



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

Township 43 north, ranges 30, 31, and 32 west, specimens 31717-31781. No. 276 Oct 27 - Nov 14, 1891

Brooks, A. H.

[s.l.]: [s.n.], Oct 27 - Nov 14, 1891

<https://digital.library.wisc.edu/1711.dl/G6FCUTMATYNKR8Y>

<http://rightsstatements.org/vocab/InC/1.0/>

For information on re-use see:

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

276

276

LAKE SUPERIOR SURVEY

Brooks

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.

Geology. — In running the north and south lines, the compassman will, if possible, determine the course by the dial compass. At the time the geologist reads his aneroid, the compassman will determine the magnetic variation, which will be given to the geologist and recorded in the note-book. Each morning the watch of the compassman will be set to apparent time (corrections being made for the equation of time and for longitude), so that he will need to make no correction in reading magnetic variation. On cloudy days, and at times when the sun is too low for the use of the dial compass, the course run will be by needle upon the supposition that the magnetic variations indicated on the township plats are right when corrected by deducting 3° if the variation is east, or by adding the same amount if the variation is west.

Not less than once per week the accuracy of the watch of the geologist in charge of a party (who will give time each morning to the compassmen), will be tested. This may be done, first, by obtaining correct time from a railway station by means of a packer when sent out for provisions. Such time will be mean, i. e., watch time for the nintieth meridian. Second, corrected time may be found by blazing out a north and south section line, preferably a range line, for some distance, setting a signal on the line and placing the dial compass duly leveled, in a north and south direction upon a Jacob's-staff just before mid-day, and setting the watch at 12 at the time the line strikes the noon hour. In a watch thus set all corrections are made.

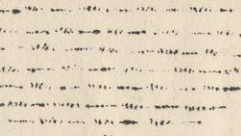
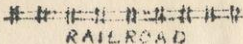
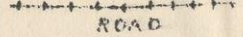
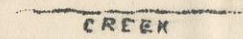
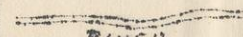
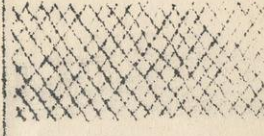
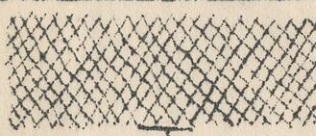
It will be the constant business of the geologist to search for outcrops. All hills within a reasonable distance of the course of travel will be examined. Oftentimes upon the steeper slopes of a hill a rock surface is covered with a coating a few inches thick of moss, leaves or vegetable mold and can be stripped with the pick. Where the exposure is small and there is the least possibility that it may be a large boulder, indicate this fact in the notes and by a query on the map. All ledges off the line of travel of the compassman will be located by the geologist pacing to this line in an east and west direction, his course being determined by compass.

Denote the ledges of rock, when no structure is made out, by cross-hatching, making the cross-hatching cover as nearly as possible the areas occupied by the exposures. If the rock is a massive one, but still more or less plainly bedded, use the same sign with a dip arrow and number attached, showing the direction and amount of the dip. Denote a shaly or other very plainly bedded ledge by right parallel lines, and a ledge having a secondary structure by wavy parallel lines running in the direction of the strike, having strike line and dip arrow with numbers attached. The greatest care must be taken to avoid confusing slaty or schistose structure, with bedding, and in all cases where there is the least doubt about the true bedding direction, indicate it by a query.

To each exposure on the face of the map, attach the number of the specimens representing it. On the right hand page place the notes descriptive of the exposures. Begin in each case with the number of the specimen, placing the number on the left hand side of the red line, after which give in order on the right of the same red line, the position of the ledges as reckoned in paces from the southeast corner of the section, and the dip and strike when observable, for instance, No. 437, 1226, N., 353 W., *Strike*, N. 47° E., *Dip*, 68° S. E. Then follow with as full a description of the ledge as possible.

Collect a specimen from every ledge, and if the ledge exposes different kinds of rock, collect a specimen of all varieties. Take care to get fresh material, unless for a special purpose the weathered surface is desired. Where ledges are infrequent the normal size of specimens will be $3 \times 4 \times 1$ inch. In case several specimens of the same ledge are necessary, and when ledges are numerous, specimens $2 \times 2\frac{1}{2} \times \frac{3}{4}$ inch will be allowed. In all cases collect chips for slicing. No two specimens will be given the same number. In the cases in which several specimens come from the same ledge, the different numbers assigned to them will enable an easy description of their relations. Specimens will be placed at once in paper bags provided, upon which shall be marked in at least two places, with a blue or red pencil, the specimen number.

TOPOGRAPHICAL SIGNS.

 PINE OR HEMLOCK	 HARDWOOD	 PINE OR HEMLOCK AND HARDWOOD	 CEDAR SWAMP
 SPRUCE OR TAMARACK SWAMP	 MARSH	 RAILROAD  ROAD  CREEK  RIVER	 NO STRUCTURE
 ↓ 55° S. NEARLY MASSIVE	 N. 38° E. S. 62° E. SHALY OR BEDDED	 ↗ 83° SECONDARY STRUCTURE.	

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				

No 9

276

Page 10 of 117

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
24-26	13	27-29	12	30	11

No. 9

Oct 27 - Nov 14. 1
18 days of work done
in 19 days.

A. H. Brooks. "Geologist."

Ira B. Heller Compass man.

The country mapped is included between
the town line 43, 44, & the section
line two miles S. And between
the Range line 29, 30 & range
line 32, 33.

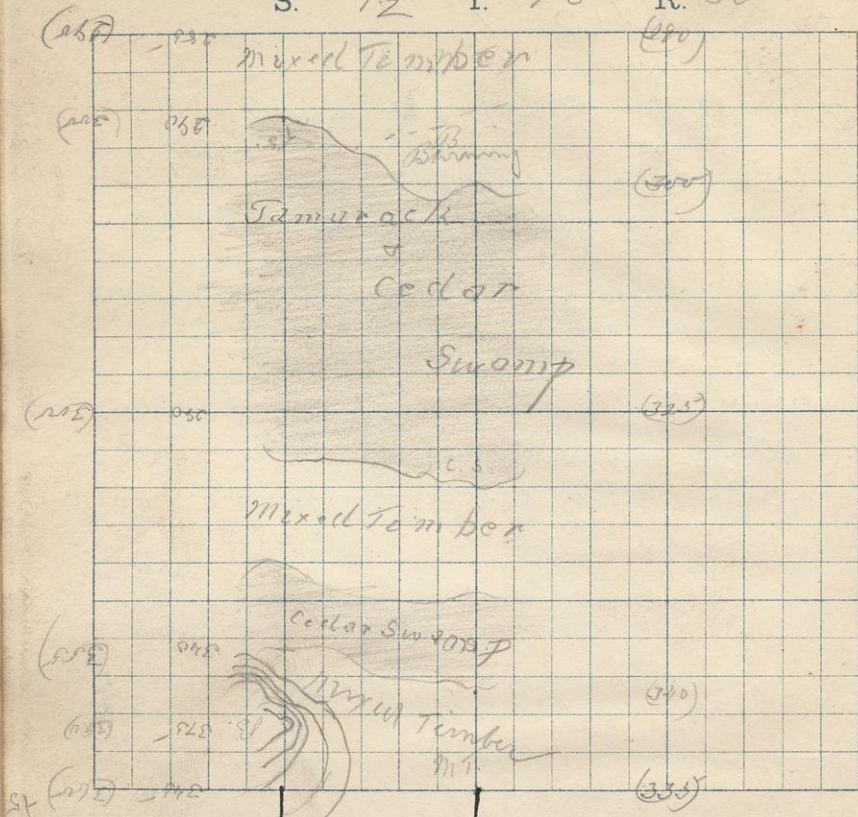
Arrived L. S. S.

Dial compass. Early.

SPECIMENS: 1717-1781

TOWNS: 43-30
43-31
43-32 ✓

S. 12 T. 43 R. 30



Many of the B.M. on the bench line between
 towns 43, & 44, were either not marked at all,
 burnt up, or rendered indistinguishable.
 As I was not furnished with a list of the
 B.M. it was impossible for me to inter-
 polate according to rule. In some cases
 I have not done it at all, in others I have
 used my judgement in putting down
 corrected elevations.

Oct 27/91

3

1/4 line Sect 12, 43, 30, beginning at S 1/4
post. & running N. 8.13 AM.

B.M. 32.7 Annual set. 29.37 = 0.

0. Mixed timber 2 1/2 E (One has been cut)
1000 (325) 8.50 AM.

2010. Stuck section line & 1/4 post.

(290)

9.30 AM

W 1/4 Sec 12, 43, 30, beginning at NW
1/4th post & running S. 11.55 AM.

0 mixed timber. (290) 2 1/2 E
1000 12.30 P.M.

2032 Stuck section line 7 paces E 1/4th post.

B.M. 344.89.

Annual 360. —

1.05 P.M.

13

$\frac{1}{2}$ Lin. Sect. 1, 43, 30, beginning at S
 $\frac{1}{4}$ post & running N. E. 30 AM

o. Mixed timber. (290) $2\frac{1}{2}$ E into pine
 1000 (295) Pine has been cut. 9:55 AM

2990. Struck swamper man's line & $\frac{1}{4}$ post

G. B. B. bench line mostly burnt up.

(310)

10.40 AM

W $\frac{1}{2}$ A. Sect. 1, 43, 30, beginning at N. W
 $\frac{1}{4}$ A post & running S. 10.50.

B.M. 311.93?

Around 280.

o. Cedar swamps. $2\frac{1}{2}$ E

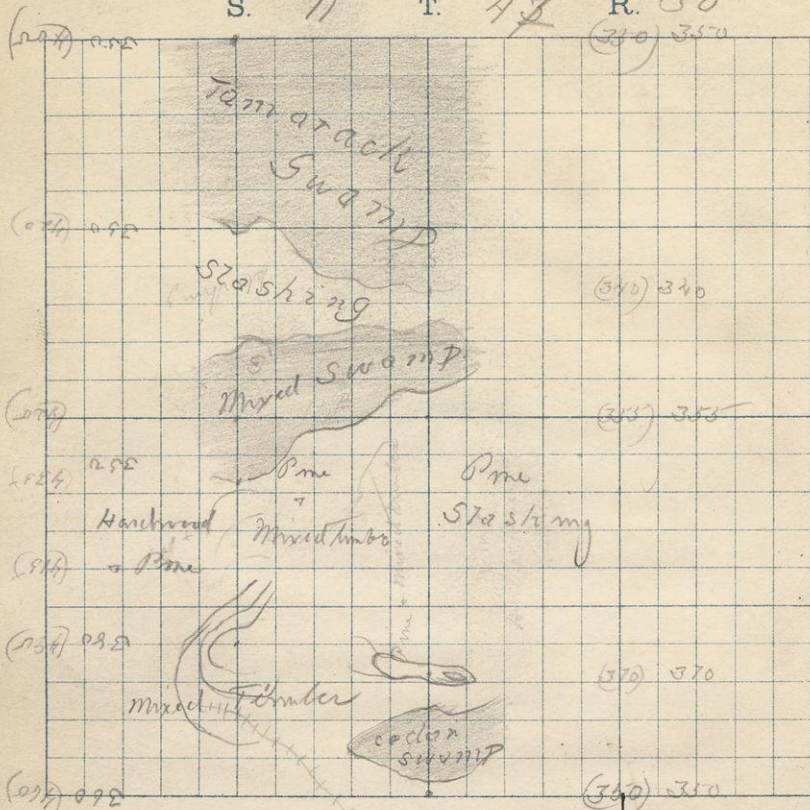
1000 11.20 AM.

2000 Struck section line & $\frac{1}{4}$ A post.

(280)

11.50

S. 11 T. 42 R. 30



The topographer. Wherever the topography does not agree with the corrected elevations marked, I should advise him to follow the sketching & not the elevations determined by aneroid.

E Line Sect 11, 43, 30, beginning at
SE corner & running N. 7.25 AM

B.M. 357, 35. Area dist 29.17 = 0.

o Mixed timber $2\frac{1}{2}$ E

1020 8.12 AM

2010 struck section line & corner post

(500)

9 AM.

E $\frac{1}{2}$ of Sect 11, 43, 30, beginning at
NE $\frac{1}{4}$ of sec. post & running S. 11.16 AM.

o. Tamarack swamps $2\frac{1}{2}$ E (500)

1000 Cedar swamps. (500) 11.50 AM

2014. Struck section line 21 paces E

B.M. 363. 28

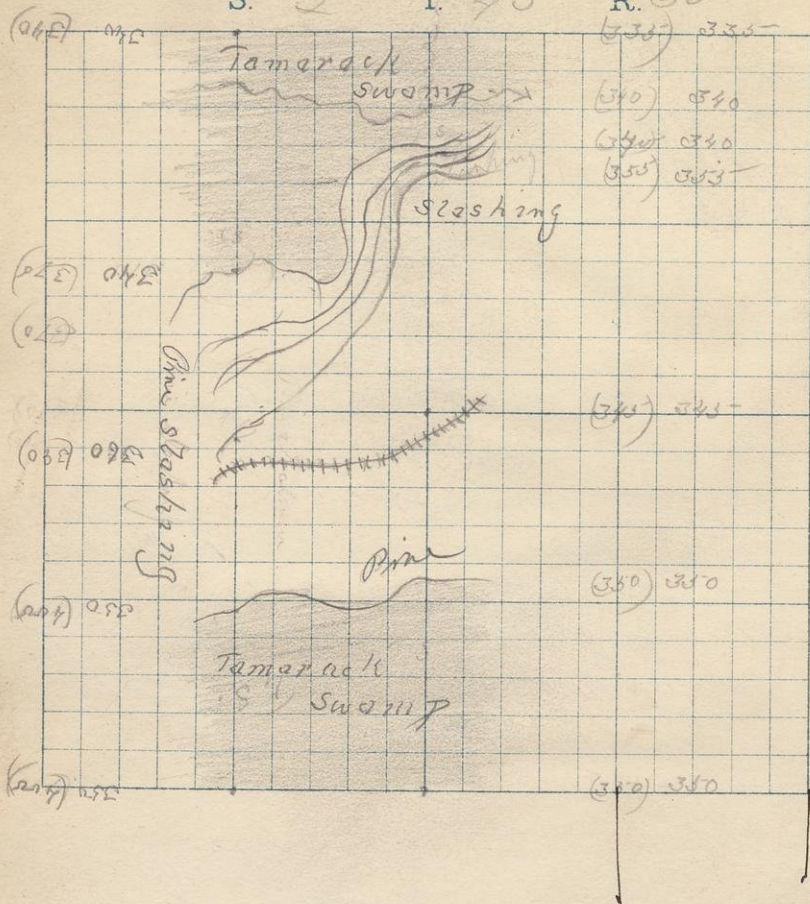
Amund 370. —

12.25 P.M.

S. 2

T. 43

R. 30



E Line Sect 2, 43, 30 beginning at
SE corner post & running N. 9. AM.

