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Correspondence re: Pleistocene - part of northeast Wisconsin. 1933-1944

Thwaites, F. T. (Fredrik Turville), 1883-1961

[s.l.]: [s.n.], 1933-1944

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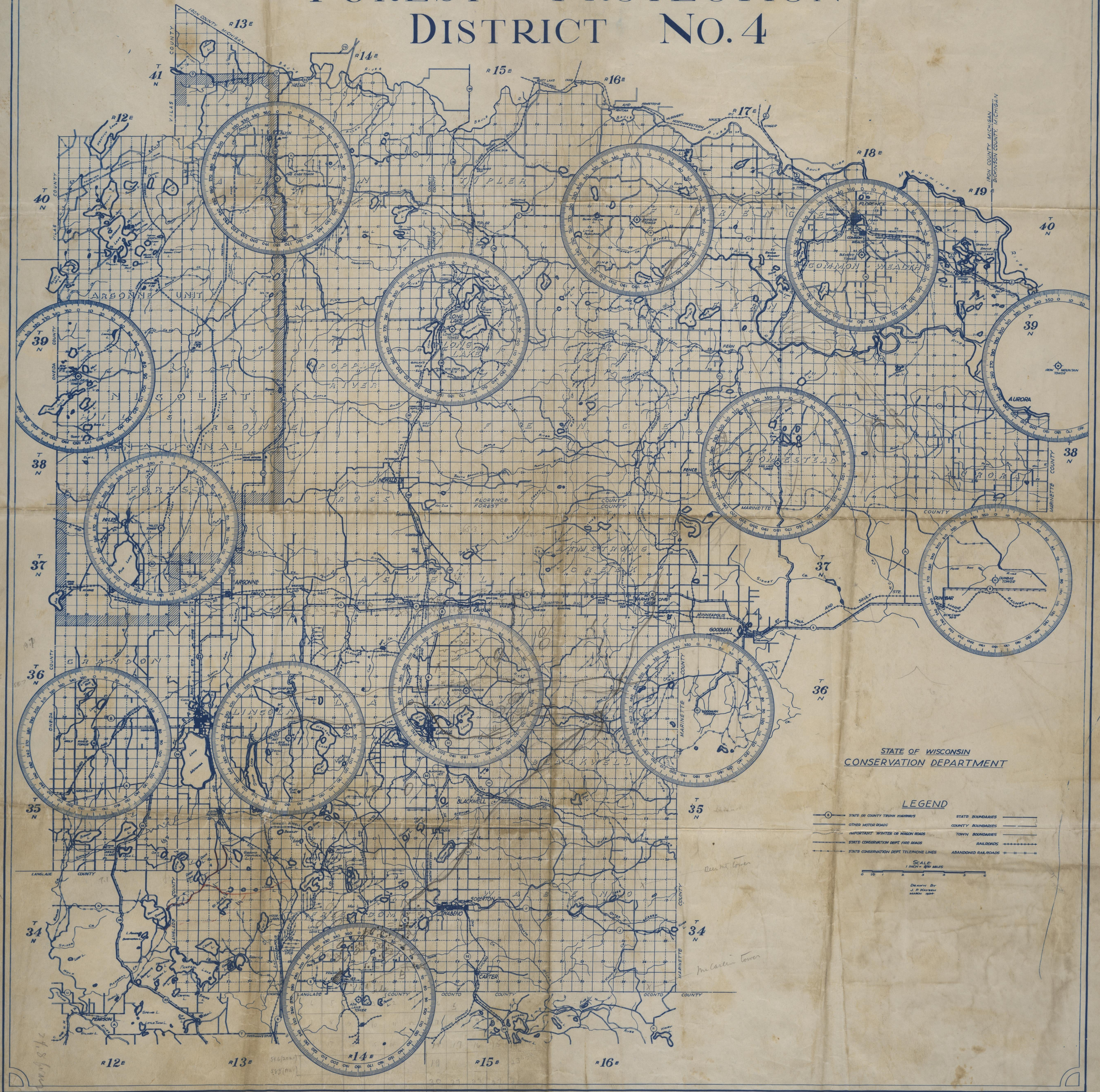
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FOREST PROTECTION DISTRICT No. 4



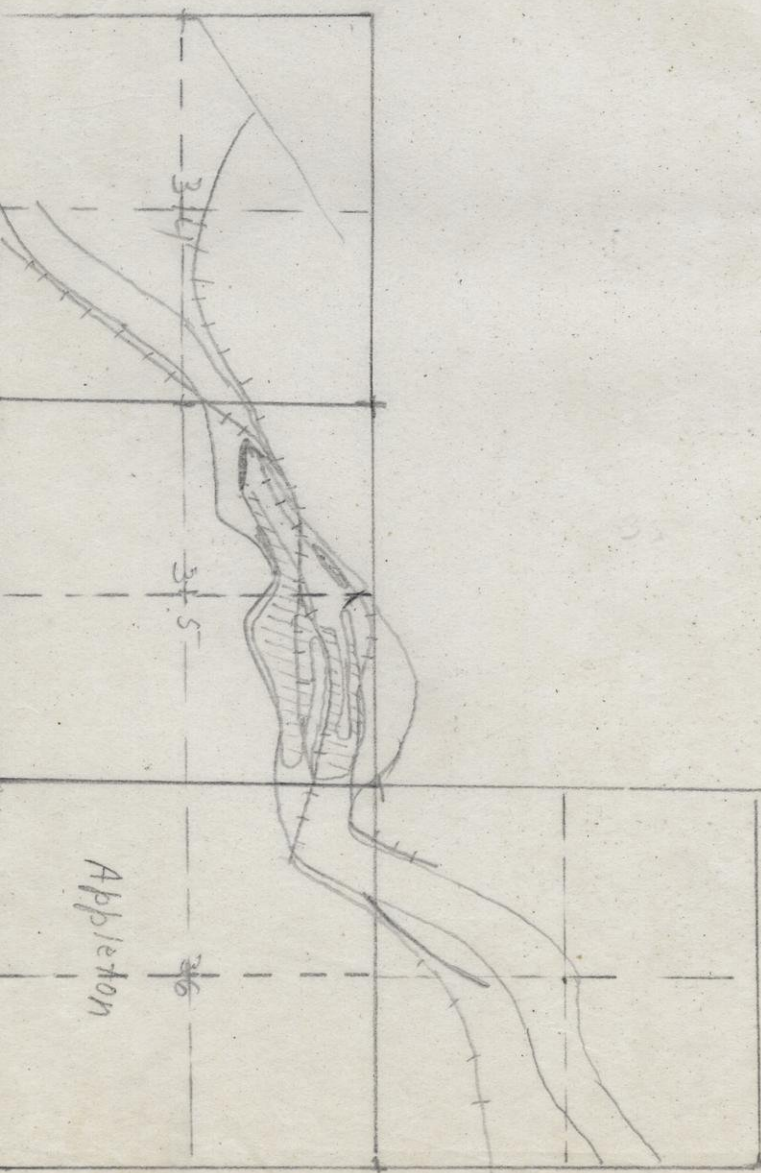
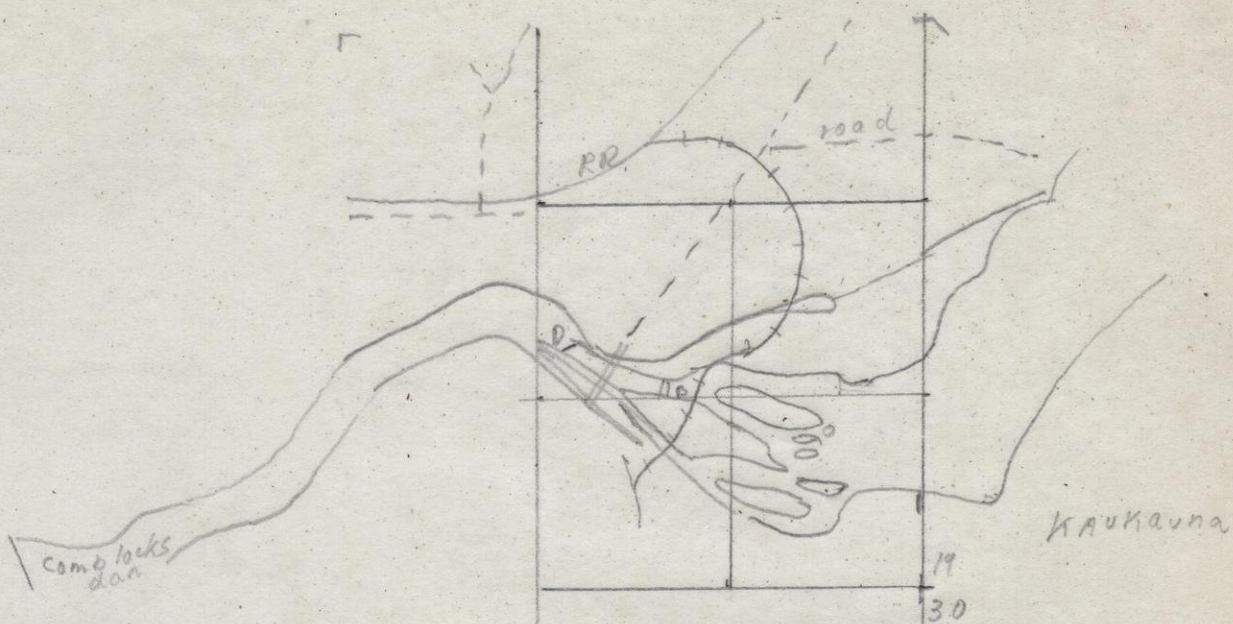
STATE OF WISCONSIN
CONSERVATION DEPARTMENT

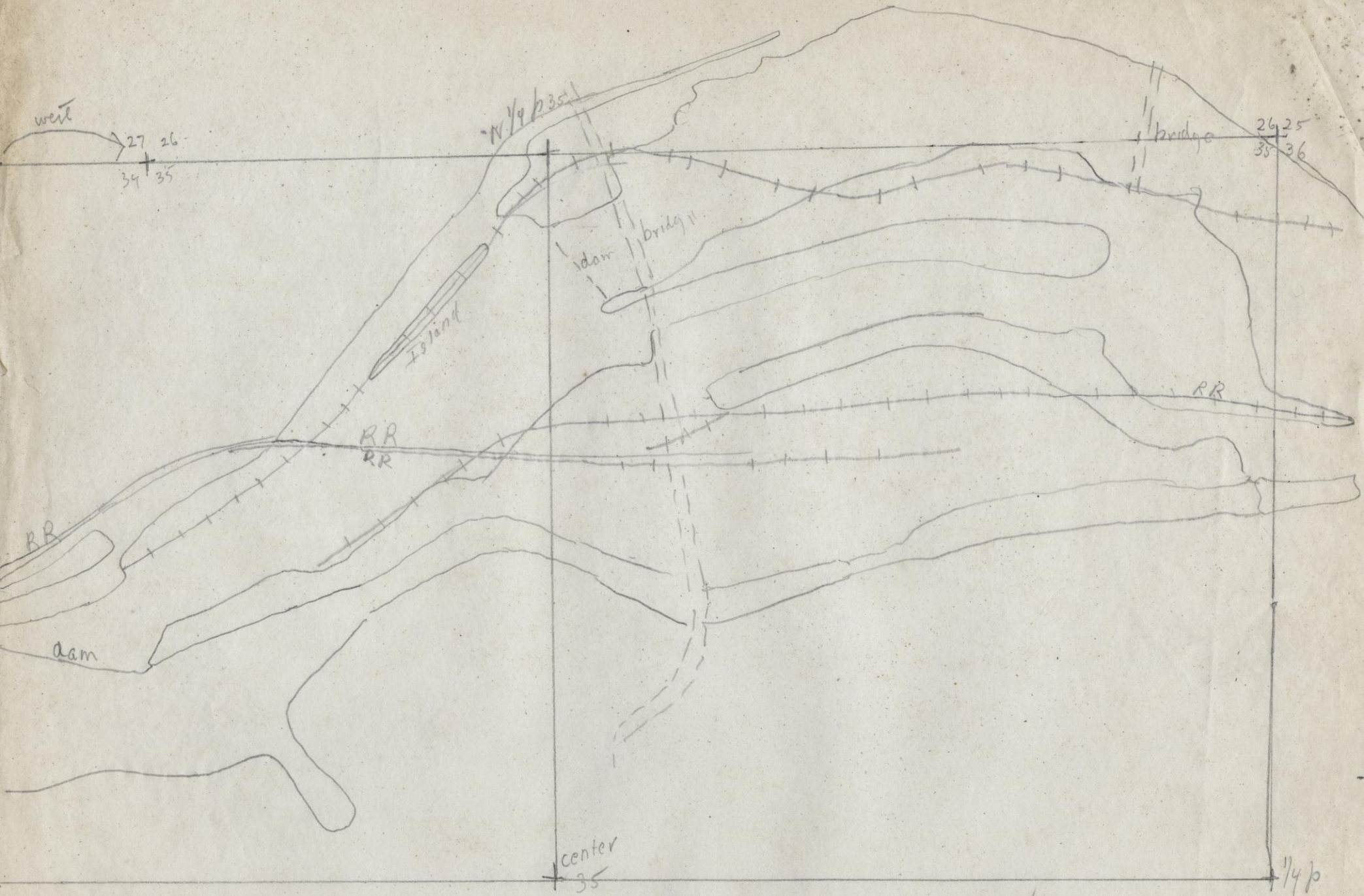
LEGEND

- | | |
|--------------------------------------------|-----------------------|
| —○— STATE OR COUNTY TRUNK HIGHWAYS | — STATE BOUNDARIES |
| — OTHER MOTOR ROADS | — COUNTY BOUNDARIES |
| — IMPORTANT WINTER OR WAGON ROADS | — TOWN BOUNDARIES |
| — STATE CONSERVATION DEPT. FIRE ROADS | — RAILROADS |
| — STATE CONSERVATION DEPT. TELEPHONE LINES | — ABANDONED RAILROADS |

SCALE
1 INCH = 500 FEET

Drawn by
J. E. Kopp
March, 1917





APPLETON

Nov. 4, 1938

Mr. Ed. Wenberg,
5 E. Fairchild,
Iowa City, Iowa

Dear Mr. Wenberg:

I wish to thank you for yours of the first with data on striae. Miss Brown wishes to thank you for the fossils.

No, the report is not finished. You will certainly get a copy when it is (or should I say if?) The illustrations are what take the time. So far only a few are done, and I just can't get the time to work on them. You see my mother died last summer after a long illness and that took up most of the summer. And now they have bought us out here and we had to move unexpectedly.

The rock on Blue Mounds is not quartzite as somebody once called it but is chert. One Murphy-Purcell once wrote a thesis on it but I never read it. Twenhofel has some ideas about it but I do not know what they are. It is a puzzle why the formation is so thoroughly chertified just there and not at other places. They found the Dresbach silicified and red at Mt. Horeb much like at Mile Bluff and a few other places. Maybe it is associated with faulting but if so I know of nothing to prove it.

Hope everything is going all right with you,

5 E. Fairchild
Iowa City, Iowa
Nov. 1, 1938

Dear Mr. Thwaites,

I am sorry not to have seen you on the Tri-State Conference. But moving house in the middle of the school year keeps one pretty busy, I know.

Miss Brown says that she is working on the Galena limestone in eastern Wis. and that some of her territory is near Oneida. I'm sending you a box of fossils which I picked up near Oneida this summer. All of them are from quarries which have been recently worked and probably have not been examined by geologists before. I suspect that part of them belong to the Decorah. If Miss Brown can not use them, throw them away. There are plenty of those fossils left in the quarries.

Have you ever published your report on the Pleistocene of Northeastern Wis? If not here are a few striae that you can add to your list:

Quarry, 1 mi. E. and 1/2 mi. N. of Chicago Corners: NE corner SE 1/4, sec. 18, T23N, R19E. West side of road. This quarry has recently been opened by the Oneida Indians, Inc. A shale band containing many fossils is both overlain and underlain by limestone. The shale is probably Decorah in age. No striae were exposed here.

Quarry 5 mi. W. and 1/2 mi. S. of W. Depere: center of N 1/2 of sec. 27, T23N, R19E. This quarry has recently been operated by the WPA. On the south side of the quarry is a set of striae trending S45W. They are well preserved. No other sets of striae were observed. The strata seem to dip slightly in various directions. With the exception of a single shale horizon which is very fossiliferous with sea weed remains, the strata are pure dolomitic limestone.

Quarry 1 mi. N. and 1 mi. E. of Oneida: center of NE 1/4, sec. 34, T24N, R19E. West side of road. This quarry has been recently reopened and enlarged. The rock is not very argillaceous. One set of glacial striae extends S45W. There are no other sets. Although this quarry does not contain many fossils, about a quarter of a mile to the NE is another quarry which is now abandoned and nearly full of water. The strata were evidently much more argillaceous and fossiliferous

than those in the first quarry although at about the same elevation.

These notes may not prove to be very useful, but I thought Miss Brown would like to get references to all the exposures possible in that area.

Give my regards to the rest at Wis.

When you have an opportunity, please drop me a card telling me about the Blue Mounds Quartzite. Once I understood you to say that the formation consisted largely of vein quartz deposited in fissures radiating outward from the mound. The people here do not agree to that statement and I'd like to know whether I didn't understand you correctly or whether the formation is mostly a set of quartz veins.

I hope the year is successful for you at Wis.

Sincerely,

Ed Wenberg

my address

Edwin Wenberg

R.R. 2 West De Pere

(Ridge Road)

2 miles south of town of Oneida

JH Wenberg

Herbert Von Cuff

3055 N Hackett Av

Milwaukee, Wis

Edgwood 1585

Post card June 22

Kenneth Bernhard

1667 Shawans Ave.

Green Bay, Wis.

off Mrs. Mrs. Mae Horie

1667 Shawano Avenue
Green Bay, Wisconsin
August 13, 1936

Mr. F. T. Thwaites
R. F. D. # 4
Madison, Wisconsin

Dear Mr. Thwaites:

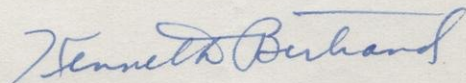
Thank you very kindly for your reprint on "Field
Photography for Geologists," which I received yesterday.

After reading it over last evening, I am sure that
it will be of great help to me.

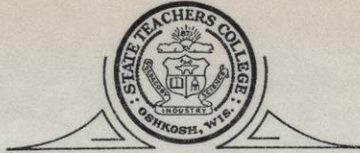
As yet, I have not found time to run the traverse along
the north side of the Oconto River, but I'll try my best to
to squeeze it in before moving down to Manitowoc next Monday.

With best wishes I am,

Yours truly,

A handwritten signature in blue ink, reading "Kenneth Bertrand". The signature is written in a cursive style with a large, sweeping initial 'K'.

Kenneth Bertrand.



STATE TEACHERS COLLEGE
OSHKOSH, WISCONSIN

FORREST R. POLK
PRESIDENT

August 6, 1936

Professor F. T. Thwaites
University of Wisconsin
Madison, Wisconsin

My dear Professor Thwaites:

I received this morning a copy of "Field Photography for Geologists" which you were thoughtful enough to remember to send me. I have been in need of instructions such as these for a long time, because as I told you, my efforts in photography have always been more or less hit and miss, with the emphasis on the miss. I think it will require a considerable amount of study and I think that one of the first things that I shall have to get will be an exposure meter. I appreciate greatly your sending me this pamphlet.

May I also express appreciation for the opportunity to accompany you for the day on your recent field trip in this vicinity. I shall be most interested in the results of this field study because I have often speculated on the shore line of old Lake Oshkosh.

Very truly yours,

Forrest R. Polk

FRP:ELJ



STATE TEACHERS COLLEGE
OSHKOSH, WISCONSIN

July 17, 1936

Prof. F. J. Thwaites,
West-De Pere, Wis.

My dear Prof. Thwaites:

I was not in Oshkosh yesterday, therefore I read your card, inviting me to accompany you, only this morning. I shall be delighted to go with you, - if this letter reaches you in time to inform you of my intention.

I thank you most heartily for this invitation.

Yours truly,
James H. Rhea.

Sept. 4, 1936

Dr. Charles P. Berkey, Secretary,
Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Berkey:

I herewith submit in duplicate my report on progress on Grant
67-34 from May 18 to Aug. 18, 1936.

Field work was resumed on July 7 and ceased on August 1, 1936.
I was assisted by some of my students, Edwin Wenberg and Herbert Von Elff.
During this time the uncompleted areas in Winnebago, Outagamie, Brown, and
Oconto Counties was examined. A week was then spent in the north completing
a corner of Florence County and checking some of the 1934 work. Since my
return I have checked and inked all field maps and checked over elevations.

In a conference with Mr. Bean and Dr. Aldrich it was decided to alter
the final map to show roads instead of section lines and to ask for colors
instead of using patterns in black and white. The final map has been
started but this change will vastly increase the amount of time necessary
to finish it. It was, therefore, decided to finish a portion of it before
Oct. 1 and to submit this as a sample together with a draft of the text,
the photographs, and as many other illustrations as can be completed
together with a detailed schedule of all proposed illustrations. After
examination and approval of this preliminary report I want to ask that it
be returned for revision and completion.

The financial statement is:

Previously expended (letter of Oct. 1, 1934)	\$285.25
Less salvage on old car	42.00
Net expenditure in 1934	226.25
Expended in 1936, see enclosed statement and vouchers	78.01
Depreciation on car etc as per state allowance	30.00
Total expended in 1936	108.01
Net balance on hand	63.74
Total grant (paid in full)	\$400.00

The above does not agree with the first account turned in as I then
estimated the car expense at a flat five cents per mile.

I would like permission to apply the balance on hand toward drafting
the final map. This would hasten completion. I may also do a little more
work in the field. Expenses listed do not include some \$10 or more spent for
maps to use in the field and for ~~drafting~~ ^{copying} the final map.

F. T. Hamilton

July 4, 1936

Mr. Herbert Von Riff,
3055 N. Hackott Ave.,
Milwaukee, Wisconsin

Dear Mr. Von Riff:

I am planning on getting off for the field next Tuesday morning. If, however, you cannot get here we will not go until the next morning.

You will need some bedding and clothes for a two to three weeks trip. The first camp will be at Wenberg's home near Onoda, Wisconsin.

Sincerely,

1936			
7 6	Phone call to Milwaukee to assistant	1	.35
	Alandroth, groceries	2	5.55
7 7	Tire repair, Ladoga	3	50
	Gasoline, Oshkosh	4	1.30
7 8	Supplies, West Depere	5	1.72
	Gasoline, West Depere	6	1.09
	Supplies, West Depere	7	.97
	Stove gasoline	8	.22
7 9	Gasoline, Sunnico	9	1.08
	Supplies, Sunnico	10	.80
7 10	Gas, Krakow	11	1.19
	Supplies, Sunnico	12	.85
	bacon, Sunnico	13	.42
7 11	Supplies, Sunnico	14	.41
	Gas, Sunnico	15	1.08
	Supplies, Oconto	16	1.98

19.51

1	Supplies, Oconto	17	27
2	Supplies, Green Bay	18	48
13	Grease and change oil, Green Bay	19	3.05
14	Supplies, West Depere -gas	20	1 38
13	stove gas, Green Bay	21	25
7 14	Supplies, Green Bay	22	21
7 14	Supplies, Green Bay	23	50
7 15	Gas, Freedom	24	1 54
7 15	Supplies, West Depere	25	74
7 16	Supplies, Seymour	26	1 10
	Ink, Seymour	27	25
	Gasoline, Seymour	28	99
7 17	Gasoline, West Depere	29	1 18
	Gasoline, Stiles, Jct.	30	1 00
	Supplies, West Depere	31	1 12
7 18	Gasoline, Ashkosh	32	1 74

19.51
35.31

7 20	Gasoline, Fremont	33	99
	Supplies, "ost Depere	34	95
7 21	Gasoline, roadside station on U. S. 41	35	1 09
	Supplies, Winneconne	36	54
	Gasoline, Oaxo	37	1 00
	Supplies, West Depere	38	58
	Gasoline, Winneconne, 1 qt oil	39	1 14
7 22	Gasoline, Appleton	40	99
	Supplies, "ost Depere	41	30
	Supplies, Green Bay	42	1 19
7 23	Supplies, Green Bay	43	30
	Grease and change oil, Green Bay	44	2 30
	Gasoline, Sarrico	45	1 09
7 24	Supplies, Oconto	46	3 06
	Gasoline, Hana	47	1 60
	Stove gasoline, Sarrico	48	25
7 25	Milk, "ost Depere (Onida)	49	90

35.31
53.58

4

53.58

7 25	Gasoline, Oacida	50	79
	Stove gas, Green Bay	51	25
	Gasoline, N Leona	52	1 11
	Supplies, Leona	53	60
7 26	Gasoline, Crook	54	80
	Bread, Wabano	55	10
7 27	Gasoline, "abano	56	1 00
	Bread, Leona	57	10
7 28	Gasoline, Leona	58	1 55
	Gasoline, Long Lake	59	1 00
	Supplies, Long Lake	60	1 03
7 29	Gasoline and stove gas, Leona	61	1 33
	Gasoline, Goodman	62	1 00
	Supplies, Goodman	63	40
7 30	Gasoline, Wabano	64	81
	Gasoline, Leona	65	89
7 31	Supplies, Saperton	66	68
	Grease car, change oil, Leona	67	2 88
	Gasoline, Wabano	68	1 21
8 1	Gasoline, Ambigo	69	1 10
	Gasoline, Plainfield	70	1 52
8 3	Gasoline, Madison	71	1 23

75.01

30.00

105.01

car

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	MILEAGE	
TORONTO	0	0
NORTH BAY	227	234
	0	0
TEMAGAMI (Hotel Ronnoco)	73	63
COBALT	104	94
HAILEYBURY	109	99
NEW LISKEARD	114	103
TIMMINS (BRANCH)		B
COCHRANE (Stevens' House)	253	260

T. AND N. O. RAILWAY

FERGUSON HIGHWAY

Dear Mr. Stewart:

I am sorry I will be unable to go with you this summer. Randy Leith asked me if I cared to go with him; this work will be very good experience in field geology and also valuable to me from a monetary standpoint. As I understand it, we are to work in the Temagami region.

I want to thank you for giving me the opportunity to go with you I am sure it also would have been a good experience.

Sincerely,

Robert Benish

June 22, 1936

Mr. Edwin Wenberg,
West DePore, Wisconsin
R. R. 2

Dear Mr. Wenberg:

Your postcard of the 17th is at hand.

Since you left there have been some new developments. First, I figured out the available balance from the original grant of about \$125.00 This will carry a party for about three weeks, I think.

Second, I contacted Mr. Bertrand of the Geography Department who is doing his Doctor's on the geography of the red clay area. He has already been over all the roads within the area and has located most of the gravel pits, etc. He wants to go out with me and will carry his share of the expense while with us. I thought that we might be able to run two parties for a portion of the time as he has a car. Of course, this will not help at all during the period of checking the old work and in the far north so original arrangements will hold for that.

I decided to bring the trailer for an office and dining room and a tent to sleep in. I have enough cots but will have to get the others to provide bedding. I have enough of everything else which is needed.

So far as I can now see I will not be able to come up before July 5 or 6. Meantime I will leave it to you to find a suitable place for our base camp at or near your home.

I am very glad you will be with us.

Sincerely,



THIS SIDE OF CARD IS FOR ADDRESS



F. T. Thwaites
Science Hall
Madison, Wis.

Dear Mr. Thwaites,

I'll be glad to map with
you this summer. With the possible
exception of a day or two a
week or so from now I shall be
free from now on.

Please let me know what
things I will need.

Sincerely,
Ed Lvenberg.

June 22, 1936

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Berkey:

I herewith submit my quarterly reports on progress with
Grant 67-34 Nov. 18 to Feb. 18 and Feb. 18 to May 18, 1936.

During the last two quarters no progress has been made on
the project on account of the pressure of other work.
No expenditures have been made on the project.

Now that the school year is over work is to be pressed.
I have arranged to complete the remaining field work during
July and the report immediately after that. My accounting
shows after revision of figures for car expense to the
standard of actual expense for gasoline, oil, and repairs
plus depreciation I still have a balance of about \$125.00 to
expend this season.

Very truly yours,

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET

NEW YORK CITY

TO RECIPIENTS OF GEOLOGICAL SOCIETY GRANTS:

We have been very much pleased with the way in which the vouchers and sub-vouchers have been accepted as a serviceable mutual convenience in rendering and following up quarterly Progress and Financial Reports. It has been previously suggested that the making of these in duplicate would greatly convenience the Secretary's office, but because this suggestion has been incorporated in communications emphasizing other points, it is perhaps not surprising that it has escaped as universal attention as is desirable. It may help to better appreciation of this request to point out that under the present arrangement one copy of each report is filed in the Secretary's office and another is sent by the office to the Chairman of the Projects Committee. When a duplicate is not furnished it is necessary for us to make one, a step that adds just so much unnecessary work to the Secretary's office. When reports contain colored sketches and drawings the task is all the more difficult and troublesome. We feel justified therefore in repeating the request that in future all reports be filed in duplicate.

We assure you of our appreciation of your past help and hope for your continued cooperation.

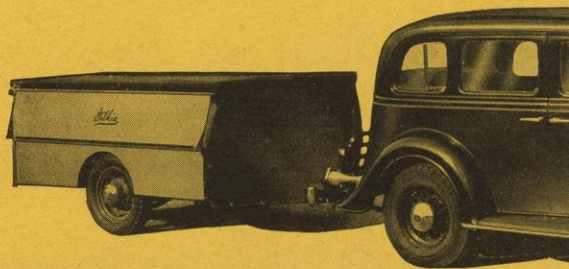
CHARLES P. BERKEY, Secretary

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Trailers



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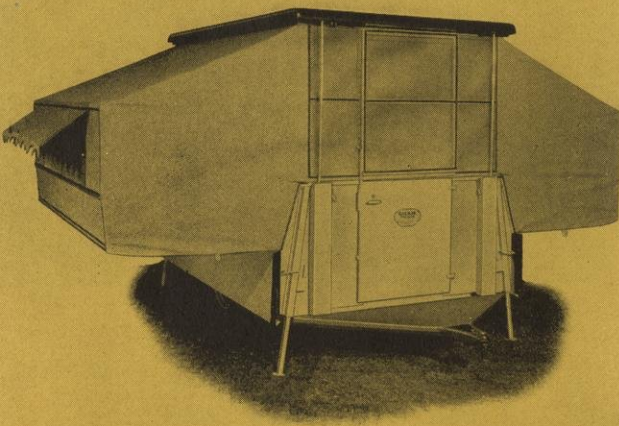
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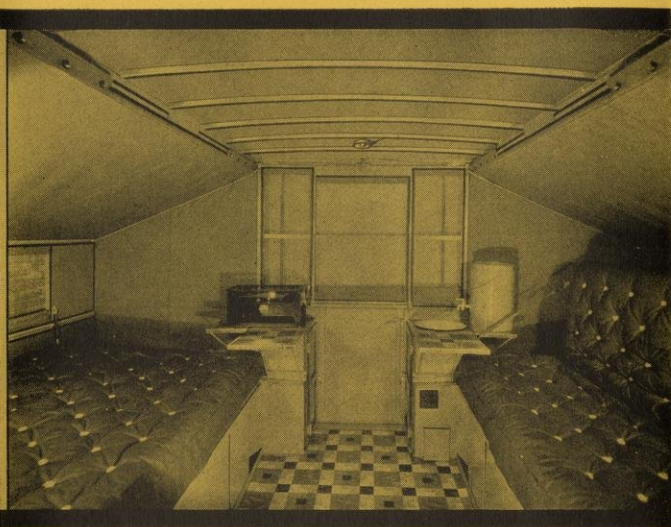
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DE LUXE, FRONT VIEW

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DE LUXE INTERIOR



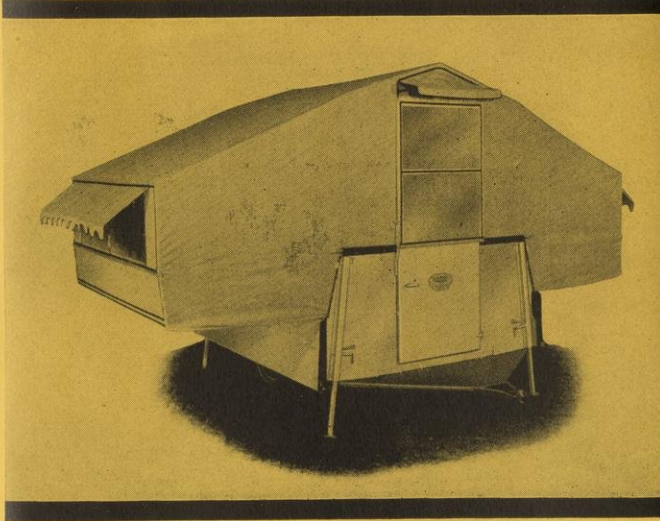
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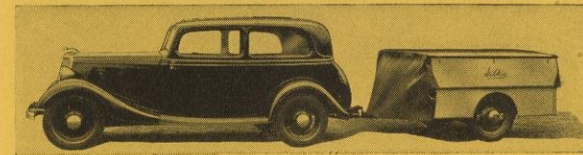
Both Trailers have large lockers, shelves and electric lights. The DeLuxe is equipped with a 75 lb. refrigerator, kitchenette compartment, built-in, white, enameled sink, water tank and clothes chest. Some of this equipment can be furnished as extra on the Camp King.

CAMP KING, FRONT VIEW

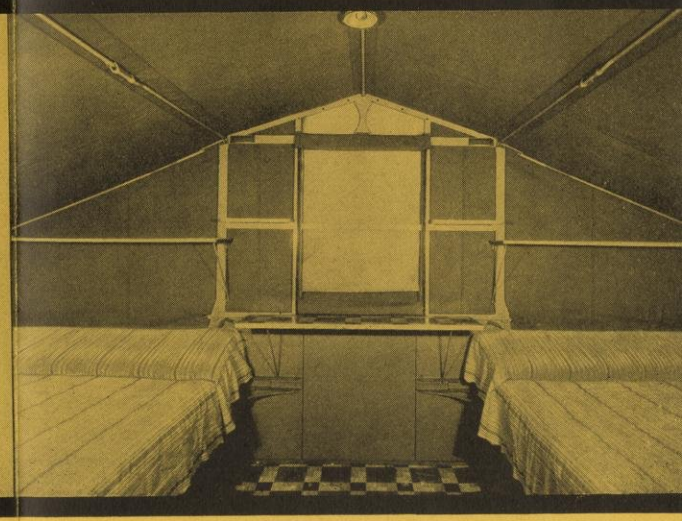


Low folding, low hung and streamlined; balanced weight on large Timken bearings and oversize tires. They travel at the fastest automobile speeds without any attention from the driver. Note—clear rear vision so essential to safe travel.

