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Township 44 north, ranges 32, 33, and 34 west, specimens 31316-31346. No. 227 June 26 - July 8, 1891

Brooks, A. H.

[s.l.]: [s.n.], June 26 - July 8, 1891

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LAKE SUPERIOR SURVEY

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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 compassman), 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.







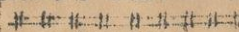
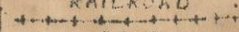
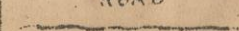
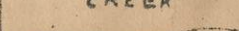




It will be the constant business of the geologist to search for outcrops. All hills within a reasonable distance of the course of travel will be examined. Oftentimes upon the steeper slopes of a hill a rock surface is covered with a coating a few inches thick of moss, leaves or vegetable mold and can 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, $N. 47^{\circ} E.$, Dip, $68^{\circ} S. E.$ 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.

 <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° S. NEARLY MASSIVE</p>	 <p>N. 35° E. S. 65° E. SHALY OR BEDDED</p>	 <p>↗ 83° 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				

354.73

227

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

No 2.

June 26th - July 5th 1

A. H. Brooks. "Geologist"

Ira B. Keller. Compassman.

Dial (?) compass No. 8.

Americh. No. 2.

N.B. To account for most of the wild
closures it is only necessary to state
that No 8. is one of Gurley's dial
compasses & is therefore entirely unreliable.

T. 44 N. R. 32-34 W.

The line run are between the town line
44, 45 & the bench line line two
miles S of that. They are included
between the $\frac{1}{4}$ line Sect 6, 44, 32, 7, 44, 32
& E $\frac{1}{2}$ line Sect 5, 44, 34, 5, 44, 32

SPECIMENS: 1316-1340

2 - 13165

Also a 1316 in Book

2/2

ERW.

2 1/4 line

S.

6

T.

44

R. 32

0	540	Burned timber	(534)
	522		(530)
	532	Hardwood	(540)
	518		(530)
	530		(565)
12 1/2	546		(570)
	530		(575)
	545		(570)
	533		(560)
25	524	1/4	(553)

26/Jan/21

3

1/4 line Sect. 6, 44.32 Beginning N Sect
line running S. 7:40 AM.

B.M. 544.31. Thence Sect. 29.31 = 0 ft

0. Buried timber (544.41) \varnothing or 0°

200

(530) \varnothing or 0°

400 Hardwood Good maple (540) \varnothing or 0°

520 Marsh

700 Hardwood (530) \varnothing or $1^\circ E$

900 Cedar Hemlock Birch maple (565)

1100

(570) \varnothing or $0^\circ A$

1300

(575) \varnothing or $1/2^\circ E$

1500 8:30 AM

(570) 0°

1700

(565) \varnothing or $1/2^\circ E$

1932. Struck sect line 72 paces W of 1/4 post

9:10 AM

(553)

4

 $\frac{1}{4}$ Lin

S. 7.

T. 44

R. 32

-28	315					(535)
	510					(540)
	510					(545)
	500					(535)
	502					(535)
	500					(535)
-32	495					(530)
	500					(535)
	495					(530)
	515					(520)
	520					(525)
	540					(545)
-37	505					(545)

 $\frac{1}{4}$ (545)

$\frac{1}{4}$ line det 7, 44.32 beginning at IV.
 $\frac{1}{4}$ part running S 9.15 AM.

O. Hardwood Maple birch etc. (555) var 0° —

70

(540)

200

(543)

var 1° E

400

(535)

var 0° —

600

(535)

800

(535)

var 1° E

1000

(530)

var 0°

1200

(335)

0

1400

(530)

var 1° E

1600

(320)

1700

(325)

var 1° E

1900

(345)

(?)

1950 Abund det line 97 part E $\frac{1}{4}$ part

(543)

B. M. 505.43

11.05 AM

Amwell 543-

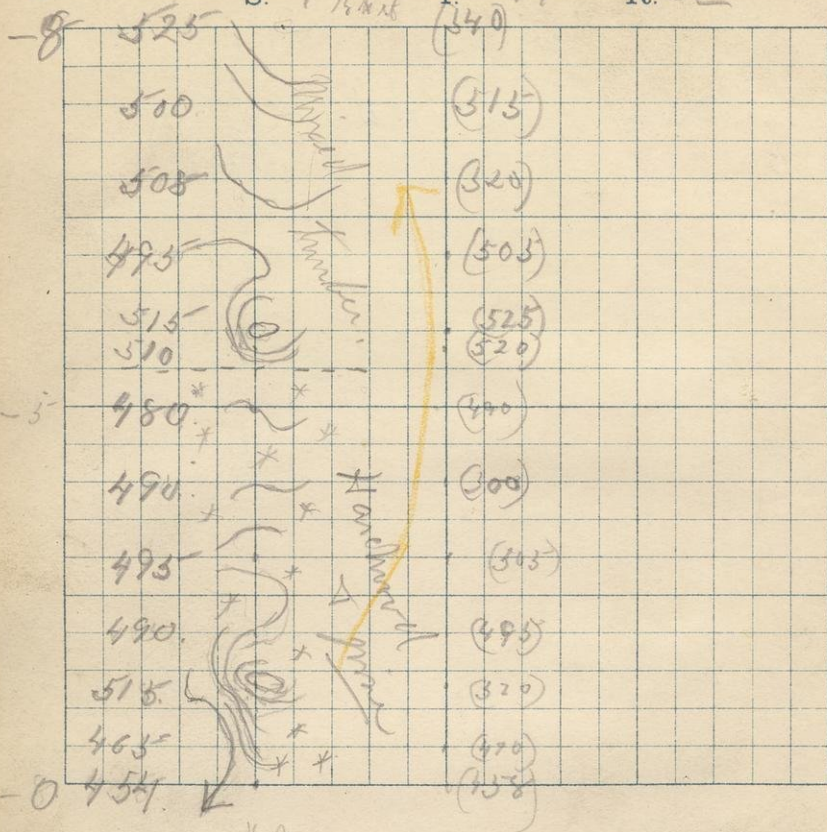
37.

6 W 1/4 A

S. 7 1/4 h st

T. 44

R. 32



W $\frac{1}{2}$ H of Sect 7. 44.32 beginning
S. W $\frac{1}{8}$ stake & running N. 1215 P.M.

B.M. 458.37 turned at 49.35 = 0.

O. Mixed timber considerable (458) var 0

100 Cedar (470)

200 (480) var $\frac{1}{2}^{\circ}$ E

365 (320)

400 Good maple (495) var $\frac{1}{2}^{\circ}$ E

600 (505) var $\frac{1}{2}^{\circ}$ E

800 (500) 0°

900 ~~White~~ $\frac{1}{2}$ H var 2° E

1000 White pine grove. (490)

1100 $\frac{1}{2}$ Hardwood. var 2 $\frac{1}{2}^{\circ}$ E

1130 (320)

1200 (325)

1300 (513) (var 2° E)

1460

1600 (320)

1730 var 3° E

1800 (513) var 2 $\frac{1}{2}^{\circ}$ E

2030 struck down 81 paces W of $\frac{1}{2}$ H post

(340)

2.15 P.M.

8 W. $\frac{1}{8}$ A line

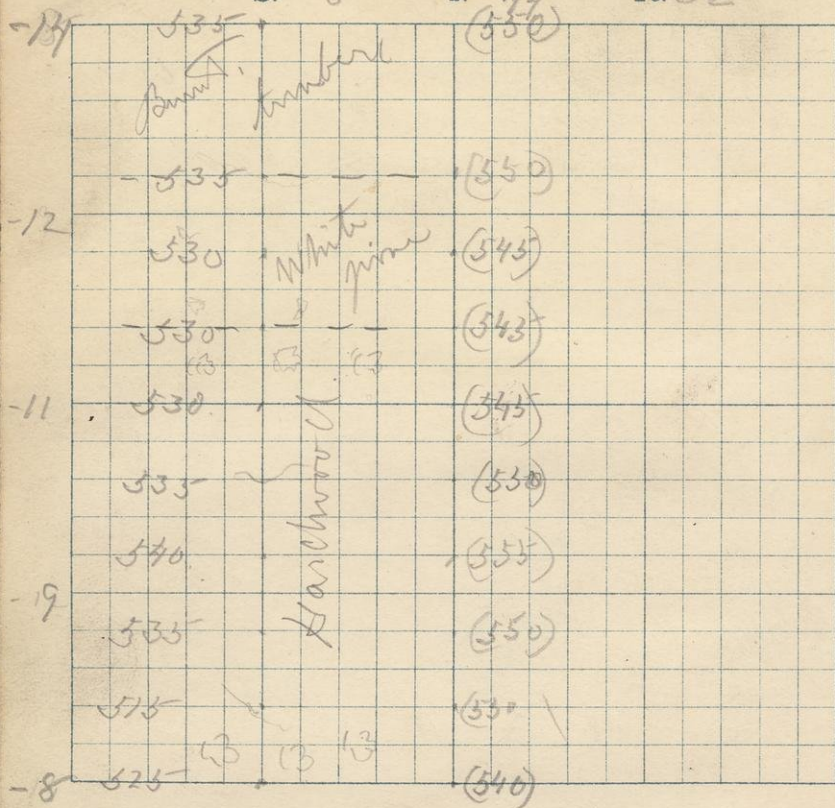
S.

6

T.

44

R. 32



W $\frac{1}{2}$ Sec 6, T4.32 beginning S.W.
~~1/4~~ Sec 6 running N. 2.20 P.M.

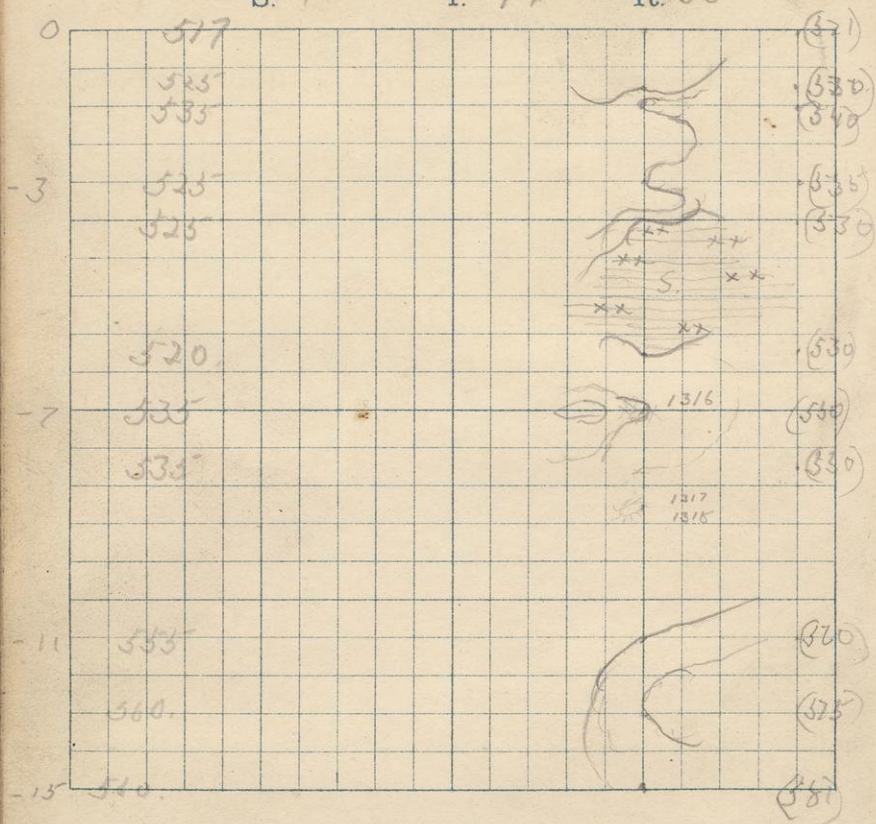
0. Hardwood mostly good maple (340) var 40° E
 100 var 30° E
 200 (550)
 300 var 1 1/2° E
 400 (550) var 1° E
 600 (555)
 740 var 50° E
 800 (550)
 900 var 4 1/2° E
 1000 (545)
 1083 var 20° E
 1200 White pine good (545)
 1283 var 20° E
 1400 (545) var 10° E
 1600 Burnt timber (550)
 1700 var 20° E
 2034 Stuck line 58 paces E of 1/4 Sec 6
 B.M. 536.82
 Arrived 550 3.45 P.M.
 14

10 E Line

S.

T. 44

R. 33



June 27/91

E. line Sect 1. 44.33 beginning
 N.E. corner section running S. 17.21 AM
 B.M. 521.24 Turn left 29.28 = 0
 O. Cedar & Tamarack swamp. (521)

30. Burnt Timber

200 (340)

400 (335)

500 Tamarack swamp (330)

860 Old burning (330)

1000 (330)

1316 N. 1000. W. O. Conglomerate looking
 very much like a porphyritic greenstone

2000
 1260
 1790

1170 Tamarack & cedar swamp (330)
 1260

1317 740 N O W. Metamorphic schist
 1318 " " Schist containing pyrites.

1317 seems to grade into 1318.

1600 Cedar & pine (360)

1800 Good pine (375)

2017 Think sect line & corner point.

B.M. 331.49

Turn left 585.

9.03 AM.

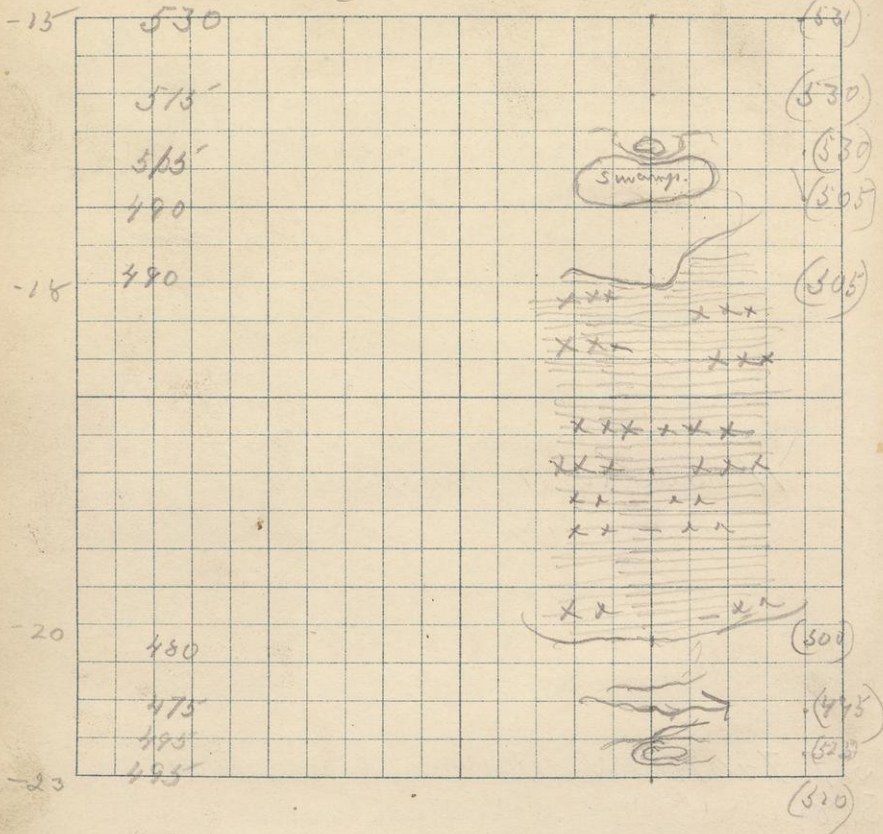
12

E 4th

S. 12

T. 44

R. 33



Set line Set 12, 94.32 beginning
N.E corner running S. 9.05 AM.

