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Marquette district: [specimens 23446-23636]. No. 171 1894?

Weidman, Samuel, 1870-1945

[s.l.]: [s.n.], 1894?

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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.

r 28/95 C - A . 171

^{Mechigamme District}
Notes on the Marquette District.

By Samuel Weidman.

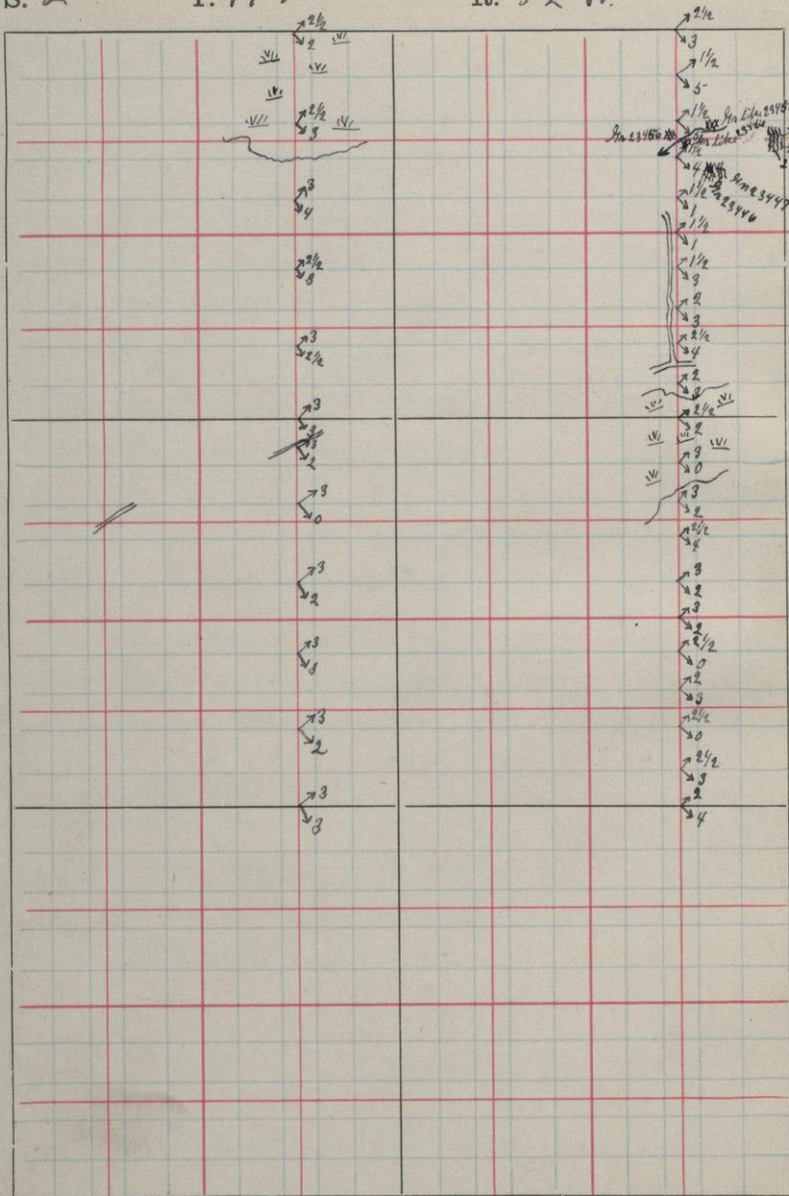
Compassmen, L. B. Oeller
and J. Murphy.

Location of Specimens
unless otherwise stated
always co-ordinate with map
of section on opposite page.

S. 2

T. 44 N

R. 32 W.



23446 1700 N 175° W SE Cor S 2-44-32

Outcrop of whitish grey granite cut by quartz veins and by mica schist.

23447 1700 N 170 W.

Rock is a dark gray mica gneiss containing a reddish mineral from ledge lying to the east and in contact with above granite

23448 1700 N 0 W

Strike N 30° W. Dip 80° NE

Outcrop of dark gray gneiss spotted with red gneiss

23449 Specimen from same ledge as 23448

It is much like 23448 but is finer grained

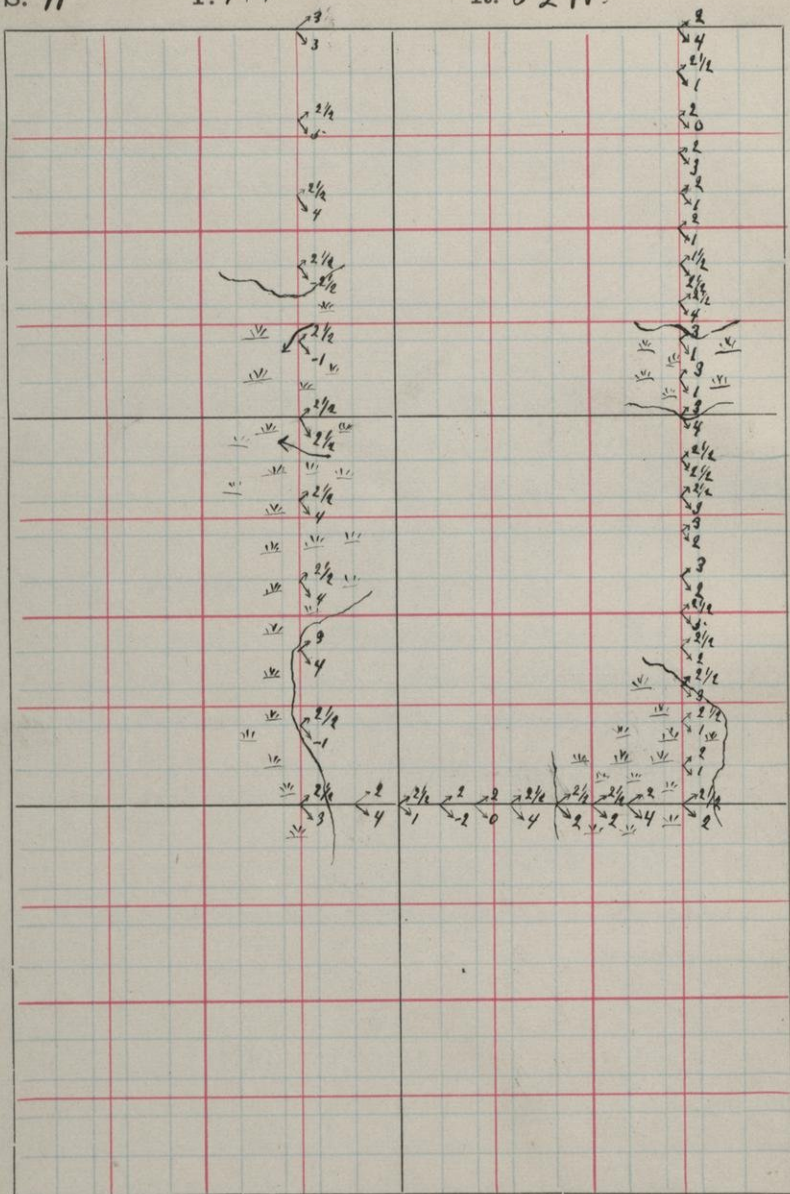
23456 1770 N 250 W

Strike N 30° W. Ledge of dark gray gneiss.

S. 11

T. 44 N.

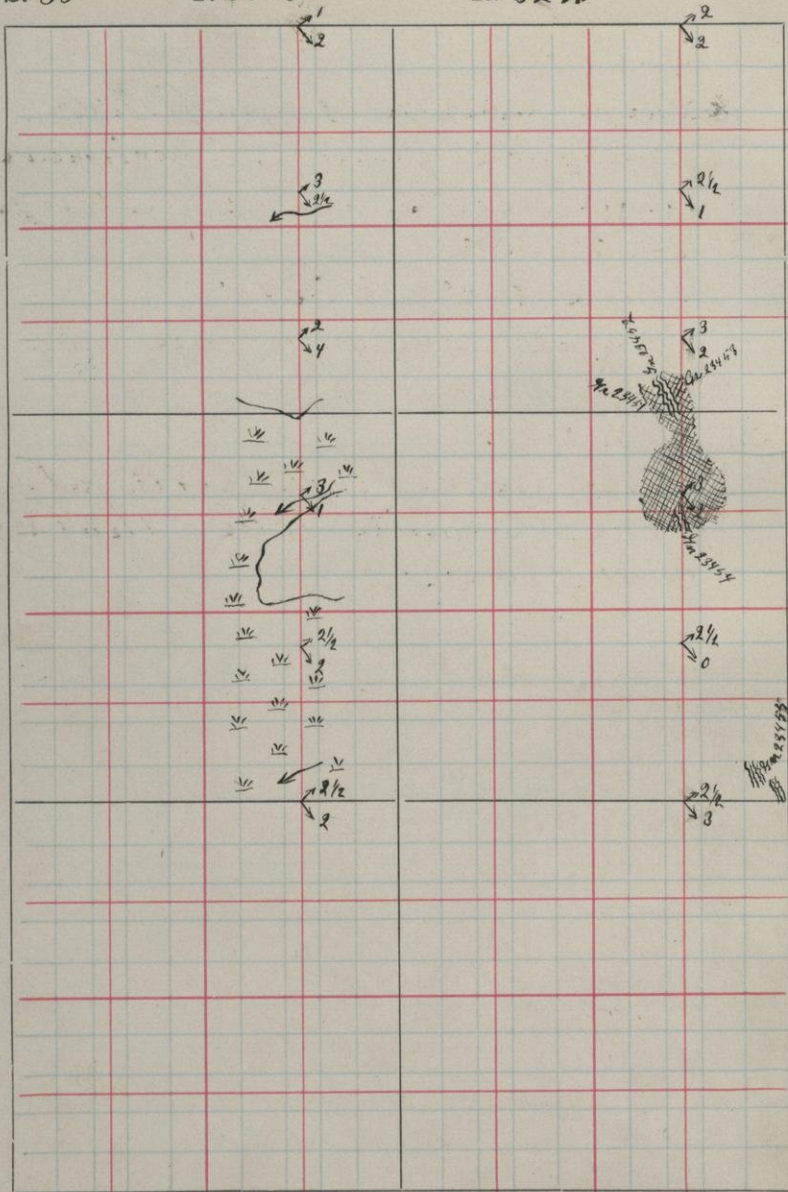
R. 32 W.



S. 35

T. 43 N

R. 32 W



23451 1075 N 335 W

Large outcrop of grayish porphyritic granite. Specimen from north end of outcrop.

23452 1040 N 300 W

Strike N. 10° W. Dip 72° N.E.

Dyke of dark gray fine grained mica gneiss

23453 1040 N. 250 W.

Sedg in contact with above dyke. Granite like that (23451) to the west.

23454 750 N. 250 W

Dark gray mica gneiss forming a dyke. Strike and dip not obtainable.

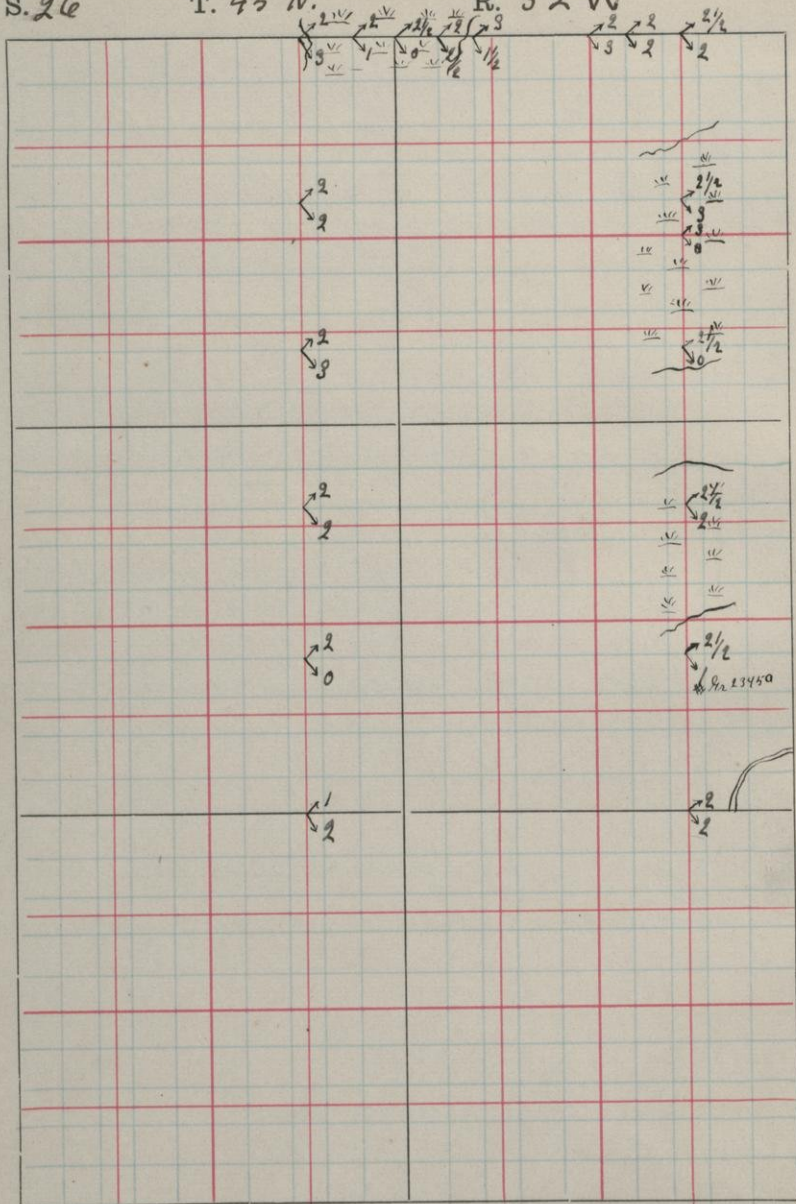
23455 0 N. 0 W.

