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Townships 44 and 45 north, ranges 31, 32, and 33 west, specimens 31004-31044. No. 211 June 27, 1891

McNair, F. W.

[s.l.]: [s.n.], June 27, 1891

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211 McN

211

LAKE SUPERIOR SURVEY

McN

Index

LAKE SUPERIOR SURVEY. INSTRUCTIONS.

Topography.—On the left-hand page map as much of the section as has actually been seen, counting each of the spaces between the blue lines as 100 paces, and 20 of these spaces to one mile, or 2,000 paces. The scale is four inches to the mile, and the heavier blue lines, outlining one inch squares, mark forties. Denote streams, lakes, swamps, marshes, etc., by the topographical signs annexed.

The geologist will consult with the compassman, and describe as accurately as possible, the timber traversed. When pine is found, give its proportion; tell whether good or poor, and indicate kind—white, norway, jack. If hemlock is found, note the relative amount. In hard wood districts, designate as good or poor, heavy or light, and indicate predominant kinds, oak, maple, birch, etc. Cedar swamps, spruce swamps, tamarack swamps and meadow swamps will be always discriminated. Outline burnt timber.

Each day, just before leaving camp, the geologist will compare his own and the camp aneroids, and the reading of each, with time, will be recorded. At work the aneroid will be read on gentle slopes at intervals of 200 paces; on steeper slopes at intervals of 100 paces; also at all maxima and minima. When minima are streams the map and notes will indicate this, showing width and character of streams. When a stream has made a cut of importance, aneroid readings will be made where the banks break off and at water level. If instead of an abrupt break, the stream valley has steep slopes, aneroid readings will be made with sufficient frequency to show this character.

At reading points the compassman will stop, read the dial compass, and remain until the records are complete. The readings will, as fast as made, be placed upon the map at the right-hand side of the line traveled, and in the notes, the numbers being inclosed in parentheses, basing the work upon the bench-mark which served as a starting point. At bench-marks the absolute reading of the aneroid and the altitude as shown by the bench-mark will be recorded to serve as a base for subsequent readings. For instance, aneroid 29.13 inches; altitude on bench-mark, 275 feet. At each subsequent reading, by setting 275 on the altitude circle at 29.13 on the fixed dial, altitudes may be directly recorded. When the next bench-mark is found at two miles distance, the difference between the aneroid reading on the basis of the first bench-mark and the second bench-mark will be recorded. At intervals of a half hour during the day the time will be attached to the aneroid readings. Upon reaching camp, after the day's work, the geologist will record the readings of his own and the camp aneroid, and also the time. Interpolations will then be made, based upon the bench-marks and times (not distances) if the day has been one of no abnormal atmospheric disturbances, or upon both bench-marks and camp aneroid readings if there have been unusual disturbances, and the corrected numbers, less a constant of 4 feet, will be placed upon the face of the map at the left-hand side of the lines of travel, and in the notes without parentheses, but the parentheses numbers will not be erased.

At each aneroid reading the trend of a horizontal contour line will be indicated upon the face of the map, making the length of the line correspond as nearly as may be with the actual distance seen. In passing directly up or down a slope, the contour lines will be at right angles to the direction of travel. In passing up a hill diagonally the contour lines will intersect the lines of travel at various angles, which can be estimated and plotted with sufficient accuracy by an appreciation of the north and south direction.

The course of travel will be always north and south. In starting from a quarter or a sixteenth post, the work will be plotted on the assumption that the true course is followed, but upon reaching the next section line the geologist will remain in the position at which the line is struck by the compassman until the latter finds the adjacent bench-mark. The intervening distance will then be paced by the compassman, and the point of intersection of the section line marked. From this point to the starting-point, a right line will be drawn as the actual course of travel. The positions of the contour lines, aneroid readings, etc., will not be changed.

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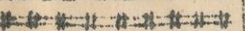
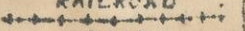
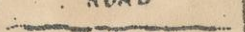





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TOPOGRAPHICAL SIGNS.

 <p>PINE OR HEMLOCK</p>	 <p>HARDWOOD</p>	 <p>PINE OR HEMLOCK AND HARDWOOD</p>	 <p>CEDAR SWAMP</p>
 <p>SPRUCE OR TAMARACK SWAMP</p>	 <p>MARSH</p>	 <p>RAILROAD</p>  <p>ROAD</p>  <p>CREEK</p>  <p>RIVER</p>	 <p>NO STRUCTURE</p>
 <p>↓ 55° NEARLY MASSIVE</p>	 <p>↘ 35° ↘ 62° E. SHALY OR BEDDED</p>	 <p>75° SECONDARY STRUCTURE.</p>	

EQUATION OF TIME FOR 1891.

Day	Min.	Day	Min.	Day	Min.
-----	------	-----	------	-----	------

JUNE.

Add to watch time.

1-6	2	7-11	1	12-16	0
-----	---	------	---	-------	---

Subtract from watch time.

17-21	1	22-26	2	27-31	3
-------	---	-------	---	-------	---

JULY.

Subtract from watch time.

1-6	4	7-13	5	14-31	6
-----	---	------	---	-------	---

AUGUST.

Subtract from watch time.

1-7	6	8-13	5	14-18	4
19-23	3	24-26	2	27-29	1
30-31	0				

SEPTEMBER.

Add to watch time.

1- 2	0	3- 5	1	6- 8	2
9-11	3	12-14	4	15-17	5
18-19	6	20-22	7	23-25	8
26-28	9	29-30	10		

OCTOBER.

Add to watch time.

1	10	2- 4	11	5- 8	12
9-12	13	13-16	14	17-22	15
23-31	16				

NOVEMBER.

Add to watch time.

1-13	16	14-19	15	20-23	14
24-28	13	27-29	12	30	11

$\frac{1}{4}$ Between 1 T 44 R 30 + 36 T 45 R 30
B.M. 395.73 Set 860 with 29.29

Run North in 36 to River.

200 North 390.0

235 Min River 389.00

40 paces wide

East line Sec 1 T 45 R 30

B.M. 394.93 Area 845.

North to River 173.

At 400 ab water 488

275 Max 430

~~1000~~ 435

Geologist F. W. McKain
Compassman Wm Murphy.
Anersoid No 2
Spiral Compass No 5
L. S. L.

NO II

I have used the word flat to indicate ground on which I could not distinguish the contour.

SPECIMENS: 1004-1044

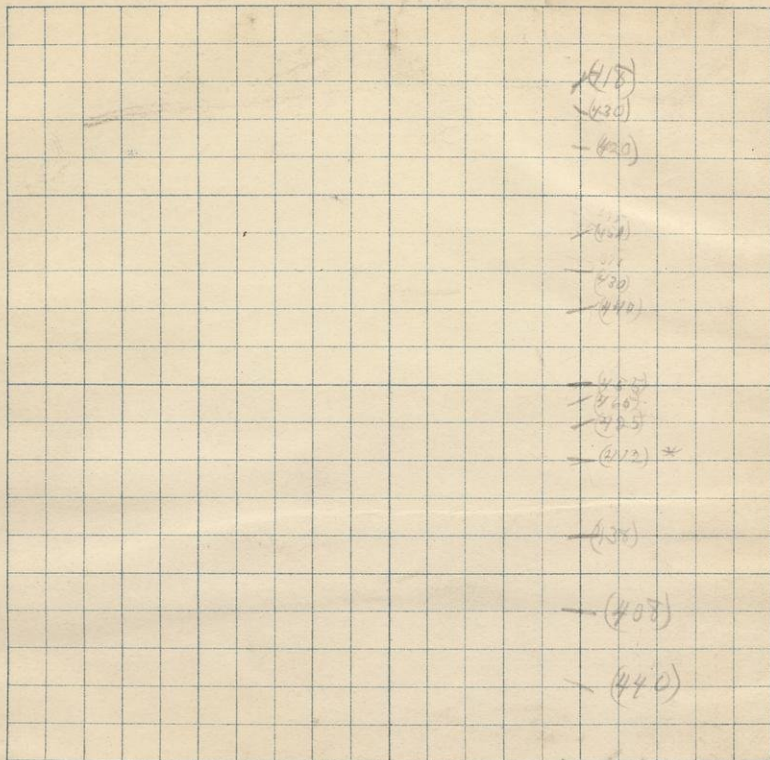
TOWNS 44 & 45 RANGE 31, 32, & 33

2

S. 1

T. 44 N

R. 30 W



(430)

June 3/891 Run E. line sec 1744 R30W
and E $\frac{1}{2}$ line. 8:30 AM

Camp A 28.64 N62 28.67

South one $\frac{1}{2}$ line 10 W 160 Road

200 S 418 ft. Hills about 30 feet high
to east.

275 Max 430

353 Min 420

420 Toward hill. 428

600 Max 451 Granite Boulder 770

700 Min 430

800 440

880 Max 450

930 Min 438

1000 455

1035 Max 465

1100 425

1125 Min 422

1200 412

1400 410

1500 408

1550 440

~~200~~ 974 struck line 43 west of S.E. corner

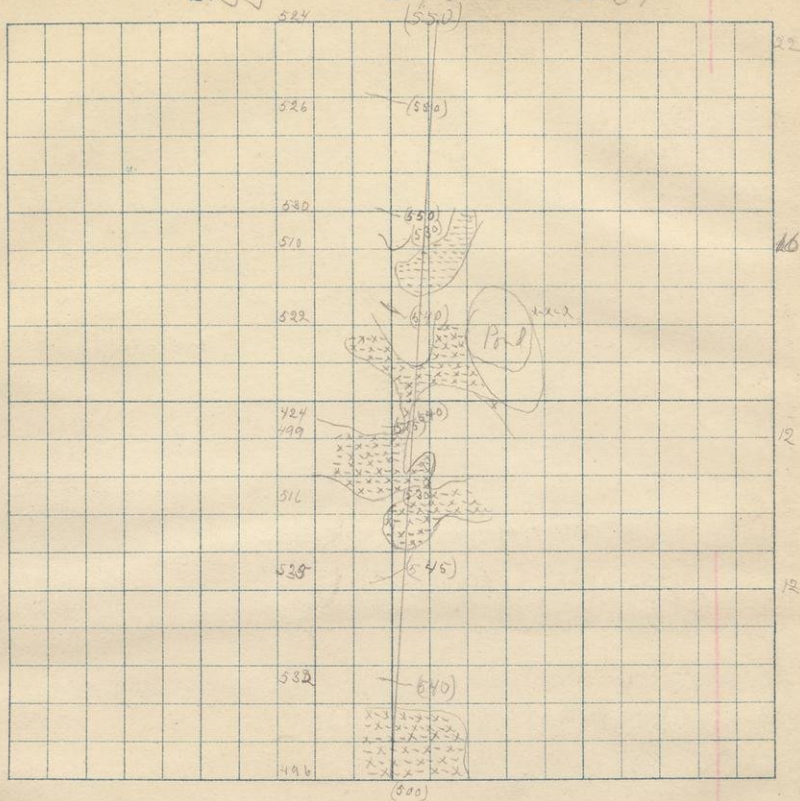
aimed 438 Rain last 500 paces.

✓ 4 June 18, 1891 Run ¼ line Sg south of
S 22 T 45 R

S. 93

T. 45

R. 37



June 17, 1891 Run $\frac{1}{4}$ mile S. of
 Sta 83 T45 R31 B.M. 499.54

Set 400 with 28.43 at 7:45 A.M.

Run in Tamarack & Spruce swamp.

176 N, Var 60°E 190 leave swamp for burned
 Hardwood & few pine. 264 (540) top of ridge
 400 (550) ^{no cotton} numerous post holes var 73/4 E.

At 300 we entered green Hardwood & few good
 pine. 512 (545) enter Burned Hardwood & pine

625 enter spruce & tamarack swamp (510)

722 leave swamp for small ridge.

On ridge 740 (530) 770 reenter swamp.

909 leave swamp for Hardwood with few pine.

(515) 8:30 A.M. 931 (540)

1000 (560) High ridge sloping sharply on E, foot
 within 50 paces of line in swamp.

1073 enter spruce & tamarack swamp. (520)

1167 leave swamp for small Hardwood & pine

1234 (540) 1400 (530) Var. 60°E. 8:50 A.M. 1500 (550)

Enter Burned streak, pine streak & good.

1600 (550) flat. 1700 (550) 1910 struck line

126°E of post at 9:10 A.M.

$\frac{1}{4}$ post 550

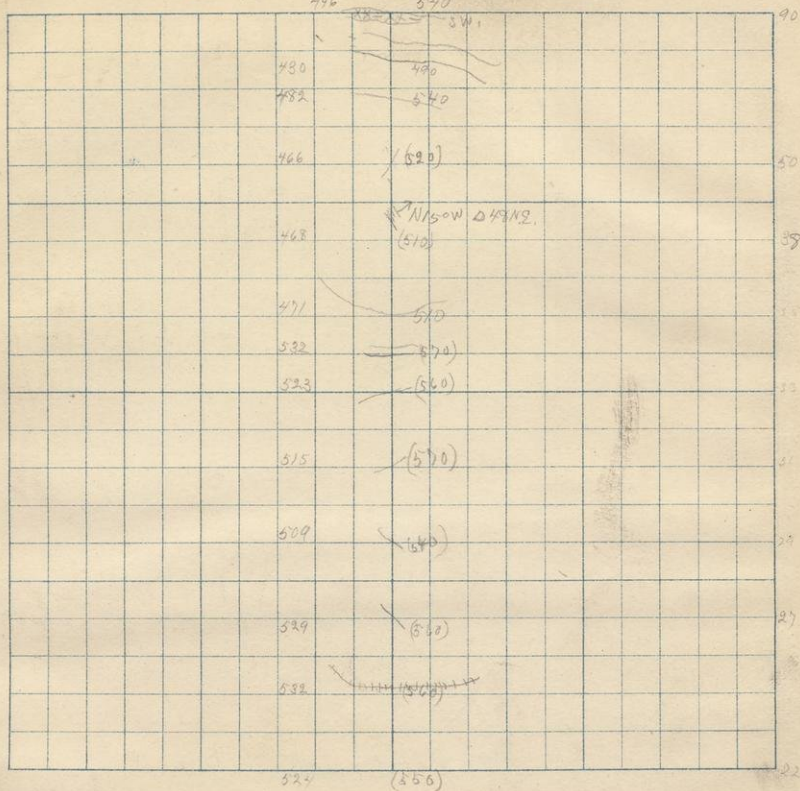
6

June 18, 1891 Run $\frac{1}{4}$ line by South of

S. 28

T. 45

R. 31



June 18, 1891 Run $\frac{1}{2}$ mile Sg south of
Sec 28 T45 R 31.

7

$\frac{1}{4}$ post (550) 9:30 A.M. flat. Hardwood good
slightly burned. Scattering pine. Var $7\frac{1}{2}^{\circ}$ E

218 Supply road E+W to Golden's Camp. (560)

Var. $7\frac{1}{2}^{\circ}$ E. 400 (560) Var $7\frac{1}{2}^{\circ}$ E 9:50 A.M.

600 (540) 700 Var $8\frac{1}{2}^{\circ}$ E 880 (570)

1000 (560) Var 9° E. 1120 (570) drops sharply
to a sort of swamp from which pine has been cut

1200 (520) edge of swamp

1400 X (510) flat and swampy like, but hardwood.

Var 10:30 A.M. Var. 10° E.

1004

Marble with a number of secondary minerals
showing in it. From ledge located

1455 N 1000 W. Dip of bedden. Strike of
bedding? N 15° W Dip 48° N.E. Ledge about
5 paces wide and 20 long. There is a series
of joint planes dipping westward.

Can uncover but little of ledge.

