

Ontario. No. 408 1904

Smith, W. N.

[s.l.]: [s.n.], 1904

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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.

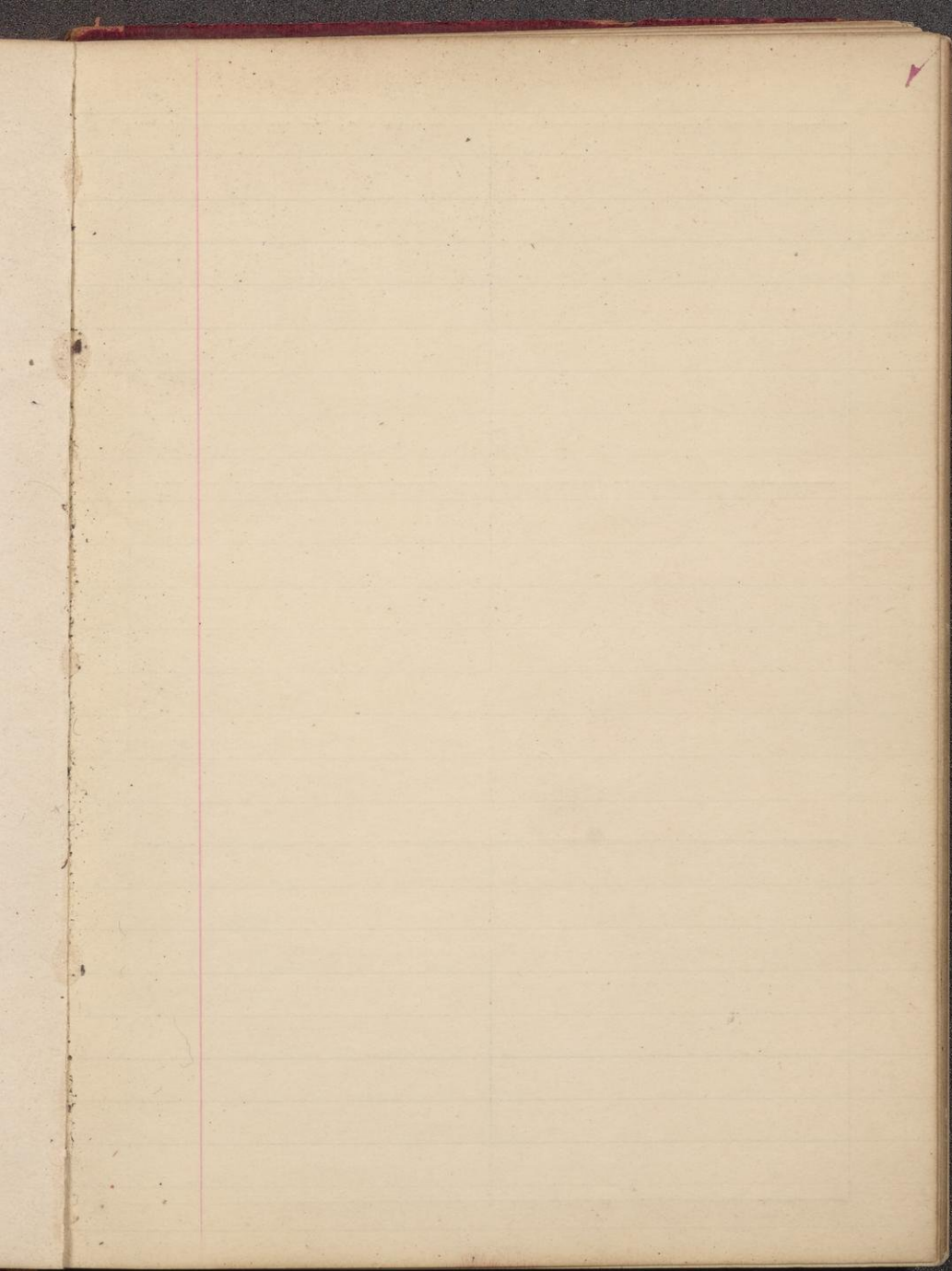
4. On the last twenty-five pages of the book give, as may seem desirable, a general account of the examination of the region mapped in the previous pages, correlation of observations, sketches, cross sections, etc.

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

1904
W. N. Smith, Outarut

Notebook No. 408.

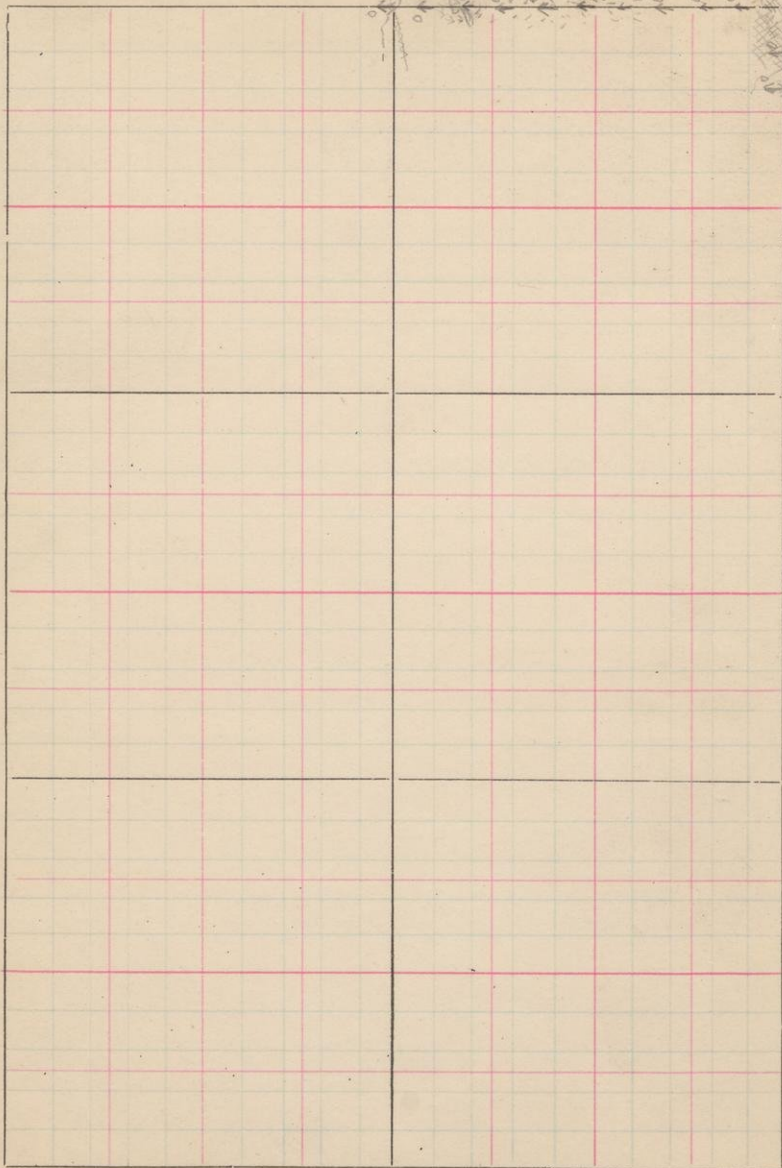
Specimen descriptions dictated to
Ac. Deming. His ^{original} notes in note
book 2/20/05 to Apr. 5, 1905.



S.

T. W

R.



