MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

JUN 6 1951

REFERENCE SLIP

DATE 6/26

REFERRED TO:

1. ~~Mr. Mitchell~~
2. Mr. Gowen
3.
4.

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	..... Referring to .....
..... Conference	..... Reply for signature of .....
..... Consideration	..... Rewriting
..... Filing	..... Signature
..... Instructions	..... Suggestions
..... Investigation	✓ Your information
..... Initials	
..... Mailing	
..... Previous correspondence	

REMARKS: .....

Check (X) before the items needing attention.

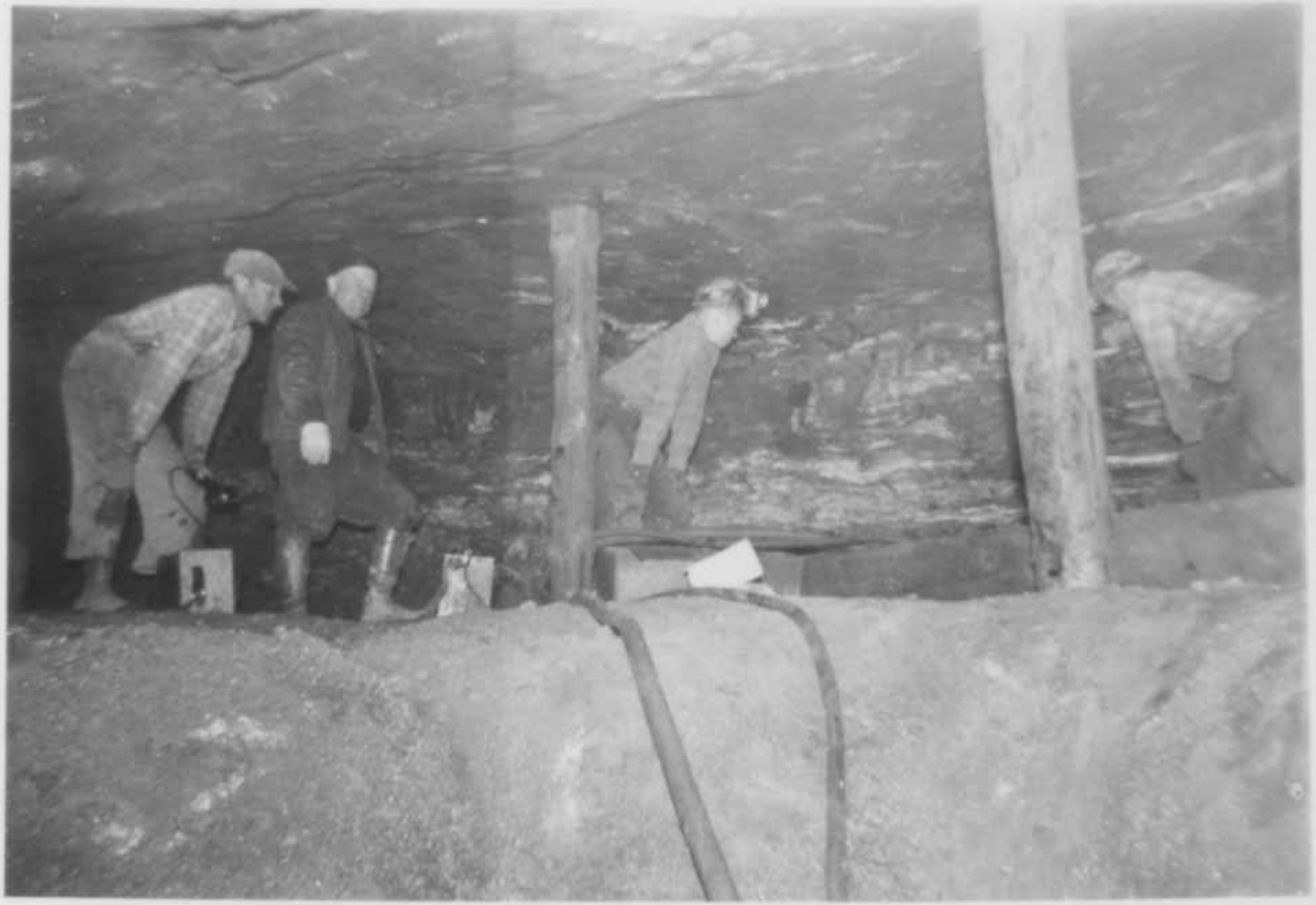
LANDON F. STROBEL LN

Initials of sender.

GPO 16—63815-1

454 N

No -5-



454 N

No-4—

454 N

No -1-

454 N

No - 3 -

454 N

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Photographs enclosed with Hon. Zion's letter of 4/2/51

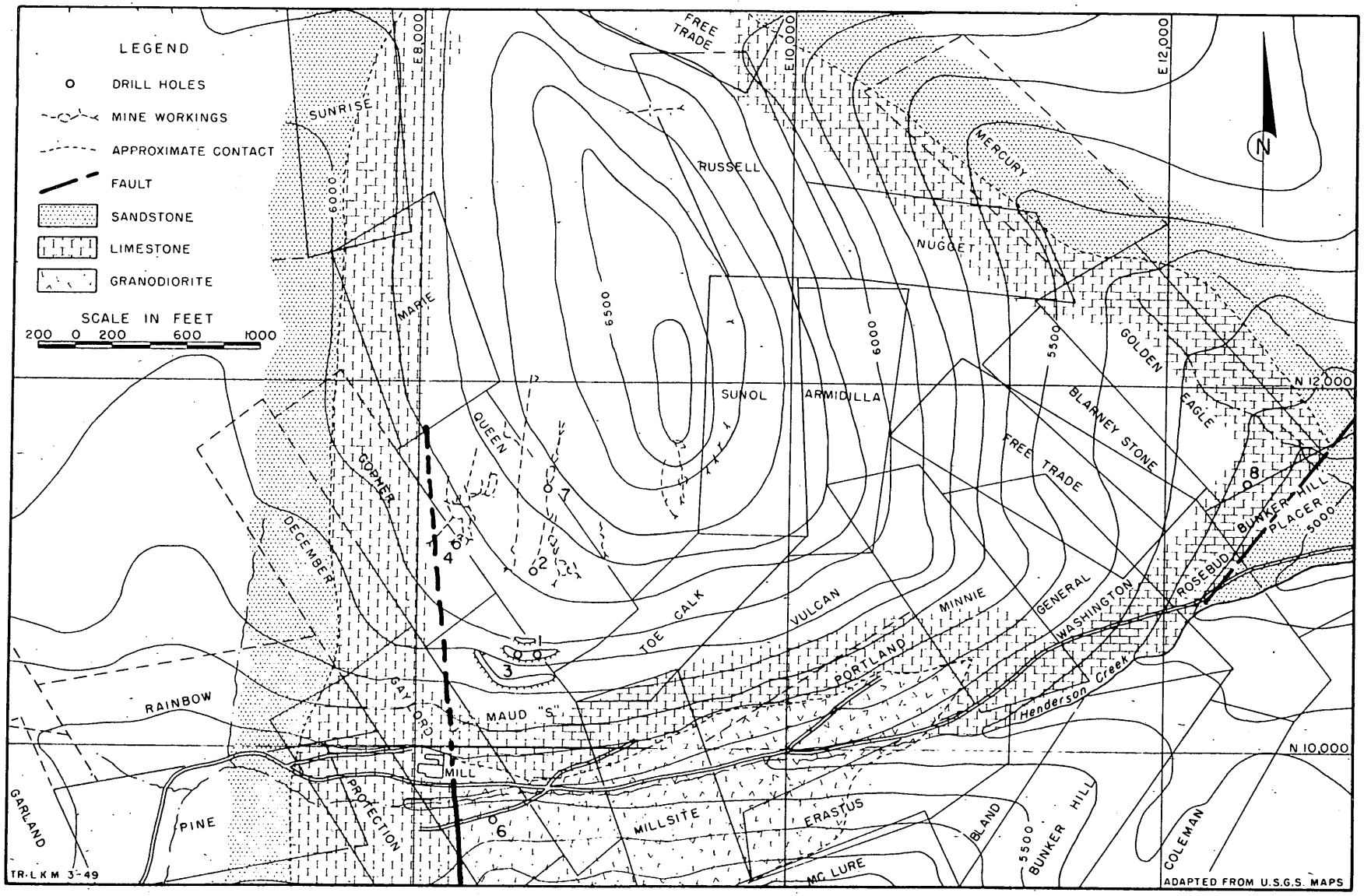


FIG. 2. TOPOGRAPHY, GEOLOGY, PROPERTY, AND DRILL HOLES, SUNRISE MINE, GRANITE COUNTY, MONT.

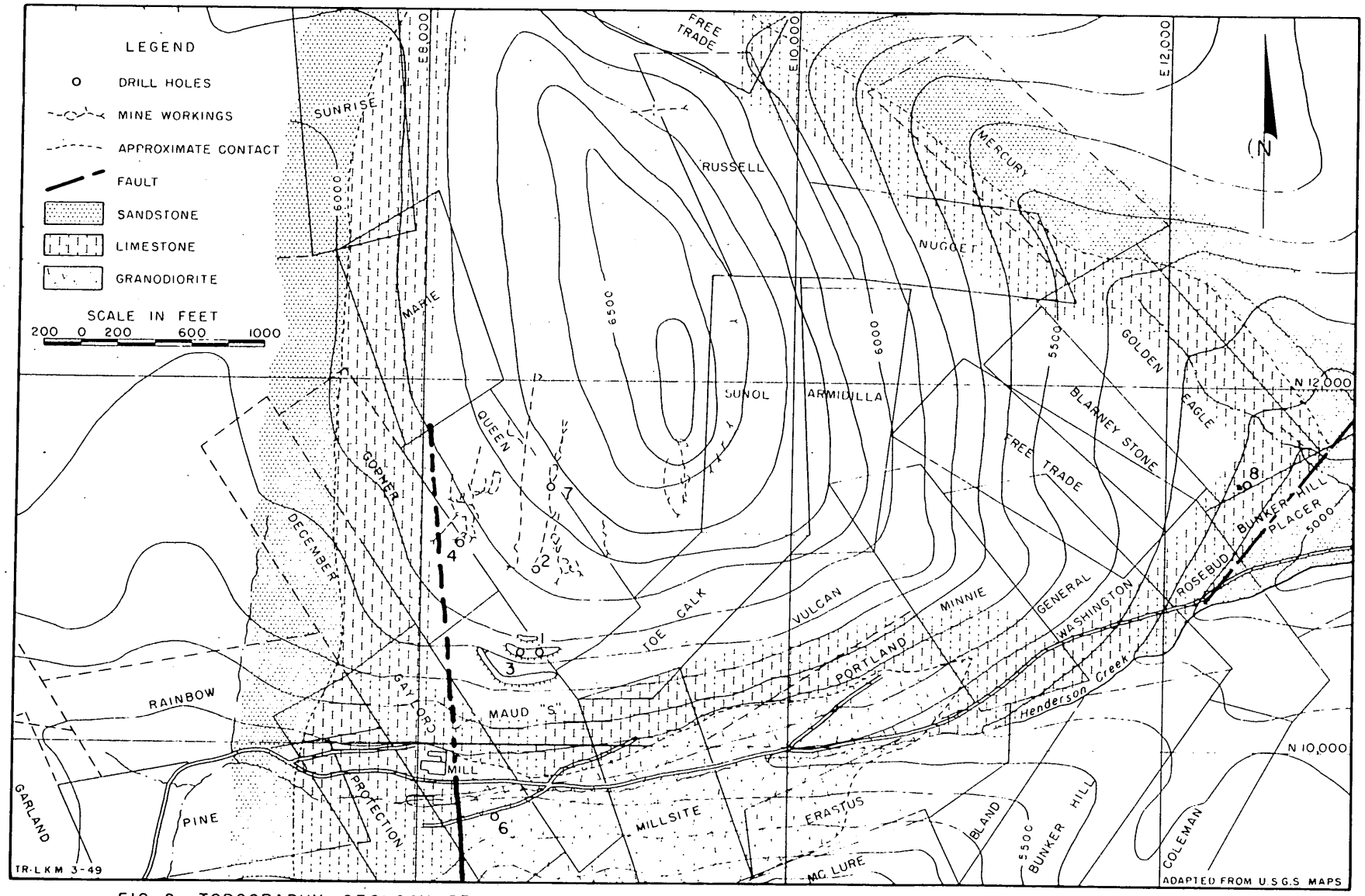
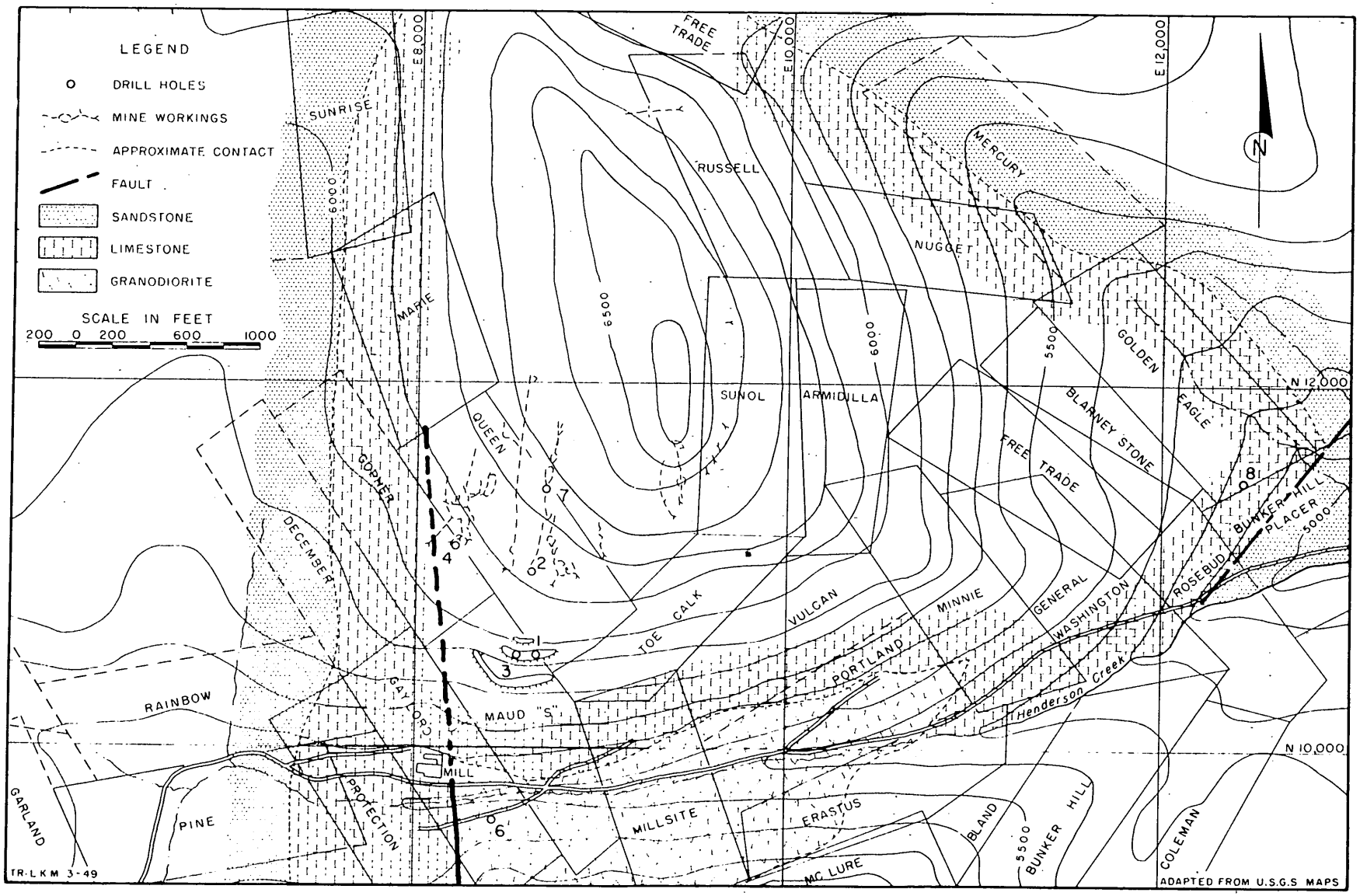