1485 Another ledge of same parallel with first
7 paces broad and 15 long.

1600 (520) Var $10\frac{1}{2}^{\circ}$ E 11:20 A.M. Run from

1460 on. 1776 Beaver to river (540) 1800 Var $12\frac{1}{2}^{\circ}$ E

1872 River (490) ~~1885~~ strike line 11:40 A.M.

Stop for lunch

1005

1800 N 2020 W strike N 15° W dip 46° N.E.

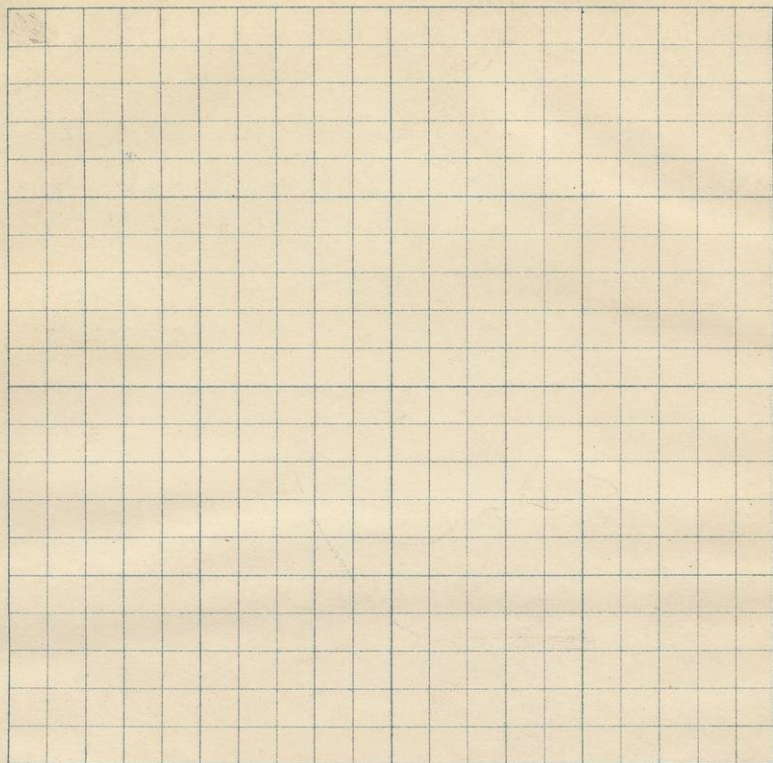
Seems to be a repetition of 1004

8

S.

T.

R.



I find a rather gentle slope on the east side of which I can trace the marble for about 60 paces. The horizontal distance E & W is not over 30 paces. At river 1875 I find a large piece of this rock on which the weathering shows wavy layers which correspond to the line I have taken for bedding and where strike and dip are given. Outcrop is found also in river bed 1900 on north side.

In river outcrop shows, on line, about 20 ft about 15' E & W.

No 2 at river 1245 (515) var $18\frac{1}{2}^{\circ}$ E

1973 same river bottom (sand) for Hardwood Hill var $18\frac{1}{2}^{\circ}$ E. 2020 top of ridge (600)

1960 strike line 20 W of $\frac{1}{4}$ post

B.M. 449.92 No 2 reads 540 at 1100 M.

var. 28° E.

June 18, 1891 Run W $\frac{1}{2}$ Bg North of

Sec 28 T 45 R 31 B.M. 463.00

Set 200 with 2854 at 1:25 P.M.

$\frac{1}{2}$ stake in River bottom swamp var. 10° E

140 470 Breaks down to River

160 (460) Bottom 183 (460) River. 1:35

200 acc

1006 N 1840 W 1500 W Large out crop over which the river falls. Extends for 40 paces along the stream which is here about 40 feet across being wider above and below. Rock seems to be a hornblende rock. It shows a tendency to cleavage planes, some feet apart, whose strike and dip are approximately parallel to that of No 1007 which below

1007

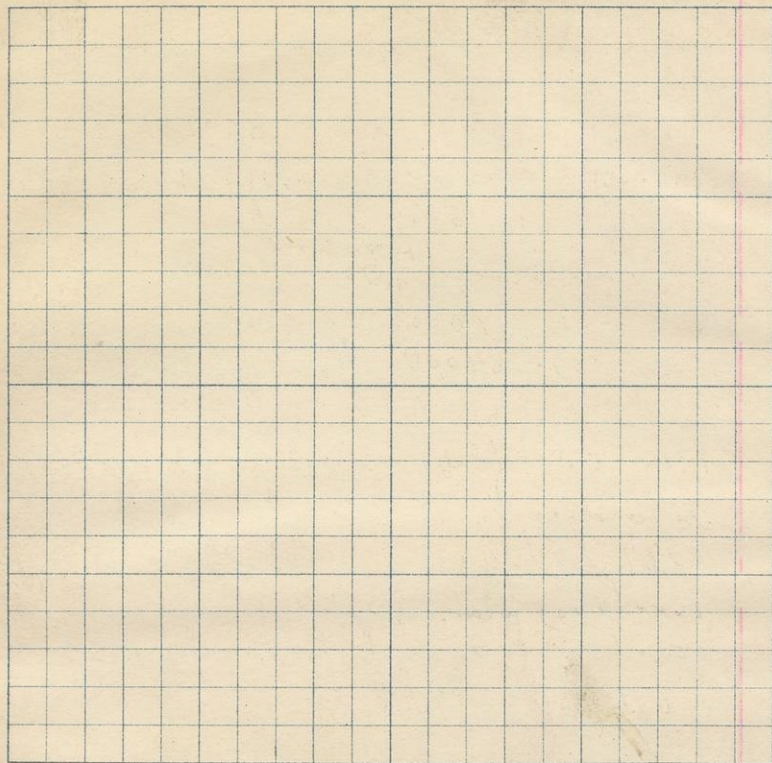
1007 N 1840 W 1505 Seems to be a crystalline limestone. That which I take to be bedding strikes N 10° W. Dips 57° N.E. It shows a strong tendency to cleave along this supposed bedding plane, and the weather lines follow this plane. The outcrop is narrow, only about 25 feet. It gives place to (on North bank)

1008 N 1840 W 1510 to 1530 Seemingly a hornblende rock. There is much more of No 1007 and other beds of greenstone up stream, more than can be worked out in

S.

T.

R.



a day by an inexperienced man.
 But in order to finish my line I must leave
 with this.

No 2. (480) at river at 3:00 PM.

400 (485) on outcrop of No 1007. 260 ft N+S.

Swamp. 600 (500) swamp.

630 leave swamp ^{for hardwood.} 700 (550)

800 (540) 1000 (545) flat.

1200 (550) 3:40 PM. Good pine with the

Hardwood at W. Cut by E of line.

1400 (550) flat. Good pine mixed with
 the hardwood.

1527 Supply road to Golden's Canoe

1600 (555) flat. 4:00 PM

1800 (565) 1905 strike line 19 W of pole

1/8 post (550) at 4:10 PM

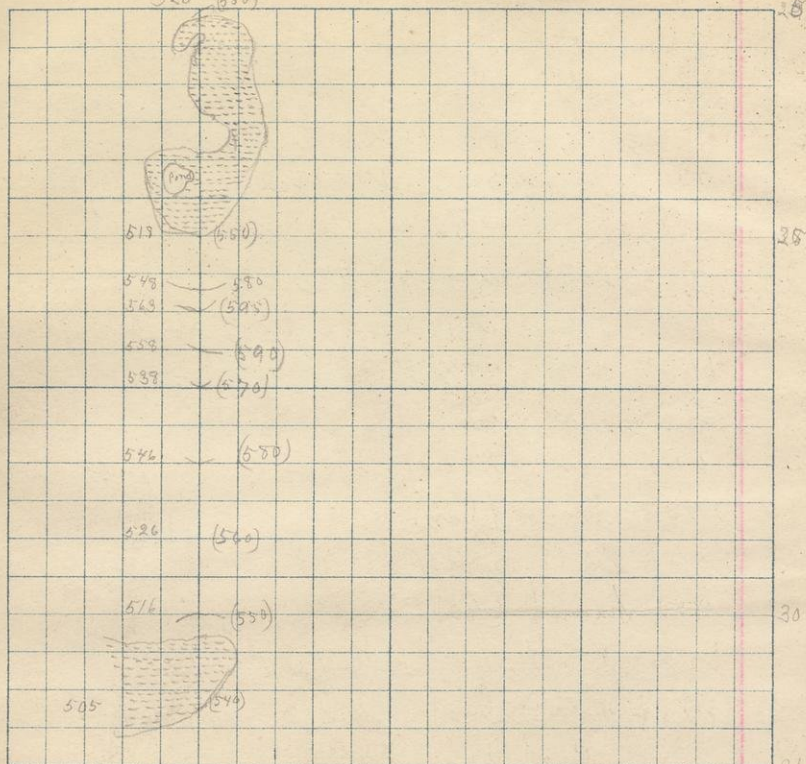
14

June 18 1891 Run W $\frac{1}{4}$ line Bg North of

S. 33

T. 45

R. 31



June 18, 1891 Run W $\frac{1}{2}$ line Bg North of 15

Sec. 33, T45 R31

$\frac{1}{2}$ post in Hardwood. (550) 4:10 P.M.

103 enter open swamp

48 leave 100 reenter swamp.

200 (550) swamp. 295 leave swamp for

sapling pine. 386 reenter swamp

600 leave swamp (550) 4:35 P.M.

Burned Hardwood. leave at 850.

740 (580) 800 (595) 900 (590)

1000 (570) Pot Hole at E of line

1200 (540) 1300 enter burned track

1400 (560) flat. 1600 (550) 5:05 P.M.

1667 Enter swamp, open.

1800 Swamp (540) 1853 leave swamp for

burned timber clearing

1975 strike line in edge of open swamp

42 E of B.M. 509.69

No 2 reads (540) at 5:20 P.M.

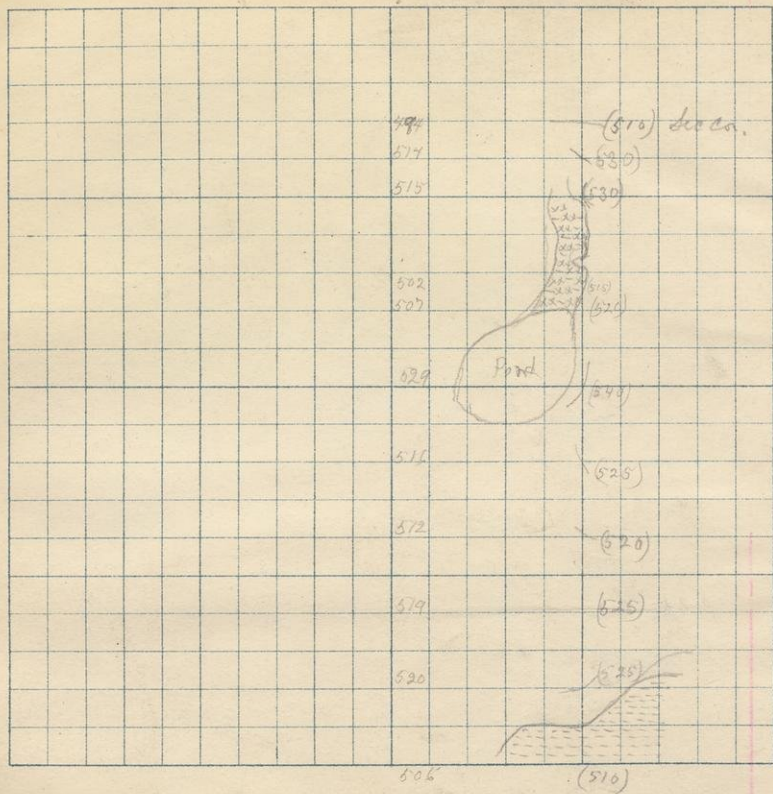
16

June 19 1891 Run & line By South of

S. 32

T. 45

R. 31



June 19, 1891 Run E line Bg South of
Sec 32 T45 R 31 BM 510.09

17

St 700 with 27.99 at 7:30 AM.

On in open swamp. 100 leave swamp faberwood
hardwood. 200 (525) 340 Var 3° E

400 (525) flat. 600 (520) center green
hardwood with few pine, fair.

700 Burned again. ^{Range of} 1000 Holes on line.

800 (525) Var 3° 8:00 A.M.

1000 (540) Good Pine at east. Lake at west.

1090 Var 4° E. 1200 (520) on E. Good pine

mostly white, few Norway. Burned for
200 or 300 paces east of line.

1256 center swamp ^{center} (515) 1322 leave swamp.

1385 recenter swamp. 1400 Swamp. (515) 8:30 A.M.

1460 leave swamp for white pine good.

7500 (530) Var 50° E. Green woods to east.

1600 (530) 1700 struck line at post
(510) at 8:45 A.M.

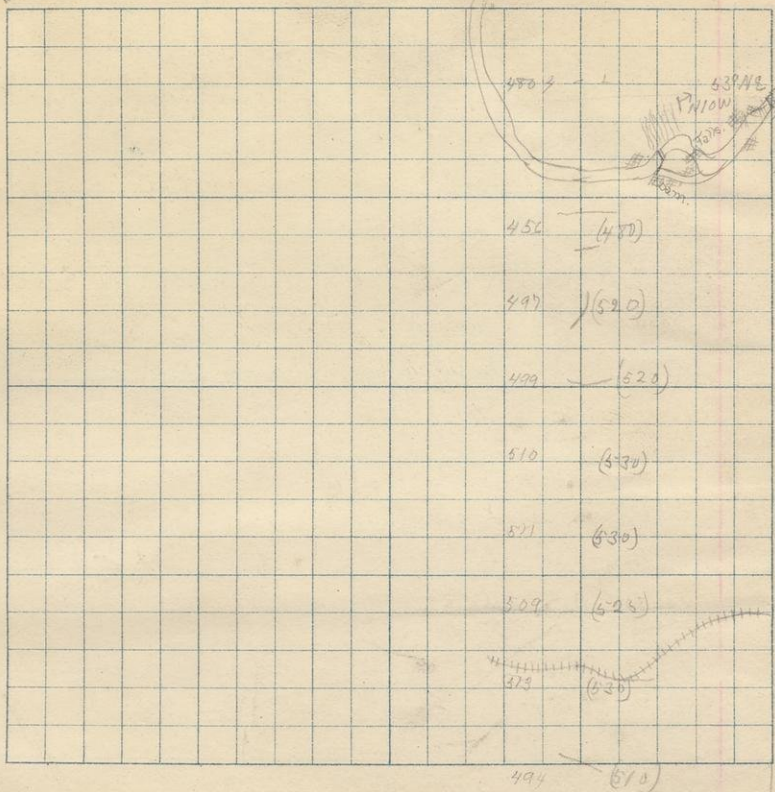
18

June 19 1891 Run E line by South of

S. 29

T. 45

R. 31



also a 1008
in page 21

June 19, 1891 Run 2 line Big South of
Sec 29 T45 R31

19

Co in edge of swamp and good white pine (2)
(510) 745 AM. 200 (530) flat. Slashing on Sec 29
pine & hard wood on 28.

278 Road to Golden's Camp. 400 (525) flat
471 var 5 1/2' 2' 100 (530) flat.

800 (530) flat. Slashing changes to Oak,
pine & Hardwood to west of line.

952 var 4' 2' 9:20 AM. 1000 (520)

1200 (520) 1400 Swampy (480)

1450 leave swamp. for burned slashing to
E of line and good pine (white) to W.

