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Item 79

Memorandum on the

IMLAY VIEW TUNGSTEN PROPERTY

Eugene Mountains, Pershing County, Nevada

Abstract

The Imlay View tungsten property is located on the southeast flank of the Eugene mountains, Pershing County, Nevada, 10 miles northwest from Imlay. The claims, held by Emil Stank and Ira Stanley, are underlain by a metasedimentary series, consisting of hornfels, slates, and quartzites, a hornblende andesite dike, and a series of kaolinized aplitic sills. The scheelite occurs along joints in the kaolinized sills, and disseminated in the quartzite. The quartzite may average 1.0% WO_3, but the narrow widths makes the possibilities of commercial ore remote. No other commercial ore is on the property.

Location and History

On October 7, the author visited the Imlay View tungsten property, accompanied by Emil Stank of Lovelock, a co-owner of the property. The property is located on the southeast flank of the Eugene Mountains, 10 miles northwest of Imlay, Nevada. It is reached by taking the gravel road to Junge as far as Callahan Bridge, turning right along the river for a half mile, then left for three and a half miles, and left again for one mile. The property consists of 5 unpatented claims and lies at an elevation of approximately 5000 feet.

Emil Stank and Ira Stanley located the claims in 1939.

Equipment and Development

The development work on the property consists of nine cuts, averaging 8 x 4 feet, and four feet deep, a 16 foot shaft, a 15 foot adit, a 50 foot adit driven from a 30 foot open cut, and a 50 foot adit driven to intersect the shaft formation. On the accompanying figure, the cuts are designated by Nos. 1, 2, 3, 4, 5, 7, 8, 11, and 12. The shaft is No. 6, the stub adit No. 9, the main adit and open cut No. 10, and the other adit No. 13.

There is no equipment on the property.

Geology

The claims are underlain by a metasedimentary series, a hornblende andesite

dike 6 feet wide, and six narrow aplitic sills. Nowhere on the claim do the rocks crop out, and the hill slopes are covered with a thick talus.

The metasediments strike from N 10 E to N 85 W and vary in dip from vertical to 30 degrees west. They consist of interbedded hornfels, shales, and quartzites.

The quartzite occurs in the western part of the property in adit 10 and cuts 11 and 12, and has been impregnated by much quartz and limonite. It is intensely sheared and oxidized. In the oxidized quartzite are many small rotten pods and lenses of limenite. This quartzite is apparently what Ward Smith has called limestone - badly altered, in his notes describing prospects in the vicinity of the Ritchey stock. It is so intensely altered that its original character is difficult to recognize.

Cut II contains broken pieces of blue limestone breccias Adit 9 is in hornfels that has been intensely sheared. Adit 13, which never reached the shaft sill, is in hornfels.

The aplitic sills lie in the eastern part of the property in workings Nos. 1 to 8, and varies in width from a few inches to four feet. They have been intensely kaolinized and sericitized, and are bounded on either side by a few inches of shale, and then hornfels.

Tungsten Deposits

In cuts Nos. 1 to 6, No. 8, as well as the shaft, the scheelite occurs along narrow seams in the kaolinized sills. Nowhere has the scheelite been disseminated throughout the sills. The overall average grade of the scheelite in the sills in the pits would not be greater than 0.1% WO_3.

In adits 9 and 13, the scheelite occurs sparsely scattered along narrow seams in hornfels. Adit No. 10 is the only one of the workings on the claims

where the scheelite occurs disseminated. In the open cut in front of the adit, scheelite is disseminated sparsely but fairly regularly throughout the sheared and oxidized hornfels and breccia. The open cut shows a height of 21 feet that would average 0.2% WO_3. Inside the adit, the same form of mineralization continues, but in the several quartzite beds, averaging one and a half feet wide, the scheelite occurs in greater abundance, averaging 1% WO_3. Some of this is coarse grained scheelite, but the majority is very fine grained and would probably require flotation in milling. Overall average of the adit is 0.25% WO_3.

Very few colors were observed in pits 11 and 12.

Some yellow grains, possibly tungstite, were recovered in panning material from cut No. 7.

Nowhere on the property was scheelite seen in the float.

Ore Reserves

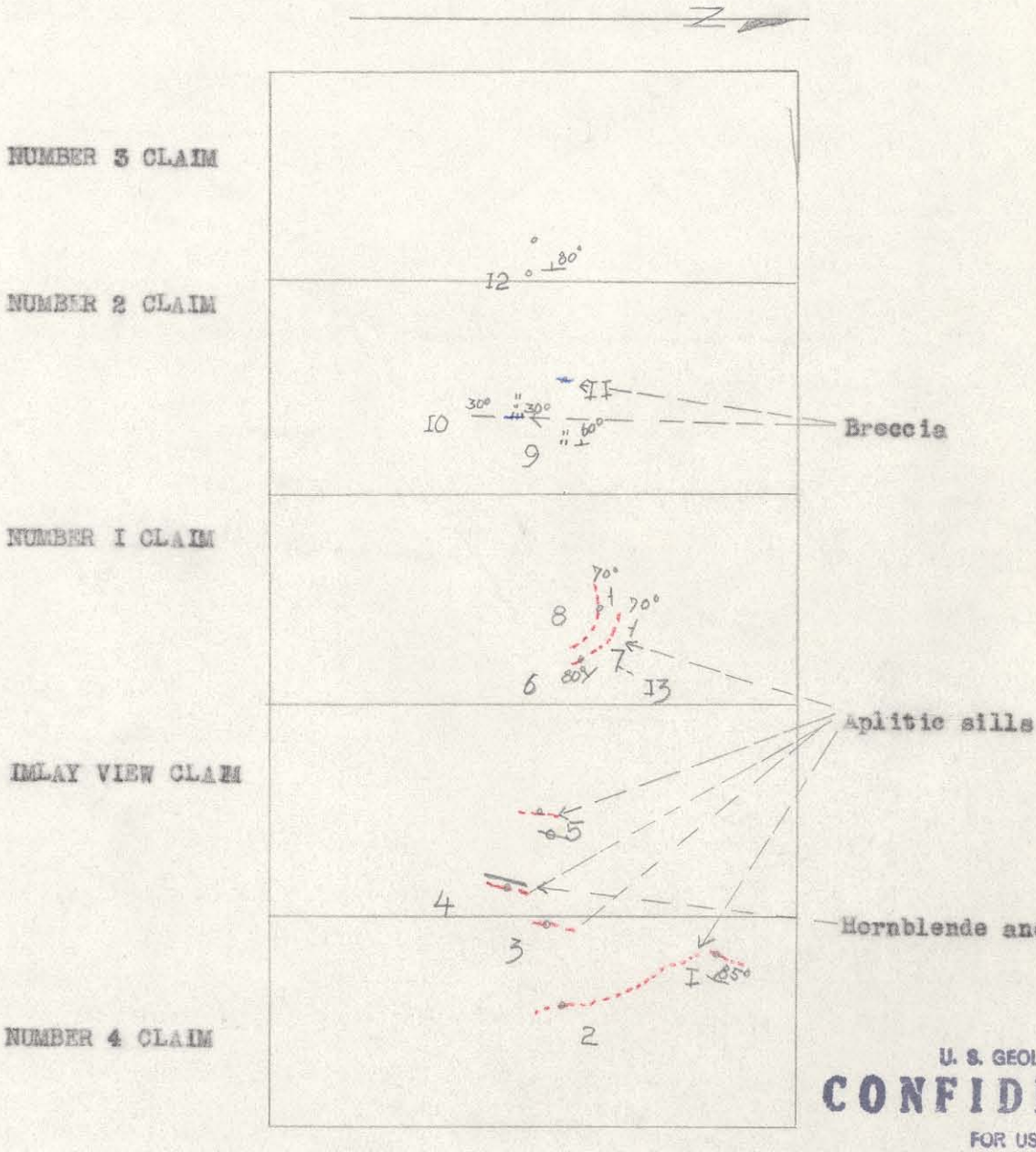
On the dump of adit 10 are 80 tons of rock averaging 0.25% WO_3. Most of the scheelite on this dump occurs in the fines, and the coarse rock is very low grade. Perhaps 1 or 2 tons of 0.5% WO_3 ore could be sorted. By selective mining of the narrow quartzite beds in the main adit, a few tons of 1.0% WO_3 could be produced, but it is doubtful whether the mining would pay for itself. The rest of the property contains no commercial ore.

T. B. Nolan (3)
S.G.Lasky
D.M.Lemmon
File

Peter Joralemon

Junior Geologist

October 8, 1943.



Geologic Sketch Map of

IMLAY VIEW TUNGSTEN PROPERTY

Eugene Mountains, Pershing County, Nevada

U. S. Geological Survey October 1943

Scale 1"- 500'

Peter Joralemon.

W. E. HAWLEY
ASSAYERS
CHEMISTS

EL PASO, TEXAS
BOX 4

HAWLEY & HAWLEY

W. E. HAWLEY, MANAGER.
DOUGLAS, ARIZONA
537 12TH STREET
BOX 151

F. L. HAWLEY
SHIPPERS REPRESENTATIVES
BULLION BUYERS
ORE BUYERS

HAYDEN, ARIZONA
BOX 743

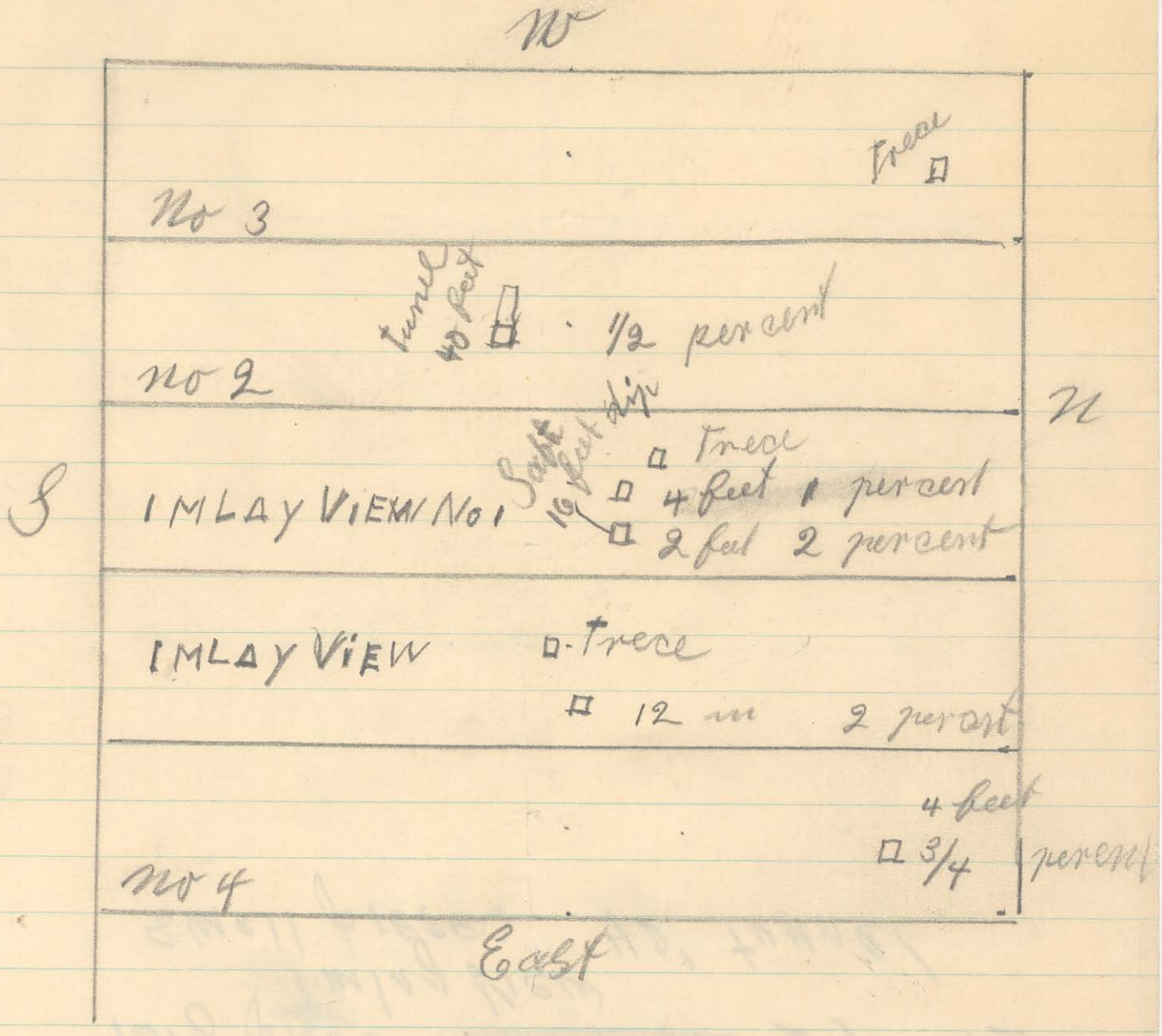
We hereby certify that the following results were obtained from samples of St. Louis Bringnace District.

OFFICE NO.	MARKED	GOLD OZS.	SILVER OZS	LEAD PER CENT	COPPER PER CENT	W03		GOLD VALUE	SILVER VALUE	TOTAL VALUE
178295	#1-Stank 24"					0.52				
178296	#2-Stank Tunnel	40'				0.03				
	Emil Stank Lovelock, Nev		Maj. Silverman	Examined Oct. 7, 1943 - by Peter Jorgelemon for the U.S.G.S.						

METAL QUOTATIONS:

Gold $35.00 per oz. Copper_____c per lb. Charges: $_____ HAWLEY & HAWLEY

Silver,_____ per oz.____ _____per lb. Date 8/5/43. _____ Per F. L. Hawley Assayer.


W
Trees
No 3
Tunnel 40 feet
1/2 percent
No 2
N
S
IMLAY VIEW No 1
Safe 10 feet dip
Trees
4 feet 1 percent
2 feet 2 percent
IMLAY VIEW
Trees
12 in 2 percent
4 feet
3/4 percent
No 4
East

1½ S.W. of Nevada Massachusetts

Emil Stank
Lovelock Nev Box 281

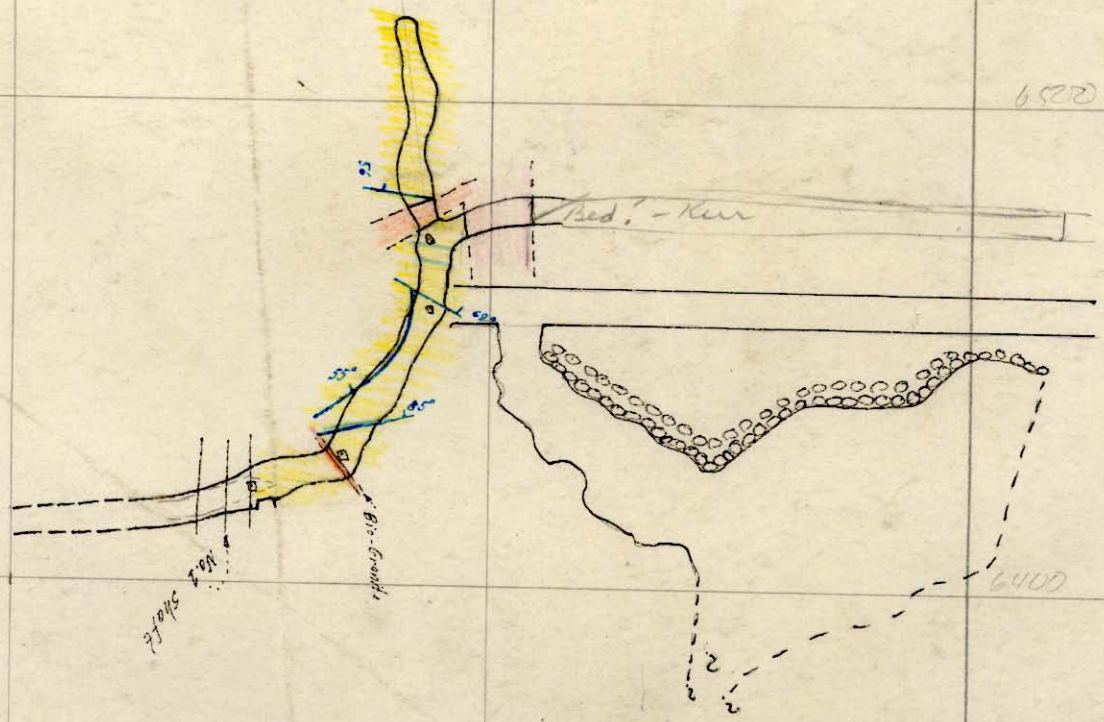
Big piece ~~[illegible]~~ 2 ft - 12"
Imlay View
small pieces 40' tunnel

STANK

100

Item 79

Stank Mine
100 Level
North end
1" = 40'



STANK 400

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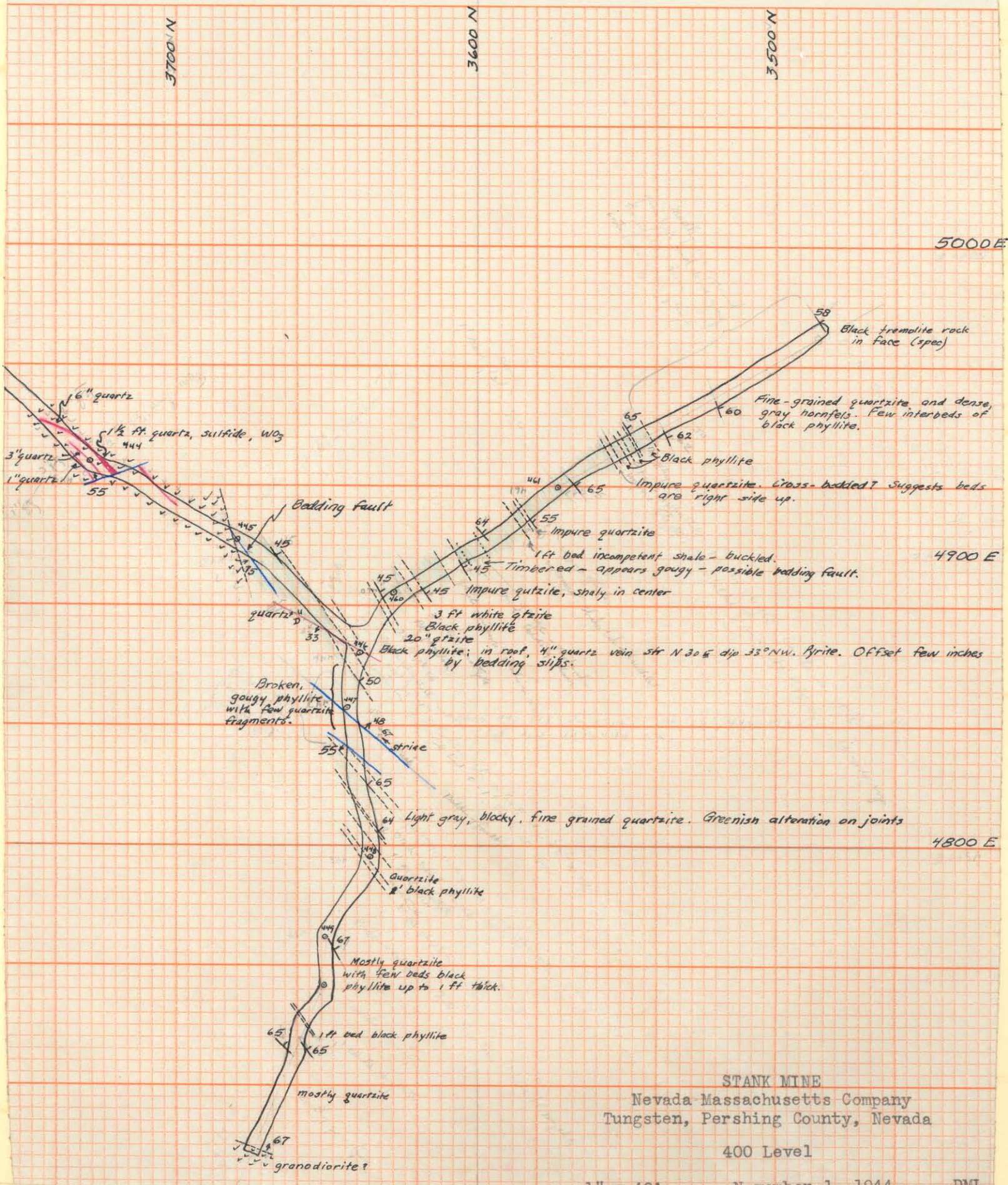


STANK MINE
Nevada Massachusetts Company
Tungsten, Pershing County, Nevada

400 Level

1" = 40' November 1, 1944 DML

STANK 400

D.D. #82 m Sta 416 (-10°) S75°E

0 - 86 rpls. Hole cased 60-67 reinstate bit.
cased 74 and 84

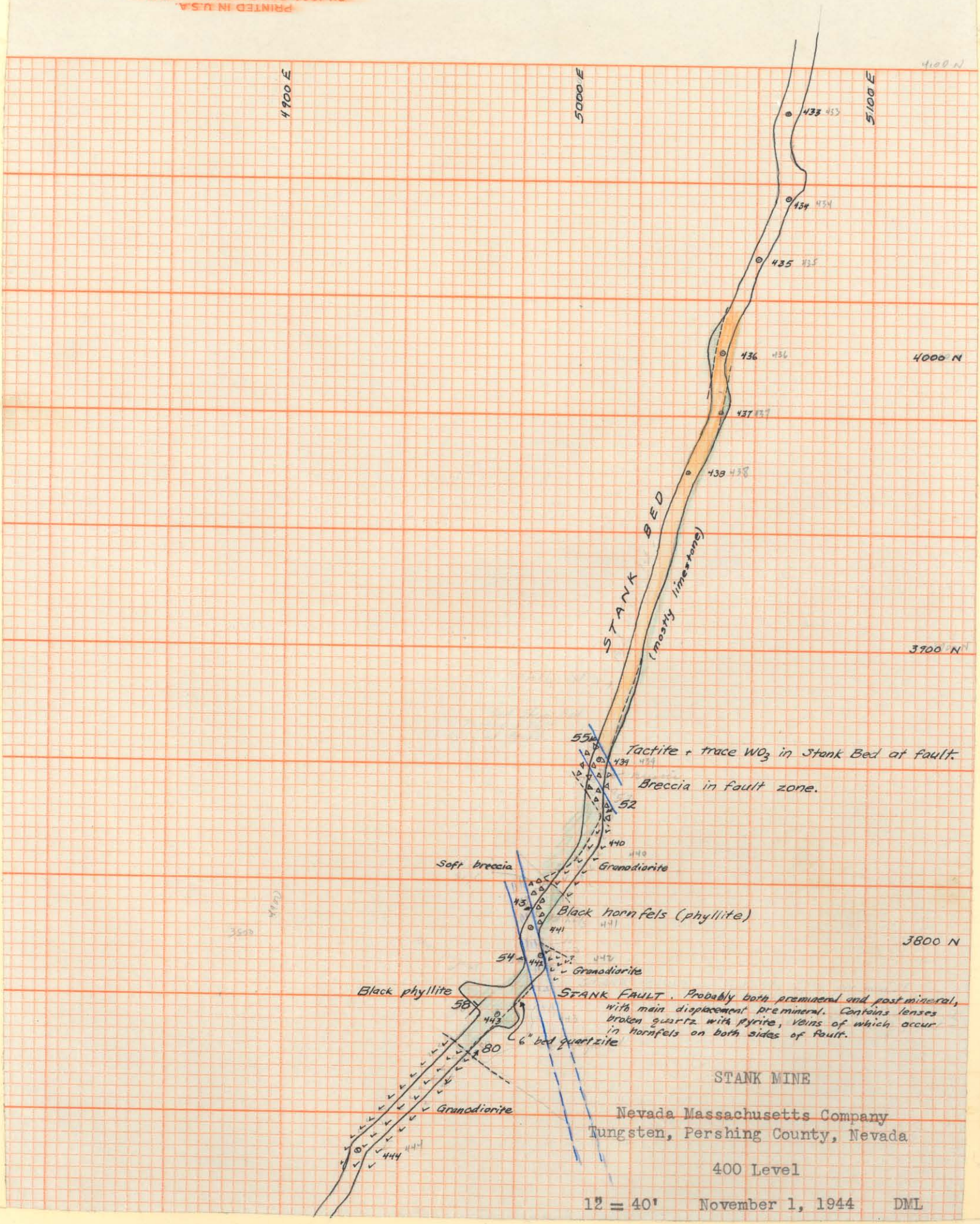
86-87 HB

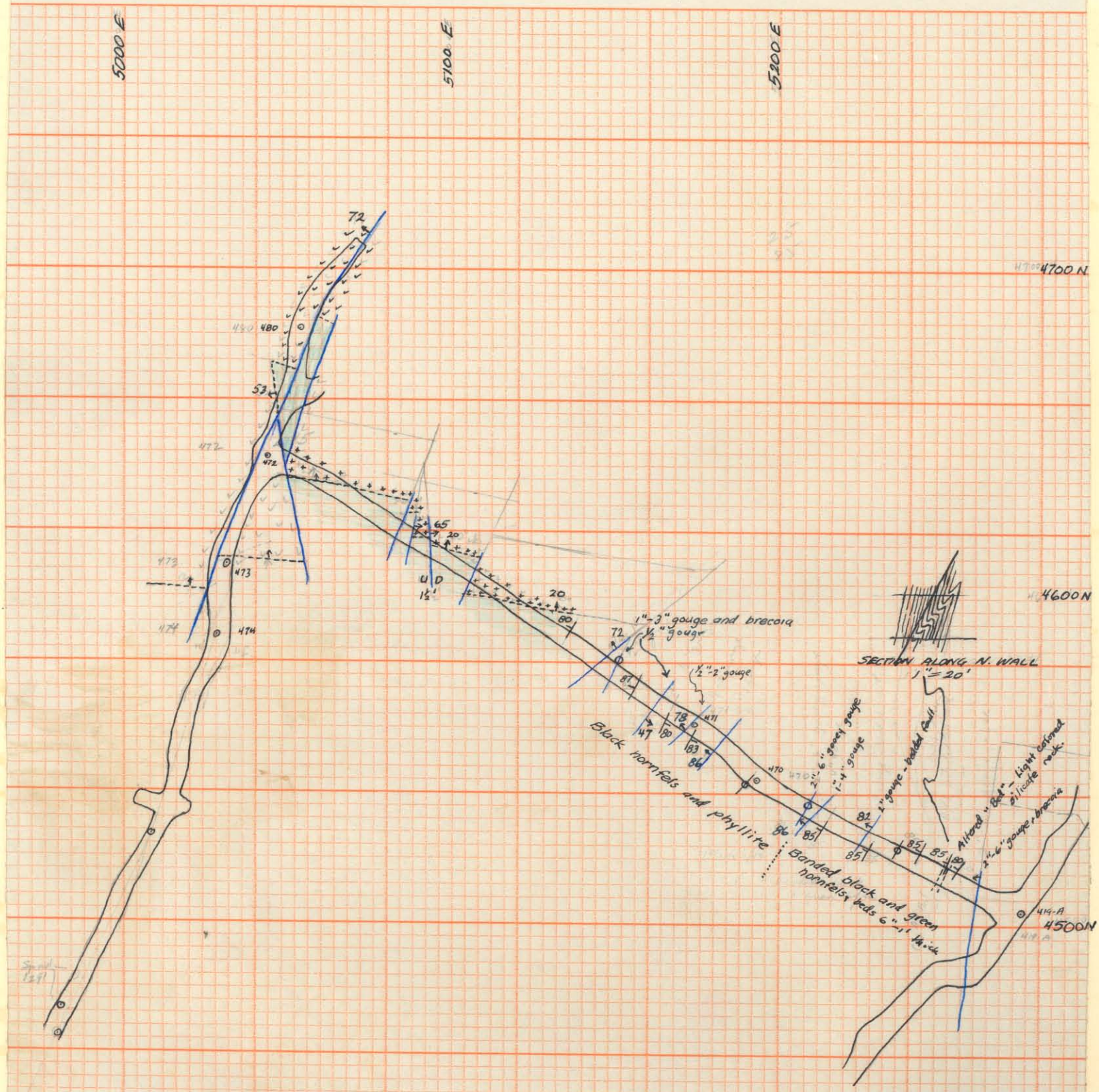
128-129'6" HB

129'6"-130' rpls

Bit stuck -

No ore. Sludge samples taken where core not received.
Core recov. 57%.