May 17/04

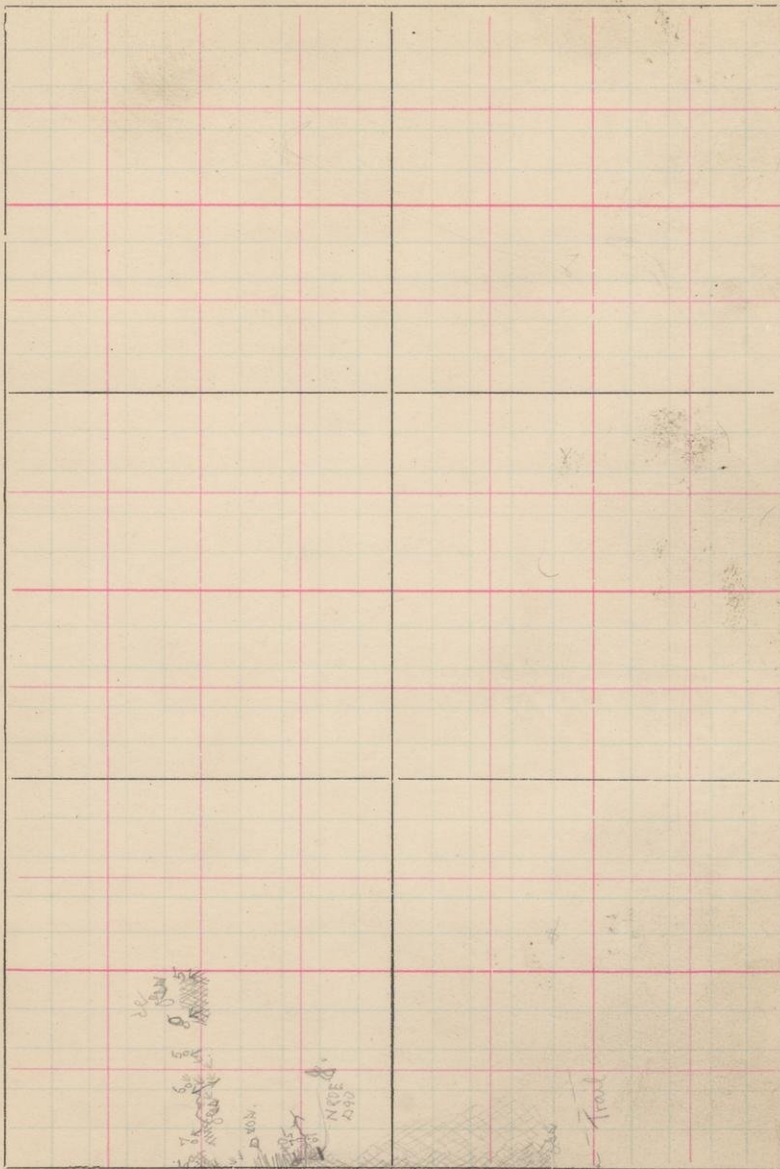
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S.

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May 18/64

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 ... 70 ...
 ... 750 N ...

S' by b ... Schultz, Katz, Holden &

S.

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R.

Blank Even Pages

10-14

Skipped

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DISCOVER
BI G. Olsacamp
P. Marcoux
May 24
1904
IRON

R.

1400 N-130 E of milepost 105 CPR is
south one of 2 pits on the McConnell property.
The section is roughly:

- under the database is small thickness
of black slate - then
3-4 ft of dark, cherty, siliceous material
full of small round granules (very
similar to taconite).
1-1/2 ft - similar, but interbedded with
white chert
6-8 inches - decomposed parent rock, much
broken up
1 1/2 - 2 ft - "taconite" material, cherty in places
1-1/2 ft - material which is mainly good
ore. As traced laterally, chert
is found in places.
2 ft - cherty taconite
1 ft - mainly ore.
2 ft - interbedded taconite & barren
1-1/2 ft - thin ore.

(Strike ~~is~~ a little E of N-S & dip
very flat to E.)

11 ft of material from this
pit gives 45.51

20 paces north of above is another pit
in which tunnel has been driven about
20 ft. Section is: (Dip average about
7° to the East)

Top - diabase.

3 ft - Black slate

8 ft - Gacouite, the lower part very
cherty (this corresponds to the
uppermost portion of preceding section)

8 ft - Interbedded Gacouite, carbonate
material, & ore. Probably half
of this section could be classed
as ore, the average being low
grade. Chayers from 4-8 inches
of good ore occur, - 3 or 4 in
number.

at bottom of the section, where
they ~~sinking~~ stopped sinking,
the percentage of ore is greater
than at the top. Also in
the lower portion more of the
carbonate material is found.

6 ft. 9 mat. in tunnel also

Dr. 45.22

July 16/04

17

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 $E = W \cdot D \cdot 100, 527 \cdot 1$
 $E = W \cdot D \cdot 100, 164 \cdot 1$

July 17/04

92 p 4 + n D C B 201 62

July 18/04

Drift 10/10/04

R.

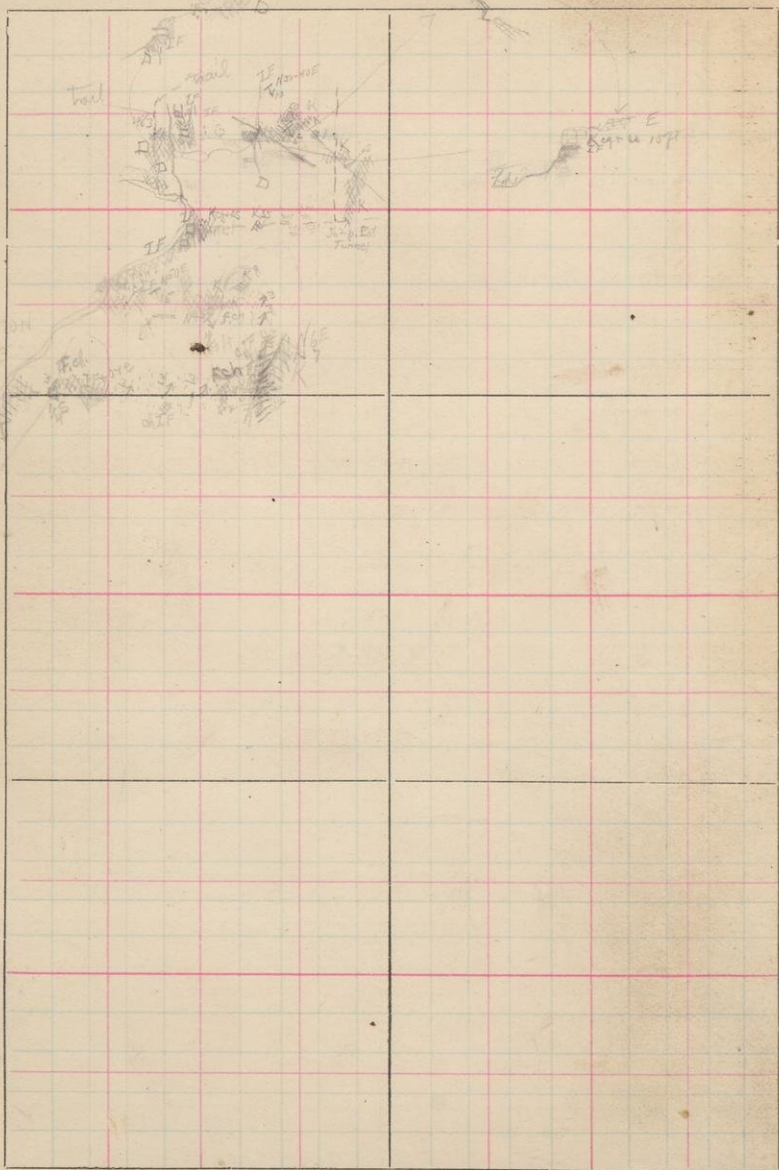
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~~2000 2000 2000 2000 2000~~

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R.



25

Aug 17/04

S.