FIG. 2. TOPOGRAPHY, GEOLOGY, PROPERTY, AND DRILL HOLES, SUNRISE MINE, GRANITE COUNTY, MONT.



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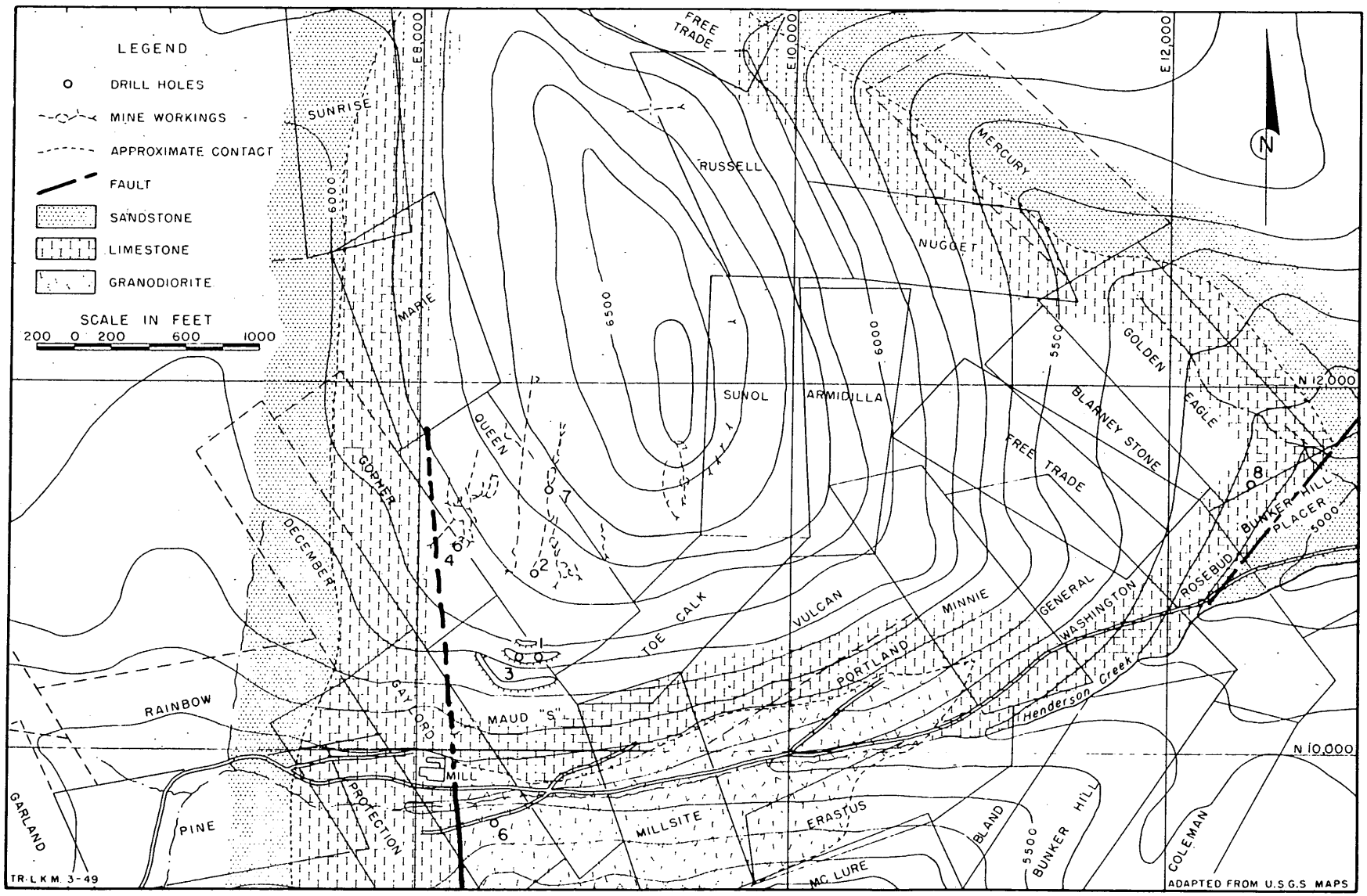

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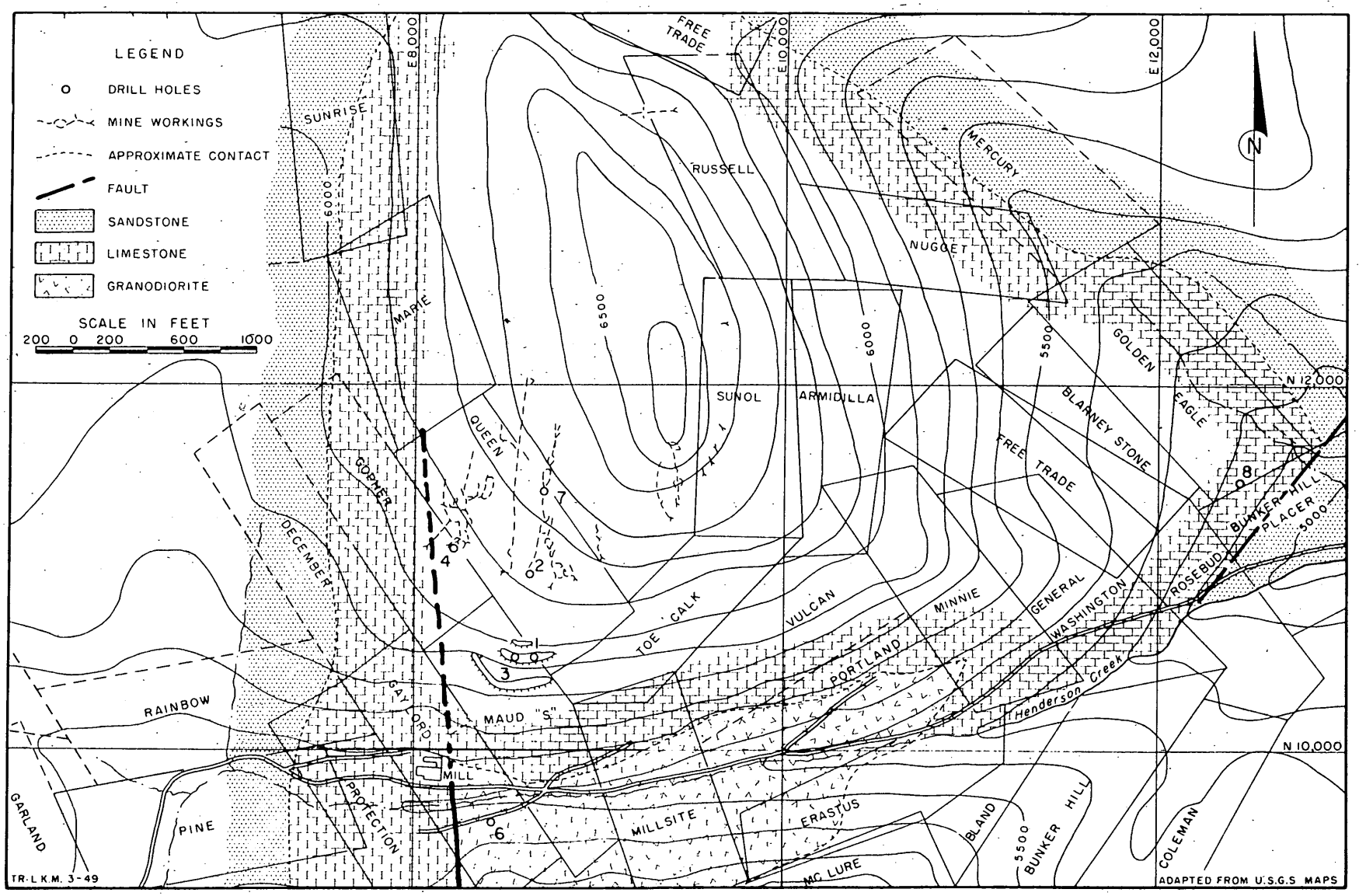
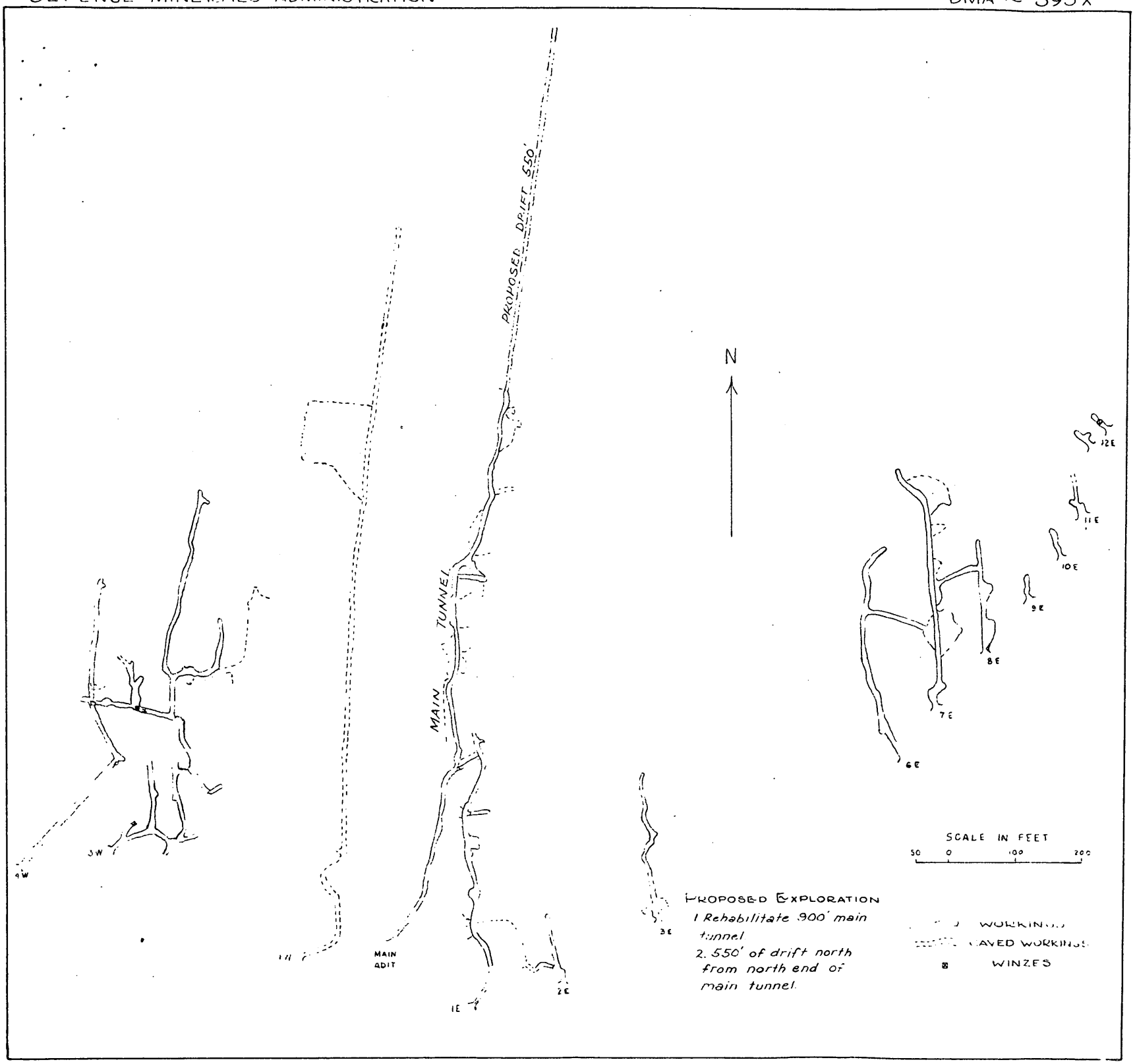


FIG. 2. TOPOGRAPHY, GEOLOGY, PROPERTY, AND DRILL HOLES, SUNRISE MINE, GRANITE COUNTY, MONT.