STANK MINE

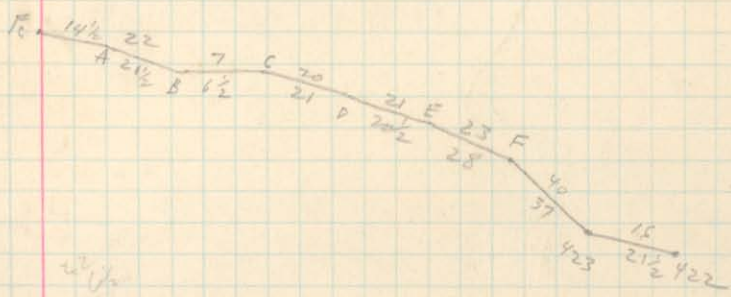
Nevada Massachusetts Company
Tungsten, Pershing County, Nevada

400 Level

1" 40' November 1, 1944 DML

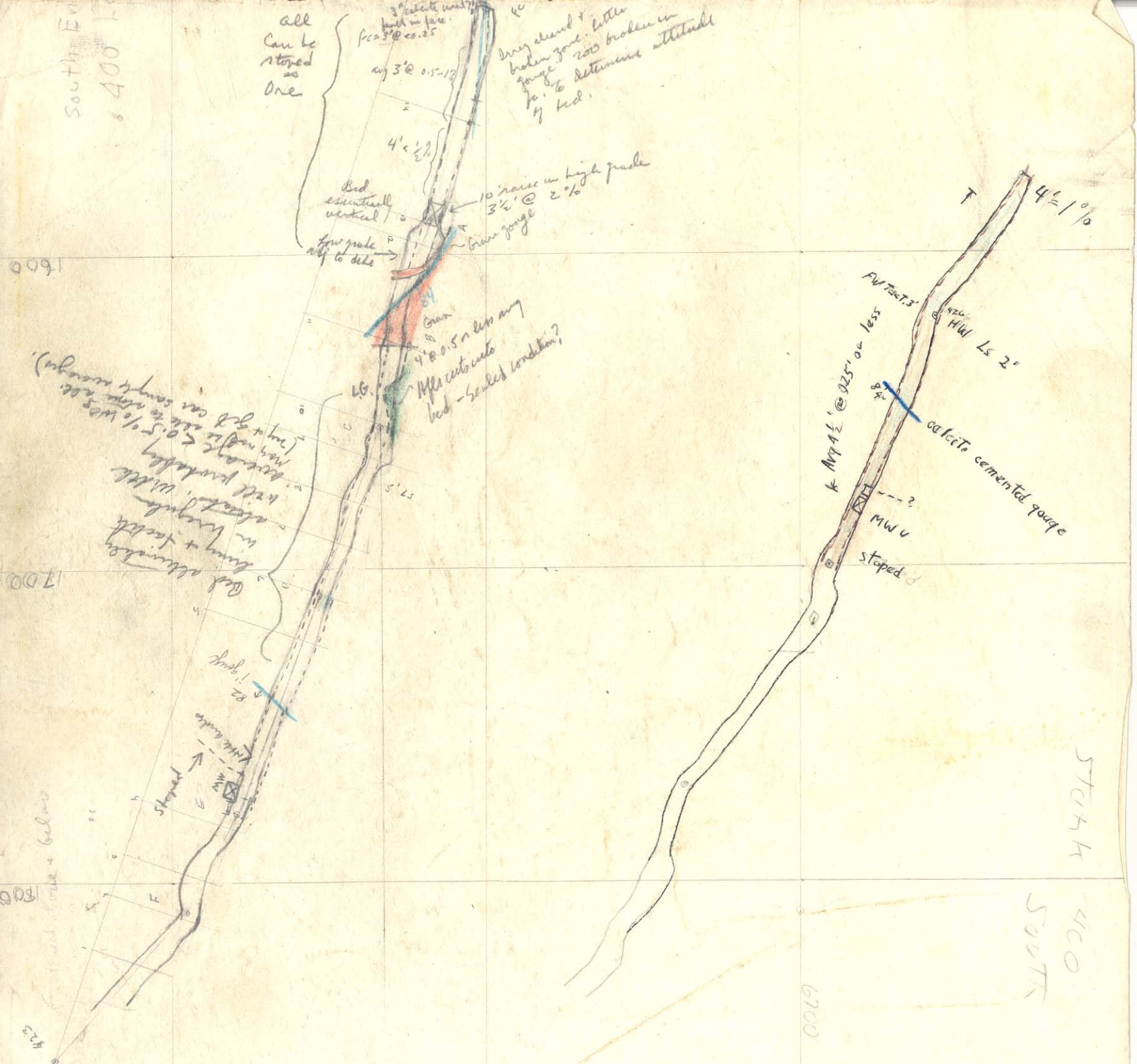
Stank 400 Level 5/12

	Bearing	Incl	Dist	Remarks
422-423	S 16 W		21½'	
423-422	N 21½ E		21½'	
423-F	S 40 W	18½ R	64	Pipe over MWE S.O.
F-423	N 37 E		64	
F-E	S 23 W	14 L	35½	
E-F	N 28 W		35½	
E-D	S 21 W	7 L	74½	E-Mon by Trad
D-E	N 20½ E		74½	" "
D-C	S 20 W	½ L	57½	
C-D	N 21 E		57½	
C-B	S 7 W	14 L	31½	C= Dstanback
B-C	N 6½ E		31½	
B-A	S 22 W	15½ R	37'	Neil-B
A-B	N 21½ E		37'	Mon = A
A-Face	S 14½ W	7 L	70'	Center of Face



27

		Bottom	Top.
1	38	13	22
2	56	22	29
3	69	20	27
4	88	26	31
5	152	29	37
6	168	30	36
7	185	31	37
8	199	30	36
9	214	33	40
10	225	32	38
11	251	27	33
12	283	24	32
13	290	26	32
14	325	25	32
15			
16		21	27


South Extension
400 L
All Can be stoped as One
3" calcite veins
fc = 3' @ 0.25
avg 3' @ 0.5-1%
Very decomposed & broken zone. Little gouge. 200 broken in fc. To determine attitude by hand.
4' < 1/2 %
Bed essentially vertical
10' raise in high grade 3½' @ 2%
Gouge
Low grade adj to dike
Gouge
4' @ 0.5 n dip avg
Mfles cut vein bed - Sealed condition?
L.G.
5' LS
Bed assuming it is Lenticular, like other, probably < 0.5% Wes Ave (but not like in Gouge area)
Stoped
Line Gouge
92' Gouge
1600
1700
1800
1900
4' = 1%
T
FW Text 3'
426
HW LS 2'
Avg 4½' @ .25' or less
84'
calcite cemented gouge
---?
MW
Stoped
STCH4
4100 SOUTH
6700

STANK 300

STANK 300 Level

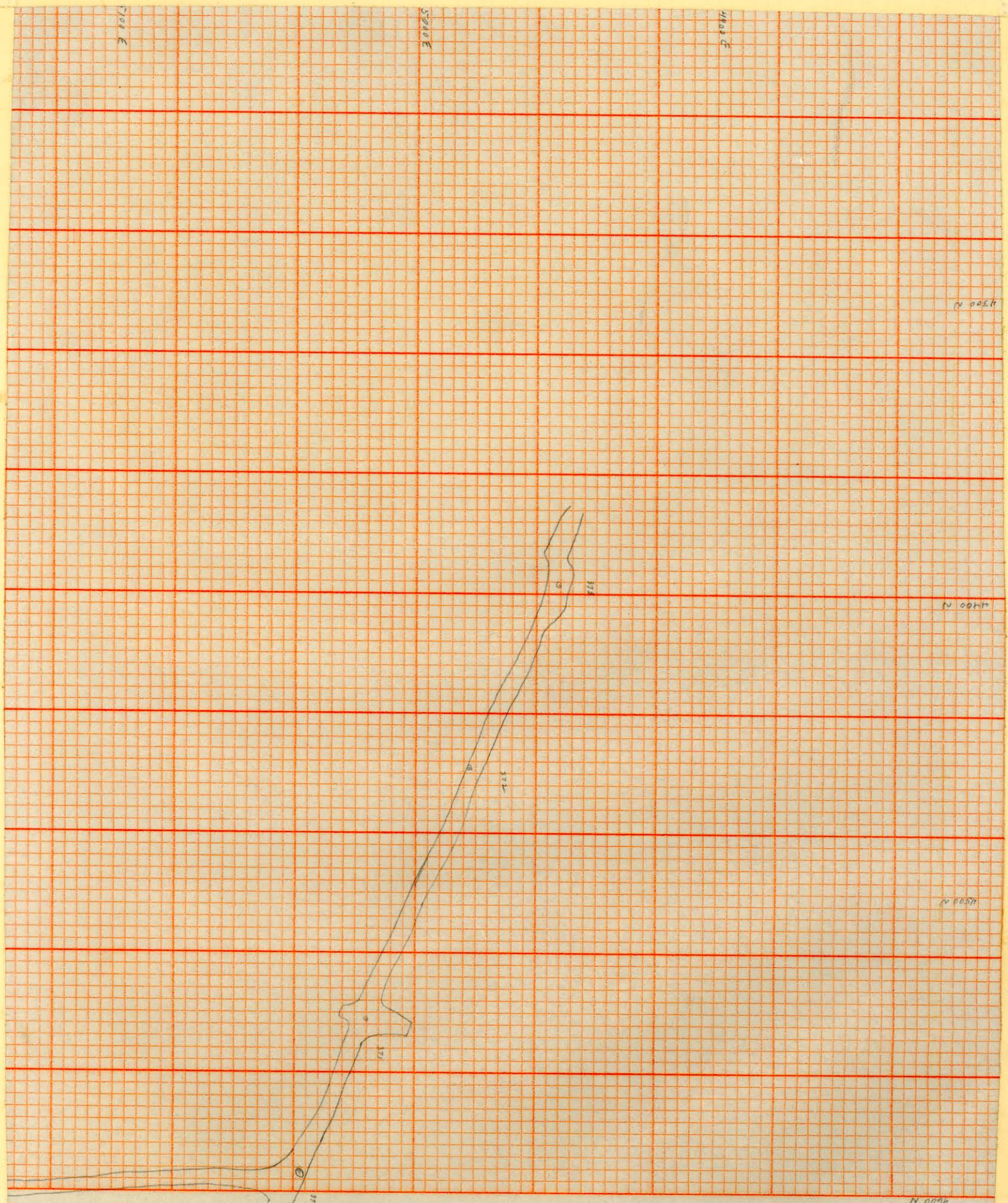
DD #82 in sta 307 S75°E (-10°) & FW

0-28 hfls —

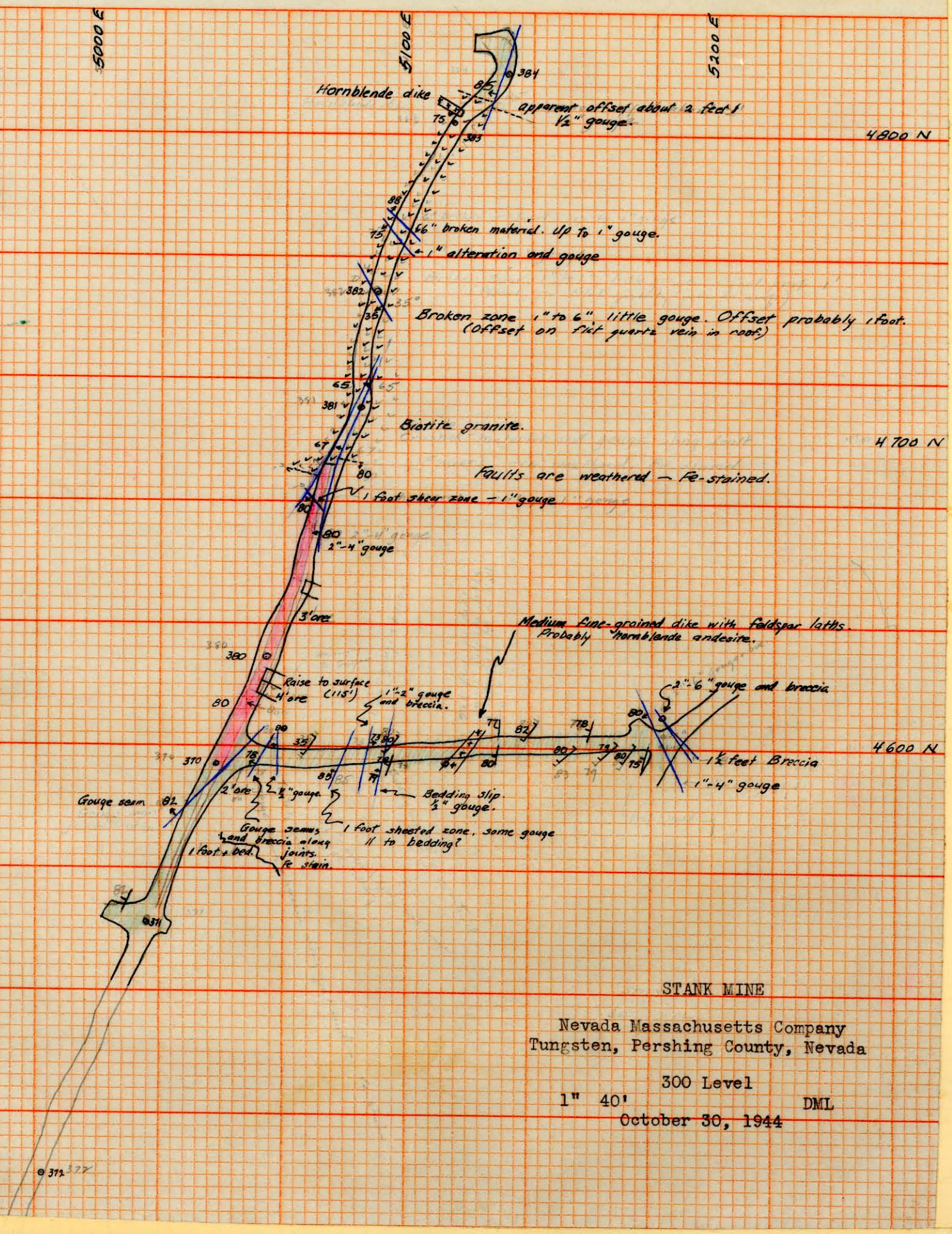
Hole stopped because of poor core recovery —
See hole #3, 400 level.

DD #89 15' W sta 371, Yellow Scheelite Bed to east O'Byrne
N 71°W 4845 N, 5002 E
and 4660 N, 4673 E (-5°)

0-65 hfls
65-85 granite
85-96 hfls.
96-99 granite
99-133 hfls
133-152 hfls with granite stringers intersecting core at 30°
granite from 134-134½; 135-136½; 137-137½;
139-141; 142-142½; 144-144½.
152-257 granite. ~~Rice~~
257-279 Broken granite. Gouge at 263. Hardcheese at 264-266.
7 feet core short 263-273. Badly Broken 275-277.
279-307 Broken gouge zone; 7 feet core missing
Pist. hfls.
307-323 hfls. Broken 313-317. 11 feet core missing.
323-346 White 1st. 10 ft core missing. Irregular mineralization
High pressure water in 1st (stopped hole)



"PERFECT" CROSS SECTION
10 X 10 = ONE INCH
EUGENE DIETZGEN CO.



STANK MINE

Nevada Massachusetts Company
Tungsten, Pershing County, Nevada

300 Level

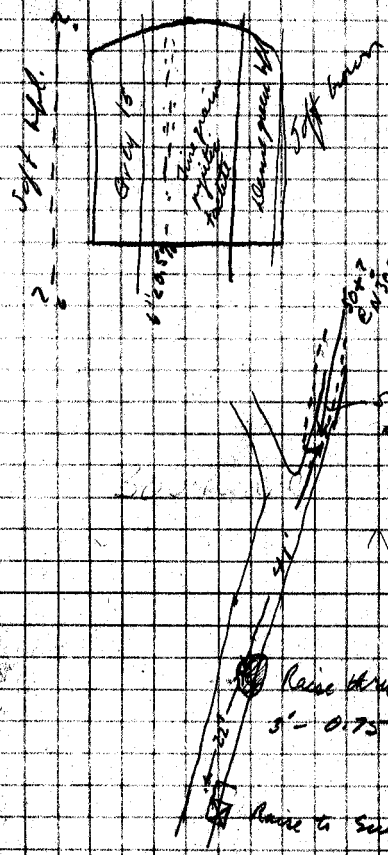
1" 40' DML

October 30, 1944

Stanch Mine 5-12-43

300 level

South Face



STANK 850

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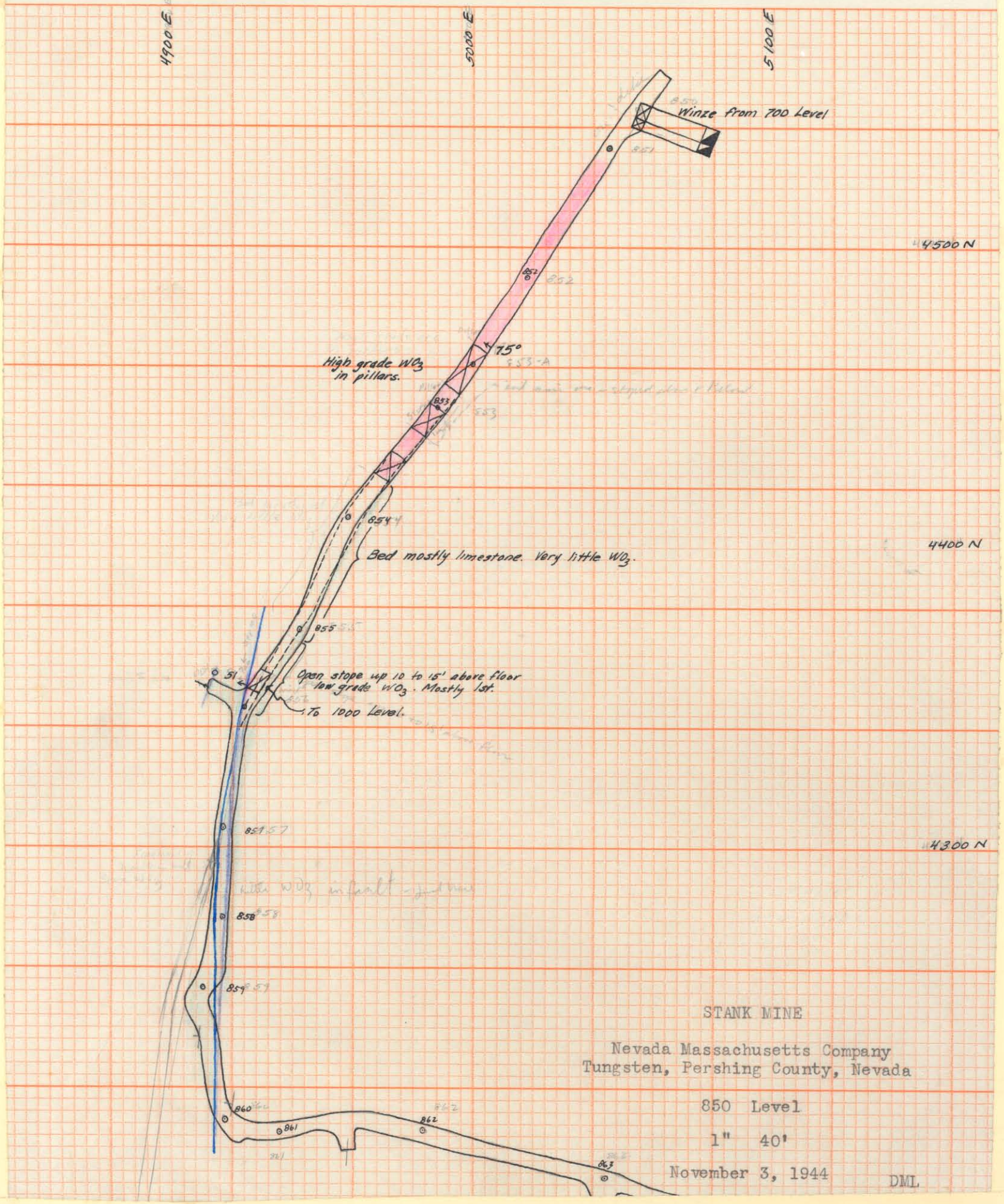


