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Menominee Iron Range: [specimens 23194-23259]. No. 175 1895

Weidman, Samuel, 1870-1945

[s.l.]: [s.n.], 1895

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U. S. GEOLOGICAL SURVEY
FIELD SECTION BOOK

9-891

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 $2 \times 2\frac{1}{2} \times \frac{1}{4}$ inches will be allowed, but in all other cases *large-sized specimens*, trimmed to a size of $3 \times 4 \times 1$ 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.

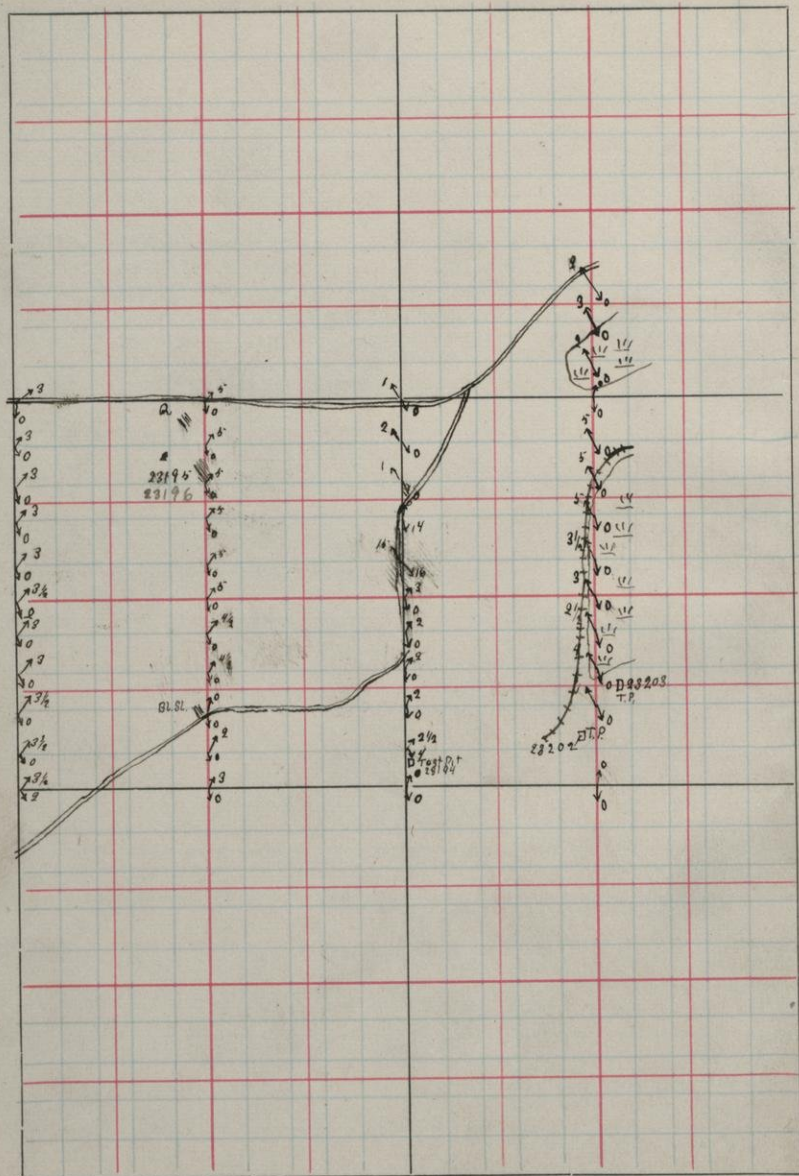
175

✓

S. 30

T. 43 N

R. 32 W



23194 60 N 990 W SE cor. See 30-43-32

A large quantity of material has been taken from this old pit. It seems to be very cherty and very much banded like the specimen 23194

955 N 1545 W 30-43-32

Ledge of slaty quartzite. Strike of cleavage N.W. I do not think this bedding. (Clement 23652)

23195 850 N 1500 W. 30-43-32

Black quartzite. Strike of cleavage N.W.

23196 870 N 1520 W 30-43-32

From a zone of schistose slaty rock in the above quartzite. Zone of slate 12 feet wide. Strike of cleavage N.W.

200 N 1520 W. 30-43-32

Black ferruginous slate on the wagon road

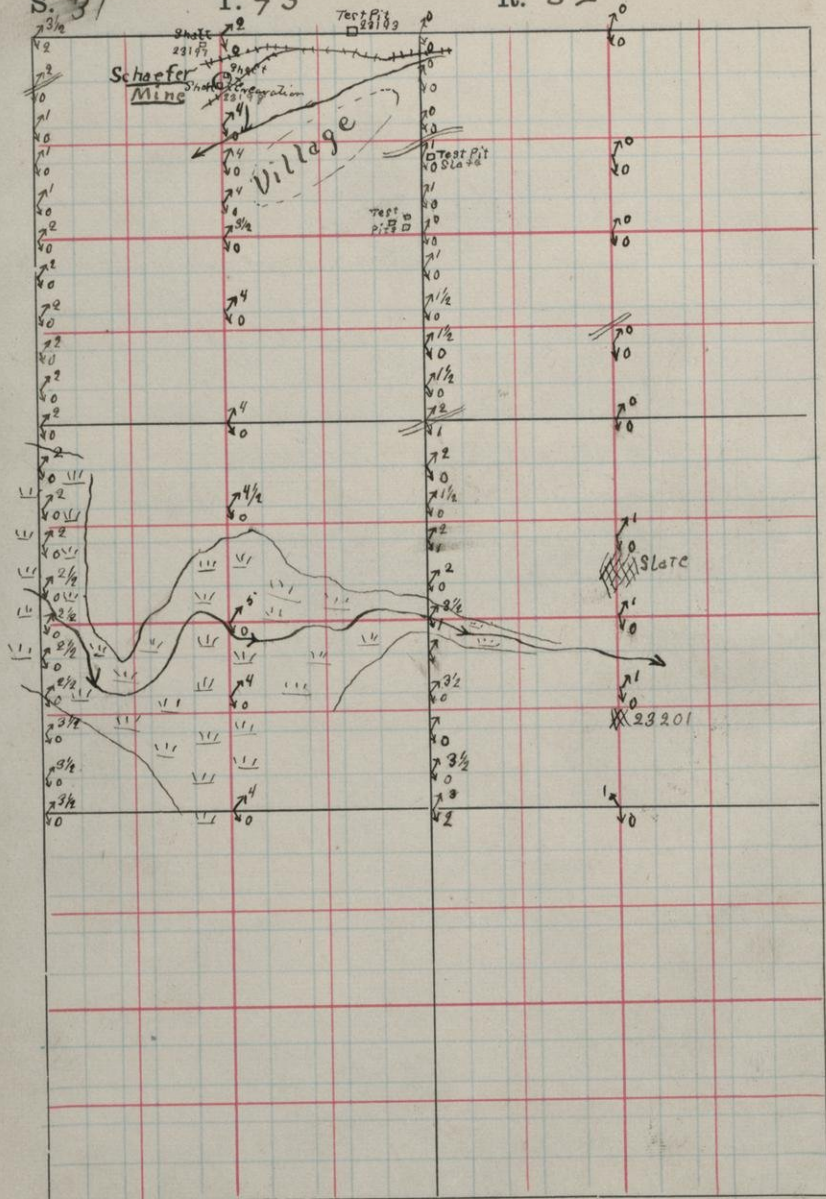
23202 150 N 540 W 30-43-32

Cherty slate specimen from large hot pit.

S. 31

T. 43

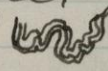
R. 8-2



1520 N 1020 W - 31-43-32
Old test pits in the slate.

23193 2000 N 1140 W 31-43-32
A deep abandoned shaft from which a large quantity of ore has been taken.

23197 1940 N 1560 W 31-43-32
Specimen of ore taken from a loaded car on R.R. tracks at the main working shaft of the Schaefer mine. Shaft said to be 400 feet deep.

23198 1900 N 1535 W 31-43-32
Specimen from the N.W. wall of excavation. The rock consists of banded slates and also in places wholly slate. Rock is very much folded 
The dip of the beds is approximately 60° S.W. Strike N.W.
Superintendent of mine says that generally the dip is S.W. Strike N.W. and that the ore always lies in pockets of indefinite size.

23191 15.90 N 2000 W 6-42-32

Outcrop of ore about $\frac{1}{2}$ mile east of Schaefer Mine. The dip seems to be about 90° but ledge very small.

23192 356 N 1930 W 6-42-32

At this place is a R.R. cut in places 15 to 20 feet deep. The rock is slate, in places cherty. The dip is approximately 90° but as it is much folded, crumpled and faulted the dip is very variable. Strike is nearly N and S. if anything slightly W of N

West end of North wall in R.R. cut



Diagram showing a fault.

East end of North wall R.R. cut

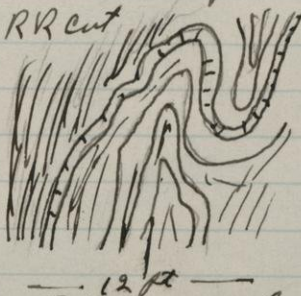


Diagram showing folding of cherty bands

S. 36

T. 43

R. 33

29790

R. 10

P. 10

P. 10

4

23190 1950 N 50 W, 36-43-33

Specimen of ore taken from
dump pile at mouth of abandoned
shaft about 100 feet deep. The
pit 50 paces further south
shows nothing but drift
material.

1

1760 N 25 W 36-43-33

Test pit about 100 or 150 feet
deep, cherty material and
slaty ore about the mouth.

S. /

T. 42

R. 33

Slate 4319

###

Plat opposite page 3.

23199 ON 1220 W 6-42-32

At this place is large hill of slate, but does not outcrop much. No dip or strike made out.

23200 1380 N 370 W 6-42-32

Ledge of slate and cherty quartzite, very much broken up. No structure made out.

23201 200 N 500 W 31-43-32

Ledge of slaty quartzite.

At 650 N 500 to 540 W, 31-43-32
Ledge of slate, quite a hill.

23203 250 N 450 W 30-43-32

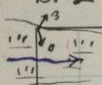
A specimen of carbonaceous slate from abandoned pit.

In digging shaft seems to have passed through cherty material and entered into the carbonaceous material as indicated at the surface.

S. 25

T. 43

R. 33



Q3204 1330 N 1000 W 25-43-33

Ledge of Black Slate. Strike
of cleavage as bedding N. W.
Dip nearly vertical.

Q3205 710 N 960 W 25-43-33

Quite a large rounded outcrop
of Black Slate. Rock is panned
into fine laminae.

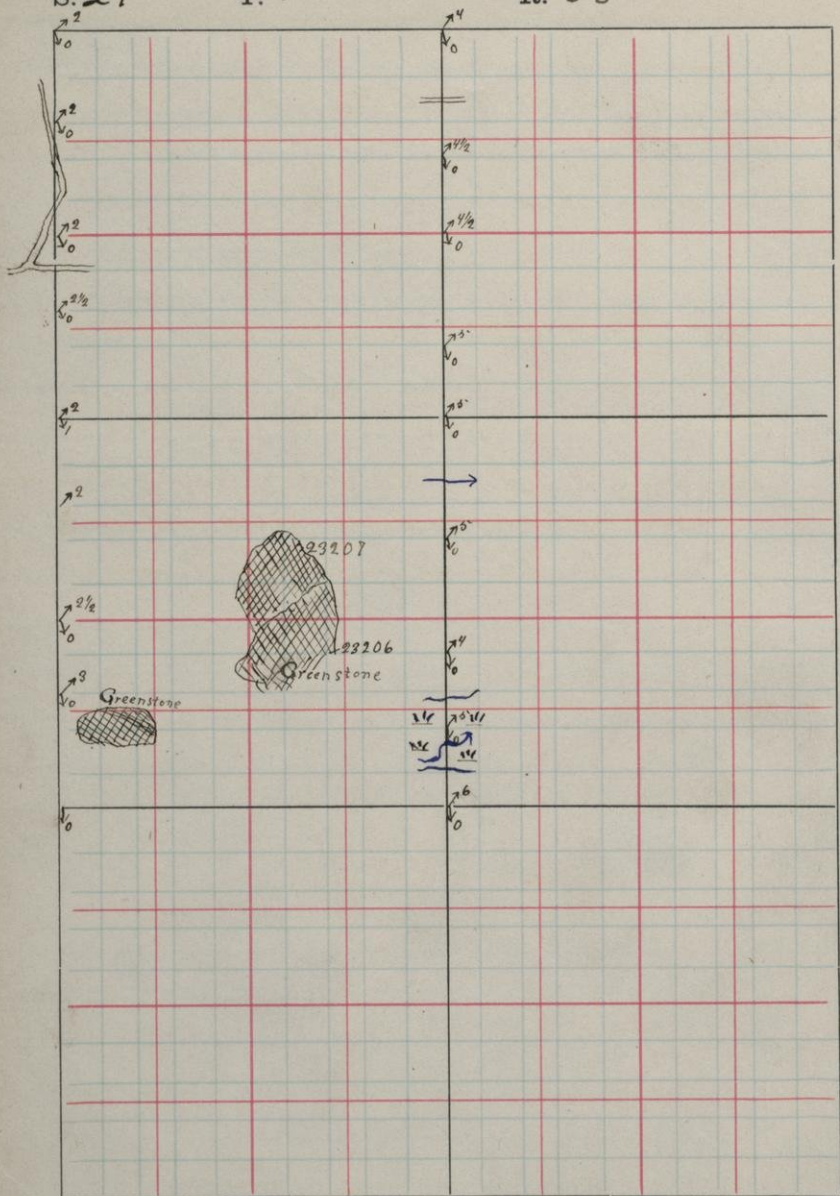
Dip 90° Strike N 60° W

Am not certain whether cleavage
planes are bedding planes or
not.

S. 24

T. 43

R. 33



23206 400 N 1300 W 24-43-33

At this place is a very large ledge of quite massive fine grained greenstone.

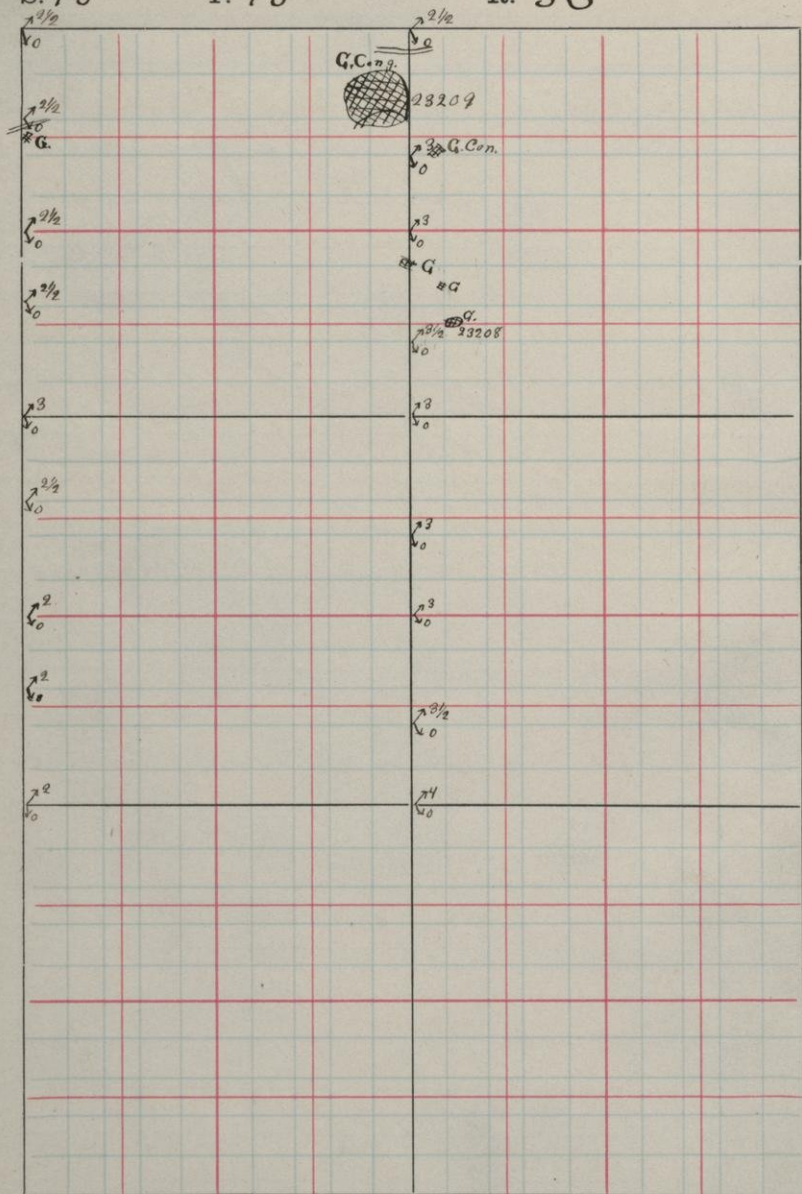
23207 650 N 1410 W 24-43-33

Specimen from north end of above ledge. All of the same character, no amygdaloidal or conglomeratic greenstone seen. No structure made out.

