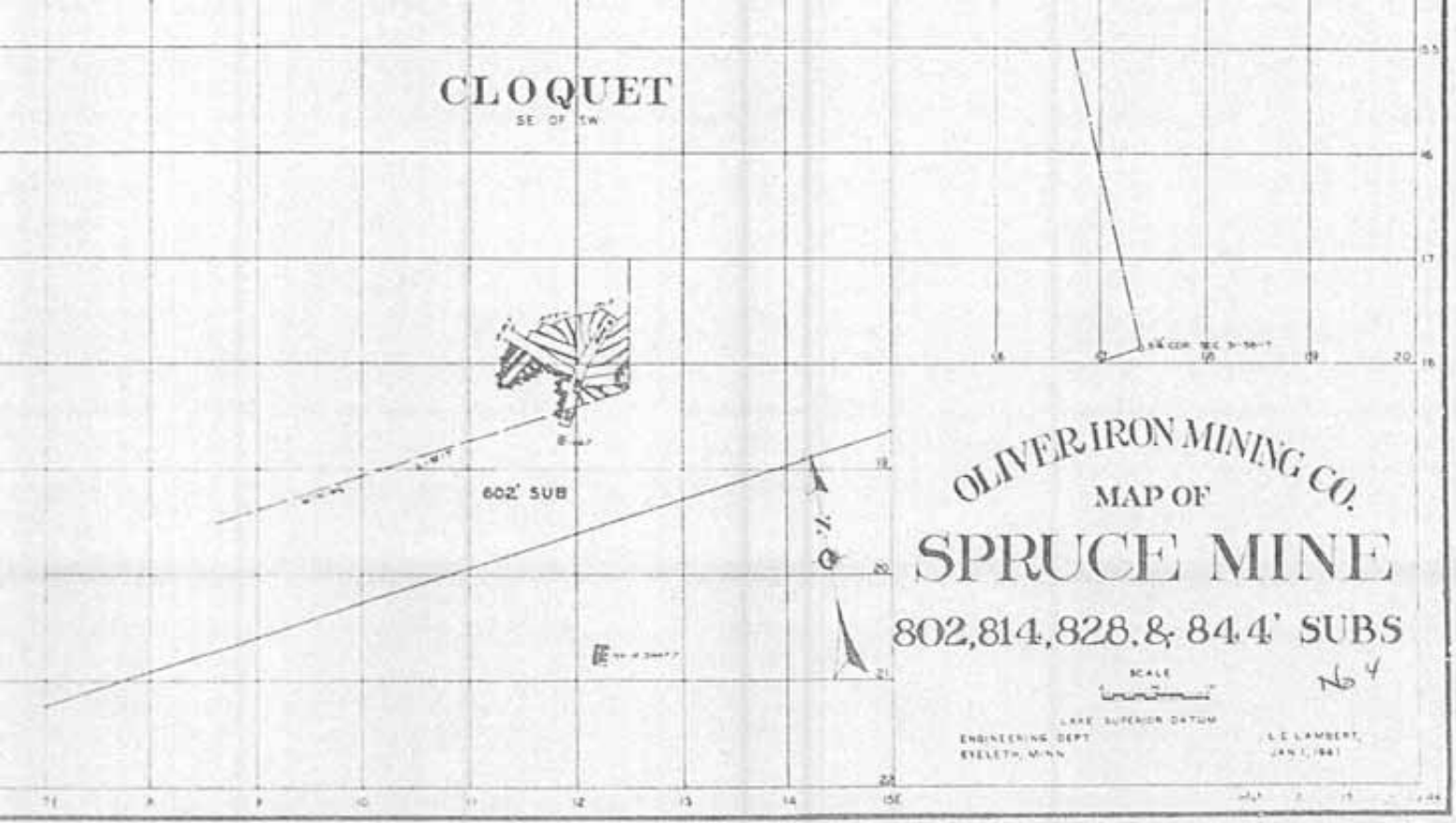
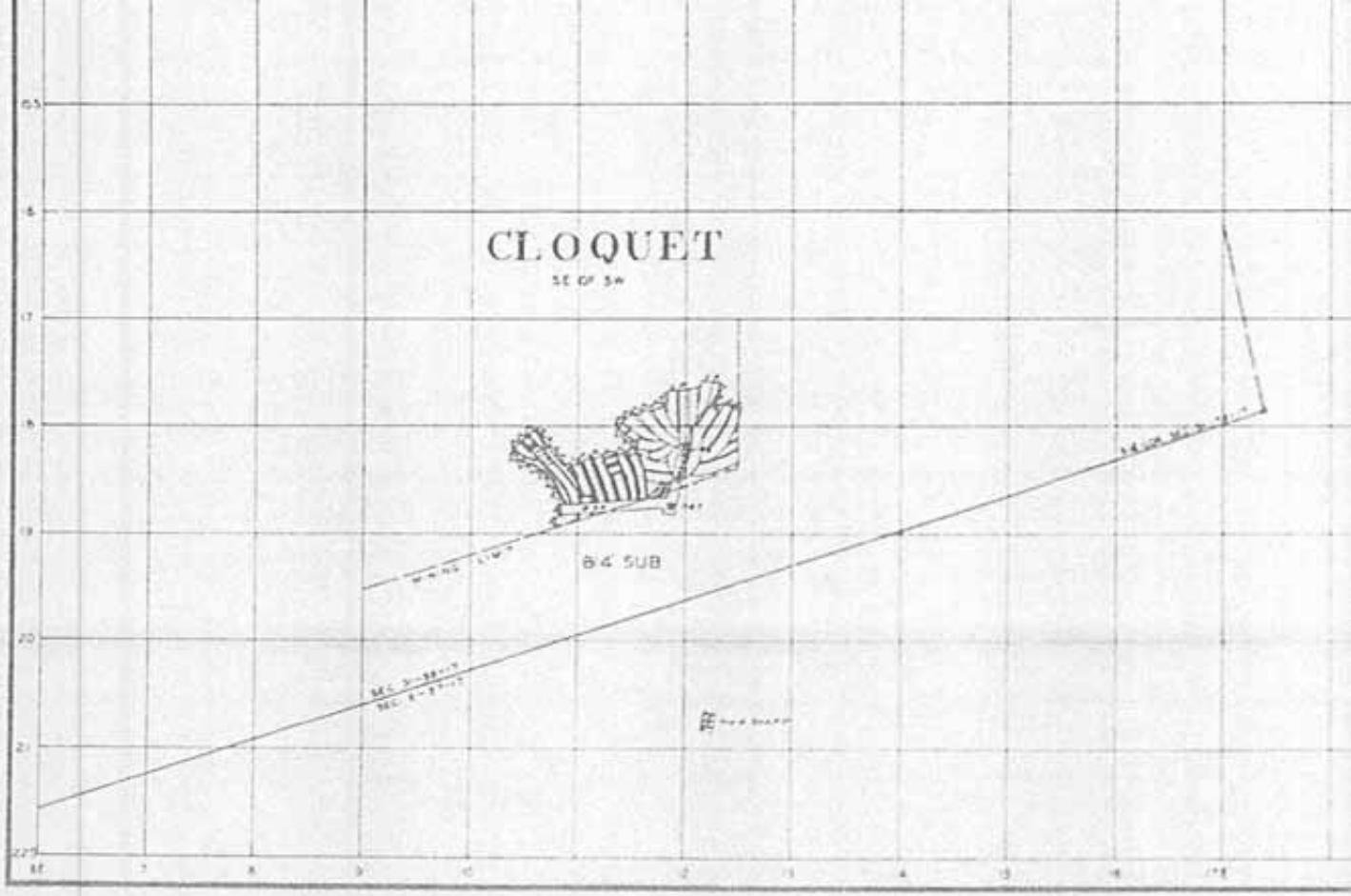
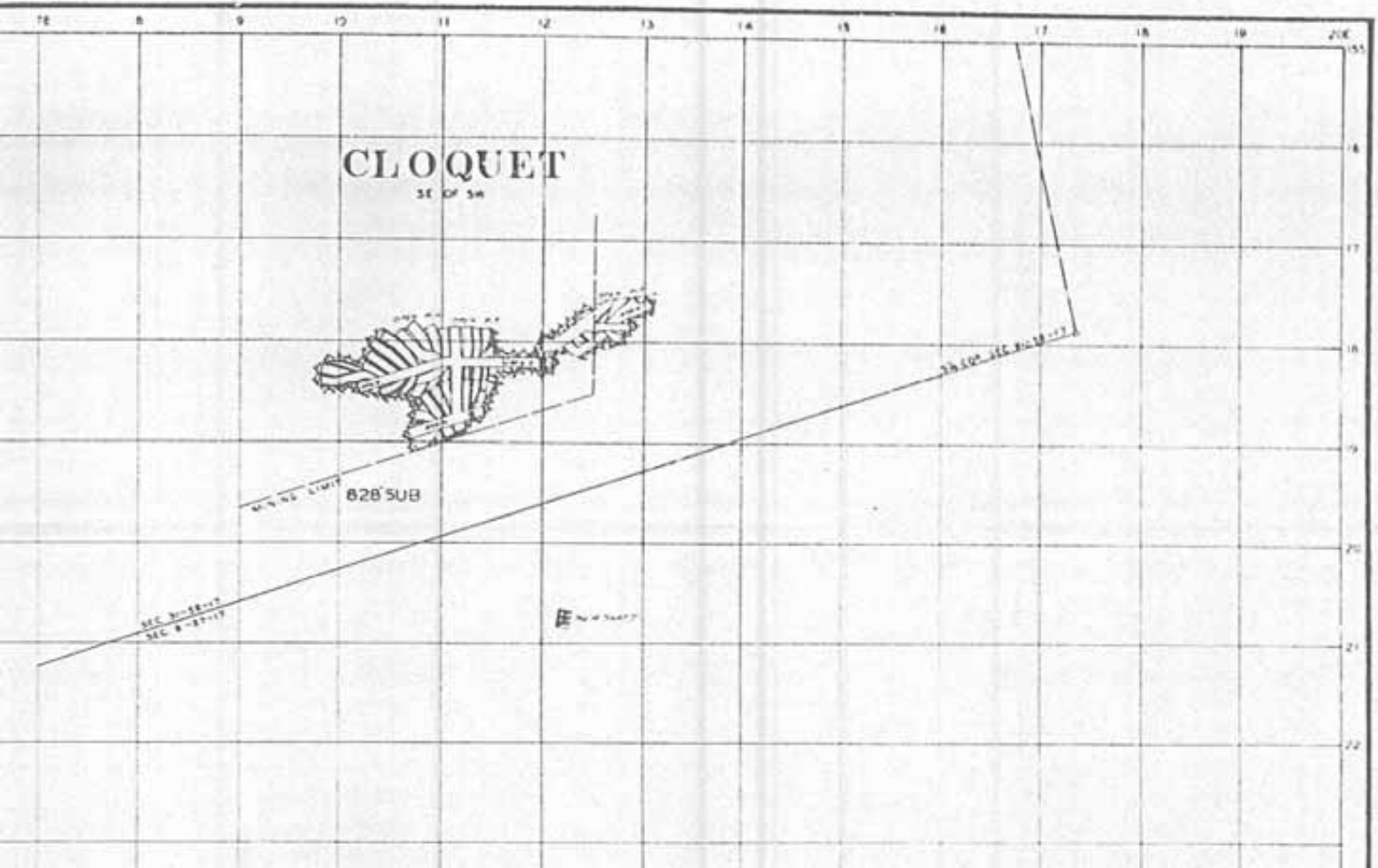
22

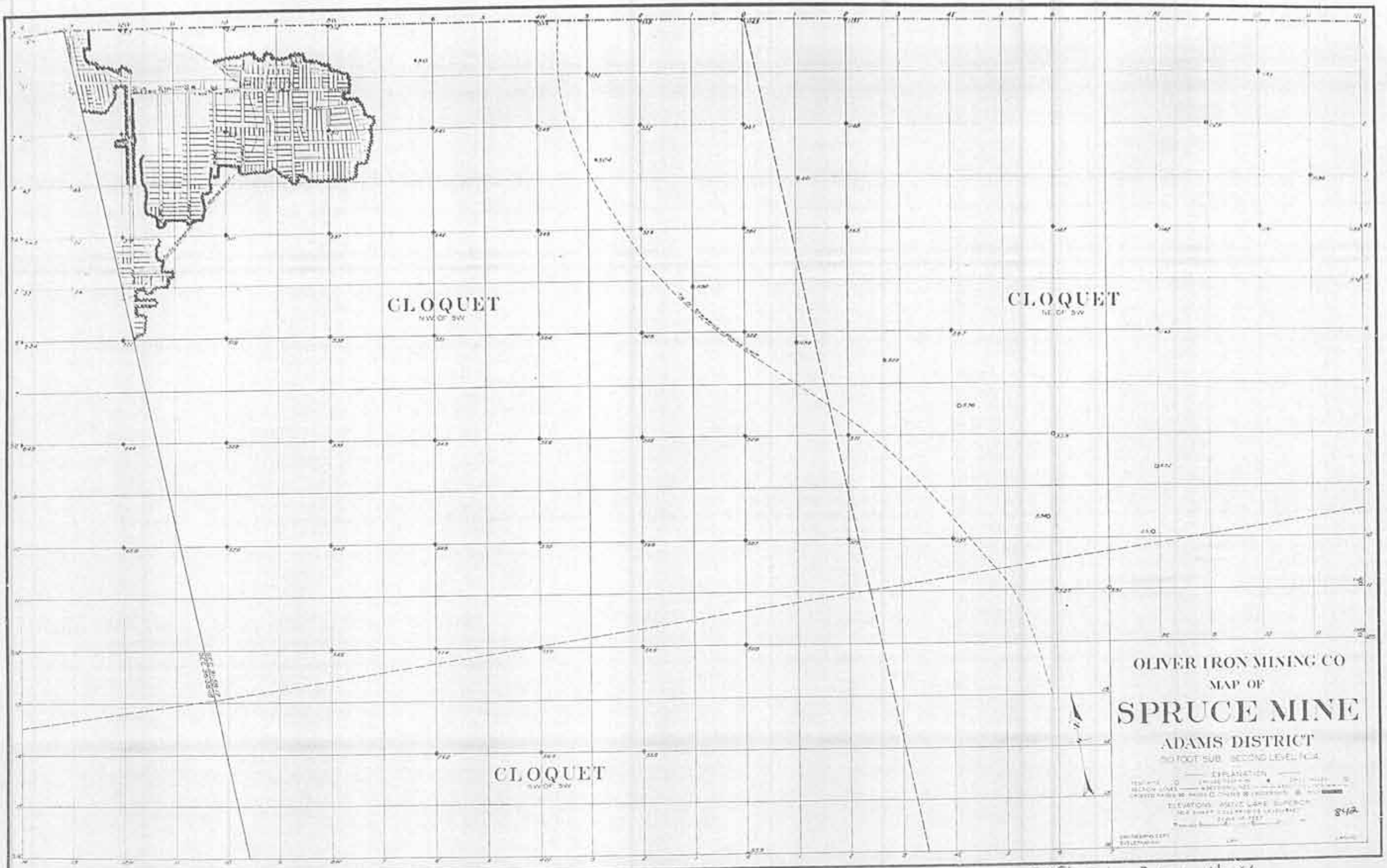

784' SUB.



09 1531 1943 1-1-41 Spruce 802-814-828-844 Subs A-82


CLOQUET
SE OF SW
84 SUB

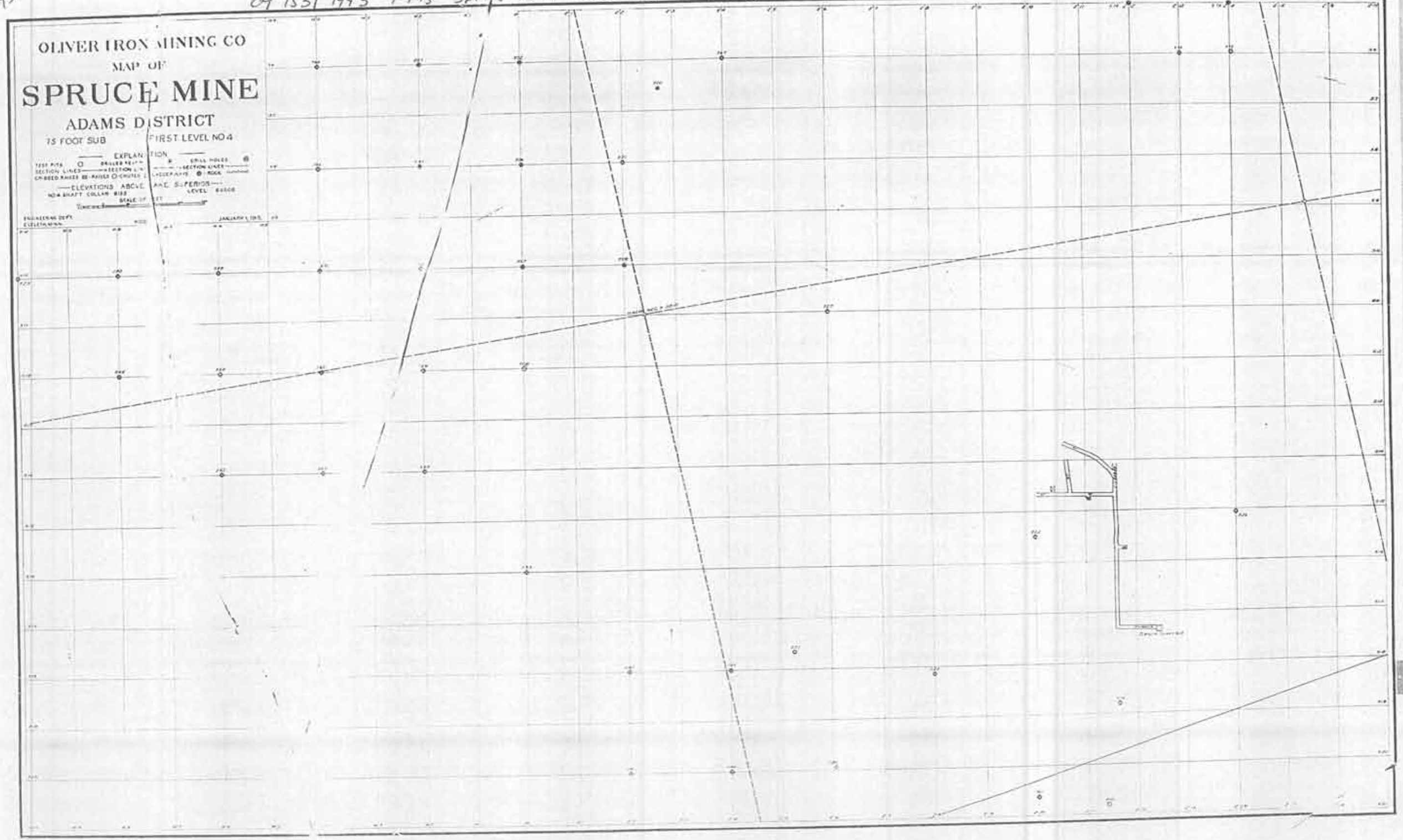

CLOQUET
828 SUB

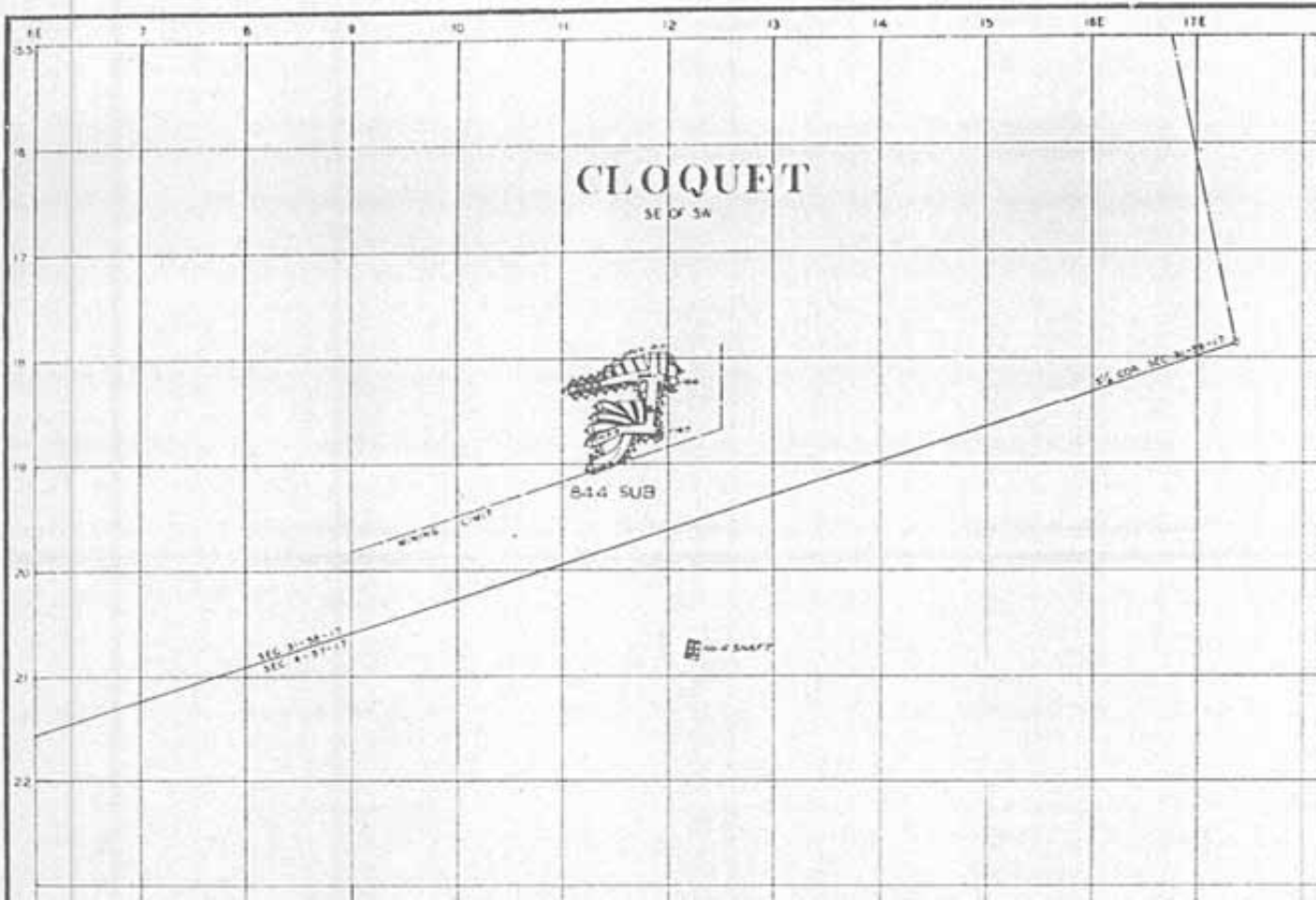


09 1531 1943 Spruce 150 ft Sub 2-Lev No 4

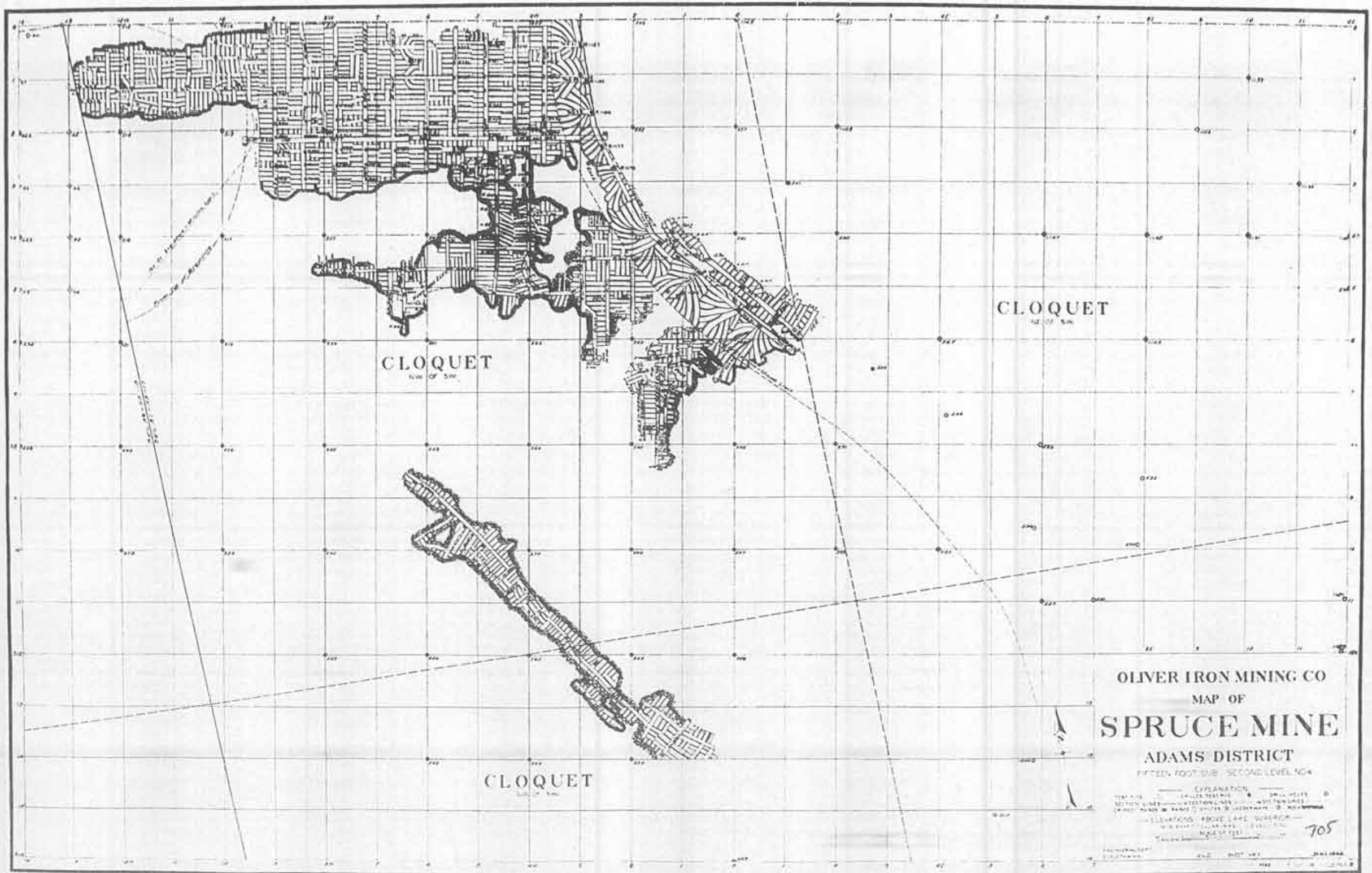
843

09 1531 1943 1-1-15 Spruce 75ft Sub 1-lev No 4 A-82



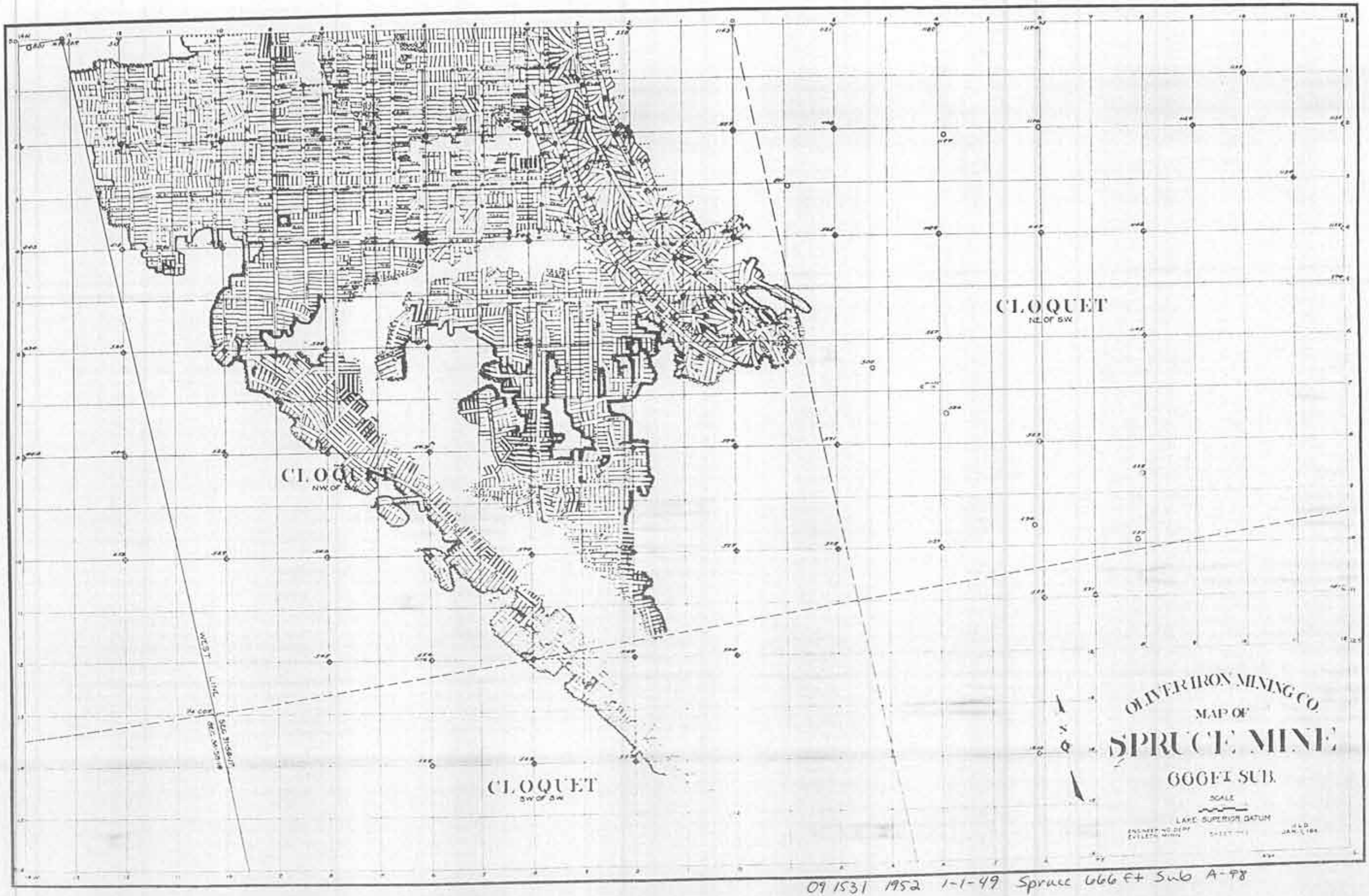

CLOQUET
SE OF SW
8-4-4 SUB
MINING LIMIT
SEC 9-50-17
SEC 4-51-17
1/4 COR SEC 4-51-17
SHAFT

705



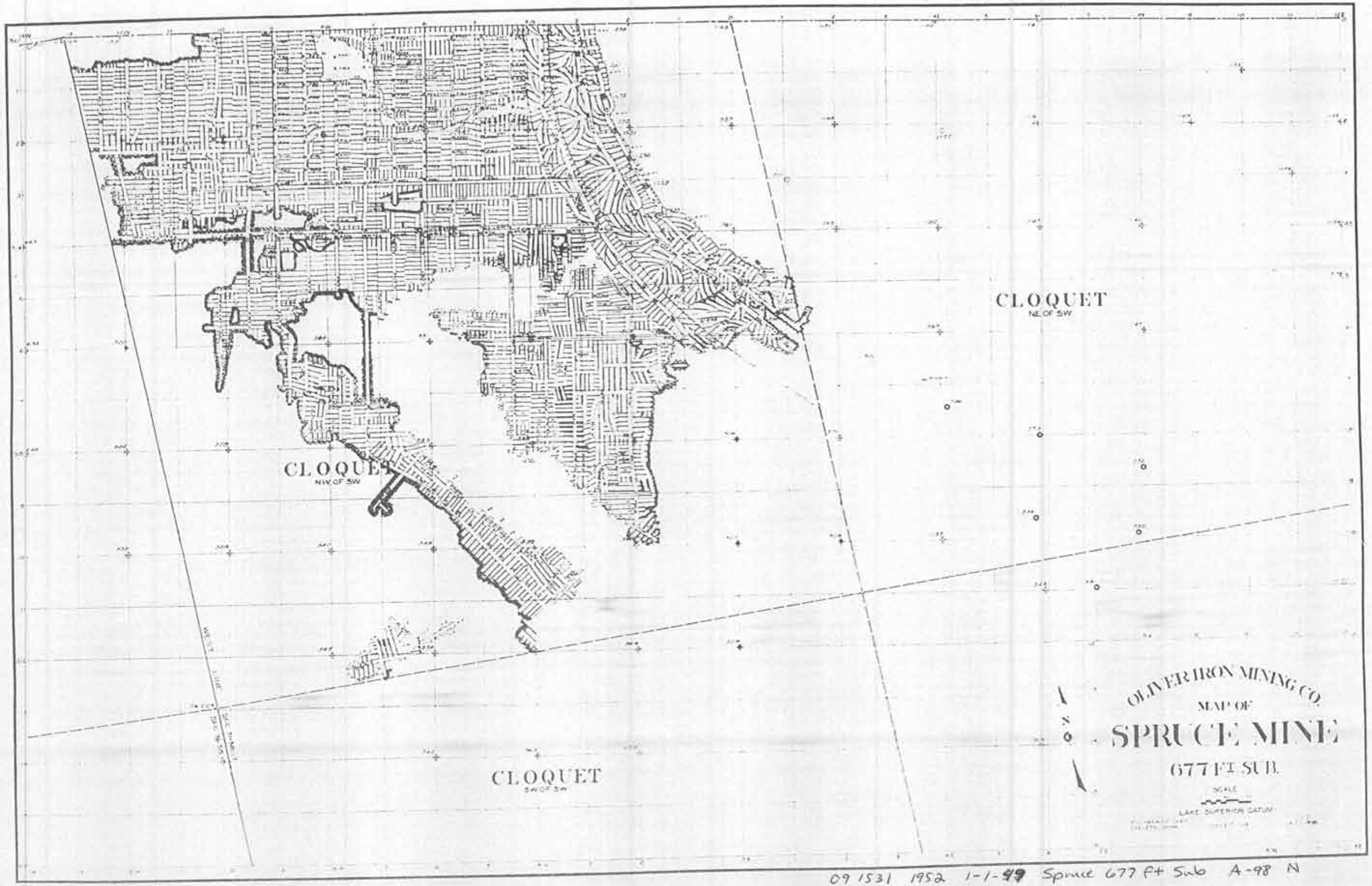
09 1531 1952 1-1-48 Spruce 15 ft Sub 2 lev No 4 A-98

666

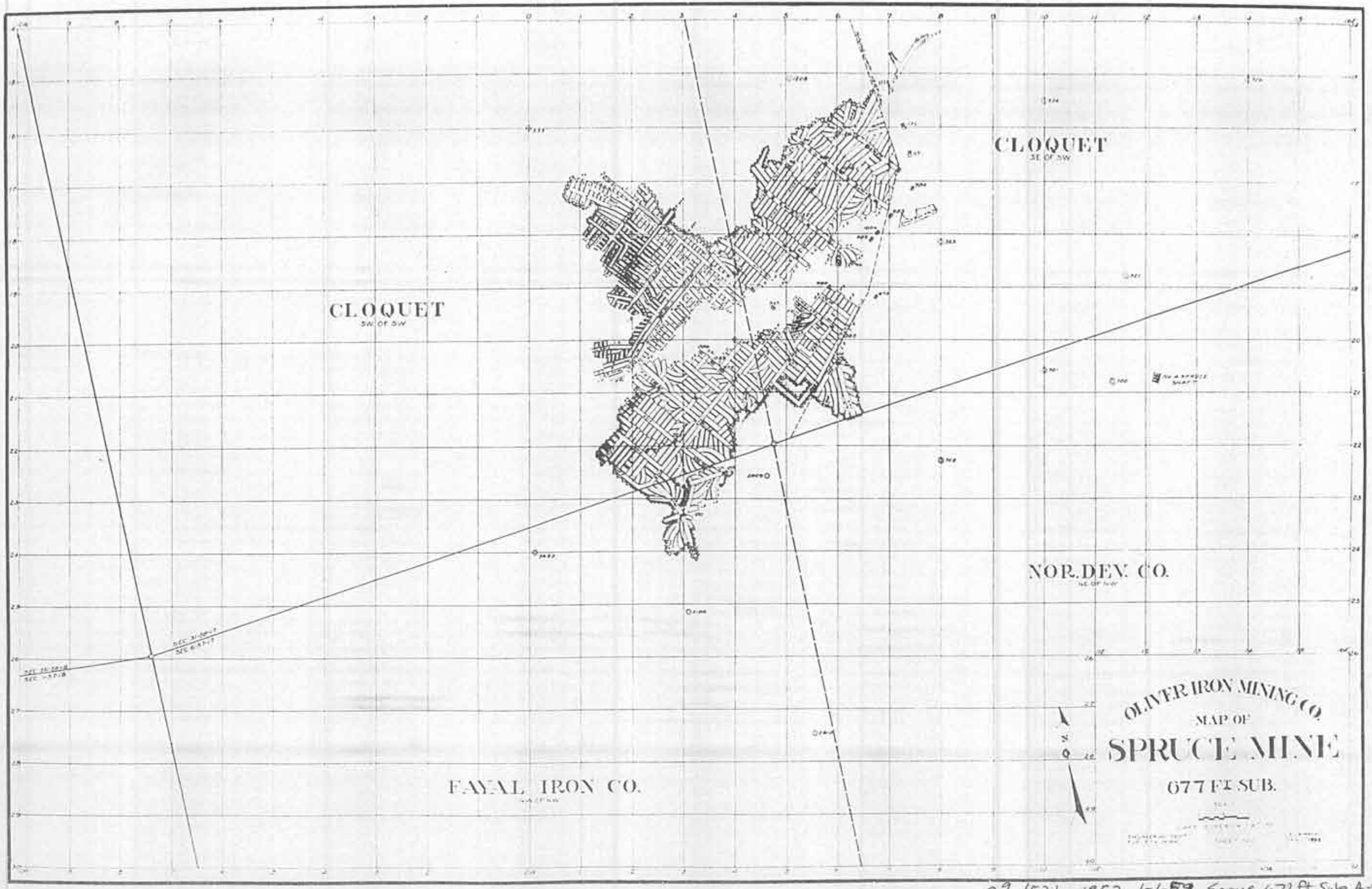


09 1531 1952 1-1-49 Spruce 666 ft Sub A-98

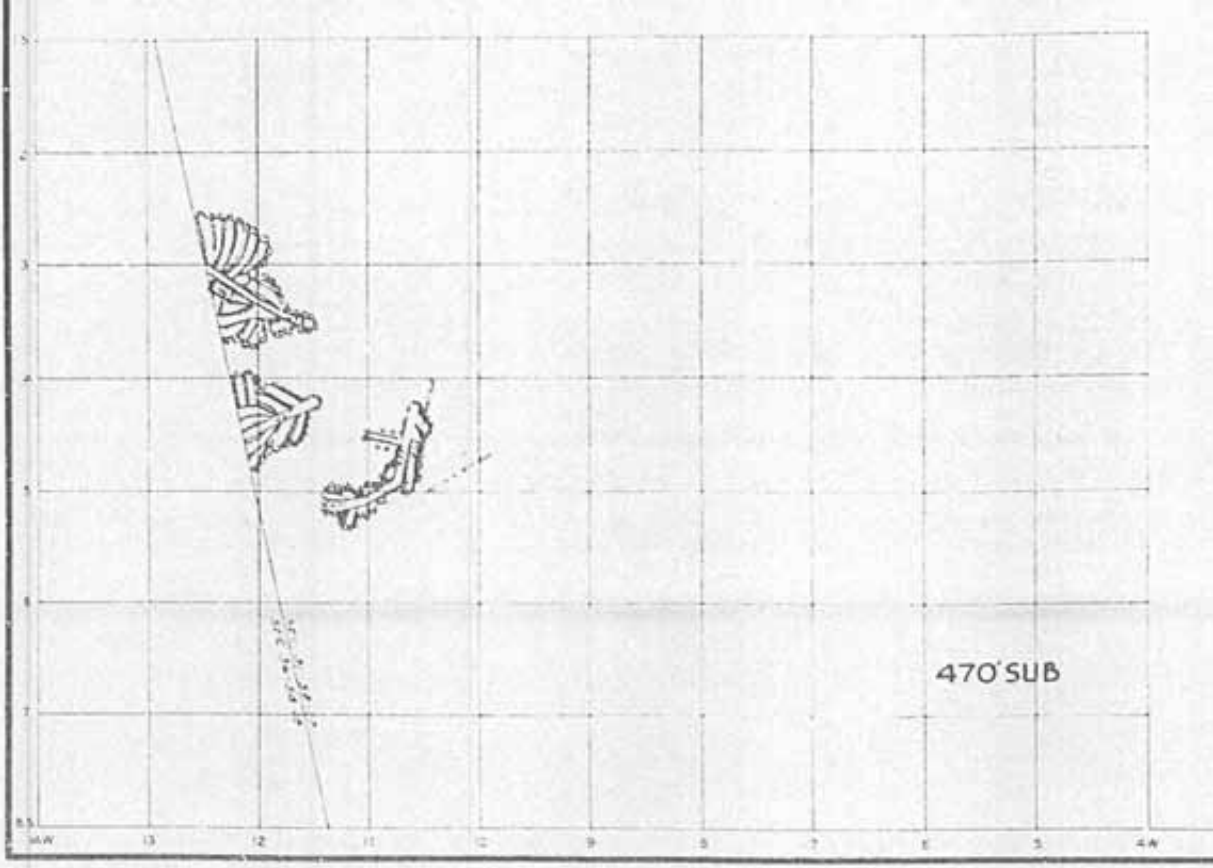
617



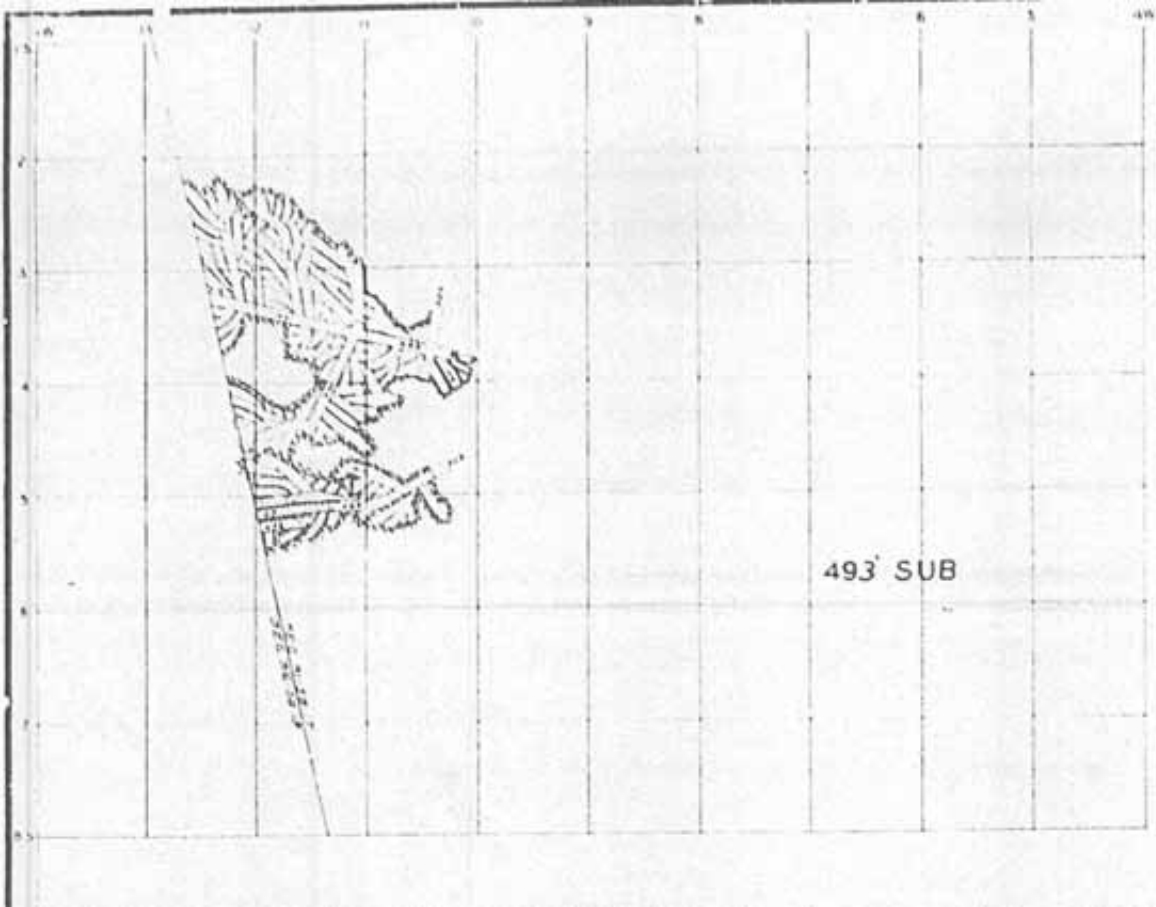
09 1531 1952 1-1-49 Spruce 677 ft Sub A-98 N



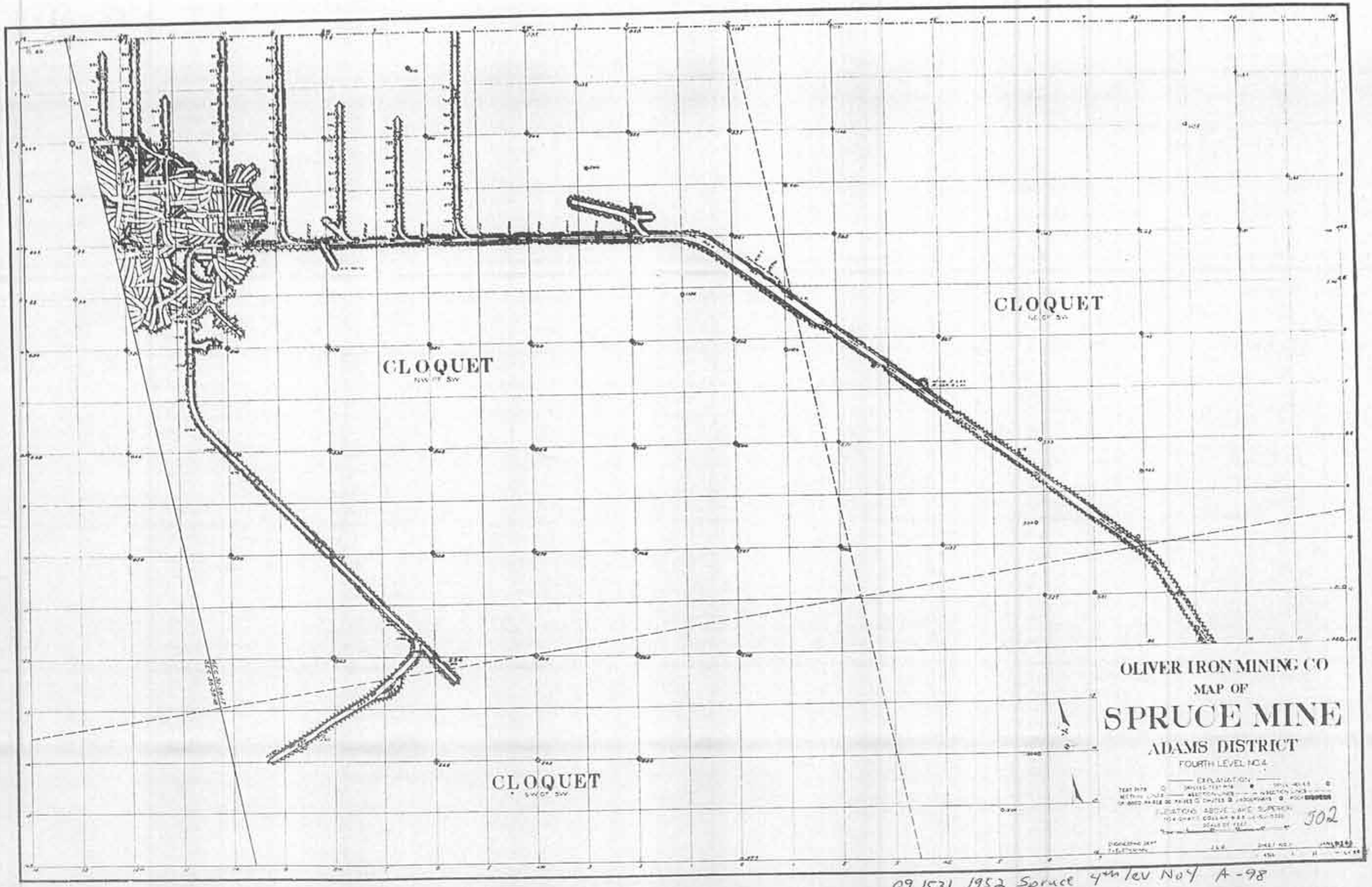
09 1531 1952 1-1-59 Spruce 677 ft Sub A-98S