1456 var 4 1/2' 2' 480 (490) fall to river

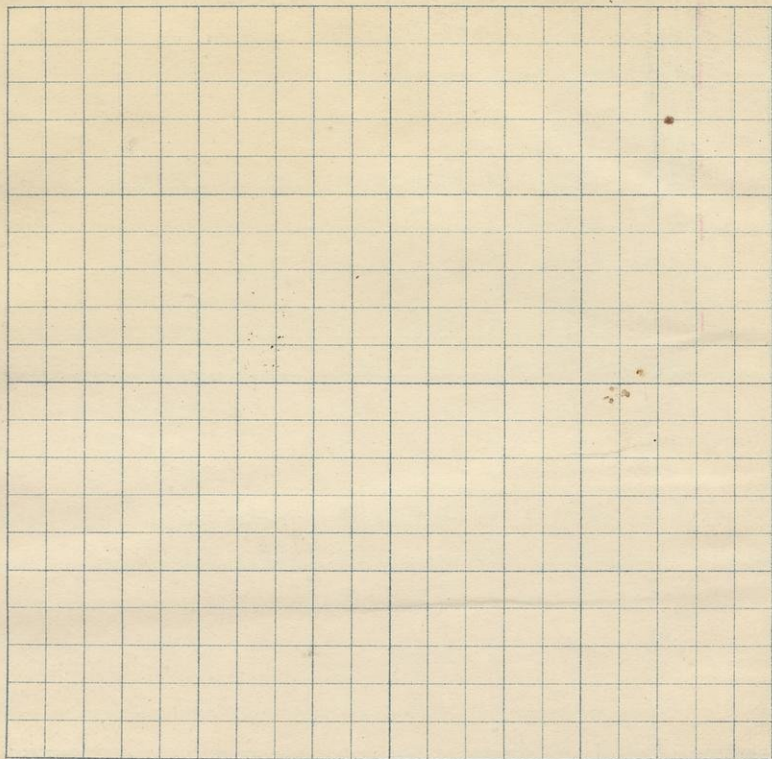
1531 River (485) 30 paces.

Go down to dam. No 2 at Dam (490)
at 10:00 AM. Stop for outcrop. "

1008 N 1840 W 1510 Beginning over a thin
outcrop the end of the work on June 13. I
find about 30 feet of 1018 and

1009 which is from the upper side of the same
outcrop and is located

N 1840 W 1520 and was taken because it
showed a tendency toward schistosity not
exhibited by 1018. West of this came a
bed of the crystalline limestone apparently
exactly like 1007. about 40 feet across



on north bank but at least 10 or 15 feet further on south bank the eastern side on the north bank is cut into by the out crop of 1009.

- 1010 N 1830 W 1535 Hornblende Rock showing the same tendency to fracture along the supposed bedding plane of the marble.

The out crop of this rock extended westward about 50 feet, west of it came

- 1011 N 1840 W 1550 Seemingly the same marble except that it is harder and has apparently some quartz. This bed has a horizontal extent of about 100 feet. West of it came

- 1012 N 1840 W 1585 Specimen was taken some twenty feet west of the outcrop of 1011.

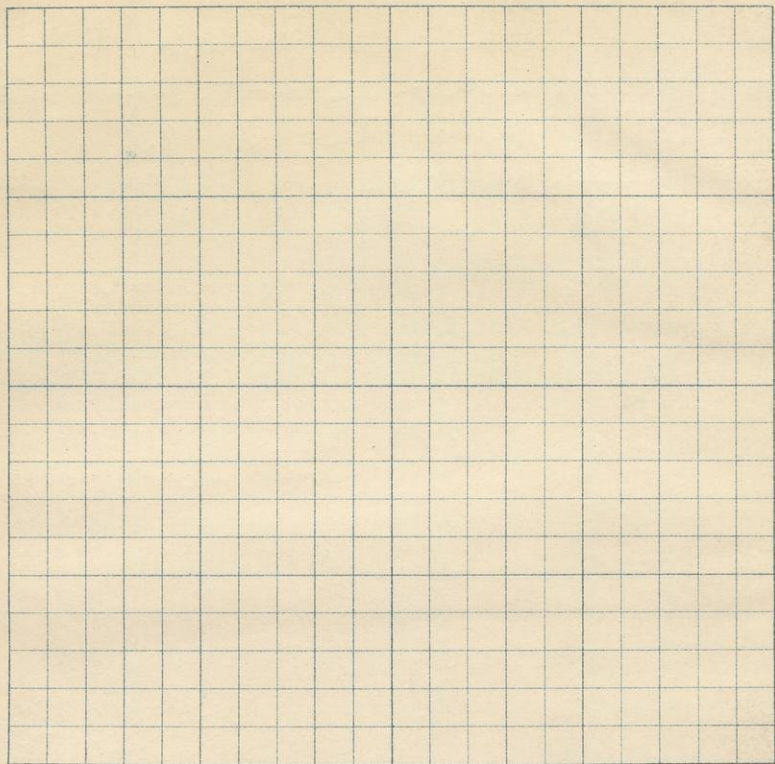
The out crop here is fractured much more than above and one of the three planes of breakage dips and strikes approximately parallel to the bedding of the marble.

- 1013 N 1848 W 1665 Specimen from western boundary of part of same out crop. It was taken at the upper fall on the river. Out crop of 1012 and 1013 extends horizontally about 240 feet but on south side of stream 1013 runs west.

S.

T.

R.



1014

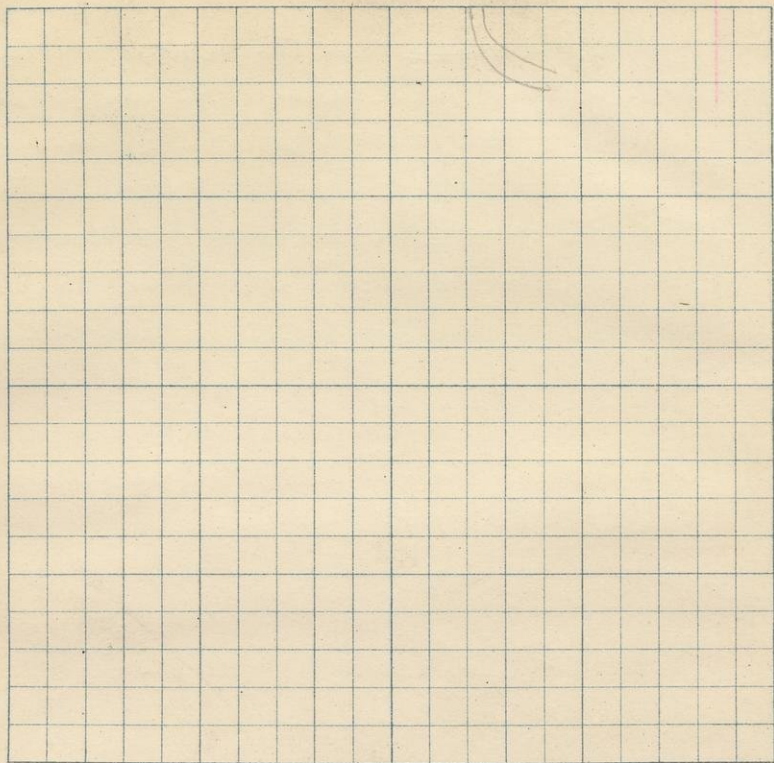
some 75 paces further than on north side. ~~summit~~ On the north of stream and on the island figured on map comes N 18 65 W 17 05 Outcrop makes a very noticeable ridge across river bottom through which the river has cut a narrow gorge. One branch, south of island, has cut through between this and the hornblende rock 1013 Outcrop of 1014 runs east and west for about 355 feet

There is a greenstone at its southern exposure which I take to be the westward limit of that part which cuts into this bed of 1014 but cannot trace all of the connection.

I can find no contact lines between the greenstone and marble, probably from lack of experience in looking for them. All beds of marble have same strike and dip and seem to me the same except that they grow harder and more quartzose toward the west. 1014 shows large quartz veins in places.

There is not time for me to work it out as fully as I feel it ought to be.

The suggestion is strong to an inexperienced man that the greenstone is cutting upward



eastward, as a huge dyke through the limestone, and that the seeming succession of beds is in reality due to irregularities in the lateral intrusion of the dyke.

No 2 at 8 am (525) at 2:00 PM.

1600 (535) River bottom.

1795 Sec ev. BM. 483.69 No 2 made (550)
at 2:15 PM. BM. in river bottom.

Just 253 to river. Flow S.

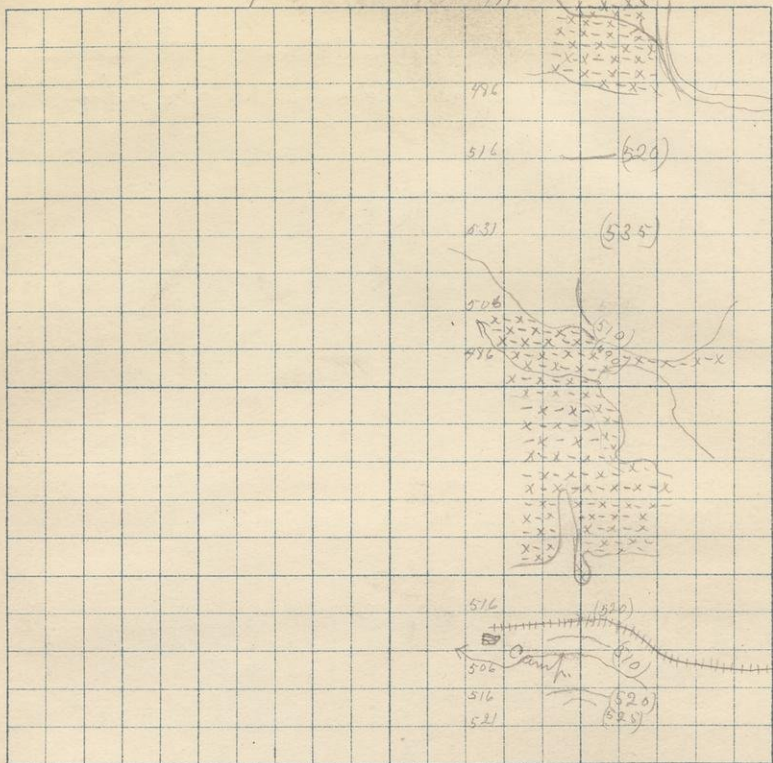
26

June 19, 1891 Run 2 1/2 By North of

S. 29

T. 45

R. 31



June 19/1891 Run $2\frac{1}{2}$ line By North of 27

Sec 27 T45 R31 B.M. 455.39

Feb 800 with 2781 at 2:45 P.M.

Cor in River bottom swamp

28 South creek 2 faces Run E

83 var $9\frac{1}{2}^{\circ}$ E.

200 Leave swamp (mixed) for hardwood (490)

Hardwood & cedar burned up to (560) on W side.

400 (520) 600 (535) flat, 3:15 P.M.

626 Var $9\frac{1}{2}^{\circ}$ E. 800 (510)

860 (490) enter open tamarack swamp.

982 creek from pond 1 face.

1000 swamp (490) 200 swamp, 400 swamp.

1520 leave swamp for burned slashings.

1610 top of ridge and road to Golden comb.

(520) 3:45 P.M. 1666 (510) Breaks down.

1705 creek W. 1 face (495)

1800 (520) 4:15 P.M. 1828 strike line

20 paces E of stake at 4:30 P.M.

(525) at stake

200
152
1628

S.

T.

R.

					521	(525)
					526	(530)
					531	(540)
					536	(540)
					512	<div> <div> X-X-X -X-X-X X-X-X-X X-X-X-X X-X-X-X X-X-X-X X-X-X-X </div> </div> (520)
					536	(540)
					516	(520)
					531	(530)
					511	(520)
					516	(520)
					517	(520)

June 19, 1891. Run $2\frac{1}{4}$ hrs. Bg North of
Sec 32 T45 R 31.

29

$\frac{1}{2}$ post in Burned slashings (525) 4:30 PM.
2005 (530) var 7° E. 382 (540)

416 (520) 600 (540) 730 (520) Enter

open tamarack swamp. 800 swamp 5:00 PM

931 leave swamp for burned slashings

1000 (540) 1100 (520) 1200 (535)

Enter good hardwood. Maple & Birch

1400 (520) flat 1600 (520) flat 5:30 PM

1700 enter burned slashings.

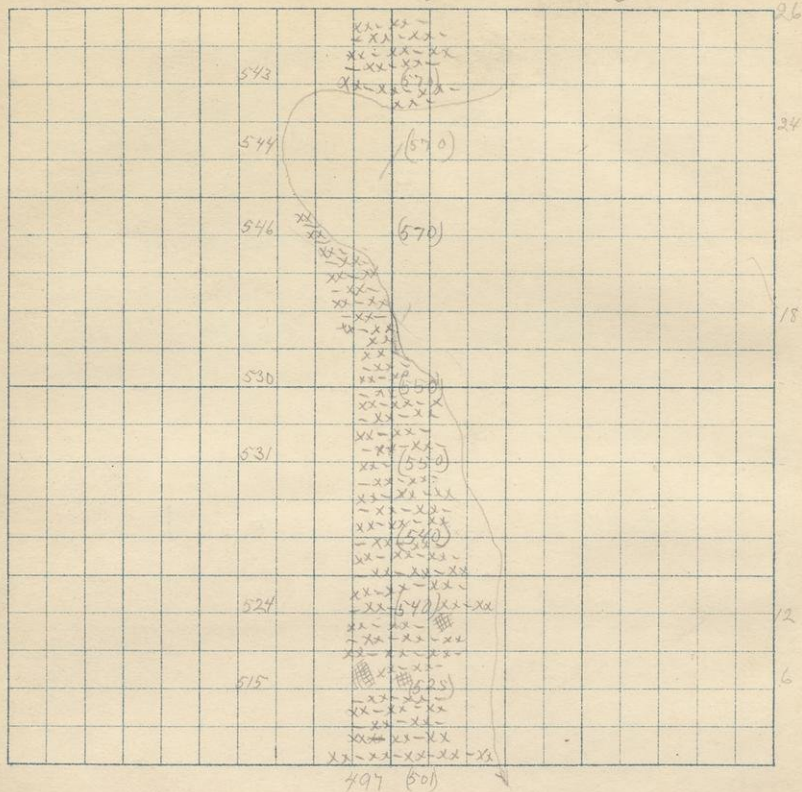
1927 strike line 25 E of BM 52159

No 2 reads 520 at 5:40 PM.

30 June 20/1791 River 4 line By South,
S. 31 T. 45 R. 31

T. 45

R. 31



June 20, 1891 Am. & Lim. Bg. South of 31
Sec 31 T45 R31 BM. 501.14

Set 2000 with 27.69 at 8:25 AM.
Cor. in thick swamp. Var 2° E.

200 N (525) Dry cedar swamp.

1015 N 236 W 1080 From huge granite
Bos., about 100 paces long trending
NW & SE very prominent quartz veins.
There are what look like large
blocks of

1016 N 236 W 1080 included as though
the granite coming up through this
rock had taken large pieces with it.
Cannot get good specimen for my
hammer broke while trying to get 1015.
236 Var 2° E 9:05 AM.

---- N 236 W 980 Same granite in a
low outcrop. Could not get specimen.

---- N 282 W 890 Same granite in high
rounded bos. about 50 paces NW & SE
and 15 SE & W. Could get no specimen.

400 (540) swamp Var 2½° E 9:30 AM.