S. 13

T. 43

R. 33



23208 1350 N 900 W 13-43-33

Small ledge of greenstone

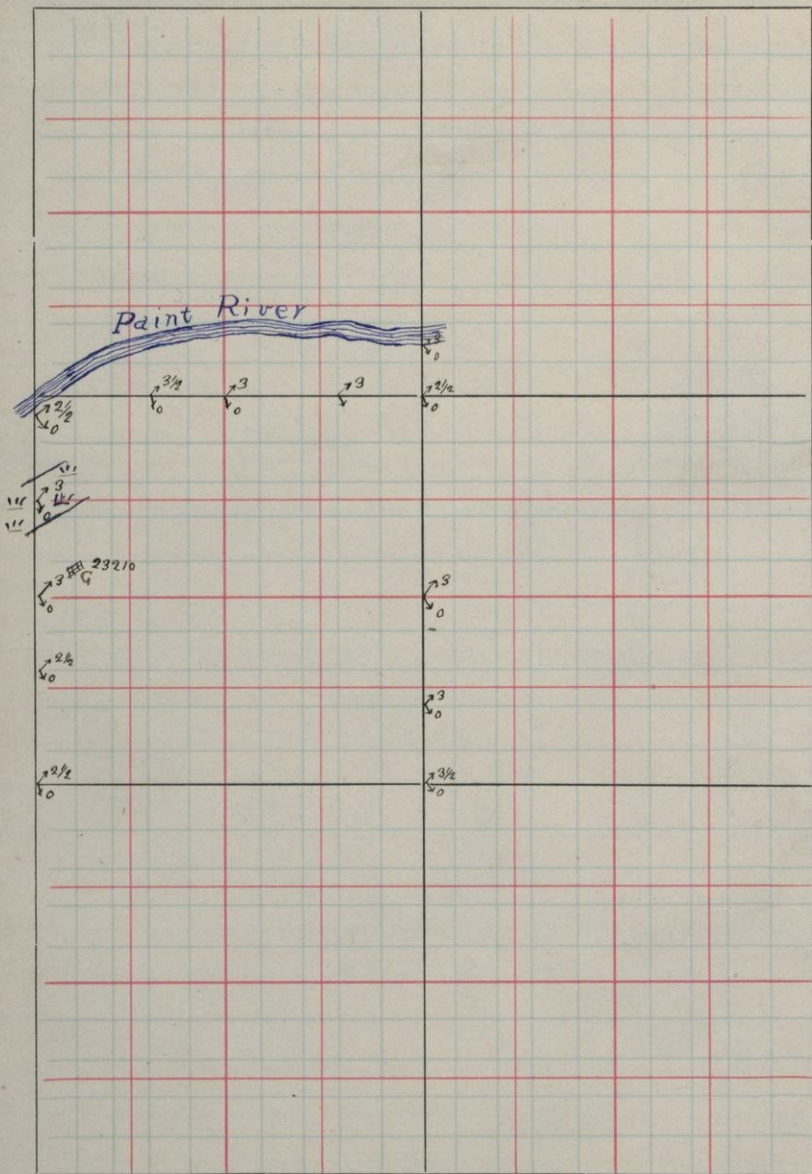
28209 1800 N 1100 W 13-43-33

At this place is quite a large outcrop of greenstone conglomerate having distinct flowage lines which run a little N of W. Specimen from N end of ledge. Coarse conglomerate

S. 12

T. 43

R. 33



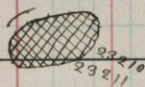
23210 55°0 N 192°0 W 12-43-33

Ledge of massive greenstone.

S. 23

T. 43

R. 33



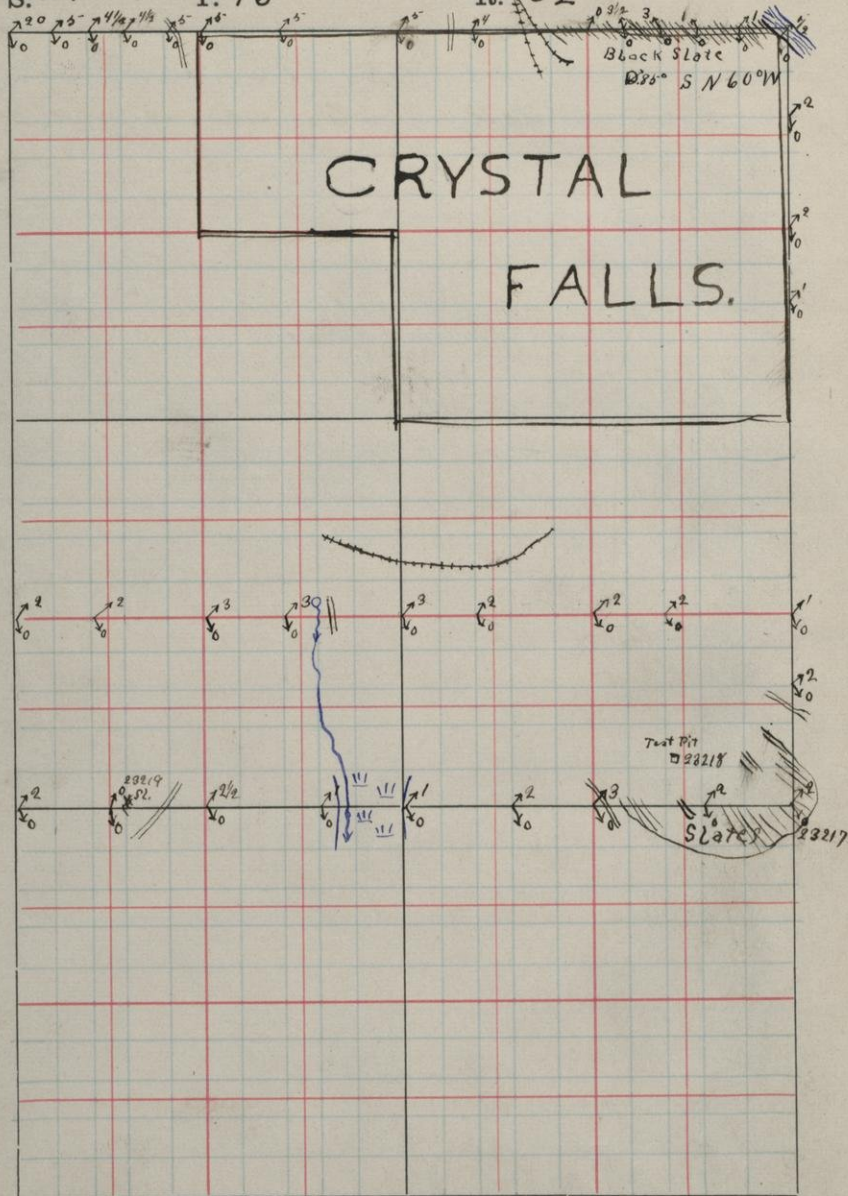
23210 1000 N 300 W 23-43-33

23211 Large ledge of greenstone
massive and coarse, about
40 feet in height.

S. 29

T. 43

R. 32



✓ The black slates along the section line in the NE corner of 29-43-32 have a dip of 85° SW Strike N 60° W

23217 0 N 90 E 29-43-32

Black ferruginous slate.
No dip and strike obtainable
but dip probably vertical

23218 115 N 260 W 29-43-32

Specimen of carbonaceous slate from old shaft, much reddish rotten material taken from shaft besides that like specimen.

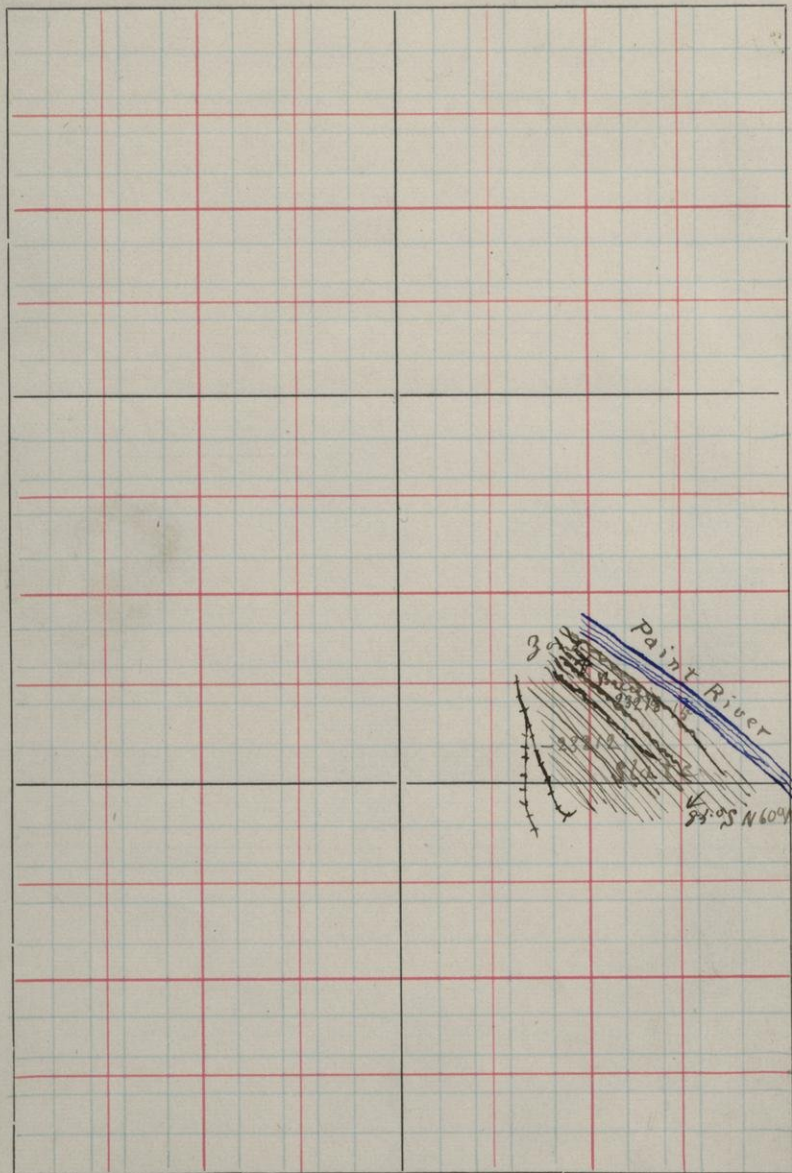
23219 10 N 1690 W 29-43-32

Specimen of reddish slate from test pit.

S. 20

T. 43

R. 32



28212 125° N 615° W 20-43-32

Edge of Black Slate on R.R.
Strike N 60° W Dip. 85° S.W.

28213-14 230° N 500° W 20-43-32

at this place is a zone
of brecciated slate about
80 to 100 paces in width.
Dip about 85° SW and strike
agreeing with that of the slates.

28215 265° N - 500° W 20-43-32

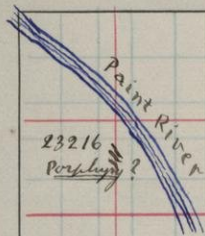
Specimen from this zone about
35 paces N of above.

The veins of quartz cut across
the cleavage planes of slate
at rt $\approx$ so that the veins
dip to the N.W.

S. 28

T. 43

R. 32

Paint River
23216
Porphyr? 

1665
232/6 165° N 175° W 28-43-32

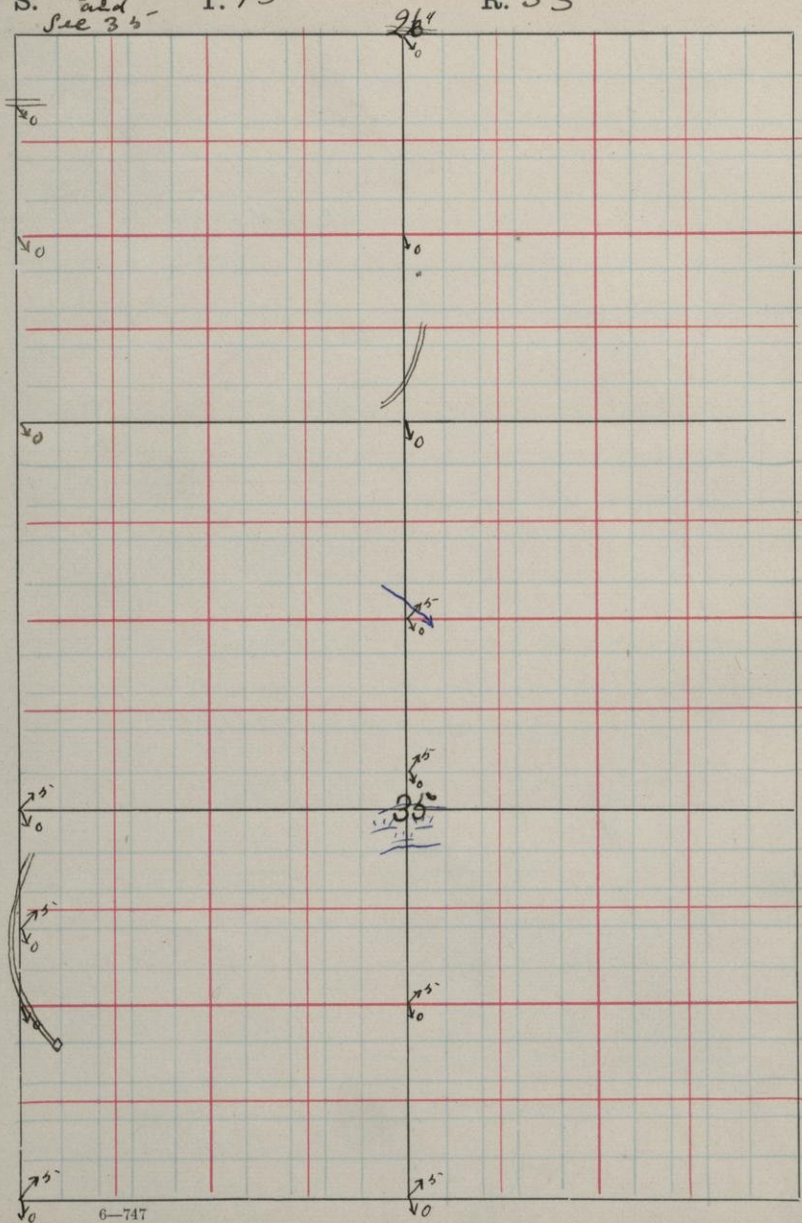
Ledge of reddish brown rock, schistose with specks of reddish iron oxide.

This is very likely an eruptive rock, porphyry or a granite and occurs as a dyke in the slate. Dip 90° Strike N.W.