UNITED STATES DEPARTMENT OF INTERIOR
DEFENSE MINERALS ADMINISTRATION

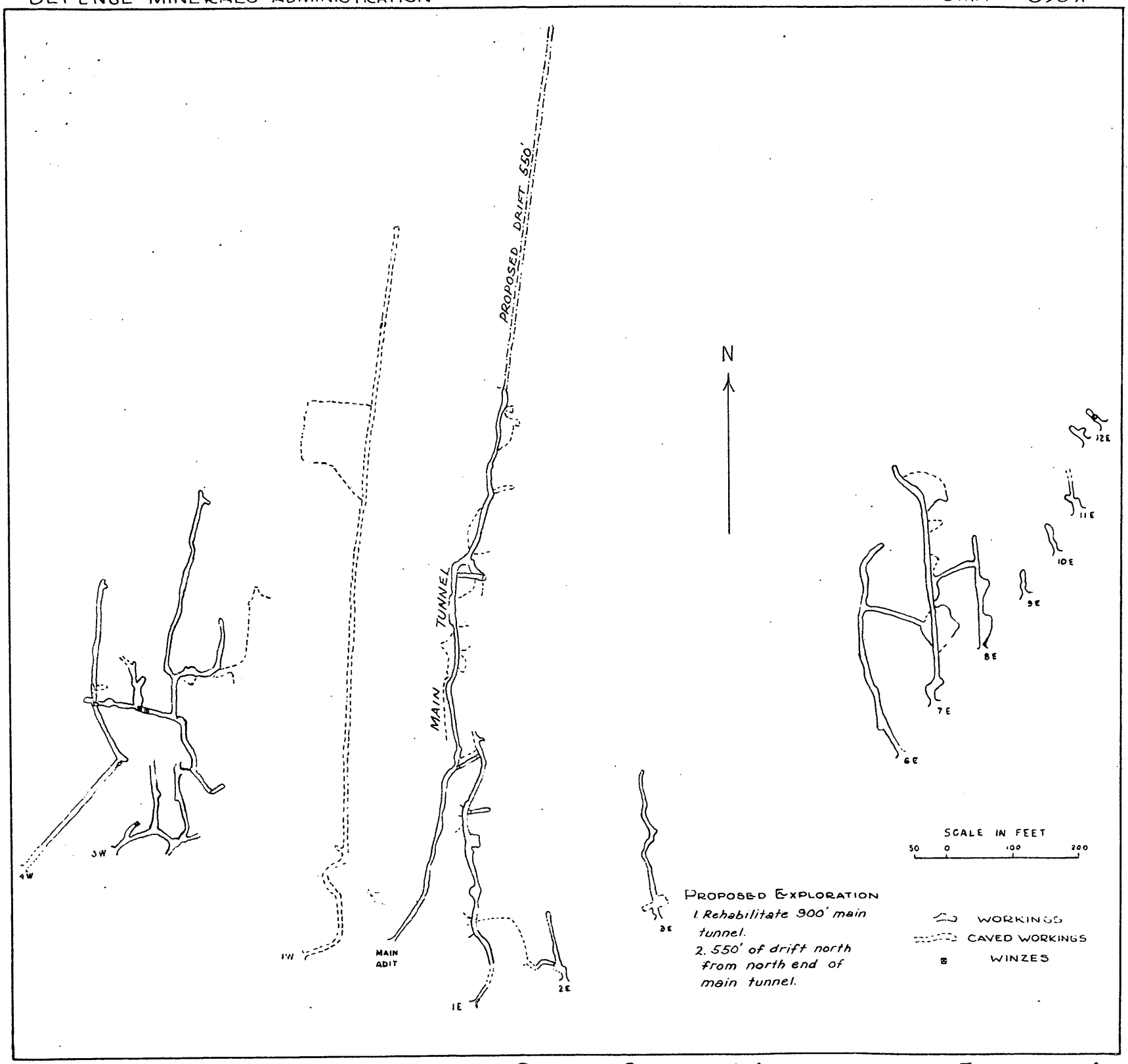
DMA ~ 393X



UNDERGROUND WORKINGS SUNRISE MINE, GRANITE COUNTY, MONTANA ~ EXHIBIT A

UNITED STATES DEPARTMENT OF INTERIOR
DEFENSE MINERALS ADMINISTRATION

DMA ~ 393X



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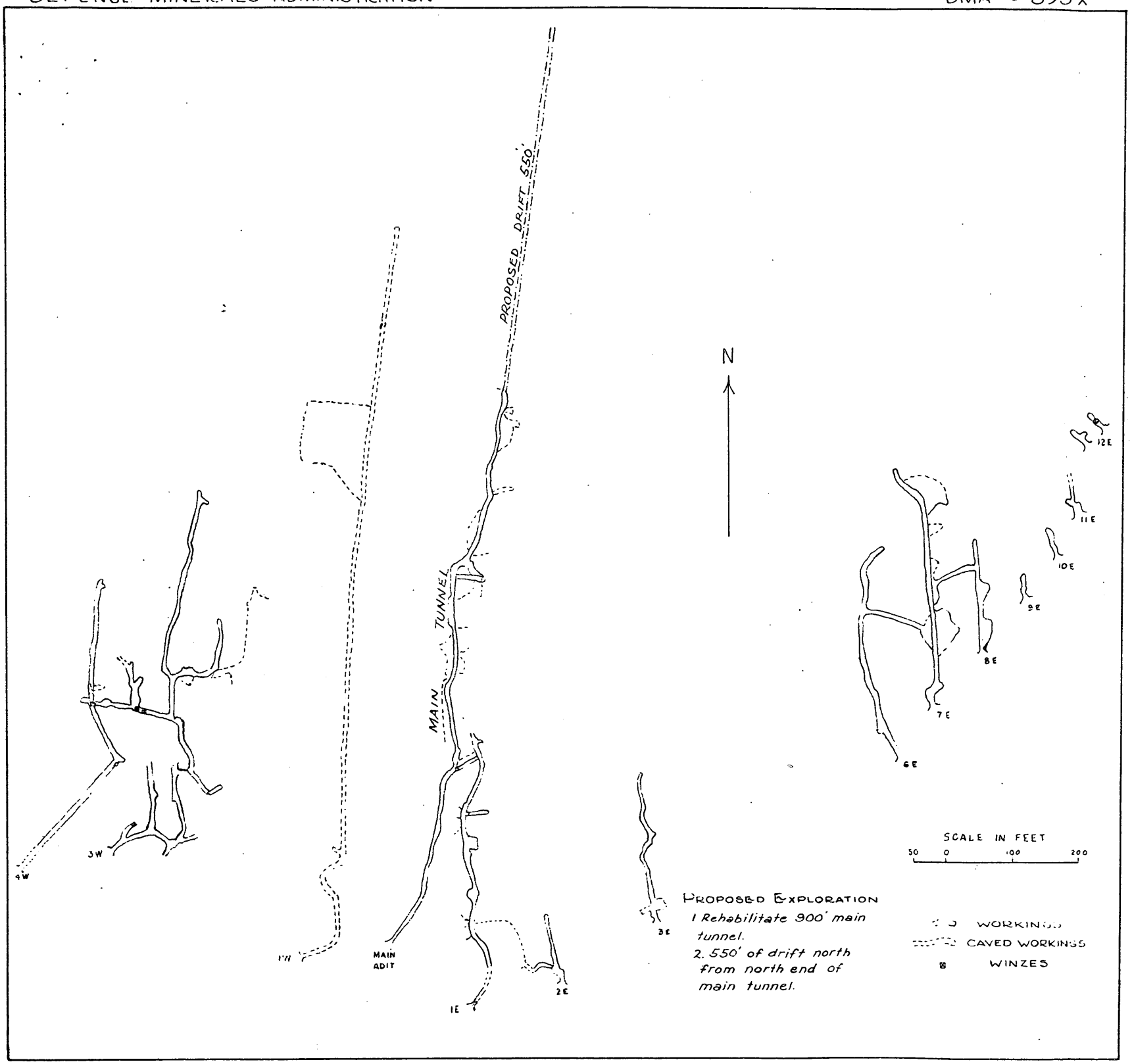

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DEFENSE MINERALS ADMINISTRATION

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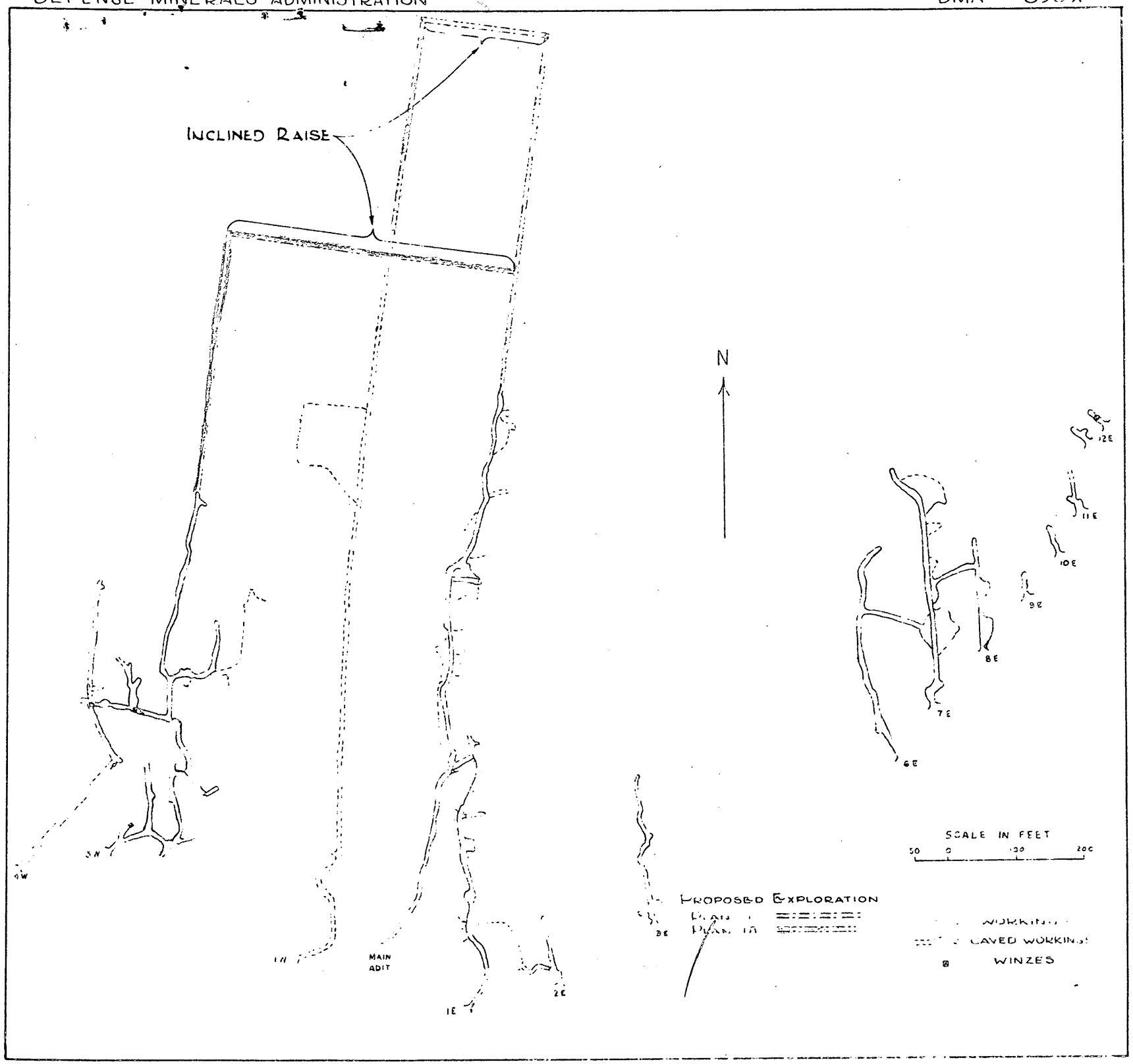

