

E. O. Ulrich  
Note book 28  
Wisconsin - 1918, 1916, 1917, 1918,  
1919

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U. S. GEOLOGICAL SURVEY  
TRAVERSE BOOK

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9-904

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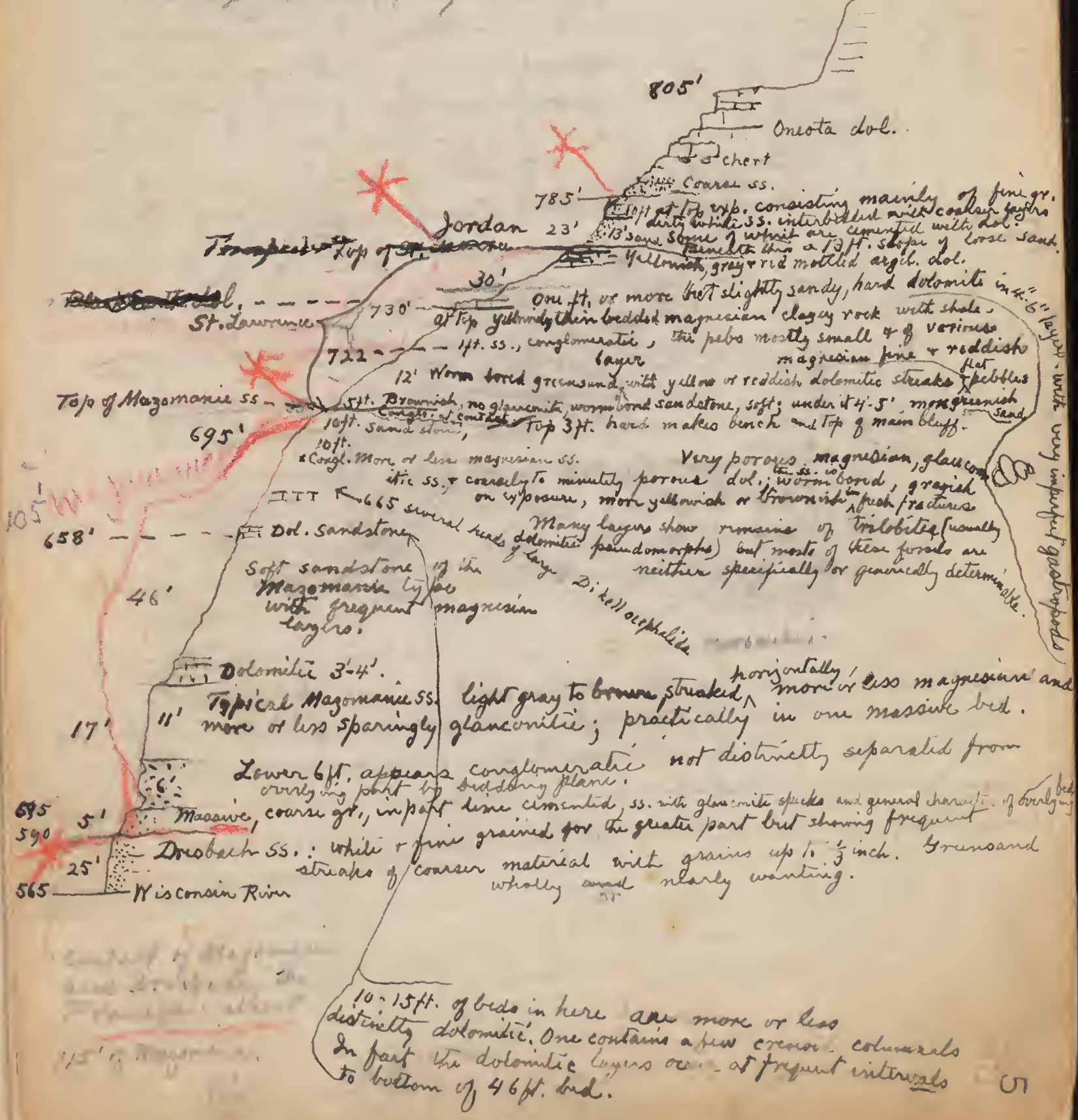
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 17  
 6 miles N. of Sparta at summit of ridge road  
 16

fine gr.  
 in layers  
 dol.  
 red sand.  
 to in 4-6" layers  
 also  
 reddish  
 fine  
 pebbles  
 brownish  
 sand  
 is con-  
 sidered  
 usually  
 is are  
 determinable.  
 impression and  
 like bed.  
 led from  
 1 charact. of locally  
 quartz  
 Greensand

25'  
 565 Wisconsin River

10-15 ft. of beds in here are more or less  
 distinctly dolomitic. One contains a few crinoid columnals  
 In part the dolomitic layers occur at frequent intervals  
 to bottom of 46 ft. bed.

92 . . . . . N. of Reedsburg  
 and Franconia - contact in wall of quarry  
 90 . . . . . Wilson  
 in section, east end of railroad cuts at  
 63 . . . . . Wis.  
 ? in section  $\frac{1}{2}$  mile northeast of Cazanova,  
 61 in section 6 miles east of Reedsburg, Wis.  
 55 . . . . . New London, Wis.  
 may be represented in section in vicinity of  
 27 Wood's quarry, near Baraboo, Wis.  
 25 beneath Mendota, in section in vicinity of  
 Sauk Co., Wis.  
 in section on Pine Creek, at Wood's quarry,  
 15 Back, N. of Kilbourn  
 Fossils suggesting - in section at Elephants  
 Devils Lake ss.:  
 59 Denzer, Wis. - section 1 mile east of  
 57 dam on Peshigo River  
 section 3 miles northwest of, at uncompleted  
 55 see section in vicinity of New London, Wis.  
 Crivitz, Wis.:  
 67 southeast of Boscobel, Wis.  
 Creamery at Homer, Wis. - section at, about 8 miles  
 98 Madison  
 Colladys Point - in section at Paunacks quarry,  
 41 quarries at top of bluff along Cedar River  
 Colfax, Wis. - section 1 mile northwest of, at  
 64 Wis., section . . . . .  
 Cheese factory - Upper Big Willow, near Cazanova,  
 41 1 mile northwest of Colfax, Wis.  
 Cedar River - quarries at top of bluff along,  
 65 Sextonville, Wis.  
 south of Loyd, about 1 mile north of  
 mentioned in connection with quarry exposure  
 64 south of Cazanova, Wis.  
 section on south slope of hill 3-4 miles  
 63 north slope of hill 2-3 miles south of  
 section  $\frac{1}{2}$  mile northeast of and section on  
 Cazanova, Wis.:

fine gr.  
 low fossils  
 det.  
 coarse sand.  
 its in 2-3" layers  
 reddish  
 flat  
 pebbles  
 greenish sand  
 ss.  
 basins  
 spiral  
 tubes  
 usually  
 into are  
 by determinable.  
 magnesium and  
 sink bed.  
 solid from  
 not charact. of dolomite  
 frequent  
 ground

25' 565 Wisconsin River

10-15 ft. of beds in here are more or less  
 distinctly dolomitic. One contains a few crown corals  
 In part the dolomitic layers occur at frequent intervals  
 to bottom of 46 ft. bed.

- 7 District School No. 7, Sauk City - section . . . . .
- 5 6 miles SW. of Sauk City . . . . .
- 7 on Mazomanie beds - in section at District School 7, Sauk City . . . . .
- 9 in section 1 1/2 miles SW. of Hillside and S. of Spring Green . . . . .
- 11 in section in bluff N. of road to White Mound, 1 mile S. of Ireland . . . . .
- 15 in section at Elephants Back, 3 1/2 miles N. of Kilibourn . . . . .
- 16 in section 7 mts. N.W. of Warrens, Wis., N. part sec. 17, T. 20, R. 1 W. . . . .
- 16 in section N. part sec. 23, T. 18, R. 4 W., 6 mts. N. of Sparta at Summit of ridge road to Cataract . . . . .
- 18 unexposed but indicated by residual . . . . .
- 20 in section at Friendship Mound . . . . .
- 21 in section 2 miles north of Lavalie, Wis. . . . .
- 22 in section at Pilot Knob . . . . .
- 24 in section 5 miles north of Black River Falls in section on Pine Creek, at Wood's quarry, Sauk County, Wis. . . . .
- 25 in section at Humbird, Wis., about 16 miles N. of Black River Falls . . . . .
- 26 in section between Fairchild and Osseo in Wild Cat Mound, about 4 miles east of Humbird, Wis. . . . .
- 26 in Humbird Mound . . . . .
- 26 ? at base of Callahan's Hill, 2 miles west of Mondovi, Wis. . . . .
- 29 in section near Modena, Wis. . . . .
- 30 in section north of Alma, Wis. . . . .
- 31 in section 1/2 mile north of Alma, Wis. . . . .
- 32 in section by S. Weidman at Tylors Falls, Minn. . . . .
- 36 see section by S. Weidman at Osceola, Wis. suggested explanation of which is given by Ulrich . . . . .

Fly log body of rock  
 at Blaney, Trempealeau Co.  
 Eau Claire  
 Eau Claire  
 Eau Claire

fine gr. calc. fossils  
 coarse sand  
 it is in 1/2" layers  
 reddish  
 flat pebbles  
 greenish sand  
 alluvial  
 gravel  
 usually do not determine  
 magnesian and  
 sink bed.  
 slid from  
 not charact. of overlying  
 request  
 Greensand

25 Wisconsin River

10-15 ft. of beds in here are more or less  
 distinctly dolomitic. One contains a few corals  
 In part the dolomitic layers occur at frequent intervals  
 to bottom of 46 ft. bed.

Dresbach ss. cont'd.:

evidently in section in bluff opposite Osceola, Wis. 37  
 in section near Colfax, Wis. 41  
 in section 2 or 3 miles northwest of  
 Neillsville, Wis. 43  
 in section at Saddle Mound, near Pray, Wis. 45  
 18 miles east of Black River Falls. 45  
 in section at Ironton, Wis. 51  
 in section at Rattlesnake or Stafford  
 (= "Spofford") Bluff, Wis. 53  
 sandstone resembling, in section at uncompleted  
 dam on Peshtigo River, 3 miles northwest  
 of Crivitz, Wis. 57  
 in section 6 miles east of Reedsburg, Wis. 61  
 in section  $\frac{1}{2}$  mile northeast of Cazenville, Wis. 63  
 in section on north slope of hill 2-3 miles  
 south of Cazenville, Wis. 63  
 in section on south slope of hill 3-4 miles  
 south of Cazenville, Wis. 64  
 top of, quarry exposure south of Loyd, about  
 1 mile north of Sextonville, Wis. 65  
 suggested change in reference to this formation  
 in 1914 notebook. 69  
 in section  $2\frac{1}{2}$  miles northeast of Mindora, Wis.,  
 SE. cor. sec. 9, T. 18, R. 6 W. 69  
 in section at White Mound, Wis. 71  
 in section at Goodenough Hill, 6-6 $\frac{1}{2}$  miles west  
 of Madison, Wis., on Trunk Road 71. 73  
 in section 30-40 ft. beneath summit of Rattle-  
 snake Mound,  $5\frac{1}{2}$  miles south of Friendship,  
 Wis. 84  
 in section in railroad cut near Ableman, Wis. 92  
 in section N. of Reedsburg. 92  
 in section at Hudson, Wis. 100  
 in Franconia formation in St. Croix Valley,  
 Wis. 101  
 in section at Blair, Trempealeau Co., Wis. 106  
 Dumville ss. - in Franconia formation in St. Croix  
 Valley, Wis. 101

10-15 ft. of beds in here are more or less  
 distinctly dolomitic. One contains a few coarse columnals  
 In part the dolomitic layers occur at frequent intervals  
 to bottom of 46 ft. bed.

- Fau Claire formation:
- 26 In section at Humbird, Wis., 16 miles N. of Black River Falls. . . . .
  - 26 at Wedges Creek, about 7 miles west of Neillsville, Wis. . . . .
  - 26 in section near Modena, Wis. . . . .
  - 30 ? in section north of Alma, Wis. . . . .
  - 31 see section at Osceola, Wis., by S. Weidman, Ulrich . . . . .
  - 36 shale in section 1 mile northwest of Golfax, Wis., at quarries at top of bluff along Cedar River. . . . .
  - 41 in section 2 or 3 miles northwest of Neillsville, Wis. . . . .
  - 43 trilobites in, section about  $1\frac{1}{2}$  miles north-west of West Salem, Wis., at mill dam on La Crosse River . . . . .
  - 69 in section at Blair, Trempealeau Co., Wis. . . . .
  - 106 Eau Claire, Wis. - notes made in driving from to Neillsville, Wis., with Hotchkiss and Edwards Edwards, Ira: . . . . .
  - 26 with Ulrich and Hotchkiss driving from Eau Claire to Neillsville, Wis. . . . .
  - 26 with Ulrich and others, section in vicinity of Wood's quarry, near Baraboo, Wis. . . . .
  - 27 with Ulrich and Hotchkiss, section at Frank Holmes quarry, 3 miles north of Mondovi, Wis. . . . .
  - 28 with Ulrich and Hotchkiss, section up Callahan's Hill, 2 miles west of Mondovi, Wis. . . . .
  - 29 with Ulrich and Hotchkiss, section southwest of Mondovi, Wis. . . . .
  - 30 with Ulrich and Hotchkiss, section at Alma, Wis. . . . .
  - 31 with Ulrich and Hotchkiss, section  $\frac{1}{2}$  mile north of Alma, Wis. . . . .
  - 32 with Ulrich and Hotchkiss, section at Reads Landing, Minn. . . . .
  - 33

Dr. Ulrich at Blair - length of book  
 Eau Claire, Wis. - notes made in driving from to Neillsville, Wis., with Hotchkiss and Edwards Edwards, Ira:

*[Faint, mostly illegible text on the reverse side of the page]*

10-15 ft. of beds in here are more or less  
 distinctly dolomitic. One contains a few crinoid columns  
 In part the dolomitic layers occur at frequent intervals  
 to bottom of 46 ft. bed.

Edwards, Ira, cont'd.:

35 with Ulrich and Hotchkiss, section about 4 miles northwest of Menomonee, Wis. . . . .

37 with Ulrich and Hotchkiss, section in bluff opposite Osceola, Wis. . . . .

37 with Ulrich and Hotchkiss, section at Franconia, Minn. . . . .

37 with Ulrich and Hotchkiss in section  $2\frac{1}{2}$  miles north-northwest of Somerset, Wis. . . . .

39 with Ulrich and Hotchkiss, section 1 mile northwest of Golfax, Wis. . . . .

41 with Ulrich and Hotchkiss, section 2 or 3 miles northwest of Neillsville, Wis. . . . .

43 with Ulrich and Hotchkiss, section at Saddle Mound, near Pray, Wis., 18 miles east of Black River Falls . . . . .

45 with Ulrich, Hotchkiss, and Thwaites, section 1 mile south of Ironton, Wis. . . . .

47 with Ulrich, Hotchkiss, and Thwaites, section at Ironton, Wis. . . . .

51 with Ulrich, Hotchkiss, and Thwaites, section at old iron mine 1 mile south of Ironton, Wis. . . . .

52 with Ulrich, Hotchkiss, and Thwaites, section at Rattlesnake or Stafford (= "Sportford") Bluff, Wis. . . . .

53 Elephants Back,  $3\frac{1}{2}$  miles N. of Kilibourn - section 15 Elk Mound, Wis. - see section near Golfax, Wis. 41 Fairchild, Wis. - mentioned in notes made in driving from Eau Claire to Neillsville, Wis. . . . . 26 Ferry Bluff, Wisconsin River, 6 miles SW. Sauk City - section . . . . . 5

15 probably, in section at Elephants Back,  $3\frac{1}{2}$  miles N. of Kilibourn . . . . .

15 basal, at Taylor's Falls, Minn. - sandstone in section at Elephants Back suggests . . . . . of quarry in lower, in section 7 miles N.W. Warrens, Wis., N. part sec. 17, T. 20, R. 1 W. fossils 15-20 ft. above base of . . . . . 16

10-15 ft. of beds in here are more or less distinctly dolomitic. One contains a few crinoid columns. In part the dolomitic layers occur at frequent intervals to bottom of 46 ft. bed.

51  
52  
53



Frankonia cont'd.:  
 greensand bed of - in section at Castle Rock,  
 4 miles NW. of Sparta . . . . . 17  
 in section, region of Sparta . . . . . 18  
 tentative division of formation into five  
 members . . . . . 19  
 pre-Cambrian 455 ft. beneath middle of, in  
 well at Tomah, Wis. . . . . 19  
 in section at Friendship Mound, N. of Friendship  
 near base of yellow sandstone member of -  
 2 miles north of Lavalie, Wis. . . . . 21  
 in section at Pilot Knob . . . . . 22  
 top of, in section at mound 1 mile SE. of  
 Pilot Knob . . . . . 23  
 fossils from top of bluff 5 miles north of  
 Black River Falls . . . . . 24  
 basal, 5 miles N.W. of Black River Falls . . . . . 24  
 in section on Pine Creek, at Wood's quarry,  
 Sauk Co., Wis. . . . . 25  
 in Wild Cat Mound, about 4 miles east of  
 Humbird . . . . . 26  
 fossils in section in vicinity of Wood's  
 quarry, near Baraboo, Wis. . . . . 27  
 to top of Callahan's Hill, 2 miles west of  
 Mondovi, Wis. . . . . 29  
 in section  $\frac{1}{2}$  mile north of Alma, Wis. . . . . 32  
 in section by Weidman at Taylor's Falls, Minn. . . . . 36  
 in section by Weidman at Osceola, Wis., sug-  
 gested explanation of which is given by  
 Ulrich . . . . . 36  
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 Wis. . . . . 37  
 in section near Colfax, Wis. . . . . 41  
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 horizon in section 2 or 3 miles northwest  
 of Neillsville, Wis. . . . . 43  
 in section at Saddle Mound, near Pray, Wis.,  
 18 miles east of Black River Falls -  
 apparently all lower . . . . . 45

Fossils from the top of the sandstone member of the

*[Faint, mostly illegible text from the reverse side of the page, appearing as bleed-through or ghosting.]*

10-15 ft. of beds in here are more or less  
 distinctly dolomitic. One contains a few coarse columnals  
 In part the dolomitic layers occur at frequent intervals  
 to bottom of 46 ft. bed. 57

Franconia cont'd.:  
 47 basal, in section 1 mile S. of Ironton, Wis.  
 upper sandstone in section at Bald Bluff, on  
 road between Pilot Knob and Westfield, Wis. 49  
 basal sandstone of, in section at Ironton,  
 Wis. . . . .  
 51 lower greensand of, in village of Ironton,  
 Wis. . . . .  
 51 basal sandstone of, in section at old iron  
 mine 1 mile south of Ironton, Wis. . . . .  
 52 basal, in section at Rattlesnake or Stafford  
 (= "Spofford") Bluff, Wis. . . . .  
 53 may be represented in section 6 miles east of  
 Reedsburg, Wis. . . . .  
 61 in section  $\frac{2}{3}$  mile northeast of Cazenovia, Wis.  
 63 in section on north slope of hill 2-3 miles  
 south of Cazenovia, Wis. . . . .  
 63 in section on south slope of hill 3-4 miles  
 south of Cazenovia, Wis. . . . .  
 64 basal, quarry exposure south of Loyd, about  
 1 mile north of Sextonville, Wis. . . . .  
 65 in section at Goodenough Hill, 6-6 $\frac{1}{2}$  miles  
 west of Mauston, Wis., on Trunk Road 71, 72, 73  
 basal sandstone of, in section in railroad  
 cut near Ableman, Wis. . . . .  
 92 upper, in section N. of Reedsburg . . . . .  
 92 contact of Franconia and Devils Lake  
 undoubted, in section at Hudson, Wis. . . . .  
 100 Weidman's sequence of zones in - St. Croix  
 Valley, Wis. . . . .  
 101 in section at Blair, Trempealeau Co., Wis. . . . .  
 106 Franconia, Minn., section at . . . . .  
 37 Franconia, Wis. - see note on section at Saddle  
 Mound, near Pray, Wis., 18 miles east of Black  
 River Falls . . . . .  
 45 Friendship, Wis.:  
 Friendship Mound just N. of - section . . . . .  
 20 mound 10 miles east of - section . . . . .  
 23 section  $5\frac{1}{2}$  miles south of, 30-40 ft. beneath  
 summit of Rattlesnake Mound . . . . .  
 84

(This page contains faint, illegible text, likely bleed-through from the reverse side of the page.)