S. $5\frac{1}{2}$ 426
add
see 35-

T. 43

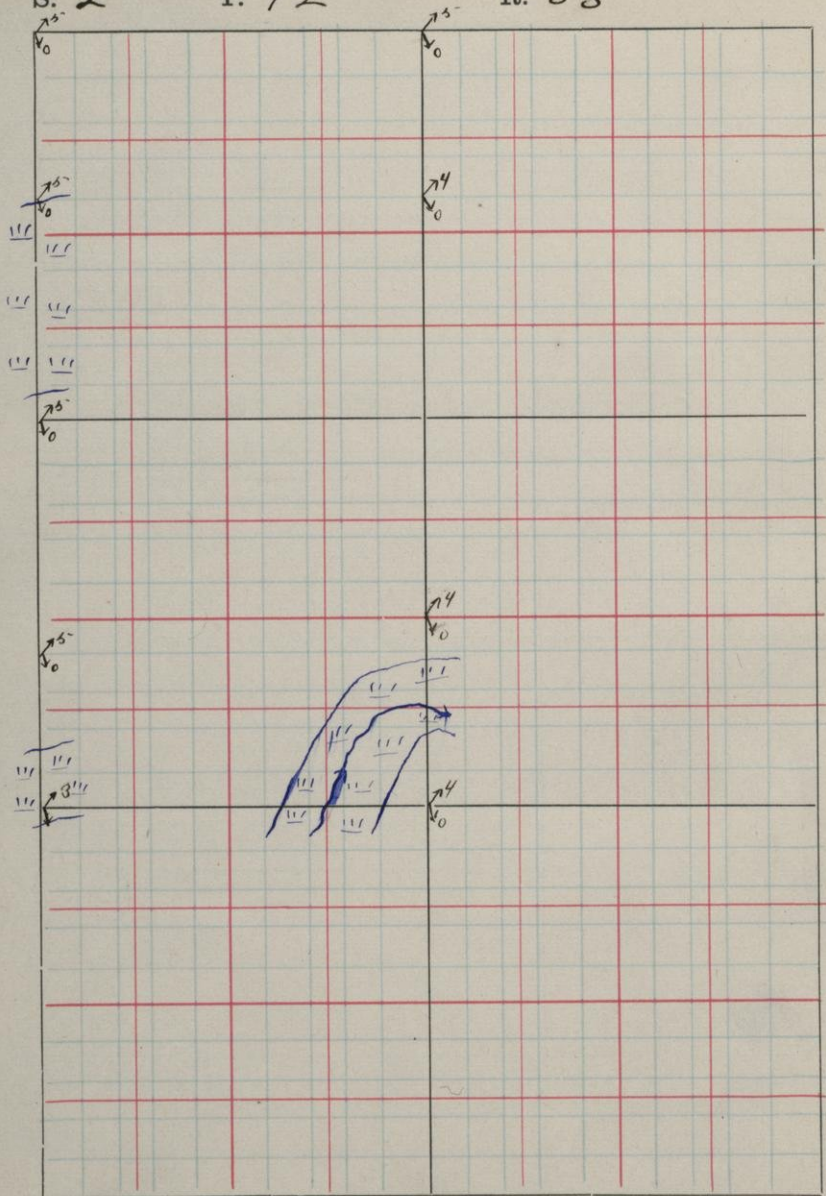
R. 33



S. 2

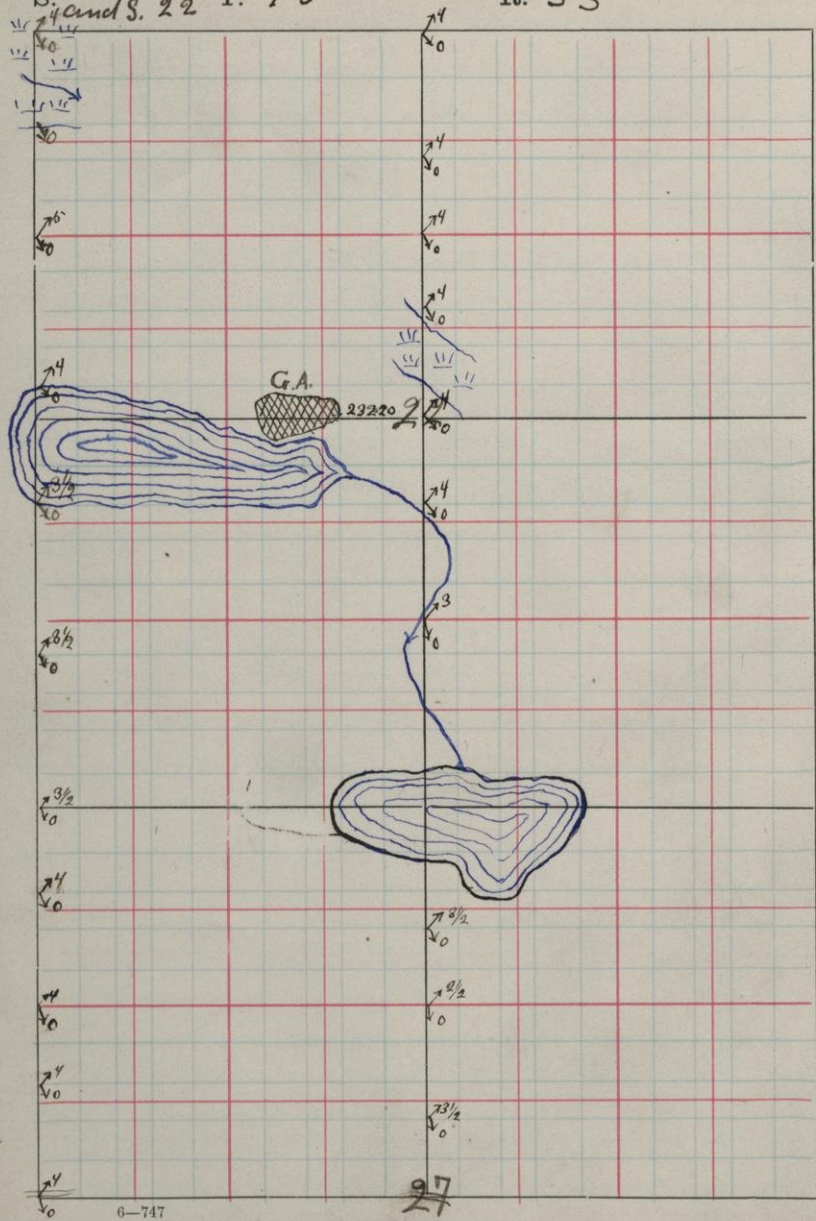
T. 42

R. 33



N $\frac{1}{2}$ of S. 27
S. and S. 22 T. 43

R. 33



932201000 N 1220 W

22-43-33

Large ledge of amygdaloidal
greenstone on north side of
lake

23221 700 N 1040 W 15-43-33

Large ledge of greenstone
fine grained amygdaloidal.
Conglomeratic on north
part of the ledge.

23223 700 N 1900 W 15-43-33

Ledge of fine grained greenstone.

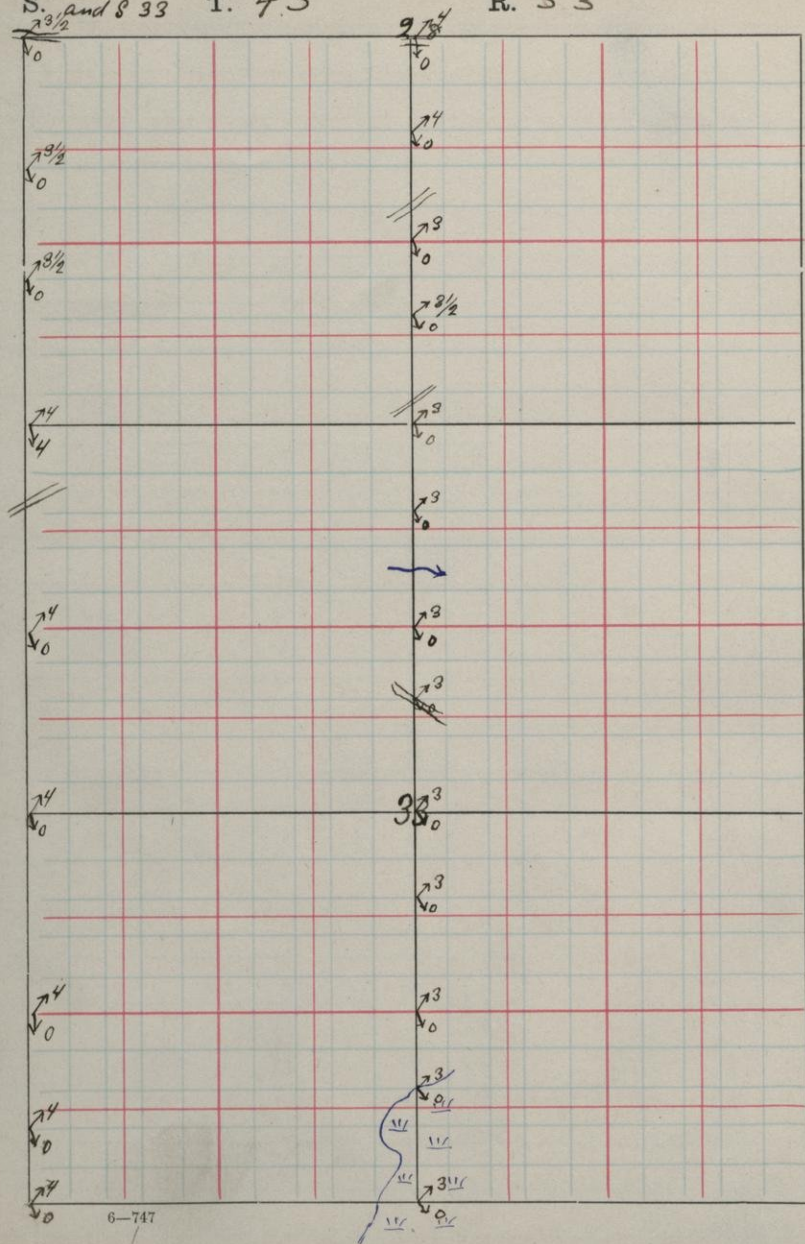
23222 1200 N 1311 W 10-43-33

A large ledge of greenstone
conglomerate which is
largely composed of rounded
fragments with but little
matrix.

S. $S\frac{1}{2}$ of S 28
and S 33
 $2\frac{3}{4}$

T. 43

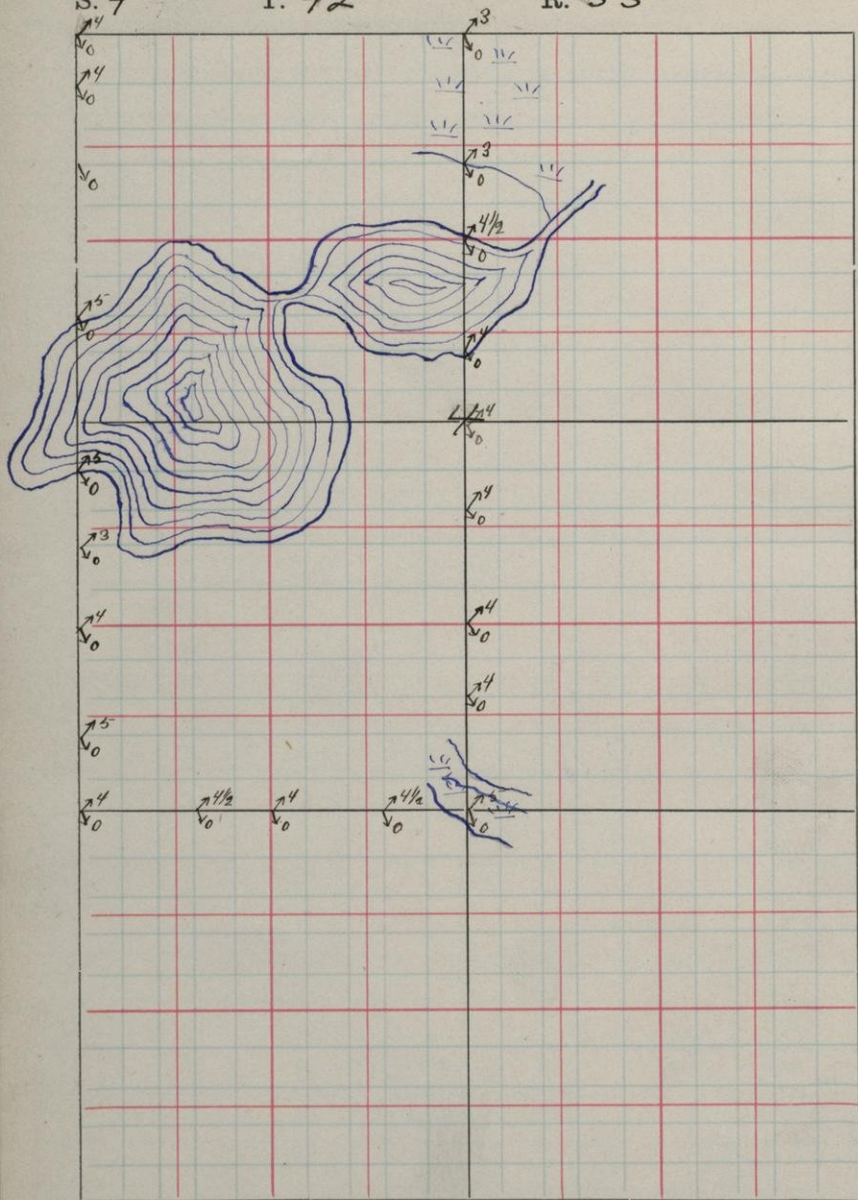
R. 33



S. 4

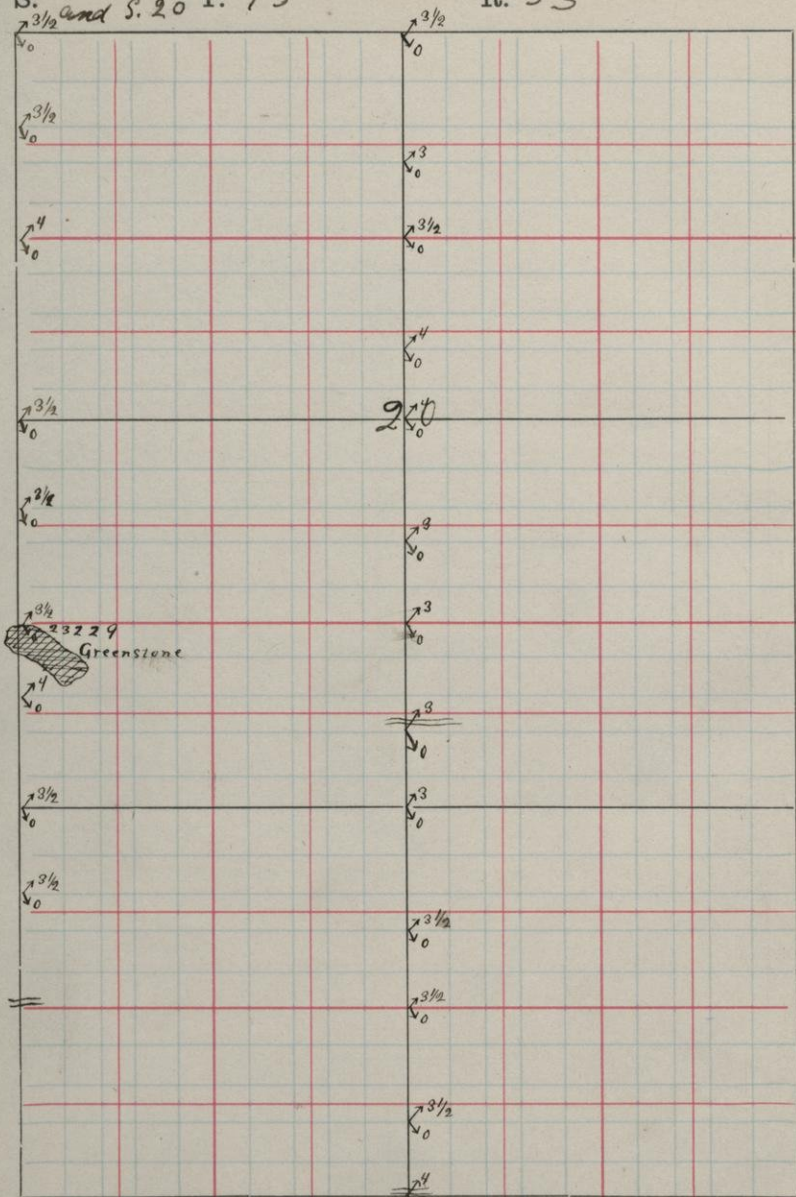
T. 42

R. 33



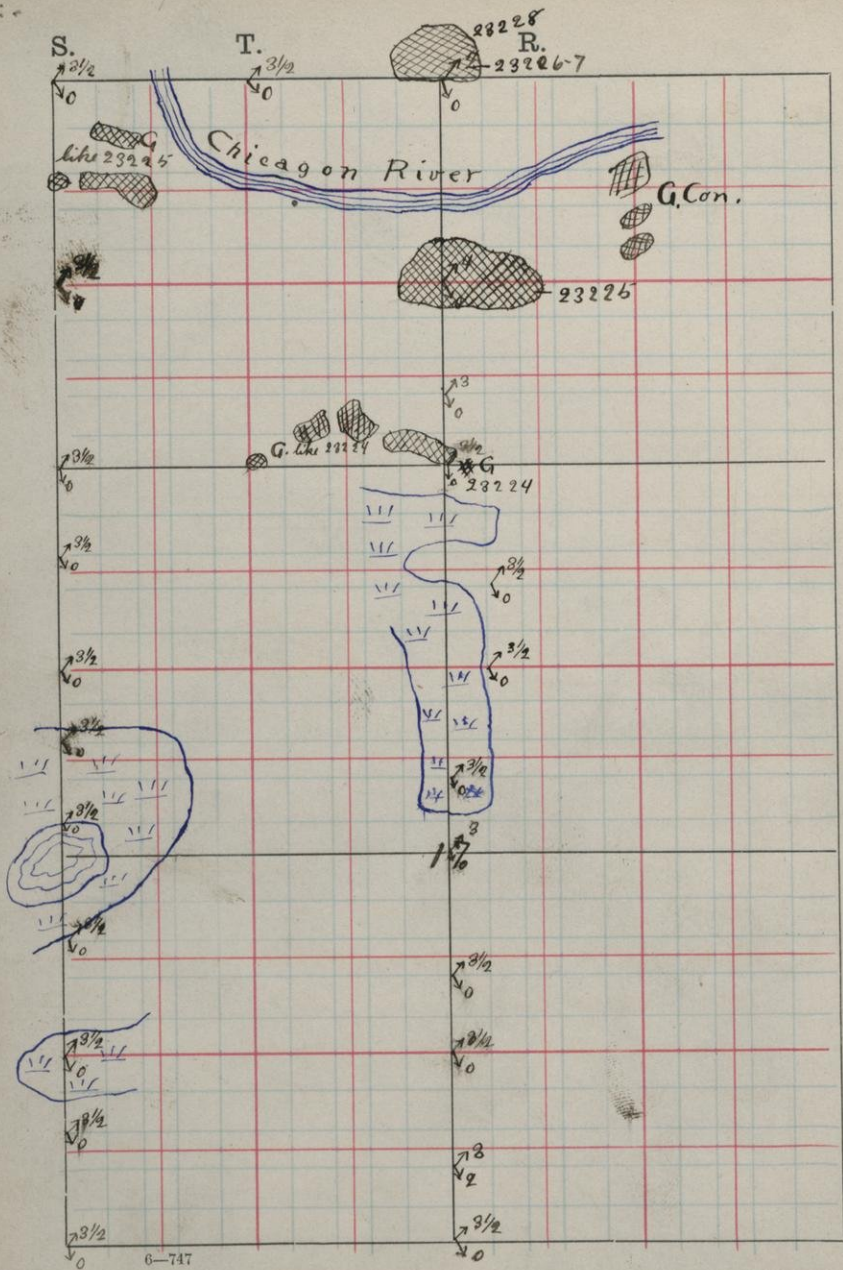
S. $N\frac{1}{2}$ of S. 29
and S. 20 T. 43

R. 33



93229 450 N 2000 W 20-43-33

Ledge of greenstone conglomerate
fine grained and fractured



23224 2000 N 965 W 17-43-33

Ledge of fine grained greenstone
ledges over in the next section
are also finegrained and pass into
conglomerate and amygdaloidal

23225 450 N 850 W 8-43-33

Ledge of finegrained greenstone
much fractured.