470' SUB

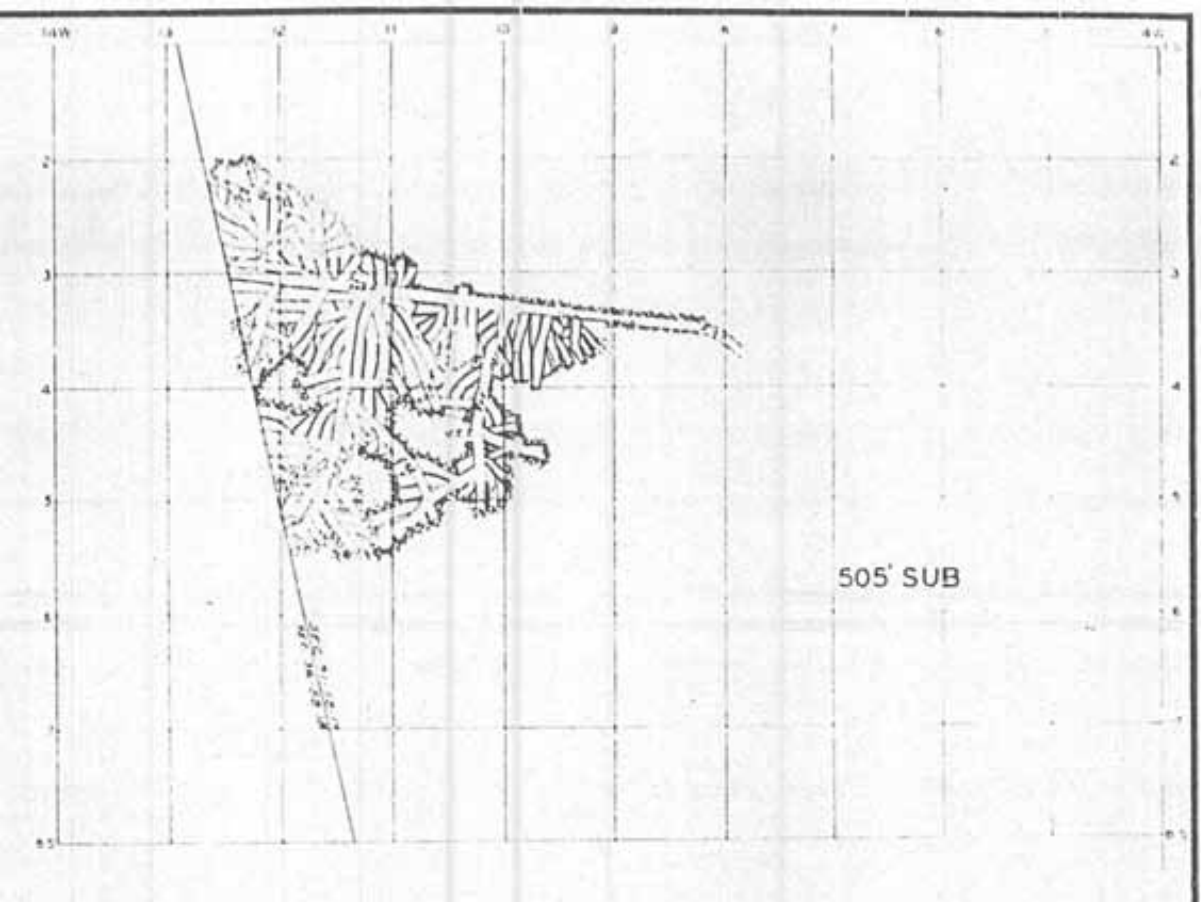
09/531 1952


493' SUB

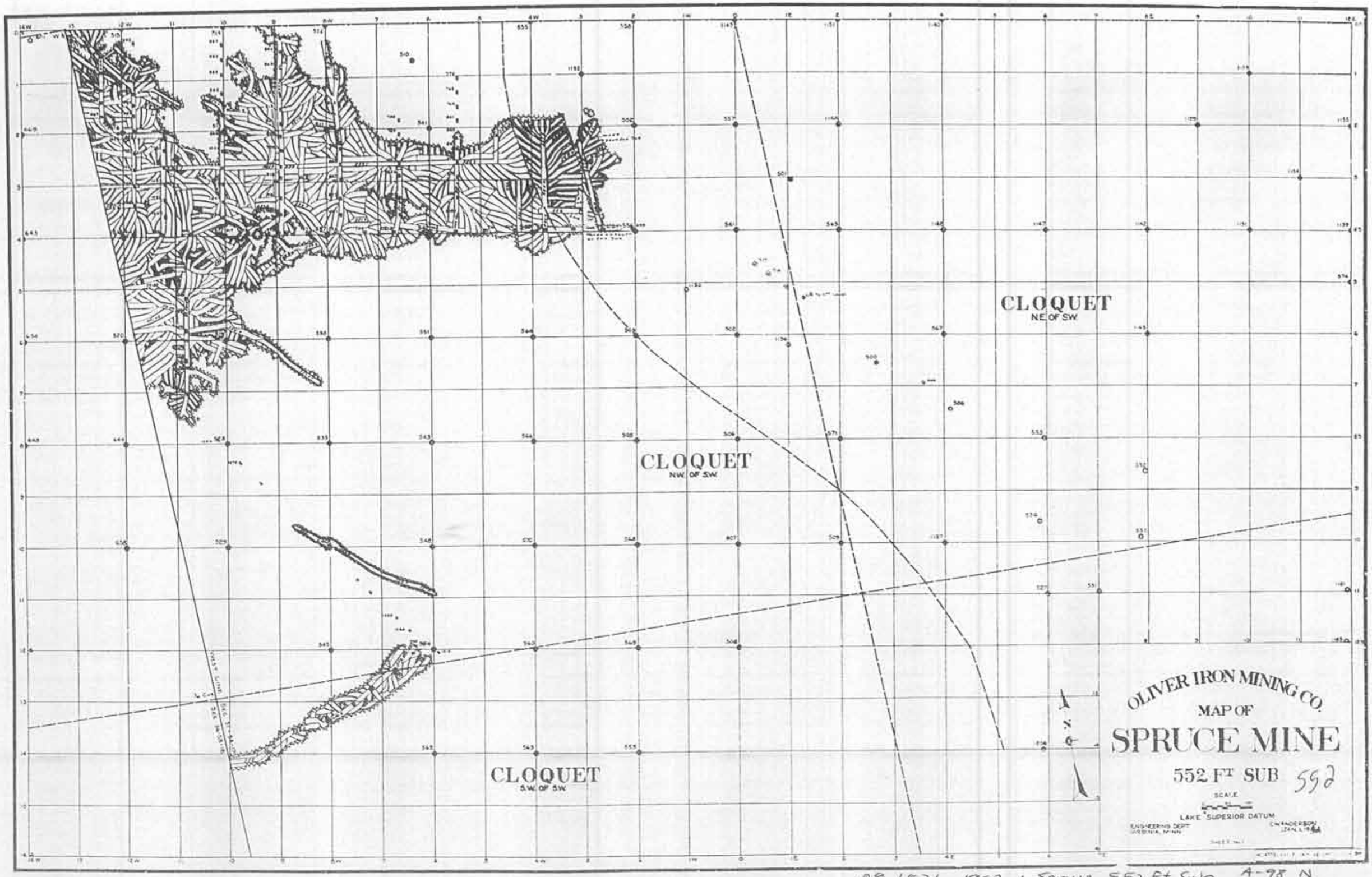
502



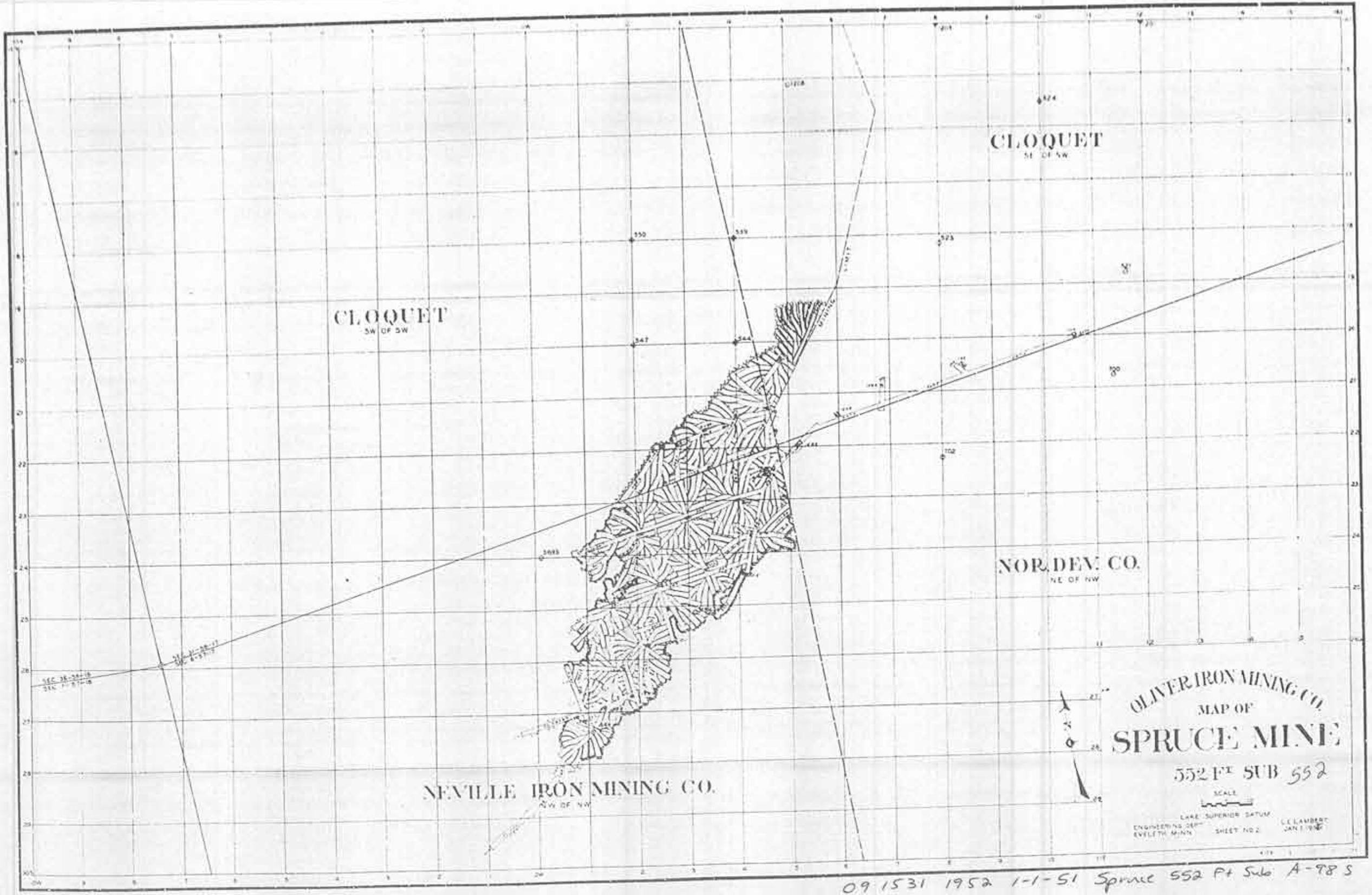
09 1531 1952 Spruce 4th lev No 4 A-98


505' SUB

592



09 1531 1952 · Spruce 552 Ft Sub A-98 N



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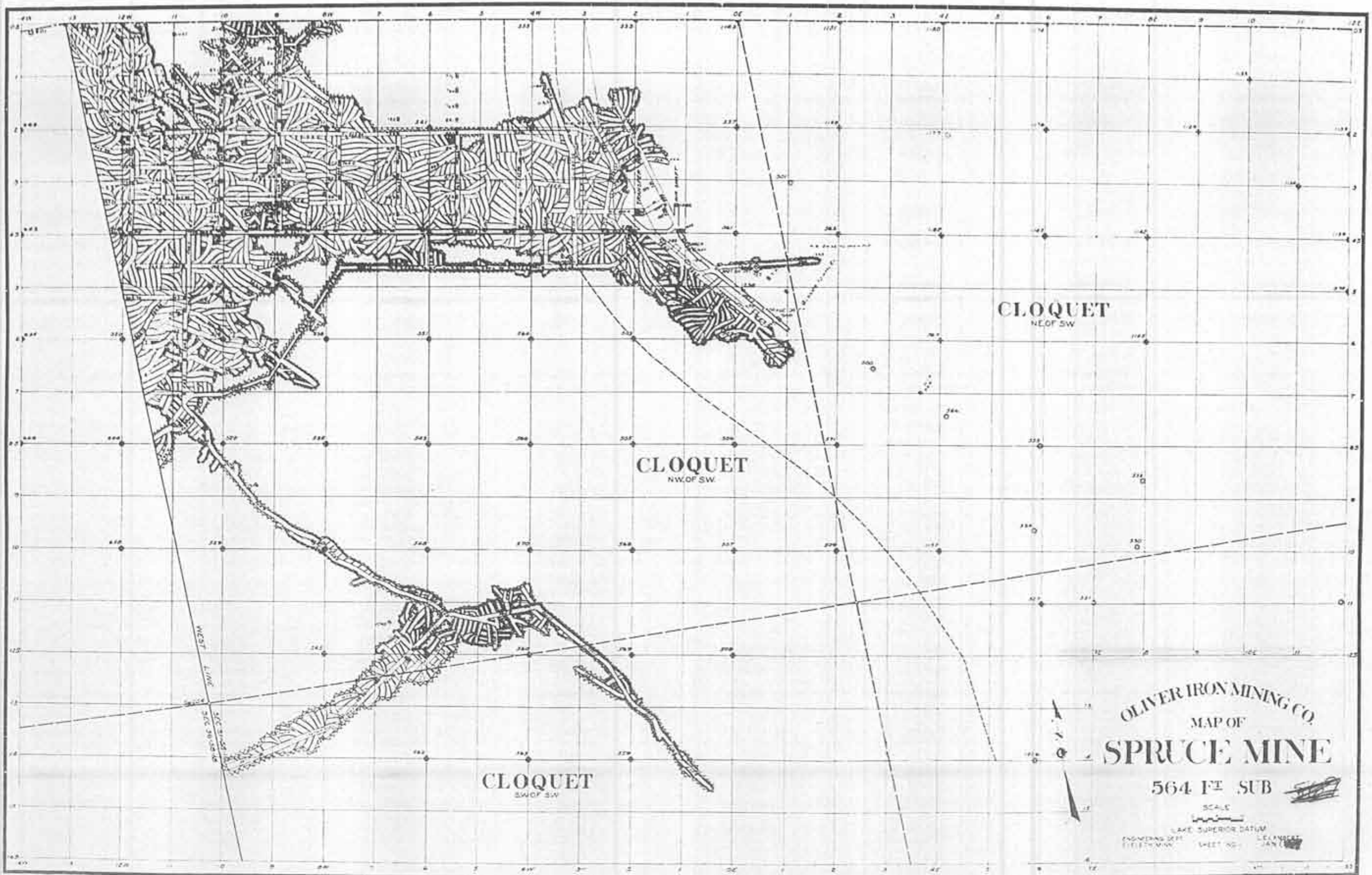
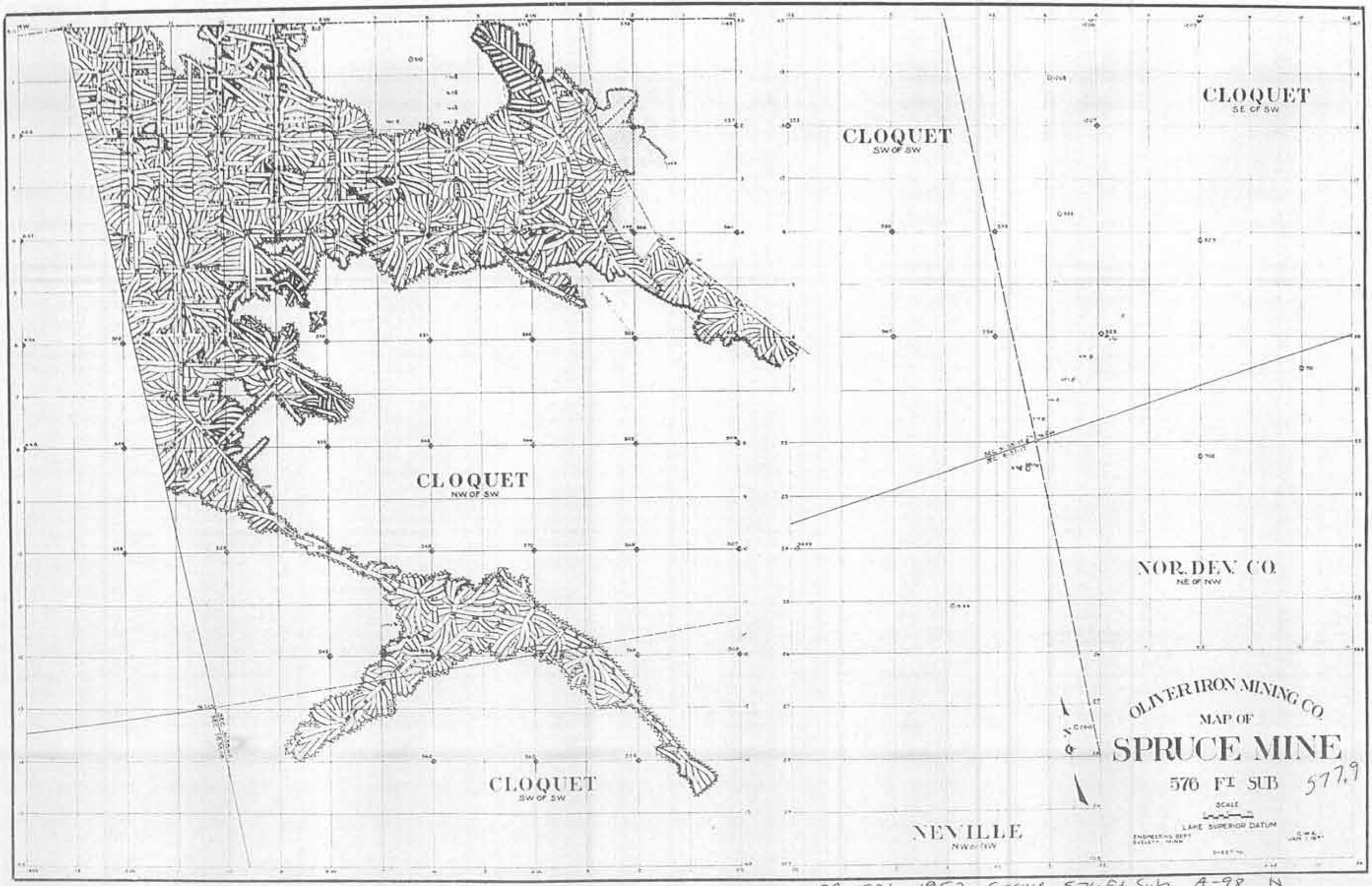
564

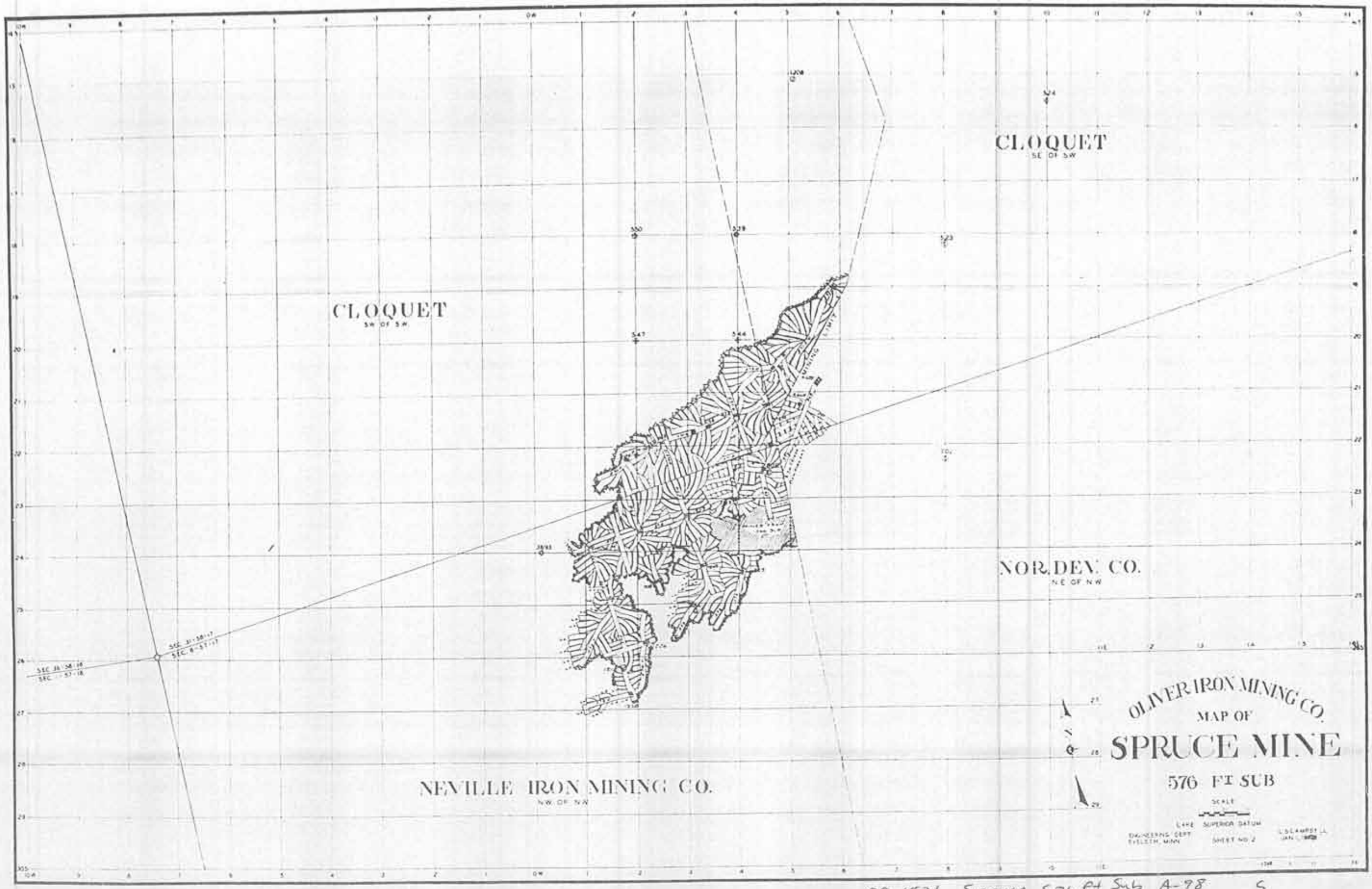


09 1531 1952 Sprue 564 Ft Sub A-98 N

596

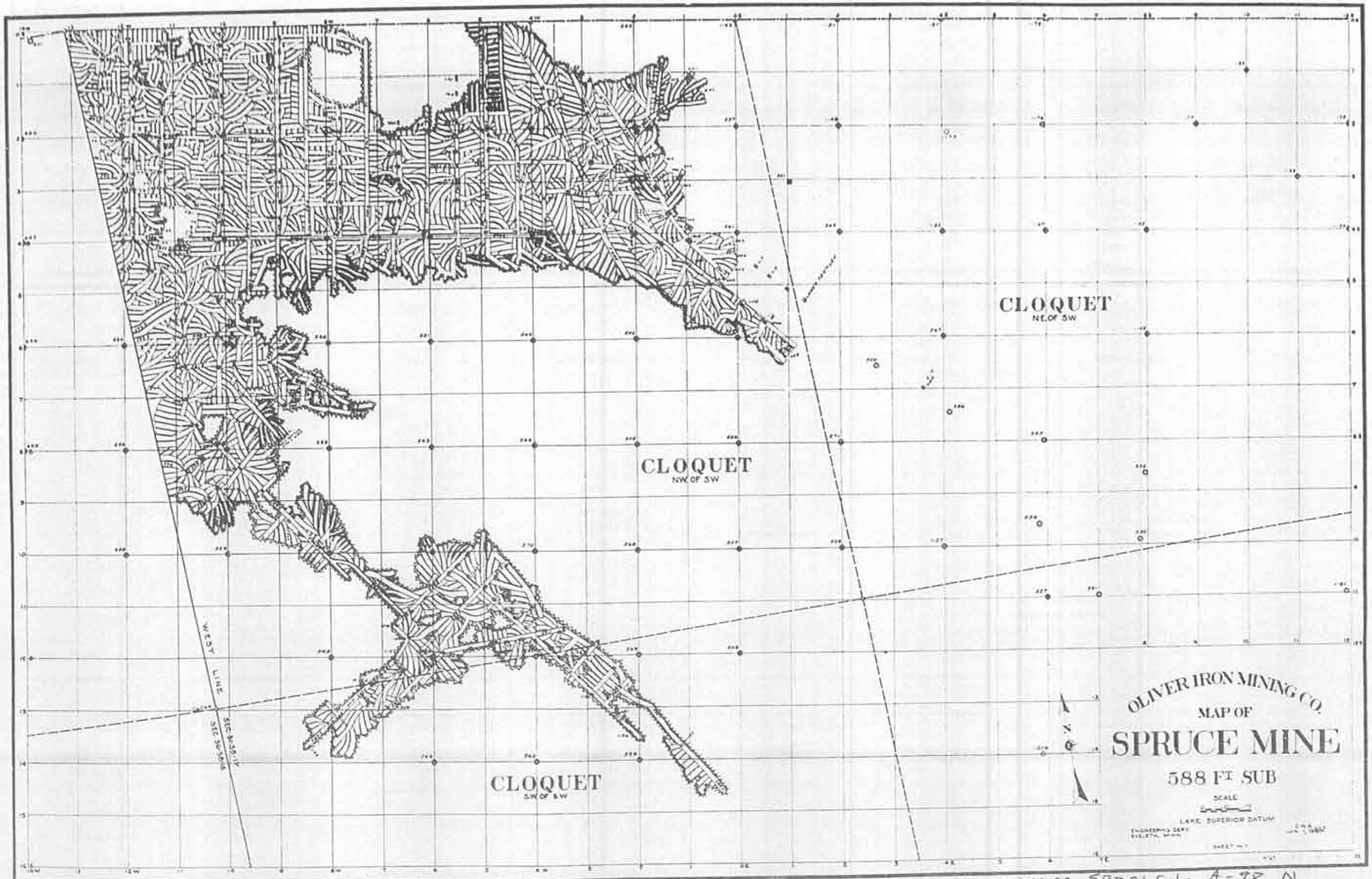


09 1531 1952 Spruce 576 ft Sub A-98 N



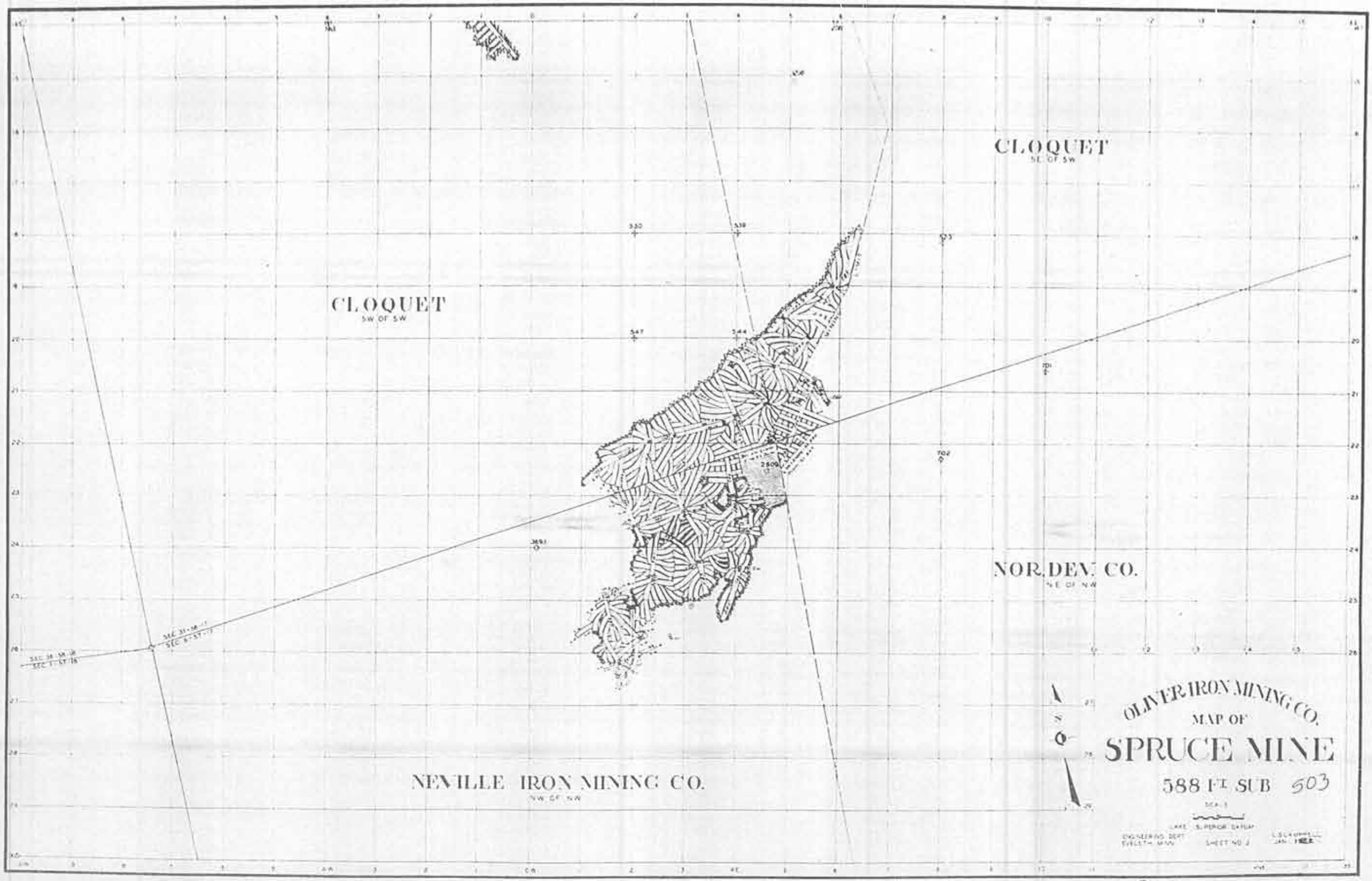
09 1531 Spruce 576 Ft Sub A-98 S
1952

588
N



09 1531 1952 SPRUCE 588 Ft Sub A-78 N

588
5



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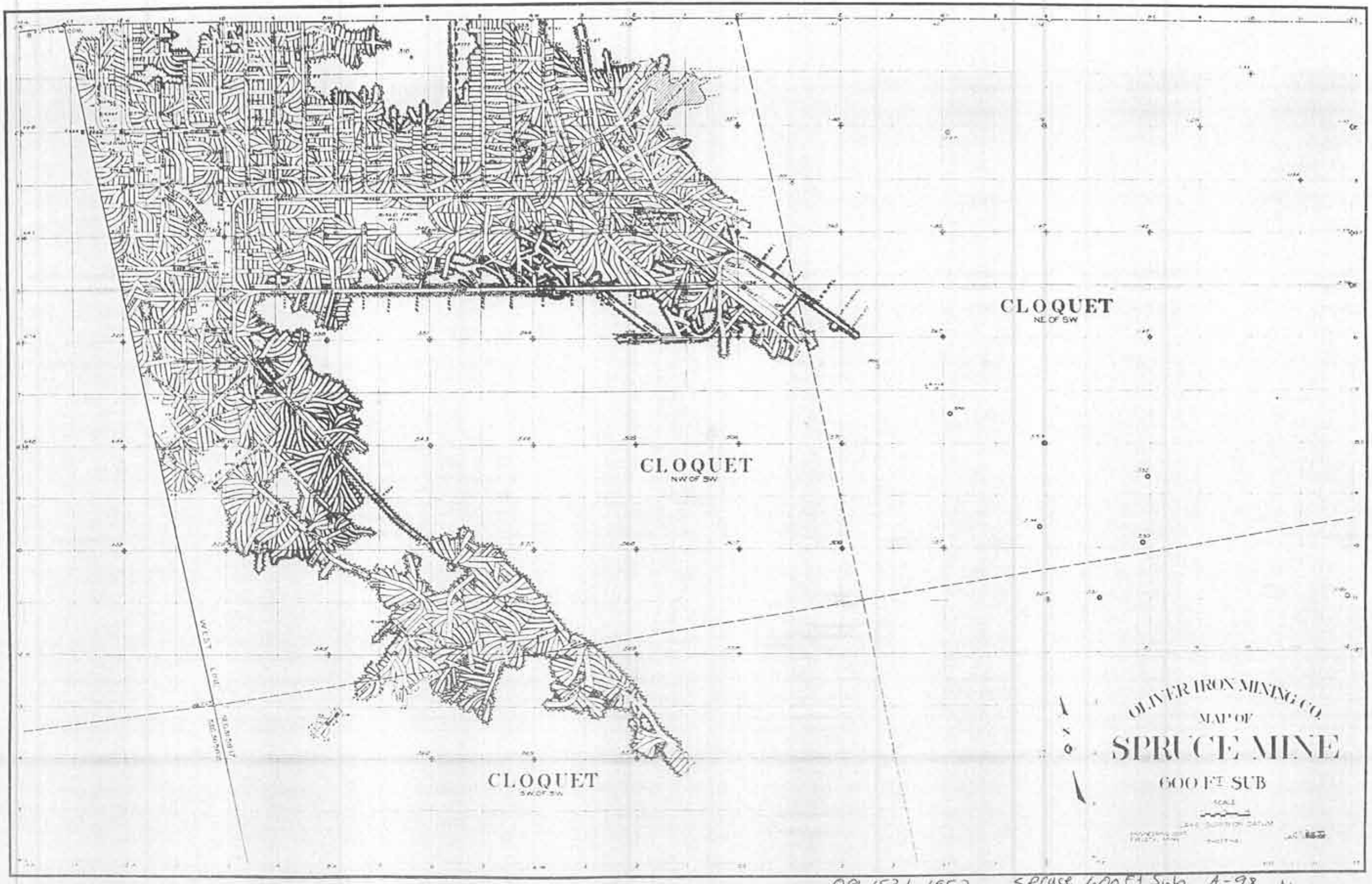

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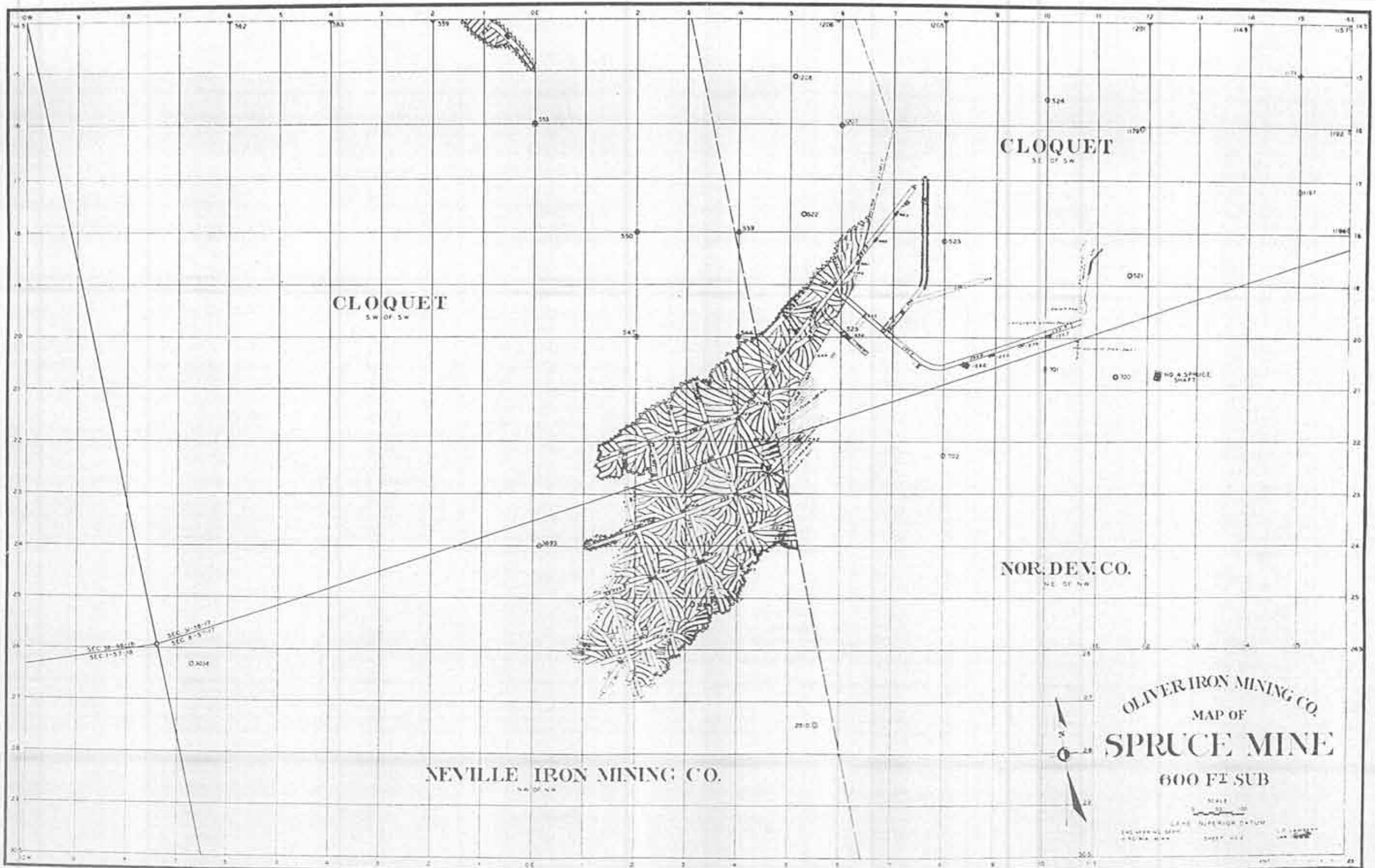
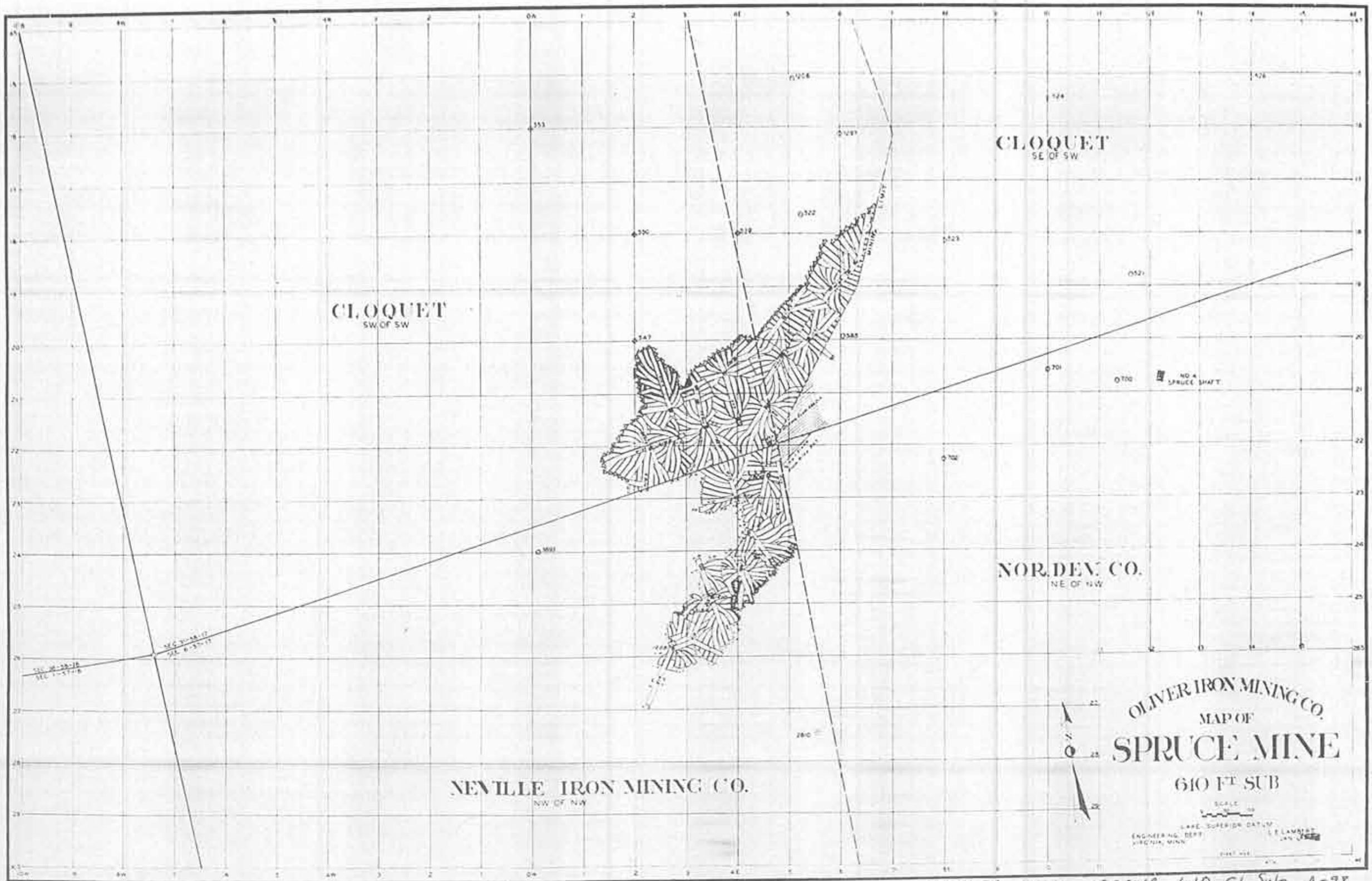