STANK MINE

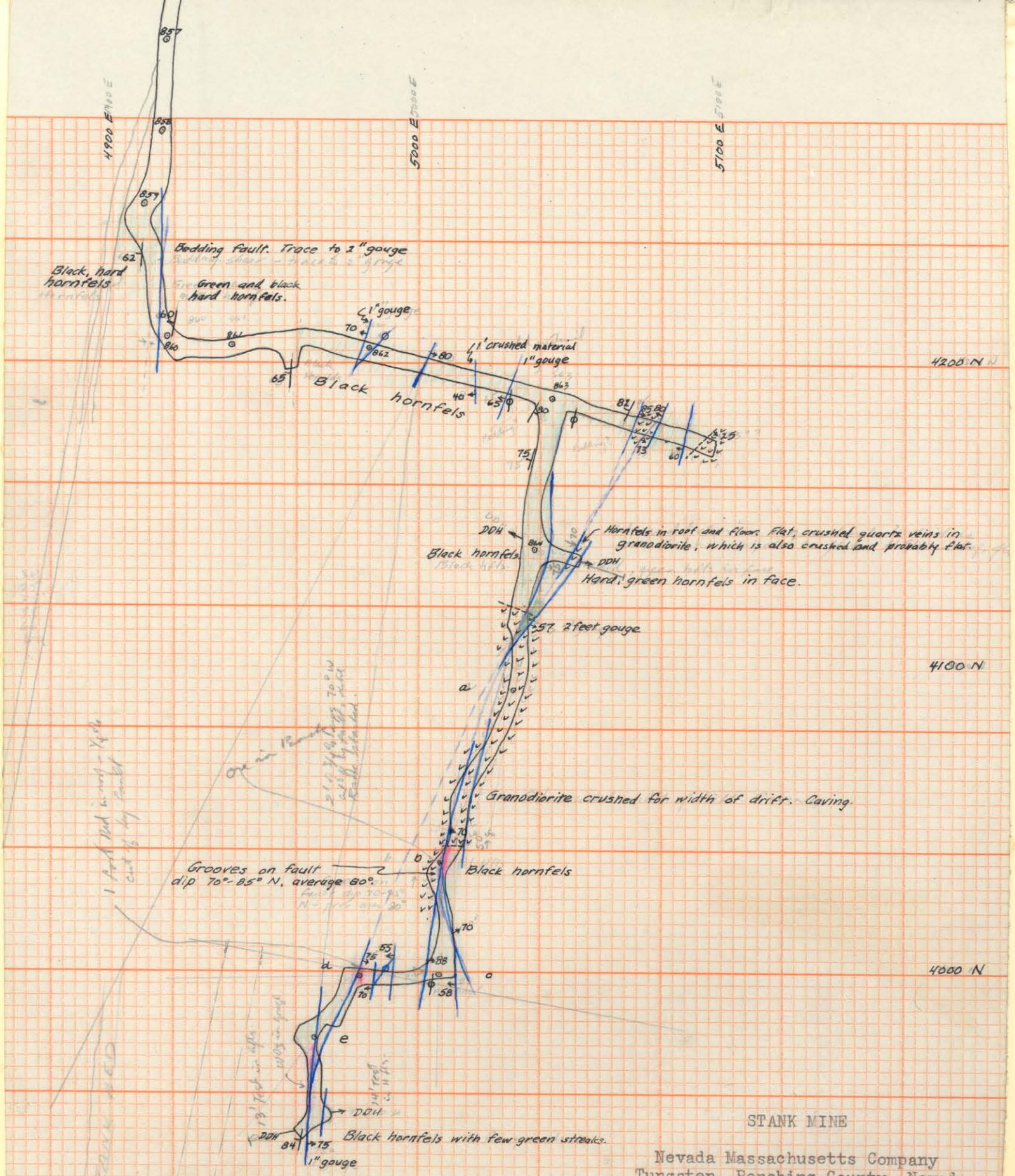
Nevada Massachusetts Company
Tungsten, Pershing County, Nevada

850 Level

1" 40'

November 3, 1944

DML



STANK MINE

Nevada Massachusetts Company
Tungsten, Pershing County, Nevada

850 Level

1" 40'

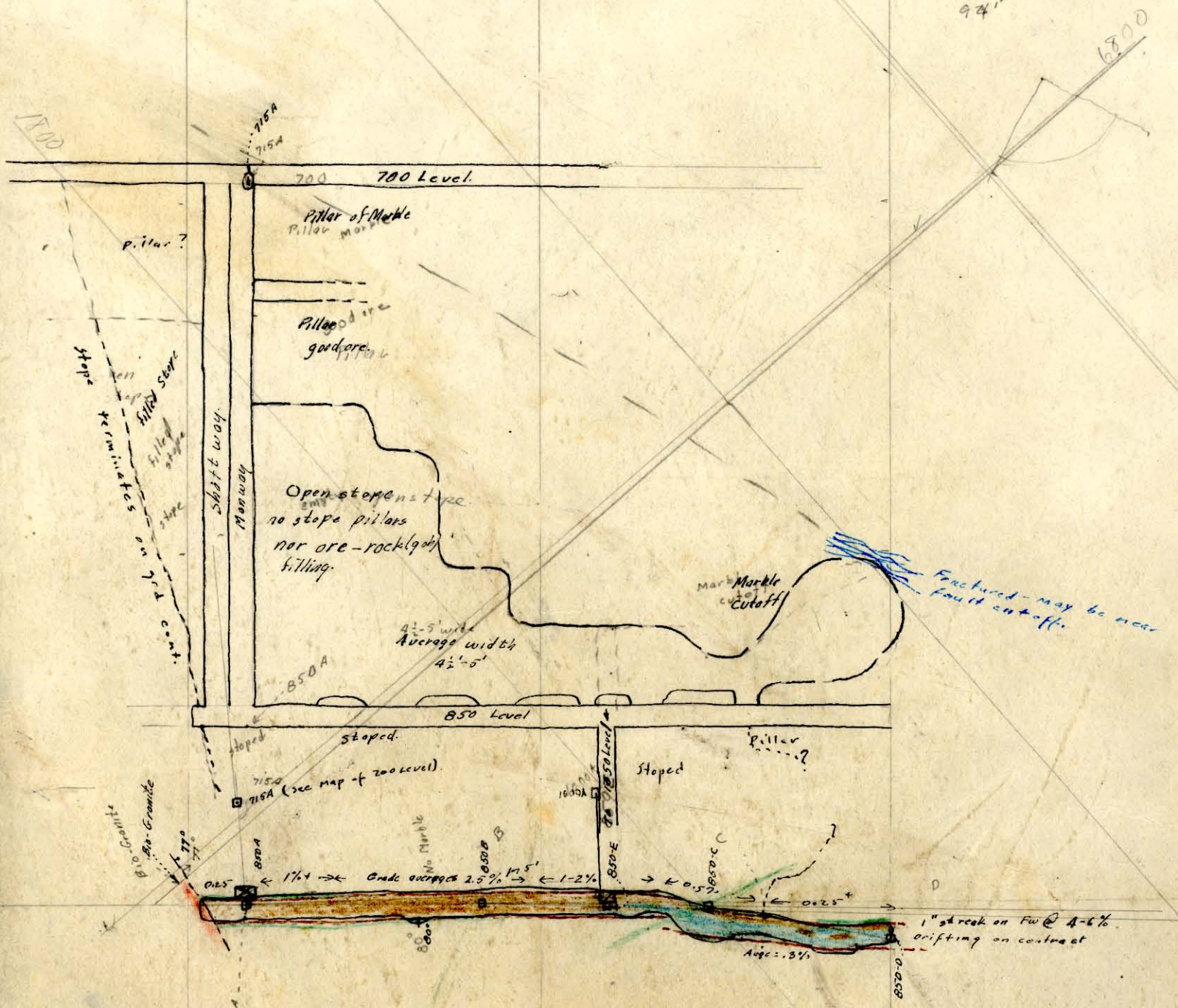
November 3, 1944 DML

Stank Mine

850' Level

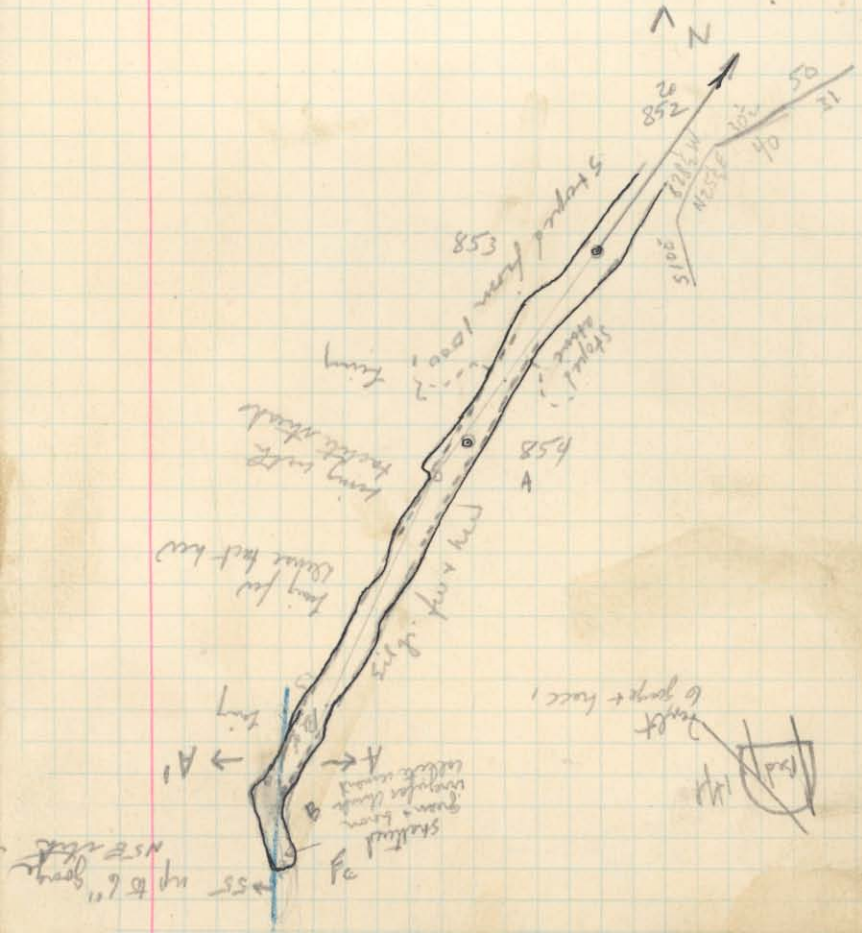
1" = 40"

North has not been plotted. Determine from bearing of 715A 850A

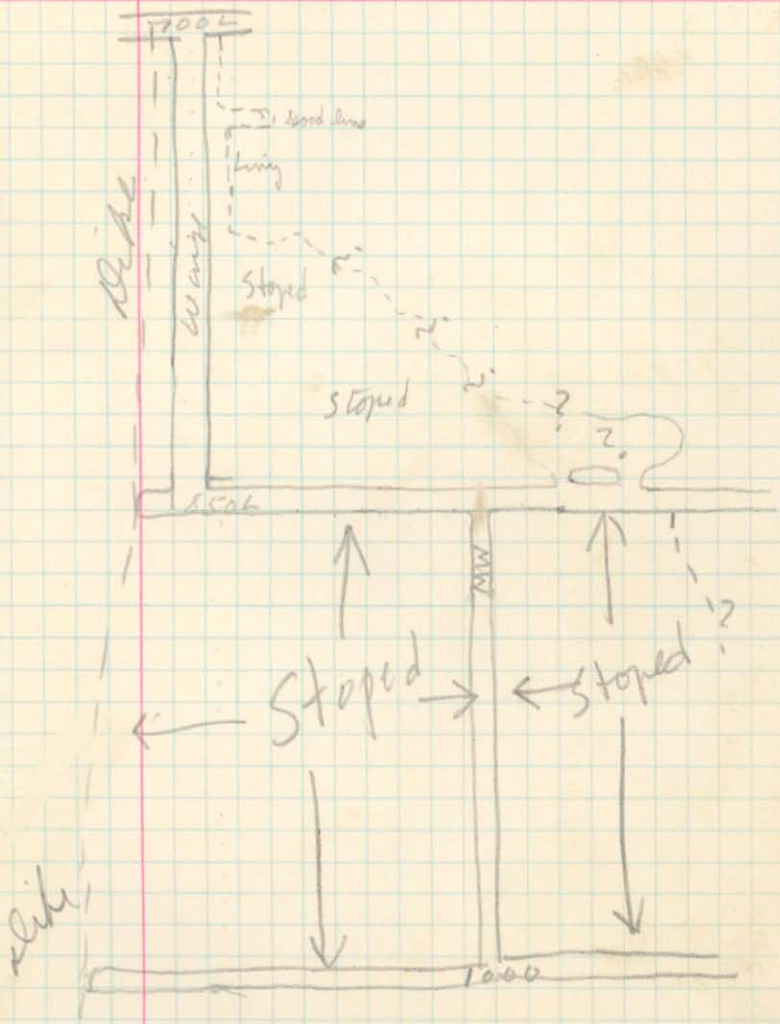


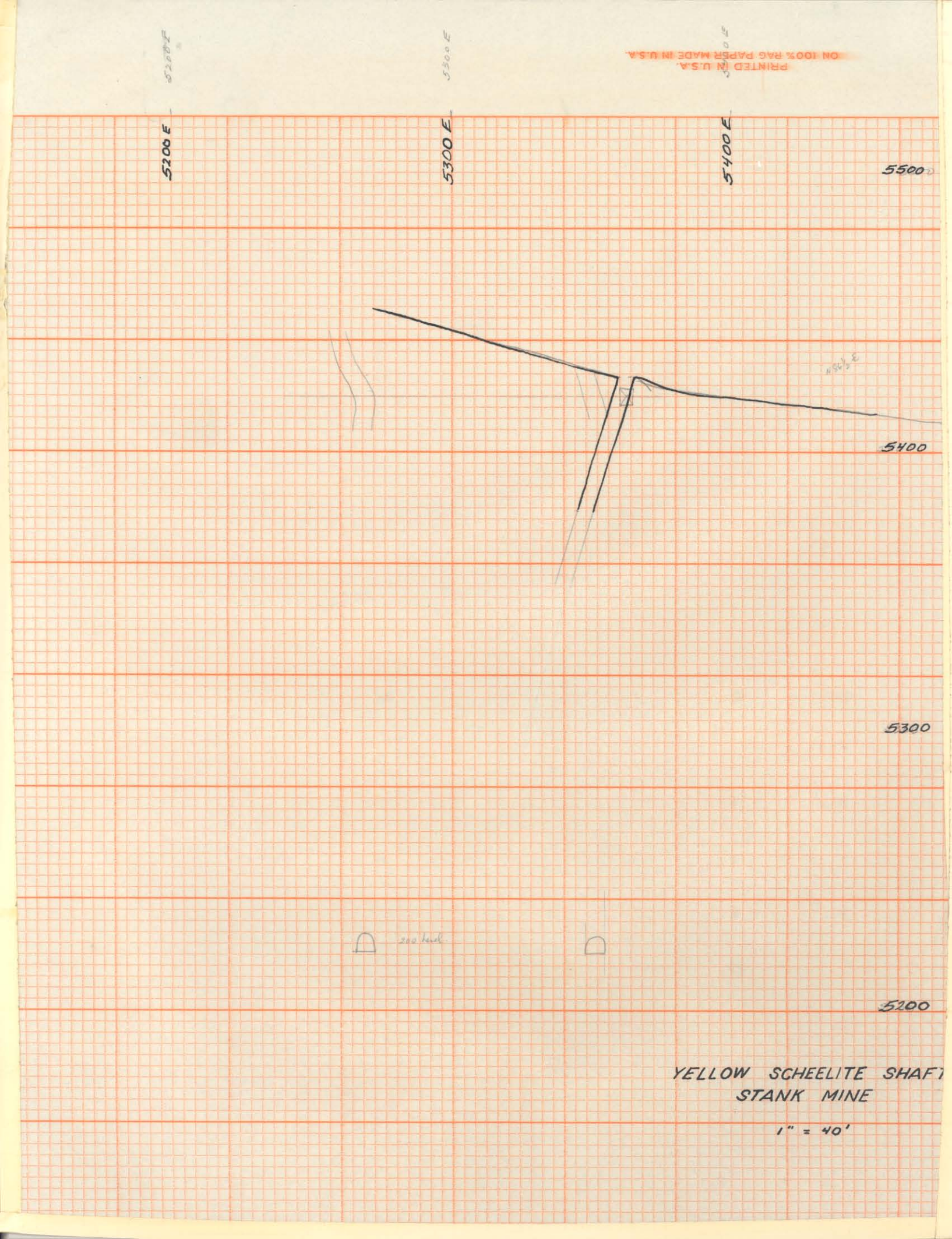
850 Level

852-853	S50W	
853-852	N31½E	
853-A	S30½W	58'
A-853	N40E	58'
A-B	S28½W	78'
B-A	N25½E	78'
B-Fc	S10E	10½



Stark - 850 Level - 5-13





Yellow WO_3 shaft dip 72½ 10 sets down (50 ft?) sheeted flattens - looks like small pitch

Raise dip 70° - stope ~~at~~ N & E
Stope raise 10' N of raise

STANK

200

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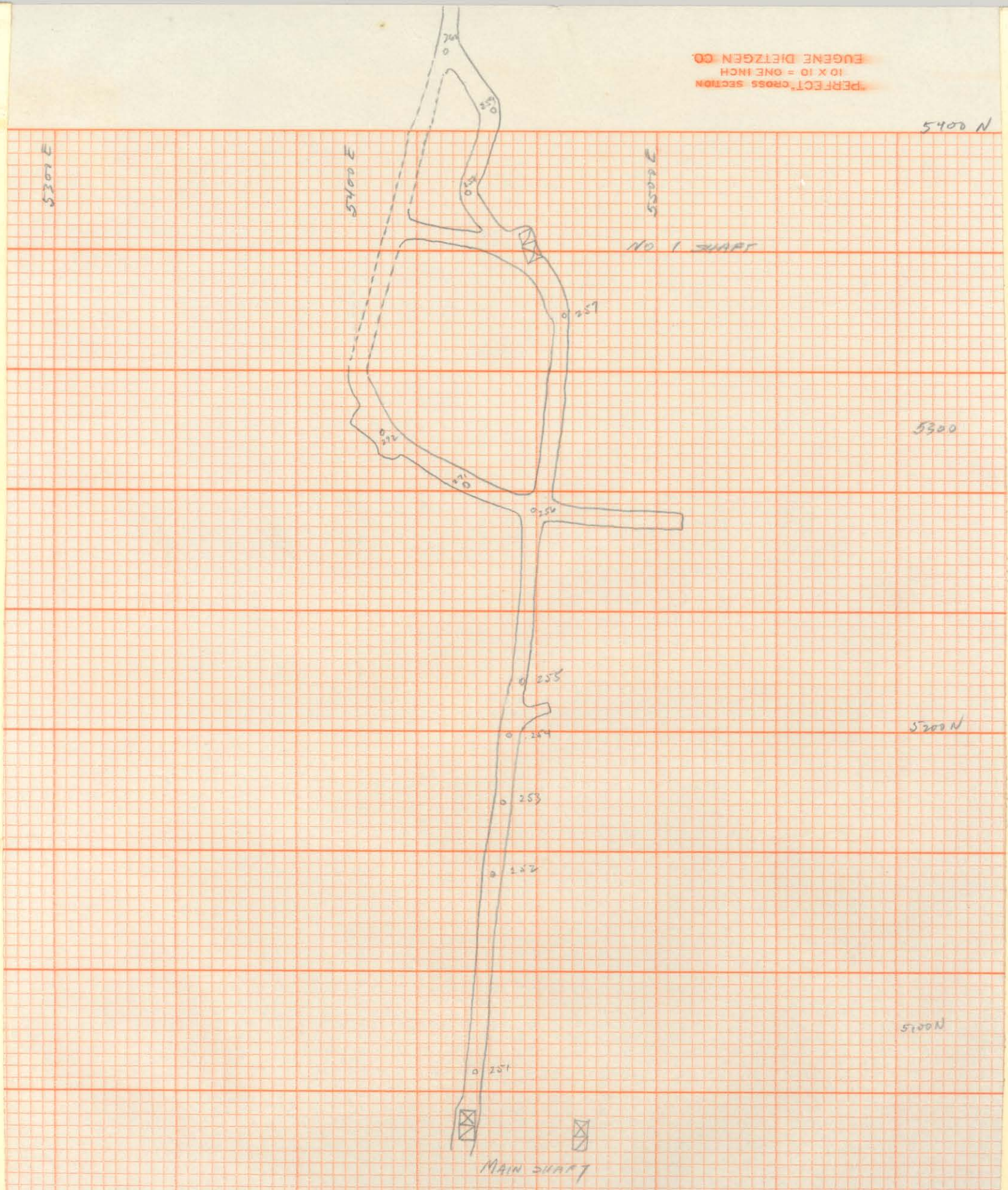
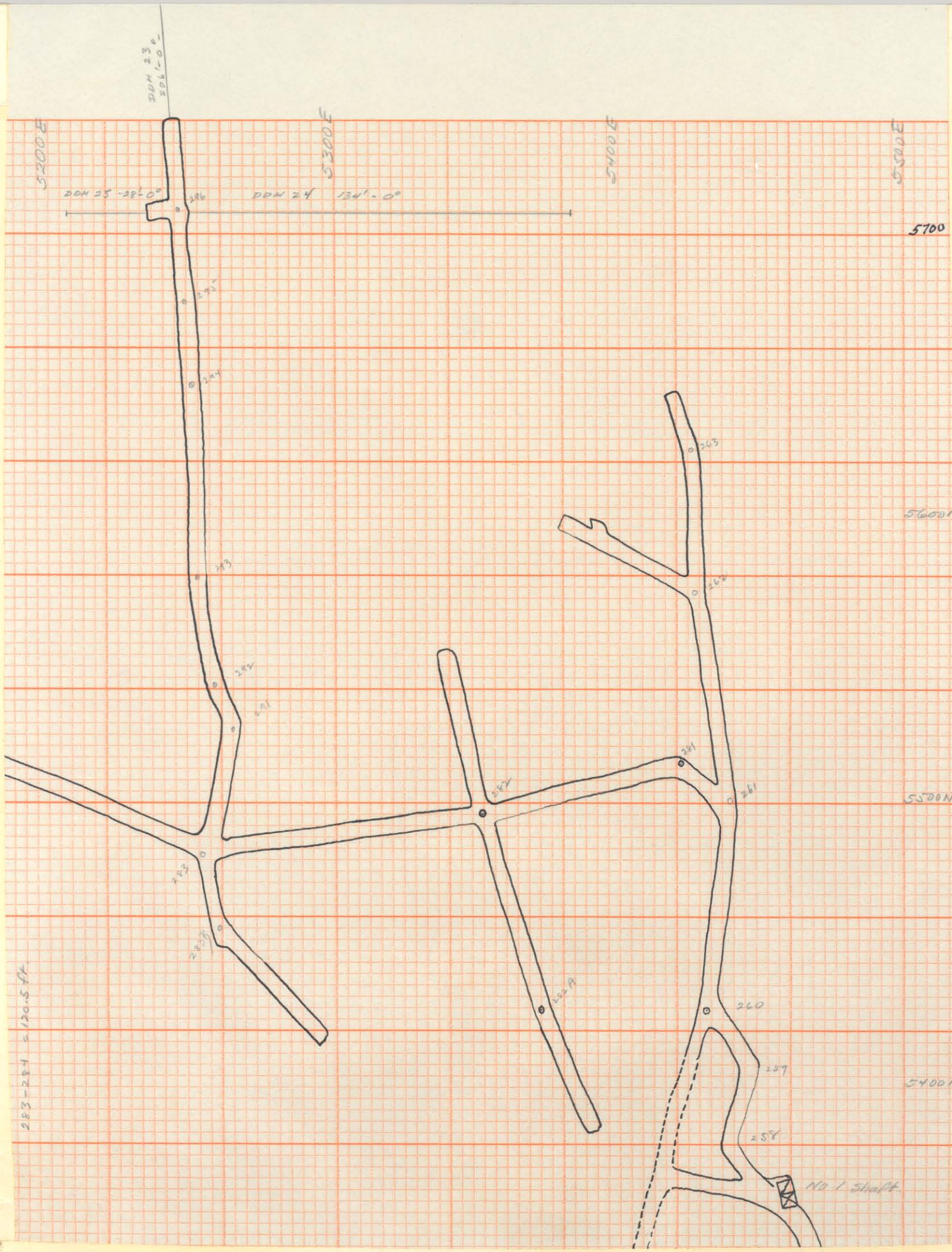
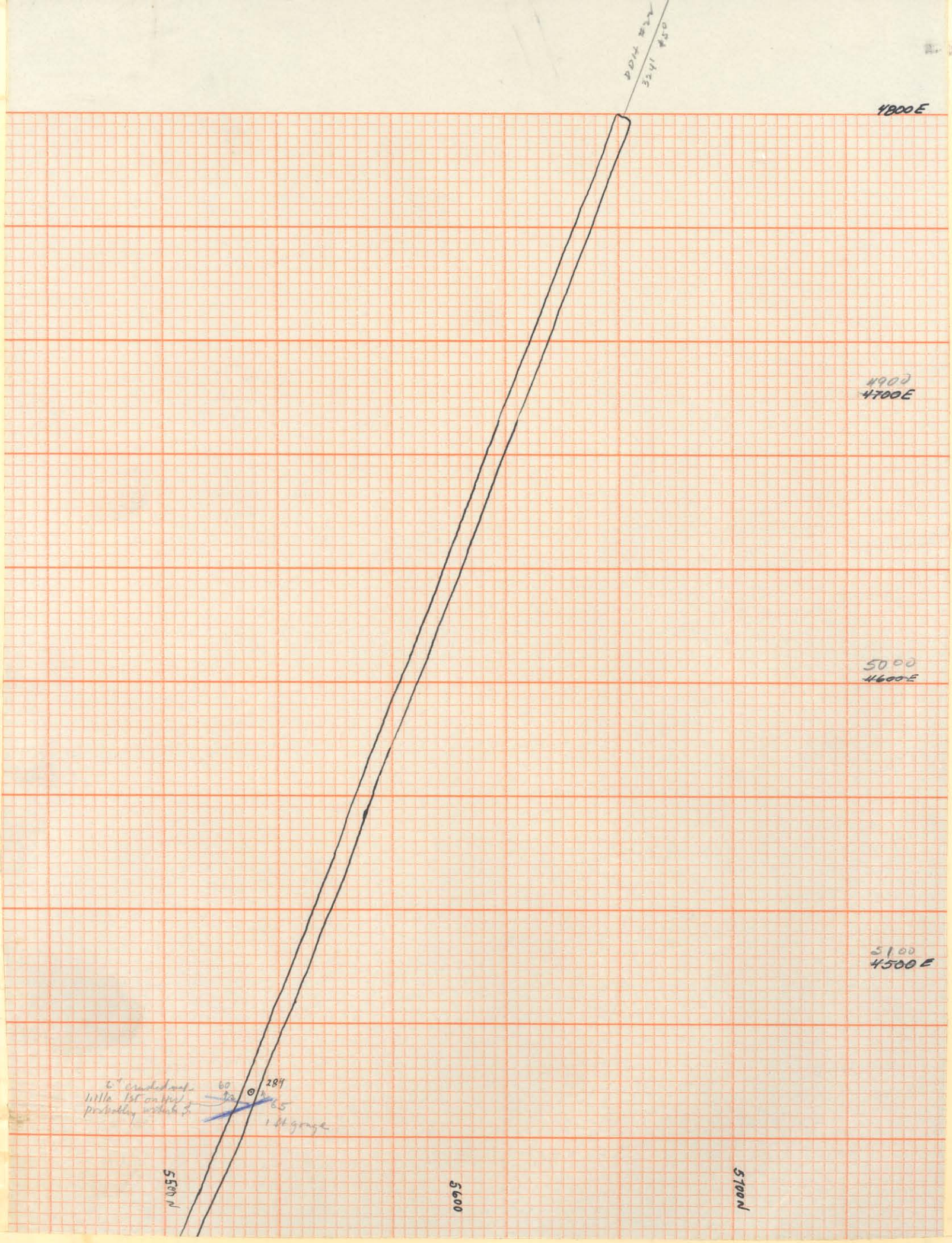
Collar Shank Shaft	5389.7				
100 Level	5312.0		100	97	
200 Level	5214.9		200	88	
300 Level	5126.5		300	81	
400 Level	5045.4	5056	400	94	
500 Level	4951.4	4962	500	98	
600 Level	4853.1	4864	600	86	
700 Level	4773.0	4784	700	93	139
SUB SHAFT					
800	4675.0		800	41	95
850 (winze)	4634.4	4640	850	97	157
900	4580.0		900	95	
1000	4483.3	4491	1000	86	
1100	4387.9		1100		
1200	4301.8		1200		




DDH 23
206'-0°
3200E
3300E
3400E
3500E
DDH 25 -28'-0°
286
DDH 24 134'-0°
5700
285
284
283
282
281
263
262
261
260
259
258
287
283
283B
282A
No 1 Shaft
283-284 = 130.5 ft.