B.M. 331.49 turned left 29.08 = 100 ft

0. Good white pine & hardwood (531)

205 (530)

330 (530)

390 Swamps (505)

470 Good pine & hardwood

500 Cedar swamps. (505)

600 Tamarack swamps

1640 Good pine & hardwood. (500)

1770 Alder swamps

1840 Creek 10 ft wide (495)

1900 Cedar & pine

1935 (520)

2010 Stuck line & corner post (520)

10.07 AM.

B.M. 497.23-

turned 520.

23.

14

E $\frac{1}{8}$ N

S.

12

T.

44

R.

33

-92

470

460

465

495

525

480

500

480

500

480

480

515

465

476

-46.

-23

(465)
(430)

(525)

(540)

(575)

(520)

(540)

(520)

(340)

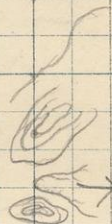
(515)

(508)

(540)

(690)

(470)



swamp.



E $\frac{1}{8}$ th Set 12 44 33 beginning at
 S E $\frac{1}{8}$ th port & running N. V 10.23 AM
 B.M. 476.32 Anvil 29.13 = 0
 10. Hides swamps. (426) var $3\frac{1}{2}^{\circ}$ W.
 10. Creek 10 48 mile
 30. Liden swamps.
 200 Pine & hachwood. (490) var 20° W.
 340 (540)
 480 Tamarack swamps. (505) var $\frac{1}{2}^{\circ}$ W.
 650 Pine & hachwood (505) var 10° W.
 775 Pine (520)
 940 (520)
 1130 (540)
 1200 (520)
 1330 (575)
 1500 (540)
 1700 (545)
 1900 (550) var 1° E
 2000 Shuck set line 10 paces W of $\frac{1}{8}$ th port
 (565)

12.15

16 E $\frac{1}{8}$

52.

1

T.

441

R

33

185

575

535

13198

(23)

7710

797

145

652

July

Feb

145

54

16

548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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63

-153

733

43.

430

4.53

475

92

E $\frac{1}{8}$ MI of Sect 1, 44, 33 beginning
SE $\frac{1}{8}$ th part & running N. 1200 PM

0. White pine poor quality (565)

80 Cedar swamps

(550) / later (630)

225 White pine poor

(630)

400

(640)

600 Dead timber cherry with bark (640)

700

(680) ²¹

900

(680)

1100

(685)

1200

(680)

1400 Tamarack swamps

(680)

1600 Oak

1875 Pine birch & balsam

(710)

1935

(735)

2081 Much Sect line 18 paces E of $\frac{1}{8}$ th part.

B.M.

57.5.83

Summit 760

3.10 PM.

185

1319 N. 2000 W. 600. Strike N. (2)

A rock looking like a gneissitic
greenstone probably a conglomerate.

Ledge 100 ft long & 10 ft wide

18 $\frac{1}{2}$ line 28.75 = 0

S.

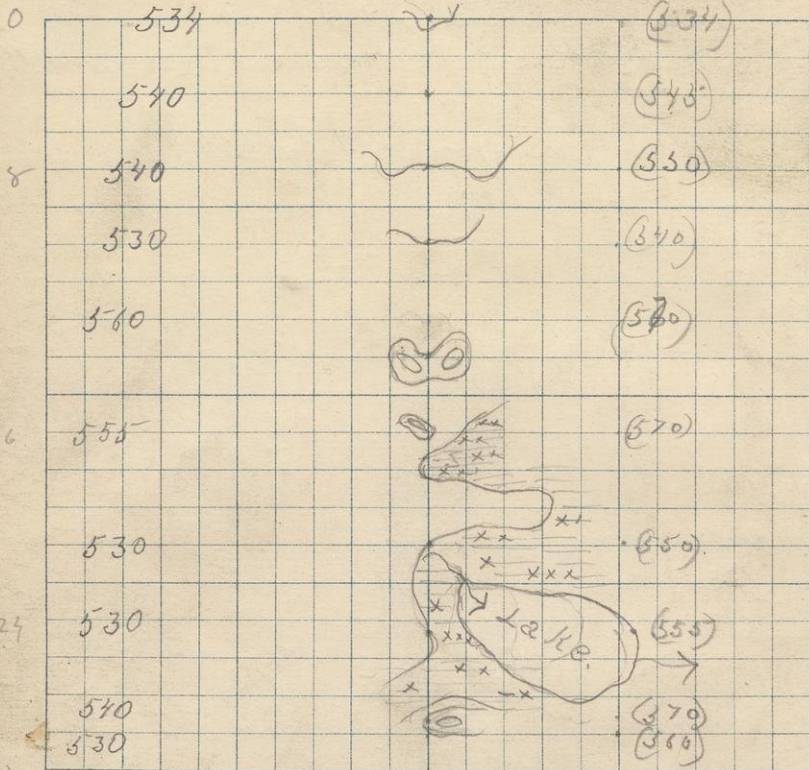
2

T.

44

R.

33



June 29/81

19

1/4 mile set 2. 44. 33. beginning at N
1/4 stake running S. 8.30 AM.

B. M. 534. Arrived at 28.70

O. Burning (534) 2 on 4 1/2 W

200 Hardwood (545) 2 on 5 1/2 W.

400 (550) 2 on 5 1/2 W

600 (540)

700 (560) 2 on 5 1/2 W

900 (570) 2 on 5 1/2 W.

1100 Old burning (570)

1180 Tamarack swamp (545) 2 on 4 1/2 W.

1210 Old burning

1400 Mixed burnings (350)

1425 Some of a creek flowing E

1500 2 on 5 1/2 W.

1620 Burning (535) 2 on 6 1/2 W.

1700 Tamarack swamp.

1825 Burning 2 on 5 1/2 W.

1875 (370)

1900 Strath line 3/4 mile W of 1/4 stake.

This quarter stake was later set by the surveyor
of the C. & N. W. R.R.

10.30 AM.

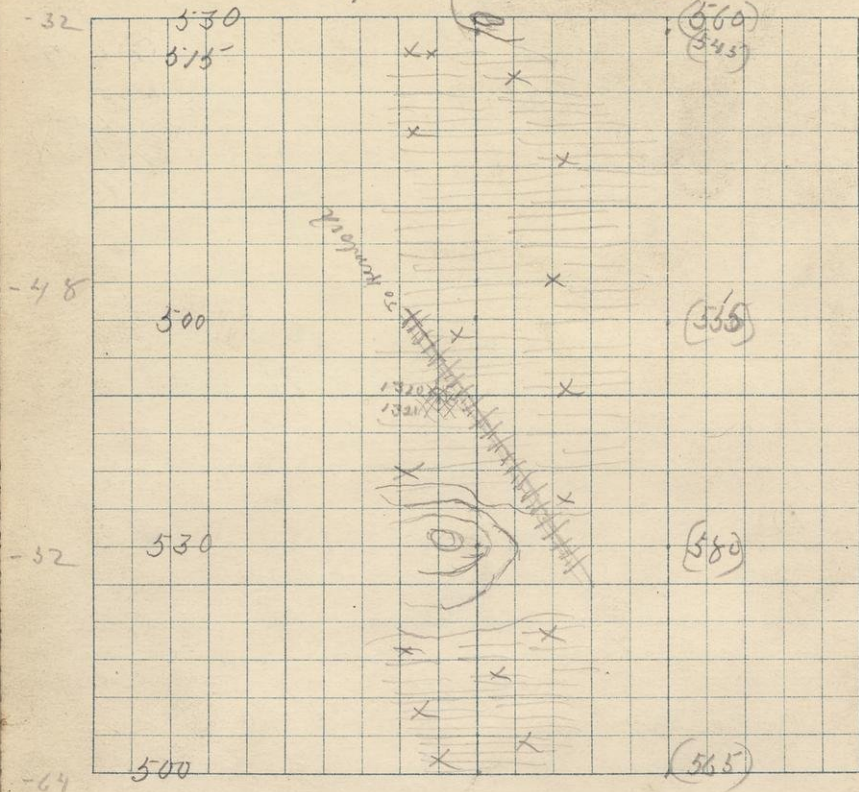
20 $\frac{1}{4}$ line

S. 11

$\frac{1}{4}$ line

T. 114

R. 33



$\frac{1}{4}$ Line of N. 11, 44, 33. Beginning at N. Tishah
 running S. 10.30 AM

0.

(560) var $5\frac{1}{2}^{\circ}$ W.

30 Tamarack Swamp

(543) var 5° W.

200

405

var $5\frac{1}{2}^{\circ}$ W

600

var $1\frac{1}{2}^{\circ}$ W

800

(553) var 30° W

1000

var 30° W

1065 C + 11 W RR. Branch from Crystal Falls
 to Hermiston.

1320 1000 N 1030 W. Strike N.

Conglomerate as shown by weathering

1321 Weathered specimen of the above (1320).
 1111

1200

var. 80° W.

1200 Old the bear with out who however made
 an offset about 100 paces W.

1300 Old bearing

1400

(580) var 20° W.

1600

(560) var 30° W.

1830 Tamarack Swamp.

2960 Thick bed limit $\frac{1}{2}$ part. (565) var 20° W

B.M. 501.01

Arrived, 565. —

12. M.

22

W 1/4 A

S.

11

T.

44

R.

33

+ 23

468

x x x

x x x

(465)

515

(493)

515

x x x

x x x

(495)

+ 18

505

x x x

x x x

(485)

505

x x x

x x x

(485)

560

x x x

x x x

(340)

+ 13

545

x x x

x x x

(330)

545

x x x

x x x

(330)

545

x x x

x x x

(330)

545

x x x

x x x

(330)

545

x x x

x x x

(330)

+ 6

515

x x x

x x x

(310)

530

x x x

x x x

(325)

515

x x x

x x x

(310)

+ 0

502

x x x

x x x

(542)

W 1/4 of Sect 11, 14, 33 beginning at S.W.
1/8 of State running N. 12.150 m

B.M. 302.17 Summit set 28.64 = 0.

0. Cedar swamp (312) Var 50 W.

30. Old burning (510) Var 3 1/2 W.

200 325 200 30 W.

30

1322 N. 360 W. 1360 Strike N 70° W.

Dip (?) 70°. Metamorphic schist.

1323 Conglomerate.

1324 Conglomerate. (These three seem to grade
1324 into each other)

1325 520

(360)
1325 520 N. 1500 W. Conglomerate.

223 Cedar swamp. (310)

760 Old burning 511

900

(310)

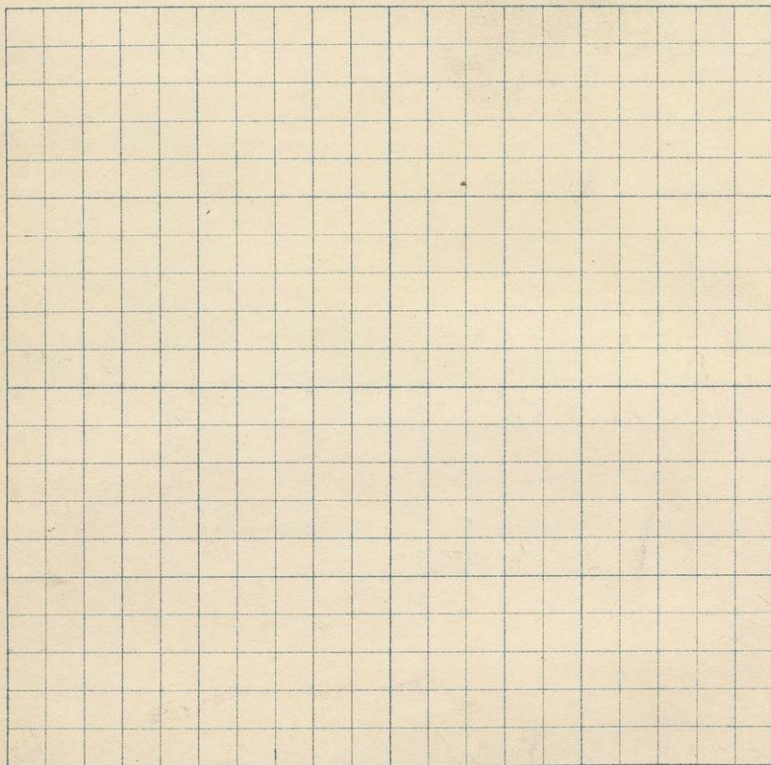
1326 N. 900 N 1500 W. Conglomerate

1327 " " " " " Coarser "

S.

T.

R.



1075 1075

2.30 P.M. (530)

1328 N. 1075 W. 1500. Metamorphic
greenstone.

1400 Burnt timber

(485) Van 1° E

1530 C + 12. W. D. D.

(485)

1600

(495)

1800

(495)

1930 Cedar Swamp

(465)

2010 Shale Sect line on 1/4th part (465)

3.30 P.M.

26

W 1/8 N

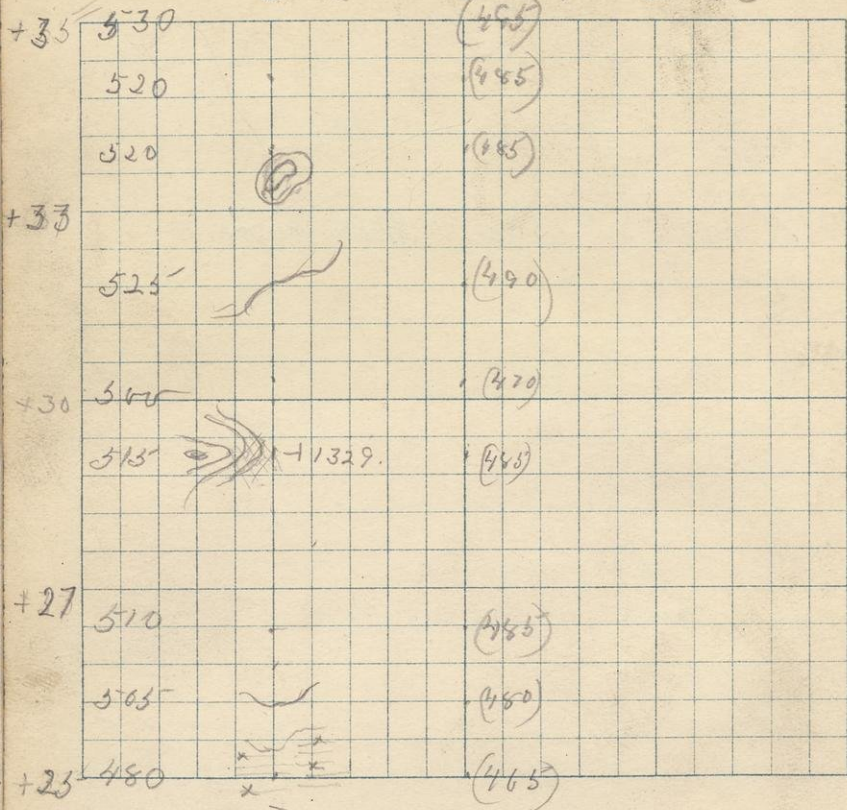
S. 2

T

41

R.