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[illegible]

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Wooded
mountain

2. N 30-40 E 10-20 S 60 mph 6-10
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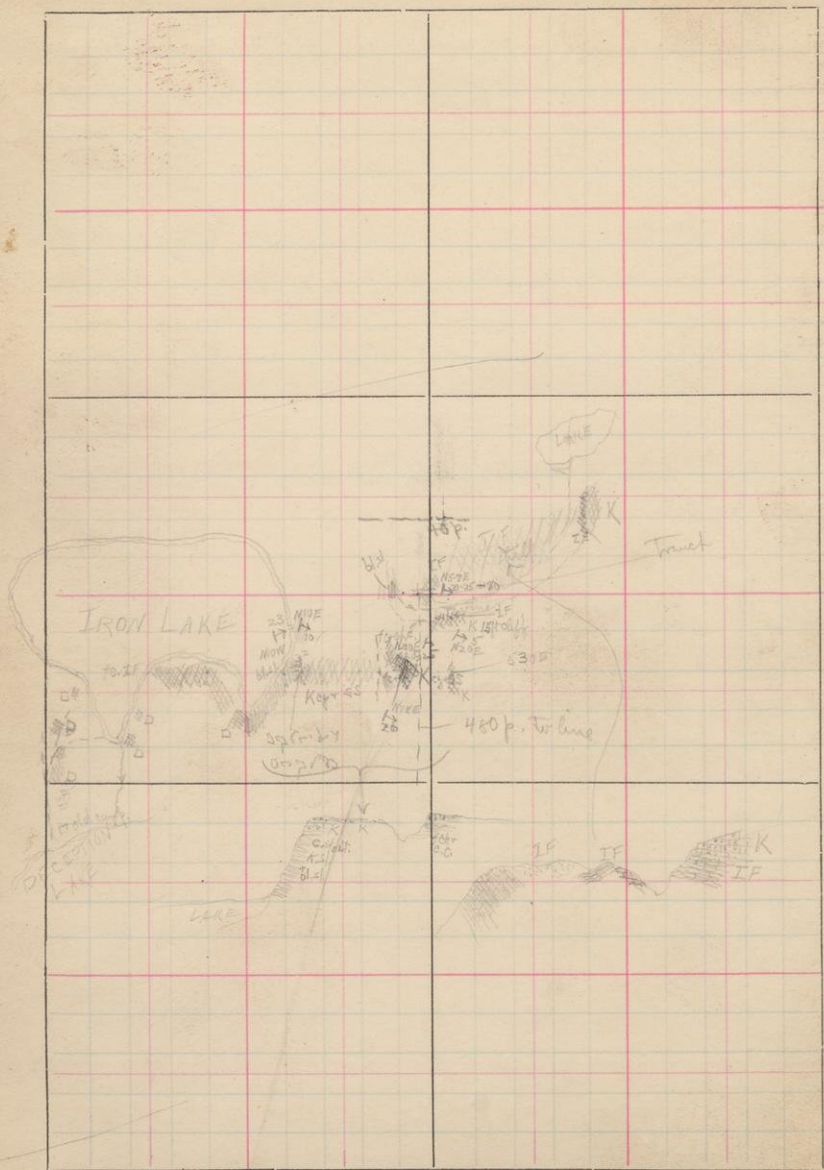
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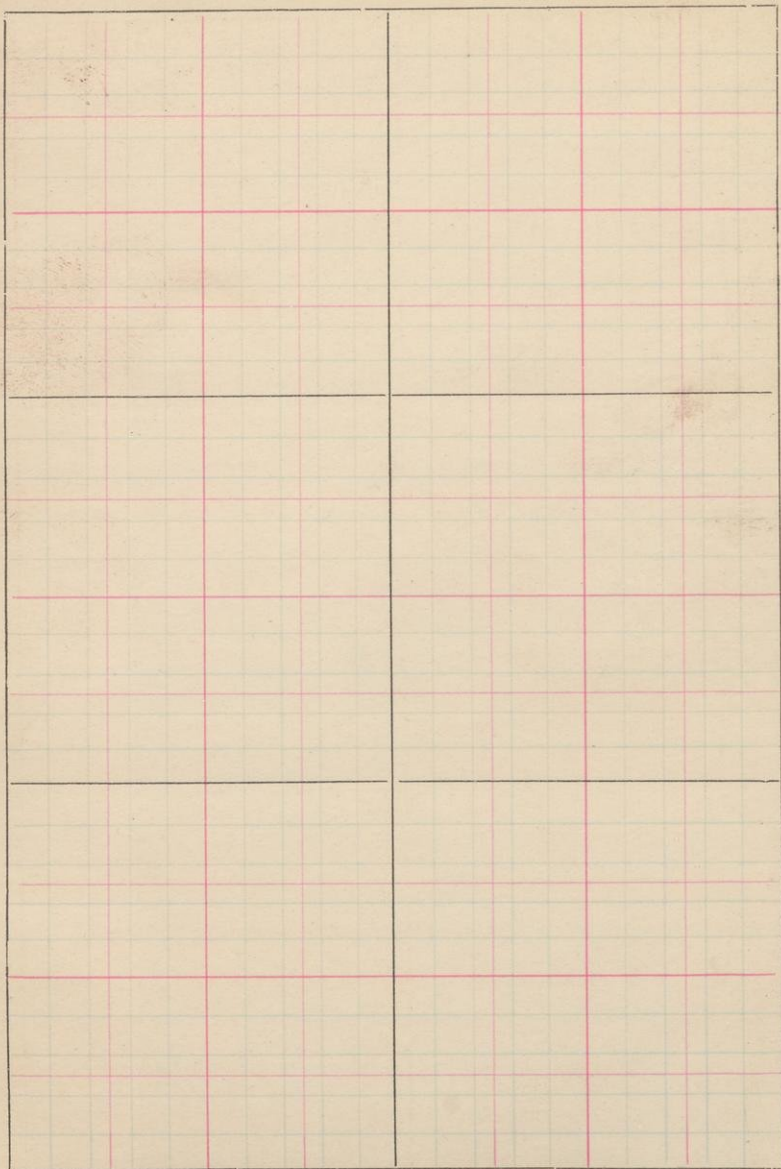
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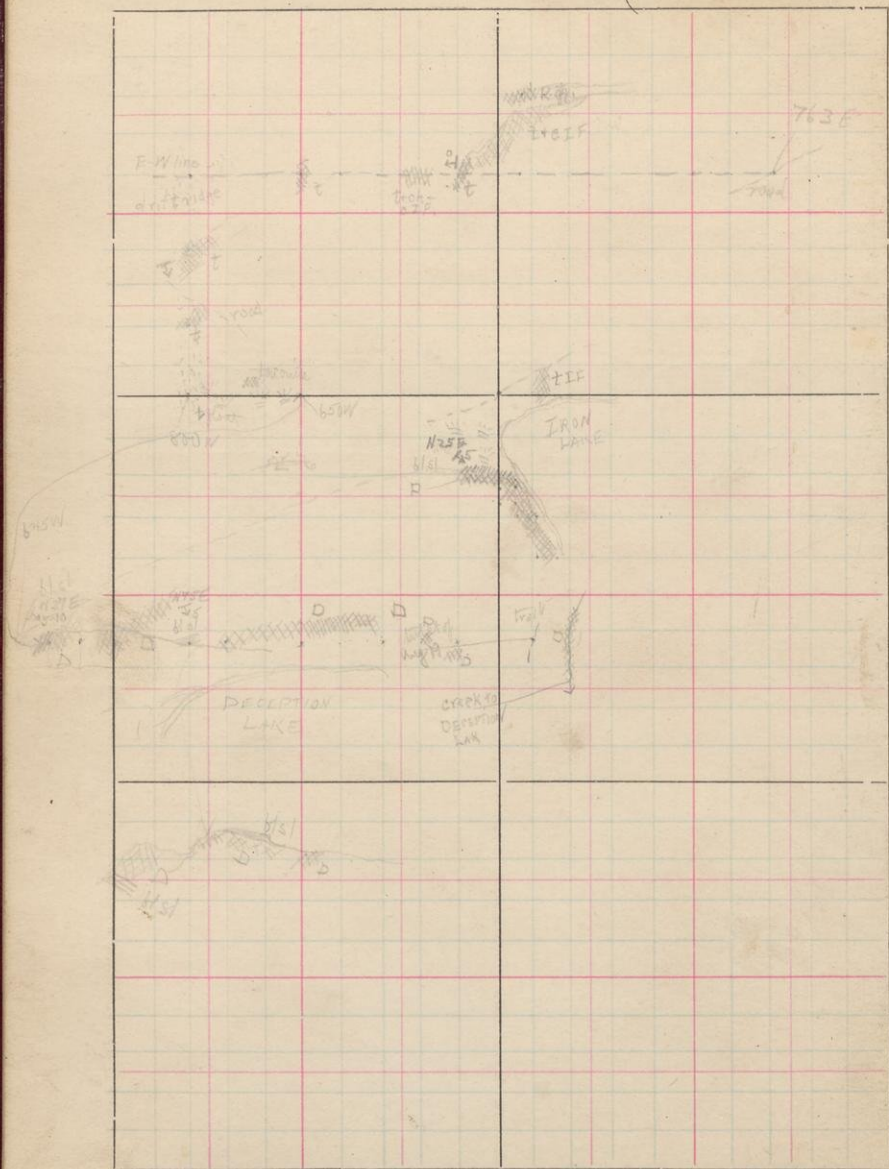
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 2.15.22 65° 0' 0" - 1.15.22
 1.15.22 65° 0' 0"