0. Tamarack & Spruce (350) $21\frac{1}{2}$ E

850. Pine & balsam considerable white & now ^{part} away from quality

1000 9.25 AM (345)

1300 Pine slashing

1985. struck section line 10 paces E of corner post

B.M. 227.64

Amerid. 337.00 10 AM.

E. 1/4 Sect 2, 43, 30 beginning at N.E 1/4
post & running S. 10.15 AM.

B.M. 229.45 Amerid. 29.17 = 0.

0. Tamarack swamps. $21\frac{1}{2}$ E (338)

800 Pine slashing

1000 10.50 AM. (380)

2008. struck section line 1/4 to post

(400)

11.16 AM.

S.

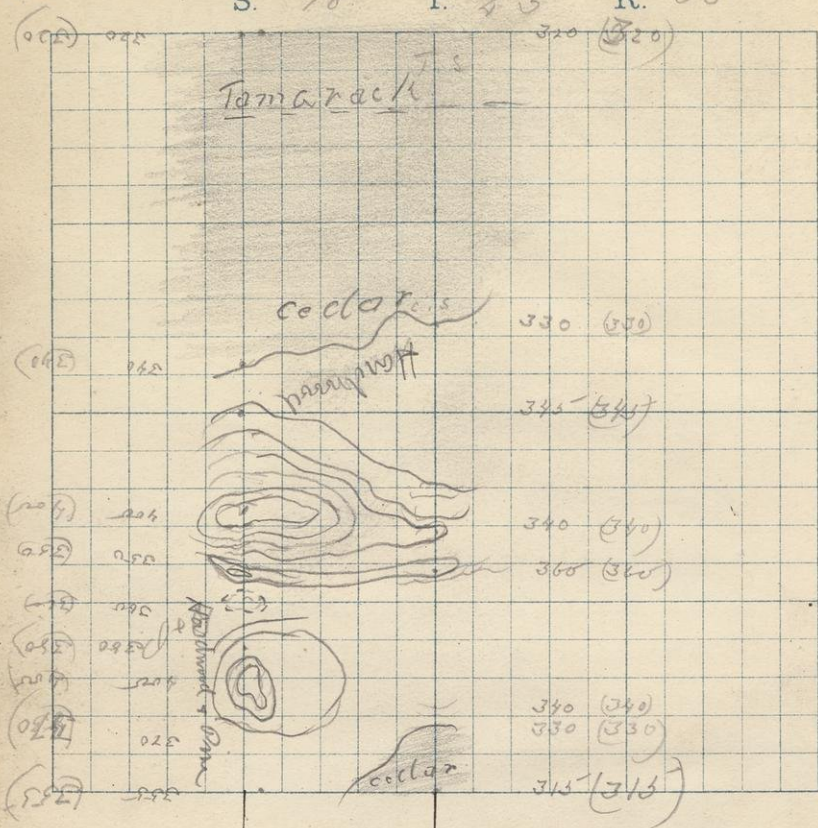
10

T.

83

R.

30



$\frac{1}{4}$ line Sect 10, 43, 30 beginning at
S $\frac{1}{4}$ post & running N. 1.25 P.M.

B.M. 315, 30th Aerial. set 28.03 = 0.
0. Cedar swamps. (315) 25 $1\frac{1}{2}$ E

175 Pine & balsam. + hemlock

Pine thick but rather poor quality.

600 Fine grove hemlock.

1000 1.50 P.M. 3.45 P.M.

2020 Cedar swamps.

2012 Stuck section line & gave W of $\frac{1}{4}$ post.
(323) 2.20 P.M.

W $\frac{1}{4}$ Sect 10, 43, 30 beginning at N.W
 $\frac{1}{4}$ post & running S. 3.10 P.M.

Could find no $\frac{1}{4}$ post. Determined it
approximately

0. Tamarack swamps. 2 $1\frac{1}{2}$ E (320)

900 Fine hemlock + pine 1000 3.10 P.M.

1500 Hawthorn + pine

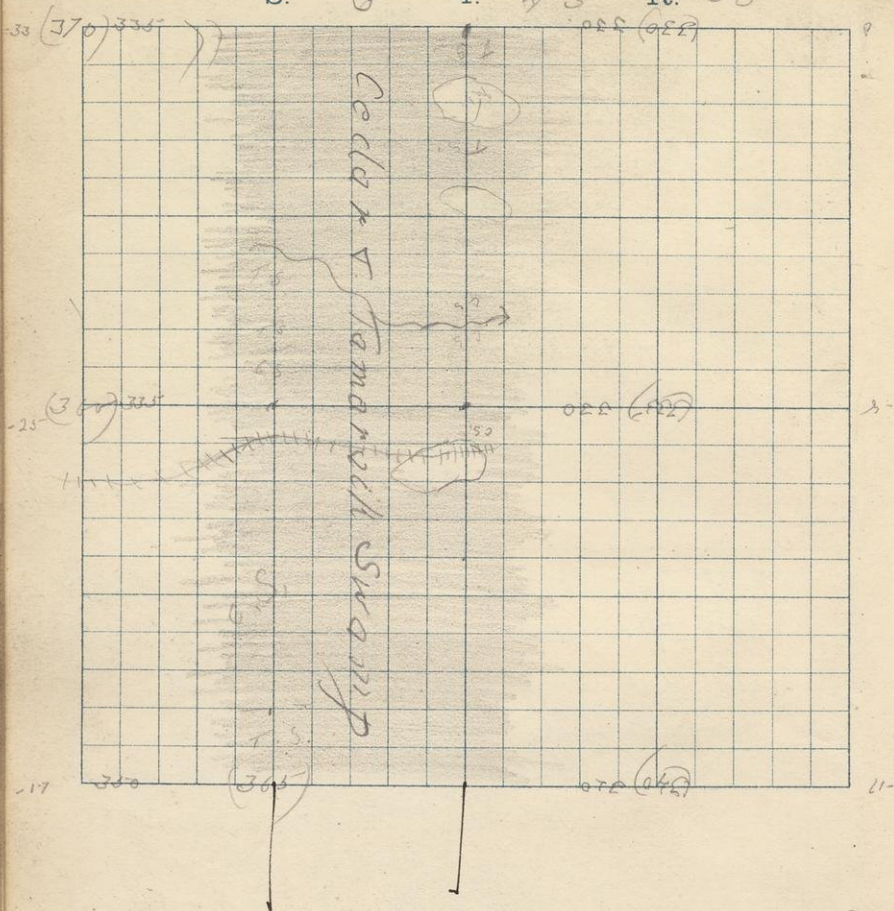
2021 Stuck section line.

B.M. 350.63

Aerial 355. —

3.35 P.M.

S. 7 T. 43 R. 30



1/4 Sec. Sect. 343, 30, beginning at
 N 1/4 post & running S. 11.15 AM
 BM 351, ~~4~~ (362) Shovel set 28.93 = 0.
 o. Tamarack swamp. 25 1/2 E

1000 11, 45 AM. (333)

2012. Stuck section line 25 p. a. W of 1/4 post
 (340) 12.15 P.M.

W 1/4 Sec. 343, 30, beginning at
 S. W 1/4 Sec. post & running N. 12.25 P.M.

o. Tamarack swamp: 25 1/2 E (363)
 200 Cedar swamp. 1000 (3.65) 1. P.M.
 2013. Stuck section line

AB. 343/37.61

Shovel. 370. —

33

1.35 P.M.

S.

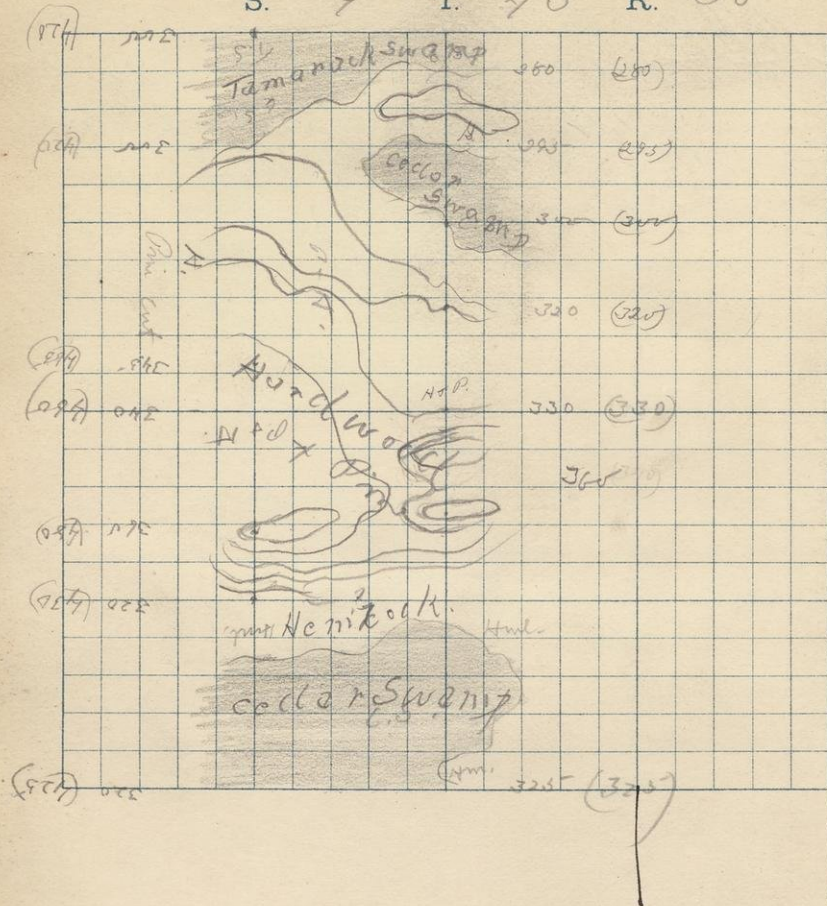
9

T.

43

R.

30



E Line Sect 9, 23, 30, beginning at
S.E. corner & running N.

B.M. 323. 69. Aerial set - 2884. = 0

O. Cedar swamps. 20 1/2 E

450 Hardwood pine & cedar

1000. 9.10 AM. Hardwood & pine

1700 Slabbing

2000 Stuck section line & corner post.

(283)

9.45 AM.

E 1/4 A Sect. 9, 23, 30, beginning at
N.E. 1/4 A post & running S. 11.4 AM

O. Tamarack swamps. 20 1/2 E @ 20

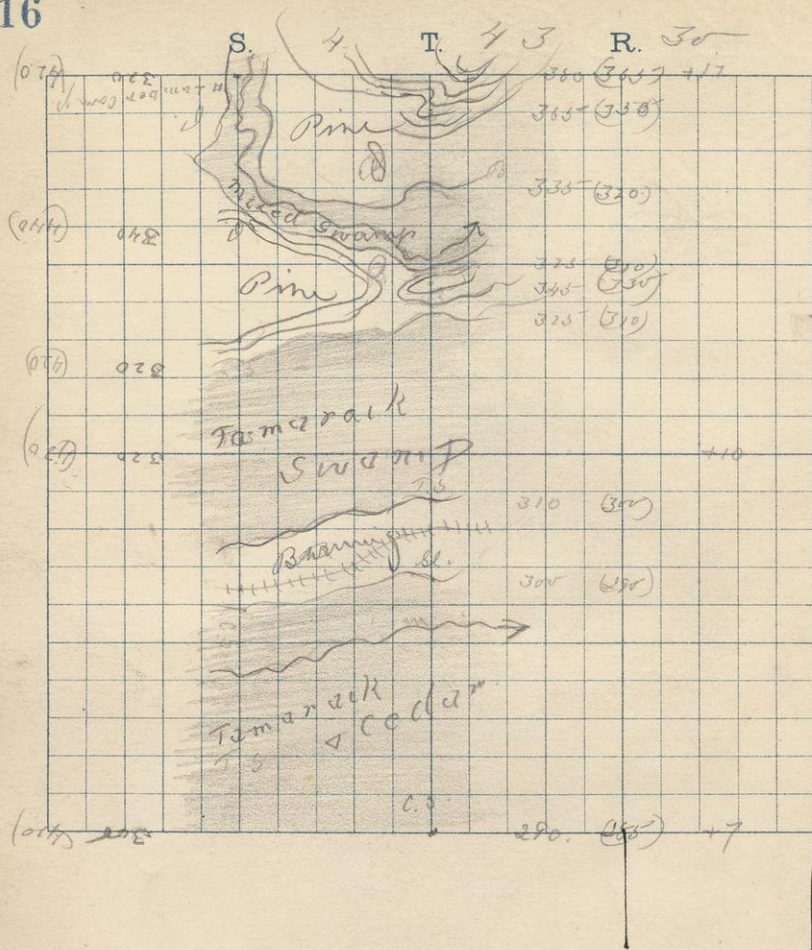
1000. 3.40 P.M. Pine pine

1989. Stuck section & 1/4 A post

B.M. 320. 81.

4:12 P.M.

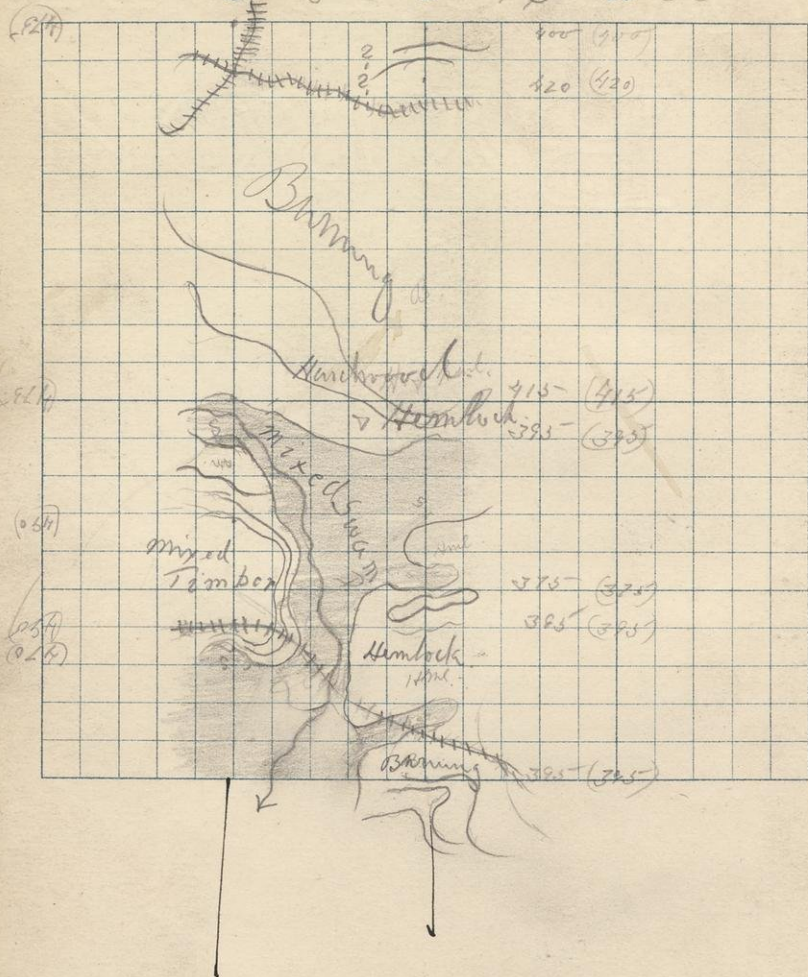
Aerial 425. —



E Line Sect. 4, 43, 30, beginning at
 S. E. corner post + running N. 9.45 AM
 o. (285) Cedar swamp. $2\frac{1}{2}$ E
 630. Slashing 880. Tamarack swamp.
 1000 11.38 AM. 1385 Boring
 2012 Struck section line + corner post.
 B.M. 3823?
 Anemid 365. 11. AM.