33



Tamarack swamp.

W 1/4 Sec 2, 11, 33, beginning SW
 1/4 stake (?) running N. 4.00 m

0 Tamarack Swamp (483)

130 Old burning (480)

200 (480)

400 (485)

600

850 Outcrop

1329 850 N. 1300 W. Schist (?)
 Strike EW. Dip 80° N. (?)

830. (483)

1030 Hardwood. (470) var 30 W.

1300 Barnt timber (490)

1505 Outcrop same as 1329.

1535 (525)

1660 (485)

1830 (485) var 30 W.

1960 Shuck line 16 paces W of 1/8 stake

B.M. 530.35

Arrived 495. 4.50 P.M.

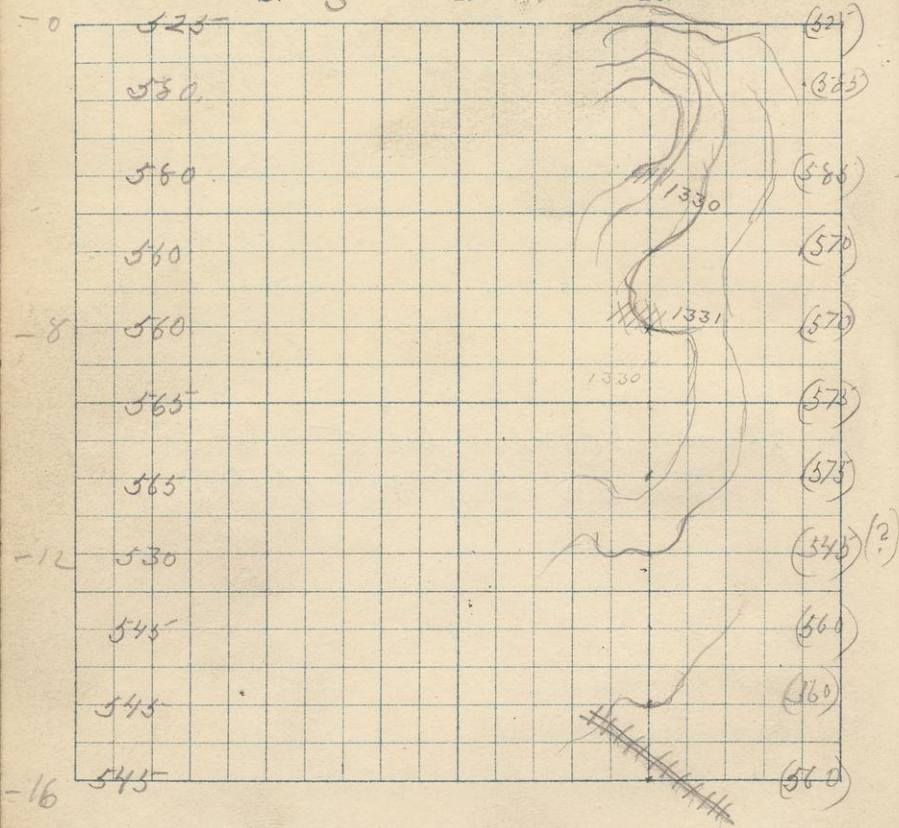
35

28 E. Sec 3m

S. 3

T. 44

R. 33



13

13

2, 3 June 30/91

29

E. Sect line of S. 3. 44 33 beginning at
N.E. corner running S. 7.28 AM.

B.M. 525.18 found at 28.88 20

O. Mixed timber (525)

74. Hardwood (585)

160 (585)

400 Outcrop

1330 1600 N. 300 W. Chloritic Shale

400 (585)

600 (570)

800 (570)

1000 (575) 8.25 AM

1200 (575)

Outcrop.

1331 1200 N. 300 W. Conglomerate.

1400 (543) (?)

1600 (560)

1800 (560)

1980 C + A.W. RR.

1995 Shale line + Cornport (560) 9. AM.

E. Sect line S. 10. & 33, beginning N.E.
corner part running S 9. AM.
O. Old Lanning (560)
(623)

1332 130

N 1886 W O. Fine & coarse conglomerate
seen best in weathering

223 Outcrop.

1333

N 1775 W O. Strike N 86° E
Schistose rock.

223

(600)
(390)

400

323 Outcrop.

1334

N 1475 W 30. Conglomerate.

600 Outcrops of conglomerate Cedar (560)

800

(575)

1000

(560)

1060

(370)

1200

(560)

1300 Old Lanning

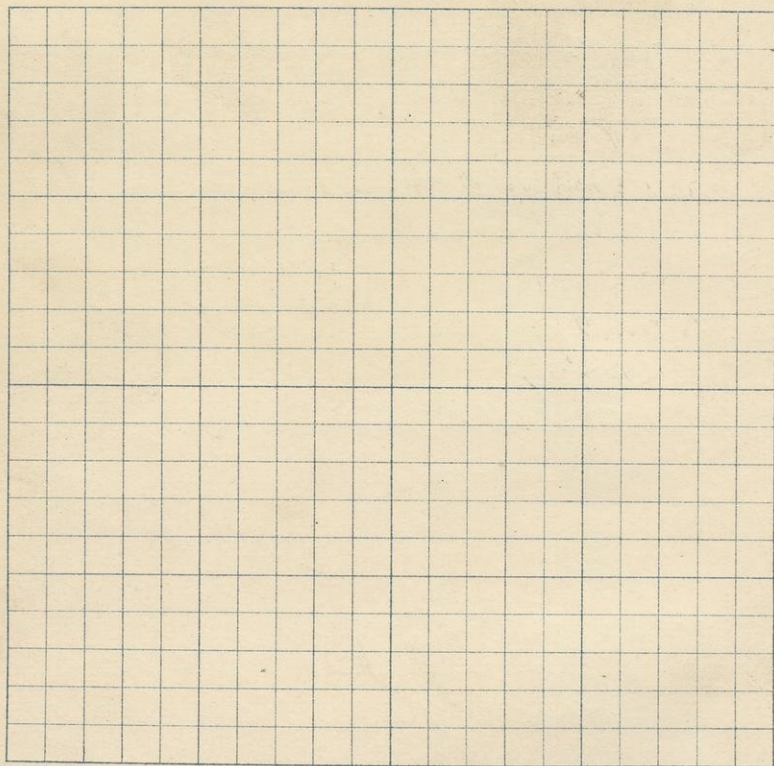
(540)

1400 Old Lanning

S.

T.

R.



1480 Cedar Swamp.

1600

(340)

1700 Old Farming

1725 Outcrop of conglomerate

1900 Cedar Swamp.

2030 Hatched Set line 30 paces E corner stake

B. M. 488.82.

Arrived 540. -

11.25 A.M.

-41

34 E $\frac{1}{8}$ line

S. 10

T. 44

R. 33

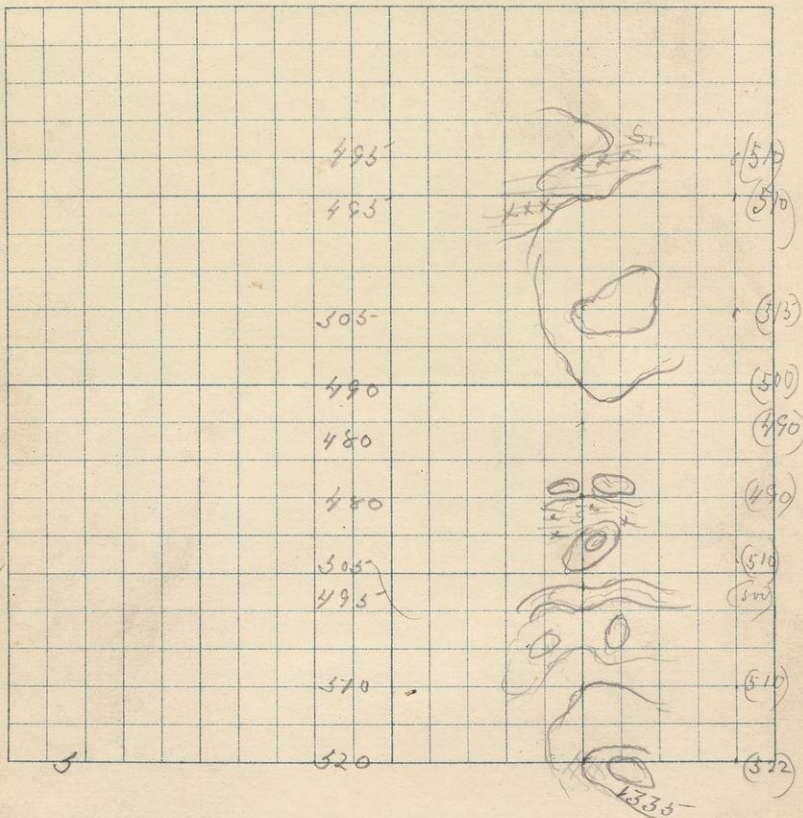
+20

+14

+10

+5

0



E $\frac{1}{8}$ A line of S. 10. 44, 33 beginning
at S.E. $\frac{1}{8}$ A stake running N. (12.30)

B.M. 522.73. Known as 18.8120

O. Harwood (522) 12.35 P.M.

1335 N O W O. Conglomerate.

60.

for 21° W.

200 Dead cedar (310)

200-300 numerous outcrops similar to 1335

400. (330)

530 (300)

520 (310)

600 sparse swamps. (300)

700 (East of swamps) Old logging with

cherry undergrowth (490)

900 (490)

1000 (300)

1200 (315)

Out crop of conglomerate.

1500 Cedar swamps (310)

1617 Mixed timber. (310)

1850 Swamps.

1830 Cedar & Birchwood.

2000 Stuck set line 100 paces W $\frac{1}{8}$ A just (505)

2-30 P.M.

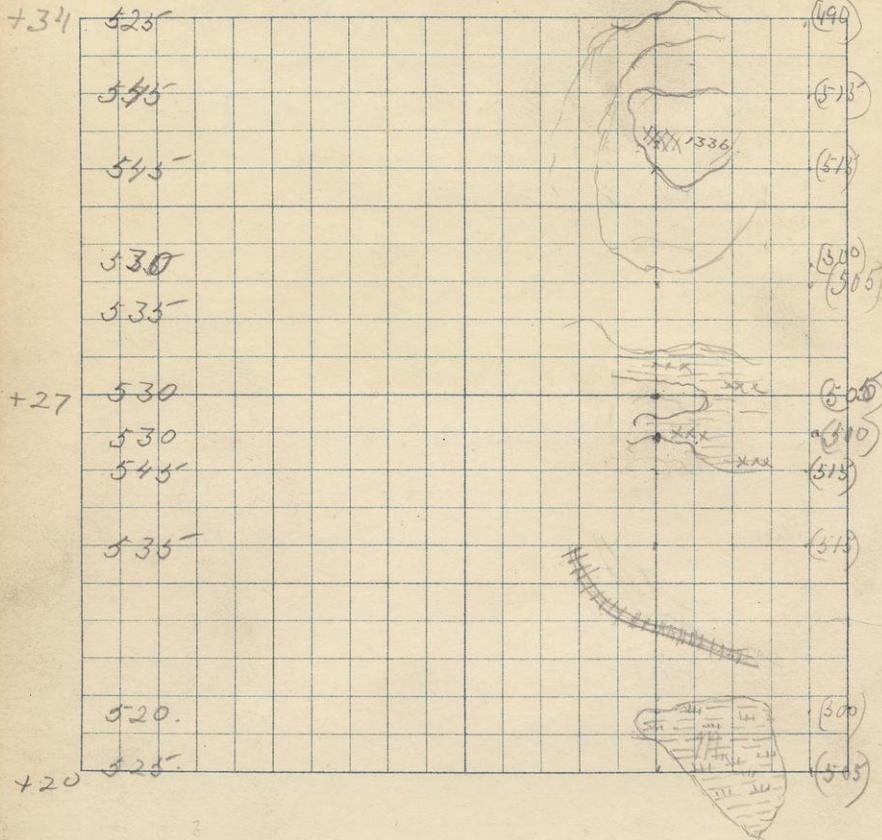
36

E 1/4 A

S. 3

T. 44

R. 33



E $\frac{1}{2}$ A / Sect. 3, 44, 33 beginning at
S.E. $\frac{1}{2}$ A stake running N. 10.30 P.M.

0. Hardwood (305)

95 Marsh.

130 Bunt timber (500)

375 O & N.W. RA. (305)

Hardwood.