CAMP KING FOLDED FOR THE ROAD

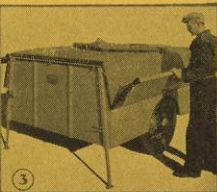
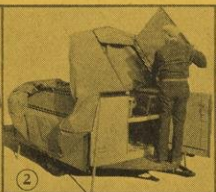


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The Geological Society of America

Information Circular No. 9

To the Members of The Geological Society of America:

COUNCIL The 1934 Council is made up as follows:

W. H. COLLINS, Ottawa, Canada, *President*

C. K. LEITH, Madison, Wisconsin, *Past-President*

ARTHUR L. DAY, Washington, D. C., *Vice-President*

ELIOT BLACKWELDER, Stanford University, California,
Vice-President

PERCY E. RAYMOND, Cambridge, Massachusetts, *Vice-President*

JOHN E. WOLFF, Pasadena, California, *Vice-President*

CHARLES P. BERKEY, New York, New York, *Secretary*

EDWARD B. MATHEWS, Baltimore, Maryland, *Treasurer*

GEORGE W. STOSE, Washington, D. C., *Councilor* 1932-1934

RAYMOND C. MOORE, Lawrence, Kansas, *Councilor* 1932-1934

JOSEPH T. SINGEWALD, JR., Baltimore, Maryland, *Councilor*
1932-1934

FRANK F. GROUT, Minneapolis, Minnesota, *Councilor*
1933-1935

W. O. HOTCHKISS, Houghton, Michigan, *Councilor* 1933-1935

JOSEPH STANLEY-BROWN, New York, New York, *Councilor*
1933-1935

F. W. DE WOLF, Urbana, Illinois, *Councilor* 1934-1936

DONALD H. McLAUGHLIN, Cambridge, Massachusetts,
Councilor 1934-1936

ADOLPH KNOPF, New Haven, Connecticut, *Councilor*
1934-1936

COMMITTEES Standing and Special Committees for 1934 are organized as follows:

Executive—W. H. COLLINS, *President, Chairman*
CHARLES P. BERKEY, *Secretary*
JOSEPH STANLEY-BROWN,
Chairman Finance Committee

Finance—JOSEPH STANLEY-BROWN, *Chairman* (1933-1935)
DONNEL F. HEWETT (1933-1934)
W. E. WRATHER (1934-1936)
EDWARD B. MATHEWS, *Treasurer, Ex Officio*

Projects—WALDEMAR LINGREN, *Chairman* (1934-1936)
W. J. MEAD (1933-1935)
JOHN B. REESIDE, JR. (1933-1934)

Publications—ROLLIN T. CHAMBERLIN, *Chairman* (1933-1934)
GEORGE W. STOSE (1933-1935)
RAYMOND C. MOORE (1934-1936)
CHARLES P. BERKEY, *Secretary, Ex Officio*

Membership—JOSEPH T. SINGEWALD, JR., *Chairman*
F. W. DE WOLF
ELIOT BLACKWELDER

Correspondents—W. H. COLLINS, *Chairman* (1934)
E. V. ANTEVS (1932-1934)
P. E. RAYMOND (1932-1934)
ARTHUR KEITH (1933-1935)
DOUGLAS JOHNSON (1933-1935)
WALTER H. BUCHER (1934-1936)

Penrose

Medal Award—DONALD H. McLAUGHLIN, *Chairman* (1934)
FRANK F. GROUT (1932-1934)
JOSEPH T. SINGEWALD, JR. (1932-1934)
CARL O. DUNBAR (1933-1935)
N. H. DARTON (1933-1935)
E. S. MOORE (1934-1936)
H. G. FERGUSON (1934-1936)

Penrose

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PROJECTS Twenty-six grants in support of special research projects were authorized by the preceding Council at the close of the year 1933. These are listed for general information as follows:

Project Grant 41-33, Robert A. Millikan and John P. Buwalda. Grant of \$2,000.00 to cover cost of research assistance in studies directed to the problem of radio-active determinations on ordinary rocks.

Project Grant 42-33, Paris B. Stockdale. Grant of \$1,000.00 to cover field and traveling expenses of self and assistant, living expenses for assistant and technical assistance in preparation of report on correlation of the Lower Mississippian rocks of the east-central interior.

Project Grant 43-33, C. W. Gilmore. Grant of \$550.00 to cover traveling and field expenses and cost of illustrations for a monographic study of the fossil serpents of North America.

Project Grant 44-33, E. H. Sellards. Grant of \$3,000.00 to cover cost of group studies directed toward more satisfactory criteria for stratigraphic correlation of Mississippian, Pennsylvanian and Permian sediments in the Texas region. The grant is intended to cover traveling expenses, hire of draftsmen, and preparation of manuscript.

Project Grant 45-33, M. F. Froberg. Grant of \$300.00 to cover traveling and field expenses, securing of ore specimens, making thin and polished sections, photographs and drawings on study of relation of gold values in some Canadian gold ores to feldspar-bearing veinlets.

Project Grant 46-33, Frank M. Swartz. Grant of \$300.00 to cover preparation of photomicrographs and manuscripts of two papers dealing with Lower Devonian ostracodes.

Project Grant 47-33, J. Brookes Knight. Grant of \$2,600.00 to cover traveling and living expenses, supplies and preparation of manuscript on a restudy of Gastropod genotype species of each genus founded on a Paleozoic genotype from the type material. This project involves a twelve-month foreign sojourn.

Project Grant 48-33, Charles W. Merriam. Grant of \$400.00 to meet cost of illustrations for monograph covering evolutionary study of Pacific Coast fossil turritellas.

Project Grant 49-33, Louis W. Currier. Grant of \$500.00 to cover field expenses, cost of thin sections, photographic and other supplies for study

of processes and degrees of metamorphism of the Cambrian and Ordovician strata along the east side of the Green Mountains in Vermont.

Project Grant 50-33, Ralph Stewart. Grant of \$325.00 to cover cost of illustrations and other expenses for description and analysis of the Eocene molluscan fauna of the Crescent formation of Washington.

Project Grant 51-33, E. O. Ulrich. Grant of \$2,000.00 for continuation of work done under Project Grant 2-33, completion of manuscripts dealing with various groups of fossils. The grant is intended to cover salary of photographer, traveling expenses and supplies.

Project Grant 52-33, Kenneth K. Landes. Grant of \$300.00 to cover traveling and field expenses in study of the origin of the phlogopite deposits of eastern Canada.

Project Grant 53-33, Kenneth E. Lohman. Grant of \$622.00 to cover traveling and field expenses and supplies for research directed to comparison of the diatoms in the Calvert formation as exposed in Maryland and Virginia with those of the Temblor formation exposed on both the east and west sides of the San Joaquin Valley, California.

Project Grant 54-33, A. F. Buddington. Grant of \$500.00 to cover cost of analyses of igneous rocks in study of the chemical and structural interrelations of the igneous rocks of the northwest Adirondacks.

Project Grant 55-53, F. J. Pettijohn. Grant of \$250.00 to cover field and office expenses in study of the structure and stratigraphy of an area of pre-Cambrian sediments in the vicinity of Sioux Lookout in north-western Canada.

Project Grant 56-33, E. Wayne Galliher. Grant of \$1,500.00 to cover field and laboratory expenses, drafting and preparation of manuscript covering the chemical transformations which take place in sediments at the time of their deposition, particularly those carried on by the action of the sulfur bacteria and the so-called "iron organisms."

Project Grant 57-33, F. M. Anderson. Grant of \$300.00 to cover preparation of photographic illustrations and sections, maps, photographs and diagrams of a study of the stratigraphy and faunas of the Cretaceous deposits of northern and central California and Oregon.

Project Grant 58-33, R. C. Moore. Grant of \$3,000.00 to cover group studies directed to the organization of available existing information and

the acquisition of additional knowledge concerning (a) the nature of the stratigraphic succession in selected favorably located parts of the northern Mid-Continent Pennsylvanian-Permian area, (b) the paleontologic characters of at least the most important marker zones, and (c) detailed and precise correlation of the prepared composite sections. The grant is intended to cover cost of research assistance, drafting and field work.

Project Grant 59-33, W. Horatio Brown. Grant of \$1,000.00 to cover traveling and field expenses, making of thin sections, preparation of manuscript for a study of the geology of the Tucson Mountains.

Project Grant 60-33, Levi F. Noble. Grant of \$600.00 to cover field expenses, cost of research assistance, preparation of manuscript in study of the general stratigraphic and structural relations of a region including the Death Valley depression.

Project Grant 61-33, James S. Williams. Grant of \$665.00 to cover traveling and field expenses, photographic materials and freight on study of the correlation and nature of Paleozoic sections in the Great Basin west of Great Salt Lake, with special reference to the Carboniferous. (This project is in collaboration with that of T. B. Nolan, Grant 35-33, which will deal especially with the areal and structural features.)

Project Grant 62-33, H. G. Ferguson. Grant of \$800.00 to cover traveling and field expenses, freight and other expenses in study of pre-Tertiary structural features in the western Basin Range region, particularly the pre-Tertiary thrusts.

Project Grant 63-33, Parker D. Trask. Grant of \$650.00 to cover traveling and field expenses and necessary equipment for study of the calcium carbonate content of fine-grained clastic sediments in California.

Project Grant 64-33, Josiah Bridge. Grant of \$450.00 to cover field expenses, photographic and drafting material and freight charges in study of the Cambrian and Ordovician strata of the Central Mineral Region of Texas.

Project Grant 65-33, W. H. Twenhofel and R. R. Shrock. Grant of \$500.00 to cover traveling, field and laboratory expenses in studies of the stratigraphy and paleontology of the Cambrian, Ordovician and Silurian of Wisconsin and the upper Mississippi Valley.

Project Grant 66-33, Alfred S. Romer. Grant of \$325.00 to cover traveling and field expenses for investigation of the early history of the Texas "Red Beds" vertebrate fauna.

1934 ANNUAL MEETING The 1934 Annual Meeting will be held at Rochester, New York, December 27 to 29. The sessions will be held in the buildings of the University of Rochester. Details will be announced later.

CHARLES P. BERKEY, *Secretary.*

THE GEOLOGICAL SOCIETY HOUSE,
419 West 117th Street, New York, N. Y.
February 10, 1934.

Lindgren, Waldemar

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Feb. 17, 1936

Dr. C. P. Berkey, Secretary,
The Geological Society of America,
210 West 117th St.,
New York City

Dear Dr. Berkey:

Reply to yours of Jan 21 was delayed by reason of
the rush at the change of secretaries.

The check arrived in due course and I wish to thank
you for it.

I have nothing in sight for the coming summer
except to finish the report for the glacial project
so that the proposed extension of time appears to be
entirely fair and reasonable.

I am planning to use some of the results obtained
in 1934 on a small map showing moraines of the central
United States for a new edition of my book "Outline
of Glacial Geology". I will send you a copy of this
when finished to secure authorization of this use.
Of course, it involves only a small patch of the general
map but I want to do the right thing.

Thanking you again, I am,

Very truly yours,

Feb. 17, 1936

Dr. C. P. Berkey, Secretary,
The Geological Society of America,
219 West 117th St.,
New York City

Dear Dr. Berkey:

Reply to yours of Jan 21 was delayed by reason of the rush at the change of semesters.

The check arrived in due course and I wish to thank you for it.

I have nothing in sight for the coming summer except to finish the report for the glacial project so that the proposed extension of time appears to be entirely fair and reasonable.

I am planning to use some of the results obtained in 1934 on a small map showing moraines of the central United States for a new edition of my book "Outline of Glacial Geology". I will send you a copy of this when finished to secure authorization of this use. Of course, it involves only a small patch of the general map but I want to do the right thing.

Thanking you again, I am,

Very truly yours,

Number (Wis.)
Feb. 13, 1936

F. T. Shwaites
R.F.D. No. 4
Madison Wis.

Dear Mr. Shwaites:

Enclosed you will find my personal check for \$2.50 - please send me the "Outline of Glacial Geology

With reference to the clays of this area:-

I will send you the material we have gathered as soon as my notes are returned to me. Your mention of the facts that the indications are toward the formation of the lake due to a readvance are O.K. with me but in your impression is not the general glacial geology of this area rather of a "mass". I gather from observations that the bed rock presented the ice with many difficulties and that this country during the recession was a mass of patches of open water - rotten ice etc. At any rate I will be glad to discuss the area with you if I manage to find you in Madison any time I happen to be there.

Very truly yours

Dan S. Young
P.O. Box 90-5
Number, Wis.

Feb. 7, 1936

Mr. Dan S. Young,
E. C. W. Camp 90-S,
Dunbar, Wisconsin

Dear Mr. Young:

In reply to yours of the second the results of the survey in Marinette County have not yet been published and the report has not yet been started. More field work is needed west of your location to differentiated between moraines and drumlins in the heavy forest. I hope to do this during next summer and finish the report before school opens.

We saw many of the exposures of lake clays as you describe them but would be very glad to obtain a copy of your locations as our work was rather sketchy. In a cut on "A" south of Dunbar we found the clay under the till of a moraine indicating that the lake was due to a readvance.

I am selling the "Outline of Glacial Geology" direct. The price is \$2.50 postpaid when payment is sent with order. There are only a few copies left.

I will try to remember you when my report is published.

Sincerely,

Young

hold to light

Mr. J. H. Young,
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

Dear Mr. Young:

In reply to yours of the 10th I am sorry to hear that the report has not yet been received. I am sure that you will be able to find out the truth of the matter. I am sure that you will be able to find out the truth of the matter. I am sure that you will be able to find out the truth of the matter.

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Sincerely,

ECW Camp 90-S
Dunbar, Wisconsin
Feb. 2 , 1936

F. T. Thwaites
Science Hall
University of Wis.
Madison, Wis.

Dear Mr. Thwaites:

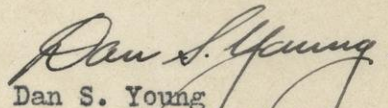
J. P. Kaysen, formerly engineer at this camp, informed me that you were in this part of Marinette county doing some Glacial work during the summer of 1934. I am writing to determine whether or not the results of your survey are in printed form and just how to acquire it if such is the case.

During the summer of 1935, while working on the Ground Water Survey of the E. C. W., we met many evidences of lake bottom, in this vicinity, that may be of interest to you. We often encountered clays, usually varved, both at the surface and buried beneath a mantle of sand. If this information would be of interest to you I would gladly condense the results , give locations , and mail the material to you as soon as my notes are returned to me from the main office.

It has been recently brought to my attention that your outline of Glacial Geology has been greatly revised and is now in bound form . Is this obtainable from any of the Madison book stores?

Thanking you in advance for any trouble ;

Very truly yours


Dan S. Young
Jr. Geologist, E.C.W.

President, W. C. MENDENHALL
U. S. Geological Survey, Washington, D. C.

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

January 21, 1936.

Dr. F. T. Thwaites,
The University of Wisconsin,
Madison, Wisconsin.

Dear Doctor Thwaites:

We note, in connection with your project grant from the Geological Society, No. 67-34, that it is your expectation that the work on the manuscript can be completed during the coming Summer. We are accordingly indicating on our records that your time is to be extended to October 1936. Please let me know if this seems reasonable.

We note that a balance of \$75. remains to your credit on account this grant, whereas you have already shown expenditures exceeding the total of the grant. In order that the Treasurer may not have to carry this unexpended balance on his books through the coming year, we are drawing voucher to your order to cover. Check will reach you from the Treasurer's office in due course.

Very sincerely yours,

Charles P. Berkey
Charles P. Berkey,
Secretary

Dec. 19, 1935

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Berkey:

I herewith submit in duplicate my quarterly report on progress on Grant 67-34, Detailed reconnaissance of Pleistocene of northern Wisconsin, Sept. 18- Dec. 18, 1935.

In the last quarter pressure of work at the University has prevented me from doing much on the Project. Considerable drafting was accomplished on the base map when some errors were discovered which obliged me to do much of the work over again.

Checking and inking of the field maps is about three-fourths completed. When done these can be blue-printed. Checking of elevations is yet to be begun, and that must be finished first.

I hope to finish the report some time during this coming summer but so many extra jobs have been assigned to me for immediate completion that I fear that no work will be done on this during the school year.

Completion of a satisfactory report will involve some more field work which I hope may be done early in the summer.

No expenditures which should be charged to the project have been made since the last report.

Very truly yours,

F. T. Thwaites

August 18, 1935

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Doctor Berkey:

I herewith submit my quarterly report on progress on Grant 67-34,
Detailed reconnaissance of Pleistocene of northern Wisconsin, May 18-Sept. 18,
1935.

Owing first to pressure of work in preparation for the Kansas
Geological Society Ninth Annual Field Conference and second to two weeks of
illness in June I was unable to do any work on the project until after
July 24. Even since that date much time has been and is still being devoted
to preparation for the conference.

Work accomplished since July 24 comprises final cleaning and lettering
of field plates of each township surveyed in 1934 and start on a final map on
scale 1 inch to three miles. Neither of these jobs is anything like completed.

It had been hoped to put in two weeks in the field starting the second
week in August but this had to be given up. It is still hoped to do some work
early in September but it is far from assured. The excessive humidity has
hindered all drafting very greatly as ink will not dry well and erasing is
apt to damage the tracing cloth. No expenditures charged to the project have
been made.

It is now evident that the hope of completing the report and map by
October first is ended and, much as I dislike to, I must ask for another extension
of time. Unfortunately as the Legislature has not yet passed any appropriation
for the University the future is so uncertain that I do not know what date to
set which I can reasonably be assured can be met.

Very truly yours,

F. T. Thwaites

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No expenditures charged to the project have

been made.

May 28, 1935

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Doctor Berkey:

I herewith submit my quarterly report on progress on
GRANT 67-34, Detailed reconnaissance of Pleistocene of
northern Wisconsin, Feb. 18, 1935-May 18, 1935

Owing to pressure of work in preparation for the Ninth
Annual Field Conference of the Kansas Geological Society
which is to be held in Wisconsin during the latter part of
August it has not been possible to do any work at all on the
project. The writer expects to go into the field sometime in
June to complete the field work. He will be accompanied by
Mr. and Mrs. Jos. Trefethen, both of whom worked on the
road material and Pleistocene survey of Maine a few years ago.
The unexpended balance of \$75.00 will probably cover the bulk
of the expense but the funds will not be needed until the
field work is completed. It is hoped that drafting of the
final map may be started before going into the field.

Very truly yours,

F. T. Thwaites

President, NEVIN M. FENNEMAN
University of Cincinnati, Cincinnati, Ohio

Past President, W. H. COLLINS

Vice-Presidents, { Edson S. Bastin
Donnel F. Hewett
John B. Reeside, Jr.
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419 West 117th Street, New York, N. Y.

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The Johns Hopkins University, Baltimore, Md.



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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

March 9, 1935.

Dr. F. T. Thwaites,
The University of Wisconsin,
Madison, Wisconsin.

Dear Doctor Thwaites:

This will acknowledge the receipt of your quarterly reports and request for an extension of time in connection with Project Grant 67-34. In view of the fact that conditions have changed materially since your plans were first made, I think the request is not unreasonable, and am sure that no one will object to the moderate extension suggested.

Very sincerely yours,

Charles P. Berkey
Charles P. Berkey,
Secretary

Cc Prof. Lindgren

March 2, 1935

Dr. H. R. Aldrich, Assistant Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Crombie:

I wish to thank you for yours of Feb. 26 and for reminding me of the overdue quarterly reports. The fact that the project was entirely inactive caused me to forget them. Two copies of each are enclosed also a formal request for an extension of time.

In regard to the map I am forced to use the scale of three miles to the inch because of the limitation to size of blueprints made in Madison. Also several of the basemaps which I can trace are on this scale. These are the reconnaissance soils maps of parts of northern Wisconsin which with minor corrections are about the best maps I can find. I will plan the lettering so that a reduction to half that size will be entirely satisfactory. This would make the final map the same scale as the old state map of "Geology and Roads". I am not myself in favor of a large published map. Those who work in the area can always secure blue-line or black line prints on scale of three miles to an inch. The map showing topography should certainly be not over six miles to the inch. I have purchased myself enough 42 inch tracing cloth to enable me to begin drafting whenever that is possible. I very much fear that it will be some time before that time comes. The Kansas people keep demanding more and more, in fact so much that several are becoming rather restive to say the least. And of this the bulk falls on me!

Maps on the scale of six miles to the inch would measure about 18 by 25 inches. The topographic map if without bed rock would be all black.

The irreducible number of colors is two counting the base color which would be black. If it were decided to show bed rock geology on the topographic map then that could be done in two colors even if such is not in accord with usual practice.

If there is much new here I have not heard it. My classes are all small except mapping which is larger than last year. Some others have similar low registration the exception being the short course in geology. Experience last semester shows that such increases are mainly in the class of very poor students.

Withbest regards,

Sincerely,

F. T. Thwaites

President, NEVIN M. FENNEMAN
University of Cincinnati, Cincinnati, Ohio

Past President, W. H. COLLINS

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

February 26, 1935

Professor Fredrik T. Thwaites
Science Hall
University of Wisconsin
Madison, Wisconsin

Dear Fred:

Though somewhat overdue this is in reply to yours of February 2nd.

In the first place I think there will be no difficulty in obtaining an extension of time for your Penrose Grant, but our files indicate that we have had no progress report since early September. If we are wrong in this will you send us a carbon copy of a later report. Could you also tell us how much additional time you think you will need.

Concerning the maps I believe the safest thing to do is for you to proceed drafting your map for a reduction to the scale of the Alden map providing for the use of an irreducible minimum number of colors. Using the Ben Day screens a number of effects can be obtained with the minimum of colors. The only possible question that can arise, I believe, is the scale of the finally printed map and as I understand it you are working on a map to be used in the field. The scale, therefore, is an important matter and should not be reduced too much. To play safe, and you know that the make up of the Committee on Publications changes, I think it would be well to use lettering of a size which in an emergency could be cut down with the map to a smaller scale than that of the Alden map.

Things are moving along quite satisfactorily here, I saw a number of ex-Wisconsin people at the meetings last week, and I extend my best regards to you and Amy and the rest of the Wisconsin family.

Yours very truly,

H. P. Aldrich

Assistant Secretary

REQUEST FOR EXTENSION OF TIME - PROJECT 67 - 34

Detailed reconnaissance of Paleistocene of Northern Wisconsin

In the contract with the Geological Society of America signed on May 18, 1934 the undersigned agreed to finish all field and office work connected with the completion of the detailed reconnaissance of the Pleistocene geology of the west side of the Green Bay Lobe north of latitude 44 by July 1, 1935.

Since the time that contract was made several things have prevented the completion of the office work to the degree intended.

First, field work was terminated soon after the middle of August, 1934 by the fact that my assistant had to return home. Just as I was about to resume work I secured a temporary appointment with the Mississippi Valley Committee of the National Resources Board which kept me occupied until the time when work began at the University.

Second, jobs as consulting geologist have been coming in with increasing frequency and in these days of reduced income it is imperative to look after these.

Third, the Kansas Geological Society is to hold its Ninth Annual Field Conference in Wisconsin at the end of next August. Their demands for road log, special papers on geological subjects, special new maps and photographs have been constantly increasing. The time required for this project is enormous and the bulk of the effort falls upon the writer. Despite staying home from the meetings at Rochester the bulk of this work still remains to be done. Whatever may be anyone's personal opinion as to the need for such elaborate preparation, a promise is a promise and the requests of the guests of our state must be heeded.

Fourth, it is now evident that I will have no steady job during the coming summer. It seems most unwise to rush through the completion of maps and a report by July 1 when just after that date there will be ample time to complete the job in good shape. I estimate that October 1 is a much better date for completion and request an extension to that date. The remainder of the funds available, \$75.00, would be expended in field work early in the season mainly the checking of older observations in the light of present knowledge.

Respectfully submitted,

F. T. Thwaites

PROGRESS REPORT - GRANT 67 - 34

Detailed reconnaissance of Pleistocene of Northern Wisconsin

Nov. 18 - 1934 - Feb. 18, 1935

Owing to other duties it was impossible to do any office work on the Project during this period. Tracing cloth was secured for the base map and plans were made for this but nothing could be done because of the great amount of time demanded for preparation for the Ninth Field Conference of the Kansas Geological Society next summer. No expenditures which are to be charged to the project were made.

Respectfully submitted,

F. T. Thwaites

Feb. 2, 1935

Dr. H. R. Aldrich, Assistant Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Crombie:

As time goes on it becomes increasingly apparent that I will be unable to finish the report on my recent Penrose Grant by July 1st as I had intened. First, I got a Government job for two weeks in September and so did not finish the field work. Second, outside jobs have been coming in with increasing numbers and I must attend to them to make up for salary cuts. Third, almost everyone else has laid down on the job and left practically the entire job of preparing the material for the forthcoming Feidl Conference of the Kansas Geological Society to me. I remained home from the meetings at Rochester to work on this and now all the time between semesters is going to go the same way with no prospect of seeing the last of it then! I do hope, provided it is possible to obtain it, to spend that last \$75.00 before July 1st but as it seems unlikely that I will have any all-summer job it seems unwise to attempt to finish the maps and report by that date when there will be lots of time later.

By the way I have never heard any final opinion on the matter of maps. The tracing cloth is bought ready for them but nothing else.

Will be glad to hear from you soon in regarard to the extension of time and the maps.

The youngsters have both had colds which has not helped matters much. They are now better but we long for spring!

Sincerely,

F. T. Thwaites

Oct. 17, 1934

Dr. H. R. Aldrich, Assistant Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Crombie:

Reply to yours of the 11th was delayed on account of field trips.

I realized when I wrote that I did not send enough data but could not then figure it out. The proposed map will include all of the counties of Marinette, Oconto, Shawano, Langlade, Outagamie, Waupaca, and Waushara together with parts of Florence, Forest, Marathon, Portage, Brown, and Winnebago. This rather irregular area measures about 110 miles from east to west and 140 miles from north to south. On scale of 1:250,000 this is roughly 27 by 38 inches. Alden's map measures 38 by 30 inches including margins. The common boundary will be latitude 44 which is close to the south line of Waushara County. The area east of Lake Winnebago and north of 44 deg. will not be shown as it is not yet surveyed. I plan to carry the map about two townships west of what I surveyed and to supply the lack from Mineral Land, Weidman, and Soils maps. This will show the relation to Wisconsin River. There will be plenty of space in the lower right hand corner for a legend.

With regard to drafting I will refer the Committee to the illustrations in the new Outline of Glacial Geology all of which are my own work and were reduced to half linear size. I am confident that my work will be up to ordinary commercial standards. Since I did the enclosed samples I have purchased a set of Wrice lettering guides and a lining machine.

I am enclosing sample of the combined pattern-color scheme used in my 1928 report. This is on a smaller scale than the proposed map. The sample of the topographic map with 100 foot contours shows the proposed topographic map on the same scale with exception that I want to included 50 foot contours. Both maps will be drafted on a scale twice that of publication. I forgot to mention that the topographic map originally showed the bed rock geology but this will be left out or better shown on a small black and white plate.

So far as a hasty survey indicated Alden's map has eight different colors. If I use the combination scheme then only three colors are needed, instead of the seven in the large and intricate black diagrams; probably a small but regular set of eight type each with a black diagonal; one or two detailed maps of type areas each full page, and several selected photographs. The actual text will probably not exceed 50 pages. I plan to minimize this as in the annual reports and to concentrate on the big map. This will show U. S. township and section

lines but no civil town lines or names. No roads or railroads will be shown. Important towns will be indicated but the names of counties will be in relatively small light letters so as not to obscure the geology.

Thank you for permission to use your work. A small key map in the legend will give credit for this and also show the areas which were surveyed by others and those parts of sketchy reconnaissance.

Of course, I would like to see more than three colors used but am suggesting this compromise because I know the expense of so many printings. By use of color patterns of fine grain the map could then be made with only two printings.

Classes are much larger this year but the quality of my students is terrible and I hate to think of dragging them of field trips! There are no Canadians whatever this year. Miss Loft was in to see me this morning.

Our family is all well

With best regards,

Sincerely,

F. T. Thwaites

PROGRESS REPORT-GRANT 67-34

Detailed reconnaissance of Pleistocene of Northern Wisconsin

AUG. 22 - Nov. 16, 1934

Owing to the fact that the undersigned obtained a job with the National Resources Board from Sep. 8 to Sept. 22, 1934 no more field work was possible on the project. Bays completed the computation of elevations and these were placed on the field maps. Some surveys not previously obtained were secured during this period. No extensive office work was possible because of the great amount of time demanded for preparation for the Ninth Field Conference of the Kansas Geological Society. No expenditures chargeable to the Project were made during this period.

Respectfully submitted,

F. T. Thwaites

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada
 Past President, C. K. LEITH
 Vice-Presidents, { Arthur L. Day
 Eliot Blackwelder
 Percy E. Raymond
 John E. Wolff
 Secretary, CHARLES P. BERKEY
 419 West 117th Street, New York, N. Y.
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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

October 11, 1934

Professor F.W. Thwaites
 Science Hall
 Madison, Wis.

Dear Fred:

I am sorry to keep up this daily correspondence with you but I feel that I must have some more data to really get quick action from the Committee, or that part of the Committee which may sit here next weekend. I think it would be wise for you to send me (1) the probable size of the map on the scale of 1:250,000; (2) a sample of the pattern scheme and also a sample of the color scheme that you propose to use. If you think of anything else which is a necessary factor to be considered by this estimating the cost of the map under one or the other method, I wish you would send it along too. For my own information will you tell me just which counties will appear in your map, and perhaps take an outline map and indicate the counties which you will cover, and show how it will fit against the Alden map of P.P. 106.

I think another point to consider will be the quality of the drafting. While I do not wish to raise any question about the character of your work as a draftsman, it of course is a point to be considered, and if you contemplate hiring a draftsman I think the Committee should have some idea as to his ability. The whole point is that we have on several occasions had to redraft sets of drawings or maps and possibly something should be done at this time to insure proper drafting before the work is started.

Will you also tell me how many pages you estimate your report will comprise?

You have my permission to include my Langlade County work if you choose. I feel much better about that work because of having views of the soilsmen, whose results I was able to translate. I am sorry to know that Bordner has published this without reference, because I asked him to note that the work was the combined effort of F.T. Thwaites and myself.

I agree with you that this matter of your map has to be settled at an early date and will do the best I can.

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 38 x 38"

With best regards,

Yours very truly,

H. P. Aldrich

Assistant Secretary

Oct. 9, 1934

Dr. H. R. Aldrich,
Assistant Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Grombie:

I wish to thank you for yours of the 5th

I will greatly appreciate whatever you can advance from the Grant for I will have to get another car before I can do any more work.

With regard to the map I took up the matter with Bean at once. He is favor of:

Scale of 1:250,000 same as Aldon
U. S. township and section lines with no numbers
Colors
No civil township lines or names
No roads

I agree with this but if we do not show roads patterns work much better. I used patterns combined with colors in my last maps in the annual reports. This worked very well but it is hard to locate one's self on such a map. Under this scheme I used colors simply for age and the patterns indicated kind of deposit. For the final map I suggest that we aim for a middle course and try to work in such patterns as dots or lines in parts of the map to reduce the number of printings. At present I cannot give a definite statement as to the number of colors which will be required but I note that my last annual report map gave 14 blocks and this did not include eskers. On this I used only three colors. The color-pattern scheme is valuable in that it permits one to show such features as overridden moraines of a different age from that of the surface drift. I may also want to try to show overridden outwash plains where this is possible but am not sure of this. My tentative conclusion is that not more than four colors would be required and the rest would be patterns.

With your permission I would like to include the work you did in Langlade County with due credit. This is now published by Bordner but I note there is no reference to who did the work.

The matter of the map for my report ought to be settled as soon as possible for I will have to know before I can start drafting the base. I plan to also include some block diagrams and a topographic map but these will all be black and white.

Billy is learning to walk and we all send best regards to both Mrs. Aldrich and you.

Sincerely,

F. T. Thwaites

STATE OF WISCONSIN
CONSERVATION DEPARTMENT

Dunbar, Wisconsin,
October 6, 1934

Mr. F. T. Thwaites,
Department of Geology,
University of Wisconsin
Madison, Wisconsin

Dear Mr. Thwaites:

This will acknowledge your letter of Sept. 28. Was somewhat delayed in answering due to the press of other matters. Thanks for the table of elevations; the gang around here has been interested in the information. I noticed a nice, new concrete monument with a brass U.S.G.S. plate under the Bass Lake Tower yesterday. As far as I know they have not done any levelling as yet.

In regard to the blue prints, I would certainly like to have a set. However, I think it would be asking a good deal, to have you furnish them free. Let me know when they are ready and I will be glad to defray the cost of a set.

Thanking you again, I remain,

Sincerely,

James P. Ray sen

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada
Past President, C. K. LEITH

Vice-Presidents, { Arthur L. Day
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| ADOLPH KNOPP | | |

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

October 5, 1934

Dr. Frederick T. Thwaites
University of Wisconsin
Madison, Wis.

Dear Fred:

Replying to yours of October 1st, covering three points, I will say first that I very much appreciate the sort of recommendation and comments which you prepared for me on the Moss manuscript. So far as condensation is concerned you have exactly checked the opinions of at least two other censors, and in addition you have raised points quite independent of those previously indicated. I foresee a little difficulty perhaps in convincing the author and his spokesman that all these changes must be made, which are tantamount to rewriting. However, it is the sort of thing that we have to face, as you will appreciate when you see our Information Circular No. 11, which should be on your desk by this time.

Regarding your grant, I would say that so far as we are concerned, it makes little practical difference to us how you figure your field expenses on the car, at least for the present. I may say that we believe the only satisfactory way to handle it is to give actual costs for gas, oil, grease, repairs, tires, etc., in which case depreciation, if it can be truly represented, should be included. Regardless of what you have spent, which of course will exceed considerably the amount of your grant, you have a \$200. balance, and we are proceeding right away to send you the \$125., and will hold the remaining \$75. until you request it.