23226 } 1040 N 930 W 8-43-33

23227 } Large ledge at this place showing
peculiar structure.

23226 is the vein-like  23227
matrix and 23227  23226

is the boulder-like greenstone.

23226 is amygdaloidal like.

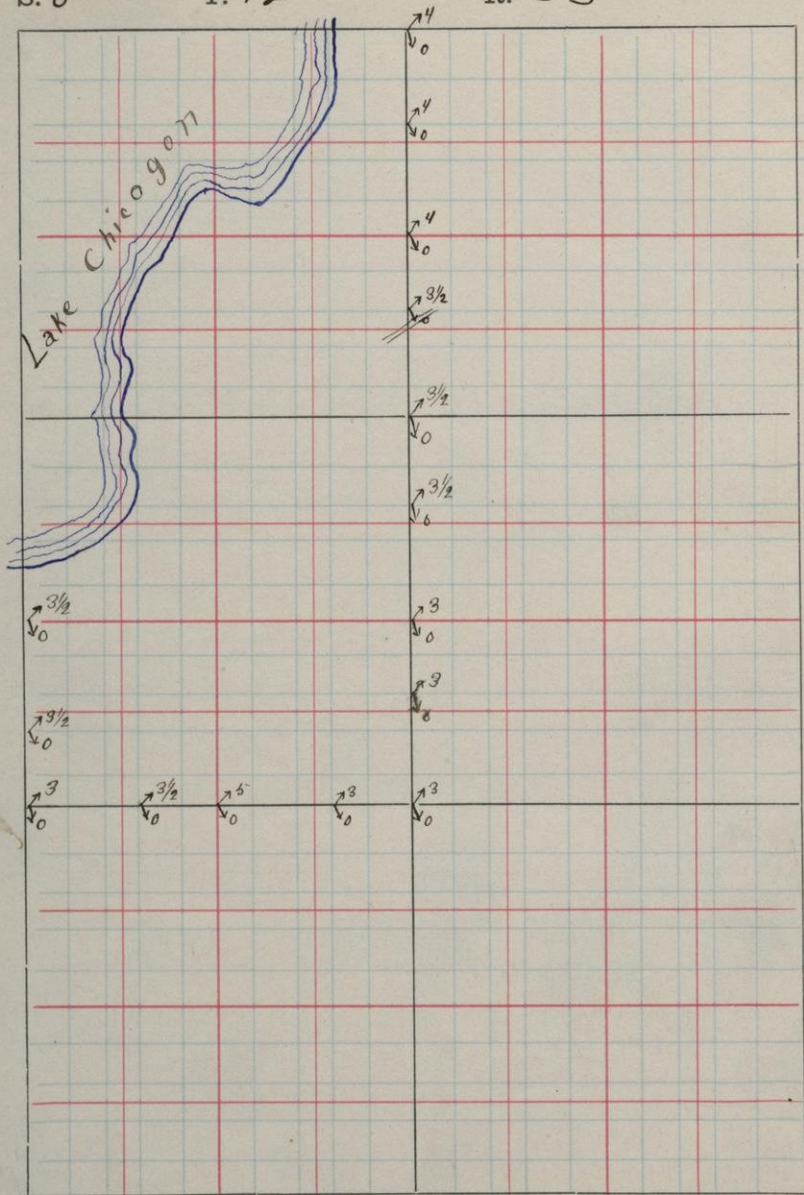
23228 1100 N 900 W 8-43-33

At this place is a vertical
face of the rock and it is seen
that the boulder like greenstones
are rounded and the rock has
much the appearance of a
bedded conglomerate. Some (one
of the rounded or elliptical areas
seems to be a conglomerate. (23228)
Some are 2 feet and more in diameter
Dip of bedding or flowage about 90 Strike N40W

S. 6

T. 42

R. 33

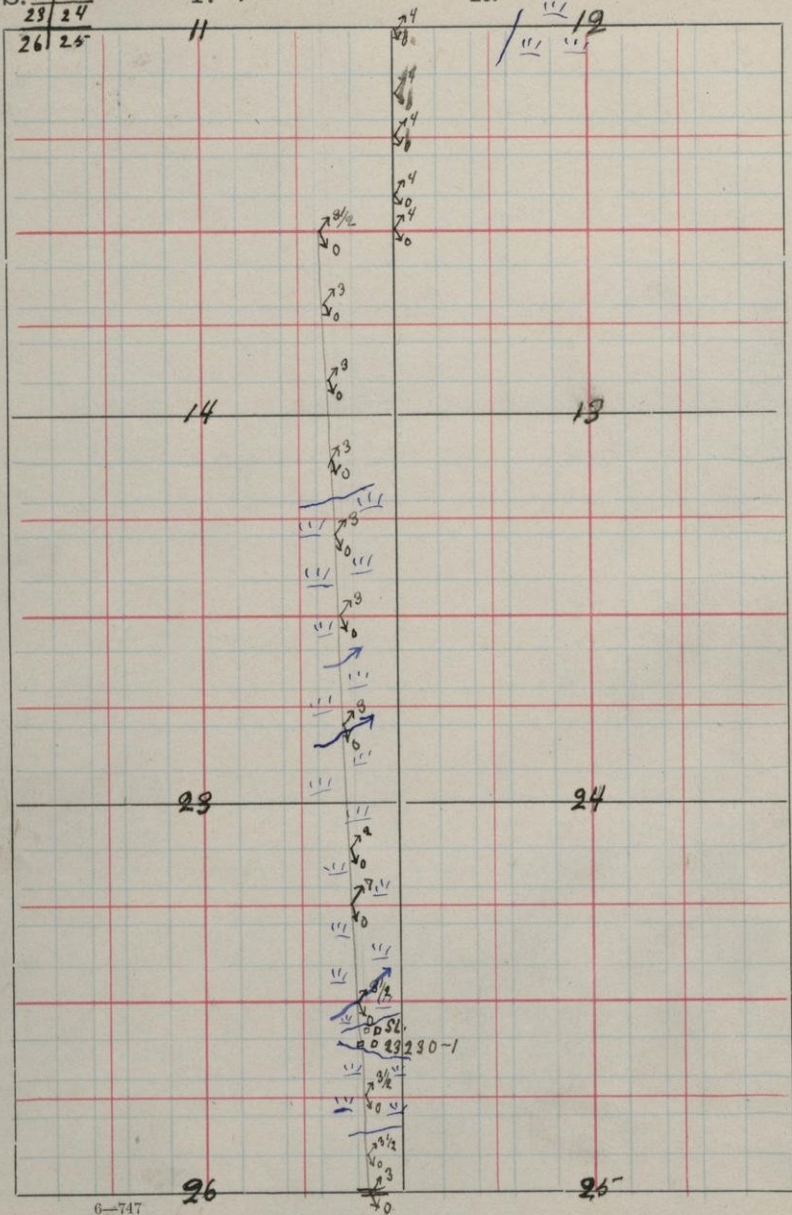


$\frac{11}{12}$
 S. $\frac{14}{29} \frac{13}{24}$
 26 | 25-

T. 43

R. 34

$\frac{11}{11} \frac{12}{12}$
 / " "



28230 1865-N 175-W 26-43-34

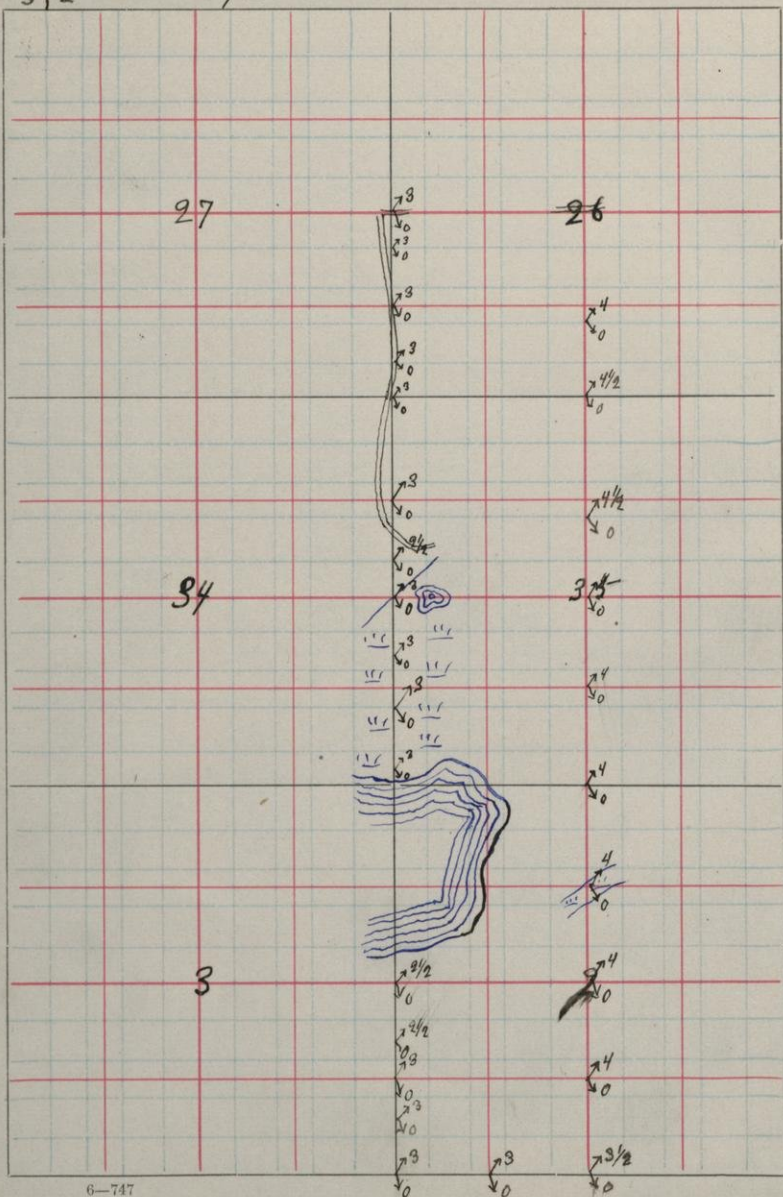
From test pit. A specimen
of recemented broken slate
rock.

23231 Same location as above
specimen a banded greenish
quartzite

$$\begin{array}{r} 27 \overline{) 26} \\ S. \underline{34} \overline{) 33} \\ 3 \overline{) 2} \end{array}$$

T. $\frac{43}{42}$

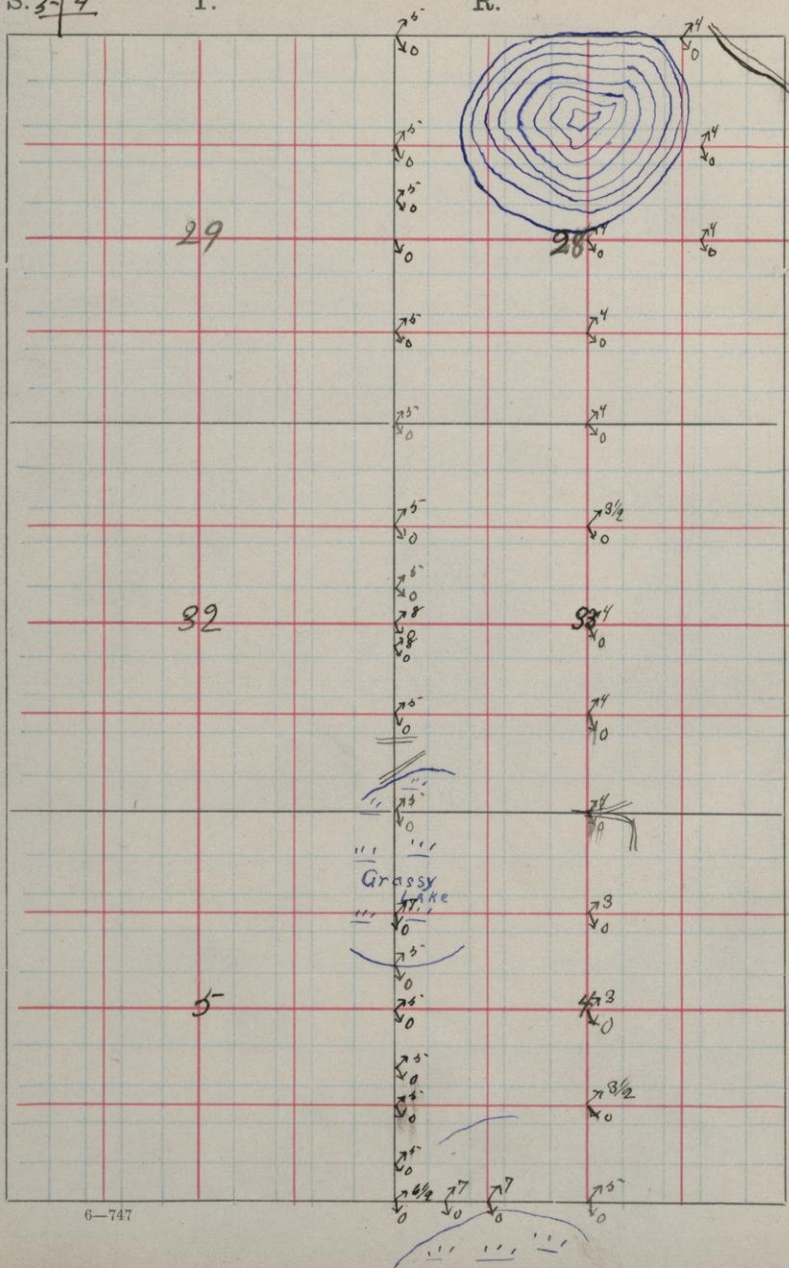
R. 34



29	28
32	33
S. 5	4

T.

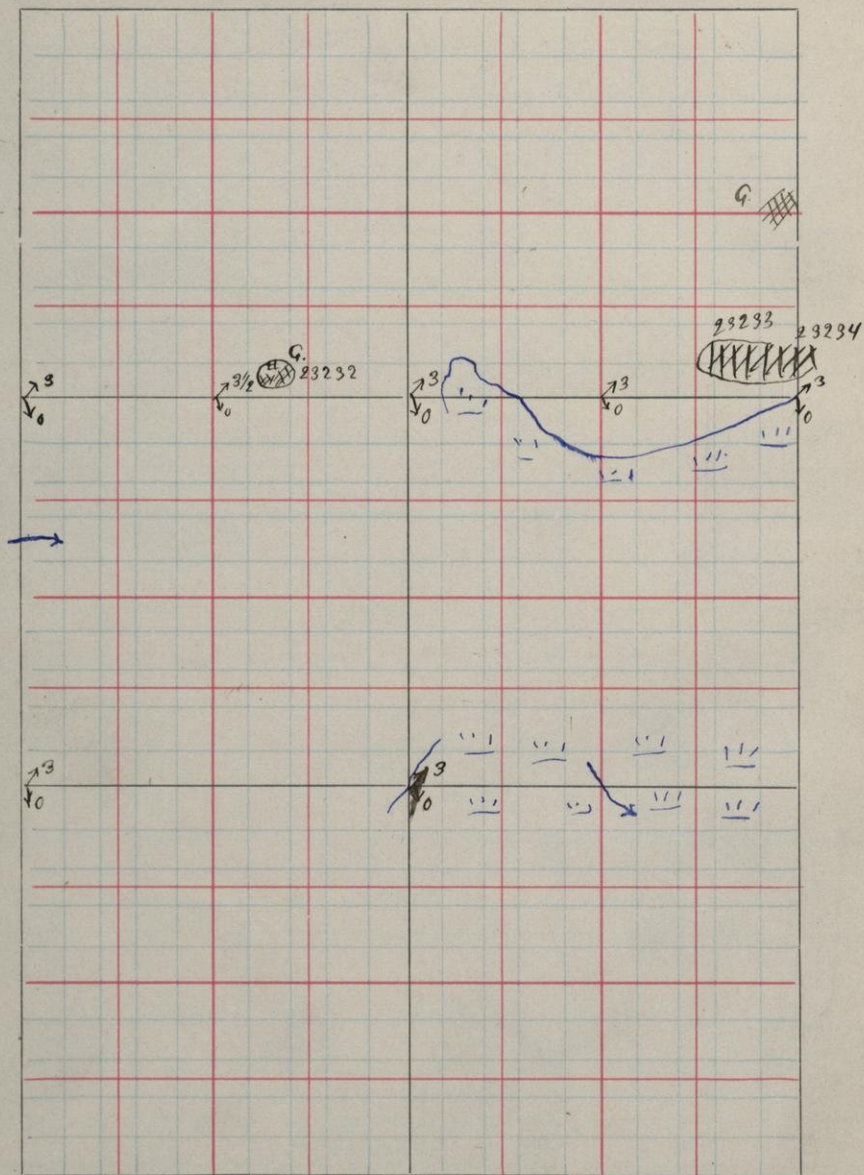
R.