474							
	473	N 9° E					
	474-a	N 51 W	64'		5	52-58	8
					9		
474a							
	474	N 16½° E			4½	50	0
		S 24 W	67.6'	Rt S 85 W	4½	40	3
					2½	30	3½
					1	20	4
					2½	10	3
449							
	449-a	N 86 W	16½'	78			
	449 b		78'				
449-a							
	449	S 86 E					
	449b	N 67 W					
Nov 3 1944							
864				PLOTTED			
	863	N 7 E		✓			
	a	S 9 W	47'	Plot			
a							
	864	N 12 E	47'	N 9 E			
	b	S 26 W	62'	S 23 W			
b							
	a	N 22 E		N 23 E			
	c	South	37'	S 01 W			
c							
	b	N 04 E		N 01 E			
	d	N 88 W	26'	N 89 E			
d							
	c	S 89 E		N 89 E			
	e	S 34 W	25	S 36 W			
e							
	d	N 36 E		N 36 E			
	f	S 02 W	30		face		


DDH #22
3241 #50
4800E
4900
4700E
5000
4600E
5100
4500E
6" crushed out
little 1st on top
probably washed 5
60
284
65
1 ft gouge
5500N
5600
5700N

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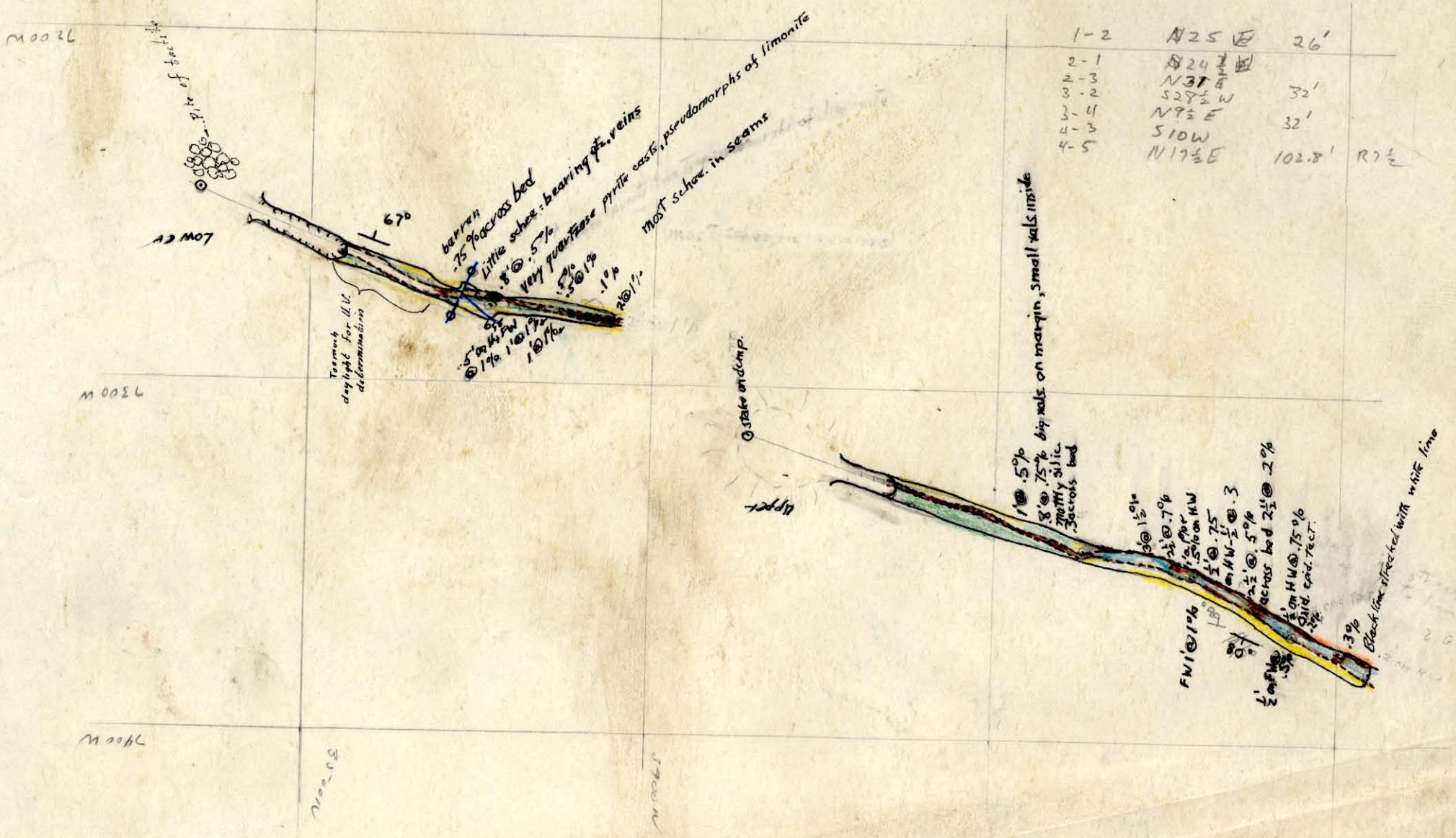
Item 79

West Vein Tunnels
Old Coordinates
1" = 40'
Traced from N.M. Stank Map

1-2	N5½E	36.5'
2-1	S5W	
2-3	N21E	91.3
3-2	S20W	

1-2	N25E	26'
2-1	S24½W	
2-3	N37E	
3-2	S28½W	32'
3-4	N9½E	32'
4-3	S10W	
4-5	N17½E	102.8' R7½



STANK MINE

Nevada Mines maps — Geologic

300
400
500
700

none of the adit work

MRK maps for Nev mines:-

~~400~~
~~200~~
600

550
1000
1100
1200

STANK 1200 SHAFT STATION

DDH 26 N73E -5° Oct 23, 1939

0-62½ Granodiorite
62½-69 hornfels and gneiss
69-81 hornfels

DDH 27 N68W +5°

0-52½ granodiorite
52½-53½ "hornblende alteration zone".
53½-227 hornfels except for
133½-135 hornblende andesite
217½-227 granitic dike; cemented altered

DDH 76 N4°W +5° May 8-20, 1943

0-200' Coarse grained granite 87.75% recov.

DDH 78 N34°W +5° Recov. 83%.

0-61 Coarse granite
61-62 Quartz with specks WO_3
62-67'6" fine grained dike, pert. aplite
67'6"-68'6" hornfels
68'6"-70'4" aplite
70'4"-71'4" Quartz
71'4"-86'0" ~~hornfels~~ Coarse granite. 1" lfs at 71'4", 8" qtz at 73'10", 12" lfs at 77', 3" lfs at 79', 4" lfs at 80'.
86'0"-103'6" hornfels
103'6"-105' Coarse granite
105'-115' hornfels
115-120 Coarse grained granite

(over)

120 – 185 hornfels

185 – 187 aplite

187 – 200 hornfels

DDH 106 STANK 700 S.

Collar 4,377N, 5063E, alt. 4,784'.

Brg S.70°E., -55° 3/29 - 4/5/45

Hornfels throughout except for 22.8 - 25.1 acid dike with DZ footwall

Core recov. 52%.

Ground badly broken.

DDH 107 STANK 700S.

Collar 4,371N, 5,051E alt. 4,784.

Brg N 70W, -45° (approx) 4/6 - 10/45

0 - 13 tactite (drilled down bed)

13 - 21 hornfels

DDH 108 STANK 700 S

Collar 4,371N, 5,051E, alt 4,784

Brg N 70W, -54° 4/11-14/45 92% recov.

0 - 50 Stank bed.

50 - 58.5 hornfels.

DDH 80 SURFACE – PICKHANDLE CANYON

6,588 N, 5,376 E

Brg S 24° E, -71°, 143 ft.

0 – 100 hornfels

100 – 104'6" Garnet bed, assay 0.20% WO_3

104'6" – 123'4" hornfels.

123'4" – 143'0" Granite (dark minerals large)

DDH 109 STANK 300 N 4/15-5/2/45

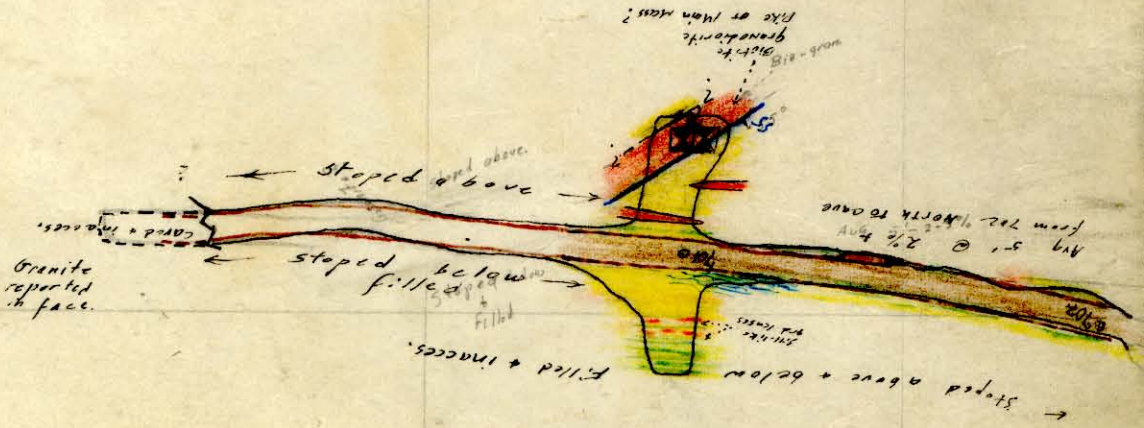
Collar ?

Brg N 75 W, +5° 98% recov.

Hornfels except as follows:

85.6 - 91.1 Granitic dike
116.9 - 117.9 Granitic dike
138.1 - 140.0 " "
180.5 - 187.0 Granite
307.0 - 307.0 Granite

Stank Mine
700 Level
North End
1" = 20'



Miners	Trammers	
- 22	more seniors	no pipefitter
- 22		
- 10		5 timbermen + helpers

30 Elect year

Stank Mine
700 Level North end

Stank 700 Level 5-13

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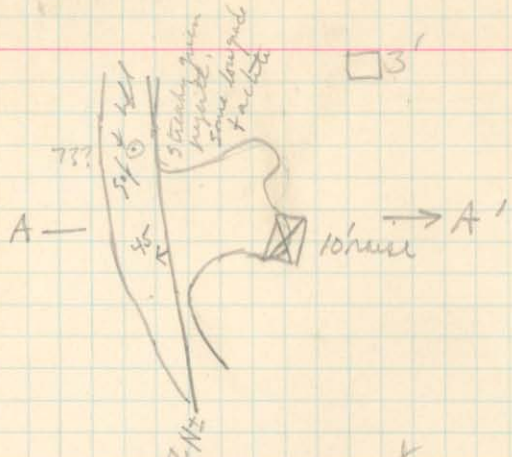
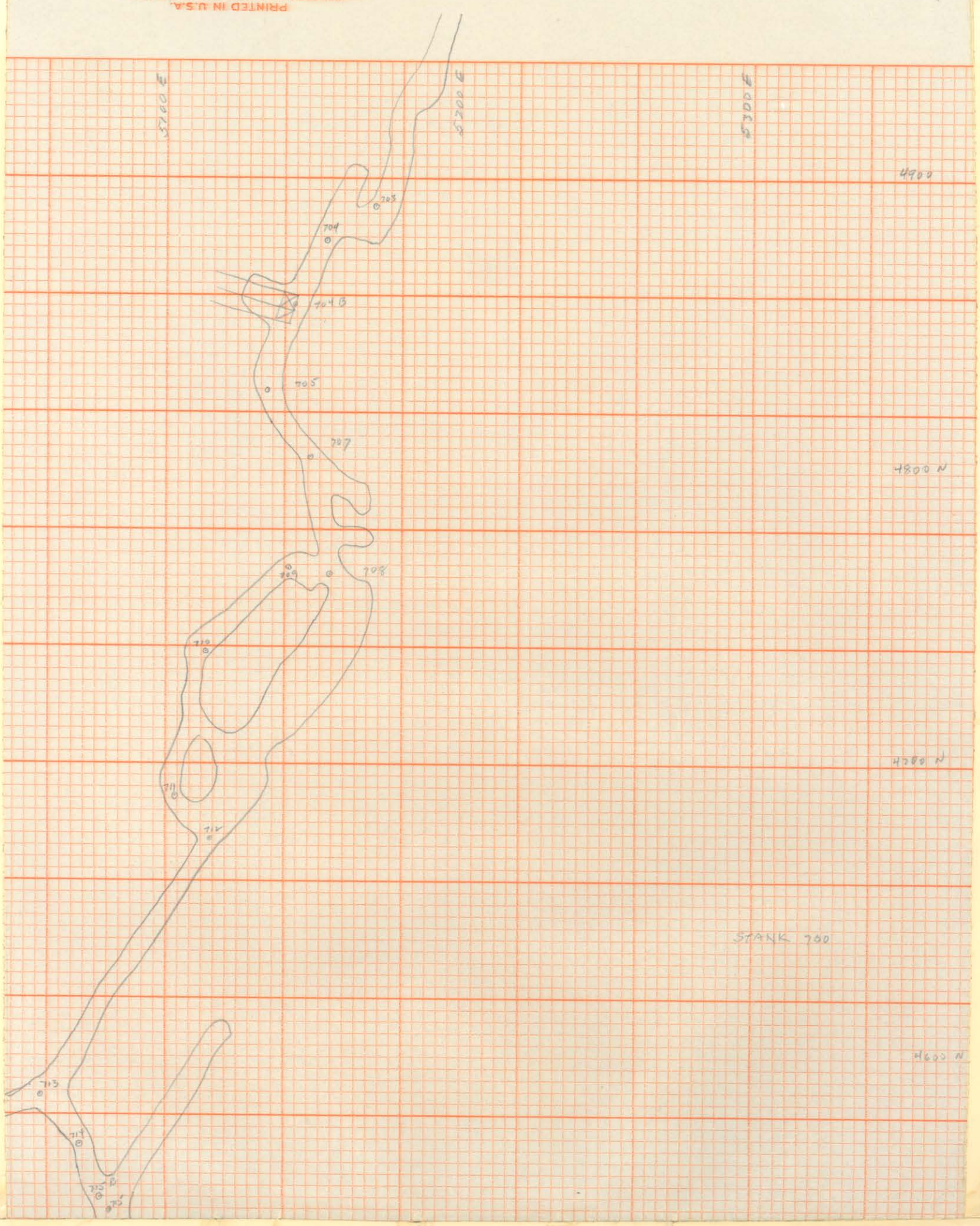
Item 79



South End

Stoping up between dikes. North leg of dike almost pinches out in stope + is only a narrow tongue on 600. Stope is about 35' below 600 L. + will clean up the block between 6 + 7 faces (to South leg of dike). About half of the last stope (between dike legs) has been broken. Next stope to N is more than half filled with broken ore.

Raise in stope between dike legs averages 80° W dip.



STANK

700

Stank
700 level
DD #29 N 72° W (0°) HW x cut —

0-23½ - hfls.
23½ — 3" qtz, epidote + several grains WO_3
23½ - 25½ hfls
25½ - 26½ qtz, epidote + several grains WO_3
26½ - 33 Dike (light granitic)
33-39 hfls.
39-39½ clay seam (fault)
39½ - 44 hfls.
44 - 173 light granitic dike
173 - 196½ hornfels.
196½ - 198½ light granitic dike. One WO_3 grain
198½ - 199 hfls.
199 - 199½ light granitic dike
199½ - 235 hfls.
235 - 249½ dike, lt granit
249½ - 322 hfls
322 - 323 massive sulfide
323 - 363½ hfls.
363½ - 364 granitic dike
364 - 395 hfls
395 - 397 diopsite

397 - 419½ hfls (silicified)
419½ - 420 fault (clay)
420 - 421½ dike
421½ - 434½ hfls.
434½ - 531 gr
531 - 548 Breccia
fragments mainly dike but some hfls.
548 - 561 grd
561 - 646½ Breccia & grd cemented by calcite - 90% core recovery

(over)

STANK 700 level

DD #28 S58°E

0-21 lifts

21-25 light colored granitic dike

25-25½ Quartz, epidote + several grains W ⅓

25½-52½ lifts.

52½-53½ Breccia

53½-89½ lifts.

89½-90 clay (Fault?)

90-95 lifts.

End hole - moved into drift

DD #91

Drilled 32 feet S35°E into FW 719 x cut.

47% core recovery.

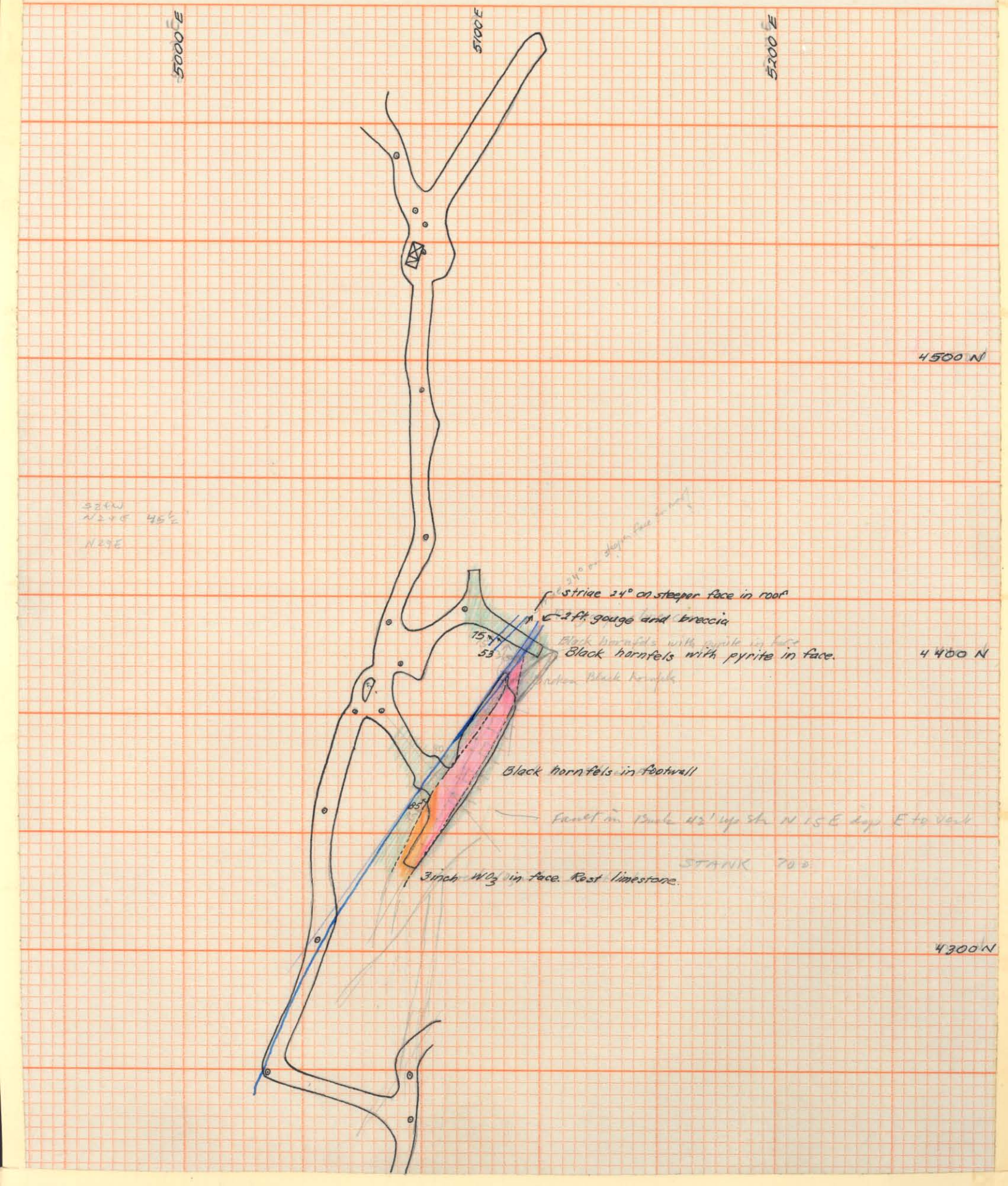
646½-652 hfls, fractured

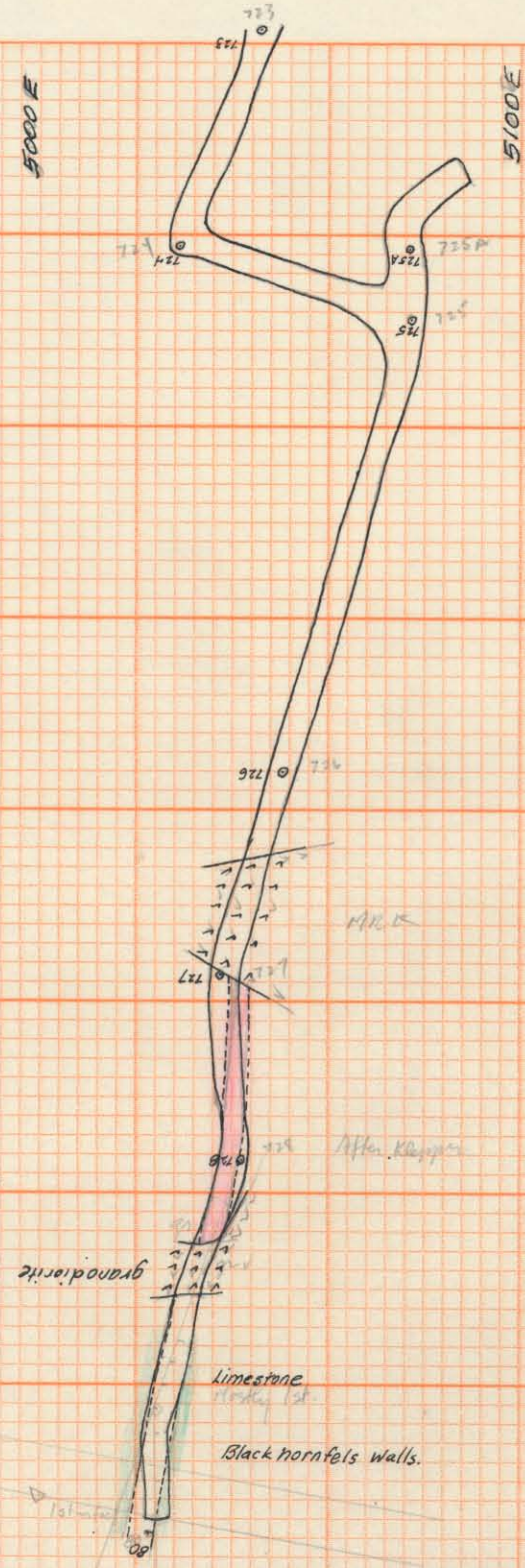
652-654 dark granite, fractured

654-656 Clay (Fault?)