Regarding your map, I can say definitely that the use of colors in one of our publications requires the permission of our Publications Committee, which has already met on September 24th, and probably will not have another session before the 20th of this month, at which time it may not be convenient to consider such matters, although I will endeavor to see it taken up. Further than this, of course, I am acquainted with, have an interest in, and am somewhat of an advocate of a first class map, knowing that it will be of great value to our Wisconsin diversified interests and field problem. That Bean is strong for the same scale as Alden's map

is one of the best reasons for making yours also four miles to the inch. Naturally the map will be more useful in the field if the roads are shown, but for representing the geology they probably could be dispensed with. I am prepared to represent that this map would be very useful, that probably the detail of the glacial work in Wisconsin is equal to, if not superior to, that in the majority of glaciated states. I suggest that you, with a supporting letter from Bean, submit to your Projects Committee the proposition for getting this map done in color. No doubt that which would satisfy the Projects Committee might not meet our ideas and those of the Publications Committee so far as publication is concerned. Nevertheless, the matter will have to go through those channels, and I suggest you attend to it at your earliest convenience.

Thank you for the few remarks on Florence County, Glacial geology. I won't put you to the bother of sending the blueprints of the field maps because frankly the outlook here does not provide time to gratify personal hobbies.

With best regards to you, Amy, and the group at Science Hall,

Yours very truly,

Crombie

Oct. 1, 1934

Dr. H. R. Aldrich, Assistant Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Grombie:

Yours of Sept. 20 and the Moss paper both came some time ago but the finishing of my P. W. A. job on water supplies and the start of school prevented earlier reply. The paper is being returned under separate cover via express collect. Comments are enclosed. Although I have made no marks in the paper itself I think that all the parts on the Coastal Plain might well be cut out and the rest shortened considerably by changing the method of treatment. This will involve complete rewriting.

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With regard to the letter of Sept. 20 whether or not the grant has all been expended depends on how you figure. After getting your letter I computed the car expense in another way. I found that I spent about \$80.00 for gas, oil, and grease and \$77.11 for repairs. This totals approximately \$157.00. Now we should add to this the value of the car when work started which at the present high price of used cars I appraise at approximately \$100.00. This makes a grand total of \$257 which is chargeable to car expense instead of the flat rate of 5 cents a mile which I used at first making a total of \$285.25. Using the revised figures I have expended approximately \$325.00 of the grant of \$400.00. If you could arrange to get me the sum of \$125.00, the excess above the \$200.00 already paid it would help me greatly in getting another car with which to continue the work in the spring. The remaining \$75.00 can be paid when I turn in a report.

225
125

An important matter on which a decision must soon be reached is the kind of map to turn in. Bean is strong for the same scale as Alden's map, that is four miles to the inch. The main questions are (a) whether or not to try to show roads as he did or only section lines, and (b) whether to use colors or patterns or a combination of the two. Could you kindly advise me about this soon as I want to start the final map before long.

With regard to Florence County we found pitted outwash with large islands of ground moraine. In the eastern part of the county we discovered some lake clays on top of the outwash, the product of a readvance. There is little terminal moraine in the part of the county which we covered. Blueprints of the field maps will be ready soon. If you want some will be glad to send them.

With best regards,

Sincerely,

F. T. Thwaites

Sept. 28, 1934

Mr. James P. Kaysen,
C. C. C. Camp 90-S,
Dunbar, Wisconsin

Dear Mr. Kaysen:

Thank you for yours of the 19th. I secured the desired survey from the Milwaukee Engineer Office. It will certainly be a great help to us.

Enclosed is a list of elevations of the ground at the Firetowers which we visited. Bays just gave it to me yesterday. The field maps are not yet ready to blueprint. They require the correction of elevations where changes had to be made on account of errors in the railroad elevations, correction of the river, and the putting in of section numbers. If you would like a set of the 69 townships please advise me. There will be no charge as we greatly appreciated your help.

Bays is just starting school and seems more satisfied as his "girl friend" is at Madison now! Enrollment in the University is larger and so we feel more cheerful even if we are not getting any more money.

I am still riding the bus to work except when Mrs. Thwaites can spare time to take me in her car.

With best regards to you and to the others,

Sincerely,

F. T. Thwaites

Sept. 28, 1934

Col. Lawrence Martin,
Division of Maps,
Library of Congress,
Washington, D. C.

Dear Col. Martin:

Thank you for yours of the 13th. I secured a copy of the desired survey from the Engineer Office at Milwaukee. For your information it is House Document 141, 72nd Congress first session. The detailed survey of the Fox and Wolf Rivers above Neenah and Menasha is contained in House Document 146, 67th Congress second session. Bean has that but I do not. The Menominee survey is on a scale of something over a mile to the inch with contours, section corners, profiles and detailed maps of dam sites. It also covers a lot of the tributary streams.

Enrollment has increased again here and we feel better about the future. Just finished a P. W. A. job on ground water resources which had to be finished in two weeks. Could hardly do it justice but learned a lot myself anyway!

Sincerely,

F. T. Thwaites

ADDRESS REPLY TO

THE DISTRICT ENGINEER
U.S. ENGINEER OFFICE
P. O. DRAWER 744
MILWAUKEE, WIS.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE

408 FEDERAL BUILDING
MILWAUKEE, WIS.

Sept. 26, 1934.

j

REFER TO FILE No. Misc. 24

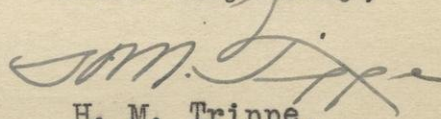
Subject: Detailed survey with profile of the Menominee
River between Wis. and northern Mich.

Mr. F. T. Thwaites,
Lecturer in Geology,
The University of Wisconsin,
Madison, Wis.

Dear Sir:

In reply to your letter of Sept. 25, there is sent herewith
a copy of H.D. 141 - 72nd Congress - 1st Session, which contains
the desired maps and other information relative to the Menominee
River, Mich. & Wis.

Yours very truly,



H. M. Trippe,
Lieut. Col., Corps of Engineers,
District Engineer.

Inclos.:
H.D. 141.

Sept. 25, 1934

Major Harry M. Trippe,
Corps of Engineers, U. S. Army,
Federal Building,
Milwaukee, Wisconsin

Dear Sir:

I am informed by Mr. J. P. Kayser of the Wisconsin Conservation Commission that you have a detailed survey with profile of the Menominee River between Wisconsin and northern Michigan.

Last summer I mapped that region on the Wisconsin side being supported by a grant from the Geological Society of America. A copy of this survey would be of great help in completing our field maps. How may I secure one? I wrote to our Congressmen at Washington and to the Department of Maps in the Library of Congress but was unable to secure a copy there. If it is a blue-print will be glad to pay the cost of one.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada

Past President, C. K. LEITH

Vice-Presidents, { Arthur L. Day
Eliot Blackwelder
Percy E. Raymond
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| ADOLPH KNOPF | | |

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

September 20, 1934

Mr. F.T. Thwaites
Science Hall
Madison, Wis.

Dear Fred:

The context of your letter would imply that you realize that there is still an unpaid balance of \$200. on your grant, which is supposed to be sent "when called for by the Geologist." Your financial statement, as of August 23rd, shows that the expense of your work to that date has exceeded the amount of your grant, and you possibly would like the balance. We shall be glad to send this to you on your call.

I was sorry to read that the old Chevy had gone the way of all good cars. You may remember that I put the finishing touches on two old Chevies two years ago. They are faithful servants while they last.

I shall be very much interested in seeing the manuscript on this work when you may have finished it, and for the moment particularly with respect to Florence County. I should like to know what the situation is in the region of Keyes Lake and the cut-over country south and west of Florence.

With best regards to you and the family,

Yours very truly,

H. R. Aldrich

Assistant Secretary

STATE OF WISCONSIN
CONSERVATION DEPARTMENT
MADISON

Camp 90-S, Dunbar, Wisconsin
September 19, 1934

Mr. F.T.Thwaites,
Department of Geology,
University of Wisconsin,
Madison, Wisconsin

Dear Mr. Thwaites:

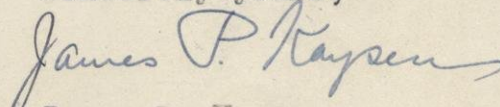
The detailed map of the Menominee River to which you refer is the result of a survey made by the War Department about 1929. We secured a copy from Major Harry M. Trippe, Corps of Engineers, U.S.Army, Federal Building, Milwaukee, Wisconsin.

I note with sympathy your difficulties with second hand cars. I am more or less troubled the same way; have been trying to pick up something a little better than I have and find good used cars are pretty scarce.

We would be interested in obtaining the barometric elevation data which you secured in this vicinity when the information is available. I would personally like to have a copy of the published report of your work here if you can advise when and by whom it will be published.

If I can be of any further assistance to you, please feel free to call upon me, With kindest regards, I remain,

Sincerely yours,


James P. Kaysen

car expense - car

gas & oil

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June 25 record

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FINANCIAL STATEMENT OF GRANT 67-34

Detailed reconnaissance of Pleistocene of Northern Wisconsin

F. T. Thwaites

| Date | Supplies, meals | Car-miles cost at 5 cents per mile |
|---------|-----------------|------------------------------------|
| June 25 | \$1.00 | 206 \$10.30 ✓ |
| 26 | 9.11 | 60 3.00 ✓ |
| 27 | .30 | 75 3.75 ✓ |
| 28 | .82 | 90 4.50 ✓ |
| 29 | 1.00 | 89 4.45 ✓ |
| 30 | 2.68 | 90 4.50 ✓ |
| July 2 | 1.72 | 107 5.35 ✓ |
| 3 | 1.43 | 100 5.00 ✓ |
| 5 | .80 | 89 4.45 ✓ |
| 6 | 1.74 | 74 3.70 ✓ |
| 7 | 1.50 | 111 5.55 ✓ |
| 8 | | 66 3.30 ✓ |
| 9 | 2.78 | 95 4.75 ✓ |
| 10 | .72 | 108 5.40 ✓ |
| 11 | | 102 5.10 ✓ |
| 12 | .84 | 110 5.50 ✓ |
| 13 | 1.20 | 150 7.50 ✓ |
| 16 | 8.51 | |
| 17 | .73 | 110 5.50 ✓ |
| 18 | .66 | 154 7.70 ✓ |
| 19 | .09 | 134 6.70 ✓ |
| 20 | .80 | 162 8.10 ✓ |
| 21 | 1.78 | 150 7.50 ✓ |
| 23 | 1.17 | 137 6.85 ✓ |
| 24 | 1.12 | 134 6.70 ✓ |
| 25 | .10 | 141 7.05 ✓ |
| 26 | .47 | 124 6.20 ✓ |
| 27 | .96 | 108 5.40 ✓ |
| 28 | 1.77 | 132 6.60 ✓ |
| 30 | .83 | 120 6.00 ✓ |
| 31 | 2.57 | 123 6.15 ✓ |
| Aug. 1 | .42 | 148 7.40 ✓ |
| 2 | .61 | 146 7.30 ✓ |
| 3 | .16 | 100 5.00 ✓ |
| 6 | 9.17 | 40 2.00 ✓ |
| 8 | .82 | 102 5.10 ✓ |
| 9 | .83 | 113 5.65 ✓ |
| 10 | | 79 3.95 ✓ |
| 11 | 2.12 | 106 5.30 ✓ |
| 13 | .30 | 94 4.70 ✓ |
| 14 | 1.23 | 157 7.85 ✓ |
| 15 | .43 | 175 8.75 ✓ |
| 16 | | 118 5.90 ✓ |
| 17 | .85 | 145 7.25 ✓ |
| 18 | .76 | 153 7.65 ✓ |
| 19 | | 65 3.25 ✓ |
| 20 | .48 | 95 4.75 ✓ |
| 21 | 1.57 | 145 7.25 ✓ |
| 22 | | 273 13.65 ✓ |

Car 160

days 50

210

68.90

278.90

left 120.00

90 days

285.25

68.90

354.15

Grand total

cash outlay 68.90

155.27

224.17

68.90

257.

325.90

5705 miles

285.25 computed at days 7

68.90 \$75 = 235.00

354.15

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada
Past President, C. K. LEITH
Vice-Presidents, { Arthur L. Day
 Ellot Blackwelder
 Percy E. Raymond
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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

August 22, 1934

Professor F. T. Thwaites
Science Hall
Madison, Wisc.

Dear Fred:

This will acknowledge receipt of your statement of August 17th regarding progress of your Penrose grant. I believe the intent of the Projects Committee is that Grantees will report to the Secretary quarterly from date of signing contract rather than from date of starting work.

Shortly we shall have subvoucher forms for your convenience and in the near future a form for a quarterly report. Really, the report need not be so elaborate as to seriously delay field work. You will note that it is a progress report and a report of expenditures.

Within the week one of the graduate students here at Columbia called at the instance of Professor Colony to talk about a possible Master's thesis in the line of glacial geology. In the course of conversation I showed her your text which interested her to the extent that she now has an indefinite loan of my copy. I am thinking that possibly the Professor Ogilvie at Barnard might be interested in a copy of your text and that you might find an outlet for a few copies amongst her students. I will leave it to you whether you care to follow this up or not.

With best personal regards to you and ^{Amy} ~~May~~, I am

Yours very truly,

H.R. Aldrich

Assistant Secretary

PROGRESS REPORT - GRANT 67-34

Detailed reconnaissance of Pleistocene of Northern Wisconsin

May 18- Aug. 22, 1934

Field work was begun on June 25, 1934 and continued until Aug. 22, 1934.

At date of writing work has been discontinued temporarily because of loss of my assistant and the wearing out of the car. Work will probably be resumed in the near future. My assistant was Carl A. Bays, a student at the University of Wisconsin.

For the first six weeks camp was made on the land of S. A. Webster near Wausaukee, Wisconsin. The last two weeks were spent on the grounds of the Coleman Lake Club near Goodman, Wisconsin. In the course of the work much the same methods were followed as when the survey was financed by the State Geological Survey. However, travel was much more rapid, partly because of greater experience but largely because the fire lanes constructed by the Conservation Commission now afford easy access to almost all parts of the area.

To date 69 townships (many are fractional townships) have been examined with reasonable thoroughness and a large area adjacent has been examined only along the main highways. Detailed reconnaissance has been carried out in Marinette and adjacent parts of Florence and Forest Counties to the west limit of the Green Bay Lobe. The less thorough work lies to the south in the almost featureless part of Oconto County.

(1926-1928)

To finish the project some checking of the older work and the completion of the sketchy reconnaissance down to Green Bay and Fox River is required.

The attached expense account was compiled from notes and receipts kept by me and covers living expense of two persons. It is hereby certified as correct and just.

Respectfully submitted,

F. T. Flinn

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET

NEW YORK CITY

The forms enclosed are supplied for your convenience in rendering the account of expenditures to accompany quarterly reports of progress under your project grant. These reports should be submitted in duplicate. One copy is retained in the Secretary's office and the second is referred to the Projects Committee. Subvouchers, if any have been required, need not be duplicated.

Yours very truly,

H. P. Aldrich

Assistant Secretary.

Sept. 18, 1934

Mr. J. P. Kaysen,
C. G. C. Camp,
Dunbar, Wisconsin

Dear Mr. Kaysen:

When we talked with you up in Florence County I recall that you stated something about a detailed map of Menominee River. I did not note down who you said had copies of this map but sent to Washington. I can learn nothing of it there. Could you please advise me using enclosed envelope for reply where I can obtain or see a copy of this survey?

Days and I went home on August 23. On the trip back the Chevy broke down, that is it did just as I got into my yard at home. It did not seem wise to spend anything to fix it and I have so far been unable to find a satisfactory second hand car. New cars are unsuited to the north country even if I could afford one so work is now suspended! Meantime I am working on the P. W. A. on a survey of the underground water situation as related to the drought.

Withbest regards to you and to the others who did so many favors for us,

Sincerely,

F. T. Thwaites

LIBRARY OF CONGRESS
DIVISION OF MAPS
WASHINGTON

September 13, 1934

Mr. F. T. Thwaites
Department of Geology
The University of Wisconsin
Madison, Wisconsin

Dear Fred:

I cannot find any record that the War Department has recently made a detailed survey of the Menominee River or that such a survey has been made by any other federal organization. The mouth of the Menominee was photographed from the air a few years ago and the results will probably be used in the next edition of Lake Surveys Chart No. 723. It may be that you have heard in some indirect way of these photographs.

I am delighted to learn that you have been mapping glacial geology in northeastern Wisconsin and shall be greatly interested to see the results when they are published.

With warm regards,

Very sincerely yours,

Lawrence Martin
Chief, Division of Maps

Sept. 4, 1934

Dr. H. R. Aldrich, Assistant Secretary,
Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Aldrich:

In reply to yours of Aug. 6th and circular of Aug. 23, also letter of Aug. 22 I am enclosing herewith two copies each of a short statement of progress and a financial statement of expenditures under Grant 67-34. The financial statement is not accompanied by subvouchers. Such are not mentioned in the contract and I am informed have not been sent in heretofore. It seems to me that as this grant is a lump sum to be expended in the prosecution of field work that my statement that the sums listed were spent in bona fide work should be sufficient for your auditors. Your treasurer also holds my receipt for the sum so far advanced. We will, of course, follow your instructions in future expenditures. Please note that your instructions tell nothing about car expense which is the major item. I have charged at the rate of 5 cents a mile as per my estimate in asking for the grant. Please note also that expense for supplies included cooking gasoline as well as several large orders of groceries in Madison.

The field work so far has resulted in using up the old Chevy so that I am now without a car. There still remains some checking of the old work and reconnaissance of adjacent region to be done if I can make arrangements

With best regards,

Very truly yours,

F. T. Thwaites

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET

NEW YORK CITY

August 23, 1934

67-34

Dear Sir:

We furnish you herewith a supply of subvoucher forms for use in reporting progress on your project. These should prove to be a convenience to you as well as to us. Fundamentally of course we wish to conform with good business practice and have records which will meet the requirements and approval of the auditors.

Anticipating your question whether each and every purchase must be supported by voucher, we fall back upon the practice imposed upon the Secretary's office by the auditors under which the least expenditure is represented by a receipt. However, it is recommended that minor expenditures be bunched whenever possible in order to keep subvouchers to a minimum.

A supply of these forms will be available on call. We suggest that you begin using them at your earliest convenience in support of your Financial Statement for the current quarter, and of course you will use them exclusively in the future.

Yours very truly,

H. P. Aldrich

Assistant Secretary.

Somewhere in Marinette County, Wis.,

Aug. 17, 1934

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Berkey:

I had learned from Dr. Twenhofel that you were sending out letters asking for reports on Penrose grants, and therefore expected yours of the 6th.

Inasmuch as the contract simply states that a report of expenses is due every quarter year and I worked only a few days

of the second quarter of 1934 I had not made any report but intended to make mine at the end of the third quarter. In fact no money was paid until the first of the second quarter. The facilities in camp are not such that a formal report can be made without serious delay to the finishing of the field season.

I will state that progress of the survey has been very satisfactory and that nearly 6000 miles has been covered with the car. The total cash expended has been approximately \$150.00 but this does not include all of the car expense.

A formal report will be sent in shortly after Oct. 1.

Sincerely,

F. T. Thwaites

August 12, 1934

Dr. Charles P. Berkey, Secretary,
Geological Society of America,
419 West 117th Street,
New York, New York.

Dear Sir:

Your letter of August 6 is being
forwarded to Mr. Thwaites who is now in the
field. It will take at least a week for him
to get a reply to you.

Yours very truly,

Mrs. F. T. Thwaites

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada
Past President, C. K. LEITH

Vice-Presidents, { *Arthur L. Day*
Eliot Blackwelder
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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

August 6, 1934

Recd Aug 18, 1934

Dr. F. T. Thwaites
University of Wisconsin
Madison, Wis.

Dear Dr. Thwaites:

According to our records, no report of progress has been received in the case of your grant from the Geological Society. It would help materially in systematizing the work supported by these grants, and keep suitable information about them available, to have regular quarterly reports (in duplicate) as indicated in the contract. If by chance your reports have gone to other hands we would be glad to have notice to that effect in this office, and duplicate copies.

Normally we would expect to file the original report here and forward the duplicate to the Projects Committee, for their records.

Very sincerely yours,

Charles P. Berkey
Charles P. Berkey
Secretary

THE STATE OF WISCONSIN

CONSERVATION DEPARTMENT

June 26, 1934.

Mr. C. A. Webster

Dear Sir:

These gentlemen are geologists, making a study of this country, and are looking for a private place to camp on a lake. I thought possibly you would let them camp on the east end of your lake.

Anything you can do for these man will be very much appreciated.

Very truly yours,

William Meharg
District Forest Ranger

STATE OF WISCONSIN

CONSERVATION DEPARTMENT

MADISON

June 11, 1934

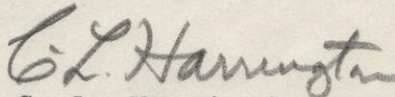
Mr. F. T. Thwaites
Geology Department
University of Wis.
Madison, Wisconsin

Re: Work in the
Northern Part of the
State.

Dear Mr. Thwaites:

There is enclosed herewith a letter of introduction to the respective rangers and others in the field, a list of whom you have in the book on Conservation Laws that you took with you from this office.

FOR THE DIRECTOR



C. L. Harrington
Supt. of Forests & Parks

CLH:VT
Enc.

Chicago, Milwaukee, St. Paul and Pacific Railroad Company

C. F. LOWETH
CHIEF ENGINEER

Office of Chief Engineer
Union Station

898

Chicago, June 8, 1934.

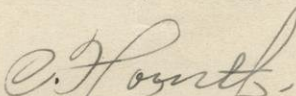
Mr. F. T. Thwaites, Lecturer in Geology,
University of Wisconsin,
Madison, Wisconsin.

Dear Sir:

This is to acknowledge your letter of the 5th inst.,
and your request for a profile of our line from Wausaukee to
Girard Junction.

The blueprint enclosed will give you this information.

Yours very truly,


Chief Engineer.

FEW/VG

June 5, 1934

Mr. C. T. Dike, Chief Engineer,
Chicago and Northwestern Ry. Co.,
400 West Madison St.,
Chicago, Illinois

Dear Sir:

I wish to thank you very much for yours of May 25 and accompanying blueprints.

Work is in progress on the samples from the Powers, Michigan well and I hope to be able to send you the final log of same shortly.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

June 5, 1934

Mr. E. A. Whitman, Chief Engineer,
Minneapolis, St. Paul and Sault Ste. Marie Ry. Co.,
Sec Building,
Minneapolis, Minnesota

Dear Sir:

I wish to thank you very much for yours of May 29 and accompanying
profiles of your line in northeastern Wisconsin.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

June 5, 1934

Mr. C. F. Loweth, Chief Engineer,
Chicago, Milwaukee, St. Paul and Pacific Railroad Co.,
Union Station,
Chicago, Illinois

Dear Sir:

I wish to thank you for yours of May 31 with enclosed profile of the line from Crivitz to Marinette.

Have you any profile of the abandoned line from Wausaukee to Girard Junction, etc? If so would be most pleased to get a copy as this would furnish control for our elevations throughout a wide area.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

Chicago, Milwaukee, St. Paul and Pacific Railroad Company

Office of Chief Engineer
Union Station

C. F. LOWETH
CHIEF ENGINEER

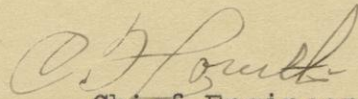
Chicago, May 31, 1934.

Mr. F. T. Thwaites,
Lecturer in Geology,
The University of Wisconsin,
Madison, Wis.

Dear Sir:

In response to your letter of May 23rd,
I am sending you blue prints which give the best
information we have in connection with this terri-
tory, and trust they will serve your purpose.

Yours truly,


Chief Engineer

W

Enc

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada

Past President, C. K. LEITH

Vice-Presidents, { Arthur L. Day
Elliot Blackwelder
Percy E. Raymond
John E. Wolff

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

May 29, 1934.

Dr. F. T. Thwaites,
Department of Geology,
The University of Wisconsin,
Madison, Wisconsin.

Dear Doctor Thwaites:

The agreement entered into between you and The Geological Society of America, in connection with the grant made in support of your project, has been fully executed. Copy is enclosed for your files.

Very sincerely yours,

Charles P. Berkey
Charles P. Berkey,
Secretary



MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE
RAILWAY COMPANY

OFFICE OF CHIEF ENGINEER
MINNEAPOLIS, MINNESOTA

May 29, 1934.

Mr. F. T. Thwaites,
Lecturer in Geology,
University of Wisconsin,
Madison, Wisconsin.

Dear Sir:

In compliance with your request of May 23rd
I am sending you under separate cover the following
blue prints:

| | | |
|------------------------|---|------------------|
| Rhineland to Roosevelt | - | M.P. 223, |
| | | M.P. 223 to 243, |
| | | M.P. 243 to 263, |
| | | M.P. 263 to 283, |
| Michigan State Line | - | M.P. 283 to 300. |

Yours truly,

E. A. Whitman
Chief Engineer

Chicago and North Western Railway Company

OFFICE OF THE CHIEF ENGINEER
400 WEST MADISON STREET

C. T. DIKE
CHIEF ENGINEER
F. C. HUFFMAN
ASSISTANT CHIEF ENGINEER
B. R. KULP
PRINCIPAL ASSISTANT ENGINEER

CHICAGO May 25, 1934

28

FILE NO

Mr. F. T. Thwaites,
Department of Geology
The University of Wisconsin,
Madison, Wis.

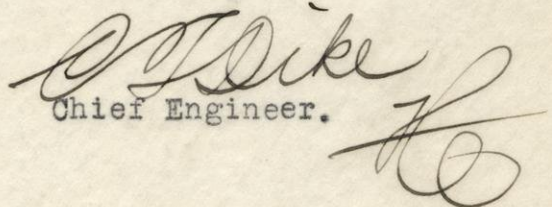
Dear Sir:

I have your letter of May 23rd, relative to your program for doing some geological work in northern Wisconsin during the coming summer and note that you would like to secure blue prints of our track profiles in Florence County, Wisconsin, also from Green Bay to Kaukauna.

I am sending you under separate cover blue print of our track profile on our Peninsula Division, Florence County, Wis. between River Siding and Tyran, profile of our Lake Shore Division, Long Lake to Scott Lake, Florence County, Wisconsin and profile of Lake Shore Division Green Bay to Kaukauna, Wis.

There is no charge for these blue prints as I feel the work which you are doing is of great benefit to the Railway Company as well as to all humanity. This is about the only way I have of showing my appreciation of the assistance you have given in the sinking of numerous wells for the Railway Company, in which your advice has been most valuable.

Very truly yours,


Chief Engineer.

Chicago and North Western Railway Company

OFFICE OF THE CHIEF ENGINEER
400 WEST MADISON STREET

C. T. DIKE
CHIEF ENGINEER
F. C. HUFFMAN
ASSISTANT CHIEF ENGINEER
B. R. KULP
PRINCIPAL ASSISTANT ENGINEER

CHICAGO May 25, 1934

28

FILE NO.

Mr. F. T. Thwaites,
Department of Geology
The University of Wisconsin,
Madison, Wis.

Dear Sir:

I have your letter of May 23rd, relative to your program for doing some geological work in northern Wisconsin during the coming summer and note that you would like to secure blue prints of our track profiles in Florence County, Wisconsin, also from Green Bay to Kaukauna.

I am sending you under separate cover blue print of our track profile on our Peninsula Division, Florence County, Wis. between River Siding and Tyran, profile of our Lake Shore Division, Long Lake to Scott Lake, Florence County, Wisconsin and profile of Lake Shore Division Green Bay to Kaukauna, Wis.

There is no charge for these blue prints as I feel the work which you are doing is of great benefit to the Railway Company as well as to all humanity. This is about the only way I have of showing my appreciation of the assistance you have given in the sinking of numerous wells for the Railway Company, in which your advice has been most valuable.

Very truly yours,



Chief Engineer.

Cys Messrs.
E. G. Day
J. A. Dyer

May 23, 1934

Mr. C. T. Dike, Chief Engineer,
Chicago and Northwestern Railway,
400 West Madison St.,
Chicago, Illinois

Dear Sir:

This coming summer I intend doing some geological work in northeastern Wisconsin in the course of which I will need as many known elevations as possible for checks on my barometer readings. With this idea I would like to secure blueprints of your detailed profiles (a) in Florence County, Wisconsin, and (b) from Green Bay to Kaukauna. I will be glad to pay the cost of blue-printing.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

May 23, 1934

Mr. E. A. Whitman, Chief Engineer,
Minneapolis, St. Paul and Sault Ste. Marie Railway Co.,
Minneapolis, Minnesota

Dear Sir:

This coming summer I intend to do some geological surveying in northeastern Wisconsin and part of this work will require the determination of elevations with the barometer. To accomplish this it is desirable to have as many points of known elevation as possible. I would, therefore, like to obtain a blueprint of your detailed profile from Rhineland east to the Michigan line including any branches whether active or abandoned. I will be glad to pay for the cost of blueprinting.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

May 23, 1934

Mr. G. F. Loweth, Chief Engineer,
Chicago, Milwaukee, St. Paul and Pacific R. R.,
Union Station,
Chicago, Illinois

Dear Sir:

This coming summer I intend to do some geological surveying in north-eastern Wisconsin in the course of which I will need as many accurate elevations as possible to serve as checks on barometric readings. I find that the State Geological Survey does not have any copies of your detailed profiles from Grivitz to Marinette. I would like to secure a blueprint of the the above, also of any logging branches in Marinette County including abandoned ones. I will be glad to pay the cost of blueprinting.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

May 22, 1934

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Berkey:

In reply to yours of the 16th I am returning the two copies of the contract in regard to Grant 67-34 signed and with date of completion filled in. If there is anything which is not satisfactory in this regard please let me know.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada

Past President, C. K. LEITH

Vice-Presidents, { *Arthur L. Day*
Eliot Blackwelder
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| JOSEPH STANLEY-BROWN | | |
| F. W. DEWOLF | } | 1934-1936 |
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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

May 16, 1934.

Mr. F. T. Thwaites,
Department of Geology,
The University of Wisconsin,
Madison, Wisconsin.

Dear Mr. Thwaites:

This will acknowledge your letter of May 14, with details in connection with your project, Grant 67-34, needed to prepare the regular contract form. Two copies of the abstract are enclosed for your signature. Will you please return both to me for completion. When that is done, copy will be sent for your files.

Please note, on page 2, that the date when the manuscript is to be submitted, should be filled in.

Very truly yours,

Charles P. Berkey

Charles P. Berkey,
Secretary

May 14, 1934

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Berkey:

Reply to yours of April 25th apprising me of the granting of my request for funds for geological work in northern Wisconsin was delayed both by the numerous field trips on which I have to go at this time of year but by the necessity of talking over the matter with Mr. Bean under whose direction the work was begun in 1926. Answers to most of your questions were contained in my application but I will repeat the information here.

(1) The work of the seasons of 1926, 1927, and 1928 covered over 4600 square miles. It was financed by the surplus from the road material fund of the State Geological Survey and was discontinued when the law was changed so as to remove the State Geologist from the Highway Commission. This survey will form the major part of the area to be described in the proposed paper and credit is due to the Survey for it as about \$7846.34 has been expended on this project. The work of 1931 in Waushara County was privately financed by the writer and two of his students.

(2) The writer intends to smooth up the boundaries of the very irregular tract so as to permit of publication and to extend the area so as to include all of the Green Bay Lobe north of the region described in Prof. Paper 106 by W. G. Alden and west of the Fox River and Green Bay up to the Michigan line. This will join the area with the surveys of both Leverett in Michigan and Alden to the south. The proposed extension might reach 3000 square miles but as much of this region is flat and almost featureless as well as fully supplied with roads this addition seems within the bounds of reason.

(3) It is proposed to begin field work soon after the middle of June, 1934 and to continue until either funds are exhausted or school begins in the fall. It is intended to map each township on a scale of an inch to the mile in such form that blueprints can be made of the field maps. The final map for publication will probably be drawn on the scale of two miles to an inch for publication on the scale of four miles to an inch (the same as the Alden map to the south). It may be made in black and white or with a simple color scheme superimposed on patterns. Other illustrations will include a series (about six) block diagrams of the area illustrating the glacial history. Other drawings will illustrate special features but these cannot be listed in detail now. Please note that all cost of drafting is to fall on the writer and not on the Society. The same also applies to photographs. The text will be short, probably not over 50 typewritten pages. The whole job may take more than one winter to complete although the effort will be made to finish it during the school year of 1934-35.

(4) The Society will have all rights to the publication but copies of field notes, and all maps and drawings are to be filed with the State Geological Survey for uses other than publication.

(5) I do not understand just what you want done under the last heading but will take such steps to

May 14, 1934

Dr. Charles P. Berkey, Secretary,
The Geological Society of America,
419 West 117th St.,
New York City

Dear Dr. Berkey:

Reply to yours of April 25 apprising me of the grant of \$400. for the continuation of my work in northern Wisconsin was delayed both by the necessity of talking over the matter with Mr. Bean and by the number of field trips which I have to go on at this time of the year.

(1)

F. W. Loomis, Lecturer in Geology

Very truly yours,

In conclusion I wish to express my appreciation of the aid.

With regard to terms of payment the original proposal was for part at the end of the field work and the balance on completion of the report. However, the increasing financial stringency now makes it desirable that possibly 25 percent of the sum be made available by the first of July and another 25 percent by the first of September. The balance might be paid on delivery of the report. However, any arrangement you may make will be all right with me.

protect the rights of the Society as are deemed proper.

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada
Past President, C. K. LEITH

Vice-Presidents, { Arthur L. Day
Eliot Blackwelder
Percy E. Raymond
John E. Wolff

Secretary, CHARLES P. BERKEY
419 West 117th Street, New York, N. Y.

Treasurer, EDWARD B. MATHEWS
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| ADOLPH KNOFF | | |

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

April 25, 1934

Mr. F.W. Thwaites
Department of Geology
University of Wisconsin
Madison, Wis.

Dear Mr. Thwaites:

I am glad to be able to inform you that the Council of The Geological Society of America, acting in accord with the recommendation of the Committee on Projects, has approved a grant of \$400. in support of the request presented by you, covering detailed reconnaissance survey of the Pleistocene of northern Wisconsin. The grant is known on our records as No. 67-34.

This advance notice carries a request for certain specific information which we shall incorporate in an agreement or contract to be prepared as promptly as possible. In the meantime you are justified in proceeding with your plans. As soon as we are apprised of the desired schedule of payments, steps will be taken to meet them promptly.