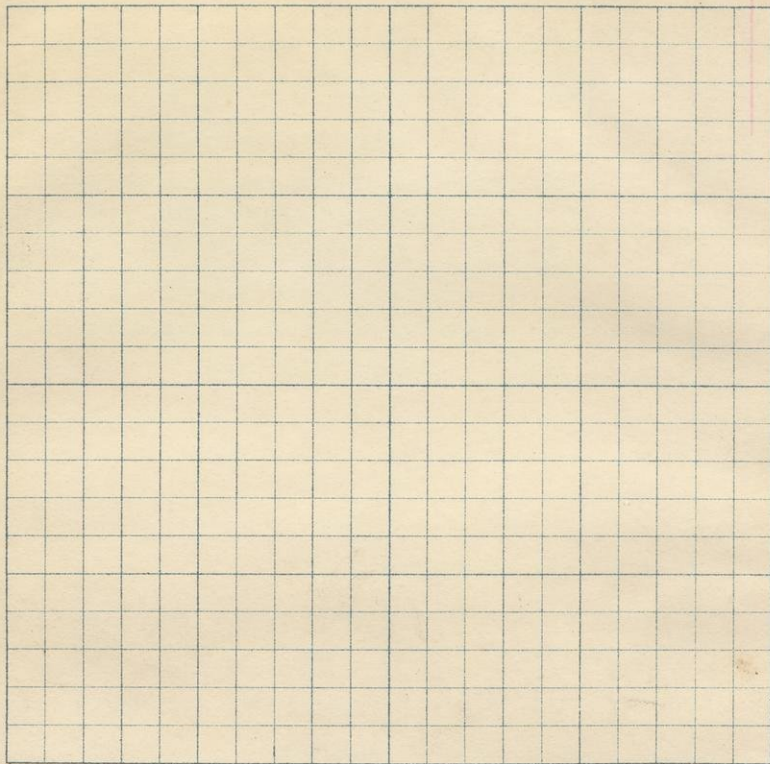
876 enter green spruce swamp.

600 (540) swamp. 800 (550) swamp.

1000 (550) swamp. 1200 leave swamp.

Var 3° E 10:05 AM.

for burned slanting.



1400 (570) Enter green hardwood
Maple & Birch 1500 enter burned hardwood
and pine slashing

1600 (570) 1700 Var $3\frac{1}{2}^{\circ}$ E 10:30 AM.

1740 Enter swamp Cedar.

1800 (570) Swamp.

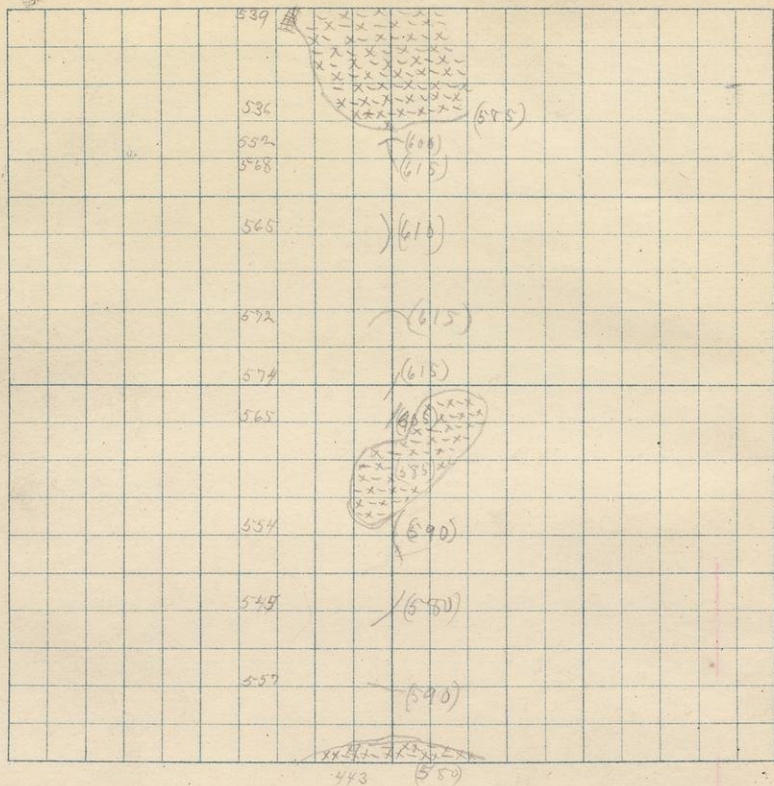
1854 strike line 14 E of $\frac{1}{4}$ post at
10:40 A.M. swamp. (580)

67 leave (

34 June 20 1891 From 1/4 line B5 South of
S. 30 T. 46 R. 31

T. 461

R. 37



101

June 20/891 Run $\frac{1}{4}$ line B₂ south of

35

Sec 30 T45 R31

$\frac{1}{4}$ post (470) in swamp. 10:40 AM
67 N leave swamp for Hardwood and
few good white pine.

200 (690) 400 (570) var $4\frac{1}{2}^{\circ}$ E. 11:05 AM.

600 (690) Hardwood & pine -

671 enter open tamarack swamp.

800 (585) in swamp 853 leave swamp for
Hardwood & few good pine

915 (605) top of rise from swamp.

11:30 AM. 1000 (615) pine cut and
ridge burned up to 1200

1200 (615) 1356 var 5° E

1400 (610) 1600 (615)

1650 (600) falls 1694 (585) enter swamp.

1912 line in swamp 26 paces W
of cor. B.M. 542.58

No 2 reach. (590) at 12:10 PM.

West 200 leave swamp

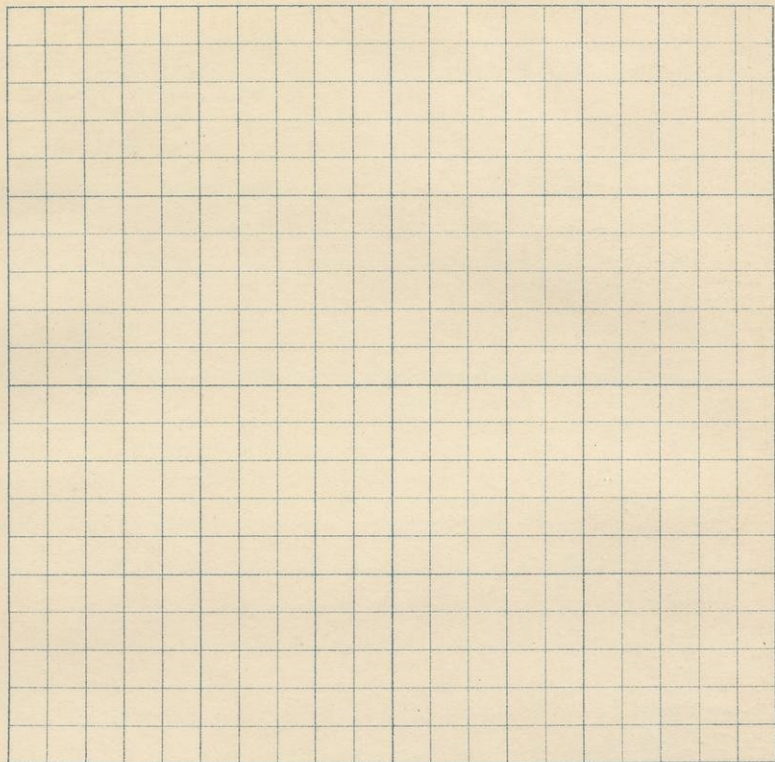
1017 N 1994 W 257 Granite with a showing
of gneissic character. Where the line
crosses the ledge no gneissic structure
can be seen but a few paces south it
appears as in specimen further south
I found

1018 N 1981 W 255 Granite gneiss. Ab

S.

T.

R.



this point the foliation is quite
distinct and its dip and strike are
Strike $N25W$ Dip $N.E. 60^\circ$

Can get no good specimen nor can I
uncover well the outcrop without my hammer.

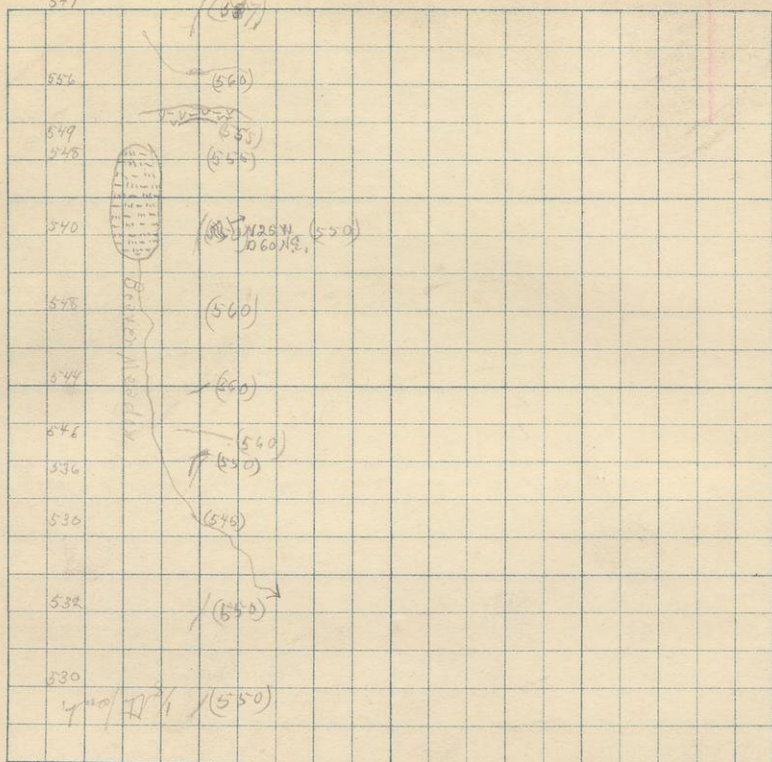
858 western boundary of outcrop

1017 and 1018

38 ✓ June 20 1891 Rem W & L B. Naf
S. 30 T. 45 R. 31

T. 45

R. 31



June 20 1891 Run $25\frac{1}{8}$ line of Bg N of

39

Sec 30 T45R 31 B.M. 551, 25

at 500 with 28.20 at 1:30 PM.

Sec. in hard wood with few white pine
100 S enter burned track to W of line

200 (560). flat. Hardwood & pine burned to
west of line. 282 enter alder swamp (550)

371 leave swamp for burned hemlock and
cedar. 400 (555) 500 Beaver meadow to
west of line 600 (550) 2:05 PM.

1019. 1400 N $14\frac{7}{8}$ W Greiner. Strike of
foliation N 25 W Dip 60° N.E.

Small outcrop $\frac{1}{8}$ paces long NW & SE by
8 broad.

800 (560) Since 400 we have gone over
rocks just beneath surface and swamp
growth over them. flat.

1000 (560) 1000 enter thin Hardwood
with few good pine 1123 (560) falls 2:50 PM.

1160 (550) swamp. 1190 leave swamp

1200 (550) 1382 (545) creek 1 pace

SE 1400 enter burned pine & cedar.

1600 (550) good pine slightly burned.

1759 line 18 E of post. (550) at 3:30 PM.

$\frac{1}{8}$ post in burned Hardwood & pine

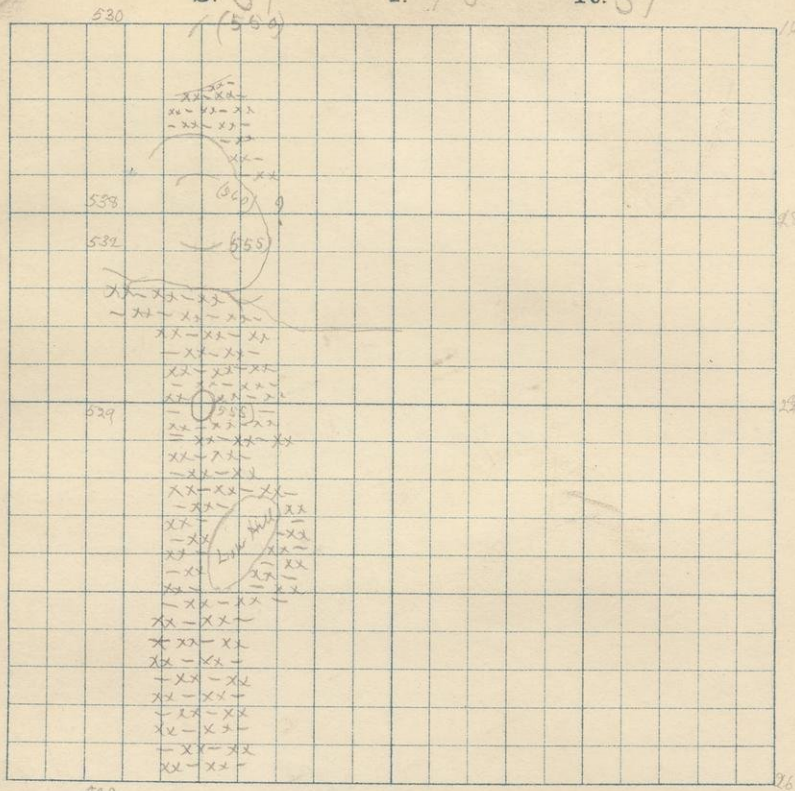
June 20, 1891

Rm. W. 4 line B. 7 North of

S. 31

T. 45

R. 87



June 20, 1891. Run $W\frac{1}{4}$ line Bg N of

41

Sec 31 T 45 R 31.

$\frac{1}{8}$ post (550) 3:30 P.M. Burned pine and
hardwood. 50's entire burned pine slashings.
193 var $9^{\circ}E$ (?) Right by compass.

Entire swamp (545) 50's leave swamp for
hardwood ^{burned} 400 (560)

500 (570) var $8^{\circ}E$. 4:00 P.M.

600 (565) 700 swamp entered cedar

800 swamp Cedar. (550)

1000 (555) island of pine slashings
var. $7\frac{1}{2}^{\circ}E$. 4:30 P.M.

1200 Cedar swamp 1400 swamp

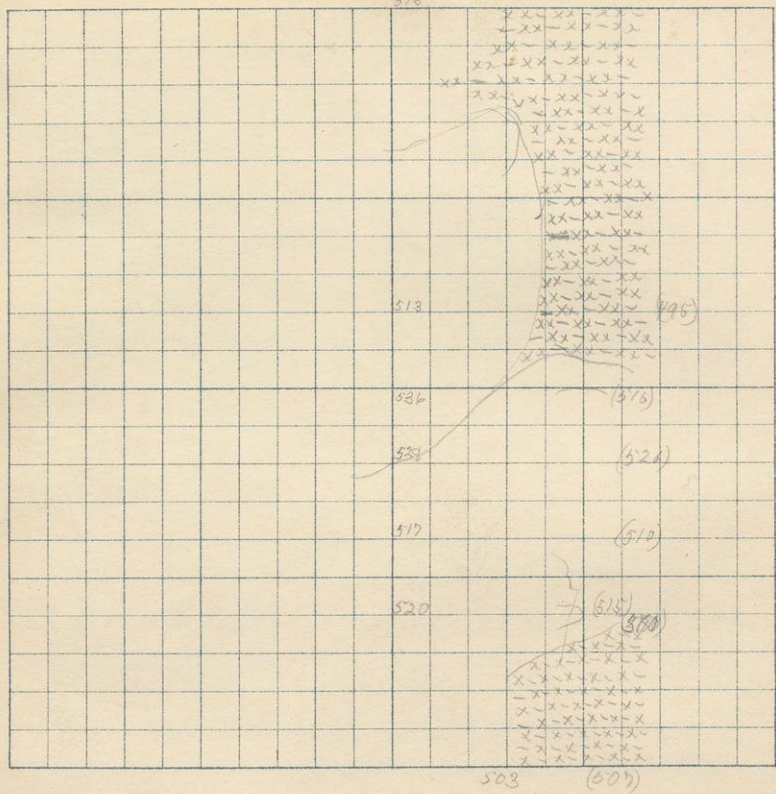
1600 Cedar Swamp (530)

1750 line. $95^{\circ}E$ of B.M. 504, 12

No 2 reads (530) at (510 P.M.)