E 1/8th Sect. 4, 43, 30, beginning at N.E
 1/8th post (p) + running S. 1.15 P.M.
 B.M. + stake burnt Elevation by aneroid 420
 o. Marsh. $2\frac{1}{2}$ E (340) Pine say thick.
 1000 2.45 P.M.
 1200. Struck section 22 paces W of 1/8th post
 (420) 3.15 P.M.

S. 8 T. 48 R. 30



Oct. 30/91.

 $\frac{1}{4}$ Sec. 8, 43, 30, beginning at. $\frac{5}{8}$ post & running N.

8.15 AM

B. M. 395.15 Aerial set. 28.71 = 0.

0. Bearing $\approx 20^\circ E$

1000 8.55 AM. Hardwood & hemlock

1980 stn ch. section line & corner post.

(400)

9.20 AM

 $W \frac{1}{8}$ TH Sec. 8, 43, 30, beginning atN. $W \frac{1}{8}$ TH post & running S. 11.40 AM0. Bearing $\approx 20^\circ E$ (475)

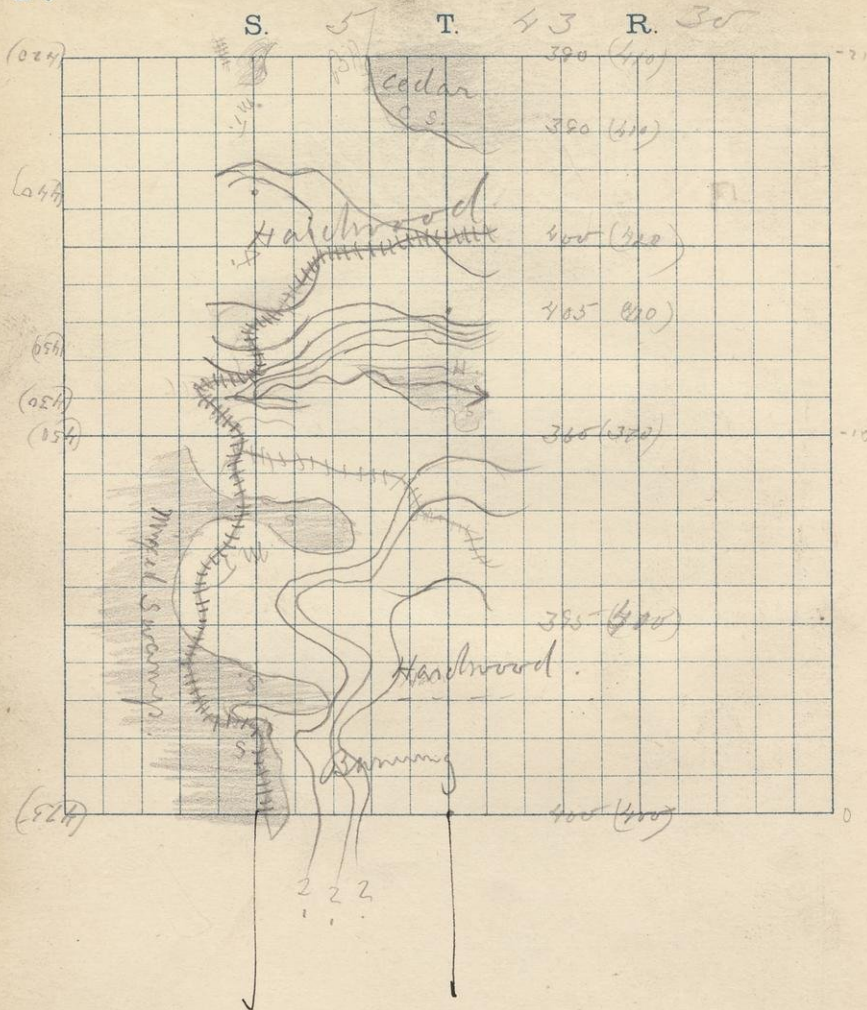
1000 12.03 PM.

2016 stn ch. section line & $\frac{1}{8}$ TH post

B. M. 374.04.

Aerial 470

12.35 PM.



$\frac{1}{4}$ Line Sect. 5, 43, 30, beginning at S
 $\frac{1}{4}$ post & running N. 9.20 AM.

0. Burning (400) 22E

300 Hardwood. 1000. 9.45 AM.

2000 thick section line & pass E of $\frac{1}{4}$ post.

B. M. 38/91.07.

Arrived 4/0. — 10.20 AM.
 21

W $\frac{1}{2}$ th Sect. 5, 43, 30, beginning at NW
 $\frac{1}{2}$ th post & running S. 10.40 AM.

W. B. M. Arrived. (420)

0. Tamarack swamp 22E

50 Mixed timber 1000 (450) 10.05 AM

2003 thick section & $\frac{1}{8}$ th post

11.40 AM. (473)

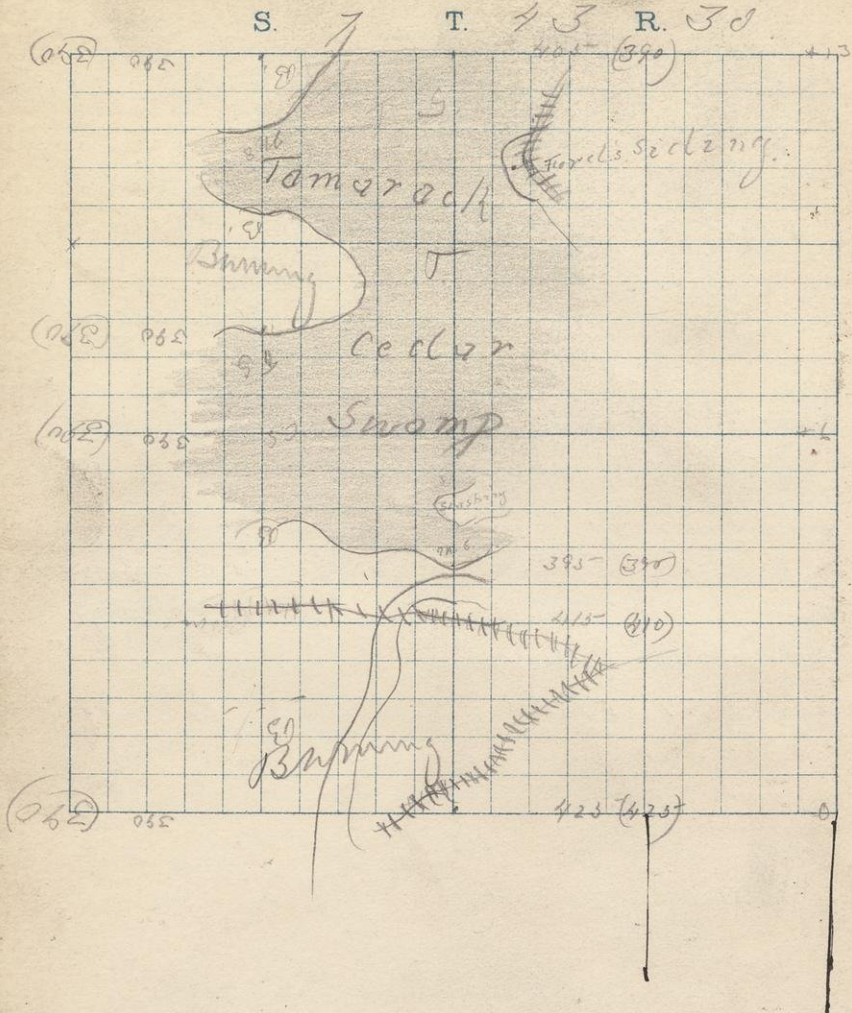
52

T.

43

R

R. 38



Oct 3/9.

23

E Line Sect. 7 43, 30, beginning at
S.E. corner & running N 8.40 AM.
B.M. 423.05. Arrived at 28.56 = 0
o. Hardwood - 22 of
1000 Swamp. 2.00 AM.
489 stuck section line to corner post.
(390). 9.40 AM

E 1/2 M Sect. 7 43, 30, beginning at
S.E. corner & running N 8. AM.
o. Barren 22 of 32 of
Low mixed Swamp 1000 (390) 11.25 AM
for Hardwood & Balsam.
2004 stuck to the post.
B.M. 393.54 11.55 AM
Arrived 390. —

24

6

43

30

ERU

S.

T.

R.

(204)

400 (370)

29

Bunt Tamariki

Swamp

(515)

515

400 (390)

23

Bunt Tamariki
Swamp

(055)

055

405 (390)

13

E Line Sect 6, $\frac{1}{2}$ E, 30, beginning
at S.E. corner post & running N. 81° 10' W.
O. Tamarack Swamp. 2. 20 E (395)
10. 10 AM.

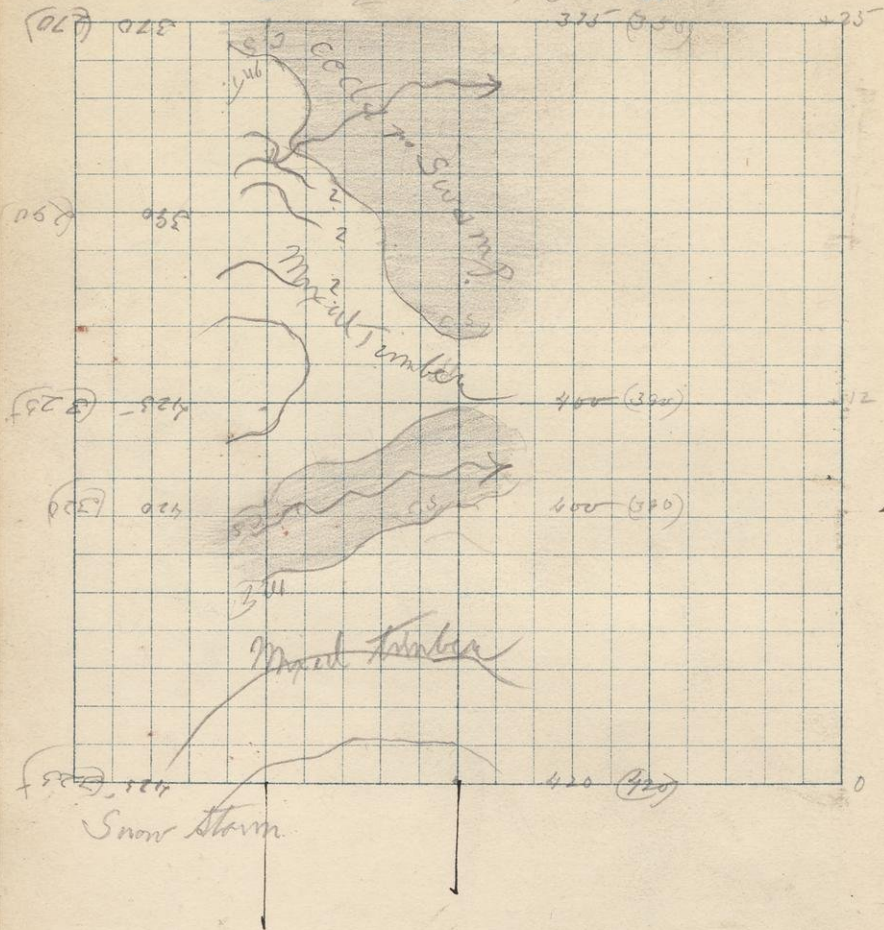
1990. Stuck section line & corner post.
B.M. 399. 85.

Arrived 370. 18. 15 AM.
29.

E $\frac{1}{2}$ T. Sect 6, $\frac{1}{2}$ E, 30, beginning at
N.E. $\frac{1}{2}$ T. post & running S. 10. 23 AM
B.M. 398. 54 Arrived at 38. 8 = 0.
O. Tamarack Swamp. 22 E
10. 45 AM.

1990. Stuck section line + $\frac{1}{2}$ T. post
(394) 11. AM.

S. 12 T. 45 R. 81



Nov. 1/91

$\frac{1}{4}$ Sec 12, 43, 31, beginning at S $\frac{1}{4}$ pt
 & running N. 8.20 AM.

B. M. 4210. Arund set. 29.18 = 0.

& Hardwood 73.7. 1000 6.30 AM

1994 Stuck section line 15 paces W of $\frac{1}{4}$ pt -

9.35

(350)

N $\frac{1}{8}$ A Sec 12, 43, 31, beginning at
 N. W $\frac{1}{8}$ A pt & running E. 12.05 P.M.

^{Elder}
 J. Tamarack Swamps. W. 32

1000 (425) 12.46 P.M.