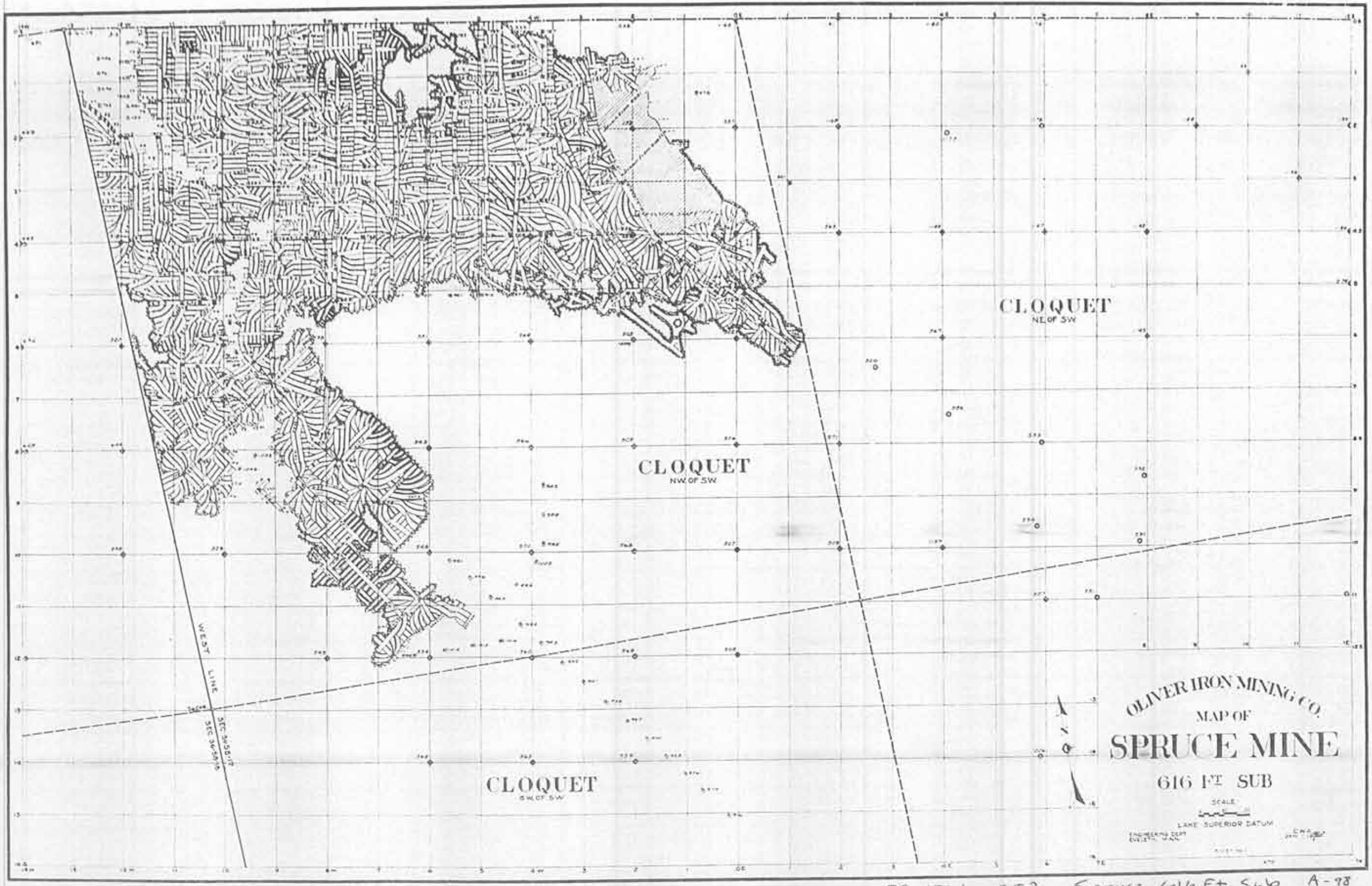
09 1531 1952 Spruce 600 ft Sub A-98 S

610

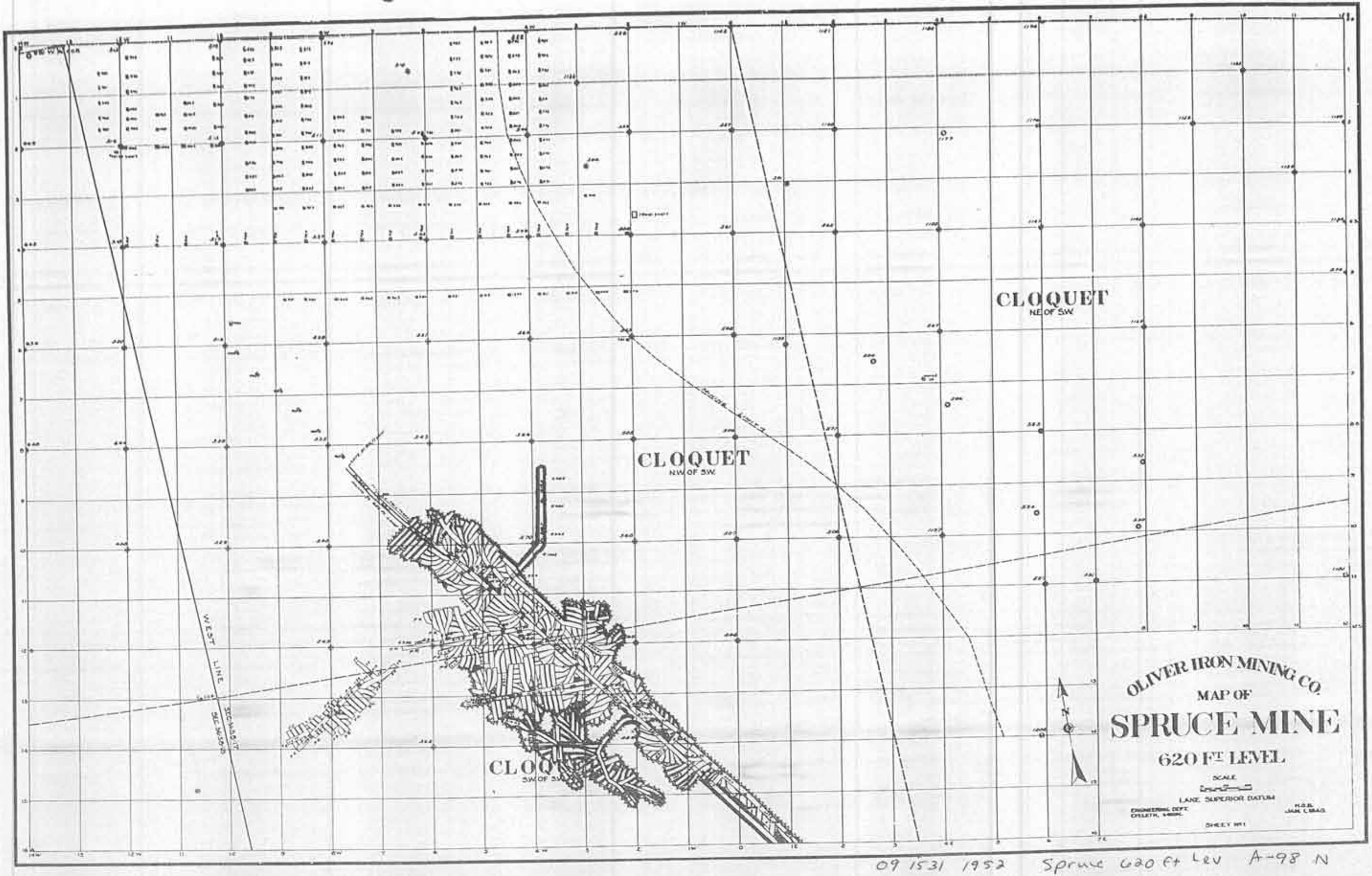


09 1531 1952 Spruce 610 ft Sub A-98

616

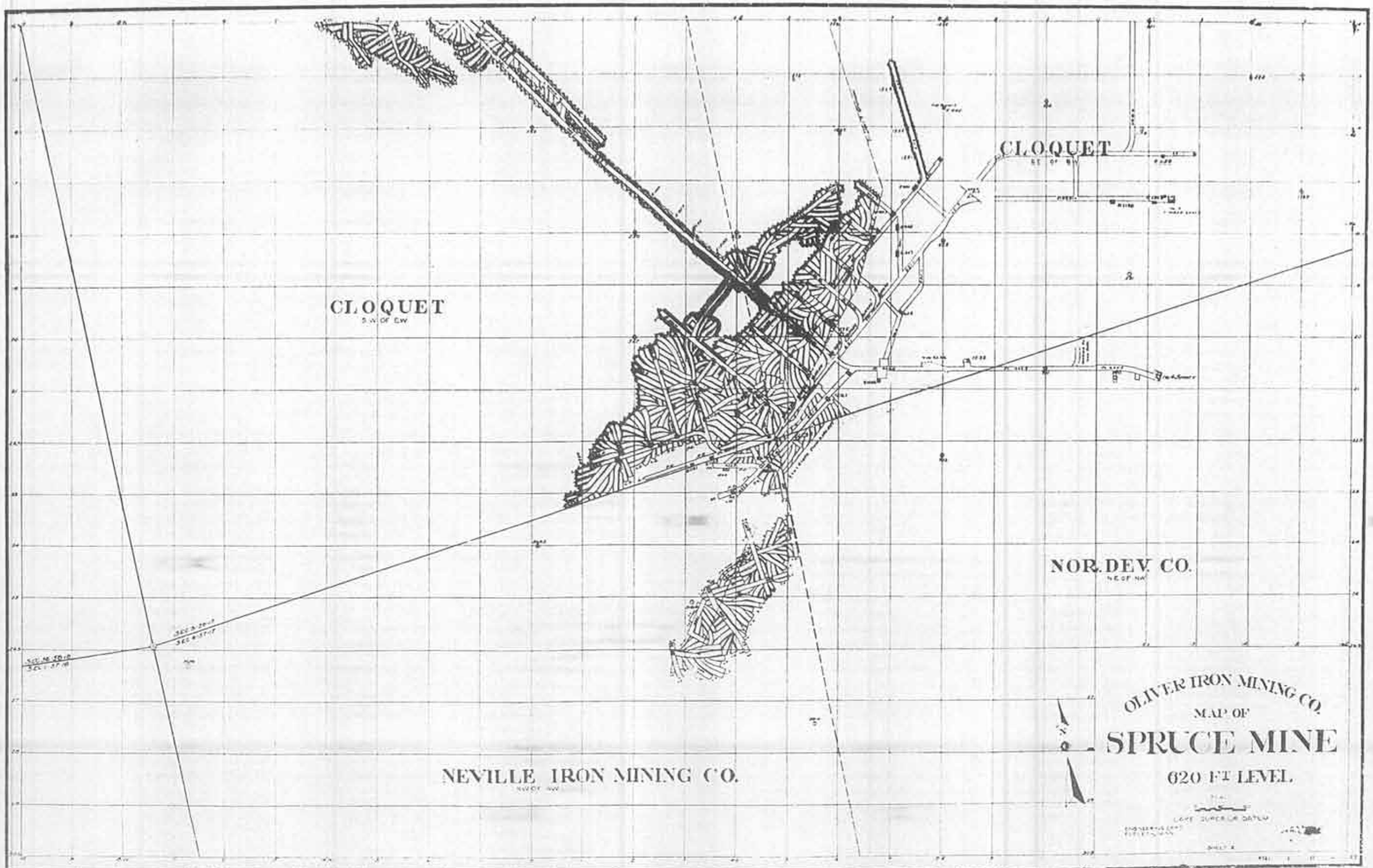


09 1531 1952 Spruce 616 Ft Sub A-98

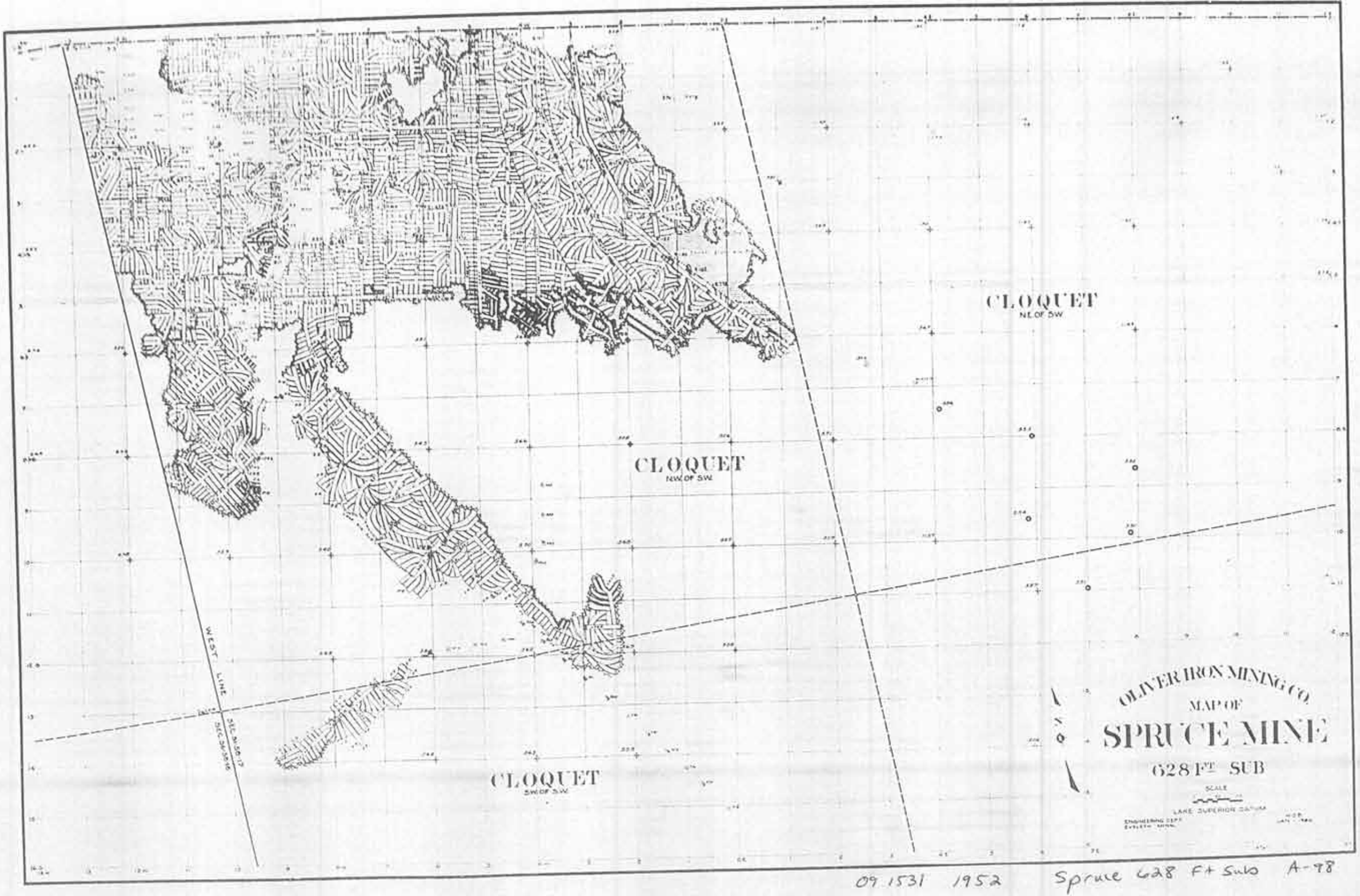


09 1531 1952 Spruce 620 ft Lev A-98 N

620
5

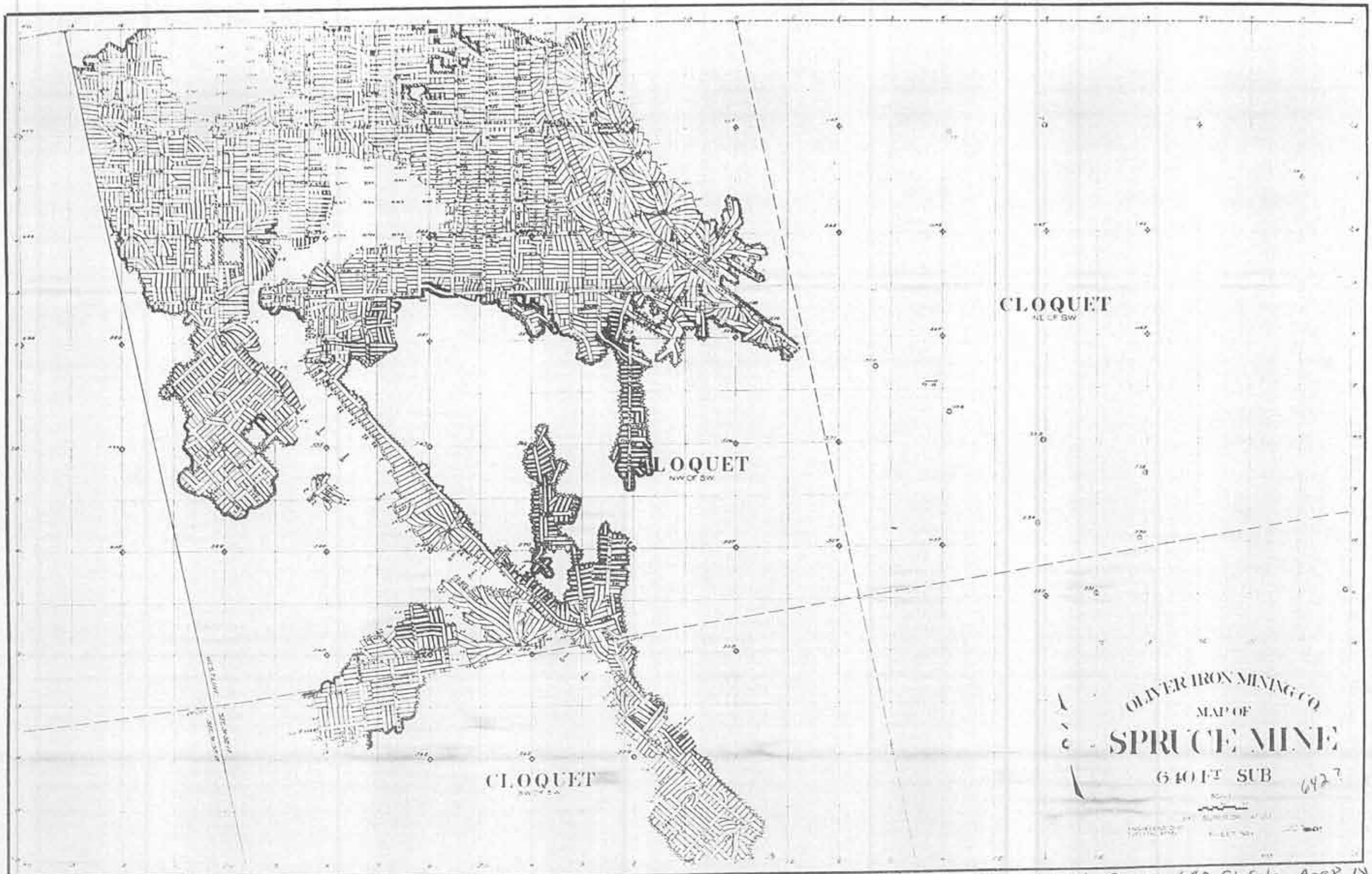


09 1531 1952 1-1-40 Spruce 620 ft Lev A-98 5



09.1531 1952 Spruce 628 Ft Sub A-98

640
N



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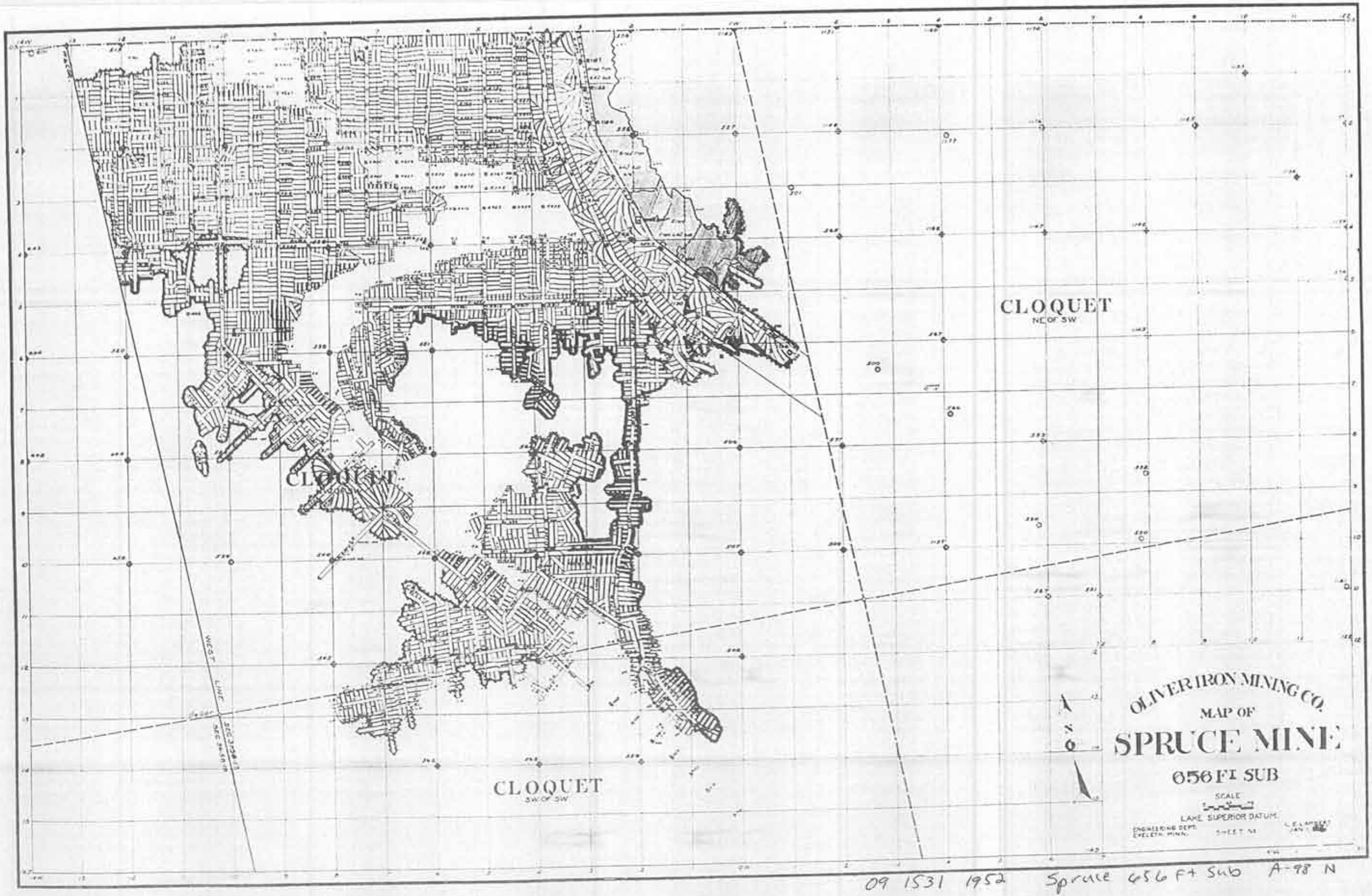

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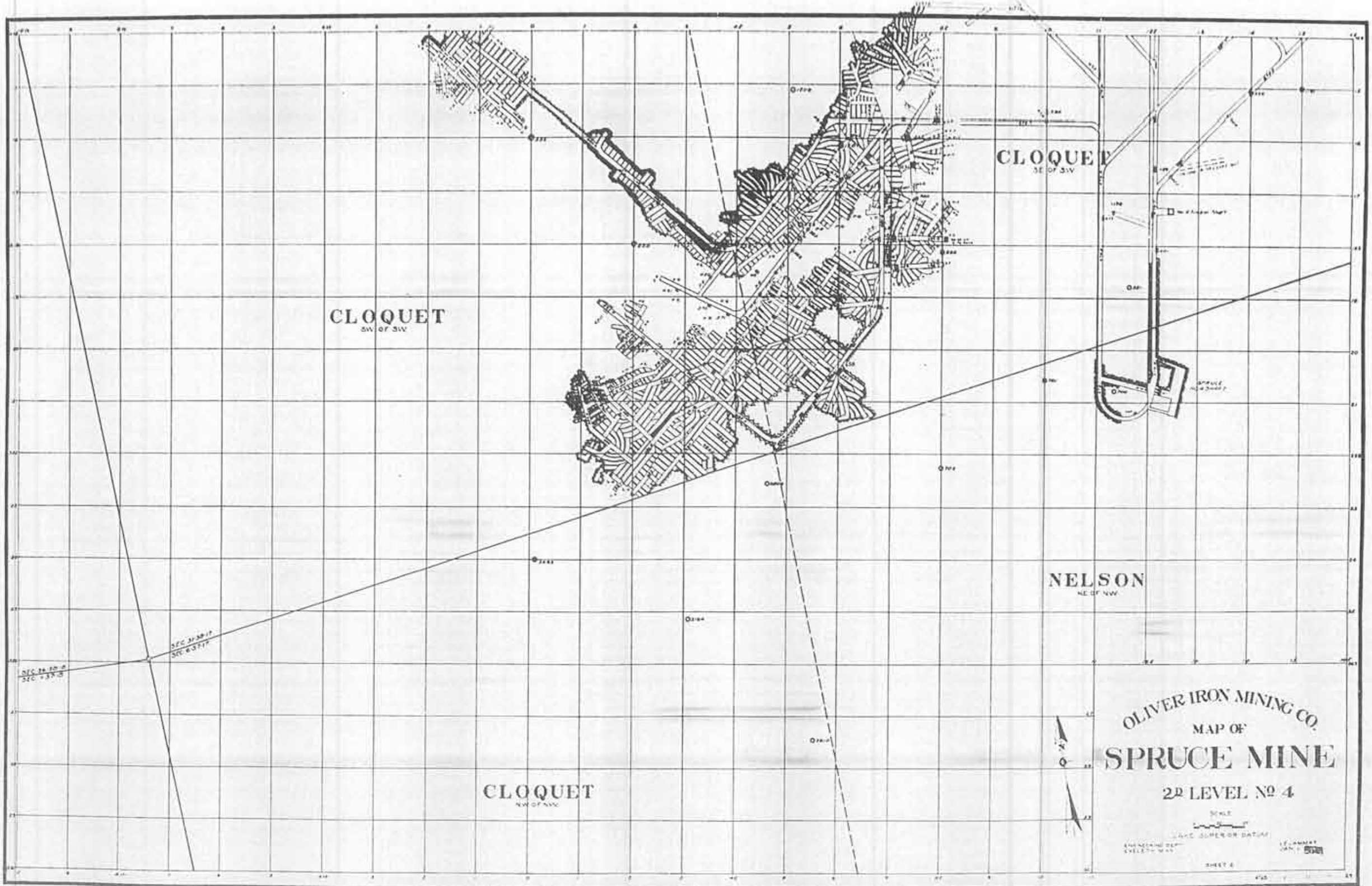
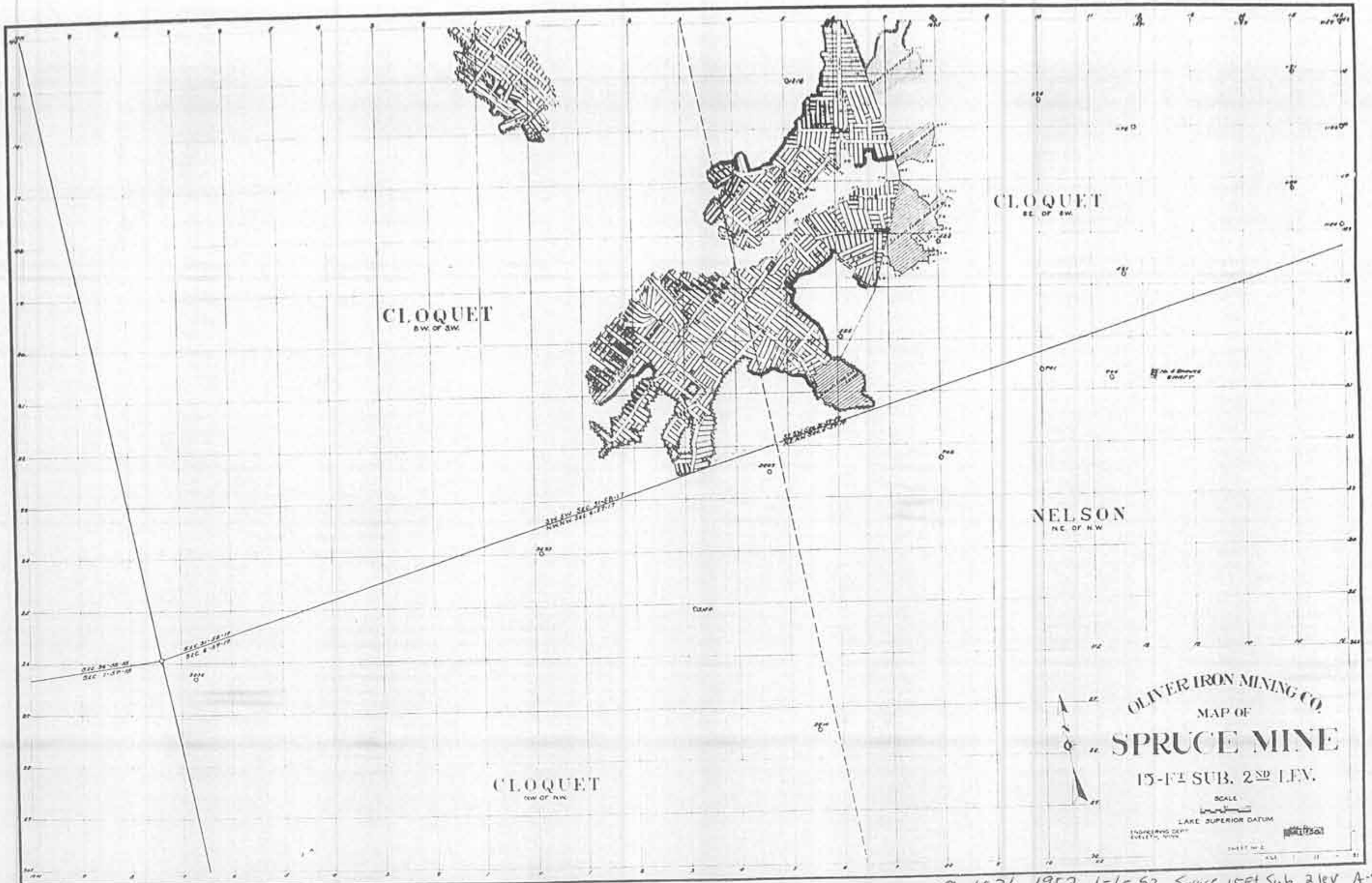
5 674

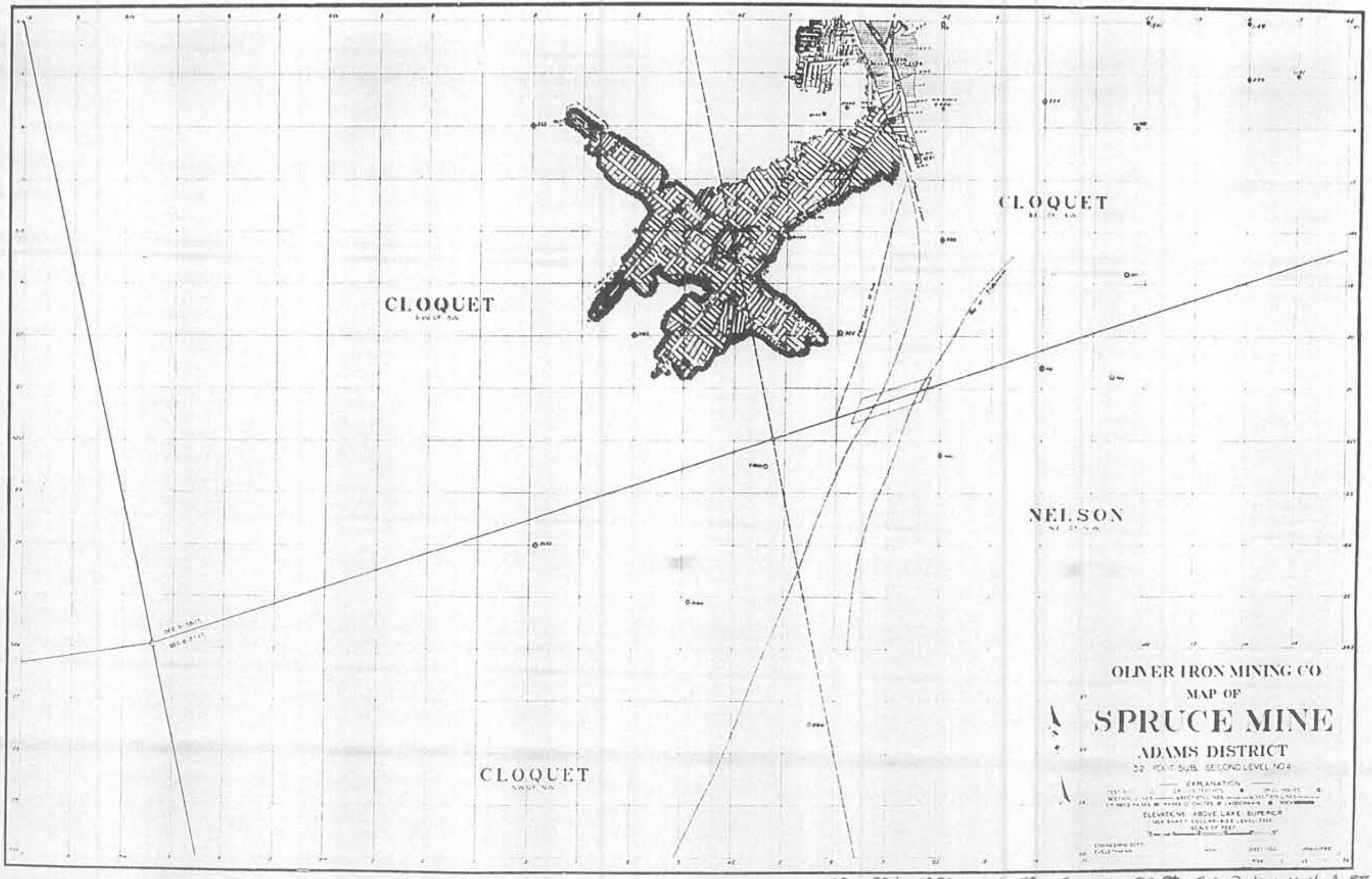


07 1531 1-1-52 Spruce 2nd lev No 4 A-98

697

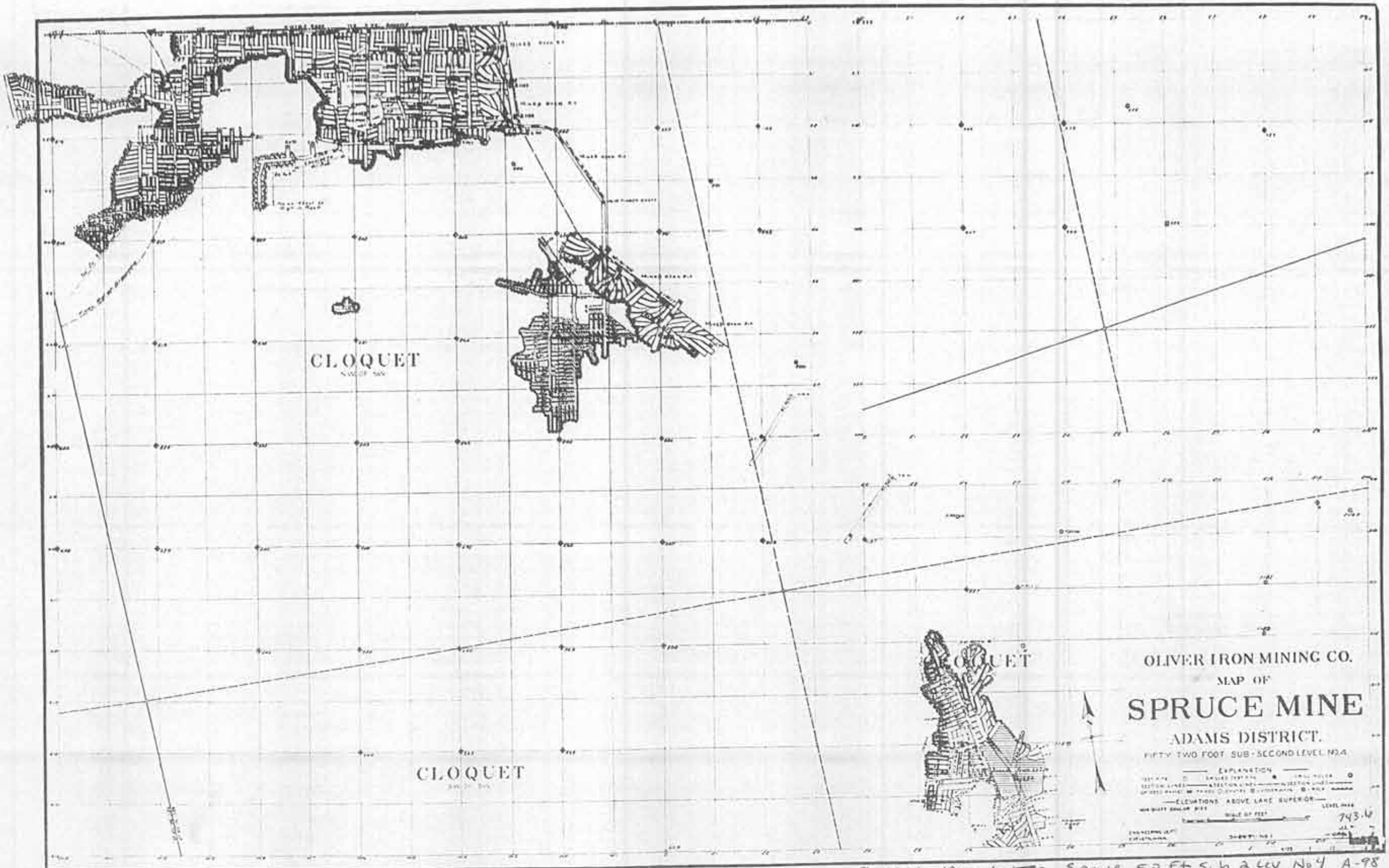


09 1531 1952 1-1-52 Spruce 15Ft Sub 2lev A-98

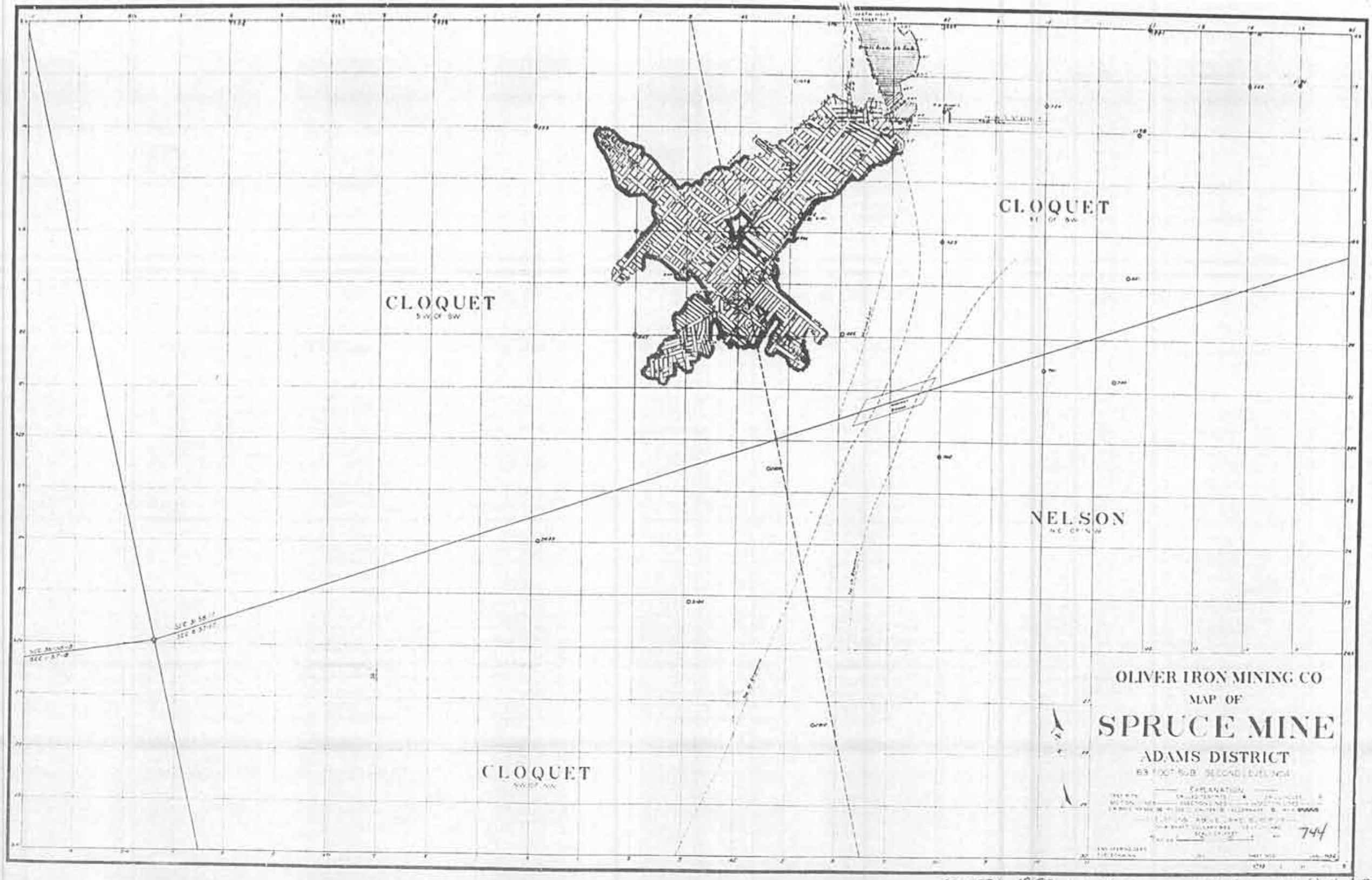


09 1531 1952 1-1-52 Spruce 52 Ft Sub 2 lev No 4 A-98

744

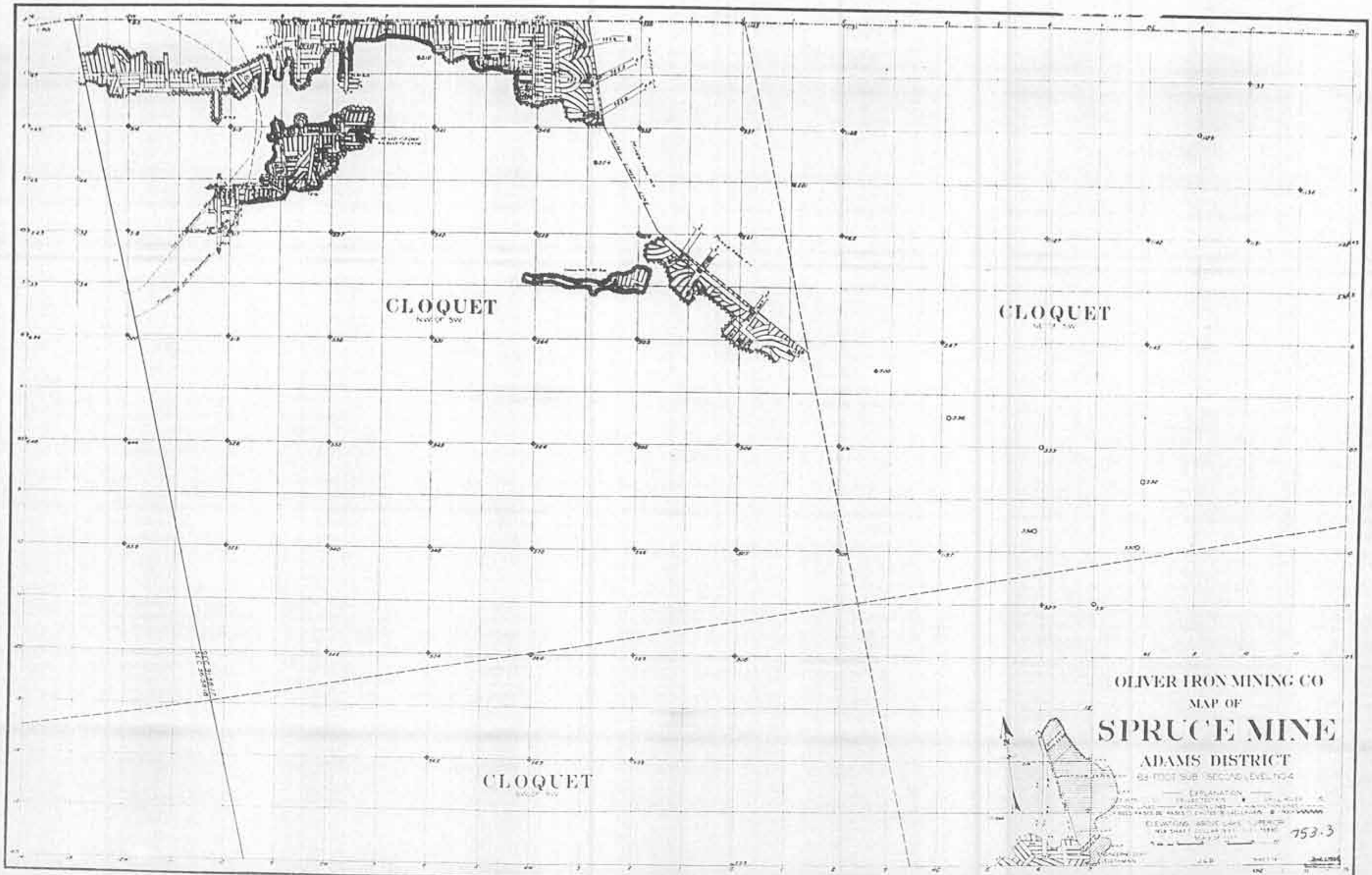


09 1531 1952 [redacted] Spruce 52 Ft Sub 2 Lev No 4 A-98

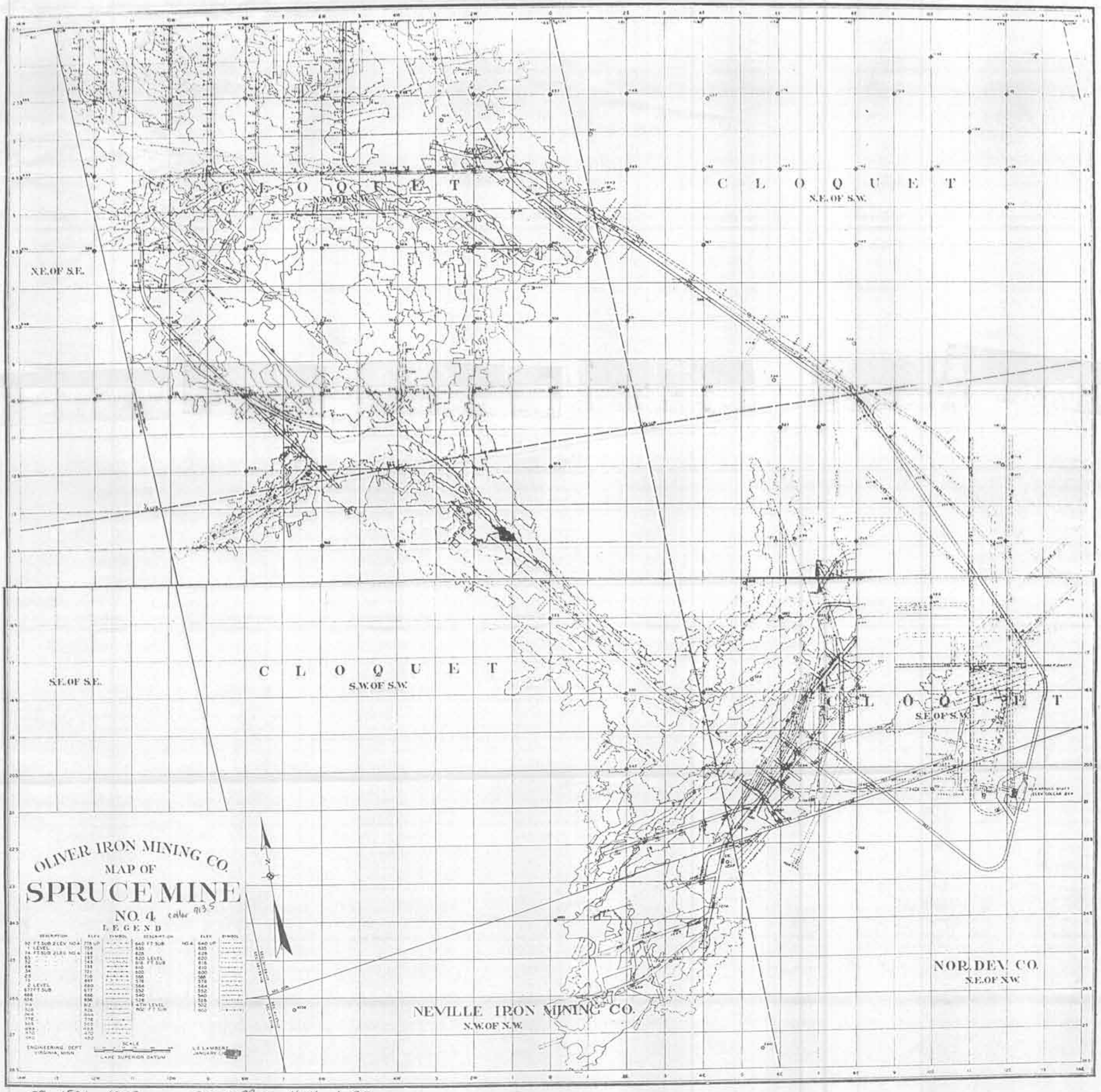


09 1531 1952 1-1-52 Spruce 63 ft Sub 2 lev No 4 A-98

753.3



09 1531 1952 Spruce 63 ft Sub 2 lev No 4 A-98



09 1531 1952 Spruce Mine No 4 A-98

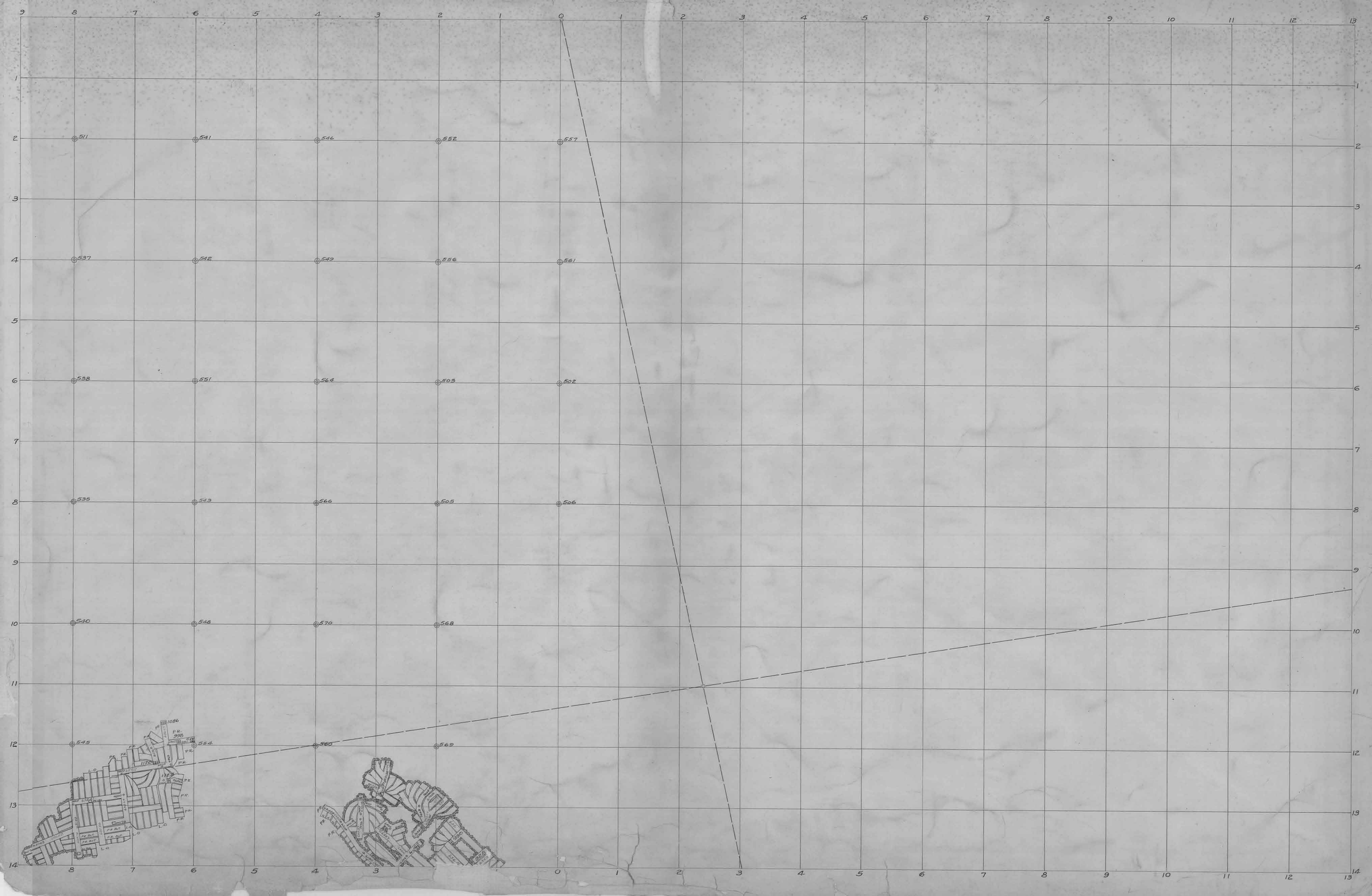
513
511
541
546
552
557
537
549
556
561
520
519
538
551
564
503
502
644
528
535
543
566
505
506
658
529
540
548
568
554
569
SEC. 31-58-17
SEC. 36-58-18
W.1/16 S.W.1/4
SEC. 31-58-17
528 FT SUB
WEST

563
1205
1201
524
1208
550
539
523
521
547
554
700
702
3693
SEC. 31-58-17
SEC. 6-57-17
3116 S.W.1/4
SEC 31-58-17
AIR RAISE
DRAWN ALLEY
SEE INSERT
FOR SEC. NO.
INSERT
528 FT. SUB SOUT

SEC. 31-58-17
SEC. 36-58-18
W. 1/16 S.W. 1/4
SEC. 31-58-17

563
1206
1205
1201
1208
524
1207
1179
522
560
539
523
521
547
564
653
652
654
658
659
1261
1253
660
673
674
1256
701
700
702
2809
3693
3257
5116 S.W.14
SEC. 31-58-17
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
DRAWN FROM 558 SUB
540 SUB SOUTH

563
1205
1201
1208
524
550
539
523
521
547
544
700
1244
702
2809
3693
564 FT SUB
SOUTH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541
546
552
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537
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561
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551
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543
566
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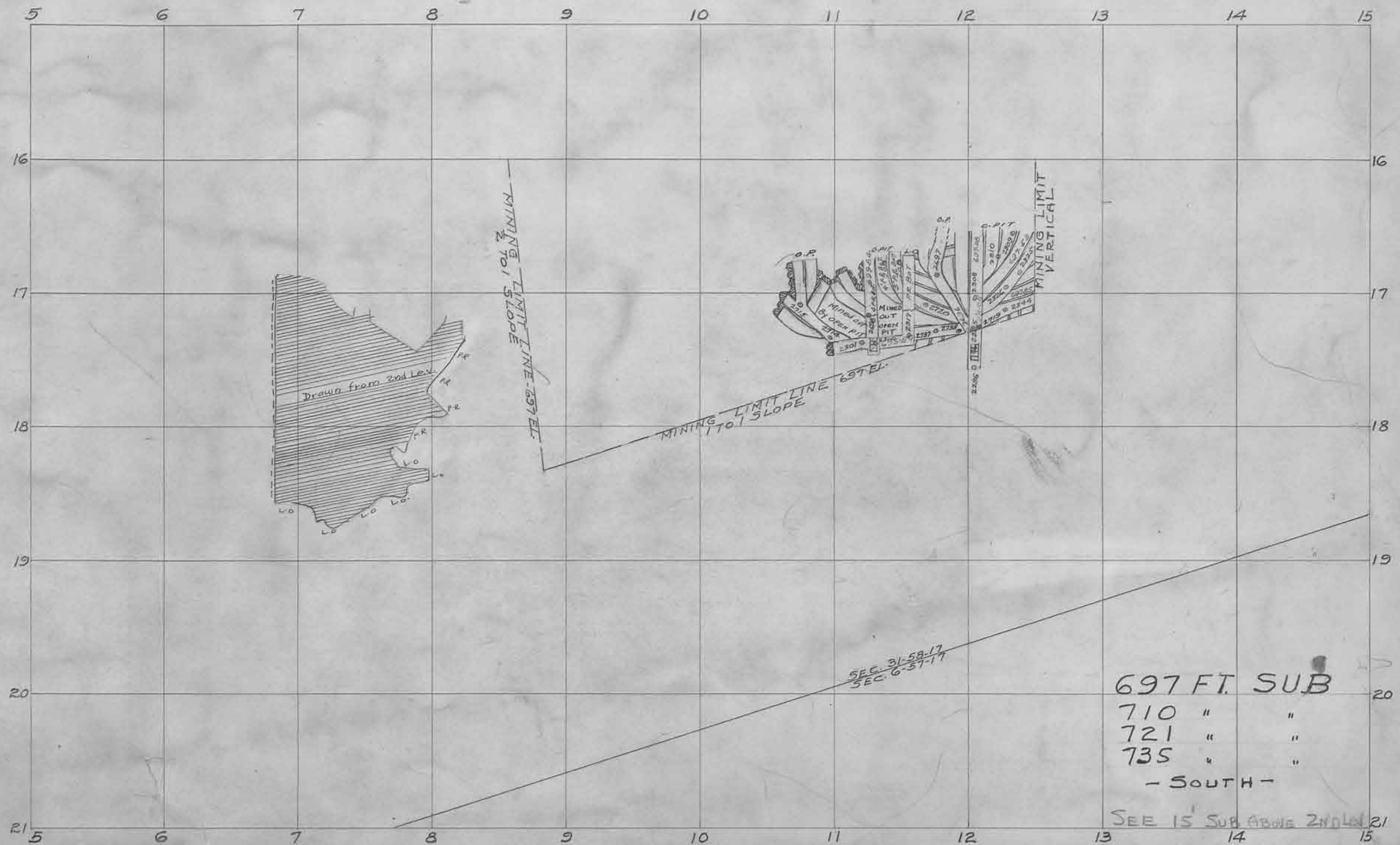
506
540
548
570
568
545
560
569
564
1086
P.E.
998
1170

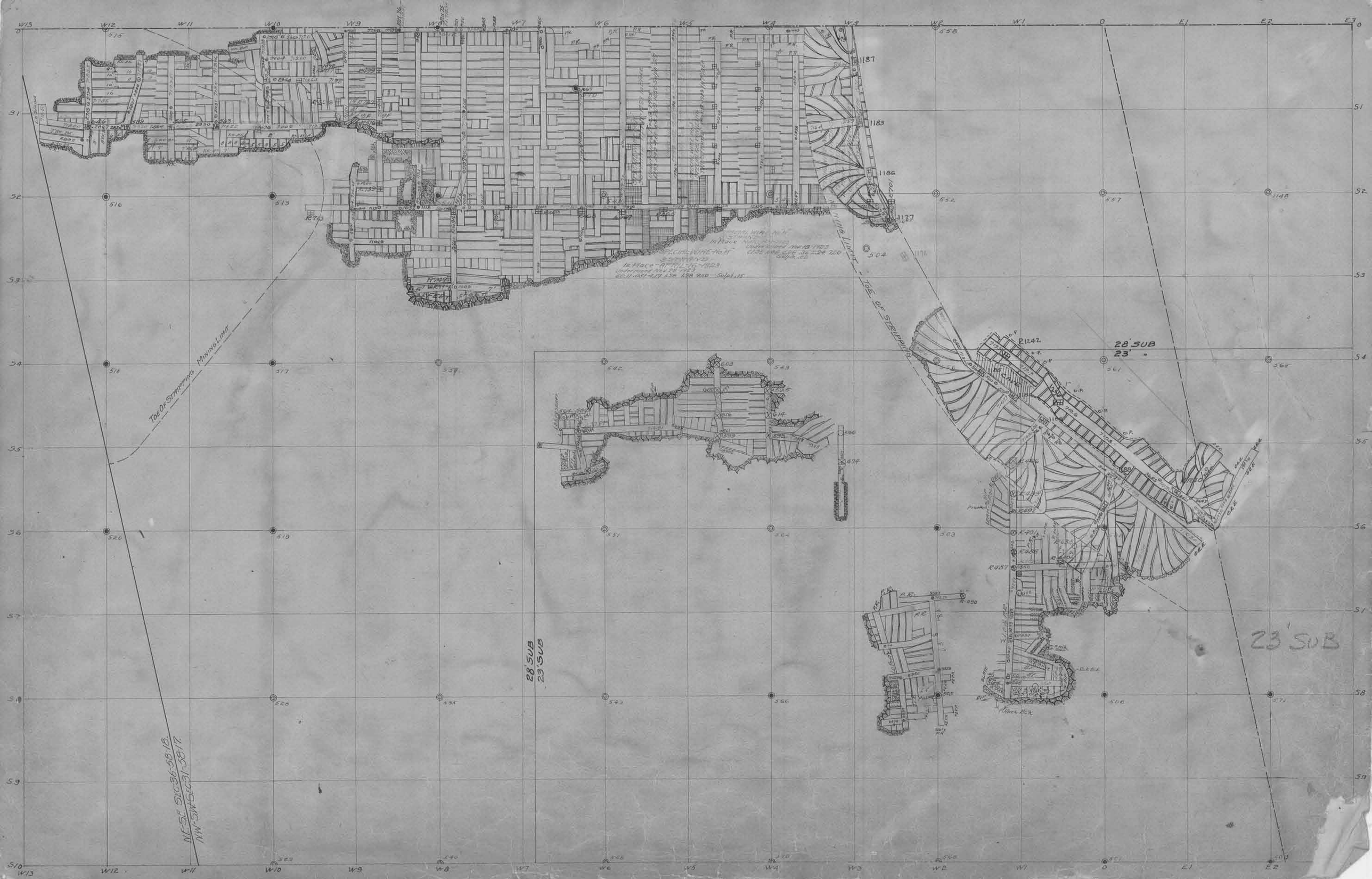
VERTICAL MINING LIMIT
SPRUCE MINE
CEASED OPERATIONS MAY 30, 1953
635 FT. SUB
SOUTH

MINING LIMIT VERTICAL
MINING LIMIT
1/2 TO 1 SLOPE
SPRUCE MINE
CEASED OPERATIONS MAY 30, 1953
640 FT. SUB - SOUTH
LEONARD - NE. FR. SEC. 31, 26 N
CLOSE 1 - NW. SW. SEC. 31, 26 N
ORE
984
983
1248
1247
1253
1252
1251
1255
1256
1146
1003
907
1067
1208
1207
1206
1205
1021
524
523
521
701
700
702
3693
3184
2817

SPRUCE MINE
CEASED OPERATIONS MAY 30, 1953
656 FT. SUB - SOUTH
WESTERN PACIFIC
SEC. 31-58-17
SEC. 6-57-17
O.PIT
ORE
DRAWN 640 SUB

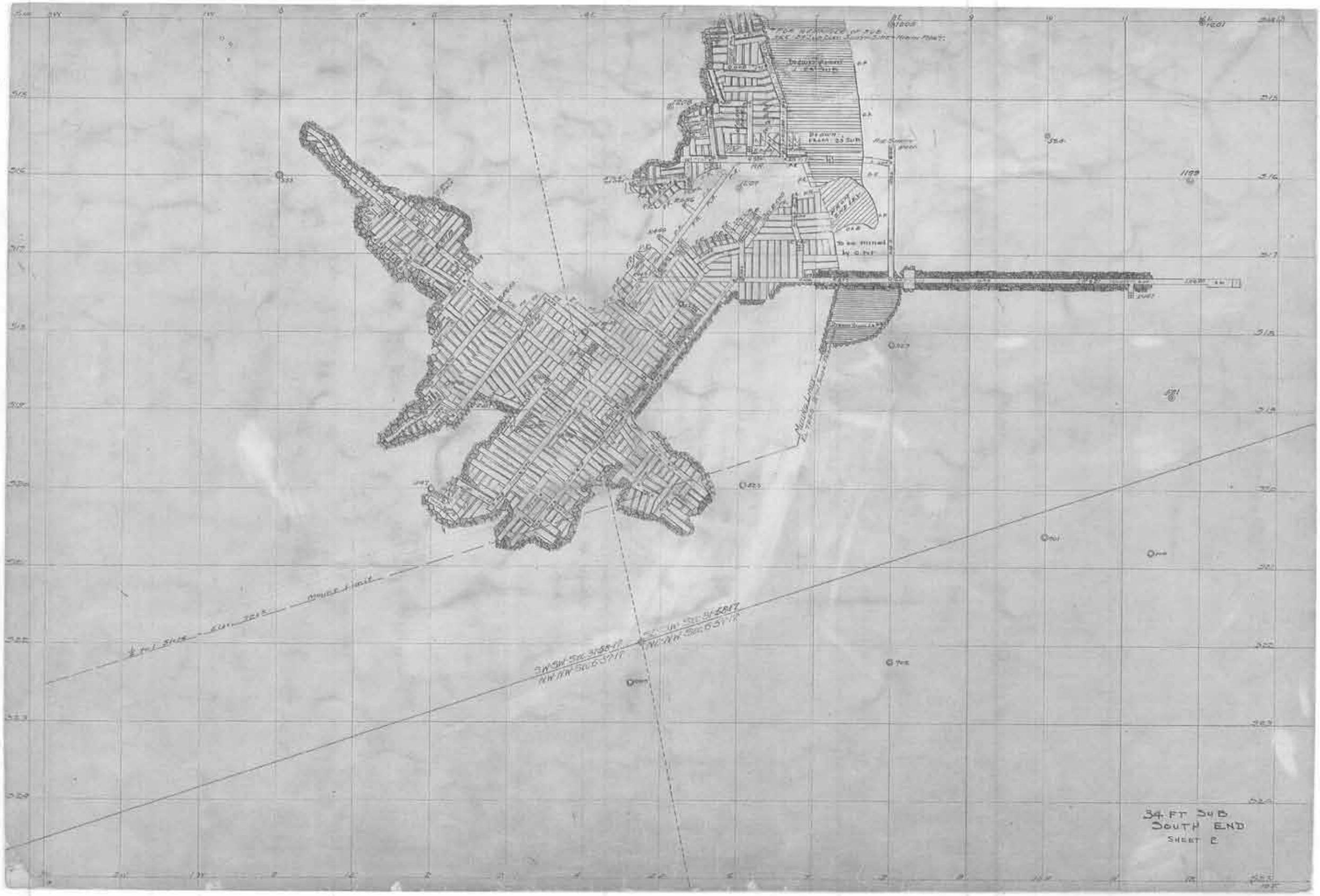

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
Drawn from 2nd Lev.
P.R.
L.O.
MINING LIMIT LINE 697 EL.
2½ TO 1 SLOPE
MINING LIMIT LINE 697 EL.
1 TO 1 SLOPE
O.P.
O.PIT
Mined out by open pit
MINED OUT OPEN PIT
MINING LIMIT VERTICAL
SEC. 31-58-17
SEC. 6-57-17
697 FT. SUB
710 " "
721 " "
735 " "
- SOUTH -
SEE 15' SUB ABOVE 2ND LEV.