June 20, 1891 Sent in specimens
from 1001 to 1019.

42 June 22 1891 Run 2 line Bg South of
S. 36 T. 45 R. 32



June 22, 1891. Run 2 line Bg South of 43
Sec 36 T45 R32 BM, 507.31
Set 700 with 2799 at 7:25 A.M.

On in thick spruce swamp.

59 N Sun. Var 8°E

334 leave swamp for low hardwood
(and a few pine) ridge

400 (515) Scattering good white pine. flat

600 (510) (high) Good hardwood & a few pine 8:00 A.M.

800 (520) flat excellent Maple and few good pine.

1000 (510) From 4 stake pine is out on east side

1050 far from blazed line 10°E 1060 enter cedar swamp

1200 (495) swamp. 8:30 A.M.

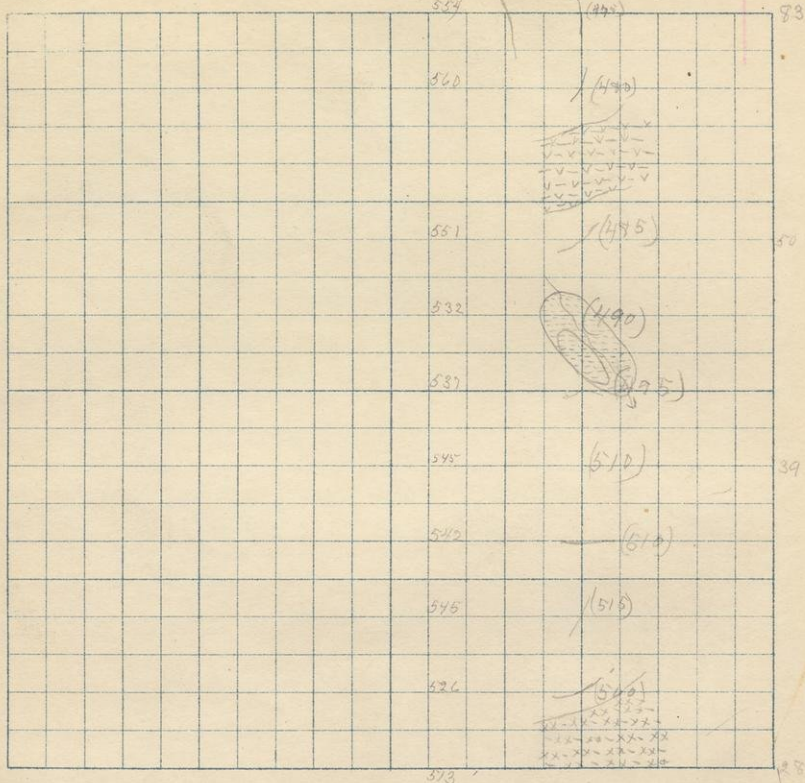
1400 1600 1800 in cedar swamp

1844 Strike line 62 W of corner at 9:15 A.M.

Corner in cedar swamp

Very wet and running very hard, no sun.

44 June 22, 1891 Run 2 miles Sg South of
S. 25 T. 45 R. 32



June 22, 1991 Run E line Bg South of

45

Sec 25 T45 R32

Corner in cedar swamp 9:15 AM.

167 N leave swamp for Hardwood
with scattering good pine white

200 (500) Hardwood and pine.

400 (515) " " "

500 No pine

600 (510) Hardwood.

800 (510) flat " 9:45 AM.

1000 (495) Hardwood

1071 Bear meadow Var 40° E Sun.

1200 (490) leave meadow for alder swamp

1220 leave alder swamp for good Hardwood

1020 N 13 28 W 6 Granite Exposed
in a double ledge the parts of which
are separated by

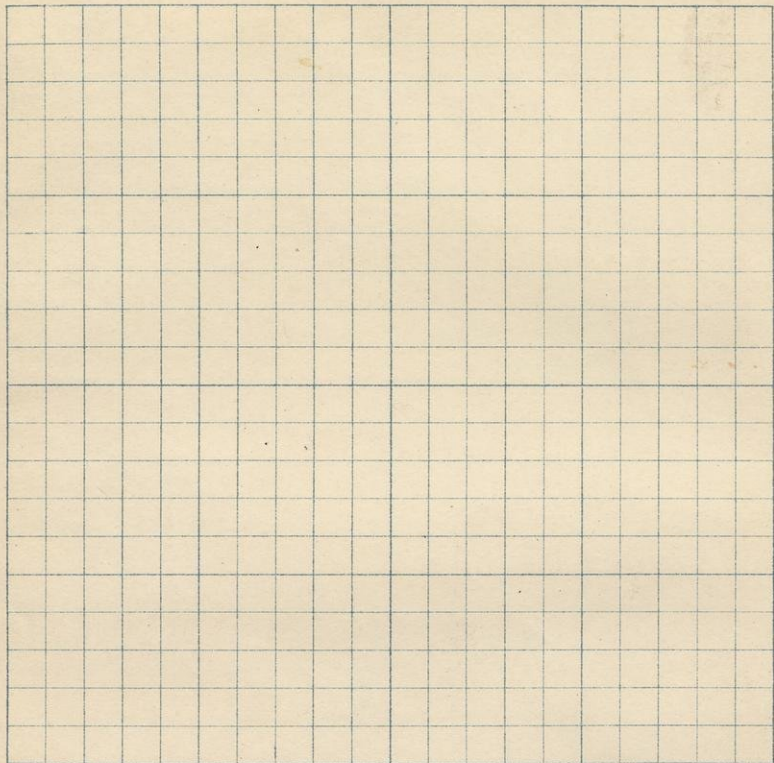
1021 N 13 30 W 6 A schistose rock
whose foliation strikes in a NW and SE
direction and dips at a high angle
as much as 60° at least.

Cannot get a compass determination
of either. Outcrop quite low

N 13 55 W 7 Low outcrop of same
granite as 1020 but cannot find
schist.

1400 (485) 11:10 AM.

1500 enter mixed swamp



1600 (470) swampy 150s leave swamp

1800 (470) Good Hardwood with scattering
white pine.

1710 line of post BM 557.9's

No 2 reads (475) at 11:30 AM.

West 200 (470) Ant. spruce swamp

484 1/8 stake (470) BM 561.16

~~571 Van. 802~~

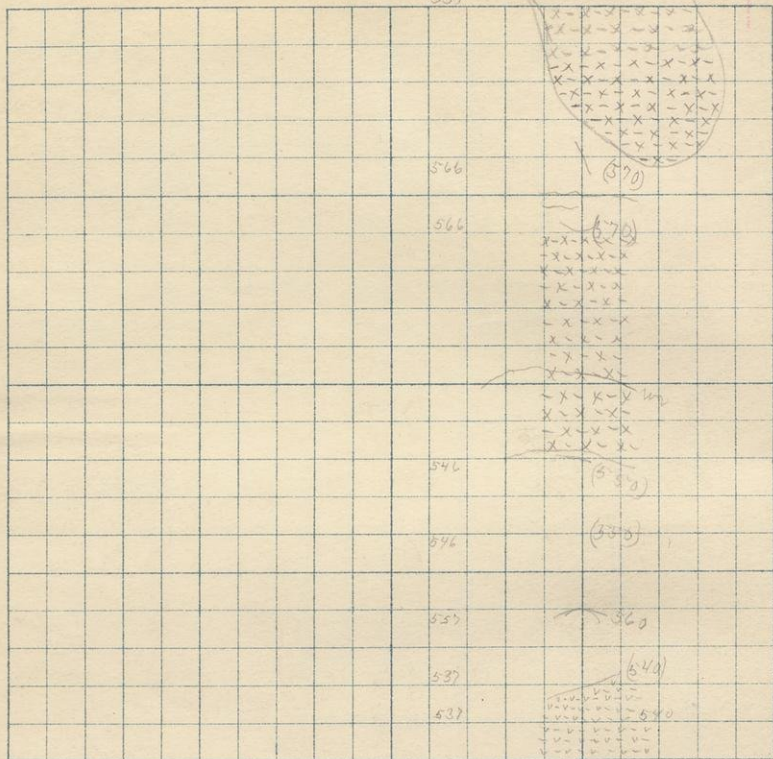
48

June 22, 1891 Run E & line Ry North of

S. 25

T. 45

R. 32



June 22, 1891 Run $E\frac{1}{2}$ line Bg North of 49

Sec 25 T45 R32 BM 561.16

Set 100 with 29.75 at 11:45 A.M.

Cor in Spruce swamp.

200 S swamp

300 leave swamp for good pine and hemlock.

400 (570) 479 (465) 12:20 P.M.

479 (465) 12:50 P.M. 571 Var 8° E

600 (570) small rise in swamp

800 swamp.

1000 swamp.

1175 leave swamp for Hardwood + good pine.

1200 (550) 1:25 P.M.

1400 (550) flat. Var. 6° E. hardwood + good pine

1600 (560)

1800 (540) Enter swampy tract mixed.

1877 line at post at 12:00 P.M.

Post in swamp.

50 June 22, 1891 Run 2 1/2 line N of North of
S. 36 T. 45 R. 32

T. 45

R. 32

[illegible]

June 22, 1891 Run $E\frac{1}{2}$ line B₂ North of

51

Loc 36 T45 R32

$\frac{1}{4}$ post in swamp ^{mixed} (640) at 2:00 PM, Var 9° E
200 ~~S~~ Swamp.

362 leave swamp for Hardwood

1022 1630 N 273 W From the abrupt
eastern slope of a granite hill about
30 feet high. The line crosses the S.E. corner
end of the outcrop at 290 S of corner.
Trend of hill NW + S.E.

400 (530) 2:50 PM.

600 (530) Enter swamp mixed

670 Leave swamp for hardwood & hemlock

800 (545) Mixed wood.

1000 (550) Hardwood, flat Var 9° E 3:20 PM.

1200 (530) Hardwood

1310 Enter Cedar swamp

1400 swamp. 1600 swamp

1805 line 63 W of B.M. 513.03

No 2 reads (510) at 4:00 PM.

~~1022~~ N.O. W, 710 From abrupt eastern
slope of hill about 40 feet high.

Cannot get a good specimen as take near
Hill trends NW + S.E.

Granite exactly like 1022.

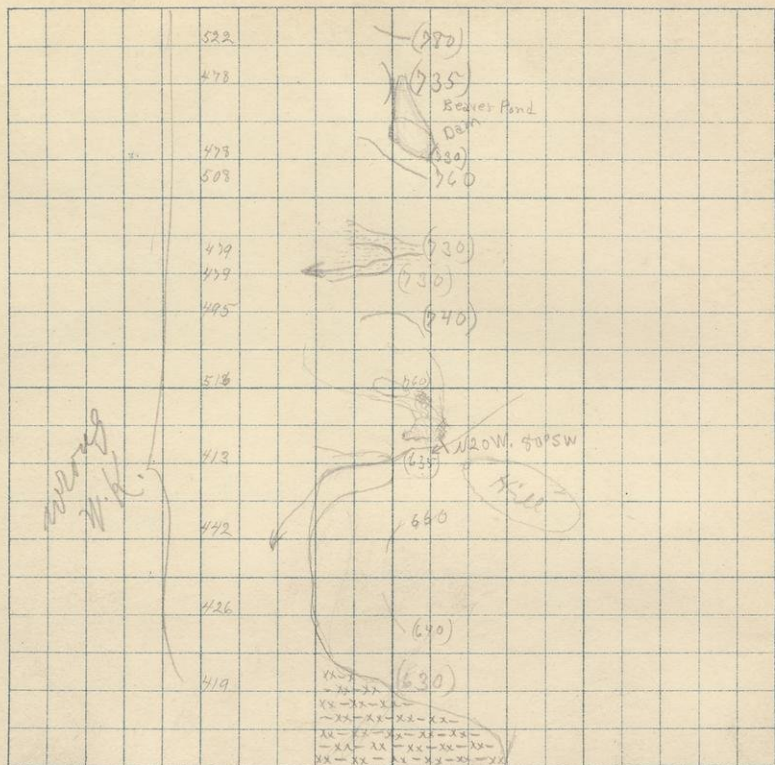
52

June 23 1791 Run 1/4 line Bg South of

S. 35

T. 45

R. 32



435

(439)

102

June 23, 1891 Run $\frac{1}{4}$ line Bg South of

53

Sec 35 T45 R32 B.M. 43900

Set 600 with 28.39 at 7:35 A.M.

400 in swamp cedar. Var 6°E

200 (630) something wrong. I had a bad fall from a log a few minutes ago. Think I struck partly on No. 2.

Leave swamp for Hardwood Maple & Birch and rather few good pine. 8:00 A.M.

400 (640) Var 3 $\frac{1}{2}$ °E 81

600 (660) 650 Var 2°E 8:35 A.M.

745 (635) valley. Alder bottom

800 Creek W. 1 pice

1023

830 N 980 W from western side of a large semicircular hill almost wholly bare, about 25 feet high. 1023 is from South horn. Strike of foliation N20W Dip 80° S.W. There are what seem to be inclusions of granite blocks in this schist. ~~and in a granite~~ beside and ~~west of~~ it seems streaks and ~~columns of~~ 1023.

Cannot hammer out a piece to see whether it is simply quartz or more.

East of it down a 110/12 foot bed of

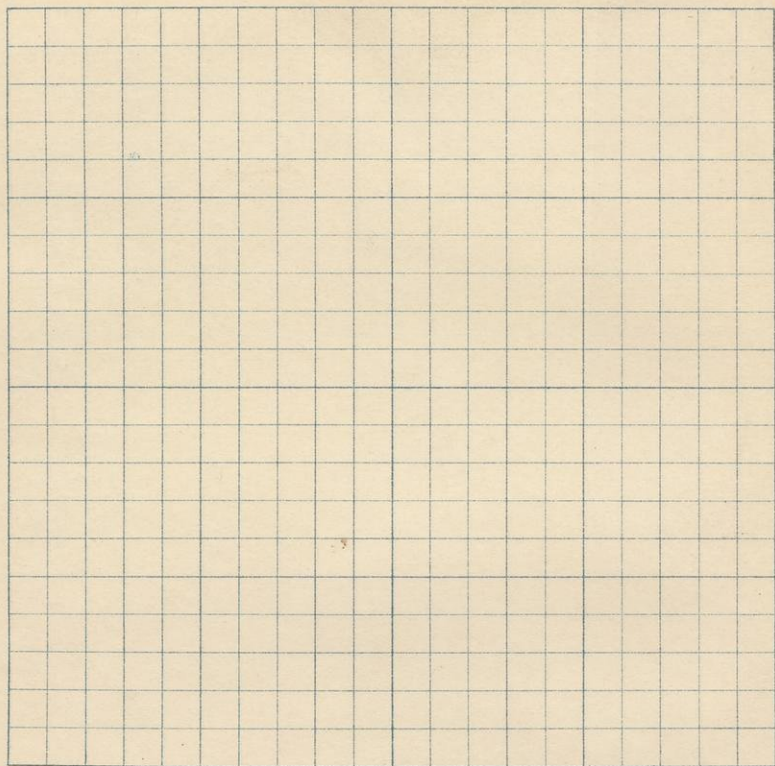
1024

830 N 987 W a bed some 10 feet thick. At its eastern side it goes into

S.

T.

R.