S. 4

T. 43

R. 84



23232 1020 N 1385-W 1-43-34

Ledge of fine grained
greenstone showing stretching
somewhat.

23233 1060 N 200 W 1-43-33

Quite large ledge of ellipsoidal
greenstone. Specimen is from
an ellipsoidal or boulder like
greenstone area

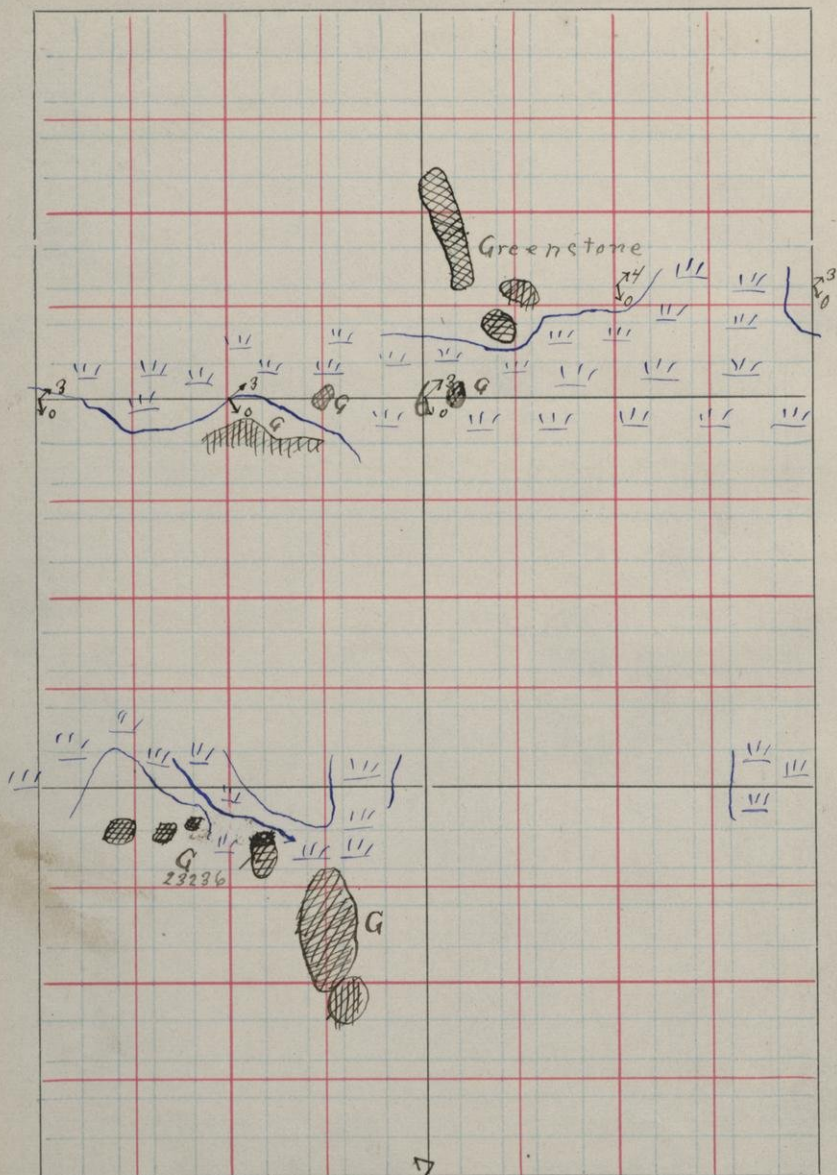
23234 1100 N 0 W 1-43-33

Same ledge as above. At east
end is greenstone conglomerate
like specimen, rather small
pebbles.

S. 6

T. 43

R. 33



900 N 1400 W 6-43-33

ledge of greenstone much like
that at east side of Sec 1-43-34

1000 N 1250 W 6-43-33

Greenstone conglomerate like
ledge 23233-34.

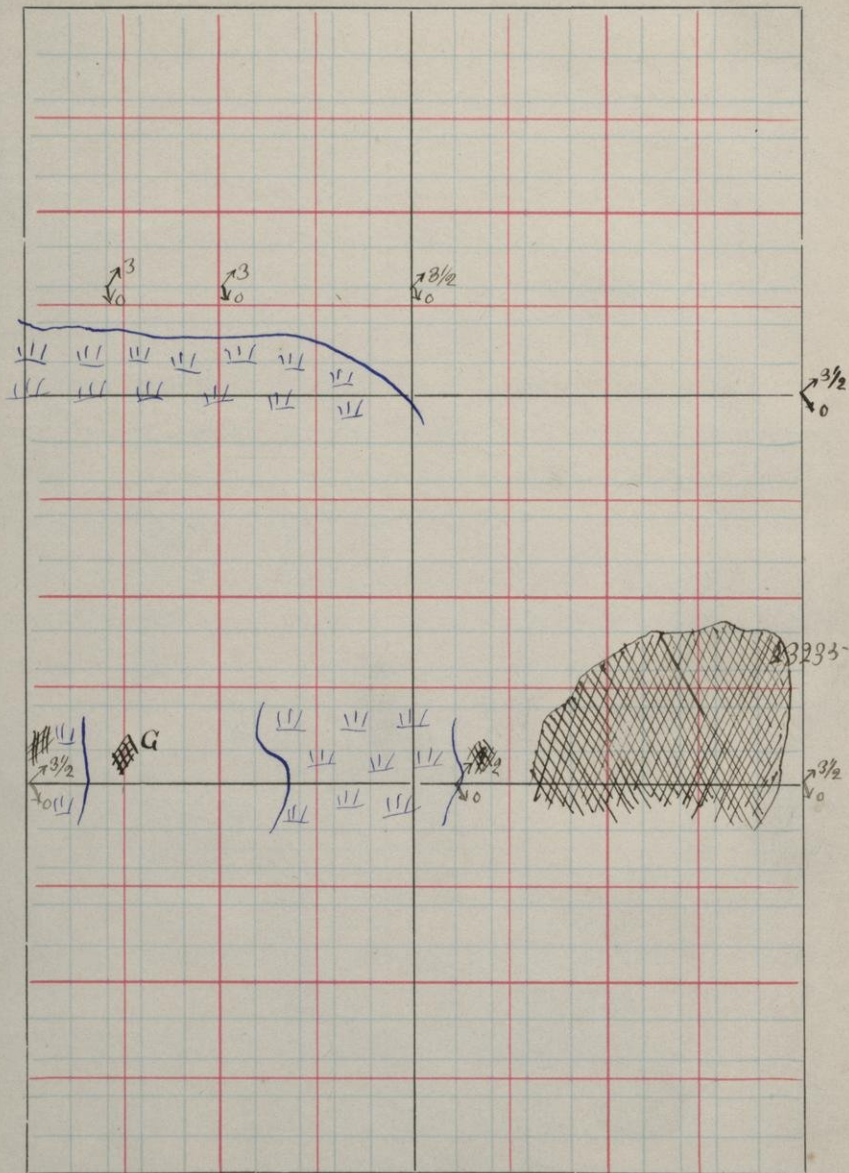
28236 1870 N 1400 W 7-43-33

The ledge in this vicinity
are rather fine grained and
fractured.

S. 5

T. 43

R. 33



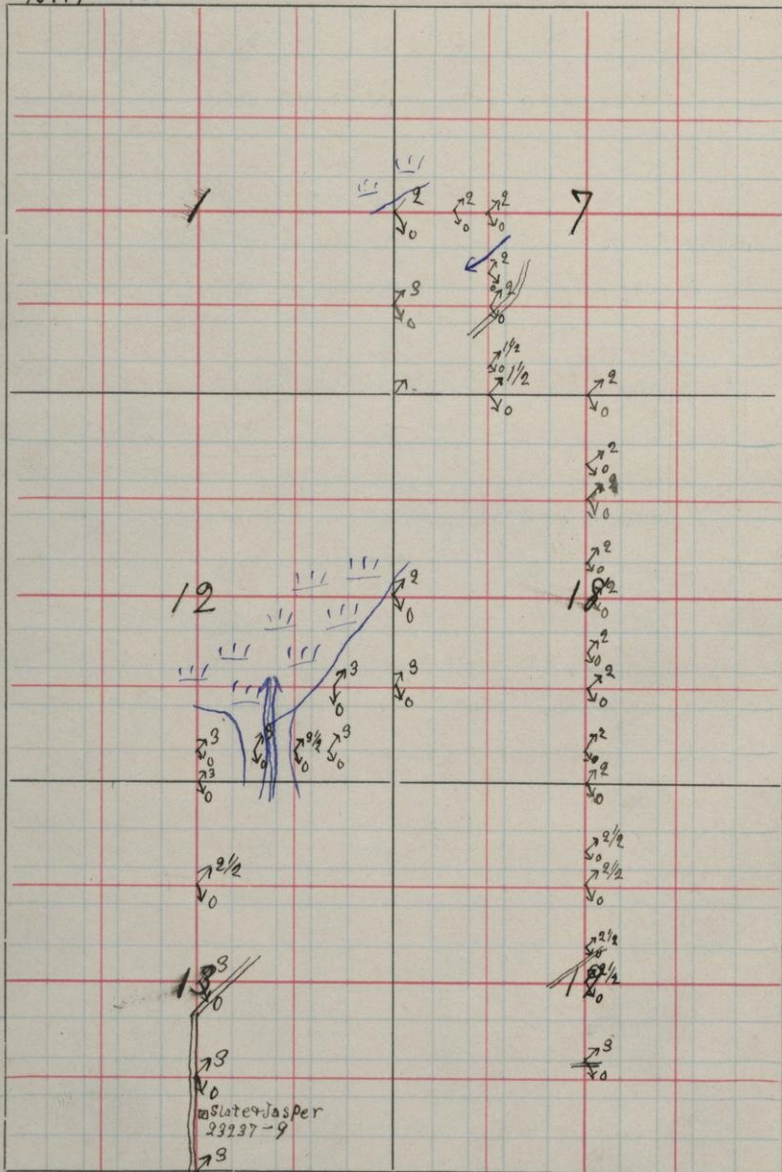
232³ 320 N 100 W 5-43-33.

These ledges are very fine grained and the very coarse ellipsoidal greenstone.

S. $\frac{1}{12} \frac{1}{18} ? \frac{1}{7}$
 $\frac{13}{19} \frac{1}{78}$

T. 43

R. 35 | 34



23237-8-9. 300 N 980 W 13-43-35

Specimens taken from material about old pit now used as a well, about 50 feet down to the water but must have 100 feet of water at least considering amount of material at the mouth.

23237 is a quite ferruginous specimen containing many angular fragments of chert.

23238 is less ferruginous and consists principally of folded and curved bands of chert.

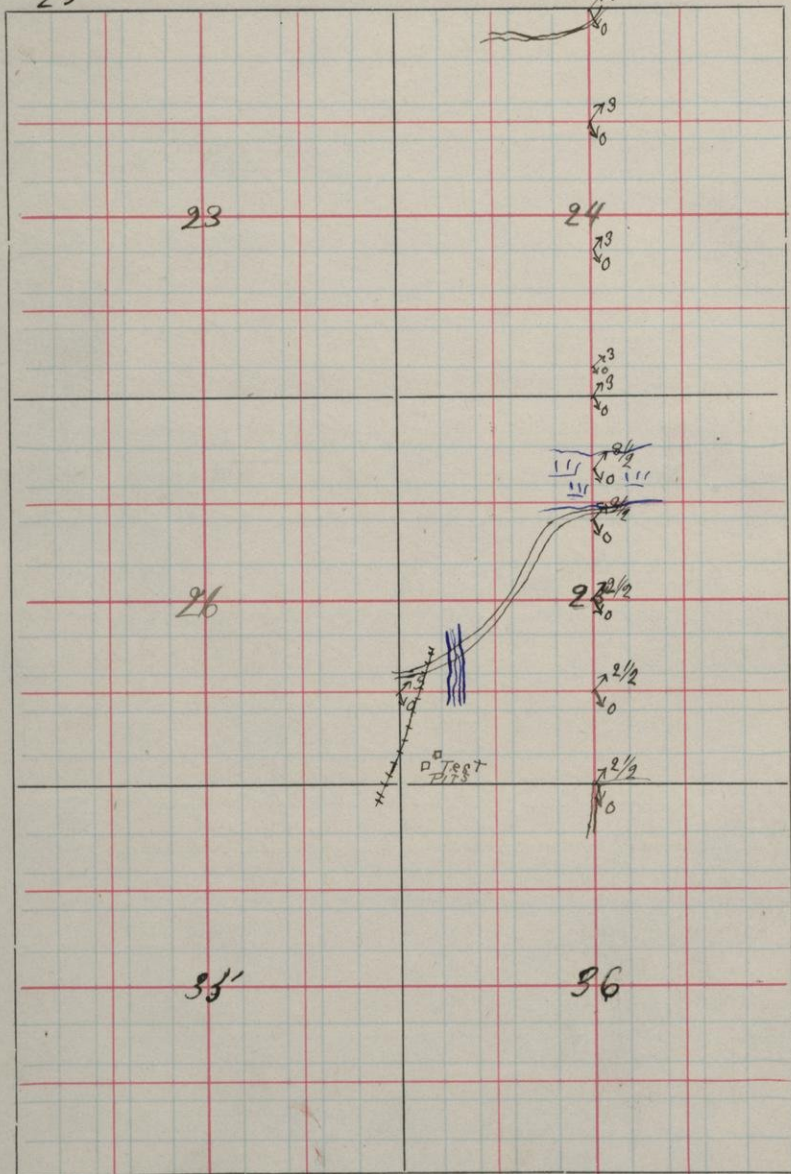
23239 is a specimen of the slate.

Many phases of the above types seen about the mouth of the pit.