2006 Stuck section line 7 paces E of S $\frac{1}{4}$ pt

B. M. 4214. 20.

1.05 P.M.

Arund 4235 —

1/4 line Sect. 1, 43, 31, beginning at S.
 1/4 post + running N. 10.35 AM.
 o. Cedar swamps 02 1/2 F (350)
 1000 10.13, (340)

1450 Burning
 2000 Struck section line + 1/4 post
 B.M. 392.77.

found 335 — 10.50 AM.
 37
 33

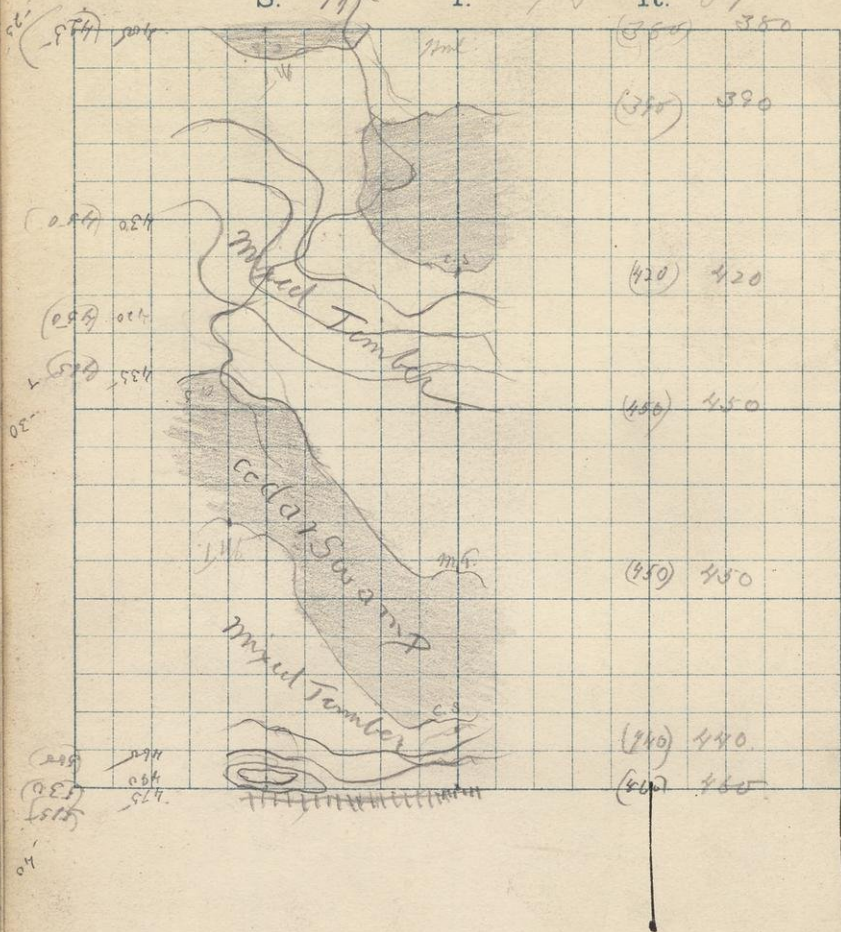
W 1/4 A. Sect. 1, 43, 31, beginning at N.W.
 1/4 A. post + running S. 11.05 AM.
 B.M. 397.69. Aerial at set 29.18 = 0
 o. Burning 02 1/2 F
 1000 11.40 AM. (410)
 2000 Struck section line + del 1/4 A post
 P.S.S. just too far north.
 12.15 PM

S.

T.

R.

31



E Line Sect. 11, 43, 31, beginning at S.E. corner
 part & running N. 8. 30 AM
 B.M. 457.75 Arrived at 29.45 Full m
 o. Hancock & V. 3 1/2 E 300 v 1° E
 600 Mixed Timber. 1000 P.M. (453)
 22 3/4 E 1800 v 2 1/2° E
 2000. Stuck section line & corner post
 (380) 10.05 AM

E 1/8th Sect 11, 43, 31, beginning at N.E.
 1/8th part & running S. 12.50 P.M.
 o. Cedar swamp. (425) v 2 3/4 E
 45 Mixed Timber
 1000 (465) v 2 1/2° E 1.20 P.M.
 1300 Mixed Timber.
 1130 v 1 1/2° E 1000 (530)
 2000. Stuck section line & 1/8th point
 B.M. 461.66.
 Arrived 500. — J.P.M.
 - 400

E Line Sect. 2, 43, 31, beginning at S.E.
corner post & running N 10.05 AM
o. Hardwood grove (380) 2 2 1/2 E
200 Max id timber. 1000 10.20 AM (293)
1000 2 30 E 1500 Pm slashing into second growth
2080. Struck section line & corner post.
B. M. 386. 17 11.20 AM
Arrived 405.

E 1/8 A. Sect. 2, 43, 31, beginning at
N.E. 1/8 A post & running S 11.30 AM
B. M. 423.07 Arrived at 28.43=0
o. Hardwood & hemlock. 2 3 E
1000. (410) 12.03 P.M. 2 3 E
2042 Struck section line 2/1 paces E of 1/8 A post
(423) 12.50 P.M.

S.

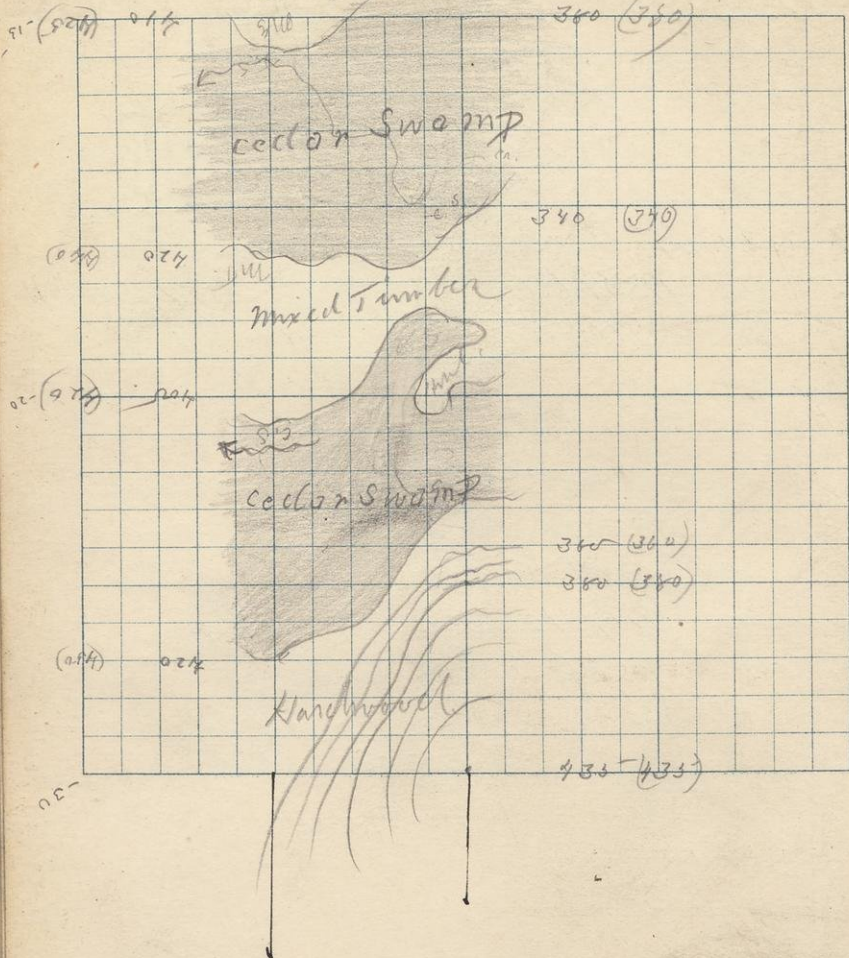
10

T.

43

R.

31



Nov. 3/4,

35

1/4 Line Sect 10, 43, 31, beginning
at S 1/2 pt & running N. 9.45 AM.

B. M. 434.85 - Aneroid 29.38 = 0

0. Hardwood. 26° E 500 20° E

900 24° E 1000 10.25 AM 24° E

1000 Hardwood cedar & balsam.

1285 25° 30° E

2080. Stuck section line & 1/4 pt

11.05 -

N.B. The bench line is about seventy paces
before S. This we proved by finding old original.

W 1/4th Sect. 10, 43, 31, beginning at N. W
1/4th pt & running S 1.51 P.M.

0. Mixed growth. (425) 200 25 1/2° E

350 23° E 500 23 1/2° E 700 24 1/4° E

860 25° E 1000 2.30 P.M. 1070 25 1/2° E

835 25 3/4° E 700 Hardwood.

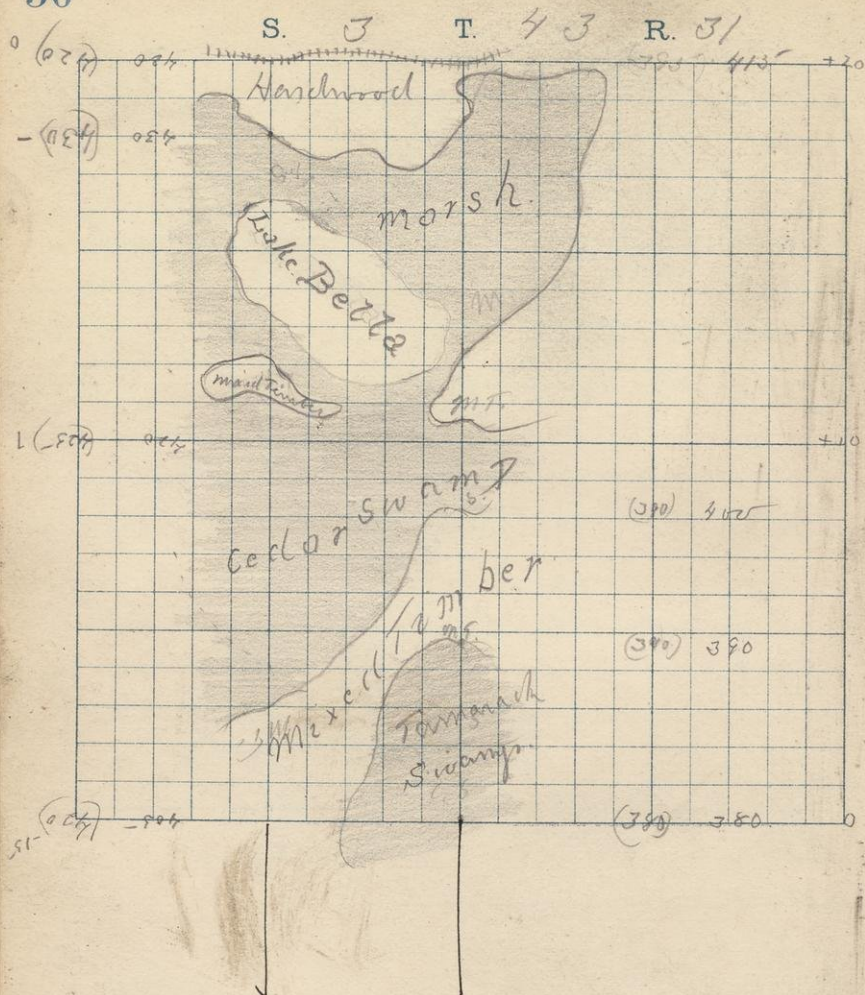
2028 Stuck section line

B. M. 419.75 -

Aneroid. 450

3.15 P. M.

30



$\frac{1}{4}$ Line Sect. 3, 43, 31, beginning at
S $\frac{1}{4}$ post & running N. 11.00
o. Cedar Swamp. 580 $\angle 1\frac{1}{2}^{\circ}$ E
415 Mixed Timber. $\angle 2^{\circ}$ E

1000 11.50 AM $\angle 2\frac{1}{2}^{\circ}$ E 1300 $\angle 3\frac{1}{2}^{\circ}$ E

1650 $\angle 3^{\circ}$ E

6073 touch section line & $\frac{1}{4}$ post.

B.M. 415.19.

12.15 P.M.

Merid 395. —

$\angle 3\frac{1}{2}^{\circ}$ E

On bench line ⁺²⁰ halfway between the $\frac{1}{4}$ post
& W $\frac{1}{8}$ th $\angle 3\frac{1}{2}^{\circ}$ E

W $\frac{1}{8}$ th Sect. 3, 43, 31, beginning at N.W.
 $\frac{1}{8}$ th post & running S. 12.40 P.M.

B.M. 420.04. Merid at 29.27 = 0

o. Hardwood $\angle 3\frac{1}{2}^{\circ}$ E

500 Tamarack swamp $\angle 3\frac{1}{2}^{\circ}$ E

700 $\angle 2\frac{1}{2}^{\circ}$ E 700 Mixed Timber

900 $\angle 1\frac{1}{2}^{\circ}$ E 1000 1.20 P.M. (23)

1100 $\angle 1^{\circ}$ E 1517 $\angle 0^{\circ}$ 1681 $\angle 1^{\circ}$ E

1994 touch section line at p.

(423)

1.50 P.M.

23+
035

9000

420 (420)

Mixed Growth
m. 5

Mixed Swamp
m. 5

420 (420)

mixed growth
m. 5

20 17
082

924

924

924

924

m. 5

23-
035

415 (415)

390 (390)

m. 5

402 (402)

383 (383)

mixed growth
m. 5

045

985

Dark day

24+
046

17

E Line Sect 9, 43, 31, Beginning at
 SE corner post & running N. 8.35-
 B.M. 387.48. Azimuth set 28.7 = 0
 O. cedar. Swamps. 2. 8° E
 350. 25° E 650 mixed growth. (390)
 850 24° E 1000 9.15 AM. 1400 2.30° E
 2010 Shuck section line & corner post.
 (420) 10.05 P.M.

Open storm

E 1/8th Sect 9, 43, 31, Beginning at
 N.E 1/8th post & running S. 1.50 PM
 c. Hardwood & hemlock (380)
 1728 N. 1140. W 3.00 strike & dip not determined
 Greenstone Strike probably about E & W
 1000 3.20 P.M. " 25°
 2048 Shuck section line 65 W. of 1/8th post
 B.M. 386.33
 Azimuth 340- 4 P.M.
 46

E. Line. Sect. 4, 43, 31, Beginning at S. E. corner & running N. 10.07.

o. Mixed pine & second growth 22½ (320)
 320. 2. 13.2 (By old originals) cor. Hardwood & Hardwood
 300 2 10° E " " " " 570 N. W. 100

Intersected Orange mine 870 N. 150 W shaft 100 ft deep.

Stench ledge at 20 ft. sank through 40 ft

No 1717 of soap rock (composed of greenstone) No 1717

The soap rock is about 40 feet thick below this they found about forty feet

No 1718 feet of slates & lean ore No 1719

Below there is where they found good Bessemer

No 1718 ore going 62 percent iron which they had

gone about four feet. The captain of the

mine makes the strike about N. 45° E

& dips 45° - 60° S.

About 75 ft to the N. W. is another

shaft in which the captain

claims they struck the ore at

40 ft. on which the mine claims

About 100 ft W of first shaft

there is a test pit in which

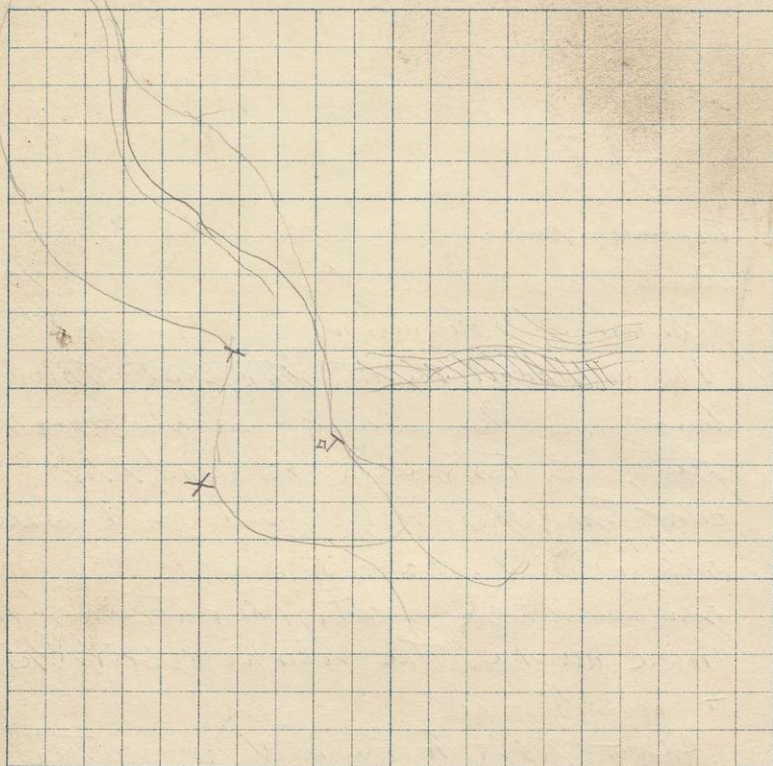
they found a very lean ore (m

gave)

S.