10-15 ft. of beds in here are more or less  
 distinctly dolomitic. One contains a few crinoid columns  
 In part the dolomitic layers occur at frequent intervals  
 to bottom of 46 ft. bed.

- 17 . . . . . NW. of Sparta . . . . . section at Castle Rock, 4 miles
- 15 . . . . . miles N. of Kilbourn . . . . . with Ulrich, section at Elephants Back,  $3\frac{1}{2}$
- 11 . . . . . Leland, north of road to White Mound . . . . . with Ulrich, section in bluff 1 mile SW. of
- 5 . . . . . Ferry Bluff, 6 miles SW. Sauk City . . . . . with Ulrich and Mrs. Hotchkiss - section in
- Hotchkiss, W. O.: . . . . . 3 miles south of New London . . . . .
- 56 . . . . . Hortonville, Wis. - section on road to, about
- 67 . . . . . southeast of Rosobel . . . . . Homer, Wis. - section at creamery at, about 8 miles
- 28 . . . . . Mordovi, Wis. . . . . Holmes, Frank - his quarry, 3 miles north of
- 9 . . . . . section . . . . . Hillside,  $1\frac{1}{2}$  miles SW. of and S. of Spring Green -
- 101 . . . . . formation in St. Croix Valley, Wis. . . . . Orin Beck's bed, in section at Hudson, Wis. . . . .
- 100 . . . . . Hudson, Wis. . . . . upper, middle, and lower beds, in section at
- 19 . . . . . members . . . . . upper and lower - see division of Franconia
- Greensand: . . . . .  $3\frac{1}{2}$  miles N. of Kilbourn . . . . .
- 15 . . . . . Grand View Hotel - in section at Elephants Back,
- 49 . . . . . Pilot Knob and Westfield, Wis. . . . . see section at Bald Bluff, on road between
- 21 . . . . . see section 2 miles north of Lavalie, Wis. . . . . Grandmarsh, Wis.:
- 65 . . . . . north of Sextonville . . . . . exposure south of Loyd, Wis., about 1 mile
- Gotham, Wis. - mentioned in connection with quarry
- 73 . . . . . Mauston on Trunk Road 71 . . . . . Goodenough Hill - section at, 6- $6\frac{1}{2}$  miles west of
- 31 . . . . . Gasconade formation - in section at Alma, Wis. . . . . Mounds, Wis. . . . .
- 67 . . . . . Galena dolomite - in section just west of Blue
- 20 . . . . . Friendship Mound, just N. of Friendship - section

*[Faint, mostly illegible handwritten notes on the middle page of the notebook.]*

10-15 ft. of beds in here are more or less distinctly dolomitic. One contains a few crinoid columns. In part the dolomitic layers occur at frequent intervals to bottom of 46 ft. bed. 57

- Hotchkiss, E. O., cont'd.:
- 20 with Ulrich and Thwaites - section at Friend-ship Mound . . . . . section 2 miles N. of Lavalle . . . . .
  - 21 with Ulrich and Thwaites - section at Pilot Knob . . . . .
  - 22 with Ulrich and Thwaites - section 1 mile SE. Pilot Knob . . . . .
  - 23 with Ulrich and Thwaites - section on Pine Creek, Sauk Co., Wis. . . . .
  - 25 with Ulrich and Edwards driving from Eau Claire to Neillsville, Wis. . . . .
  - 26 with Ulrich and others - section in vicinity of Wood's quarry, near Baraboo, Wis. . . . .
  - 27 with Ulrich and Edwards - section at Frank Holmes quarry, 3 miles N. of Mondovi, Wis. . . . .
  - 28 with Ulrich and Edwards - section up Callahan's Hill, 2 miles west of Mondovi, Wis. . . . .
  - 29 with Ulrich and Hotchkiss - section southwest of Mondovi, Wis. . . . .
  - 30 with Ulrich and Edwards - section at Alma, Wis. . . . .
  - 31 with Ulrich and Edwards - section  $\frac{1}{2}$  mile N. of Alma, Wis. . . . .
  - 32 with Ulrich and Edwards - section at Reads Landing, Minn. . . . .
  - 33 with Ulrich and Edwards - section about 4 miles northwest of Menominee, Wis. . . . .
  - 35 with Ulrich and Edwards - section in bluff opposite Osceola, Wis. . . . .
  - 37 with Ulrich and Edwards - section at Franconia, Minn. . . . .
  - 39 with Ulrich and Edwards in section  $2\frac{1}{2}$  miles north-northwest of Somerset, Wis. . . . .
  - 41 with Ulrich and Edwards - section 1 mile northwest of Colfax, Wis. . . . .
  - 43 northwest of Neillsville, Wis. . . . .

10-15 ft. of beds in here are more or less distinctly dolomitic. One contains a few crinoid columns. In part the dolomitic layers occur at frequent intervals to bottom of 46 ft. bed.



N. 13. 28

- 37 see section at Franconia, Minn. . . . .
- 100 section at . . . . .
- 101 mentioned in Weidman's sequence of zones in Franconia formation in St. Croix Valley, Wis. . . . .
- 26 Humbird, Wis. - section at, about 16 miles N. of Black River Falls . . . . .
- 26 Humbird Mound - mentioned in notes made in driving from Eau Claire to Neillsville, Wis. . . . .
- 47 section at 1 mile S. of . . . . .
- 51 section at old iron mine 1 mile S. of . . . . .
- 52 Irving, R. D.: . . . . .
- 22 comment on his view of stratigraphic sequence in mound SE. of Pilot Knob . . . . .
- 22 comment on his view of section at Rattlesnake or Stafford (= "Sportford") Bluff, Wis. . . . .
- 53 exposure S. of Loyd, Wis., about 1 mile N. of Saxonville, Wis. . . . .
- 49 Jordan ss.: . . . . .
- 65 in section at Ferry Bluff, Wisconsin River, 6 miles SW. Sauk City. . . . .
- 59 in section 1 1/2 miles SW. of Hillside, S. of Spring Green . . . . .
- 61 in section at Shakopee - Minnesota River Valley . . . . .
- 64 in section at Castle Rock, 4 miles NW. of Sparta . . . . .
- 17 in section, region of Sparta. . . . .
- 69 in section at Pilot Knob. . . . .
- 22 or Madison - in section in mound 1 mile SE. of Pilot Knob - 10 miles E. of Friendship
- 92 in section SW. of Mondovi, Wis. . . . .
- 30 in section at Alma, Wis. . . . .
- 31 in section 1/2 mile north of Alma, Wis. . . . .
- 32 typical, in section at Reads Landing, Minn. . . . .
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Jordan ss. cont'd.

37 suggestion of in bluff opposite Osceola, Wis.

47 in section at Bald Bluff, on road between Pilot Knob and Westfield, Wis.

49 suggestion of in section at old iron mine 1 mile S. of Ironton, Wis.

52 may be represented in section in vicinity of New London, Wis.

55 in section 1 mile E. of Denzer, Wis.

59 in section  $\frac{2}{3}$  mile NE. of Cazenovia, Wis.

63 in section on north slope of hill 2-3 miles S. of Cazenovia, Wis.

63 in section on south slope of hill 3-4 miles S. of Cazenovia, Wis.

64 in section at White Mound, Wis.

71 in section, E. end of railroad cuts at Wilson

90 in section  $\frac{1}{2}$  mile E. of Twaites's Mazomanie section - old quarry, top of hill, near St. Paul R.R. and wagon road - cut at contact of Jordan and Madison

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96 sandstone in section at Paumack's quarry at Madison suggests

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- 43 Mound . . . . .
- 26 section 2 or 3 miles NW. of, at Neillsville with W. O. Hotchkiss and Ira Edwards . . . . . notes made in driving from Eau Claire to Neillsville, Wis.:
- 37 see section at Franconia, Minn. . . . .
- 30 Modena, Wis. . . . .
- 29 section 4-5 miles SW. of and thence to section up Callahan's Hill 2 miles W. of . . . . .
- 28 section at Frank Holmes quarry 3 miles N. of Mondovi, Wis.:
- 30 Modena, Wis. - section at . . . . .
- 33 Minn. . . . .
- 13 Mississippi River - see section at Reads Landing, Minnesota River Valley - section at Shakopee in sec. 9, T. 18, R. 6 W. . . . .
- 69 Windora, Wis. - section 2 1/2 miles NE. of, SE. cor. Rock, 4 miles NW. of Sparta . . . . .
- 17 Mesler, with Ulrich and others - section at Castle Merriam Station - in section at Shakopee . . . . .
- 13 sandstone in cut at - north of Madison . . . . .
- 35 Mendota Station - contact of Jordan and Madison sandstone in cut at - north of Madison . . . . .
- 27 Wis. . . . . vicinity of Wood's quarry, near Baraboo, above Devils Lake sandstone in section in Sauk Co., Wis. . . . .
- 25 in section on Pine Creek, at Wood's quarry, Mendota dolomite:
- 96 Madison . . . . .
- 96 sandstone - cut at Mendota Station N. of with Ulrich, contact of Jordan and Madison quarry, Madison . . . . .
- 98 Mehl, Ulrich, and others - section at Paunack's near St. Paul R.R. and wagon road . . . . .
- 94 Mazomanie, Wis. - section of Thwaites - section 1 mile E. of in old quarry near top of hill

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Observatory Hill, 15 miles N. of Portage - section 15  
Oneta:

in section at Ferry Bluff, Wisconsin River,  
6 miles SW. of Sauk City . . . . .  
in section, 1 1/2 miles SW. of Hillside and S.  
of Spring Green. . . . .  
base of, in section at Castle Rock, 4 miles  
NW. of Sparta. . . . .

in section at Sparta. . . . .  
? basal, in section up Callahan's Hill,  
2 miles W. of Mondovi, Wis. . . . .  
dolomite in section SW. of Mondovi, Wis.  
? basal, in section SW. of Mondovi, Wis.

in section 1/2 mile N. of Alma, Wis. . . . .  
in section at Reads Landing, Minn. . . . .  
not seen in situ in section in bluff  
opposite Osceola, Wis. . . . .

in section at Bald Bluff, Wis., on road  
between Pilot Knob and Westfield, Wis.  
in section about 3 miles S. of New London,  
on road to Hortonville, Wis. . . . .

in section NE. of Cazenovia, Wis. . . . .  
in section on N. slope of hill 2-3 miles  
S. of Cazenovia, Wis. . . . .  
in section on S. slope of hill 3-4 miles  
S. of Cazenovia, Wis. . . . .

exposed in form of more or less drusy chert  
at Homer creamery, about 8 miles SE. of  
Boscobel, Wis. . . . .  
in sec. 36, T. 8, R. 2 E., 9 miles a little  
S. of E. from Boscobel, Wis. . . . .

? basal, in section at White Mound, Wis.  
lower - in section E. end of railroad cuts  
at Wilson. . . . .

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Oneota cont'd.:  
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- 35 Menomonic, Wis. - section. . . . .
- Orrin Peck's, about 4 miles NW. of
- 31 see section at Alma, Wis. . . . .
- 28 section. . . . .
- Frank Holmes, 3 miles N. of Mondovi, Wis. -
- 27 Wood's, near Baraboo, Wis. - section. . . . .
- 25 section. . . . .
- Wood's, on Pine Creek, Sauk Co., Wis. -
- 16 R. I W. - section. . . . .
- Warrens, Wis., N. part sec. 17, T. 20,
- 14 in lower Franconia, 7 miles N. NW. of
- at Pebles - section. . . . .
- Quarries:
- 21 2 miles N. of Lavalie, Wis. . . . .
- Ptychaspis zone of Pilot Knob - see section
- 33 Reads Landing, Minn. . . . .
- Ptychaspis and Agnostus zone - in section at
- 19 Tomah, Wis. . . . .
- Pre-Cambrian - in wells at Bangor, Sparta, and
- 45 Black River Falls - section . . . . .
- Pray, Wis. - near Saddle Mound, 18 miles E. of
- 15 N. of . . . . .
- Portage - section at Observatory Hill 15 miles
- 55 of New London, Wis. . . . .
- sandstone resembling in section in vicinity
- 37 Osceola, Wis. . . . .
- ? top of, in section in bluff opposite
- 30 SW. of Mondovi, Wis. . . . .
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- 29 Hill, near Mondovi, Wis. . . . .
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*Country*

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- 27 Wood's quarry, near Baraboo, Wis. . . . . probably basal in section at Frank Holmes
- 28 quarry, 3 miles N. of Mondovi, Wis. . . . . typical, in section about 4 miles from
- 29 Callahan's Hill, near Mondovi, Wis. . . . . Callahan's Hill, near Mondovi, Wis.
- 30 dolomite - in section SW. of Mondovi, Wis. . . . .
- 31 in quarry at Alma, Wis. . . . . may be base of in section  $\frac{1}{2}$  mile N. of Alma
- 32 in section at Reads Landing, Minn. . . . . in section at Reads Landing, Minn.
- 33 in section about 4 miles NW. of Menominee, Wis. . . . .
- 35 see section by Weidman at Osceola, Wis., suggested explanation of which is given by Ulrich . . . . .
- 36 very fuoidal, in section 1 mile S. of Ironton, Wis. . . . .
- 47 in section at Bald Bluff, on road between Pilot Knob and Westfield, Wis. . . . .
- 49 middle or upper in section at old iron mine 1 mile S. of Ironton, Wis. . . . .
- 52 suggestion of in section in vicinity of New London, Wis. . . . .
- 55 no indication of on SE. slope of section 6 miles E. of Reedsburg, Wis. . . . .
- 61 may be on NW. slope of section 6 miles E. of Reedsburg, Wis. . . . .
- 61 in section  $\frac{1}{2}$  mile NE. of Cazenville, Wis. . . . . in section on N. slope of hill 2-3 miles S.
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(Faint, mostly illegible text on the reverse page of the notebook)



- Sparta, Wis. cont'd.
- 18 section in region of . . . . .
  - 19 pre-Cambrian in well at . . . . .
  - "Spoford" - see section at Spoford or Rattle-  
snake Bluff . . . . .
  - 53 Spring Green - section S. of and 1 1/2 miles SW. of  
Hillside. . . . .
  - 9 Spoford (= "Spoford") or Rattlesnake Bluff,  
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  - 53 Steven's old quarry, NE. of Paunack's quarry, at  
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  - 98 Table Bluff - see section at Bald Bluff, on road  
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  - 49 Taylors Falls, Minn.:  
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  - 15 section at by Weldman . . . . .
  - 36 Thompsons Valley, Wis.:  
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  - 30 zone in section N. of Alma, Wis., corresponding  
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  - 31 zone - in section at Heads Landing, Minn. . . . .
  - 33 Thwaites, F. W.:  
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NW. of Sparta. . . . .
  - 17 see comparison with section made by Ulrich in  
region of Sparta . . . . .
  - 18 with Ulrich and Hotchkiss - section at Friend-  
ship Mound . . . . .
  - 20 with Ulrich and Hotchkiss - section 2 miles  
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  - 21 with Ulrich and Hotchkiss - section at Pilot  
Knob . . . . .
  - 22 with Ulrich and Hotchkiss - section at mound  
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 18 Upper Beef Valley - see section  $\frac{1}{2}$  mile N. of Alma, Wis. . . . .  
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 64 Wis. - section. . . . . Warrens, Wis. - section in quarry in lower Franconia 7 miles N.W. of . . . . . Wedges Creek - mentioned in notes made in driving from Eau Claire to Neillsville, Wis. . . . . Weidman:  
 36 see section at Taylor's Falls, Minn. . . . . see note on section  $2\frac{1}{2}$  miles N.W. of Somerset, Wis. . . . .  
 39 with Ulrich - section N. of Reedsburg, Wis. . . . . with Ulrich - cut at Mendota Station N. of Madison - contact of Jordan and Madison. . . . . sequence of zones by - in Franconia formation in St. Croix Valley, Wis. . . . . Westfield, Wis. - see section at Bald Bluff, on road between Pilot Knob and Westfield. . . . . West Salem, Wis. - section about  $1\frac{1}{2}$  miles NW. of, at mill dam, on La Crosse River . . . . . White Mound:  
 11 bluff N. of road to, 1 mile S. of Leland - section. . . . . suggested change of formation names at this locality as referred to in 1914 note-book. section at. . . . . Wild Cat Mound - about 4 miles N. of Humbird, Wis. - see notes made in driving from Eau Claire to Neillsville, Wis. . . . . Willow Creek, Wis. - mentioned in connection with quarry exposure S. of Loyd, Wis., about 1 mile N. of Sextonville . . . . . Wilson - section - E. end of railroad cuts at. . . . .

[Faint, mostly illegible text on the reverse page of the notebook, appearing as bleed-through or light impressions.]

Wisconsin, central - section, Friendship Mound -  
 with Hotchkiss and Twaites . . . . . 20  
 Wisconsin River - section in Ferry Bluff, 6 miles  
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 Wolf River, Wis. - see section in vicinity of  
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 section at, on Pine Creek . . . . . 25  
 section in vicinity of, near Baraboo, Wis. . 27

[Faint, illegible text, likely bleed-through from the reverse side of the page.]

*[Faint, illegible handwriting on the top page of the notebook.]*

*[Faint, illegible handwriting on the middle page of the notebook.]*

*[Faint, illegible handwriting on the bottom page of the notebook.]*

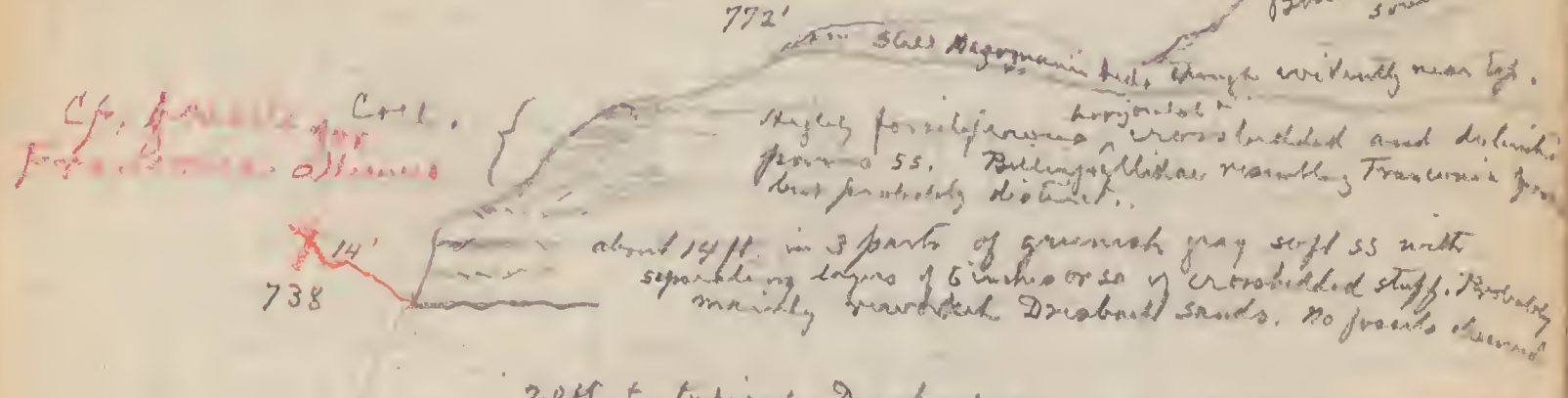
at mill dam on La Crosse River . . . . .  
 about 12 miles northwest of West Salem, Wis. . . . .  
 and others, section

69

Ba  
Ba  
Ba  
Ba  
A  
A

District School No 7, Aug 1, 1916.  
 5 7/8 post sect. 3, T9N, R5E. = 8 1/2 m. west of Sauk City, Wis.  
 With Mr. M. H.