Sincerely yours,

Charles P. Berkey
Charles P. Berkey
Secretary

CPB-MP

67-34

AGREEMENT, made at New York, New York, as of the **eighteenth** day of **May**, 1934, by and between The Geological Society of America, Inc., a membership corporation organized and existing under and by virtue of the laws of the State of New York, hereinafter called the "Geological Society," and **F. T. Thwaites**, hereinafter called the "Geologist";

WITNESSETH:

WHEREAS, the Geologist represents that he has been engaged in scientific work relating to a project described as follows: **Detailed reconnaissance survey of the Pleistocene of northern Wisconsin**

; and

WHEREAS, the Geologist represents that the following scientific work remains to be done with respect to said project in order to reduce the results to a form suitable for publication, with adequate illustrations: **Completion of field work during the Summer of 1934, preparation of manuscript, maps and other illustrations**

; and

WHEREAS, the Geologist requests a grant of financial assistance from the Geological Society to enable him to complete such scientific work; and

WHEREAS, the Geological Society in the interest of science desires to contribute financial assistance toward completion of such project;

NOW, THEREFORE, the parties hereto mutually agree as follows:

1. The Geological Society agrees, subject to the conditions hereinafter set forth, to advance to the Geologist the sum of **Four hundred Dollars** (**\$400.00**) Dollars, in installments as follows: **One Hundred Dollars** on or before the first days of July and September, 1934; the balance as called for by the geologist.

2. The Geologist agrees that he will complete the scientific work necessary to enable him to prepare such manuscript, and that he will prepare such manuscript, together with illustrations, and deliver the same to the Geological Society on or before July 1, 1935, together with proper and sufficient written consents, agreements, and assurances to enable the Geological Society in its discretion to publish or permit others to publish the same without obligation, liability, or accountability to the Geologist or any other person, firm or corporation.

3. The Geologist agrees that in the event of his death or disability before he shall deliver to the Geological Society such manuscript and illustrations, the Geological Society shall be under no obligation to pay to the Geologist or his heirs or representatives any installments of advances thereafter becoming due, and the Geological Society shall have the right to receive, or in its discretion to make copies of, all the reports, manuscripts, maps, cross sections, illustrations, field notes, and other material representing the work of the Geologist in connection with said project to the date of his death or disability without any further payment or obligation whatever other than the payment of such installments of the aforesaid sum of **Four hundred** (**\$400.00**) Dollars as were due and unpaid on such date.

4. The Geologist agrees that the Geological Society shall have the exclusive right during the period of one year from the receipt by it of the said manuscript and illustrations in its discretion to accept for publication or to grant to others the right to publish all or any part of the same and to sell or distribute such publications thereof, without obligation, liability, or accountability in any respect whatsoever to the Geologist, his personal representatives or assigns; but the Geological Society shall not be under any obligation to publish the same.

5. The Geologist agrees to submit to the Geological Society at the end of each quarter-year after the date hereof an interim report of the progress of his work, together with an account to the date of such report of his disbursement of the amount advanced to him by the Geological Society hereunder.

6. It is expressly understood and agreed that, although the Geological Society shall have the privilege of offering advice or suggestions to the Geologist, the Geological Society assumes no direction or control over the work proposed to be done by the Geologist and that the relation of the Geologist to the Geological Society is and at all times shall be that of an independent contractor and is not and at no time shall be that of an employee.

7. The Geologist agrees that he will not in any connection whatever represent or cause or permit it to appear that he is the agent or employee of the Geological Society.

8. It is expressly understood and agreed, anything herein to the contrary notwithstanding, that the agreement of the Geological Society to make the aforesaid advances shall always be subject to the ability at any time of the Geological Society to make such advances out of its Penrose Bequest Income Account

after making provision for the payment therefrom of the obligations of the Society and its operating expenses as determined by the Council in its discretion from time to time.

9. In the event that the Geologist shall fail in good faith promptly to commence and thereafter continue the said scientific work in accordance with his proposal, the Society shall, without prejudice to any other rights it may have, be under no obligation to make any advances, or, if any have been made, to make any further advances to the Geologist.

IN WITNESS WHEREOF, the Geologist has hereunto set his hand and seal and the Geological Society has caused these presents to be executed by its duly authorized officers as of the day and year first above written.



F. J. Thwaites (L. S.)

The Geological Society of America, Inc.

By

W. H. Collins
May 25/34 President

ATTEST:

Charles C. Deeny
Secretary

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET

NEW YORK CITY

QUESTIONNAIRE OUTLINE OF PROPOSED CONTRACT

(Please make as brief as possible)

(The Society needs the information suggested by the following items as a guide in formulating a formal agreement.

1. Representations to the Society with respect to what the applicant has already accomplished on the problem, together with a statement of the rights, if any, of other parties in and to such material as well as obligations, if any, to give credit to others.
2. Statement as to what the applicant wishes to accomplish.
3. Proposal to the Society setting forth the dates when, and the amounts in which installments shall be made available; any field work that is to be done; the manuscripts, maps and illustrations that the applicant expects to prepare and deliver to the Society, etc., and the date when the manuscript will be completed.
4. Statement of agreement with respect to the rights to be acquired by the Society in the manuscript, maps and illustrations and other results of the applicant's work.
5. Statement of the rights of the Society in the event of the death or default of the applicant.

President, W. H. COLLINS
Geological Survey of Canada, Ottawa, Canada
Past President, C. K. LEITH

Vice-Presidents, { Arthur L. Day
Eliot Blackwelder
Percy E. Raymond
John E. Wolff

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| ADOLPH KNOPF | | |

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

Mass. Inst. Technology,
Cambridge, Mass.

March 8, 1934.

Dr. F. T. Thwaites,
Department of Geology,
University of Wisconsin,
Madison, Wis.

Dear Dr. Thwaites:

In reply to your letter of March 5 th:

The only information I have in regard to
your application, No.98, is that action was post-
poned in February 1933 on the basis of the time
proposed being the summer of 1934.

Your proposal will come up again at the
coming meeting of the Projects Committee to be held
in New York, on March 24th.

Very sincerely yours,

Waldemar Lindgren

Waldemar Lindgren, Chairman,
Projects Committee, G.S.A.

WL:W

March 5, 1934

Dr. Waldemar Lindgren, Chairman,
Projects Committee, Geological Society of America,
Massachusetts Institute of Technology,
Cambridge, Massachusetts

Dear Sir:

Receipt of Information Circular No. 9 a few days ago brought back to my mind what the Depression and other matters had caused me to forget, that on Feb. 6, 1933 I handed to Dr. W. J. Mead my request for a project.

Receipt of this request was acknowledged next day but on Feb. 13 I was notified to that the matter would be taken up on Feb. 25, 1933 at a meeting in New York City. After that I was informed that the application had been granted but still later Dr. Mead informed me that as the request was for the field season of 1934 it had been laid aside.

From the Circular I note that applications which I am sure must have been made much later have been granted. I am, therefore, writing to ask what disposition has been made of the matter.

It should be borne in mind that the application was for one field season of work which it was hoped would so round out a part of the original project of 1926 so that a report on this part might be published. I estimate that not less than 6 field seasons would be required to cover the original plan in a somewhat more sketchy way than was intended at first but, nevertheless, in enough detail to permit of a valuable report covering the present gaps in our knowledge of the glacial geology of Northern Wisconsin.

I wish to add that since the original application was made Dr. H. R. Aldrich completed the survey what I had started in Langlade County working for the Department of Agriculture and Markets. Another change is that my text book of glacial geology is now published.

It is necessary to know soon whether or not the request is granted for plans for field work would have to be made soon. It would also be desirable to make at least \$100.00 available at the start of the season to finance actual expenses of starting work.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

President, C. K. LEITH
University of Wisconsin, Madison, Wis.

Past President, REGINALD A. DALY

Vice-Presidents, { E. S. Moore
Rollin T. Chamberlin
E. M. Kindle
H. P. Whitlock

Secretary, CHARLES P. BERKEY
419 West 117th Street, New York, N. Y.

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| JOSEPH T. SINGEWALD | | |
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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

Science Hall
Madison, Wisconsin
February 13, 1933

Mr. F.T.Thwaites
Science Hall
Madison, Wisconsin


Dear Mr. Thwaites:

This will acknowledge receipt of your application for aid from the Penrose Fund dated February 6, for the completion of your reconnaissance work in glacial geology in Northern Wisconsin.

The Projects Committee is meeting in New York on the 25th of this month and your application will receive careful consideration at that time.

Sincerely yours,

WJM GH


W.J.Mead, Chairman
Projects Committee

President, C. K. LEITH
University of Wisconsin, Madison, Wis.

Past President, REGINALD A. DALY

Vice-Presidents, { E. S. Moore
Rollin T. Chamberlin
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| JOSEPH STANLEY-BROWN | | |

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

Science Hall
Madison, Wisconsin
February 7, 1933

Dr. F.T.Thwaites
Science Hall
Madison, Wisconsin

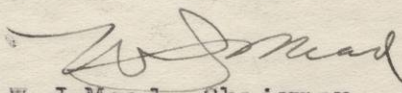
Dear Dr. Thwaites:

This will acknowledge receipt of your application for support of two projects in glacial geology. This will come up for consideration by the Projects Committee at their next meeting which will be held the latter part of February.

It would be a great convenience to the Projects Committee if these two projects could be offered in separate communications largely as a matter of convenience in filing and reference. I am returning the original draft, therefore, suggesting that you simply divide up the material pertaining to the two projects so that they can be handled separately.

WJM GH

Sincerely yours,


W.J. Mead, Chairman
Projects Committee

THE GEOLOGICAL SOCIETY OF AMERICA

To Members of the Society:

In accordance with the recommendations of the Advisory Committee on Policies and Projects, the Council has appointed a Committee on Projects consisting of W. J. Mead, to serve for three years, John B. Reeside, Jr., to serve for two years, and Adolph Knopf to serve for one year.

The function of this Committee and matters pertinent to its size and manner of appointment are covered in the following quotation from the report of the Committee on Policies and Projects which has been approved by the Council.

"The administration of research projects will require the appointment by the Council of an efficient Projects Committee, to consider, recommend, review and follow up projects. Administration, obviously, should not be left to the vicissitudes of infrequent and overloaded Council meetings. Such a committee should be elected by the Council and not by the Society, in order to center responsibility in the Council and to insure coordinated administration. The duties of this Committee will be heavy, and only those should be appointed who are willing to give the matter considerable attention and to attend meetings several times a year. Much lost motion may be saved in the way of correspondence, circulation of reports and fixing mutually convenient dates for meetings, by restricting this committee to three members. Continuity may be preserved by making the appointment for three years, one man to be replaced each year. Representation by regions or by special branches of geology should not be a primary consideration in the appointment of these men because any attempt to follow this principle would result in a large and unwieldy committee. All special interests of the Society, either regional or scientific, can be taken care of by the Projects Committee, through the appointment of sub-committees. The authority to do this should be conferred on the Projects Committee by the Council."

In matters pertaining to approval of projects and granting of funds the Committee acts purely in an advisory capacity. Final action on these matters rests solely with the Council.

The principles which will guide the Committee on Projects are those which were formulated by the Advisory Committee on Policies and Projects in its report adopted by the Council. These are quoted from the report as follows:

"We premise that the Geological Society of America is primarily designed to maintain and improve standards of geological work, to serve as a forum for the expression of geologic thought and to afford adequate publication facilities. It is essentially an official judge of standards - standards of admission to its membership, or papers to be presented at its meetings, and of papers to be accepted for publication. It is not, and probably cannot be effectively changed into, an executive body capable of initiating and adequately administering continuing scientific projects.

The next step would seem logically to be aid to individuals or organizations in the preparation of reports on noteworthy projects already far advanced but lacking the means for completion or publication. These, on the whole, would be short-time allotments and would primarily cover actual clerical and drafting expenses of preparations of reports, but in some cases, at the discretion of the Projects Committee, would be extended to include laboratory expenses, field expenses and compensation to the writer -- but only to complete a project already far enough along to have demonstrated its worth. In very exceptional cases, aid could be extended further to experienced workers to take up new projects of recognized importance and promise which cannot find other support, but in our judgment the amount left for such projects may be very small if the field of publication and its border-line field of preparation (in a broad sense) of reports for publication are adequately covered. In short, we recommend that the primary basis of selection of projects be their merit and availability for early publication.

This procedure, because of the limitation of funds, will automatically eliminate the establishment of scholarships, fellowships, professorships, exploratory and expeditionary projects, local surveys and general subventions to affiliated societies and research organizations, except for the completion of specific projects falling within our primary category of nearly assured results worthy of publication. It will avoid the danger of undue fixation of funds in long-term projects or projects of doubtful outcome, even though the purposes of such investigation are highly to be commended. It will leave the initiative and exploratory investigations to the self-inspired and self-driven investigator, whether individual or institutional. It leaves the training of geologists to the universities. It does not duplicate efforts of other organizations. It does not load the Society with responsibilities which it is probably not capable of assuming. It sets up a reward in the way of recognition and adequate publication for investigators to strive for.

We recommend further that the selection of projects be based primarily on broad scientific grounds and not on proportional representation by geographic or scientific divisions. We assume that members of the Society will naturally be given preference over non-members, but would not make this a binding restriction.

Finally, we recommend priority of consideration of projects in the field of pure science over those in the field of applied science, on the ground that support in applied science is generally more easily obtained from state and federal geological surveys, universities and commercial organizations."

For the purpose of assisting in the preparation of applications for aid, this Committee has prepared the enclosed form listing the information which is essential to the Committee in its consideration of projects. Income from the Penrose fund is now available for allotment to projects. Correspondence pertaining to application for aid should be addressed to the Chairman of the Committee, at Science Hall, Madison, Wisconsin. Applications and information relating to projects may also be sent through the Secretary's office and will be transmitted to the Committee.

The Committee on Projects

Adolph Knopf
John B. Reeside
W. J. Mead, Chairman

December 1932

Form of Application for Allotment from

Penrose Fund

For convenience in reference please present your project in numbered paragraphs corresponding to the headings here given:

1. Statement of proposed project. If work is in progress or partly completed, state degree of completion.
2. Plan of procedure and expected duration of investigation.
3. If material is nearing publication stage, please state form of publication desired with number and nature of illustrations and maps.
4. Amount desired and proposed utilization. Please itemize as far as possible.
5. Desired schedule of fund payments to applicant.
6. Amount and nature of other sources of funds, facilities, materials, etc.
7. Published results of previous work by applicant bearing on this subject and other pertinent information.

W C
13⁰⁰ for 2 weeks
9 + supper 60
21
14
6
580

| | 1926 | 1927 | 1928 |
|--------------|------------|------------|--------------|
| <i>W C</i> | | | |
| 1180 | 485.60 57 | 1585.67 62 | 1563.87 59.5 |
| 522 | 231.92 27 | 458.22 26 | 645.28 24.6 |
| 1392 | 116.95 14 | 295.95 12 | 315.72 12 |
| 1512 | 13.88 2 | 46.40 3 | 97.08 4- |
| 4606 | 848.35 | 2537.68 | 2621.91 |
| 7846.34 2222 | 1937.02 | 1738.36 | |
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| | 41238 (60- | | |

to marked changes in lobation of the ice at different times, (d) the question of subglacial wash as discriminated from subaerial outwash, (e) the history of glacial retreat including the hypothesis of temporary stagnation interrupted by rejuvenations of the ice sheet, (f) glacial lake history especially in relation to lateglacial and postglacial land movements, (g) the significance of the north end of the interlobate moraine and its bearing on glacial motion, and (h) the extent and significance of the interglacial Forest Bed now known in only a few localities.

(2) To round out the area already examined into one which could be described in a report requires as a minimum completion of the mapping of the west half of the Green Bay Lobe north of latitude 44 and west of Fox River and Green Bay up to the north line of Wisconsin. This is denominated Project No. 1. Much of this area is flat and has good base maps. Only in Marinette and Florence Counties (part only) are conditions unfavorable for rapid work. One field season should finish this project. Project No. 2 is to cover the area between Project No. 1 and Lake Michigan north of latitude 44. This area is well settled and accurately mapped. One season would be enough for the second project and some review of older work in the light of new ideas.

(3) None of the material is near enough to the publication stage to allow of very definite estimates but the writer never has had in mind any such monographic reports as those of Leverett and Alden. A general map on scale of 1:500,000 in black and white has been prepared of part of the area and this might be extended. Larger scale maps of type areas and a series of block diagrams illustrating stages of the glacial history would be included as well as a few photographs. Since 1927 a high standard of photographic work has been maintained. The text of the last annual report consisted of 49 pages and a final report should not be so very much longer.

(4) It is probable that students could be found who would contribute their services free of charge if offered the opportunity to work up a thesis; some might be willing to pay their own expenses.

Estimate for Project No. 1, season of 1934

| | |
|---------------------------------------|----------|
| Car, 4000 miles at 5 cents per mile | \$200.00 |
| Camp expense for two persons, 90 days | 100.00 |
| Total | \$300.00 |

Estimate for Project No. 2, season of 1935

| | |
|--------------------------------------------------------------|----------|
| Car 6000 miles at 5 cents per mile | \$300.00 |
| Living expense for two persons 90 days
at \$3.00 per week | 208.00 |
| Total | \$508.00 |

(5) Payment might be made in part at end of each field season and remainder when report is completed.

(6) The applicant will bear the costs of photography, drafting, typing, and other incidentals, furnish camp equipment, car, and necessary instruments, the last in part from the Department of Geology of the University of Wisconsin.

Feb. 6, 1933

Dr. W. J. Mead, Chairman,
Committee on Projects,
Geological Society of America,
Science Hall,
Madison, Wisconsin

Dear Dr. Mead:

I desire to make application for aid for the completion of a part of a project in glacial geology.

(1) In 1926 the undersigned began the project of a detailed reconnaissance survey of the Pleistocene of northern Wisconsin. This area constitutes a great gap between the published maps of glacial deposits in all surrounding states and in southeastern Wisconsin south of latitude 44. Work was begun near the end of June, 1926 and continued with long field seasons (13 weeks or more) until the end of October, 1928. Most of the work was paid for from the surplus of the road material fund and the part in Vilas County from the general fund of the Wisconsin Geological and Natural History Survey. In all 4606 square miles were examined at a total cost of \$7846.34 for field work plus a small sum for office work after return from the field in the fall. Costs were divided as follows: salaries 60 per cent, travel 26 per cent, living 12 per cent, and miscellaneous 2 per cent. The cost included salary and expenses of an assistant. The area which was finished with Survey support lies in northeastern Wisconsin north of Waushara County extending east from the glacial boundary to an irregular line approximately at the edge of the plains which border the west shore of Green Bay. The north edge was an irregular line in Langlade County. The records of the field work consist of loose leaf notes, township plats, lists of barometric elevations, reconnaissance topographic maps with 50 foot contours, sectioned glacial county maps, and typewritten annual reports containing maps and sections. All this material is in the files of the Survey. The report on Vilas County has been published. When Mr. Bean, State Geologist was removed by act of the legislature from his ex-officio position on the Highway Commission in the spring of 1929 all work was discontinued. In 1931 the funds of the Wisconsin Geological and Natural History Survey were greatly reduced. In the fall of 1931 the writer resumed work for two weeks in Waushara County with the help of two senior students from the University of Wisconsin who worked on their theses. The cost of this work included only actual outlay with no allowance for tires or depreciation; it was divided equally and amounted to about \$21.00 each. This very rapid reconnaissance survey connected my former area with that described by Alden in U. S. Geol. Survey Prof. Paper 106. The area thus covered is neither a geologic nor a geographic unit. Only on the west and south sides is it bounded in a definite manner. Many unsolved problems are left, among them the following: (a) the origin of drumlins, many of which have been overridden by a second ice advance, (b) the vexed question of the discrimination of beach from stream deposits, (c) shifts in ice centers which led

to marked changes in lobation of the ice at different times, (d) the question of subglacial wash as discriminated from subaerial outwash, (e) the history of glacial retreat involving the hypothesis of temporary stagnation interrupted by rejuvenations of the ice sheet, (f) glacial lake history especially in relation to lateglacial and postglacial land movements and the discrimination of local ponds or moats from large open water lakes, (g) the significance of the now only partially known interlobate moraines and their bearing on glacial motion, and (h) the extent and significance of the interglacial Forest Bed which is now known in a few localities.

(2) To round out a part of the area already examined into one which connects with the work of others and could be described in a report requires as a minimum completion of the mapping of the west half of the Green Bay Lobe north of latitude 44 and west of Fox River and Lake Winnebago up to the north line of Wisconsin. The new area to be covered is roughly 3000 square miles. In the northern part of Marinette County and in the parts of Florence and Forest Counties maps are none too good and progress would be slow. In the better settled parts of the district maps are reasonably good and the experience gained in the Waushara County survey shows that progress would be very rapid. In making an estimate it must be realized that when mapping was for road material resources more time was required than would be now that this phase need no longer be considered as most of the region has been covered by the road material test pitting parties. Location of most gravel pits is now known which would save much time. An estimate of a single field season is optimistic and would involve rather sketchy reconnaissance of parts of the area but nevertheless the applicant is convinced that the results would be worth while.

(3) None of the material is near enough to the publication stage to allow of very definite estimates but the writer never has had in mind any such monographic reports as those of Leverett and Alden. A general map on scale of 1:500,000 in black and white has been already prepared for part of the area and this might be extended. Larger scale maps of type areas and a series of block diagrams illustrating stages of the glacial history would be included as well as a few photographs. Since 1927 a very high standard of photographic work has been maintained. The text of the last annual report consisted of 49 pages and a final report should not be so very much longer.

(4) It is probable that students could be found who would contribute their services free of charge if offered the opportunity to work up a thesis; some might be willing to pay their own expenses thus effecting a small saving for living costs are much smaller than travel expense. In most of the northern district it would be necessary to live in camp although in many places one meal a day could be obtained outside thus saving time and labor. The following estimate seems reasonable. Work would be done in 1934.

| | |
|-------------------------------------|----------------|
| Car, 6000 miles at 5 cents per mile | \$300.00 |
| Camp expense, two persons, 90 days | 100.00 |
| | <hr/> \$400.00 |

(5) Payment might be made in part at end of each field season and remainder when report is ready for publication.

(6) The applicant will bear the costs of photography, drafting, typing, and other incidentals, furnish camp equipment, car, and necessary instruments, the last in part from the Department of Geology of the University of Wisconsin.

(7) Publications by the applicant on glacial geology are:
 A glacial gravel seam in limestone at Ripon, Wisconsin; Jour. Geology, vol. 29, pp. 57-65, 1921
 The origin and significance of pitted outwash Jour. Geology, vol. 34, pp. 308-319, 1923
 Pre-Wisconsinan terraces of the Driftless Area of Wisconsin; Geol. Soc. America, Bull., vol. 39, pp. 621-641, 1928
 Development of the theory of multiple glaciation in North America; Wisconsin Acad. Sci., Trans., vol. 23, pp. 41-164, 1927
 Glacial geology of part of Vilas County, Wisconsin; Wisconsin Acad. Sci., Trans., vol. 24, pp. 109-124, 1929
 Outline of glacial geology, mimeographed, University of Wisconsin, 1927; printed edition in preparation

The following theses by students at the University of Wisconsin also bear on the subject and were written under direction of the writer:

Kurtensacker, Karl S. Kurtensacker, Glacial lakes in Columbia and Marquette counties, Wisconsin, 1931
 O'Neil, P. J. Glacial lakes of Waushara County, Wisconsin, 1932
 Icke, P. W. Glacial history of Waushara County, Wisconsin, 1933

The following, although not written under direct supervision of the writer was done with his aid and suggestion.

Ellsworth, E. W. Varved clays of Wisconsin Wisconsin Acad. Sci., Trans., vol. 27, pp. 47-58, 1932
 Ellsworth, E. W. and Wilgus, W. L. The varved clay deposit at Waupaca, Wisconsin Wisconsin Acad. Sci., Trans., vol. 25, pp. 99-111, 1930
 Wilson, L. R. The Two Creeks Forest Bed, Manitowish County, Wisconsin Wisconsin Acad. Sci., Trans., vol. 27, pp. 31-46, 1932

If the foregoing application is granted, either in whole or in part, I would like the privilege of postponing the date of completion if more remunerative employment is obtained by me.

Respectfully submitted,

F. T. Thwaites, Lecturer in Geology

to marked changes in lobation of the ice at different times, (d) the question of subglacial wash as discriminated from subaerial outwash, (e) the history of glacial retreat including the hypothesis of temporary stagnation interrupted by rejuvenations of the ice sheet, (f) glacial lake history especially in relation to lateglacial and postglacial land movements, (g) the significance of the north end of the interlobate moraine and its bearing on glacial motion, and (h) the extent and significance of the interglacial Forest Bed now known in only a few localities.

(2) To round out the area already examined into one which could be described in a report requires as a minimum completion of the mapping of the west half of the Green Bay Lobe north of latitude 44 and west of Fox River and Green Bay up to the north line of Wisconsin. This is denominated Project No. 1. Much of this area is flat and has good base maps. Only in Marinette and Florence Counties (part only) are conditions unfavorable for rapid work. One field season should finish this project. Project No. 2 is to cover the area between Project No. 1 and Lake Michigan north of latitude 44. This area is well settled and accurately mapped. One season would be enough for the second project and some review of older work in the light of new ideas.

(3) None of the material is near enough to the publication stage to allow of very definite estimates but the writer never has had in mind any such monographic reports as those of Leverett and Alden. A general map on scale of 1:500,000 in black and white has been prepared of part of the area and this might be extended. Larger scale maps of type areas and a series of block diagrams illustrating stages of the glacial history would be included as well as a few photographs. Since 1927 a high standard of photographic work has been maintained. The text of the last annual report consisted of 49 pages and a final report should not be so very much longer.

(4) It is probable that students could be found who would contribute their services free of charge if offered the opportunity to work up a thesis; some might be willing to pay their own expenses.

Estimate for Project No. 1, season of 1934

| | |
|---------------------------------------|----------|
| Car, 4000 miles at 5 cents per mile | \$200.00 |
| Camp expense for two persons, 90 days | 100.00 |
| Total | \$300.00 |

Estimate for Project No. 2, season of 1935

| | |
|--------------------------------------------------------------|----------|
| Car 6000 miles at 5 cents per mile | \$300.00 |
| Living expense for two persons 90 days
at \$8.00 per week | 208.00 |
| Total | \$508.00 |

(5) Payment might be made in part at end of each field season and remainder when report is completed.

(6) The applicant will bear the costs of photography, drafting, typing, and other incidentals, furnish camp equipment, car, and necessary instruments, the last in part from the Department of Geology of the University of Wisconsin.

83736

Maps. F. T. Thwaites June 7, 34
Menominee Ind. Res. (small)

Top. maps of Waukena, Shawano, Oconto,
Ontonagon, Portage Cos. Langlade?
Plats of outcrop maps of Manitowish
T34, R 12 E

33 → 12-17 E incl

32-17

31-18

30-13, 14, 19

29 = 13, 14, 18

28 + 13, 14, 18

27-18

26-18

25-18

24-17

23-17

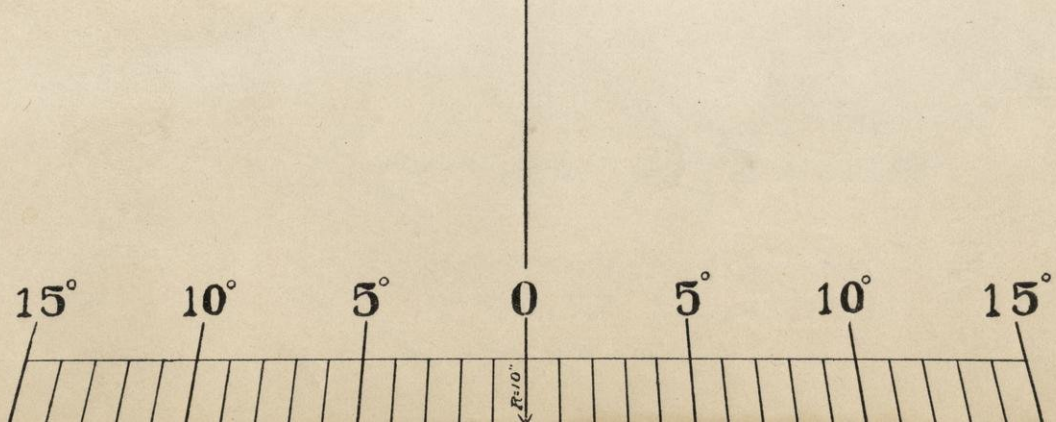
22-17

21¹⁴, 15-16 E

Box 36

Hollister Wia

Charles Gynada.



PRINT ORDER

Wisconsin Highway Commission

Commission

Room No.-----

Phone No.-----

Plan Dept.

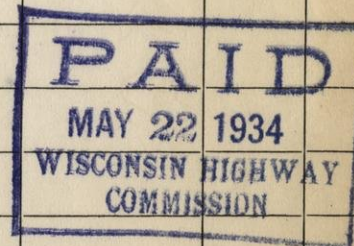
Bridge Dept.

Order No. -----

3873

Date May 15 1934

| Charge to | Item | Remarks | No. of
Originals | No. of Pr.
Of Each | Total
Prints | Size
Ft. | Area
Sq. Ft. | Cost | Total
Cost | Div.
No. | Job No. | Class | Amount |
|---------------------|--------|--------------|---------------------|-----------------------|-----------------|-------------|-----------------|------|---------------|-------------|---------|-------|--------|
| F.T. Travel
V.W. | Forest | Jona | | | | | | | | | | | |
| | | Caswell | | | | | | | | | | | |
| | Acres | Grazing | | | | | | | | | | | |
| | | Sprou | | | | | | | | | | | |
| | | Jona | | | | | | | | | | | |
| | | Little River | | | | | | | | | | | |
| | | Acres Falls | | | | | | | | | | | |
| | | Stiles | | | | | | | | | | | |
| | | Acres | | | | | | | | | | | |
| | | Morgan | | | | | | | | | | | |
| | | Abrams | | | | | | | | | | | |
| | | Pensance | | | | | | | | | | | |
| | | Chase | | | | | | | | | | | |
| | | St. Lucia | | | | | | | | | | | |
| | | Total | | | | | 56 | 4 | 224 | | | | |



Wanted: Blue Prints----- Blue Lines----- Photostats: Negatives----- Positives----- Size-----

PRINT ORDER

Wisconsin Highway Commission

Commission

Room No.-----

Phone No.-----

Plan Dept.

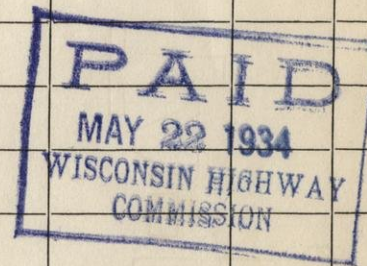
Bridge Dept.

Order No.-----

3872

Date May 15 1934

| Charge to | Item | Remarks | No. of
Originals | No. of Pr.
Of Each | Total
Prints | Size
Ft. | Area
Sq. Ft. | Cost | Total
Cost | Div.
No. | Job No. | Class | Amount |
|-----------------------|----------------------------------|---------|---------------------|-----------------------|-----------------|-------------|-----------------|------|---------------|-------------|---------|-------|--------|
| F. T. Thwait
S. W. | Township Plats - Marinette (all) | | | | | | 0 | | | | | | |
| | Florence { Aurora | | | | | | | | | | | | |
| | { Homestead | | | | | | | | | | | | |
| | Communicate | | | | | | | | | | | | |
| | Forest { Armstrong Cr. | | | | | | | | | | | | |
| | Blackwell | | | | | | | | | | | | |
| | Wabess | | | | | | | | | | | | |
| | Freedom | | | | | | | | | | | | |
| | Hatchville | | | | | | | | | | | | |



Wanted: Blue Prints----- Blue Lines----- Photostats: Negatives----- Positives----- Size-----

GOODMAN DEPARTMENT STORE

502-504-506-508-510 MILL STREET

Goodman, Wis., 0-17 1934

Name _____

By _____

| | | |
|----|-------|----|
| 1 | 20.00 | 60 |
| 2 | 1.00 | 10 |
| 3 | 10.00 | 15 |
| 4 | | 85 |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | | |

4305-33

This Slip Must Accompany All Goods Returned for Correction

GOODMAN DEPARTMENT STORE

502-504-506-508-510 MILL STREET

Goodman, Wis., 8-11 1934

Name _____

By _____

| | | | |
|----|--|--|--|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |

4336-35

This Slip Must Accompany All Goods Returned for Correction

GOODMAN DEPARTMENT STORE

502-504-506-508-510 MILL STREET

Goodman, Wis.,

19

Name

By

| | | |
|----|--------------------|----|
| 1 | 1 lb. Apples | 50 |
| 2 | 1 lb. Oranges | 10 |
| 3 | 2 lb. Paper Plates | 20 |
| 4 | | |
| 5 | | 60 |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |
| 11 | | |
| 12 | | |
| 13 | 4189- 8 | |

This Slip Must Accompany All Goods Returned for Correction

WE APPRECIATE
YOUR PATRONAGE
THANK YOU

AUG 6

- 072 \$ 8.80 = 2

AMOUNT
PURCHASED

Avenue

Food Store

Aug 6, 34

□

.75

.27

.15

.19

.38

.38

.76

.74

.20

.23

.30

.39

.12

.20

.92

.38

.58

.58

.23

.29

.35

.29

.12

8.80 □

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

8-2

193

4

M

No.

Clerk

Bread
Coffin

LD

13

21

34

26

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

7/31

193

4

M.

No.

Clerk

| | |
|-----------|-----------|
| 1 Bread | 10 |
| 6 Apples | 23 |
| 1 Oranges | 39 |
| | <u>72</u> |

Paid

46

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee

7/28 34 193

M

No

Clerk

Bread

10

Onions

12

Pears

18

40

[Large handwritten signature]

36

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee

193

M

No.

Clerk

Shirts
Suits

30

39

69

PA

43

2018

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausauke,

193

7-25-34

M.....

No.....

Clerk.....