S. $\frac{24}{25}$

T. 43

R. 36-

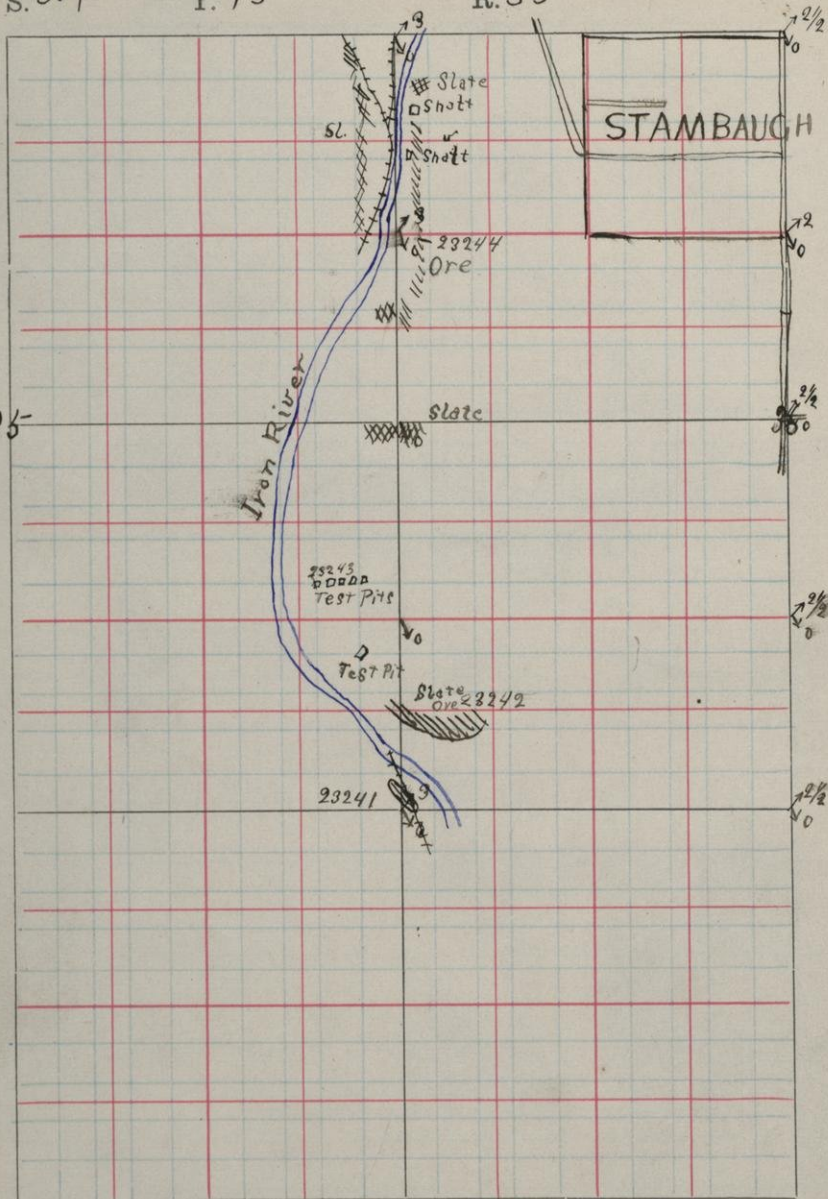


S. 35-36

T. 43

R. 35-

35-



23241 40 N 1965-W 36-43-35-

Edge of slate. Dip 70 SW Strike N 40° W

23242 175° N 1825-W 36-43-35-

From excavation of mine
Dip 80 SW Strike N 45° W

23243 575° N 225-W 35-43-35-

Specimen is from test pit.
West side of the hill is
covered with pits in slate and ore

At 1300 N 20 W 35-43-35-
is an excavation showing the
cherty and ferruginous bands
folded in apparently all
conceivable shapes. It contains
a great deal of chert.

23244 1500 N 1950 W 36-43-35-

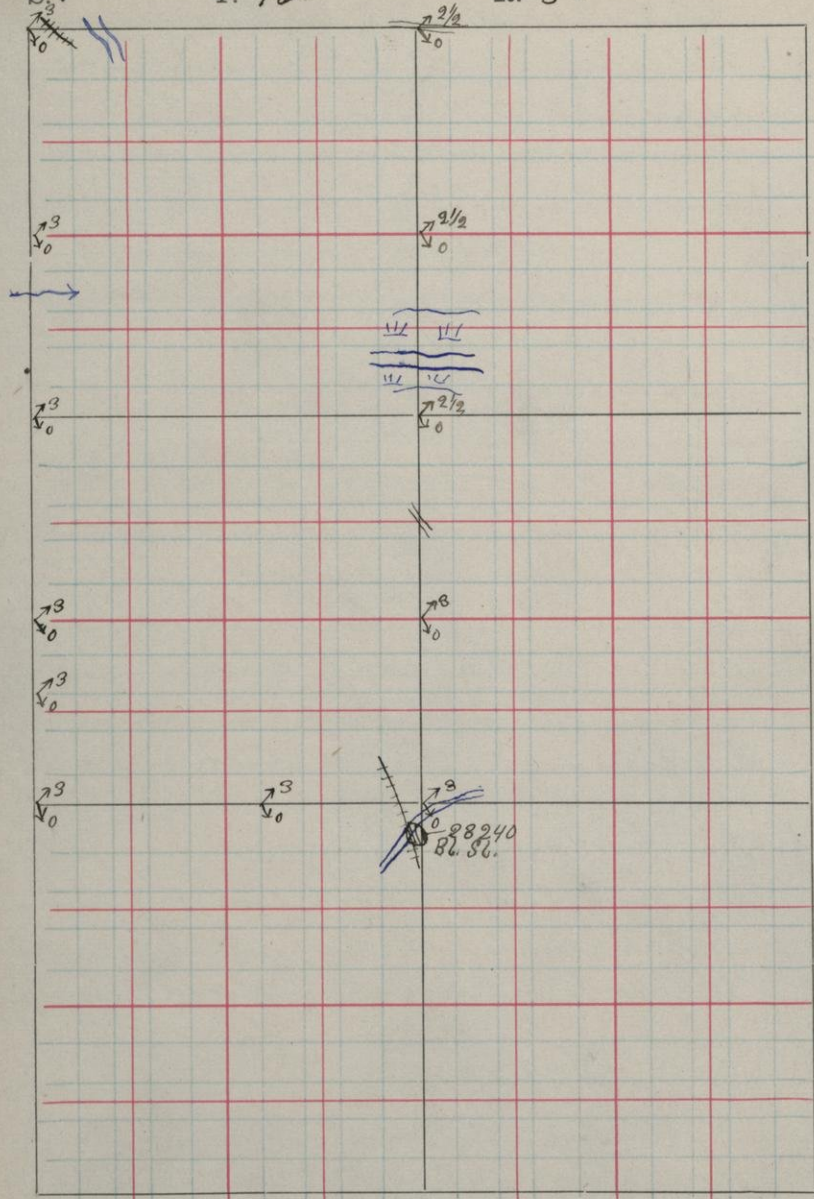
Specimen of the ore taken from shaft
Along the side of the hill
from 1250 N to 1800 N, near west
section line of 36 large quantities
of the material has been excavated.
The rock is much folded as
shown by the bands of chert.
Strike N.W. Beds in folds usually
vertical

The slate at 2000 N 100 W 35-43-35-
has a strike about N 30 W

S₃ 1

T. 42

R. 35



23240 1900 N 1020 W 12-42-35-

Ledge of black slate.

Dip is almost vertical, slightly to S.W. Strike $N 75^{\circ} W$. It is much fractured and veins of quartz run parallel to and also perpendicular to the plane of cleavage.

28245 750 N OW

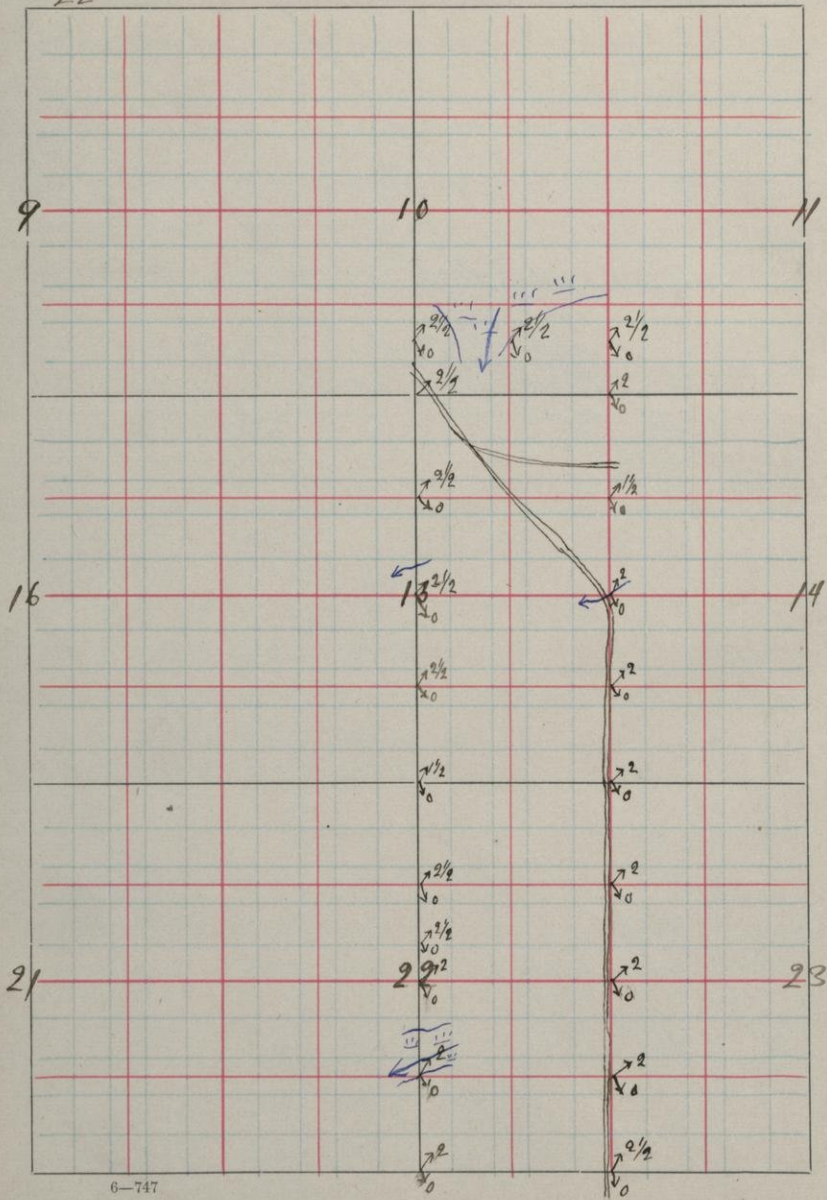
27-43-35-

Ledge of cherty slate as quartzite
on road near river.

S. $\frac{10}{15}$
22

T. 43

R. 35



S. $\frac{34}{3}$

T. $\frac{43}{42}$

R. 36-

33

34

35

4

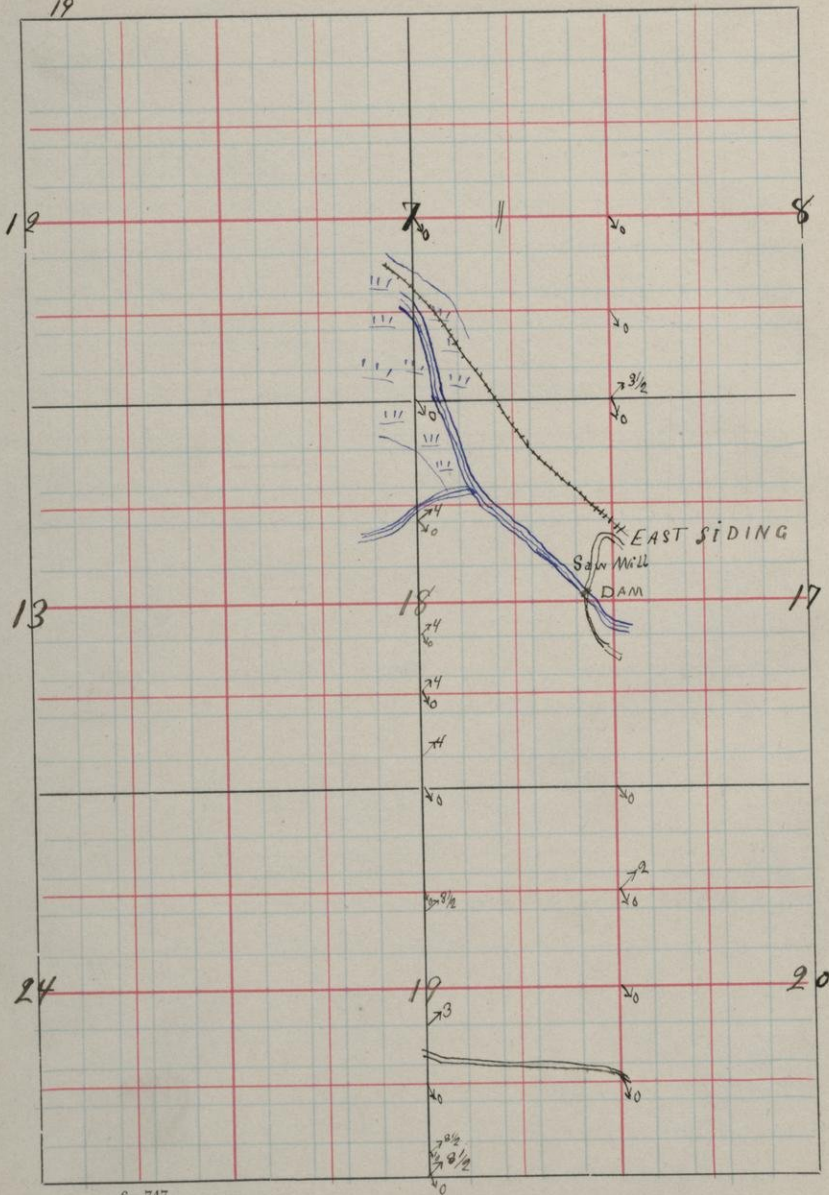
3

2

S. $\frac{7}{18}$
19

T. 43

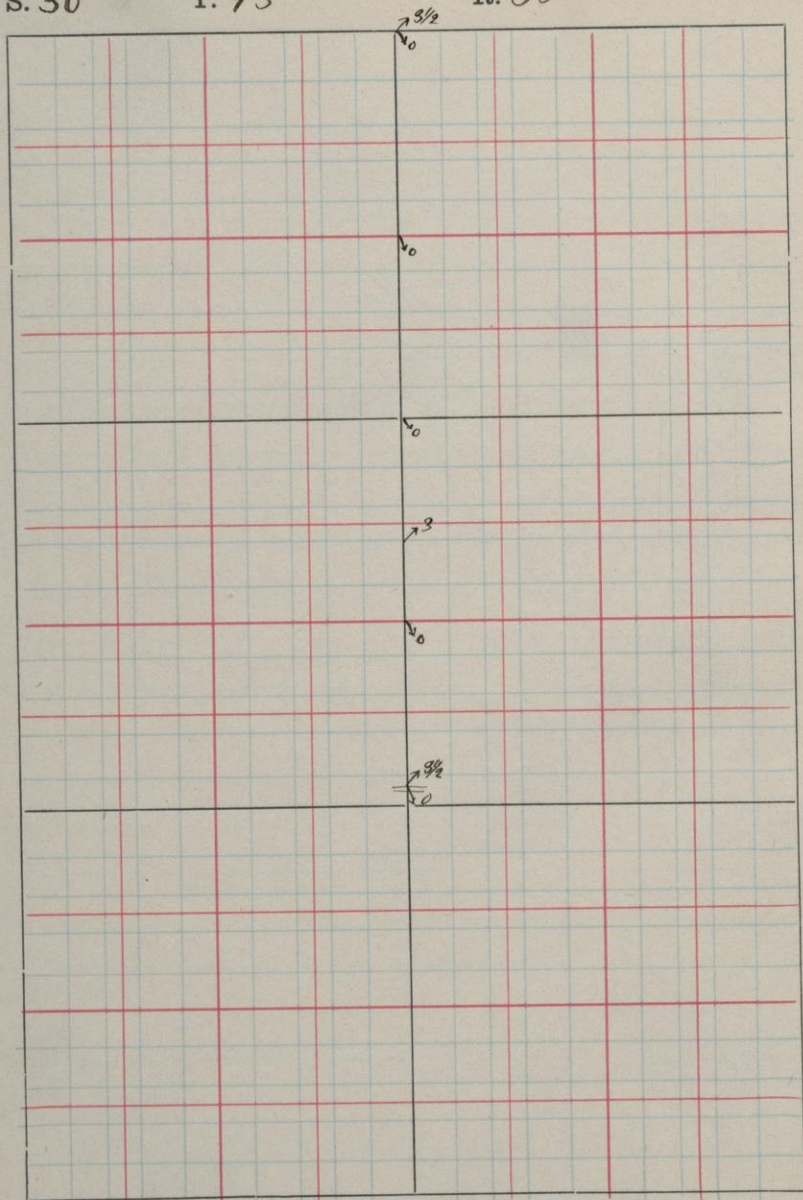
R. 35



S. 30

T. 43

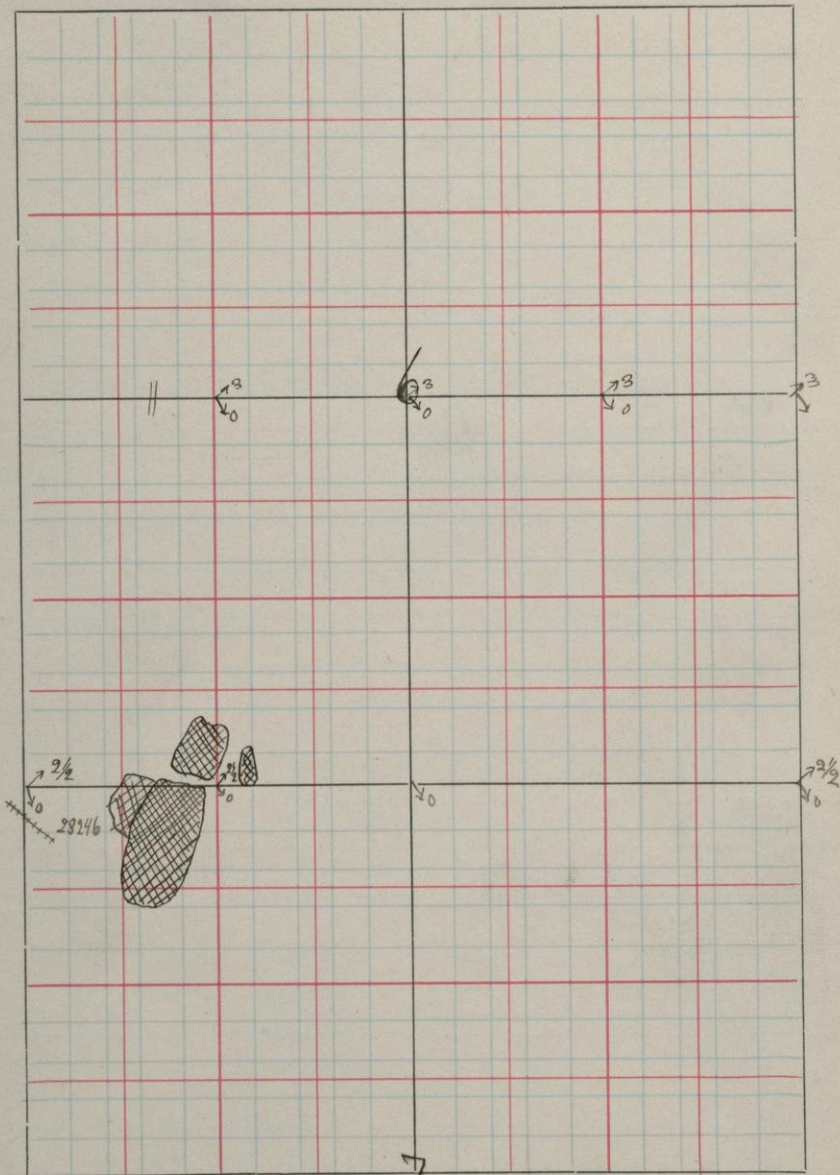
R. 35



S. 6

T. 43

R. 36



23246 1950 N 1760

7-43-35

Ledge of fine grained greenstone showing veins of quartz and stretching to a considerable extent.

