Crystal Falls region, Michigan: [specimens 33523-33529]. No. 298A [1892?]

Christianson, Peter
[s.l.]: [s.n.], [1892?]

U. S. GEOLOGICAL SURVEY

FIELD SECTION BOOK

298 A (See p. 11 Book 298)

Crystal Falls Region

Michigan

Pekka Christianson

(Rec'd B. #298)

LAKE SUPERIOR DIVISION.

INSTRUCTIONS.

1. Ordinarily at least two pages of this book will be devoted to one section. On the left-hand page, place a map of as much of the section as has *actually been seen*. Denote rivers, lakes, marshes, etc., by the usual topographical signs. 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, with dip arrow and number attached as before. 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 specimen representing it. In mapping the section count each of the spaces between the blue lines as 100 paces, and twenty of these spaces to one mile, or 2,000 paces. Usually the southeast corner will be placed at the bottom of the page, or at the first black line above the bottom of the page, and at the right-hand side. If, however, for any reason, it is desirable to show portions of an adjoining section, the southeast corner may be shifted up, or the map may be turned around and the north placed at the left-hand side of the page. The ruling of the left-hand pages is also arranged so that, if desirable, a larger or a smaller scale can be used, eight inches, two inches, one inch, or one-half inch to the mile. With the two-inch scale, the squares outlined in black represent sections, and those in red, quarter sections and "forties," while the space between the blue lines is 200 paces.

2. 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, the latter always being expressed from the north; for instance 4025, 250 *N.*, 300 *W.*, *Strike*, *N.* 78° *E.*, *Dip* 50° *S.* Then follow with a full description of the ledge. When topographical maps are used for locations this paragraph applies only in part.

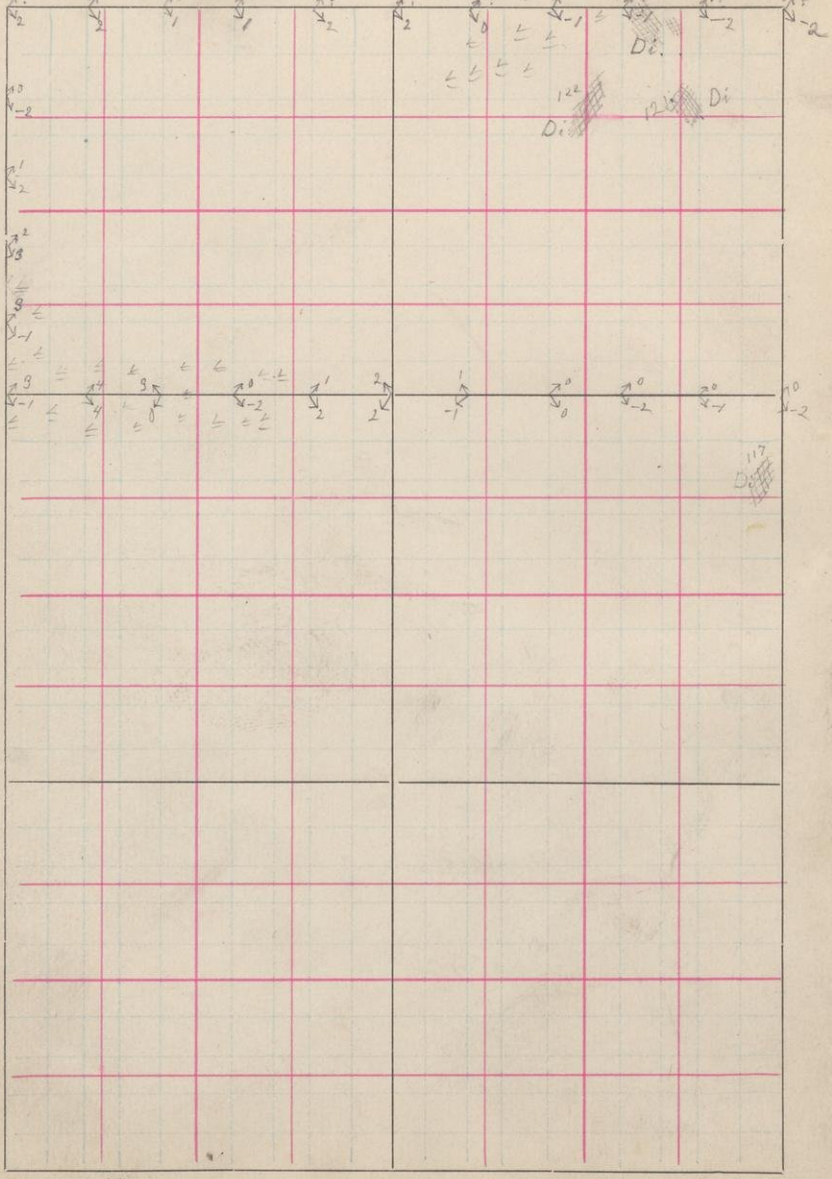
3. Collect a specimen from every ledge, or wherever there is a change of rock on any one ledge, taking care to get fresh material, unless for a special purpose the weathered surface is desired. In case of trips made on foot or in canoes, for long distances, neighboring ledges, unquestionably of one kind of rock, need not be specimened. The position and extent of the ledges not specimened should be marked on the map, with notes that each is of a rock identical with specimen so-and-so. Under the same conditions small-sized specimens, trimmed to a uniform size of 2 x 2½ x ¾ inches will be allowed, but in all other cases *large-sized specimens*, trimmed to a size of 3 x 4 x 1 inches, must be selected, in accordance with section 3, chapter IV, p. 44, Regulations of the U. S. Geological Survey. Specimens should not be placed together without protection in the collecting bag, as the fresh surfaces, important in determining the character of rocks, are thus destroyed. They should be damaged by no temporary mark, but the numbers should be at once marked in at least two places upon the inclosing paper or cloth bags. Specimens may be permanently marked in camp by painting the numbers upon them in white upon a black background, using Silver White and Ivory Black oil tubes for color, with turpentine as a diluent.