600 (315)

800 (315)

895 Cedar swamp. (500)

940 Old running

1000 (305)

1030 Cedar swamp.

1110 Leaf swamp

1160 Hardwood.

1301 (305)

1330 Cedar swamp (500)

1400 Hardwood.

1100 (315)

1675 Outcrop.

1336 N 1675 W.O. Conglomerate

1800 (315)

2022 Struck the line 16 ft E of $\frac{1}{8}$ A stake

B.M. 524.60

Amund 490. —

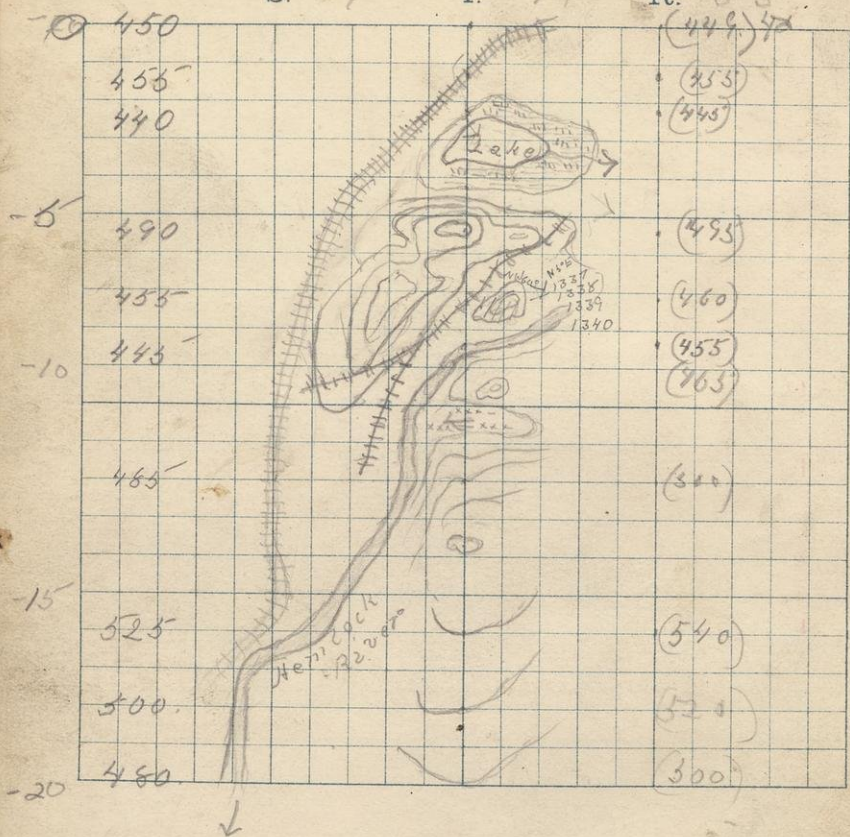
4. P. M.

38 $\frac{1}{4}$ Line

S. 4

T. 327

R. 33



July 1/91

1/4 low sect. 4. 44, 33 beginning
at N. 1/4 stake running S. 7.26 A.M.

B. M. 449.28 Parvot set 28.88 #164

0. Cedar swamps (449)

120. C + A. W. R. R. (453)

220. Swamps + Lake. (445)

350. Thurf. Lake.

424. Chopping

(342) (455)

1337 7561270 W 970. Strike N 5° E Dip 60° NW.

Gasway schist

1338 There four rocks are found within 50 ft of each other

1338 1337, 1339, 1340 sum to grade into

1340 each other. 1338 May be a chyme cutting the former.

14

715 Road. (460)

850. Hemlock near 15 paces with (455)

900. O. Stems of schist + conglomerate (460)

980 Cedar swamps.

1075 Cedar M

1200 Handwood (500)

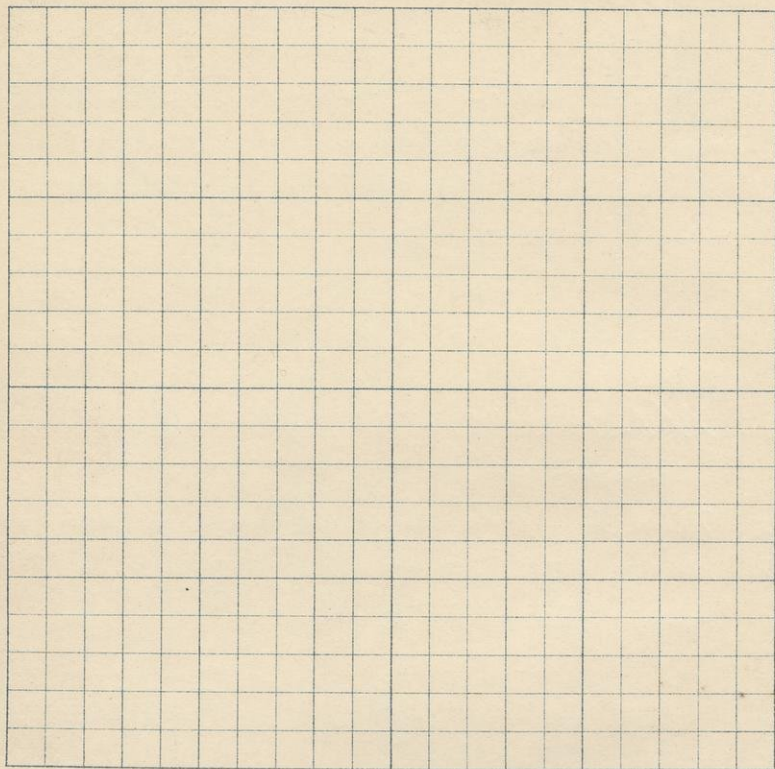
1385 (555)

1650 (340)

S.

T.

R.



1600

2034 Struck by A & 1/2 gnt.

(520)

(500)

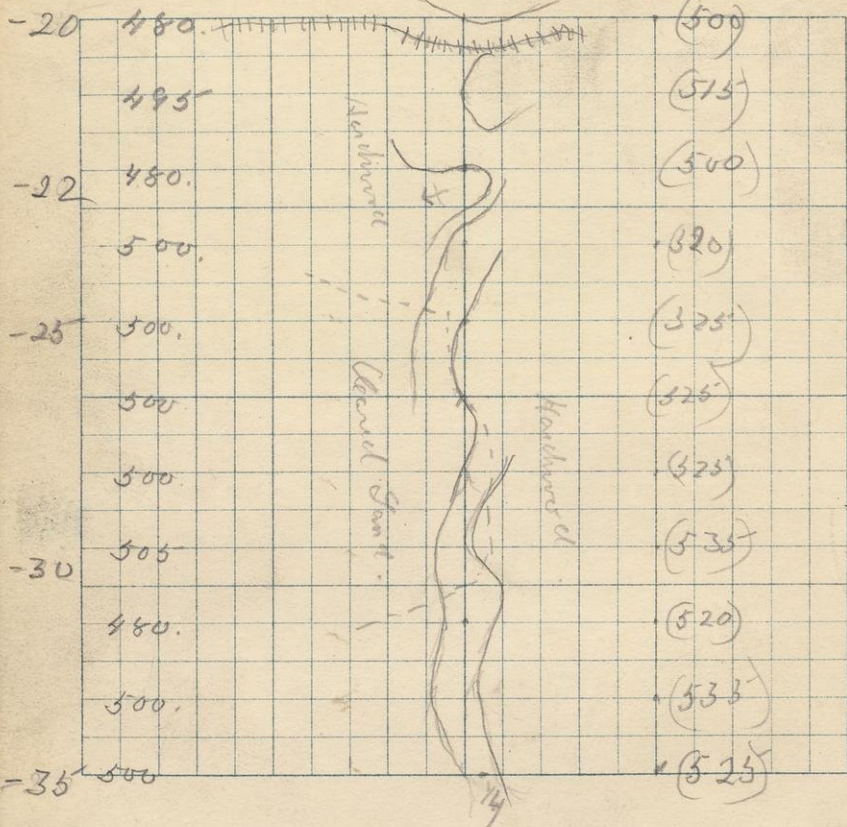
9.30 AM

42 $\frac{1}{4}$ line

S. 9.

T. 44

R. 33



1/4 mile Sect 9, 44, 33. Beginning at N
1/4 post running S 9.35-AM.

O. Cedar hardwood. (300)

90. Road from Kendrick to Crystal Falls. 2 mi S.W.

200

(515)

400

(505)

600

(520)

800

(525)

1000

(525)

1060

2 mi O

1200

(525)

1300

2 mi 1/2 E

1400

(535)

1600

(520)

2 mi 1/2 W.

1800

(535)

1850

2 mi O.

1960. Struck Sect line 52 paces W 1/2 at (525)

B. M. 500, 94

Arrived 535-

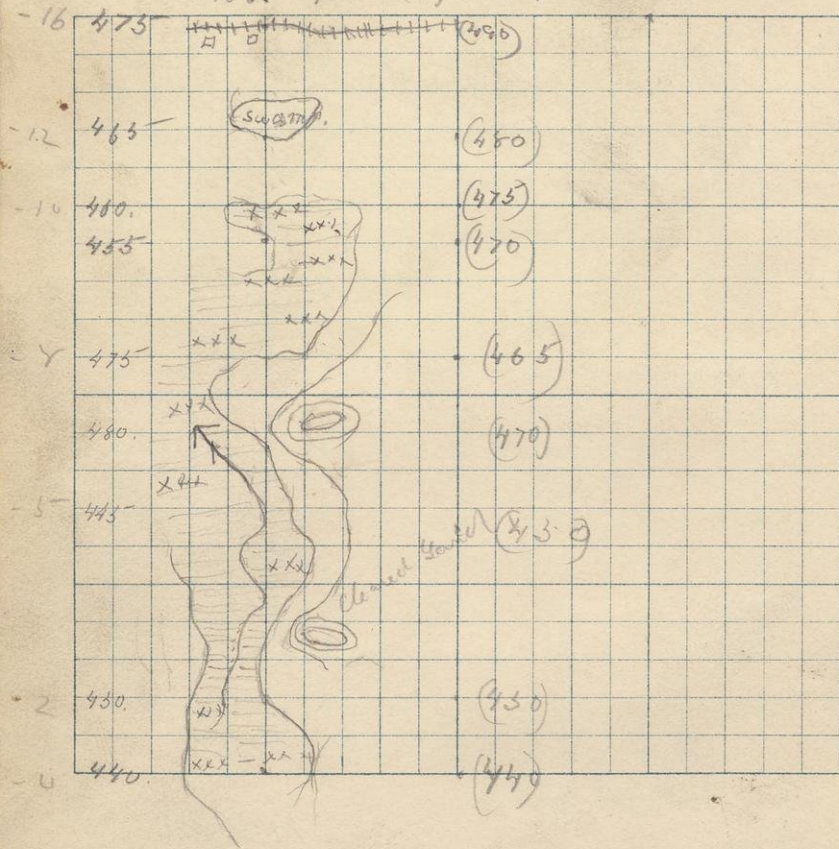
11. AM.

-33-

44 W / 5A

1/8 S. 9 (490) T. 44

R. 33



W $\frac{1}{8}$ th Sect. 9, 44.33 beginning at
S. W $\frac{1}{8}$ th stake running N. V 11.07 A.M.

B.M. 442.99. Tunnel set 28.95 = 0

O. Cedar swamps. (440) var $3\frac{1}{2}^\circ E$

200

(456)

344

var $1\frac{1}{2}^\circ E$

633

460 Crest 5 ft wide

635. Old burning

(430) var $2\frac{1}{2}^\circ E$

900

(476)

1100 Cedar swamps

(465)

1235 Old burning

1400 Cedar swamps

(420)

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

1500 Mixed timber

(475)

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

1690. Swamp

1770 Hardwood.

1970 Road to Crystal Falls. (490)

Test pits.

2048 Struck line 12 paces E (490) 1.18 P.M.

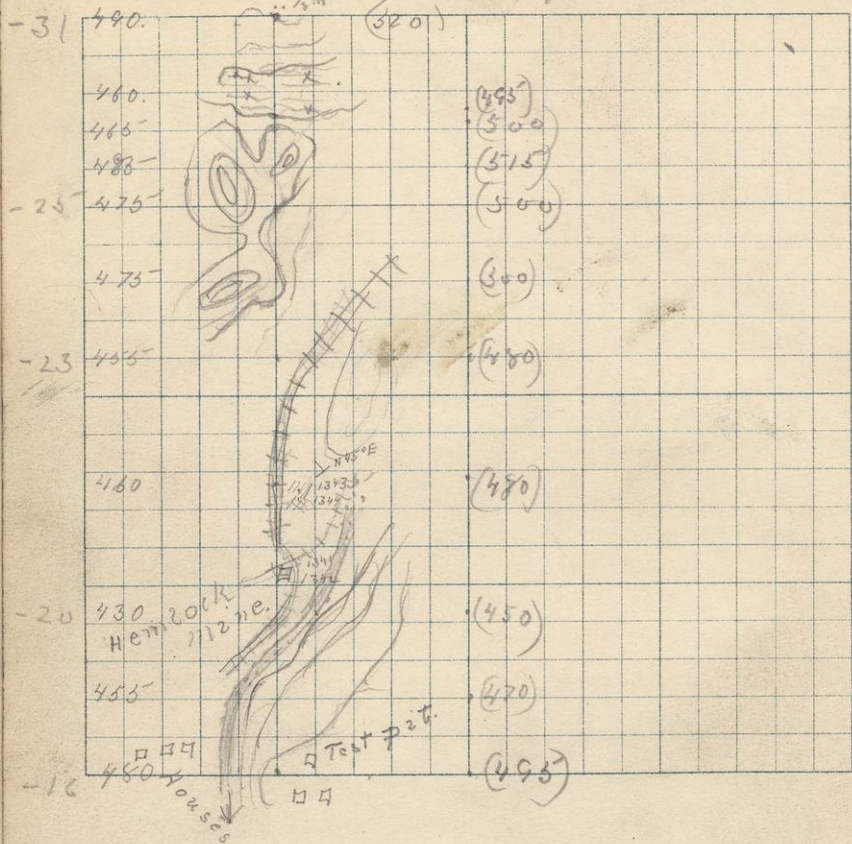
490.

46 W $\frac{1}{8}$ ★

S. 4

T. 44

R. ३३



W $\frac{1}{2}$ N Sect 4, 44.33. Beginning
 S. W. $\frac{1}{2}$ N stake running N. 1.35 P.M.
 O. Clearing (495) ϑ or 7° E
 200 (370)

325. Hemlock mine 15 paces wide. (450)

380. R.R. switch.

520. Shaft of Hemlock mine

1341 Specimen of good ore from the
 Hemlock mine.

1342. Specimen of lean ore from the
 Hemlock mine.

1343 N 750 W 1860. Strike N 45° E.
 Schistose rock containing pebbles of gneiss.

1344. N. 740 W 1860. Greenstone.

795.

(480)

1100 Hardwood.

(180) ϑ . $2\frac{1}{2}^{\circ}$ W.

1300.

(300)

1400

(300) ϑ . 3° W.

1600

(315) ϑ or 5° W.

1700

1710 Tom track Swamp.

(495)

1860 Cedar Hardwood

2020 Shrub belt line 18 paces E of $\frac{1}{2}$ N point (520)

B.M. 489.60

Arrived 520. —

3.25 P.M.

48 E. profile

S.