T.

R.



172

172

172

172

172

1007 11.30 AM. 52°F

1405 Tamarack Swamp. 52°F 850

1620 Hardwood, 740 56°F

2003 Birch section line + corner post.

B.M. 405.94

Arrived 450.

12. M.

Michigan mountains.

This mountain seems to consist of lean ore. There are many outcrops of the same & numerous test pits all of which latter seem to have found nothing but lean ore.

The strike of the formation seems to be about N. $15-30^{\circ}\text{W}$ but this of course no dip could be determined made out.

1720 N. 1950 W. 300. Strike $10^{\circ}-20^{\circ}\text{E}$ of N. Dip (2)

1721 Knob of greenstone + in contact with it a lean ore No 1721.

1722 N. 1925 W. 450. Lean ore Banded Jasper

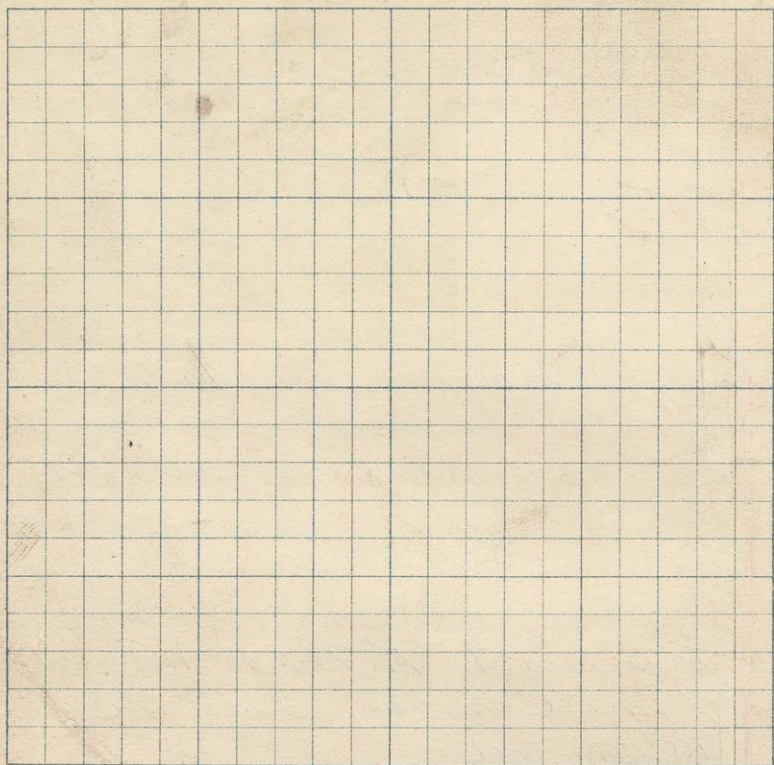
1723 N. 1950 W. 350 Lean ore.

1723 At the angle which I crossed the formation it appeared 6 or 7 feet thick. Probably one or more folds.

S.

T.

R.



Rain storm.

45

E 1/4 Sec. 4, 43, 31 beginning at N. E
1/4 post T running S 1.30 P.M.

B. M. 529. 45 - Sherrill at 2872 = 0.

O. Hardwood 2. 20 E.

1724 N. 1100 W. 500 Strike N 75° W. Dip 45° S.

1725 Limestone (1724) interstratified
with a sh. 1725. Bedding
very plain. Very much crumpled

860 Hardwood 1000 2 15 P.M.

1726 N. 740 W. 300 Strike E + W. Dip 2°

1727 Limestone 1726 & 1727 also
limestone but more silicious probably
grade into each other

2010 struck section line about 50 paces E 1/4
(380) 2.50 P.M.

2000 (?)

S.

T.

43

R. 31

11- 668 032

350 (380)

-32

Mixed Timber

Mixed. Saw Mill

360 (380)

375 (390)

-15

385 (400)

410 (425)

505 (520)

480 (490)

470 (475)

450 (450)

460 (460)

425 (425)

0

021 024

024 044

024 044

024 044

024 044

024 -824

024 -824

024 -824

024 -824

12

Nov 7/81

$\frac{1}{4}$ mile Sect. 8, T3, R31, beginning at
 S. 1/2 pt to running N. 8.15 AM.

B.M. 423.54.

28.73 = 0.

O. Mixed timber. 2. 2 1/2 %

1729. N. 300 W. 1000 ^{Central} ~~Timber~~ N. 75° E Dip

Quartzitic greenstone. No bedding distinguished
 My impression is it dips to the north.

N. 600 W. 1000 Outcrop of greenstone similar to 1729.

1730. N. 680 W. 960. ~~Strike~~ N. 20° W. Dip (2)

Coarse grained greenstone.

1000 9.30 AM.

2012. Shook section line & 1/4 post.

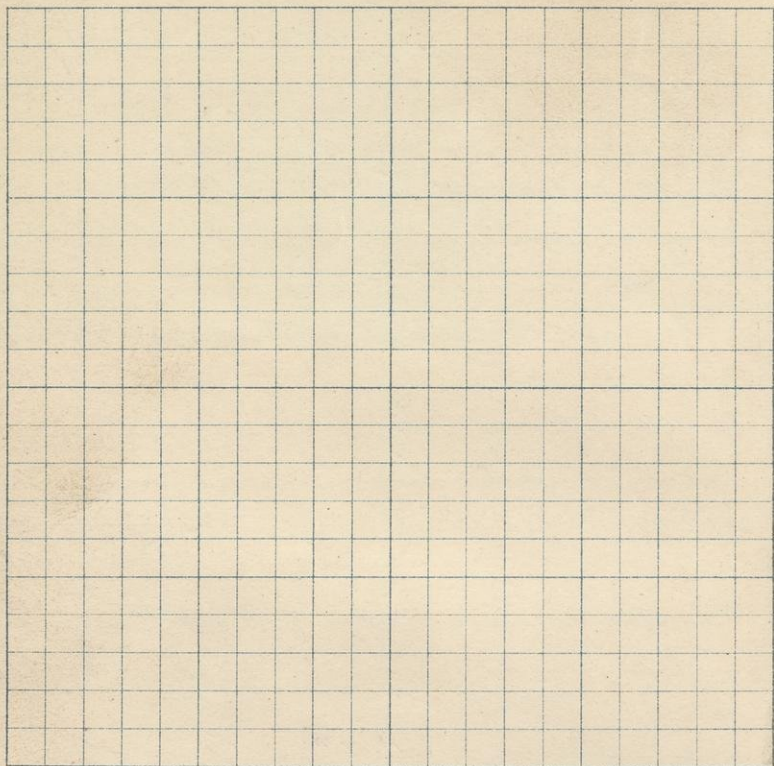
(780)

10.20 AM.

S.

T.

R.



W $\frac{1}{8}$ th Sect 8, 43, 31 beginning at N.W.
 $\frac{1}{8}$ th post & running N 2.40. P.M.
 o. Cedar swamp. $2\frac{1}{2}$ E (390)
 30. mixed timber
 1000 (420) 3.25 P.M.

N. 1000 W 1000 Dronitic Greenstone

1734 N. 800 W 1300 Strike N 63° E
 Greenstone

1735 N. 550 W 1500 Strike E + W
 Dronitic greenstone

2020 struck section line 10 paces E. of corner
 B.M. 311.12.

Arrived 335.
 24 4.25 P.M.

1736 N. 60. W 1500. Small outcrop of black
 slate. Strike N. 45° E. Dip of cleavage

1737 20° $\pm$. The nearest greenstone (at 37) is
 30 ft to the north of slate
 The greenstone appears to strike nearly E + W

1/4 Line Sect. 5, 43, 31, beginning at N 1/4
 post + running N. 10.20 AM
 o. Alder swamps. V 2 1/2 E (300)
 1000 11.05 AM
 1766. Strike section line + 1/4 post

B. M. 369.51
 Anemil 435.
 65. 11.45 AM

W 1/8 N. Sect. 5, 43, 31, beginning at N 1/8 post
 + running S. 12.30 P.M.

B. M. 363.04 Anemil set 28.65 = 0.

o. Barring V 2 1/2 E

1731 N. 1200 W 1500 Strike N. 85° W. —

Fine grained greenstone having a some
 what shistose character in some places.
 I believe the dip to be 85°-90° N.

1000 1.30 (410)

1732 N 1000 W 1300 Strike E + W

Greenstone shist Dip of foliation 90°

1733 N 870 W 1500 Strike N. 80°-85° W

Greenstone shist. Chloritic

2012. Strike section line

599

2.40 PM

S. 7

T. 13

R. 31

71042
(942)

370 (370)

Mixed Swamp

(944) 024 2821

1743

410 (410)

380 (380)

(945) 014

400 (400)

(946) 594

430 (430)

924 274 (947) 914

1742

470 (470)

510 (510)

(948) 914

M

1741 480 (480)

(949) 944

1740

445 (445)

(950) 944

(951) 970

(952) 980

1739 370 (370)

310 (310)

(953) 944

Michigan River

944

Falls 145A

E line Sect. 7, 43, 31, beginning at
S.E. corner of running N. 8. 20
B.M. 310.01 - Anemid set 28.62 = 0
o. Mixed timber. 23° E

1738. N. 50. W. 1940. Sect. 8, 43, 31.

Strike N. 75° W.

Outcrop of black slate on river bank
Dips of cleavage 75° N.

1739. Nearest greenstone (coarse grained) (n. 1739)
50 ft to the north.

The cleavage ^{of slate} is much more imperfect
than in (1736) outcrop of slate to E.

1740 N. 53° W. 0. Strike N. 45° W. (?)

Coarse greenstone containing large
cry. stals of hornblende

1741 N. 63° W. 0. Strike N. 80° W.

Coarse grained greenstone
1000 9.30 AM

1742 N. 103° W. 0. Strike (S)

Coarse hornblende greenstone

1743 N. 173° W. 0. Strike at right L + W

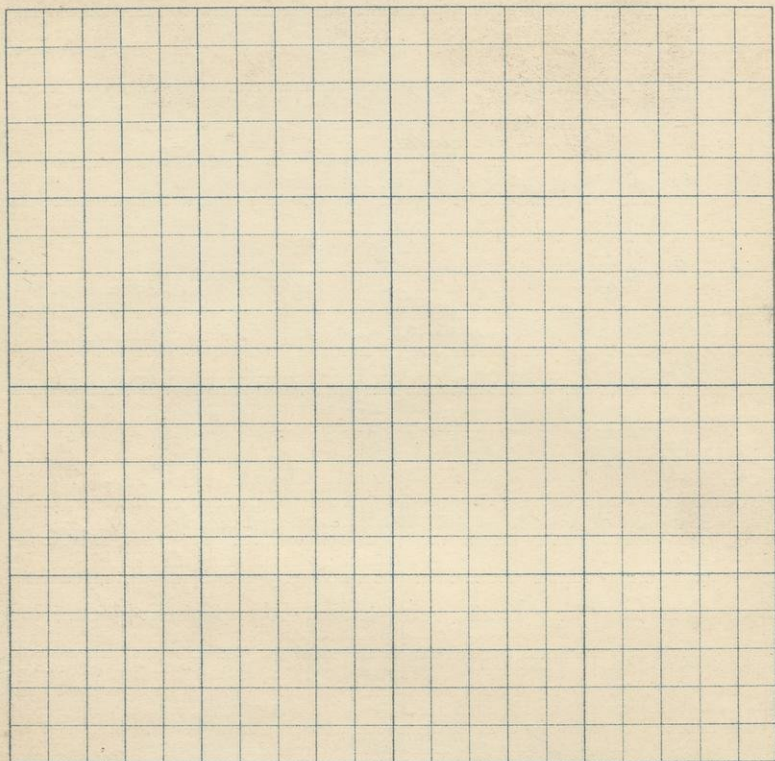
Hornblende greenstone

1912 Section line + river front
(370) 10.25 AM

S.

T.

R.



E 1/4th Sec 7 43.31 beginning
at N.E 1/4th post running S. 3. 10 P.O.
Mixed swamp. (340) at 32
200 Mixed timber.

1736 N. 1600 W 300. Strike N 50° W.
Greenstone fine grained with a slight
cleavage at places.

1000. (430) 3.45 P.M.

~~484~~ struck section line

B.M. 343.02

Amid 300

4.10. P.M.

1757 N 50 W 450. Strike N. 45° W. Dip 70° N.
Banded greenstone

E Line S. 64° 33', beginning at S.E.
corner plot & running N. 10.30 AM.

o. Red or swamp (37) 23° E
100 Mixed timber.

1744 N. 150. W. 50. Strike N. 45° E.

Greenstone sheet having an almost slaty
cleavage. Dip of cleavage about 20°.

1745 N. 250 W. 75. Strike N. 45° E.

Greenstone same as 1744 except that
it is almost massive.

These two rocks apparently grade
into each other.

1746 11.40 AM. (420)

1746 N. 1300 W. 0. Strike N. 75° W.

Fine grained greenstone

N. 1500 W. 0. Outcrop greenstone

1747 N. 1590 W. 0. Strike very uncertain E + W.

Fine grained greenstone

1500. Binning

1883 - strike section line & corner plot

B.M. 34732

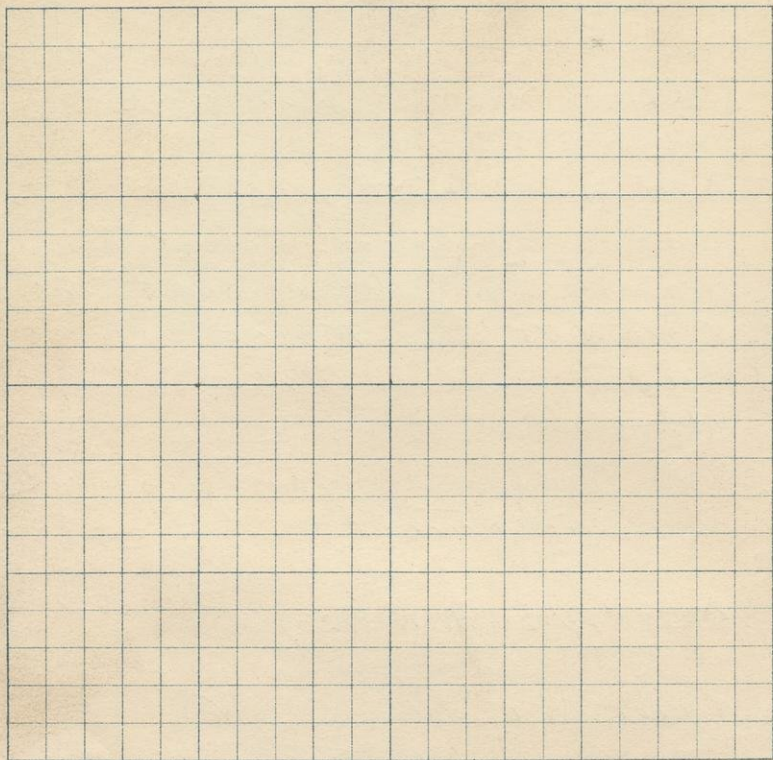
Gravel 3/2

10 PM
23. See next page.

S.