10

10

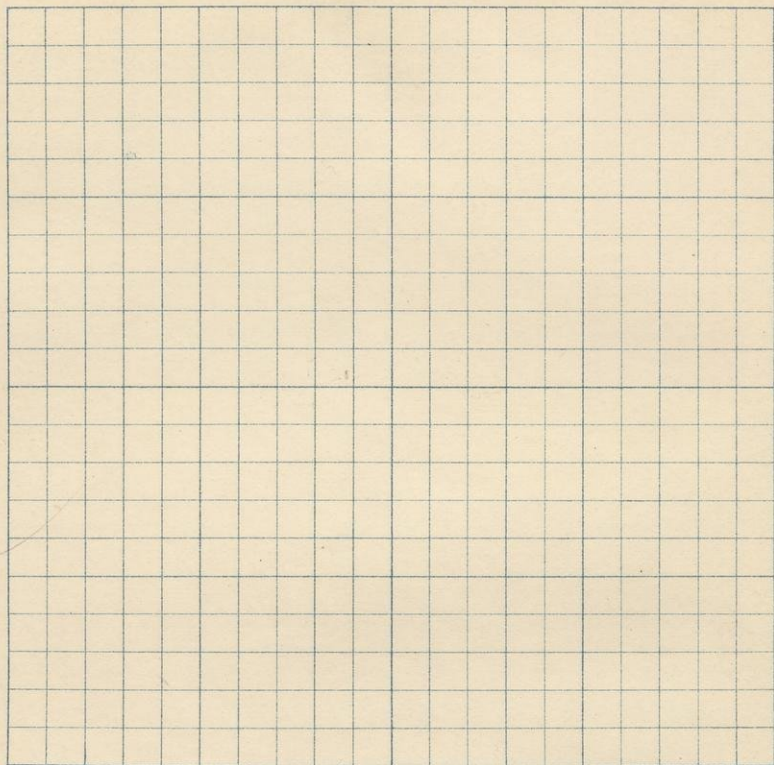
102

10

10

10

- 1025 830 N 969 W. A partly weathered surface was purposely chosen here.
East of 1025 comes
- 1026 830 N 964 W A very much crumpled coarse granitoid gneiss including great blocks and streaks of schist. It is especially crumpled about these large blocks whose foliation seems to trend generally parallel to 1025 and 1024.
- 1027 Same location as 1026 is one of these inclusions. I can see a surface of it about 4 by 2½ feet.
East of this comes the main ridge trending NW + SE
- 1028 N 835° 955 W The Hill seems made up principally of this rock and
~~yet not even~~
- 1029 A granite from the summit of this peak
N 850° W 945°
East of the summit of the ridge found
- 1030 N 830° W 935° a hornblende rock apparently a dyke with an east and west trend. The Hill itself is quite high toward the NW, and SE beyond where the creek cut across the ledge runs in sight for over 500 paces.



991
at ~~1061~~ (760) 1025 AM the line
crosses the summit of the hill.

There is more in sight than I can possibly
work up and finish run.

Specimens are small and poor because
I am not able from my fall neither to hammer
out good ones nor carry much of a load
1000' Enter green hard wood & pine

1061 Var 2° 2

1200 (740) 1347 (730) creek ^{10:55 AM} small west.

1400 rise from alder bottom of creek

1600 (760) falls rapidly to north Var 3° 2.

1644 (730) pond. (Beaver).

1800 (745)

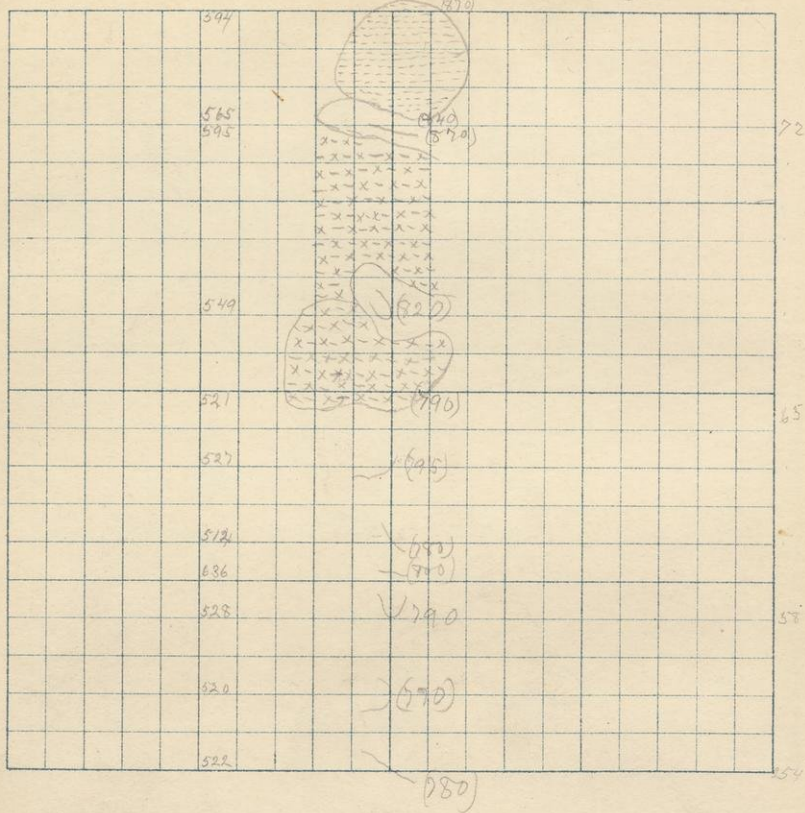
1910 line 10° of $\frac{1}{4}$ post.

$\frac{1}{4}$ post (780) 1120 AM.

58 June 23, 1891 Run 4 line Bg South of
S. 26 T. 45 R. 32

T. 45

R. 32



June 23, 1891 Run $\frac{1}{4}$ line Bg South of 59
Sta 26 T45 R32

$\frac{1}{4}$ post (780) 11:20 AM. Var 20° E. Hardwoods & pine
200 N. (770)

400 (790) var 5° E. 11:35 AM.

540 (800) falls to north

600 (800) var $4\frac{1}{2}^{\circ}$ E.

800 (895)

945 Enter swamp (900) spruce 12 M.

1033 leave " for hemlock & pine

1200 (820) $4\frac{1}{2}^{\circ}$ E var.

1300 Enter spruce swamp (810)

1600 swamp. Var 6° E

1645 leave swamp sharp rise.

1691 summit of rise (870) 12:40 P.M.

1740 (840) enter open swamp

1900 leave swamp. line 18 W of cor.

B.M. 597.91 No 2 (870). at 12:45

There must have been a mistake in setting
No 2 at start. Think I made a mistake
of 200 setting at 639 instead of 439

This would make the close (670) with 598

I shall interpolate on this supposition.

Pine on this mile scattering, hardwood
good and thick

60 June 23, 1891 Run W 1/4 line of North of
S. 26 T. 45 R. 32

R. 32

[illegible]

June 23, 1891 Run $W\frac{1}{2}$ line Bg North of 61

Sec 26 T45 R32 BM.

Set 600 with 2809 at 2:00 PM.

$\frac{1}{8}$ post in hardwood (600) Two hills
each side of it which ought to show antech
but I can find only very quartzite boulders of granite
93 South (630) Linnish Var 6° E.

200 (645)

400 (630) Hardwood with scattering but good pine, white
Var 5° E 2:30 PM.

600 (615) 614 Var 7° E.

800 (595) Balsam, Birch, Poplar, cherry, pine, etc.

1000 (615) Balsam, hardwood and a few good pine
3:00 PM. 1070 Var 6° E.

1200 (610) Hardwood with a few pine

1400 (610) flat.

1530 Var 8° E.

1600 (610) 3:30 PM. flat

1800 (595) Var $5\frac{3}{4}$ ° E

1876 line 30 E of $\frac{1}{8}$ post at 3:50 PM

$\frac{1}{8}$ post in good hardwood. (585)

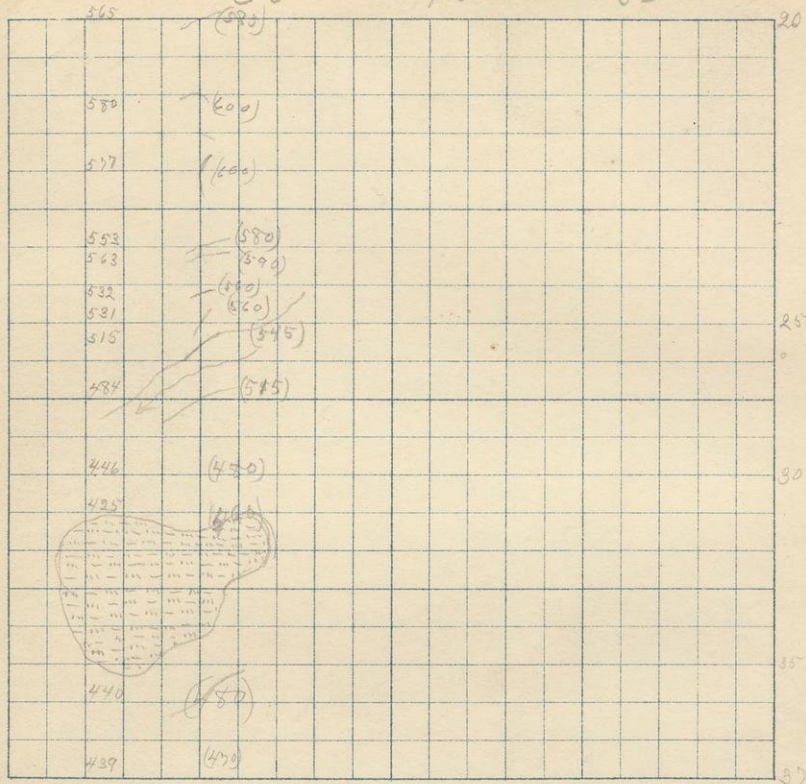
62

June 23 1891 Run W. of line Bg North

S. 85

T. 45

R. 32



June 23, 1891 Run W $\frac{1}{2}$ line Bg ~~East~~ North 63

See 35 T 45 R 32

to Park in good Hardwood with a few good
Pine (585) 4:30 P.M.

200 South (600) Var 6° E

400 (600) Path Hole.

438 Var 6° E

600 (580) 626 (590) top of ridge

626 Var 5½° E. 731 (560) foot of ridge

Leave green hardwood for old burned slashings.

800 (560) Burned woods. old. 4:30 P.M.

867 (545) falls to south

924 small creek SW (510)

1000 (515)

1200 (480) wind fall + burned. fldr 4:55 P.M.

1396 into Beaver meadow. (460)

1617 leave meadow for burned windfall

1800 (480) leave burned for green woods

1954 line 30 W of B.M. 443.32

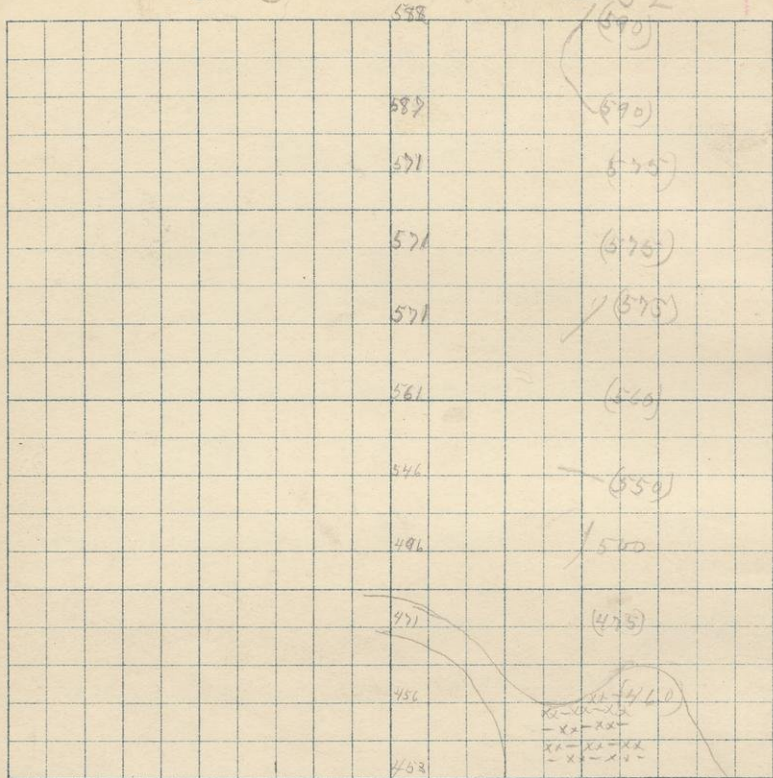
No 2 reads (470) at 5:35 P.M.

Cor in good hardwood and scattering pine

64 June 24, 1791 Run E line By South of
S. 33 T. 45 R. 32

T. 45

R. 32



June 24, 1891 Run E line Bg South of 65

Sec 33 T45 R 32 BN. 496.70

Set 400 with 2840 at 715 A.M.

Cor in Cedar swamp

200 (460) leave swamp for hardwood

400 (475) flat Hardwood.

600 (500)

700 (550)

1000 (560) From 900 scattering white pine, good,
and a considerable quantity of basswood begin
to appear. Flat 7:50 A.M.

1200 (575)

1400 (575) flat

1600 (575) flat

1800 (590)

1893 line at post (590) at 820 A.M.

Hardwood very few pine considerable
basswood on this mile

66 June 24, 1891. Run E line Bg South of
S. 28 T. 45 R.

T. 45

R. 32

603	(600)
598	(600)
610	(610)
605	(605)
595	(595)
590	(590)
594	(595)
600	(610)
598	(590)
588	(590)

June 24, 1891 Run 2 line. By South of

67

Sec 28 T45 R32

Co in Hard wood with Basswood and very few pine
(590) at 8:20 A.M.

200 N (590) Pine cut on west, flat
400 (610) (?) Thunder shower, else do not think we over
10 ft. Pot holes and little hillsides no contour.

Var 3° E 8:50 A.M.

600 (595)

800 (590) Var 4° E

1000 (595) flat

1200 (605) - flat 9:20 A.M.

1400 (610) flat 9:20 A.M.

1600 (600) 1620 Var 4° E.

1800 (600) low hillsides

1910 line at post 600 BM 606.05

No 2 (600) at 9:40 A.M.

Line open hardwood the entire mile with a few
good white pine. No cutting north of 1/2 stake.

Blazed line all the way.

West 194 enter swamp a fence

440 leave swamp 465 reenter swamp

68

68 June 24, 1891 Run E 1/2 line Bg. North of
S. 28 T. 45 R. 32

S. 28

T.

R.

573	(52)
595	(590)
585	(590)
602	(610)
602	(610)
600	(610)
606	(610)
593	(615)
596	(610)
585	(600)
595	(610) $\frac{1}{5}$ inch

June 24/591, Run E $\frac{1}{8}$ line Rg North of

69

Sec 28 T45 R32 B.M. 577.11

Set 800 with 27.9.6 at 10:15 A.M.

$\frac{1}{8}$ post in spruce swamp. var. 4° E.

375 rise from swamp to hardwood

70 (600) top of rise

200 (590) 252 var. 2° E.

400 (610)

600 (610) flat.

800 (610) flat 10:45 A.M. Since 600 good white
pine have been numerous.

1000 (610) pine is cut from here to

1200 (605)

1400 (610) flat. Var 2° E

1600 (600) flat

1710 line 62 W of $\frac{1}{8}$ post at 11:20 A.M.