Dark gray gneiss containing patches of the ordinary coarse granite.

S. 26

T. 45-N.

R. 32 W



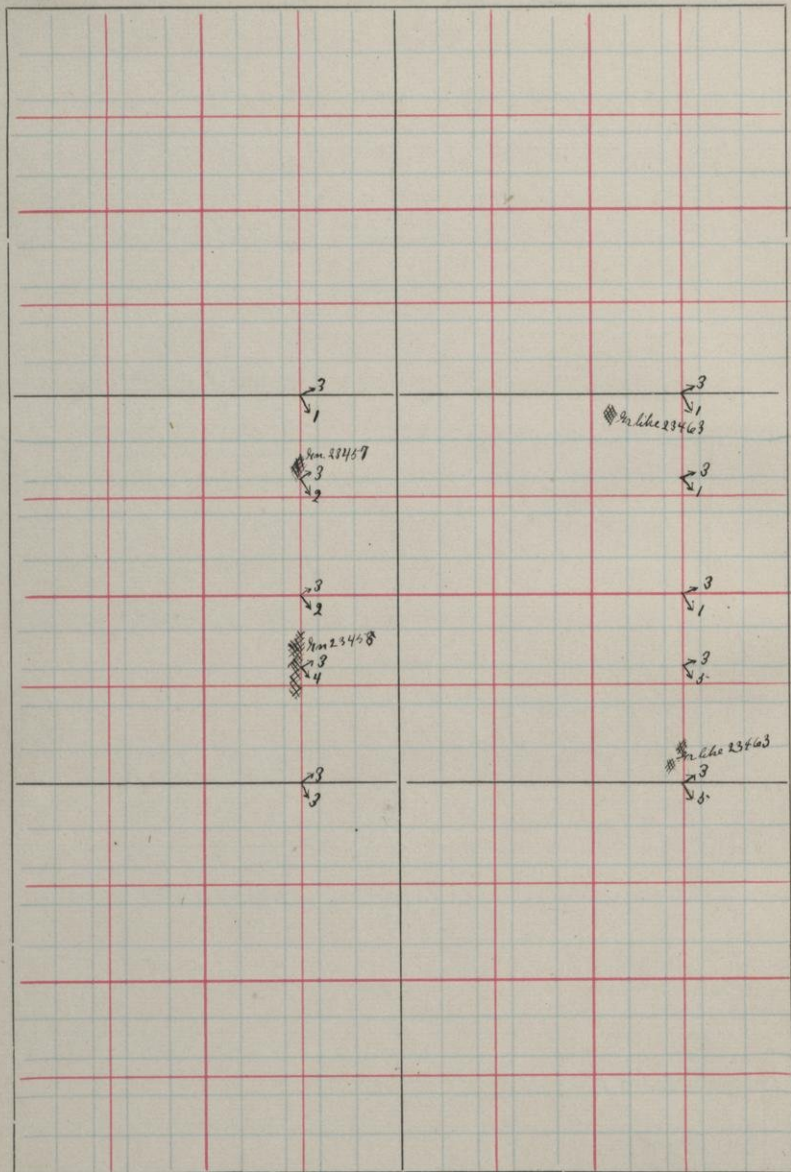
2345-0 300 N 230 W.

Gray porphyritic granite.

S. /

T. 44 N.

R. 32 W



2346-7 825 N. 125° W

Dark gray gneiss containing veins and patches of porphyritic granite.

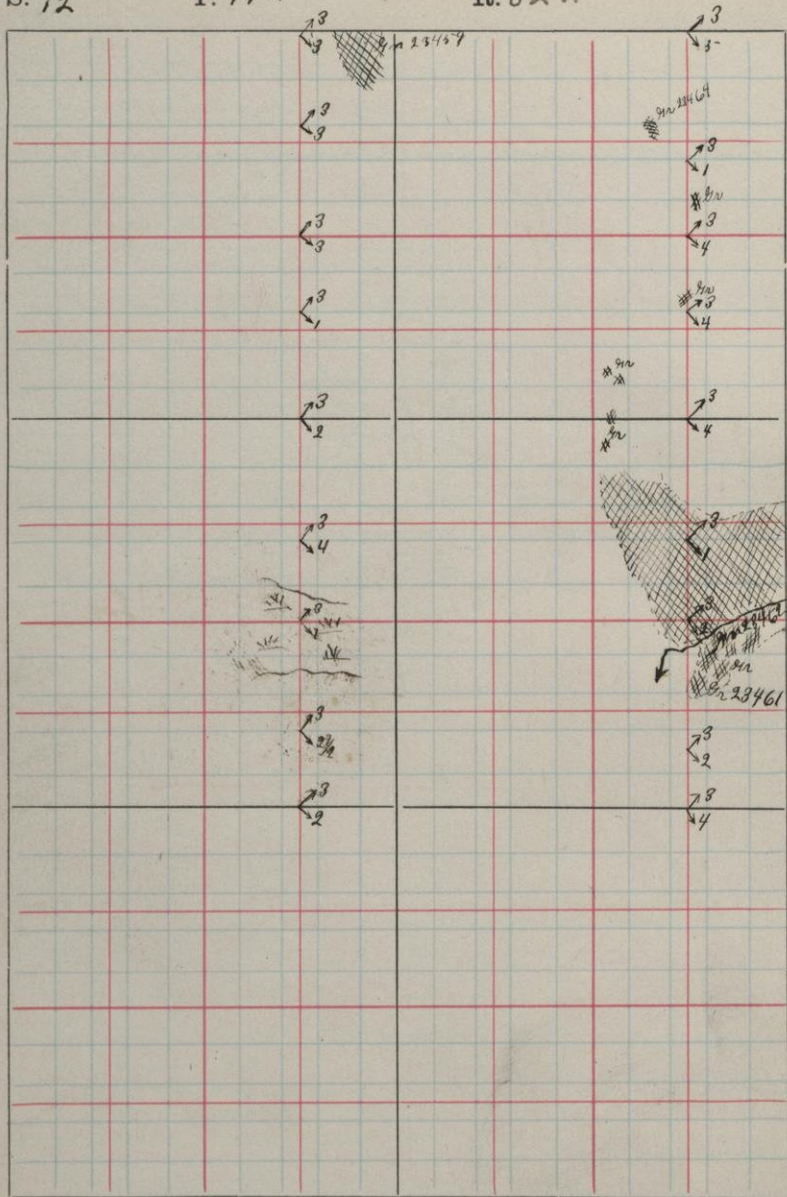
2346-8 300 N 125° W

Dark gray gneiss having veins of porphyritic granite and patches of quartz.

S. 12

T. 44 N

R. 32 W



23459 1980 N 1100 W. Dark gray gneiss much like 23457.

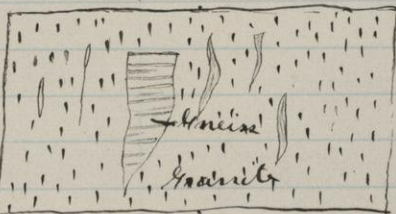
23461 325 N 225 W. Reddish gray porphyritic granite cut by veins of quartz.

23462 400 N 180 W. Dark gray gneiss.

The large ledge of rock extending from 400 N to 900 N and 0 W to 500 W consists of granite and gneiss in about equal quantity. In some places gneiss predominates, and in other granite.

North

Drawing of the horizontal surface of a ledge.



Location

700 N 200 W.

Scale 1 in = 2 ft.

The granite seems to cut the gneiss, the folia of the gneiss being at right angles to the long axis of the porphyritic crystals of feldspar in the granite. The patches of gneiss tail out in parallel direction to long axis of feldspar crystals.

23463 1100 N 450 W. Coarse red granite.

23464 1775 N 345 W. Dark gray coarse granite.

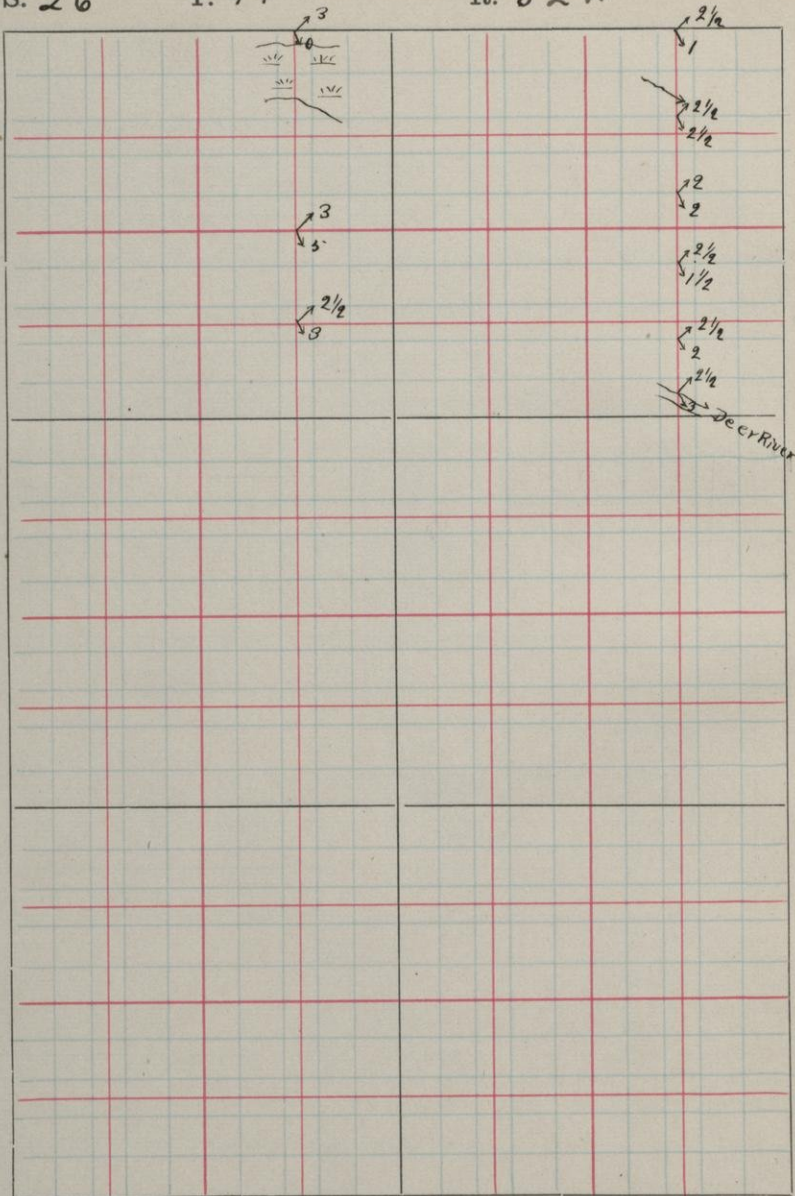
23460 1000 N 1100 W

Strike N 10° E Dip almost vertical.
Dark gray greenstone.

S. 26

T. 44 N

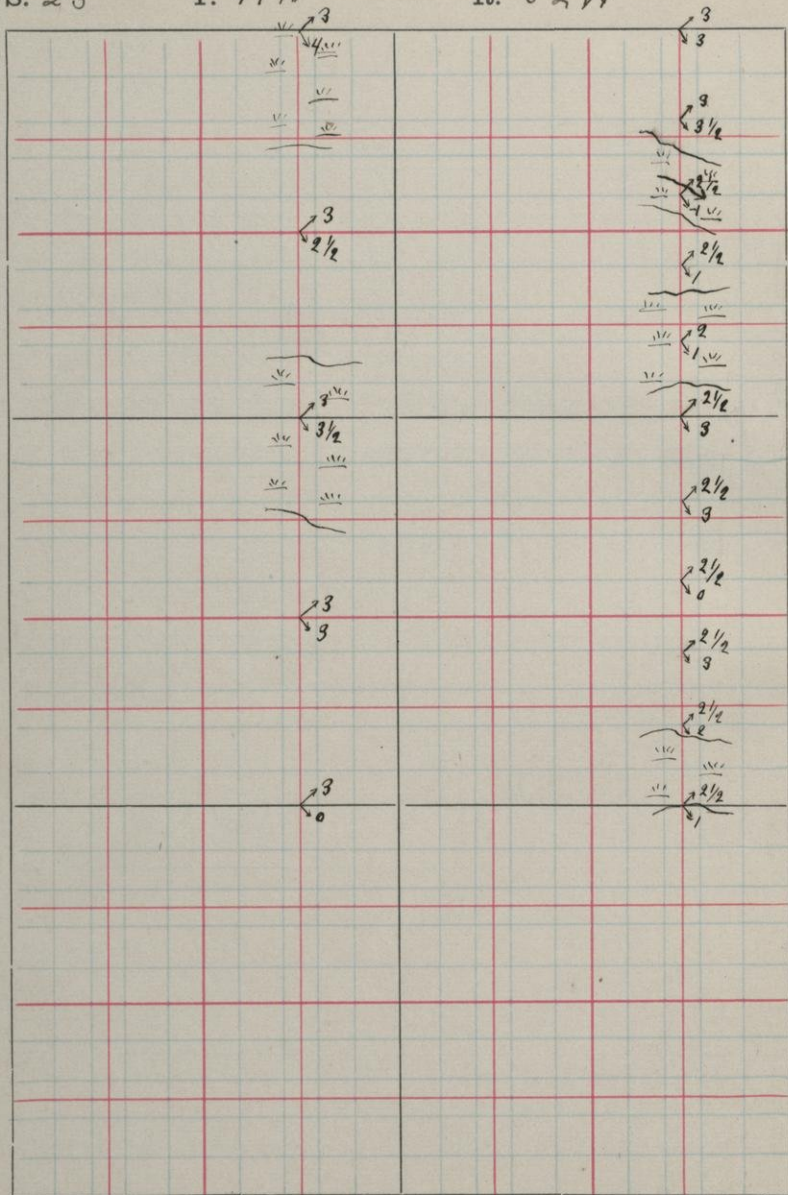
R. 32 W



S. 23

T. 44 N

R. 32W



28465 1750 N. 260 W.