Magomane beds on Driobach ss.

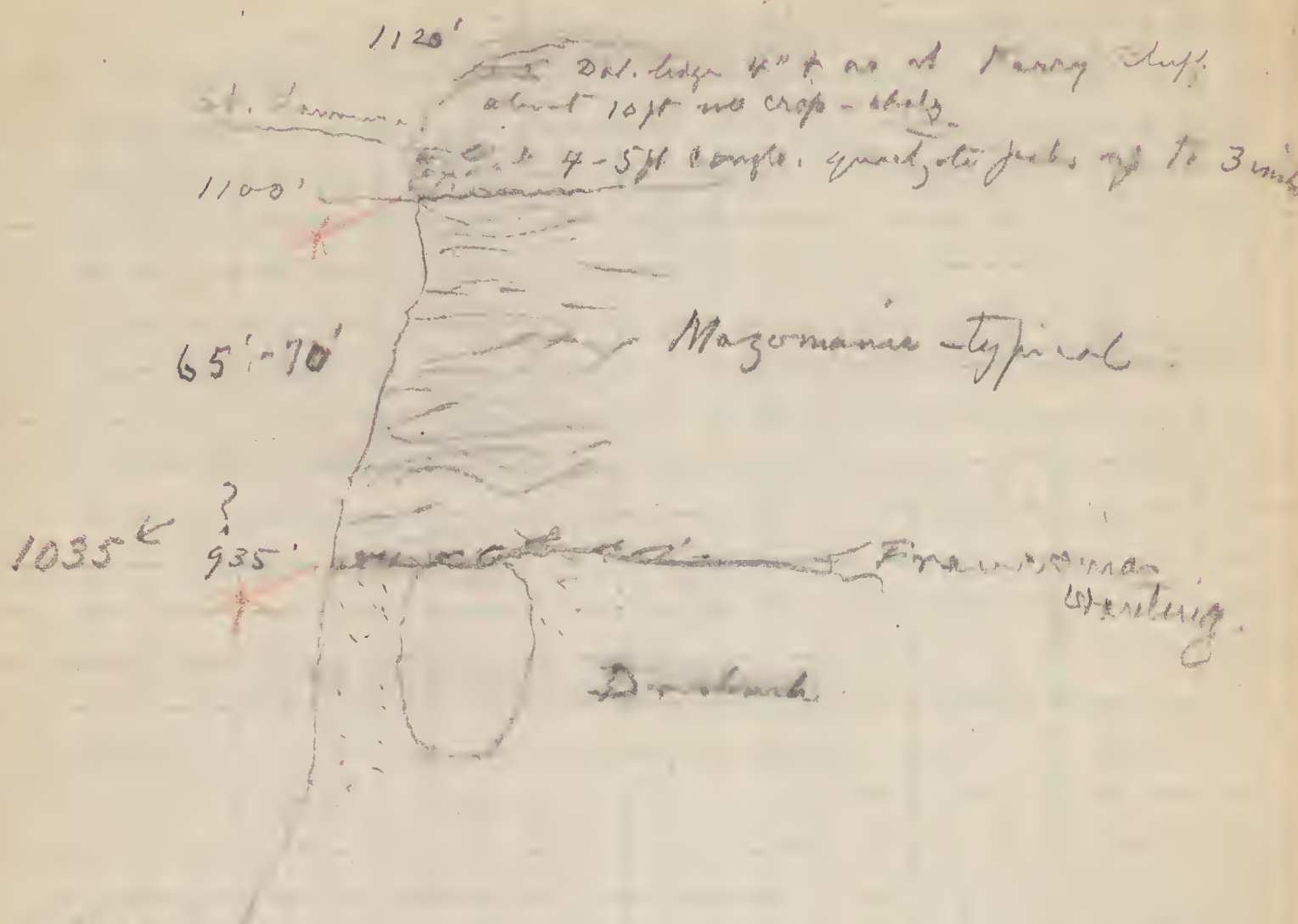


695

May not be good enough.

7





1 mi. SW of Leland, Wis. Bluff with road to Milwaukee  
 NW 1/4 NE 1/4 Sec. 25, T10 R4E

Copper nearly vertical  
 pp. 59 & 71 & 51.

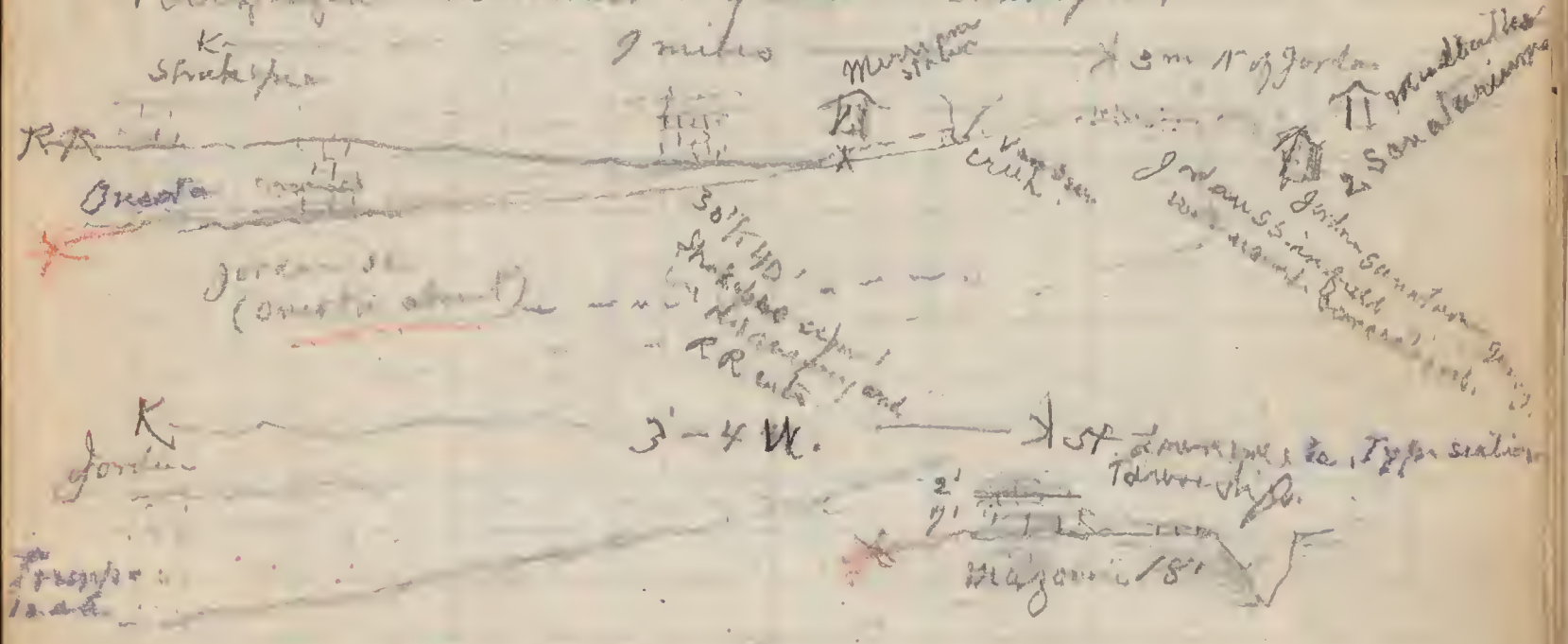
100  
 55



Aug. 23, 1916. Minnesota River Valley,  
with W. O. Hitchcock

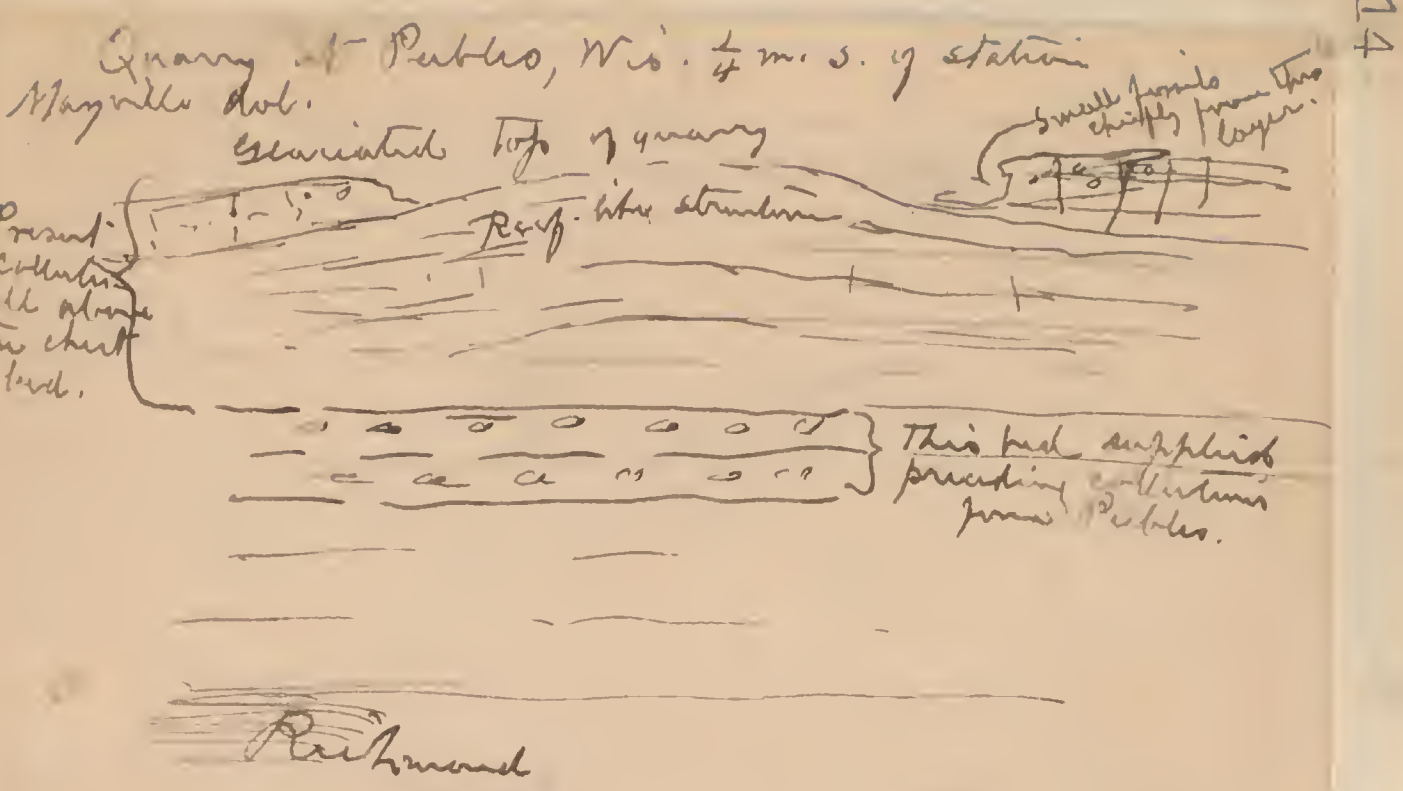
At Shakopee, Minn

Here saw all told an aggregate of not less than 30 or 40 ft of very irregularly bedded brownish & mottled det. much of it secondary dolomitized. Fossils are scarce and poor but recognized two or three of the species found at Cannon Falls. Poor fossil showing doubtless largely due to secondary dolomitization. Such fossils as were seen together with the character of the rock fully convinced me that the Shakopee at Shakopee is the same formation recognized elsewhere by me as Shakopee.



3 mi. S. of Shakopee other quarries show the same Shakopee beds rising to above track level. At this rock a short distance south of Meridian station the top of the Jordan ss is exposed. This rises to 20 ft or more above track level in west 2 miles where it is conspicuously exposed in a barren field on west side of wagon road.

It appears certain that the Onesta is about in this section. The Jordan is typical and rests on the St. Lawrence. At St. Lawrence, in old quarry about 7 ft. of rather heavy bedded (possibly lower 2) conglomerate & glauconitic det. is shown. Some of the rock contains many fairly preserved fragments of fossils - among them frags of Dickelophiles - also round Obolus and Firkelophiles. 1/3 mi. N. of quarry gully shows 18 ft. more shaly lower beds. Both undoubtedly lower St. Lawrence; beneath a thin bedded member.

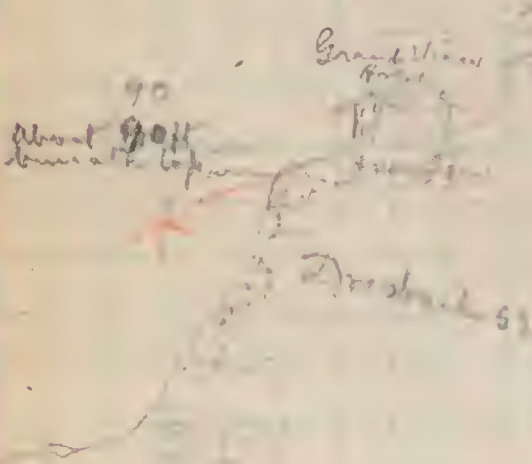


14

Elephant Bank, 3 1/2 m. N. of **Kulbourn, Wis.**

Aug. 24, 1916  
 Hatcher's & Ulrich

"Top of 300' approximately  
 Trempealeau remains in top of hill"  
 EOU.  
 80y  
 Fossils similar to those from the top of the hill. See Ulrich's paper, p. 571.  
 436R  
 Zonitoides  
 Pterochasma  
 probably from same locality.

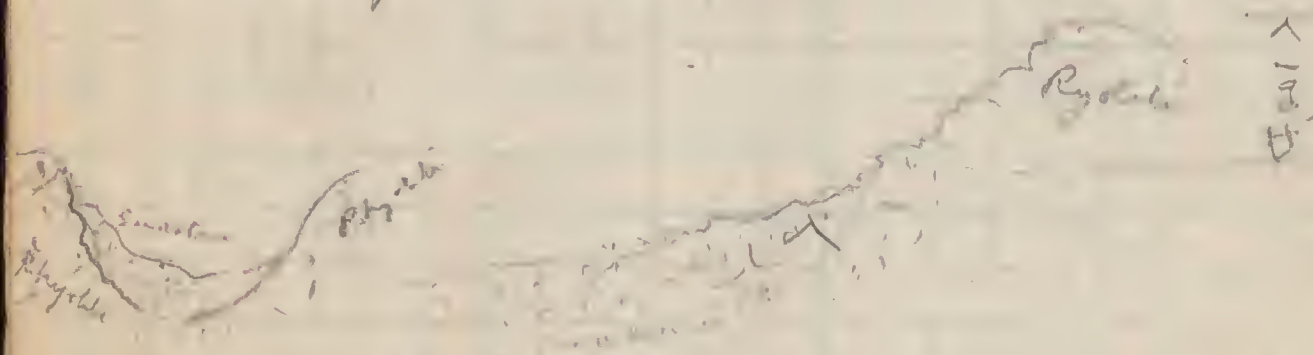


Francis & Wagoner  
 about 20 ft. top - think the  
 Francis is about 40' or the  
 Wagoner. 45 ft.

Rapidly sketched, the purpose being to determine what formations are represented in bluff - which is locally known as Blue mound rather than Elephant Bank.

Aug. 25, 1916

Observatory Hill - About 15 miles North of Portage, Wis.



White to dark brown ss. in small embayment on ridge floor. The basal foot or so is iron stained - brown. full of mostly small pebbles, and very soft. Saw two or three fossils, but too soft to preserve. Both are of a high Hypseloceras or palaeoid shell. Saw it either basal Francis or Wagoner of Taylor Falls, Minn. type of the basal sandstone at Berlin Wis.



See as low as Hyp. elongata

15

827.

9-161.

UNITED STATES GEOLOGICAL SURVEY.

SURVEY OF THE

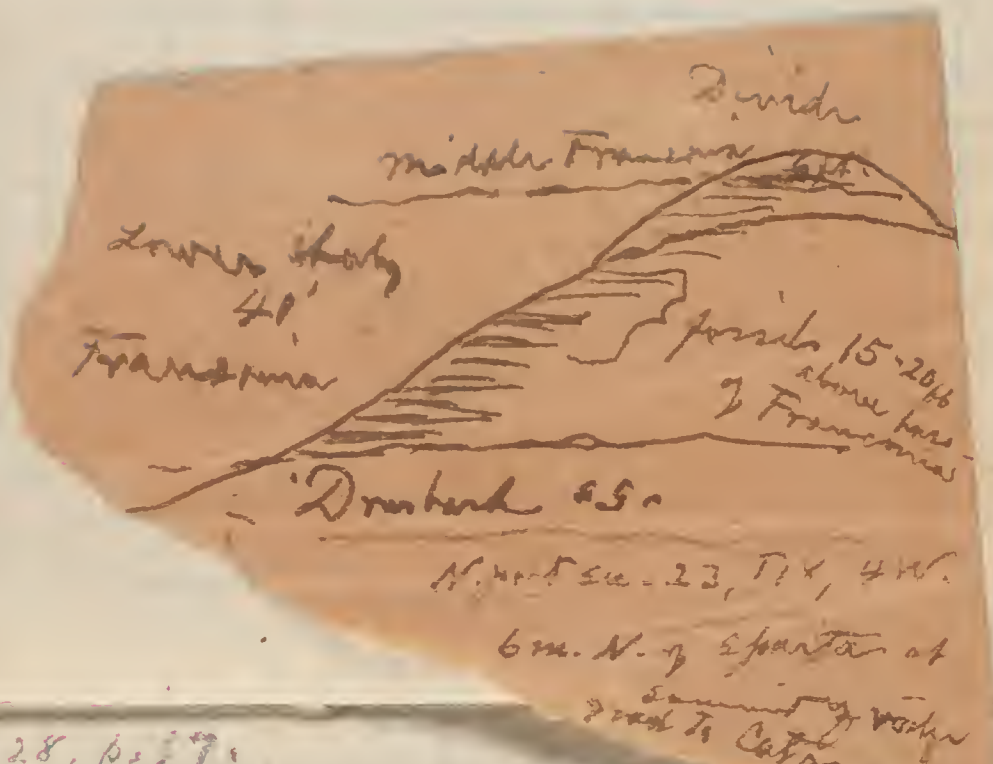
Coll. 3.

In charge.