Good Hardwood pine cut out flat (610)

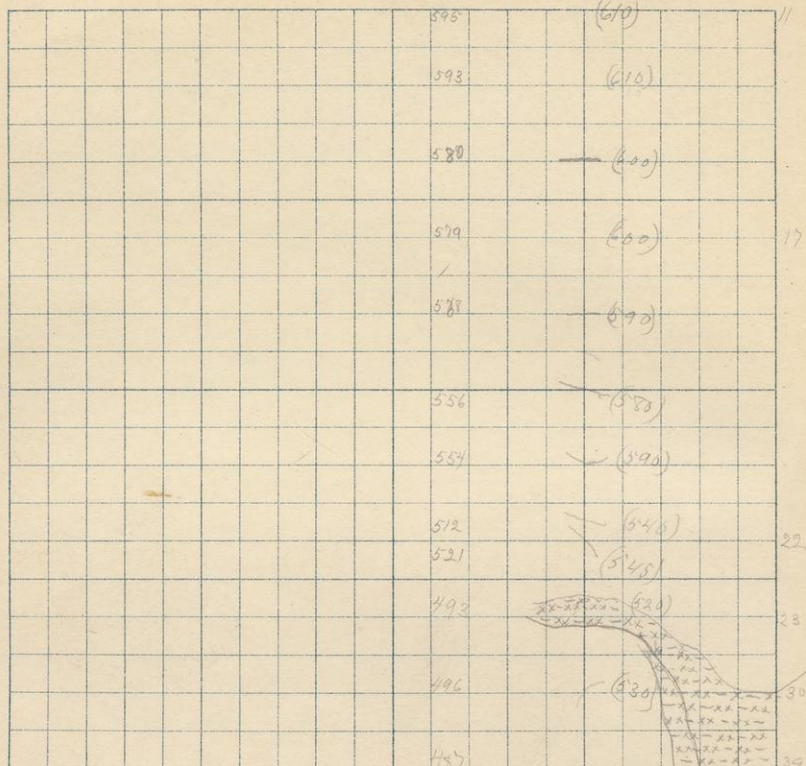
70

June 24 1891 Run $2\frac{1}{2}$ line Big North of

S. 33

T. 45

R. 32



June 24/891 Run $2\frac{1}{8}$ line ~~by~~ North **71**

Sec 33 T45 R32

4 pot in good hardwood (610) 1120 A.M. flat
200 South (610) flat.

400 (600)

600 (600) flat. Balsam + cedar from 500

1150 A.M.

800 (690) cedar + scrubby hardwood

844 var 5°E good hardwood

1000 (580)

1200 (590) An occasional white pine. var 5°E

1350 (540)

1400 (545) var 8½°E. 1220 P.M.

1550 enter cedar swamp.

1600 (520) in swamp

1613 (520) small creek & 1235 P.M.

Leave swamp for good hardwood

1800 (530) 115 P.M.

1973 line 30 E of 4 pot B.M. 49122

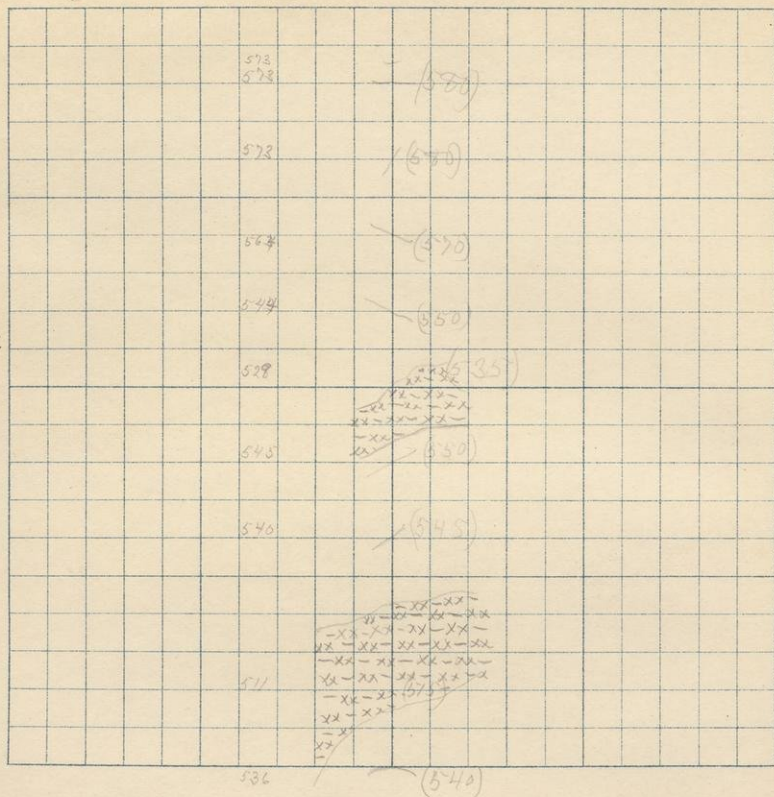
No 2 reads (530) at 140 P.M.

June 25, 1891. Run by line of South of

S. 32

T. 45

R. 32

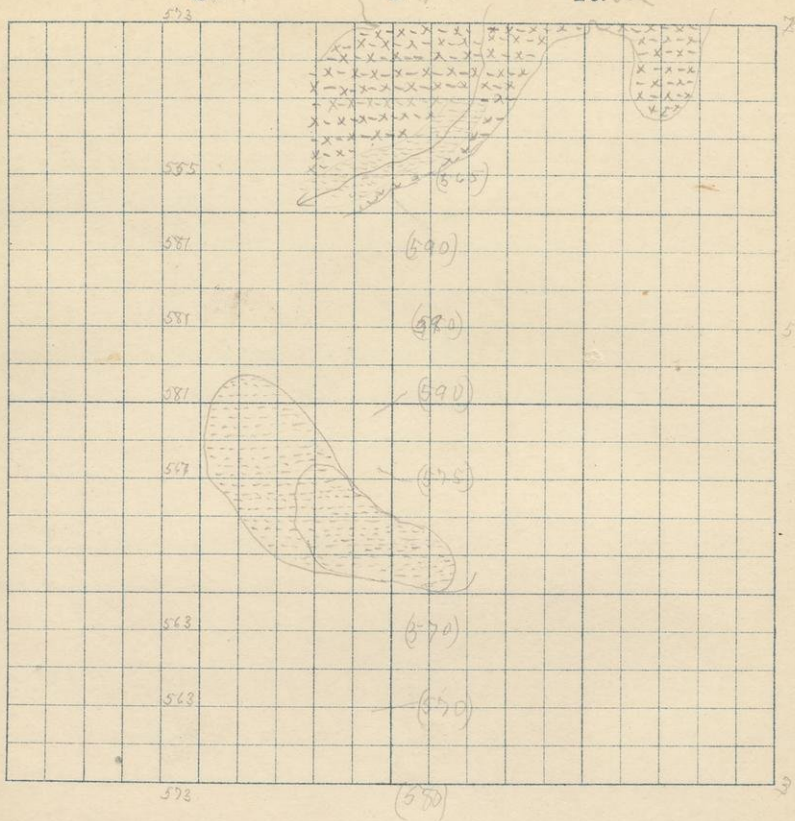


June 25, 1891 Run $\frac{1}{4}$ line By South of **73**
Sec 33 T 45 R 32, BM 539.80
Set 600 with 28.25 at 8:50 A.M.
Co. in hardwood Birch & maple.
180 enter thick cedar swamp
200 in swamp (515)
422 leave swamp for hardwood
600 (545) 9:25 A.M.
800 (550) top of ridge
850 enter swamp cedar (535)
1000 (535) leave swamp for hardwood
1200 (550) 9:55 A.M.
1400 (570) bar 30° E,
1600 (580)
1800 (580)
1842 line 192 of en (580) at 10:20 A.M.

S. 28

T. 245

R. 82



June 25 1891 Am $\frac{1}{4}$ line by South of

75

Sec. 28 T45 R32.

$\frac{1}{4}$ post (580) in hardwood. 10.20 AM.

200 N (570)

400 (570) flat, var $13^{\circ}E$.

580 center open swamp

600 (560) in swamp.

700. leave " for hardwood

800 (575)

1000 (590) ^{with hardwood} Good pine, from 950 thick

1200 (590) flat. 11.05 AM. var $50^{\circ}E$.

1400 (590) flat pine cut out here. var. $50^{\circ}E$

1576 center open spruce swamp.

1600 swamp (565)

1656 creek from pacer SW. Beaver meadow
along creek about 100 paces wide.

1500 in swamp.

1864 line 9 paces east of cor. in swamp.

B.M. 557.04. No 2 reads (570) ab 11.35 AM.

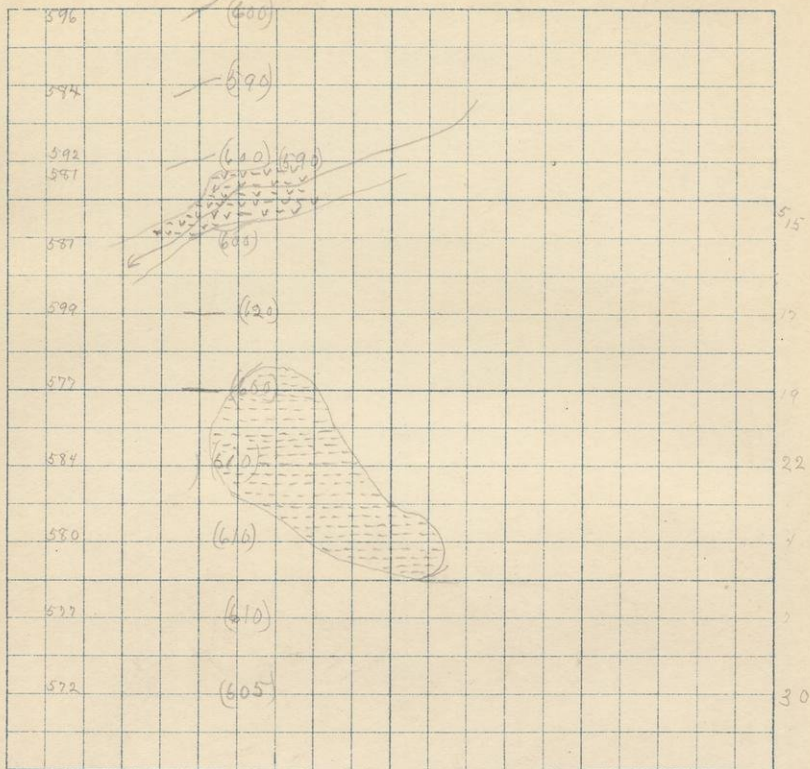
West 62 leave swamp for hardwood

76 June 25/89/ Run Wk line By North of
S. 28 T. 45 R. 32

S. 99

T. 45

R. 99



June 25, 1891 Run W $\frac{1}{2}$ line of J. Mouton 77
Sec 28 T45 R32. BM.
Set 600 with 28.27 at 12:00 M.
 $\frac{1}{8}$ post in hardwood, var $6^{\circ}E$
2015 (590)
400 (600)
500 (590) Enter swampy alder bottom
587 Creek 2 paces S.W. (590) 12:20 P.M.
at creek, (600) at 12:50 P.M.
595 leave alder for hardwood
600 (600) flat
634 var $6\frac{3}{4}^{\circ}E$
800 (620)
1000 (600) An occasional pine along the line.
Var $5^{\circ}E$
1200 (610) 1:25 P.M.
1400 (610) flat. No pine at all
1500 (610) flat var $6\frac{1}{2}^{\circ}E$
1810 line 50 E of $\frac{1}{8}$ post at (600) at 1:50 P.M.
 $\frac{1}{8}$ post in good hardwood (flat)

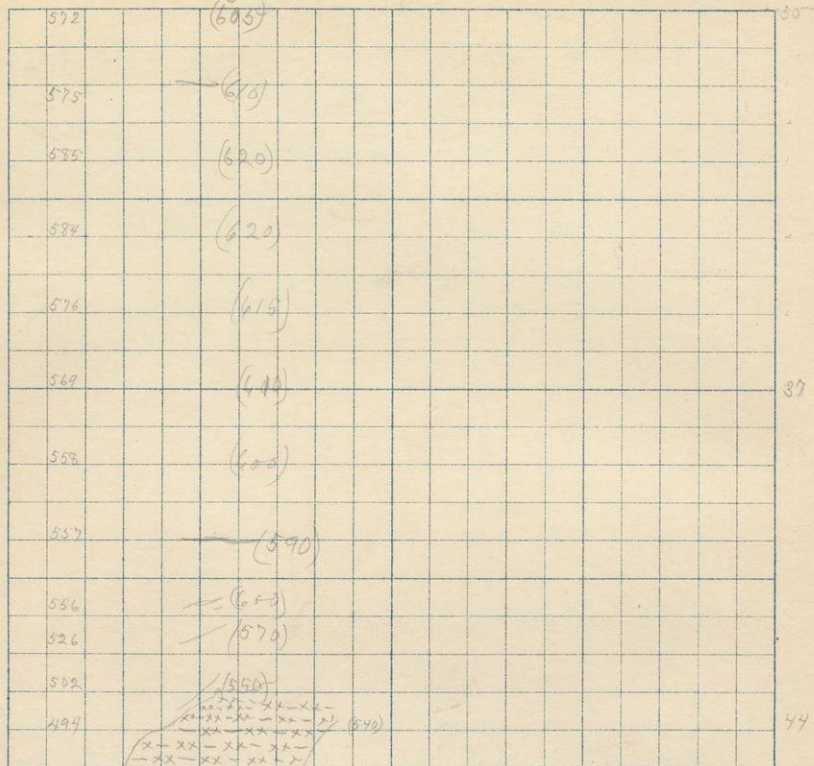
78

June 25/89 Run W & line By North of

S. 88

T. 45

R. 82



June 25, 1891 Run W of line B₂ North of 79
Sec 33 T45 R32

1/8 post in good hardwood no pine (605) at 1:50 P.M.
200 South (610) var 6° E.

400 (620) flat

600 (620) flat

800 (615) flat

1000 (610) flat 2:25 P.M.

1200 (600) flat

1400 (690)

1576 top of ridge (600)

1660 (570)

1800 (550) 1840 enter cedar swamp

1853 line 10 W of 1/8 post in swamp

B.M. 497.56 No 2 Reads 540 at 3:50 P.M.

Whole mile until we struck swamp.
good maple and Birch not 6 pine seen.

80

June 26, 1891 Run N. line Bg South of

S. 31

T. 45

R. 32

	539	542	
	539	(545)	
	535	(545)	
	536	(545)	
	537	(545)	
	539	(545)	
	539	(545)	
	534	(540)	
	540	(545)	
	541	(545)	
541	(545)		

June 26, 1891 Run $\frac{1}{4}$ line Bg South of 81

Sec 31 T45 R 32 B.M. 544.41

Set 700 with 28:32 at 7:50 A.M. Var $1^{\circ} E$

Co in Burned hardwood. flat.

200 (545) flat fair pine thick.

400 (545) flat. Var $\frac{1}{2}^{\circ} E$

600 (540) ~~flat~~

800 (545) flat with low hills and shallow pot-holes

Pine is more or less burned fell along the line from the start. Var $\frac{1}{2}^{\circ} E$ 8:30 A.M.

1000 (545) flat with hills and pot-holes. Large marsh to E.

1200 (545) as before. Var. $\frac{1}{2}^{\circ} W$.

1400 (545) as before

1600 (545) still flat with hills & pot-holes Var $\frac{1}{2}^{\circ} W$ 9:00 A.M.

1800 (550) as before.

1893 line 94 E of $\frac{1}{4}$ post 550 at 9:10 A.M.

Good proportion of fair pine all the way. All will have to be cut winter of 91-92 to leave it.

June 26, 1891 Run 4 line By South of
S. 81 T. 45 R. 32

S. 31

T. 45

R. 32



June 26, 1891 Run $\frac{1}{4}$ line Rg South of 83

Sec 30 T45 R. 32

4 psh in good hardwood with a few good
pine. (550) at 9:10 A.M., flab. var $\frac{1}{2}^{\circ}$ E.

200 North (560) flab.

400 (550)

483 Enter spruce swamp. (550)

600 and 700 9:40 in swamp.

This swamp proved to be a bad cedar swamp with just veining
enough of spruce to palm it off on an unsuspecting public
for the genuine article. After

1214 it was truly a spruce & tamarack swamp.