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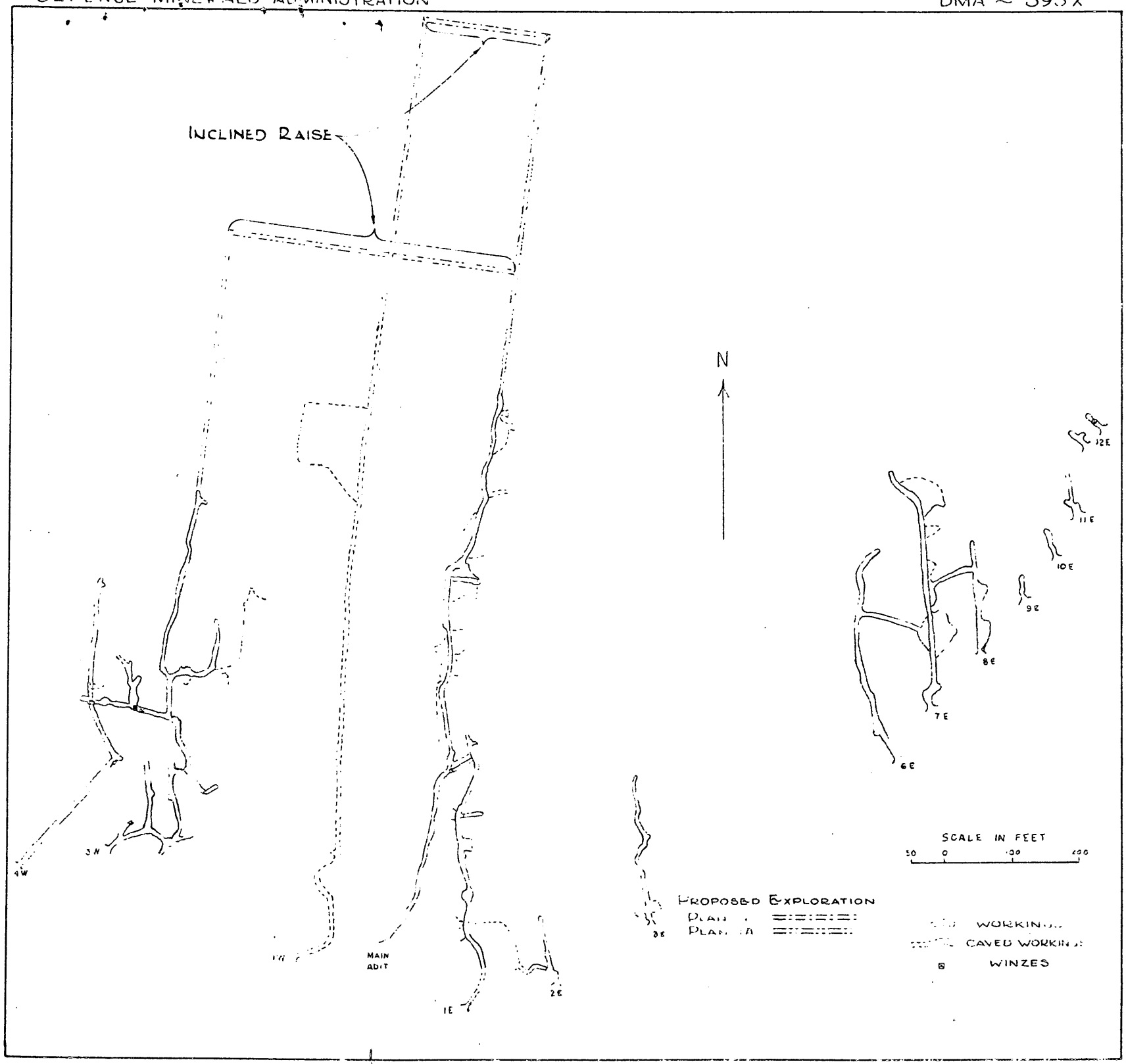

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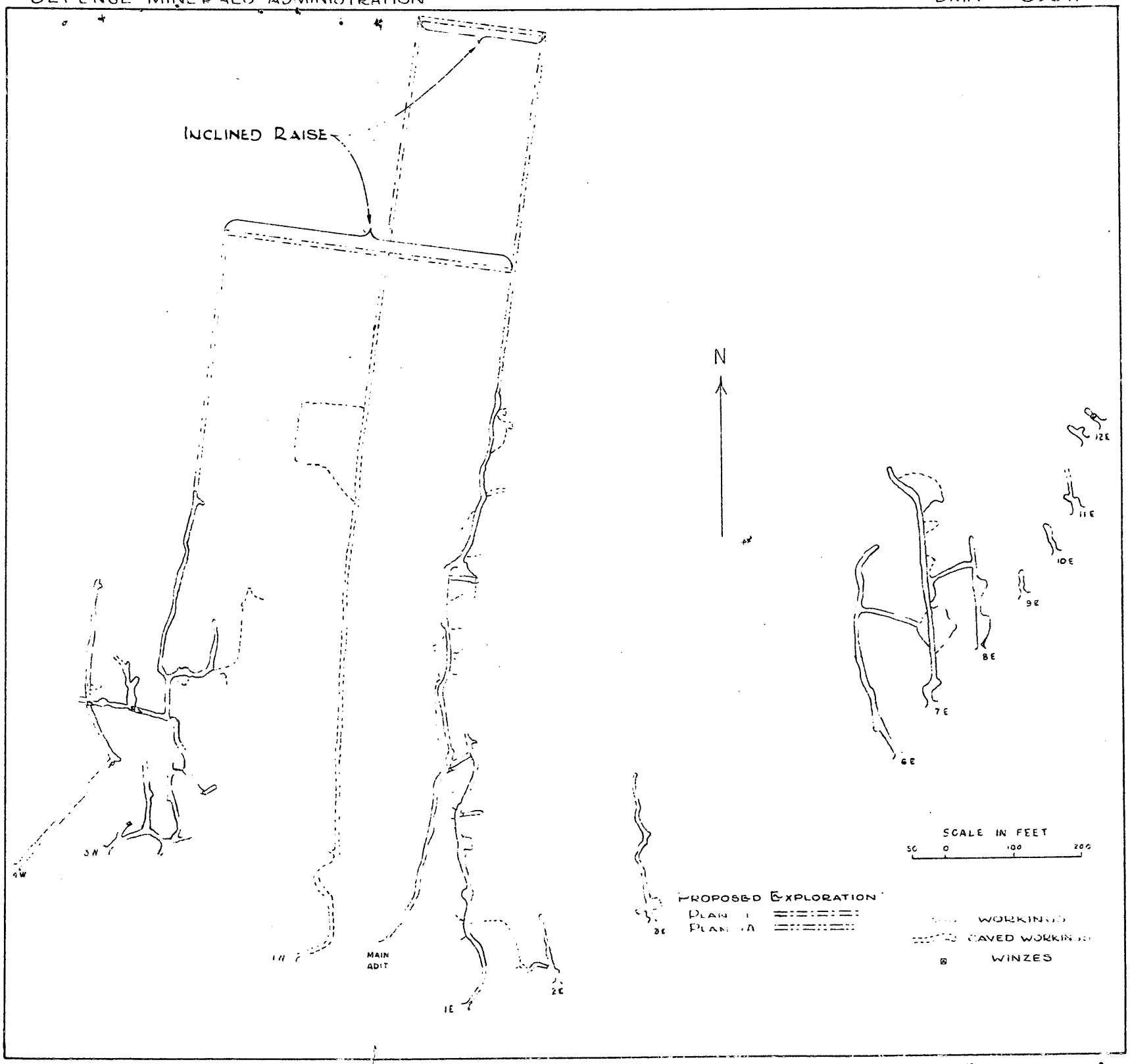

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DEFENSE MINERALS ADMINISTRATION

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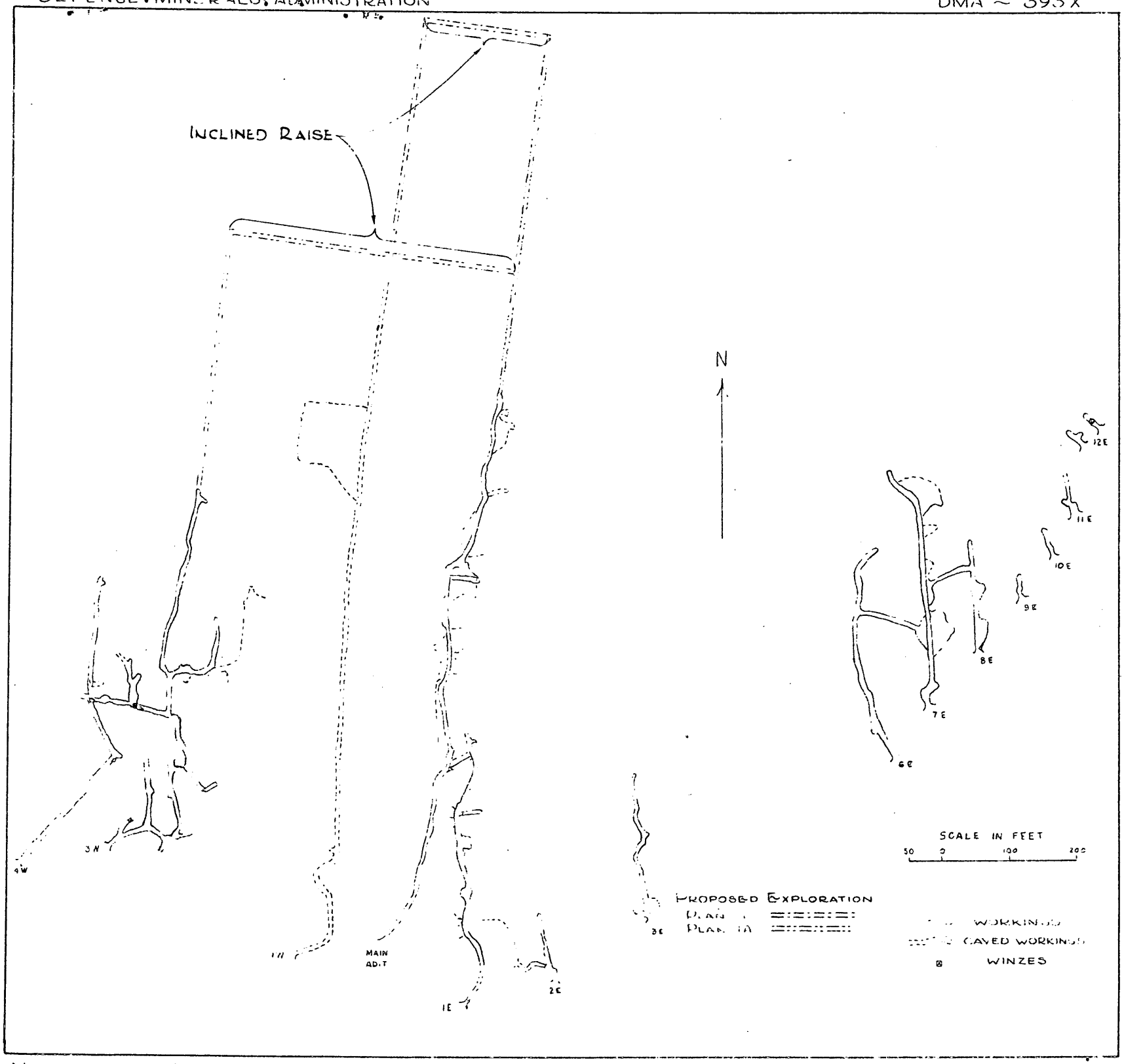