9-2-61 11:55 - 12:05 12:02.180E
 3.15.22 65° 0' 0" - 1.15.22
 1.15.22 65° 0' 0"



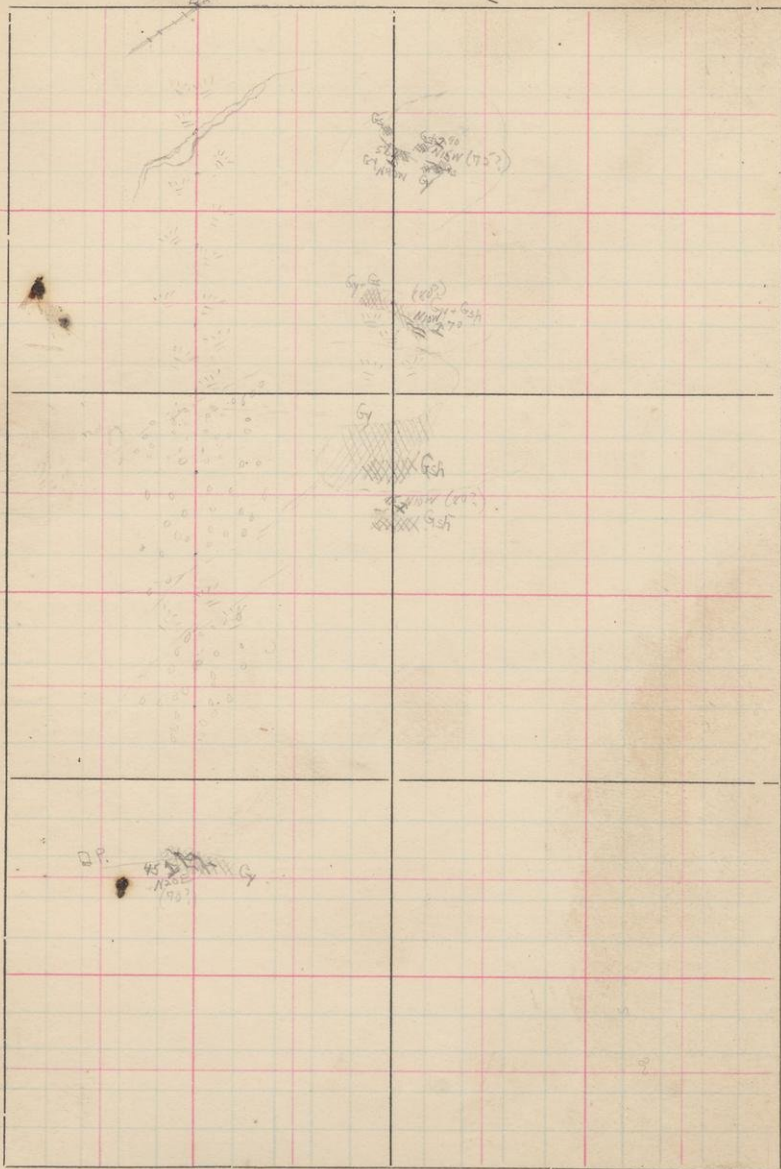
9-2-61 12:05 - 12:15 12:12.180E
 4.15.22 65° 0' 0" - 1.15.22
 1.15.22 65° 0' 0"

9-2-61 12:15 - 12:25 12:22.180E
 5.15.22 65° 0' 0" - 1.15.22
 1.15.22 65° 0' 0"

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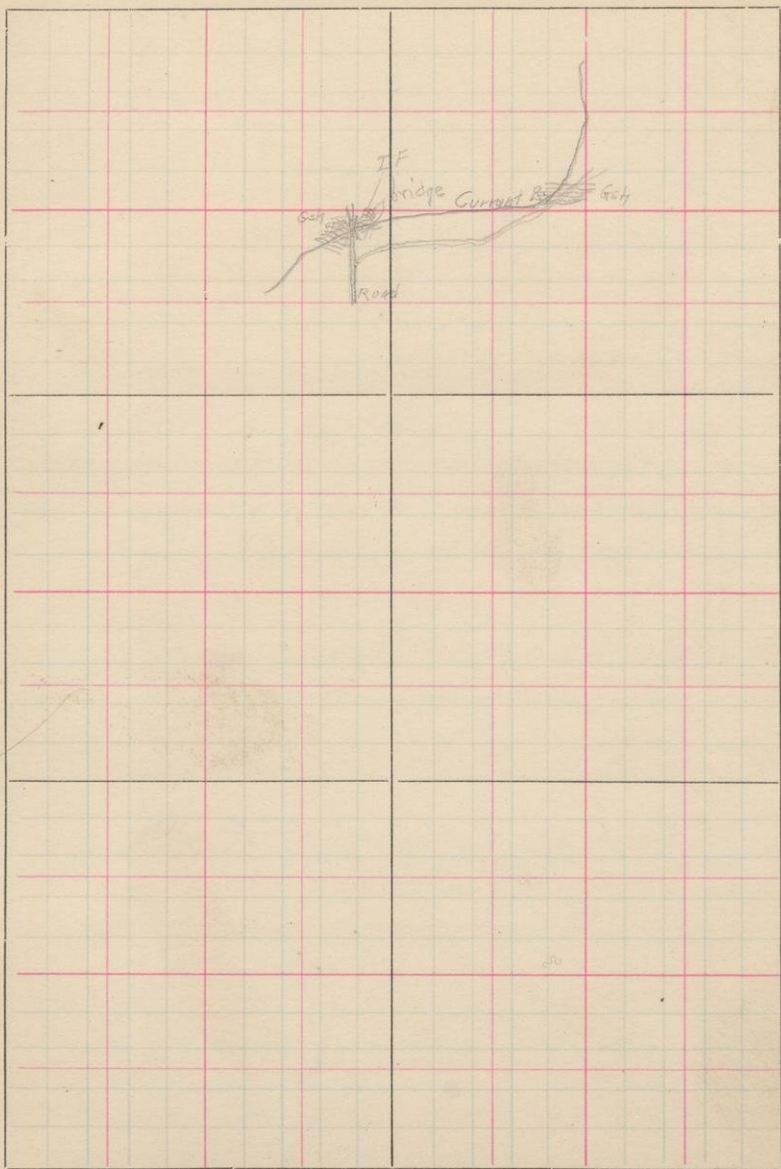
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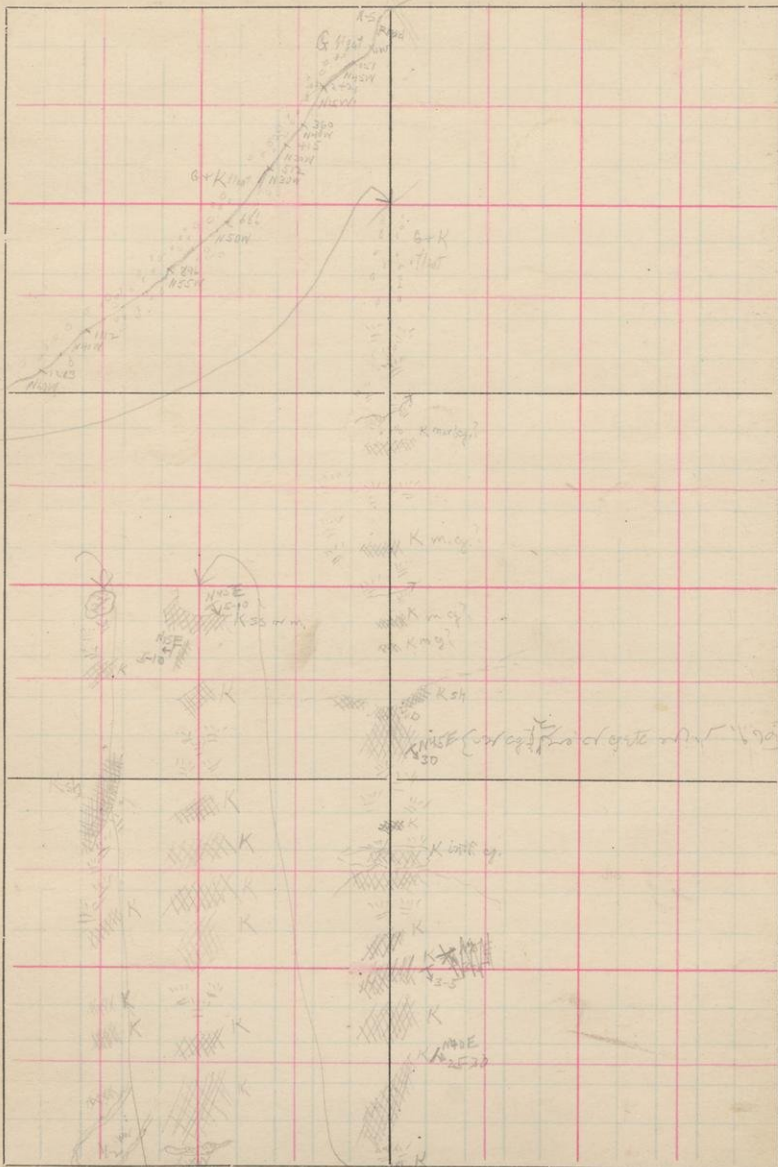
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100 ft.