710 FT. SUB
SEE 23' SUB. 2ND LEV.
MINING LIMIT - 710 ELEV.
1 TO 1 SLOPE
MINING LIMIT VERTICAL
T. SHAFT
O. PIT
SEC. 31-58-17
SEC. 6-57-17
1254
1253
1252
1251
984
1248
CAVE BOTTOM


W13
W12
W11
W10
W9
W8
W7
W6
W5
W4
W3
W2
W1
0
E1
E2
E3
Toe Of Stripping
Mining Limit
Toe Of Stripping
28' SUB
23'
28' SUB
23' SUB
N 15° 51' W
N 15° 51' W

TOE OF STRIPPING MINING LIMIT
O.PIT
O.PIT
O.PIT
Drawn from-22 Sub
SEE SHEET NO.2 34 FT. SUB FOR MINING SOUTH OF 1500 SOUTH
SPRUCE MINE
CEASED OPERATIONS MAY 30, 1953
No 4 Spruce
34' Sub of 2nd Level
SOUTH SIDE - NORTH PART
SHEET NO 1

721
5



5
6
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14
15
16
17
18
19
20
21
MINING LIMIT EL 7210
½ TO 1 SLOPE
MINING LINE 721 SUB
1 TO 1 SLOPE
MINING LIMIT
VERTICAL
O. PIT
O. P.
SEC. 31-58-17
SEC. 6-57-17
721 FT. SUB.
SEE 34' SUB - 2ND LEV.

TOE OF STRIPPING
MINING LIMIT
40' SUB
34' SUB
34' SUB
40' SUB
34' SUB
TANK
P.O.
R.428
R.517
R.714
R.467
R.650
R.82
R.46
R.470
1187
1183
1186
1177
1185
1184
1181
1182
1179
1178
1180
1189
1188
1187
2.36
O.PIT
O.P.
O.P. CAVE
LEFT
LEFT
LEFT
LEFT
11'6" Rock Back
Rock Pack
Rock Pack

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
MINING LIMIT - EL. 735
1 TO 1 SLOPE
MINING LIMIT - 735 ELEV
1 TO 1 SLOPE
O. PIT
O. PIT
O. PIT
O. PIT
1198
1220
1449
1485
1417
1701
1120
1474
1432
1423
1253
794.27
MINING LIMIT
VERTICAL
SEC. 31-58-17
SEC. 6-57-17
735 FT. SUB.
SEE 52' SUB - 2ND LEV.

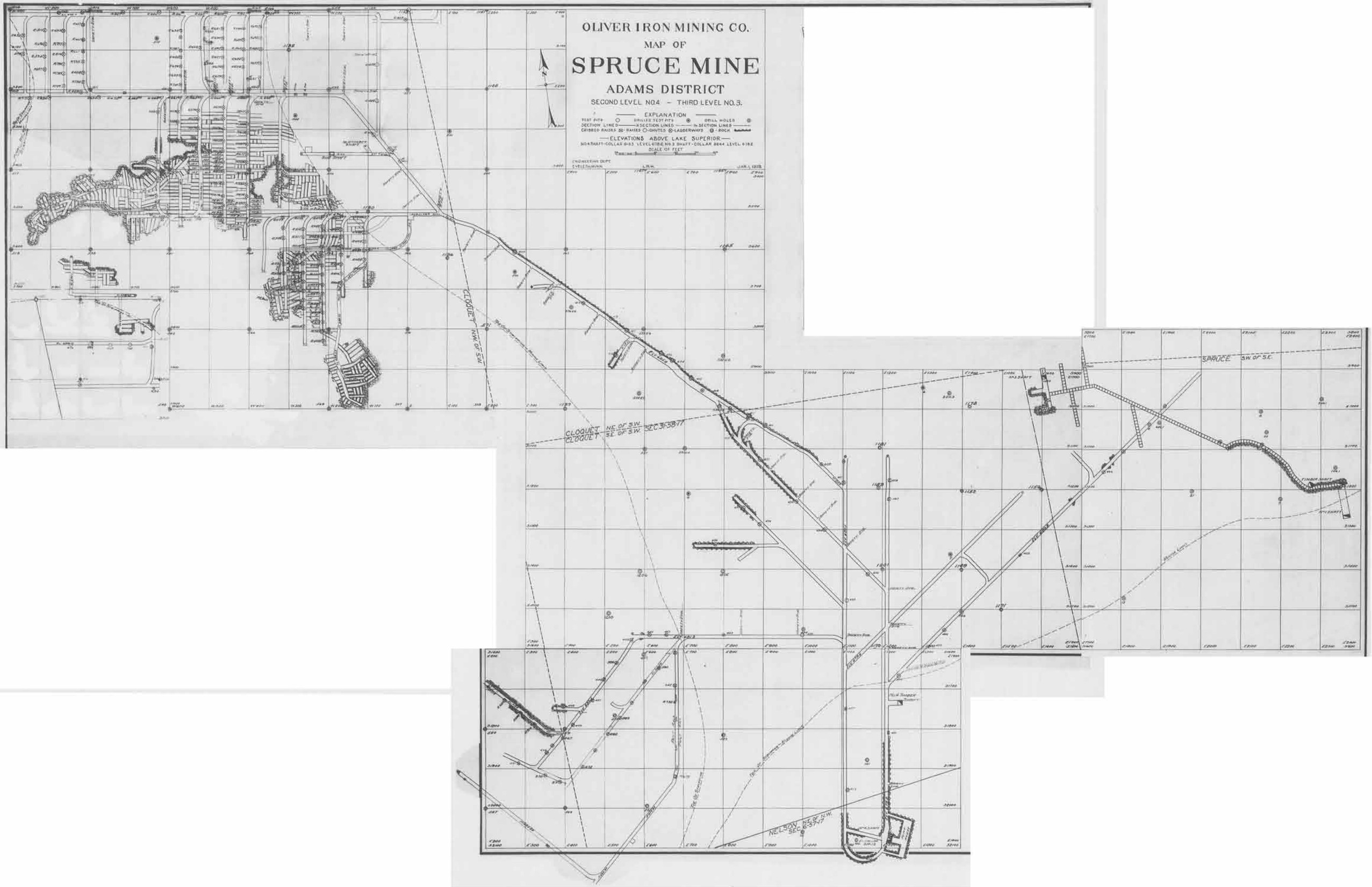
74 FT SUB
SOUTH SIDE
MINING LIMIT
OF STRIPPING-MINING LIMIT
O. PIT
1253
1254

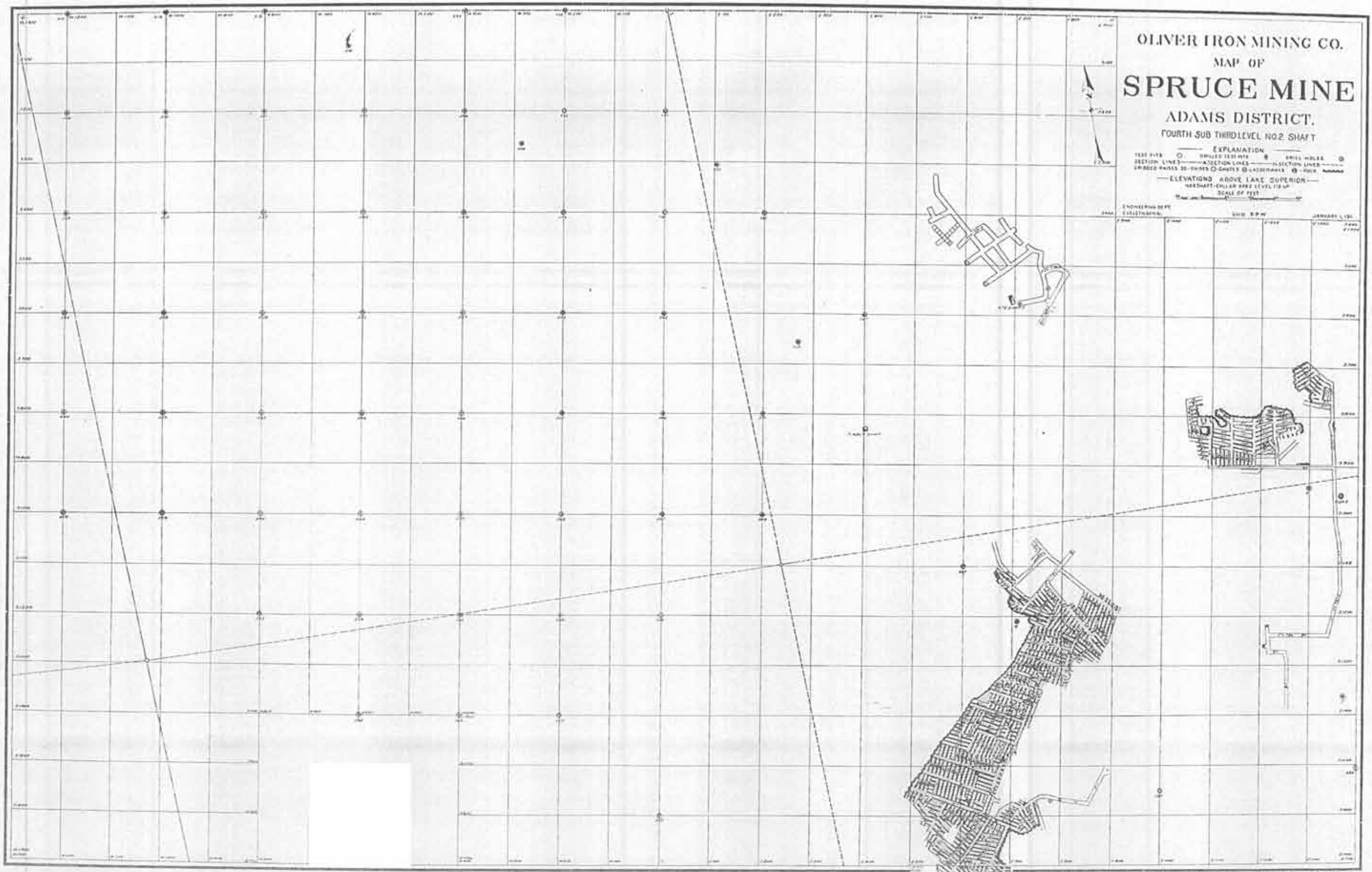
KEUFFEL & ESSER Co.

W13
W12
W11
W10
W9
W8
W7
W6
W5
W4
W3
W2
W1
0
E1
E2
E3
51
52
53
54
55
56
57
58
59
No. 10 Timber Shaft
84' Sub 2 Level No. 4 Spruce

LEAN ORE
DIP SOUTH
DIP SOUTH
R-861
L.O.
L.O.
L.O.
L.O.
L.O.
R-880
O.PIT
1187
No 10 Timber Shaft
MINING LIMIT LINE
TOE OF STRIPPING - MINING LIMIT
W13
W12
W11
W10
W9
W8
W7
W6
W5
W4
W3
W2
W1
0
E1
E2
E3
51
52
53
54
55
56
57
58
59

4TH LEVEL SOUTH
MINING OPERATIONS DISCONTINUED
MAY 30, 1953
SEC. 31-58-17.
SEC. 6-57-17.
Safety Hole
Flood Gate
Timbered
Pillar Breakthrough
Timber Gateway
522
550
539
523
521
547
544
701
700
702
3693
3036
2810
1134
1152
1132
1121
1126
1128
1159

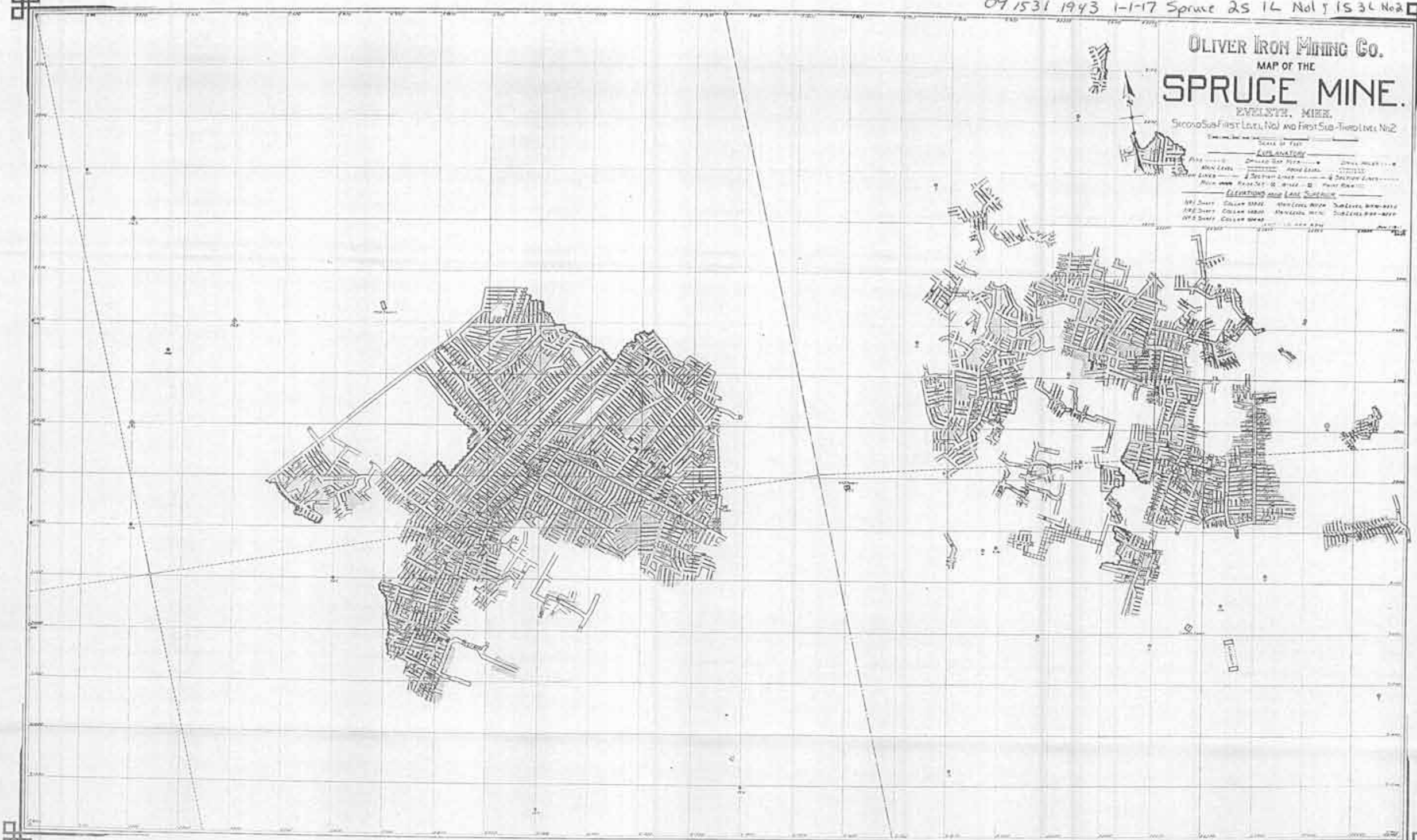

OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT
SECOND LEVEL NO.4 – THIRD LEVEL NO.3.
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
SECTION LINES
SECTION LINES
CRIBBED RAISES
RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
SCALE OF FEET
ENGINEERING DEPT
J.R.H.
JAN. 1, 1923
CLOQUET N.W. OF S.W.
CLOQUET N.E. OF S.W.
CLOQUET S.E. OF S.W.
SPRUCE S.W. OF S.E.
NELSON N.E. OF N.W.



3 1-1-16 Spruce 4-Sub 3-Lev 2-Shaft A-82

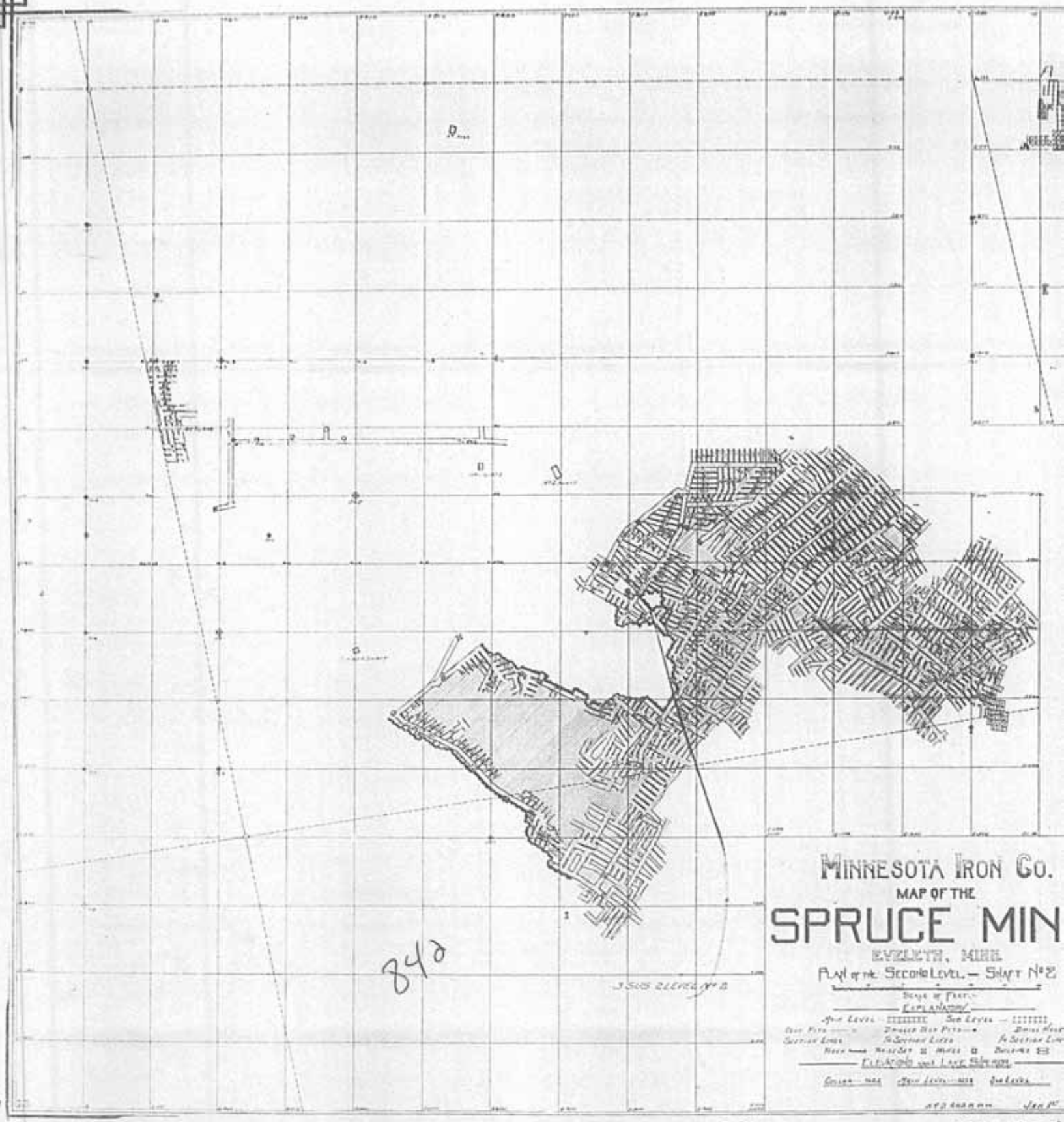
A-82

09.1531 1943 1-1-17 Spruce 2S 1L No1 ; 1S 3L No2



09 1531 1943 1-1-18 Spruce 2-Lev 2-Shaft Plan A-82

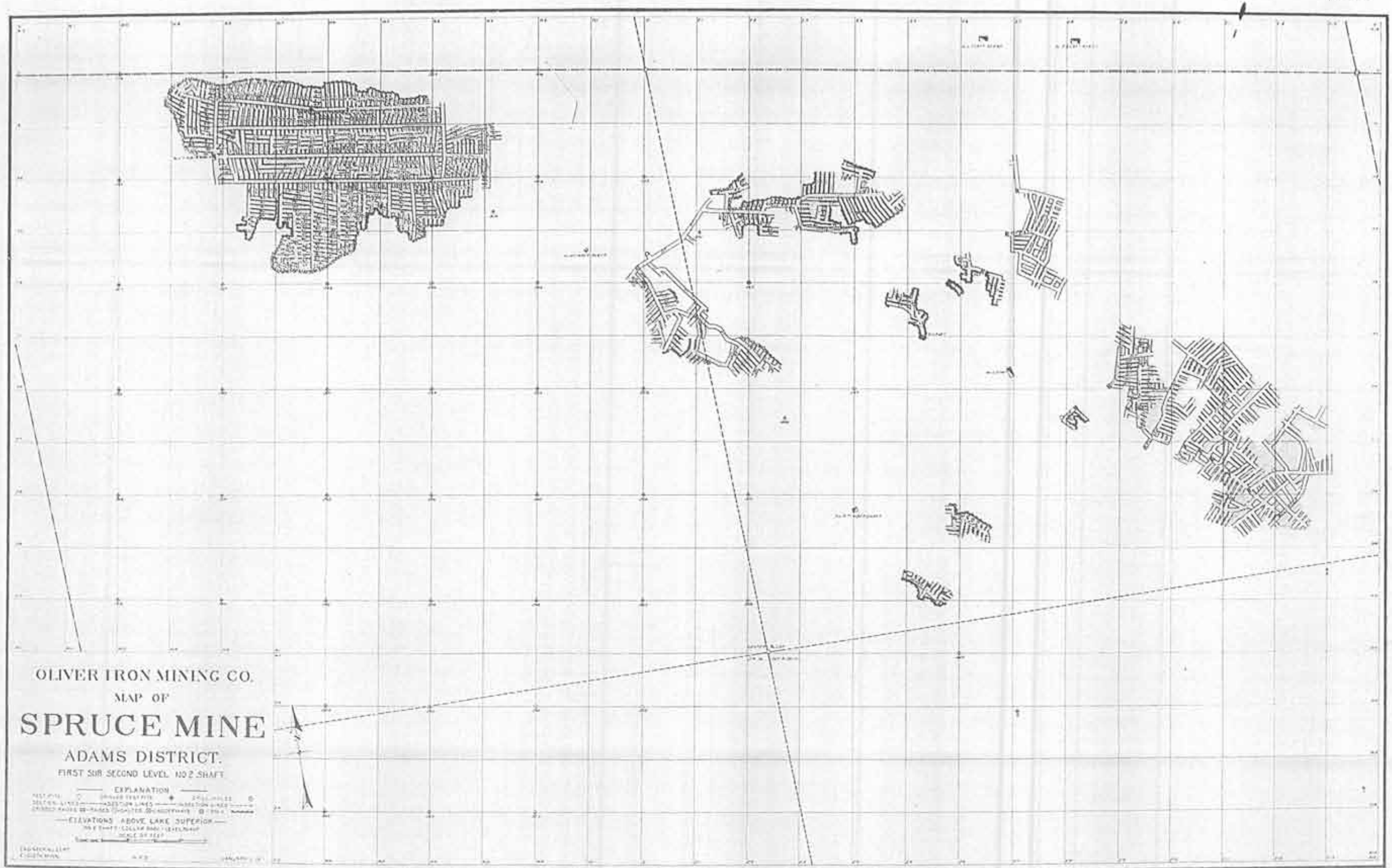
826
842



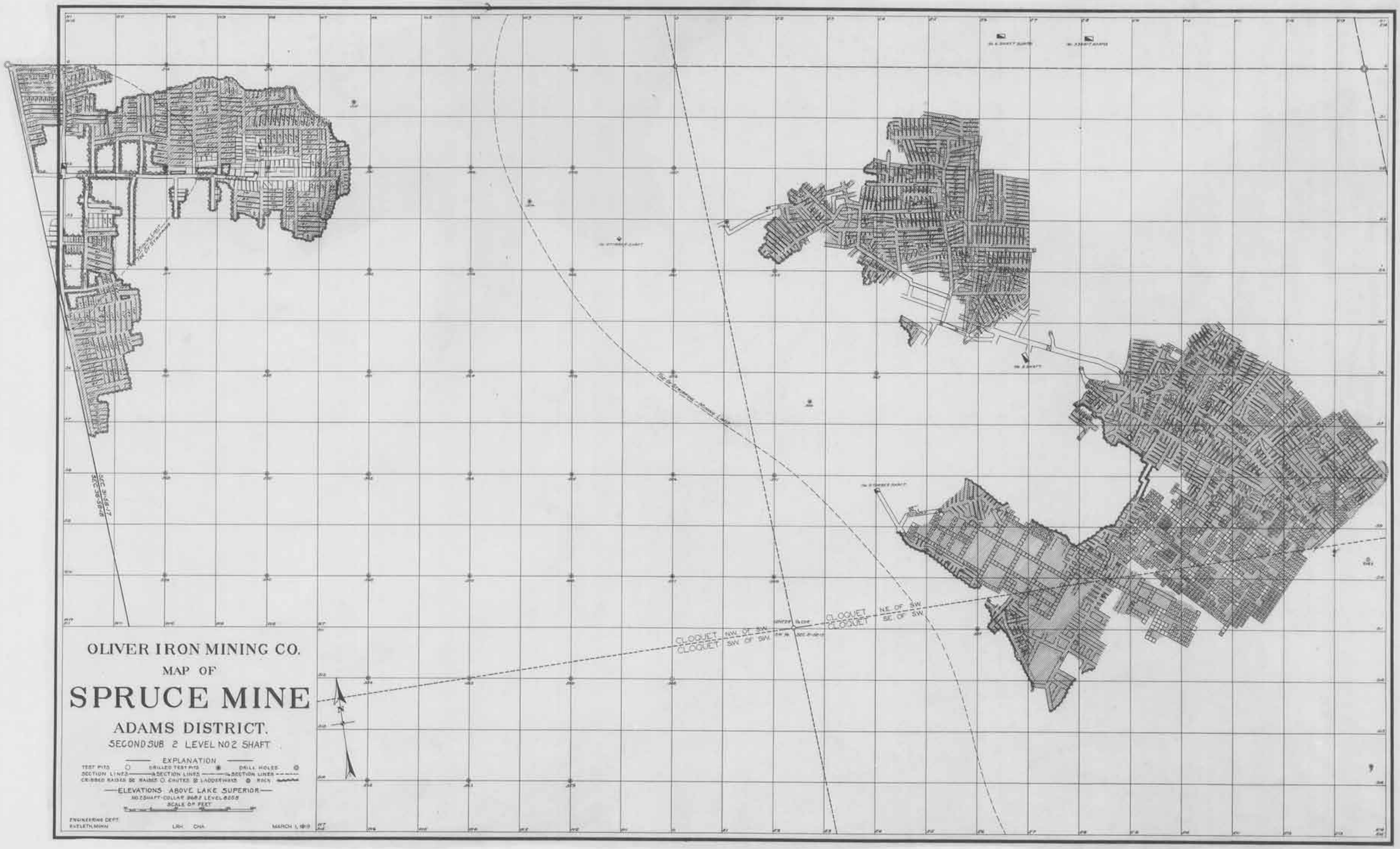
#2 Collar 968.2

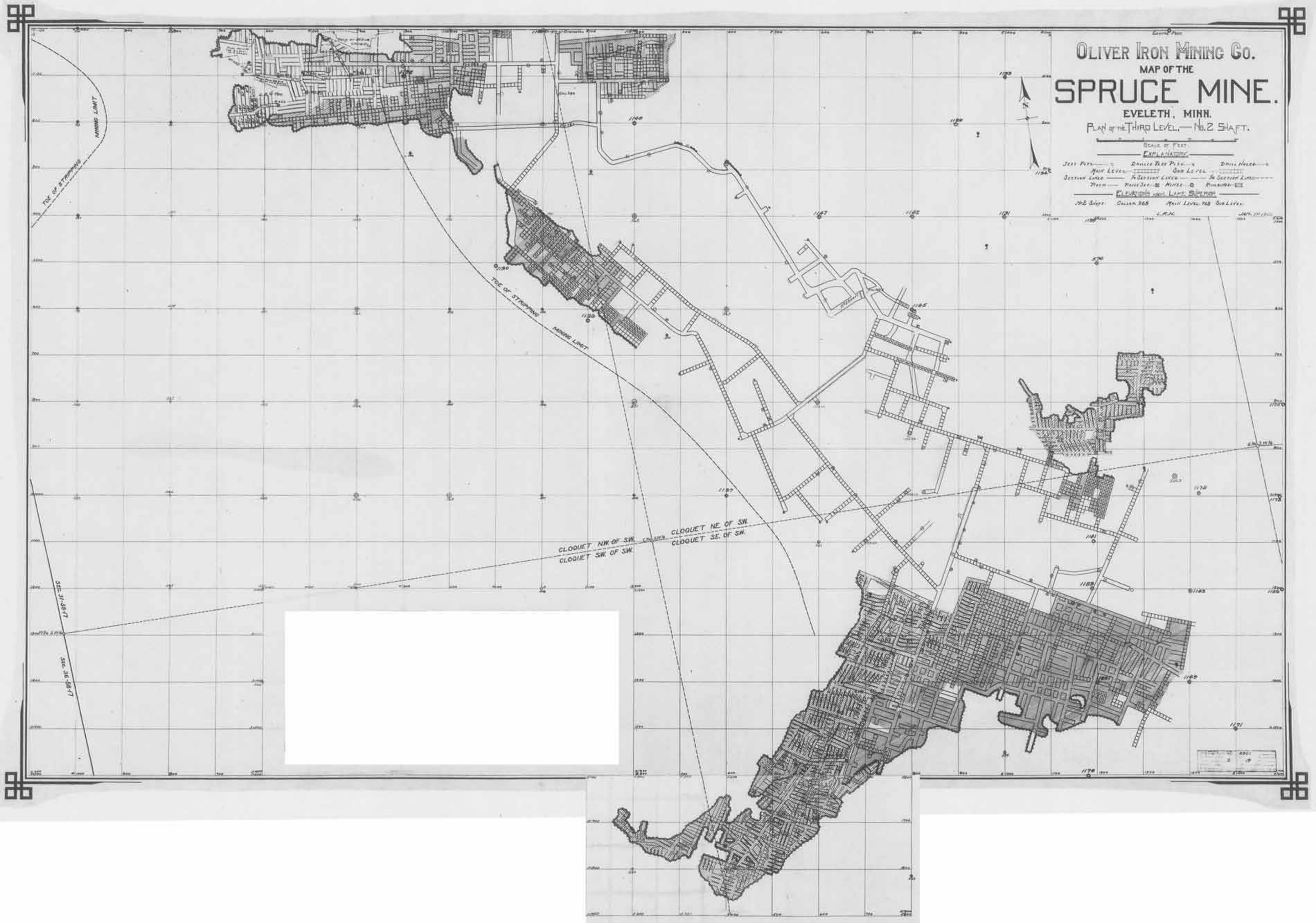
09 1531

864



09 1531 1943 1-1-18 Spruce 1-Sub 2-Lev 2-Shaft


OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT.
SECOND SUB 2 LEVEL NO 2 SHAFT
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
CRIBBED RAISES
RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
SCALE OF FEET
ENGINEERING DEPT.
EVELETH, MINN.
LRH. CHA.
MARCH 1, 1919
CLOQUET NW OF SW
CLOQUET SW OF SW
CLOQUET
CLOQUET
NE OF SW
SE OF SW
SEC 2-58-18
SEC 2-58-17


OLIVER IRON MINING CO.
MAP OF THE
SPRUCE MINE.
EVELETH, MINN.
PLAN OF THE THIRD LEVEL. — No. 2 SHAFT.
SCALE OF FEET
EXPLANATORY
TEST PITS
DOUBLE TEST PITS
DRILL HOLES
MAIN LEVEL
SUB LEVEL
SECTION LINES
TOWN SECTION LINES
RANGE SECTION LINES
TOWN
TOWN SEC. NO.
MINES
RUNWAYS
ELEVATIONS ABOVE LAKE SUPERIOR
No. 2 SHAFT
COLLAR 368
MAIN LEVEL 748
SUB LEVEL
TOE OF STRIPPING
MINING LIMIT
CLOQUET N.W. OF S.W.
CLOQUET S.W. OF S.W.
CLOQUET N.E. OF S.W.
CLOQUET S.E. OF S.W.
SEC. 31-58-17
SEC. 36-58-17

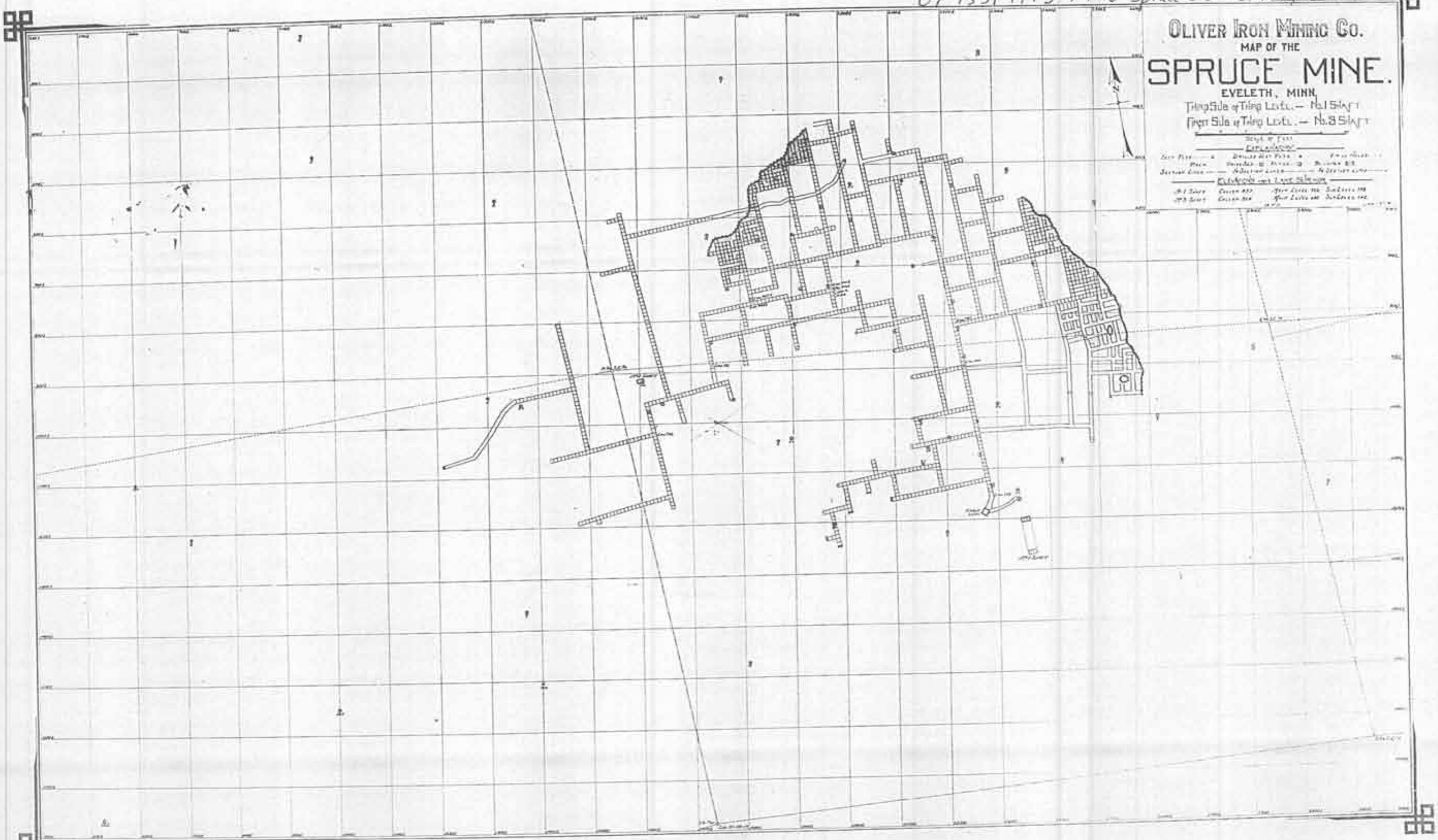
091531 1943 Spruce 3-Sub 3-Cov 2-Shaft A-82