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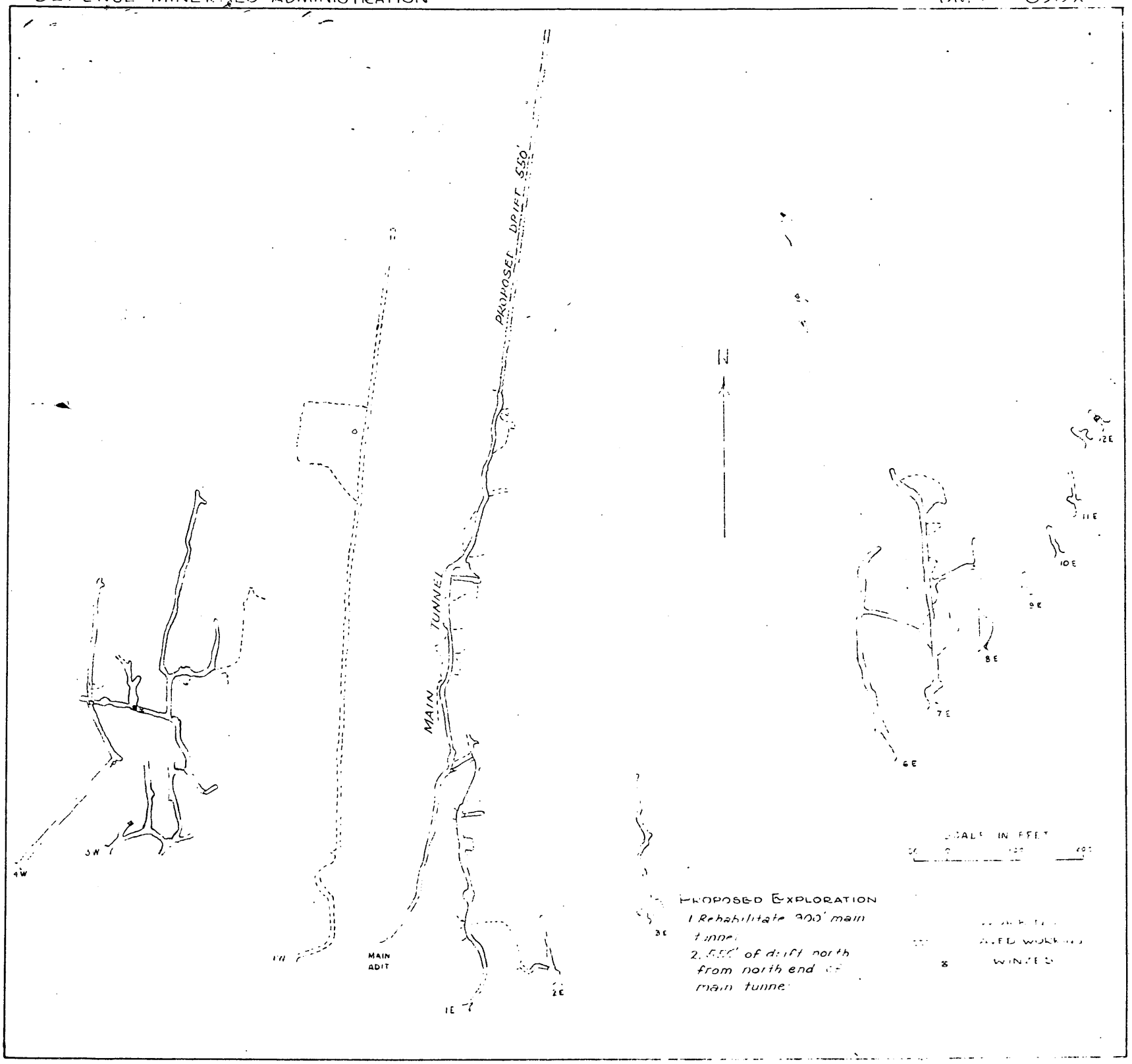
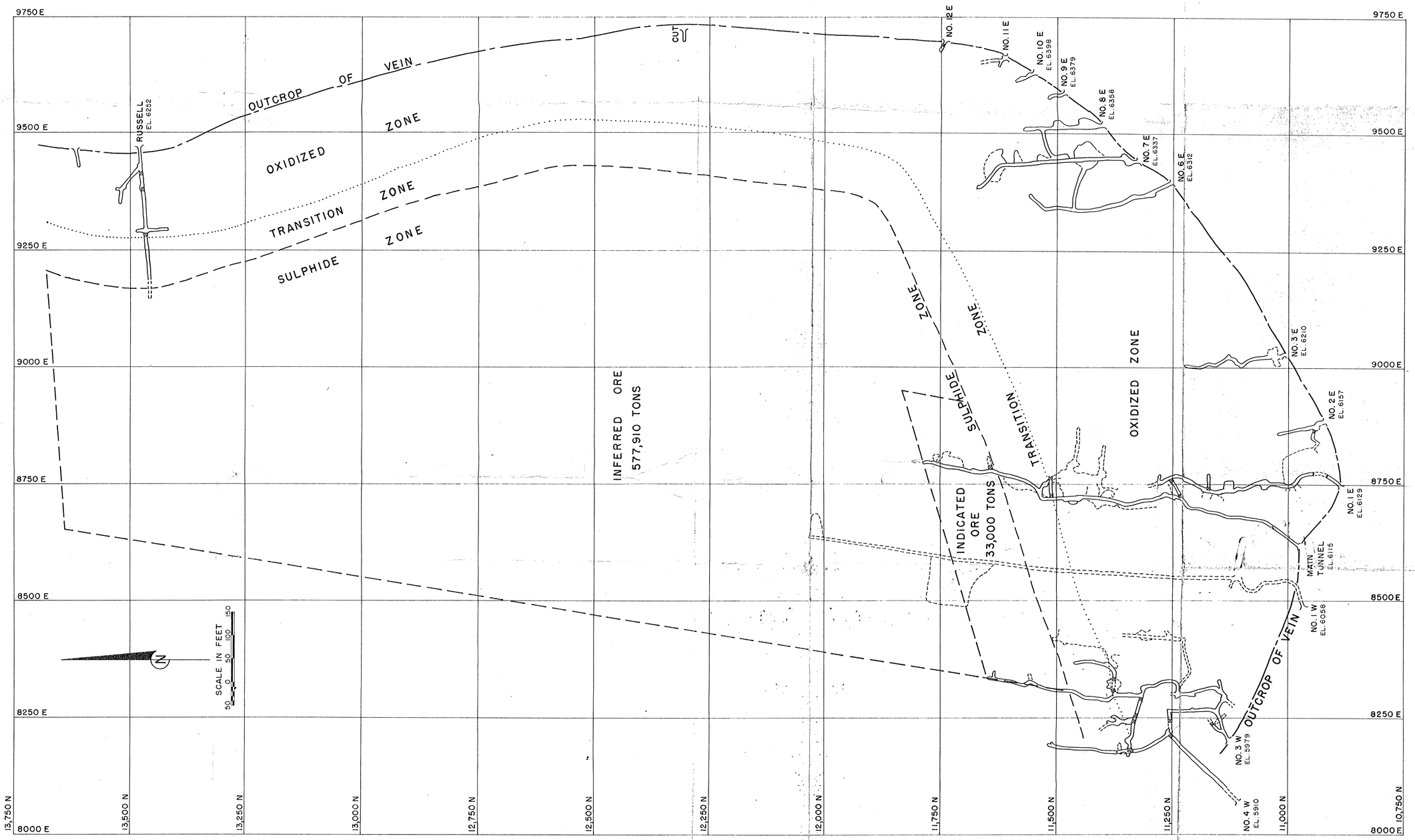
DMA - 393X



UNDERGROUND WORKINGS SUNRISE MINE, GRANITE COUNTY, MONTANA ~ EXHIBIT A



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

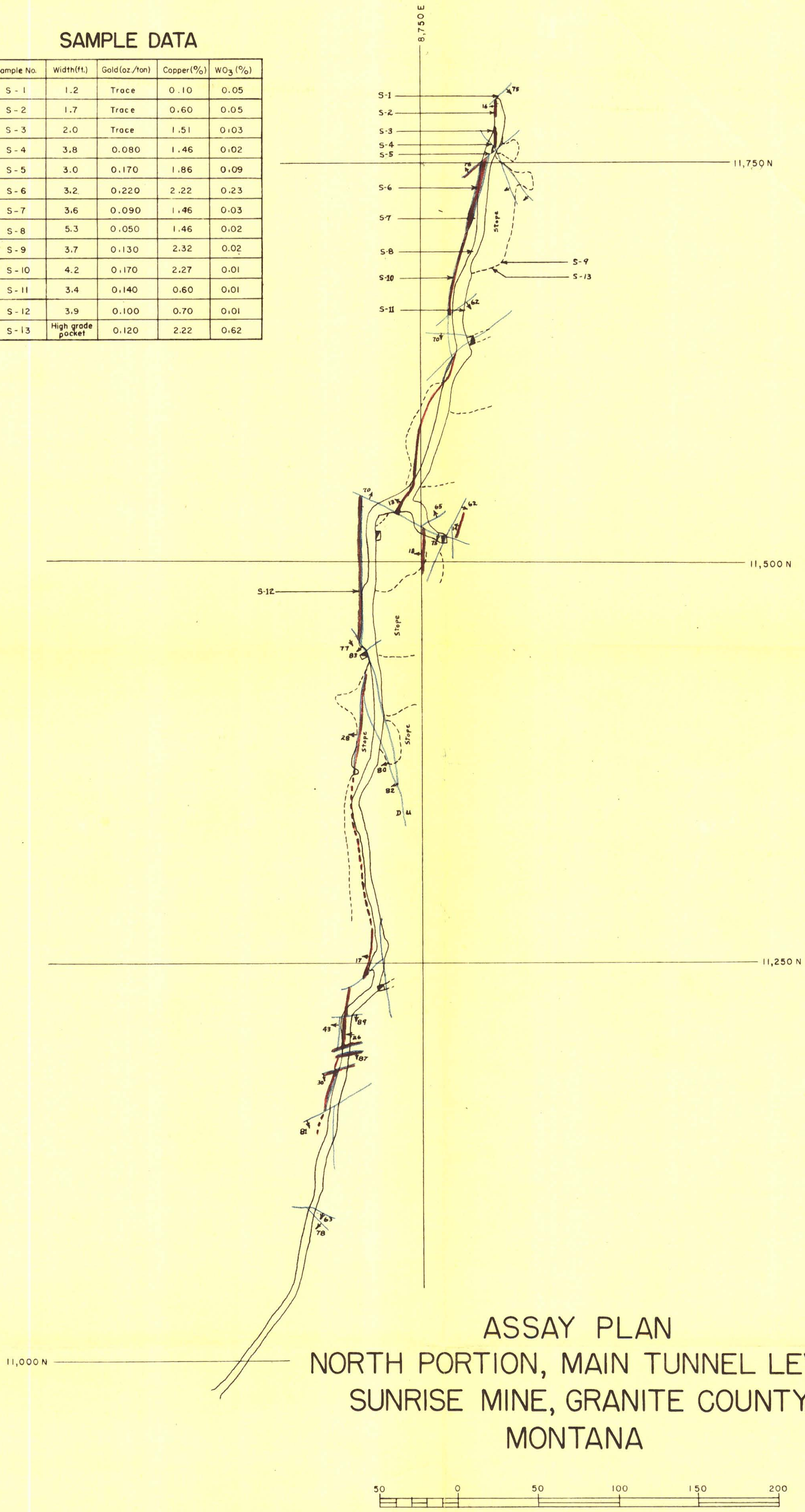
FIG. 6. ORE RESERVES
SUNRISE MINE
GRANITE COUNTY, MONT.

ENG'R J. W. COLE	DATE
TRACED L.K.M. 4-49	

Docket No. DMA 393

SAMPLE DATA

Sample No.	Width(ft.)	Gold(oz./ton)	Copper(%)	WO_3 (%)
S - 1	1.2	Trace	0.10	0.05
S - 2	1.7	Trace	0.60	0.05
S - 3	2.0	Trace	1.51	0.03
S - 4	3.8	0.080	1.46	0.02
S - 5	3.0	0.170	1.86	0.09
S - 6	3.2	0.220	2.22	0.23
S - 7	3.6	0.090	1.46	0.03
S - 8	5.3	0.050	1.46	0.02
S - 9	3.7	0.130	2.32	0.02
S - 10	4.2	0.170	2.27	0.01
S - 11	3.4	0.140	0.60	0.01
S - 12	3.9	0.100	0.70	0.01
S - 13	High grade pocket	0.120	2.22	0.62



ASSAY PLAN
NORTH PORTION, MAIN TUNNEL LEVEL
SUNRISE MINE, GRANITE COUNTY
MONTANA

50 0 50 100 150 200

Base by Preston & Reynolds, 1947
Sampling by J. J. Q & E. H. R., 1952

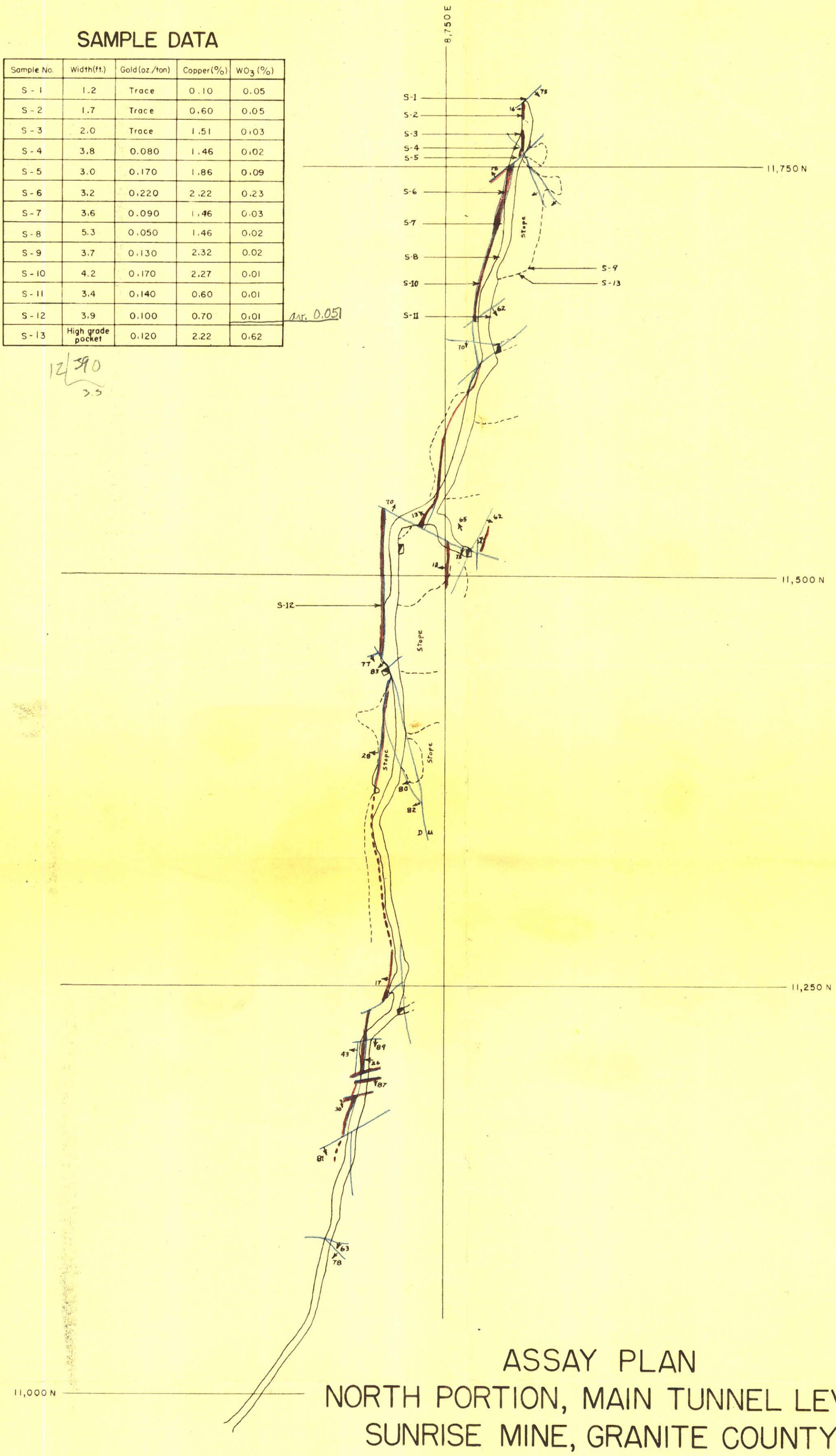
Docket No. DMA 393

SAMPLE DATA

Sample No.	Width(ft.)	Gold(oz./ton)	Copper(%)	WO_3 (%)
S - 1	1.2	Trace	0.10	0.05
S - 2	1.7	Trace	0.60	0.05
S - 3	2.0	Trace	1.51	0.03
S - 4	3.8	0.080	1.46	0.02
S - 5	3.0	0.170	1.86	0.09
S - 6	3.2	0.220	2.22	0.23
S - 7	3.6	0.090	1.46	0.03
S - 8	5.3	0.050	1.46	0.02
S - 9	3.7	0.130	2.32	0.02
S - 10	4.2	0.170	2.27	0.01
S - 11	3.4	0.140	0.60	0.01
S - 12	3.9	0.100	0.70	0.01
S - 13	High grade pocket	0.120	2.22	0.62

avr. 0.051

12/390
3.5



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NORTH PORTION, MAIN TUNNEL LEVEL
SUNRISE MINE, GRANITE COUNTY
MONTANA