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G-747

NET LAKE

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60-64

Skipped

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 126° 0' 5" 7 2 0 2 9 mean
 126° 0' 5" 7 2 0 2 9 mean

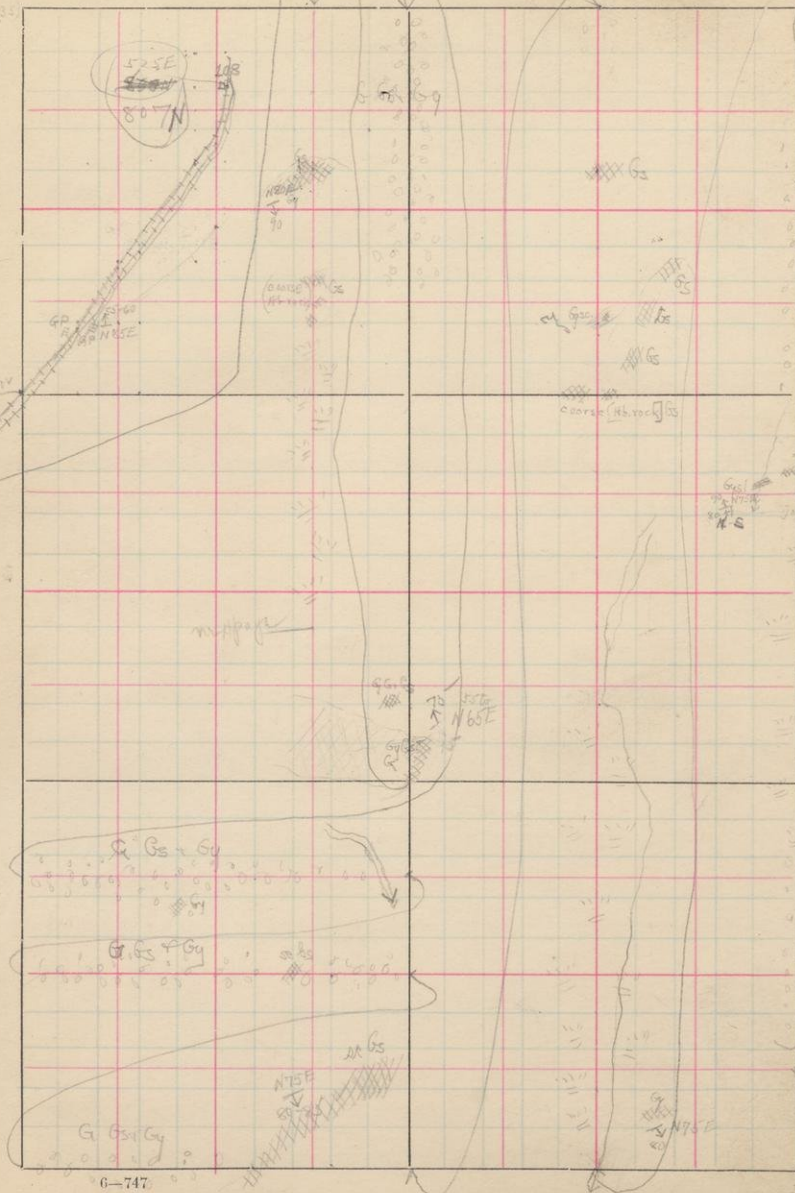
S.

100 pace intervals

T.

R.

50 pace intervals

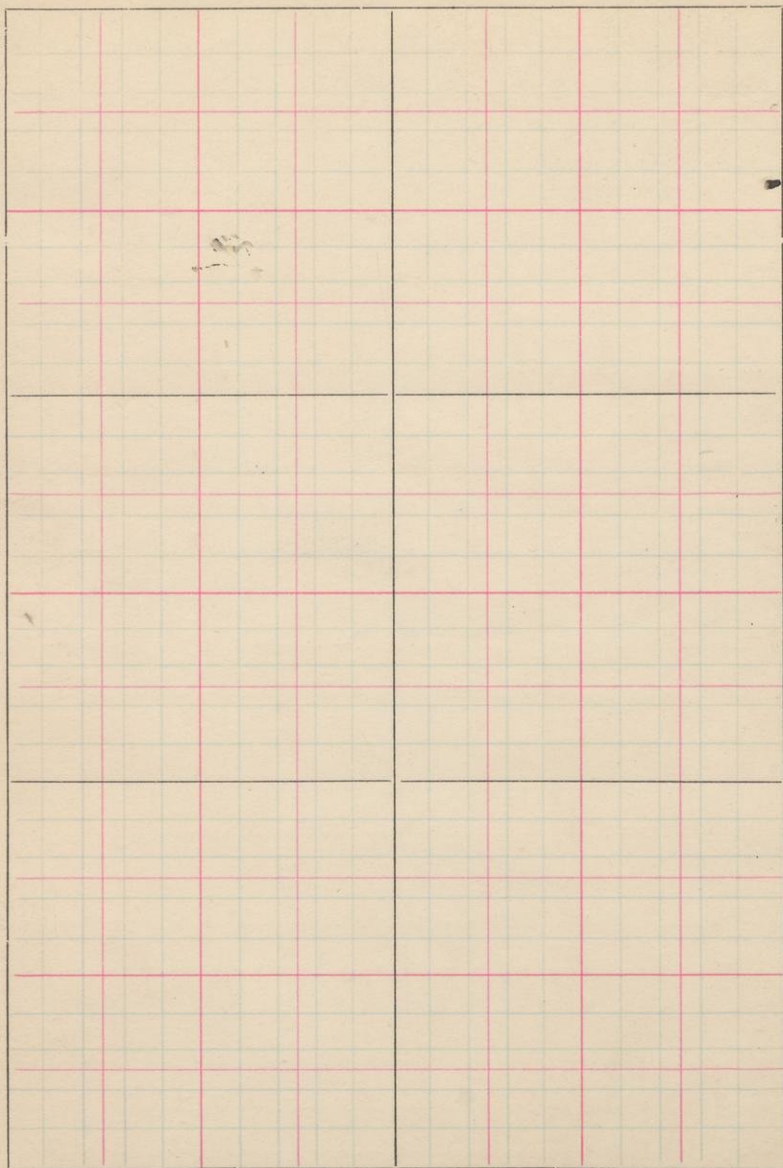


72 160

S.