09 1531 1943 Spruce 2-Sub 3-Lev 2-Shaft A-82

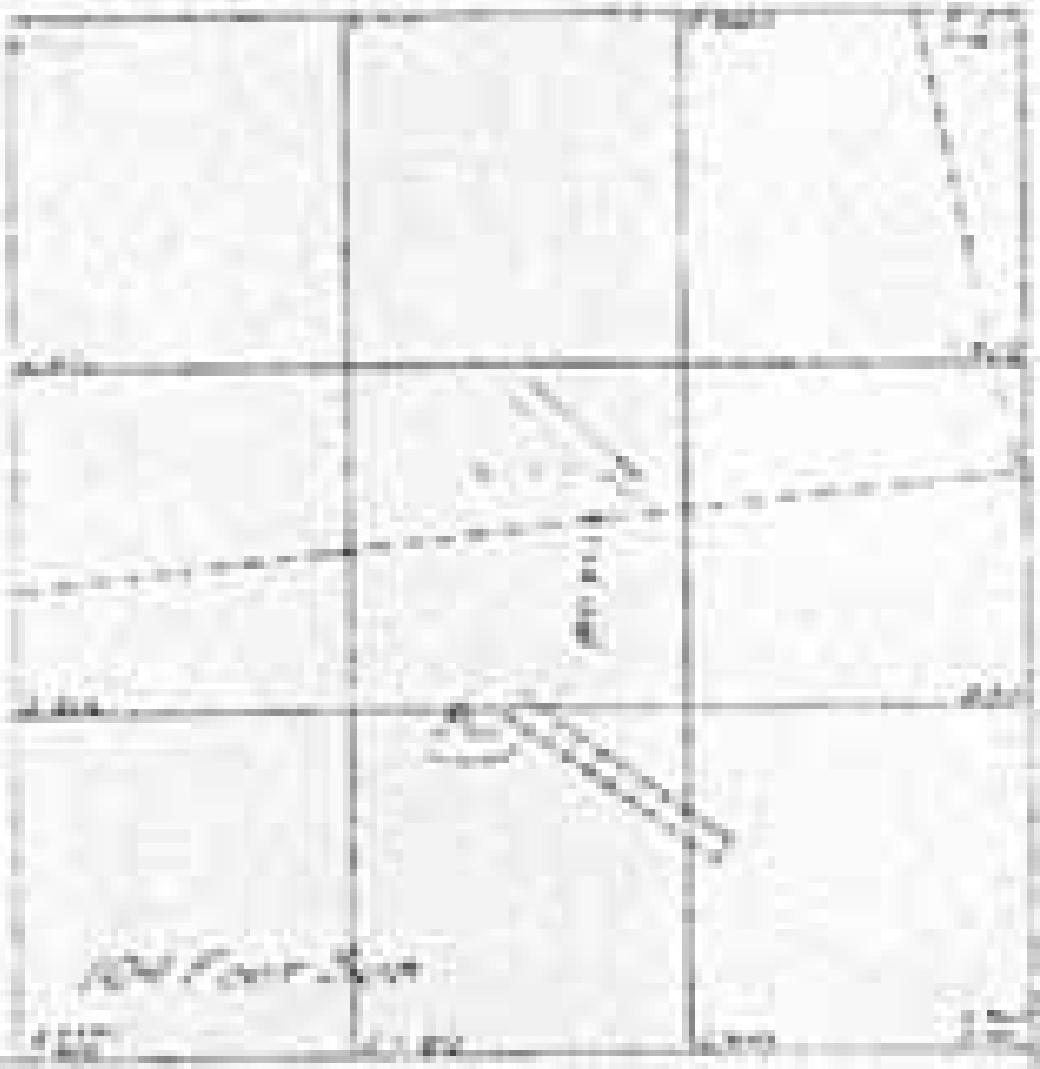
A-82

09 1531 1943 1-1-10 Spruce 3S 3L No1, 1S 3L No3

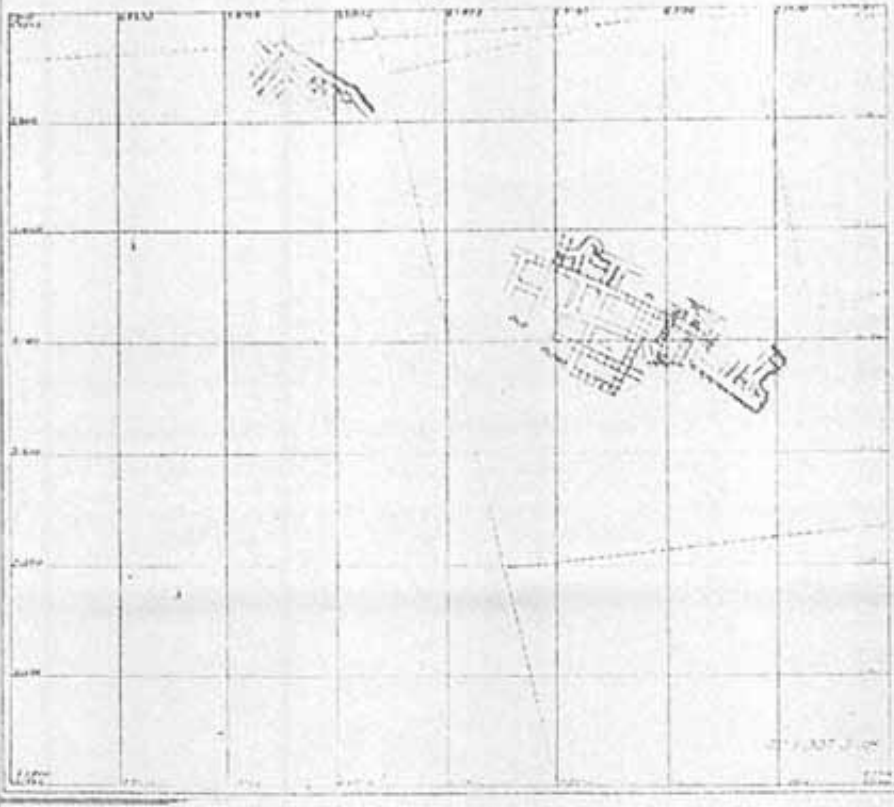
738



104 Ft 5-6



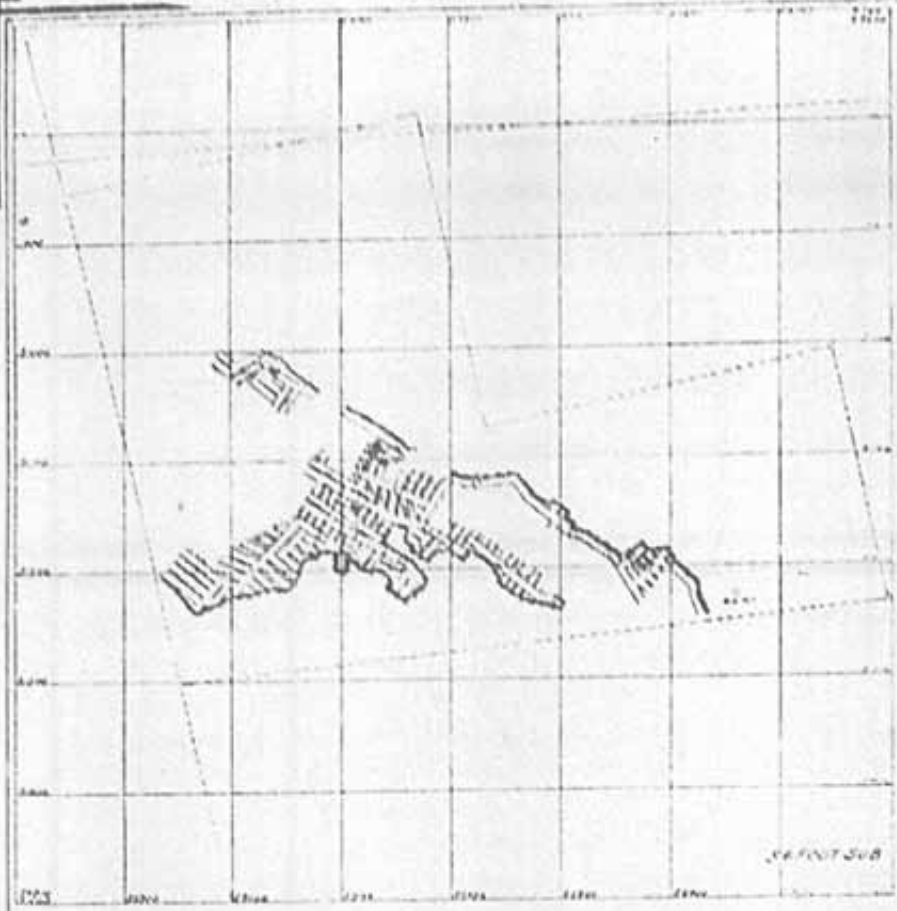
40 ft Sub



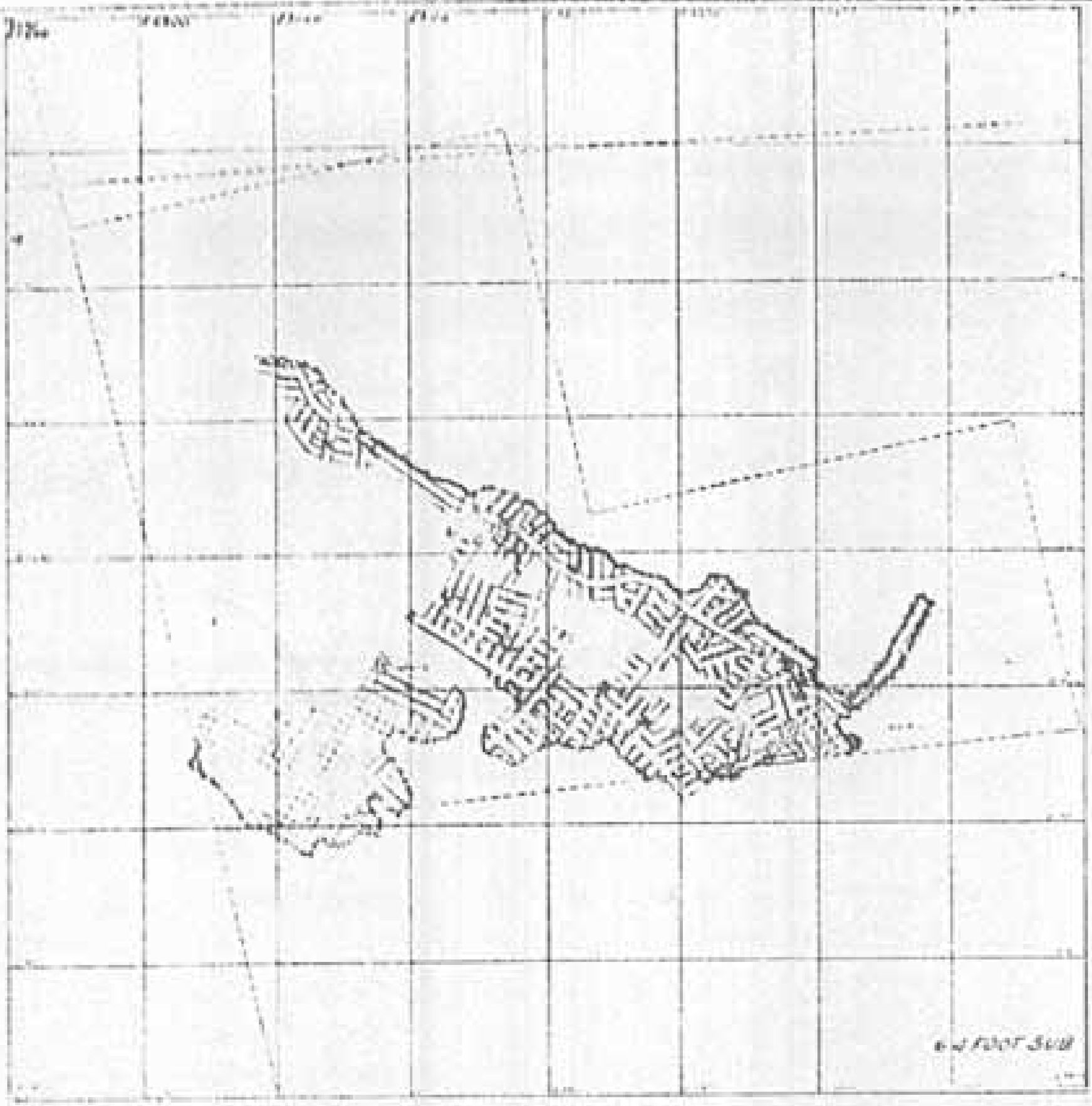
48 ft sub

09 1531 1943 1-1-

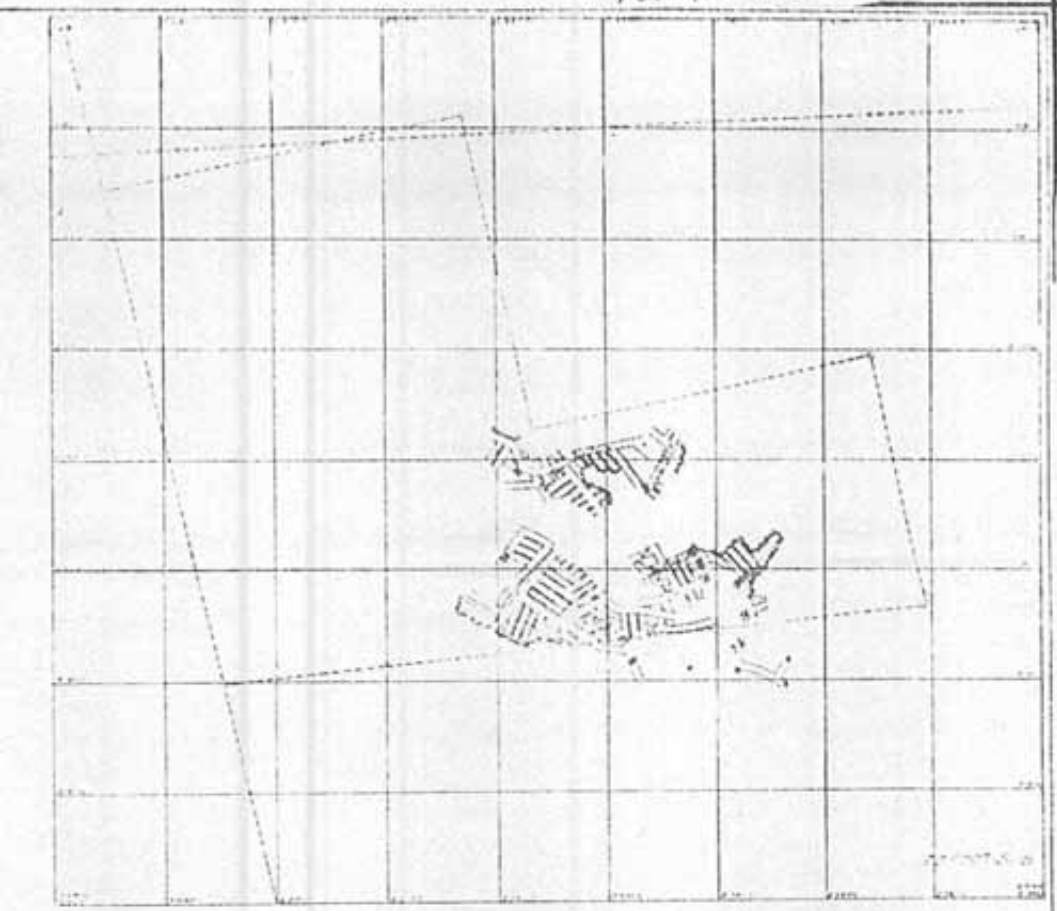
56 Pt Sub



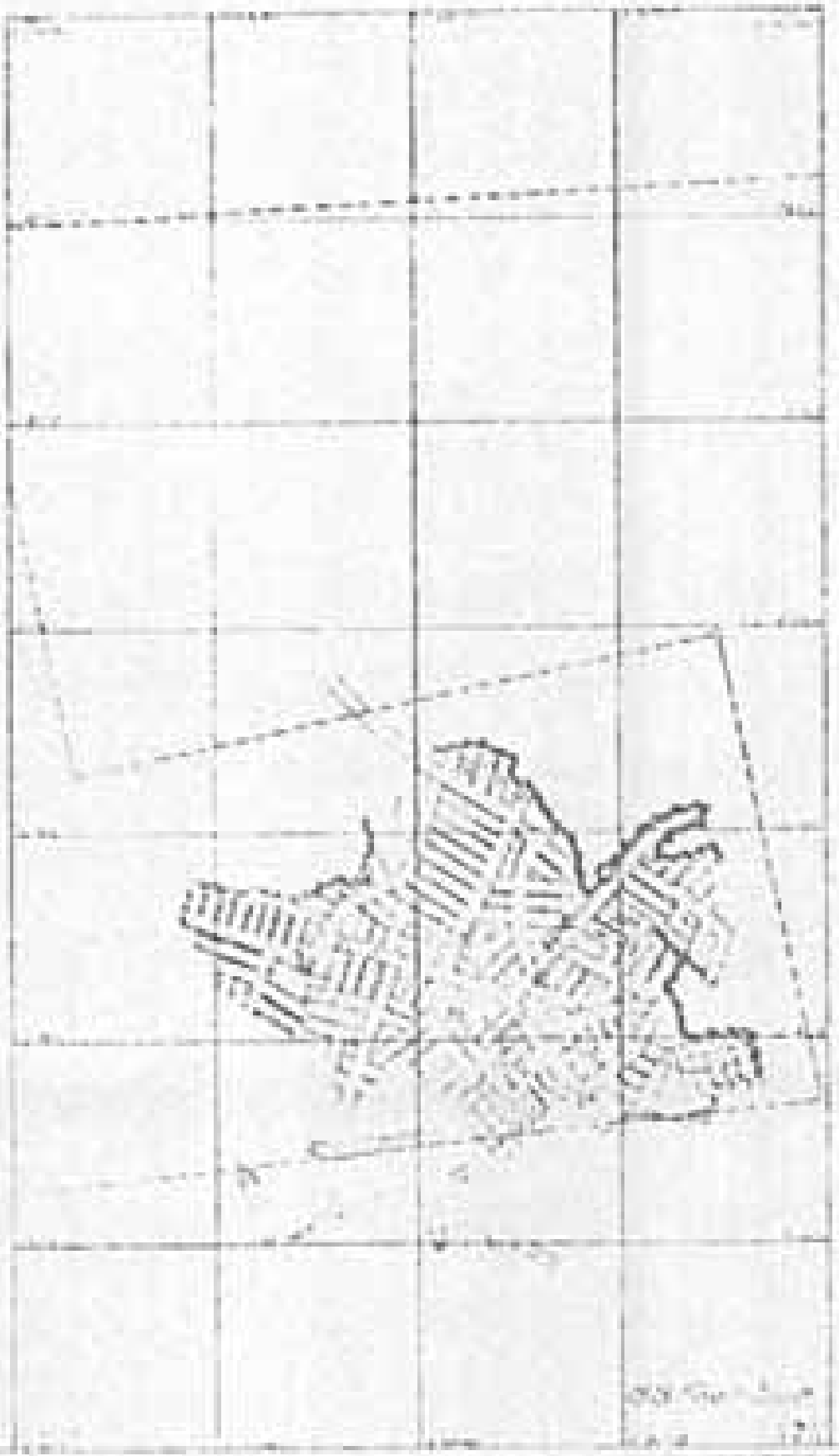
64 ft Sub



72 ft Sub

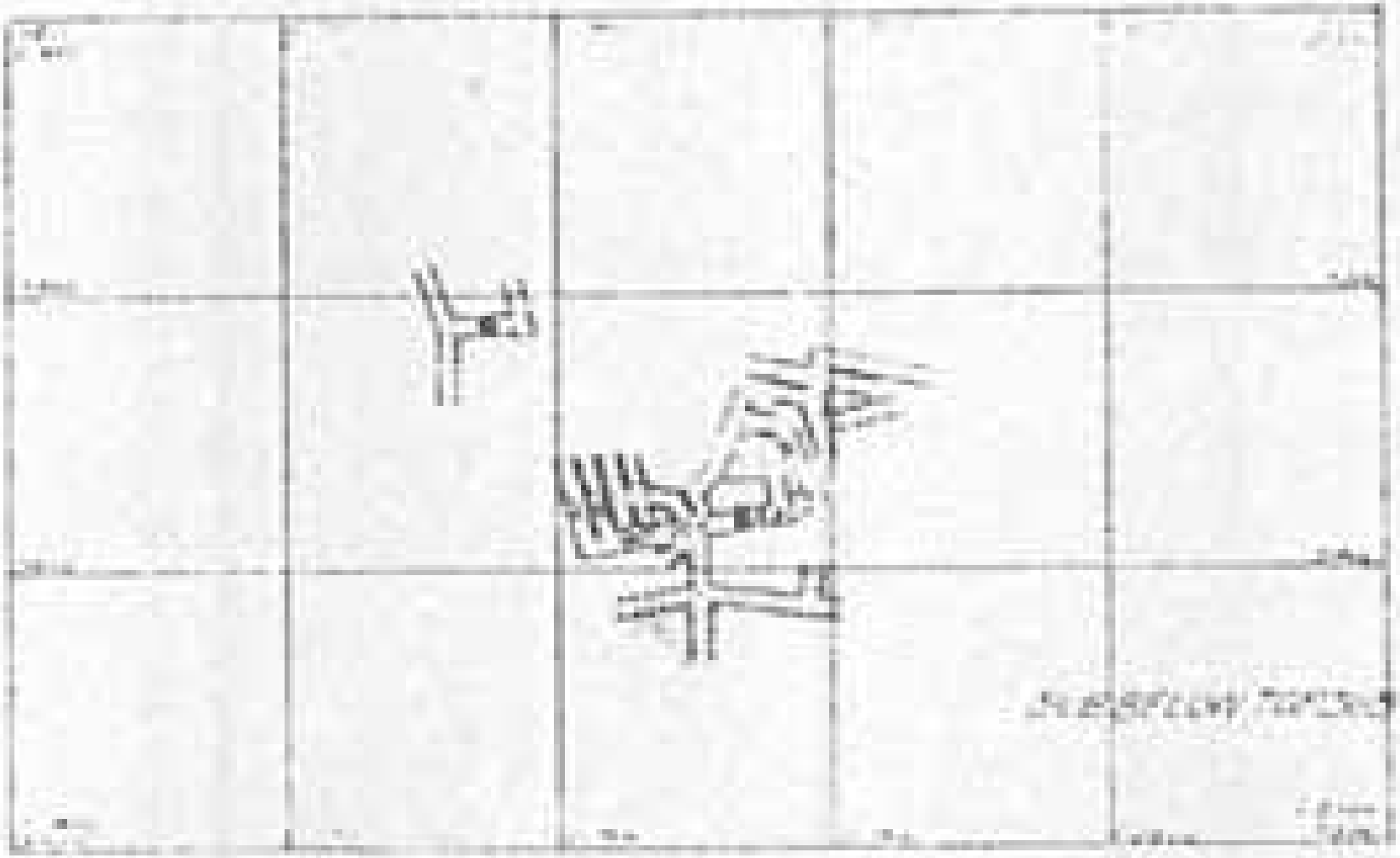


88 ft Sub



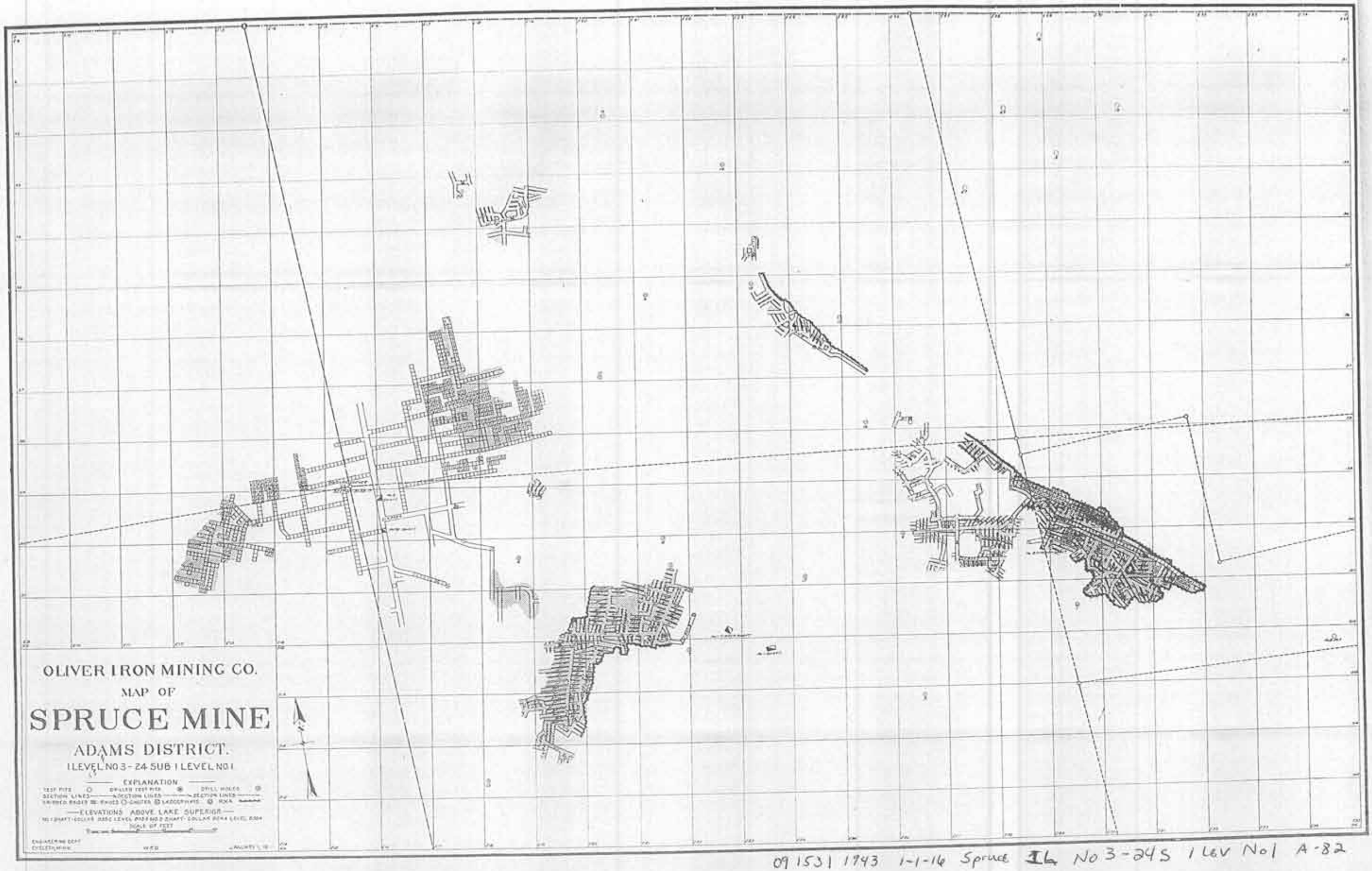
96 Ft Sub

Sub Below Top Sub



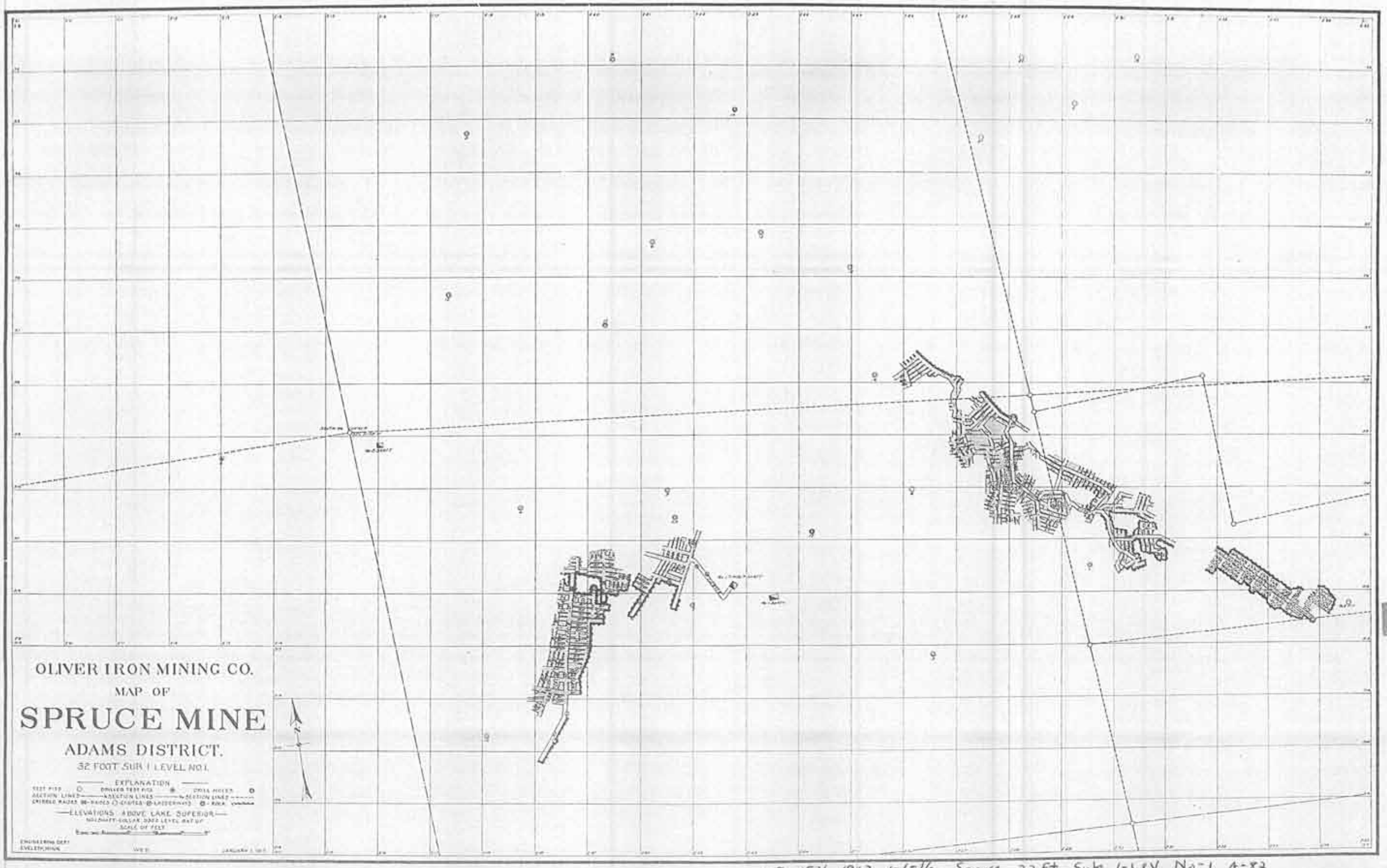
-15 Spruce Subs of 1 lev 1 shaft A-82

834



09 1531 1943 1-1-16 Spruce 1L No 3-24S 1 Lev No 1 A-82

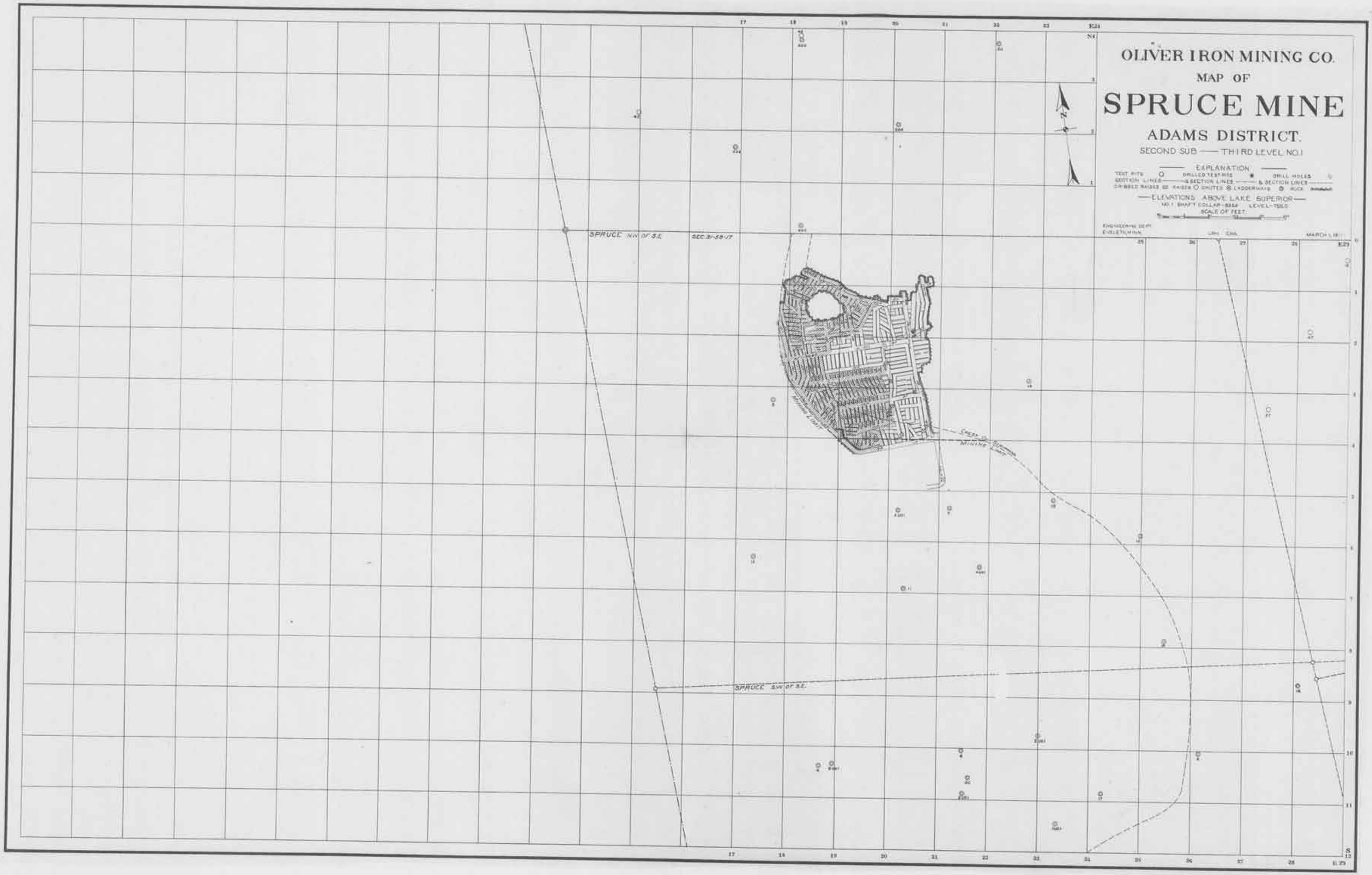
847



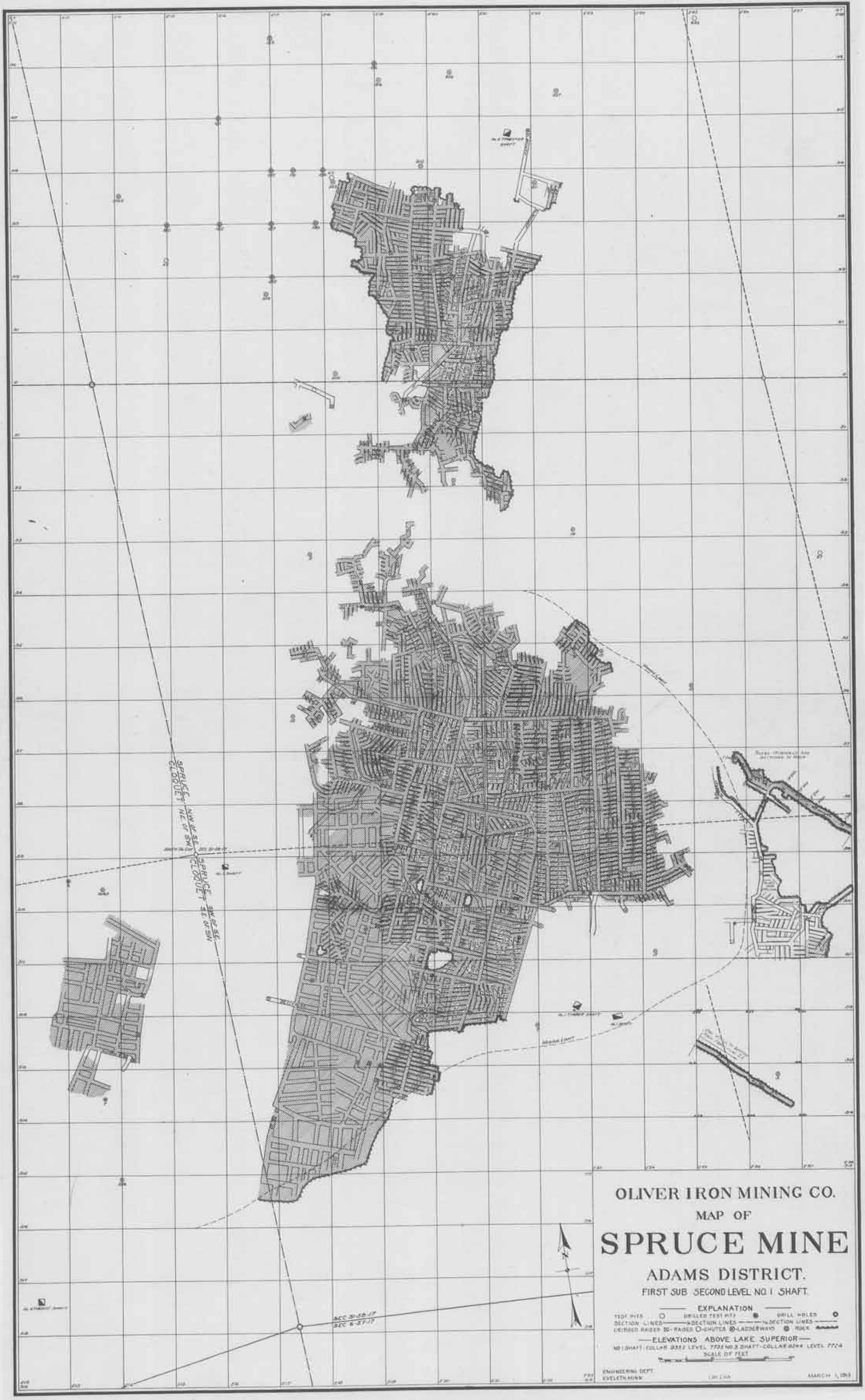
09 1531 1943 1-1-16 Spruce 32 Ft Sub 1-Lev No-1 A-82

A-82 819

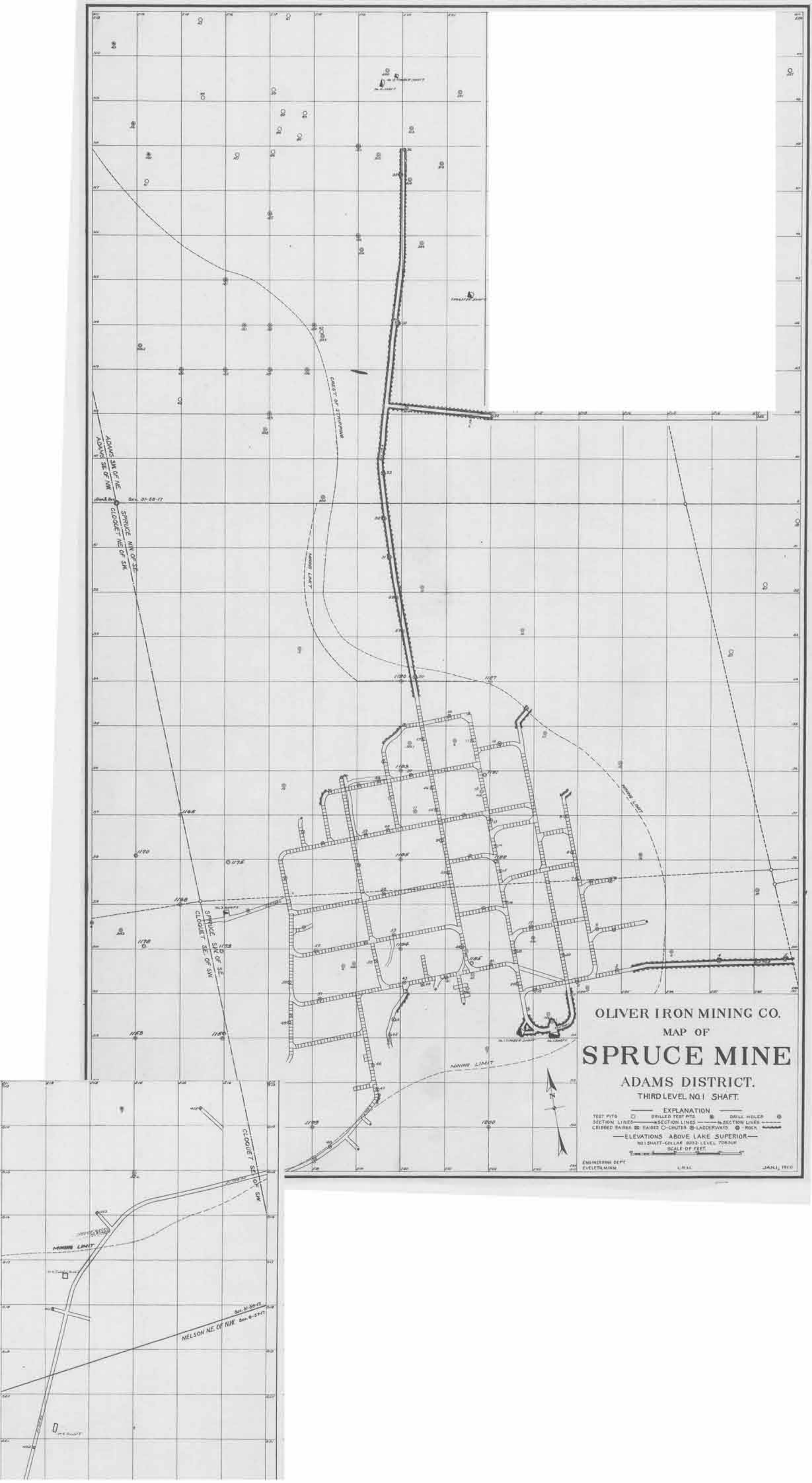
09.1531 1943 1-1-17 Spruce 2S 1L No1 & 1S 3L No2


OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT.
SECOND SUB — THIRD LEVEL NO.1
EXPLANATION
TEST PITS
DRILLED TEST HOLES
DRILL HOLES
SECTION LINES
DRIBBLE RAISES
RAISES
CHUTES
LADDERWAYS
ELEVATIONS ABOVE LAKE SUPERIOR
SCALE OF FEET.
ENGINEERING DEPT.
MARCH 1, 18
SPRUCE N.W. OF S.E.
SEC. 31-58-17
SPRUCE S.W. OF S.E.
MINING LIMIT
N
S
E24
E29

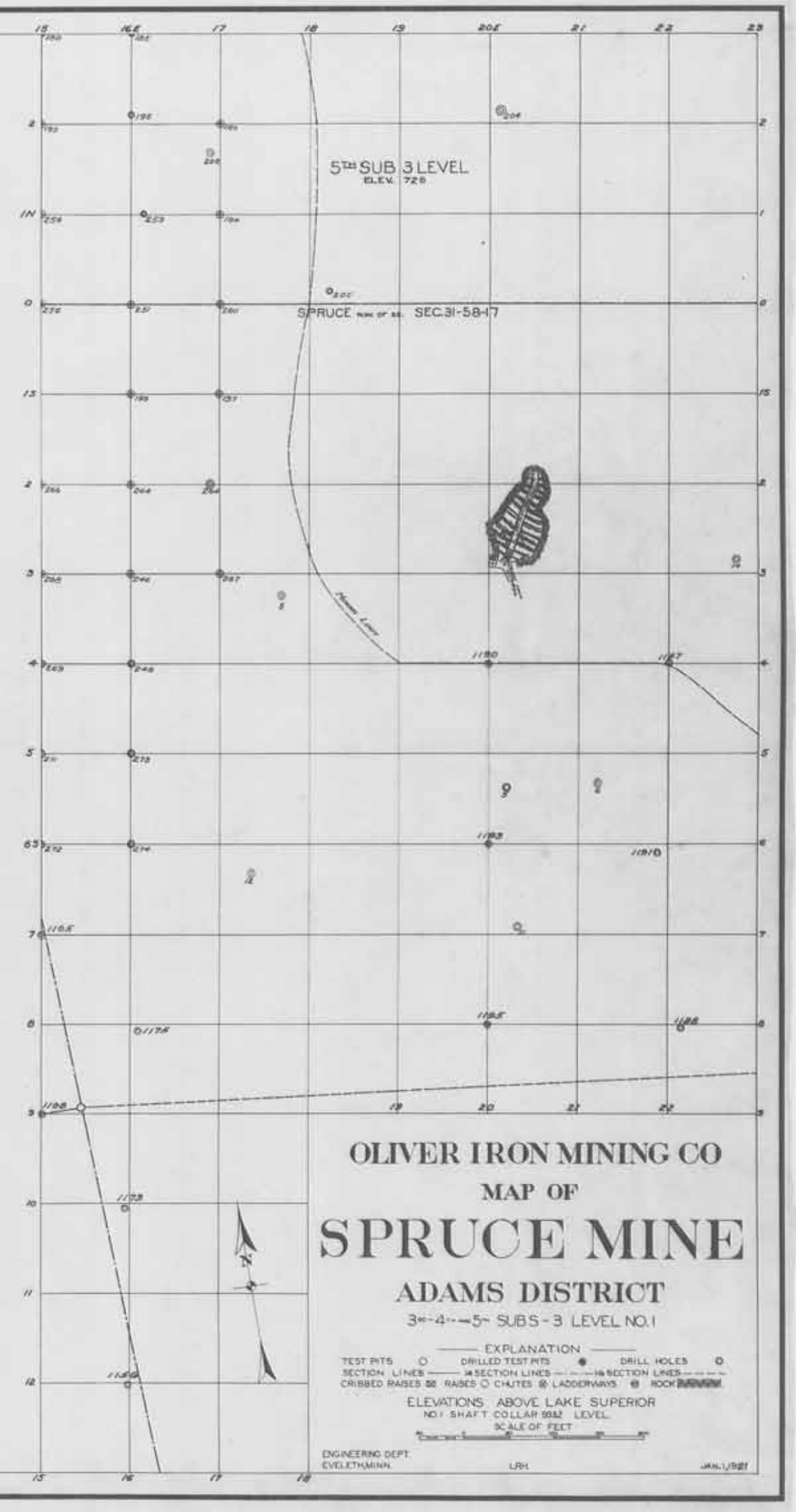
ADAMS SW OF NE
SPRUCE NW OF SE
CLOQUET NE OF SW
SPRUCE SW OF SE
CLOQUET SE OF SW
MINING LIMIT
MINING LIMIT
OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT.
FIRST SUB THIRD LEVEL NO 1 SHAFT
EXPLANATION
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
CRIBBED RAISES
RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
SCALE OF FEET
ENGINEERING DEPT.
EVELETH, MINN.
L.P.H. H.C.H.
MARCH 1, 1918

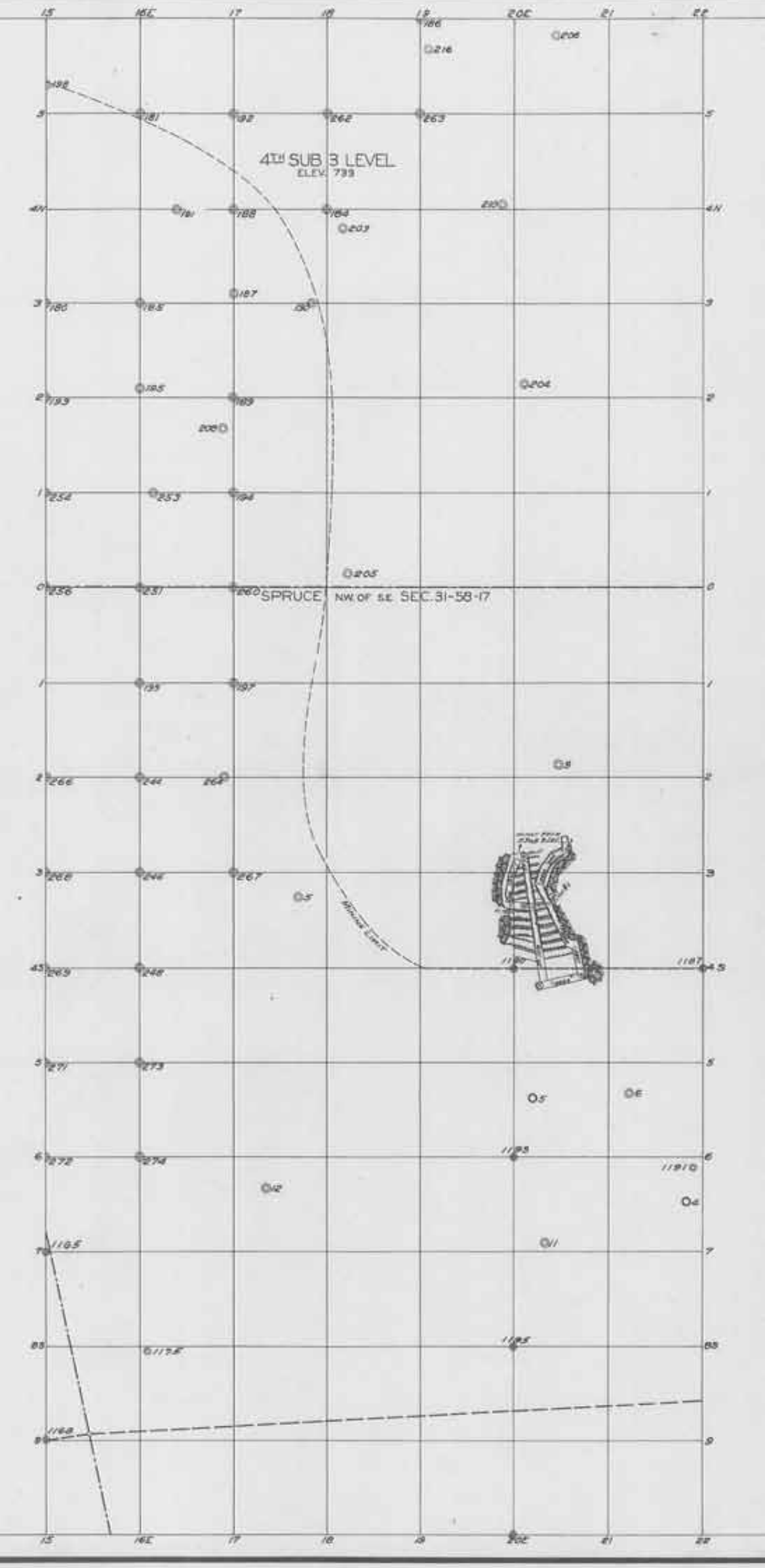

OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT.
FIRST SUB SECOND LEVEL NO. 1 SHAFT.
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
SECTION LINES
SECTION LINES
DRIFTED RAISES
RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
NO. 1 SHAFT COLLAR 2352 LEVEL 7732 NO. 3 SHAFT COLLAR 2244 LEVEL 7724
SCALE OF FEET
ENGINEERING DEPT.
EVELETH, MINN.
MARCH 1, 1913
SPRUCE ST.
CLOQUET
NW OF SE
NE OF SW
SW OF SE
SE OF SW
SEC 31-58-17
SEC 6-57-17

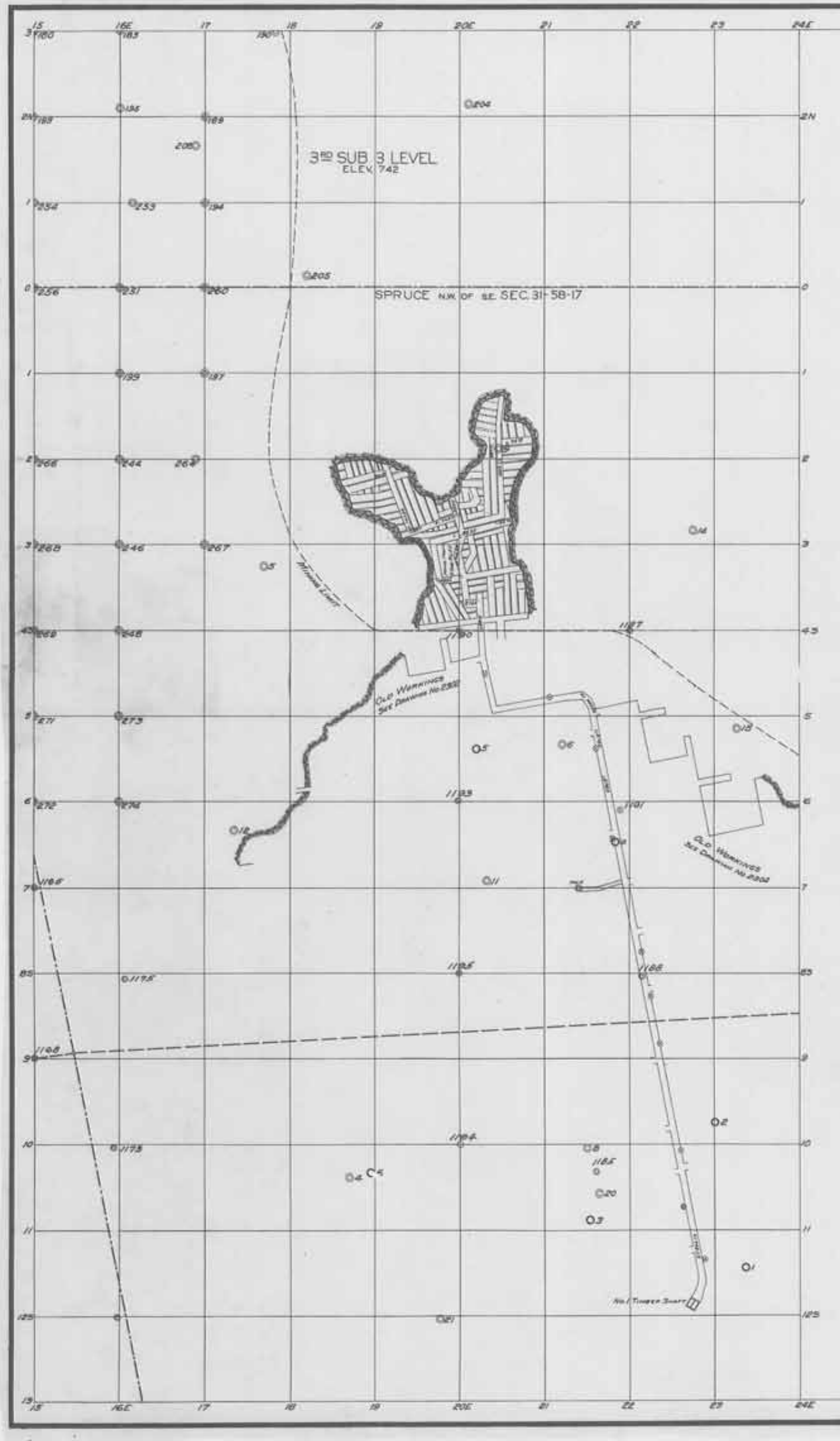
SPRUCE NW OF SE
CLOQUET NE OF SW
SPRUCE SW OF SE
CLOQUET SE OF SW
MINING LIMIT
OLIVER IRON MINING CO.
MAP OF THE
SPRUCE MINE.
EVELETH, MINN.
FIRST LEVEL — No 1 SHAFT.
SCALE OF FEET.
EXPLANATORY.
TEST PITS
DRILLED TEST PITS
DRILL HOLES
MAIN LEVEL
ABOVE LEVEL
SECTION LINES
ROCK
RAISE SET
WATER
FRONT ROCK
ELEVATIONS FROM LAKE SUPERIOR.
No 1 SHAFT.
COLLAR 1222
FIRST LEVEL 1012 SUB LEVEL
No 3 SHAFT.
COLLAR 1224
FIRST LEVEL
SUB LEVEL
L.R.H. C.H.A.
MARCH 1st 1917

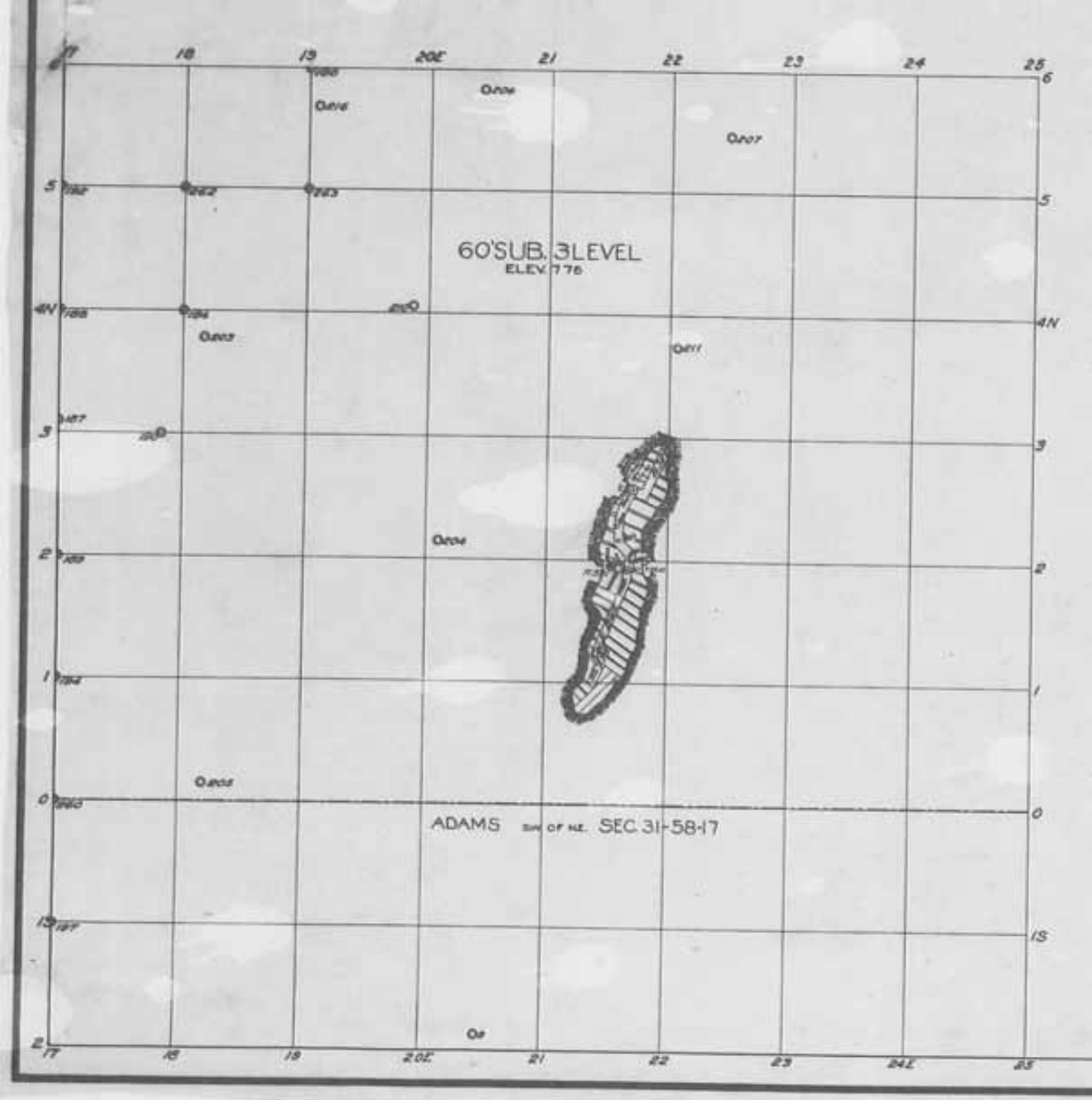

OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT.
THIRD LEVEL NO. 1 SHAFT.
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
SECTION LINES
SECTION LINES
CRIBBED RAISES
RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
SCALE OF FEET
ENGINEERING DEPT.
EVELETH, MINN.
JAN. 1, 1910
CREST OF STRIPPING
MINING LIMIT
ADAMS SW OF NE
ADAMS SE OF NW
SPRUCE NW OF SE
CLOQUET NE OF SW
SPRUCE SW OF SE
CLOQUET SE OF SW
NELSON NE OF NW

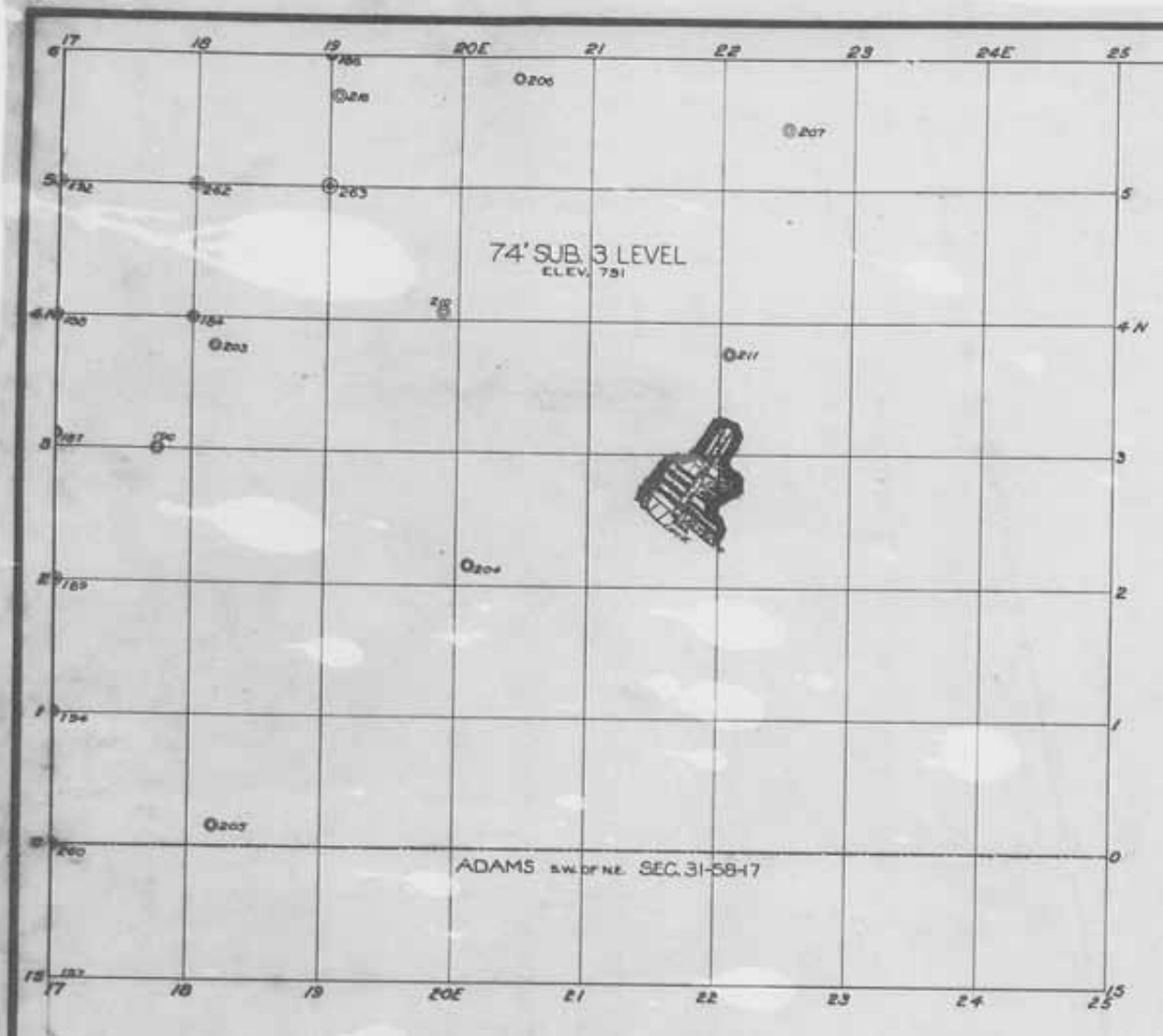
OLIVER IRON MINING CO.
MAP OF THE
SPRUCE MINE.
EVELETH, MINN.
PLAN OF THE SECOND LEVEL, SHAFT No 1
EXPLANATORY
ELEVATIONS AND LAKE SURFACE
ADAMS
SPRUCE
CLOQUET
SEC 31-58-17
SEC 6-57-17
N

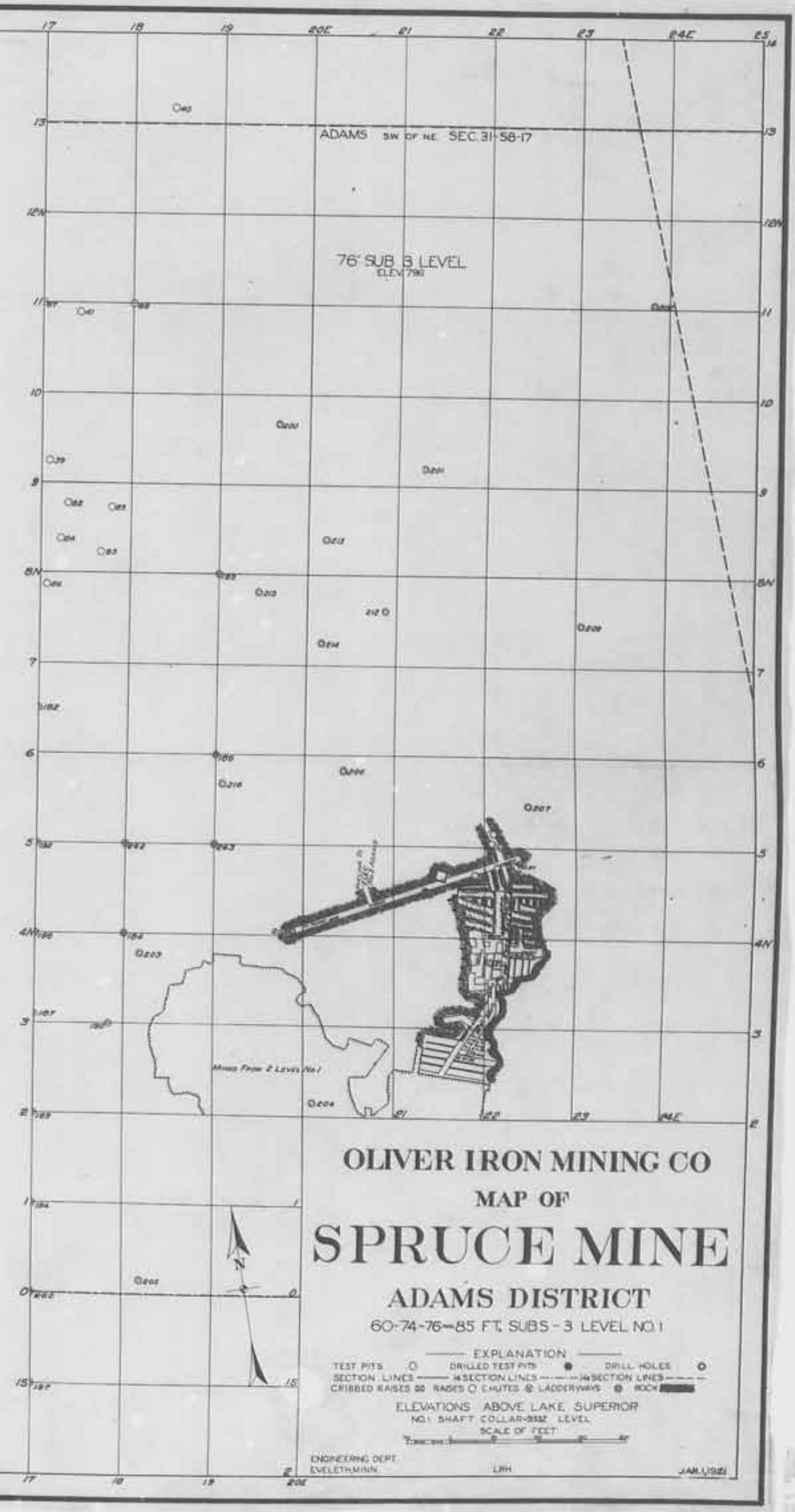

5TH SUB 3 LEVEL
ELEV. 728
SPRUCE NW. OF SE. SEC. 31-58-17
OLIVER IRON MINING CO
MAP OF
SPRUCE MINE
ADAMS DISTRICT
3RD-4TH-5TH SUBS-3 LEVEL NO. 1
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
14 SECTION LINES
16 SECTION LINES
CRIBBED RAISES
RAISES
CHUTES
LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
NO. 1 SHAFT COLLAR 1682 LEVEL
SCALE OF FEET
ENGINEERING DEPT.
EVELETH, MINN.
LRH
JAN. 1, 1921