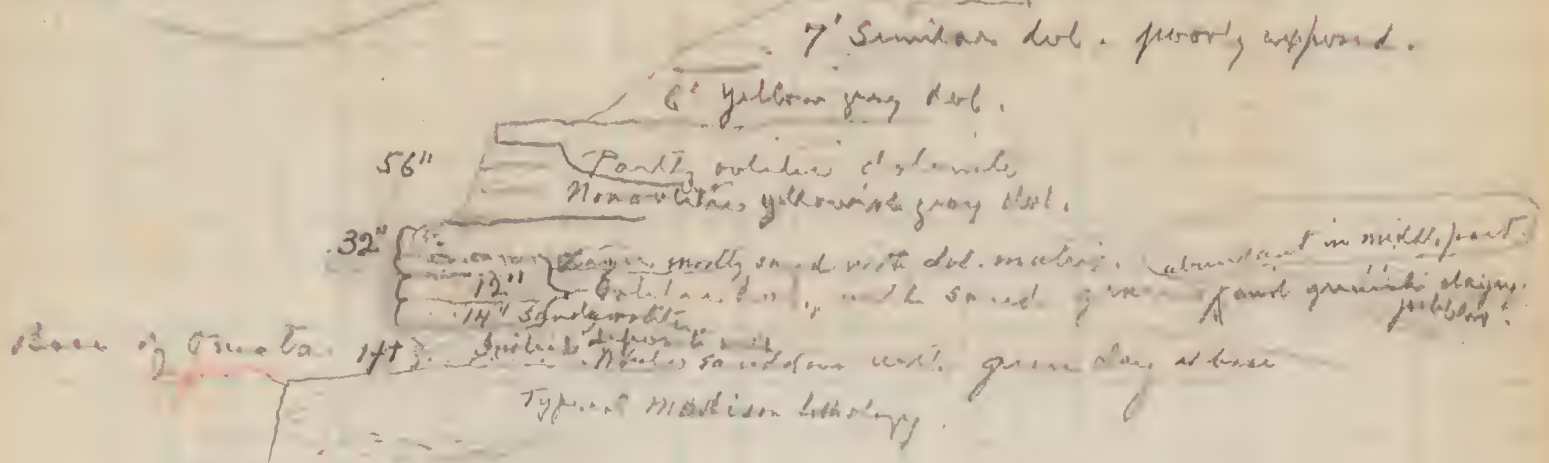
No.	Name:	Field: Determined:
LOCALITY:		<p style="color: red; font-weight: bold;">Quarry in Franconia</p> <p style="color: red; font-weight: bold;">7 m. N.W. of</p> <p style="color: red; font-weight: bold;">Warrenton, Wis.</p> <p style="color: red; font-weight: bold;">N. part sec. 17, 10, 11.</p>
Collector:		
Date:		
Note Book:		Memoranda:
Page:		6-1907

Coll. 1 → 5' 10'  
 Coll. 2 → 10'  
 Coll. 3 → 16-17 ft.

6 mi. N.W. of  
Sparta

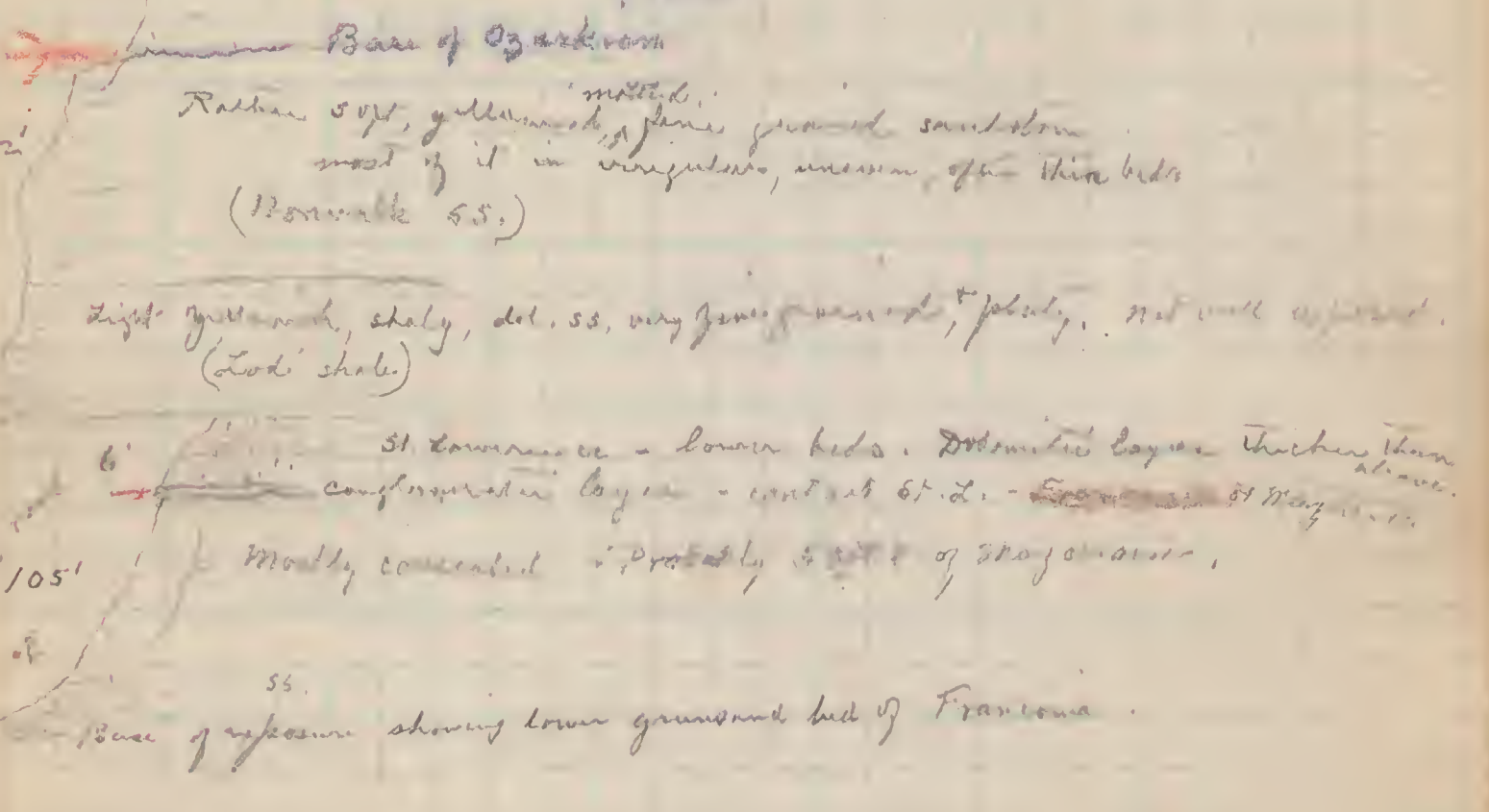


U.S.G. 28, p. 17.  
 Castle Rock, about 4 miles N.W. of Sparta, Wis.  
 With H. H. Schuchert, Martin Turshoff, Thomas & Wheeler.  
 Aug. 18, 1911.  
 Top of Castle Rock.



11 ft. average grain of sand coarser than below

38' Jordan sandstone with usual characteristics



9-161.

827.

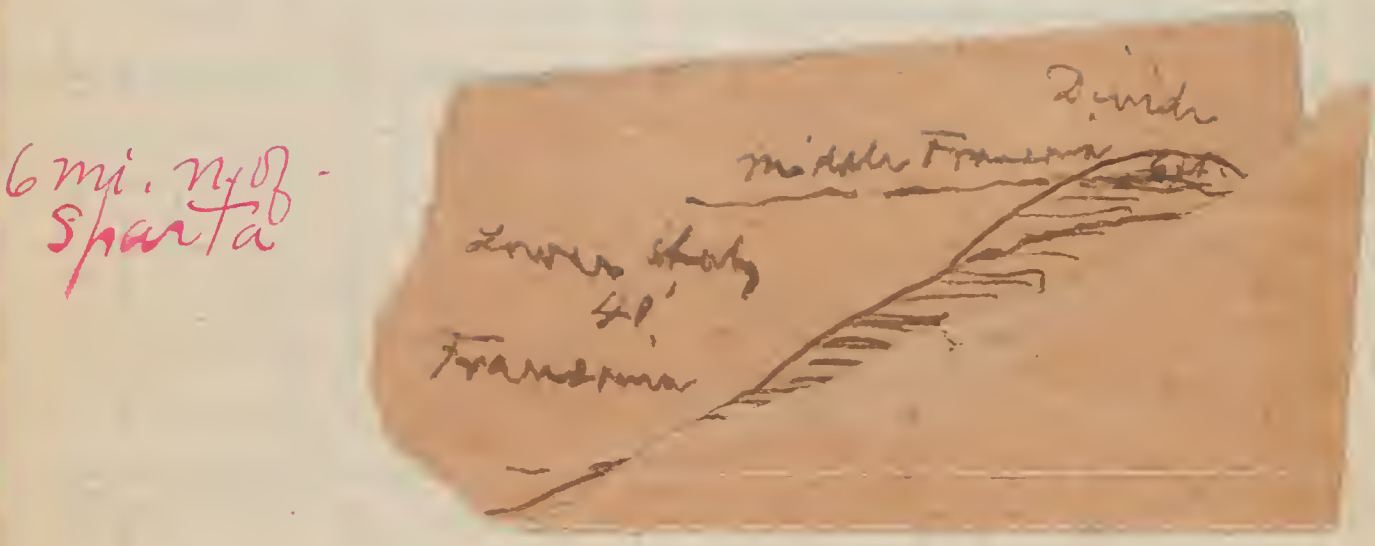
UNITED STATES GEOLOGICAL SURVEY.

SURVEY OF THE

Coll. 3.

In charge.

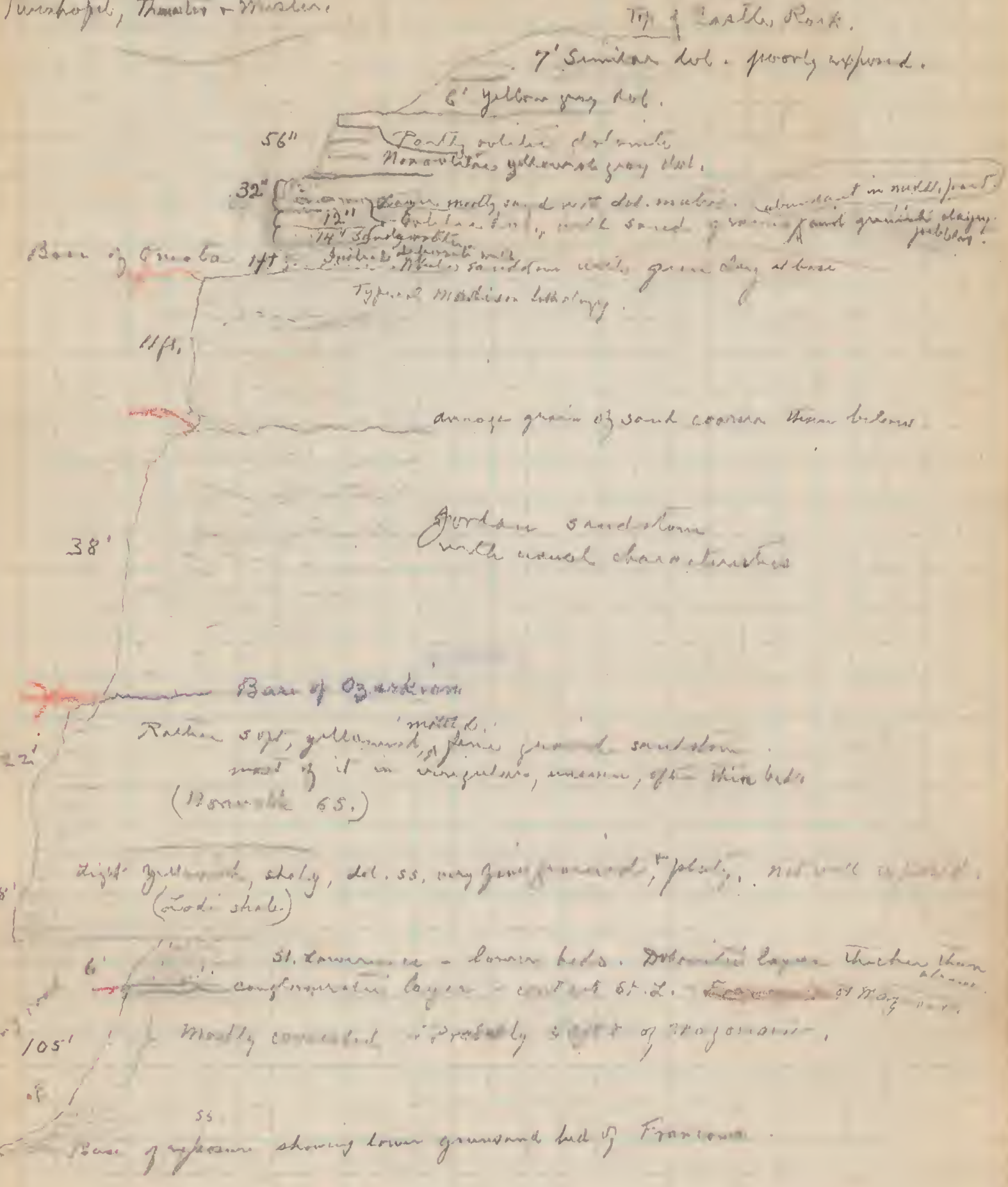
No.	Name:	Field: Determined:
LOCALITY:		Quarry in <del>Francis</del> Francis 7 m. N.W. of Warsaw, Wis. Sept. 17, 10, 11.
Coll. 1 → 5' Coll. 2 → 10' Coll. 3 → 16-17 ft.		
Collector:	Date:	
Note Book:		Memoranda:
Page:		6-1907



U.S. 28, p. 17.

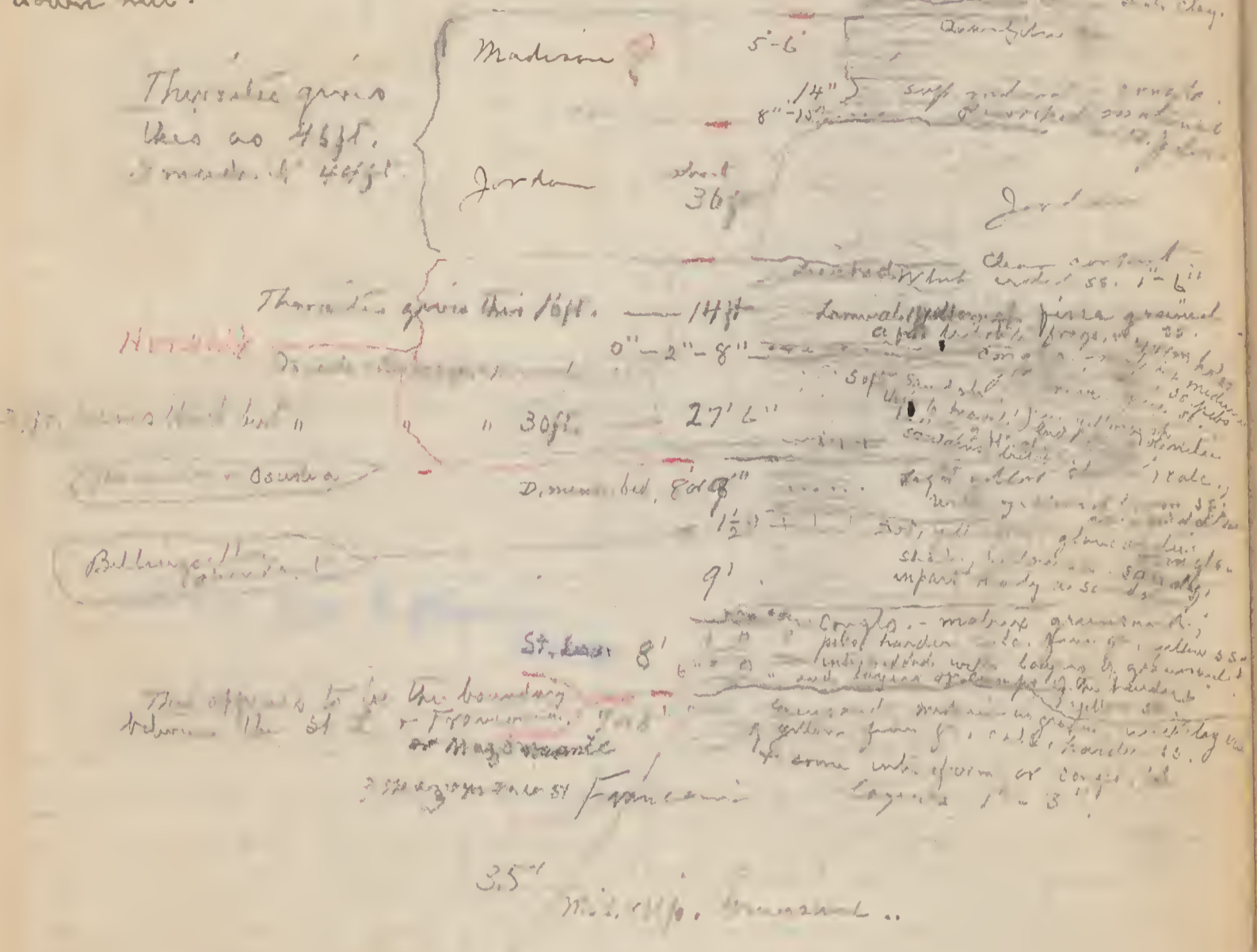
Aug. 15, 1917.

Castle Rock, about 4 miles N.W. of Sparta, Wis.  
 With H. H. Johnson, Martin, Turshoff, Thomas & Mader.