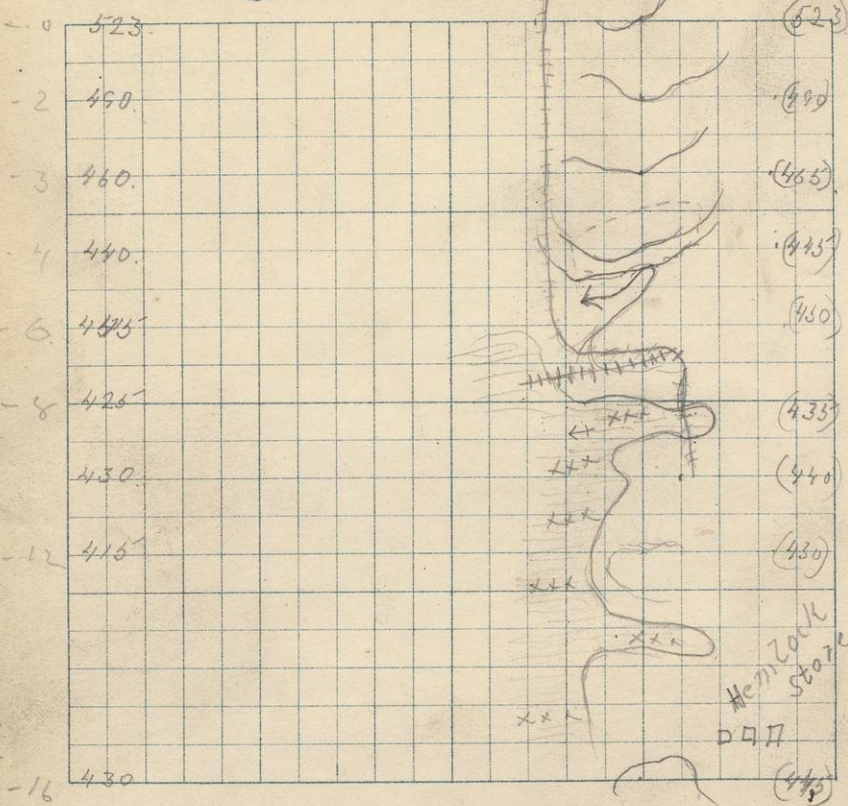
5

T.

44

R.

33



July 29,

49

E Sect line 5-44.33 beginning at NE corner running S. 7.26 AM.

B.M. 523.55 Buried at 28.88 E 101

O. Hardwood.

(323)

200

(490) Var 6° E

400

(465) Var 11° E

400 Buried marking

600

(445)

652 Oak 3 ft. wide

Var 10° E

800 Cleared land

(450)

865 Good road. wagon

900. Wagon trail

Var 4½° E

1000 Cedar swamp.

(435)

1100 Cleared land.

1200

(440)

Var 2° E

1400

(450)

1540 Cedar swamp.

(435)

1640 Cleared land

1955 thick line 14 paces W of corner post (445)

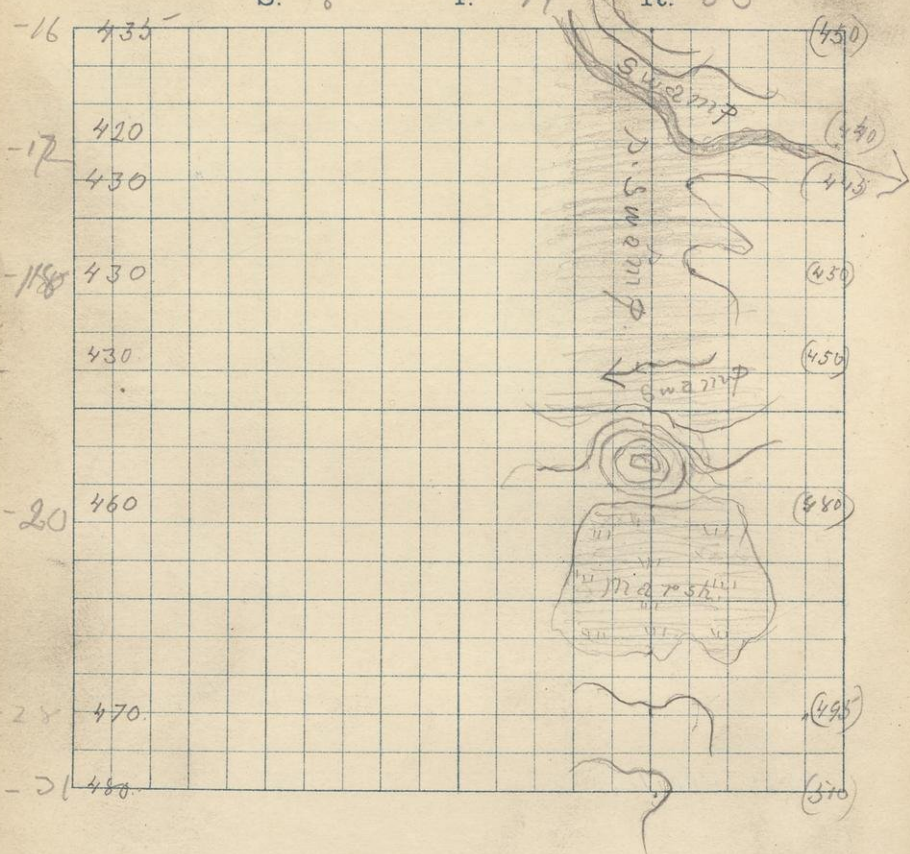
8.48 AM.

50 E 4m

S. 8

T. 44

R. 33



E set line of S. 8, 44 33 beginning at
NE corner running S. 9.05 AM
0. Cleared land (430) U. 2 1/2 E

100 Swamp

200 Hemlock river 50 paces wide. (440)

407

(445) U 6 E

562 Burnt land

(450)

625 Cedar Swamp.

(450)

885 Creek 50 paces wide.

(450)

1000 Hardwood.

1140

(513)

1250 Marsh.

(480)

1625 Burnt. land.

var 2 1/2 E

1800

(495)

2020 Shuck set line 11 paces W of 1/2 A post. (510)

B.M. 479.27

Arrived 510. —

10.12 AM.

— 31

52 E 1/4 K line

S.

8

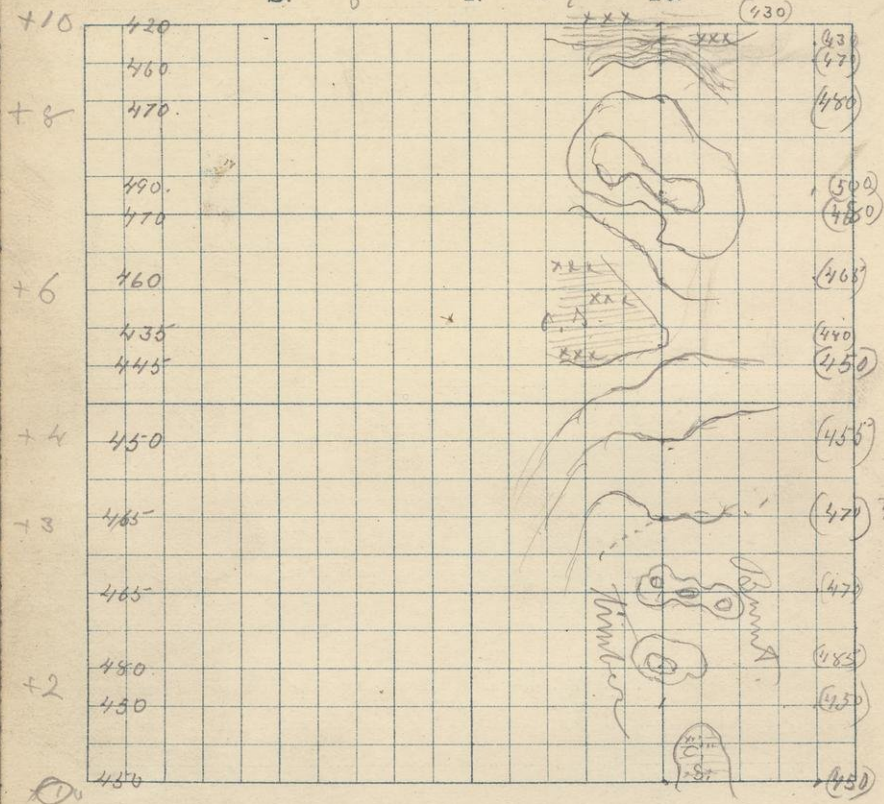
T.

44

R.

33

(430)



E 1/4th Sect. 8 44, 33, beginning at S.E. 1/4th stake
 & running N. 10.30 AM.

B.M. 150.34

Amundt 28.95-20

0. Burnt land.

(450) 25.6°E

200

(450)

300

(485)

500

(470)

600

25.5°E

700 Hardwood.

(470) -

900

(455)

1100

(450)

1160 Cedar swamp.

(440)

1200 Burnt timber

Run at variation of 5°E.

1320

(465)

1500

(480)

1560

(500)

1800

(480)

1900

(470)

1945 Cedar swamp.

(430)

2008 Stuck but line 3 paces E of 1/4th post (430)

11.45 AM.

54 E 1/8 A

S. 5

T. 44

R. 33

+16

535

(519)

+14

525

505

(510)

(490)

475

445

435

(460)

(430)

(420)

440

(420)

(440)

460

450

(430)

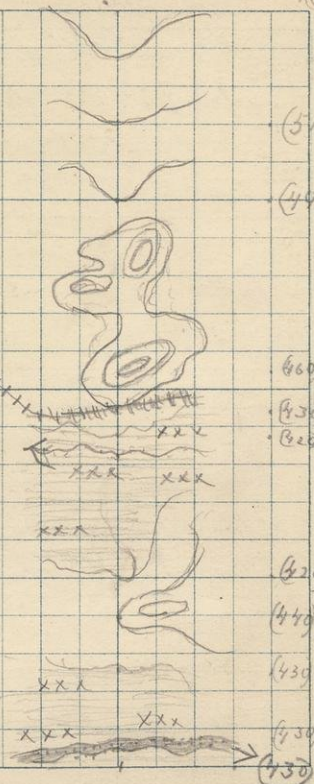
440

440

(430)

(430)

+10



E $\frac{1}{8}$ M. Sect. 5, 44, 33. beginning at SE $\frac{1}{4}$ Sect.
of Sect. 5 running N 11.50 A.M.

0.	Cedar swamp.	(430)
64.	Henlock over 20 paces wide.	(430)
270.	Burnt slaking	(430)
400		(440)
500	Cedar swamp	(420)
815	Creek 5 ft wide	
940	Wagon road.	(430)
1030		(460)
1270	Hardwood	(440)
1300		(480)
1700		(510)

1944 Struck Sect line 27 paces E of $\frac{1}{8}$ M stake

B. M. 5-36.88

Arrived. 5-20. —

1.15 P.M.

+16

56 $\frac{1}{4}$

S.

6

T.

44

R.

33

0 470

(471)

-6 490

(495)

-10 485

(495)

-13 505

Balsam
+ cedar

(520)

510

(525)

-18 520

(535)

515

(530)

515

-21

July 7/91

57

1/4 m. det 6.44.33. Beginning at N 1/4 post
running S. 8.15 AM

B.M. 471.13 the red at 29 = 0

O. Tamarack Swamp.

(471) var 3 1/2 E

240

var 4 1/2 E

350

(495)

1100

(495) var 4 1/2 E

1220

var 4 E

1300 Balsam Birch & cedar.

var 4 1/2 E

1475

(520) var 5 E

1520 Maple.

1640

(525)

1700

(535) var 5 E

1770

var 8 E

1820

(530)

2015, struck det line 75 paces W of 1/4 post.

(530)

10.05 AM

58 $\frac{1}{4}$ Lma

S. 7

T. 44

R. 33

33

-21

5	7	5
---	---	---

575

(535)

570

(530)

510

530

500

320

480

30.5

-26 495-

495-

1300

490

(515)

30	485
----	-----

48.5

(575)

485

152.5

48.5

(375)

- 37

1/4 mile Sect 7. + 4 33. Beginning at N $\frac{1}{2}$
 part running S. 10.15 AM
 0. Good Maple (535) Jan 7°F
 30. Wagon road.
 200 (530)
 235 V. 6° E
 300 V. 6° E
 400 (530)
 600 (520) V. 6° E
 680 Cedar swamp (505)
 975 Hawthorn + spruce (505)
 1100 (520)
 1130 J. 6 $\frac{1}{2}$ ° E
 1200 (533)
 1300 (575) V. 6° E
 1600 (575)
 1800 Birch maple + cedar (515)
 1937 Struck line + 1/4 part (573)
 B. M. 482.8'
 Arrived 5:15 P. M.
 - 33

11.55 AM.

60 W. $\frac{1}{8}$ S.

S.

7

T.

44

R. 33

0

530

(530)

525-

(525) ±

515-

(515) (?)

505-

(505)

490

(490)

495-

(495)

485-

(485)

470

(470)

465

(465)

460

(460)

0

473

(473)

Hatchwood

Hatchwood Farming

Farming

Hatchwood

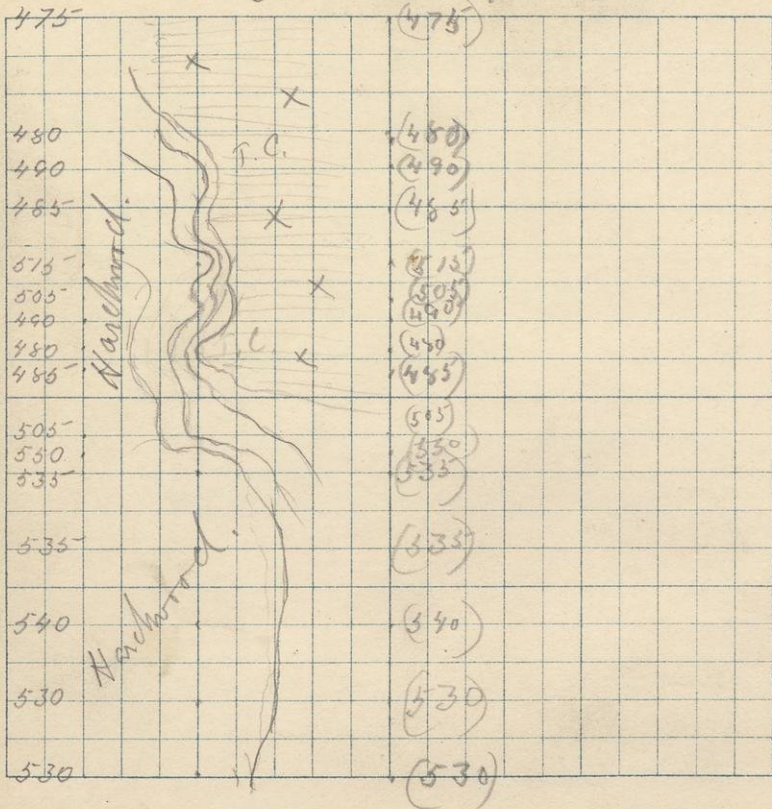
W $\frac{1}{2}$ A line of Sect 7. 44. 33 beginning at
 S. W. $\frac{1}{8}$ Altitude running N. 2. 10 P. M.
 B. M. 473.06 Summit alt. 28.85 = 100 ft.
 0. Old burning. (473) $\vee 6\frac{1}{2}^{\circ}E$
 125. Cedar swamp. (460)
 320 (465) $\vee 8^{\circ}E$
 475. Old burning
 500 (470)
 700 (485)
 750 Maple. $\vee 8^{\circ}E$
 900 (495)
 1000 $\vee 8^{\circ}E$
 1100 (498)
 1300 (505) $\vee 7^{\circ}E$
 1500 (515)
 1700 (525)
 Summit falling the above should (500 \pm)
 1800 $\vee 9^{\circ}E$
 1960 thru Sect. line 8 paces W of $\frac{1}{2}$ A post
 Wagon road. (530)
 2. 10 A. M.