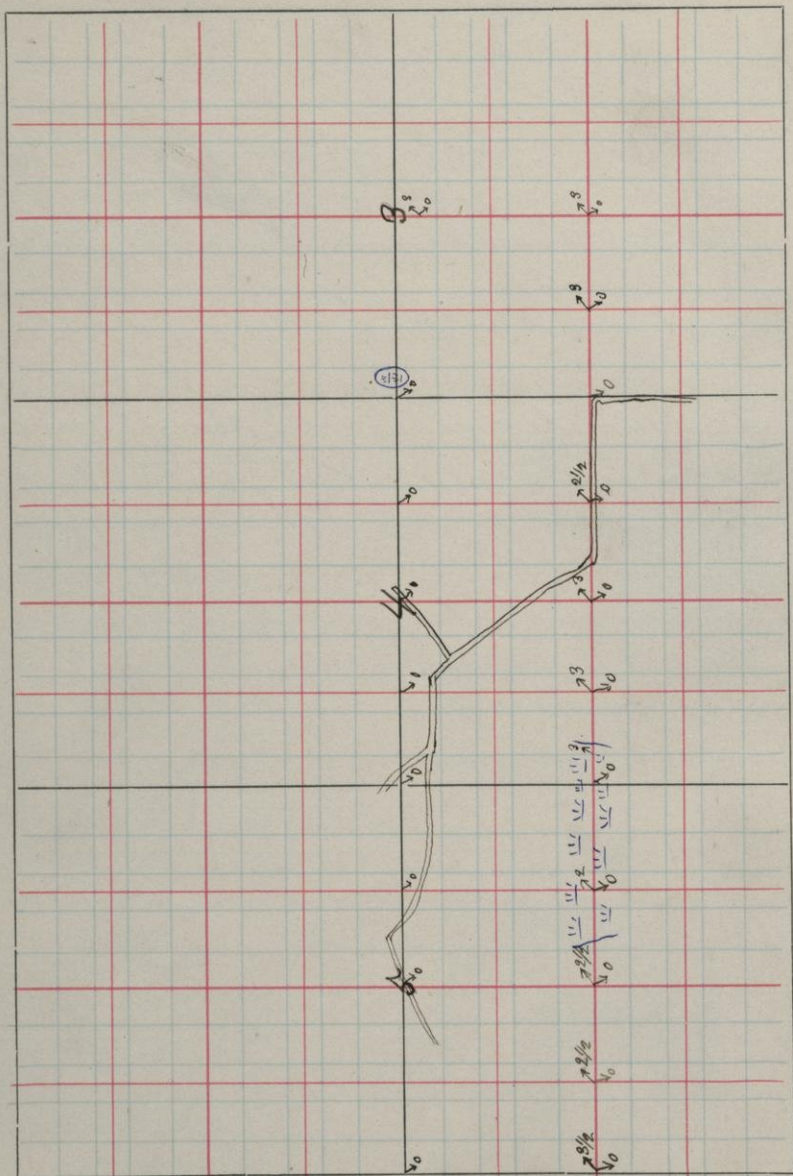
In these ledges there is a cleavage plane dipping from 30° to 70° S.E. Strike $N 65^{\circ} E$.

These ledges are quite uniform in appearance, like 23246

S. 3, 4, 5:

T. 43

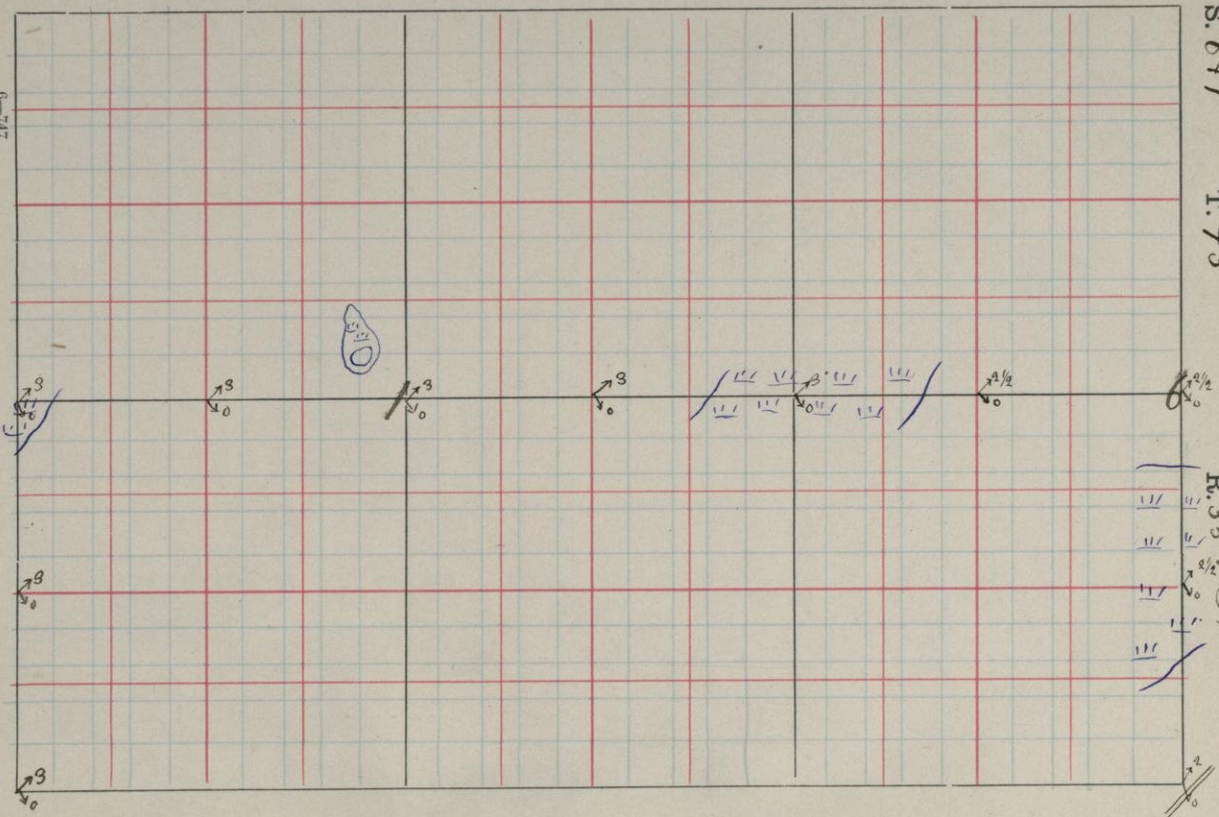
R. 35^v



1 + 9 S.

T. 43

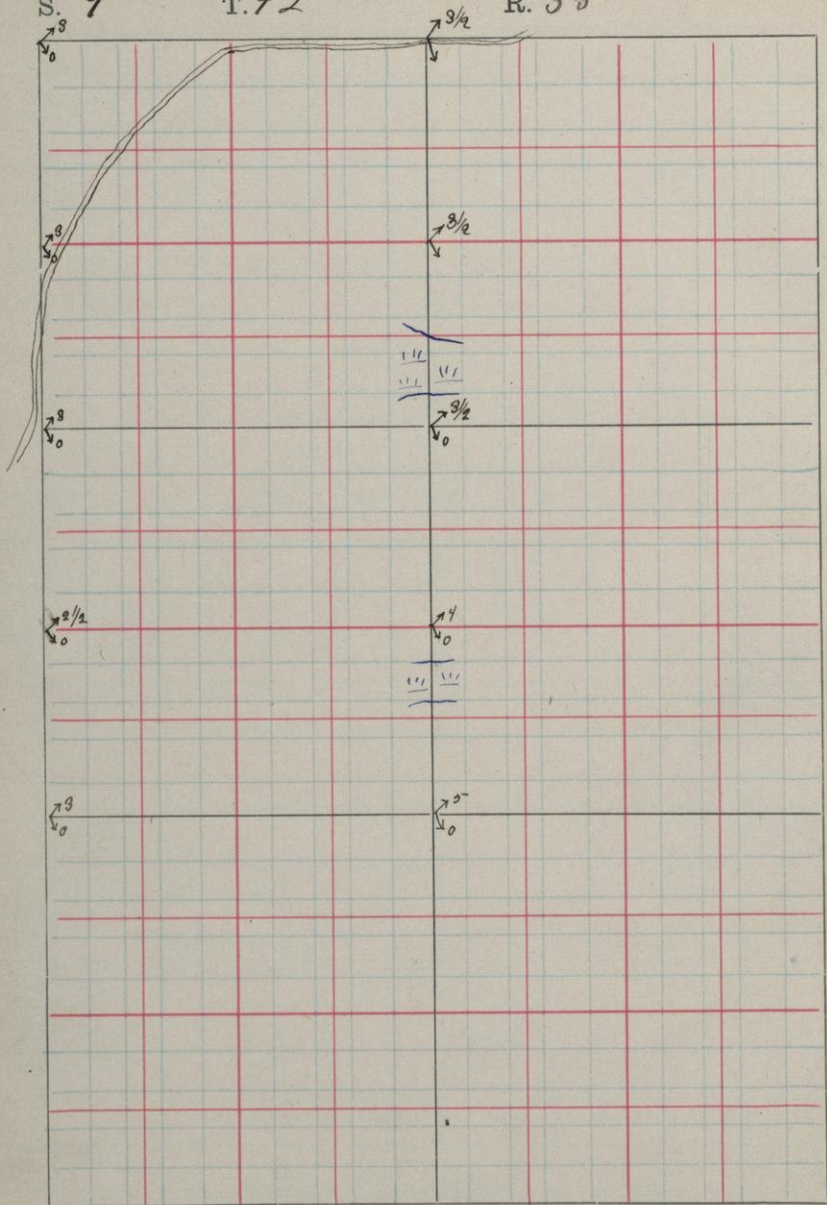
R. 35-2 34



S. 9

T. 42

R. 36-



S. 16

T. 42

R. 36-

 $\nearrow 3$
50 $\nearrow 5$
50 $\nearrow 8$ $\nearrow 4\frac{1}{2}$ $\nearrow 4$
50 $\nearrow 6$
50 $\nearrow 7\frac{1}{2}$
5023248
23247

23249

Quartzite

23253

Quartz

23254

23252

 $\nearrow 3$
50

Quartzite

- 28247 325° N 2100 W of S.E. cor of 16-4235-
Ledge of pink quartzite. No dip
and strike obtainable
- 28248 325° N 2100 W of S.E. cor of 16-42-35-
Somewhat coarser specimen
a conglomerate. This outcrop
is quite high and has steep
slopes especially at the eastern
end. It is of quite uniform
character, massive beds. No
structure made out.
- 28249 245° N 1750 W 16-42-35-
Specimen of quartzite conglomerate
on east side of above hill. It
is not coarse conglomerate
- 28252 100° N 1080 W 16-42-35-
Ledge of quartzite, massive and
fine grained like specimen
and also conglomeratic
- 28253 390° N 760 W 16-42-35-
Ledge of conglomeratic sandstone
or quartzite composed of fragments
of cherty quartz. The beds may
(over)

S. 21

T. 42

R. 34-

 $\frac{1}{2}$
 $\frac{1}{2}$
 0
 a.

 $\frac{1}{2}$
 0

111

111

111

111

111

4 1/2

0 111

111

111

0

1 1/2

0

2925-0

111

111

111

111

Greenstone

111

111

111

111

111

111

111

111



23250 1000 N ~~1000~~ 1000 W of SE cor of 20-42-35
 ledge of greenstone, fine grained

23251 1000 N 2000 W 21-42-35
 East end of the above ledge,
 somewhat schistose.

be horizontal but they are
 broken up so that it is
 difficult to tell. It appears
 to lie in a sort of a shelf.

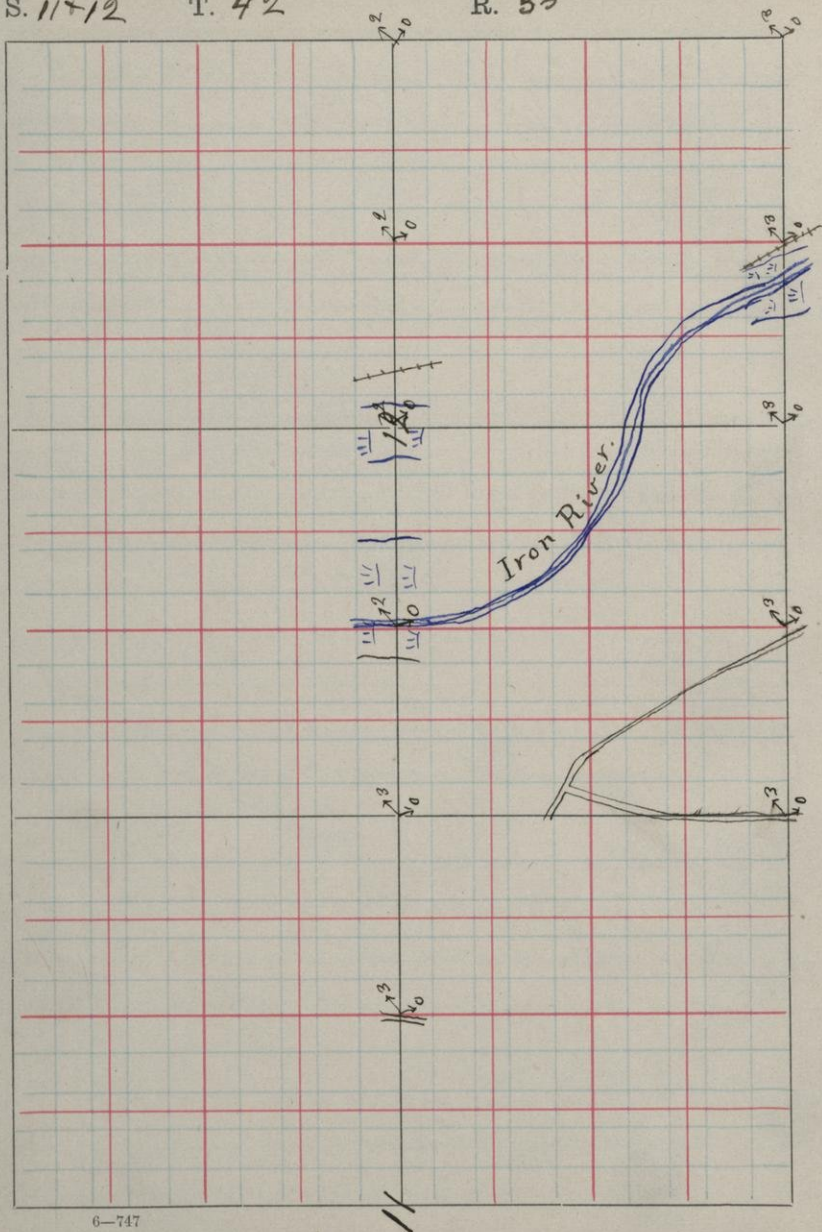
23254 245 N 700 W 16-42-35

Specimen of fine grained quartzite
 lying in a horizontal shelf. At
 this place the fine grained
 quartzite like 23254 lies above
 the conglomerate like 23253.
 The fine grained shows a
 thickness of 4 or 5 feet
 but the conglomerate is
 much thicker.