1520 leave swamp for old burning

1600 (570) 10:25 A.M. 1700 Enter hardwood.

1800 line '69 2 of B. 2 sh. B.M. 586.22

No 2 reads (600) at 10:35 A.M.

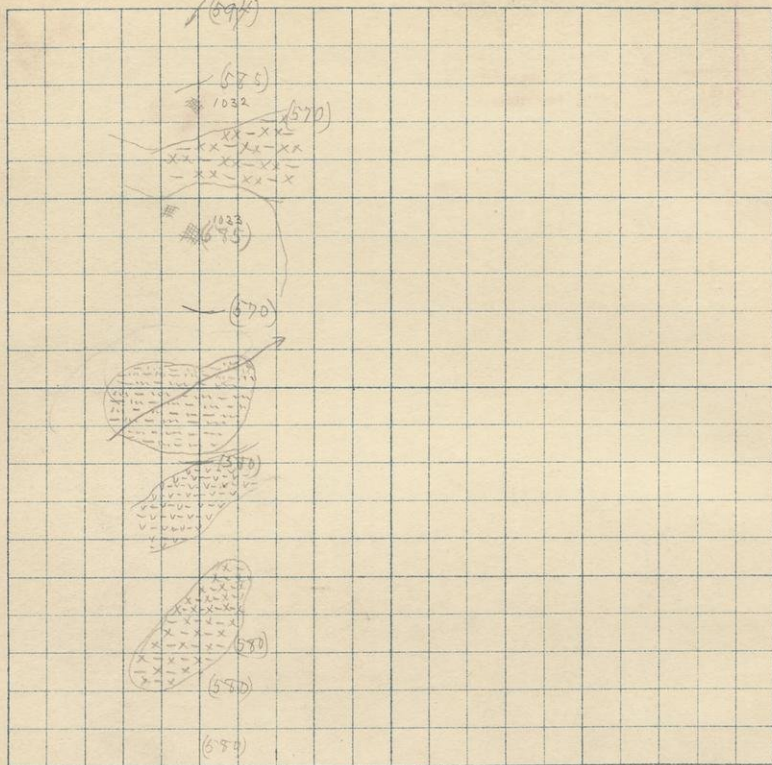
Come in good hardwood.

1031 N 1995 W 1338 Quartzite from
north end of hill with a N.W. and
S.E. trend but crop not large.

84 June 26/1891 Run W & line Bg North of
S. 30 T. 45 R. 32

T. 45

R. 32



4
+10
+5

20

June 26, 1891. Run W $\frac{1}{2}$ line Bg North of 85

Sec 30 T45 R32 B.M. 59350

Set 900 with 28.07 at 12:00 M.

$\frac{1}{2}$ post in hardwood and hemlock. fair Var $2^{\circ}E$.
200 South (585)

1032 N 1780 W 1500 From small outcrop
on eastern end of low ridge trending
N.W. + S.E.

330 enter cedar swamp

400 (570) in swamp 12:30 P.M.

(560) at 10⁺ P.M.

460 leave swamp for old burning Var $2^{\circ}E$

600 (585) Summit of nearly round hill

1033 N 1400 W 1510 from the western
slope of the hill, a very large outcrop

N 1440 W 1560 another hill and
outcrop of same quartzite

615 Var $2^{\circ}E$ 1:30 P.M.

800 (570) Enter quick woods mixed

960 (580) Enter Beaver meadow Var $2^{\circ}E$

1095 Crossing quick creek Beaver dam back

1164 leave meadow. 1200 (580) Cedar etc. enter alder

and spruce swamp leave at 1400 (580) for old burning
2:10 P.M. Var $2\frac{1}{2}^{\circ}E$. 1500 enter burned open spruce swamp

1750 leave swamp for hardwood 1800 (580) ~~2:30 P.M.~~

1960 line 8 W of $\frac{1}{2}$ post. (580) at 2:30 P.M.
flat open post.

86 June 26/91 Run W 1/2 line By North of
S. 31 T. 45 R. 32

T. 75

R. 32

536	(580)
560	(585)
559	(585)
558	(586)
548	(585)
535	(575)
529	(569)
534	(570)
531	(575)
524	(570)
532	(572)

June 26/1891, Run W & line Bg North 87
Sec 31 T45R32

800 (580) flat. Hardwood 2:30 P.M.
200 South (585) flat Thick small growth.
400 (585) flat. Old burning to west
600 (585) flat. Good pine, with hardwood from 500
800 (575) swampy bottom 3:05 P.M. var 2° E
1000 (575) flat. From 800 good thick white pine somewhat
burned.

1200 into alder bottom (560)

1200 leave alder for burned track

1400 (570) Burned. Pine each side within 200 paces
but it is burned.

1600 (575) Burned as before. 3:30 P.M.

1800 (570) flat with pebbles

1877 line & west of B.M. 536.82

No 2 reads (570) at 3:45 P.M.

On in old burning flat with pebbles.

June 27, 1891. Run E line Bg South of 89
Sec 36 T45R33. B.M. 421.12

Set 200 with 28.73 at 7:25 AM
Corner in thick cedar swamp. Saw it at 10 N
200 N (540) flat with potholes, burned.
400 (545) streak of swamp to E.
600 (560) less burned some good wh. pine.
800 (585) 7:55 AM. Going down

1034 1893 W 5 From large out crop
trending N.W. + S.E. Can uncover only
a small portion of ledge. In that can
make out no foliation or other structure
1000 (580) From 800 good pine with hardwood not
much burned flat
1200 (580) flat. Excellent pine white.
1400 (590) swampy burned.
1650 leave swamp, good pine all around it.
Quite old burning. 8:40 AM.
1800 (590)

1960 ~~Ck~~ post (595) 8:55 AM.

Post in old burning with some green timber
including an occasional pine.

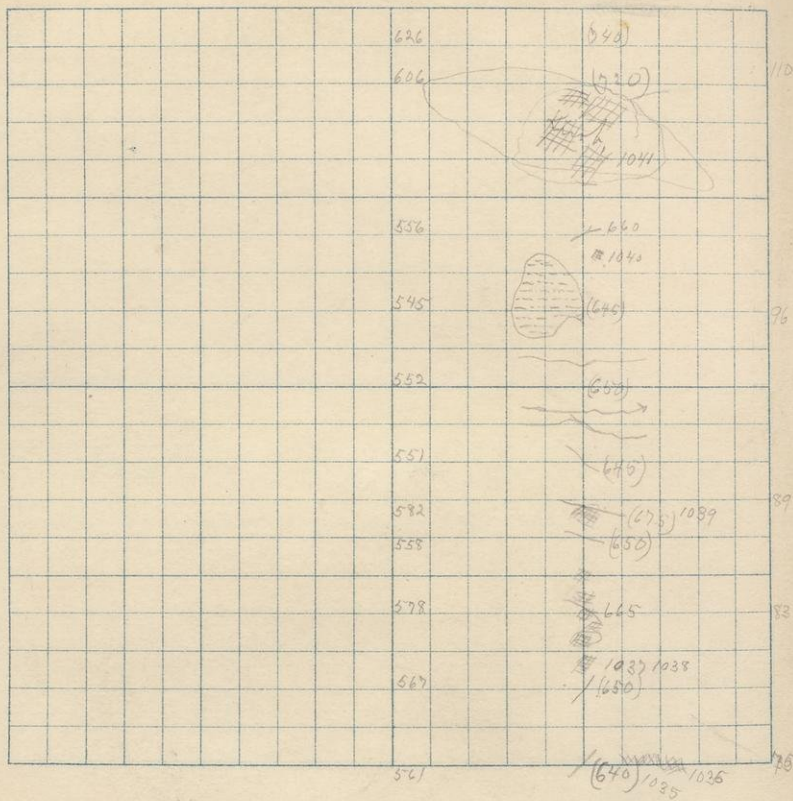
90

June 27, 1891 Run E line By South of

S. 25

T. 45

R. 32



103

103

103

103

10

June 27, 1891 Run E line Bz South of

91

Sec 25 T45 R33

Co in timber partially burned (old) some good pine. (640) at 10:10 AM. after work at outcrop.

1035 N.O. W 1900 in Sec 30 T45 R32

From North slope of long hill trending nearly E and W. Quartzite very hard.

Westward it changes somewhat to

1036 N 2995 W 1985 Sec 31 T45 R32

From western end of this hill.

The sprts weather out leaving the rock with an amygdaloidal look.

Var at corner. 102, 200 N (650) good hardwood and a few pine.

1037 N 235 W.O. Seemingly an amygdaloid from South slope of long hill about 30 feet high trending nearly E and W. Whole hill seems to be made up of it.

1038 N 336 W.O. From where line crosses the top of the hill.

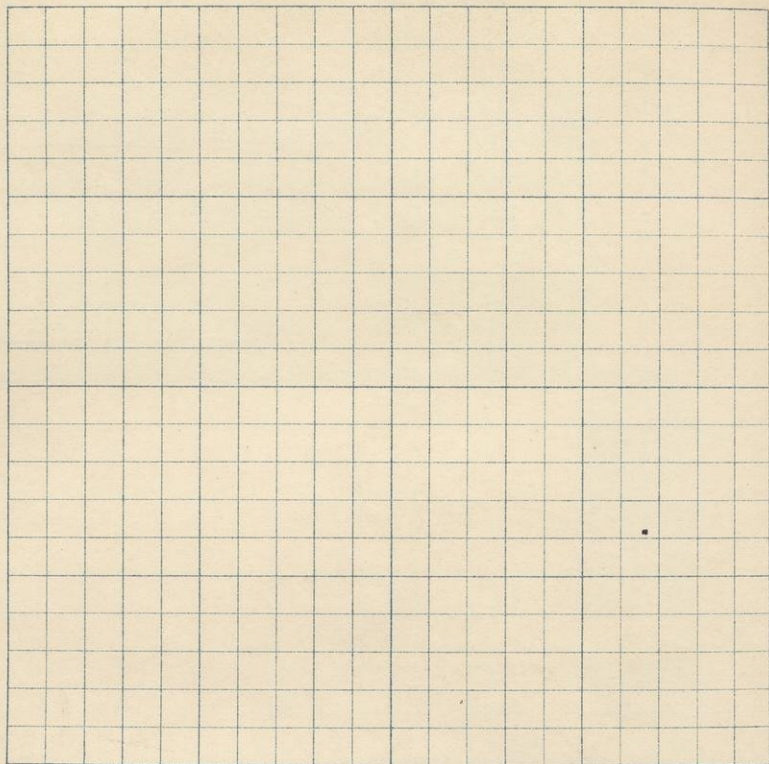
336 (660) 1045 AM 400 (665)

600 (650) since 500 green woods with fair quantity of good pine white. Quartzite runs to 520.

1039 N 687 W.O. From summit of large hill trending N.W. and S.E.

690 (695) summit. 11:15 AM.

700 (645) foot of hill



/08

/10

900 Into cedar swamp

940 Sluggish creek (2?) with alder bottom

1000 (680) in swamp

1050 leave swamp for old burning.

1200 (645) Edge of Beaver meadow 11:45 A.M.

1040 N 135° W 1975 Sec 30 T45 R32

From western end of low hill trending
nearly E and W.

1400 (660) 1500 slope of knob begins

1600 (730) summit

1041 N 60° W.O. From ^{one of the} summits of an immense
knob of rock. Weather in holes like 1036
Hard cannot get good specimen.

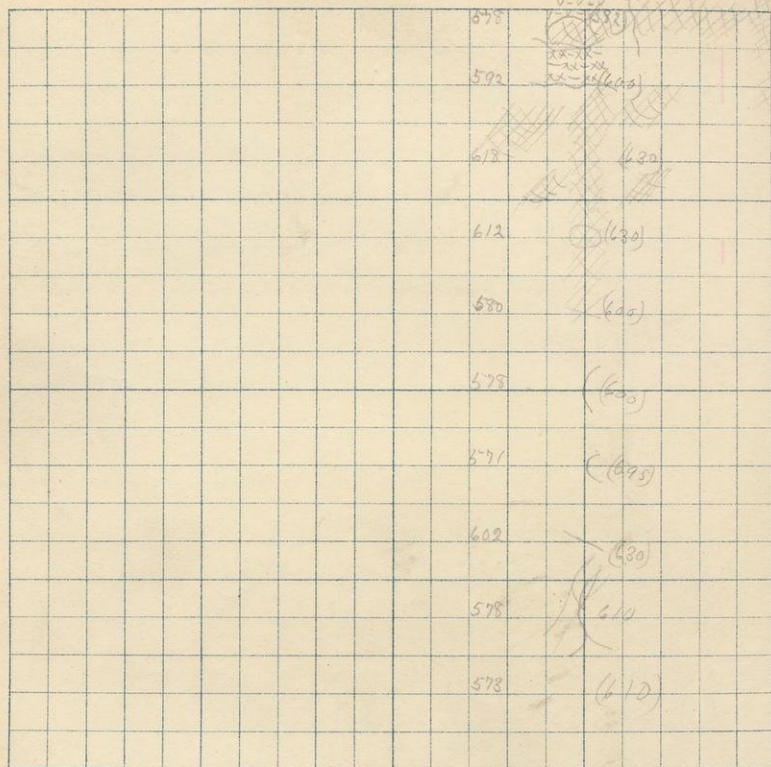
Knob trends almost E + W.

1800 (720)

1830 line 112 of prob. B.M. 63042

No 2 reads (740) at 12:45 PM

Post on knob, one of the lower summits.



June 23, 1891 Run $2\frac{1}{2}$ line B₂ N of 95
Sec 25 T45R33. RM. 58243

Set 800 with 27.89 at 3:00 PM.
Co in alder swamp.

25 South go onto low spur of the knob of No.
1042 leave for cedar swamp at
100 leave this at

200 (600) 210 go onto another hill of
No. 1041 this extends west at least 300 paces
400 (630) still on this hill old burning
outcrop everywhere.

600 (630) another low summit of same knob.

Now turn going over the outcrop continuously

700 (600) still on outcrop 3:40 PM.

815 outcrop ceases

1000 (600) some pine at east.

1200 (695)

1400 (630) 4:05 PM.

1450 enter streak of cedar and alder swamp

1600 (610)

1800 supposed corner, in swamp. at 4:35 PM.
Co (610)

557	(630)	38
552	(630) 1042	44
551	(630)	47
554	(610)	52
560	(625)	56
558	(620)	59
555	(620)	61
559	(613)	63
522	(670)	65
570	(640)	
571	(640)	

June 27, 1891 Run E & line by North of 97

Loc 36 T45 R33

$\frac{1}{2}$ pt in Tamarack swamp (10) 435 P.M.

10 30 South leave swamp for abrupt hill.

1042 N 1923 W 500 From summit of large knob trending nearly S + West

Seems from the way it weathers to be a conglomerate made up of rather angular pebbles

1043 A weathered surface of 1042.

87 (630) summit of knob. 5:00 P.M.

180 large outcrop of 1042 about 10 paces

200 (630)

400 (605) swampy hollow

600 (610) leave swamp. 5:20 P.M.

1044 N 1380 W 460 From Southern one of two immense outcrops trending nearly S. + W.

800 (625) Runed recently

1000 (620) " " 5:40 P.M.

1200 (620) " "

1400 (615) " "

1470 Enter swamp (590)

1633 leave swamp for hardwood hill

1700 (640) summit.

1859 $\frac{1}{2}$ pt B.M. (575) 33.

No 2 reads (640) at 6:10 P.M.

Cor ($\frac{1}{8}$) in hardwood slashy.

268 W. & 74 S.

52 N 222 W line from Jan.

971 Summit 560 1025 AM.

1061 Bar 20

448