Oranges

39

apples

13

52

[Large signature]

46

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausauke

193

7/23 34

M

No

Clerk

Plutus
picks

15
05

Pe flour

10

Bread

10

egg

15

lith

27

Peanut butter

17

Peas

18

3

17

117

BAIN

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausauke,

7-21

193

4

M

No

Clerk

| | | |
|---|-----------|-------|
| 1 | Oranges | 45 |
| 1 | Lemons | 35 |
| 1 | Shi Wheat | 12 |
| 6 | Pears | 18 |
| | | <hr/> |
| | | 110 |

28

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

193

7/21/37

M. _____

No. _____

Clerk _____

Butter
onions
coffee

min

27

09

20

12

69

[Signature]

44

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

7-18-1904

ML

No.

Clerk

Oranges
Matches

49

05

54

15

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

193

7-17

9

M

No.

Clerk

711

Bread

12

eggs

15

butter

27

pa flour

10

[Signature]

64

33

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

1934

M

No

Clerk

Head
Corn Flakes
Oranges

13
13
45
72

45

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

7/9 34

193

M.

No.

Clerk

Pays

15

Soup

25

Meat

30

Open Soup

10

10

Plat

15

Beans

13

Beans

18

Corn

13

Bread

10

Butter

27

Churn

38

27

Soup

13

224

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

7-3

193

M.....

No.....

Clerk *M*.....

Bread

10

Pd flour

10

Cheese

19

PD

39

34

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

7-2

193

4

N

No.

Clerk

| | | |
|-------|-----------|-----|
| 1 | spaghetti | 10 |
| 1 | Oranges | 45 |
| 1/2 | bacon | 18 |
| 1 | bread | 10 |
| 1 | butter | 37 |
| | cheese | 19 |
| 1 | melon | 10 |
| 1 | meat | 08 |
| Total | | 147 |

8

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Waukegan, Ill.

193

Mr. [unclear]

M. _____

No. _____

Clerk _____

| | |
|----------|----|
| Beans | 08 |
| 2 Cans | 21 |
| 1 Eggs | 17 |
| 1 Pepper | 12 |
| Peas | 10 |
| <hr/> | |
| Beans | 12 |
| Peas | 15 |
| <hr/> | |
| Peas | 82 |
| <hr/> | |
| Peas | 97 |

Peas
Peas

16

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee,

6-26 st. 193

M. _____

No. _____

Clerk _____

| | |
|-----------|------|
| eggs | 14 |
| snaps | 20 |
| spaghetti | 10 |
| meat | 20 |
| ground | 10 |
| lard | 10 |
| t. paper | 10 |
| chop | 15 |
| butter | 17 |
| milk | 15 |
| corn | 20 |
| bro | 10 |
| flour | 10 |
| 31 flour | 30 |
| eggs | 30 |
| cut | 27 |
| 597 | 3487 |

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausauke

6-26-94

192

M

No.

Clerk

Oncars

1.2

Oranges

44

Limes

18

P. apples

15

sub

15

P. nut butter

19

meat

05

C. Beef

50

Catfish

15

Chickens

12

pickling

25

lobster

09

Peaches

22

Beans

10

P. Beans

18

Corn

13

Beans

05

48

LAUN BROTHERS CO.

DRY GOODS, DRESSES, HATS

FURNITURE — GROCERIES

Wausaukee, _____

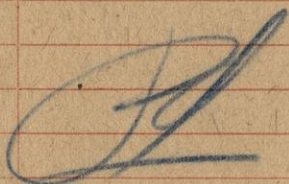
193

6/26/34

M. _____

No. _____

Clerk _____

| | |
|------------------------------------------------------------------------------------|----|
| salt | 10 |
| peppers | 10 |
| Bon | 10 |
|  | 30 |

48

58

29

20

19

66

33

29

38

57

349

40

46

57

50

39

38

11

25

22

23

351

351

349

700

Avenue
Food store

5 2 1 8 AUG 14

Save This Receipt

PROPERTY OF SWANSON BROS. CO.

IT IS VALUABLE

★ A - 1.23

SWANSON BROS. CO.

Incorporated

General Mer-
chandise and Provisions
Florence - Wisconsin
Phone 18

Butter 31
Bread 13
Coffee 32

76

ESTIMATES FOR LABOR ONLY—MATERIAL ADDITIONAL

| | | | | | |
|----------------------------|------------|----------------------|-------------|----------------------|--|
| NAME <i>F. J. Thurston</i> | | DATE <i>5-11-34</i> | | | |
| ADDRESS | | MILEAGE | | N ^o 10062 | |
| TOWN | PHONE | MAKE <i>Chrysler</i> | | | |
| MODEL | SERIAL NO. | MOTOR NO. | LICENSE NO. | | |

NEEDED
REPLACE-
MENTSHUB
CAP☐

LENS

☐

BULBS

☐

GLASS

☐NEEDED
REPAIRS

BODY

☐RUN BOARD
FENDERS☐

TOP

☐DUGO
TOUCH-UP☐HARD
WARE☐

FENDERS

☐RUN
BOARD☐TIRES &
ACCESSORIES☐FRONT AXLE
& WHEELS☐

BRAKES

☐

MECHANICAL

☐OPER.
No.

INSTRUCTION FOR WORK ACTUALLY ORDERED

AMOUNT OF
CHARGESLUBRICATE ☒ CHANGE OIL ☒ FLUSH TRANS ☐ DIFF ☐ WASH ☐ POLISH ☐ SERVICE AGREE. HAD ☐
SOLD ☐

100

TIME PROMISED

A.M.
P.M.

A PERSONAL MESSAGE: ONLY ABSOLUTELY NECESSARY REPAIR PARTS WERE USED ON THIS WORK. THE SUCCESS OF THIS COMPANY DEPENDS ON YOUR ENTIRE SATISFACTION. OUR WORK IS GUARANTEED.

Anderson Motor Company
Iron Mountain, Mich.—Phone 1021
Norway, Mich.—Phone 42

LABOR

PARTS

ACCESSORIES

OIL & GREASE

SUBLET REPAIRS

ACCOUNTING

TOTAL

75

130
86

311

The Geological Society of America

Information Circular No. 12

Applications for Grants from the Penrose Fund

Attitude of Committee toward Applications

Applications for grants from the Penrose Fund may be made to the Chairman of the Committee on Projects, or to the Secretary of the Society. Regulations governing acceptance and handling of applications are as follows:

The Committee acts as an advisory body, making recommendations to the Council of the Society, which alone has the power of decision with respect to each individual application and authorization of grants. By action of the Council, intended for the guidance of the Committee, certain general policies have been formulated, the basic principles of which are (1) that each application is considered on its merits, and (2) that grants are aids toward research rather than employment of men to conduct research. In line with these principles the Committee looks with favor upon the following types of projects:

1. Projects well advanced toward completion rather than those to be begun under a grant.
2. Projects of general import in science in preference to those of local import, whether in pure or applied science.
3. Applications for aid in specific, well defined projects.
4. Applications from members of the Geological Society, although those from non-members are not barred from consideration.

Conversely the Committee looks with disfavor upon, and generally rejects:

5. Applications for fellowships or scholarships, including grants to cover research intended as a basis for a higher degree.
6. Applications for grants in aid of publication outside of the Society's ordinary channels.
7. Applications that involve a direct or indirect stipend to the grantee, it being conceded, however, that necessary and reasonable services of others as assistants, analysts, etc., may be provided.

8. Applications for general subventions for exploratory or expeditionary projects, or support of established research organizations.
9. Applications for definite commitments for continuing projects. Normally a grant runs for the period of one year from the date of contract. Unexpended balances at that time may with consent remain available, but no further application by the grantee is to be considered until an acceptable report closing the grant is delivered.

General Administration of Grants

The grantee is required to submit reports of progress at quarterly intervals, as well as financial statements accounting for expenditure of funds during the corresponding interval.

It has been found advisable to systematize the form of periodic financial statements in the interest of uniformity, mutual convenience, and sound accounting practice. The following items are listed for general information:

1. In notifying recipients of project grants, attention will be called to any changes in their budgets made by the Committee or the Council; and they will be advised that expenditures must adhere closely to the approved plan.
2. Payment of lump sums in advance is considered inadvisable, but sums will be advanced as needed, and will be replenished on statement of expenditure supported by appropriate vouchers. Not more than a quarter of any grant will be made immediately available to any grantee, unless specifically authorized by the Council. Subsequent payments will take the form of replenishment of the account, contingent upon receipt of proper financial statements.
3. Financial statements *in duplicate* are to be filed at quarterly intervals.
4. Progress reports *in duplicate* must be filed at quarterly intervals, and in the failure to file such progress reports grantees may not be eligible to receive additional payments.
5. Living expenses are defined as room and board. Subsistence at a fixed rate per diem is not favored.
6. Miscellaneous items, such as laundry, cleaning and pressing, medicine, tips, etc., are not allowed. Purchase price, cost of repair of clothing and personal equipment are not allowed. Actual expenditure directly to the purposes of the project is the only basis of audit.

7. Automobile mileage is not considered good form. Receipts should be filed with financial statements showing expenditures for oil, gas, repairs, etc. The cost of operating an automobile does not include cost of state licenses for car or driver.
8. Banking charges, including tax on checks, are considered proper charges against a project only when special bank accounts have been opened.
9. Acknowledgment of receipt of financial statements will be made and notice will be given where items have been disallowed, with correction of totals and balances.
10. If families, personal assistants or friends accompany the grantee, their expenses must not be involved in the project account. Project expenses are to be kept separate from the beginning.

Form of Application for Allotment from the Penrose Fund

For convenience of reference, requests should be presented in triplicate in numbered paragraphs corresponding to the headings here given.

1. *Project.*—Statement of proposed project. If work is in progress or partly completed, state degree of completion.
2. *Plan.*—Plan of procedure and expected duration of investigation.
3. *Stage reached.*—If material is nearing publication stage, please state form of publication desired, with prospective length of manuscript and number and nature of illustrations and maps.
4. *Budget.*—Amount of money required and proposed utilization. Itemize in detail as far as possible.
5. Desired schedule of payments.
6. Amount and nature of other sources of funds, facilities, materials, etc. Also any pending application for a grant from any other fund to cover the same project in whole or part.
7. Published results of previous work by applicant bearing on this subject and other pertinent information that would be helpful to the Committee and the administrative officers.

Final Reports and Closing Accounts

The Geological Society reserves first right to publication of the results of its grants, but is not obliged to publish.

The product of the grant in the form of manuscript, maps, or other publishable data is to be submitted to the Society. Upon its receipt the Secretary will submit the material to the Projects Committee for checking, and normally for approval and release as meeting the purpose of the grant. On its return the material, if intended for publication, will be placed before the Publications Committee for classification and advice as to acceptance and disposition. Requests for release for the purpose of publishing elsewhere will be considered on the merits of each case. Normally it is expected that a suitable report will appear in the Bulletin of the Society.

Final financial statements with appropriate vouchers are to be furnished with reasonable promptitude and the account closed by return of unused funds.

CHARLES P. BERKEY, *Secretary*.

THE GEOLOGICAL SOCIETY HOUSE,
419 West 117th Street, New York, N. Y.
October 27, 1934.

THE GEOLOGICAL SOCIETY OF AMERICA
419 West 117th Street, New York

October 31, 1936

Mr. Fredrik T. Thwaites
Science Hall,
Madison, Wis.

Dear Mr. Thwaites:

It is considered advisable to have an abstract for each and every contribution offered either for the Annual Meeting program or for interim publication. It has been the custom for some years to require abstracts for all papers offered for the program, but papers offered between meetings are frequently sent in without accompanying abstract. This is particularly true of contributions or reports made on grants-in-aid.

What we now ask is that all such contributions be either accompanied or preceded by abstracts suitable for publication. We ought to publish together all of the abstracts of articles in prospect for the year 1937.

Your name is included in the list of project grantees. If your manuscript is to be submitted between now and the close of 1937, we request that you prepare an abstract of the prospective manuscript, for printing in the Preliminary List and later in the Proceedings. An abstract blank is enclosed for this purpose. You will note that abstracts should be submitted by November 1st.

Very sincerely yours,

Charles P. Berkey,
Secretary

Pleistocene of part of northeastern Wisconsin

~~Six~~ Mapping of the Pleistocene of part of northeastern Wisconsin was begun ~~in 1924~~ by the writer in 1926 as part of the program of the Wisconsin Geological Survey for the development of local sources of road material. After three years, support from this source was withdrawn and the work was completed with the aid of a grant from the Penrose Fund of the Geological Society of America.

The Pleistocene deposits are treated first as sediments and second, as land forms. Both criteria were employed in mapping wherever it was possible but in much of the district described, which embraces the portion of the Green Bay lobe ^{in Wisconsin} west of Lake Winnebago ^{Fox River} and Green Bay and north of the area surveyed by Alden (W. C. Alden: Quaternary geology of southeastern Wisconsin, U. S. Geol. Survey Prof. Paper 106, 1918), the forest and brush cover prevents this ideal. The ~~area surveyed~~ survey was ^{thorough} a detailed reconnaissance, that is an examination detailed enough to decipher the glacial history without spending time on unneeded details.

Drift of pre-Wisconsin age ^{occurs} is found in the western part of the district and is thought to be of Illinoian age. The Wisconsin drift ~~consists~~ of deposits made during the Third or Gary substage overlain in much of the district by drift of the Fourth (Mankato?) substage without much ^{alteration} obliteration of the older topography. ^{difference} a marked change in direction of ice movements is noted in the two substages.

The report is illustrated with a map on the same scale as that of Alden ^(4 miles to the inch), a topographic map with 50 foot interval, a series of historical block diagram maps showing the stages of glacial retreat, and twenty photographs of different kinds of glacial and glacio-aqueous sediments and land forms.

mailed Nov 18, 1936

Sept. 25, 1936

Mr. Edwin Wenberg,
R. D. 2,
West DePere, Wisconsin

Dear Wenberg:

Enclosed are tow of my photos you will be interested in. Sorry you didnt get a chance to see the rest.

All but one where I must have made a mistake in setting the shutter, turned out very well. A few ran slightly from the extreme heat.

Physiography has about the same number as last year but more majors in Geology or Geography.

Am sending this to your home as I havnt your address at Oberlin.

With best regards,

Sincerely,

Sept. 25, 1936

Mr. Thomas Hampenstall,
Co. 604 G. C. C.,
Camp Blackwell,
Leona, Wisconsin

Dear Mr. Hampenstall:

I am sorry there has been so long a delay in sending you a print of the photo I took from the top of Padus Tower last July but I am now enclosing you a copy. I think you will find it satisfactory. The body of water at the right is Trump Lake. We also got some very good photographs from other towers.

Sincerely,

October 6, 1936

Geological Society of America,
419 West 117th St.,
New York City

Attention Dr. H. R. Aldrich

Gentlemen:

I am sending under separate cover via express the second draft of my report on Project 67-84, Detailed reconnaissance of Pleistocene of part of northeastern Wisconsin.

With this are all the photographs and a blue-print of the areal map as far as it had gone. I now have a N. Y. A. student working on it.

The other illustrations have been planned but not started and it will, therefore, be necessary to request that the manuscript be returned for revision and completion of illustrations. However, I cannot work on it for some time and the present copy, although crude will serve as a good idea of its length and contents.

I am sorry that it was not in by the first but the confusion due to the large registration at the University and the arrival of a new member of my family made it impossible to send it before.

Very truly yours,



THIS SIDE OF CARD IS FOR ADDRESS



Dr. F. W. Thwaites,
Science Hall,
Madison, Wisconsin.

THE GEOLOGICAL SOCIETY OF AMERICA
419 WEST 117th STREET
NEW YORK, N. Y.

October 13, 1936

preliminary

This acknowledges receipt of your manuscript entitled "~~Detailed recon-~~

~~naissance of Pleistocene of part of Northeastern Wisconsin~~"

offered for publication by the Society. Report concerning it will be sent you as soon as it can be read and censored.

CHARLES P. BERKEY,
Secretary

Mrs. J. Emory Temple
Route 6
Green Bay

Reference for
Pearl Powless

La Pearl Powless

Went De Perle

Wis

R. 2.

KENNETH BERTRAND
1667 SHAWANO AVE.
GREEN BAY, WISCONSIN
C/O MRS. MAE HOVIE

PHONE: HOWARD 1294 J

4TH HOUSE ON SOUTH SIDE OF ROAD
FROM CITY LIMITS ON STATE TRUNK
HIGHWAY 29

(72)

Aug 7

1936

Received

F.T. Thwaites

67-34

Two and $\frac{40}{100}$

Dollars.

Brown line prints Div 3 + 7

\$2.40

E. M. McCabe

Wis. Longway Town

LENA COLEMAN FILLING STATIONS

WHOLESALE AND RETAIL

GAS, OIL AND GREASES

WILLARD BATTERIES — GOODYEAR TIRES

LENA, WIS.

COLEMAN, WIS.

M *July 24 1936*
Int. Thwaite

No. _____
MC CASKEY ALLIANCE O.
Reg. No. _____ Clerk *BK* Account Forwarded _____

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H. J. Strong.
Soperton

W. W. Intermill
Chief Ranger
Laurel

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| | Madison | 6 | 181 176 | |

10-34
6
DUPLICATE

Thwaites 201 St Hall
The RAILWAY EXPRESS AGENCY, Inc.

INCORPORATED

FOR PREPAID CHARGES ON ARTICLES DESCRIBED BELOW.

OCT 7 1936

| Number and Description of Pieces | Value Herein Declared by Shipper to be | Weight | CONSIGNEE TO | DESTINATION | Prepaid Charges | Number |
|----------------------------------|----------------------------------------|----------|------------------------------------------------|--------------|-----------------|----------|
| <i>100</i> | <i>100</i> | <i>1</i> | <i>Geological Society of America
NY NY</i> | <i>Phila</i> | <i>39</i> | <i>1</i> |

When entering shipments forwarded C. O. D., always use two lines.
Employee receipting for C. O. D. shipments must sign his name
(not initials) directly following each C. O. D. entry.

NUMBER
PIECES

HOOR

A. M.
P. M.

For the Company

Sample of ore from Campbell
m.a. Hannah Co Iron River Minn
Markert, Chemist (Fe P SiO₂)
Ca Mg Mn
S - chert in py.

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| 41-16 | — | 83.0 | 35-21 | 80-00 ✓ 80-80 ✓ | |
| 39-19 | 62-93+ | 62-93 ✓ | 35-20 | 72-63 ? | |
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| 39-17 | 68.50 ✓ | 74.05 ✓ | 35-18 | 86-34 ✓ 83-50 ✓ | |
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80.00 ✓ 80-00 | |
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| 37-18 | 87-25 ✓ | 87-22 ✓ | | | |
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80-53 | | | |
| 36-19 | 71-68 ✓ | 71-16 ✓ | | | |
| 36-18 | 87-22 ✓ | 86-34 ✓ | | | |
| 36-17 | 75-67 ✓ | 75-20 ✓ | | | |

21 normal
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Range 19 narrow 17 chains red-brown in T35
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17 narrow 5 chains
16 wide 7-8 chains by 2 chains
15 normal to 3 chains wide at N

STATE OF WISCONSIN

CONSERVATION DEPARTMENT

FILE REFERENCE:

FOREST PROTECTION HEADQUARTERS

TOMAHAWK

Publications

August 13, 1937

Mr. Fred Thwaites
Science Hall
University of Wisconsin
Madison, Wisconsin

Dear Mr. Thwaites:

Under separate cover we are sending revised pages 17 to 36 inclusive of the forest protection division map manual which supersede pages 17 to 36 inclusive of the manual as issued in 1936.

Please destroy pages 17 to 36 which are now in your manual and insert these revised pages.

FOR THE DIRECTOR
E. J. Vanderwall
Chief Forest Ranger

By *Walter F. Choinski*
Walter F. Choinski
Chief Topographer

WFC:IR

PREVENT FOREST FIRES

1659 So. 12th Street
Milwaukee, Wis.
July 27, 1937.

Dear Mr. Thwaites

With the approaching of August, I hope to hear from you soon in the matter of your work in Velas County this summer. At the present time I have a temporary work in a department store in Milwaukee and have been able to earn enough for my coming semester fees at the University. Therefore, if you should leave for Northern Wisconsin this August, I should like to accompany and aid you in your work more for the experience and enjoyment I would get out of it. Since I have no funds, my traveling expenses would be the only expenditure on your funds.

I should like to hear from you soon. Best Wishes.

Sincerely yours,
Joseph L. Emuehty

July 29, 1937

Mr. Joseph G. Emelity,
1659 South 12th St.,
Milwaukee, Wisconsin

Dear Mr. Emelity:

I was glad to get yours of the 27th but am sorry to say that I am still uncertain when or if I can get into the field this summer. The well record work here has been unusually heavy and samples keep coming by the hundred. Benis and I are still swamped with work. As a result I have done little on the glacial project, only one diagram in fact, although I am just now getting a real start. I cannot do much reviewing of old work until I have been over the maps and notes which job has not yet been even started.

My advice is to hang onto your job for the present and wait hoping that possibly we might get out in September just before school starts.

With best regards,

Sincerely,

Aug. 26, 1937

Mr. Joseph G. Emblity,
1659 S. 12th St.,
Milwaukee, Wisconsin

Dear Mr. Emblity:

It is now evident that I will be unable to go into the field this summer. It was only yesterday that I was able to start checking the old notes so I will not be able to get ready in time to go out.

I am sorry that the matter has fallen through.

Hoping to see you when school starts,

Sincerely,

Commission

 Room No.-----
 Phone No.-----
 Plan Dept.
 Bridge Dept.

Order

N^o 10175

Date 8-17 1936

 23
PRINT ORDER

Wisconsin Highway Commission

| Charge to | Item | Remarks | No. of
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Of Each | Total
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Sq. Ft. | Cost | Total
Cost | Div.
No. | Job No. | Class | Amount |
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| F.T. Thwaites
Madison | | | | | | | | | | | | | |
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Paid 8/24/36

Wanted: Blue Prints_____ Blue Lines_____ Photostats: Negatives_____ Positives_____ Size_____

STATEMENT
STATE HIGHWAY COMMISSION OF WISCONSIN
MADISON, WISCONSIN

November 5, 1937

Dr. F. T. Thwaites
Route # 4
Madison, Wisconsin

Dear Sir:

Invoices for the items listed below have been mailed
to you and appear unpaid on our records.

| <u>Invoice No.</u> | <u>Date</u> | <u>Item</u> | <u>Amount</u> |
|--------------------|-------------|------------------|---------------|
| 21427 | 11-18-36 | Brown line print | \$ 0.80 |

print order 10 175

paid E. H. McCabe

8-17

If any discrepancies exist in the above invoices, we
will appreciate hearing from you. Please address all correspondence
to

W. B. Blair
Chief Accountant
State Highway Commission of Wisconsin
Madison, Wisconsin

Nov. 26, 1937

Mr. W. B. Blair, Chief Accountant,
State Highway Commission,
Capitol Annex,
Madison, Wisconsin

Dear Sir:

I have checked your note of Nov. 5, 1937
against my records.

On August 17, 1937 I had a brown line print of
Division 4 made and paid 80 cents to E. H. McCabe for it.
I have print order No. 10175 signed by him and marked
"paid".

I am sure that this is the item you refer to
as a year or more ago I had some telephone conversation
in regard to another bill for the same item.
I am confident that the error originated in your office
and that I paid for every print which I had.

Very truly yours,

Jan. 8, 1938

Dr. H. R. Aldrich,
419 West 117th St.,
New York, New York

Dear Grombie:

I wish to thank you for yours of Dec. 22 and the manuscript.

Work is progressing toward the completion of the very crude draft of a report which I sent you. I fully realize its shortcomings for it was written in a great hurry and without the completion of the illustrations which will be a great part of it.

I had no job last summer but well records kept me so busy (over 3000 samples) that little could be accomplished. We did about three days field work and more is needed. Two figures were drafted and that is the entire progress of a summer! Last year I had an N. Y. A. draftsman complete the base map. As I get time I am putting on formation boundaries and this is possibly half done counting checking. No attempt at coloring or even working out a scheme of colors is yet possible. This year I have another N. Y. A. who has almost completed the topographic map. Until this was done I could not start on the series of black diagram maps showing stages of glacial retreat which will take the place of a lot of text. Forgot to mention that a lot of time last summer went to completion of field maps and to drawing contours on the maps of the 1934 and 1936 seasons.

I do some work on maps as time permits even now but the stream of well samples is constantly flowing faster and I simply cannot let them pile up too long. As I see it much of the work must be done by me as it involves changes in interpretation. At the present time it would do no good to blueprint the map again or in fact to send you any of the illustrations which are done. They would not give much more of a picture of the finished job than did that rough draft of which the censor spoke so scathingly and justly.

With best regards to you and to Mrs. Aldrich
from both of us,

Sincerely,

President, CHARLES PALACHE
Harvard University, Cambridge, Mass.

Past President, W. C. MENDENHALL

Vice-Presidents: { W. O. HOTCHKISS
CHARLES CAMSELL
G. D. HARRIS
W. S. BAYLEY

Secretary, CHARLES P. BERKEY
419 West 117th Street, New York, N. Y.

Treasurer, EDWARD B. MATHEWS
The Johns Hopkins University, Baltimore, Md.



Councilors

| | | |
|--------------------------|---|-----------|
| WALTER H. BUCHER | } | 1935-1937 |
| RUSSELL S. KNAPPEN | | |
| E. L. BRUCE | | |
| JOSEPH STANLEY-BROWN | } | 1936-1938 |
| G. F. LOUGHLIN | | |
| JOSEPH T. SINGEWALD, JR. | | |
| HOYT S. GALE | } | 1937-1939 |
| CHESTER R. LONGWELL | | |
| M. M. LEIGHTON | | |

THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

December 22, 1937

Prof. F. T. Thwaites
Science Hall
Madison, Wisconsin

Dear Fred:

I have wondered from time to time if you planned to send a finished draft of your report on "Detailed reconnaissance of Pleistocene of part of northeastern Wisconsin" and a more nearly complete copy of the map.

Now, I note in looking through another file that you would need the manuscript in my hands for revision and completion of illustrations. I have had the paper read by a member of the Board of Editors of the Bulletin and enclose a copy of his report.

My recollections as to the map are not too reliable but I note in your letter of October 6th that you had a student working on it. Could you send a more complete copy? As I recall it you hoped that the map might be reproduced in color. We would need a complete lay out for estimates.

Am sorry that one or the other of us has not followed the matter more closely but I presume that you are busy. I know I am about to the burial point and have to look for help or quit. Please let me hear soon just what the situation is.

The manuscript and blue print go forward to you today.

With best regards to you and Amy,

Crombie

DANSIN AUTO SERVICE

WASHINGTON - GENERAL REPAIRING - LUBRICATING
DAY AND NIGHT

412 E. WASHINGTON AVE.
BADGER 804



MADISON, WIS.
RES. BADGER 5506

AUTHORIZED
AND
LA FAYETTE
SERVICE

REPAIR ORDER N^o 6898

MATERIAL USED

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<i>8/13/37</i> |
| DATE PROMISED |
| DATE DELIVERED |

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Dud Shwaiter

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ADDRESS

LICENSE NO. AND STATE

MOTOR NO.

MAKE AND MODEL

MILEAGE

Buick

44,103

Grease & oil car -

1.00

Trans. - diff. - battery - tires -

Change oil - 6 qt oil

1.50

Tighten car completely -

Tighten tie rod -

Tighten drag link -

Tighten spring bolts -

Tighten all steering connections -

Tighten muffler & tail pipe -

Tighten doors -

Paid J. J. P.

2 #10 grease 60

WE ARE NOT RESPONSIBLE FOR CARS OR ARTICLES LEFT IN CARS OR IN CASE OF FIRE OR OTHER CAUSES BEYOND OUR CONTROL.

NOTE: NO CLAIMS FOR SHORTAGE, ERROR OR ADJUSTMENT RECOGNIZED UNLESS MADE WITHIN TEN DAYS AFTER THE COMPLETION OF THIS ORDER AND ON PRESENTATION OF THIS COPY.

TOTAL FOR LABOR

2.75

TOTAL FOR PARTS

GAS, OIL AND GREASE

60

ACCESSORIES

TOTAL AMOUNT

5.85

TOTAL

I HEREBY AUTHORIZE THE ABOVE REPAIR WORK TO BE DONE ALONG WITH NECESSARY PARTS.

SIGNED

Pennsylvania Oil Co. of

Main Office: 736 E. Washington Ave. Phone: Badger

Madison, Wis. Date Aug 15 1937

Sold to Adair

Address _____

☒ High Gal. @

☒ Regular Gal. @

Ethyl 8 Gal. @ 176

3rd Grade Gal. @

State Gas Tax

Kerosene Gal. @

Lub. Oil Gal. @

Grease

Received by

6

"This is to Certify that the (Gasoline, Kero.) covered by this sale has fire test, Flash _____ degrees, Burns _____ degrees; Gravity test of _____ degrees. Beaume Scale, according to a certificate or certificates of approval issued by the state oil inspection department (month) _____ (day) _____ (year) _____

PENN. OIL CO., OF WIS.

Pay driver. Keep this receipt on file. To avoid mistakes see that you receive the quantity you pay for.

PURCHASED FROM

TOWN

DATE

193

D 92163

NAME

P. O.

ADDRESS

Goods as shown hereon and original of this invoice received by:-

Prices and Extensions Subject to Corrections

QUANTITY

PRICE

AMOUNT

Solite with Ethyl Gasoline

Standard Red Crown Gasoline

Stanolind Gasoline

Iso-Vis "D" Oils

Polarine Oils

Stanolind Motor Oils

Purchaser

Per

Goods
Delivered
By

Received Payment

Dealer

Date

193

THIS IS TO CERTIFY THAT—

The Perfection Oil covered by this sale has a Tag Open Cup Test flash over 120° F., burn over 150° F., and gravity test of from 40 to 43 Baume scale.

The Solite with Ethyl Gasoline covered by this sale has a gravity test of from 62 to 67 Baume scale.

The Standard Red Crown Gasoline covered by this sale has a gravity test of from 60 to 65 Baume scale.

The Stanolind Gasoline covered by this sale has a gravity test of from 60 to 62 Baume scale.

According to a certificate or certificates of approval issued by the State Oil Inspection Dept.,—

Wisconsin Motor Fuel Tax

Gals. @ 4c

Federal Excise Tax

Gals. @ 1c

Federal Excise Tax

WARNING: DO NOT USE KEROSENE OR GASOLINE FOR STARTING OR KINDLING FIRES. It is Very Dangerous.

Gasoline not sold for Illuminating Purposes

TOTAL

(month) _____ (day) _____ (year) _____

CUSTOMER'S ORIGINAL INVOICE—PLEASE RETAIN

S. D. 8295 3500 Bks. 5-36

PURCHASED FROM

TOWN

NAME

P. O.
ADDRESS

DATE 8/12 1937

HARRY G. AHLER
STURGEON GENERAL WIS
F 58409Goods as shown hereon and original of this invoice
received by:-

Purchaser

Per

Goods
Delivered
By

Received Payment

Dealer

Date Aug 12 1937

Prices and Extensions Subject to Corrections

QUANTITY

PRICE

AMOUNT

Solite with Ethyl Gasoline

Standard Red Crown Gasoline

Stanolind Gasoline

Iso-Vis "D" Oils

Polarine Oils

Stanolind Motor Oils

Wisconsin Motor Fuel Tax

Gals. @ 4c

Federal Excise Tax

Gals. @ 1c

Federal Excise Tax

**WARNING: DO NOT USE KEROSENE OR GASOLINE FOR STARTING OR
KINDLING FIRES It Is Very Dangerous.**

Gasoline not sold for Illuminating Purposes

TOTAL

THIS IS TO CERTIFY THAT—

The Perfection Oil covered by this sale has a Tag
Open Cup Test flash over 120° F., burn over 150° F.,
and gravity test of from 40 to 43 Baume scale.The Solite with Ethyl Gasoline covered by this sale
has a gravity test of from 62 to 67 Baume scale.The Standard Red Crown Gasoline covered by this
sale has a gravity test of from 60 to 65 Baume scale.The Stanolind Gasoline covered by this sale has a
gravity test of from 60 to 62 Baume scale.According to a certificate or certificates of approval
issued by the State Oil Inspection Dept.,—

(month) (day) (year)

DEALER IN
Standard Oil Company
PRODUCTS

No 11182

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| TOWN | BONDUEL, WIS. | DATE | 5/11 193 |
| NAME <i>Cash</i> | | | |
| P. O. ADDRESS | CARD NO. | LICENSE NO. | STATE |

| Goods Delivered By | PRICES AND EXTENSIONS SUBJECT TO CORRECTIONS | QUANTITY | PRICE | AMOUNT |
|------------------------------------------------------------------|----------------------------------------------|----------|-------|--------|
| | Solite with Ethyl Gasoline | | | |
| Goods as shown hereon and original of this invoice received by:- | Standard Red Crown Gasoline | 3 | 17 | 53 |
| | Stanolind Gasoline | | | |
| Purchaser | Iso-Vis "D" Oils | | | |
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| | Stanolind Motor Oils | | | |
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THIS IS A CREDIT SALE
NOT A CASH RECEIPT

THIS IS TO CERTIFY THAT—

The Perfection Oil covered by this sale has a Tag Open Cup Test flash over 120° F., burn over 150° F., and gravity test of from 40 to 43 Baume scale.

The Solite with Ethyl Gasoline covered by this sale has a gravity test of from 62 to 67 Baume scale.

The Standard Red Crown Gasoline covered by this sale has a gravity test of from 60 to 65 Baume scale.

The Stanolind Gasoline covered by this sale has a gravity test of from 60 to 62 Baume scale.

According to a certificate or certificates of approval issued by the State Oil Inspection Dept.,—

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|---|------------|----|
| Wisconsin Motor Fuel Tax | 3 | Gals. @ 4c | 12 |
| Federal Excise Tax | 3 | Gals. @ 1c | 3 |
| Federal Excise Tax | | | |
| WARNING - DO NOT USE KEROSENE OR GASOLINE FOR STARTING OR KINDLING FIRES It Is Very Dangerous Gasoline Not Sold for Illuminating Purposes | | | |
| TOTAL | | | 91 |

(month) (day) (year)

Date 8/10/37 1937

M Carl

No. Carl

Reg. No. Clerk

ACCOUNT
FORWARDED

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31

Your account stated to date. If error is found return at once.