S. 117/2

T. 42

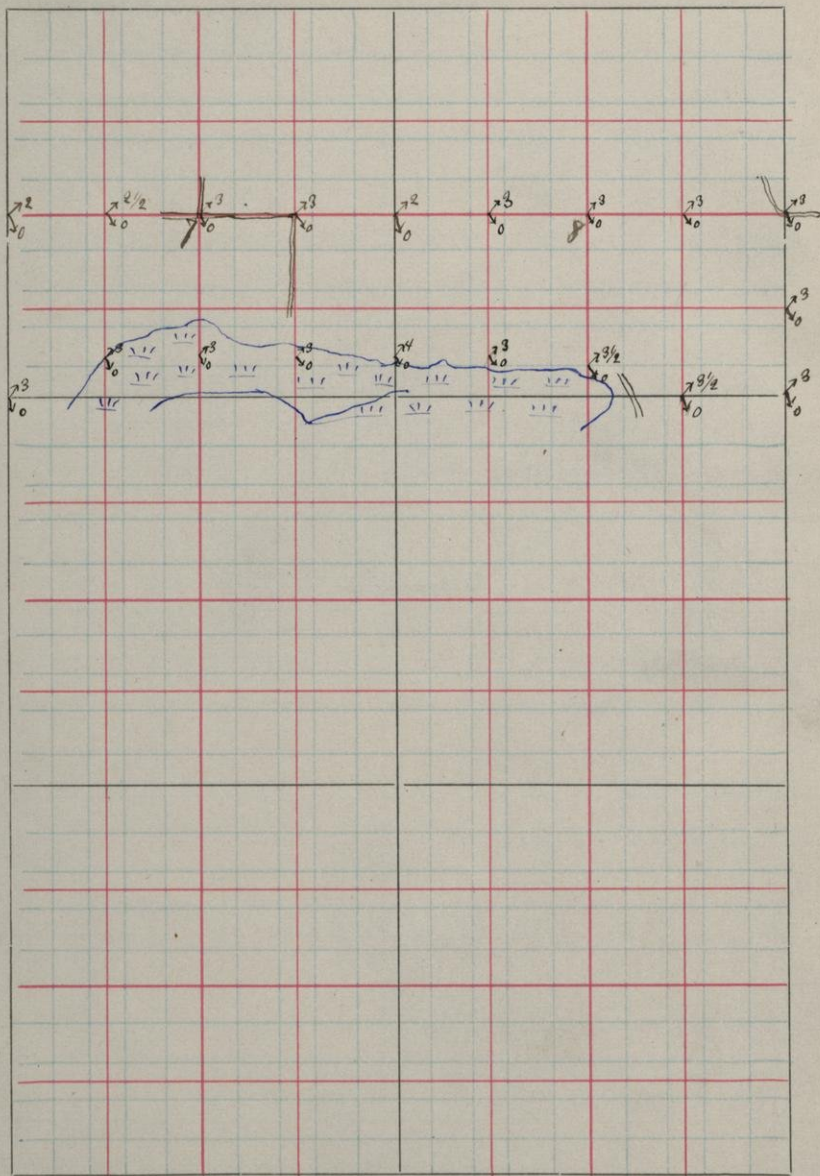
R. 85-



S. 7+8

T. 42

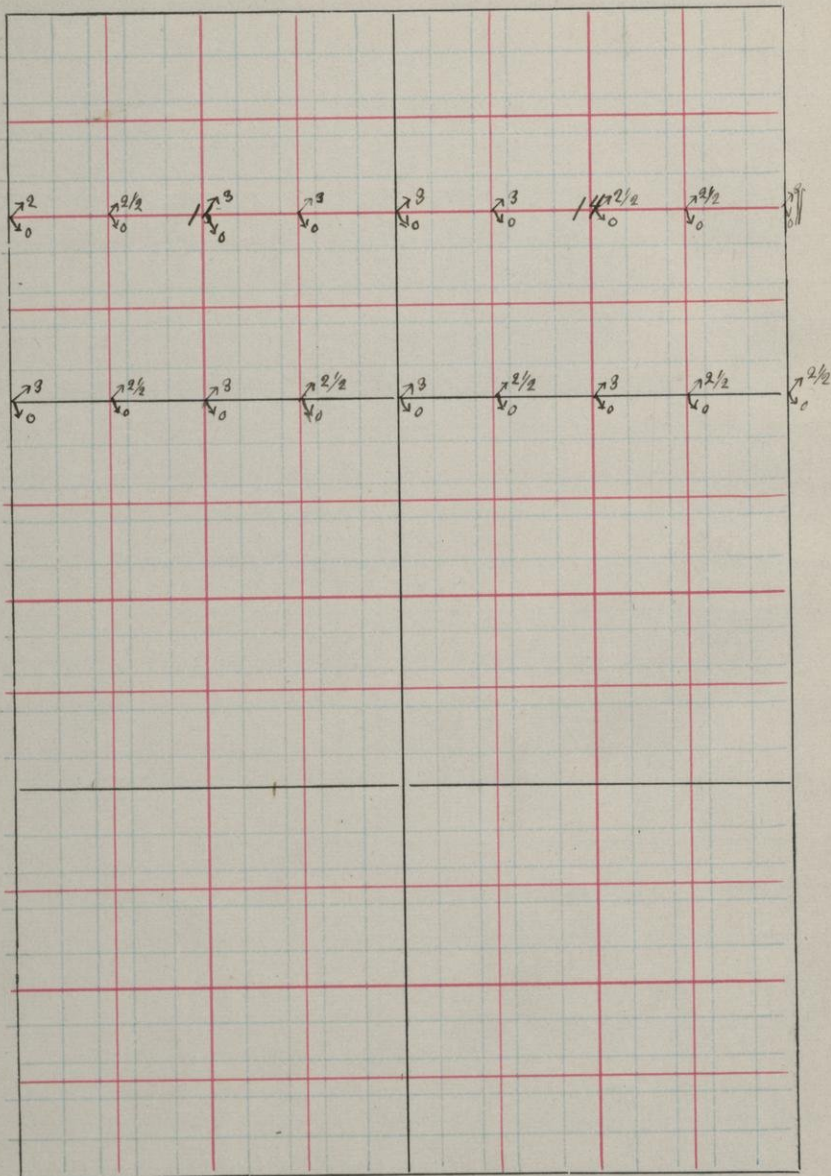
R. 34



S. 13-14

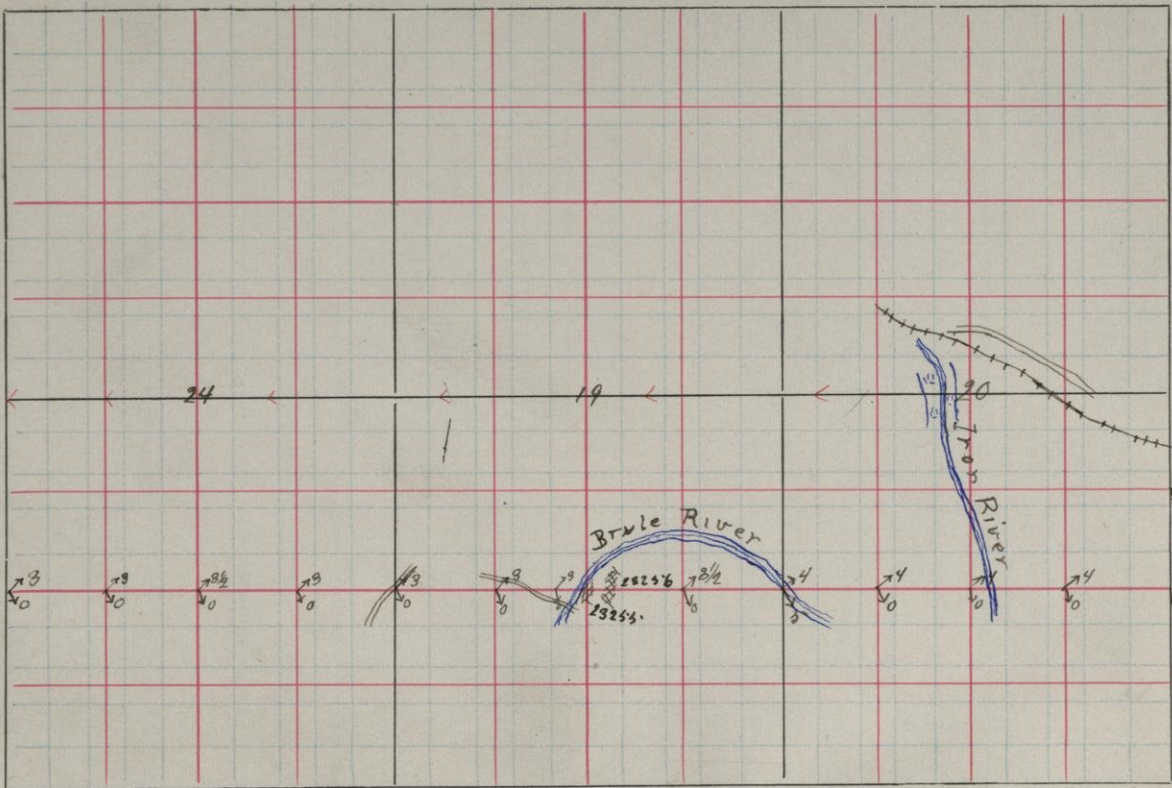
T. 42

R. 36-



S. 29/19/20 T. 42

R. 35/34



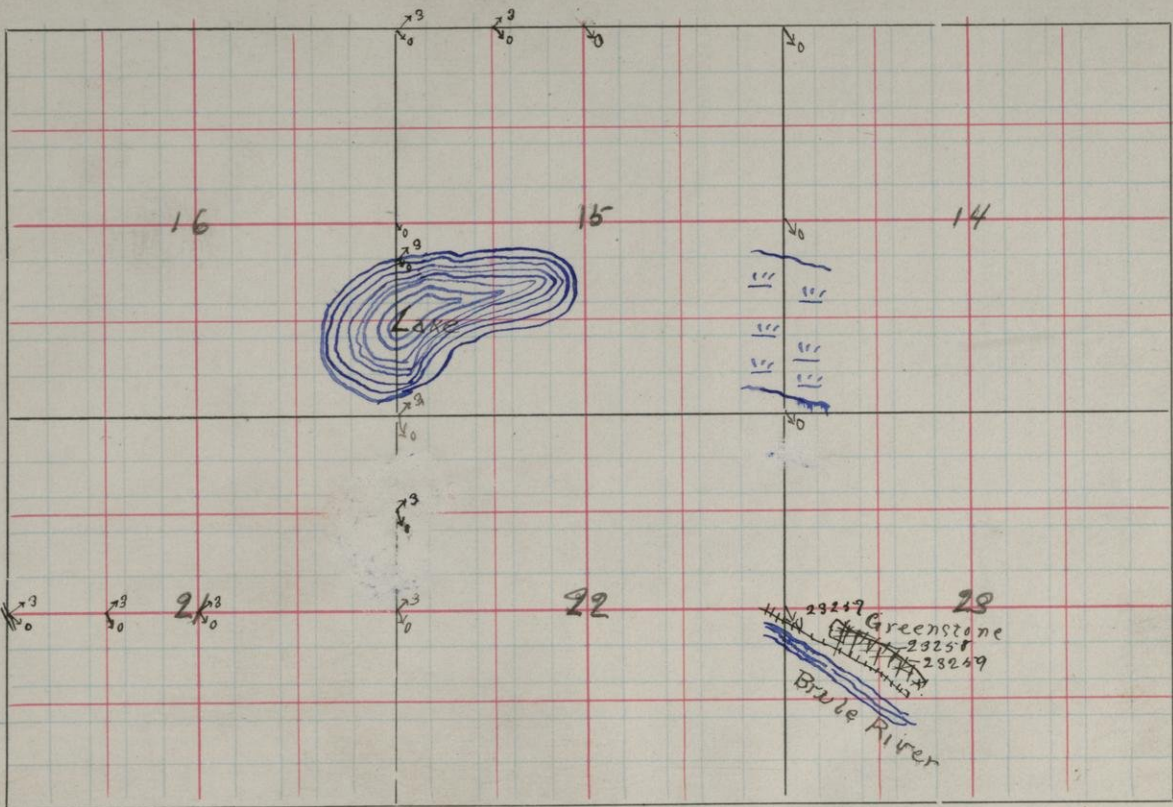
28255 On Wisconsin side of the
Brule River 980 E of S.W. cor 19-42-34
Ledge of greenstone, fine grained
and much fractured.

28256 1125 E of S.W. cor of 19-42-34
Ledge of slate colored, fine-
grained greenstone, shows
flowage in places and
contains angular fragments
and rounded areas of
weathered whitish material.
This rock may be a dyke
cutting through that like 28255
of which the larger part of
the ledge is composed.
But there is no trace of
a dyke contact.

16 15 14
S. 21 22 23

T. 42

R. 84



23257 900 N 175° W 23-42-34

Ledge of schistose greenstone
on R.R. Strike of schistosity N75° E
Dip about vertical

23258 865 N 152° W 23-42-34

Amphiboloidal greenstone specimen
schistose.

23259 865 N 150° W 23-42-34

Specimen of volcanic breccia
greenstone from same as above
ledge.

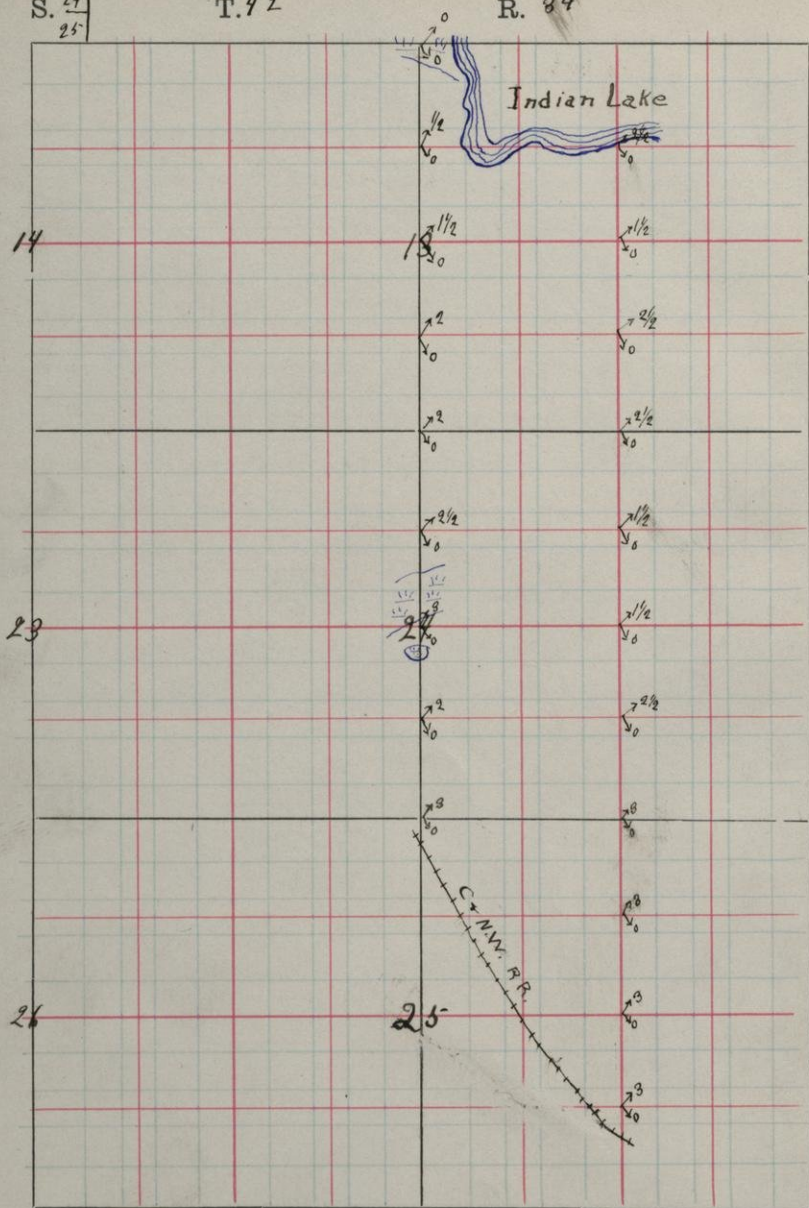
This ledge shows much
stretching. Strike of schistosity
is N75° E

The above ledge located and
examined by Dr. B. A. A. A.

S. $\begin{array}{r} 13 \\ \hline 24 \\ \hline 25 \end{array}$

T. 42

R. 84



70
71
72