T.

R.



174

174

173

173

173

Between 1750 + 2000 paces I found six or seven test pits more of the ledge, so exposed as test pits have called in. Now is it certain that the ledge was ever reached but the angular pieces of rock show that the ledges can not be far down. The nearest greenstone is about 250 paces to the S of the first test pit found.

These pits were probably located by drift. No 1348 is specimen of lean ore chipped from ^{large} angular boulders near one of the pits.

1349. Piece of lean blue hematite from test pit

1750. Specimen of red hematite from ^{another} test pit

1751. Sp. of chloritic slate from test pit.

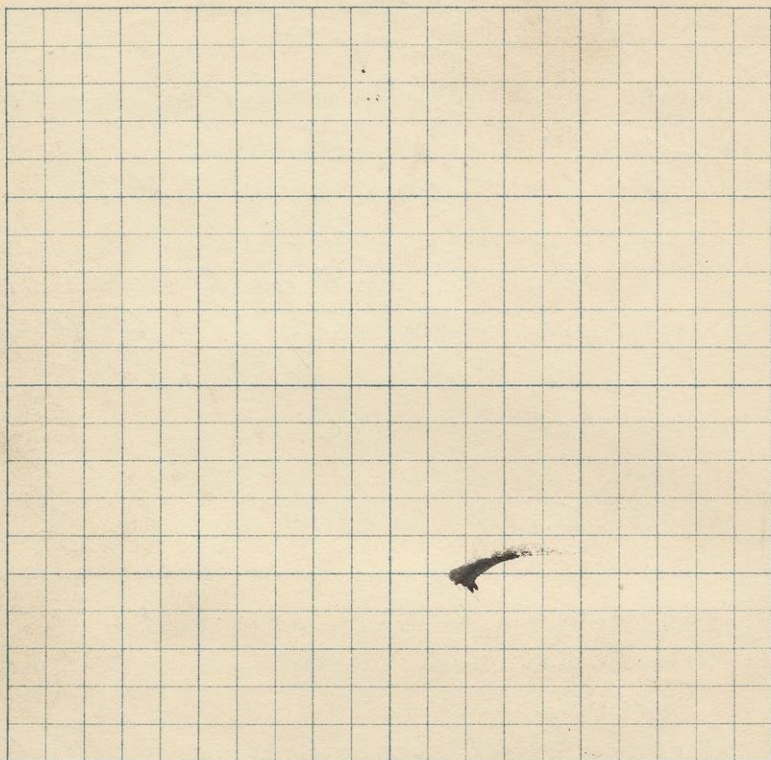
1752. Spec. of iron bearing slate from same test pit as No 1751.

See page 62 & 63

S.

T.

R.



E 1/8th Sect. 6, 43, 31, beginning at N.E.
1/8th post + running S. 1.30 P.M.

B.M. 346.07 Merid. ut. 26.61. = 0

0. Mixed timber V 3 F

1753 ^{N 15° E} ~~40° E~~ W 25° W Strike N. 70° W.

Sl. Black slate. As outcrop was covered
by 18 inches of earth no good specimen
could be obtained or dip be determined.

The dip of cleavage seemed to be
about 60° N.

1754. ^{175° 4'} Must greenstone about 100 yards N.
No. 1754.

1755 N. 90° W. 500. General trend N. 75° W.
Greenstone

1600. Barren

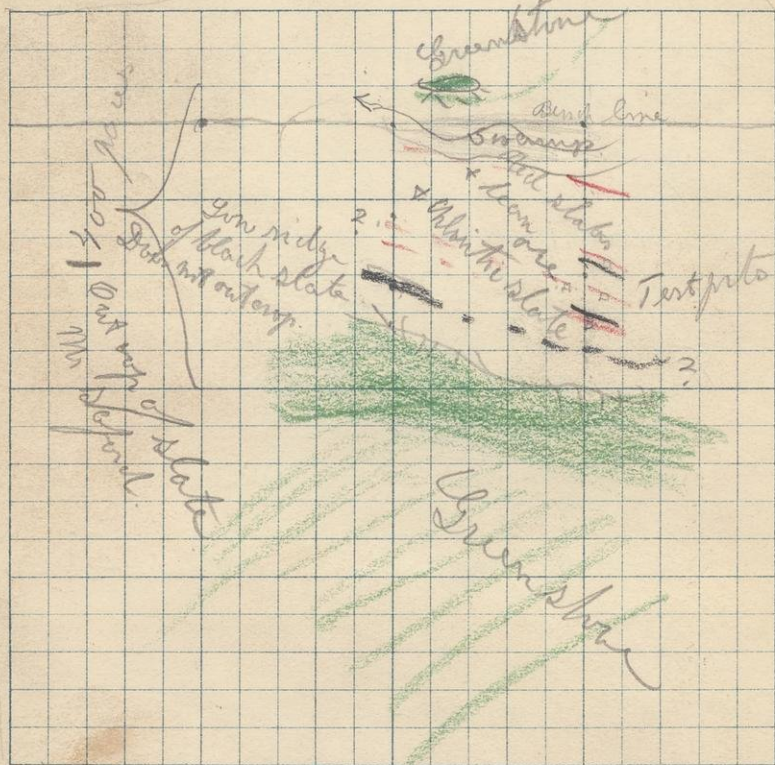
2000. Much section 1/8th post

7.10 P.M.

(340)

See pages 62 & 63.

S. 6 T. 43 R. 31



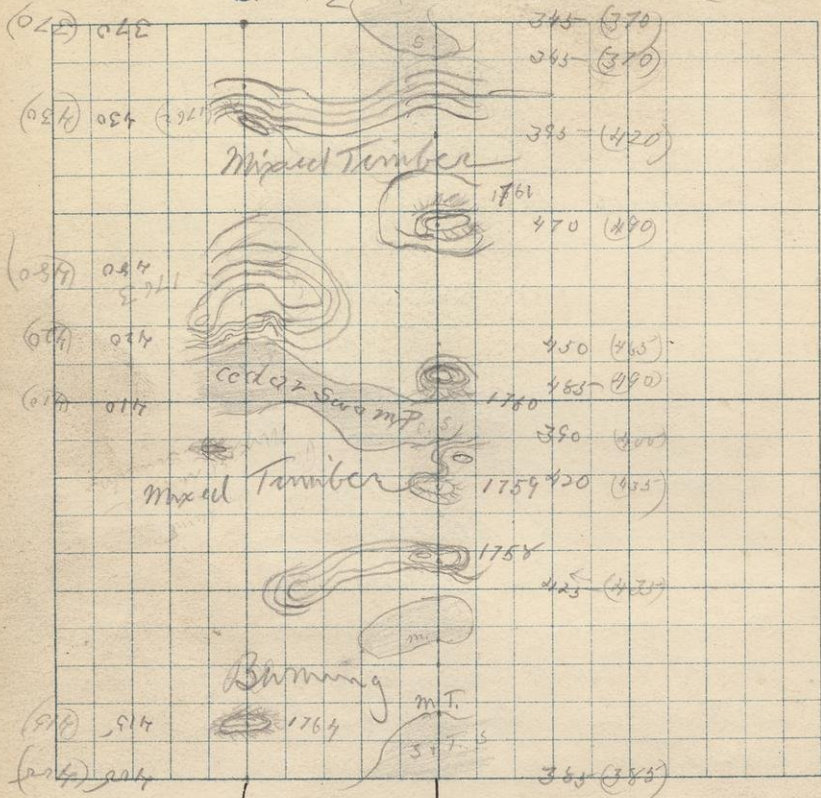
The men of the other party who worked the territory north may very likely have some data to offer in regard to this fold.

I believe that north half of section
 six T. & 3, R. 31, should have some
 especial investigation as there
 seems to be no doubt that
 the iron bearing series appears
 here. With limited time
 at my command I could of
 course give it only a very
 hasty survey.

It seems to me that there
 is probably a fold here
 similar to the one at
 which the Mass field mine
 is located. This may be connected
 with Michigan the Mountain
 but if so the limestones are
 wanting as there is not room
 enough for them between
 greenstone & black slates.

Mr. Sanford found an outcrop of
 what ~~slates~~ may be a slate of the
 iron bearing series about
 seven hundred paces W of this
 place

S. 12 T. 43 R. 32



Nov 9,

65

1/4 Line Sect. 12, 13, 32, beginning at S 1/4
post & running N. 9.20 AM

B. M. 386.08 Aerial set. 28.82 = 0

The plat gives S. 11° W. No sun so we
run compass. By 2. guessed at

O. Spruce & Tamarack swamps 211° W.

172 Mixed timber

1738. N. 520. W. ~~175~~ Strike N. 45° W

Hornblende. Greenstone.

500 Paces at 2-0°

1739. N. 760. W. 1000 Strike about E + W.

Greenstone

1740 N. 1000. W. 1000 Strike about E + W.

Greenstone

1000 10.20 A.M. Running at 21° E

1741. N. 1537. W. 1000. Strike N 60° E

Dioritic, greenstone

500 Hardwood

1988 Struck section line 3/4 paces. W of 1/4 post

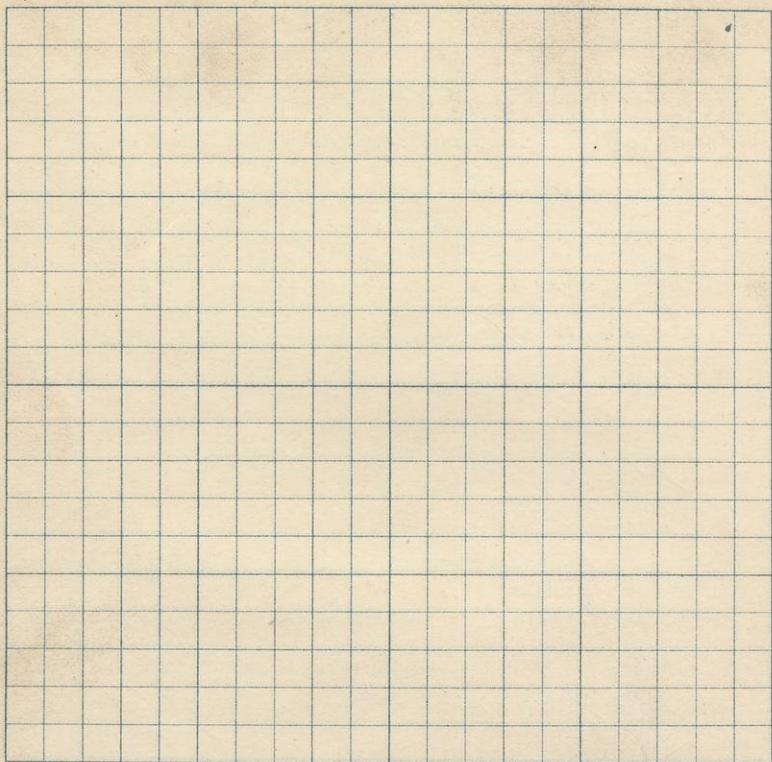
(579)

11. AM.

S.

T.

R.



W $\frac{1}{8}$ pt. Sect. 12, 43 32, Beginning
at N. W. $\frac{1}{8}$ pt just running S. 1.00 P.M.

(370) 0. Mixed timber V 2E (By guess)

1762 N ¹⁵²⁰~~1580~~ W. 1500 Strike N 60° W.

Dioritic Greenstone

1763 N ¹⁵²⁰~~1580~~ W. 1500 General trend E + W.

Dioritic Greenstone

1000 (410) 2.50 P.M.

1200 0.0. Taken from blazed line

1500 V 2 1/2° E " " "

1764 N 130. W 1500 Strike N 70° E

Greenstone

1888. Struck section line + $\frac{1}{8}$ pt

B. M. 381.90

Amid 600. —

3.30 P.M.

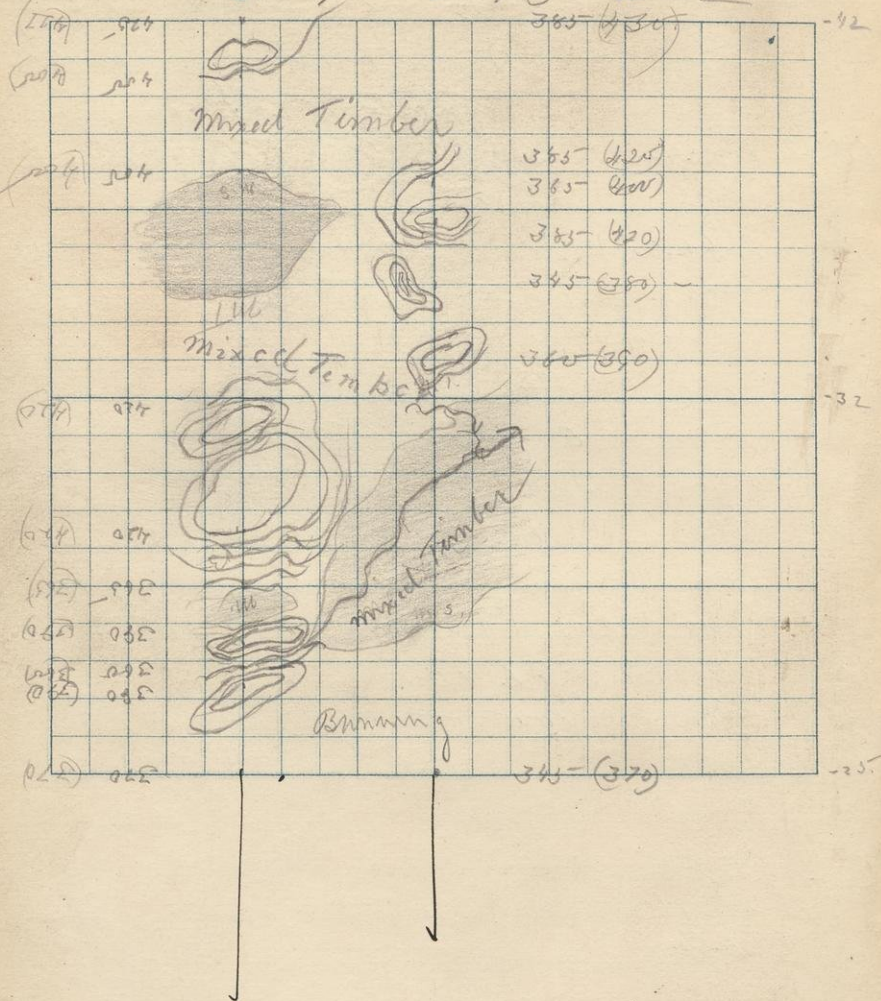
S.