656-657 dark granite, badly fractured.

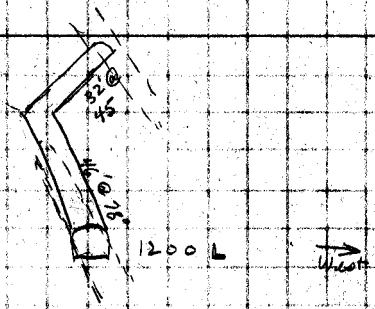
End of hole





STANK 1200

Stanich
12 south raise in tach drift



Hanging Caine: 1" bed comes in at 41 ft.
2" at 46"
4" at 52

Notes from New-Mexico Co. Card File.

STANK MINE
1200 Level (4301.8)

DD 68 10'N of Sta 1206. −63° down dip. 79 ft.

0-76 . Bed (ore) except for 5-10 bfls.
16-34 "
35½-37 "
42-51 "
65-65½ Fault.

76-79 granite

DD #69
Sta 1210 −58° on dip

0-7'5" Bed
7'5"-70'0" - hornfels.
70-84 Bed
84-100 bfls.
100-102 - Bed
102-117 Dike (looks like FW dike)
117-118'3" bfls.

DD #70 10' N of 1212 −63° on dip.
0-40'5" Bed
40'5"-144'8" - bfls -

DD 26 N 73°E (−5°) FW 1200 shaft sta
0-62½ granodiorite
62½-69 altered bfls or gouge
69-81 bfls.

DD 27 NW on line of shaft N 62°W +5°
0-27½ + 28-52½ gud
27½-28 quartz
52½-53½ HB alter zone
53½-133½ bfls.
133½-135 HB
135-217½ bfls 217½-227 granitic dike

STANK 1200

DD # 76 N 40 W (+5°) shift station

0 – 200 Coarse gr granite.

DD 78 shift station N 34 W (+5°)

0 – 61 Coarse granite

61 – 62 Quartz + one small speck WO_3

62 – 67'6" Fine grained dike (aplite?)

67'6" – 68'6" hfls.

68'6" – 70'4" aplite

70'4" – 71'4" quartz.

71'4" – 74'6" granite + qtz. etc.

74'6" – 75'6" quartz

75'6" – 77'0" granite

77'0" – 78' hfls with small stringer of MoS_2

78 – 86 granite

86 – 103'6" hfls

103'6" – 105' qtd

105 – 115 hfls.

115 – 120 qtd

120 – 185 hfls.

185 – 187 apl

187 – 200 hfls.

Stank 1200 Shaft Sta

DD #92 N45°E (+3°) coord start 4915 N-4995E
5006 N-5089E

0-132' granodiorite
(Caving ground)

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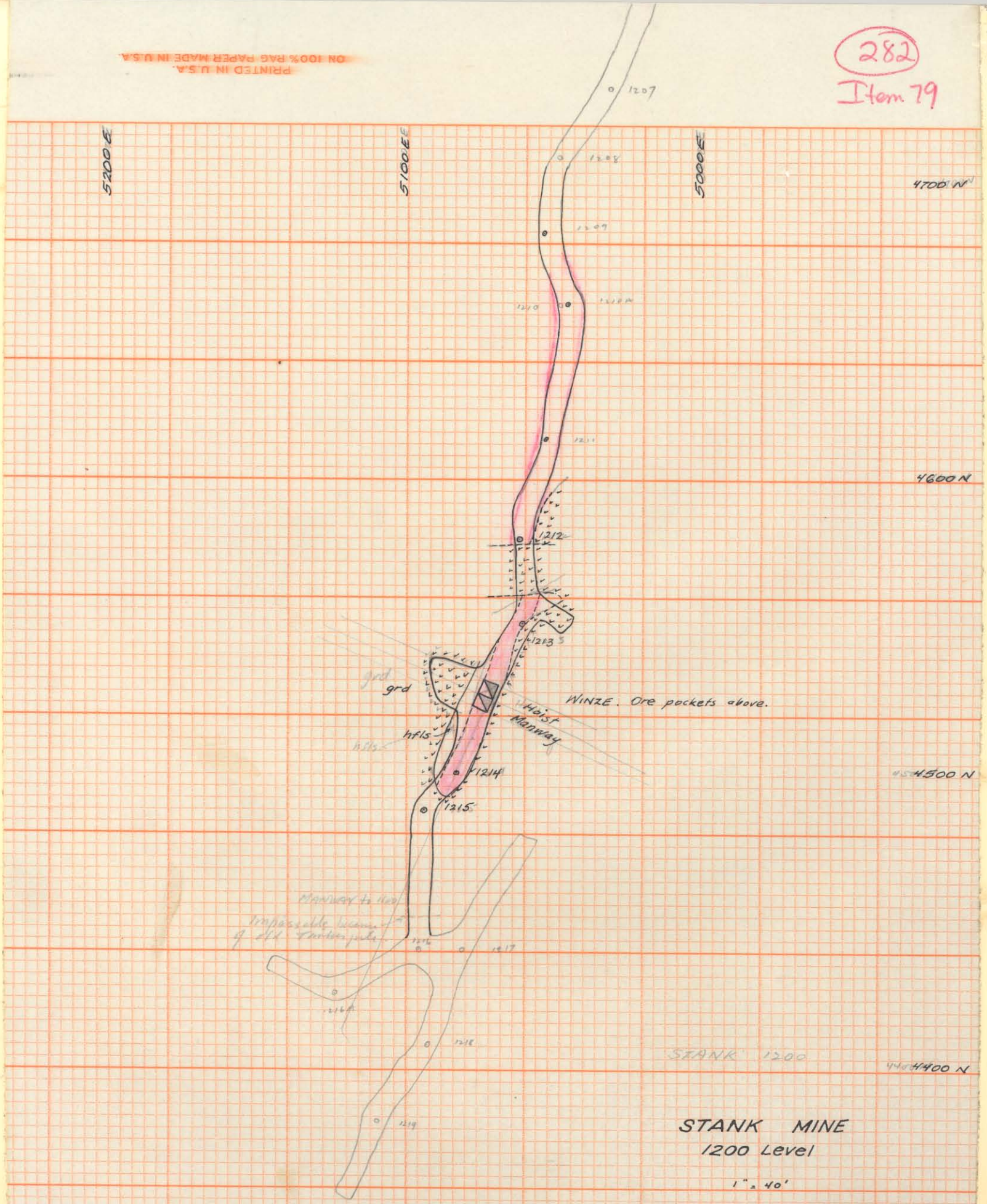
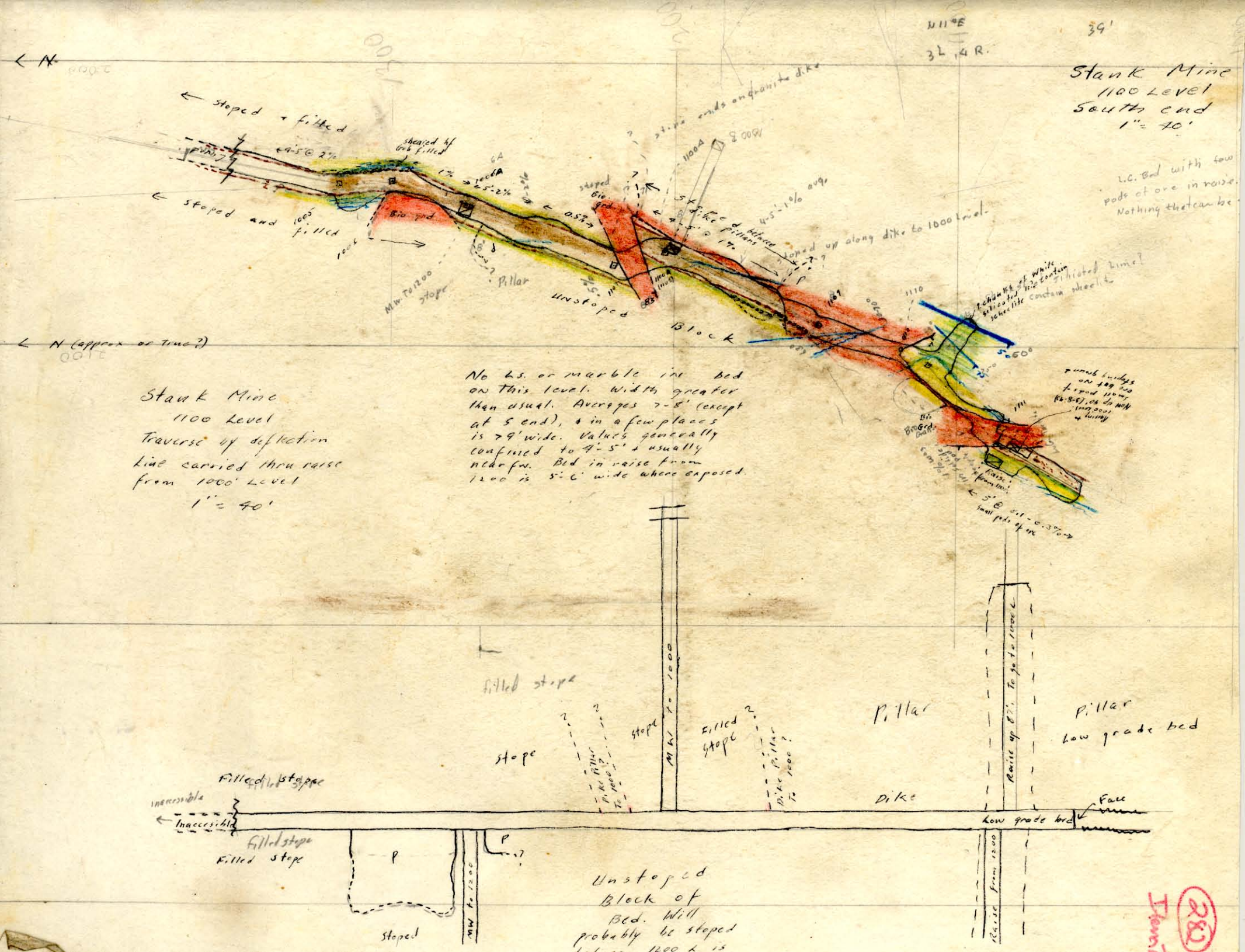


STANK 1100


Stank Mine
1100 Level
South end
1" = 40'
L.C. Bed with few pods of ore in raise. Nothing that can be
Stoped + filled
Stoped and filled
Bio grd
Pillar
Unstoped Block
Stoped up along dike to 1000 level
Stank Mine
1100 Level
Traverse up deflection
Line carried thru raise
from 1000' Level
1" = 40'
No Ls. or marble in bed on this level. Width greater than usual. Averages 7-8' (except at S end), & in a few places is 7-9' wide. Values generally confined to 4'-5' & usually near fw. Bed in raise from 1200 is 5'-6' wide where exposed.
Filled stope
Stope
Pillar
Low grade bed
Dike
Fault
Inaccessible
Filled stope
Stoped
Unstoped Block of Bed. Will probably be stoped

STANK . 1022

STANK
1000 level

DD #47 349E (FW x Cut)

0-49 hfls
49-81 granite
81-162½ hfls.
162½-209 granodiorite
209-231½ dyke - alter zone of grd or distinct light granitic arkk. Breccia zone 29-222 cemented by siderite
231½-327 grd

DD #41 N49W
0-26 hfls
26-27 grd
27-29 hfls
29-34½ Bad
34½ TD 41 hfls.

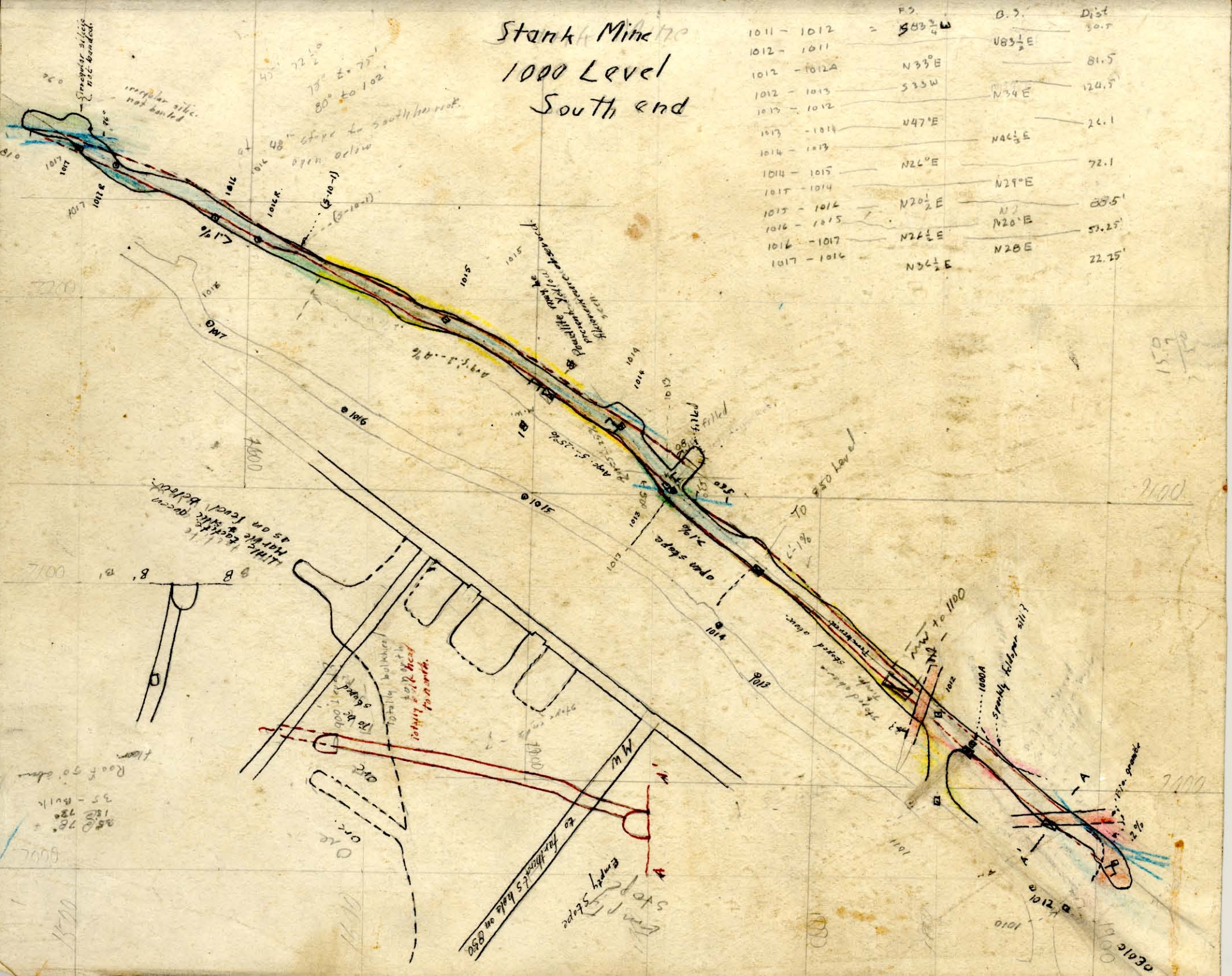
Stank 1000 Level

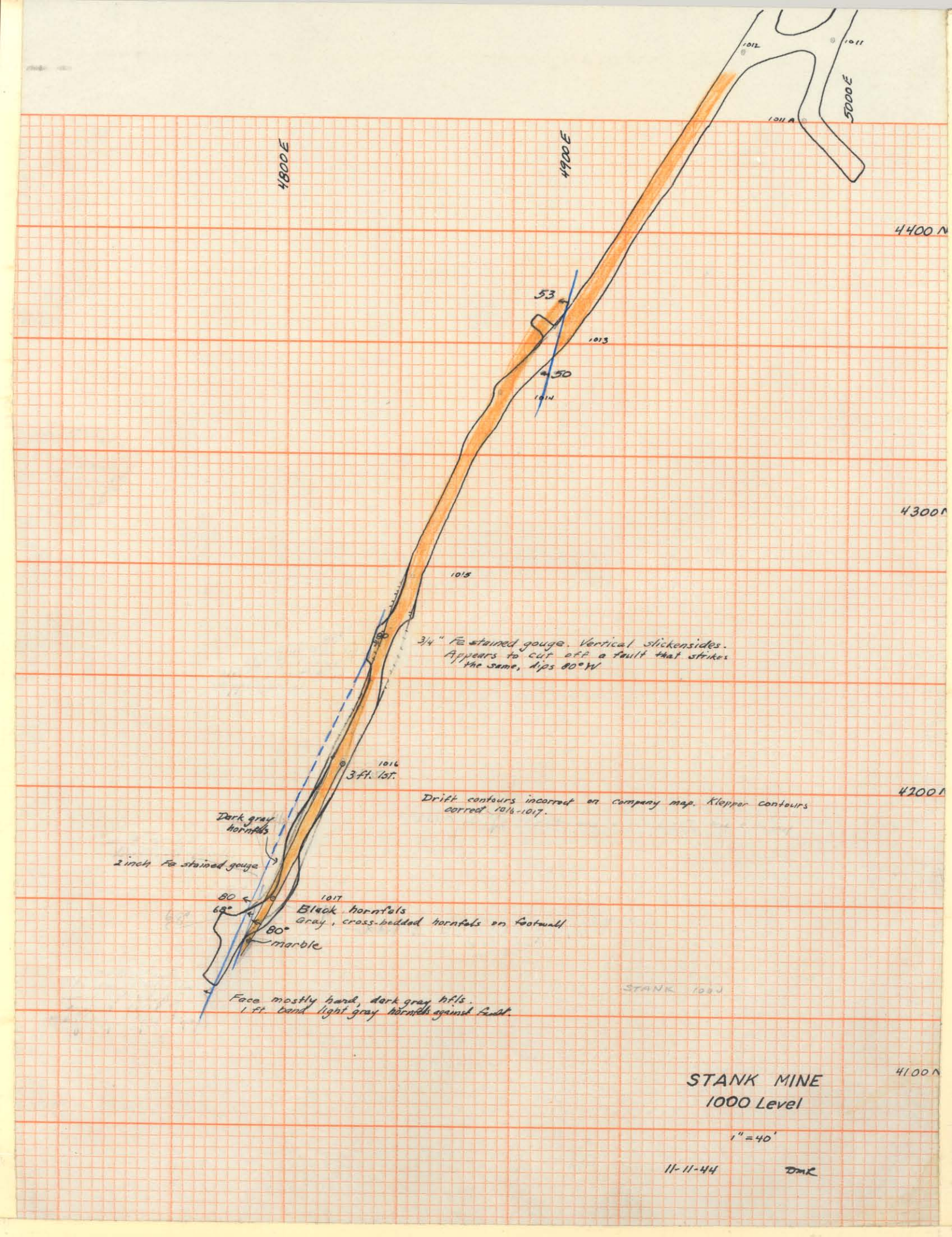
Raise thru from 1100 is from 12' to 22' north of 1012.

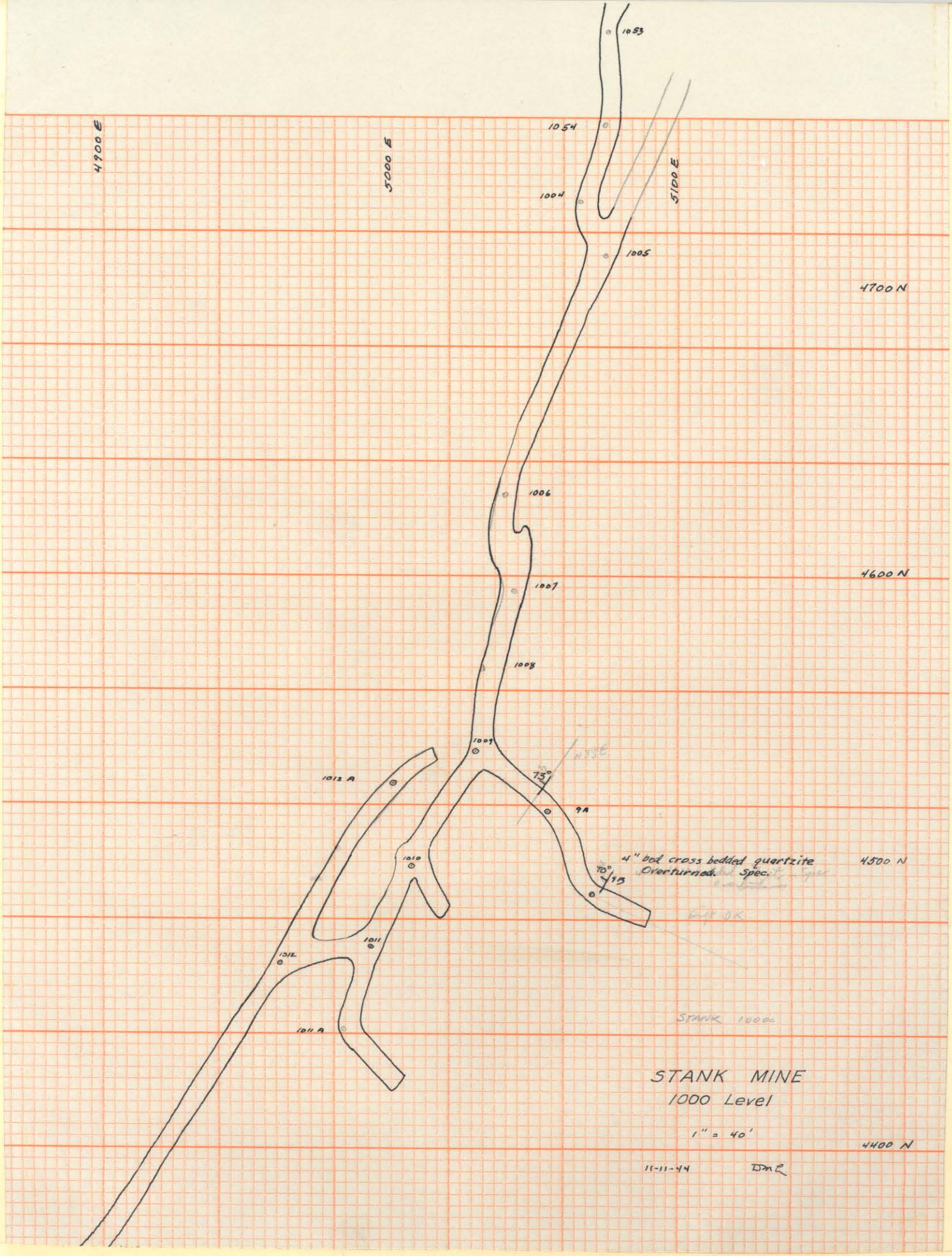
Section thru South Raise from 1100

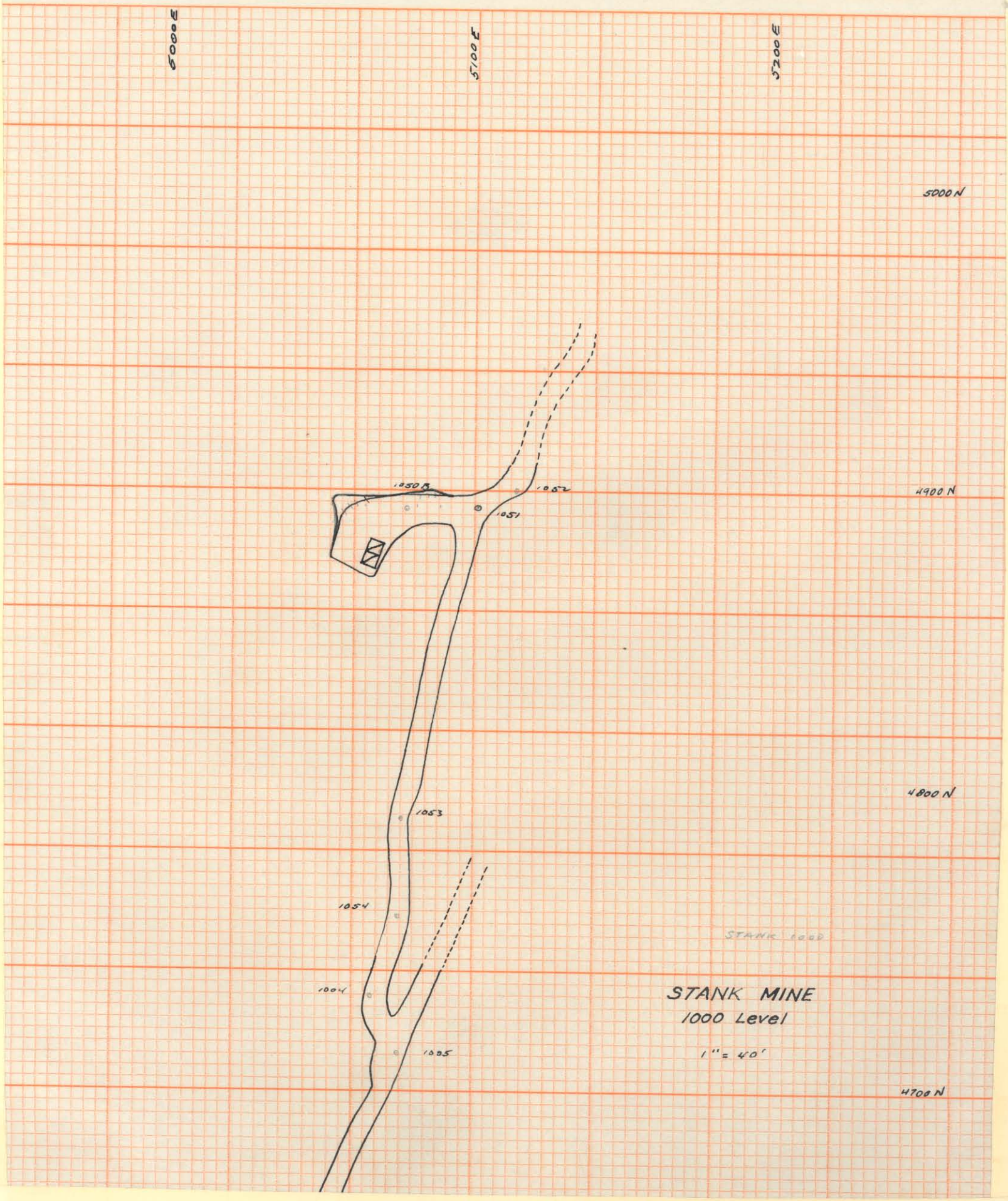
Stank Mine
1000 Level
South end

	F.S.	B.S.	Dist
1011 – 1012	= S83¾W		30.5
1012 – 1011		N83½E	
1012 – 1012A	N33°E		81.5
1012 – 1013	S33W		124.5'
1013 – 1012		N34E	
1013 – 1014	N47°E		26.1
1014 – 1013		N46⅓E	
1014 – 1015	N26°E		72.1
1015 – 1014		N29°E	
1015 – 1016	N20½E		88.5'
1016 – 1015		N20°E	
1016 – 1017	N26½E		53.25'
1017 – 1016	N36½E	N28E	22.25'