Outcrop of amygdaloidal greenstone. On the weathered surface are many small cavities whose longer axis are in a parallel direction to the dyke alongside it.

28466 1750 N. 260 W.

Specimen from dyke in the above greenstone. Strike of dyke N 30° W. Dyke is about fifteen feet wide and can be followed but a short distance. It shows considerable schistosity but no dip obtainable. Fragments of 28465 are included within it.

28467 1750 N 240 W.

Much like 28465 but is finer grained and no amygdaloidal cavities visible.

Passing south over the large outcrop 1675 N to 1450 N find the rock much like outcrop 1750 N. 250 W. but no dykes or veins of schists are found.

(over)

23468 420 N 260 W. See. 14-44-32

Small outcrop of amygdaloidal greenstone

23469 400 N 225 W. See 14-44-32

Outcrop is a ridge of greenstone connected with the outcrop 23468. The rock contains a large quantity of black hornblende.

23470 380 N 200 W. See. 14-44-32.

Rock is a fine grained greenstone.

23471 From same ledge (380 N. 200 W.) and in contact with 23470. Rock is a coarse grained greenstone conglomerate.

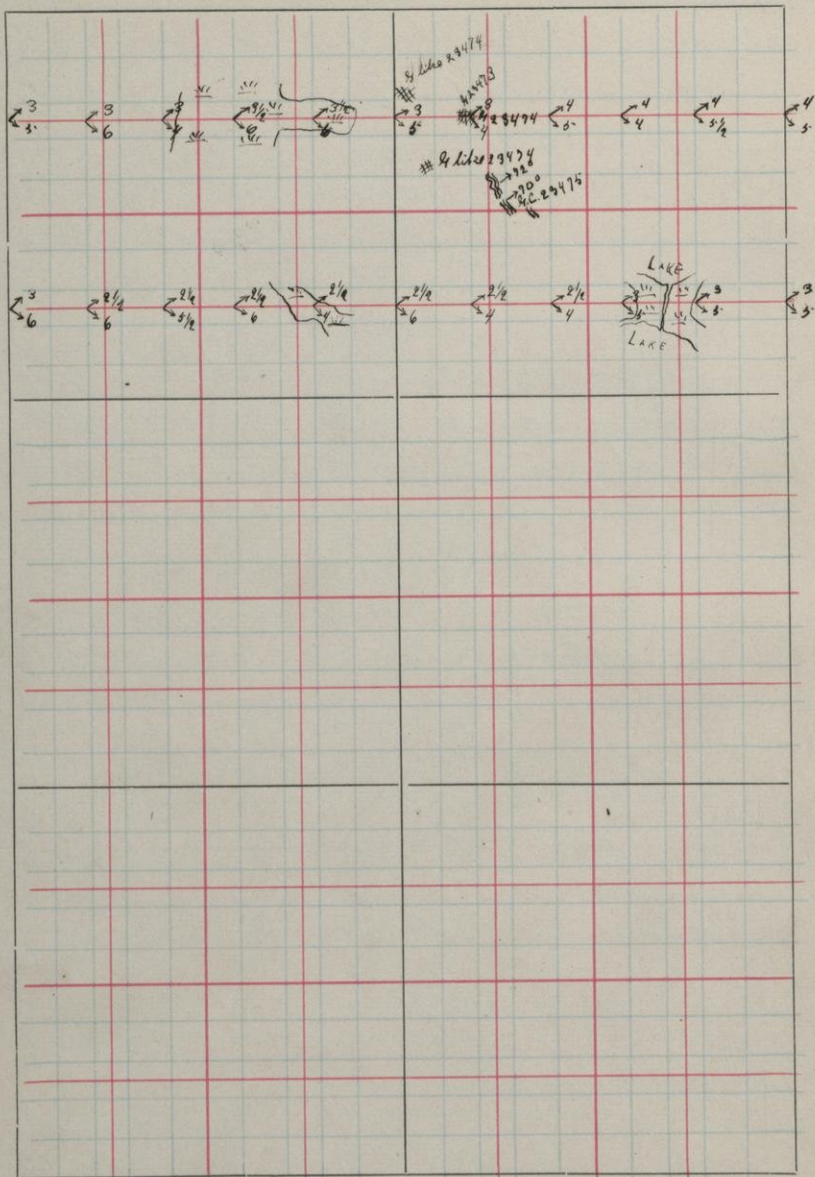
23472 200 N 90 W. See 14-44-32

Large outcrop, ridge running in south east direction. Rock principally like 23469 being a coarse greenstone containing large black crystals of hornblende.

S. 30

S. 30 T. 44 N

R. 31 W.



23473 175° N 77° W

Outcrop of dark colored greenstone

23474 173° N 76° W

From above ledge. Rock finer grained than 23473.

23475 15° N 74° W

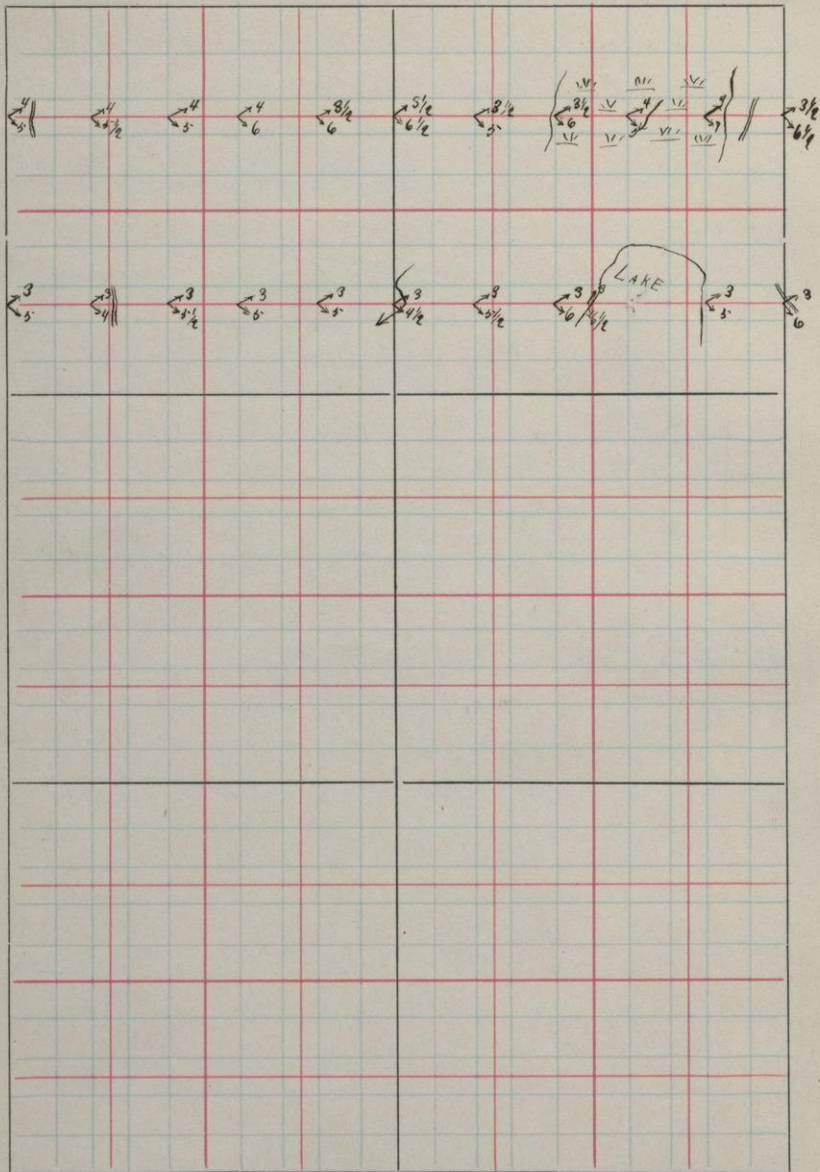
Strike N 60° W Dip 70° N.E.

Small outcrop of greenstone conglomerate

S. 29

T. 44 N

R. 31 W



1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2

1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2

23476 75.0 N 147.0 W

Small outcrop of reddish porphyritic granite

23477 72.5 N 169.0 W

Outcrop of dark gray gneiss containing patches of red granite.

23478 170.0 N 52.5 W

Outcrop of dark colored mica gneiss which is cut by veins of quartz.

23479 174.0 N 52.5 W

From same outcrop as 23478
Specimens from dyke of dark colored mica gneiss which contains crystals of pyrite.

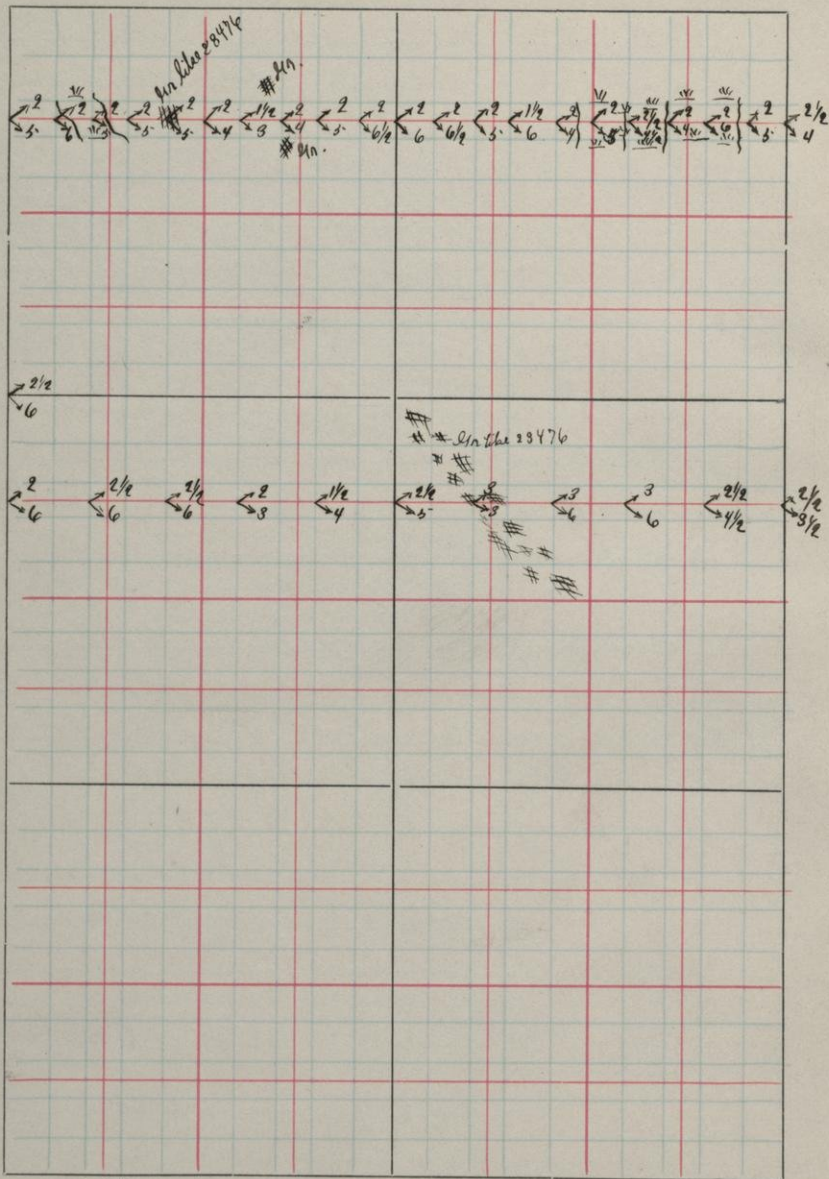
The mica gneiss dyke cuts the granite gneiss like 23477.

Direction of dyke not made out but probably north and south.