DEALER IN
Standard Oil Company
PRODUCTSPURCHASED
FROM

CARL'S SUPER SERVICE

TOWN

GRANDON, WISCONSIN

DATE

8/11

193

N^o

16600

NAME

Cash

P. O.
ADDRESSCARD
NO.LICENSE
NO.

STATE

Goods
Delivered
ByPRICES AND EXTENSIONS SUBJECT
TO CORRECTIONS

QUANTITY

PRICE

AMOUNT

Goods as shown hereon and original of this invoice
received by:-

Solite with Ethyl Gasoline

Standard Red Crown Gasoline

4 3/4 22.4

108

Stanolind Gasoline

Iso-Vis "D" Oils

Polarine Oils

Stanolind Motor Oils

Purchaser

Per

**THIS IS A CREDIT SALE
NOT A CASH RECEIPT**For value received, the undersigned
hereby sells and assigns to

Wisconsin Motor Fuel Tax

Gals. @ 4c

Federal Excise Tax

Gals. @ 1c

Federal Excise Tax

an open account, as evidenced by this
ticket. Undersigned guarantees the cor-
rectness and validity of the account.**WARNING - DO NOT USE KEROSENE OR GASOLINE FOR STARTING
OR KINDLING FIRES It Is Very Dangerous**
Gasoline Not Sold for Illuminating Purposes

TOTAL

108

Signed

S. D. 8295 3500 Bks. 5-36

PURCHASED FROM COR. 7th and SUPERIOR

TOWN ANTIGO,

WISCONSIN

DATE

8/11

193

F

75690

NAME

P. O.

ADDRESS

Goods as shown hereon and original of this invoice received by:-

Prices and Extensions Subject to Corrections

QUANTITY

PRICE

AMOUNT

Solite with Ethyl Gasoline

56

219

122

Standard Red Crown Gasoline

Stanolind Gasoline

Iso-Vis "D" Oils

Polarine Oils

Stanolind Motor Oils

1 line Repair -

50

Per

Goods
Delivered
By

Received Payment

Dealer

Date

193

THIS IS TO CERTIFY THAT—

The Perfection Oil covered by this sale has a Tag Open Cup Test flash over 120° F., burn over 150° F., and gravity test of from 40 to 43° Baume scale.

The Solite with Ethyl Gasoline covered by this sale has a gravity test of from 62 to 67° Baume scale.

The Standard Red Crown Gasoline covered by this sale has a gravity test of from 60 to 65° Baume scale.

The Stanolind Gasoline covered by this sale has a gravity test of from 60 to 62° Baume scale.

According to a certificate or certificates of approval issued by the State Oil Inspection Dept.,—

Wisconsin Motor Fuel Tax

Gals. @ 4c

Federal Excise Tax

Gals. @ 1c

Federal Excise Tax

WARNING: DO NOT USE KEROSENE OR GASOLINE FOR STARTING OR KINDLING FIRES
It Is Very Dangerous.

Gasoline not sold for Illuminating Purposes

TOTAL

\$1.72

CUSTOMER'S ORIGINAL INVOICE—PLEASE RETAIN

11) _____ (day) _____ (year) _____

VOIGT AUTO PARTS

AUTOMOTIVE SUPPLIES

ANTIGO, WISCONSIN

Date _____

193.

ADDRESS.

[illegible]

RECEIVED BY

PURCHASED FROM COR. 7th and SUPERIOR

TOWN ANTIGO,

- WISCONSIN

DATE

193

F

75684

NAME

P. O.

ADDRESS

Goods as shown hereon and original of this invoice received by:-

Prices and Extensions Subject to Corrections

QUANTITY

PRICE

AMOUNT

Solite with Ethyl Gasoline

5

212

110

Standard Red Crown Gasoline

Stanolind Gasoline

Iso-Vis "D" Oils

Polarine Oils

Stanolind Motor Oils

Purchaser

Per

Goods
Delivered
By

Received Payment

Dealer

Date

193

THIS IS TO CERTIFY THAT—

The Perfection Oil covered by this sale has a Tag Open Cup Test flash over 120° F., burn over 150° F., and gravity test of from 40 to 43 Baume scale.

The Solite with Ethyl Gasoline covered by this sale has a gravity test of from 62 to 67 Baume scale.

The Standard Red Crown Gasoline covered by this sale has a gravity test of from 60 to 65 Baume scale.

The Stanolind Gasoline covered by this sale has a gravity test of from 60 to 62 Baume scale.

According to a certificate or certificates of approval issued by the State Oil Inspection Dept.,—

Wisconsin Motor Fuel Tax

Gals. @ 4c

Federal Excise Tax

Gals. @ 1c

Federal Excise Tax

WARNING: DO NOT USE KEROSENE OR GASOLINE FOR STARTING OR KINDLING FIRES It Is Very Dangerous.

Gasoline not sold for Illuminating Purposes

TOTAL

CUSTOMER'S ORIGINAL INVOICE—PLEASE RETAIN

nth) _____ (day) _____ (year) _____

O. R. BLUEMKE MOTOR CO.

Dealer Since 1912

TELEPHONE 52

ROSENDALE, WIS.

M

Car

8/6-27

5-E

109

ROSENDALE

(CUSTOMER'S ORIGINAL INVOICE)

S. D. 8295 3500 Bks. 5-36

WM. LAFAYE

PURCHASED FROM

ASHLAND & NEHER

TOWN

GREEN Bay Wis

DATE

8/7 1937

F 70529

NAME

P. O.

ADDRESS

Goods as shown hereon and original of this invoice received by:-

Purchaser

Per

Goods
Delivered
By

Received Payment

Dealer

Date

8/7 1937

THIS IS TO CERTIFY THAT—

The Perfection Oil covered by this sale has a Tag Open Cup Test flash over 120° F., burn over 150° F., and gravity test of from 40 to 43 Baume scale.

The Solite with Ethyl Gasoline covered by this sale has a gravity test of from 62 to 67 Baume scale.

The Standard Red Crown Gasoline covered by this sale has a gravity test of from 60 to 65 Baume scale.

The Stanolind Gasoline covered by this sale has a gravity test of from 60 to 62 Baume scale.

According to a certificate or certificates of approval issued by the State Oil Inspection Dept.,—

(month) _____ (day) _____ (year) _____

Prices and Extensions Subject to Corrections

QUANTITY

PRICE

AMOUNT

Solite with Ethyl Gasoline

9

22

1 98

Standard Red Crown Gasoline

Stanolind Gasoline

Iso-Vis "D" Oils

Polarine Oils

Stanolind Motor Oils

18

25

Wisconsin Motor Fuel Tax

Gals. @ 4c

Federal Excise Tax

Gals. @ 1c

Federal Excise Tax

WARNING: DO NOT USE KEROSENE OR GASOLINE FOR STARTING OR KINDLING FIRES It is Very Dangerous.

Gasoline not sold for Illuminating Purposes

TOTAL

223

2974

Date

193

Name

McClure Garage

Address

5 gal ether

1 1 1

Cash

Earl McClure

Received by

PURCHASED FROM

TOWN

DATE

1937

No 36169

NAME

P. O.
ADDRESS

GOODS RECEIVED

Purchaser

Per

Goods
Delivered
By

Received Payment

Dealer

Date

193

THIS IS TO CERTIFY THAT—

The Perfection Oil covered by this sale has a Tag Open Cup Test flash over 120° F., burn over 150° F., and gravity test of from 40 to 43 Baume scale.

The Solite with Ethyl Gasoline covered by this sale has a gravity test of from 62 to 67 Baume scale.

The Standard Red Crown Gasoline covered by this sale has a gravity test of from 60 to 65 Baume scale.

The Stanolind Gasoline covered by this sale has a gravity test of from 60 to 62 Baume scale.

According to a certificate or certificates of approval issued by the State Oil Inspection Dept.,—

(month) (day) (year)

Prices and Extensions Subject to Corrections

QUANTITY

PRICE

AMOUNT

Solite with Ethyl Gasoline

Standard Red Crown Gasoline

Stanolind Gasoline

Iso-Vis "D" Oils

Polarine Oils

Stanolind Motor Oils

Wisconsin Motor Fuel Tax

Gals. @ 4c

Federal Excise Tax

Gals. @ 1c

Federal Excise Tax

WARNING: DO NOT USE KEROSENE OR GASOLINE FOR STARTING OR
KINDLING FIRES. IT IS VERY DANGEROUS.

Gasoline not sold for Illuminating Purposes

TOTAL

CUSTOMER'S ORIGINAL INVOICE

STATE HIGHWAY COMMISSION OF WISCONSIN
Plan Dept.

No 1681

Madison, Wis.,

June 12, 1940

Received of

Mr. Thaukes

\$

13 $\frac{20}{100}$

Dollars

For

Aerial Photos

STATE HIGHWAY COMMISSION OF WISCONSIN

C. A. Lewis

PLAN DEPT.

INVOICE

The Royal Blue Print Company

627 STATE STREET

FAIRCHILD 428

MADISON, WISCONSIN

No 12242

DATE 6-1-42

TO

Cash.

SHIP TO

CUSTOMER'S ORDER NO.

VIA

Paid
6-1-42
A.S.

DESCRIPTION

| | | | |
|---------|--------|------------------------|----------|
| 1 orig | 1. B.W | Typography map - | 14 sq ft |
| 1 orig | 1. B.W | geology map | 16 sq ft |
| 2 orig | 1 B.W | Maps - Eng 1 | 5 sq ft |
| 1 orig | 1 B.W | Maps | 5 sq ft |
| 10 orig | 1 B.W | Maps - | 30 sq ft |
| 2 orig | 1 B.W | " | 6 sq ft |
| 1 orig | 1 B.W | Chart | 2 sq ft |
| 2 orig | 1 B.W | Maps | 4 sq ft |
| 6 orig | 1 B.W | Charts | 6 sq ft |
| | | Total | 88 sq ft |
| | | 54.96 | |

BLUE PRINTS AND REPRODUCTIONS

PHOTOSTAT PRINTS

COMMERCIAL PHOTOGRAPHY

ENGINEERING SUPPLIES

----- 41 Roby Road

Jan. 9, 1939

Dr. H. R. Aldrich,
Geological Society of America,
419 West 117th St.,
New York, New York

Dear Crombie:

In reply to yours of the 5th it has often been remarked that what a research worker actually accomplishes is a very small fraction of what he would like to do. There are faculty members who have time even to play golf but if you investigate them it will appear that they never do anything but give a few lectures a week from their notes of ancient date. All bluebooks, reports, etc. etc. are given to student assistants. Now, for various reasons I have never been able to lay claim to such help. Ours is the highest cost per student of any department so it pays to go slow in such requests.

Now, the result is that during the school year I have very little time for anything but well records. I did manage to get a drafting table into my new office and do some work on the northeastern Wisconsin maps last fall. During last summer I worked checking the work of the N.Y.A. student who ~~was~~ ^{was} ~~the~~ ^{the} ~~topographic~~ ^{topographic} map (every morning). The afternoons were taken up trying to keep the children quiet for ~~my~~ ^{my} ~~mother~~ ^{mother} ~~was~~ ^{was} ~~agitatedly~~ ^{agitatedly} ~~after~~ ^{after} ~~that~~ ^{that} ~~she~~ ^{she} ~~passed~~ ^{passed} ~~away~~ ^{away} ~~on~~ ^{on} ~~Aug.~~ ^{Aug.} ~~each~~ ^{each} of my time. On Oct. 14 we were bought out of our holdings across the lake because some of our neighbors seemed to think they did not want us. Using these funds we bought in town and started moving Nov. 6. On the same date I was taken ill with a bronchial cold which kept me in bed for six weeks, four of them in the hospital. I got back to work on the fourth of this month with doctor's orders to "take it easy." I still tire easily and yet simply must get out a new edition of the Outline which is sold out. So that's that.

I have not finished the big topographic map and the geological map is still least advanced. The block diagrams have not been started. And next summer I must go north to inspect and take over the management of the foreclosed farms we now have to care for. I estimate that you might place this project (Northeastern Wisconsin) in your file for 1941.

Best regards,
Sincerely,

was critically ill
in the next house
she passed away
on Aug. 14. After
that affair connected
with her estate
took much of
my time.

President, ARTHUR L. DAY
1565 Old Georgetown Road, Bethesda, Md.

Past President, CHARLES PALACHE

Vice-Presidents { T. WAYLAND VAUGHAN
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419 West 117th Street, New York, N. Y.

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The Johns Hopkins University, Baltimore, Md.



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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

January 5, 1938

Dr. F. T. Thwaites
Science Hall
Madison, Wisconsin

Dear Doctor Thwaites:

Some time ago we returned to you for your further attention your manuscript entitled "Detailed reconnaissance of Pleistocene of part of northeastern Wisconsin".

It has been almost a year since we have heard from you and we are wondering when we may expect the manuscript returned.

If you do not plan to submit the paper for publication will you please let us know so that we may remove it from our files.

Sincerely,

Croubie

----- 41 Roby Road

Jan. 9, 1939

Dr. M. M. Leighton,
State Geological Survey,
Urbana, Illinois

Dear Dr. Leighton:

When I returned to my office after a two months illness I found that I had never thanked you for the information contained in yours of Oct. 4, 1938. I did not answer it at the time as I expected to see you on the Tri-State trip. However, I was unable to attend and then a week later was taken ill. I got out of the hospital on Dec. 17 with orders to "take it easy" which I am trying to do. I went back to work on the fourth. Tommy was in bed three weeks with the same thing.

You will see from the change of address above that we sold out our holdings in the country and have moved to town nearer to work and to schools. We all like it better than the old place.

With best regards to all at Urbana,

Sincerely,

DEPARTMENT OF
REGISTRATION AND EDUCATION
JOHN J. HALLIHAN, DIRECTOR
SPRINGFIELD

STATE OF ILLINOIS
HENRY HORNER, GOVERNOR

STATE GEOLOGICAL SURVEY DIVISION

M. M. LEIGHTON, CHIEF
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STATE UNIVERSITY
PRESIDENT ARTHUR CUTTS WILLARD

October 4, 1938

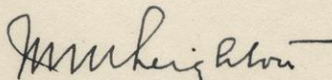
Dr. F. T. Thwaites, Geologist
Geological Survey
University of Wisconsin
Madison, Wisconsin

Dear Dr. Thwaites:

In reply to your letter of September 28, the results of recent field work strongly indicate that the Rockdale west of Joliet and the Manhattan south of Joliet are one and the same. In that case the name Rockdale would take precedence. What has been mapped as Rockdale a few miles south of the Manhattan, towards Wilmington, appears to be the back slope of the Minooka. Towards Kankakee the isolated morainic knolls appear to be Minooka.

We feel rather certain that since the Minooka is crossed by the Valparaiso to the north, it should be considered as a part of the Tazewell division. We are inclined to think that the Rockdale(-Manhattan) is also Tazewell, but our detailed field work has not been completed.

Very truly yours,


M. M. Leighton
Chief

President, T. WAYLAND VAUGHAN
3333 P Street, Washington, D. C.

Past President, ARTHUR L. DAY

Vice-Presidents { ELIOT BLACKWELDER
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Secretary, CHARLES P. BERKEY
Columbia University in the City of New York,
and 419 West 117th Street, New York, N. Y.

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

January 13, 1939

Dr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Fred:

Thanks for your letter of the 9th with advice as to the manuscript. I am sorry that you are finding yourself so deeply buried that this paper can not receive your full attention.

At the meetings I saw quite a number of Madison people and I learned of your critical illness. I also checked out on the address from which your Christmas greetings were sent. We had not learned of your removal to town, in fact it was difficult to believe that you and Amy would give up life on the lake.

I am sorry to know of your illness. Probably you need advice on taking care of yourself. I hope that by now you will have found yourself on a rising curve of strength and well being.

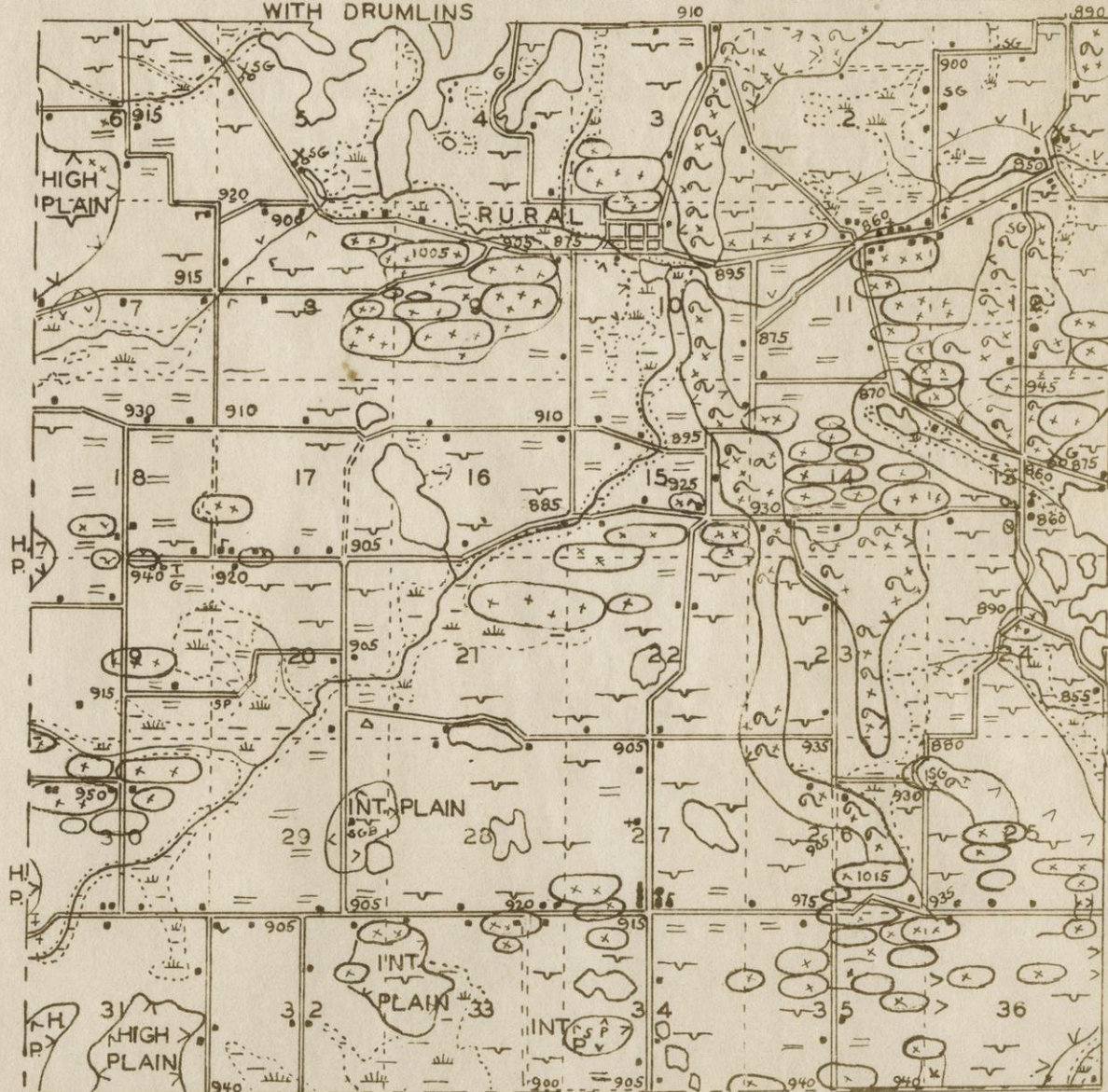
With best regards to you and Amy, I am

Sincerely,

Croubill

Assistant Secretary

CHAIN O' LAKES PITTED OUTWASH PLAIN BOWLER MORAINIC SERIES
WITH DRUMLINS



T. 21 N., R. 11 E., WAUPACA CO., WISCONSIN

FIG. 89

STATE OF WISCONSIN

CONSERVATION DEPARTMENT

FOREST PROTECTION HEADQUARTERS

Maps

TOMAHAWK

October 13, 1938



Mr. F. T. Thwaites
Geological & Natural History Survey
Science Hall
University of Wisconsin
Madison, Wisconsin

Dear Mr. Thwaites:

In accord with your request of October 3, I am enumerating herein the drafting features which we believe should be added to your topographic map of northeastern Wisconsin.

1. The drainage names on at least major rivers.
2. Key elevations on important locations such as lakes, communities, etc.
3. Elevation on intermediate contours. At present it is difficult to figure the elevation away from the heavy marked contours. This is especially true between the 750 and 1000 foot contours around the Shawano lake district.
4. The circles denoting the locations of cities are confusing especially when they are crossed by contours or land survey lines. May I suggest that a small solid square, equal in size to the present circle, be used.
5. All names should be clear of any contour or land survey lines. In many instances it is difficult to read the full name as for example the word "Portage" on the Portage-Marathon county line.
6. Township numbers should have the letter "N" for north and range letter "E" for east.

PREVENT FOREST FIRES

In giving the above criticisms I assume that the map will be blueprinted or blue line printed. In the event that you are issuing the map in color then, of course, the above does not pertain.

I trust that I have not been too harsh on the fine piece of work you are doing. I shall be pleased to give the map publicity in the forthcoming issue of the Survey and Map Bulletin as soon as I receive word from you that copies may be secured.

FOR THE DIRECTOR
E. J. Vanderwall
Chief Forest Ranger

By *Walter F. Choinski*
Walter F. Choinski
Chief Topographer

WFC:IR

FILE REFERENCE:

CCC
Plans
Special
Water Table Survey
Wisconsin

STATE OF WISCONSIN
CONSERVATION DEPARTMENT

ANTIGO

CIVILIAN CONSERVATION CORPS
DIVISION

November 1, 1938

Mr. F. T. Thwaites
Geologist
Wisconsin Geological Survey
Madison, Wisconsin

Dear Mr. Thwaites:

This is to acknowledge receipt of your map showing the topography of part of northeastern Wisconsin.

I have not had time as yet to give the map a detailed examination, but have no corrections to offer as the result of my first inspection. In the event that any corrections can be suggested after further use of the map, I shall transmit them to you. May I offer one suggestion which does not fall in the category of a correction, but which I believe might tend to improve the map slightly; - namely, that contours be broken and the elevation figures inserted more frequently?

I will be very pleased to have the present print for reference purposes since I have already found it useful in judging the nature of the physical features and in making tentative classifications of the drift in certain areas.

Your cooperation and thoughtfulness in supplying me with the map is sincerely appreciated.

FOR THE DIRECTOR of the
Conservation Department
J. E. Anderson
Jr. Admin. Officer
Wisconsin State C. C. C.

By

G. T. Owen
G. T. Owen
Ass't. Geologist

GTO:BB

Ann Arbor, Michigan, June 6 1938.

Dear Prof. Thwaites:-

I find very few changes needed in your map of the district bordering the north part of Lake Michigan. It seems advisable to shift the name Charlotte, and add the name Valparaiso, on the Michigan side of the lake. These moraines are correlatives, and they find continuation northward in the Interlobate moraine, so named on the map. No other changes seem necessary in the Michigan part of the map.

Do not the Rockdale and Manhattan moraines fall in the same series as the Valparaiso moraine? If so the horizontal lines should be deleted east from the Rockdale moraine. The Tekonsha moraine and the two Kalamazoo moraines in Michigan and Indiana fall in the same series as the Valparaiso moraine, and are merged with it, or overridden by it in northwestern Indiana. The Tekonsha moraine marks a readvance of the ice border in southern Michigan, following a marked shrinking of the Saginaw lobe. In this advance the Lake Michigan lobe invaded a district that had been occupied by the Saginaw lobe. This became apparent when I was making a study of the Camp Custer district, and is shown in Fig. 3 in the description on the back side of the Camp Custer map. The Fig. 2 on that description is out of harmony with it, and was slipped in by Alden without consulting me, as were Figs. 4, 5, and 6. If you do not have this Camp Custer map with its description, I think Mr. Alden may be able to supply you. I do not have an extra copy. The Tekonsha moraine marks the limit of what I have of late been calling the "Middle Wisconsin", and which you are calling the "Third Wisconsin" in the legend of this map. This Middle Wisconsin takes in the Mississinewa moraine, and the weak Union City moraine, just outside, in the Erie Lobe, and the Powell Moraine of the Scioto Lobe. Farther east it seems to extend about to the limits of the Wisconsin drift. As you have indicated, it embraces the Outer Moraine of the Green Bay Lobe.

I note that you carry the Mountain Moraine and the Athelstane Moraine south into the area ~~xxxxxx~~ covered by the Fourth or Late Wisconsin. Were they formed prior to the Late Wisconsin advance, and overridden by it? I infer that you will discuss this matter in your report. An overriding of this sort took place in eastern Minnesota. The young gray drift there is plastered over moraines of red drift of Middle Wisconsin age without materially altering their features.

It seems to me that the use of the terms Second, Third and Fourth as divisions of the Wisconsin drift is not advisable, not only because these divisions already carry the names, Early, Middle, and Late Wisconsin, but also because it has not been clearly shown that the Shelbyville and other moraines correlating with it in Indiana and Ohio, pertain to a second division of the Wisconsin stage. If my early interpretation that the Iowan drift on the west side of the Des Moines lobe is referable to the Wisconsin (See Bull. 14, Minnesota Geol. Survey) ~~it~~ should prove correct, it would then need to be shown whether or not it is a correlative of the Shelbyville moraine. At the time I made that interpretation I thought it likely to be the correlative of the Shelbyville moraine. Kay and Leighton are now referring it and the Iowan east of the Des Moines lobe to the Wisconsin. But so far as I am aware they have brought no evidence that it antedates the Shelbyville moraine. I think ~~x~~ it will be wise for you to use the well established terms Early, Middle, and Late Wisconsin in your legend, in view of the uncertainty of the time relation to the Iowan.

Thwaites.2.

By the time I prepared my final report for Prof. Paper 161, U.S.G.S. I had become convinced that the degree of weathering of the drift west of the Des Moines lobe is too great to warrant putting it in the Wisconsin. So I have classed it and the Iowan drift east of the Des Moines lobe with the Illinoian of the adjacent district in Dakota County, Minn. and in western Wisconsin. In the critical area where the Illinoian and Iowan come together, on the borders of Lake Pepin, there seems to be no evidence of overriding of the Illinoian by the Iowan, and the degree of weathering seems to be very similar. I hope you will visit this critical area in the near future, and I shall be glad to know whether you can find any evidence that the Iowan there is any younger than the Illinoian.

While on this subject I will mention some points in reference to the Illinoian that I have recently been discussing with Dr. Ashley. The Illinoian of northwestern Pennsylvania shows markedly less weathering than the Illinoian of southern and western Illinois. The granite pebbles in it still show a glazed surface, and are remarkably little weathered, compared with their condition in southern Illinois. This has suggested the interpretation that the drift in Pennsylvania is of Middle Illinoian age while that of southern Illinois is of Early Illinoian age. This is a condition already found to apply to the relative ages of the Wisconsin drift in the two districts.

Turning now to the Illinoian and Iowan drifts of the region bordering Lake Pepin, I am inclined to think that they are of Middle or Late Illinoian age. It is my impression that the degree of weathering, as in Pennsylvania, is decidedly less than that of the Illinoian drift of southern Illinois. While the Late Wisconsin in eastern Minnesota plainly overrides the Middle Wisconsin drift, there is, so far as I am aware, no evidence that the Iowan overrides the Illinoian drift in the place where they come together.

I have some correspondence recently with Prof. Lugin of the Nebraska Geological Survey, and I find that he is strongly opposed to the placing of the Iowan in the Wisconsin stage. He says "That is the one bird he would like to kill". His recent report seems to show that the Loveland loess is old enough to be pre-Illinoian, the amount of erosion between its deposition and that of the Peorian loess being too great for post-Illinoian time. I have brought this matter out in a review that will soon appear in the Journal of Geology. In differing from Dr. Kay, his old teacher, he shows an independence that is commendable.

I shall await the publication of your report on northeastern Wisconsin with much interest. I wish also to thank you for referring the map to me for criticism.

Very truly yours,

Frank Leverett,

DEPARTMENT OF
REGISTRATION AND EDUCATION
JOHN J. HALLMAN, DIRECTOR
SPRINGFIELD

FRANK G. THOMPSON

STATE OF ILLINOIS
DWIGHT H. GREEN HENRY HORNER, GOVERNOR

STATE GEOLOGICAL SURVEY DIVISION

M. M. LEIGHTON, CHIEF

100 NATURAL RESOURCES BUILDING
UNIVERSITY OF ILLINOIS CAMPUS

URBANA

February 18, 1941

FRANK G. THOMPSON
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STATE UNIVERSITY
PRESIDENT ARTHUR CUTTS WILLARD

Mr. F. T. Thwaites, Geologist
Wisconsin Geological Survey
The University of Wisconsin
Madison, Wisconsin

Dear Fred:

I herewith return the blueprint that you sent me last October. I am sorry that I have had this so long, but I have had no opportunity heretofore to make the necessary corrections on it. Most of these corrections are necessitated from the fact that your map is an enlargement of a smaller-scale map, but many of them are the result of careless copying, as you surmised. I believe you told me that the reference map you used was the one in the International Geologic Congress Glacial Handbook, so with one exception I have made only the corrections that are required to make your map correct according to the reference map. The one exception is the distinction of the Tinley moraine, which is shown on Bretz' map of the Chicago region, accompanying our Bulletin 65 that was published last year. The corrections are self-evident, I believe, but for your full information I add the following comments:

1. On the reference map we used the designations "Bloomington morainic system" and "Valparaiso morainic system" for more or less composite belts of moraines. In copying the map your draftsman indicated not only the front but also the back edges of these belts as moraines, which introduces misleading element on your map. I suggest that you do one of two things to eliminate this misleading element - either (1) delete the back boundary of the belt, which I have indicated with interrogation marks, or (2) use the full terms as we did, with the arrows showing the front and back edges.

2. Note that the Shelbyville and Bloomington moraines come together at the northeast corner of Stark County. I have shown and designated their respective correct positions south of their junction. It is our present opinion that the Green River lobe and White Rock moraine are also Shelbyville.

3. Arlington moraine - note corrected position.

4. Marengo Ridge - note corrected position.

5. Gilberts moraine - although not named, it was shown on our map and mentioned in our text.

Mr. F. T. Thwaites, Geologist--2
February 18, 1941

6. Farm Ridge moraine - note (1) corrected position and (2) that at the south end it is overridden by the Chatsworth.

7. Chatsworth moraine - note (1) its corrected position and (2) at its north end it is overridden by the Marseilles. The unnamed moraine emerging from beneath the Marseilles moraine at the northeast part of La Salle County may be a continuation of the Chatsworth, but we have not yet confirmed this.

8. Kishwaukee moraine - note position and name. This was omitted when your draftsman copied the map.

9. Marseilles moraine - note (1) corrected position and (2) that at its south end it is overridden by the Iroquois moraine.

10. Minooka moraine - note (1) corrected position and (2) that at its north end it passed under the West Chicago moraine. Your draftsman erroneously connected the Kishwaukee and Minooka moraines and failed to name them.

11. Iroquois moraine - note (1) corrected position and (2) that it overrides instead of passes under the Marseilles moraine.

12. Rockdale moraine - note (1) that the name is a single word, not two words, (2) that it extends northward to the north line of Will County, where it passes under the Valparaiso moraine, and (3) that at the south end it does not continue southeastward (your draftsman connected it with part of the Marseilles) but turns northeastward at Kankakee.

13. Manhattan moraine - note corrected position. It should appear as a "recessional moraine" of the Rockdale, with which it should seem to almost join at both the northwest and southeast ends.

14. Valparaiso - West Chicago moraine - note corrected position.

15. Cary ? moraine - note corrected position. Because this name is now applied to a Wisconsin substage, we shall have to adopt a new name, unless it is the continuation of the Elkhorn moraine in Wisconsin, as you show it. I believe that if I were you I should use only the name Elkhorn in Wisconsin on your map, as you have done, and omit any name in Illinois. Note that it terminates indefinitely at the south - it does not join the West Chicago moraine, as your draftsman drew it.

16. Fox Lake moraine - note corrected position. It also has an indefinite southward termination - it has no connection with a nonexistent back moraine of the Valparaiso, as shown on your map.

17. Tinley moraine - note corrected position. It is a separate, distinct moraine and not part of the Valparaiso system.

Mr. F. T. Thwaites--3
February 18, 1941

18. Lake Border moraines - your draftsman showed only one, when there are at least four. It appears that some change in connections at the State line is necessary, which I have indicated by interrogation points. Also note the correction of the isolated bit of Lake Border moraine in the Chicago lake plain.

19. It is now our well-considered opinion that the Cary substage begins with the Minooka moraine; therefore in that area of your map east and north of the Minooka and Rockdale moraines the horizontal lines of the Tazewell substage should be deleted. It is very likely that the Iroquois moraine is also Cary.

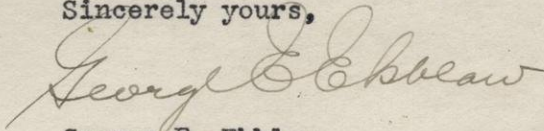
20. Inasmuch as the reference you are using is a paper of which Dr. Leighton and I are joint authors, both our names should be used on the insert map in which you indicate the accredited sources of your information.

I think this covers everything I can offer in the way of suggestions to make your map more accurate. I hope they will be of some value to you. If you have any questions, do not hesitate to ask them. I think I can assure you that I shall be able to answer them fairly promptly now.

I believe I have not thanked you for the copy of your "Outline of Glacial Geology" which you sent me also last fall. I am indeed pleased to have it, and I heartily appreciate your kindness and courtesy in presenting it.

With best regards,

Sincerely yours,



George E. Ekblaw
Geologist and Head
Areal and Engineering Geology Division

STATE OF WISCONSIN

CONSERVATION DEPARTMENT

FOREST PROTECTION HEADQUARTERS

FILE REFERENCE:

Maps

TOMAHAWK

July 1, 1941



Mr. F. T. Thwaites, Geologist
Geological & Natural History Survey
University of Wisconsin
Madison, Wisconsin

Dear Mr. Thwaites:

I am returning the blueprint map of McCaslin Mountain with a few notations.

My check of the map has not been very detailed because I do not have information at hand on the land survey. From all indications you have the land lines very well adjusted.

We expect the preliminary sheet on this area from the Geological Survey in the near future at which time I will forward a copy to you.

FOR THE DIRECTOR
E. J. Vanderwall
Chief Forest Ranger

By *John W. Ockerman*
John W. Ockerman
Principal Topographer

JWO:IR
Attach.