4800 E
4900 E
5000 E
4400 N
4300 N
4200 N
4100 N
1012
1011
1011 A
53
1013
50
1014
1015
3/4" Fe stained gouge. Vertical slickensides.
Appears to cut off a fault that strikes
the same, dips 80° W
1016
3 ft. 1st.
Drift contours incorrect on company map. Klepper contours
correct 1016-1017.
Dark gray
hornfels
2 inch Fe stained gouge
80
60°
1017
Black hornfels
Gray, cross-bedded hornfels on footwall
80°
marble
Face mostly hard, dark gray hfls.
1 ft. band light gray hornfels against fault.
STANK 1000 J
STANK MINE
1000 Level
1" = 40'
11-11-44
DMR

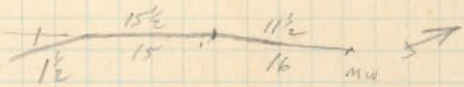

4900 E
5000 E
5100 E
1053
1054
1004
1005
1006
1007
1008
1009
1010
1011
1011 A
1012
1012 A
9A
9B
73°
70°
N55E
4" bed cross bedded quartzite
Overturned. Spec.
4700 N
4600 N
4500 N
4400 N
STANK 10000
STANK MINE
1000 Level
1" = 40'
11-11-44
DMR



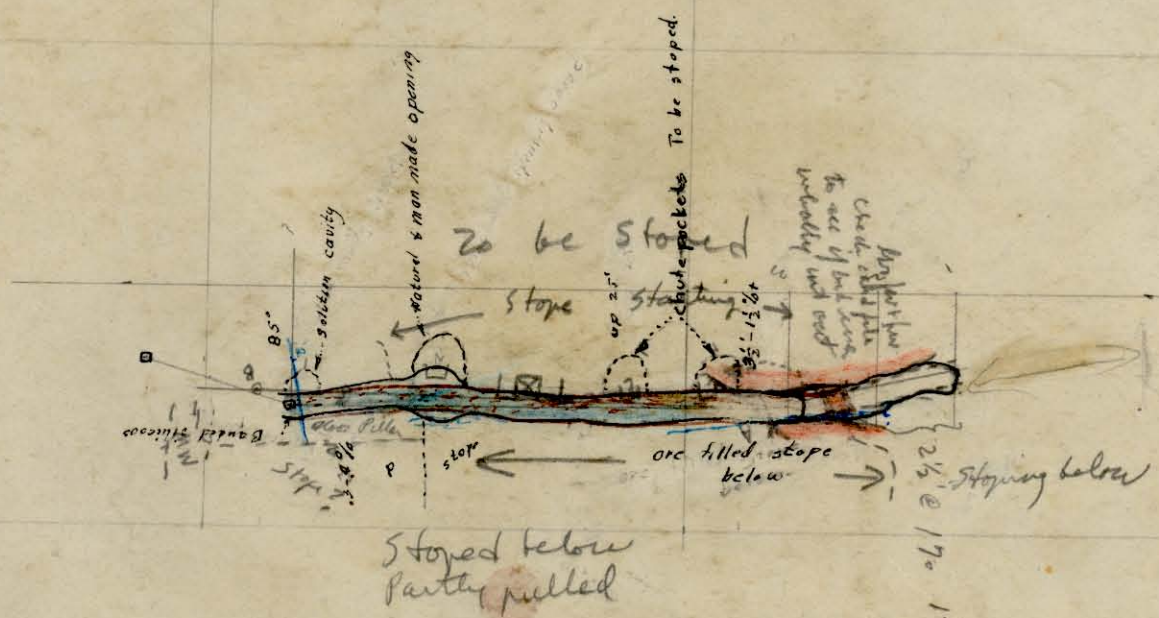
STANK 600

Stuck 600 Level S-13

Fa - A	N1½E	42'
A - Fa	S1W	42'
A - B	N15½E -	104½
B - A	- S15W -	104½
B - MW	N11½E	13'
MW - B	S16W	13'



Stank Mine
600' Level
South end
1" = 40'



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STANK

500

STANK

500 level

DD #90 S 80 W (+3°) Collar 4795 N 5195 E
End 4765 N 5020 E

0-92 soft hfls 3" lst at 81.

92-94 HB

94-129 hornfels { 97 - 6" lst, partly replaced, no W
99 - 6" " " " " "
102 - 6" " " " " "
117 1 ft. brown garnet + lst, no W.

129-136 aplite (1 ft epid + $CaCO_3$ at 130)

136-140 hfls - 139-140 brown garnet, no W.

140-143 aplite

143-146 Epidote + Calcite

146-179 aplite

DD # 57 South drift West Horizontal - from 511-512

0-75 hfls.

75-152 Broken hfls.

152-157 aplite

Extension

157-162 hfls. Fault at 157

162-165 fine grained silic granite

165-222 hfls { 218 1 ft light colored lining zone with 1/4 % WO3

222-223 gouge

223-259 hfls, soft, dark at 240 ft, dip changes from 65° to Vert.

259-261 HB

261-269 hfls.

269-273 aplite

273-275 hfls.

275-277 aplite

277-301 hfls.

STANK 500 Level

7A N Sta 513 575°E 4547 N, 5275E
and 4470N, 5573E

575°E (-10°)

0-98 hfls.

98-108 HB.

108-190 hfls except for { 159 6" lst + spot scheelite.
163 6" " " " "
188-189 garnet, epidote, scheelite.

190-223 granite

223-228 hfls.

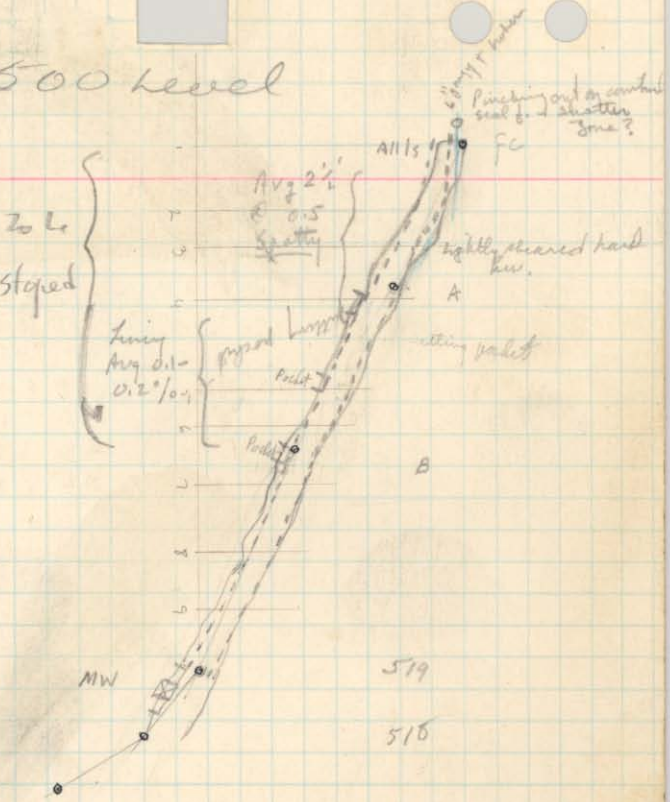
228-233 granite

233-277 hfls, 6" garnet at 236'

277-308 - hfls. { 286 - 6" ½% WO_3 in epidote.
Similar stringers at 295-304 without WO_3

308 - End of hole. Rods stuck and broke -
Hole incomplete :- planned to depth 500 feet.

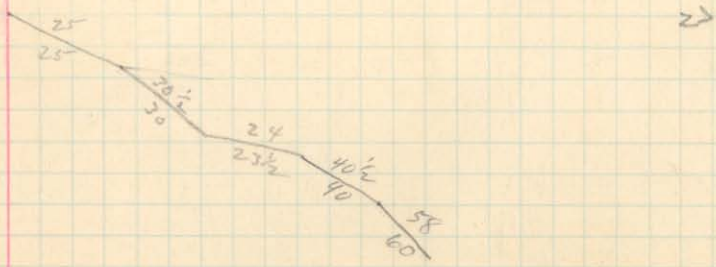
Stank - 500 Level

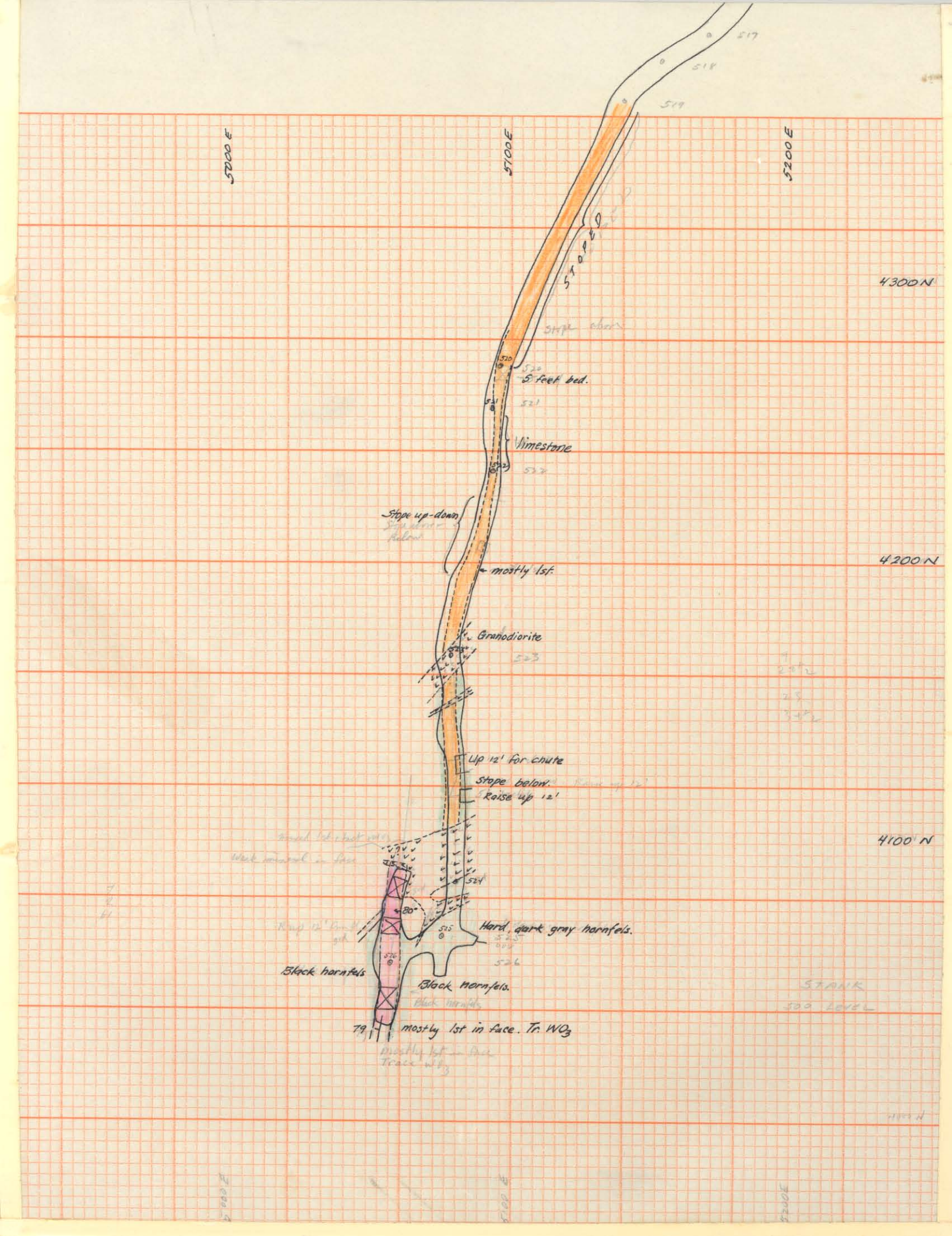


Stank Mine 5/13

500 Level South

7c to A	N25E	33'	7c. 1' from W corner
A to 7c.	S25W	33'	
A - B	N30½E	39.5'	A: ½' from E wall
B - A	S30W	39.5	
B - 519	N24E	50	B - Corner Chute
519 - B	S23½W	50	519 Spad
519 - 518	N40½E		
518 - 519	S40W		
518 - 517	N58E		
517 - 518	S60W		




5000 E
5100 E
5200 E
4300 N
4200 N
4100 N
STOPED
5 feet bed.
Limestone
Stope up-down
mostly lst.
Granodiorite
Up 12' for chute
Stope below.
Raise up 12'
80°
Hard, dark gray hornfels.
Black hornfels
Black hornfels.
79
mostly lst in face. Tr. WO_3

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(282) Item 79

United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Stank mine
Nev. Mass. Mine Jr. In charge.

No. 5-2, Name { Field:
Determined:

LOCALITY: 75' N of fault
7th level. (as of 1-26-43)
Stank bed - Near Hanging Wall

Collector:	Date: 1-26-43	Memoranda:
Cull, C	Notebook:	Dense gray ls.
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine
Nevada-Mex. Co, Mill City, Nev. *In charge.*

No. H-15 **Name** { **Field:** / **Determined:**

LOCALITY: 500 Level Humboldt, 5'S 7 Sta 813, silicified rock near W wall of drift.

Collector:	**Date:**	**Memoranda:**
	Notebook:	
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Hemenway's Mine

Nevada-Mau Co., Mill City, Nev. *In charge.*

No. H-N **Name** { **Field:** / **Determined:**

LOCALITY:

Collector:	Date: 1/20/43	Memoranda:
MAC	Notebook:	Sill on Rexhalley Hy
	Page:	

United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine
Nevada-Mass Co, Mill City, Nev. **In charge.**

No. H-19 **Name** { **Field:** / **Determined:**

LOCALITY: Humboldt Mine 800 Level, 15' SW of Station (#800). 5' in hanging wall beyond # H-18.

Collector:	Date: 1/27/43	Memoranda:
MAK	Notebook:	
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada-Mass. Co., Mill City Nev. **In charge.**

No. H-18 **Name** { **Field:** / **Determined:**

LOCALITY: 15' SW of Sta 800 (800L)

Dense Green silicated? rock between tactite and hfls (#19) in hanging wall

Collector:	**Date:** 1/27/43	**Memoranda:**
MAC	**Notebook:**	
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada-Mass. Co., Mill City, Nev. **In charge.**

No. H-13 **Name** { **Field:** / **Determined:**

LOCALITY: Springer X-cut - 800 L North wall opposite north of X-cut. 30' E of Sta 821

Collector:	**Date:** 1/27/43	**Memoranda:**
MAK	**Notebook:**	Silicified? Hfl
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada-Mass Co., Mill City, Nev **In charge.**

No. H-12 **Name** { **Field:** / **Determined:**

LOCALITY: Sta 821 (8002). Footwall 2' below Springer bed. mouth of X-cut.

Collector:	**Date:** 1/27/43	**Memoranda:**
MAC	**Notebook:**	Silicated Soft Bi.?
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Nos 5, Mill City, Nev. *In charge.*

No. H-11 **Name** { **Field:** / **Determined:**

LOCALITY: Springer Bed. 500 L
East wall of drift, 5' north of
last chute at S end

Collector:	**Date:** 1/27/43	**Memoranda:**
MWC	**Notebook:**	Sealed fault?
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Mac. Co., Mill City **In charge.**

No. 14-8 **Name** { **Field:** / **Determined:**

LOCALITY: 900 Level Springer bed. Hanging wall infl at Sta 936

Collector:	**Date:** 1/27/43	**Memoranda:**
MAK	**Notebook:**	Silicated?
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine
Nevada - Mas. Co, Mill City, Nev. *In charge.*

No. H-10 **Name** { **Field:** / **Determined:**

LOCALITY: 800 Level - Springer bed.
W. wall, 5's of last chute at
Sand bed.

Collector:	**Date:** 1/27/43	**Memoranda:**
MAK	**Notebook:**	Sealed fault?
	Page:	

United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada-Mac Co., Mill City, Nev. *In charge.*

No. H-17 **Name** { **Field:** / **Determined:**

LOCALITY: Soft brown footwall hornfels.
Under last chute on Humboldt bed
5/a 810 – 800 Level

Collector:	**Date:** 1/27/43	**Memoranda:**
NHH	**Notebook:**	
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine
Nevada Mac Co., Mill City, Nev. charge.

No. H-16 **Name** { **Field:** / **Determined:**

LOCALITY: 800 Level. Footwall pegte-Nfo under last chute on Humboldt fed, south end. Sta 810

Collector:	Date: 1/27/43	Memoranda:
MHC	Notebook:	
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Mas. Co., Hull City, Mt. **In charge.**

No. H-14 **Name** { **Field:** / **Determined:**

LOCALITY: 800 L. Springer X-cut

Hanging wall bfls of 2' sulphidic tactite lens. North wall of X-cut

Collector:	**Date:** 1/27/43	**Memoranda:**
MHK	**Notebook:**	
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Mace Co, Mill City, Nev. **In charge.**

No. H-7 **Name** { **Field:** / **Determined:**

LOCALITY: 900L - Springer Bed.

Cut. off of bed at 934. E wall

Z drift.

Collector:	**Date:** 1/27/43	**Memoranda:**
Mill	**Notebook:**	Silic. Fault?
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt mine
Nevada - Elko Co, Mill City, Nev **In charge.**

No. H-6 **Name** { **Field:** / **Determined:**

LOCALITY: Springer X-cut - 900 L.
Partly silicified brown Hfls. 35'
E of Sta 932

Collector:	**Date:** 1/27/43	**Memoranda:**
MAK	**Notebook:**	
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Elko Co., Mill City, Nev. **In charge.**

No. 14 - 5 **Name** { **Field:** / **Determined:**

LOCALITY: Springer X-cut - 900 L
Indentation in S wall 13' E of
Sta 930

Collector:	**Date:** 1/27/43	**Memoranda:**
MAC	**Notebook:**	Qtzite?
	Page:	

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United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Mun. Co., Mill City, Nev. charge.

No. H-4 **Name** { **Field:** / **Determined:**

LOCALITY: Springer X-cut. 900 L

South Br. Hbdt. 50' W of Humboldt

Rd.

Collector:	**Date:** 1/27/43	**Memoranda:**
MAK	**Notebook:**	
	Page:	

GPO 16—20967

9-161 a

United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt - Mine
Nevada - Mass Co., Mill City, Nev **In charge.**

No. H-3 **Name** { **Field:** / **Determined:**

LOCALITY: Springer X-cut - 900 L
S 70° Br. Hfbs. 30' W of Humboldt
Bed.

Collector:	**Date:** 1/27/43	**Memoranda:**
MMK	**Notebook:**	
	Page:	

GPO 16—20967

9-161 a

United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Mav Co., Mill City, Nev. **In charge.**

No. H-2 **Name** { **Field:** / **Determined:**

LOCALITY: Springer X-cut, 900 L face of stub 20' W of Humboldt fed. (Section chip is more lined & streaky than hand specimen).

Collector:	**Date:** 1/27/43	**Memoranda:**
WHC	**Notebook:**	silicified fault?
	Page:	

9-161 a

United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine
Nevada - Mex Co, Mill City, Nev. In charge.

No. H-1 **Name** { **Field:** / **Determined:**

LOCALITY: Springer X-cut - 900 L
Reverse gran hyl - 10' W of
Humboldt bed

Collector:	Date: 1/27/43	Memoranda:
MHK	Notebook:	
	Page:	

GPO 16—20967

9-161 a

United States Department of the Interior—GEOLOGICAL SURVEY

SURVEY OF THE Humboldt Mine

Nevada - Nev Co., Mill City, Nev. **In charge.**

No. H-9 **Name** { **Field:** / **Determined:**

LOCALITY: Springer Bed - 800 Level

middle of back drift. 5' south

of "inner - through"

Collector:	**Date:** 1/27/43	**Memoranda:**
MMC	**Notebook:**	Revalidated by?
	Page:	

GPO 16—20967

Humboldt - Springer
Thin Sections
2/20/43

* Note - In all qtz fels with fine mosaic groundmass there is intergrown with qtz clear min. includes S.L.P., sericite K feld or untwinned albite

H-1 : Qtz - diopside - epidote hfl.
Qtz - 75%, epid + diop - 20%, apatite - 2%, pyrite - 2%. Few pale-green-colorless fibers that may be tremolite or actinolite. Few green shreds (chlorite or chlorite).

Interlocking fine-grained mosaic of sutured quartz grains with intergrown irregular grains & clusters of grains of epidote + Diopside. Part of qtz extinguishes sharply, some wavy. Small apatite xls. distributed throughout. Some of epidote xls. larger & subhedral suggesting porphyroblasts.

Pyrite mostly euhedral & is very probably of later introduction.

Very rare needles (tremolite or actinolite) intergrown with qtz. + ep.

Discontinuous, subparallel bands of coarser sutured qtz with a little epidote & chlorite shreds occur. These zones commonly feather out at both ends. Qtz has undulatory extinction.

H-2 : Aphanitic - dense - very fine grained nearly homogeneous [illegible] cut by a few thin qtz stringers. 1% fine-grain disseminated pyrite.

H-17 Qtz - biotite hfls.

Oriented intergrowth of fine-grained qtz + greenish biotite (.550 - .560) mostly homogeneous, but locally contains lens of orientation or irregular clots of coarser xtallization.

Zones of coarser grained altered qtz (+ orthoclase) occur. They irregularly merge into the normal hf, + commonly lens out at both ends, may be later in origin.

Pyrite common + in part elongated ∥ to orientation of the small biotite flakes.

Altered grains of hi biref may be sphene?

Meta- Homogeneous + fine grain med & med brown hf. Occasional qtz xls + pyrite streaks.

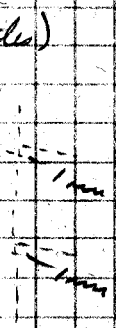
H-16 actinolite - biotite hfls.

v. fine grained intergrowth of qtz + other? + granular biotite, from which are scattered needles + clusters of actinolite. Some qtz - biotite intergrowth shows definite alignment (⊥ to bedding); the actinolite needles are more widely oriented. Some intersecting sets of lines along which grains seem have developed are seen. Neither ⊥'s bedding, + one offsets the other very slightly.

The hfls is rather homogeneous, altho local zones, not all of banding, are a little more coarsely clotted.

Biotite not as prominent a constituent as in H-17. (Matrix of H-17 = 50 gts - 50 biot; of H-16 is not as homogeneous but averages qtz 75-80, biot 25-20).