62 W $\frac{1}{8}$ A

S. 6

T. 44

R. 33



W $\frac{1}{4}$ sec. line of Sect. 6. 44. 33 beginning
 S. W. $\frac{1}{2}$ part running N. 2.15
 0. Myph. (good) (330) V. 8° E
 205 (330) V. 9° E
 375 (340) V. 9° E
 500 Cedar & birch. in yph. (535)
 800 (335) V. 9° E
 860 (330)
 900 2.30 P.M. (505)
 1000 ~~500~~ V. 9° E
 1070 (485)
 1120 Tamarack swamps (480)
 1205 Hardwood. (490)
 1250 (505)
 1330 (315)
 1300 (485)
 1600 (490) V. 8½° E
 1625 Tamarack swamps (480) V. 8° E
 1800 V. 8½° E
 2030 thru 2 sec line 17 paces E of 1/4 sec part.
 Arrived 475
 B. M. 474.97 4. P. M.

64

E. Ym

29.1

S.

1

T.

44

R. 34.

Jm

0

560

(560)

570

(570)

580

(580)

580

(580)

560

(560)

560

(560)

555

(555)

545

(545)

535

(535)

540

(540)

550

(550)

-3

July 4/91

Range line between 33.34 N

65

E Line Sect. 1. 44.34 beginning at N.E.
corner running S. 8.30 A.M.

B.M. 559.4 far end set. 29.1 - 0 ft.
d. Good maple. (560)

200

(570) V. 7° E

400

(585)

600

(380)

800

(360) V. 5° E

1000

9.00

(330) V. 40° E

1200

(535)

1400

(545)

1600

(535)

1800

(540)

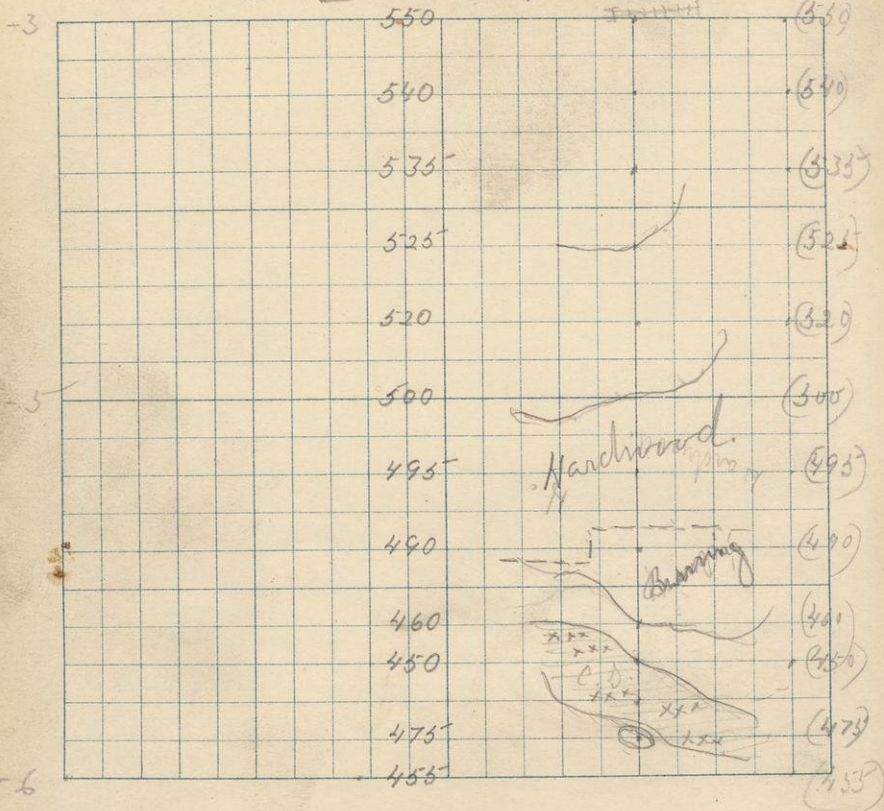
2018 thick set line + corner post. (530)
Wagon road 9.30 A.M.

66 E. Line

S. 12

T. 44

R. 34



Range line between 33.34

67

E. Line of Sect 12 44.34 beginning at
N.E. corner post & running S. 9.30 A.M.

O. Good maple (530)

200 (540)

400 (535)

Variation according to Range line V. 6° E

600 (525)

800 (520)

1000 Cedar rough & birch. 10.20 A.M. (500)

1200 (495) V 5° E

1400 Old burning. (490)

1600 (460)

1700 Cedar average (450)

1880 Old burning

1900 (475)

2015. Struck Sect line 12 goes W of corner post.

B. M. 449.36

Arrived 455. —

11.03 A.M.

—B

68 E 1/2 A.

S.

12

T.

44

R. 34

520

525

535

535

525

525

510

495

475

450

435

425

(520)

(525)

(535)

(535)

(525)

(515)

(510)

(495)

(475)

(450)

(435)

(425)

Handwood

Brimm

Handwood

Brimm

E 1/4 Sec. 1244, 34, beginning at S.E. 1/4 M
part running N 12.03 P.M.

B.M. #23, 35 turn out. 28.84 = 200 ft

0. Old burning (325) V. 7° E

30. Creek 5 ft wide

50 ^{Small} Cedar swamp. (435)

310 Creek 4 ft wide. V. 7° E

300 Old burning (450)

330 (475)

700 (495) V. 6° E

900 Hardwood 12.40 P.M. (510) V. 6° E

1000 (515)

1030 Burning

1200 (525)

1350 Hardwood. V. 6 1/2° E

1400 (535)

1460

1600 Burning (535) V. 7° E

1800 Burning (525)

1850 V. 6 1/2° E

1925 Hardwood

2020 thick line 42 paces W. of 1/4 M station

Wagon road. (529)

1.40 P.M.

70 E 1/4

S.

1

T.

44

R.

34

-4

570

(570)

565

(565)

555

(555)

555

(555)

565

(565)

570

(570)

565

(565)

560

(560)

545

(545)

535

(535)

520

(520)

-6

-9

(3) (3) (3)

Archaeol.

(3) (3) (3)

E. $\frac{1}{8}$ A det 1.44.34 beginning at SE
 $\frac{1}{8}$ A just running N. 1.45 P.M.

O. Brad. H. Orchard. (320) V 7°E

500 (330) V 7°E

400 (345) V 7°E

600 (365) V 9°E

800 (365) V 7½°E

900 V 7½°E

1000 2.22 P.M. (370)

1200 (365)

1300 V 9°E

1400 (358)

1600 (353) V 8°E

1800 (365)

2003 Stuck det line + $\frac{1}{8}$ A just.

B.M. 561.64

Amrid. 570. —

3.07 P.M.

-9.

72 W. 1/4

S.

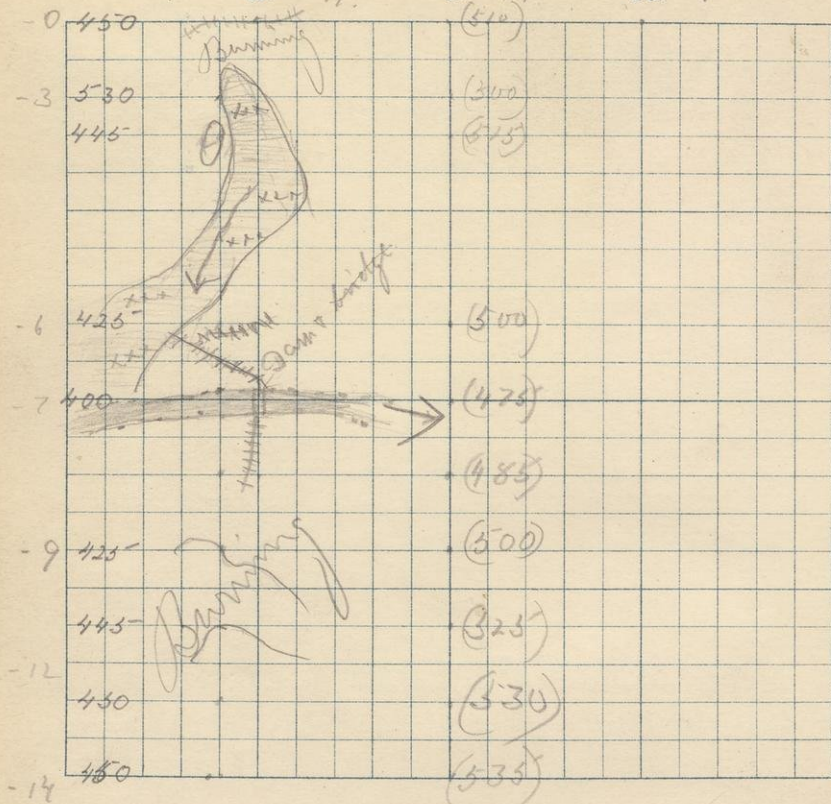
11.

T.

44

R.

34



July 9/91

W $\frac{1}{8}$ N Set 11.44, 3.4 beginning at
 N.W $\frac{1}{8}$ N just running S. 8.20 AM.

Assumed Elevation 510, 29.73 = 510
 O. Road. Old ^{new elevation} burning with underbrush. (510) - 1.5

200 (500)

300 (525)

500 Cedar swamp. (500)

590. Creek 3 ft wide

700 Old burning

800 8. AM (500)

820 Wagon road.

900 " "

1000 Paint river 50 paces wide. (475)

1200 Old burning with underbrush (483)

1400 (500)

1600 (525)

1800 (530)

2035 thick line 29 paces E of $\frac{1}{8}$ N just

B.M. 453.87

Assumed 535. - 68 8.45 AM.

Burn by needle at 3° variation E.

B. M. 453.87

Corrected found 487.

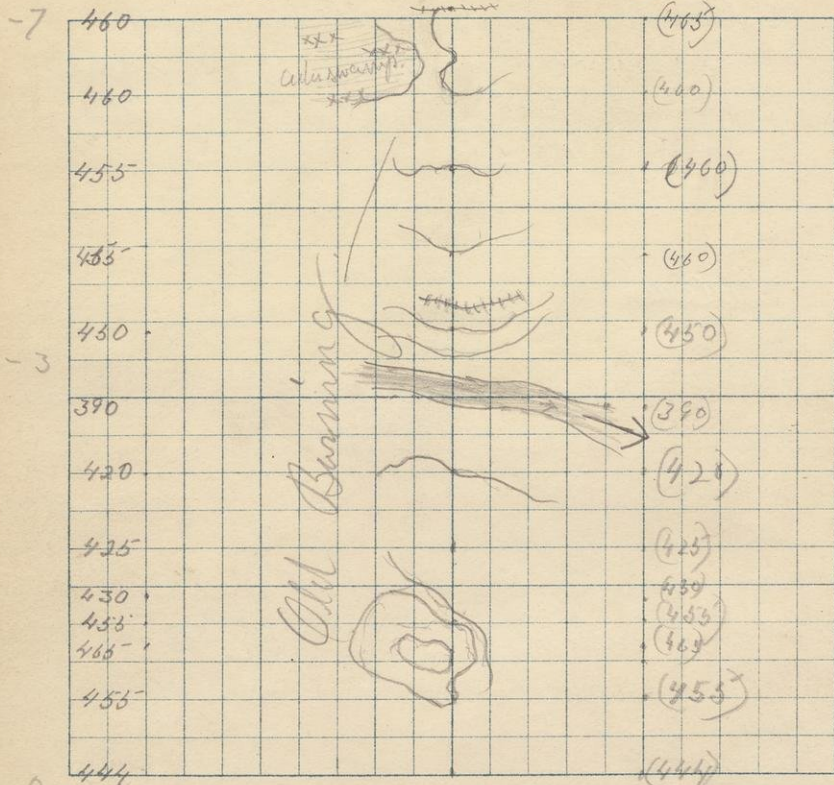
-14.

74 $\frac{1}{4}$ Line

S. 11

T. 44

R. 34



0

1/4 Line Sect 11, 14, 34 beginning at S
1/4 post running N. 9.05 AM.

B.M. 444098. turned at 29.03 = 0°

0. Old barrow. (444) 2540 E

200 (453)

325 (465)

400 (453)

430 (430)

600 (423) 23° E

800 (420)

1090 about 60 paces wide (390)

1075 9.35 AM. (450)

1245 Wagon road

1360 (460) 23 1/2° E

1400 (460)

1800 (460)

2040 thru ch Sect line 20 paces E of 1/4 post. (465)

Wagon road.

10.25 AM.

1/4 Lin Sect. 2 44,34 beginning at S 1/4 pt
 & running N. 10.30 AM.

O. Old burning. (465) 24°E

200 (460)

400 (475)

600 (470)

800 (470)

1245 N. 880. W. 1000. Strike N 60°E

Dip. 65° ~~is~~ ^{is} ~~is~~ ^{is} having a schistose character
 in some places.