PREVENT FOREST FIRES

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INVESTIGATIONS, REPORTS
PLANS, SPECIFICATIONS AND
SUPERVISION OF CONSTRUCTION
WATER POWER
WATER WORKS
FLOOD CONTROL
IRRIGATION AND DRAINAGE
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STEAM PLANTS
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DANIEL W. MEAD
ASSOCIATE CONSULTANT

MADISON, WISCONSIN

June 20, 1941

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Dr. F. T. Thwaites
Geology Department
University of Wisconsin
Madison, Wisconsin

Re: Oregon Well Model

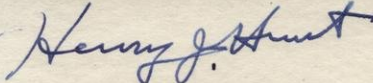
Dear Sir:

Mr. Donald McGill, Village Clerk of Oregon, called me this morning and authorized this office to instruct you to make a model of the Oregon well, and they will pay for it when it is completed. They are particularly interested in having this ready for the centennial which takes place about July 4. I presume that you will be able to get this in shape by that time.

If you will call me when the model is completed I will get in touch with the proper authorities and see that they get it as soon as possible.

Yours very truly,

MEAD WARD AND HUNT

By 
Henry J. Hunt

HJH:FB

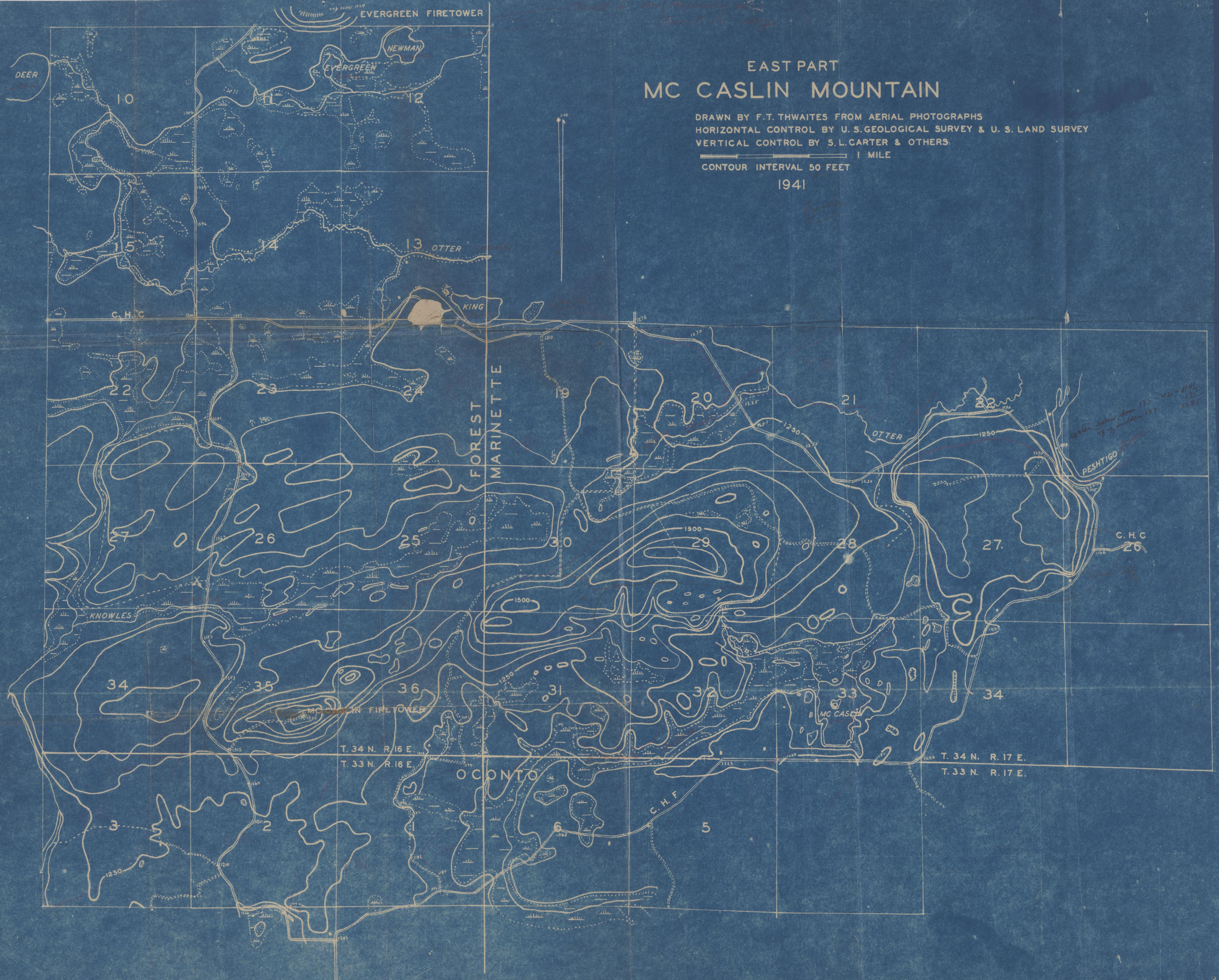
Copy to Mr. Donald McGill

CHM FOREST MATSEN
" WB HENRY GILBERT

Material

2.25
.25

labor



EAST PART MC CASLIN MOUNTAIN

DRAWN BY F.T. THWAITES FROM AERIAL PHOTOGRAPHS
HORIZONTAL CONTROL BY U.S. GEOLOGICAL SURVEY & U.S. LAND SURVEY
VERTICAL CONTROL BY S.L. CARTER & OTHERS.

CONTOUR INTERVAL 50 FEET
1 MILE

1941

FOREST
MARINETTE

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7.7' below 1327
1341*

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STATE OF WISCONSIN

CONSERVATION DEPARTMENT

MADISON

June 11, 1934

TO DISTRICT FOREST RANGERS:

Re: Mr. F. T. Thwaites

Mr. F. T. Thwaites of the Geology Department of the University of Wisconsin, expects to spend considerable time in the upper counties of the State of Wisconsin, and he may call on you for certain information or assistance from time to time.

Please arrange to render Mr. Thwaites such aid as you can. In the event that he would like to traverse some of the fire lanes which are closed by gates, it would be entirely satisfactory for you to loan him a key. He may ask you for other forms of assistance, and any courtesies that you can extend to him should be extended.

FOR THE DIRECTOR

C. L. Harrington
Supt. of Forests & Parks

CLH:VT

July 17, 1941

Dr. H. R. Aldrich,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Crombie:

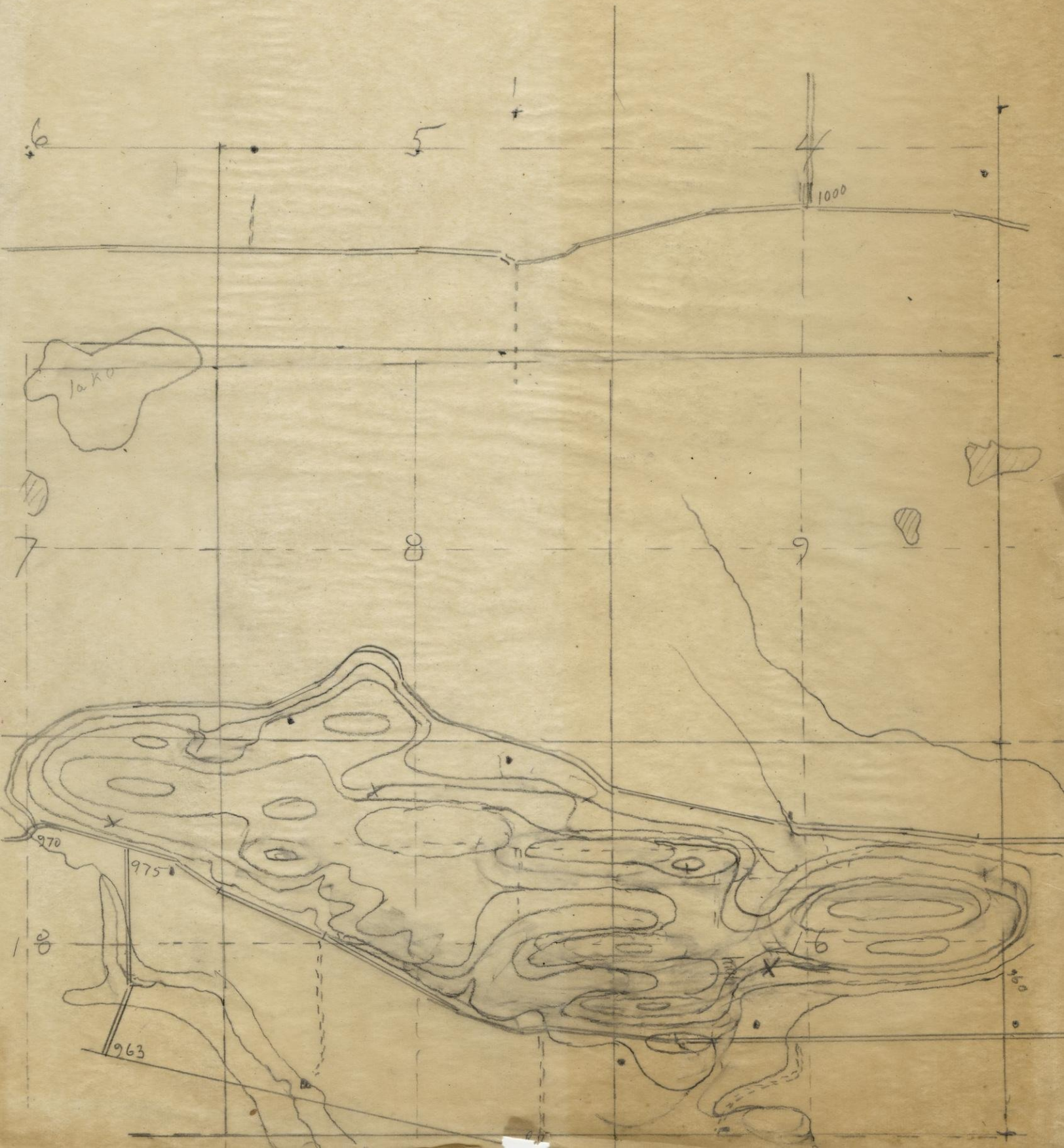
Yes, it's true although it may be a shock to realize, but the report on Pleistocene of part of northeastern Wisconsin is at last ready to resubmit. You realize that this copy is entirely different from the "taken" version sent in in 1936. Amy has typed and edited it this time.

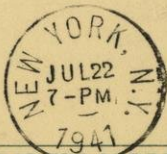
I am sending the ms by express prepaid along with one copy of the big map. The illustrations (except the plates) are all sent in the form of blueprints. Either originals or black line prints will be sent for publication when any desired changes have been made. I have made some notations on the big map on how to use some color for more than one thing. So far as possible I want to imitate Alden's map in Prof. Paper 106. I made a comparison of my report with his in regard to length and number of illustrations. As you can check this yourself I will not copy it. I will add that I have some slightly better prints of some of the photos which I will put in the final copy. This does not apply to the aerial photos for I have only one print each of those. I also have a somewhat clearer version of the big map which I can send to the engraver but I am holding back this as well as original tracings to avoid damage during editing and reading.

Best regards from both of us, Sincerely,

void

road





THIS SIDE OF CARD IS FOR ADDRESS



Mr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

THE GEOLOGICAL SOCIETY OF AMERICA
419 WEST 117th STREET
NEW YORK, N. Y.

July 22, 1941 19

This acknowledges receipt of your manuscript entitled Pleistocene of
part of northeastern Wisconsin

offered for publication by the Society. Report concerning it will be sent you
as soon as it can be read and censored.

~~CHARLES P. BERKEY,~~
H. R. ALDRICH Secretary

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Sam Galt*

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Oct. 13, 1941

Dr. H. R. Aldrich, Secretary,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Grumbie:

Please substitute enclosed blueprint for original Figure 1 in manuscript on Pleistocene of northeastern Wisconsin. Other copy may be destroyed as this one has been corrected.

Hope you can let me know soon about the manuscript.

I doubt that we will come to Boston. Flint's postponement of discussion of the map of North America until later plus the fact that he wanted me to talk about states I have never worked in resulting in my declining any place on the program removes most of my desire to come. Otherwise, I would like to come to Boston which was my father's birthplace. However, we may change our minds later. The Dallas meetings attract me more this year, in fact. Some others do not think they can come so far on account of high taxes !

Best regards from us all,

Sincerely,

Oct. 13, 1941

Dr. George H. Mblaw,
State Geological Survey,
Natural Resources Bldg.,
Urbana, Illinois

Dear George:

Enclosed please find revised copy of the map I sent you for revision last fall after the Tri State. If you have no corrections on this edition please keep it.

Sorry I was unable to go on the Tri-State this year but someone had to stay home to keep things going and besides I had already seen this area both in '24 and '33 the latter when we were on the I. C. C. trip.

I sent in my manuscript on northeastern Wisconsin with exception of this figure about the middle of July but have heard nothing from it except that it arrived.

Best regards,

Sincerely,

STATE OF ILLINOIS
DWIGHT H. GREEN, GOVERNOR
STATE GEOLOGICAL SURVEY DIVISION

M. M. LEIGHTON, CHIEF
100 NATURAL RESOURCES BUILDING
UNIVERSITY OF ILLINOIS CAMPUS

URBANA

October 17, 1941

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Mr. Fred T. Thwaites
Geologist
41 Roby Road
Madison, Wisconsin

Dear Fred:

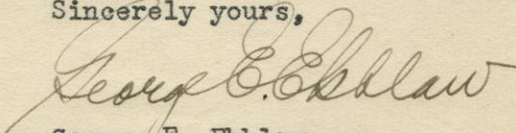
Thanks a lot for the copy of your manuscript map of the glacial geology around Lake Michigan. I see nothing seriously wrong with the map in its present form. According to our present knowledge, the Arlington moraine continues south where it becomes the Normal moraine, but this is in the southwest corner of your map, where it is of no consequence in your report. Also, because the Iroquois moraine overrides and is therefore younger than the Mar-sailles, it well may be of Cary instead of Tazewell age, but as this is still not definitely established, it may be just as well that you show it to be Tazewell, especially as it too is in the corner of your map far from your own area.

The Tri-State trip was a fine one, but there was no Pleistocene geology different from that which we saw on the I.G.C. trip in 1933.

I am looking forward to the publication of your report, so I hope it will not be long delayed.

Thanking you for your kind regards, which we heartily reciprocate,

Sincerely yours,



George E. Ekblaw
Geologist and Head
Areal and Engineering Geology Division

This was inadvertently
left out of Mr Aldrich's
letter to you of October 16 -

Y. H.

REPORT OF CENSOR # 1

The abstract is poor; does not bring forth the important contributions of the paper. No reason to say "The paper is illustrated by..etc."

I would suggest a good summary of the glacial history either at the beginning or at the end of the paper to give the reader a good grasp of sequence without the details.

Moraines in Illinois should be checked with current usage of the Illinois State Geological Survey (Bloomington normal moraines particularly.)

I feel that the author gets into too much controversial material in his discussion of the soils. So I suggest omitting completely the parts on soils. I can't see they add anything to the discussion and do materially complicate the presentation. So why drag them in at all. The alternative would be to give them much fuller treatment, which would be subject for another paper. The average geologist is not much interested in correcting small mistakes that the soils men have made in their mapping.

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Columbia University in the City of New York,
and 419 West 117th Street, New York, N. Y.

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

October 16, 1941

Mr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Fred:

I have your note of October 13 and I have substituted your more recent blue print for the original Figure 1, which I return to you herewith.

As to the status of the manuscript, it has been recommended for publication as of real value and with sufficient, adequate illustrations. It is the opinion of the critical reader that the literary execution will require some improvement. I enclose herewith copy of the critic's report which you can take under advisement in the interim before we get to the actual editorial handling of the paper. I ought to say that the critic is a member of the Board of Editors, clearly competent to advise on papers in this field and I would commend his suggestions and recommendations to your best studied consideration.

I am sorry that you find it impossible to attend the Boston meetings and take part in Flint's discussion of the new glacial map. My inclination is to discount your objections to taking part in the program no matter if you have done less work in some places than in others. You certainly have studied the patterns and as a member of a selected panel in glacial geology, in my judgment you would not have to take rank below the upper one, two or three. However the decision is for you to make. I dare say that your statement that some others at Madison are deterred from attending the Boston meetings on account of taxes will apply to a great many at other points. We find that taxes and rising costs at all points of the budget are serious deterrents in many things. However the show must go on. Geology can not fall by the wayside if we are to maintain our rate of progress. I hope that some of you at Madison who have not yet made final decision will reconsider before November 1 when the program of the scientific sections takes its preliminary shape.

With best regards, *to everyone*

Sincerely,

Bowditch

Secretary

Oct. 20, 1941

Dr. E. R. Aldrich, Secretary,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Crombie:

Yours of the 16th and a later letter enclosing the criticisms of the manuscript on northeastern Wisconsin are at hand. Thank you for making the substitution of drawings. The second one has much larger and clearer lettering. It has been approved by the Illinois Geological Survey.

It was my understanding that an abstract once published could not be changed. Mine was written before the manuscript and published at the time. I did make a few changes and will make more if you desire.

With regard to the discussion of the relation of soil types to glacial geology the matter is not one of "small" errors on the part of the soils men who were largely ignorant of glacial geology as it now exists. It is an attempt to offer a translation of their maps which cover a much greater area than does mine. I have found them very useful now that I can understand them. If these sections need amplification I will be glad to change them. I am afraid I may have tried to make the paper too short!

No, I cannot come to Boston for we must do like the big corporations and set up a tax reserve.

Sincerely,

41 Roby Road,
Madison, Wis.
June 5, 1942

Miss Agnes Creagh, Editorial Assistant,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Miss Creagh:

At last I am able to answer yours of April 22 in regard to the manuscript on Pleistocene of part of northeastern Wisconsin. I regret the long delay but there just was no time available until school closed.

I have already replied to Dr. Aldrich in re the report of a critic who I felt misunderstood the situation in regard to soils completely. For that reason I made no material changes in the sections in regard to soils.

I do not recall talking this over with Mr. Bean but am confident he would agree with me.

I accepted all but a few of your changes in wording. You realize, of course, that particular ways of wording are as much a part of a personality as is voice. I did, however, follow your suggestions for drastic blue-pencilling of the captions. There are two schools of thought on this subject, one of which demands extensive explanations of each illustration. I tried to compromise in favor of brevity in so far as possible.

With regard to Dr. Aldrich's desire to cut the plates to 6 I feel this way. Several thousands of dollars were expended on the field work on which and the report I have labored most of my spare time ever since 1926. Now, is it not fair to spend a little more to make a worth-while report? Many of the illustrations he objects to are NOT in text books to my knowledge. However, in view of costs as they are now I was willing to compromise and reduced the plates to 10 including the maps. I also cut out two of the figures. This will leave the plates with one blank side page but I take it this is not important. I felt badly over leaving out two of the aerial views which would have just filled this gap but did so just the same. Mr. Bean and I went over this matter very carefully and I also submitted the illustrations to others. Plate 1 is to be reduced to one inch = 6 miles.

I have sent originals of the drawings where such were on tracing cloth but for those which I made on tracing paper I have sent retouched black line prints. I trust these will be all right. It really does not matter if some of the finer details do not come out clearly. If there is any trouble with these please advise and I can send originals. I tried binding these with scotch tape but that caused wrinkles and was a mess in warm weather so I had to take it all off again.

With regard to some of the changes in typography such as headings I would like to explain that we followed a G. S. A. report of recent date and tried our best to make the typing the same. Mrs. Thwaites has not had time to revise the manuscript but I went over it several times and picked up quite a few errors and omissions. I fully understood the desirability of good copy. I did not return the blueprint copies of the figures and plates. I included a part of Alden's map to see if we can match the colors as well as possible but am presenting a much simplified color system which should reduce cost of the map. Mr. Bean is particularly anxious to get a good map

Sincerely,

President, DOUGLAS JOHNSON
Columbia University in the City of New York

Past President, CHARLES P. BERKEY

Vice-Presidents { E. L. BRUCE
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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

April 22, 1942

Mr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin:

Dear Mr. Thwaites:

Under separate cover we have sent you your manuscript on the Pleistocene of part of northeastern Wisconsin. We have already sent you a copy of the critic's report, and with the manuscript we enclose a memorandum by Miss Marsh who has done the editing in this office.

We ask you to consider our suggestions and to accept those which improve the paper. We feel that it is the author's responsibility and privilege to be the final judge of how his paper will stand, and we have made the suggested changes in the interest of easier reading and more direct statements. If we have in any way impaired your meaning please feel free to reject our change, but if you agree that our way is more direct, then please follow Miss Marsh's suggestion that you cross out the material in the brackets. You may find that you can condense even further than we have, and we hope you will do this wherever you find it possible. We ask you especially to consider your illustrations. We have suggested deleting some of the photographs which do not seem to us to be essential and we question whether all the maps and other figures are vital. Please consider each illustration and omit any which do not add to the paper. We have checked in the margin all references to the illustrations so that when you make the revised list of illustrations you can more easily change the illustration numbers.

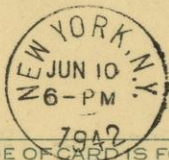
We also ask you to check the manuscript for type errors. We have caught a few misspellings and ask you to proofread the manuscript again carefully. If we give the printer good copy he guarantees to us a good job of typesetting; if misspellings get through and have to be corrected in galleys, this means more expensive publication and greater delay in printing. If you will take the utmost care now with these details the later stages of publication will go much more smoothly.

We shall be glad to have your paper returned to us after you have gone over it carefully and checked the points above and the points brought out by the critic and by Miss Marsh.

Sincerely yours,

Agnes Creagh

Agnes Creagh
Editorial Assistant



STATION J



THIS SIDE OF CARD IS FOR ADDRESS

Dr. F. T. Thwaites
40 Robey Road
Madison, Wisconsin

THE GEOLOGICAL SOCIETY OF AMERICA
419 WEST 117th STREET
NEW YORK, N. Y.

June 10, 1942 19

revised

This acknowledges receipt of your/manuscript entitled Pleistocene
of part of northeastern Wisconsin

offered for publication by the Society. Report concerning it will be sent you
as soon as it can be read and censored.

~~CHARLES F. BERKEY~~
H.R. ALDRICH Secretary

President, DOUGLAS JOHNSON
Columbia University in the City of New York

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

June 12, 1942

Dr. F. T. Thwaites
40 Roby Road
Madison, Wisconsin

Dear Fred:

I have your letter of June 5 to Miss Creagh and thought that perhaps since I have had a cooperative hand in the manuscript perhaps I had better reply to one or two of your paragraphs.

The suggestion by the critic in regard to the section on Soils need not have been taken beyond your own studied consideration. The suggestion was made to you for what it was worth.

We do realize that particular ways of wording are as much a part of a personality as is a voice, however in reading editorially we endeavor to pick up expressions and wordings that are ambiguous or overly long or not quite clear, and in the interest of the author as well as the reader we call them to the author's attention. Here again remember we offer these to you as suggestions and give you the opportunity to consider them and either accept or reject, or make other modification if deemed advisable.

In regard to the captions, we recognize with you the two schools of thought but on this point we have instructions from Committee and Council that the place for extensive explanations is in the text accompanied by a reference to the illustrations to complete the process. Furthermore full tone illustrations which we use are more expensive by about 25 percent than the best half tones. They are manufactured on a special kind of paper, one that is adapted to the full tone process. Full tones are paid for on a per page basis, hence we believe that, in addition to the reasons given above, we should use the full tone paper solely for full tones and not for text such as extensive explanations.

Without debating the time and expense that you have put into the field work in preparation of the paper, all of which I know to be true, and not denying for a moment that many of your photographs are not in text books I raised the question with you whether many of them were truly vital to the thesis and urged you to eliminate as many as you deemed wise. We suggested some that might be deleted but left the final decision to you.

Dr. F. T. Thwaites - 2

We are sending the colored map to Williams and Heintz for examination and estimate and will have something in the way of proofs in due course.

All of which is to emphasize that in our regular practice we have refrained from arbitrary decision on many of these things, in most instances outlining our reason or background and inviting your consideration. We are grateful to you for this consideration and cooperation. You can rest assured that we too are anxious to get a good colored map and I am sure that Williams and Heintz can turn out a good job if any one can.

With best regards to you and Amy and other friends about the Department.

Sincerely,

Crowbill

Secretary

P. S. I note that you wish Plate 1 (topographic) to be reduced to 1 inch = 6 miles. The colored map, Plate 10, is to be reduced to 1 inch = 4 miles like the late Alden map. We are of the opinion that the topog and glacial maps should be of the same scale to make them more useful. The difference in cost between the two scales is of no moment compared to the greater usefulness which I believe the greater scale would give. I assume you do not object.

Have gotten a kick out of looking again at various families places on the map, which suggested various incidents and items of interest etc, etc. One or two or more things raised question. South of Butternut in the lake is a short line seemingly meaning nothing but perhaps an embankment or a lane(?) or gain but probably a false move by draftsman? Also, you seem to imply that the hydrography is true in black but I think we ought to use blue and in getting W & H estimates on it. What about it?

Have a suspicion you feel I am funny finching re the photos but altho we ought to be sure that each photo is justified it doesn't mean we can't pay for all that are needed. Many authors throw in many pretty pictures for good measure but the trend is to use only what help vitally to illustrate and carry the load of the text. By the same token we expect a man to cut out irrelevant text and "verbal bunnies" as our printer calls them - words that cost time to read and money to edit, proofread, set in type etc etc but which carry none of the load of the exposition. A Yankee thrift is good foundation perhaps but I may merit.

Bean has long since requisitioned 140 copies of the paper. He can get 150 for the same price so we have raised the ante. But - don't you folks want extra copies of the map alone? Extra copies ^{only cost 1500-2000} would be quite cheap perhaps under 10 cents each since we charge engraving to the Bulletin. The over-run costs cover only paper and press run.

Crowbill

June 17, 1942

Dr. H. R. Aldrich, Secretary,
The Geological Society of America,
419 West 117th Street,
New York, New York

Dear Crombie:

Yours of the 12th was awaiting reply at home but I was so busy there that I finally took it to the office for some "peace and quietness".

The latter was sent to Miss Creagh so as not to seem to go over her head.

I think I cut the captions to fit your ideas. One has to state sources and point out some things to make the pictures clear. My original idea in closing illustrations was to show each land form and each type of sediment fully. However, in order to assure a colored map I was willing to sacrifice some pictures. Of course, the original selection was made before the aeriels were available which naturally changed the entire situation. How they would have changed the problem of field work if I could only have had them when on the spot.

With regard to scale of the maps I was particularly anxious to get the geological map on the same scale as Alden's. If you can make the topographic map the same scale it would be fine. I made the lettering of the latter to fit a smaller scale but that will not matter.

The line near Buttedesmort is intentional. It is a long narrow island. You will find a number of corrections on the tracing so that it does not agree at all points with the older black line print on which coloring was done.

If you can make the drainage blue it would be fine. I had figured on a photographic reproduction of the base.

I feel quite as you do in regard to illustrations but still feel bad about cutting out some of mine. After all, I had to be on the defensive about there being any drumlins in the area until the aeriels were taken. One of the road material men said, "They look like drumlins from a distance but when you get there they are just heaps of rocks" I have been speculating on anaglyphs for illustrations of some topographic features not for this report but for the future when things clear up a bit after the war.

I spoke to Bean about his order and he said he would find out if still valid and write you about it. I would like to get some extra maps myself.

The Survey is hard hit once more by the abolition of the Road Material work this year. I am busy with well records most of which are due to the war but that may go next, who knows.

Best regards,

Sincerely,

President, DOUGLAS JOHNSON
Columbia University in the City of New York

Past President, CHARLES P. BERKEY

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

June 25, 1942

Mr. Fred T. Thwaites
41 Roby Road
Madison, Wisconsin
m

Dear Fred:

Thank you for your letter of June 17 which I understand you took to the office for peace and quiet. Just wait until your lads accumulate a few more years and you will perhaps wish that there was a little more life around the premises. Our two have now left the nest. Dick graduated at Columbia in June and is now at MIT with the NDRC Laboratory of Radiation. Bob is in forestry at Syracuse and is now about to leave home for 12 weeks in the Adirondacks.

You need have no feeling of going over either my head or that of Miss Creagh. I merely wrote on the 12th to relieve her of the pressure of some of the questions. I had taken a hand in the beginning and I wish to share responsibility when your views and ours were not quite eye to eye. Everything is all cleared, so that is that.

The aerial photographs are excellent and I would add one more exclamation point to your statement, "how they would have changed the problem could I have had them on the spot!!" Aerial photographs and aerial mapping have quite changed the complexion of areal field work.

We will try to make the geologic map and the topog map on the same scale and we will plan to print the drainage from the blue plate.

I hope you will not believe that I have checked the two maps in every detail. That is quite impossible at this stage. The line near Buttedesmorts stood out like a sore thumb. I am glad that I came close to guessing that it belonged there.

You have introduced me to a new two bit word "anaglyphs" and I believe that it should be of interest to just such work as yours.

We have checked through Bean on the requisitions for reprints. The number apparently depends upon ultimate cost, and we will be in position to complete the order a little later. It is tough that the Survey appropriation was hit but I imagine that perhaps there are not enough men available to carry out field work these days excepting in strategic minerals. Do you know about the new Sunrise well at Sturgeon Bay?

Mr. Fred T. Thwaites - 2

Bagg sent me a photograph of the layout just as it came in. He tells me that the new well makes more than a million gallons in 24 hours and is probably the second largest flowing well in the State. Apparently the new war activities are stimulating work in water supply. I wonder how your service with the cuttings and counseling could well be foregone.

With best regards,

Sincerely,

Crowley

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Columbia University in the City of New York

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

July 2, 1942

Mr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Mr. Thwaites:

Under separate cover we have sent you the colored copy of your map. The engraver has gone over it to make an estimate of the costs and he has picked up a few points which are not clear. Will you therefore restudy it, together with the color patterns he submits, and answer his questions.

We point out that this is the time for you to do all your checking on the map, as the expense of making changes after the color plates are made is excessively expensive. The estimate which the engraver gave us for your two maps is slightly under 1000.00. We also considered having the hydrography in blue, but he informed us that to make a separate plate for this would be 150.00, and he suggested that instead we use a blue for the double line streams and the lakes; this we have decided will probably be adequate, and since it is only 50.00 we felt that the difference did not justify the making of a separate plate for the single-line streams. Thus the streams will be black lines as at present, but all large streams and all lakes will be distinguished by the blue. We trust that this is satisfactory to you.

May we suggest that for clarifying the various outcrops for the engraver you number in pencil quite liberally over the map the various patterns to correspond with the numbers in the legend. In this way, for instance, the difficulty in distinguishing 9, 13, and 16 will be avoided. These numbers will not appear on the finished map, of course, but should make it easier for the engraver and should minimize the errors. We urge that you go over the map and do everything possible so that the changes in proof will be as few as possible.

We are not sending the tracings because you will probably not need them and we did not wish to risk shipment of unnecessary material. We hope you will be able to work on the map at an early date and that you will return it promptly so that we may go ahead with its manufacture.

Sincerely yours,

Agnes Creagh
Agnes Creagh

41 Roby Road,
Madison, Wis.,
July 10, 1942

Miss Agnes Creagh,
The Geological Survey of America,
419 West 117th St.,
New York, New York

Dear Miss Creagh:

Yours of the 2nd and the map came duly and the points have been taken up both by Mr. Bean and by me.

To clarify matters I may say that the black line prints on which coloring was done were run from a tracing made by N. Y. A. labor before final checking. There are many cases where the fine dotted lines did not show on the print, also many cases where changes in such boundaries were made on the tracing, along with many other corrections, after the date of these black line prints. I colored two prints using somewhat different colors and then changed to the one with the more contrasty colors neglected to note that I had lumped three age divisions of lakes under the same color! This is now taken care of with numbers as you suggested. The northern part of Lake Oskosh shows a fine line for a boundary between a low and a high level lake. I suggest that we color all the lake the same but leave this faint boundary line within the colored lines for what it is worth. I also changed the coloring in portions of Lake Dunbar in the northern part of the map adding some new boundary in pencil which is not yet on the tracing. I suggest that these new boundaries be added to the tracing.

In no case did I find any serious errors in coloring, just one inconsequential area left uncolored. In coloring drumlins I suggest that care be taken to make them smooth ovals like the inked outlines on the color sheet regardless of the exact form of the dotted lines on the tracing. In other boundaries, however, the dotted lines should be followed exactly. I made all these under a magnifier for I expected a map reproduced by photography only.

I made two trifling changes in the color chart. I exchanged the color patterns for numbers 16 and 13 on the ground that the single large area of 16 would allow a wider spacing than in the case of 13 where some of the areas are narrower. I also changed to a finer dot pattern for number 5 to be more like Alden's yellow-green flat color.

I can not see exactly the idea of two colors for hydrography but if you think it will be all right will not raise any objection. Please remember that the topographic map shows all lakes with a dot pattern. There are several areas along Wolf River which are distributaries and NOT lakes. Checking of one map against the other will avoid mistakes in this puzzling country. We should use all possible ways to make the lakes show correctly.

You will note that an attempt has been made on this map to show formations of two ages (Gary and Tolders) in the same area by an overprint. If there are any other troubles before engraving you can send back the map. I am returning it via express prepaid.

Sincerely.

August 24, 1942

Miss Agnes Creagh,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Miss Creagh:

Yours of the 18th and the roll of maps arrived and were given immediate attention. Infact I postponed my vacation on account of this job, that is if any vacation proves possible in war time.

The original tracing has been checked and corrections made to the boundary lines. I think some of those left out must be charged to the fact that I did the work with students running in and out constantly!

I made corrections by erasure of color with razor blade wherever possible. Added color areas were put in with crayon. One word on the map which had been lettered with the wrong pen was erased and done over. I hope everything is now all right and that you will be able to put the job through as planned.

Sincerely,

President, DOUGLAS JOHNSON
Columbia University in the City of New York

Past President, CHARLES P. BERKEY

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

August 18, 1942

Mr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Mr. Thwaites:

Under separate cover we have sent you proofs of the various color sheets for your map. The job is a much tougher one than the lithographer first anticipated, and he would like you to check and correct the individual sheets before they proceed. They have questioned any dubious spots and would like you to clarify them. The colors used here are water colors and therefore not reliable as to tone. After you have corrected any errors, however, the lithographer will give us a proof of the whole job for your final checking. We urge, however, that all your corrections be made now, to obviate any correction after the various color plates have been assembled.

We shall be glad to have you do this checking at your earliest convenience. We hope to print your paper in the October number if the map can be completed in time.