Mega - streaky dark brown (predominates) + grey hf; v. fine grain. Scattered grains. Boundaries between grey + brown + gradational + irregular.



H-11.

Medium grained hfls with noticeable banding, probably bedding: different bands differ appreciably in grain size & mineralogy.

Common is qtz (+ orthoclase?), diopside-epidote and qtz-actinolite rock. Both ~~may~~ carry some epidote + hbl & all ~~may~~ occur together.

Within any individual band grain size is fairly constant, altho a few diopside ~~[illegible]~~ crystal clusters are larger.

Note. The distinction between diopside + epidote is here drawn on presence or absence of pleochroism.

Mega - Fine grain pale grey (green tinge) admixt of carry hfls. Thin seam of pale brown hf.

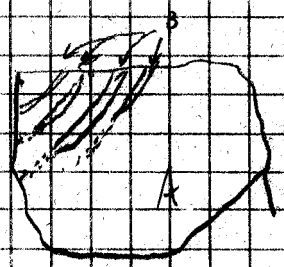
H-12

V. fine grain hfls (A) under low power looks irregularly spotty, some areas appearing less altered than others.

Cut by fours curved streaks of coarser grain + different lithology (B). One pinches out entirely within the slide. Two others become vague, the fourth carries thru

V. fine grain hfls consists of mosaic of qtz with actinolite + v. fine grained green biotite. Coarse lenses consist of qtz + abundant epidote intergrown with actinolite + well crystallized biotite. Hls of epidote in coarser streaks.

Mega - Finely ellipse red and dark brown hfls. Homogeneous except for pyritic seam bordered by dark gray thin band.



H-13.

Coarse grained hfls. Homogeneous, i.e. no bedding, but ~~[illegible]~~ ~~[illegible]~~ there is a tendency toward local segregation of minerals.

QTz - epidote - actinolite hfls. (+ a little diopside ?)

In groups with prismatic QTz are a few plagioclase grains + probably untwinned feldspar (K?) also.

The mineral ~~[illegible]~~ is colorless or with a faint green yellow pleochroism, is probably epidote, altho some grains may be diopside ? Actinolite is also common.

In places actinolite & pyroxene are unknown or in close proximity. Elsewhere they are more or less segregated, pyroxene dominating here, actinolite there. Patches of calcite are common. might be secondary, altho otherwise rock is quite unaltered. Few pyrite cubedra, + small apatite xls.

Zircons, some of them sharp + doubly terminated, are abundant. Sphene is common.

Mega - Med grain sugary grey (med color) hfls. Glisten pyrite grains. Homogeneous

H-14: Actinolite hfls. (Homogeneous)

V. fine g.g. mosaic matrix - 55 +
* Coarser grained actinolite needles + chlorite - 45 +
Pyrite euhedra - anhedra 5 -
~~[illegible]~~ ? partly altered epidote 5 -
+ few grains rutile ?

* May include some chlorite.

No bedding (in any kind of layering) noticeable. Rock is another homogeneous element, with random spacing of actinolite, rutile, etc. Relative size of els of different minerals rather uniform throughout.

Mega - Homogeneous + fine grained dark grey hfls. (field term - greyish black). Fine pyrite.

H-15

actinolite - diopside? - epidote hfls

Fine grain hfls. Alternate bands, altho not sharply defined, ~~very~~ exhibit clearly defined differences in amounts of actinolite, epidote + small opaque granules. In some actin are present, in others or is almost absent. In general epidote grains are larger + opaque are uniformly small + granular.

An irregularly rectangular patch may be a ~~[illegible]~~ fragment in the rock that originally differed in composition. It is largely altered (actinolite? epidote?) ~~[illegible]~~ surrounded by clear granular grains, contrasting sharply with the hfls that are largely of actinolite approx parallel bedding?, but lenses out rather abruptly.

A stringer of qtz-epidote (+ possibly some pyrox) cuts transverse to ~~long~~ bedding.

Mega - V. fine grain medium grey (with greenish cast) hfls. Irregular streaks of coarser dark grey epidotic hfls (qtz-ep, stringers?).

Biotite Hfls

H-4:

almost identical with H-3

Pyrite >5%, mostly euhedra, much of it elongate ∥ to orientation of biotite. Most of it is ragged & very irregular in shape.

Meta- V. fine grained homogeneous dark brown sft hfls. decision req.

H-10. Megascopically banded
similar to H-7

Alternate bands of different grain size + lithology
Commencing with wide bands of pyroxene-hornfels
qtz-albite + qtz-hbl-actin-epidote.
In general that is another colorless mineral
intergrown with the qtz (orthoclase or albite?)

Very fine grain bands are numerous + consist
of qtz-albite, intergrowth oriented ⊥ to band. Studded
with altered epidote (~~[illegible]~~) xls more or
less oriented also. Total poly + stacks in these
bands are coarser grained

Most bands persist across the section
with little variance in width, a few lens
and ~~[illegible]~~ as there on either side coalesce.

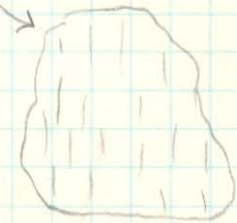
Cut by coarser grained qtz-diopside (mt+)
stringers ⊥ to bands. Contd possibly
by metasomatic rather than intrusive stringers

Mega - Banded (steady hfls). One band very
pale dense grey green (in part almost glassy with
a few pyrite xls). Several thin bands of pale dense
hard brown hfl. One wide (¼") + several thin
<1/16" bands fine grain red gray hfls. Bands
lenticular + bifurcating.

H-8 v. fine groundmass of two colorless minerals of low biref. + relief, but distinguishable. In contact the one appears to be slightly violet against the other, believed to be qz + orthoclase (without?) Intergrown with it are tremolite needle clusters, + v. fine epidote. Some epidote is coarser.

Rows of very fine dust impalpable substance of hi relief relief + biref - (epidote or spinel?) give a definite orientation to the section. Pyrite euhedra common.

does not resemble closely any of sections 1 - 7, nor any from 9 - 20



Very small grains + clusters of grains of colorless mineral of moderate relief + low - moderate biref may be a pyroxene.

(This one is a mess.)

Olga - V fine grain homogeneous et grey ~~grey~~ ~~fine~~ ~~fels~~
v. fine lesser pyrite xls

Actinolite Hfl.

H-5 – Similar to H-2, but differs.

groundmass is mosaic of fine-grained qtz of all shapes (round, angular + irreg). Actinolite needles scattered throughout with no preferred orientation. Epidote xls distributed at random. Few pyrite subhedra, few apatite xls. Compl. well xls di ubiq may be schists? Shreds of green-brown biotite in clusters here + there

Qtz –	60
actinolite –	30
epidote –	5 + (including altered + not identifiable as well as here)
biotite –	5 –
apyrite –	1

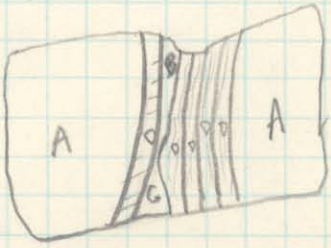
Meso – dark grey + grey green finely xline lyfs. Color gradational. Little pyrite

H-7; Banded to naked eye.

Low Power: Alternate bands of v. fine grain qtz-biotite rock with altered appx porphyroblasts + fine grain qtz-~~ep~~ decorated rock. Bands are not sharply defined but have gradational borders, in places irregular, + in places bands will lens out (two merge + cut out intervening band).

Med + Hi Power: Coarser bands consist of mosaic of irregular medium fine grained qtz with interspersed irregular crystals + clusters of xls of diopside + a little epidote. Some irreg. xls are considerably larger than majority of ep + qtz + resemble porphyroblasts. Actinolite needles not common (2-3%). 1-2% pyrite subhedra + euhedra (A). One ~~band~~ coarse band contains considerable actinolite, a few biotite shreds + less epidote. It pinches out (B). A wedge (C) connected to B by a thin neck contains coarse epidote xls + a mosaic of qtz + cordierite(?) (n < balsam, biref = or < qtz, colorless or faint violet hue.

The finest grained bands (D) consist of chestnut qtz + oriented greenish biotite shreds. Altered epidote, subhedra + euhedra ~~1-2%~~ distributed throughout. Subparallel lines of almost impalpable "dust" (v. fine epidote xls?) separate bands. In one band are many transverse "dust" ~~[illegible]~~ lines



(over)

Mega

Pale gray to white fine gr. qfls with disseminated fine pyrite. thin streaks ? interbanded pale brown hard dense qfls.

Biotite Hfl

H-6: Resembles H3 + 4.

Very fine grained oriented intergrowth of ~~[illegible]~~ greenish biotite + qtz with abundant irreg. ragged pyrite + small partly altered epidote ?) xls.

Cut by narrow stringer of much coarser-grained mosaic qtz, ~~[illegible]~~ one contains some patches of brown biotite (Fe oxide dust along cleavages), one a few shreds of chlorite ~~of~~ ~~[illegible]~~ few epidote xls, and a few only qtz.

Qtz of stringers has undulatory extinction. Qtz of matrix too fine grain to be sure of nature of extinction.

Grain of brown-black tourmaline

Soft brown hfl with dense gray green streaks. Cut by qtz + pyrite stringers.

H-18: Heterogeneous hfls.

Two distinct parts.

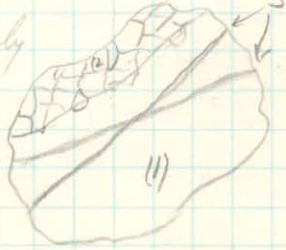
(1) Non homogeneous gtz, pyroxene, actinolite epidote hfls; (2) Band of med-coarse grained granular epidote with 5% partly saussuritized plagio & possibly a little ortho.

(1) The hfls varies considerably in grain size & ratio of different minerals. Lots of different size crystallization common, also of different minerals. Some zone have abundant calcite.

(2) Intergrowth of coarse slightly pleochroic yellowish green epidote & 5%± altered plagioclase. Forms one edge of slide but is not sharply limited. Some hfls jut out into hfls & give irregular boundary.

(3) Thin irregular bands (intrusive or metasomatic) that in places consist of altered pyroxene, locally a little plagioclase. This type is intergrown with & passes into equally coarse grained gtz actinolite mosaic. In general gradation into surrounding hfls is gradual.

Mega: Heterogeneous rock. Irregularly banded & consists of dense brown, fine grain grey green, gtz-epidote stringers & some massive epidote (?) layers. Epidote portion like fine grain garnet-free tactite. No scheelite.



Biotite Hfls

H-3: Very strikingly oriented intergrowth of fine-grain tan-green chloritic-biotite shreds + fine-grain qtz with scattered ski of epidote, also tendency to be oriented. Part of pyrite is elongate + parallel to orientation, part elongate + transverse + part equi-dimensional. Few small grains of hi relief-schorlite?

Biotite - 60%
Qtz - 10%
epidote - 7% - Fresh + altered (?).
pyrite - 3%

Biot. of intergrowth
Strikingly oriented.

Mega - Very fine grain, soft brown homogeneous
Hfls. Fine disseminated pyrite

actinolite - diop - ep. hfls

H-2:

very fine-grained almost cherttlike groundmass of qtz (?) (n > 1.544, probably no feldspar).

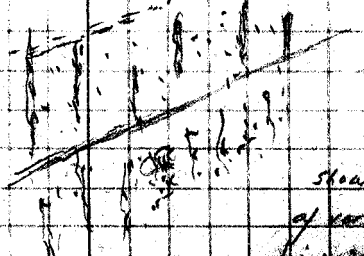
contains oriented acicular & partly altered v. fine epidote xls., a few larger epidote xls, irregular patches of actinolite fibers, calcite grains + a few euhedra of pyrite + shards of pale blue-green chlorite.

zones of v fine grained + partly altered epidote have well defined orientation. other epidote xls, small to medium sized, scattered at random. Actinolite (pale green fibers, length slow, 15° ext.) fibers occur as bunches + X-sections and ⊥ to fibers.

qtz matrix - 60% +
Epidote - 20% (altered + fresh) liquid granules - 10%
Actinolite - 15% +
Ap, chlorite - tr? - 5% -

Mega - Very fine grain dark grey green hfls. disseminated fine pyrite. Nearly homogeneous

low power



Shows character of distribution of very small epidote xls in ap. actinolite fine grained qtz matrix.

H-19. Actinolite - biotite hfls.

Closely resembles H-16.

a band at edge of slide lacks biotite.

Biotite + qtz (possibly + feld) form v. fine grain intergrown matrix. Biotite oriented. Actinolite needles + clusters scattered at random.

Small, altered - epidote? also common (5%).

Mega - Streaky hfls. Most is red hard finely clear dark brown. Along one edge is dense pale grey band gradational into the brown. This band is cut by v. narrow qtz stringer.

S-2 Marble

Very uniform med-fine grain light gray marble. Grains are roundish & of approx same size. Only impurity is a few small pyrite cels. Lithographic

282
Item 79

49: altered feldspathic dike?

Interlocking mosaic of fine grained, mostly untwined albite, orthoclase & qtz with needles of actinolite, shreds of chlorite (probably after biotite), xls of colorless augitic pyroxene. Locally some slots are more coarsely xtalline than others. Feldspars rather fresh.

~~Calcite qtz. [illegible] untwined qtz.~~ Pyrite euhedra. Iron oxide stains. A few xls sphene. Calcite patches.

Not by untwined mosaic qtz stringers of coarser grain.

~~Sil~~ Similar to H 20

Probably same origin - Correlatives.

Mega

Grey aphanitic groundmass. Grey (feldspar) ~~plan~~ rags pleochroic ~~+~~ clusters. dark shreds (chl?) + pyrite.

H-8-5 Hbde andesite?

Fine pain groundmass of qtz? feldspar laths. Igneous-looking texture. Large euhedral phenocrysts or porphyroblasts of orthoclase? jammed full of small brief colorless inclusions - Resemble sericite, but flakes rather large).

Elongate crystals of altered greenish Hbde make up 10% of rock. Mostly of larger size than groundmass.

Groundmass of feldspar (+ a little qtz?), mostly plagio. Phenos of feldspar (K?) a little. ~~all more or less~~

Hbde (γ β −), 2V ca 65°-70. yellow green - greybrown pleo.

About 10% of strongly brief xls altered to dusty-looking aggregates.

Few small xls apatite

Groundmass almost entirely plag in laths 1 gram

10-15 85-90

H-8-6

10-15 % qtz interstitial & intergrown with K felds
5% biotite + epidote + ~~[illegible]~~ small xls, apatite,
+ rutile inclusions, sphene
30 K feld (orthoclase).
50-55 Plagio (much of it zoned) ~~oligo~~-andesine

K felds of late crystallization. In some cases surrounds partially or completely encloses zoned plagio xls.

Typical unaltered granitic intrusive.

H-20 altered igneous?

Somewhat similar to H-9
Very ragged intergrowth of qtz, orthoclase + plagioclase. Part of feldspar altered. Some of plagio coarser grained + suggests original phenocrysts in intrusive (or tuff?). No alignment or banding to suggest bedding. Scattered xls + clumps of actinolite, shreds of biotite, chlorite, grains of epidote + pyroxene(?), sphene + ap.

Might be ~~tuff~~ feldspathic dike or tuff that was subjected to contact meta. + few xls sphene. Euhedral - subhedral pyrite common. Calcite stringers + patches.

Qtz confined to local pockets
Untwinned (K) feld as phenocrysts or porphyroblasts considerably coarser than groundmass.
Plagio mostly as laths in interlocking groundmass that also contains K feld + qtz

The presence of actinolite + the interlocking, sutured groundmass suggest that this rock has been somewhat recrystallized.

Possibly a pre-meta intermediate intrusive (or tuff?) recrystallized at time of meta.

(over)

Mega

[redacted].

Pale dense grey-white matrix qtz + feld? ragged xls. green shreds. Pyrite. May be aplitic dike.

Transferred

Springer 4-8-43

600 - N

Hard siliceous brown & some grey green changing into soft brown hf (uncolored).
Receiving shinks have low colors but nothing that resembles "dragon" low colors in gouge fault
Zone of most intense green (curly or streaky) colored darker
Possible working face

600 - S. Bed continues up to Hole on lower level. Last 30' very streaky HW & bed narrow (<3').

Terminates against jumbled shatter zone on either side of Hole below.

On at S end of Stope narrow (2') & low grade (<0.5)

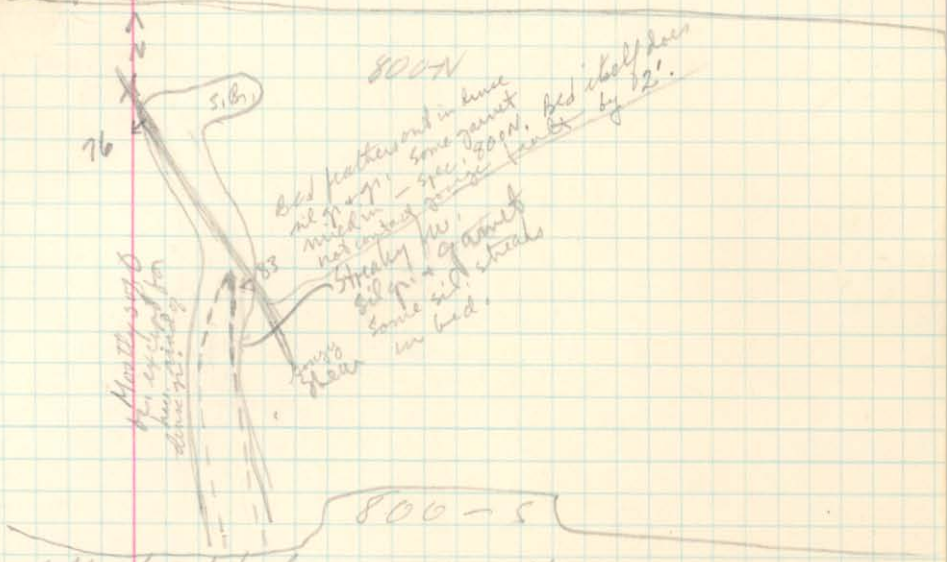
2' or less - low grade.

Possible working face but ahead after 700 L FW Mg. has been drifted out.

Springer 800 – S

Stoped thru on back drift on fw. segm. from 18' – 32' from center of MW down.

Hanging wall segment is cut off 9' S of center of last raise up, + stope rolls to N to moderate angle.



All stoped below as far N as MW down on fw. segm. Hoping to S from 900 to 800

220

120

$$\frac{120 \times 115 \times 5}{10}$$

69000

6272

Humboldt - 4/8/43

6005 - Bell almost gone before dehe

ML
ML55
35LN
ME55
35LN
ML15
ML44

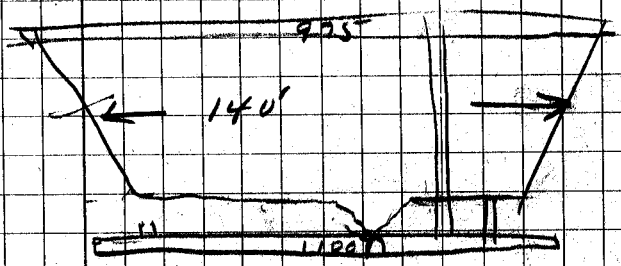
Humboldt Mine
10-11-43

George Sub Level
North - Non ore out ca 400'
South - 3' @ 3% Fac within 50' of bottom of Humboldt Canyon. Probably 40 inches. Last 75' has been spotty but might back as ore.

725 - ~~Bottom~~ drifting N. on Springer from N X-cut. 18" ore in face.

X-cut to George along DD Hole. 5X 95' of ore in S drift (0.6+) ~~[illegible]~~ and still drifting. Low grade (0.2) + limp in 95' N drift. Still drifting.

975-1100 - Springer. Stope 140' long
Ca. 15' above level. 0.75 - 1%.



Probable tonnage $\frac{140 \times 100}{10} \times 3 = 4200$ T

1500 sub. - Enclosed 100' in good 1%+ ore on Humboldt bed. Will sketch. Cut off may incline to N.

1700, Intersected N segment of Humboldt bed in projected position + have drifted 10' to N + S. 5' of 17, ore throughout. Kid rancor ore strand in X cut to bed + drifted few feet each way. May be same as 6' garnet intersection in hole now being drilled S from 17 00 station (at 150').

Sutton

East + West stopes have held up to approx same avg - 0.5 %

Have sunk 100' + are starting to cut station. Will then continue another 100' sinking

Manpower

Humboldt - 10-12 men - 1 shift
Stank - 8-10 " 2 shift
Sutton - 6-8 " " " sinking

Seems a little relieved - altho not yet good.

Ore - Humboldt Mine - Better than before
Stank - not as good
Sutton - Same, but more developed

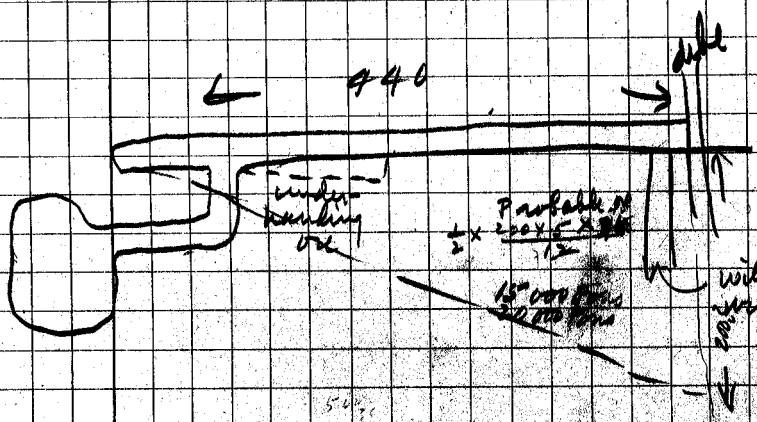
Stank

16-11-43

300 – no work done
400 – 50' good on 5 q dike, then 150' lo.
500 – stopped in dike
600 – " " "
700 – 30' on 5 q dike, then lo for 40'. stopped for got space

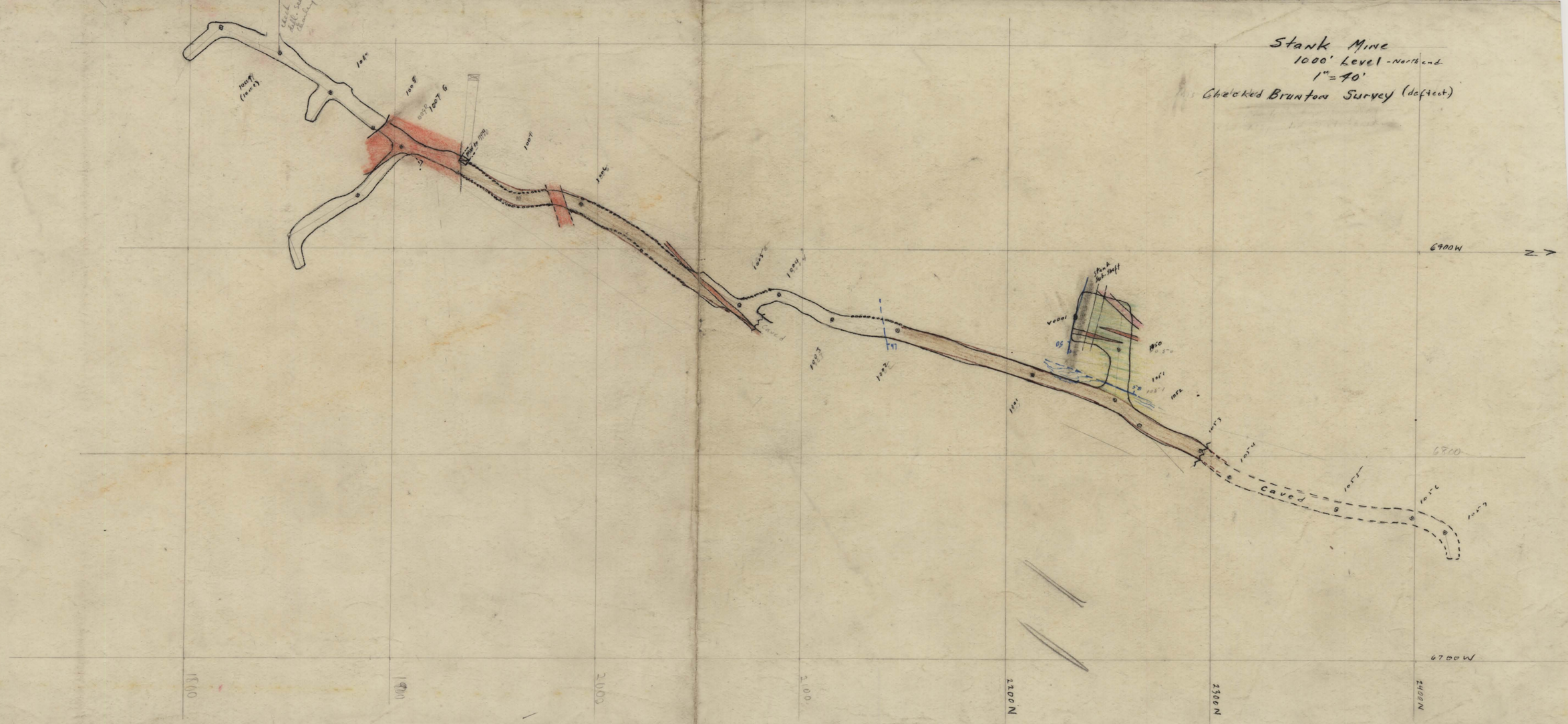
850 – no work done
1000–1100 – " " " "