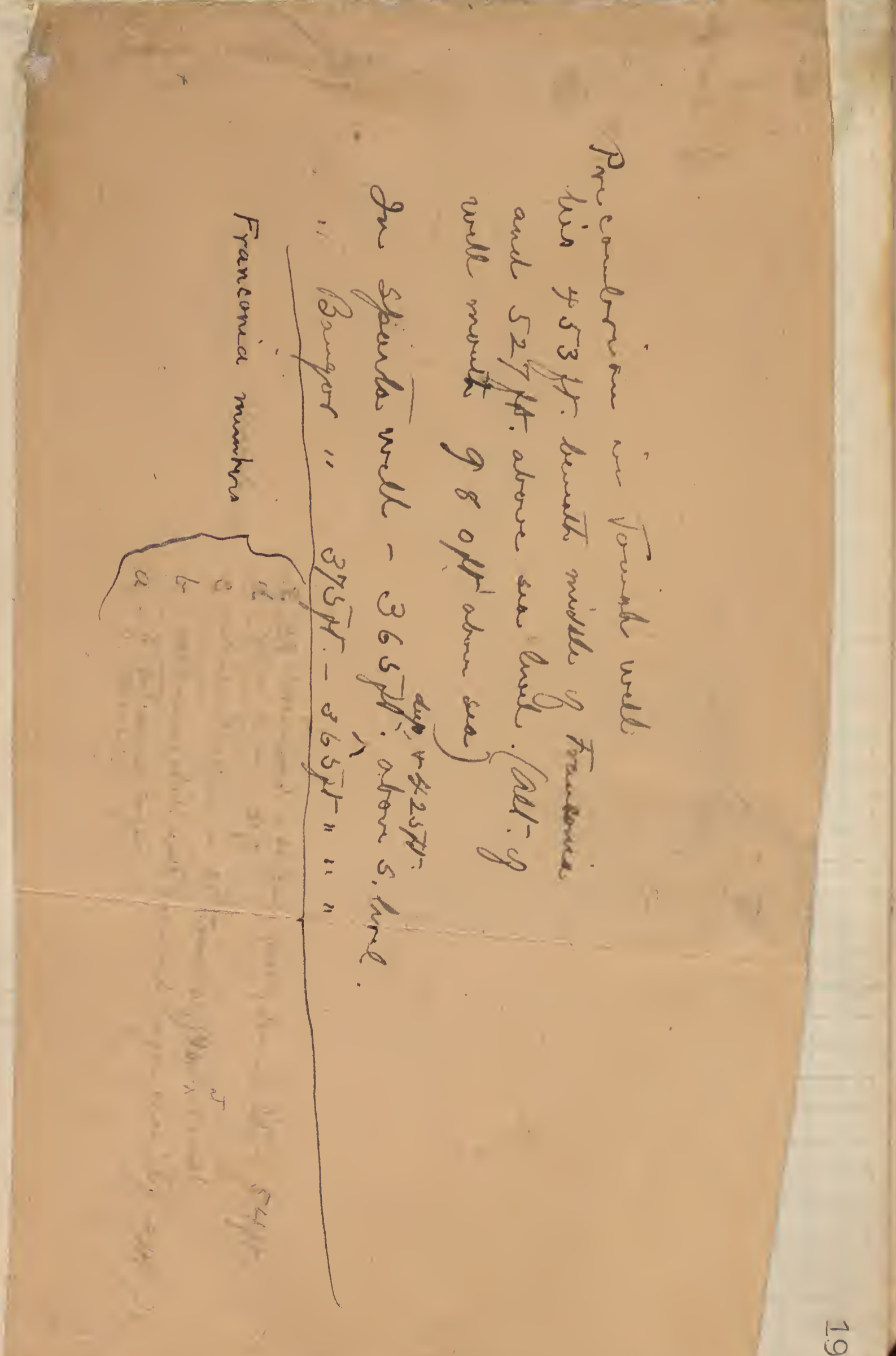
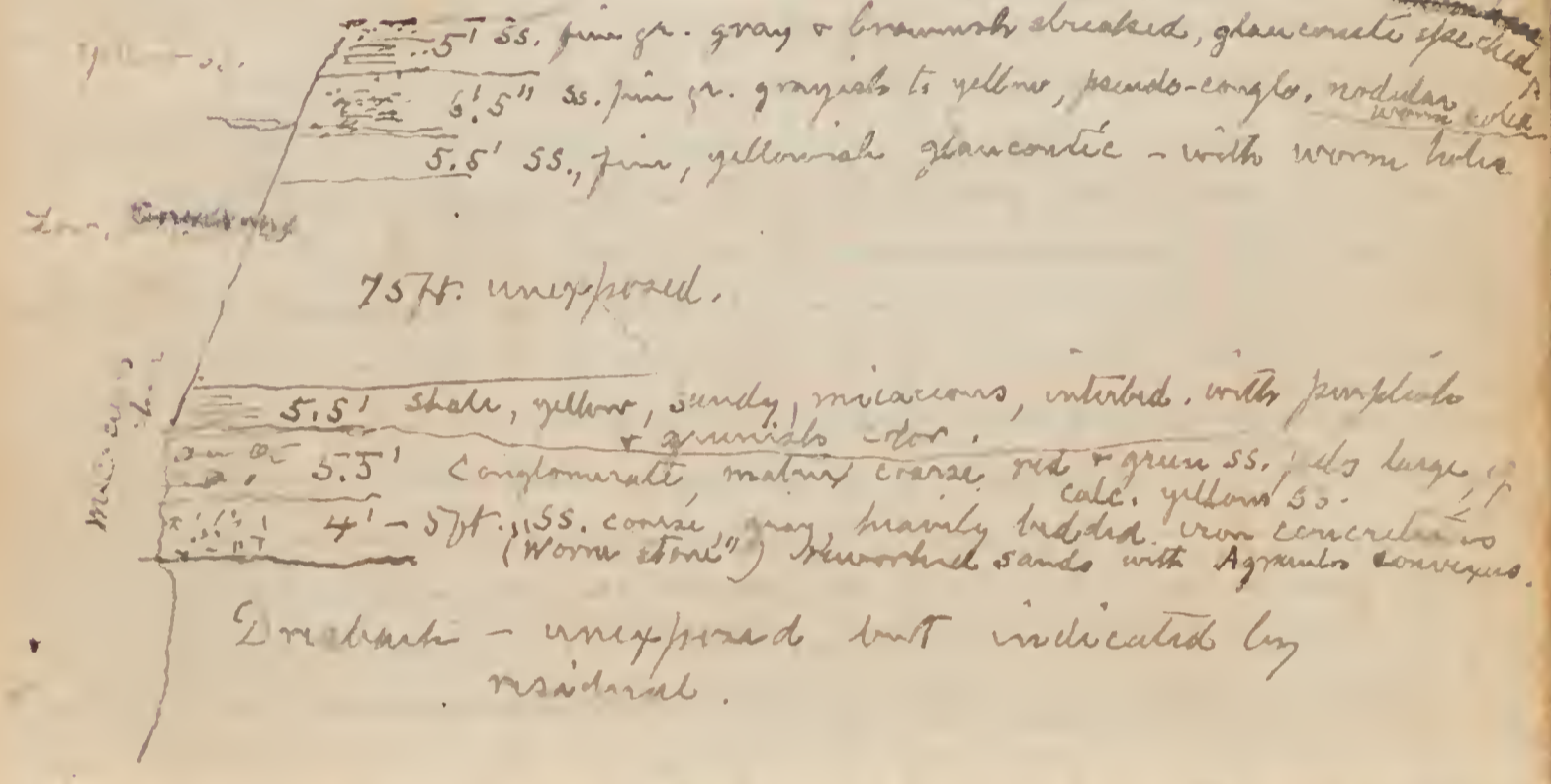


In Sparta region - South Ridge Road  
 SE SE 7, NENE 18, NWNW 17,  
 T15, R1W.

Section made by Ulrich Aug. 20, 1917  
 slightly revised by comparison with well  
 section made Sept. 17, 1916 by F.T. Thurston.  
 Most thickness greater in his than mine  
 but he says they are "affected by dip" which is  
 down hill.



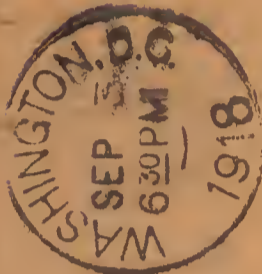
SE SE 7



1225'  
 75' approx.  
 1150'  
 1095'

Rather massive, irregular bedded, yellowish to brownish fine & relatively coarse grained ss. many of the layers possibly most characteristic of the *Pilot Knob* zone. Organic remains are mostly *Obolus* suggesting *Scutellaria* but two very slender, inclined - sometimes even appearing to branch. The

Tolno - 755.  
 750' crop - long slope  
 2' shaly ss. fossil.  
 Basal.



THE BANK WITH THE MONTHLY

9-161.

UNITED STATES GEOLOGICAL SURVEY.

SURVEY OF THE

No. *827* Name: *P. diademata jaensis* (X) Field: *Determined*

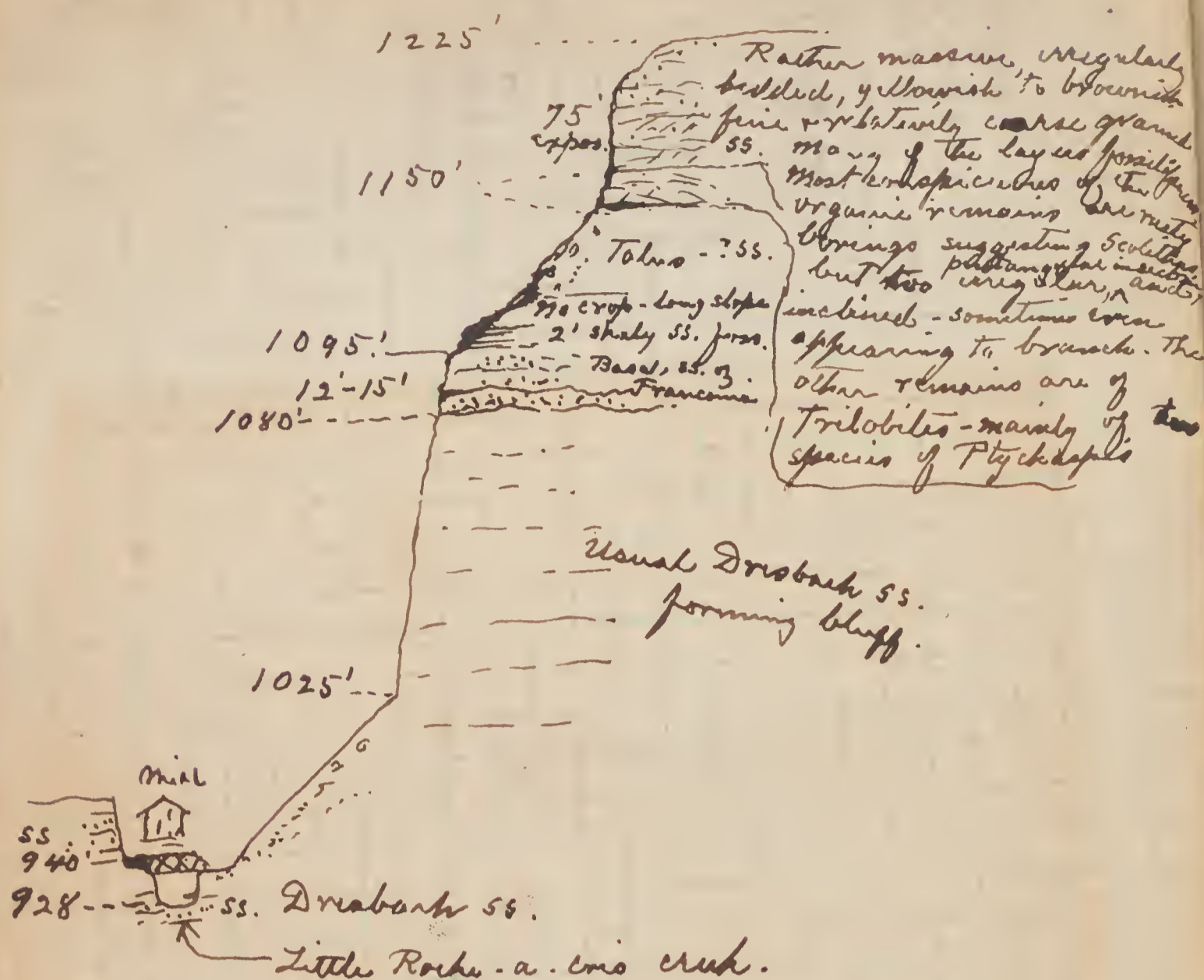
LOCALITY: *A small area of yellow ss member of the Pilot Knob zone north of town of near 5 quarter part of sec 10, T13N, R. 3E.*

Collector: *W.O. Hallock, Fred ...* Date: *Sept. 18, 1918* Memorandum: *Magnum Ptychoaspis (4 species) taken on 11/1/18*

Page: *6-1907*

Collected at this point again Aug. 15, 1919 and found the Pilot Knob *Ptychoaspis* zone in the greensand beds above the yellow ss. and 30-35 ft. above the layer near base of the latter from which *Ptychoaspis* (4 species) and *Ptychoparia* sp. were procured in 1918.

\* Study of this material indicates upper *Magnum* and not the *Ptychoaspis* zone of Pilot Knob. The fauna is most like that of the upper 10 ft. of the *Magnum* at *Point* zone S. of *Point*.



Section of Friendship Mound, just north of Friendship, Wis. Sept. 19, 1918.  
E.O.U., Notshko and Thwaites.



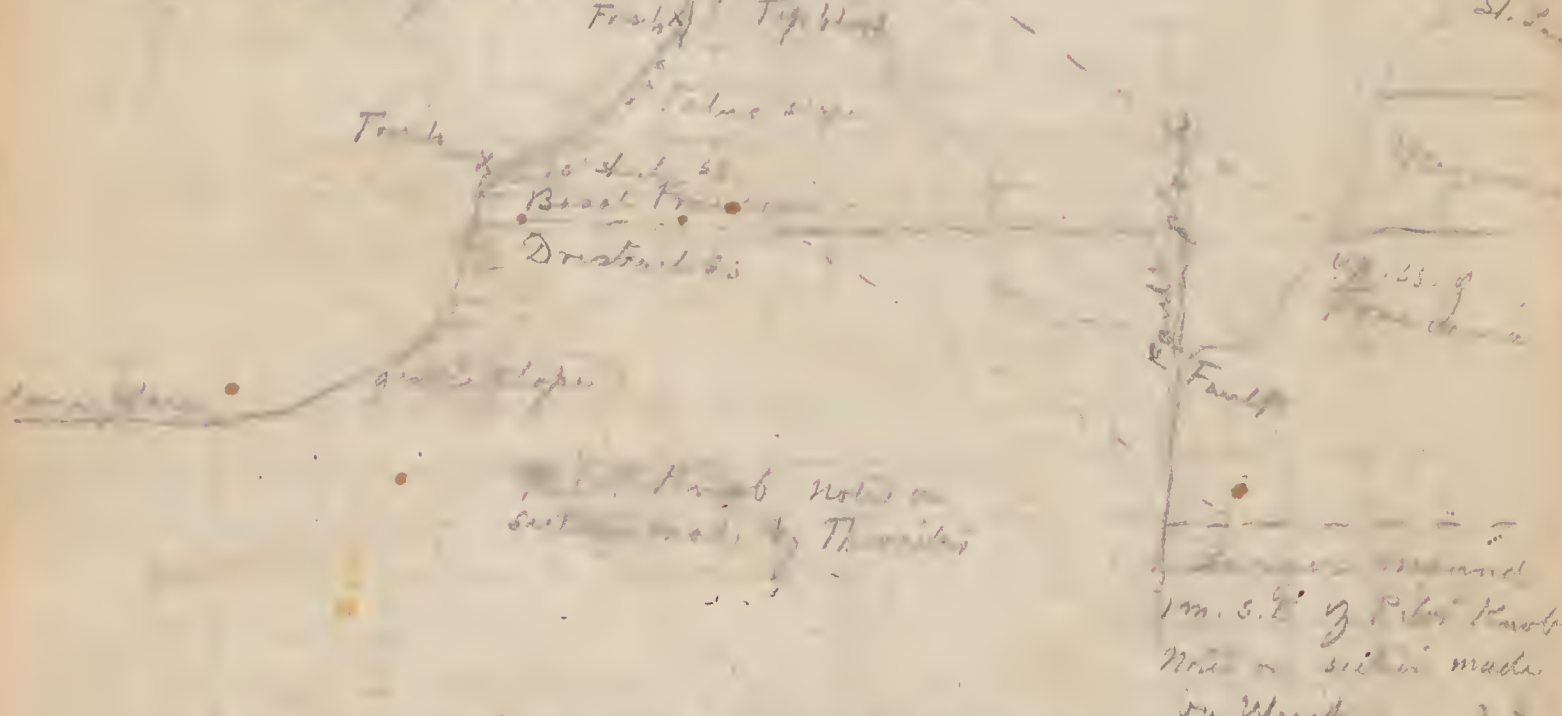
Collector: Eric W.O. Notshko Fr. Thwaites	Date: Sept. 18, 1918	Memorandum: Mog. Ptych. (4 species) out ERU.
Note Book:	Page:	6-1907

Collected at this point again Aug. 15, 1909 and found the Pilot Knob *Ptychoparia* zone in the greensand beds above the yellow ss. and 30-35 ft. above the layer near base of the latter from which *Ptychoparia* (4 species) and *Ptychoparia* sp. were procured in 1918.

\* Study of this material indicates upper *Magnesian* and not the *Ptychoparia* zone of Pilot Knob. The fauna is most like that of the upper 100 ft. of the *Magnesian* at Knob & on Sand Head Mound.

Sept 21, 1918. ... with Notchkin & Thwaites

Down road from Friendship about 10 miles to Pilot Knob. This, like the Friendship Mound, is capped with the southernmost bed of the Franciscan. The base is formed by Drostsch ss. in a low bluff; much less of the lower formation remains here above the level of the old lake floor.

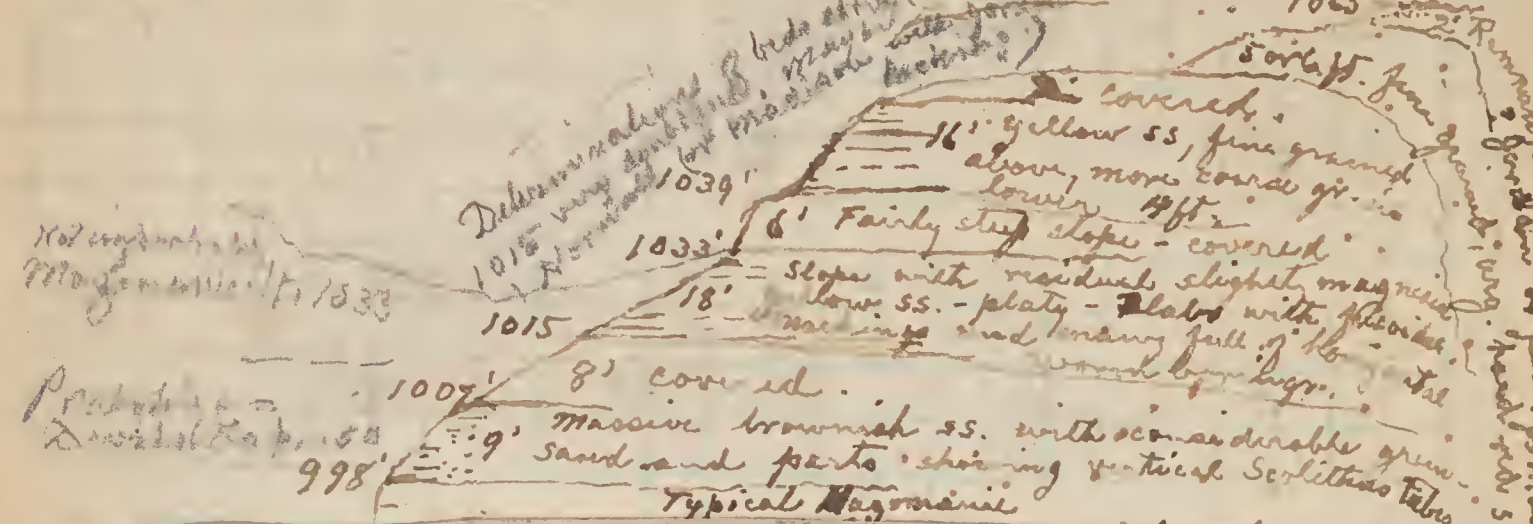


The southernmost bed of ss. on Pilot Knob is on the whole more reddish than on the mounds at and to the west and south of Friendship. Fossils, especially species of *Physogona*, are more abundant but a accident of the softness of the ss. difficult to bring in with a trowel. The largest and best specimens were almost ruined when they reached Washington.

The shaly ss. next above the massive basal sandstone of the Franciscan now and then deposits a platy layer filled with fossil remains. So far as observed however these being almost entirely of small species of *Doringella*. The material being so soft & friable it has not been possible to acquire an adequate conception of its possible relations to the species known from better specimens found in higher beds of the formation.