50 0 50 100 150 200

Base by Preston & Reynolds, 1947
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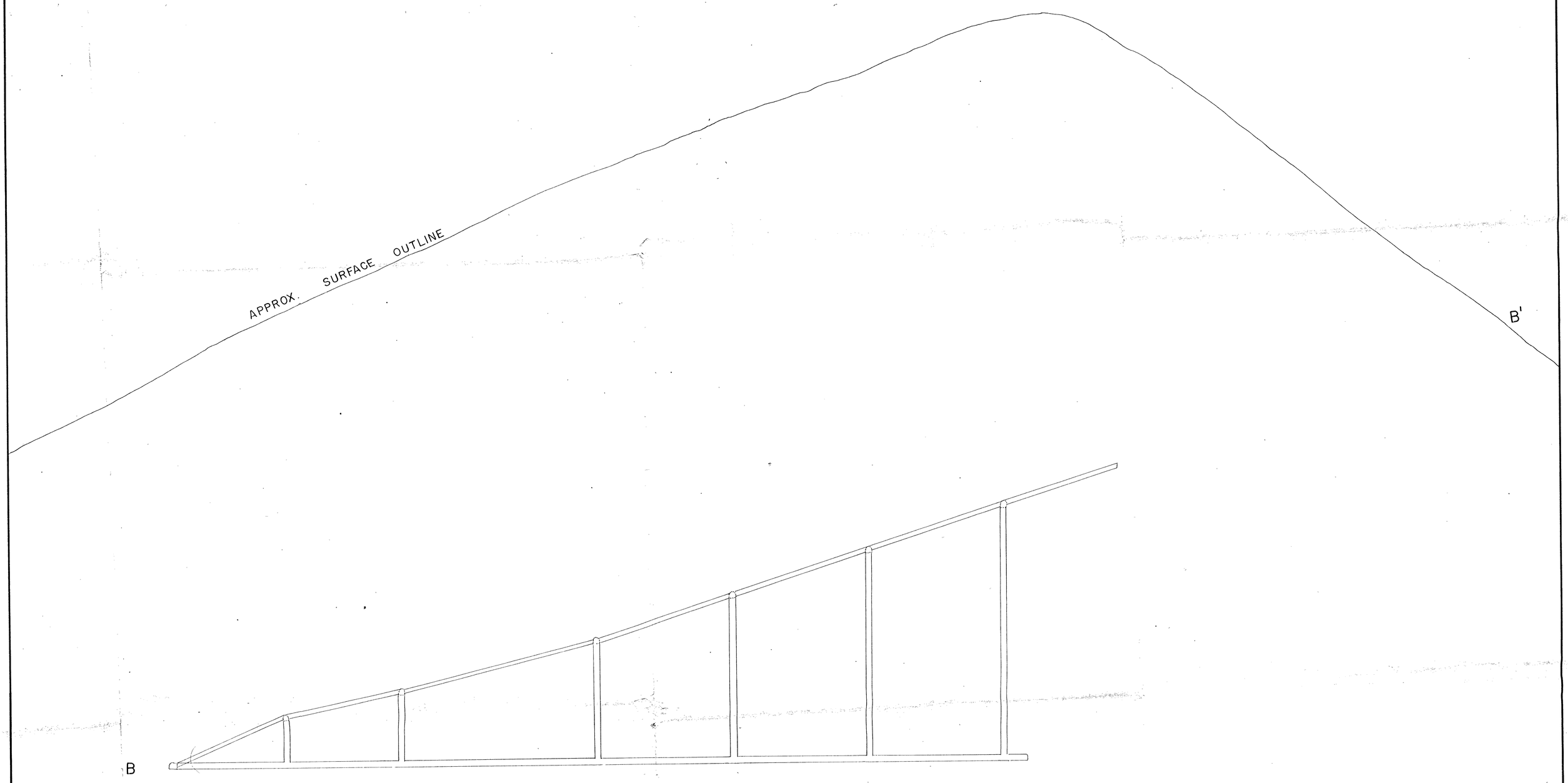
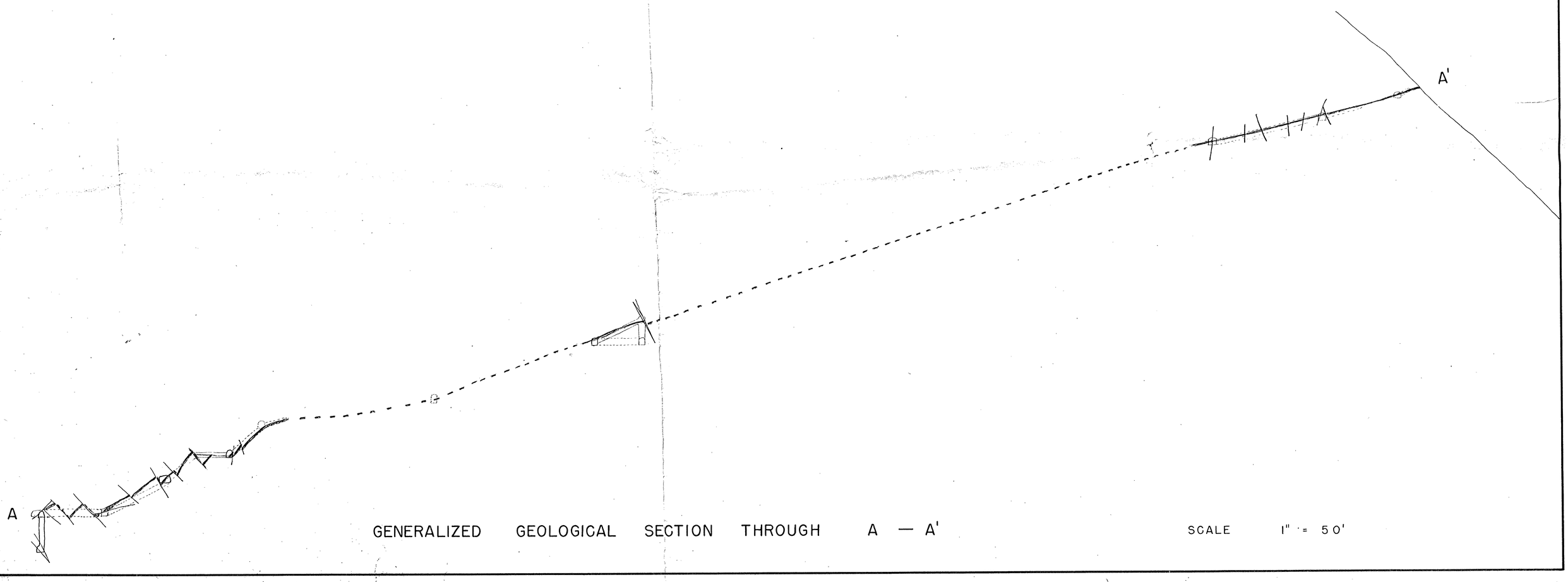


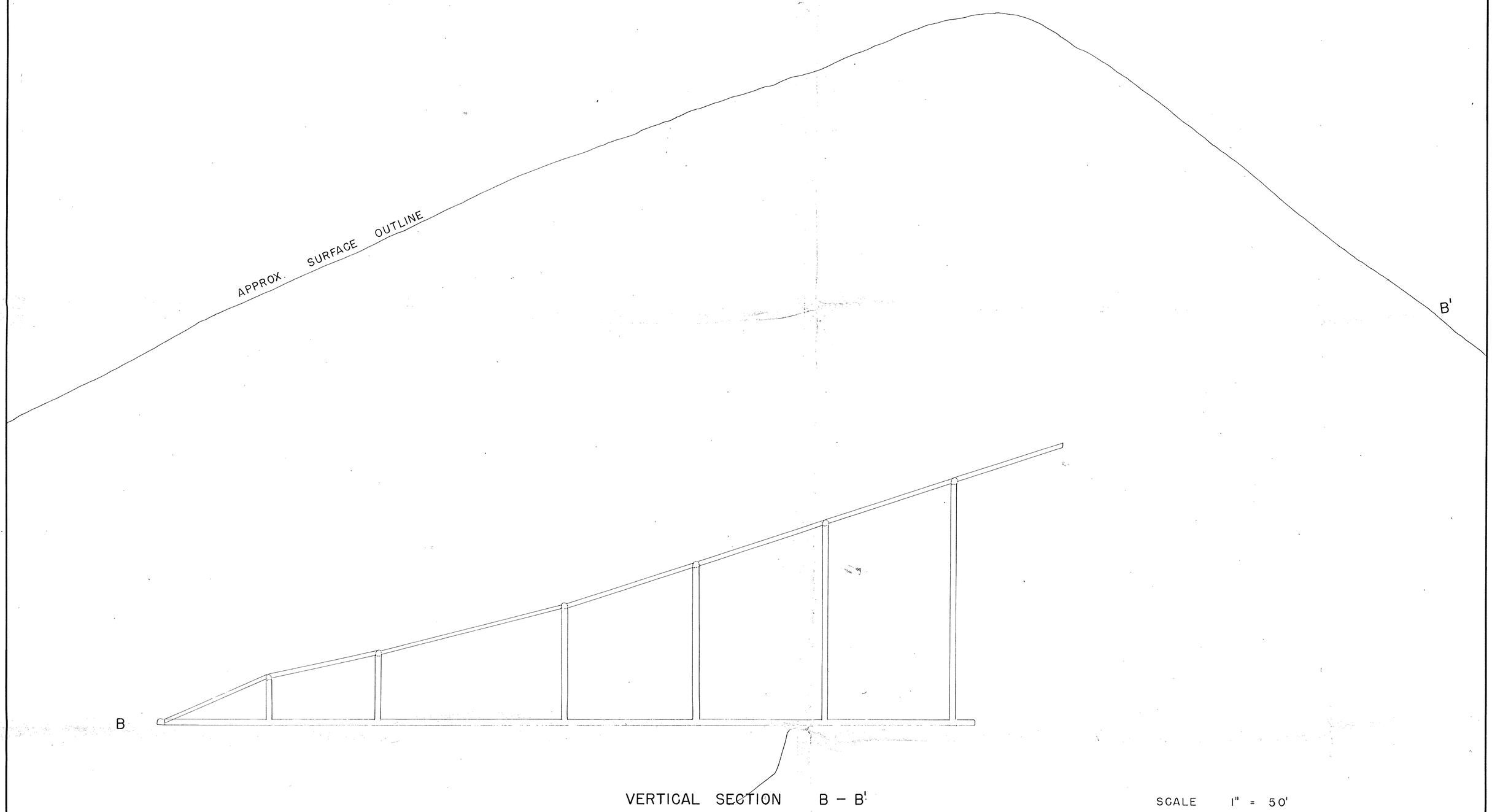
VERTICAL SECTION B – B'

SCALE 1" = 50'



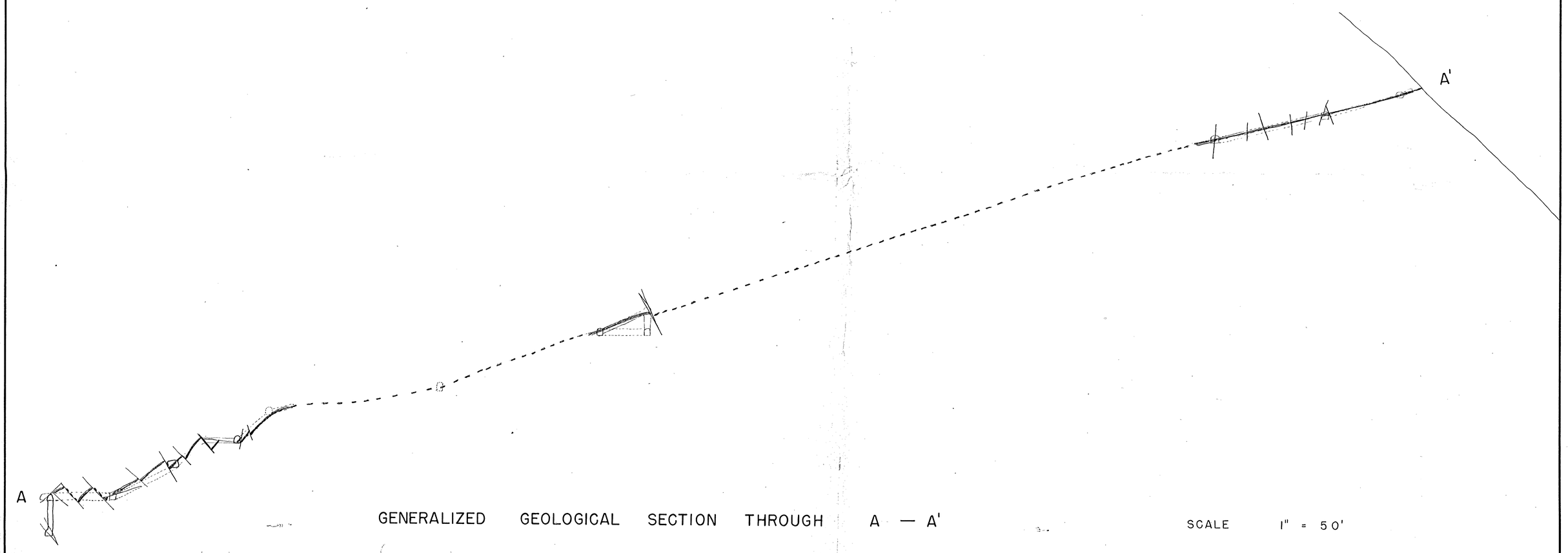
GENERALIZED GEOLOGICAL SECTION THROUGH A — A'

SCALE 1" = 50'



VERTICAL SECTION B – B'

SCALE 1" = 50'