T.

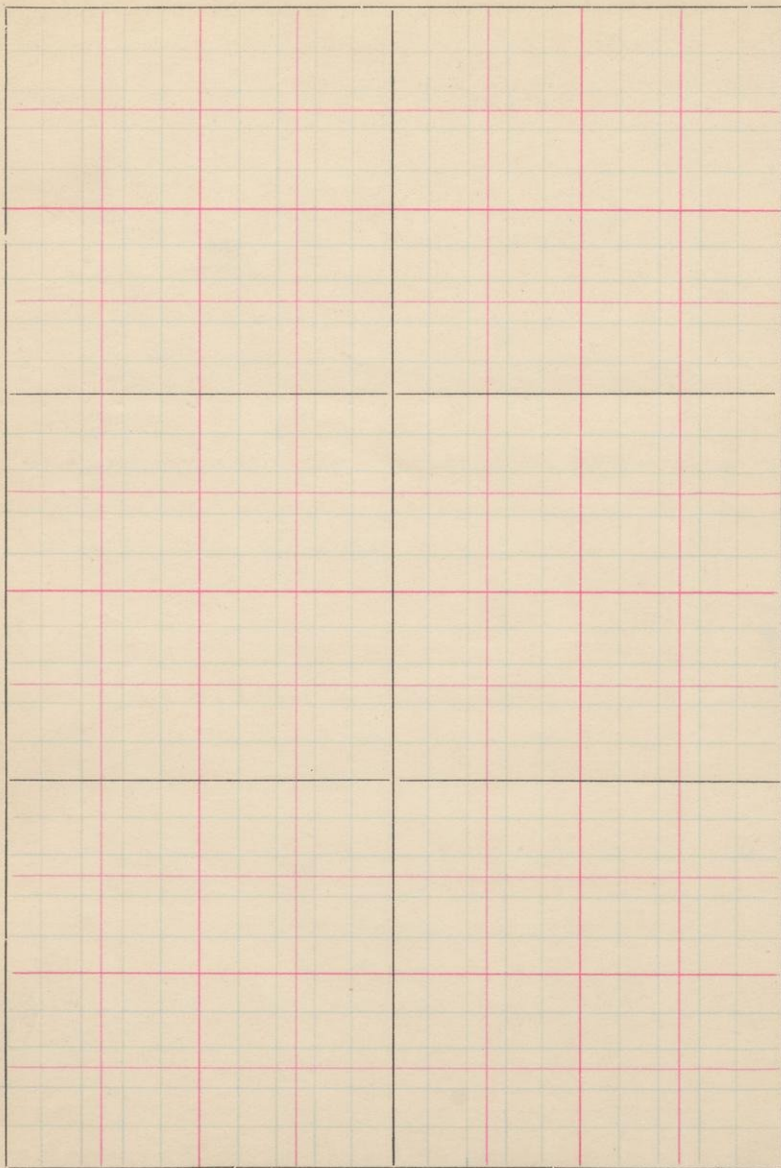
R.



S.

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[illegible]

47225-47226

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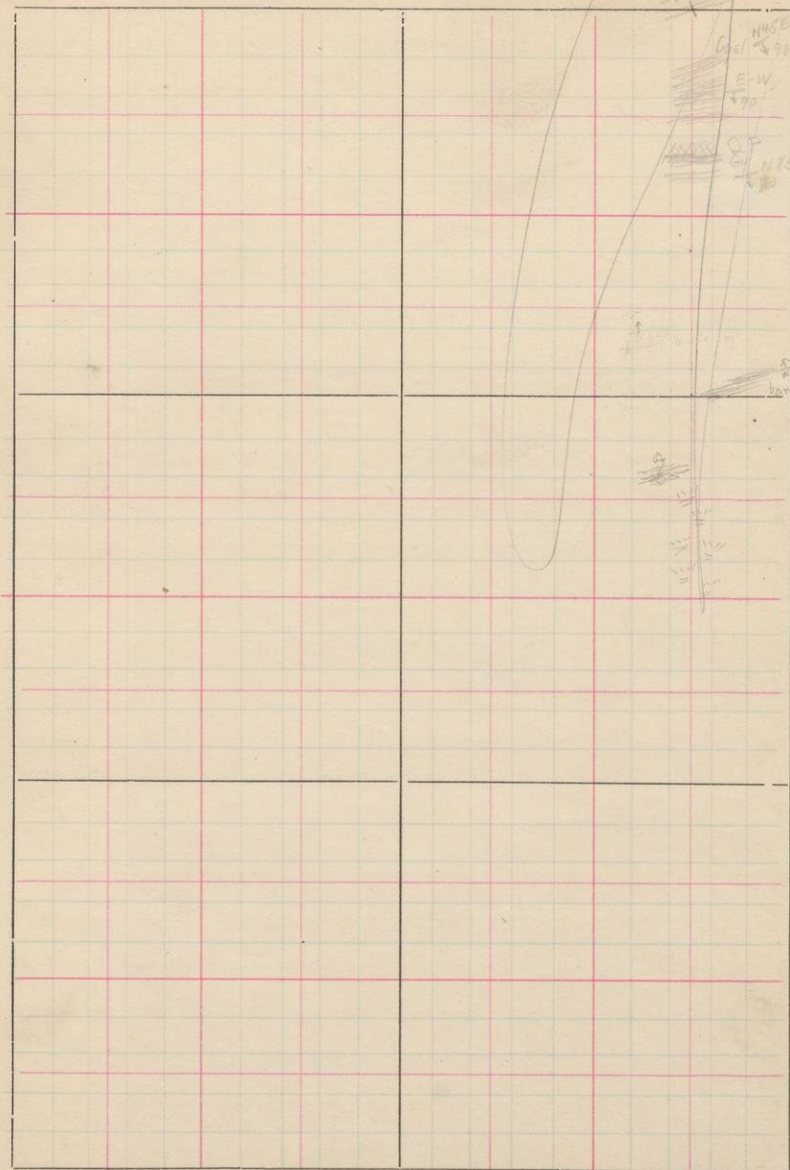
47301-47231

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S.

T.

R.



Sept 15/84
- RCA (9, 11) = W-110 R-110

S.

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R.