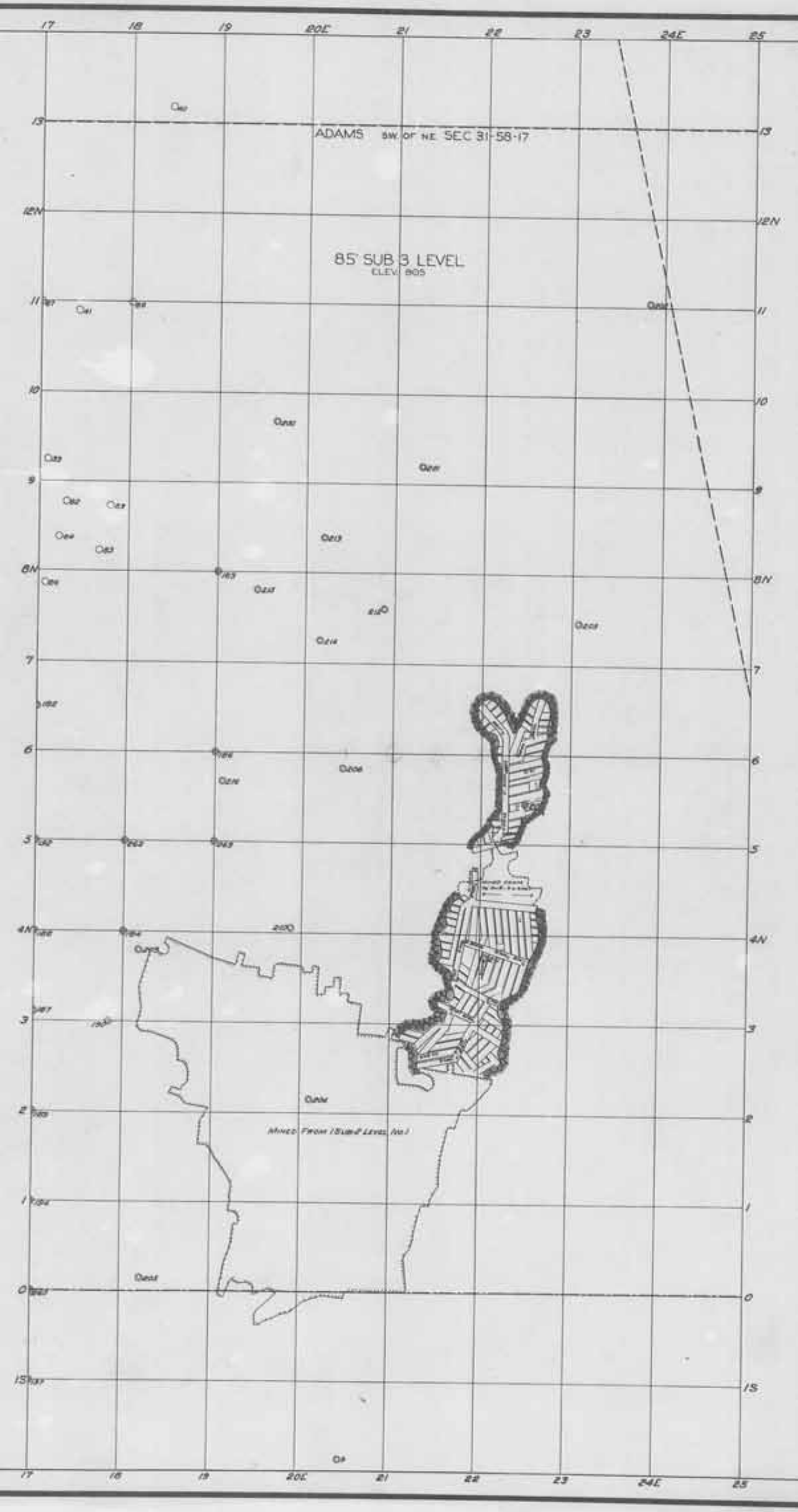

4TH SUB 3 LEVEL
ELEV. 733
SPRUCE NW. OF S.E. SEC. 31-58-17
Mining Claim


3RD SUB 3 LEVEL
ELEV. 742
SPRUCE N.W. OF S.E. SEC. 31-58-17
Old Workings
Old Workings
No. 1 Timber Shaft

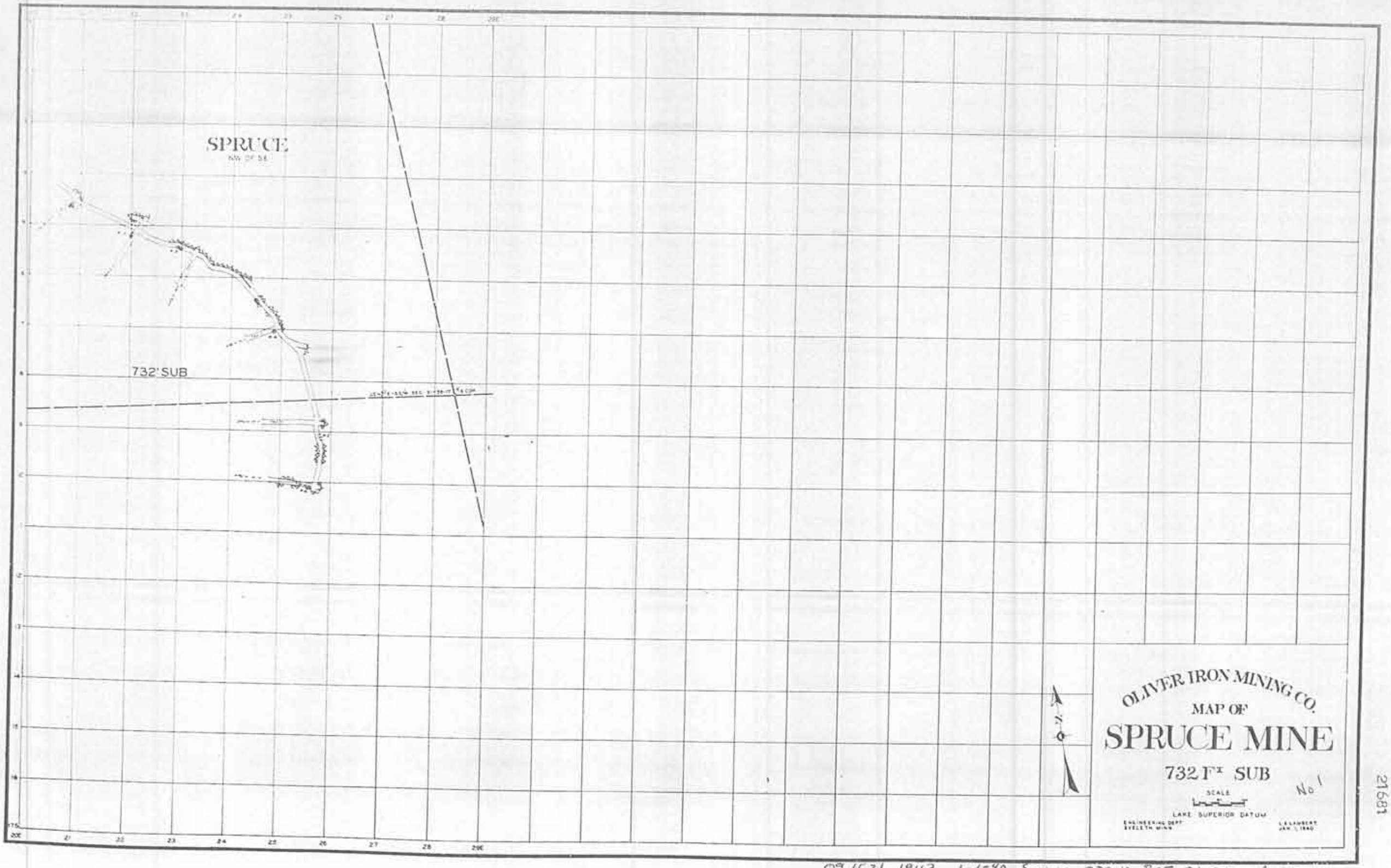

17
18
19
20E
21
22
23
24
25
6
5
4N
3
2
1
0
1S
2
60'SUB. 3LEVEL
ELEV. 776
ADAMS SW OF NE SEC 31-58-17


17
18
19
20E
21
22
23
24E
25
6
5
4N
3
2
1
0
15
186
216
206
207
152
242
283
74' SUB. 3 LEVEL
ELEV. 751
208
105
154
203
211
181
190
204
189
194
205
200
ADAMS S.W. OF N.E. SEC. 31-58-17
17
18
19
20E
21
22
23
24
25


ADAMS SW OF NE SEC. 31-58-17
76' SUB 3 LEVEL
ELEV 796
Mined From 2 Level No. 1
N
OLIVER IRON MINING CO
MAP OF
SPRUCE MINE
ADAMS DISTRICT
60-74-76-85 FT. SUBS - 3 LEVEL NO. 1
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
1/4 SECTION LINES
1/16 SECTION LINES
CRIBBED RAISES
RAISES
CHUTES & LADDERWAYS
ROCK
ELEVATIONS ABOVE LAKE SUPERIOR
NO. 1 SHAFT COLLAR-8332 LEVEL
SCALE OF FEET
ENGINEERING DEPT.
EVELETH, MINN.
LRH
JAN. 1, 1921


17
18
19
20E
21
22
23
24E
25
13
12N
11
10
9
8N
7
6
5
4N
3
2
1
0
1S
ADAMS SW. OF NE. SEC. 31-58-17
85' SUB 3 LEVEL
ELEV. 805
MINED FROM 1 SUB-4 LEVEL (No.)

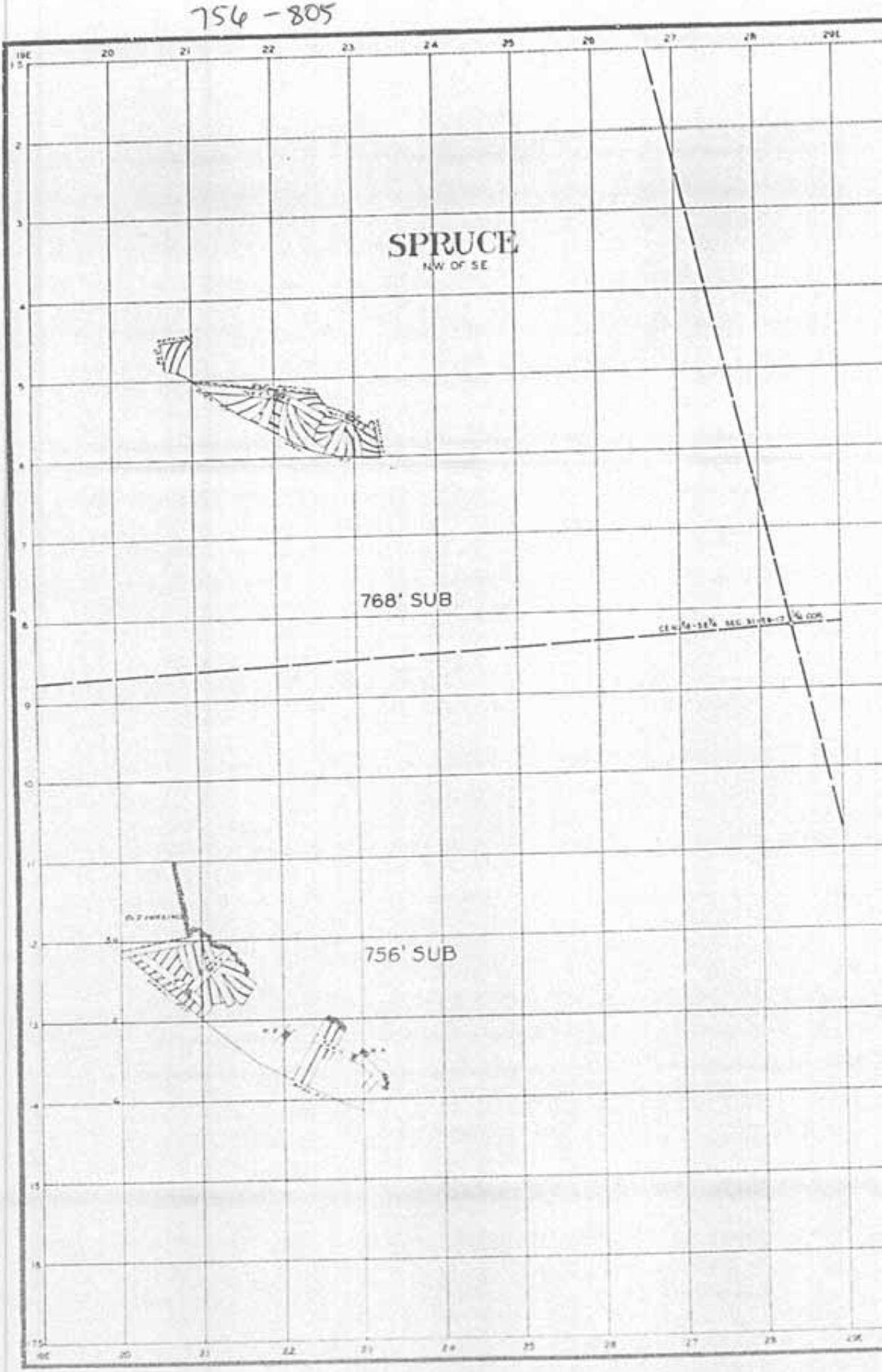
737

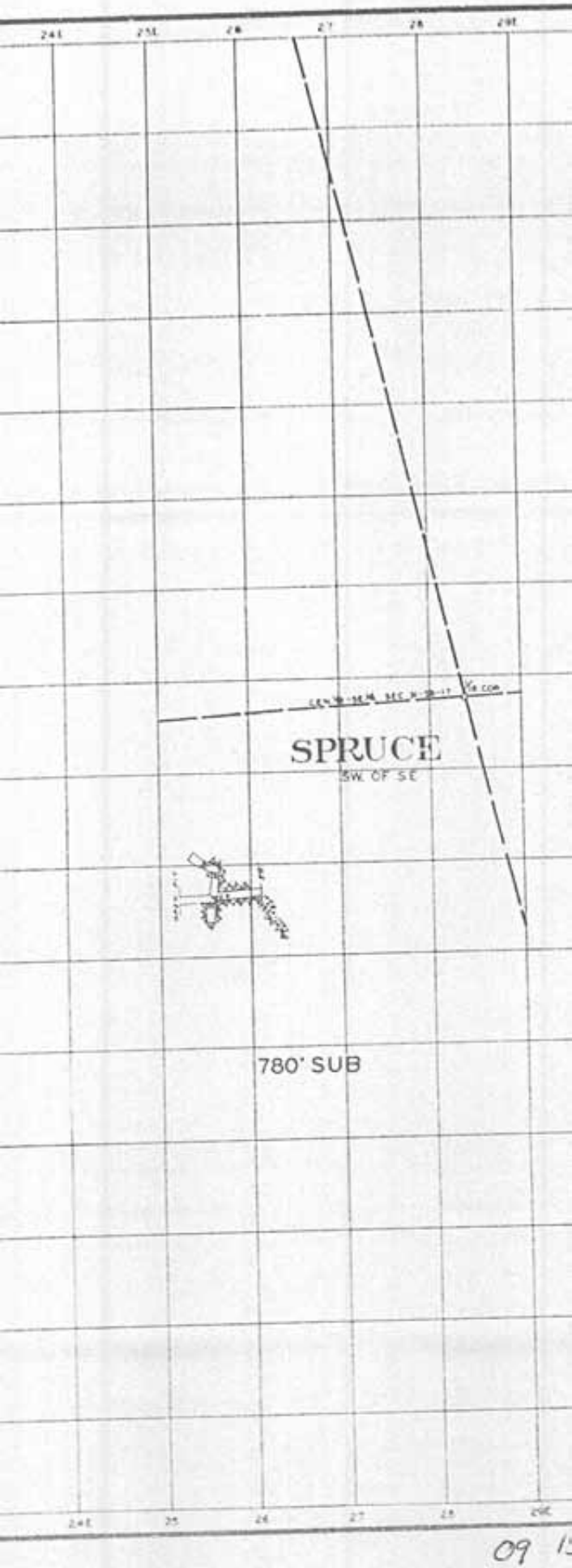


21681

09 1531 1943 1-1-40 Spruce 732 to 805 Ft Subs A-82

756 - 805



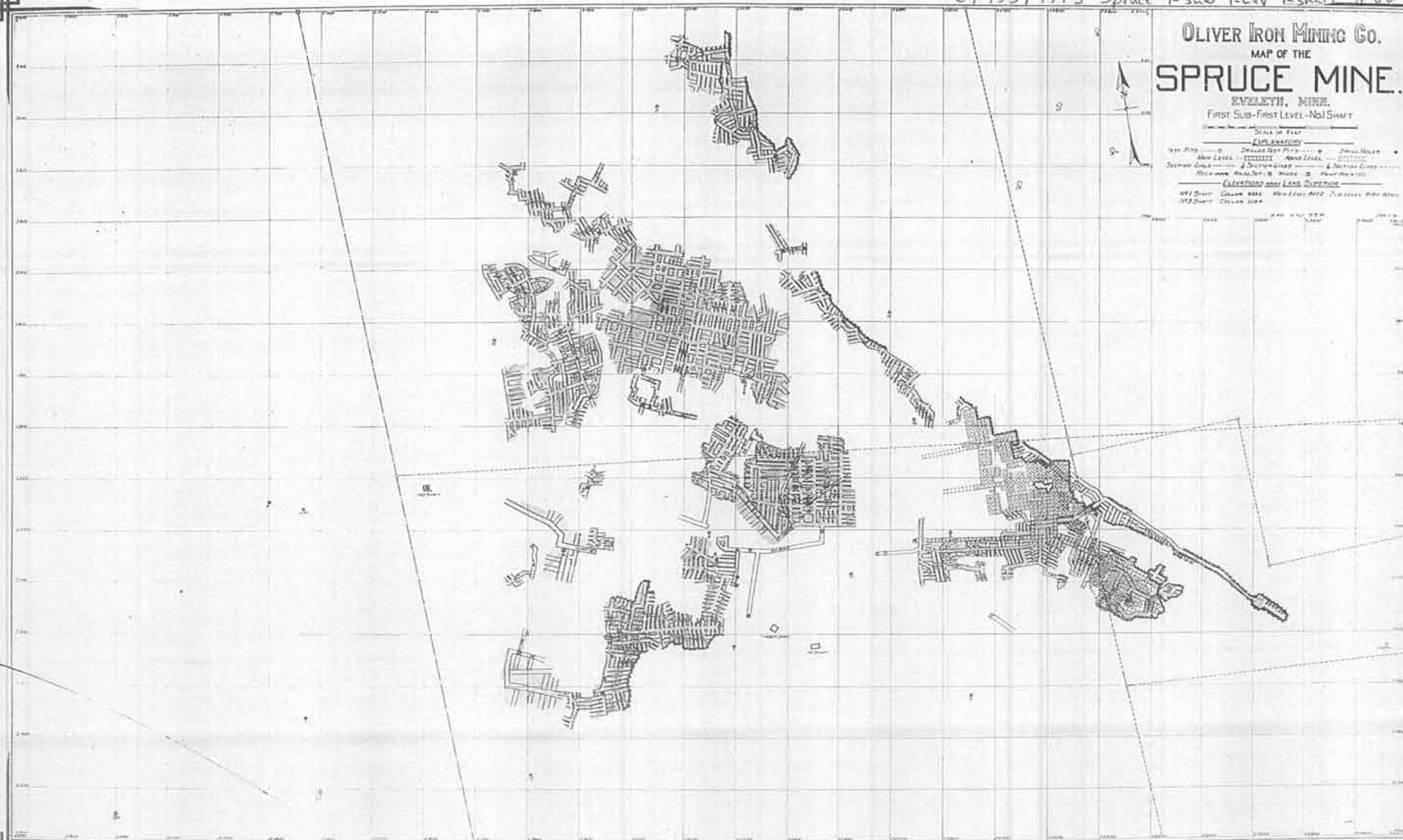


09 1

25E
26
27
28
29E
SPRUCE
SW OF SE
805' SUB

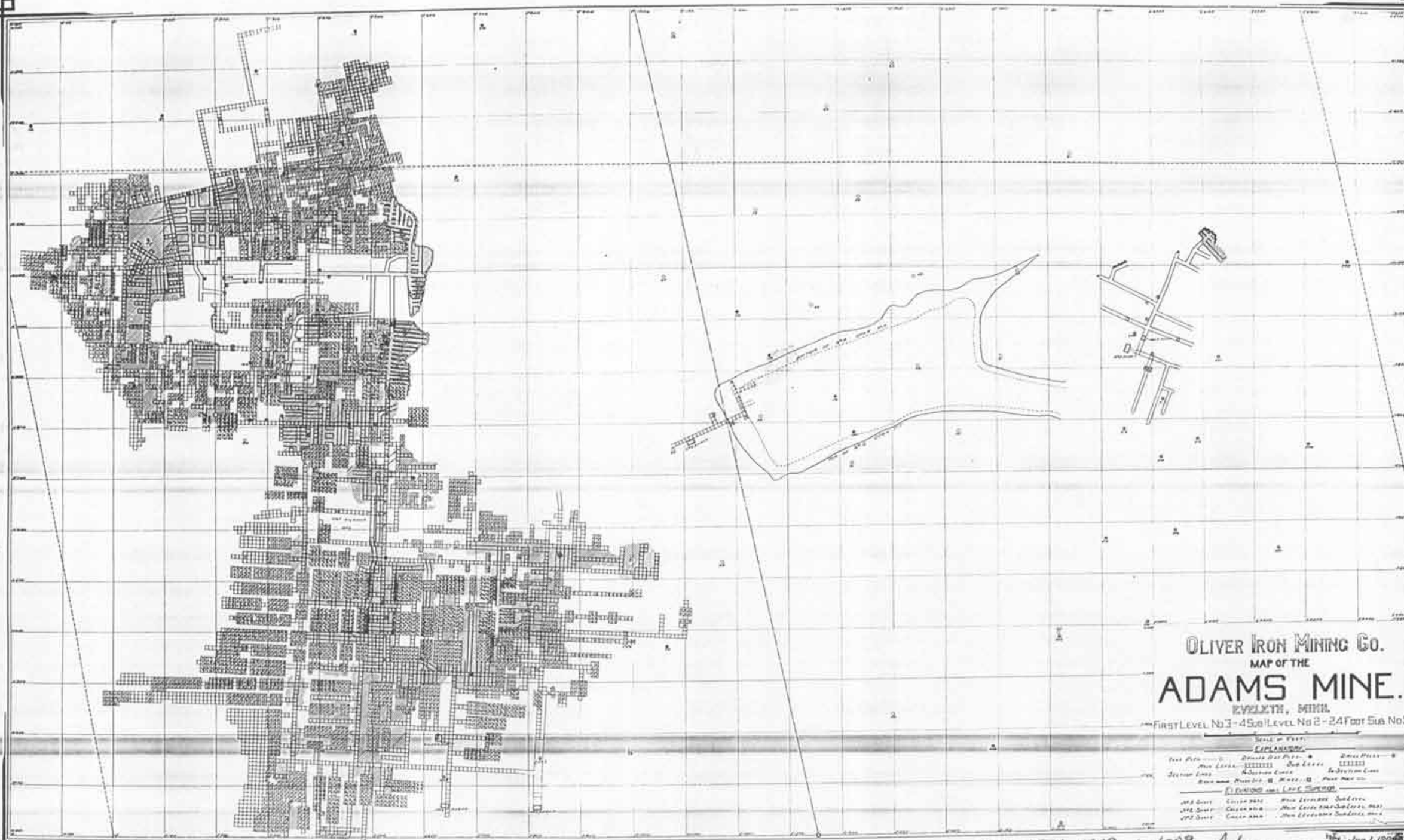
326-839

07 1531 1943 Spruce 1-Sub 1-Lev 1-shaft A-82



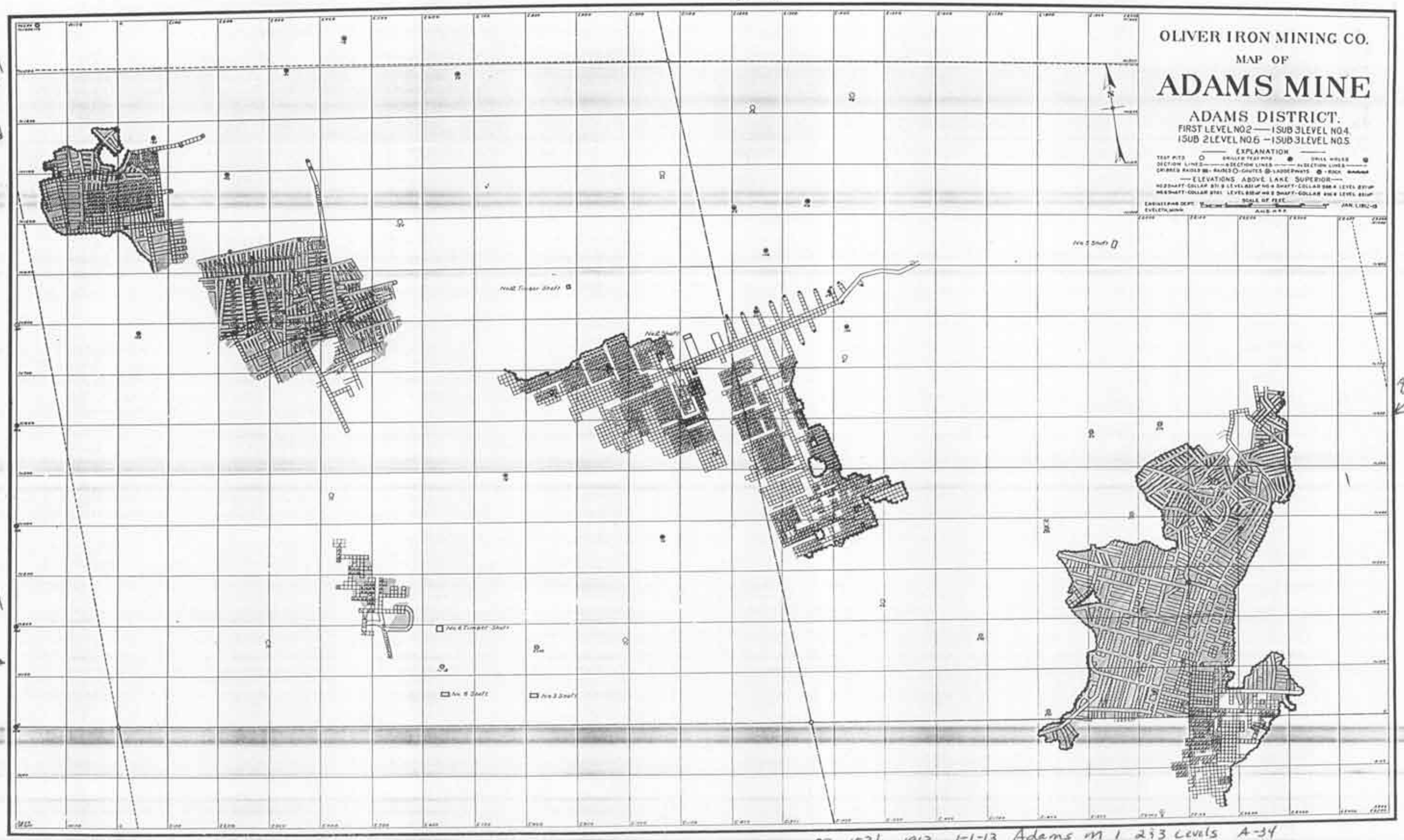
863

866

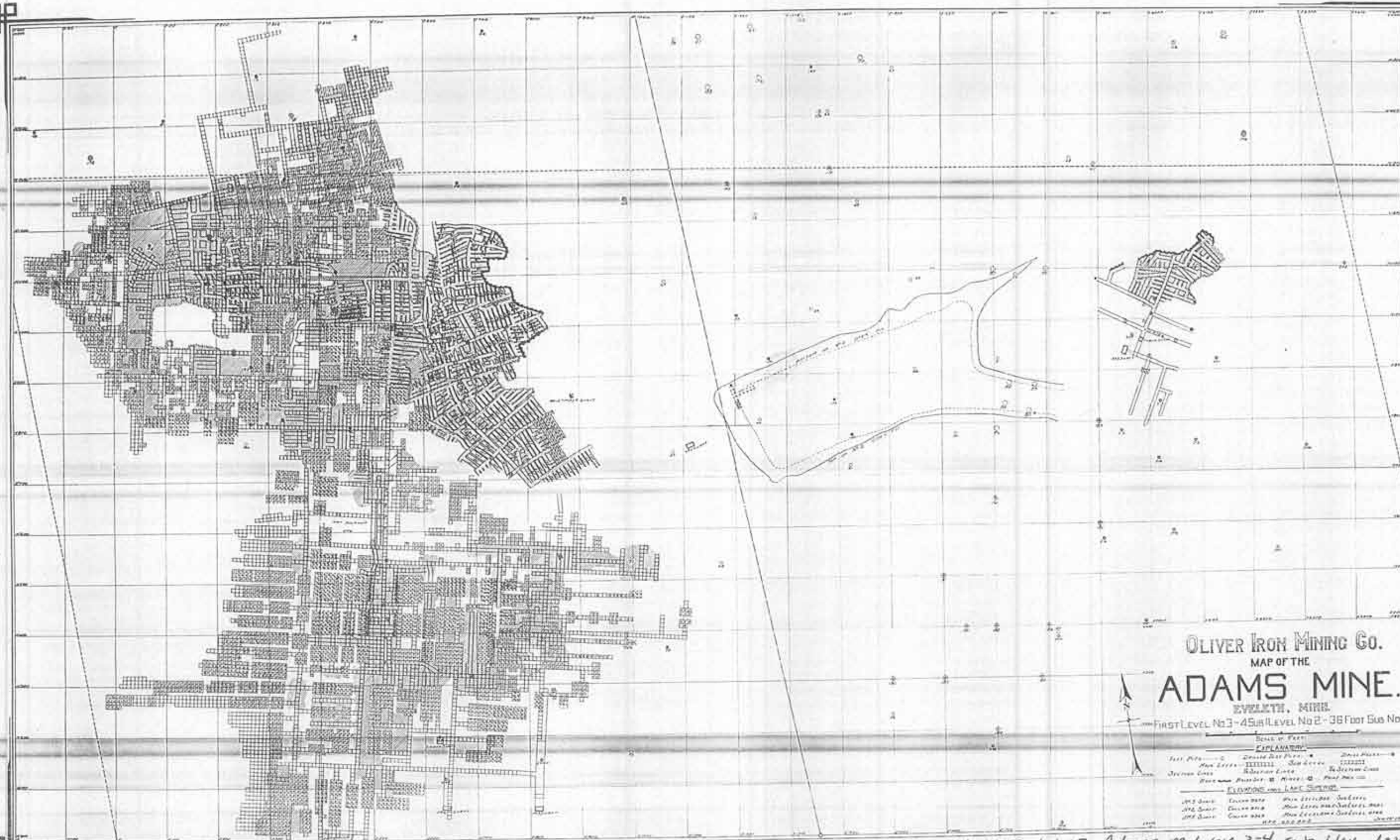


09 1531 1909 1-1-09 Adams mi L 3-4
sub 2-24 SU A-31

833



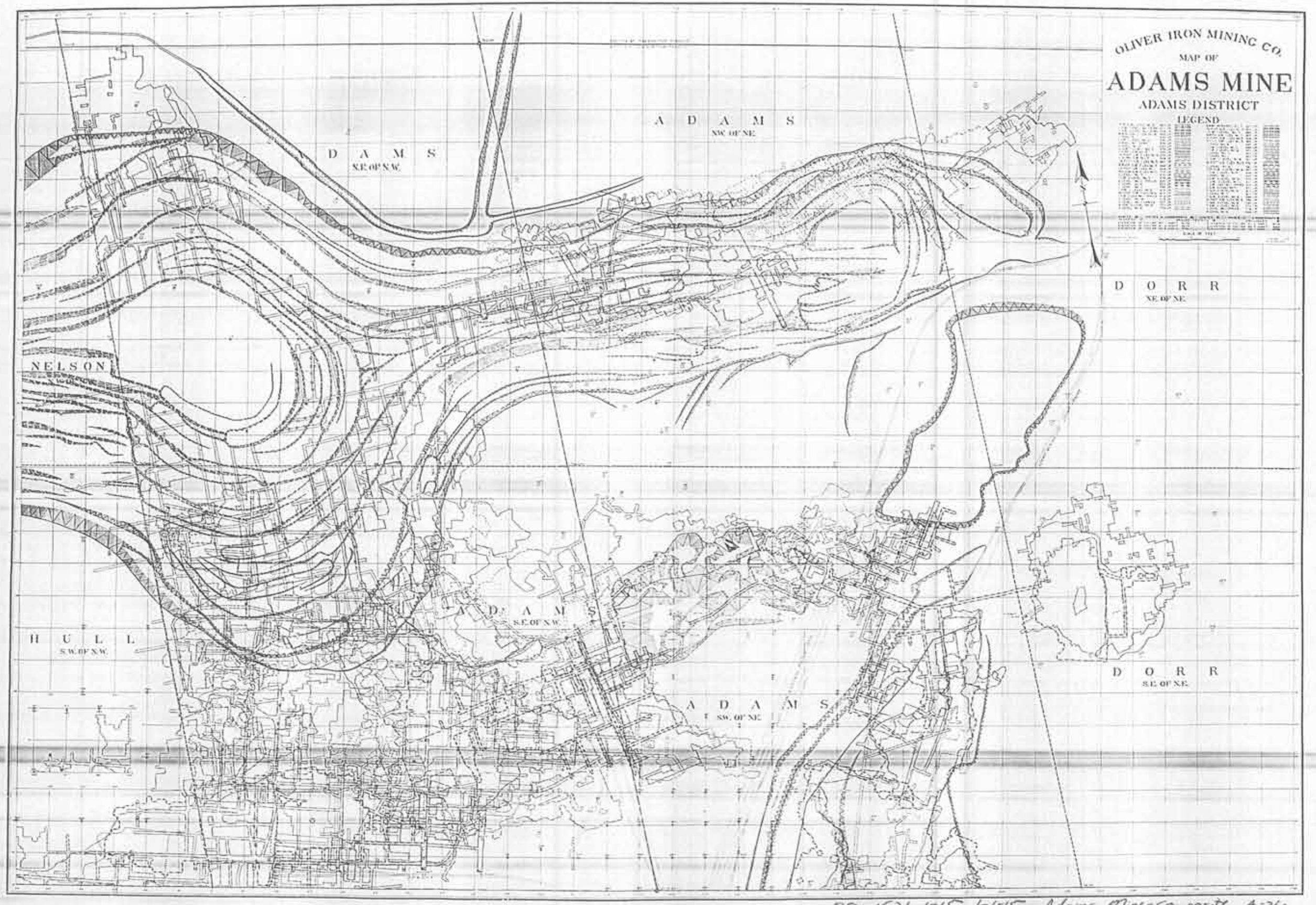
09 1531 1913 1-1-13 Adams m 1 2 3 Levels A-34



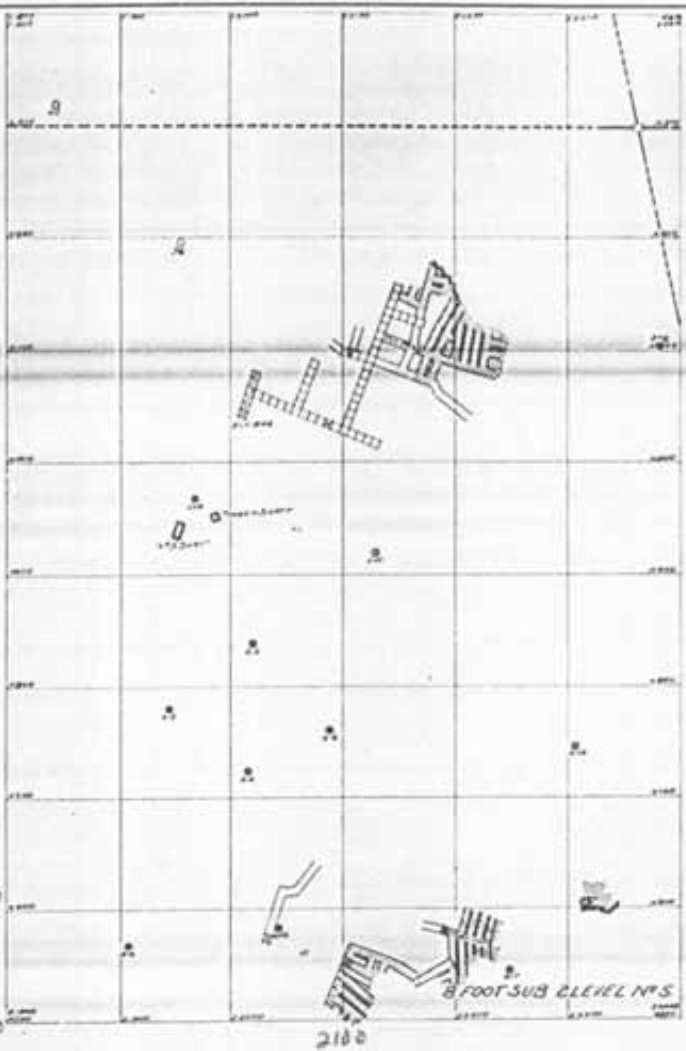
872

863

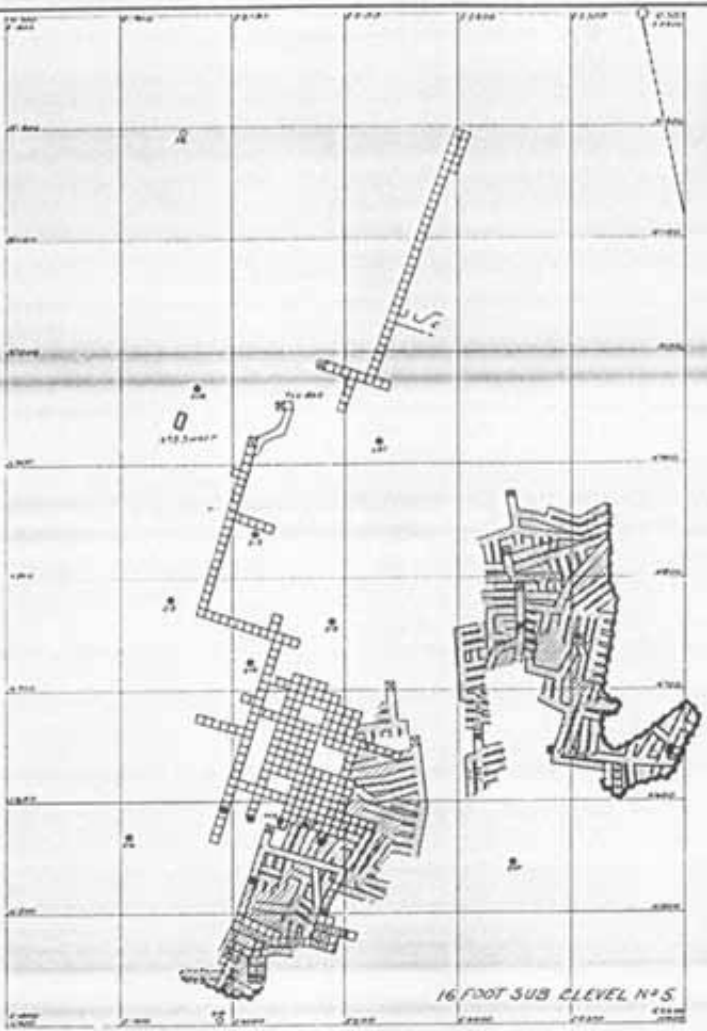
09 1531 1915 1-1-15 Adams m / lev 3-4 sub 1 lev 1-36