T.

13

R.

32



$\frac{1}{4}$ Line Sect 16, 43, 32 beginning
at $S\frac{1}{4}$ post + running N. 11. AM.

o. mixed timber 2.1 E

1000 11.45. AM. 2.2 E

1500 200 Blazed R.R. line

1785 81° E " " " "

1983. Struck section line + $\frac{1}{4}$ post
B.M. 388.07.

Armed 430. — 12.05
42

W $\frac{1}{8}$ th Sect 1, 43, 32 beginning
at N.W. $\frac{1}{8}$ th post + running S. 12.35 P.M.

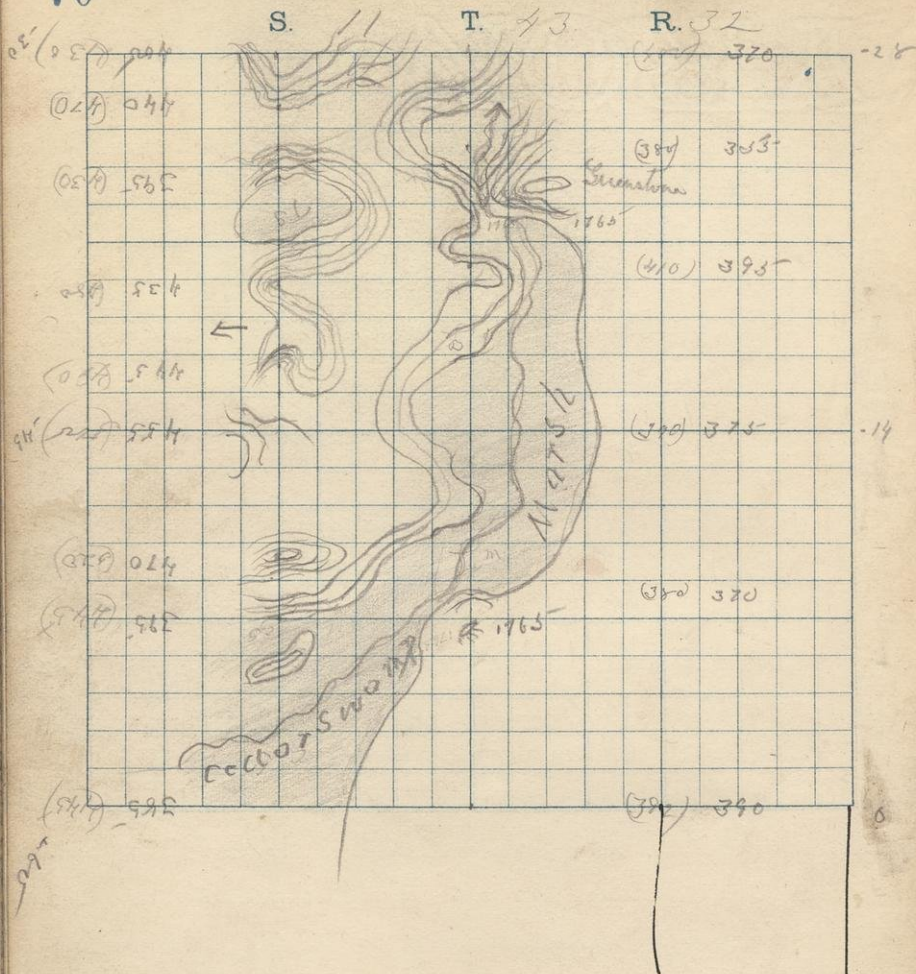
B.M. 427.55 Armed at 28.71 = 0

o. Mixed timber 2.1 E (By gang)

1000 1.10 P.M.

1300 Burning

2008. Struck section line 21 paces W of $\frac{1}{3}$ post
(370) 1.50 P.M.



Nov. 1/81

71

E Line Sect 11, 43, 32, beginning at
S E corner post + running N. 8.40 AM

B.M. 382.15 Amid set 28.65 = 0.

o. Mixed timber. 2.2 F

1000 (390) 9.20 AM.

1200 Burnt scrub growth

1765 N. 1577 W o. ~~Strike~~ 2

Apparently some sort of cryptine rock

N. 600. Gravel strike about E & W.

2000 thru section line + corner post (400)

10 AM

E 1/8th Sect. 11, 43, 32 beginning at N.E

1/8th post + running S. 12.50 PM.

o. Hardwood + Balsam (330) 2.2 F

1000 600 1.30 PM

1995 thru section line 28 paces E 1/8th post

The width 1/8th post in this section is
certainly at least 50 paces to the E

B.M. 380.97

Amid 440.

2.05 PM.

60

52

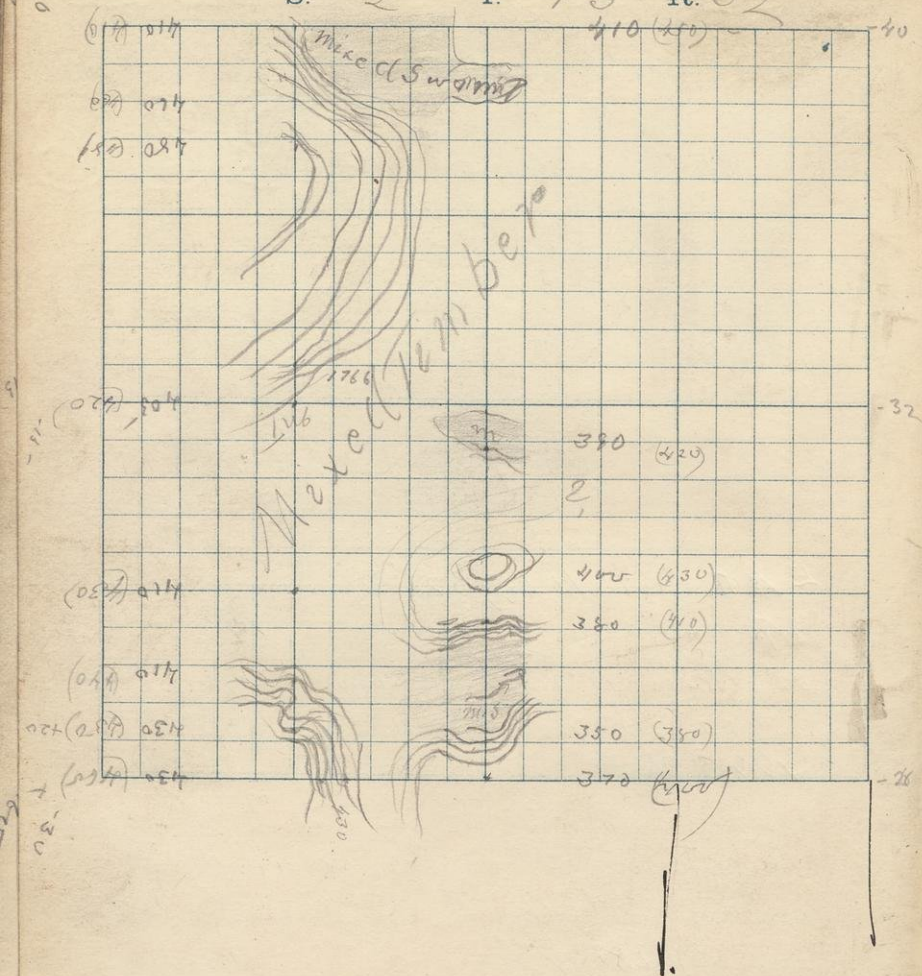
2

T.

4.3

R

77



E Line Sect 2, 43, 32, beginning at
S. E corner & running N. 40.10 AM
o. Mixed timber 2.22 800 ft
1000 10.35 AM.

2000 Stuck section line & come post
B.M. 410.90.

Arrive 1450. —
40.

11.15 AM.

E Line Sect 2, 43, 32, beginning at N. E
1/4th post & running S. 11.45 AM
B.M. 410.94 found at 28.58 = 0.

o. Mixed timber 2.20 E

1000 Hardwood

1766 N. 110° W. 500 Stike N. 75° W.

Dioritic granite

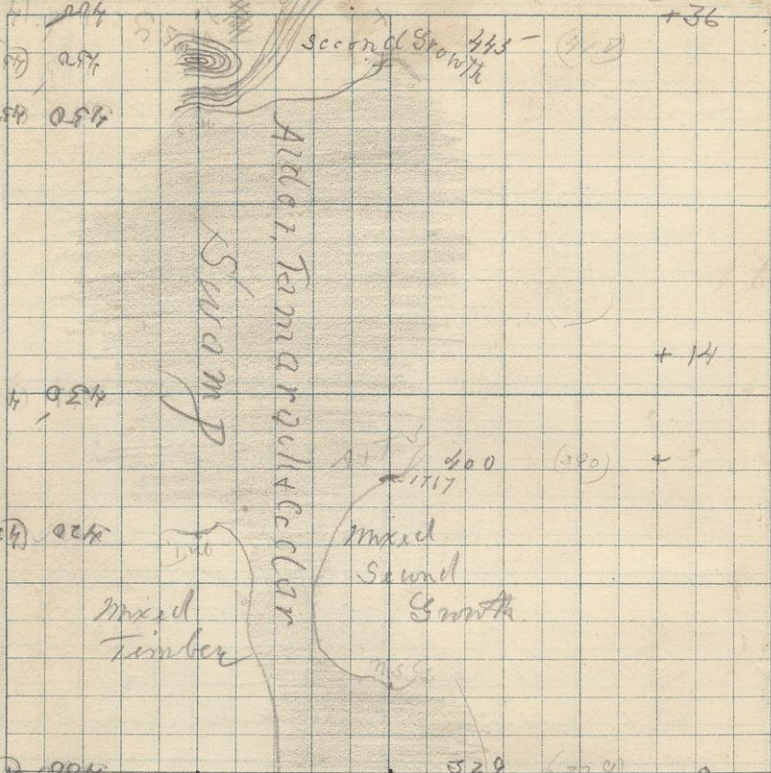
1000 12.20 Mixed timber (20)

2010 Stuck section line 80 paces W of 1/4th post
(430) 12.50 P.M.

S. 10

T. 43

R. 32



Rain & snow storm

$\frac{1}{4}$ line Sect. 10, 43, 32 beginning at S
 $\frac{1}{4}$ post + running N. 8.20 AM.

B. M. 329.54 Benchmark 28.38 = 0

c. Mixed swamp. 2.37

230 Mixed second growth

790. Tamarack + Alder swamp.

1118 8:55 AM From 1600 Run at 0105

1767 N. 581 W 1000 - Strike E + W

Fine grained greenstone

2118. Strike section line 45 paces W of $\frac{1}{4}$ post

N. 0. W 1000 Outcrop of greenstone striking N 20° W

9.50 AM

(830)

W $\frac{1}{8}$ th Sect 10, 43, 32, beginning at N. W

$\frac{1}{8}$ th post + running S

1.10 PM

c. Mixed second growth (400) 2.12

45 Outcrop Fine grained greenstone than N 50° W

1512 Run at 2.47

1000 1.45 P. M.

1575 Mixed timber (320)

28.73 Strike section line 45 paces W of $\frac{1}{8}$ th post

B. M. 401.04

Arrived 410

2.10 PM

9.

S.

3

T.

43

R.

32

064

425

+66

Mixed Timber

450

(590)

420

(365)

(052)

062

Clear Swamp

(052)

525

Lut

405

(350)

+55

(052)

504

Lut

(052)

574

Lut

1768

(052)

585

Lut

Mixed Second Growth

430

(550)

(052)

504

Lut

465

(430)

+36

Open & Snow Storm

411

W 4th Sect. 3, 43, 32, beginning
at S. 4th post & running N 9.56 AM
o. Mixed timber & 30 of Pine at V. 2 E
1765 N 425 W 1000. Strike N 30 W.
Fine grained greenstone

1075 10.35 AM (S.D.)
2000 Struck section line 13 paces E. of 8th
B.M. 421.58
Summit 365 — 11.10 AM
66

W 4th Sect 10, 43, 32, beginning at
N. W 4th post & running S
B.M. 420.89 1841 60 11.30 AM
o. Mixed timber V. 2 E
1070 (Corr) 2-10 E 12.23 P.M.
1405 Outcrop of fine grained greenstone like B 68
2030 Struck section line & 4th post
(Corr) 11.05 PM

S.

9

T.

43

R.

32

(924) 924

Cold Swamp
S.L.

m. 8

430

(450)

400

(450)

T. S.

Tamarack

Swamp

395

(450)

T. S.

Marsh

S. S. W.

1771

Greenhouse

Mixed second growth

403

(450)

(024) 24

(024) 24

-2

Snow Storm Nov 13/91

79

E Line Sect. 9, 43, 32, Beginning
at S.E. corner post running N. 8:00² AM.

B.M. 403.32. Summit 28.17.

0. Mixed timber S. 5 E By plat.

1000 (335) 8:40² AM. S 3 E " "

1600 " " 2 1 E " "

2000

1810. Mixed sound growth. 9:30.

1935. Thick Sect line 15 paces E of corner post

(430) 9:40 (P.)

E 1/8th Sect. 9, 43, 32 Beginning at
N.E 1/8th post & running S. 1:45 P.M.