S. 18

T. 44 N.

R. 81 W



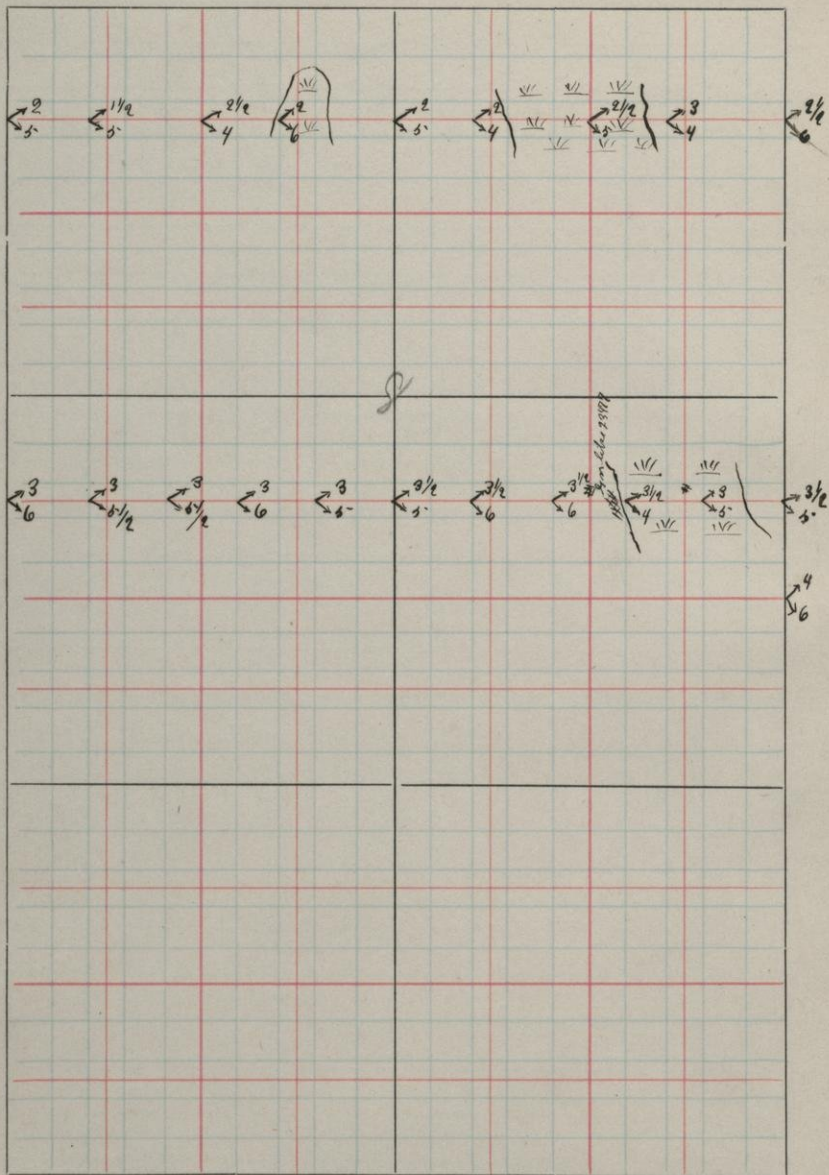
18

18

S. 8

T. 44 N

R. 31 W



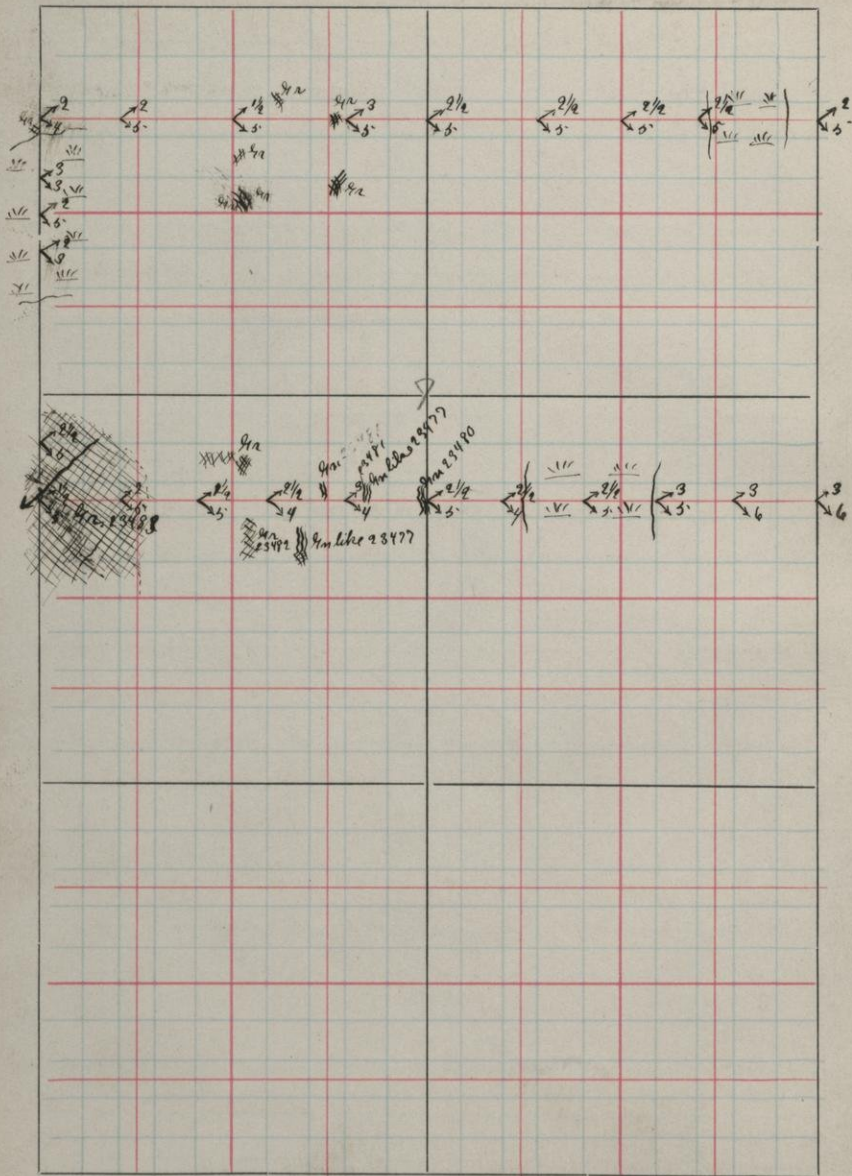
1. 2. 3. 4. 5. 6. 7. 8.

9. 10. 11. 12. 13. 14. 15. 16.

S. 7

T. 44 N

R. 31 W



23480 75°0 N 100°0 W

Small outcrop of grayish mica gneiss which seems to have more mica than the usual granite gneiss like 23477

76°5 N. 115°0 W Small outcrop of granite gneiss like 23477. Direction of foliation north and south. Contains veins of granite and patches of hornblende schist

23481 Specimen from above ledge taken from small patch of hornblende schist. Specimen contains crystals of porphyritic quartz

79°0 N 126°0 W Small outcrop of grayish gneiss like 23477 having veins of quartz and granite and patches of mica gneiss.

23482 67°0 N 143°0 W

Whitish gray granite. Small outcrop. 83°4 N 143°0 W Outcrop of granite which is dark gray.

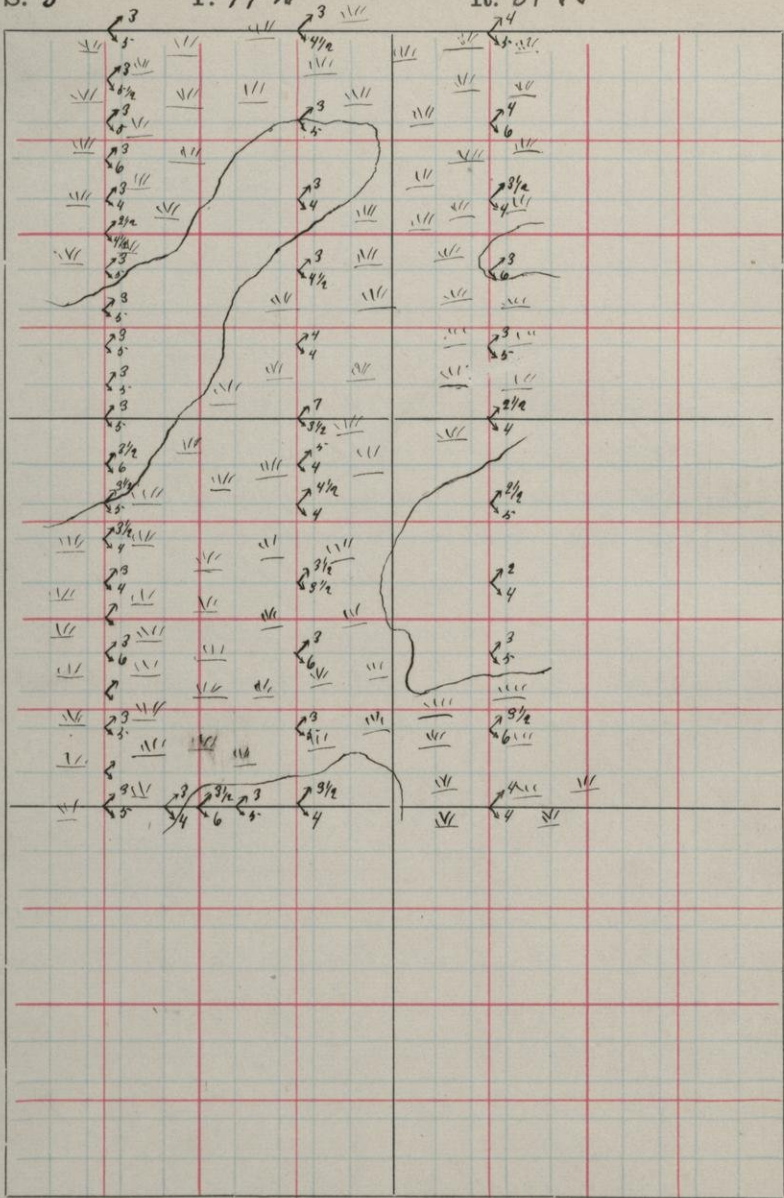
23488 70°0 N 184°0 W.

Large outcrop of black gray granite sometimes gneissoid in character 15°5°0 N. 15°0°0 W. Outcrop of granite and gneiss cut by dykes of mica gneiss

S. 5

T. 44 N

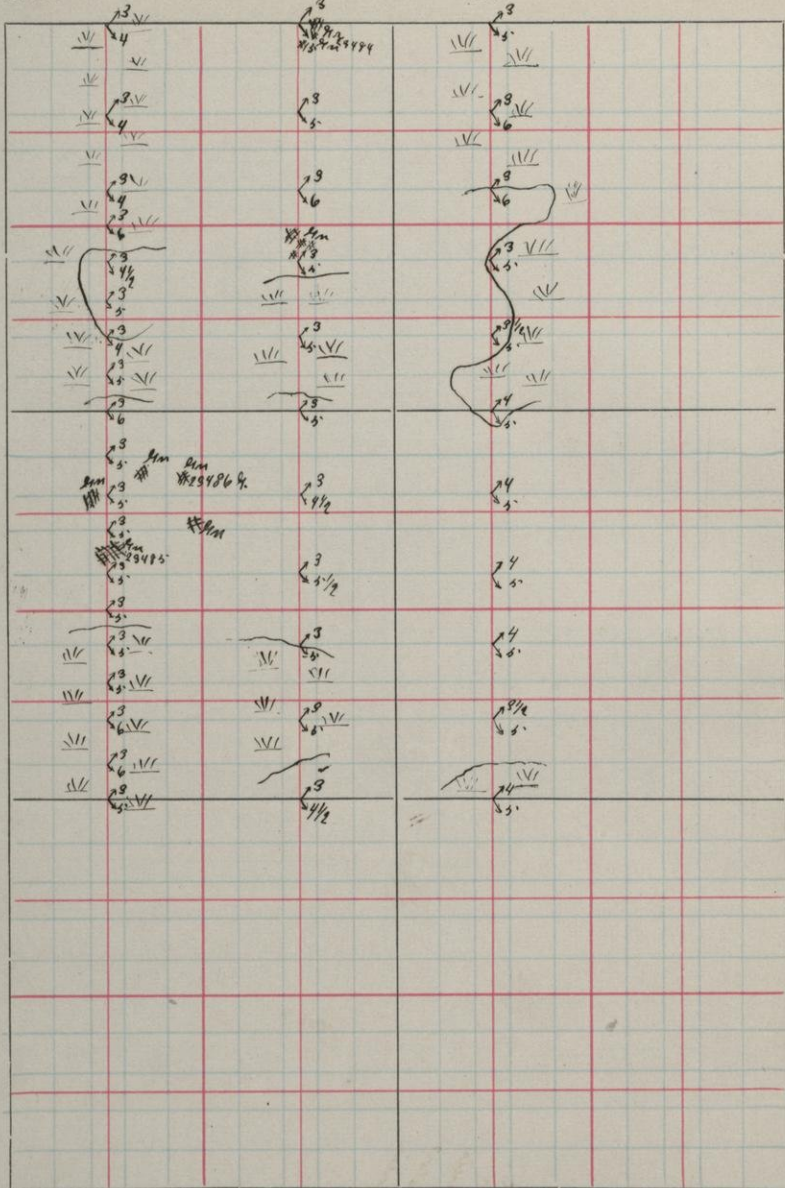
R. 31 W



S. 32

T. 45 N

R. 31 W



23484 2000 N 1207 W

Specimen from dyke in the typical granite gneiss. Specimen is a dark colored mica schist

23485 600 N 1750 W

Outcrop of typical granite gneiss cut by mica gneiss 23485. Strike of the folia of mica gneiss is N. 45° W. The dyke of mica gneiss cuts the granite gneiss in several places and cuts it into various shapes

23486 850 N. 1550 W.