0 215 Δ
750 W 88 110

~~186~~

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47233-4725

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47233-47234

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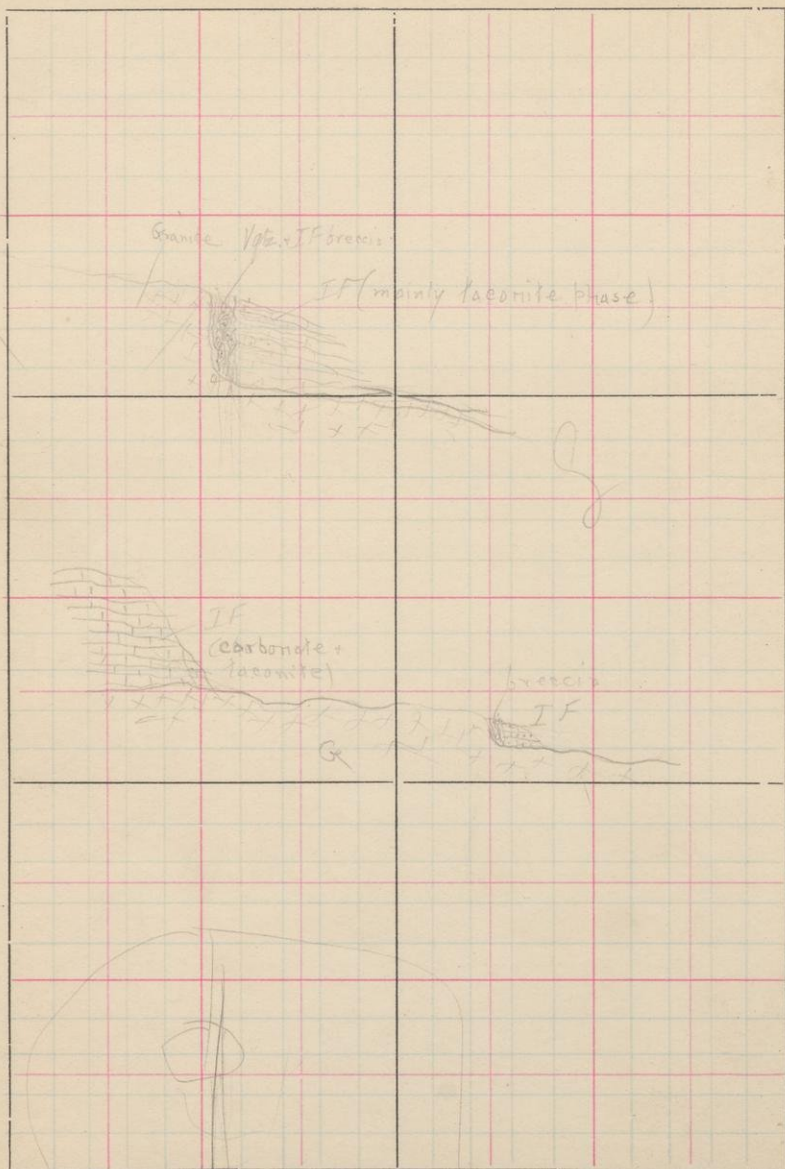
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S.

T.

R.

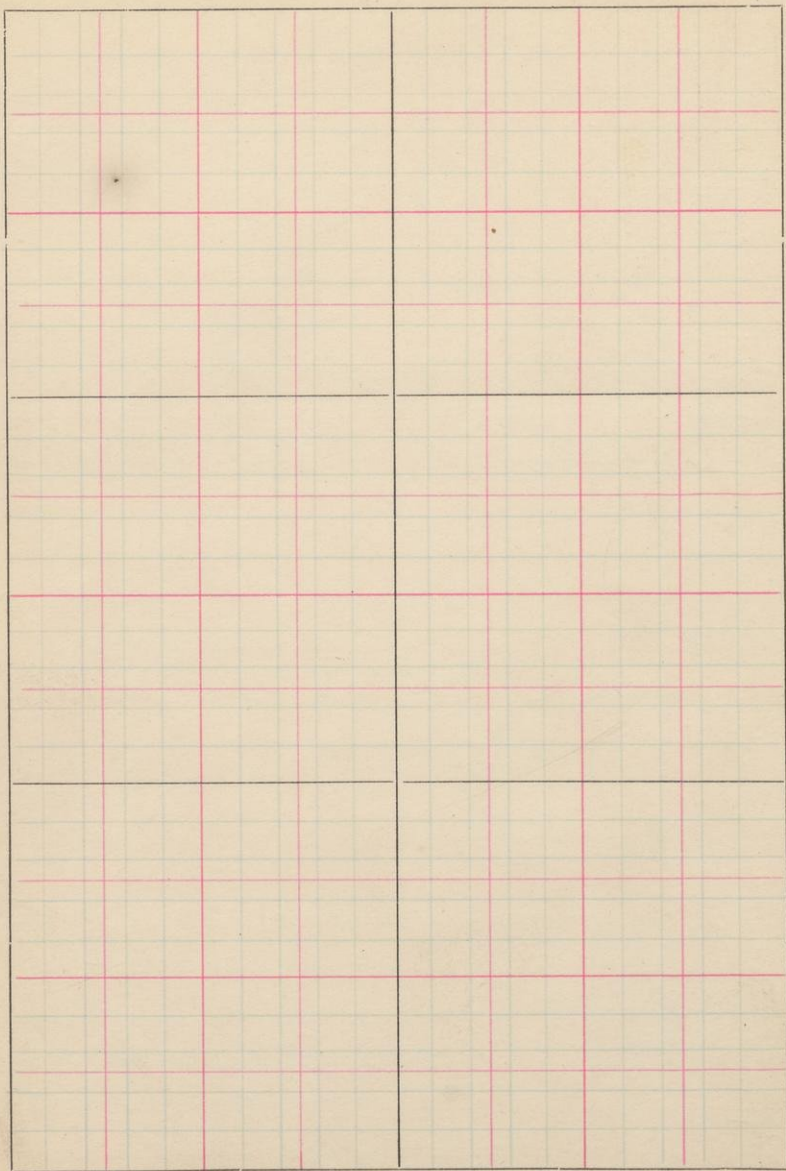
47



S.

T.

R.



215 S
700 E.

2. 5-11 S
730 T.

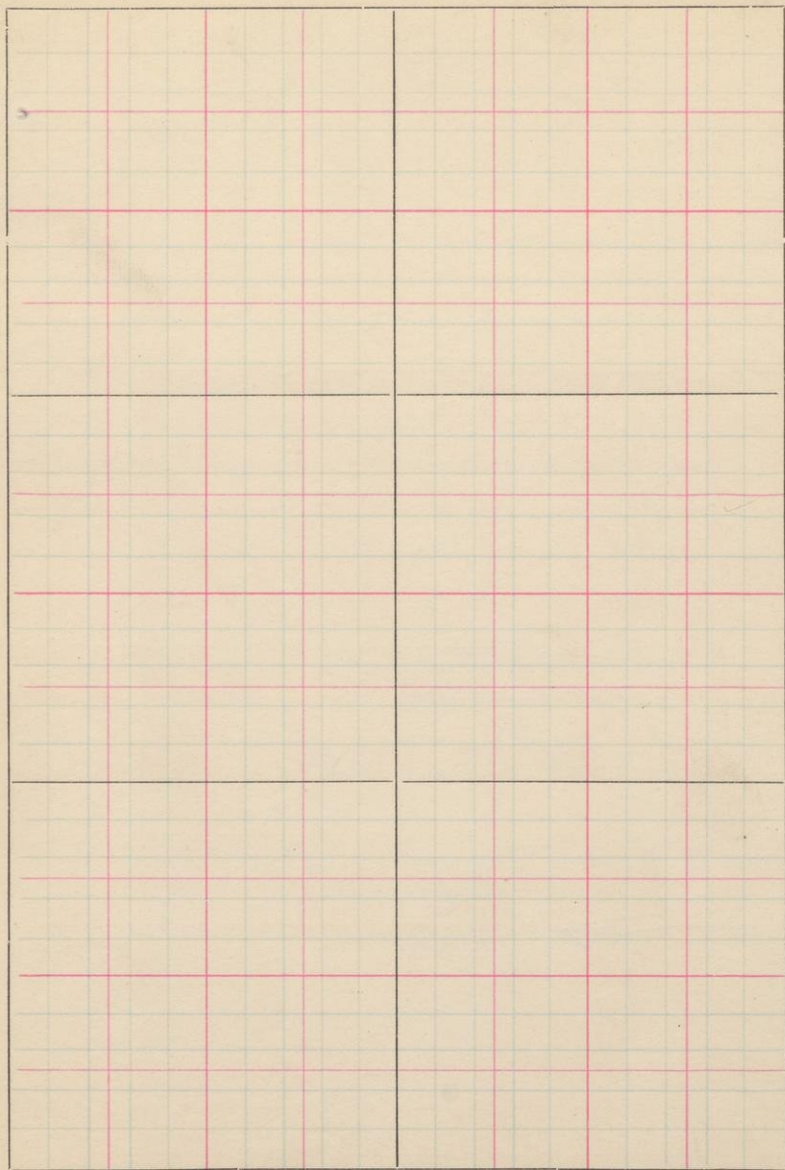
R.