1000 11.23 AM. (470)

1080 Dead cedar swamps. (460)

1230 Outcrop same as 1345

1280. Old burning (470)

1320 (490)

1400 Dead cedar swamps. (475)

1475 Old burning (475)

1500 Outcrop same as 1345

1600 "

1346 N 1600 W 1000 Strike N 80°E Dip 80° N.W.
 Same as (1345)

1600 (305)

1650 Dead cedar swamps (495)

1750 Old burning

1800 (515)

1978. Shuck line 12 paces E of 1/4 pt. 12.35 P.M.

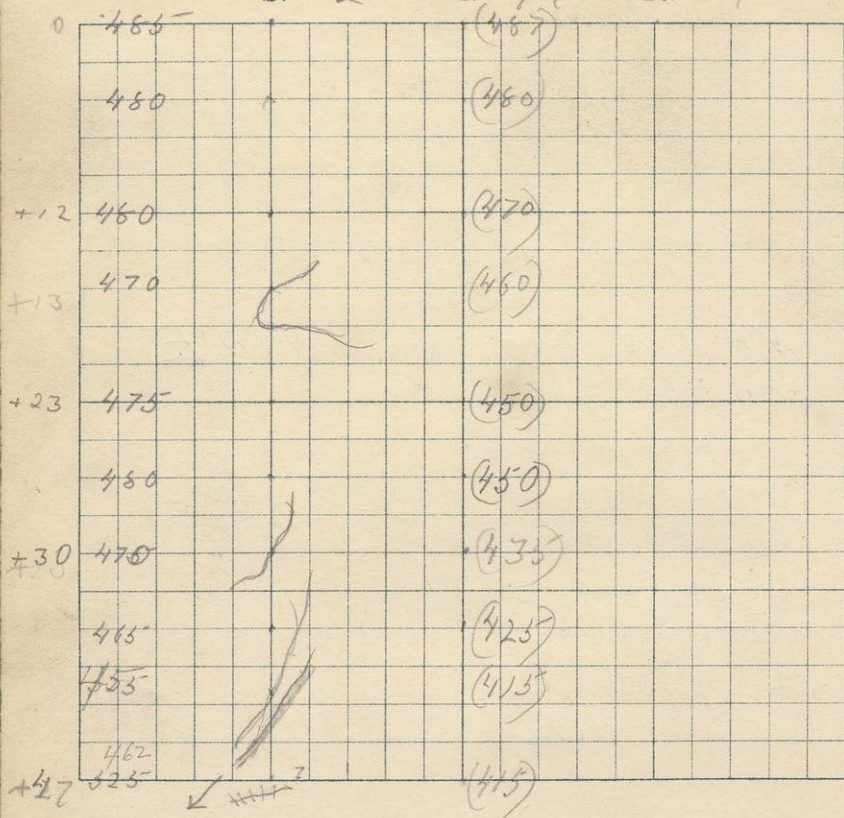
B.M. 467.88. Shuck 490. - 73

78 N 1/2 S 81

S. 2

T. 44

R. 34



W $\frac{1}{8}$ th of Sect 2. 44. 34 beginning at
NW $\frac{1}{8}$ th just crossing S. 12.40 P.M.

B.M. 487. 99 Above 1st NT 29.61 = 0 ft

O. Dead cedar swamps. (487)

200

(480)

316 Catery. Similar to 1345, 1346 Strike N. 88° E

500

(470)

700

(460)

800

2.25 P.M.

(460)

1000

(450)

1200

(450)

1400

(435)

1600

(425)

1760 Slide swamps.

(415)

1820. Creek 20 ft wide.

1992. Struck Sect. line & $\frac{1}{8}$ th just

(415)

Elevation 442

3.02 P.M.

B.M. 527.57

527

Arrived 480.

4.02 P.M.

- 47

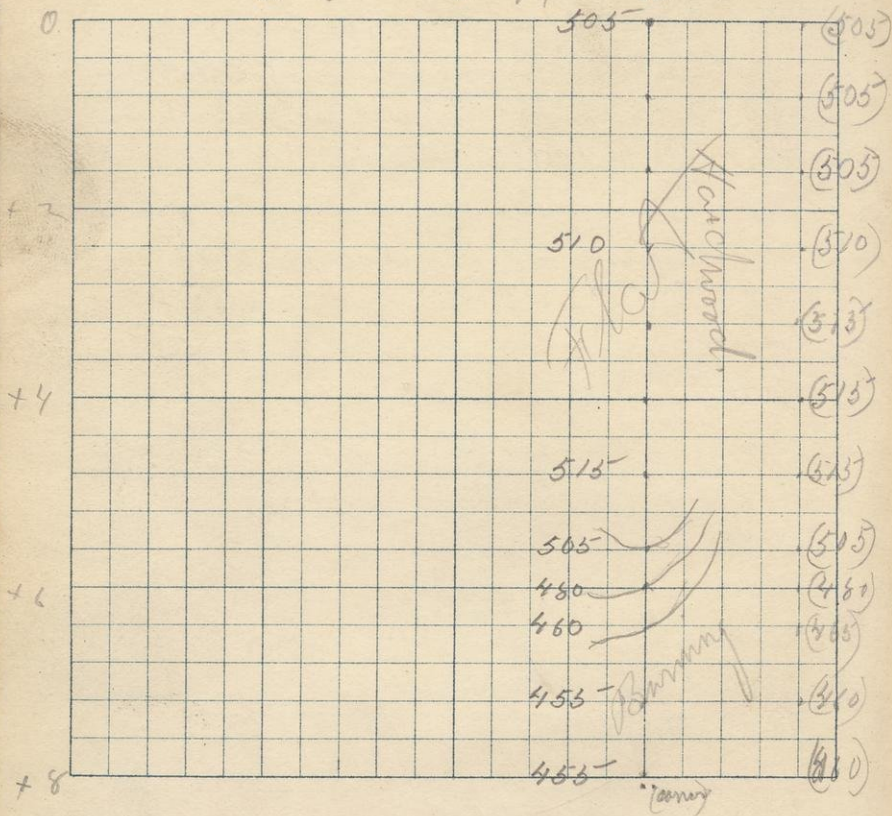
2.2

80 E. 1st line

S. 3

T. 44

R. 34



July 7.

E test line of test 3.44.34 beginning
at N.E. corner of test running S. 7.25 A.M.

B.M. 505.35 Arrived test 29.11 = off.

O. Mixed timber.

(505) $24^{\circ}E$

200

(505)

250

$24^{\circ}E$

400 Hardwood Mostly maple. (505)

500

$23\frac{1}{2}^{\circ}E$

600

(510)

800

(513)

1000

(515)

1200

(515)

$2^{\circ}30'E$

1400

(505)

1500

(480)

$24^{\circ}E$

1600 Old burning ^{underbrush} into

(505)

1800

(460)

2035 struck line 10 paces E of corner post.

(460)

8.35 A.M.

82 E. Section line

S.

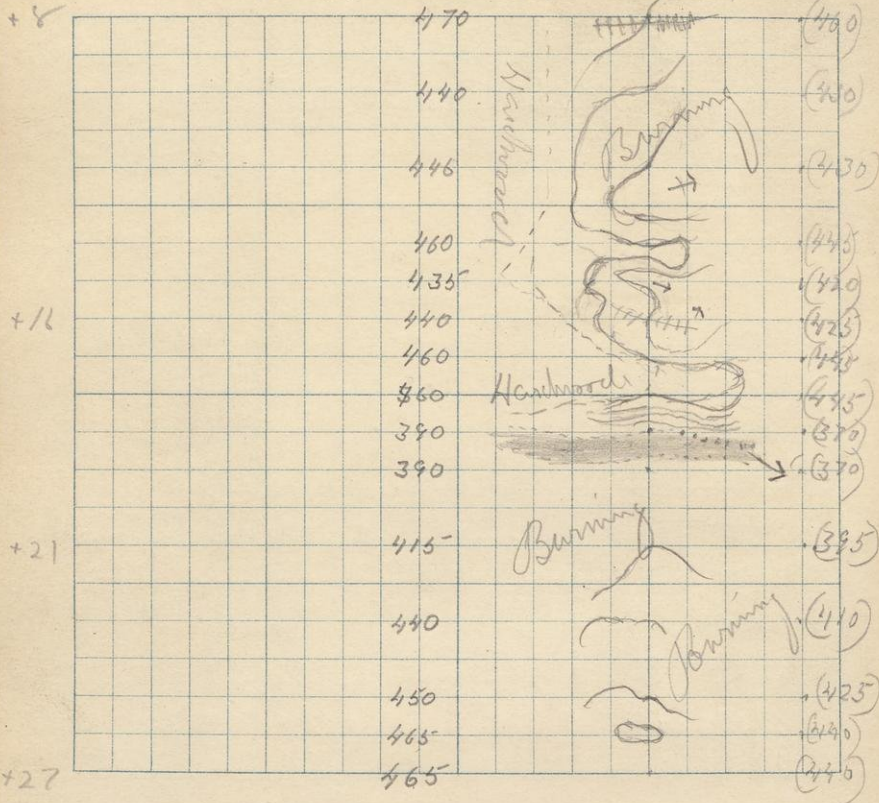
10

T.

44

R.

34



E. set line bet 10. 44. 34 beginning
at N.E. corner ~~beginning~~ S. 8. 33 AM.

0. Old barning with underbrush. (460) $21\frac{3}{4}^{\circ}$ E

10. Wagon trail.

200 (450)

400

(430) $212\frac{1}{2}^{\circ}$ E

600

(445)

700

(420)

800 Wagon trail to dam 9. 35 (423)

900 Northwell.

(445)

1000

9. 11 AM

(445)

1100 Point near 73 paces circle (370)

1200 Old barning with underbrush (378) 213° E

1400

(395)

1600

(410)

213° E

1800

(425)

1900

(440)

1940 struck line 21 paces W of corner post

B.M. 467.98.

Arrived 440 —

11. 05 AM.

3

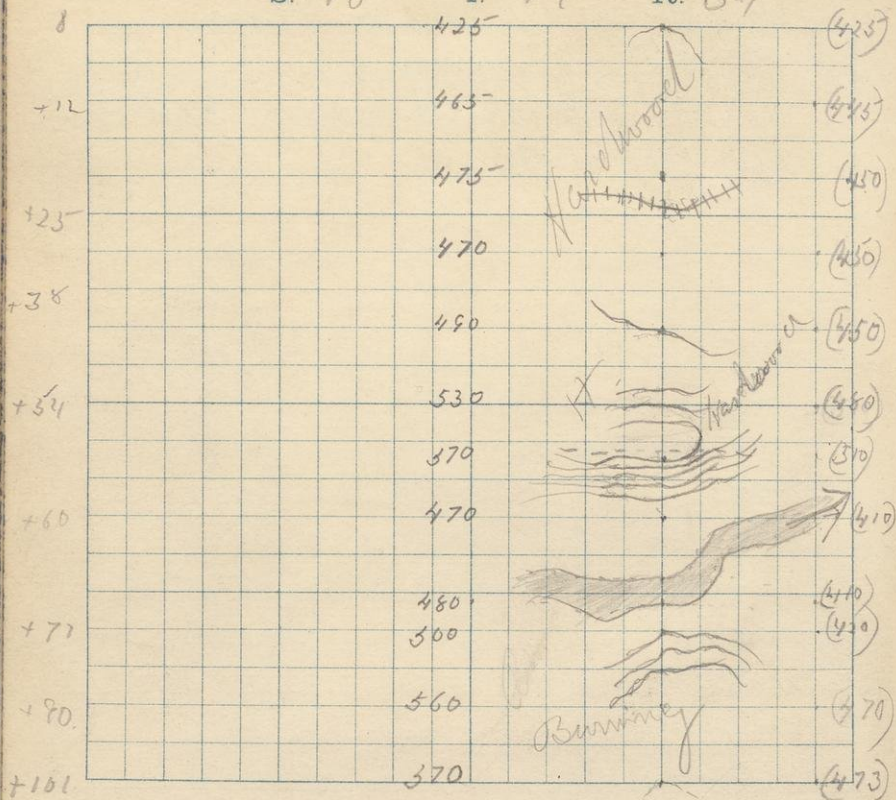
27

84 E 1/3 #

S. 10

T. 421

R. 321



E $\frac{1}{8}$ th line of Sect 10, 44, 34 beginning at
 S. E $\frac{1}{8}$ th post & running N. 11.25 AM.
 B. M. 473.36 found at 28.79 = 3 ft
 O. Old tunnel with underwood (473) $\approx 2\frac{1}{2}^\circ E$
 108. $\approx 30^\circ E$

200 (470)
 400 (420) $\approx 3^\circ E$
 485 Point run 40 paces wide. (410) $\approx 5^\circ E$
 660
 700 (410)
 860. Hardwood (310) $\approx 5\frac{1}{2}^\circ E$
 1000 (380)
 1200 (350)
 1300 $\approx 4\frac{1}{2}^\circ E$
 1400 (430)
 1510 Wagon road $\approx 6^\circ E$
 1600 (450)
 1800 (445)
 1940 About 200 paces W of $\frac{1}{8}$ th post (425)
 1.35 P.M.

86 E 1/2 W

S. 3

T. 44

R. 34

+154

535

(400)

600(2)

(400)(2)

600(2)

(433)(2)

560

(435)

535

(430)

545

(420)

550

(425)

540

(430)

520

(420)

520

(420)

Clearing

Parker's

Farm.

+127

+101

E $\frac{1}{8}$ Sta Set 3.44.34 beginning at S E
 $\frac{1}{8}$ Sta first running N. 1.30 P.M.

0. Hardwood (Mixed)	(420)	V 6° E
200	(420)	V 6° E
400	(430)	
600	(430)	
800	(425)	V 6° E
1000	(420)	V 6° E
1200	(430)	(2)
1400	(435)	(2) V 8° E
1600	(455)	(2)
1680		V 8° E
1800	(450)	