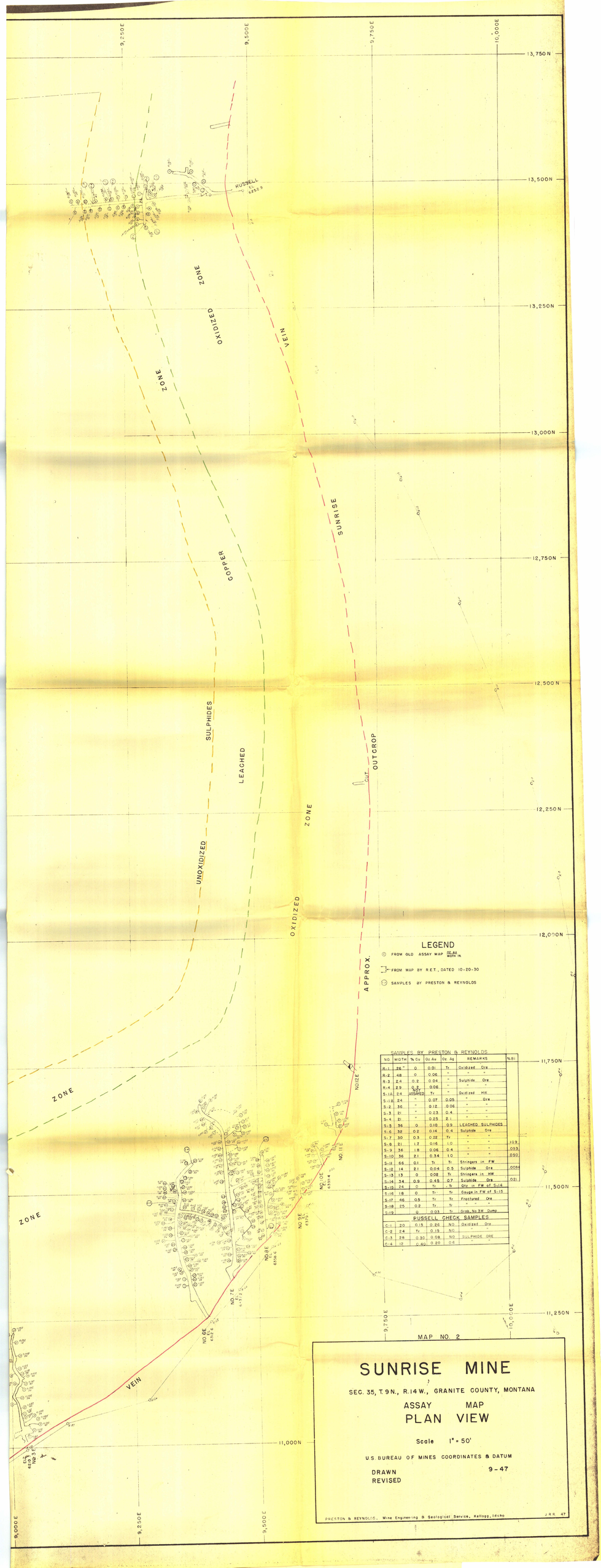


GENERALIZED GEOLOGICAL SECTION THROUGH A — A'

SCALE 1" = 50'

9,250E
9,500E
9,750E
10,000E
13,750N
13,500N
13,250N
13,000N
12,750N
12,500N
12,250N
12,000N
11,750N
11,500N
11,250N
11,000N
Looking North
RUSSELL
6,888.9
OXIDIZED ZONE
COPPER ZONE
SUNRISE VEIN
SULPHIDES
LEACHED
UNOXIDIZED
OXIDIZED ZONE
CUT
OUTCROP
APPROX.
ZONE
NO.2E
NO.11E
NO.10E
6,889.4
NO.9E
6,889.2
NO.8E
6,888.2
NO.7E
6,887.2
NO.6E
6,886.6
4'
VEIN
LEGEND
VEINS (NOT TO SCALE)
FAULTS " " "
BEDDING
TRANSIT STATIONS
UNDERGROUND FROM OLD MAPS & BY BRUNTON COMPASS
MAP NO. 1
SUNRISE MINE
SEC. 35, T.9N., R.14W., GRANITE COUNTY, MONTANA
GEOLOGICAL MAP
PLAN VIEW
Scale 1" = 50'
U.S. BUREAU OF MINES COORDINATES & DATUM
DRAWN 9-47
REVISED
Ama-395X
PRESTON & REYNOLDS, Mine Engineering & Geological Service, Kellogg, Idaho
J.R.R. 47

8,250E
8,500E
8,750E
9,000E
13,750N
13,500N
13,250N
13,000N
12,750N
12,500N
12,250N
12,000N
11,750N
11,500N
11,250N
11,000N
SULPHIDES
COPPER
UNOXIDIZED
LEACHED
ZONE
OXIDIZED
A
OUTCROP
SUNRISE
EL. 5950
NO. 4 W
NO. 3 W
EL. 5975.5
NO. 1 W
EL. 6058.7
MAIN TUNNEL
EL. 6115.1
EL. 6283.3
NO. 1 E
NO. 2E
EL. 6275
EL. 6205.1
NO. 3 E



SAMPLES BY PRESTON & REYNOLDS

NO.	WIDTH	% Cu	Oz Au	Oz Ag	REMARKS	%Bi
R-1	26"	0	0.01	Tr	Oxidized Ore	
R-2	48	0	0.06	"	"	
R-3	24	0.2	0.04	"	Sulphide Ore	
R-4	29	0.6	0.06	"	" "	
S-1A	24	NOT ASSAYED	Tr	"	Oxidized Hw	
S-1B	24	"	0.07	0.05	" Ore	
S-2	36	"	0.12	0.06	" "	
S-3	21	"	0.23	0.4	" "	
S-4	21	"	0.25	2.1	" "	
S-5	36	0	0.10	0.9	LEACHED SULPHIDES	
S-6	38	0.2	0.14	0.4	Sulphide Ore	
S-7	30	0.3	0.22	Tr	" "	
S-8	21	1.7	0.16	1.0	" "	.109
S-9	36	1.8	0.06	0.4	" "	.093
S-10	36	2.1	0.34	1.0	" "	.050
S-11	66	0.1	Tr	Tr	Stringers in FW	
S-12	14	2.1	0.04	0.5	Sulphide Ore	.006
S-13	13	0	0.02	Tr	Stringers in HW	
S-14	34	0.9	0.45	0.7	Sulphide Ore	.021
S-15	24	0	Tr	Tr	Qtz. in FW of S-14	
S-16	18	0	Tr	Tr	Gouge in FW of S-15	
S-17	46	0.5	Tr	Tr	Fractured Ore	
S-18	25	0.2	Tr	Tr	" "	
S-19		0	0.03	Tr	Grab, No 3W Dump	
RUSSELL CHECK SAMPLES						
C-1	20	0.15	0.26	NO	Oxidized Ore	
C-2	24	Tr	0.15	NO		
C-3	28	0.30	0.08	NO	SULPHIDE ORE	
C-4	12	0.40	0.20	0.6	" "	

MAP NO. 2

SUNRISE MINE

SEC. 35, T. 9 N., R. 14 W., GRANITE COUNTY, MONTANA

ASSAY MAP

PLAN VIEW

Scale 1" = 50'

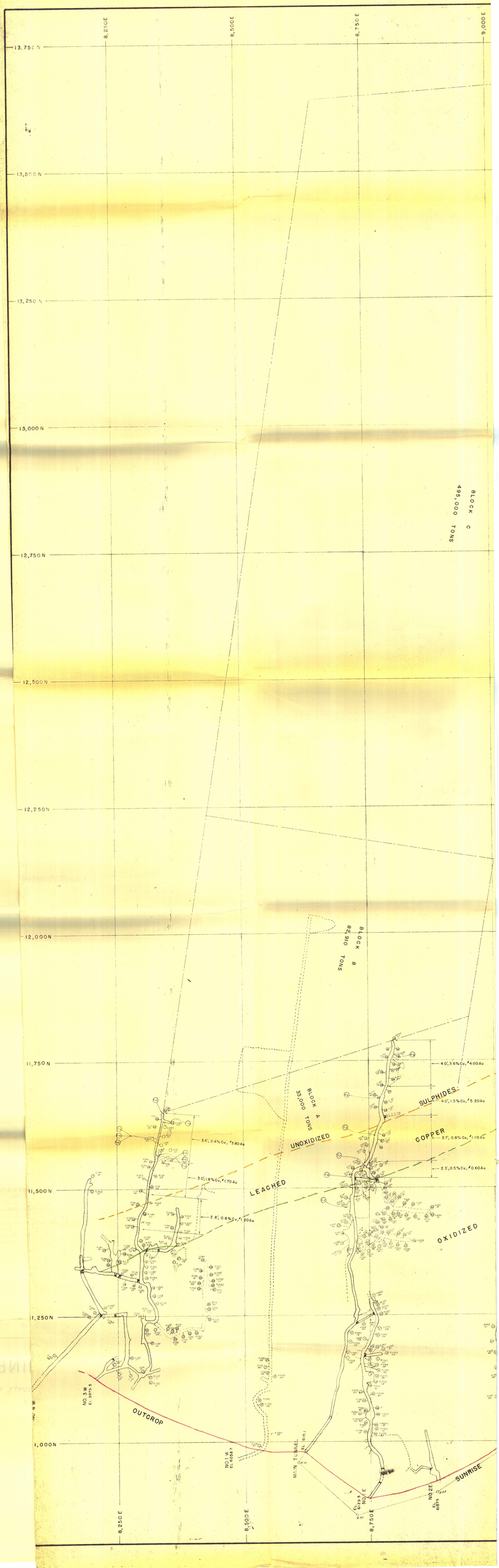
U.S. BUREAU OF MINES COORDINATES & DATUM