One mile southeast is another and larger Mound. Previous long ago noted and published the fact that the stratigraphic sequence in this mound is quite distinct from that in Pilot Knob. Still less limited and complete remains were seen in this mound.

Mound 1 mile + S.E. of Pilot Knob - R. 7 E. = 10 miles east of Friendship Wis. Sept. 20<sup>th</sup> 1918. Col. Notchkin & Thwaites.



- 1m S of Pilot Knob - 2/20/18 with Thwaites & Notchkin
- Top, 1065 - covered.
- 2' Remnants fine gr. massive ss. Jordan
- 1063. fine gr. arg. red. Col. St. L.
- 1057 5 or 6 " " " "
- 2' Covered
- 1055 yellow ss, fine grained
- 1039 above low arg. coarse gr. fairly
- 1039-33 steep slope - unexposed
- 1033-15 Red. slightly mag. redd yellow ss. beginning of fossils very platy & full of horizontal worm burrows.
- 1015-1007 Covered
- 1007-998 green sand, massive with parts showing vert. scolithus
- 925
- 998-945 Typical Magomarie - alternating dolomitic beds full of fossil fragments and sandstone - cream white buff to streaked, cross bedded in 6 inch beds
- 925 Top of ~~typical~~ sandstone of Franciscan
- Covered slope below
- 840. Elev. of Road N of Mound



1225'

Rather massive irregularly

Sept 20, 1918. ... with Woodhewer & Thwaites

22

Drove east from Friendship about 10 miles to Pilot Knob. This, like the Friendship bluffs, is capped with the Scythian sandstone of the Franciscan. Its base is formed by Breakback ss. in a low bluff, much less of the lower formation rising above the level of the old lake floor.

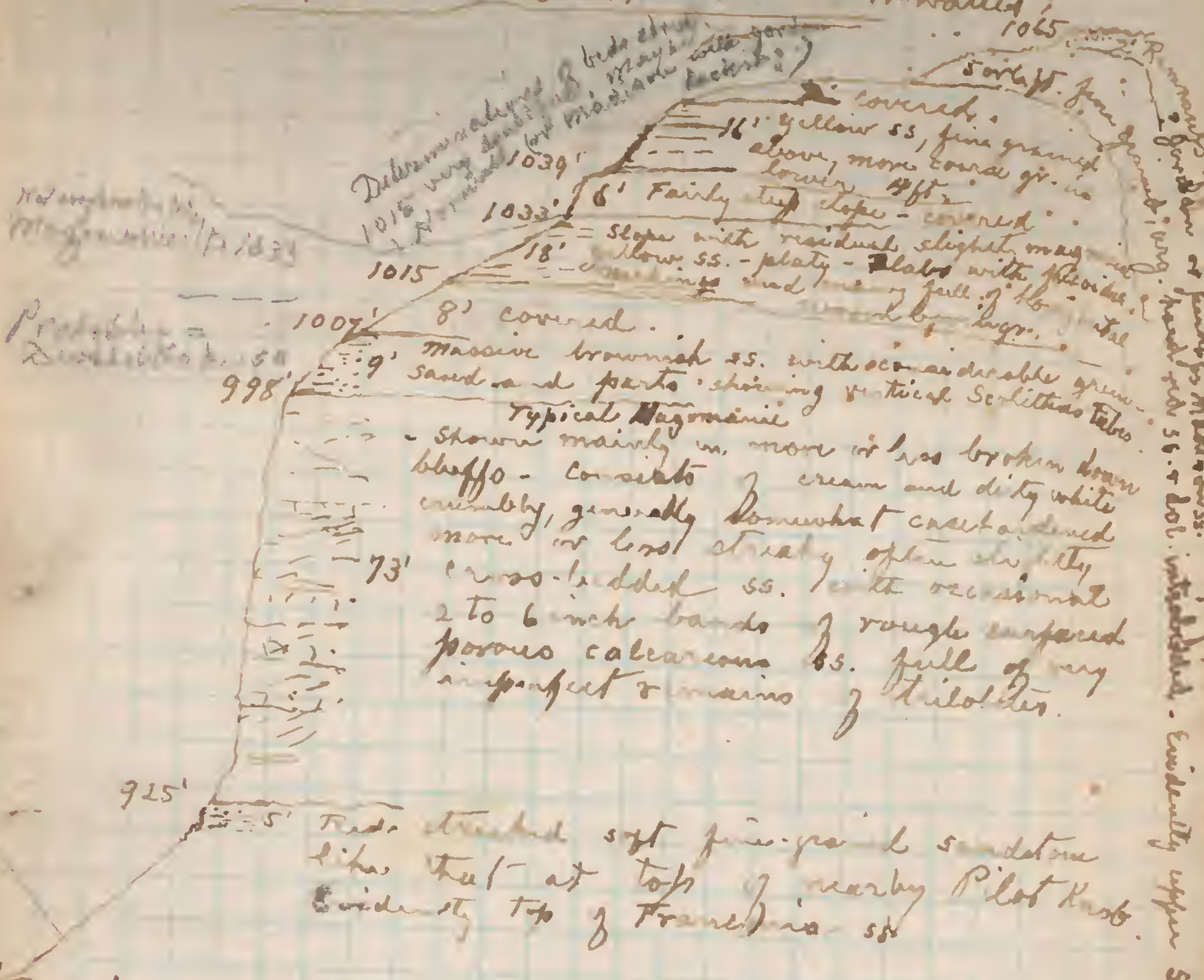


The Scythian brown ss. in Pilot Knob is on the whole, more reddish than on the bluffs at and to the west and south of Friendship. Fossils, also, especially, species of *Rhyolites*, are more abundant but on account of the softness of the ss. difficult to bring in with a hammer. The largest and best specimens were almost secured when they reached Washington.

The shaly ss. just above the massive basal sandstone of the Franciscan now and then affects a platy layer filled with tabular remains. So far as observed however, these belong almost entirely to a small species of *Irvingella*. The contact being soft & friable it may not be possible to acquire an adequate collection of all species relations to the species known from better specimens found in higher beds of the formation.

One mile southeast is another and larger bluffed. Some say also noted and published the fact that the stratigraphical distance in this mound is quite different from that in Pilot Knob, with less limited and less pronounced conception of the Cambrian zone as a whole.

1/2 mile S.E. of Pilot Knob - NW 1/4 sec. 12, T. 17, R. 7 E. = 10 miles east of Friendship Wis.  
Sept. 20<sup>th</sup> 1918. Edw. Woodhewer & Thwaites



840' Road 1/2 m. N. of bluff.











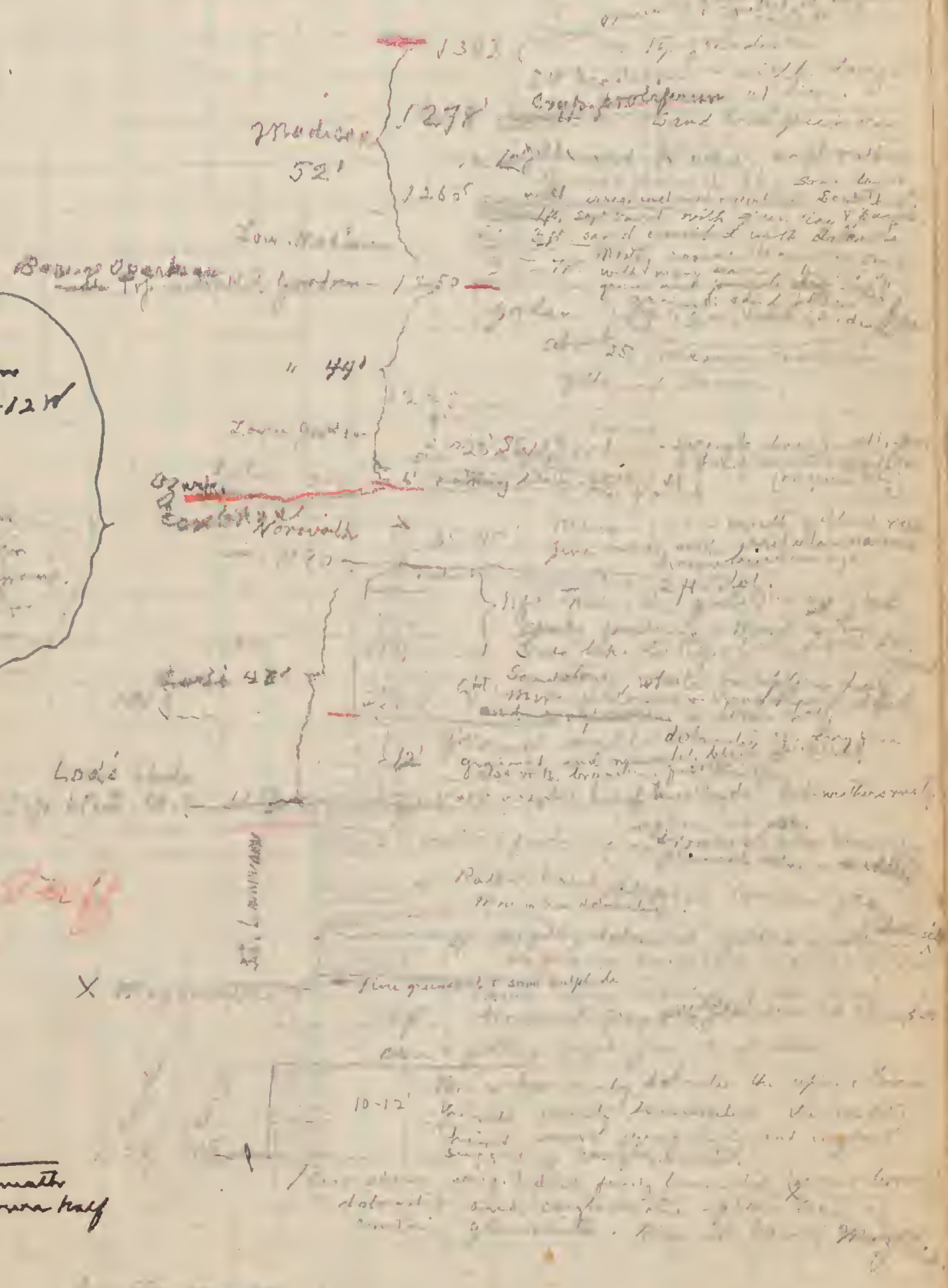
1225'

32

W. of Alma  
W. of Long

*O. affinis* *Accalca's* *parvus*  
 NR  $\frac{1}{4}$  sec. 16, T21N, R12W

Small, thin, blue  
 thin, rounded, 1/2 in.  
 5-10 in. diam. some green.  
 Also a few small, round  
 ones, 1/2 in. diam.



Lower Cambrian  
10-12'

For beds beneath  
quarry see lower half  
p. 31.

Reeds Landing, Minn.

W. of Reeds Landing, Minn.

Reeds Landing, Minn.

Cambrian not well exposed.

In bed of Reeds Landing  
 several forms of fossils  
 including  
*Calymene*  
*Plectambonites*  
*Strophomena*



See also p. 31  
32' Norwalk ss.

St. Louis x 1115'

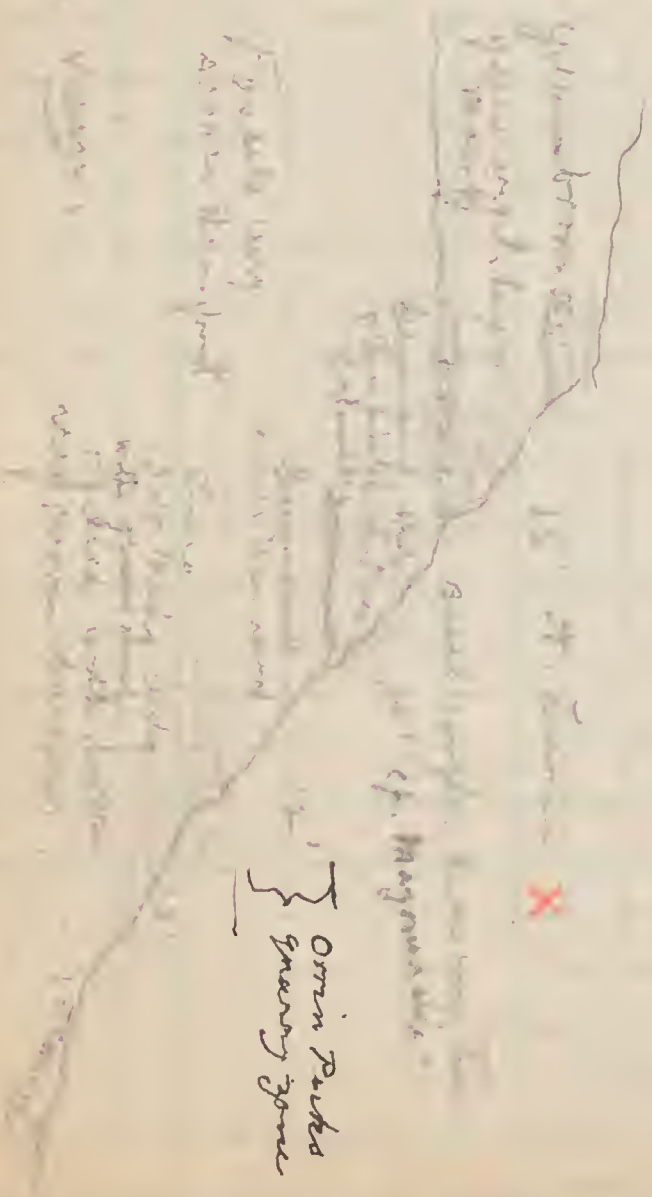
St. Albans

(see p. 30)

1225'

Found fossils on 12-25-18  
about 1/2 mile from  
Madison, Wis.  
in the N. of Madison  
August 15, 1918

Wells in vicinity



pp. 36-38  
Madison, Wis.  
August 15, 1918





1225'

Section made at falls 2 1/2 mi. W of Summit. Near Plover.

Section made at falls 2 1/2 mi. W of Summit. Near Plover.

These beds are of more exposed than those shown and it is there that the lower part of the upper bed is exposed at north end of ledge at Summit.

81'

Hydronephros  
? other fossils  
but all poor.

Large trilobite  
D. m. or  
Hydronephros

Level of water at base of fall

Drift

- 1. Hard, weath. bed, shaly, rounded, ...
- 2. ...
- 3. ...
- 4. ...
- 5. ...
- 6. ...
- 7. ...
- 8. ...
- 9. ...
- 10. ...

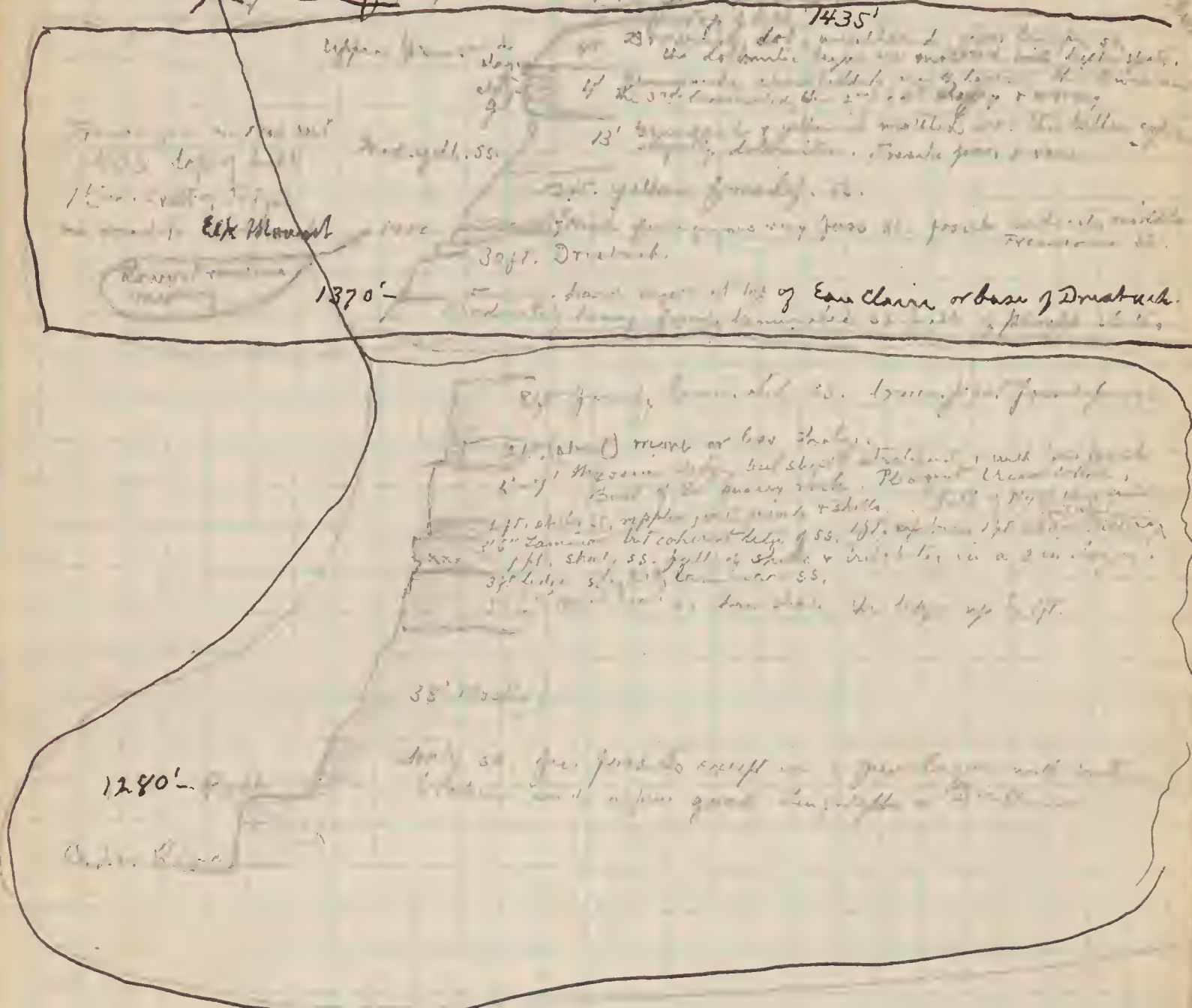
13'

- 13. Laminated sandst. greenish yellow interbedded with shales of 3 ft. quartz
- 12. Mass. rather wavy bedded sandst. ...
- 11. ...
- 10. ...
- 9. ...
- 8. ...
- 7. ...
- 6. ...
- 5. ...
- 4. ...
- 3. ...
- 2. ...
- 1. ...

Compare with section at Hudson

Earl Clair shale.

Section at quarries \*  
at top of bluff along Cedar River  
1 mi. N.W. of Colfax, Wis. Aug. 13, 1918 with W.B.H. & J. ...



\* Quarries along this bluff for nearly two miles  
Wonderfully fine collecting ground for <sup>upper</sup> Earl Clair  
fossils.

Northwestern Wisconsin, 2000 ft. NW of Northville, Wis.  
Aug. 14, 1918, with W. J. Killeen & C. Edwards

1620 — **Top basal Franconia ss. observed apparently beneath**  
 1500 — **135' horizon.**  
 1420 — **Drearily ss. quite hard in part about**  
 1380 **Foot of hill** — **as generally is. Most of the exposure appears**  
 as massive ledges, some of them broadly  
 tabular. The rock is white, gray and  
 bluish, with ferruginous stains. Reminds  
 in general of the more quartziferous phase  
 of the **St. Lawrence**.  
 at 1370'

1620 — **Top of Northville sand.**  
1500 — **W**

1420 — **very cross-bedded**  
 1380 — **as at Northville**  
 1350 — **with shaly part**  
 about 30 ft. very coarse sand with frequent  
 masses of **quartz**.



about 60 ft.