2018. Stanch set line 22 paces W. of $\frac{1}{8}$ Sta

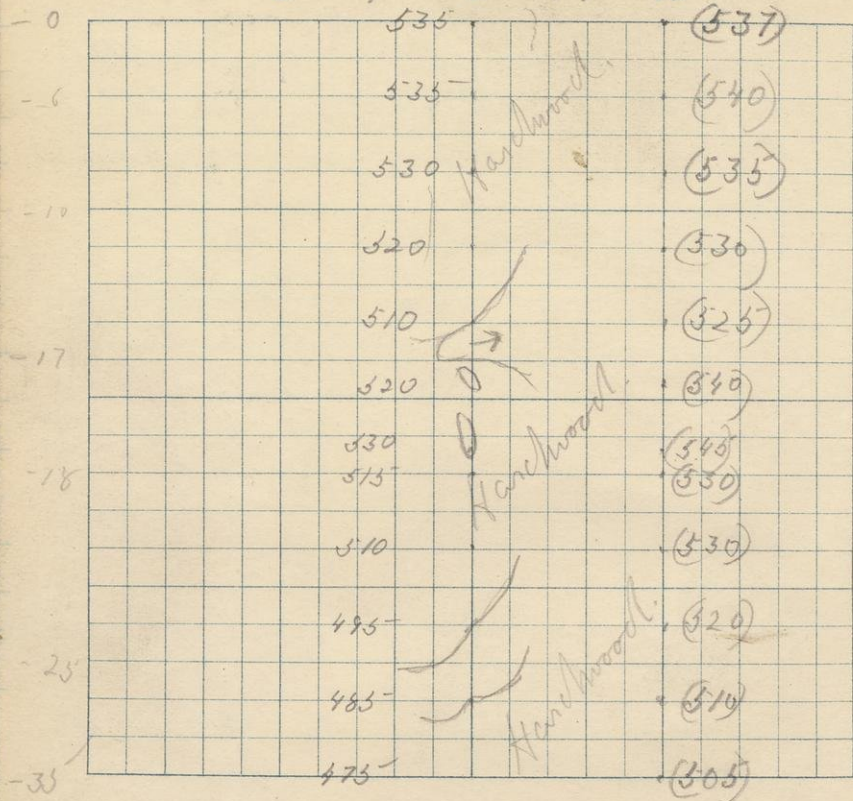
B. M. 554.73

Runnel 400
 + 154

2.450. M.

88 $\frac{1}{2}$ Line

S. 4 T. 44 R. 34



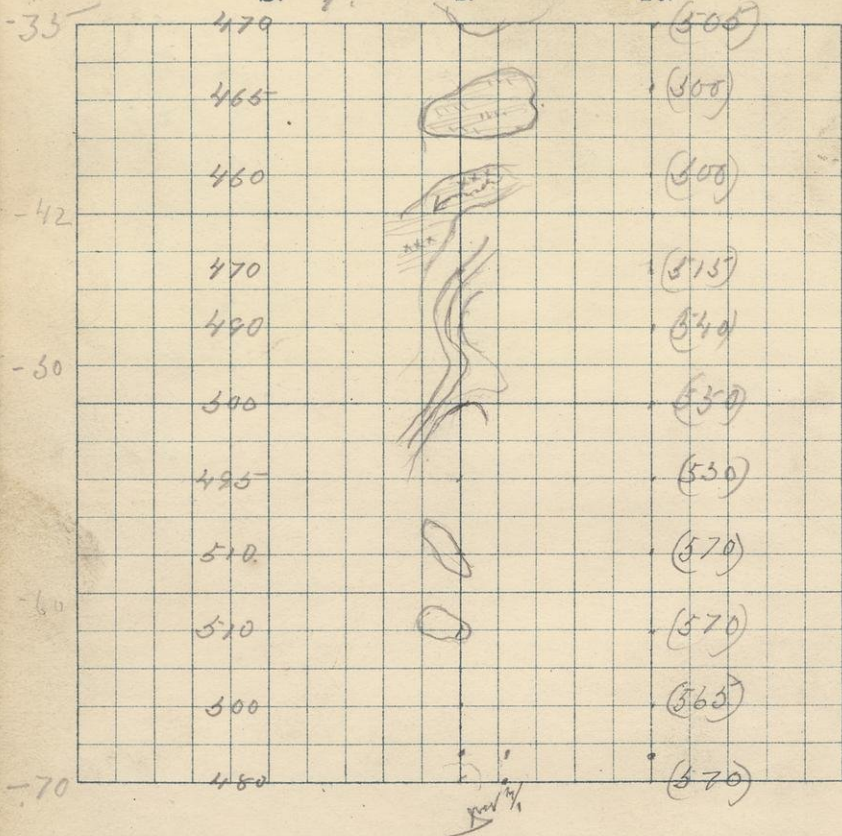
$\frac{1}{4}$ line of Sect. 4. 44. 34 beginning
 at N. $\frac{1}{4}$ post running S. 745 A.M.
 B.M. 537.5). Arrived at 28.09 = 200
 o. Hardwood. (537) V. 5° E
 200. (545)
 230 V 3° E
 400 (535)
 515 V 2½° E
 600 (530)
 800 (525) V 2½° E
 980 (540)
 1000 V 2° E
 1120 (545)
 1200 (530) in
 1300 V 2° E
 1400 (530)
 1600 (529) V 2° E
 1800 (510) V 2° E
 2000 Struck line & $\frac{1}{4}$ post (503)
 9. A.M.

90 $\frac{1}{4}$ Line

S. P.

T. 44

R. 34



- 1/4 Line of Sect. 9, 44.34 beginning at
 N 1/4 Stake & running S. A.M.
 0. Partly burned Marshwood (505) V. 2° E
 190. Marsh. (500) V. 2° E
 300 Old burning
 400 Alder swamps. (500)
 450. Creek 3 ft wide.
 500 Burned tamarack & cedar. (~~515~~)
 660 (515) V. 2° E
 800 (540)
 1000 Partly burned 9.35 AM (550)
 1200 Marshwood. (550)
 1400 (570)
 1600 (570) V 2 1/2° E
 1700 Mixed timber.
 1800 (565)
 1935. Struck line 107. paws. W of 1/4 post (570)
 B.M. 480. 53.
 Arrived 550.00 10.15 AM
 - 70.00
 54 55
 13

92

W. $\frac{1}{8}$ th

S.

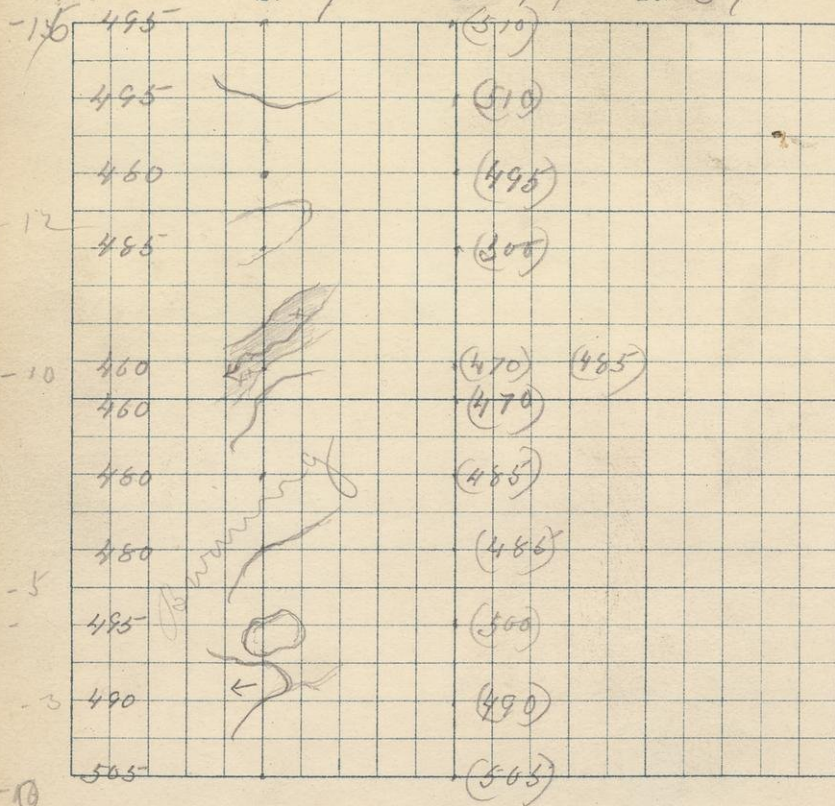
Q

T.

44

R.

34



- W $\frac{1}{2}$ th Mt 4, 44, 34. beginning at S.W
 $\frac{1}{2}$ th post running N 10.30 AM.
 (B.M. 505.34) Arrived at 29.12 = 100 ft.
 5. Hardwood. (505) U. 4° E
 200 + mixed timber (490)
 231 U 4° E
 405 Partly burned hardwood. (500) U 3½° E
 600 (485)
 755- U 1½° E
 800 (485) U
 900 Burned tamarack & cedar. U. 4° E
 1000 (470)
 1090 Alder swamp. (470)
 1124 Oak 3 ft thick. (470) 11.25 AM.
 1124. 12. M. (485) U. 5° E
 1200 Burned tamarack & cedar (485)
 1400 (500) U. 5° E
 1300 Old burning with sandbrush. (500)
 1600 (495) U 4½° E
 1800 (510)
 1870 U 4° E
 1990 Shrub line 61 years E of $\frac{1}{2}$ th post
 (510)
 12.40 P.M.

94 W 1/8 ~~W~~

4

T. 44

R. 34

-25	546		(570)
	545		(570)
	545	Handwreck.	(570)
			(570)
	540		(560)
	530		(550)
-19	505		(525)
	300	Handwreck.	(520)
	495		(515)
	495	Probably ^{misread} Handwreck.	(515)
-16	495		(510)

W. $\frac{1}{8}$ M of Sect. 4, 44, 34 beginning at
 S. W. $\frac{1}{8}$ M point & running N. 12.430 M.
 O. Partly burned hard wood (510) $\text{V. } 6^{\circ} \text{E}$
 130 $\text{V. } 6\frac{1}{2}^{\circ} \text{E}$
 250 Hardwood. (515)
 400 (515) $\text{V. } 6\frac{1}{2}^{\circ} \text{E}$
 500 (520)
 640 $\text{V. } 6^{\circ} \text{E}$
 800 (525) $\text{V. } 7^{\circ} \text{E}$
 1000 (530)
 1200 1,200 P. M. (560) $\text{V. } 6\frac{1}{2}^{\circ} \text{E}$
 1400 (570)
 1600 (370) $\text{V. } 7^{\circ} \text{E}$
 1800 (570) $\text{V. } 6\frac{1}{2}^{\circ} \text{E}$
 2010. Struck sett line 32 paces W. of $\frac{1}{8}$ M point
 B. M. 545.19
 Arrived 570. — 2.07 P. M.
 -23

96 E Ym

S.

5

T.

44

R. 34

0

530

(532)

520

(530)

520

(530)

515

(525)



515

(525)

505

(520)

490

(505)

480

(495)

475

(495)

470

(490)

-11

-23

July 8th

29.33 97

E line det 5.44.34 beginning at N.E. corner
post & running S. 8.00 AM.

B. M. 532.34 merid det. 29.33 = 0.8.

O. Hemlock. (532) U. 4° E

200

(530)

300

(530) U 5° E

600 Cedar swamps

(525)

800 Mixed hardwood. 8.30 AM. —

1000

(525)

1200

(520)

1400

(505)

1600

(495)

1800

(493)

1975 Shrub det line & corner post (490)

9.07 AM.

98

East Line

S. 8

T. 44

R. 32

- 23

465

(490)

470

(495)

475

(500)

485

(510)

485

(495)

485

(520)

495

(525)

485

(520)

500

(510)

500

(510)

500

(510)

510

(500)

500

(550)

- 31

- 48

(mud)

E. Sect line of Sect. 8, 44. 34 beginning
at N.E. corner running S. 9.10 AM.

0. Mixed hardwood. (420) 25.5° E

120. Buried cedar & tamarack.

200 (493)

400 (500)

360 (510)

660. Creek 3/4 mile dry. (495)

800 (520)

1000 9.76 (525)

1100 Mixed timber.

1200 (520)

1400 Maple. (540)

1500 (540)

1600 (540)

1700 (560)

2000 (550)

2000 Stake line 32 paces E of corner. (550)

B. M. 502.33

Arrived 550.00

10.20 AM.

- 48

100

E 1/4 N

S.

8

T.

44

R.

34

-30

455

450

465

440

445

440

430

460

465

480

480

(485)

(480)

(490)

(480)

(460)

(455)

(445)

(470)

(470)

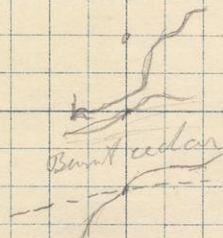
(480)

(480)

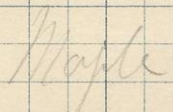
Alon spray



Burn cedar



Maple



-14

0

E $\frac{1}{4}$ A Sect 8. 44. 34 beginning at SE
 $\frac{1}{4}$ A post & running N. 110.40 A.M.

B.M. 441.77 Anvil set 28.13 = 100 ft

S. Maple (481) U 5° E

200 birch (480)

400 + cedars (470)

600 (470)

800 Buried cedar + tamarack. (445)

1000 11.10 A.M. (453)

Anvil falling 1000 probably 15 ft lower than 800

1030 Creek 37 inches deep.

1200 (460)

1400 (460)

1530 Elder Swamp. (430)

1735 Burning

1775 (490)

1900 (480)

1930 Struck line & passed W of $\frac{1}{4}$ A post (485)

11.50

102 E $\frac{1}{8}$ N

S.

5

T.

44

R.

37

-34

505-

(560)

570

(540)

Herschwood

505

(543)

510

(553)

495-

(533)

485-

(523)

480

(510)

475-

(503)

470

(503)

470

(500)

455-

(483)

-12

-30

E $\frac{1}{8}$ th of Sect 5, 24, 34 beginning at
S. E $\frac{1}{8}$ th post & running N 12. W.
O. Partly covered hardwood. (463) 25.5° E

200

(500)

400

(505)

600

(505)

800

(510)

1000

12.30

(525)

1200

(535)

1400 Hardwood Mayple.

(550)

1600 Hardwood partly covered.

(545)

1800

(560)

2035 thick dirt line 6 paces E $\frac{1}{8}$ th post.

B. M. 506.93.

Munell. 560

25) - 54

1.02 P.M.

Blank Pages

104-115

Skipped

116

1337. Jazany Schist $3^{\circ}E \nearrow N$.
Dip $60^{\circ}N$.

1338 1339 1340.

These four rocks are found within 50 ft
of each other. Striking & dipping the same
which shows relations I had no time
to make out.

1338 Probably a Dyke.

The other three, 1337 1339 1340 grade
into each other.

1341. Specimen of ore. Herule of

1342. Specimen of lean coal.

1343. Schistose rock containing pebbles of Jasper.

750 N. 7660 W. Strike $N. 45^{\circ}E$

1344. Greenstone. Minor strike. $N. 45^{\circ}E$

1332. Jazany Schist

1338 Schist

1339. Volcanic schist with Jasper.

1340 Conglomerate

1344 Schist

1343 - N. 880 W. 1000.

Strike N. 30° E > N. 60 W. 65°.

Rock having as *bedrock* character.

1346. N. 1600 W. 1000

N. 80° E N. 80° 80° Dp

1316 A porphyritic gneiss apparently
but probably a meta morphosed
shale see 1317 1318

1319

1320 100°N 103°W Strike (S) N.

Conglomerate shown by weathering.
Very large boulders 1st in diameter
1321 Westward Conglomerate

1322 Slaty rock strike N70°W Dip 70° S. (??)

1323 (?) Conglomerate strike N. 70°W. Dip not
apparent.

1322 1323 1324 Run to grade into each
other

1322 Extends about 100 paces E

1324 E N 47° W. 10° S

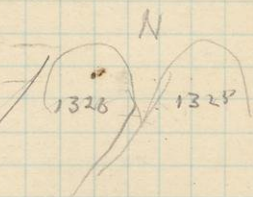
1320

1328-1327.

$$\begin{array}{r} 2005 \\ 144 \\ \hline 1861 \end{array}$$

Very extensive Outcrops strike N

1328 S.N.


 1329 E + W. Dip 80° N
 830 N. 1300 W.

1330 Conglomerate.

1331

 1332. Fine to coarse conglomerate seen best
 in weathering N. 1886 W. 1860
~~N. 1886 W. 1860~~

1145

 1333. Shistose rock. Strike 86° N.E.
 N. 1773 W. 0

 1334. Conglomerate showing weathering
 N. 1475 W. 30.

1335 Breccia

120

5 $\frac{1}{4}$ 7 12 in Maple 10 ft N. Corner 508.93
 S.W. 5 $\frac{1}{4}$ 7 14 in Birch 9 ft N. Corner 488.37

32.33.

487.25

 $\frac{1}{8}$ H.

476.32

 $\frac{1}{4}$ per 6.

471.13.

W. $\frac{1}{8}$ H 6.

474.97.

2.30
1.30

7.00
3.30