Specimen is a hard fine grained greenstone which breaks with a conchoidal fracture. The greenstone is in the shape of a dyke which cuts in a parallel direction through the dyke of mica gneiss like 23485 which dyke of mica gneiss cuts the typical granite gneiss. Strike of the two dykes N 45° W

Mica
 Gneiss
 Greenstone
 Granite
 Gneiss
 Dyke
 Mica
 Gneiss
 Dyke
 Granite
 Gneiss

23487 160 N 175-0 W

Small outcrop of dark gray
eruptive rock containing con-
siderable mica and light colored
porphyritic feldspar which weathers
to whitish feldspar. This rock
in one place was found in
contact with typical grey
gneiss which indicates 23487
to be a dyke.

The outcrops ON. 125-0 W and
15-00 N 1800 W are composed
of gray granite gneiss like
23477

Outcrop 1019 L.S.S. in this
section was not found
although it was looked for

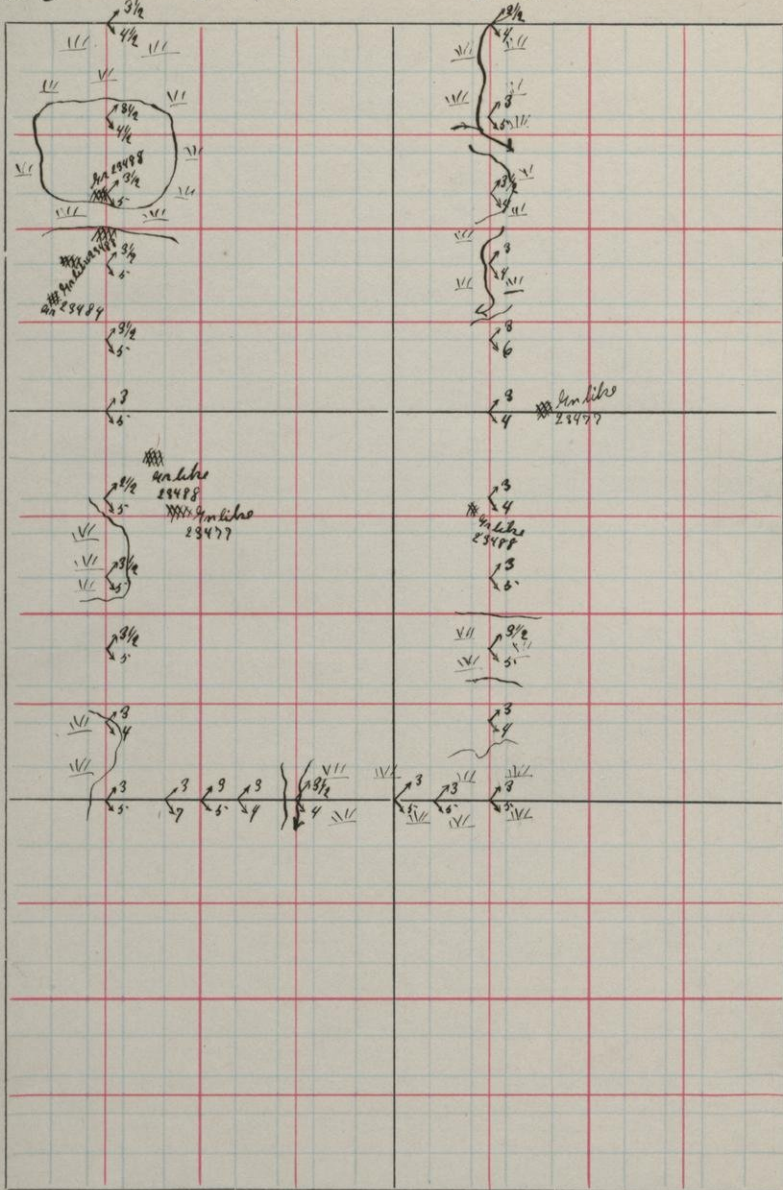
28490 375-N 85-0 W

a considerable outcrop of coarse
gray gray granite. It is knob
like in form and about 30 feet high

S. 6

T. 44 N.

R. 31 W.



23488 1600 N 175-0 W

Small outcrop of the typical coarse gray granite.

23489 1300 N 187.5-W

Specimen from dyke of mica schist which cuts the typical coarse granite like 23488

The outcrop 1000 N 62.5-W. is composed of gray granite gneiss which is cut by patches and small veins of rock like 23489

23491 800 N 165-0 W

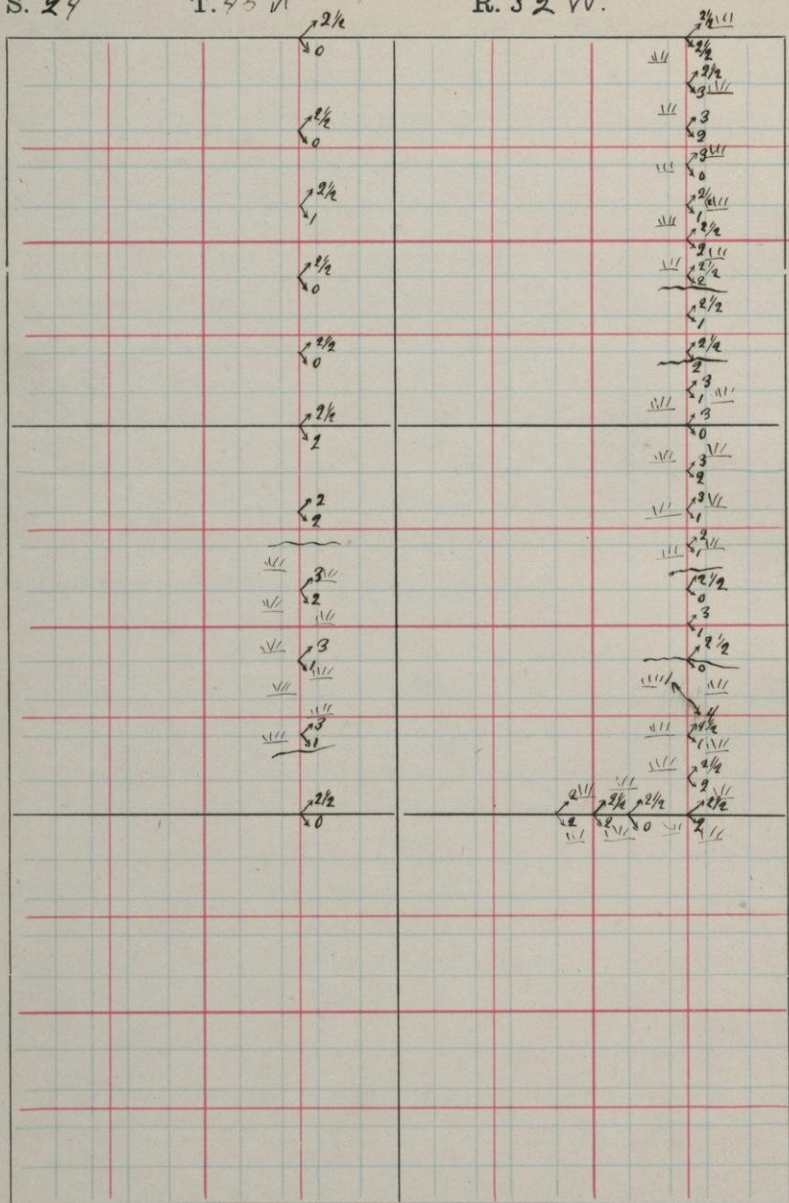
Small outcrop of reddish fine
grained granite

Handwritten text in a cursive script, likely Urdu or Persian, arranged in a large rectangular frame. The text is written in brown ink on lined paper. The frame is formed by a top horizontal line, a bottom horizontal line, and two vertical lines on the left and right sides. The text within the frame is arranged in a grid-like pattern, with lines of text running horizontally and vertically. The handwriting is fluid and characteristic of the Perso-Arabic script.

S. 24

T. 46-N

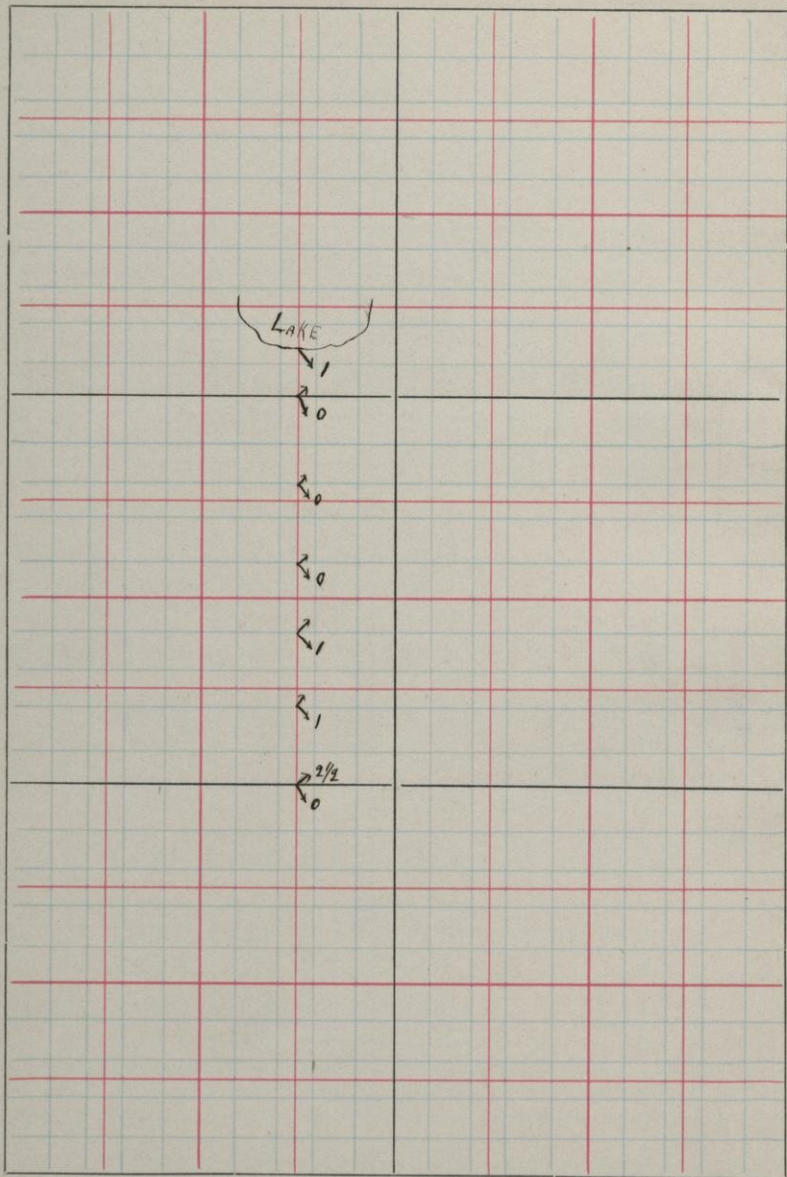
R. 32 W.



S. 13

T. 46~N

R. 32W



✓

✓

✓

✓

✓

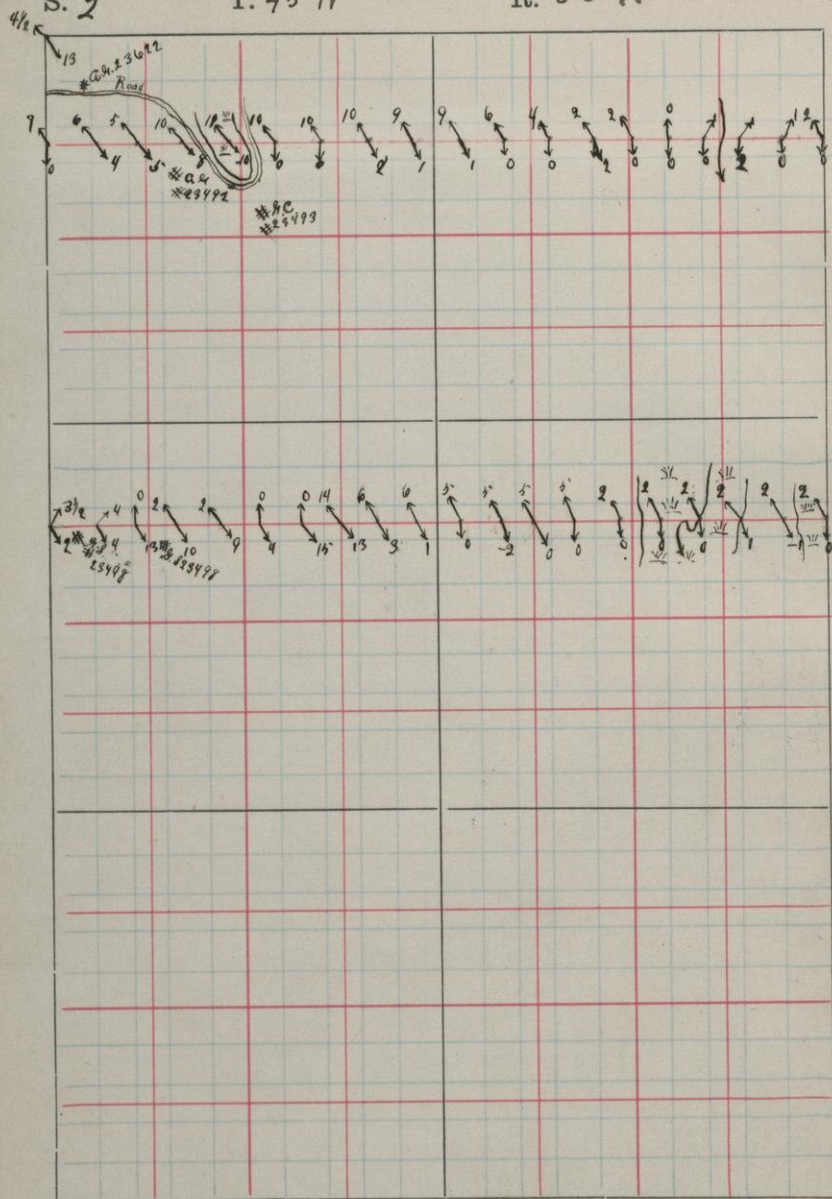
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S. 2

T. 45 N

R. 38 W



23492 1665-N 1690W

Sedge of dark greenstone having small veins of quartz.