1200. Underbanding ad & cut in on to furnish got space for swings to be ~~cut~~ started ad dike




Stank Mi
600 Lev
1" = 40
5400 E
5300 E
5200 E
5100 E
5100 N
5000 N
4900 N
4800 N
4700 N
4600 N
4500 N
4400 N
4300 N
Caved & loose
Stoped above & below
Approx 200' caved
All ore pulled
Some chutes have ore in them.
5-13
Same ore to be pulled 5-13
Very irregular body - altitude unknown - Including many irregular bodies of
Gobbed
Gob filled
M.W. To 500
A 600 L A'
Section
500 Level
Stoped & DRAWN
Broken ore to be pulled
M.W.
Stope in Footwall Segment of bed
P
Stoping
Broken ore
Pillar in fault zone
Location approximate
Stope in Hanging wall Segment of bed
Broken ore
Pockets cut to be stoped
600 Level
500
B 600 Level B'
Section
silic streak dip very steeply toward west
Chute pocket
dip 65°
To 500?
Silicif fault
Stoped
? Caved 600 Level
ore pass to 700 L
Stank Mine
600 Level
1" = 40'
Vertical Section Normal to X-X
Vertical Section along X-X
Bed
21-1/4
5-3/4
27
Intermediate
Albitic - qtz


Stahl Mine
1000 Level
North End
30400078
1050 - 1051 = 22.5'
1051 - 1050 = 42.1'
1001 - 1002 = 4.0
02 - 03(?) = 3.8
03 - 00 (?) = 28.4
shaft
1% slope
Bearing of Shaft = N61°W
(approx)
Dom. 79
282

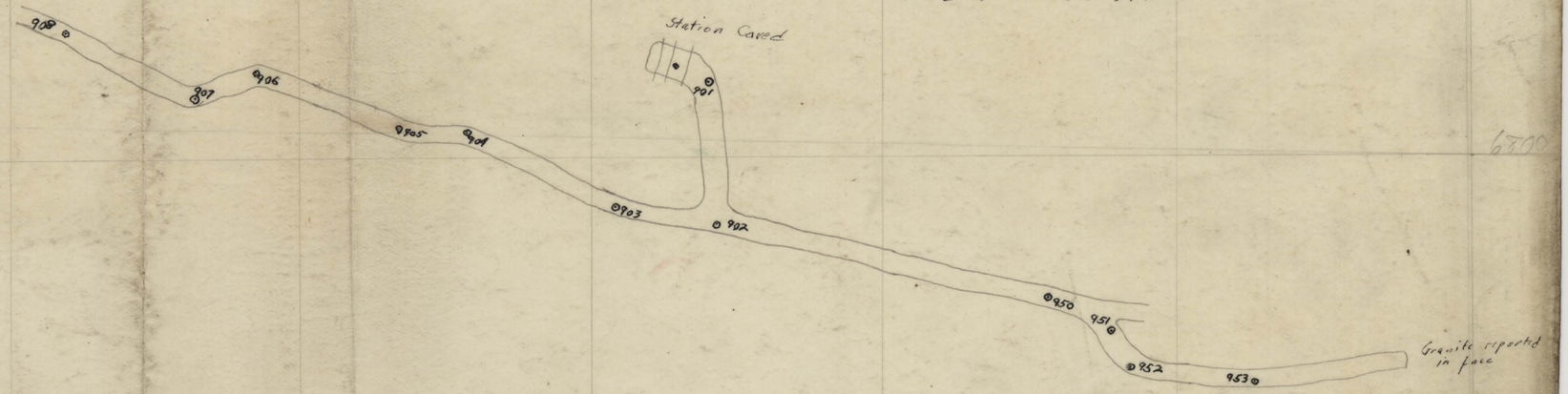

Stank Mine
1000' Level - North end
1" = 40'
Checked Brunton Survey (defect)
6900W
6700W
N
1900
2000
2100
2200 N
2300 N
2400 N
Caved
Stank Inc. Shaft
Wood

30700078

282
Item 79

Stank
900 Level

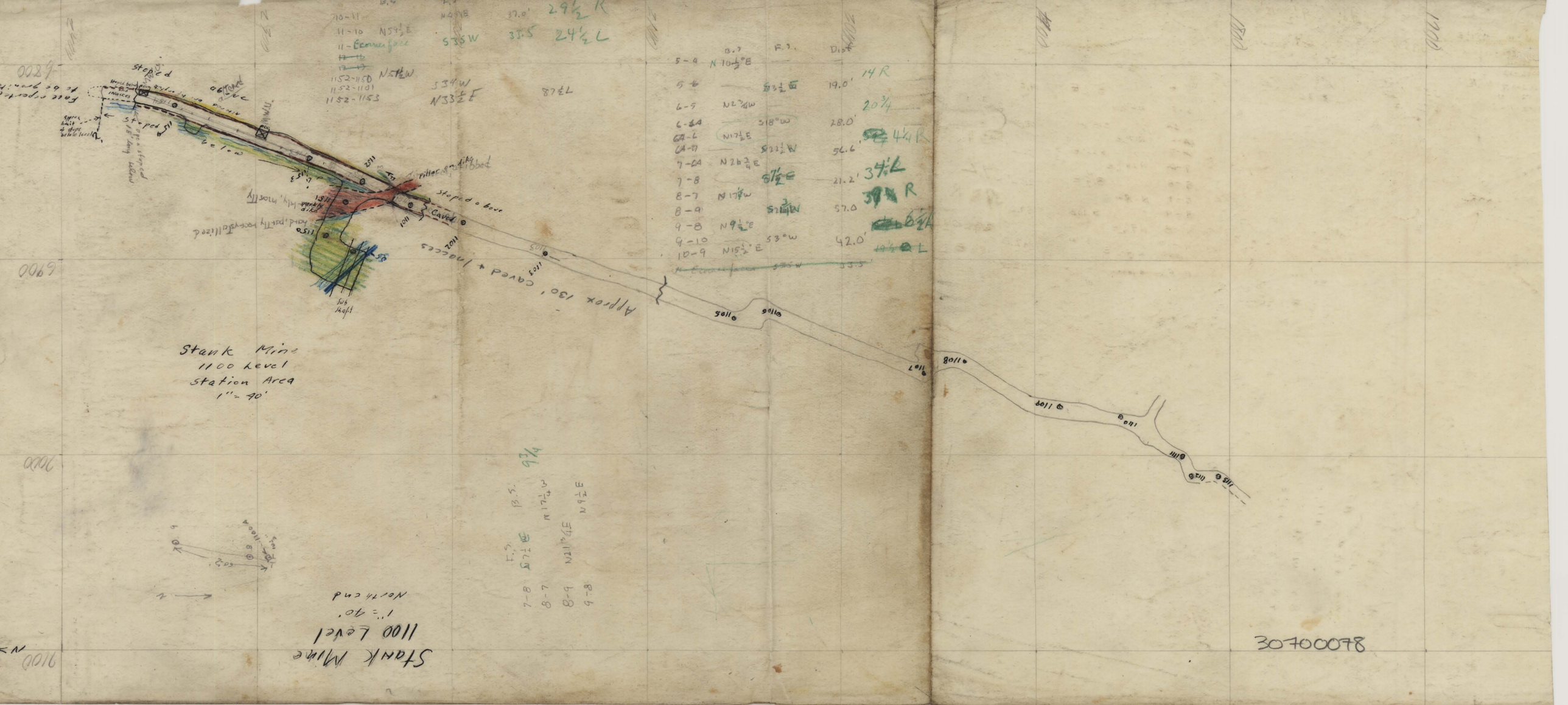
Caved & Inaccesible



385
95
480

30700078

1800
1900
2000
2100
2200
2300
2400
2500
6300
6200


Stank Mine
1100 Level
Station Area
1" = 40'
Approx 130' Caved + Inaccess
Stoped
Caved
Stoped above
Pillar
Sub Shaft
Stank Mine
1100 Level
1" = 40'
North end
30700078

Stank Mine
1200 Level
1" = 40'

Section along A-A'
1" = 20'

Bed resembles Humboldt Bed
contains much dark brown-red garnet.

Inaccessible stope
Traced from Co.
Map. Grade
reported by
W&E - 2-2.5%

Rich zone
Low Gr.
Pillar

stoped to 1100
Waste Filled

Unstoped Block
0.5% est. grade
4'-5'

1100 Level

1200 Level

Stank Mine
1200' Level
1" = 40'

Shaft continues
for 34' @ - 65° below
level. All in green

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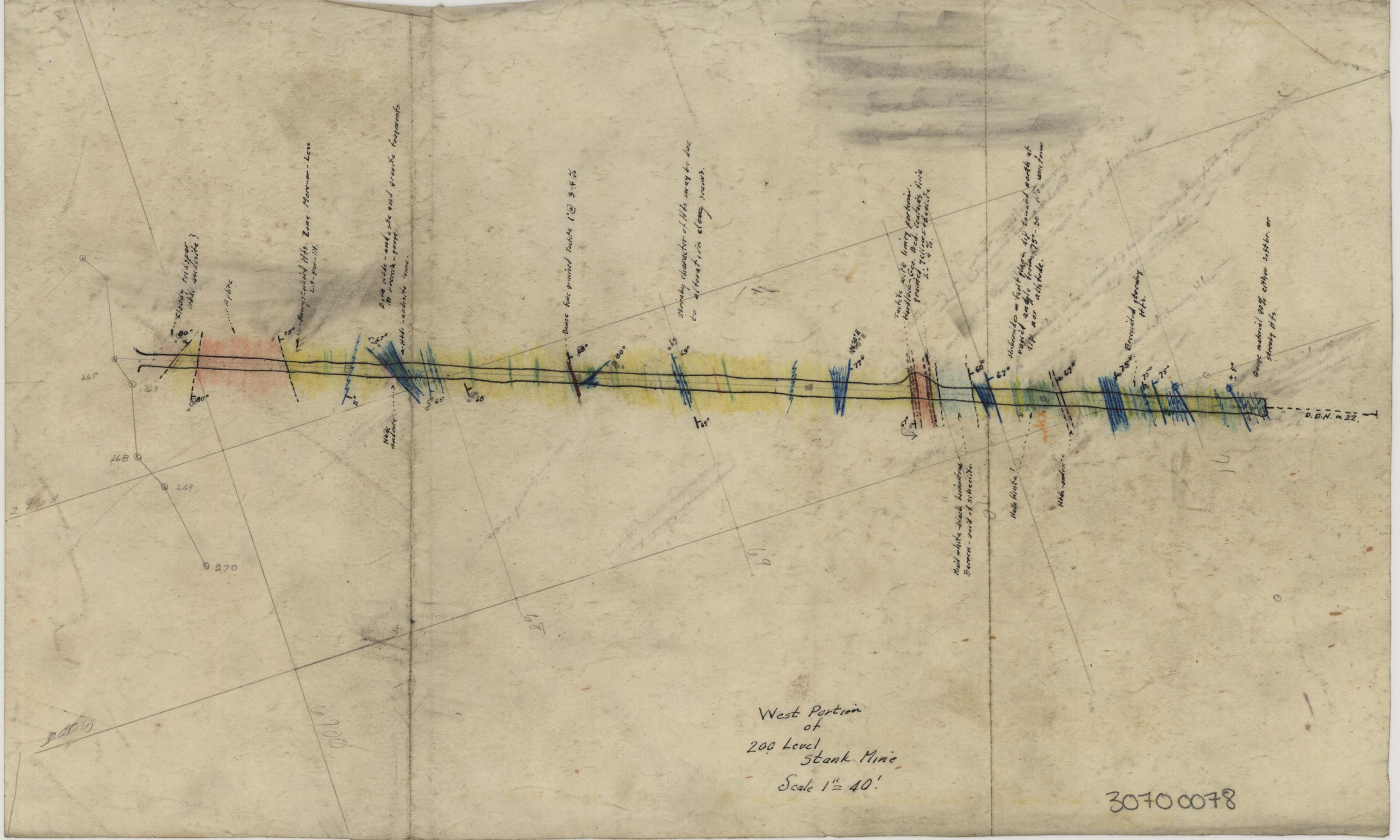
Stank Mine
700 Level
1" = 40' = 1"
5100 N E
5200 N E
5300 N E
4200 N
4300 N
4400 N
4500 N
4600 N
4700 N
4800 N
4900 N


Pyrite
Zone Marcasite-Less
Dense fine granular Pyrite 1% @ 3-4 %
Strikes
Brecciated strikes Hfs.
Gouge material 20% either soft or strikes Hfs.
D.D.H. # 22.
265
267
268
269
270
6900
West Portion
of
200 Level
Stank Mine
Scale 1" = 40'

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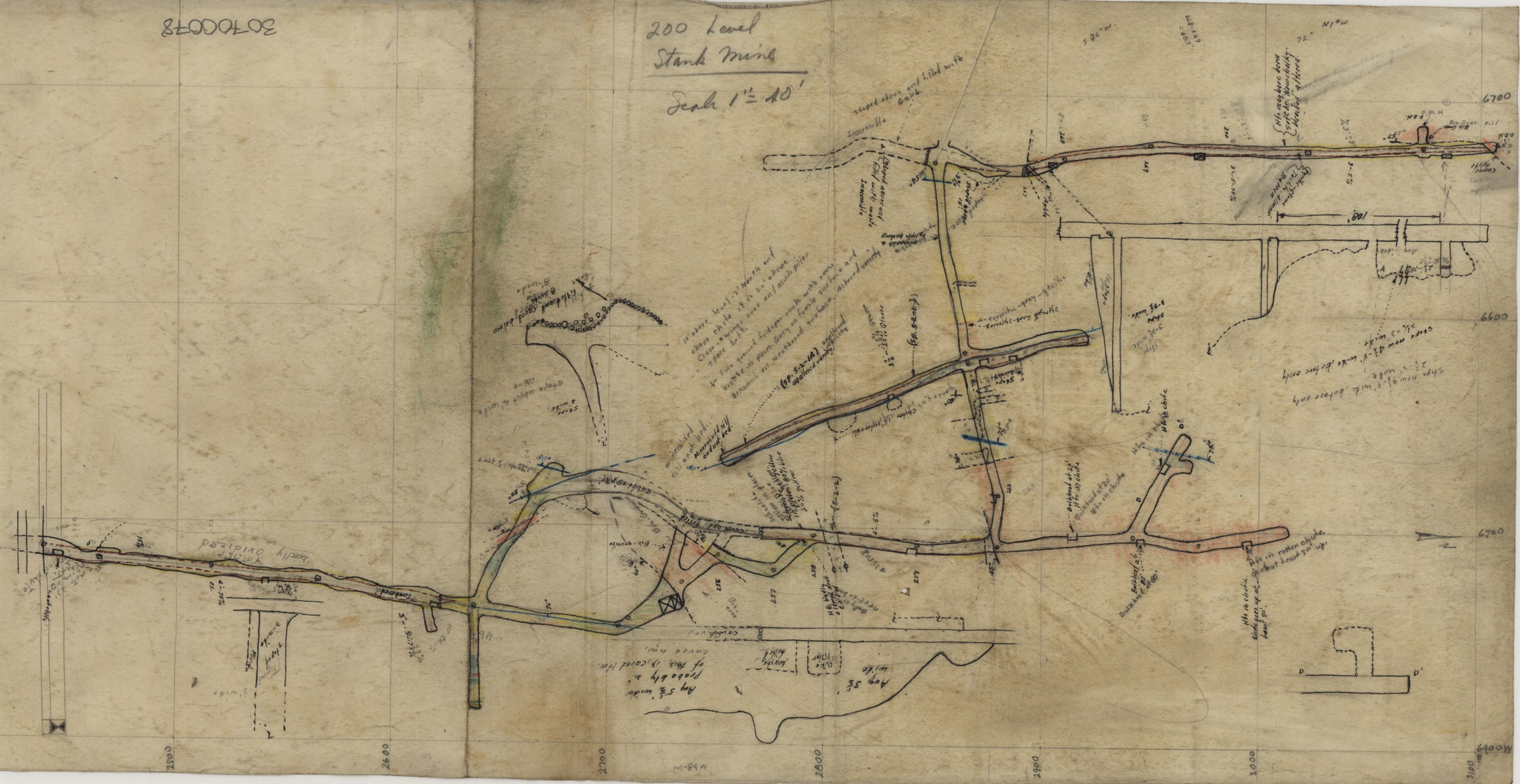
200 Level
Stank Mine

Scale 1" = 10'



Stank Mine
800 Level
1" = 40'
Caved + Inaccesible

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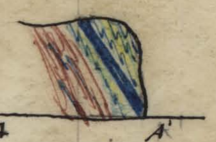
2000 2100 2200 2300 2400 2500 2600


Stink Mine
300 L
1" = 40'
South end
Item 79
30700078
Projection along B-B'
Scale 40' = 1"

Stenk Mine.
300 Level
1" = ~~100~~' 40' (")
North sheet.

68 = 140
143 =

143/68 x 140



~~Section along~~ Stope surface
of station A-A A'
at old shaft (20' = 1"
Scale 1" = 20'

S Section along B-B' N face
BB' (scale 20' = 1")
1" = 20'.


Stank Mine
400 Level
Scale: 40'=
Stank Mine
400 Level
1" = 40'
Lower 40' = 86° W
Upper 18 = 88° E
Avg. 3½-4' wide
Filled Stope
Timbered
Filled
Ore
Drawing shoots now
Ore filled stope
Ore filled stope
300 L
58' to top bulkheaded
Floor Pillar
Stope
Pillar
To 500
FW - 2' at .25%
Middle 6" = .5-1.0%
d
d
p
p
S
S
S
A
A'
Stope ends
Stope
Pillar
Sealed Fault
Stope
Waste Filled
Floor Pillar
Stope
Waste Fill
Filled
Good
Stope
Approximate 70°
Silic. tactite
Tactite
Stope ends
Hbde andesite
Tactite
M.W. To 500
Stope back to normal
4½ - 1% Hard Gr.
Hbde andesite
5' - 1%
Avg.
1% streak on FW
is good.
Tactite ore
Bad Tactite on contact between
soft br. & silic. green
Section
B
B'
352' to plan
Stope below
Waste Filled Stope above
Hbde andesite
3070078
171
68
171
14
684
171
2394

Stank Mine
100 Level
Scale 1" = 40'

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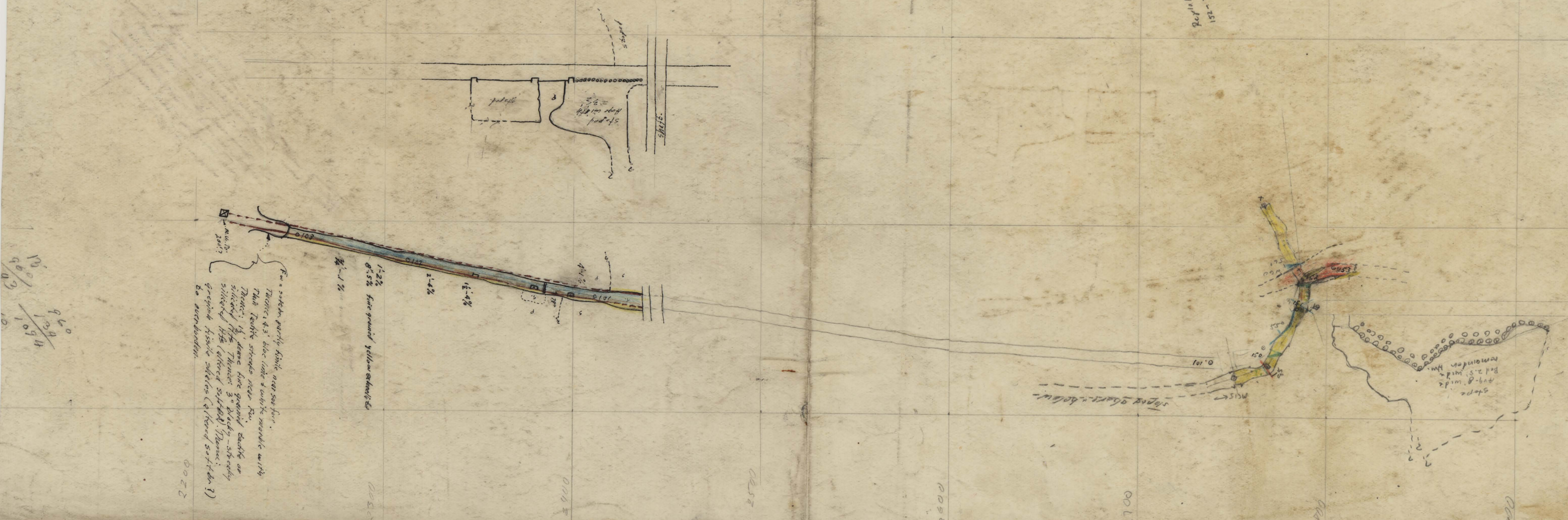

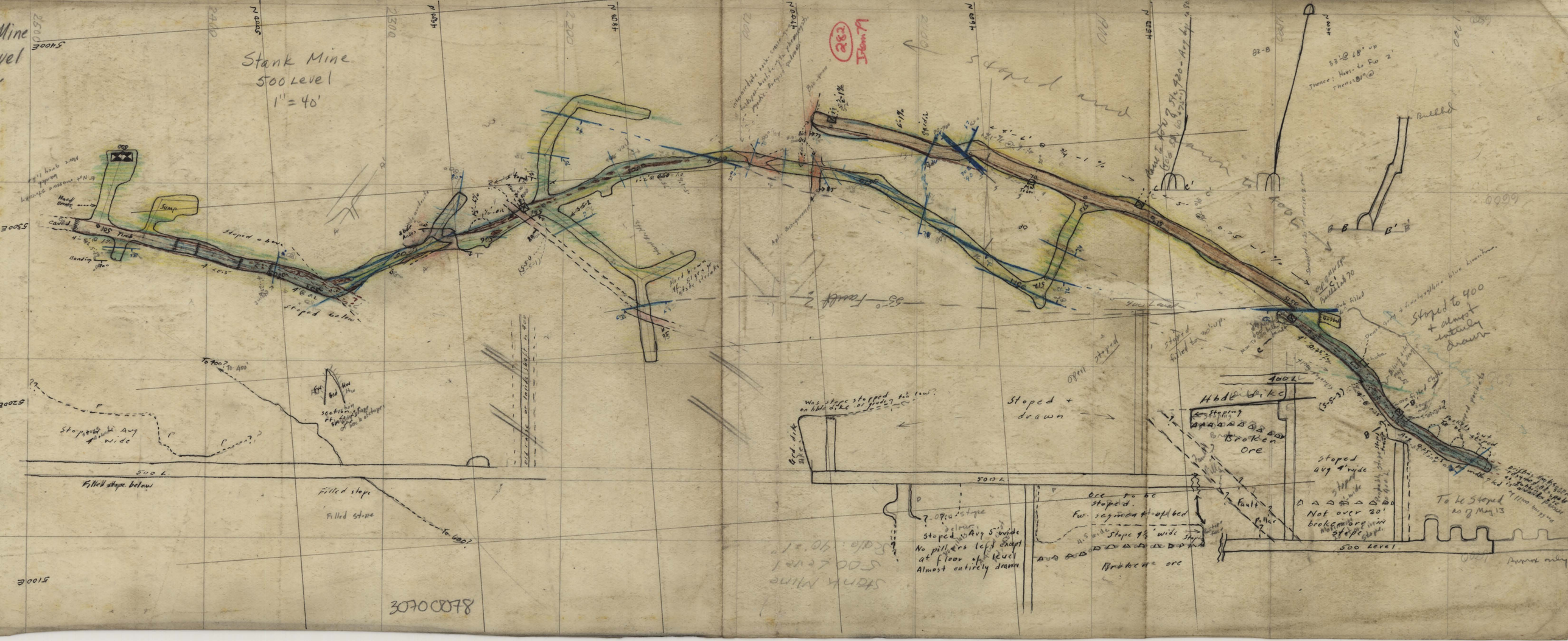
Stank Mine
500 Level
1" = 40'
Sump
Caved
Bending
Stoped above
Stoped below
Stoped avg 4' wide
Filled stope below
Filled stope
Filled stope
To 400?
To 400
To 600?
500 L
Stoped + drawn
Stoped avg 4' wide
Broken ore
Fault
Pillar
Stoped avg 4' wide
Not over 20' broken ore in stope
500 Level
To be Stoped
Stoped to 400 + almost entirely drawn
Stoped avg 5' wide
No pillars left except at floor of level
Almost entirely drawn
Ore to be stoped.
Fw segment stoped
Stope 4½' wide
Broken ore
Hdd dike
Bulkhd
30700078