$\frac{60 \times 70}{100} = 42$

S.

T.

R.



R.

170°
N 65° W

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92-102

Skipped

4720-4721
165-168 Phases of Porphyry 1-1½ mi w of machine site.
169-173 Porphyry & by about 1/3 mi w of 110 CPR.
47215-47219

(104)

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- 47113- Red ore, show carb. cleavage - wiley shaft
 47114- " " with lean ~~cherty~~ ^{in limestone} limestone - (to isolate granular ~~from~~ ^{in limestone}) - wiley shaft
 47115- Red carb ore, with lean material - " "
 47116- " " " " " " " "
 47117- " " " " " " " "
 47118- " " " " " " " "
 47119- Lean material above, with carb ore + show. partial change to ore - wiley shaft
 47120- " " in bands " " " "
 47121- pseudomorphs in Fe carb - pits near Th. Bay -
 47122- Red carb. ore, with lean material - wiley shaft.
 47123- massive greenstone - 1650 p. S of 109 CPR
 47124- " coarse " (showing ^{Hopland} ~~cherty~~ - 1700 S - 75° E of 109 CPR
 47125- Schistose ls - showing lumpy weathering - 1650 S of 109 CPR
 47126- " or slaty lyl(?) with smooth micaceous parting - 1678 S " "
 47127- lyl - near contact with small dikes of QP - 1100 S of 109 "
 47128- Schistose ls - 1678 S of 109 CPR
 47129- Cherty Fe carb - carb ridges $\frac{3}{4}$ mi E of 106 -
 47130- " " " " (showing original alternation)
 47131- Normally at contact with breccia (same location) S 80° E, 565 NW
 47132- lyl show fract + vining (within part of 121)
 47133- Breccia containing lyl. (same location)
 47134- " (?) " " (same location)
 47135- " of chert showing coarse granular (compare with same place from 121)
 47136- Facies ^{like} of base of breccia zone (same location)
 47137- Phase of breccia 2 " "
 47138- " (also in same sample) - water? 200 p. N - same loc.
 47139- Phase of old ls at Sand bridge or current R - Black Bay road NE of 145
 47140- " " " " " "
 47141- " " " " " "
 47142- " " " " " "
 47143- " " " " " "
 47144- " " " " " "
 47145- " " " " " "
 47146- K or marl - CPR cut about 250 p. E of 98 mile post.
 47147- Red breccia showing black chert - CPR cut 600 p. W of " 98.
 47148- Porphyry 1-1/2 mi W of Mackenzie - show. banding believed to be due to fracturing (145)
 47149- " " " " " "
 47150- " " " " " " (North of 108 & 109 CPR)

- 7- Siltstone - 2 mi S + 1/2 mi W, mi post 106 CPR
40- Hamatite - show alter. from carb - (McConnell's tunnel).
41- ~~Chert~~ ^{Siliceous limestone rock} 1 1/2 mi N + 1/2 mi W of mi post 106 (occurs under diab. sill)
470842- Hamatite - Bacon tunnel
470943- Jack & Gehna ~~shale~~ ^{sandy} - 1/4 mi S. Glendo Lake ~~tunnel~~ falls
470944- Tourmaline ^{granite} ~~intruded diabase~~ - road to Knobel check.
470945- Hsch slt & diabase, leucite ss Swamp lake.
470946- Intrus form. qtz. - Swamp L.
470947a " " " ridge E of (46) a subbedded with ch. carb.
470947b " " " " Carb. IF ^{smallly d.}
470947c " " " " ridge E of Swamp L., west of Swamp L. - interbedded with chcr.
470948 - Finely banded, dark gray carb rock, below (47).
470949 - " " " " " w slope of ch carb ridge E of trail old CPR
road + about 1/2 mi. S of small lake west of Swamp L.
470951 - melt granulite drill core Knobel claim, to examine for
470952 ~~rd cherty or cherty slate~~ " " "
470953 - Rnc. cherty carb - Bacon's tunnel
470954 - Stone - 1 mi S. of 108 CPR.
470955 - alteration of facies - E end Wilby pits.
470956 - ~~unmineralized~~ ^{IF} at pits near Thunder Bay
470957 - Hamatite - E end Wilby pits
470958 - Knp cong. - cut CPR
470959 - or, Knobel tunnel
470960 - Fr slate - pit n of Bacon tunnel
470961 - Kidney or - hill E of K shack camp
470962 - ~~Shale~~ ^{pyrite} ridge S of CPR - ~~old by bank~~
470963 - Fr chrt - Bacon tunnel
470964 - ^{blue} Tourmaline (Knobel claim)
470965 - Carb ore - Wilby pit
470966 - lg. bottom of " "
470967 - " " " "
470968 - amorphous cong. nat. of Wilby pit
470969 - " " " "
470970 - Partially altered IF - Wilby shaft.
470971 - lg. - n of 107 CPR
470972 - Diabase - CPR cut ^{E of} 104 CPR
470973 - " " " "
470974 - Facies - near pits on Thunder Bay
470975 - Carb. after tae (?) - pits " "
470976 - J F - " " " " (sand and abe)

- 46388 - Specimens - Thunder Bay dist.
 47047A - ~~Spec. from pits near Thunder Bay (13 slides)~~
 47047B - Partially altered phase of carb. rock - track E. of Knobel's camp.
 47048 - Ore (red & blue) " " " " " " (108)
 47049 - Irony. chert " " " " " "
 47050 - Phase of Keweenaw sandst. underlying IF - hill E of Loon Lake.
 47051 - Irony. chert - on trail from K. chert to description
 47052 - Fine grained, stately phase of carb. IF - hill E of Loon Lake.
 47053 - Little altered ~~tacomite~~ - like rock - ~~edge~~ of ridge near Blunde on trail to Wiley's
 47054 - Phase of " - falls of Blunde creek.
 47055 - " " " " " "
 47056 - " " " " " " (lower horizon than 9)
 47057 - Banded carb. rock " " " " " " 10.
 47058 - Fine grained, altered carb. rock - hill E of description Lake.
 47059 - Irony. Banded cherty carb. rock - " " " " (on Wiley's line)
 47060 - Phase of tacomite - Wiley claim.
 47061 - " " " " " " - shore of end of Thunder Bay.
 47062 - " " " " " " " " " "
 47063 - " " " " " " " " " "
 47064 - Banded iron formation from Wiley claim.
 47065 - Black slate under dike, from ridge south of road to Knobel's camp
 47066 - Black slate above dike, same locality
 47067 - Black slate or dike - 700 E to SW cor. of 9-VII (showing large veins)
 47068 - Same
 47069 - Same
 47070 - cherty carb. - E side Blunde Lake.
 47071 - Blue ore - Wiley pit.
 47072 - Carb. = ~~fine~~ unaltered + altered phase in cherty carb. (above intrap. con.) cherty Thunder Bay
 47073 - cherty carb - hill E of Knobel's camp.
 47074 - Amibie Cong. - coarse - Wiley pit.
 47075 - " " " " " "
 47076 - " " " " " "
 47077 - Blue hematite (derived from tacomite?) - pits near Th. Bay.
 47078 - Black slate - ~~1000~~ ¹⁰⁰ ft. E of Loon Rect. house, under dike ridge
 47079 - Carb. inf. - with siderite weathering - pits near Th. Bay
 47080 - Blue + red ore - track on hill E. of Knobel's chert.
 47081 - Same as 32.
 47082 - Showing change from ^{blue} tacomite to ^{blue} carb. + carbon - pits near Th. B.
 47083 - Iron slate - Bacon tunnel.
 47084 - Sy - 2 miles + 1/4 mi W of mi post 106; C PR
 47085 - Coarse ironstone - S of Blunde Lk (slightly altered?)

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