The outcrop 1620 N 1690 W is like the above in great part.

23493 1550 N 1450 W

Sedge of greenstone conglomerate

23498 675 N 1950 W

Sedge of very schistose and slaty like greenstone

Outcrop 700 N 1700 W is like 23498

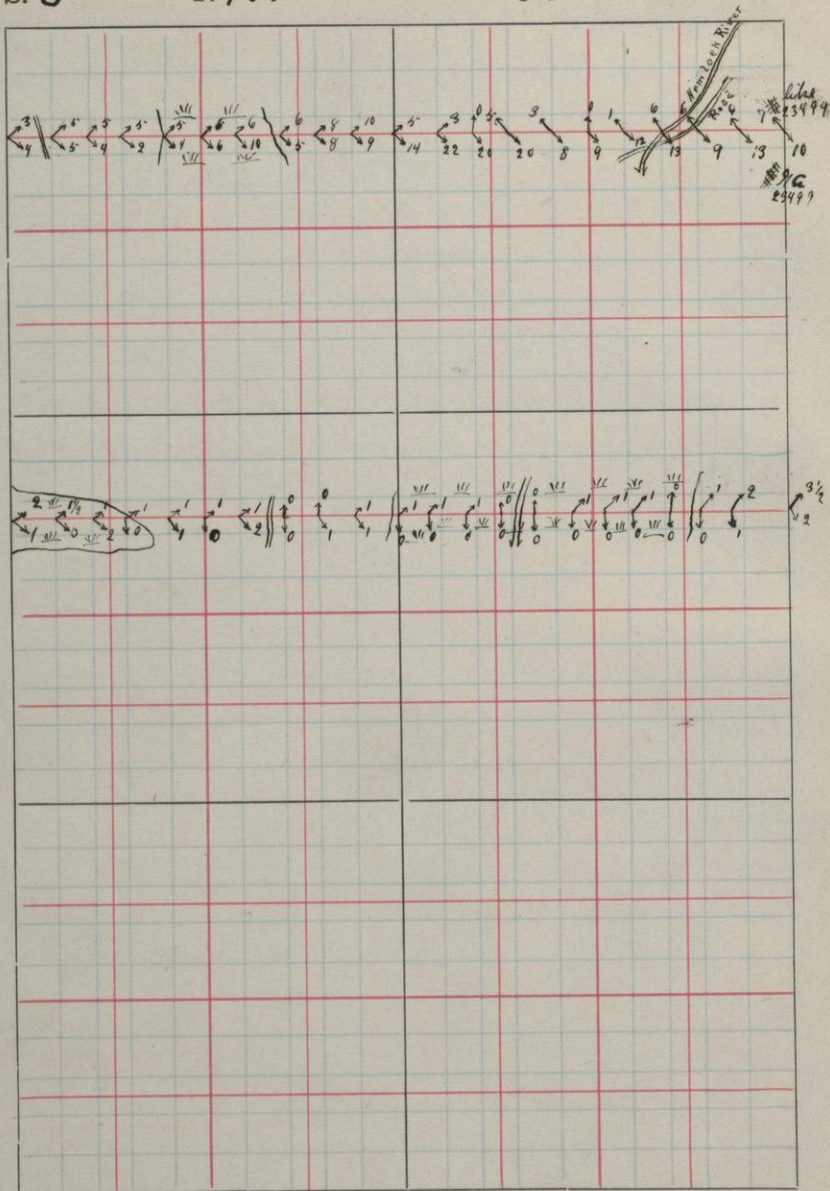
23622 1900 N 1900 W.

Amygdales greenstone. The amygdales filled with quartz and chlorite, mostly quartz. Somewhat conglomeratic

S. 3

T. 45 N

R. 38 W



23499 1600 N 5-0 W

Amygdaloidal greenstone. The amygdaloidal cavities are filled with quartz in some cases. Sedge shows cavities filled with altered feldspar.

23494 65°0' N 60°0' W

Ledge of amygdaloidal greenstone.

23495 5°00' N 60°0' W

From same ledge; specimen of finer grained amygdaloidal greenstone.

23496 62°5' N 117°5' W

Ledge of greenstone conglomerate which is connected with the amygdaloidal greenstone lying to the north east.

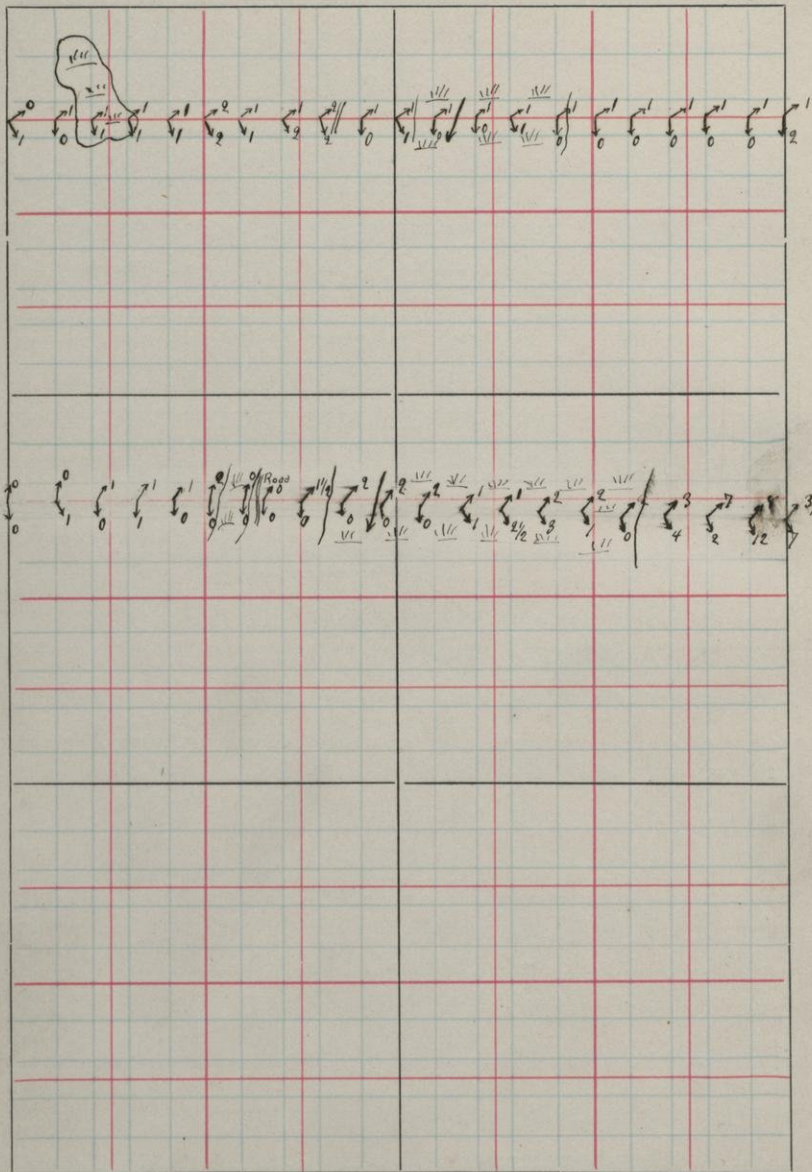
23497 74°0' N 15°25' W

A high and isolated ledge of greenstone conglomerate which shows well the phenomena of stretching. Dip of the conglomerate beds 5°0' N. Strike not obtainable but likely nearly E and W.