Sincerely yours,

Agnes Creagh

Agnes Creagh
Editorial Assistant

Sept. 16, 1942

Miss Eleanor Grapullo,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Miss Grapullo:

Yours of Sept. 14 and the proofs are at hand. I was horrified to learn that you did not have the maps. My letter of Aug. 24 to Miss Croagh did not explicitly state that they had been shipped but they were sent the next day via prepaid express, receipt No. 4029. I have asked the Express Company to trace the shipment. However, I rather surmise that the roll was mislaid in your office, perhaps sent on to the engraver without note of that fact. I note that Miss Croagh was then in charge of the paper and now is not which might account for the difficulty.

We are working hard on the proof and will have it ready to return soon. If the maps prove lost I can replace them easily as I have black-line print of original map and a duplicate of the color sheet.

Hoping the maps turn up all right,

Sincerely,

President, DOUGLAS JOHNSON
Columbia University in the City of New York

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

September 14, 1942

Dr. F. T. Thwaites
Wisconsin Geological Survey
Madison, Wis.

Dear Dr. Thwaites:

Under separate cover we are sending galleys and manuscript of your paper which is scheduled to appear in the October issue. We have not yet received your maps but thought you might begin proofreading and checking in order to save time. The issue is already late so we would appreciate it if you would cooperate with us. Please do not return the material until you receive the maps.

Sincerely yours,

Eleanor Crapullo
Eleanor Crapullo
Editorial Assistant

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Columbia University in the City of New York

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

September 18, 1942

Dr. F. T. Thwaites
41 Roby Road
Madison, Wis.

Dear Dr. Thwaites:

Let me assure you that your map has not been lost but is being printed in combined color, for which you will see proof. Perhaps you misunderstand our letter which stated that "we have not yet received your maps", meaning that they had not yet come from the lithographer. Dr. Aldrich was in Washington last week and says that the work on the maps was more complicated than had been expected and was therefore a slower process. We will have to shift your paper, therefore, to the November instead of the October number.

Please hold galley proof until you receive proof of the maps.

Sincerely yours,

Eleanor Crapullo
Eleanor Crapullo
Editorial Assistant

RAILWAY EXPRESS AGENCY

INCORPORATED

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1. The provisions of this receipt shall inure to the benefit of and be binding upon the consignor, the consignee and all carriers handling this shipment and shall apply to any reconsignment, or return thereof.

2. In consideration of the rate charged for carrying said property, which is dependent upon the value thereof and is based upon an agreed valuation of not exceeding fifty dollars for any shipment of 100 pounds or less and not exceeding fifty cents per pound, actual weight, for any shipment in excess of 100 pounds, unless a greater value is declared at the time of shipment, the shipper agrees that the company shall not be liable in any event for more than fifty dollars for any shipment of 100 pounds or less, or for more than fifty cents per pound, actual weight, for any shipment weighing more than 100 pounds, unless a greater value is stated herein. Unless a greater value is declared and stated herein the shipper agrees that the value of the shipment is as last above set out and that the liability of the company shall in no event exceed such value.

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- The act or default of the shipper or owner.
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- The Act of God, public enemies, authority of law, quarantine, riots, strikes, perils of navigation, the hazards or dangers incident to a state of war, or occurrence in customs warehouse.
- The examination by, or partial delivery to the consignee of C O D shipments.
- Delivery under instructions of consignor or consignee at stations where there is no agent of the company after such shipments have been left at such stations.

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6. When consigned to a place at which the express company has no office, shipments must be marked with the name of the express station at which delivery will be accepted or be marked with forwarding directions if to go beyond the express company's line by a carrier other than an express company. If not so marked shipments will be refused.

7. As conditions precedent to recovery claims must be made in writing to the originating or delivering carrier within nine months after delivery of the property or, in case of failure to make delivery, then within nine months and fifteen days after date of shipment; and suits shall be instituted only within two years and one day after the date when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof.

8. If any C. O. D. is not paid within thirty days after notice of non-delivery has been mailed to the shipper the company may at its option return the property to the consignor.

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10. If the destination specified in this receipt is in a foreign country, the property covered hereby shall, as to transit over ocean routes and by their foreign connections to such destination, be subject to all the terms and conditions of the receipts or bills of lading of ocean carriers as accepted by the company for the shipment, and of foreign carriers participating in the transportation, and as to such transit is accepted for transportation and delivery subject to the acts, ladings, laws, regulations, and customs of overseas and foreign carriers, custodians, and governments, their employees and agents.

11. The company shall not be liable for any loss, damage, or delay to said shipments over ocean routes and their foreign connections, the destination of which is in a foreign country, occurring outside the boundaries of the United States, which may be occasioned by any such acts, ladings, laws, regulations, or customs. Claims for loss, damage or delay must be made in writing to the carrier at the port of export or to the carrier issuing this receipt within nine months after delivery of the property at said port or in case of failure to make such delivery then within nine months and fifteen days after date of shipment; and claims so made against said delivering or issuing carrier shall be deemed to have been made against any carrier which may be liable hereunder. Suits shall be instituted only within two years and one day after the date when notice in writing is given by the carrier to the claimant that the carrier has disallowed the claim or any part or parts thereof. Where claims are not so made, and/or suits are not instituted thereon in accordance with the foregoing provisions, the carrier shall not be liable.

12. It is hereby agreed that the property destined to such foreign countries, and assessable with foreign governmental or customs duties, taxes or charges, may be stopped in transit at foreign ports, frontiers or depositories, and there held pending examination, assessments and payment, and such duties and charges, when advanced by the company shall become a lien on the property.

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

October 13, 1942

Dr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Doctor Thwaites:

Under separate cover we are sending you proof of the maps for the Wisconsin glaciation. Will you please proofread the colored map and check it most carefully, so that it will be as accurate as possible. We hope you will be able to do this very promptly as we should like to print your paper in the November issue of the Bulletin if it is at all feasible. We therefore ask that you return a corrected proof and the originals of the maps, together with the corrected galleys which you are still holding. The extra two maps we include for you to keep if you wish.

We hope you will find it possible to give this work your immediate attention.

Sincerely yours,

Agnes Creagh

Agnes Creagh
Editorial Assistant

President, DOUGLAS JOHNSON
Columbia University in the City of New York

Past President, CHARLES P. BERKEY

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THE GEOLOGICAL SOCIETY OF AMERICA

419 WEST 117TH STREET, NEW YORK

December 2, 1942

Mr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Mr. Thwaites:

Under separate cover we have sent you the glacial map for your final checking. After you returned the first proof we sent you we found so many additional errors that we thought you should have another look at it. We certainly hope that it is accurate now, but please indicate any further corrections which may be needed. Please return corrected proof to us very promptly.

Sincerely yours,

Agnes Creagh

Agnes Creagh
Editorial Assistant

Dec. 16, 1942

Miss Agnes Creagh,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Miss Creagh:

In reply to yours of the second the maps did not reach me until last Thursday evening. Express is very slow just now, as you have probably found before. I was, however, unable to do much on the map until yesterday. Then I checked it thoroughly and found a few points I had missed before. There were also a lot where they had either missed my former corrections or had made errors in trying to fix them. I now hope it is as nearly correct as possible. If I were doing it again I would make a separate tracing for each color even if they did not stay in registry long. It was this difficulty of keeping maps the same size which caused me not to do this but I see now it was a mistake.

I hope the roll of maps which I took to the express office yesterday reaches you in a reasonable time.

Sincerely,

41 Roby Road,
Madison, Wisconsin,
March 15, 1943

Dr. H. R. Aldrich, Secretary,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Crombie:

I have delayed writing you since my paper came out for several reasons. First, I was so mad about the trading of the photos that I just could not write about it. Second, three packages were on the express bill but only two arrived. The box or roll of maps are still missing. Neither has there been any bill so I have been unable to fill several orders.

Today I read over your letter to Bean in regard to the plates. I just cannot see your alibi. I marked the mixed ones to trade. Then did so as the double stapling would plainly show, also my statement in the letter that I had. If I had not scratched out my personal note you would have traded them back again. You evidently did not check to see that the plates were in the order in which I had placed them. As they are the legends simply do not make sense. I am stamping every copy of mine with a correction. I suggested to Bean that you could print us some such statement on adhesive paper. For that matter I could mimeograph these on adhesive and gum them in before sending out copies. I certainly tried the best way I knew to correct this error but as I had not later proof could not discover until too late that you did not check over to see that the correct plate was with the correct legend. Your interpretation suggests that I did not know which one was correct! We never had any page proof! :

It is too bad such a kid mistake (students make it all the time) as Magnesium got by us but of course not having the proof I could not tell that we all missed it. But this is not so important.

I did not check over the map for without the proof it is hard to do. I would have to go back to originals. I agree with you that poor judgment was used in folding. I am going to send out some copies soon but on account of the war so many persons are away that the list will have to be curtailed severely.

I fail to find that I ever received the history of the Society by Fairchild. I think you said I could still get one.

The Geology department is just about dead and Science Hall is about like a morgue. Three of us, Con, Winchell and I, are teaching physics. I now have a "contour finder" to draw maps from aerial photos. Hipple built it for me. Several students are working up maps with it. Yes, there are a few left and I even hope for a Devils Lake trip with a class of 8 (two girls, one 4-F, two R. O. T. Cs., and the rest reservists.

Best regards,

Sincerely,

Oct. 20, 1942

Miss Agnes Creagh, Editorial Assistant,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Miss Creagh:

In reply to yours of the 13th the maps came and were given priority over everything but my classes. Nevertheless, it was this morning before I could call the checking satisfactory.

On the whole the job was good. As the color sheets I corrected were not sent I could not tell in all cases where the error was mine or where it was the engravers. These sheets would have facilitated checking.

On later consideration I feel that the colors are all right. I thought for a time that a brighter red and a darker brown would improve things but now doubt that.

The proof of the manuscript is also enclosed. I checked that so long ago that I have now forgotten most of the points raised. I see that you were not constant in use of "vol." for Bull. Geol. Soc. Also I wondered why you leave out "and" in Geol. Nat. Hist. Survey but if that is your custom it is all right with me. I pasted in the text cuts at places they are first mentioned and marked approximate locations of plates except the two large maps. Two plates had been mixed up but I fixed that.

25

I have ordered 100 ~~xxxxx~~reprints plus 50 of Plate 10 and 25 of Plate 1. The Department is also ordering 50 reprints and Mr. Bean says he has ordered more. They are not ordering any extra maps.

I hope my corrections are all clear. I was forced to make a few changes in the text which were due to my errors in the manuscript but such things just will happen.

Very truly yours,

The University of Chicago

Department of Geology

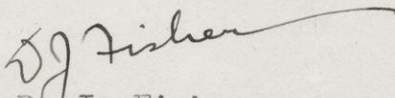
February 15, 1943

Professor F. T. Thwaites
Department of Geology
University of Wisconsin
Madison, Wisconsin

Dear Thwaites:

I see your article on the glacial deposits of northeastern Wisconsin in the current G.S.A. bulletin and it looks like a dandy publication, as we all knew it would be. I have long been interested in this area because in it is located my summer home. I would therefore greatly appreciate receiving an off-print of your article when it is available.

Cordially yours,


D. J. Fisher

DJF:MW

Zent

President, E. L. BRUCE
Queen's University, Kingston, Ontario, Canada

Past President, DOUGLAS JOHNSON

Vice-Presidents { ADOLPH KNOFF
A. C. TROWBRIDGE
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THE GEOLOGICAL SOCIETY OF AMERICA

OFFICE OF THE SECRETARY

January 26, 1943

Dr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Doctor Thwaites:

Under separate cover, by express, we are returning
the originals of your figures and plates printed in the
January issue of the Bulletin.

On the enclosed card will you kindly list any errata
or emendations which appear in the final printing of your
article.

We should appreciate your returning this card as
soon as possible.

Sincerely yours,

Marion Marsh

Marion Marsh
Editorial Assistant

Encl.

Oklahoma
Agricultural and Mechanical College

SCHOOL OF ARTS AND SCIENCES
DEPARTMENT OF GEOLOGY

STILLWATER, OKLA.

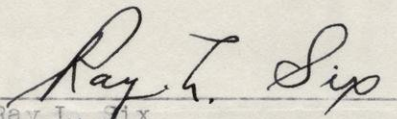
February 20, 1943

F. T. Thwaites
Wisconsin Geological Survey
Madison, Wisconsin

Dear Sir:

I have read with interest your paper entitled,
"Pleistocene of part of Northeastern Wisconsin,"
which appeared in the January 1, 1943, issue of
the Bulletin of the Geological Society of America,
Volume 54, No. 1. I would greatly appreciate a
reprint copy of this paper when the same is
available.

Yours very truly,


Ray L. Six
Professor of Geology

RLS:efc

sent

March 29, 1943

Dr. H. R. Aldrich, Secretary,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Gromble:

Yours of March 23 is at hand.

In regard to a correction for the misplaced plates what I had in mind and suggested to Bean was stickers saying "This is Fig. 1, Plate 9" and "This is Fig. 1, Plate 3" to paste in alongside. This no longer makes any difference to me as I marked all my hundred copies with a rubber stamp. Bean balked on doing this but may come to it yet. However I would like to see the correction made in some way. I mailed out 20 Saturday and will send more today. As to the maps, well, it will not matter much. I may never teach Glacial again. Leith, Juenhofel, and Winshell all retire soon. If the war lasts as long as some people including myself estimate the attitude of the next administration may be quite different. And I may no longer be here either for that matter.

Best regards,
Sincerely,

President, E. L. BRUCE
Queen's University, Kingston, Ontario, Canada

Past President, DOUGLAS JOHNSON

Vice-Presidents { ADOLPH KNOFF
A. C. TROWBRIDGE
E. H. SELLARDS
A. F. BUDDINGTON

Secretary, H. R. ALDRICH
419 West 117th Street, New York, N. Y.

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K. C. HEALD } 1943-1945

THE GEOLOGICAL SOCIETY OF AMERICA

OFFICE OF THE SECRETARY

March 23, 1943

Dr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Fred:

I have your letter of March 15. We are tracing the shipment in order that the roll of maps may be found and delivered to you. You probably now have the bill. We had to wait until invoices were in hand.

Just one more word in regard to the plates. I had no intention of alibiing. I accepted our full share of the responsibility. Nothing can be recalled and there was just one point, namely if you had not switched the plates but merely had instructed us to do so we would have made the correction in regular course.

We are inquiring as to the cost of reprinting the captions of the two unfortunate plates to be printed on adhesive paper and to be sent to you for correcting the error. I somehow doubt whether the cost is justified, but as soon as we hear we will let you know.

We will send you a copy of the Fairchild history.

Your Department is apparently in the same straits as many others. The Department at Columbia is just about dead and I understand that at New Haven the men of geology are being enlisted in the teaching of other subjects. Business is not as usual with us at the Society House. We meet with difficulties all along the line with authors and critical readers and printers so that our program is somewhat slowed down, all of which is more or less expectable under the circumstances.

With best personal regards,

Sincerely,

Rowley

Secretary

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Box 570, Danielson, Connecticut
April 19, 1943

Mr. F.T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Sir:

I have received a copy of your "Pleistocene of Part of
Northeastern Wisconsin". I wish to thank you for your courtesy in
sending me this reprint. Both this article and your "Outline of
Glacial Geology" are aiding me in my work.

Yours truly,

W. L. Ferry



The State of Wisconsin

STATE TEACHERS COLLEGE

WHITEWATER, WISCONSIN

April 7, 1943

IN REPLY PLEASE REFER TO:

Mr. Frederick Thwaites
41 Roby Road
Madison, Wisconsin

Dear Mr. Thwaites:

I was happily surprised to receive from you a copy of the bulletin of the Geological Society of America describing the Pleistocene of Part of Northeastern Wisconsin. Please be assured that I shall read this with sincere interest, not only because it concerns my Green Bay area, but also because of the detail of study and interesting results which your work displays.

You must feel greatly relieved that it has been at last completed and put in this form, for I know you have been working on it for quite some time. The maps are a real contribution in presenting us ~~with~~ information about the northeastern part of the state which has never been accurately described. Your use of aerial photographs and your graphic diagrams add considerably to the study. Please be assured that I shall read the report with great pleasure at my earliest opportunity.

Thank you so much for sending me a copy.

Very cordially yours,

Olive J. Thomas

Olive J. Thomas

OJT/jvv

President, E. L. BRUCE
Queen's University, Kingston, Ontario, Canada

Past President, DOUGLAS JOHNSON

Vice-Presidents { ADOLPH KNOPF
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A. I. LEVORSEN
ROLLIN T. CHAMBERLIN | } 1942-1944 |
| JAMES GILLULY
FREDERICK J. ALCOCK
K. C. HEALD | } 1943-1945 |

THE GEOLOGICAL SOCIETY OF AMERICA

OFFICE OF THE SECRETARY

April 1, 1943

Prof. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Fred:

We are going ahead with the production of some gummed reprints of the two captions which got misplaced in your paper. These will be on gummed paper and they will enable you to put the right captions under the proper figures. I would prefer to do it this way than merely to state that this is Figure 1, Plate 9 etc.

If you do not get to teach glacial again you probably will get something equally interesting. There are many compensations for shifts of this sort. I sometimes have a hunch that no man should stick at one job for more than perhaps five years but should apply his talents to new jobs which will stimulate him to new ideas. I have noticed that three of the Department are reaching the retirement age in the next few years. I have enjoyed speculating upon possible successors. I can only hope that the administration will give full consideration to the importance of keeping the Department up to the standards of the past so that the long successful record may not be broken.

Sincerely,

Crowell

Secretary

April 8, 1943

Miss Agnes Creagh,
The Geological Society of America,
419 West 117th St.,

New York, New York

Dear Miss Creagh:

In reply to yours of the second the shipment
in wooden boxes mentioned by Judd and Betts for
is that to Mr. Bean and not to me.

When my two cartons of reprints arrived the
express bill called for three packages. The
driver changed this to two and said the missing one
would be looked for. Now they do not make mistakes
of this kind and let themselves in for trouble.
But it does look as if no maps were ever sent me.
If this is the case please just forget about the
matter as it is quite probable that I would never
need them. Judd and Betts' letter is enclosed.

Very truly yours,

April 8, 1943

Dr. H. R. Aldrich, Secretary,
The Geological Society of America,
419 West 117th St.,
New York, New York

Dear Crombie:

Reply to yours of the first was unavoidably delayed.

It is no use to try to put the right captions under the misplaced plates. If you will just think what that involves in mixing up every text reference you will see that it just could not work.

The labels I suggested are the only possible form of correction short of reprinting the entire plate. Please disregard my suggestion as all of my copies and those belonging to the

Department library have been stamped with this correction. I have not taken up the matter further with Bean and can not speak for him. Maybe he would like so labels but those you suggest would only make the matter worse.

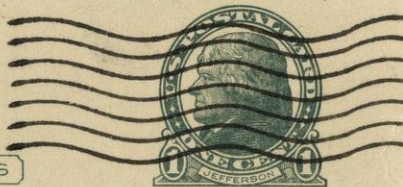
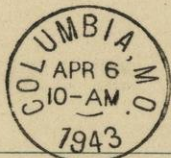
Enclosed is letter to Miss Greagh. Apparently no maps were sent me although the express bill called for three packages. Those mentioned by Judd and Deteiler are those sent to Bean. They say they got all that they asked for.

No, my idea is that if students fail entirely and I am laid off the chances are very great that I would never be taken back.

Best regards,

Sincerely,

The shipment mentioned above was that to the Wisconsin Geological Survey



THIS SIDE OF CARD IS FOR ADDRESS

Professor F. J. Thwaites
Department of Geology
University of Wisconsin
Madison, Wisconsin

204 Swallow Hall,
Columbia, Missouri,

April 6, 1943.

Dear Thwaites:

I have enjoyed reading the reprints which you sent recently. Thank you for sending them. No doubt you are glad to have the report on northeastern Wisconsin in print in these uncertain times. I hope to see that area some day, - when tires and gasoline are more plentiful.

Please give my regards to Ken Bertrand if he is still there.

Sincerely,

Chauncey S. Holmes

President, E. L. BRUCE
Queen's University, Kingston, Ontario, Canada

Past President, DOUGLAS JOHNSON

Vice-Presidents { ADOLPH KNOFF
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K. C. HEALD } 1943-1945

THE GEOLOGICAL SOCIETY OF AMERICA

OFFICE OF THE SECRETARY

April 2, 1943

Mr. F. T. Thwaites
40 Roby Road
Madison, Wisconsin

Dear Mr. Thwaites:

We enclose the reply we received from the printer in regard to your order of extra maps. Will you please let us know how many boxes you received and any other pertinent information so that we may check back with the printer.

Sincerely,

Agnes Creagh

Agnes Creagh
Editorial Assistant

DEPARTMENT OF
REGISTRATION AND EDUCATION
FRANK G. THOMPSON, DIRECTOR
SPRINGFIELD

STATE OF ILLINOIS
DWIGHT H. GREEN, GOVERNOR

STATE GEOLOGICAL SURVEY DIVISION

M. M. LEIGHTON, CHIEF
100 NATURAL RESOURCES BUILDING
UNIVERSITY OF ILLINOIS CAMPUS

URBANA

March 30, 1943

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Professor F. T. Thwaites
41 Roby Road
Madison, Wisconsin

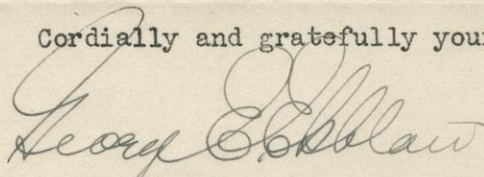
Dear Fred:

Thanks ever so much for the reprints of your three papers entitled "Stratigraphic Work in Northern Michigan, 1933-1941," "Buried Pre-Cambrian of Wisconsin," and "Pleistocene of Part of Northeastern Wisconsin." You know how concerned I am with all the topics covered by these papers, so therefore I need hardly tell you how interested I am in them and how pleased I am to have them readily at hand.

The G.S.A. paper of course I have in the Bulletin, but that isn't nearly as convenient as this reprint--and also of course I am elated that it is published. It is an excellent piece of work, that will be of profound interest to all Pleistocene geologists.

With best regards,

Cordially and gratefully yours,



George E. Ekblaw
Geologist and Head
Areal and Engineering Geology Division

INSTITUTE OF GAS TECHNOLOGY

AFFILIATED WITH ILLINOIS INSTITUTE OF TECHNOLOGY

3300 FEDERAL STREET

CHICAGO

March 29, 1943

Professor F. T. Thwaites
Department of Geology
University of Wisconsin
Madison, Wisconsin

Dear Dr. Thwaites:

Thank you so much for including me on your list to receive reprints of the Work in Northern Wisconsin. At the moment I am engrossed in other activities but hope to get a chance to read both papers some time soon.

Cordially yours,

Lincoln R. Thiesmeyer

Lincoln R. Thiesmeyer
Educational Director

LRT:jb

UNIVERSITY OF MINNESOTA
COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS
MINNEAPOLIS

DEPARTMENT OF BOTANY

March 29, 1943

Dr. F. T. Thwaites
Department of Geology
University of Wisconsin
Madison, Wisconsin

Dear Thwaites:

Your paper on northeastern Wisconsin has just arrived and a quick glance through it tells me that a more careful reading will be a very great pleasure and value. Thank you very much for sending it.

The university here has become a gathering ground for glacial geologists because of the establishment of the Arctic Information Center. Larry Gould is in charge and Flint and Lincoln Washburn have recently arrived. R.P. Sharp will soon come. It is very pleasant to have such a congenial group but unfortunately they are so busy with war duties that glacial geology is necessarily pushed into the background.

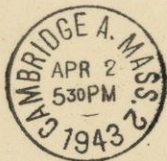
With kind regards,

Sincerely yours,

WS Cooper

William S. Cooper, Professor

WSC/js



BUY
WAR SAVINGS
BONDS AND STAMPS



THIS SIDE OF CARD IS FOR ADDRESS

Prof. F. T. Thwaites

41 Roby Road

Madison

Wiscon.

DEPARTMENT OF GEOLOGY AND GEOGRAPHY
HARVARD UNIVERSITY
CAMBRIDGE, MASSACHUSETTS

4-2-43

We acknowledge with thanks the recent receipt of
Stratigraphic work in northern Michigan, 1933-
1941 and Pleistocene of part of northeastern
Wisconsin

and will be glad to add this valuable material to our
library.

KIRTLEY F. MATHER



F. T. Thwaites
41 Roby Road
Madison, Wisconsin

DEPARTMENT OF GEOLOGY

Oklahoma A. and M. College

Stillwater, Okla., March 31 1943

I acknowledge with thanks the receipt of your publication

1. Stratigraphic Work in Northern Michigan, 1933-41
2. Buried Pre-Cambrian of Wisconsin.
3. Pleistocene of Part of Northeastern Wisconsin.

and assure you of my appreciation of your courtesy.

Cordially,

Ray L. Sip



THIS SIDE OF CARD IS FOR ADDRESS

Mr. F. T. Thwaites
41 Roby Road
Madison, Wisconsin

ILLINOIS STATE GEOLOGICAL SURVEY

Urbana, Ill., March 30, 1943

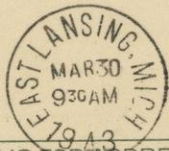
Receipt of the following publication(s) is gratefully acknowledged:

Buried Pre-Cambrian of Wisconsin
Stratigraphic Work in Northern Michigan, 1933-1941
Pleistocene of Part of Northeastern Wisconsin

Wm. H. Benson

Chief

25



THIS SIDE OF CARD IS FOR ADDRESS



Dr. F. T. Thwaites
Wisconsin Geological Survey
Madison, Wisconsin

DEPARTMENT OF GEOLOGY AND GEOGRAPHY

Michigan State College

East Lansing, Michigan

Dear Sir:

March 29 1943

I should greatly appreciate having you send us for our department library a reprint of your paper

Pleistocene Of Part Of Northeastern Wisconsin

which appeared in Bulletin Of The Geol. Society Of
America Vol. 54 No. 1

and any others which
you may have available
for distribution.

Very truly yours,
S. G. Bergquist

Head of Department

May I please have an additional
copy for my personal files?
SGB

THIS IS FIG 1 PL 9

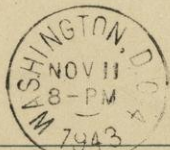
WITH THE WRITER'S COMPLIMENTS

THIS IS FIG 1 PL 9

- 1 Warrick ✓
 - 2 Ingemoll ✓
 - 3 Trewartha ✓
 - 4 ~~Bradley Tenz~~ ✓
 - 5 Emmons ✓ box
 - 6 Twerhopel ✓
 - 7 ~~Lubing Tenz + stamps~~
 - 8 Fink ✓
 - 9 Durand ✓ box
 - 10 Kenney ✓ box
- Buller's

Mrs Hemmings
Sent out 23
ex per list on
cover

THIS IS FIG 1 PL 3



THIS SIDE OF CARD IS FOR ADDRESS

Mr. F.T. Thwaites

Wisconsin Geological Survey

Madison

Wisc.

Thank you for the reprint,

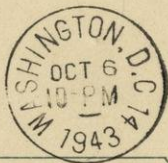
Pleistocene part of NE Wisconsin

you so kindly sent me.

H. W. Straley, III

BOX 5532

FRIENDSHIP STATION, D.C.



THIS SIDE OF CARD IS FOR ADDRESS



Mr. F.T. Thwaites
Geology
University of Wisc.
Madison
Wisc.

I read your paper,

Pleistocene of NE Wisc......,

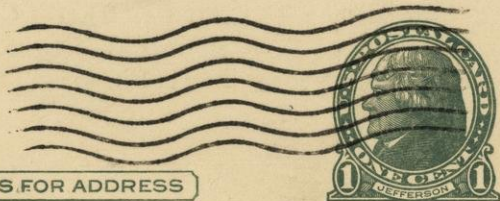
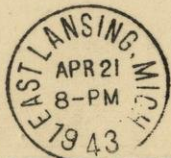
which appeared in

GSA Jan. 1943.....,

Could I secure a reprint for my library?

sent to JIS
H. W. Straley, III

BOX 5532
FRIENDSHIP STATION, D.C.



THIS SIDE OF CARD IS FOR ADDRESS

Mr. Fredrik T. Thwaites
41 Roby Road
Madison, Wisconsin

DEPARTMENT OF GEOLOGY AND GEOGRAPHY
Michigan State College
East Lansing, Michigan

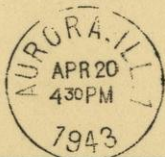
April 20, 19 43

Dear Sir:

We have received the reprints of your papers recently sent to this department, and wish to thank you for your courtesy.

Very truly yours,

A. G. Bergquist
Head of Department



THIS SIDE OF CARD IS FOR ADDRESS



F.T. Thwaites
41 Roby Road
Madison Wisconsin

UNIVERSITY OF ILLINOIS
DEPARTMENT OF GEOLOGY AND GEOGRAPHY

Urbana, Illinois, April 20 1943

Receipt of the following publication is gratefully
acknowledged:

*Stratigraphic Work in N. Michigan
Buried Pre-Cambrian of Wisconsin
Pleistocene of part of N.E. Wisconsin*

Robert P. Sharp

UNION COLLEGE
SCHENECTADY
NEW YORK

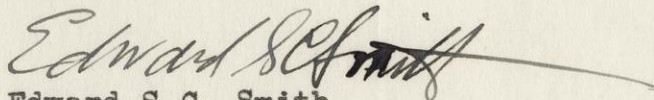
August 9, 1943

Dr. F.T. Thwaites
Department of Geology
University of Wisconsin
Madison, Wisconsin

Dear Dr. Thwaites:

Thank you for sending me a reprint of your paper on
"Pleistocene of Part of Northeastern Wisconsin," and for your
interest in Mr. Hanson's paper on eskers.

Yours very truly,

A handwritten signature in dark ink, appearing to read "Edward S.C. Smith", with a long horizontal flourish extending to the right.

Edward S.C. Smith
Professor of Geology

ESCS:L

UNIVERSITY OF WISCONSIN
COLLEGE OF AGRICULTURE
MADISON, WISCONSIN
6

DEPARTMENT OF SOILS

February 26, 1944

Professor F. T. Thwaites,
Science Hall.

Dear Professor Thwaites:

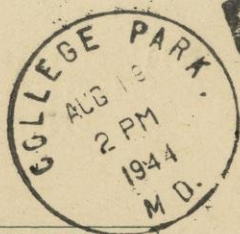
Dr. Iver Nygard, Inspector of Soil Surveys in this region, has reported to me that a paper dealing with the glacial geology of northeastern Wisconsin was published under your name in a recent geological journal. Those of us interested in soil surveys including Dr. Nygard, three soil survey supervisors for the Soil Conservation Service and myself would much appreciate receiving reprints of this article. Will you please send 5 copies to me, if you have them available, and I shall forward copies to the men mentioned above?

Very truly yours,

R. J. Muckenhirn

R. J. Muckenhirn,
Asst. Prof. of Soils

RJM:MJS



THIS SIDE OF CARD IS FOR ADDRESS

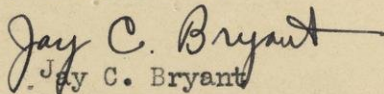
Prof. F. T. Thwaites
University of Wisconsin
Madison, Wis.

Soil Conservation Research Laboratory
University of Maryland
College Park, Md. Aug. 19, 1944

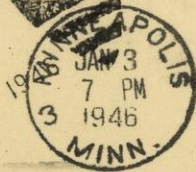
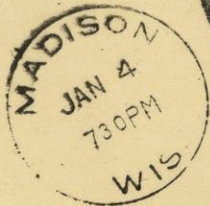
Dear Sir:

Will you please send me a reprint of your paper
PLEISTOCENE OF PART OF NORTHEASTERN WISCONSIN, in
Bull. Geol. Soc. Amer. 54(1), 1943?

Very truly yours,


Jay C. Bryant

Asst. Soil Technologist



THIS SIDE OF CARD IS FOR ADDRESS

Dr. F. T. Thwaites
Wisconsin Geological Survey Hall
Madison
Wisconsin
Science of St.

DEPT. OF BOTANY
University of Minnesota
Minneapolis, Minn.

If you can spare a copy of your
publication *Pleistocene of part of*
Northeastern Wisconsin I shall find
it very useful for reference.

Very truly yours,

Frank O. Abbe

REPORT OF CENSOR # 1

The data gathered by the author in the field appear over-wordy and have not been presented to the best advantage. The paper is not well organized. The Grammar, spelling, and diction are not above reproach, and the manuscript copy appears not to have been proof read.

Specifically the author, as on pages 8-25, has presented general material not pertaining specifically to the area studied, which belongs more properly to a textbook, he has locally confused cause with effect, as on page 10; and he has mingled descriptive field data with a chronologic discussion of glacial events in a way somewhat confusing to the reader. Incidentally, the exact area covered by the reconnaissance is not mentioned.

The photographic illustrations are good, but the blueprint map seems to be incomplete, only boundaries are shown, without specific conventions.

The paper needs to be completely rewritten and the map made intelligible before before further considered.

PLEISTOCENE OF PART OF NORTHEASTERN WISCONSIN (1)

(1) Published by permission of the State Geologist

HISTORY OF INVESTIGATION

Examination of the Pleistocene deposits of part of northeastern Wisconsin (Fig. 1) was begun by the writer in 1926 as part of the program of the Wisconsin Geological Survey for the development of local materials for highway construction. State support was withdrawn after three field seasons. A little work was done in 1931 with the aid of students from the University of Wisconsin. Field work from 1934 to the date of writing in 1940 was financed by a grant from the Penrose Bequest of the Geological Society of America thanks for which are here given (2).

(2) Assistants in field and office work comprised: Loyal Durand II, C. G. Dickinson, R. J. Koplín, G. T. Owen, A. T. Eberhardt, V. U. Hanson, P. W. Icke, P. J. O'Neil, C. A. Bays, Herbert Von Riff, Edwin Wenberg, Kenneth Bertrand, and Amy M. Thwaites. Of these the last seven named contributed their services. Stuart Carter did some work near McGaslin Mountain in 1940, the results of which have been incorporated in the map.

FIELD METHODS

The present survey is classed as "detailed reconnaissance" intended to work out the geological history without taking time to complete exhaustive studies and detailed mapping with the aid of numerous test pits and borings. Owing to the fact that the region examined varies from open, treeless plains to dense brush or "green timber", the amount of travel per unit of area which was necessary to obtain the desired results varied widely from place to place. Transportation was mainly by automobile along roads and trails although in some