09 1531 1915 1-1-15 Adams Mine-Composite A-36


9
8
600
8 FOOT SUB LEVEL MS
2100

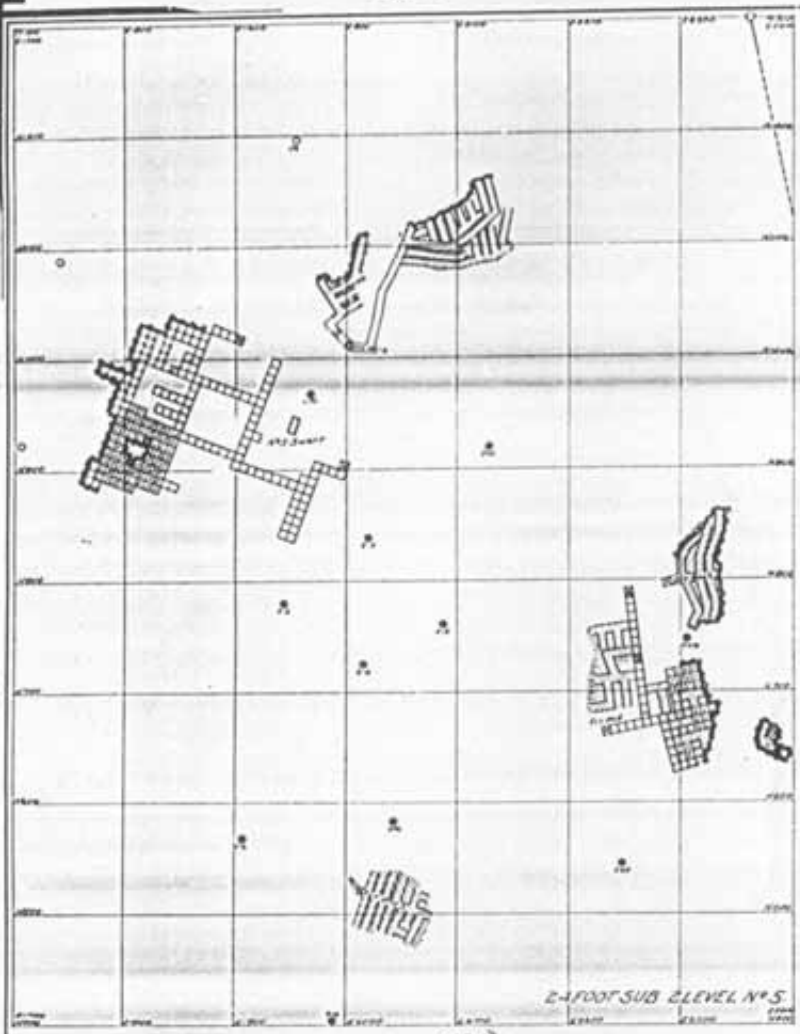
852



860

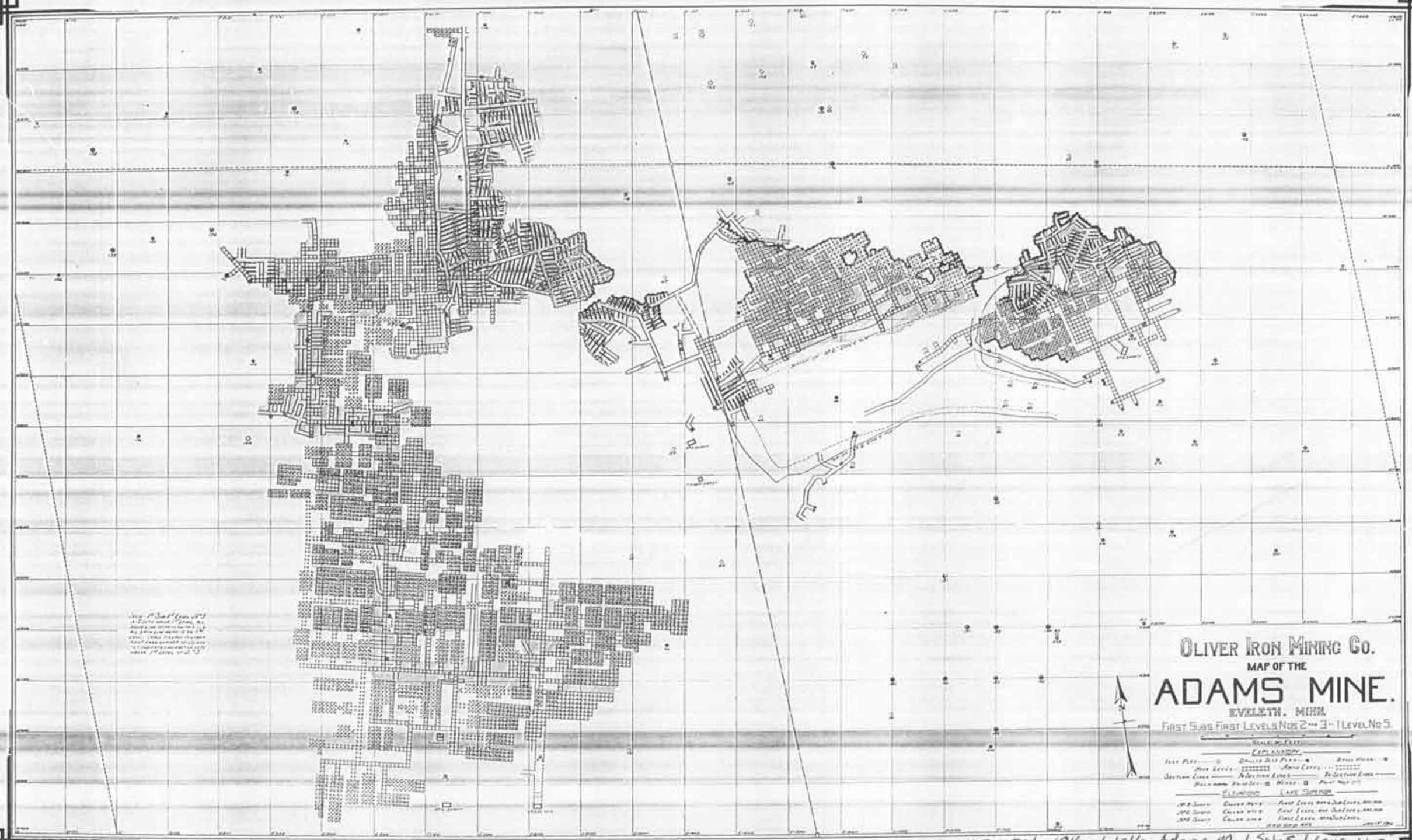
700

500



2100

885



09 1531 1916 1-1-16 Adams M 1 Subs 5 1 Levs No 2s
A-37

Subs of a Lev 5-15 ~~09-1531 TMG~~

A-37

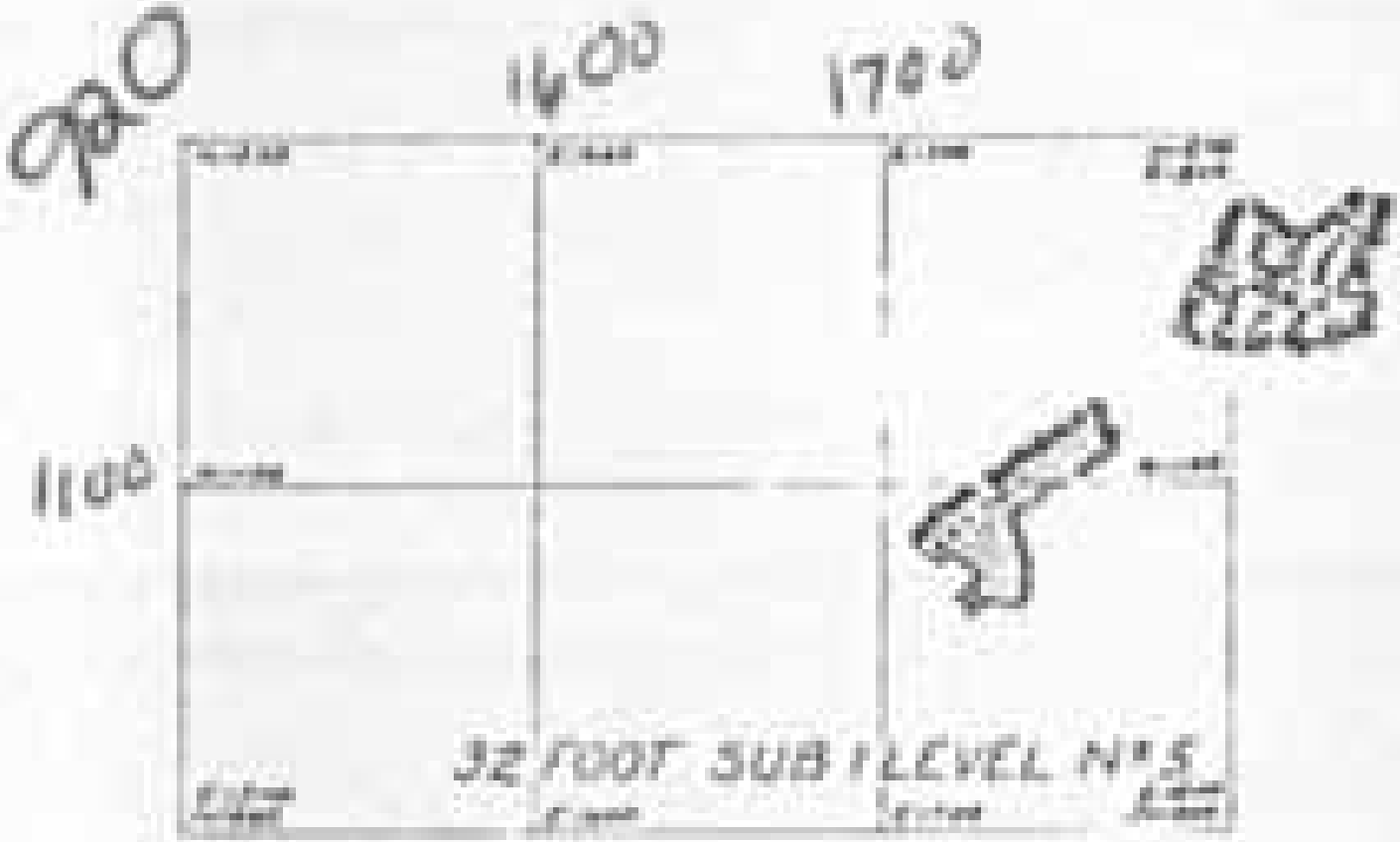
909

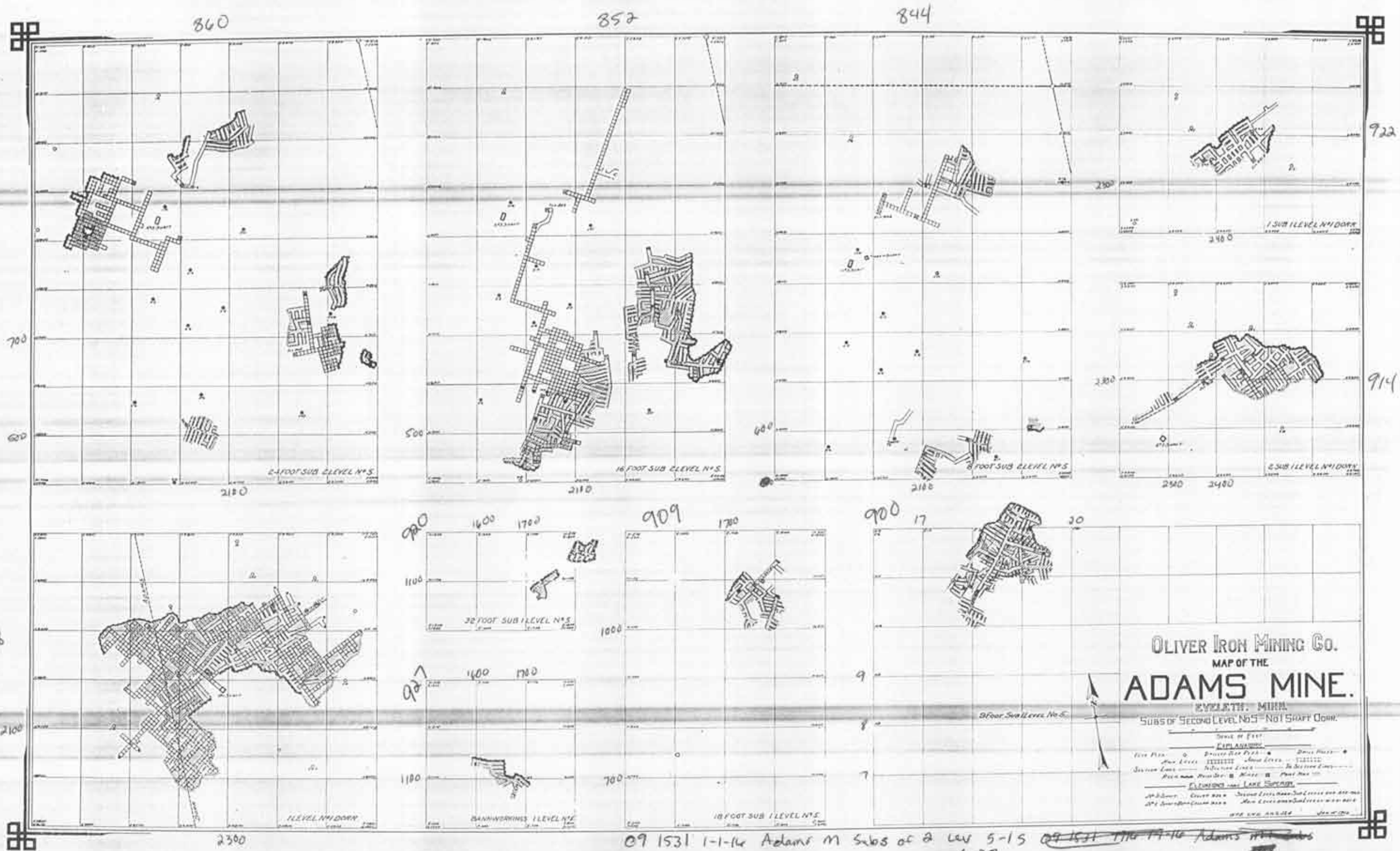
1700

1000

700

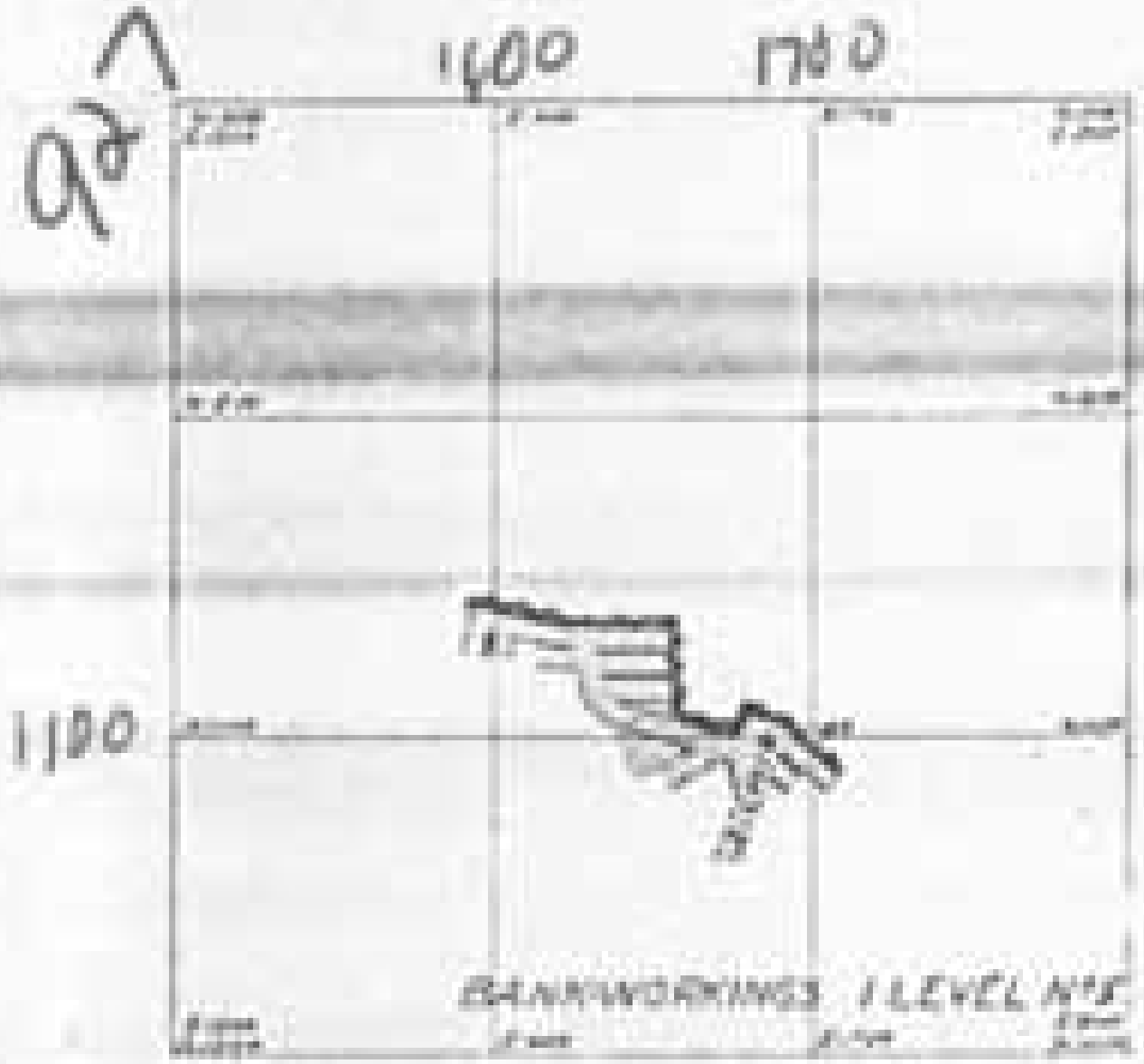
18 FOOT SUB 1 LEVEL N°S


1600
1700
1100
32 FOOT SUB LEVEL Nº 5

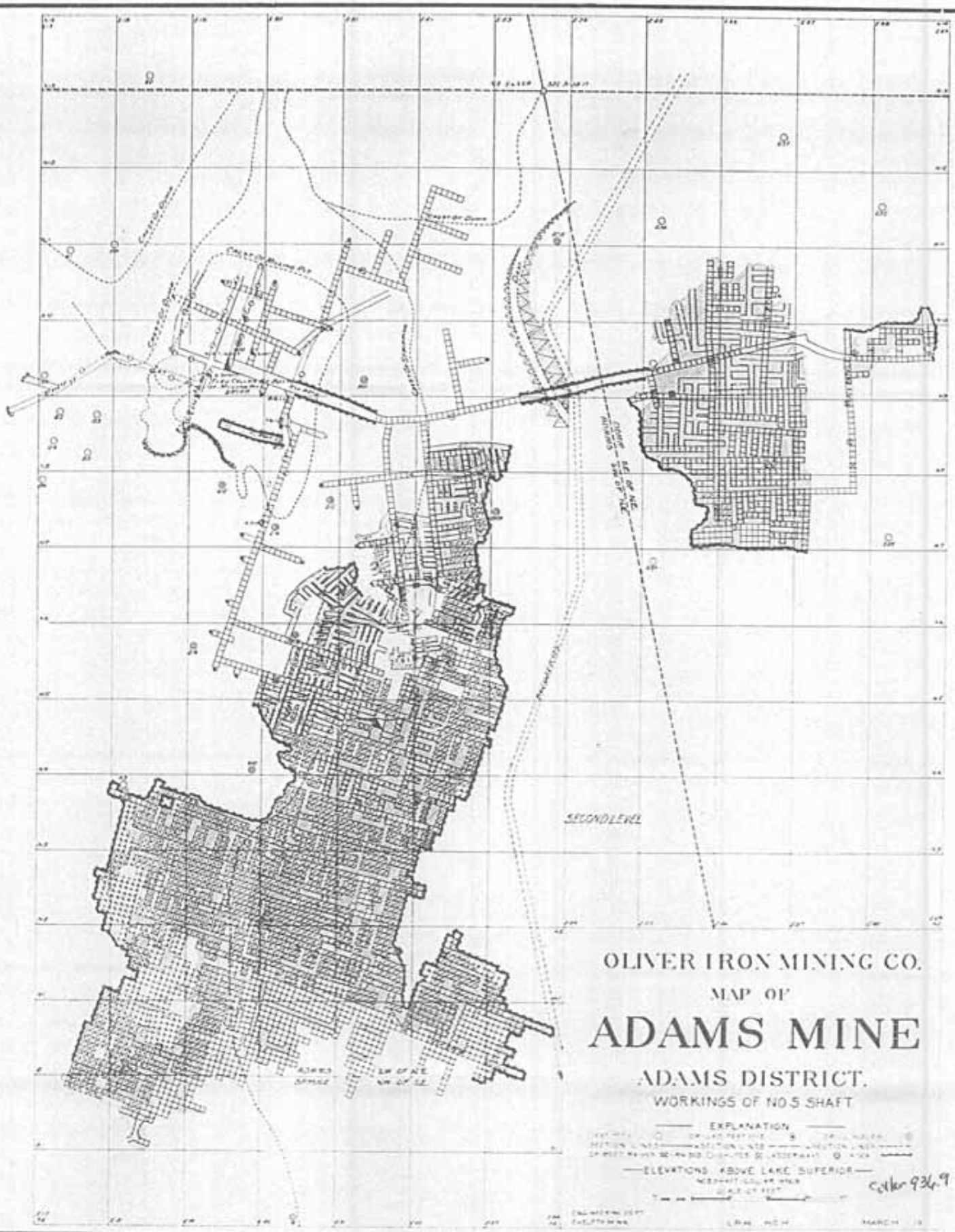


09 1531 1-1-16 Adams M Subs of 2 Lev 5-15 ~~09 1531 1-1-16 Adams M Subs~~

A-37


1400
1100
BANKWORKINGS 1 LEVEL N°5

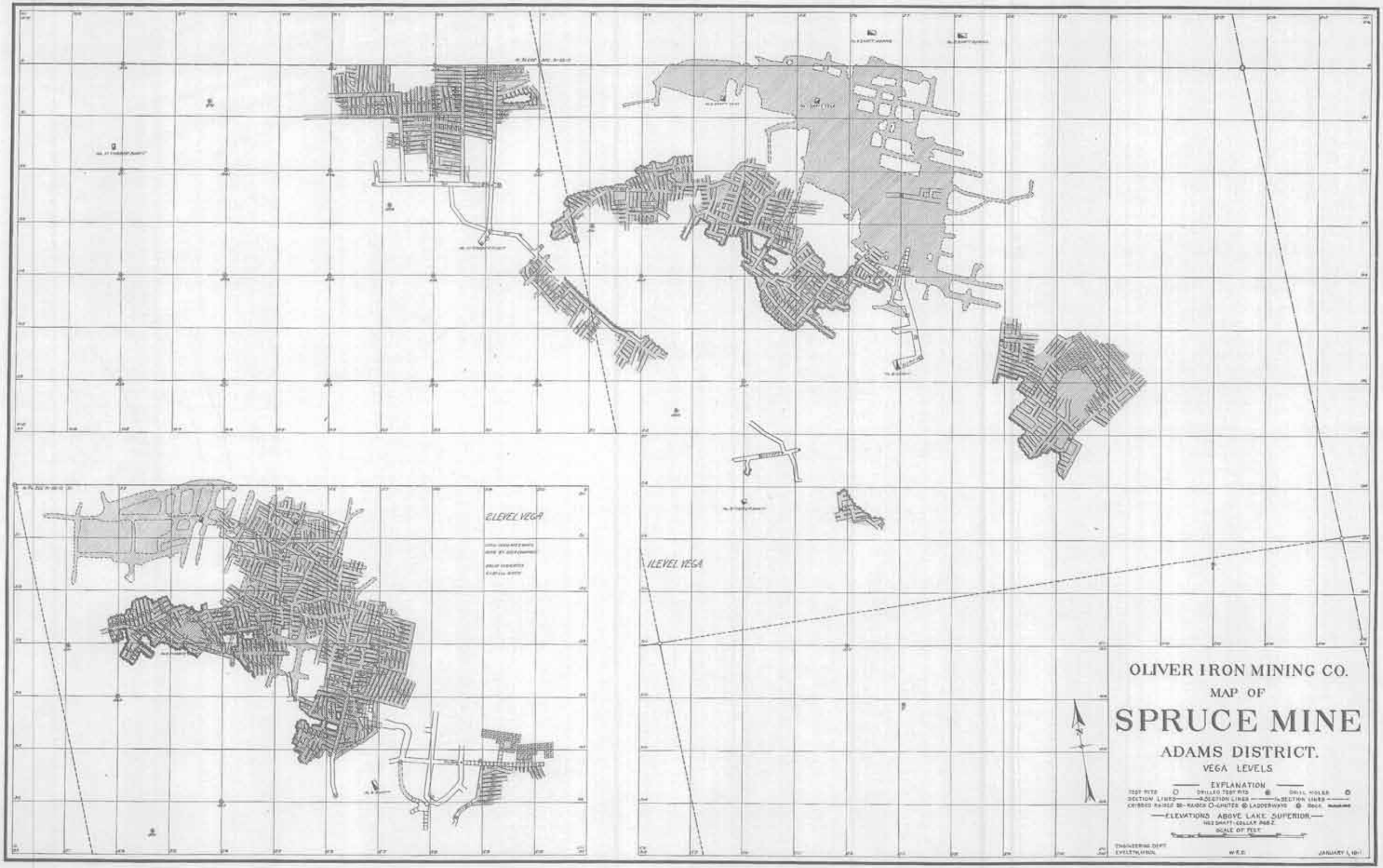
-Kings of S-shaft A-82

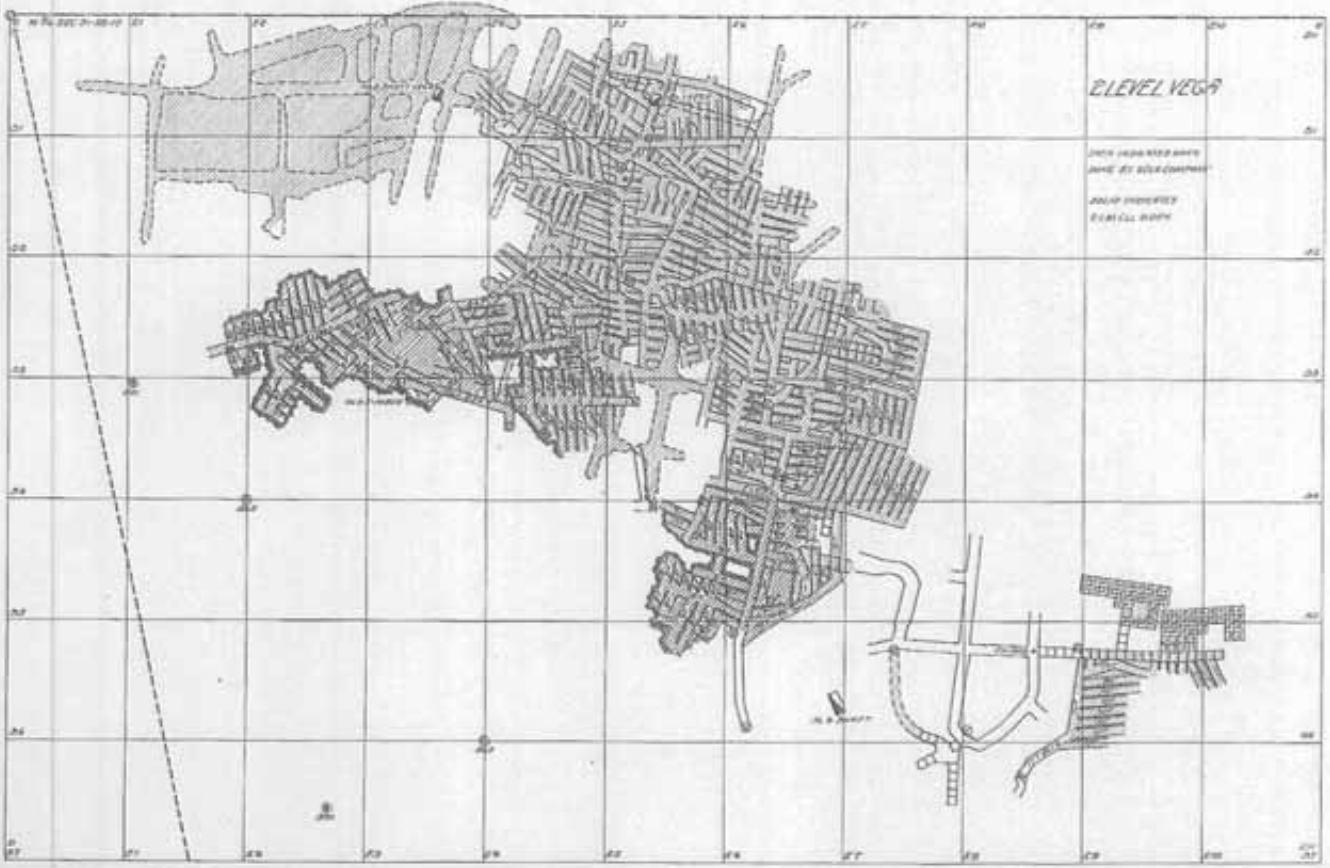


09 1531 1943 - - - Adams Wor

250 31 CWL

THIRD LEVEL


2 LEVEL VEGA
1 LEVEL VEGA
OLIVER IRON MINING CO.
MAP OF
SPRUCE MINE
ADAMS DISTRICT.
VEGA LEVELS
EXPLANATION
TEST PITS
DRILLED TEST PITS
DRILL HOLES
SECTION LINES
ELEVATIONS ABOVE LAKE SUPERIOR
SCALE OF FEET
ENGINEERING DEPT
EVELETH, MINN.
W.E.D.
JANUARY 1, 1911

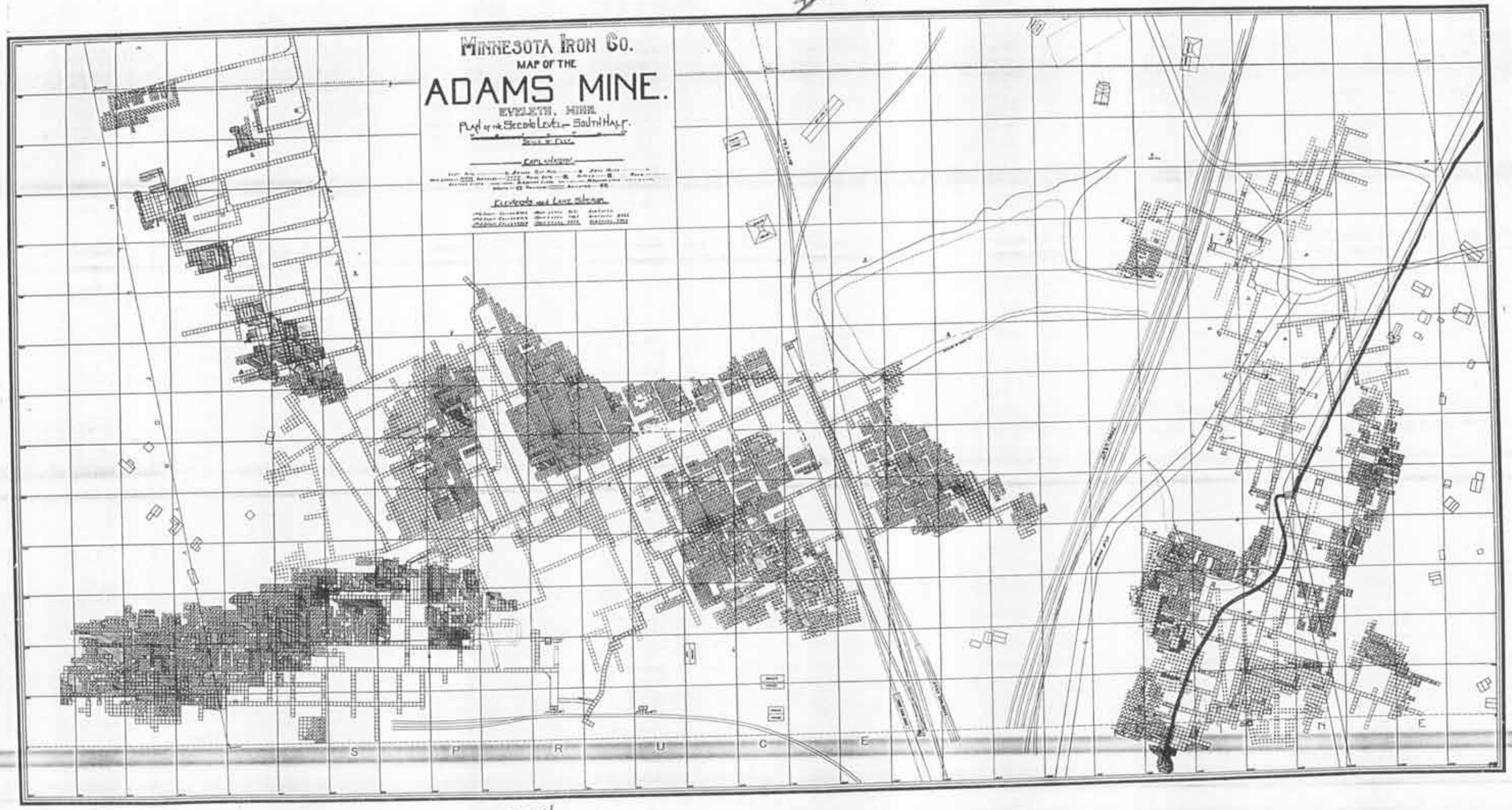

EL EVEL VEGA

904

906

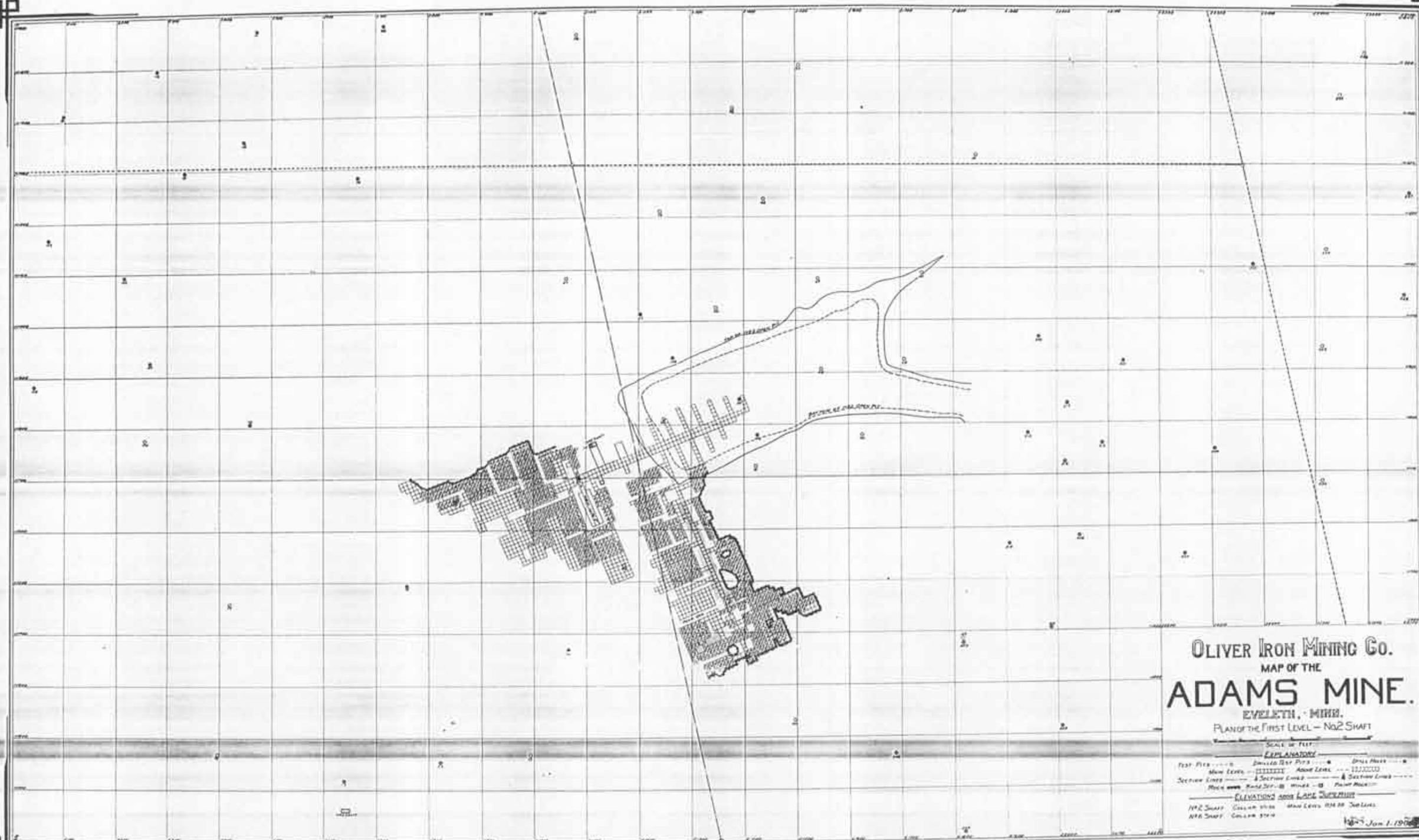
09 1531 1908 1-1-08 Adams M-plan 1 Lev Shaft A-31

797


MINNESOTA IRON CO.
MAP OF THE
ADAMS MINE.
EVELETH, MINN.
PLAN OF THE SECOND LEVEL — SOUTH HALF.
SCALE OF FEET.
EXPLANATION.
RAILROADS AND LAKE SHORE.
S P R U C E
I N N E

794

836

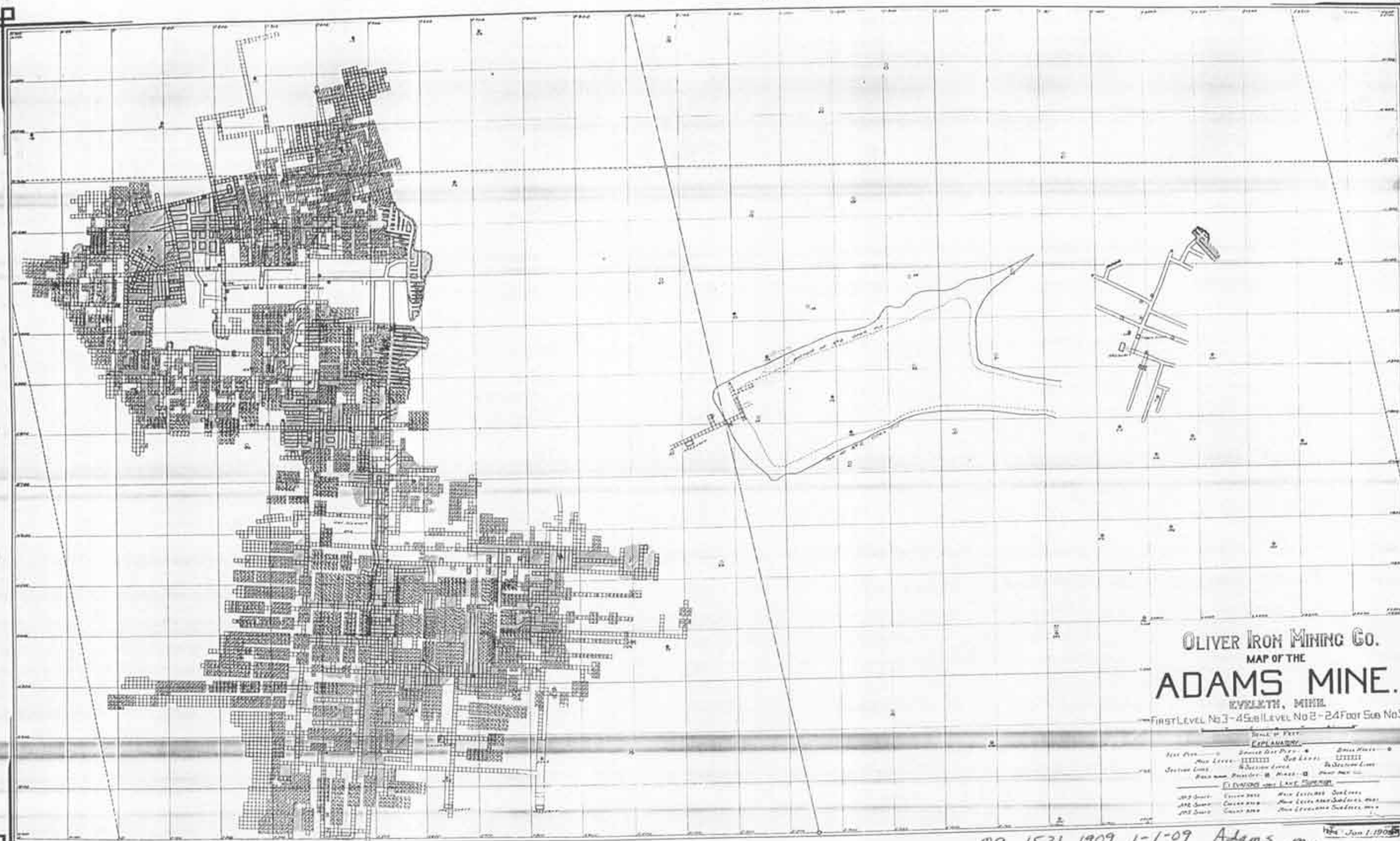


09 1531 1909 1-1-09 Adams M-Plan 1Lev 2 shaft A-31

5893 - 1909

863

866



09 1531 1909 1-1-09 Adams mi L 3-4
sub 2-24 SU A-31

898

09 1531 1915 1-1-15 Adams M 112 Subs 1 Lev 3 SF A-34

896↓ 885

09 1531 1916 1-1-16 Adams M 1 Subs 1 Levs No 2 + A-37

830-864

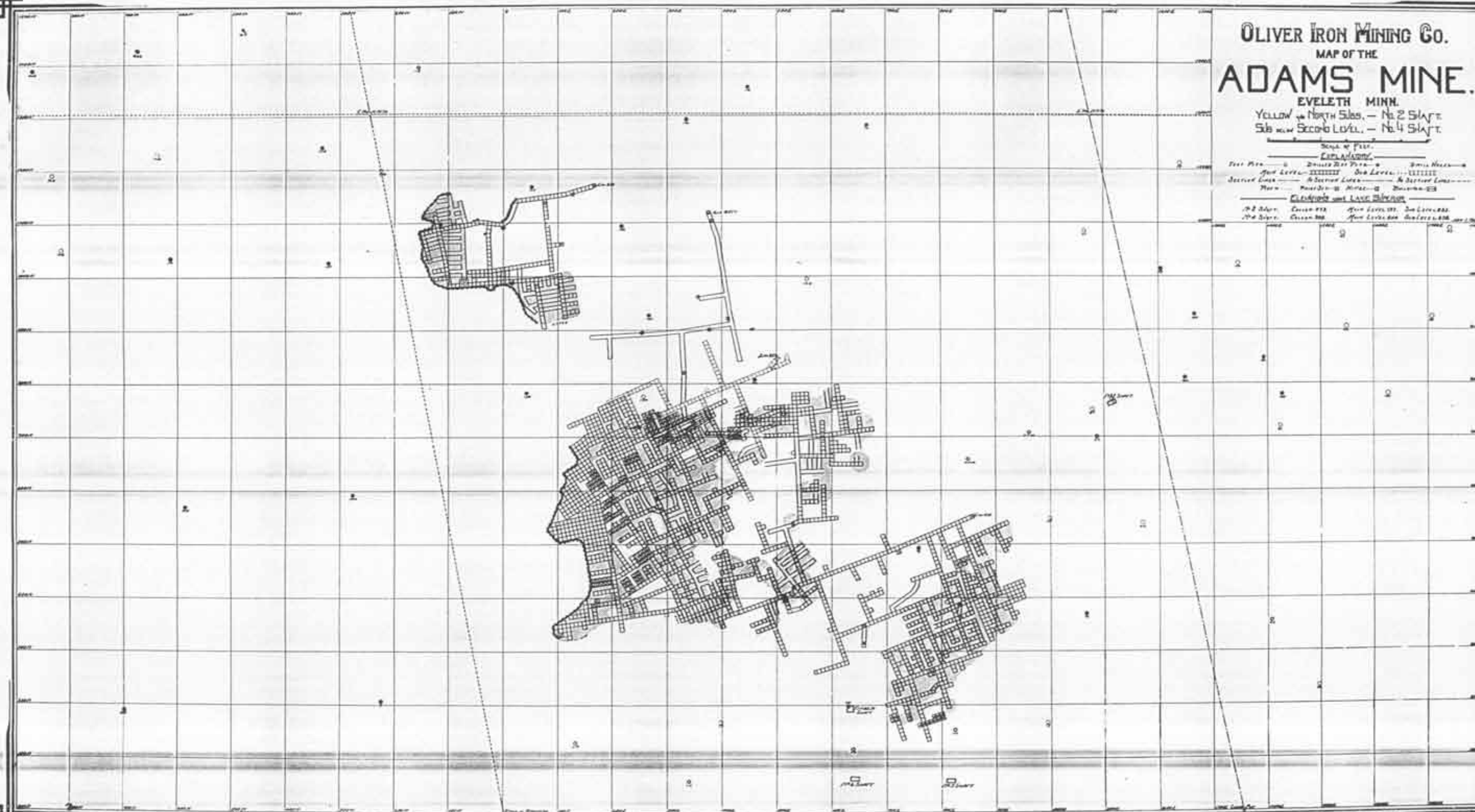
830 ↓

864

854

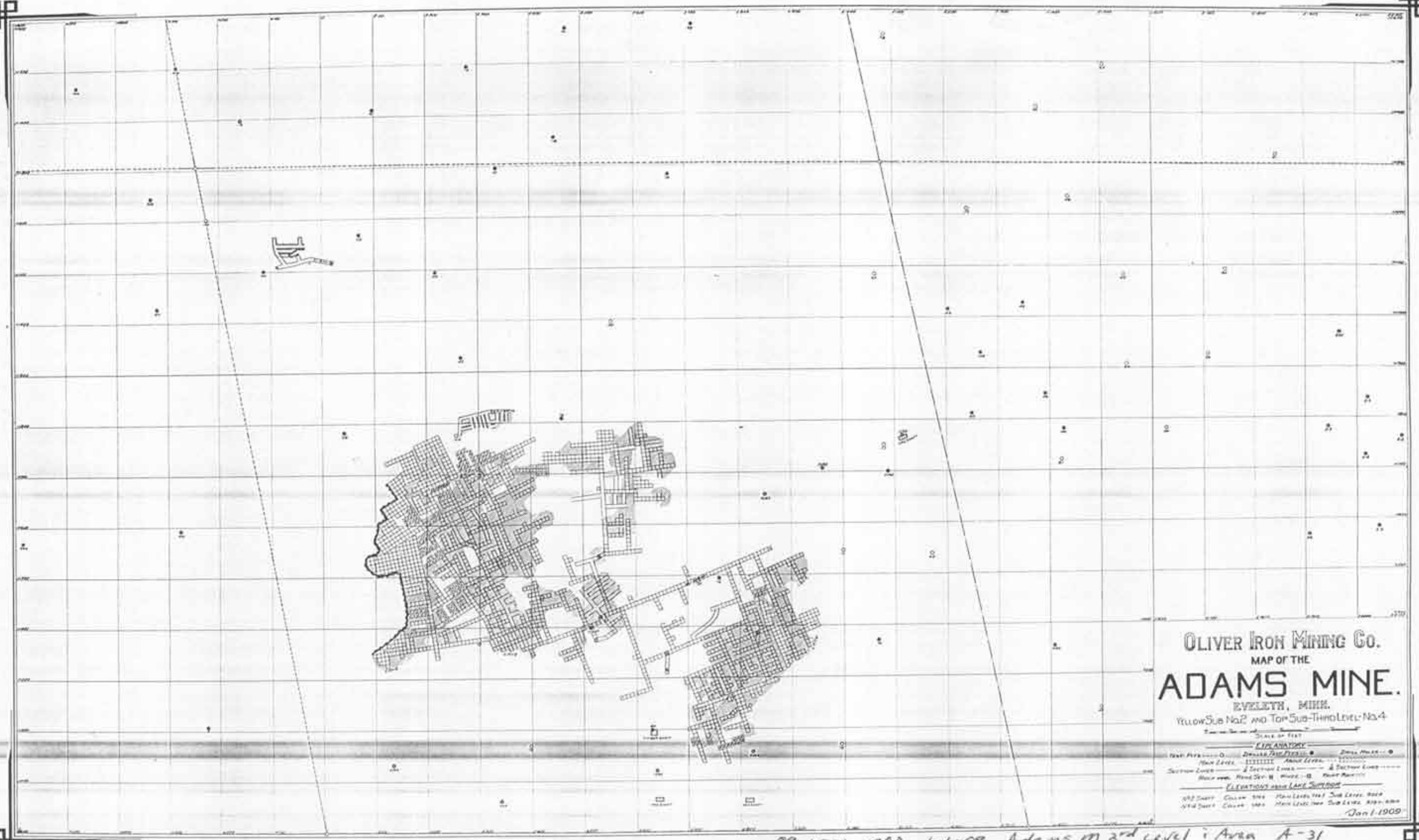
09 1531 1904 --- Adams Mne Plan - 1st Level A-29

838



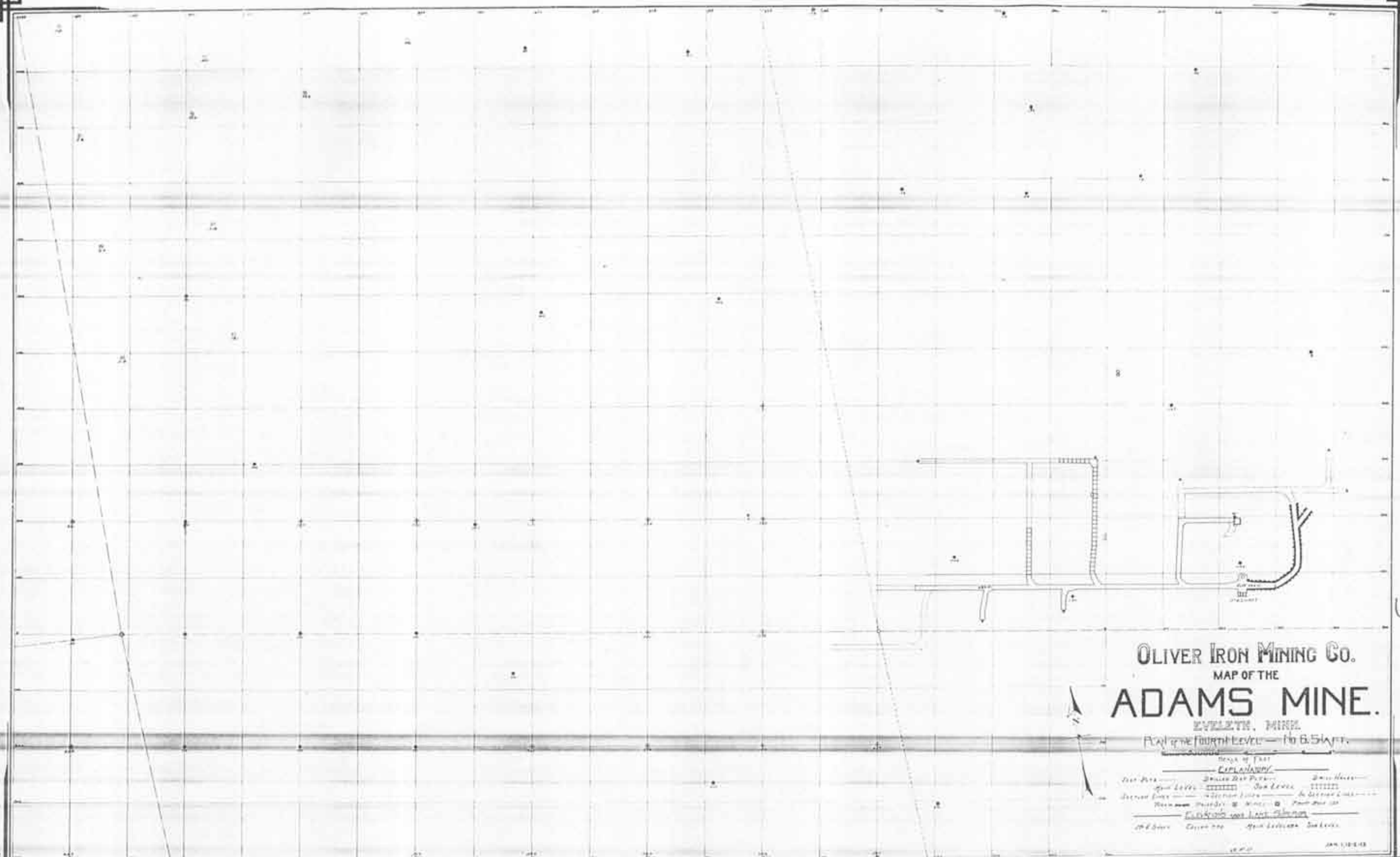
09 1531 1908 1-1-08 Adams Mine 214 shafts A-31

R58



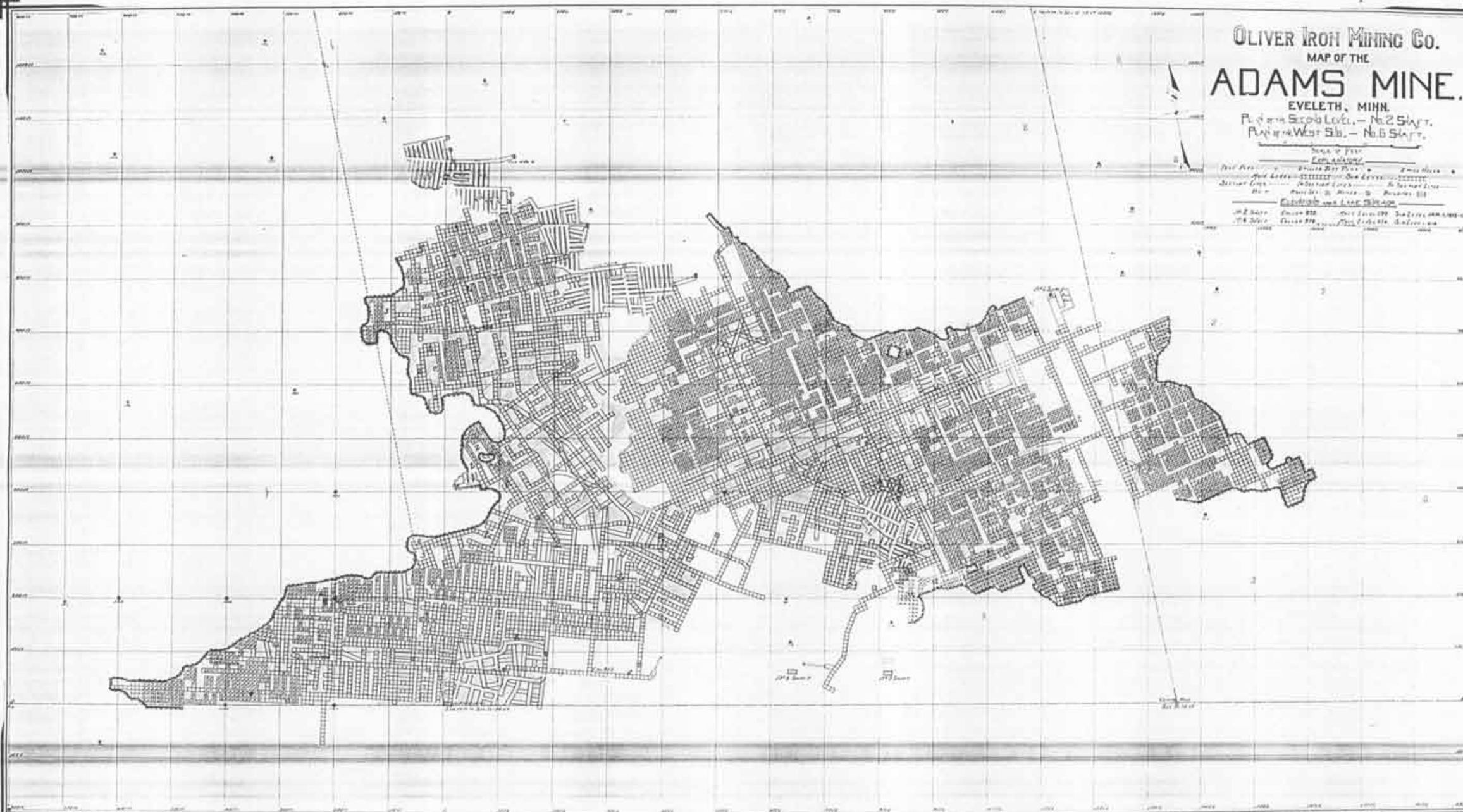
09 1531 1900 1-1-09 Adams m 3rd Level i Area A-31

684

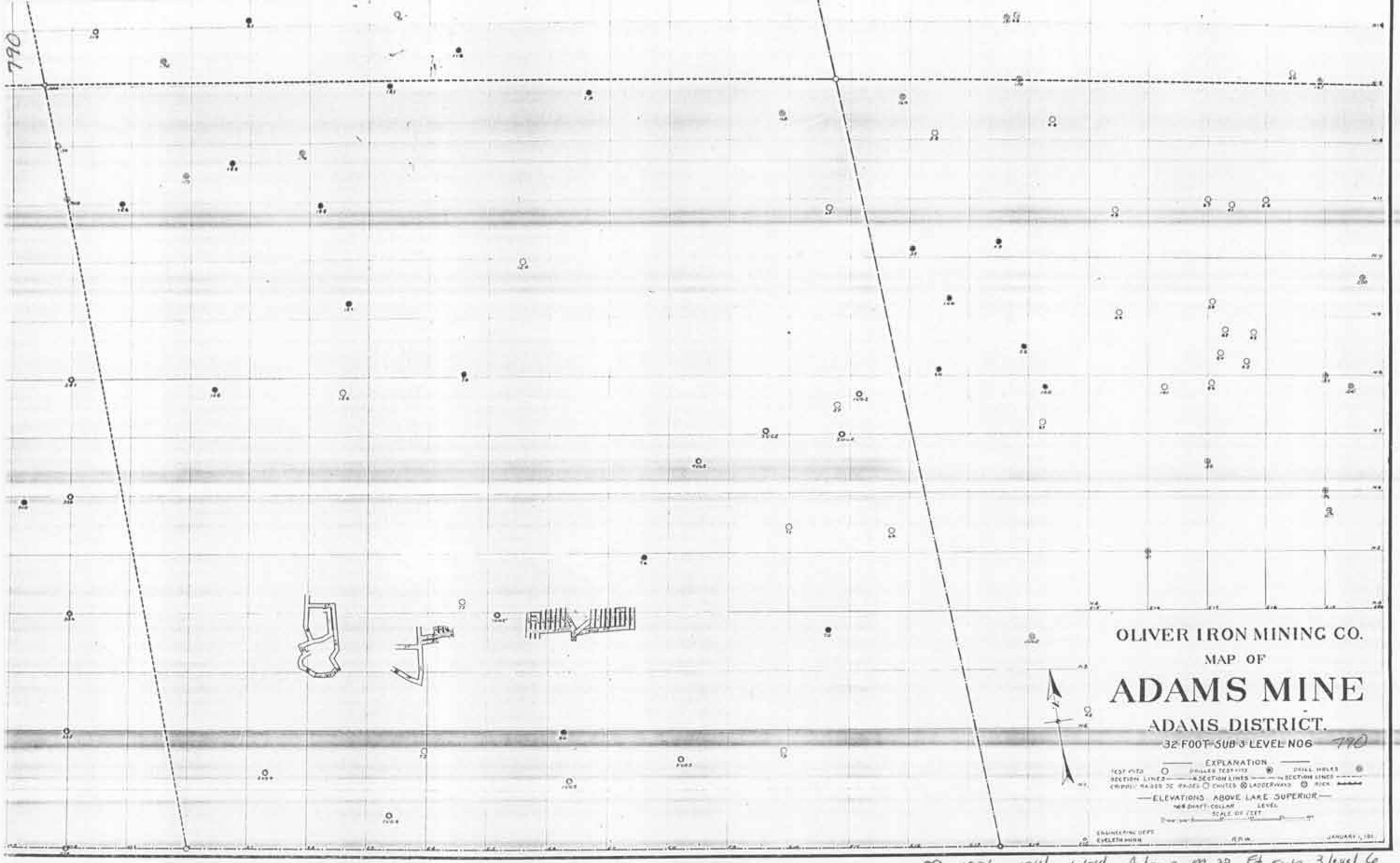


684

09 1531 1913 1-1-13 Adams M-plan 4 lev G shaft A-34

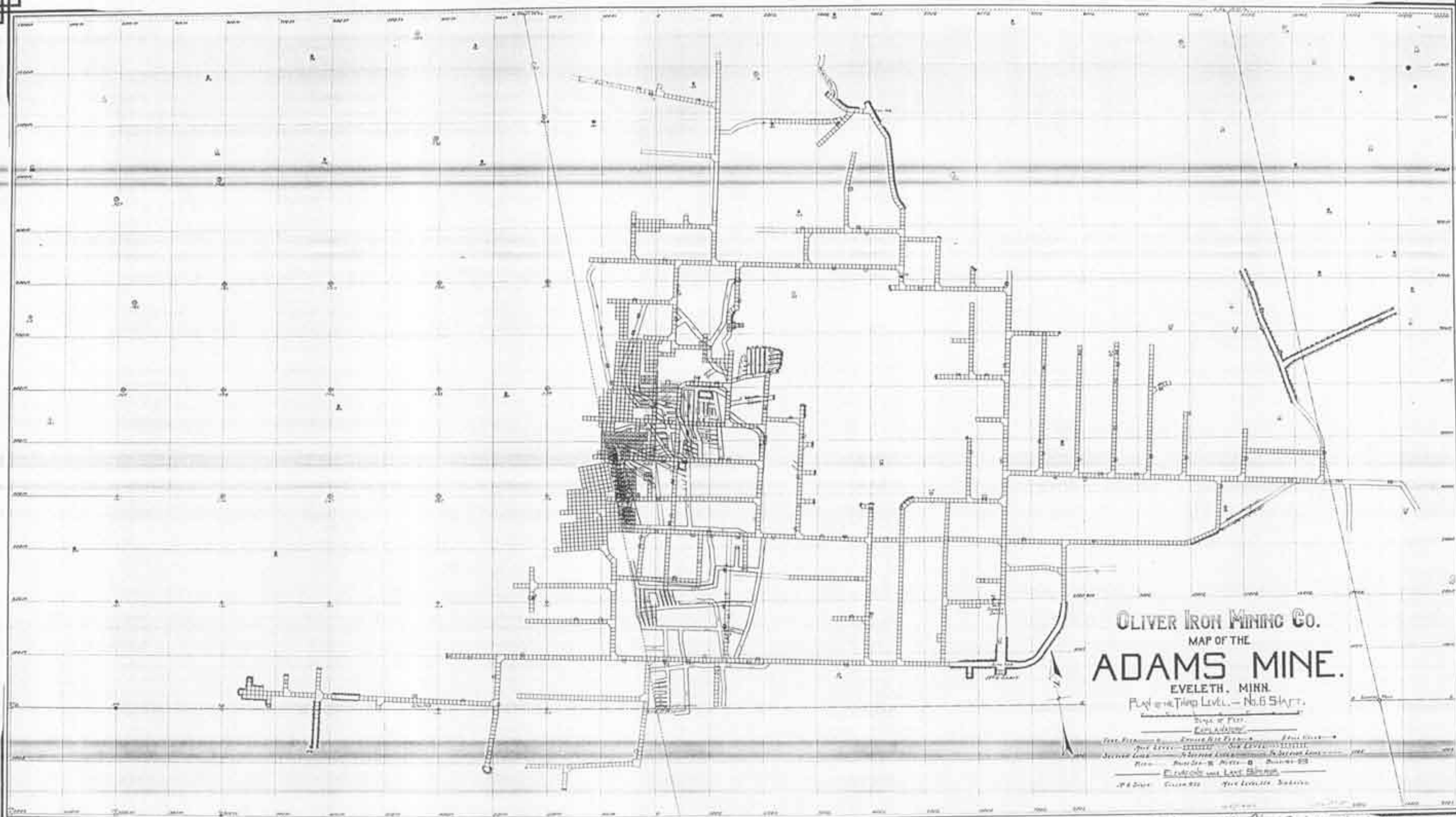


09 1531 1913 1-1-13 Adams M 2 & 6 shafts & 2 level
A-34



09 1531 1914 1-1-14 Adams M 32 Ft sub 3 level 6
A-35

754

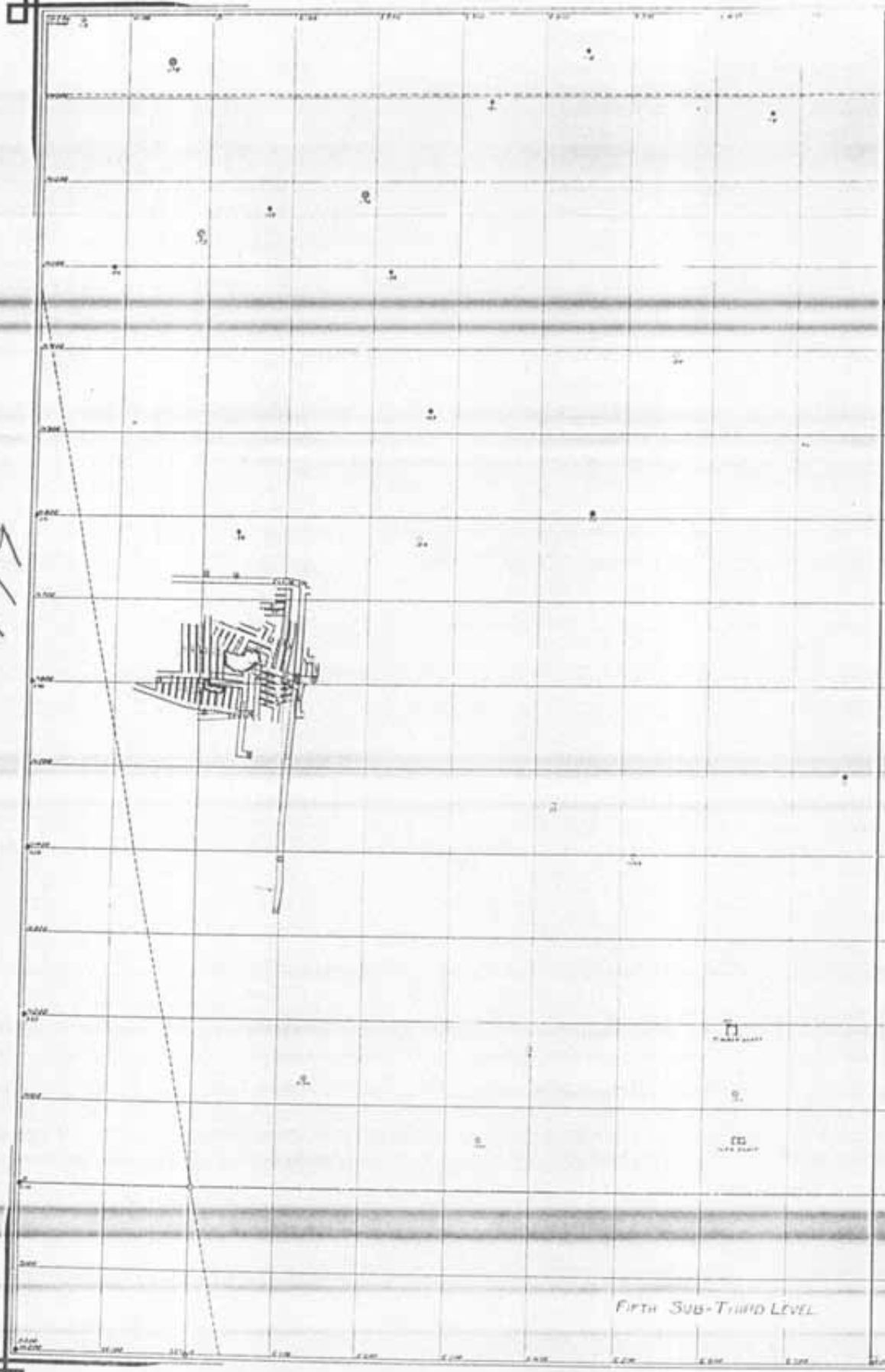


09 1531 1915 1-1-15 Adams M Plan 3 lev 6 shaft A-36

774

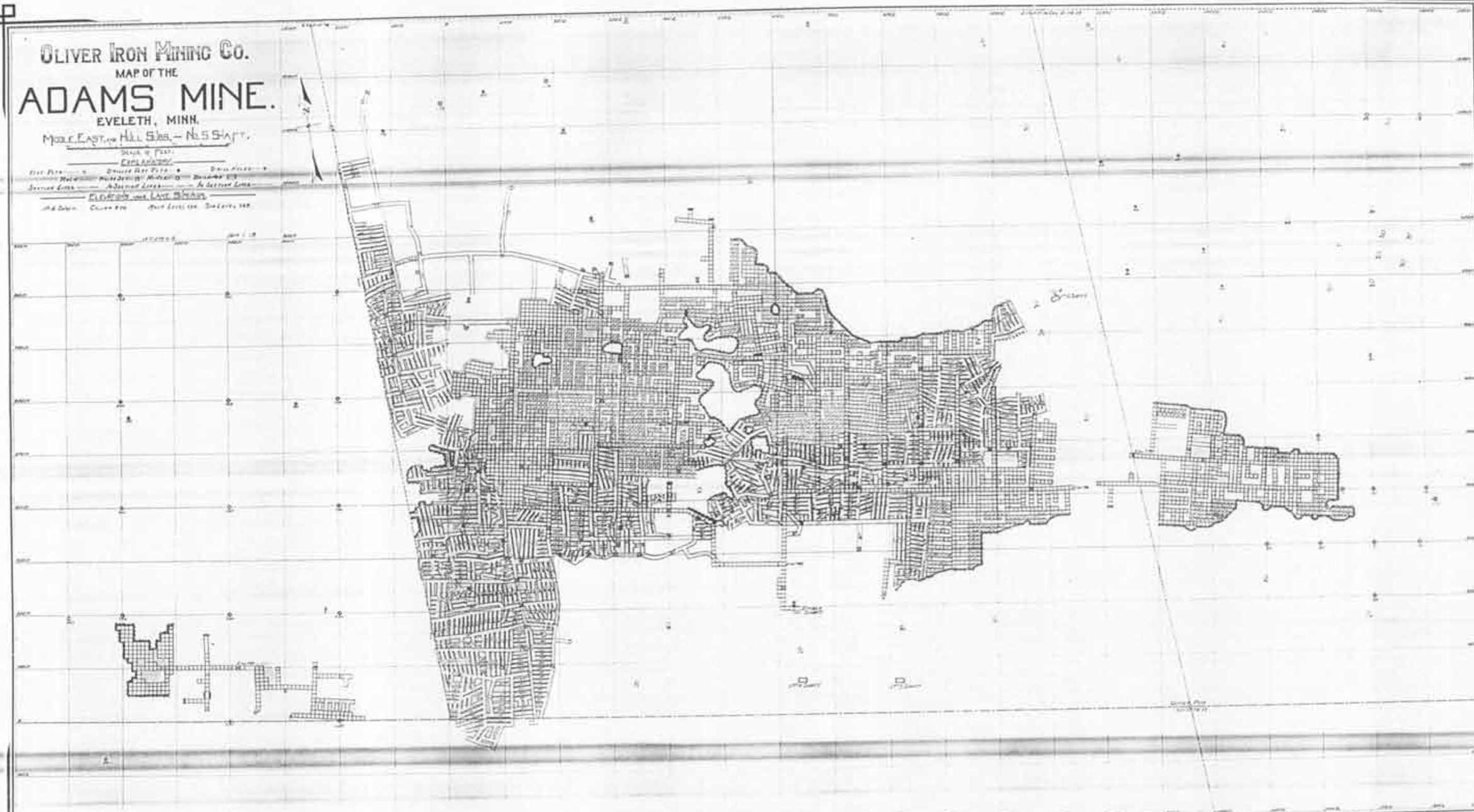
09 1531 1915 1-1-15 Adams m-plan 4 sub 3 lev 6 SE