Diatoms of shell v. sandstone  
suggested by John J. St. John  
very fine and sh. St. John  
and streaked with brown  
fine grained ss. appears massive  
on fresh cut

35'

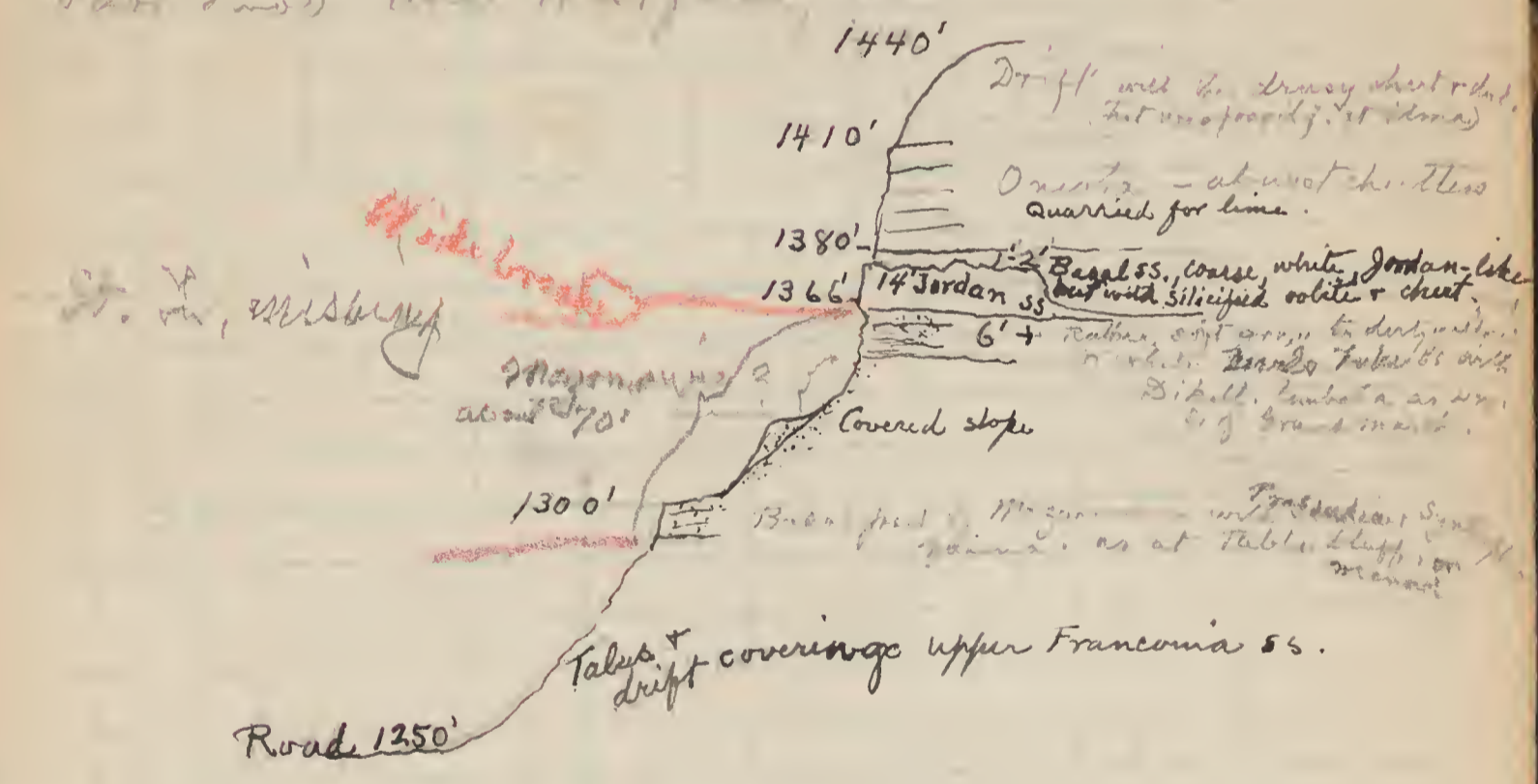
Tribolium

SPIT

yellowish soft ss with worm borings, *Stylocyba* etc

See for greater details  
pp. 51 & 52

Barab, Bluff, sec. 7, T. 19, R. 7 E. One on road between  
Point Leno and Westfield, Wis.



9-161.

UNITED STATES GEOLOGICAL SURVEY.

SURVEY OF THE **889-**

No. Name: { Field: In charge.  
Determined:

LOCALITY: 2 m. N. of Pray - Wis.  
Suspected shore equivalent of Earle chert shale.

4) cross-bedded ss. near Saddle Mound.  
5) relatively shaly ss.  
3ft. made up of 3"-4" layers of closely cross-bedded ss.  
2ft. shaly & congl. ss.

Collector: E.M. & W.O.H.  
Date: Aug. 14, 1919.  
Note Book: 28  
Page: 1050

Memoranda: The cross-bedded layers consist of 1/2 in. layers in blocks at 10 to 35 ft. with alternating very coarse layers.

E. Fort Blake Run.

9-161.

UNITED STATES GEOLOGICAL SURVEY.

SURVEY OF THE **872**

No. Name: { Field: In charge.  
Determined: *Mazonian ss.*

LOCALITY: SE 1/4 Sect. 4, T11N R3E  
About 2 m. N.W. of Denzer, Wash.  
*Mazonian ss on Dredbach*

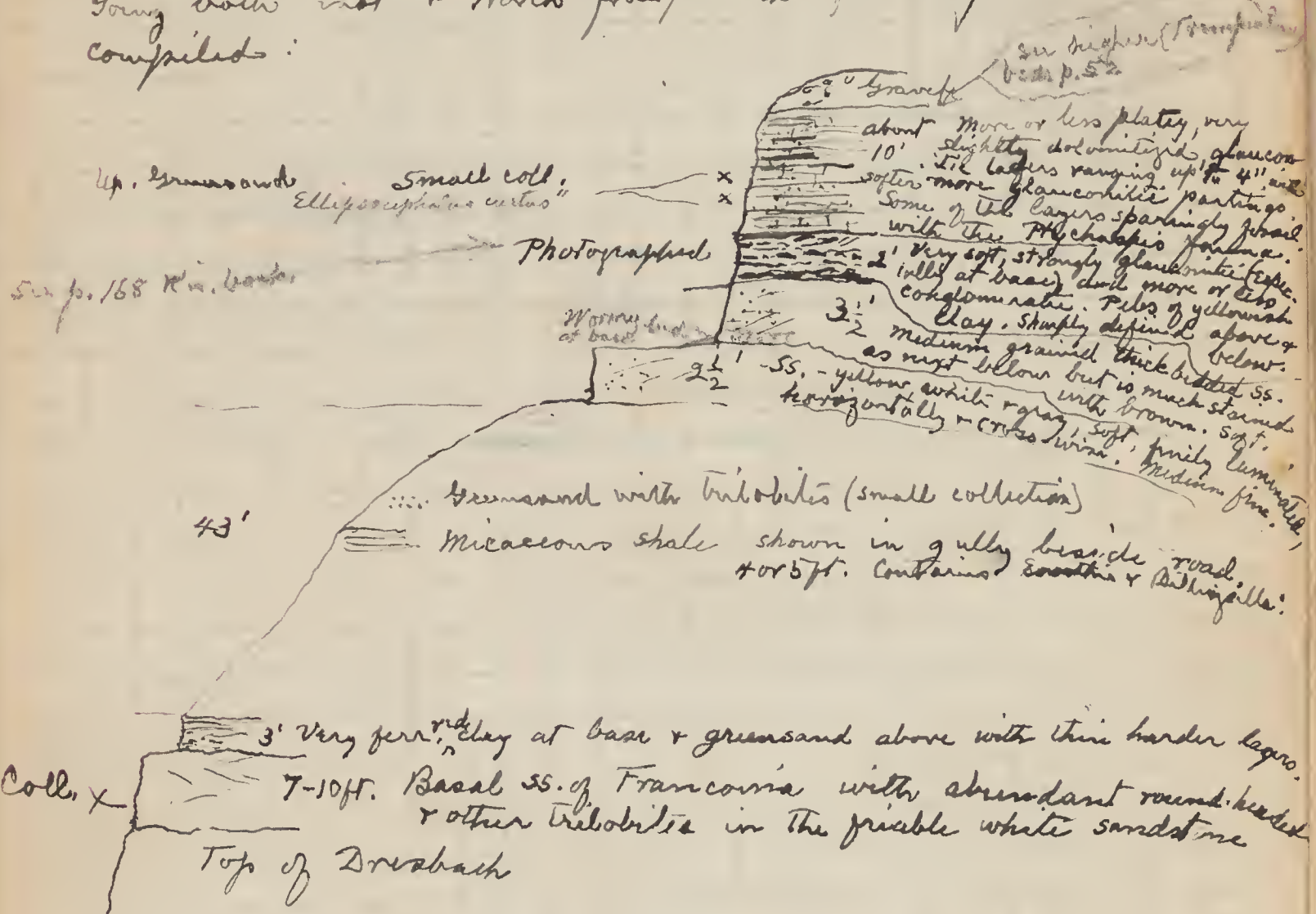
Collector: E.M. & W.O.H.  
Date: July 20, 1920.  
Note Book: *11920*  
Page:

Memoranda:

6-1907

Ironton, Wis. Aug. 21, 1919. with W.O.H. Fr. Theo. & J. Ed.

At cross-roads in village is large pit for road material in upper Franconia - covered by Pleistocene chert gravels up to 4 in. dia. Going both east & north from pit the following section was compiled:



Section at old Iron mines see reverse.

No. Name: { Field: *Ptychospira*  
Determined:

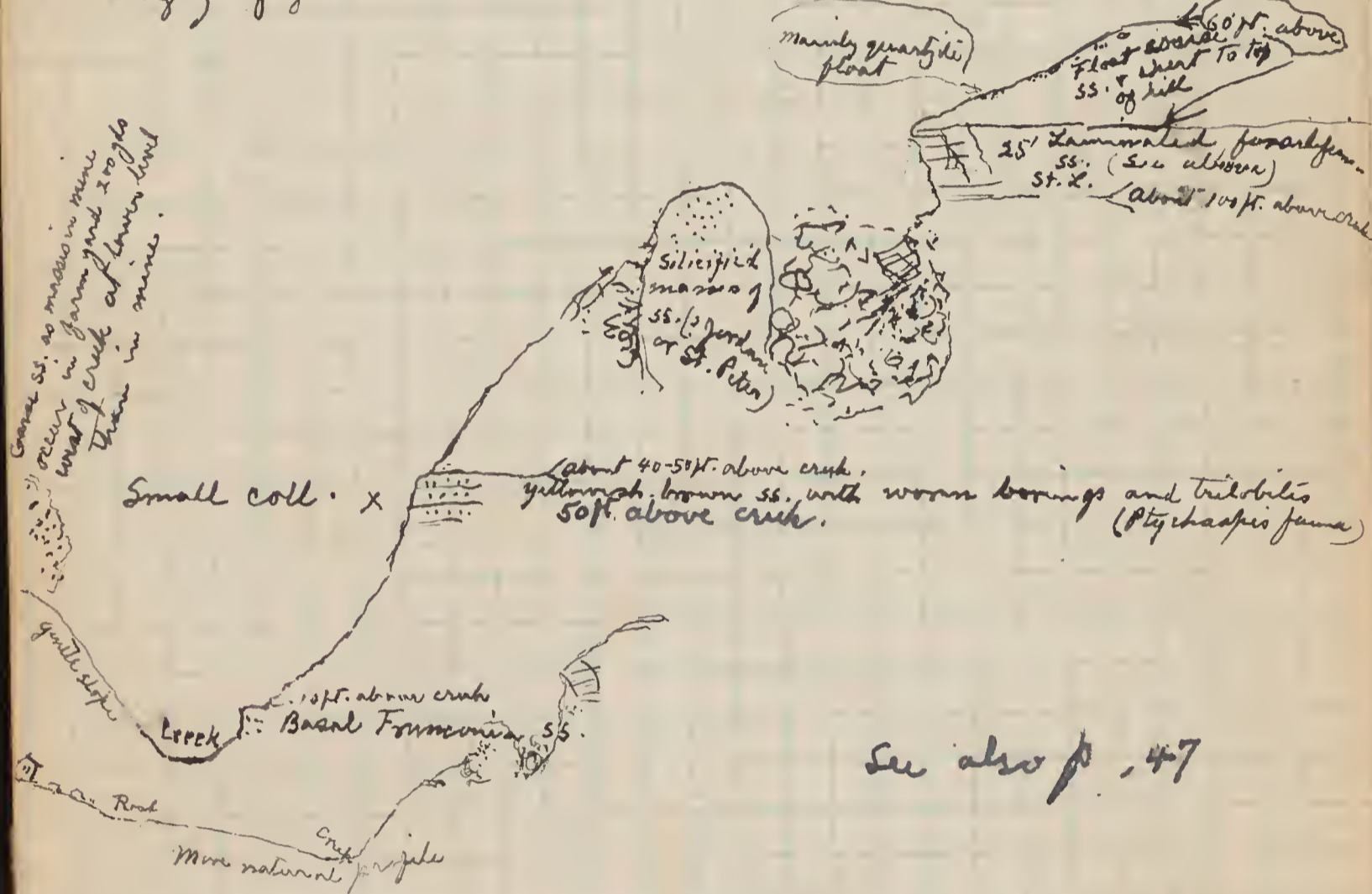
LOCALITY: **84 m** Lower Greensand of Franconia  
in village of Ironton, Wis.

Collector: E.M. & W.O.H.  
Date: Aug. 21, 1919  
Note Book:  
Page:

Memoranda: Dredbach.  
Other collections from this loc. from basal ss. of Franconia upper greensand which contained poor *Ptychospira*

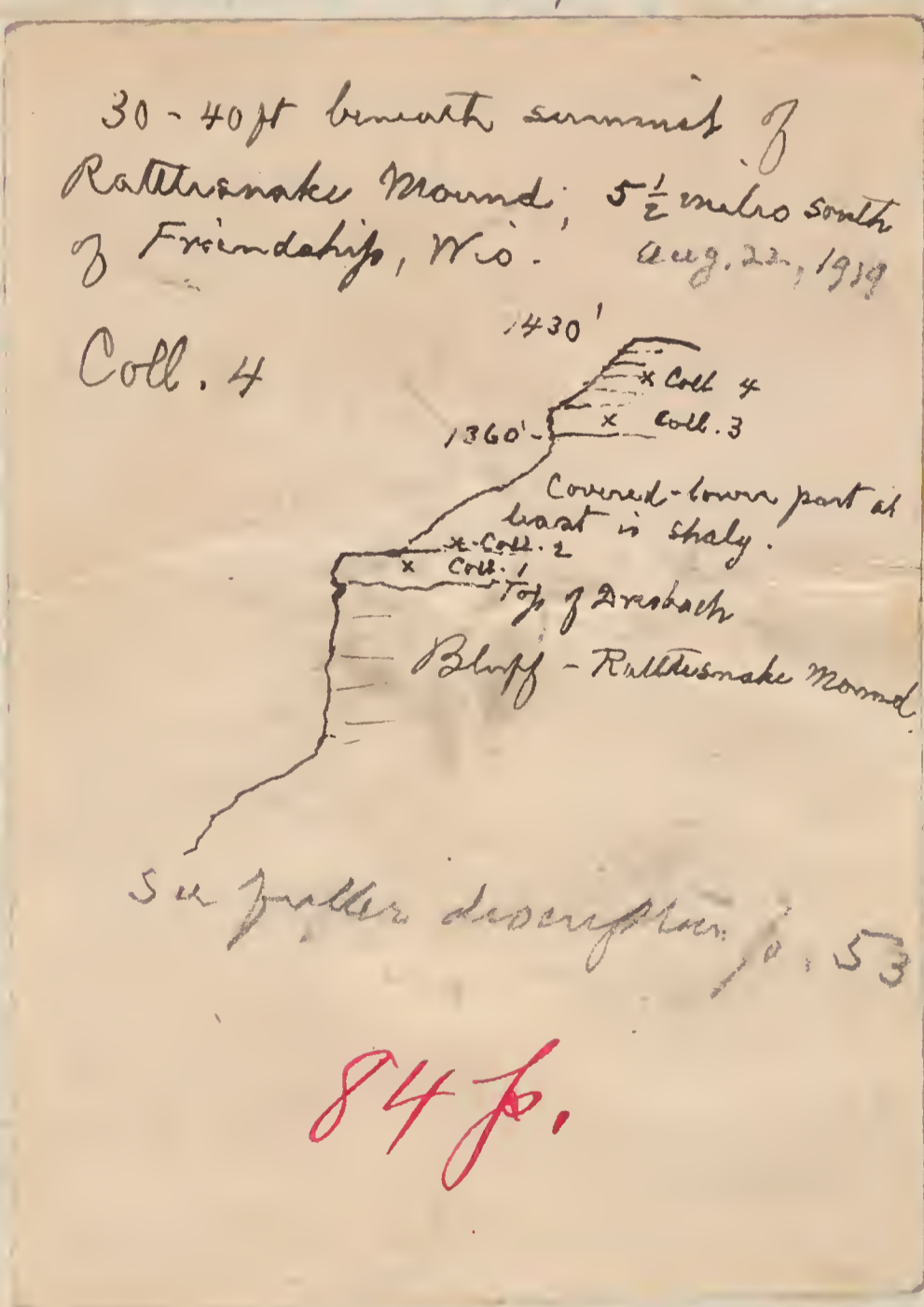


Generalized sections and conditions at old iron mine (T12, R.3 east, Sec.10) one mile S. of town of Ironston on east side of valley. The east wall consists of fine grain micaceous white to light yellowish gray sandstone in beds of 2 ft. or less & finely laminated. These contain numerous pelecypods and filling worm burrows of various kinds and Dikellocephalid trilobid frags. indicating middle or upper St. L. (Collections made) These ss. are cut by N-S joints steeply inclined to E. which have caused heavy falls that <sup>now</sup> cover lower part of east wall of pit. The mine was a large open cut 75 x 25 yds with maximum depth of about 40 ft. - In this worked space are great masses - "horses" of coarser silicified ss., suggesting either Jordan or possibly St. Peter, that seem to have been dropped into an old channel. Barely possible that this channel was of pre-St. Peter age and the St. Peter deposited in it. These masses of quartzite are coated with limonite in part botryoidal and in other parts suggesting pseudomorphs after crystalline marcasite. Angular chert frags. abundantly included in the ore which in places consists largely of yellow & red ochre.



100 53  
p. 53

Notabook 28, p. 53



X

Rattlesnake or Stafford (= Spofford) Bluff, North side  
of northern gap - Sec. 7, T. 16, R. 6 E.

Aug 22, 1919.