S. 10

T. 45 N

R. 33 W

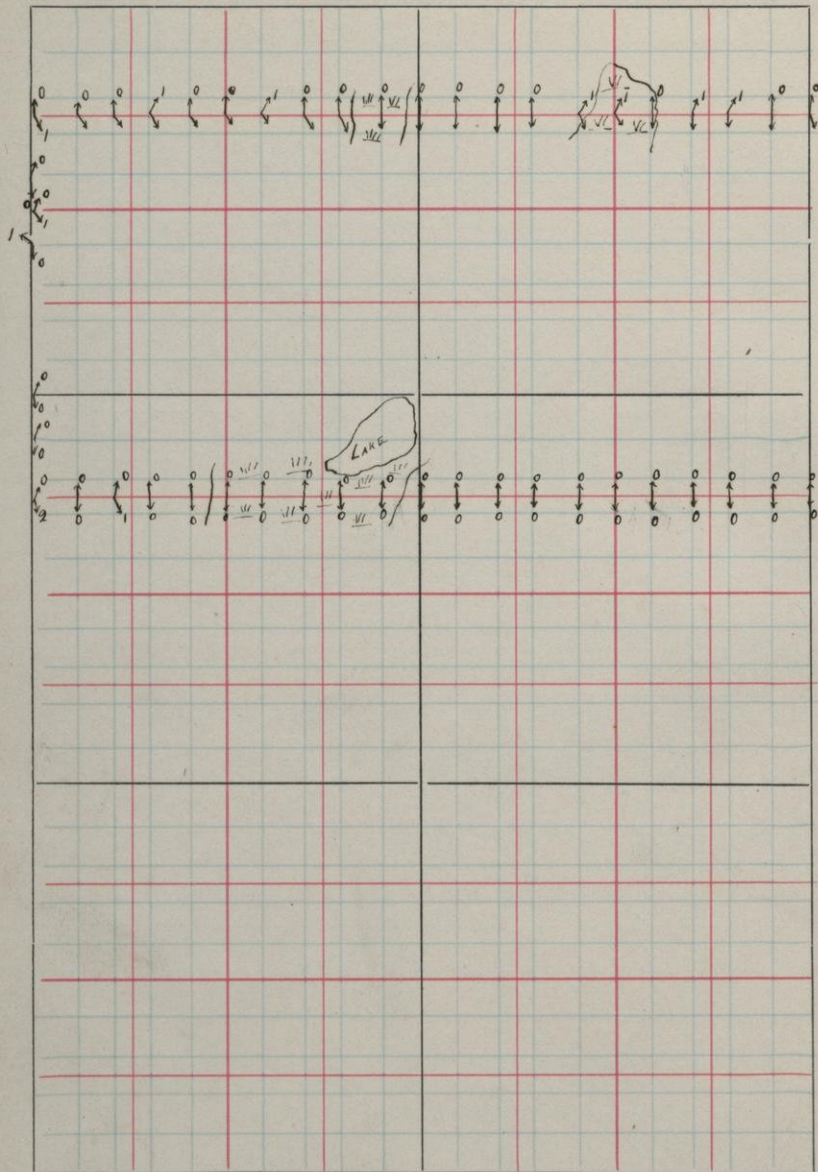


ל' אדר א' ה'תשנ"ב

S. 9

T. 45-N

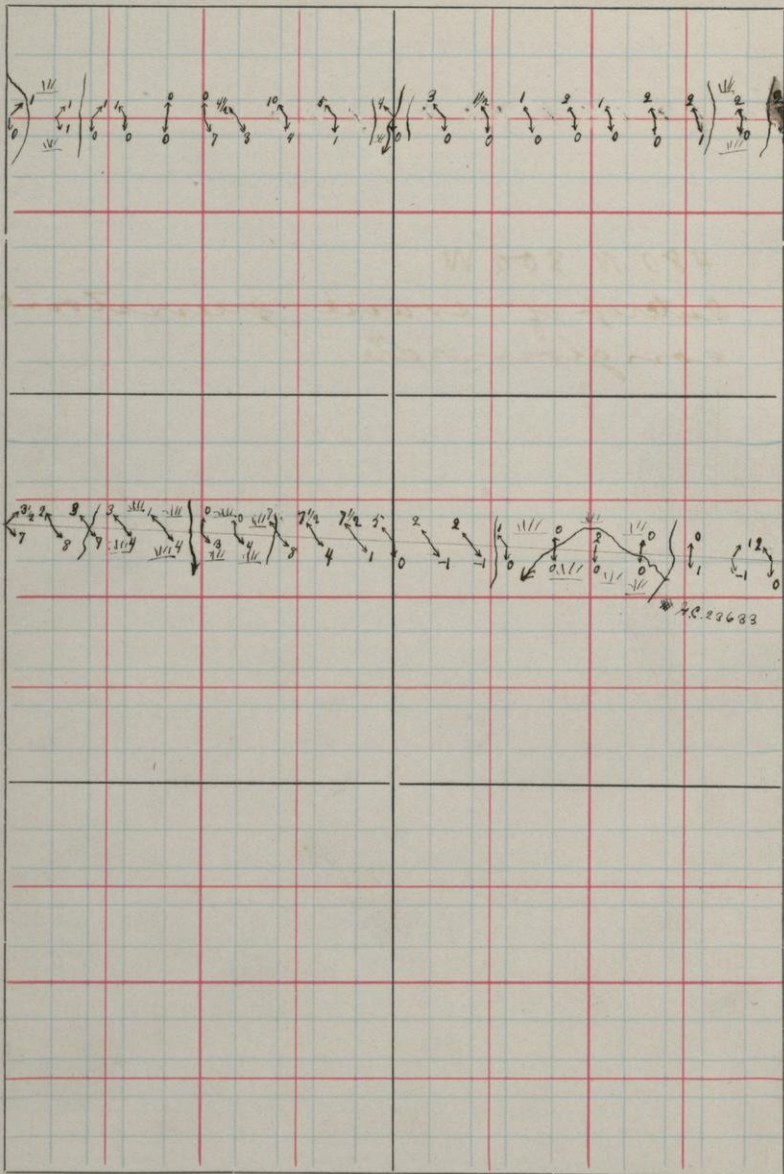
R. 33 W



S. 11

T. 45-N

R. 33 W



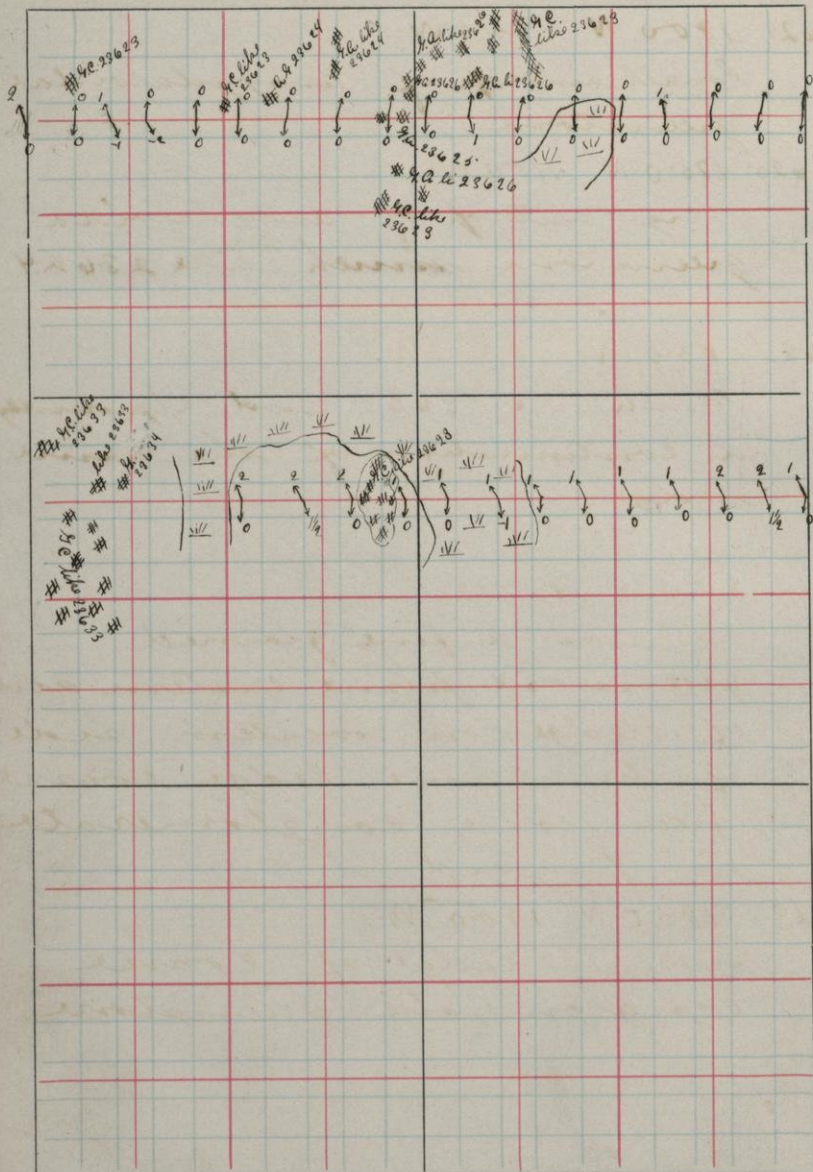
23683 480 N 300 W

Outcrop of coarse greenstone
conglomerate

S. 12

T. 45 N

R. 33 W



23624 1800 N 135-0 W

Small outcrop of amygdaloidal greenstone.

23625 175-0 N 1100 W

Large outcrop of amygdaloidal greenstone much like 23624

23626 183-0 N 1030 W

Much like 23625 and apparently a continuation of the same ledge.

23634 800 N 1770 W

Specimen a fine grained greenstone from eastern side of ledge; on western side of this same ledge coarse greenstone conglomerate is found

³23623 185-0 N 1900 W

Small ledge of coarse conglomeratic greenstone.

23627 740 N 1000 W

Outcrop of quite schistose greenstone
Strike N 45° E. Dip 70° NW. It contains
a few narrow veins of quartz
and on weathered surface many
of the amygdaloidal cavities
are seen to be filled with quartz.

23628 900 N 1150 W

Somewhat less schistose than
23627. Strike and Dip the same.

23629 640 N 1300 W

Strike N.E. Dip about 70° .
Large outcrop of fine grained
somewhat schistose greenstone.
amygdaloidal and not coarsely
conglomeratic.

23630 850 N 1400 W

Strike NE; Dip about 70° N N
Outcrop of fine grained hard
brittle iron bearing quartzite

23631 940 N 1430 W.

Large outcrop of iron bearing
quartzite schists. Strike NE Dip 70° NW
The outcrop is cut by a thick quartz vein.

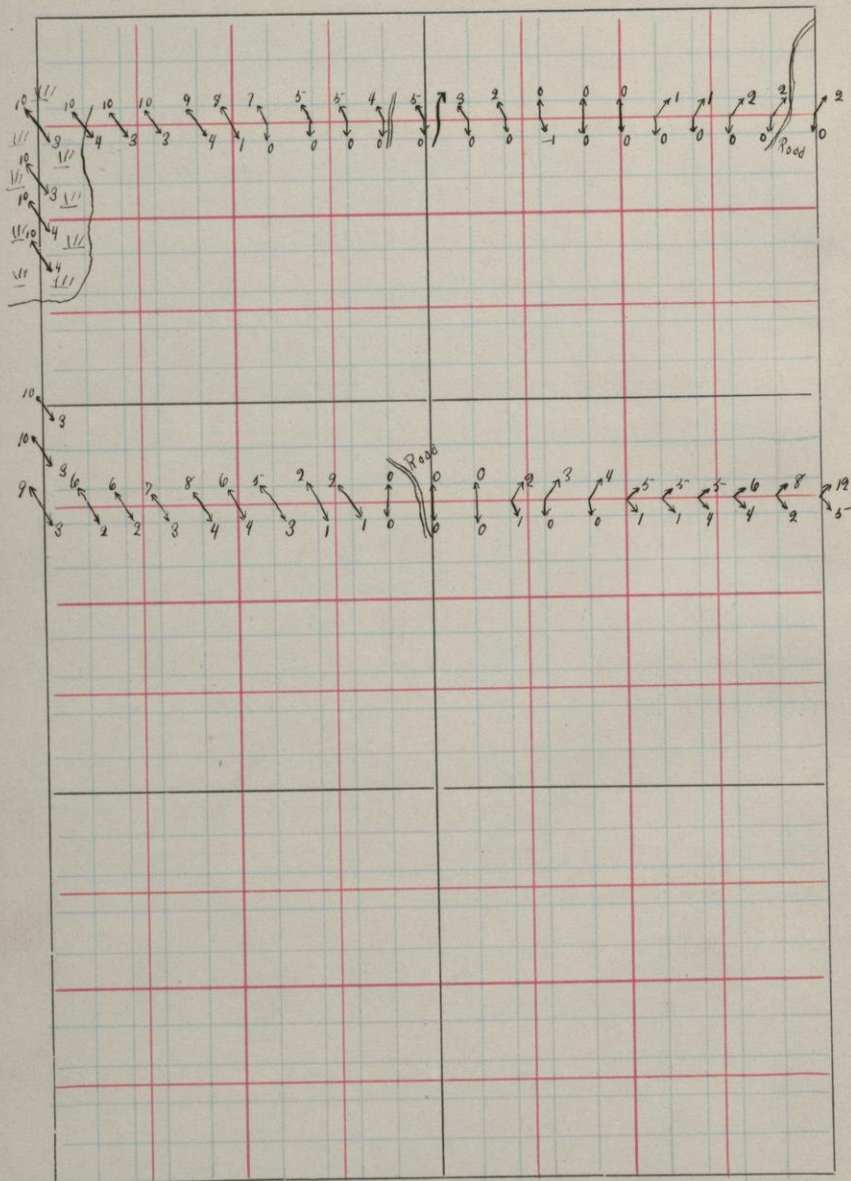
23632 1890 N 835 W.

Ledge of amygdaloidal greenstone
somewhat ferruginous.