A-36



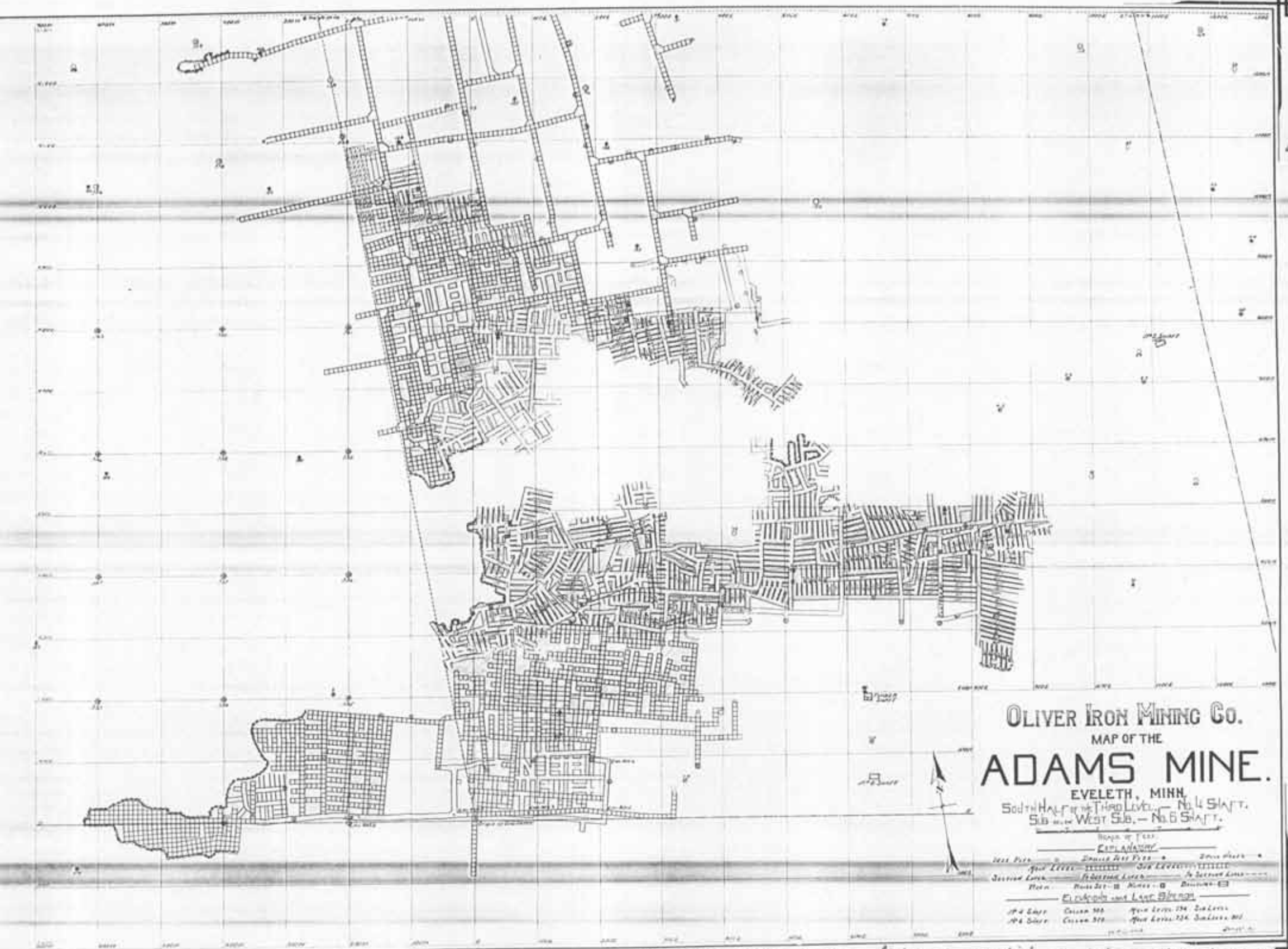
779

789



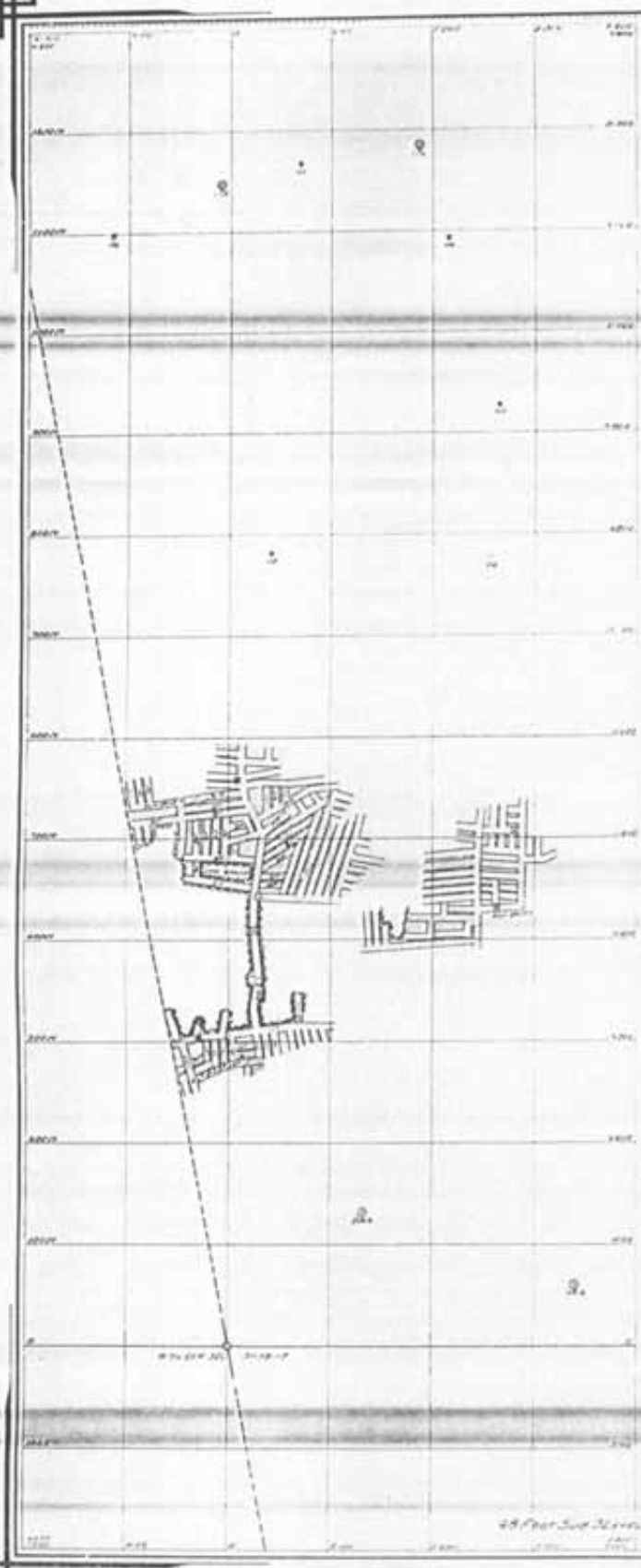
09 1531 1915 1-1-15 Adams M Mid, Hull subs 65
A-36

801



09 1531 1915 1-1-15 Adams m 4 & 6 shafts - 3 Level A-36

801



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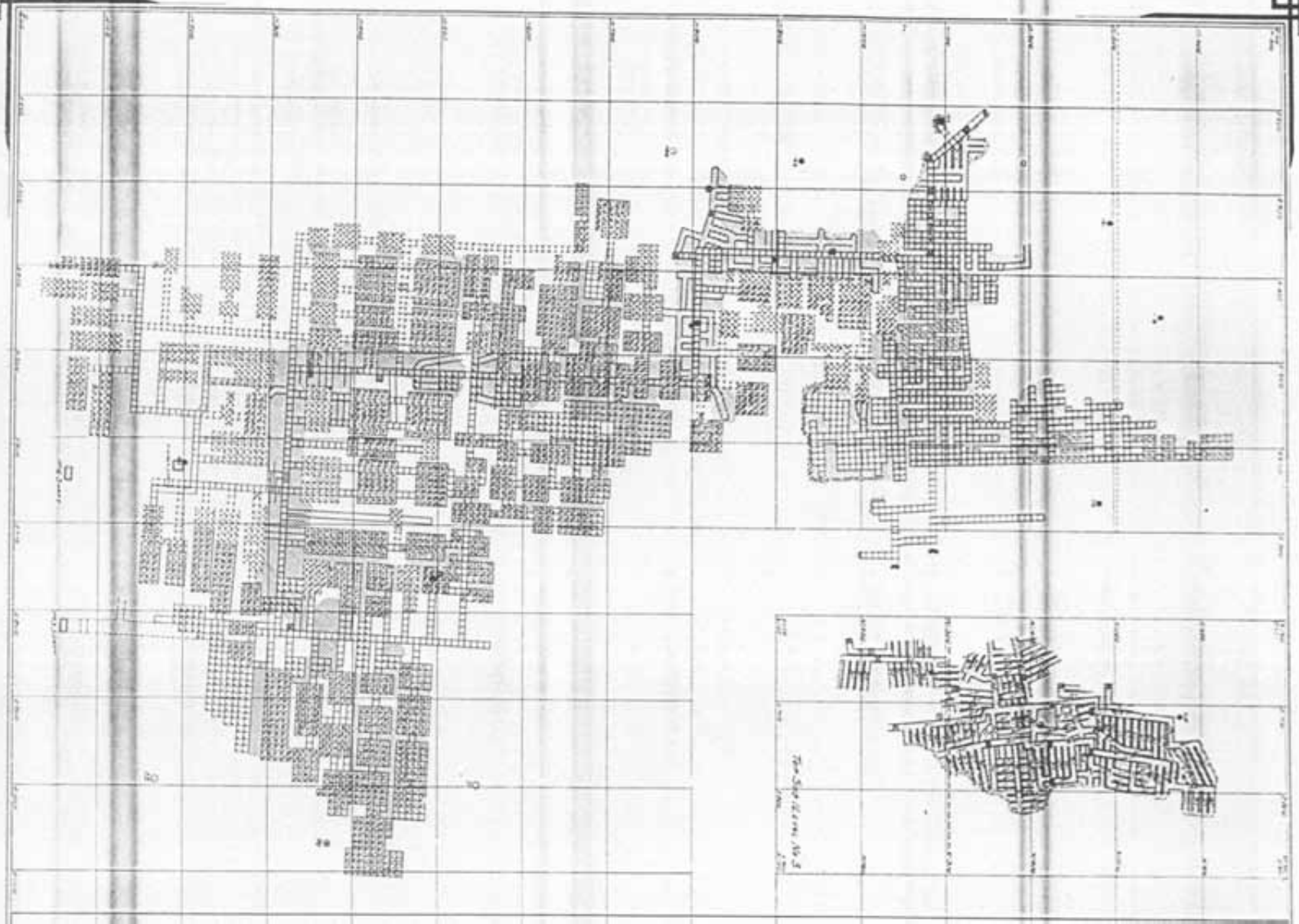
825-840

825

09 1531 1915 1-1-15 Adams M-Plan 2Lev
4 & 6 shafts A-34

837-880



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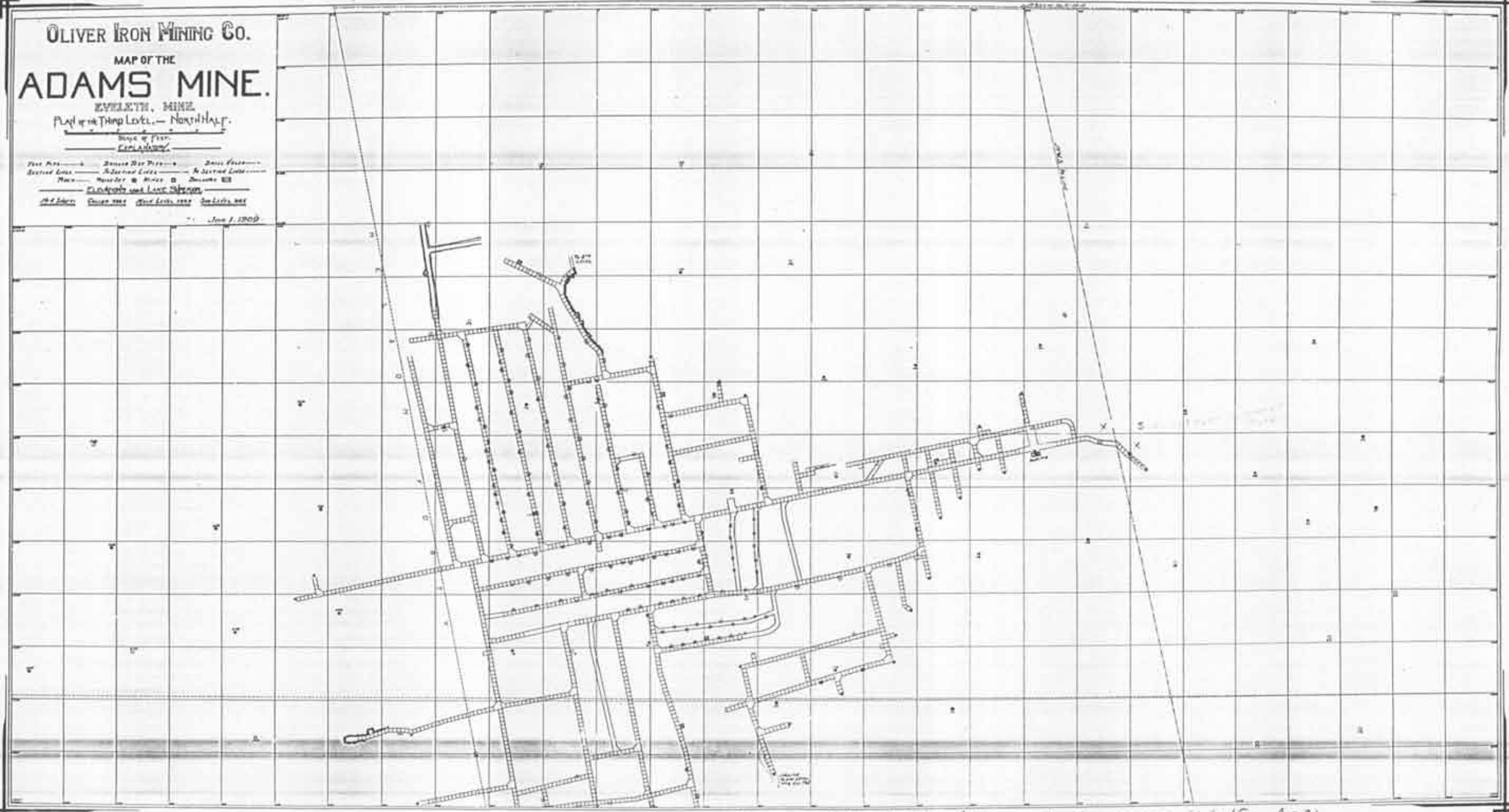

09 1531 1900 1-1-09 Adams m-plan 3 Lev N Half A-31

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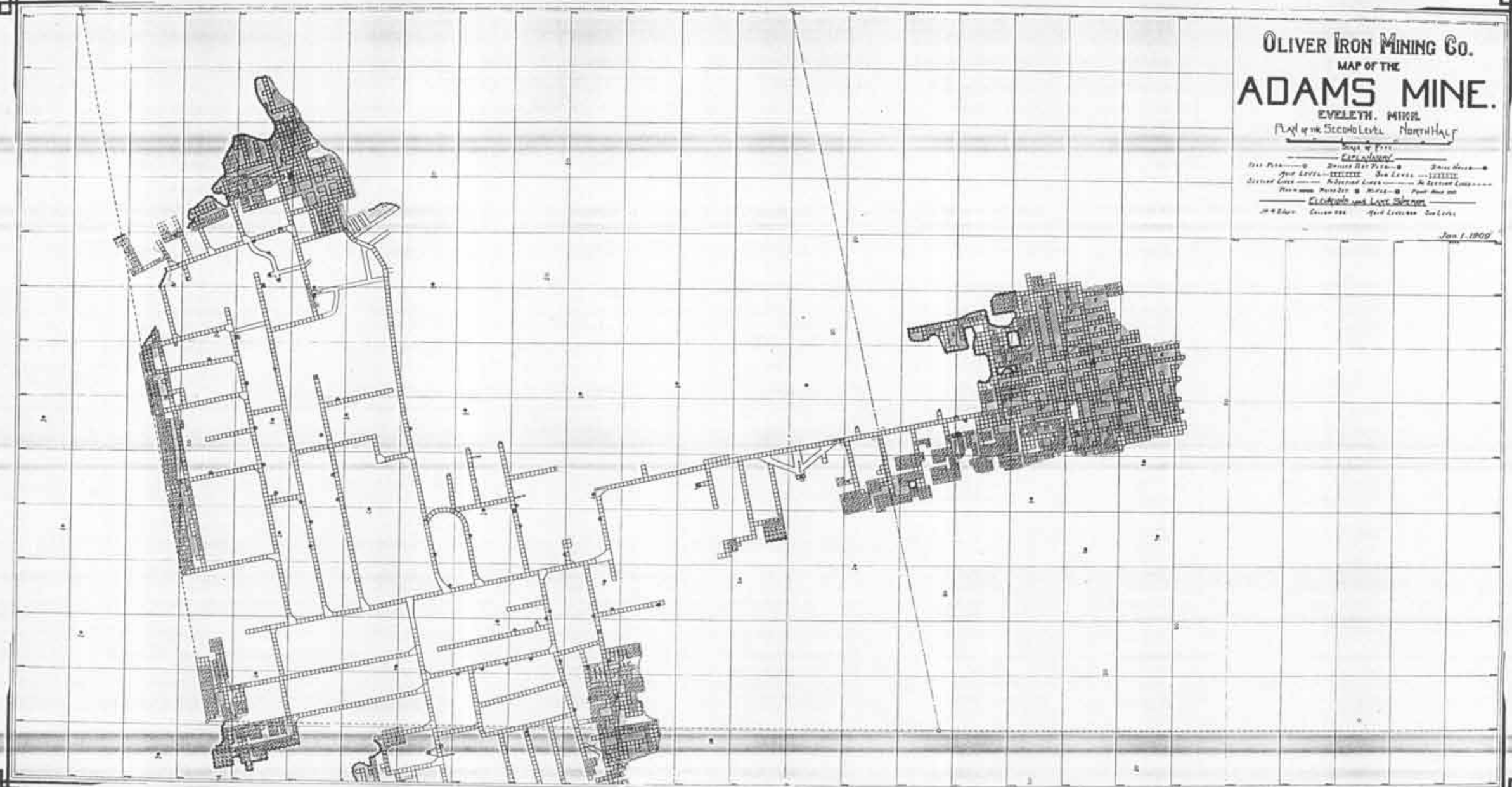
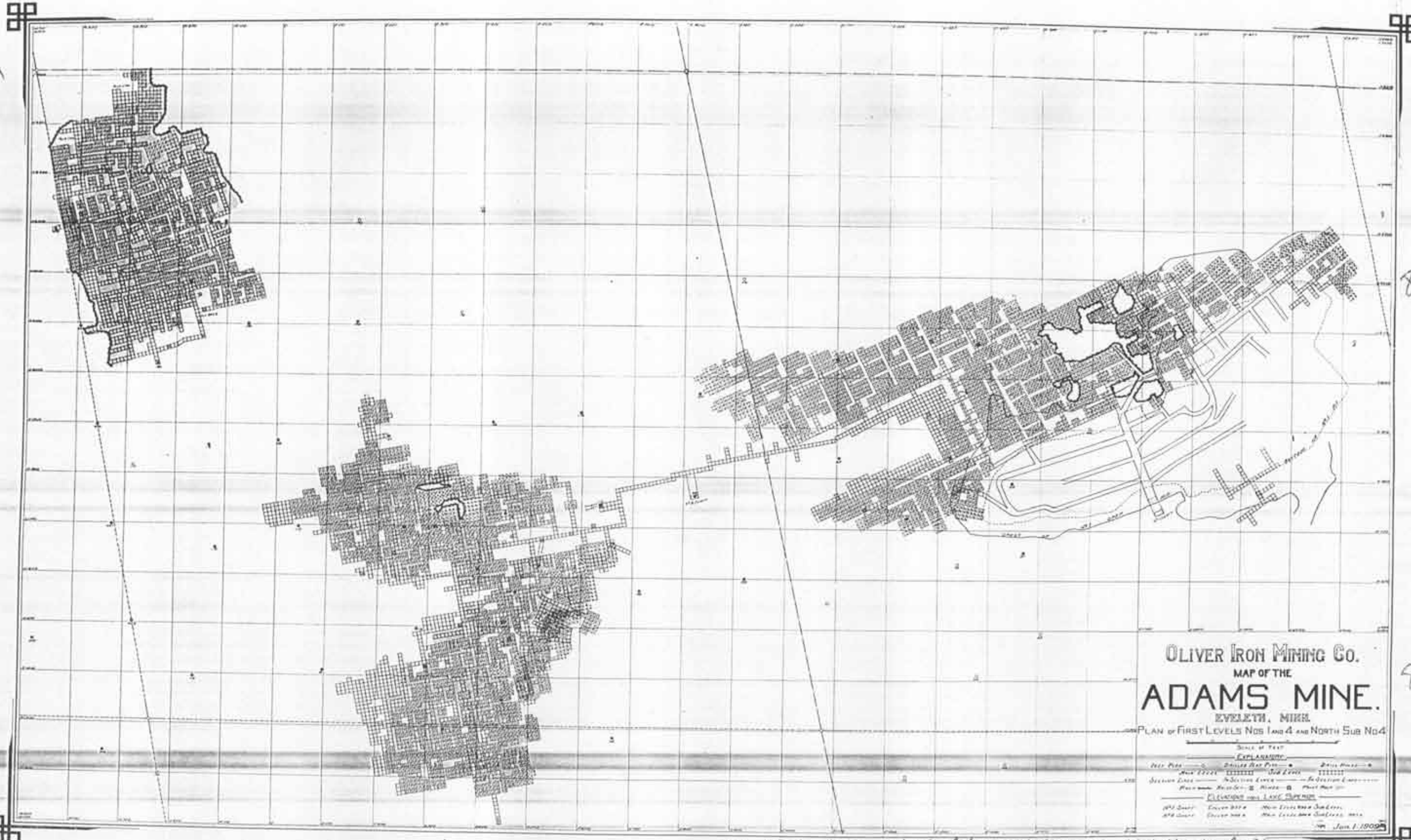


09 1531 1900 1-1-09 Adams 1590 1909
M-Plan 2 Level N half A-32

894



894

893.6

884

09 1531 1909 1-1-09 Adams M Plan 1 L 1 & 4 N sub A-31

812

812

OLIVER IRON MINING CO.

MAP OF THE

ADAMS MINE.

EVELETH, MINN.

PLAN OF THE SECOND SUB-THIRD LEVEL-No. 4 SHAFT.

SCALE IN FEET

EXPLANATORY

TEST PITS — DRILLED TEST PITS — DRILL HOLES

MAIN LEVEL — SUB LEVEL

SECTION LINES — ¼ SECTION LINES — ⅛ SECTION LINES

ROCK WORK — MAIN DRIFT — WINZE — CHUTE MAIN

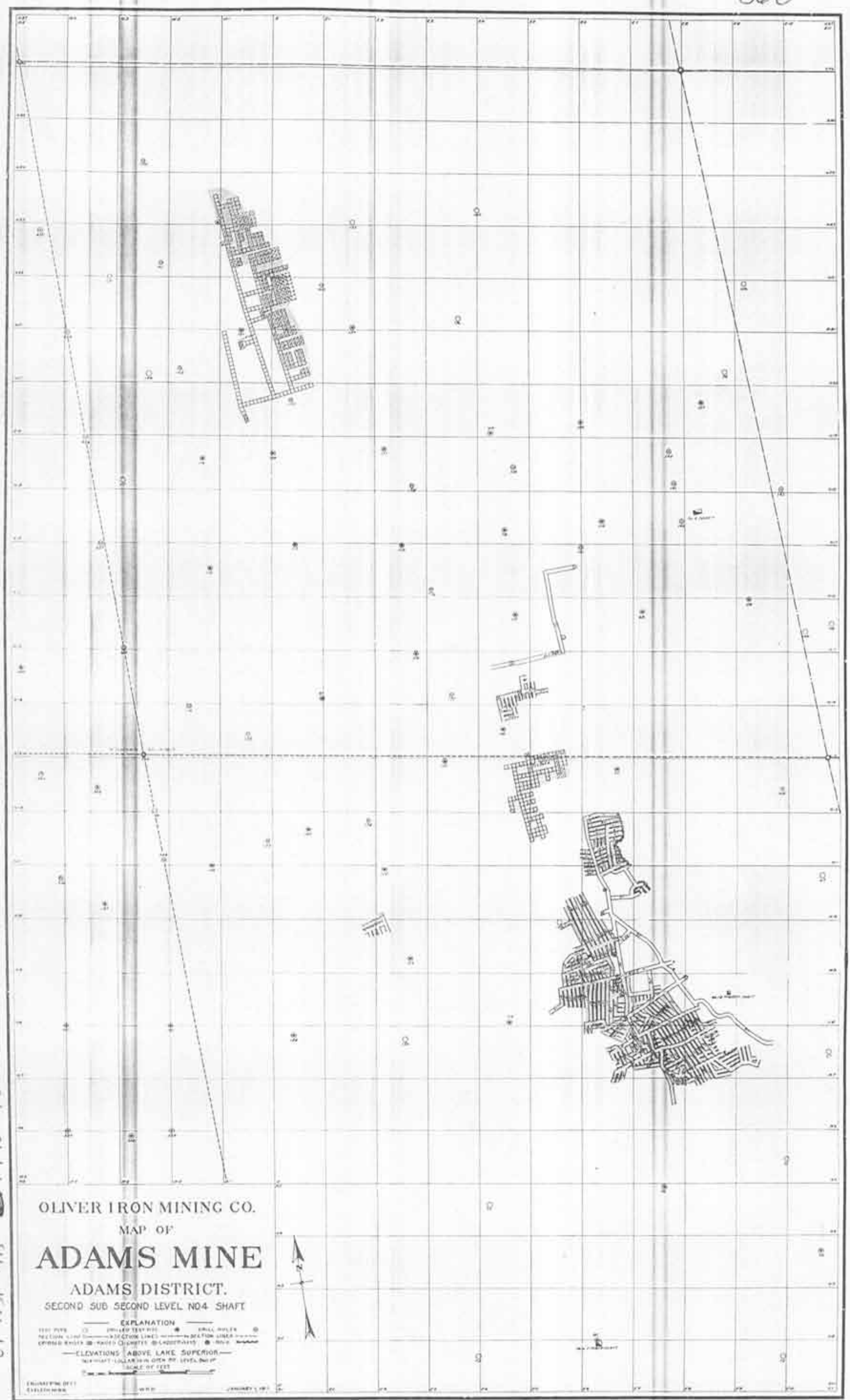
ELEVATIONS FROM LAKE SUPERIOR

No. 4 SHAFT — COLLAR 1884 — MAIN LEVEL 1944 — SUB LEVEL 1912

JAN. 1, 1913

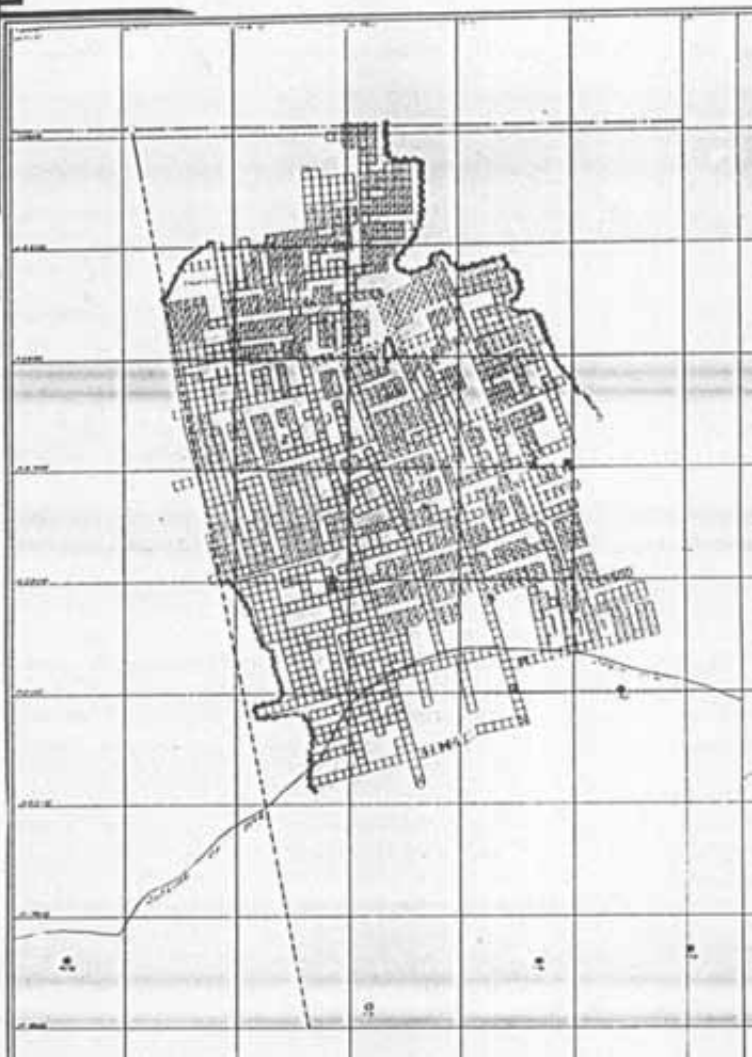
09 1531 1913 1-1-13 Adams M-Plan 2 Sub 3 L 4 SF A-34

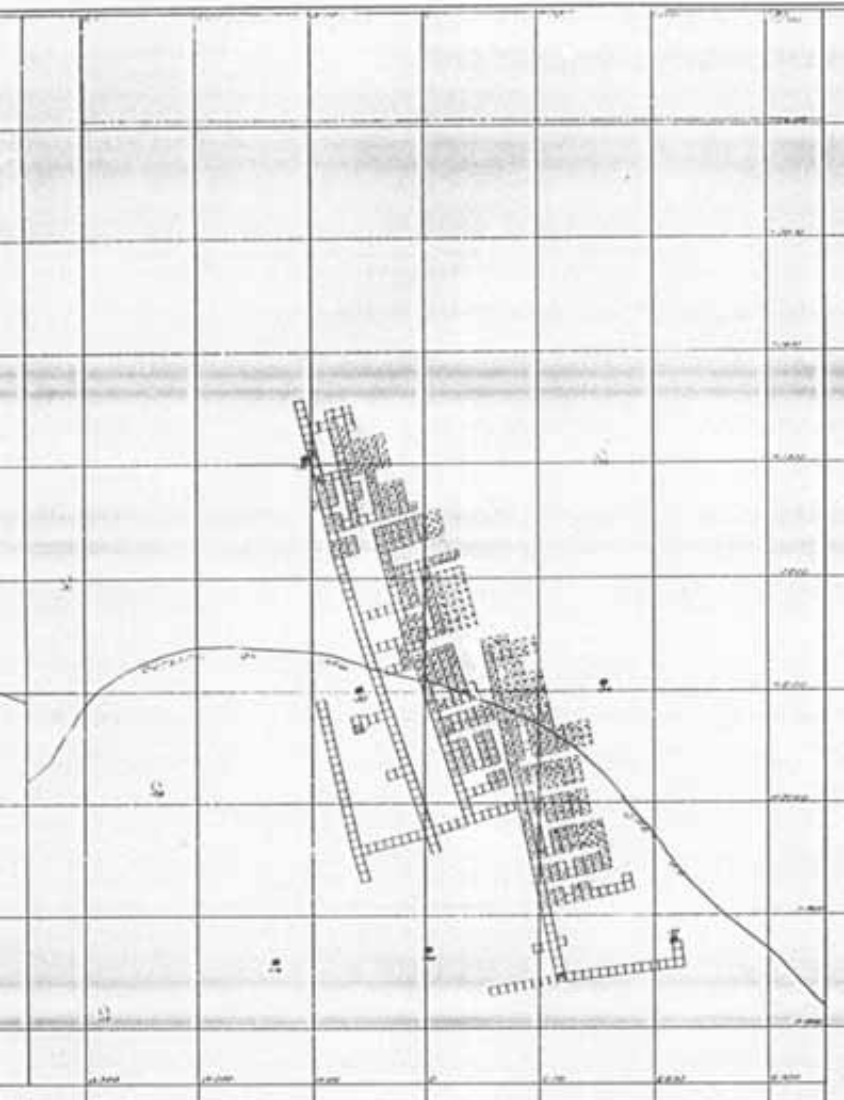
860

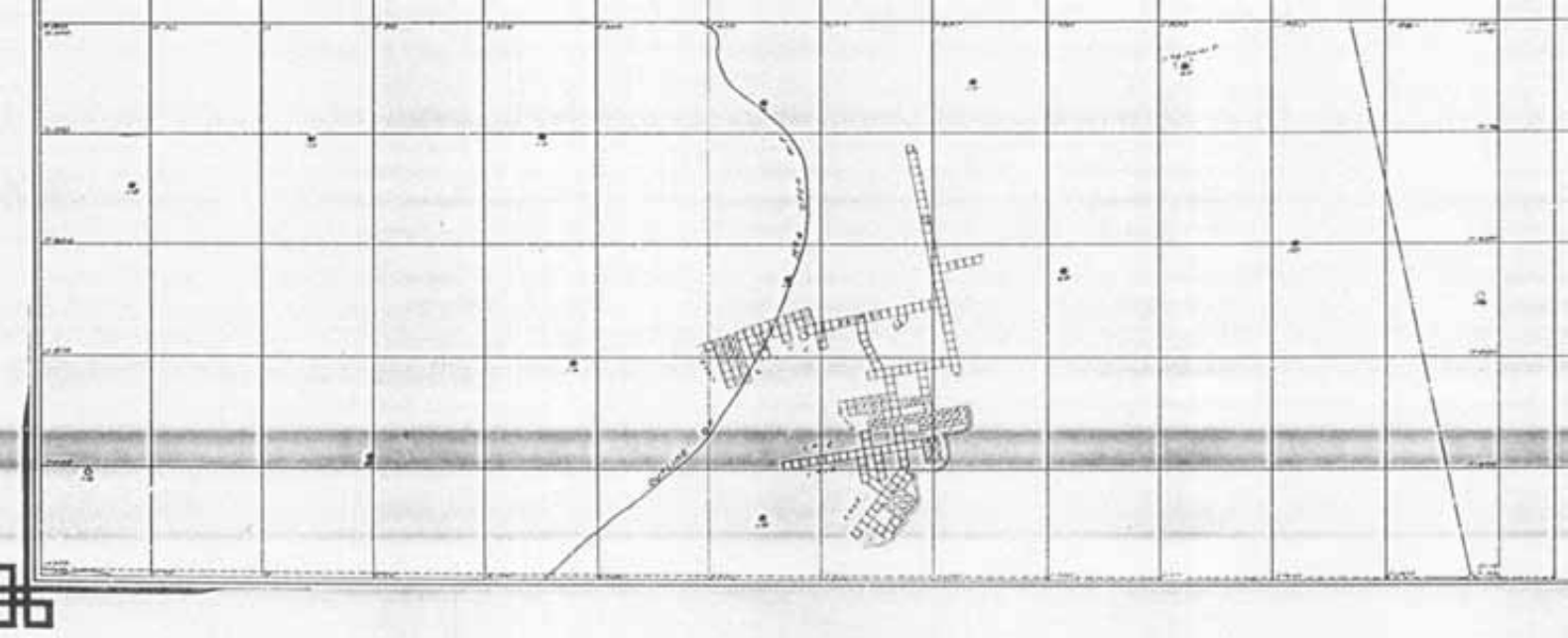


09 1531 1915 1-1-15 Adams M & Sub 2 Lev 4 shaft A-36

872-894

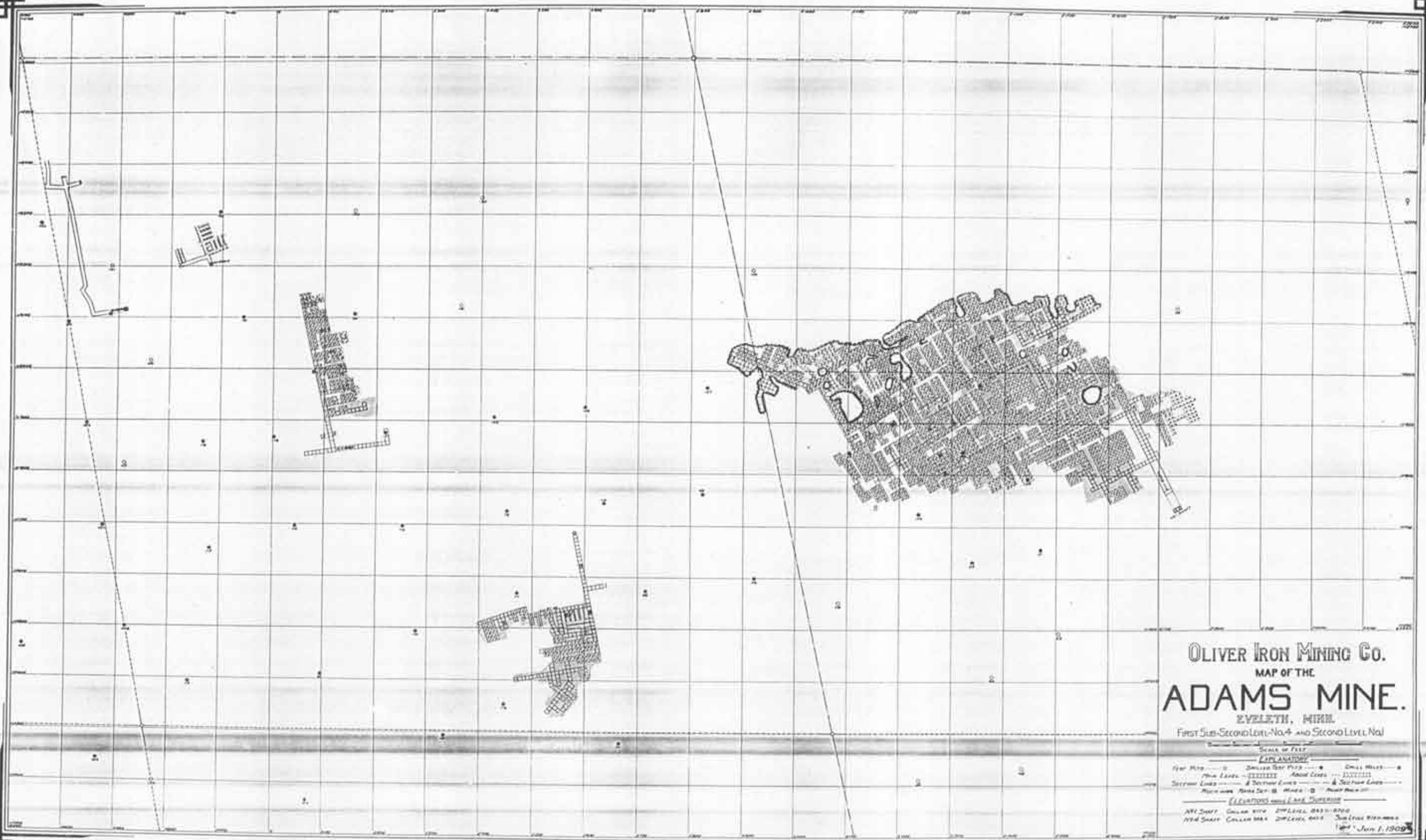




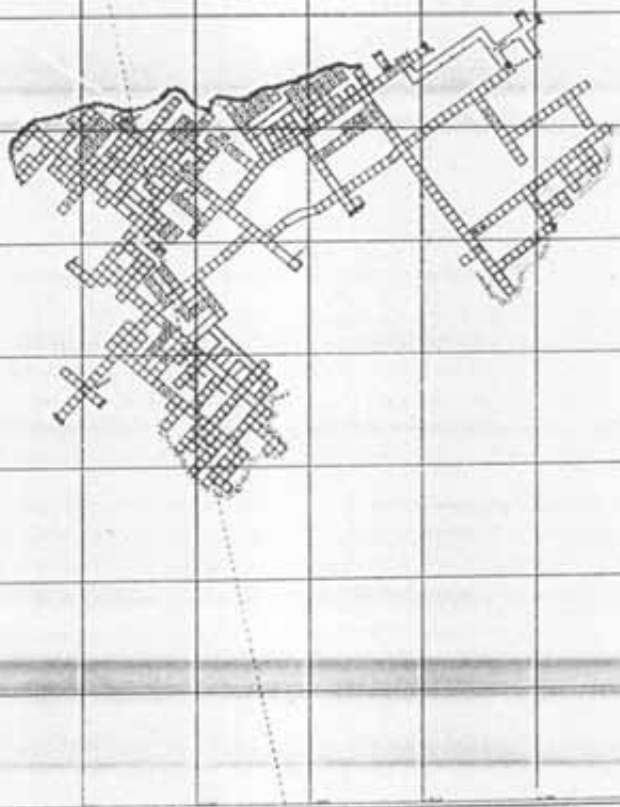


873-886

863-870



09 1531 1909 1-1-09 Adams Mi Sub 2 Lev 1 & 4 A-31



OLIVER IRON MINING CO.

MAP OF THE

ADAMS MINE.

EVELETH, MINN.

SUBS OF No 4 SHAFT ADAMS — No 1 SHAFT DORR

SCALE OF FEET

EXPLANATION

TEST PITS — DRILLED TEST PITS — DRILL HOLES

ADIT LEVELS — SUB LEVELS

SECTION LINES — ½ SECTION LINES — ¼ SECTION LINES

ROAD — HOISTS — MINES — PLANT BLDG.

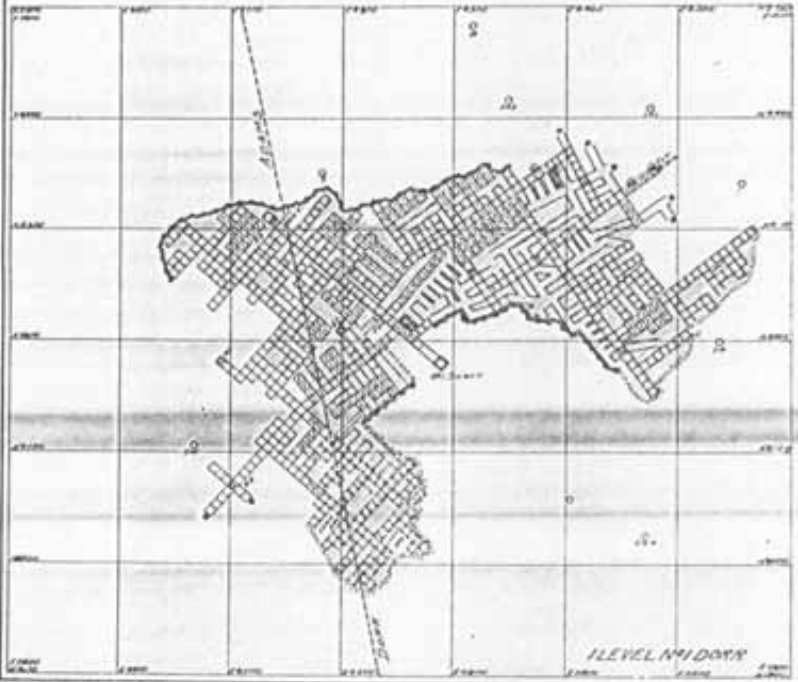
ELEVATIONS ABOVE LAKE SUPERIOR

No 4 SHAFT COLLAR 1000 ADIT LEVEL 1000 SUB LEVEL 1000

No 1 SHAFT COLLAR 1000 ADIT LEVEL 1000 SUB LEVEL

890

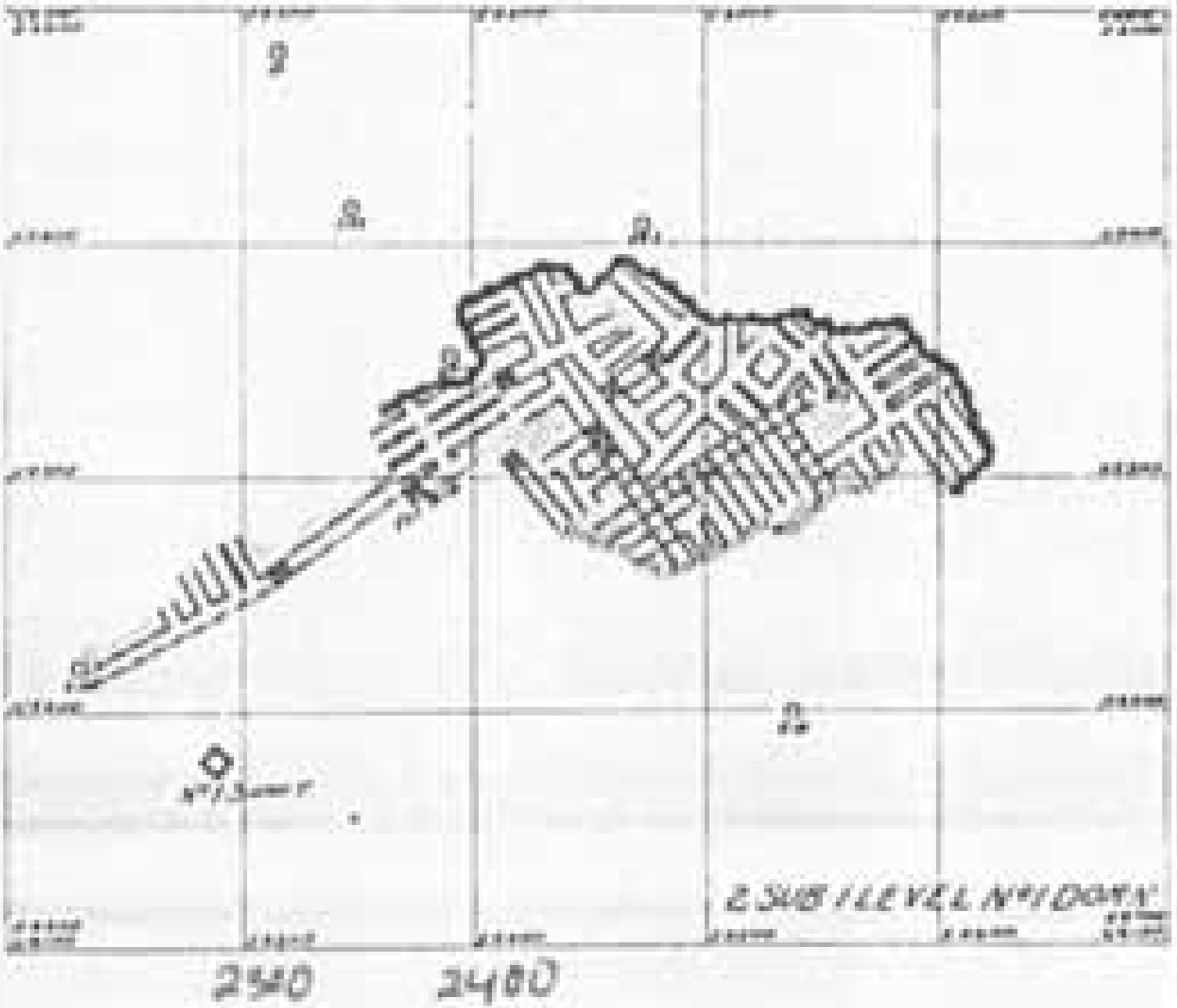
07 1531 1907 1-1-07 Adams M 1 Sub 2 Lev 154 A-31



898

2100

2300



914

922
2360
2450
1 SUB LEVEL NTI DOYR