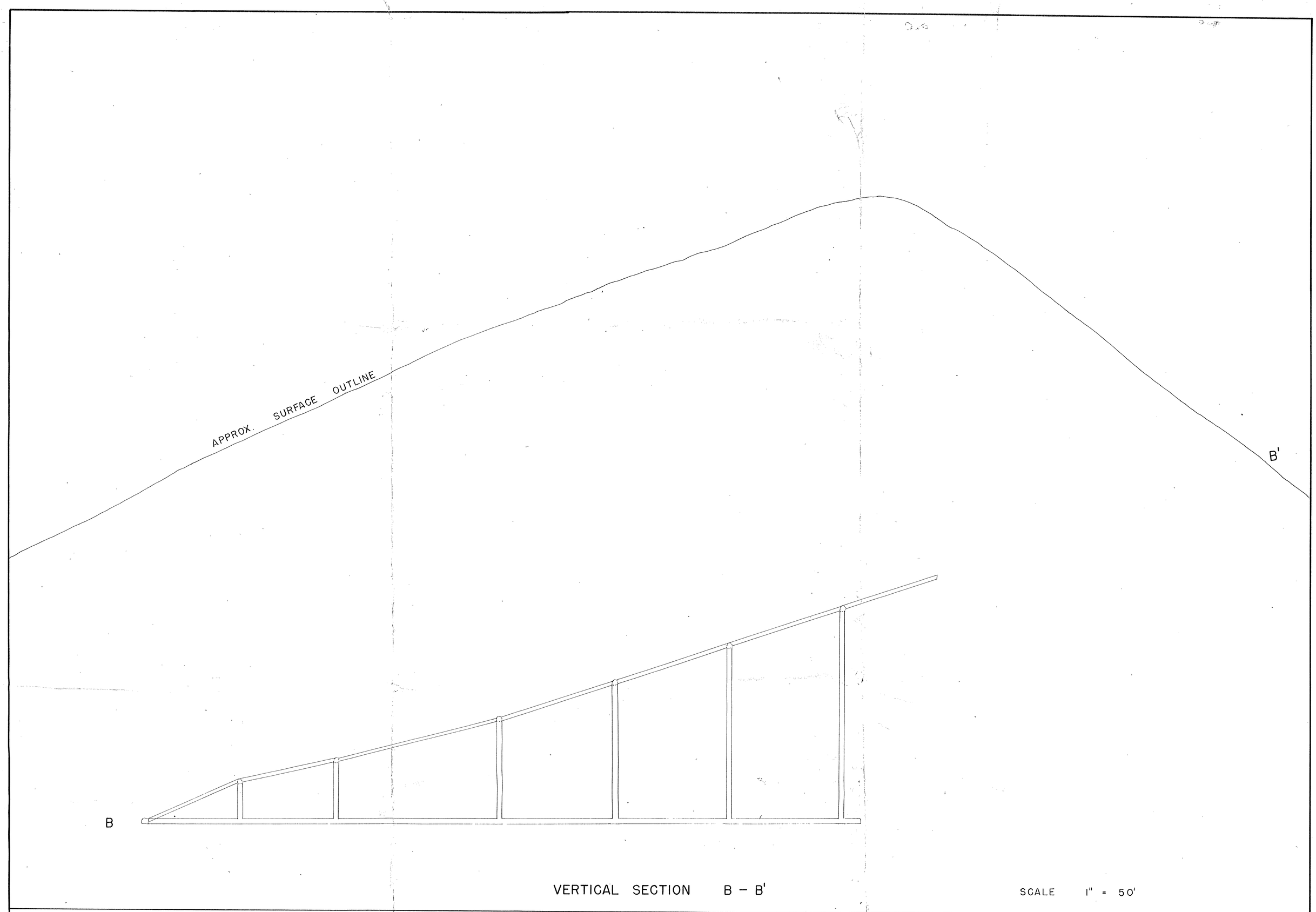
DRAWN 9-47

REVISED

PRESTON & REYNOLDS, Mine Engineering & Geological Service, Kellogg, Idaho

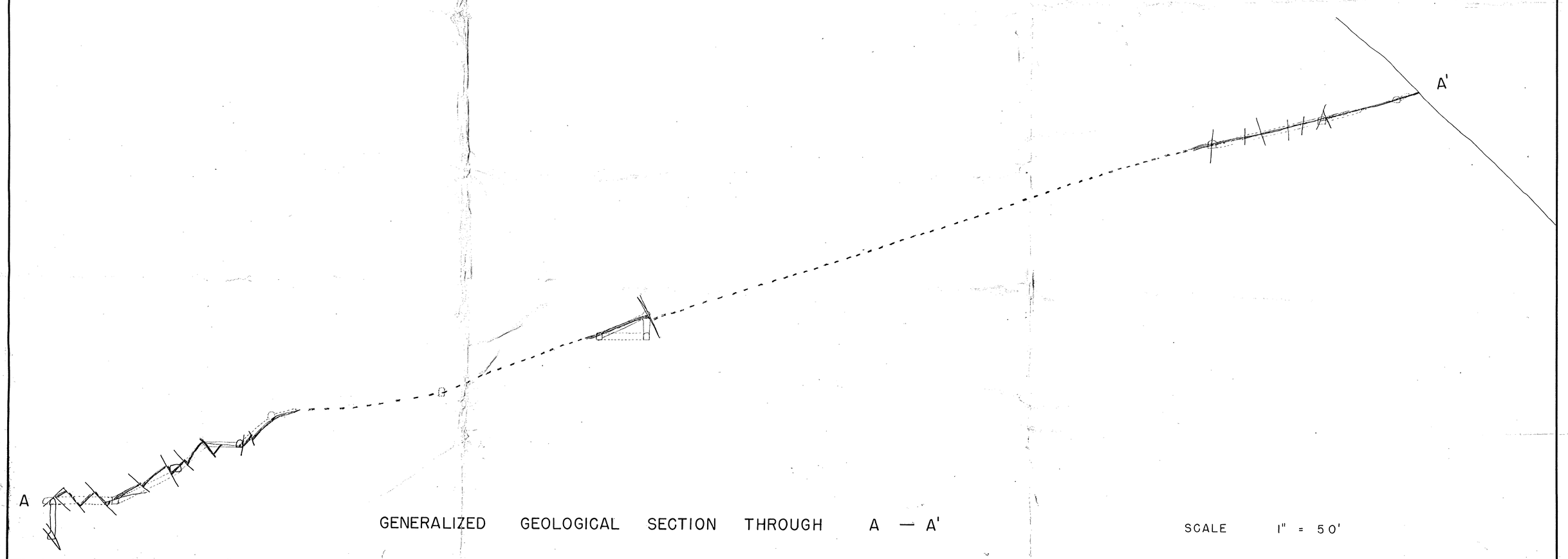
J.R.R. 47


8,250E
8,500E
8,750E
9,000E
13,750N
13,500N
13,250N
13,000N
12,750N
12,500N
12,250N
12,000N
11,750N
11,500N
11,250N
1,000N
BLOCK C
495,000 TONS
BLOCK B
82,910 TONS
BLOCK A
33,000 TONS
SULPHIDES
COPPER
UNOXIDIZED
LEACHED
OXIDIZED
OUTCROP
SUNRISE
4.0', 3.6%Cu, $4.00Au
4.0', 1.5%Cu, $5.20Au
3.7', 0.8%Cu, $1.10Au
2.3', 0.5%Cu, $0.60Au
3.6', 2.4%Cu, $3.80Au
3.0', 1.8%Cu, $1.70Au
2.8', 0.8%Cu, $1.20Au
NO.3 W
EL.8975
NO.1 W
EL.6058.7
MAIN TUNNEL
EL.6051
NO.1 E
EL.6239.5
NO.2 E
EL.6257.5



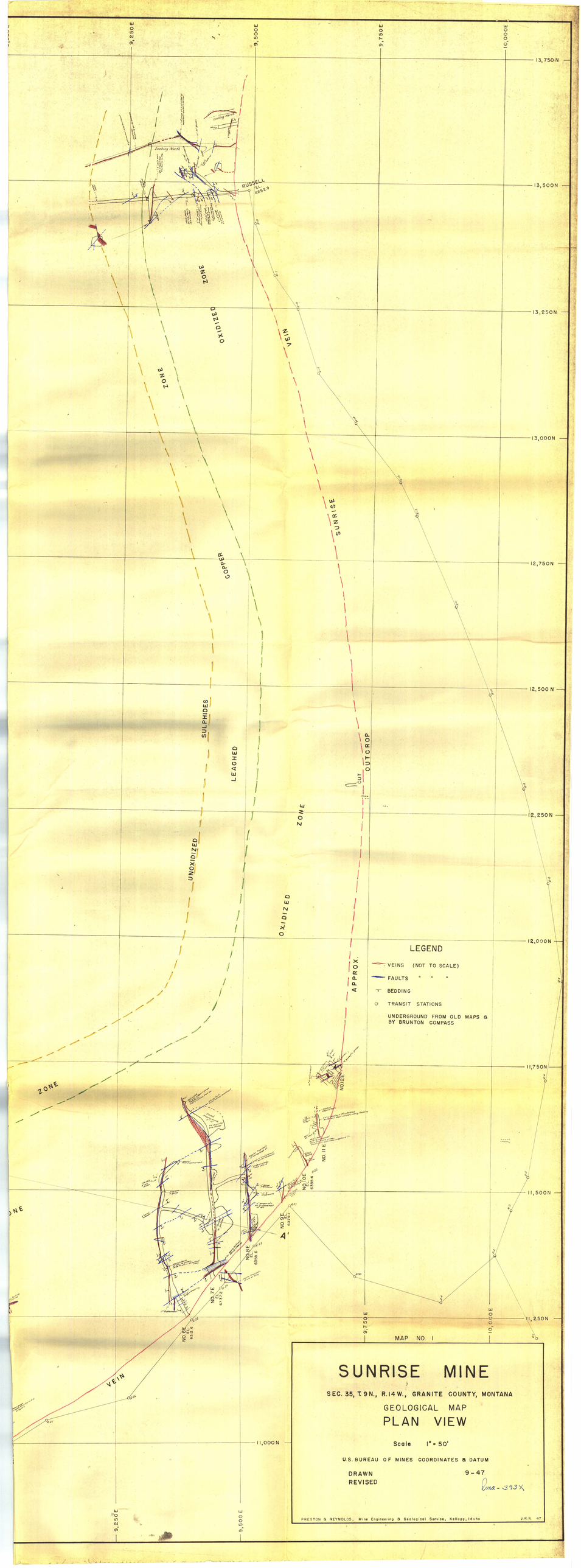
VERTICAL SECTION B – B'

SCALE 1" = 50'



GENERALIZED GEOLOGICAL SECTION THROUGH A — A'

SCALE 1" = 50'


9,250E
9,500E
9,750E
10,000E
13,750N
13,500N
13,250N
13,000N
12,750N
12,500N
12,250N
12,000N
11,750N
11,500N
11,250N
11,000N
Looking North
RUSSELL
OXIDIZED ZONE
COPPER ZONE
SULPHIDES
LEACHED
UNOXIDIZED
OXIDIZED ZONE
SUNRISE VEIN
APPROX. CUT OUTCROP
NO. 2E
NO. 1E
NO. 1E
NO. 2E
NO. 3E
NO. 4E
NO. 5E
NO. 6E
NO. 7E
A'
VEIN
ZONE
LEGEND
VEINS (NOT TO SCALE)
FAULTS " " "
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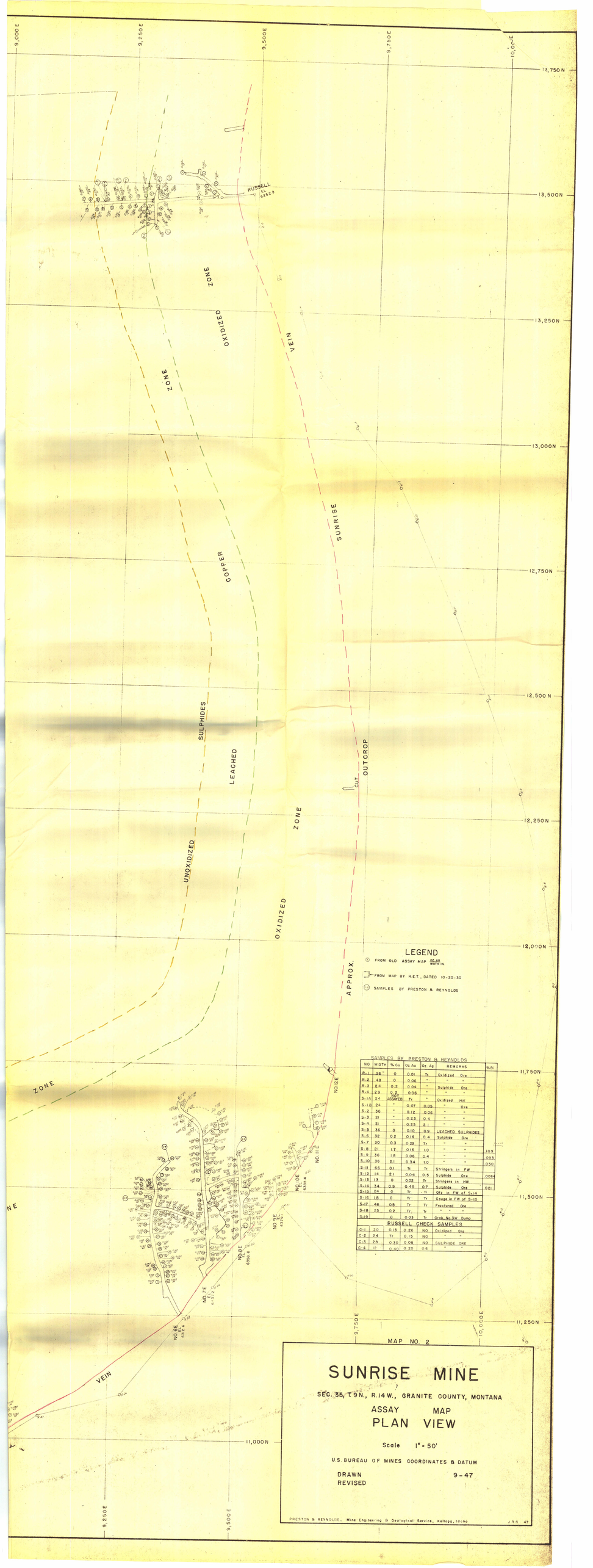
13,750 N
13,500 N
13,250 N
13,000 N
12,750 N
12,500 N
12,250 N
12,000 N
11,750 N
11,500 N
11,250 N
11,000 N
8,250 E
8,500 E
8,750 E
9,000 E
SULPHIDES
UNOXIDIZED
COPPER
LEACHED
OXIDIZED
A
OUTCROP
SUNRISE
MAIN TUNNEL
EL. 6051
NO. 1 W
EL. 6058
NO. 3 W
EL. 5975
EL. 5960
NO. 4 W
EL. 6126
NO. 1 E
EL. 6125
NO. 2 E
EL. 6075
NO. 2 E
EL. 6
NO. 3 E



SAMPLES BY PRESTON & REYNOLDS

NO	WIDTH	% Cu	Oz. Au	Oz. Ag	REMARKS	%Bi
R-1	26"	0	0.01	Tr.	Oxidized Ore	
R-2	48	0	0.06	"	" "	
R-3	24	0.2	0.04	"	Sulphide Ore	
R-4	29	0.2	0.06	"	" "	
S-1A	24	NOT ASSAYED	Tr	"	Oxidized HW	
S-1B	24	"	0.07	0.05	" Ore	
S-2	36	"	0.12	0.06	" "	
S-3	21	"	0.23	0.4	" "	
S-4	21	"	0.25	2.1	" "	
S-5	36	0	0.10	0.9	LEACHED SULPHIDES	
S-6	32	0.2	0.14	0.4	Sulphide Ore	
S-7	30	0.3	0.22	Tr	" "	
S-8	21	1.7	0.16	1.0	" "	.109
S-9	36	1.8	0.06	0.4	" "	.093
S-10	36	2.1	0.34	1.0	" "	.050
S-11	66	0.1	Tr	Tr	Stringers in FW	
S-12	14	2.1	0.04	0.5	Sulphide Ore	.0084
S-13	13	0	0.02	Tr	Stringers in HW	
S-14	34	0.9	0.25	0.7	Sulphide Ore	.021
S-15	24	0	Tr	Tr	Qtz in FW of S-14	
S-16	18	0	Tr	Tr	Gouge in FW of S-15	
S-17	66	0.5	Tr	Tr	Fractured Ore	
S-18	66	0.2	Tr	Tr	" " "	
S-19		0	0.03	Tr	Grab, No. NW Dump	

RUSSELL CHECK SAMPLES

C-1	20	0.13	0.26	NO	Oxidized Ore
C-2	24	Tr	0.15	NO	" "
C-3	28	0.30	0.08	NO	SULPHIDE ORE
C-4	12	0.40	0.20	0.6	" "

13,750 N
13,500 N
13,250 N
13,000 N
12,750 N
12,500 N
12,250 N
12,000 N
11,750 N
11,500 N
11,250 N
11,000 N
8,250 E
8,500 E
8,750 E
9,000 E
BLOCK C
495,000 TONS
BLOCK B
82,910 TONS
BLOCK A
35,000 TONS
SULPHIDES
COPPER
UNOXIDIZED
LEACHED
OXIDIZED
OUTCROP
SUNRISE
MAIN TUNNEL
EL. 6015
NO. 1 W
EL. 6059.4
NO. 1 E
EL. 6293.3
NO. 2 E
EL. 6257.5
NO. 3 W
EL. 5979.5
EL. 5910.2
NO. 4 W
EL. 6140.5
NO. 3 E
36, 2.4% Cu, *3.80 Au
30, 1.8% Cu, *1.70 Au
28, 0.8% Cu, *1.20 Au
40, 3.6% Cu, *4.00 Au
40, 1.5% Cu, *5.20 Au
37, 0.8% Cu, *1.10 Au
23, 0.5% Cu, *0.60 Au