S. 33

T. 46 N

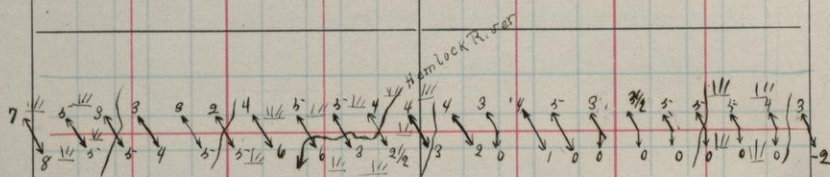
R. 33 W



S. 26

T. 46 N

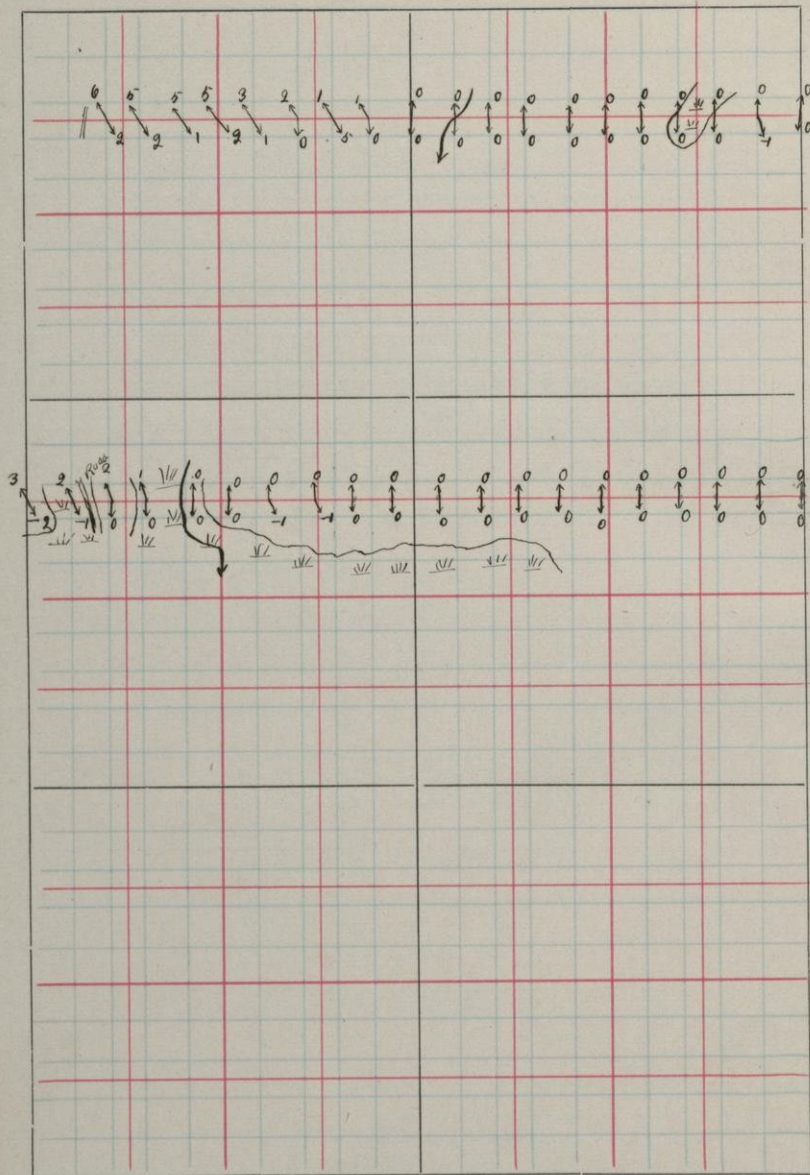
R. 33 W



S. 25

T. 46 N

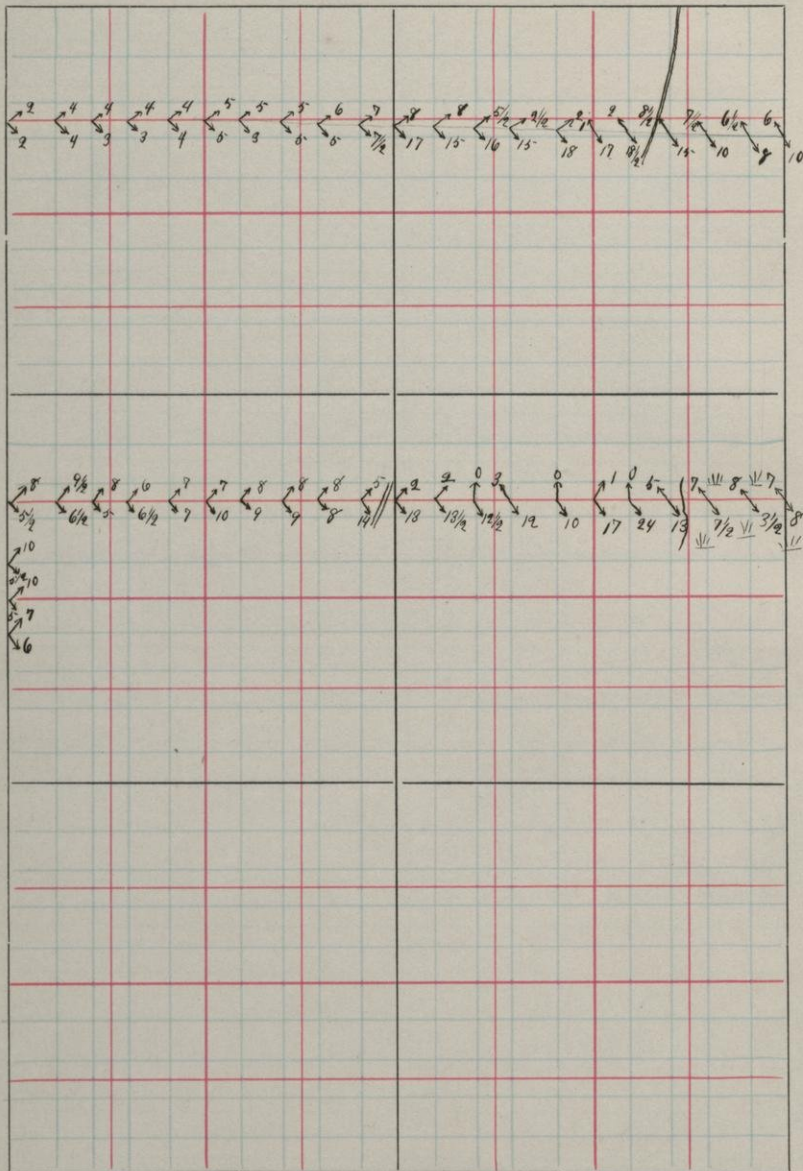
R. 33 W



S. 27

T. 46 N

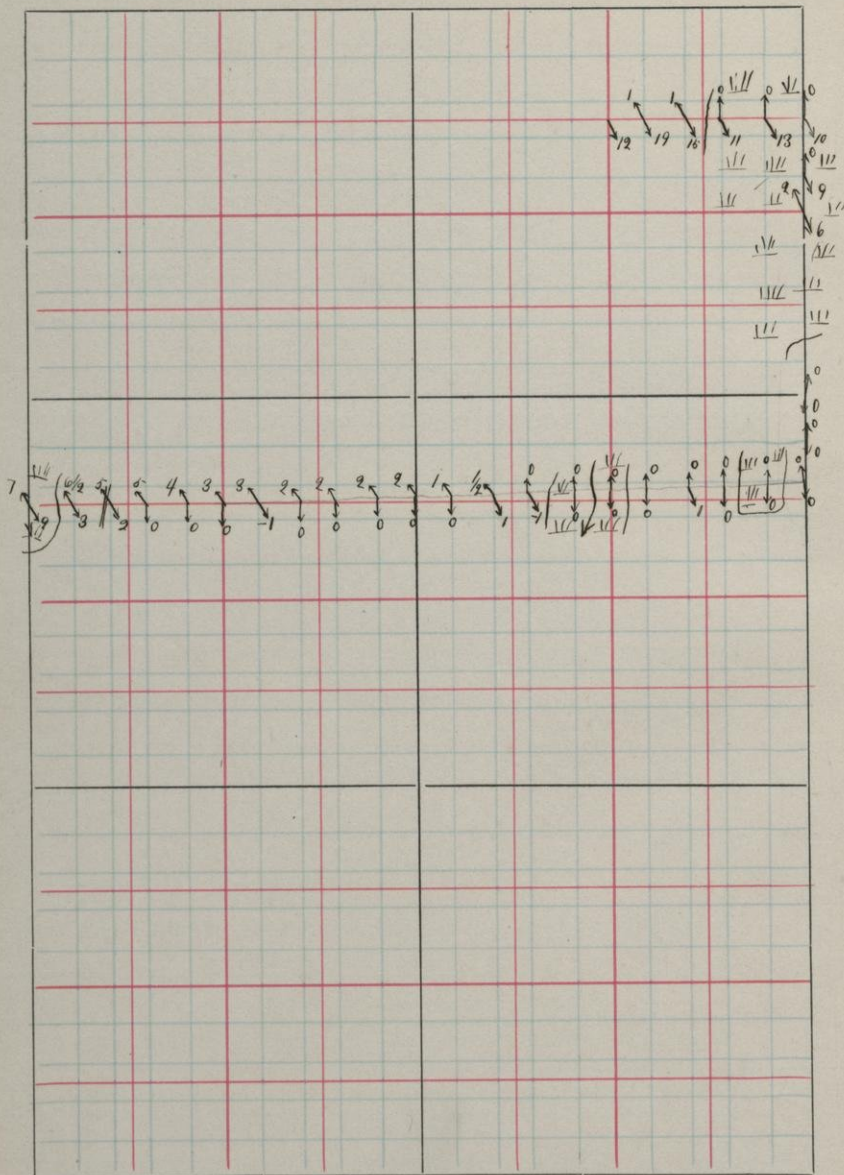
R. 33 W



S. 24

T. 46 N

R. 33 W



23635 37° N 28° W

Specimen taken from the material at the mouth of a test pit 50 or 60 feet deep. Specimen contains considerable quartz and carbonated slaty material. It is quite ferruginous and considerable pyrite is present.

23636 36° N 25° W

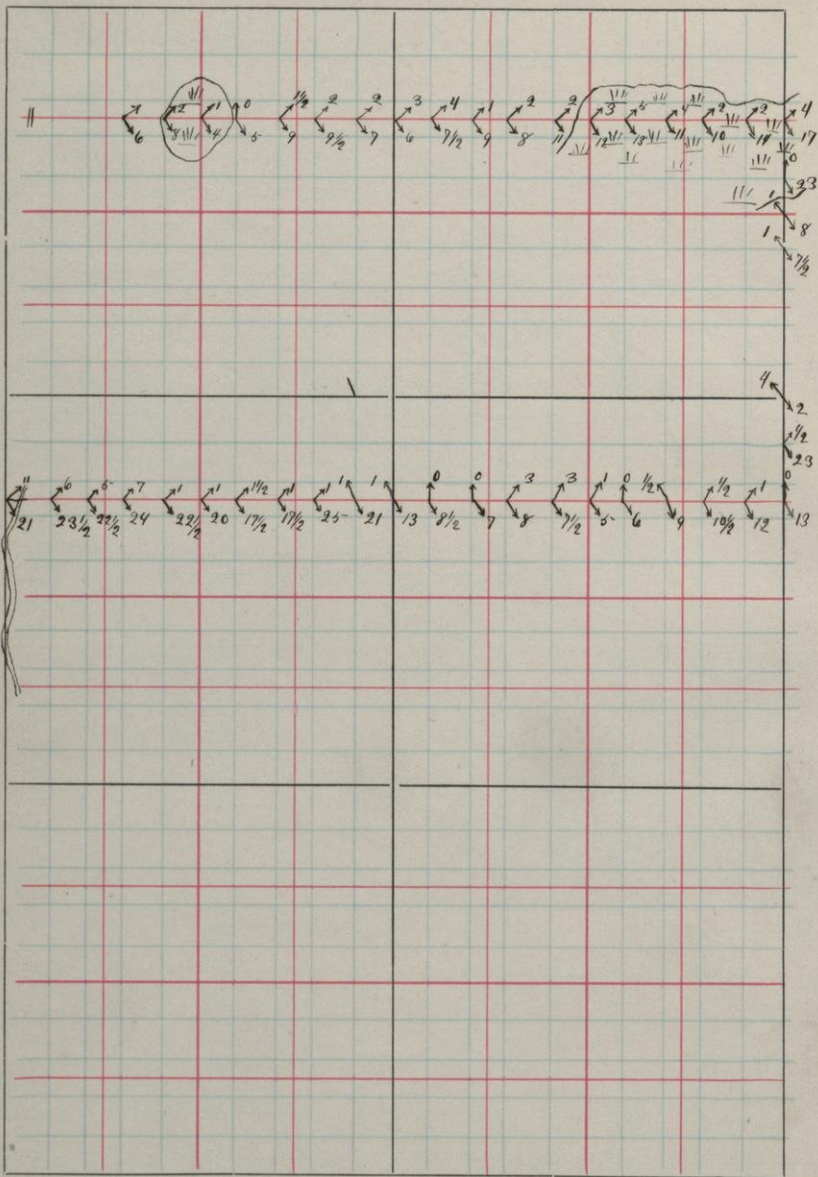
Specimen taken from another pit just south of the above. Specimen is taken from stock pile. Rock is composed of bands of gasper and small quantity of slaty material. Specimen is more ferruginous than 23635.

Many other test pits were found in the quartzite area but all the others were shallow and no specimens were taken from them for they contained no rock which seemed to be unquestionably in situ.

S. 13

T. 46 N

R. 33 W



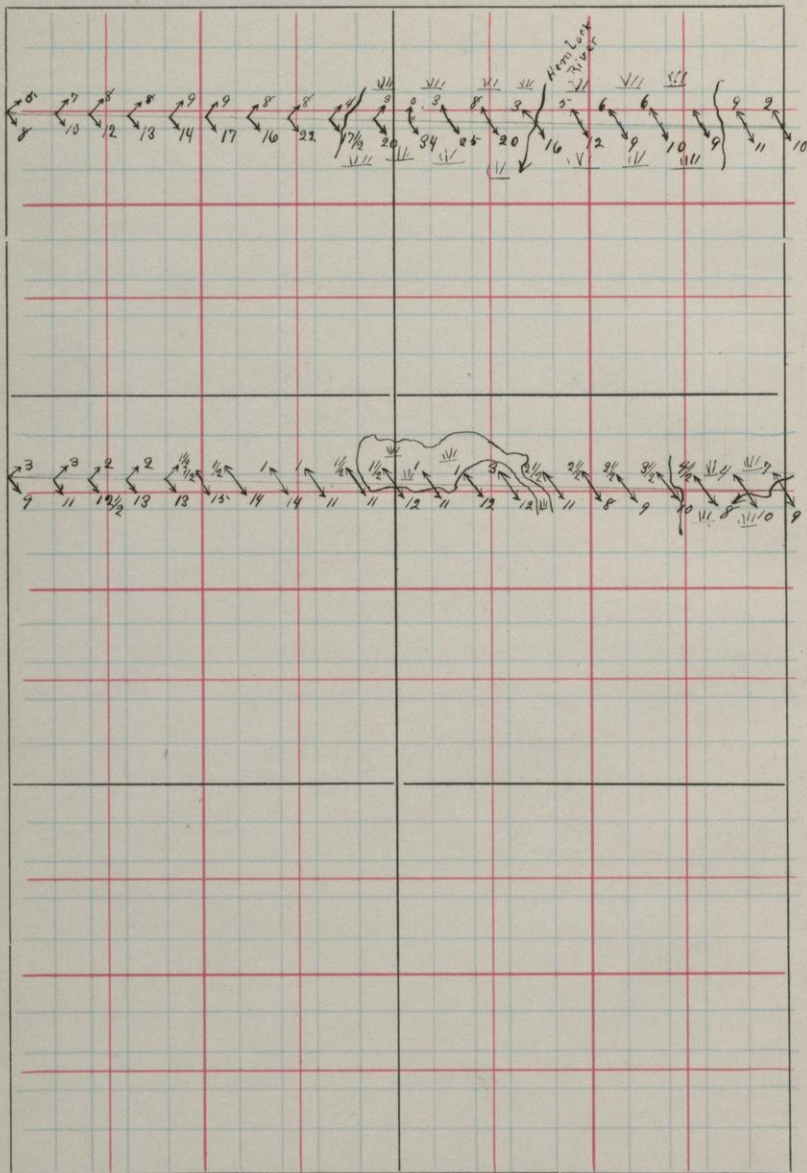
11 22 33 44 55 66 77 88 99

11 22 33 44 55 66 77 88 99

S. 23

T. 46 N

R. 33 W



S. 22

T. 46 N

R. 33 W