4. On the last twenty-five pages of the book give, as may seem desirable, a general account of the examination of the region mapped in the previous pages, correlation of observations, sketches, cross sections, etc.

5. Forward this note book as soon as filled as registered mail matter to C. R. Van Hise, U. S. Geologist, Madison, Wis.

298A

S. 19 T. R. N W 1



6—747

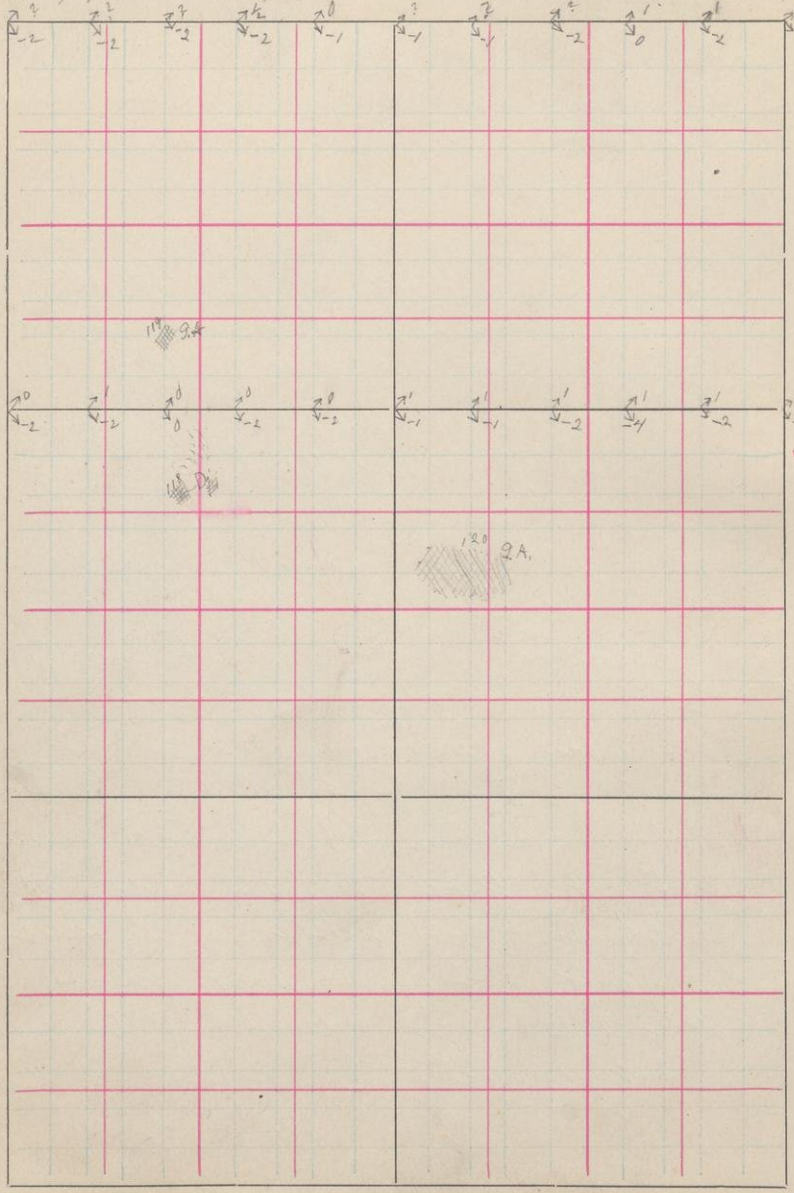
117-C
33523
1400 N. 1025 W SEC. 19, 44, 32,
Coarse Greenstone. Exposure small
& nearly covered with drift.