995 Phylacaris

Collection

Conspic

All sandstone,  
fine to medium,  
gray to yellow,  
case-hardens &  
mostly soft friable  
inside - massive  
laminated & bedded  
Many layers fossiliferous

130 ft. according to Irving

Road

Talus slope

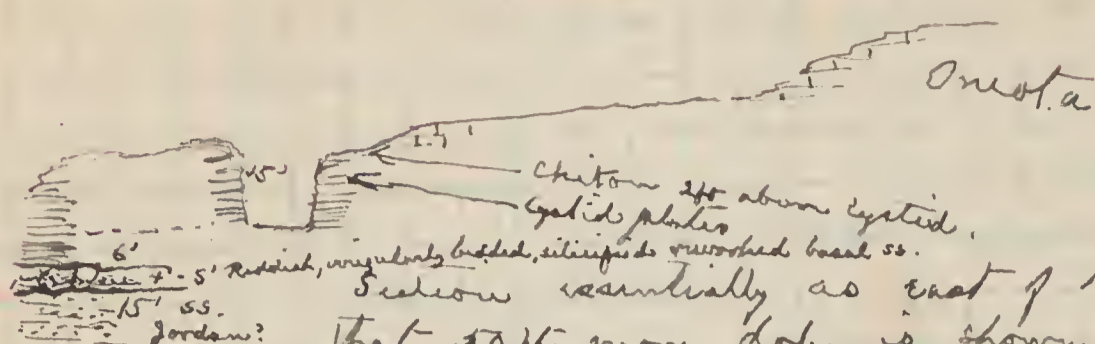
80 ft. bluff of Dousbach ss. - Heavy bedded, laminated  
& cross-bedded, ripple marked with  
concretions, yellow, gray & white, medium  
grain, making lower and main part  
of vertical cliffs.

sec. 84 + Phylacaris  
(P. 2. 2. 2.)



July 16<sup>th</sup> 1920.

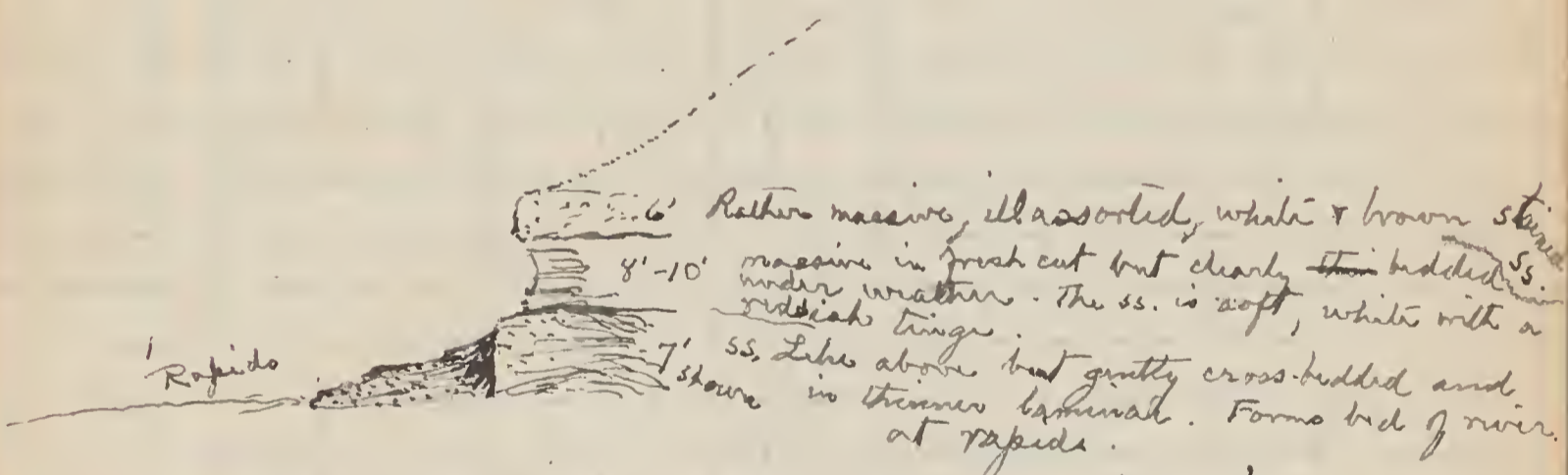
On road to Hortonville from New London 50  
and west 1/2 mile. Spot about 3 m. S. of " "



Section essentially as east of New Lon. except that 50 ft. more dol. is shown or present at top and less ss. shown at bottom. The reworked sand forming base of Ozarkian also is thicker. The cycled plates occur about 15-18 ft. above the basal ss. and the chiton layer 2 or 3 ft. higher.

July 14, 1920

Peshigo River, at uncompleted dam 3 m. above (NW) of Crivity, Wis.



No evidence whatever of fossils  
Looks like Dresbach.  
The top 6 ft. bed may be basal Ozarkian.











July 23 - 1918 - Drove S.E. from Bonadelle  
 to South Crossway, about 8 miles, where top of  
 Onondaga is exposed in form of more or less heavy  
 sheet. gathered bag of fossils of kinds usually  
 found at this horizon. Above this is thin  
 bed of St. Peter followed by detrital beds of  
Black River & Waukesha (See if collection was  
 not made from St. Peter at this point in 1914.)  
 \* Interesting feature is absence of St. Peter

The miles of road west of Kenosha is on Onondaga  
 with occasional outcrops of St. Peter & Waukesha  
 do. & do. in

From this point drove to Onondaga locality in fact 36  
 To, R. 2 E. Egonsa a little south of west from Bonadelle  
 on top of hill <sup>17.4</sup> outcrops in St. Peter 23, p. 65. Hope to  
 procure larger collection of fossils from white  
 sheet near top of section. Succeeded in finding  
 some of the St. Peter but only a few of the blocks  
 produced specimens that could be separated from  
 the exceedingly hard & tough material of Waukesha  
 except about 25 lbs of material that may  
 add something to the Waukesha previously collected  
 here.

Stopped a short while to look at the out on  
 Highway 19 just west of town of Palma Woods.  
 The rock is much St. Peter. Galena dol  
 contains essentially the same fauna as gotten  
 out of the R.R. cut west to the north.  
Lucas, major, Tussock, inflata, Luc. sp. longica,  
Longica = inflata. Palma Woods St. Peter do.  
 = Stewartville do!

Make corrections in 1914 notebook.

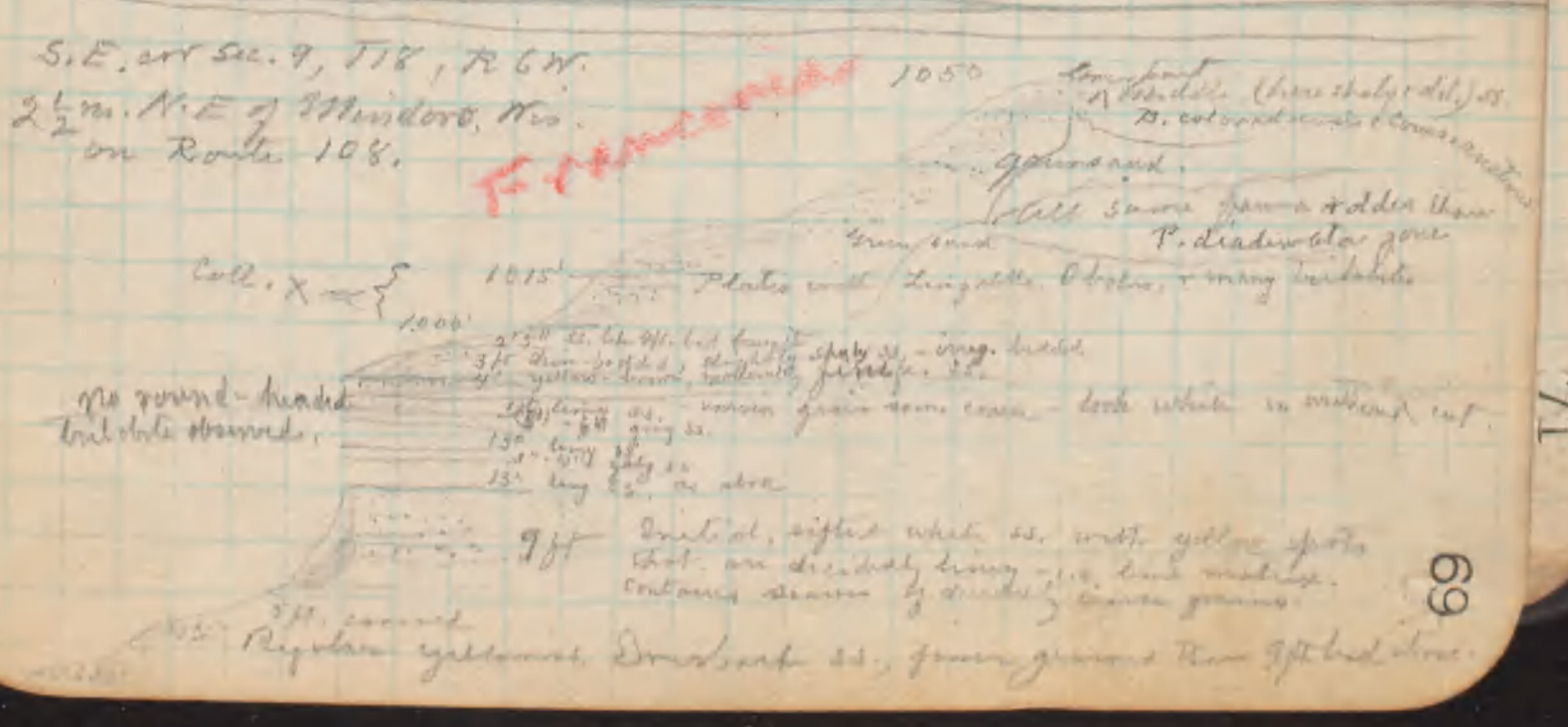
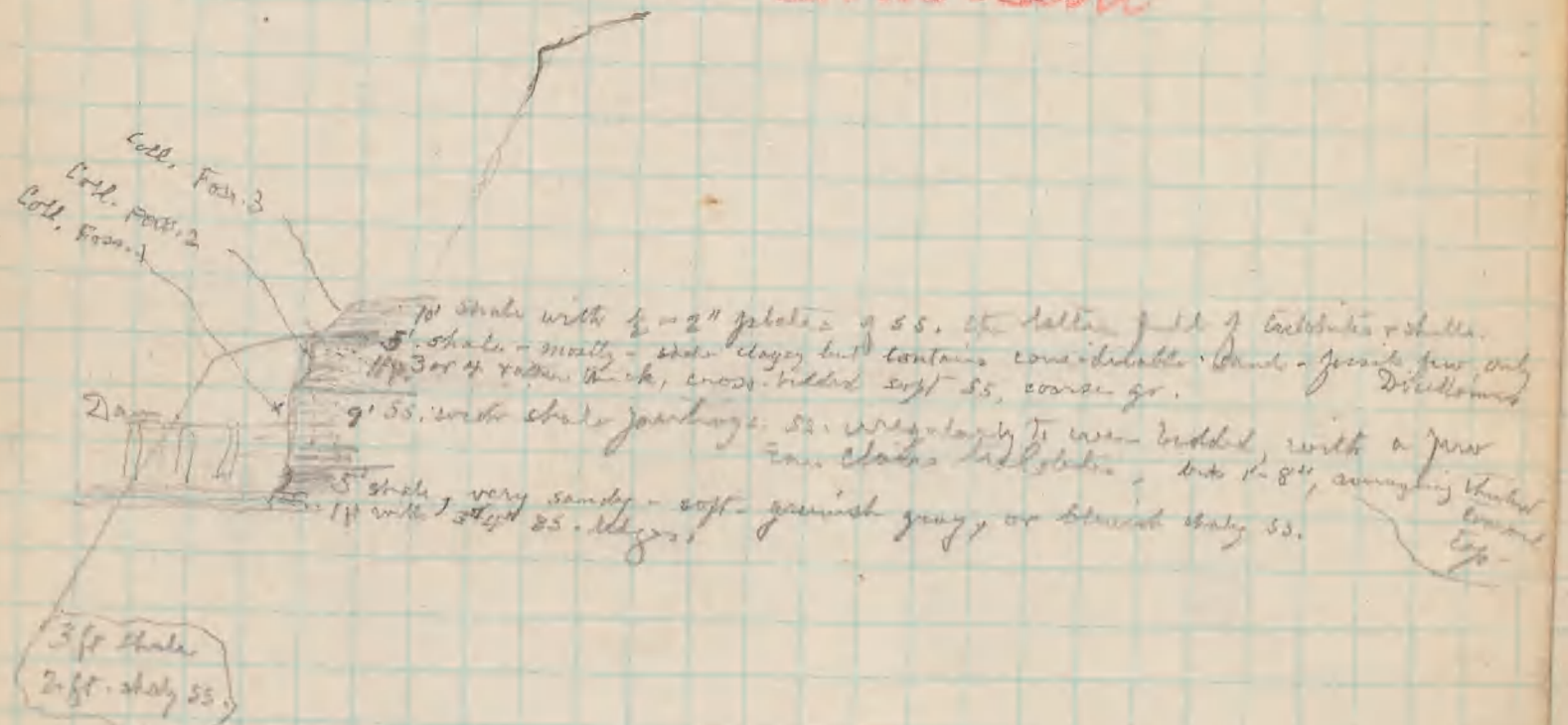
P. 63a change location N 7/8 post G, T 8 R 2 W  
to T 7, R 1 W.

Changes at White's Mound - suggestion of  
St. Lawrence in Dresden to Marquette for same  
See section p. 100.

1921. West Salem, Wis., at <sup>mill</sup> dam about 1 1/2 mi.  
N.W. of village on La Crosse river

Aug 10th with  
E. B. ...  
+ others

**Eau Claire**



At White Mountain

Corrected section on

p. 57 NB 23

Wisc.

7600 ft. Osmolite

possible transition in adjacent area to E. of ...  
Brown & White ...  
also dolomite

very fine ...

160 ft. Apparently all Mazomanie

Mazomanie

70 ft.

2-3' yellowish ...  
2-20" very dolomite & glass ...

20 ft. ...

**Mazomanie**

Compare section 1 m. east of Dodge - p. 59  
also 1 m. SW of Leland - p. 11  
also field label 2 m. NW Dodge, p. 50

1918. 28. 8. 72

June 11, 1915

North of Reedsburg, Wisconsin

Further north of Reedsburg  
by Overback

About 1180'

1160'

1075' *Tranconia*  
7' *agonimia* beds with fine  
*Dicelophanella*

no crest

950'

*Pileoglypta*, *viridula* stems, *Leontino sandbergi* etc in  
them. Shaly green sand beds. (*Tranconia* beds)

8' brown rather coarse soft mottled sandstone 20'. with fossils  
soft white ss. after cleaned by weather with iron.  
Overback ss.

990' *Tranconia*

1230  
1075  
155' *Tranconia*  
942  
133' *Tranconia*

1918 - Wisconsin - Central.

20

70

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

95

1918

Prof. Wood

SWNW 1/4

SWNE 1/4

SE 1/4 = long way

I-1 = long way

I-4 = SE = long way

I-6 = NW side

I-3 = SW side

94' 1/2' 1/2' 1/2'

Marquette ss

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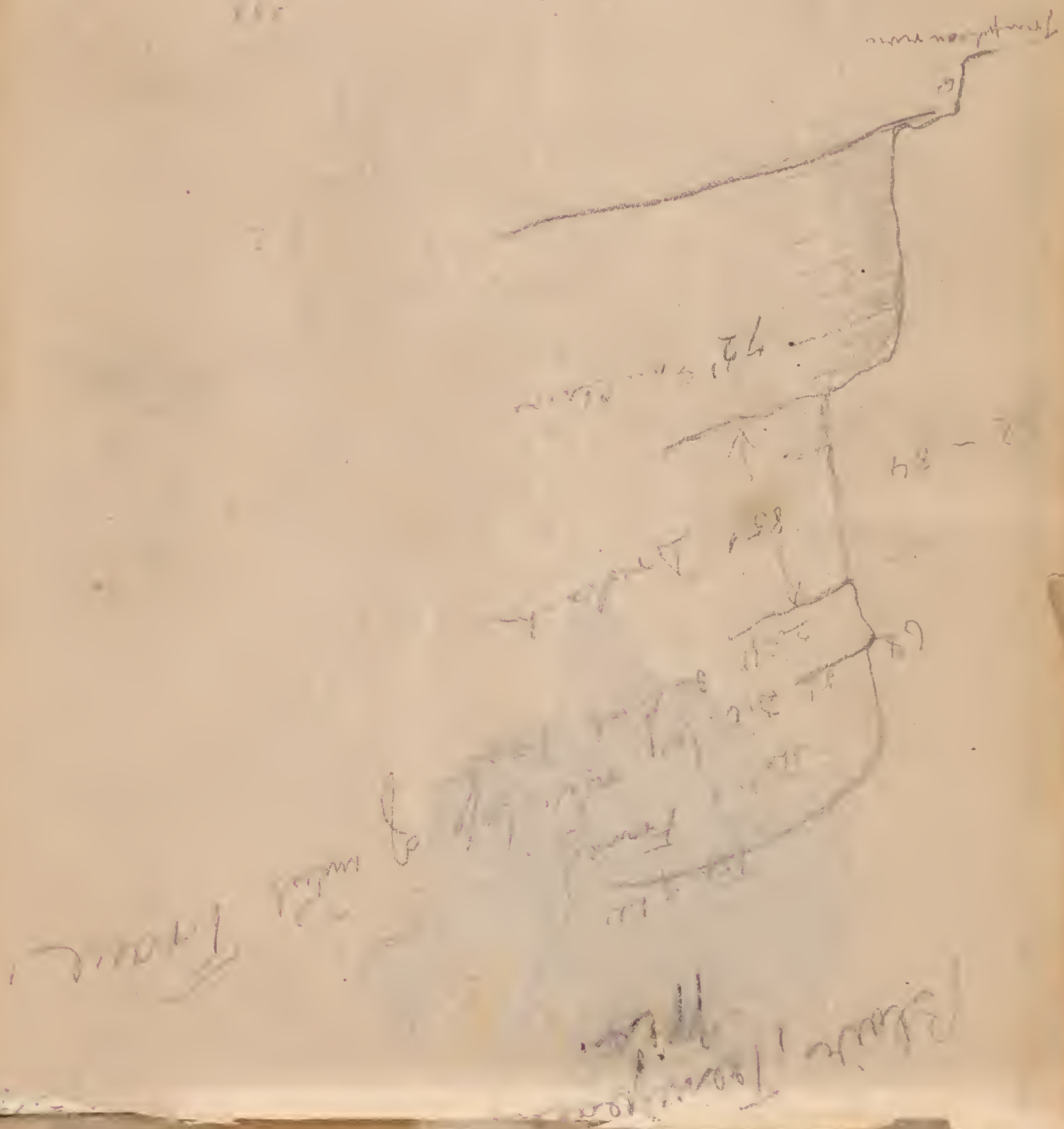
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Welfare and Recreational Association  
of Public Buildings and Grounds, Inc.

- Places to be investigated in 1919.
- Spafford's bluff, 5 m. s. of Fremont bluffs. When large  
fossils seem to occur in local Franciscan.
- Rochester - Adams Co. - Town Franciscan fossils  
Brenton, Wis. Dec. 1165  
Board Franciscan
- Pilot Knobs - upper part of  
Berlin - fossils & strat. position
- Alma (bluff) - for section & position fossils - scan from to St. J. with  
97  
State City, Minn. Road ddy to Wabasha  
4 m. S.E. of Franciscan  
2.5 m. R.R. Franciscan  
See especially fossils with ss. with pyroclastic  
Dawning, Iowa, if this water in Missouri for Franciscan pyroclastic  
Taylors Falls for age of conglomerate - Hydrothermal fossils.