0. Cedar swamps. (433) 2 1 E By plat.

1000 Tamarack swamp. S 3 E " "

1000 (419) 2:15 P.M. S 3 E " "

1550. Mixed sound growth.

1800 Outcrop of greenstone

1900. Thick section line 10 paces W of 1/8th post

B.M. 402.23

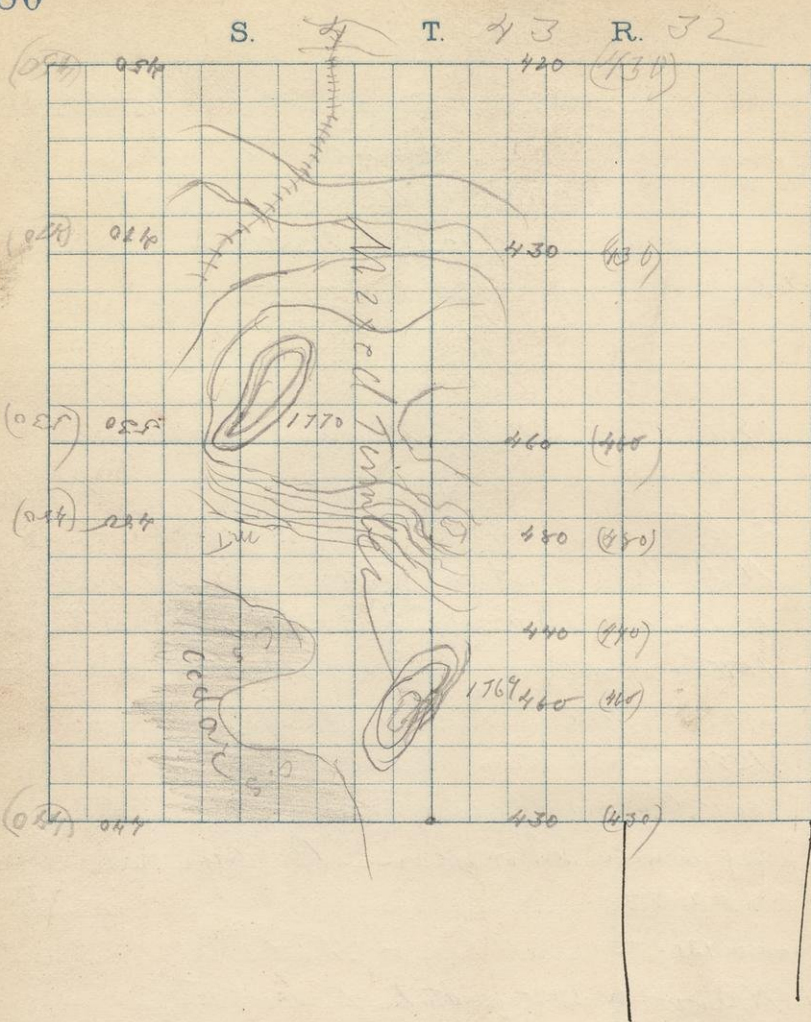
Nov 420. — 2:45 P.M.

1771 N. 200 W 500. Strike N. 60° E
Greenstone (3)

S.

T.

R.



E Line Sect. 4, 43, 32 beginning at S.E.
corner post & running N 2.40 AM (?)
0. Measured first & second from A. 430 30' by plat
2 ~~37~~

1769.

N. 220. W 0. Strike N. 30° E
Fine grained greenstone
1000- (860) 10.40 AM Run at 210° E
1830 Struck section line & corner post.
B.M. 42.27.
Arrived 430 11.30 AM
9.

E 1/4th Sect. 4, 43, 32, beginning at N.E.
1/4th post & running S. 11.45 AM
B.M. 446.42 Arrived at 29.18 = 0
0. Measured first & second from A.
51° E by plat
500 Hardwood.

1770.

N. 117° W 520. Strike N. 75° E
Fine grained greenstone
1000 12.50 P.M.
1500 20° by plat.
1830. Struck section line 16 paces E of 3rd post
(440) 1.40 P.M.

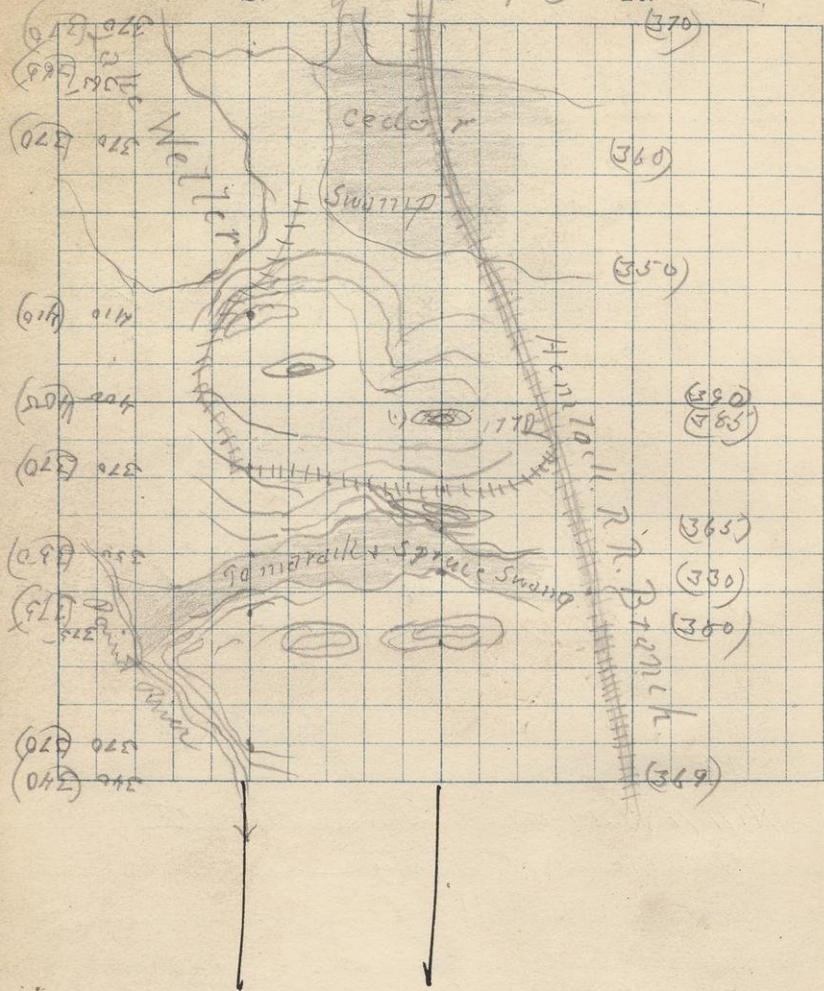
S.

T.

43

R.

32



Notes taken by Geo. B. Miller 83

$\frac{1}{4}$ Line Sect 8, 43, 32, beginning at $\frac{1}{4}$ pt
+ running N. 7.30 AM

B.M. 368.37

O. Barring 203°E

1772 N. 975-W/000 Greenhorn

1988. Struck section line 12 paces E of 1/4 pt
(370) 8.30 AM.

W $\frac{1}{8}$ A. Sect 8, 43, 32 beginning at
N.W $\frac{1}{8}$ A pt + running S 12.03 AM

O. Barring (370) 203°E

3040 Struck section line 20 paces E of $\frac{1}{8}$ A pt.

B.M. 335.23

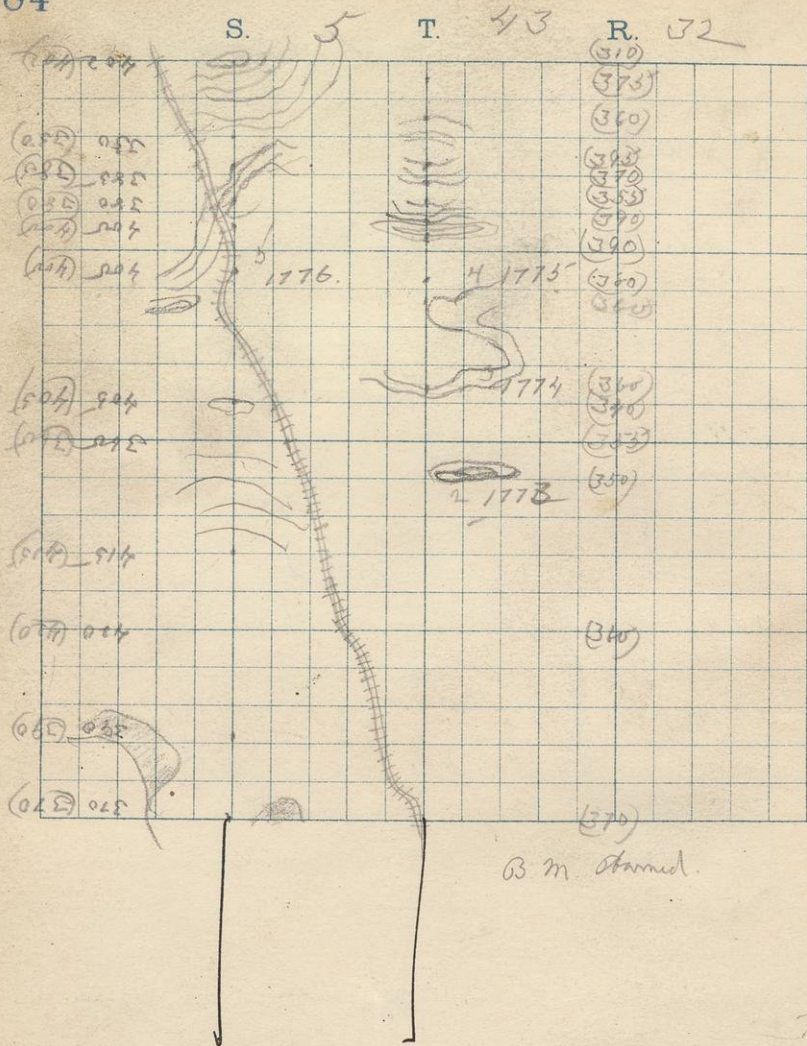
Found 340. —

1.13 PM

S.

T.

R.



$\frac{1}{4}$ line set 5, 43, 32, beginning at
 S $\frac{1}{4}$ part & running N. 8.53 AM
 O. Bearing 24027 (6-70)

1773 N. 900 W 900 Greenstone

1000 (355) 9.30 AM

1774 N. 1115 W. ^{strike} E + W Greenstone
 (85)

1775 N 1390. W 0. strike E + W Greenstone

1415 Greenstone

1690. Greenstone

1200 "

2020 struck section 10 paces W of $\frac{1}{4}$ part
 (No. B. M. Burnt) 10.10 AM

W X th. set 5, 43, 32 beginning at N. W $\frac{1}{4}$ th
 part & running S 10.25 AM
 D. M. 402.88

O. Bearing 240E

1776 N 1360 W 1500 strike E + W Greenstone

1000 11.25 AM

1981 struck section line 28 paces E of part

(370)

12 P. M.

S.

T.

R.

(014) 014

(240)

320

+37

(574) 504

(320)

340

111
116.
(475)

(220)

405

+15

(042) 042

(354)

365

Grant River

504
555 Camp

(022) 022

(374)

375

0

Sunr storm

171

17

Mr.

dar

Is

re

-oä

12

Nov 14/41

87

E Line Sect. 7, 43, 32, beginning at
S.E. corner post & running N. 7. 20° W.
B M 373 78. Sounded at 19.51 = 0.
0. Bearing 23° E
1000 — 8. AM.

N. S. below. 11.15 — 12.15 E + W.

Greenstone

2012. Check section line set corner in Lake Miller.
(280) 8.35 AM

E 1/4th. Sect 7, 47, 32 beginning at N.E.
1/4th post & running 3 11.15
Bearing 23° E
1200 — 11.43 PM. 145
2000 — —

B M 370. —

Sounded 380. —

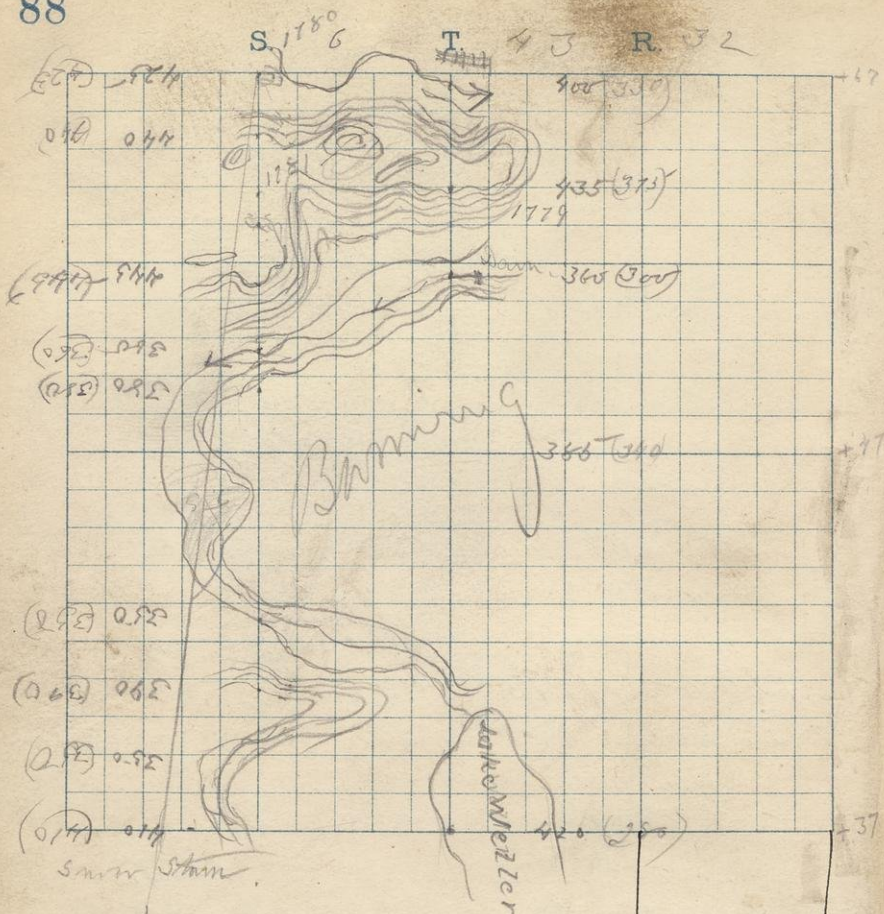
12 M.

1778 N. 1200 W. O. Strike about E + W Dip 20° (3)

Banded Greenstone with a dike of massive

1777. greenstone (1777) cutting through lit.

Mr. Sanford who first called my attention to it
claims to have traced the dike for several miles.
I saw it (the dike) 1/2 mile east but did not
recognize it as such as no banded greenstone
outcropped. He could not find exact contact
but saw the two rocks within a few feet of each other.



There is no doubt that there must be a large west variation at about 1800 paces N. So from that point the compass man took a sight of over a ridge & then closed over two hundred paces W. just.

E Line Sect 6, 43, 32, beginning at S.E.
Sect corner + running N. 8.35 AM

O. Burning 230° (230)

1000 (340) 9. AM 235° E By plat.

500 210° " "

1779. N 1618. W 75. Strike (3) General trend E + W

Agglomerate.

1885 strike section line + plat

B.M. 397.32

Arrived 730. —

9.40 AM

1780. N 2000 W 500. Strike about E + W

Agglomerate showing a marked
discontinuity.

E 1/4th Sect 6, 43, 32, beginning at N.E.
1/4th post + running S. 10. AM.

B.M. + 1/4th post should assumed elevation

420. Arrived at 29. 0820 04

O. Burning 210° E

1781 N 1680 W 500 Strike about E + W

Greenstone

535 210° E By plat. 10.40 / 10.40 AM.

2928 strike section line 180 paces E of 1/4th post.

(410)

11.15 AM

/

33

21.
6
138

$$\begin{array}{r} 120 \\ - 4 \\ \hline 0 \end{array} \quad \begin{array}{r} 130 \\ - 8 \\ \hline 122 \end{array}$$