118-C
33524
1400 N. 775 W. SEC. 19. 44, 32,
Coarse greenstone. Exposure also small

119-C
33525
1600 N 800 W SEC. 19 44, 32,
Greenstone Amygdaloid. Exposure small

120-C
33526
Section
1300 N. 400 W. SEC. 19 44, 32
Greenstone Amygdaloid. Exposure large
Jointed perpendicular on the northside near
the base and above that gradually sloping
to the top. At places the Amygdaloidal structure is much more prominent
than at others. The sample is fair
specimen being neither of the most
compact nor of the most porous.
The ledge in the direction of E & W. is
about 100 feet

S. 19 T. 44 R. 32 N. E. 1/4



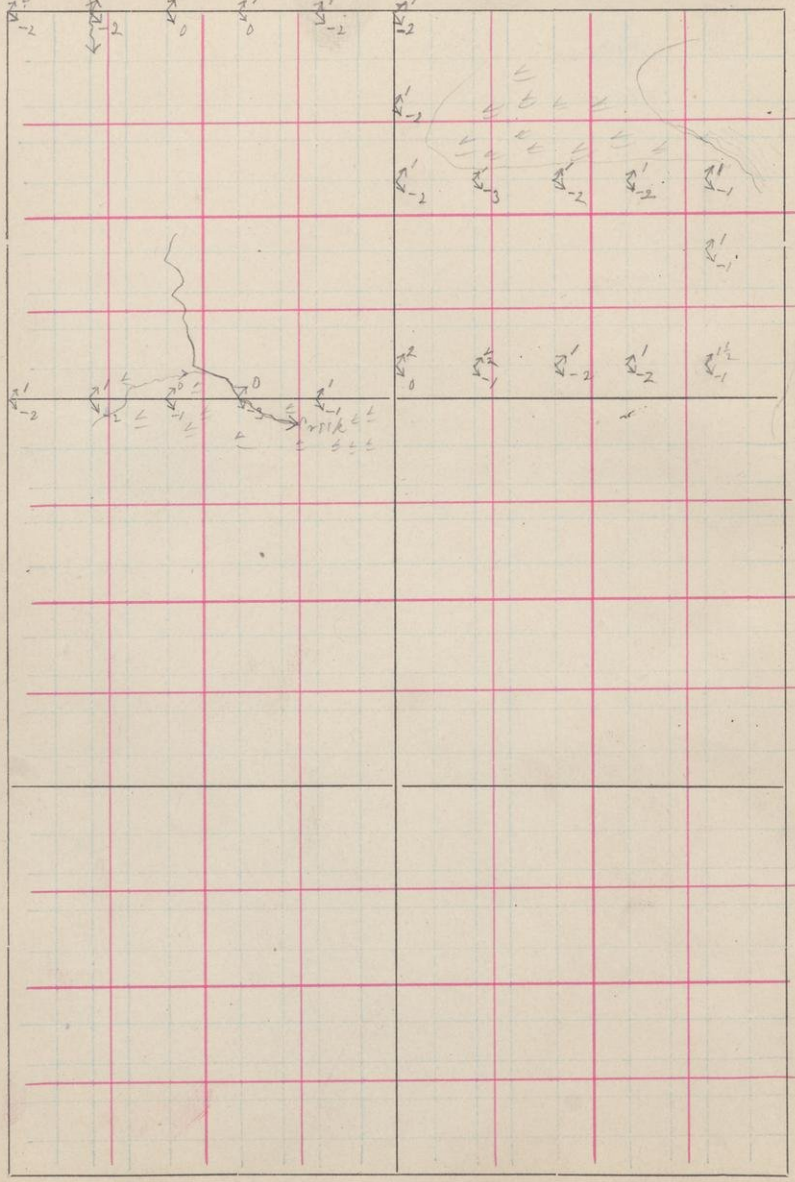
6—747

121-C 33527 1900 N. 1125 W sec. 19, 44, 32
Coarse Greenstone

122-C 33528 1900 N. 1250 W. sec. 19. 44, 32.
Coarse greenstone

123-C 33529 50 N. 1575 W. sec. 18. 44, 32.
Coarse greenstone,

S. 20 T. 44 R. 32 NW¼



6—747