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Correspondence - K. 1925-1960

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

[s.l.]: [s.n.], 1925-1960

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Science Hall, June 20, 1932

Mr. A. P. Kuranz, Superintendent,
Water Department,
Waukesha, Wisconsin

Dear Mr. Kuranz:

I had delayed reply to your former letter to see how things were coming out before I leave to work in New York state a week from today. My assistant was unable to keep up with the work and leaves today at noon. I have taken on another boy at my own expense to finish up my orders for tubes. I think he can get those for you done before I leave although it might be possible that I would have to leave the drafting of the legend to you. However, I will do my best. I have been overwhelmed with samples this spring but have tracings up to where I am in examining samples and have only a few shallow wells left to look at. If we can't get Baxter Street done we will do Moorland Avenue anyway. Will write again toward the end of the week.

Very truly yours,

January 23, 1936

W.G.Kirchoffer
22 N. Carroll Street
Madison, Wisconsin

Dear Sir:

I am enclosing two copies of a blue print log of
the City Well #4 at Brodhead, Wisconsin.

*securing the information. Thank you for
One copy is for the city*

Yours very truly,

WISCONSIN GEOLOGICAL SURVEY

In Charge of Well Records

FTT:JH

Aug. 16, 1935

Mr. William Forster,
Well Driller,
R. 3, Kowaskum, Wisconsin

Dear Sir:

Your letter of the 12th and the sample were turned over to me. So far as I could see the material is a sandy clay which is part of the glacial drift or surface material. It is not at all like any of the bed rock of your vicinity. I think that the slow drilling is due to the toughness of the clay which yields like rubber and does not mix easily with water. Possibly some of the sand which I obtained on dissolving in acid was added by you to increase the speed of drilling. You might find that gravel would help better. Some of these clays also crowd the pipe so that driving is slow. Some drillers use a special bit which cuts out chunks of clay instead of trying to mix it up with water. You might try making one of these from a length of pipe which will run in the hole. It is, I think for I have never seen one, driven in by use of the jars then pulled out the same way and cleaned out through a slot in the side of from the ends.

If there is anything else I can help you with please let me know.

Very truly yours,

F. T. Thwaites, in charge of well records,
WISCONSIN GEOLOGICAL SURVEY

May 23, 1935

Mr. A. P. Kuranz, Supt. of Waterworks,
Waukesha, Wisconsin

Dear Mr. Kuranz:

In checking over my notes I found that I had never told you of a good textbook of geology. After asking several others I find that there is a new book by E. B. Branson and W. A. Tarr which is published by the McGraw-Hill book Co. I looked over a copy and found that it is exceptionally well illustrated. The retail price is \$3.75.

We can make up the new style board with gummied on samples for your new well whenever we receive the samples. I have engaged a Waukesha student, Jason Griesell, to do this work. As it is experimental I probably will make no charge other than for transportation if that is required. If you desire I will try to fix up the old tubes and will make no charge for this unless for transportation.

Very truly yours,

F. T. Thwaites

May 30, 1935

Mr. J. N. Kavanagh, County Agricultural Agent,
Green Bay, Wisconsin

Dear Sir:

In reply to yours of the 15th the well in question is evidently what is known as a "blowing well." The cause of the noise is the change in atmospheric pressure which is associated with the storm. The air in the earth which is entrapped in some porous spot equalizes pressure with the atmosphere outside through the well. As this well ends in limestone I conclude that the air is in either crevices or caverns. Blowing wells are not uncommon in other parts of the state.

Very truly yours,

F. T. Twaites, In charge of well
records, Wisconsin Geological Survey

May 6, 1932

Mr. Fred Kiesner
Kiesner's Restaurant
Chilton, Wisconsin

Dear Sir:

In reply to yours of May 1st, my party will
apparently number only thirteen. We will arrive shortly
after noon on Sunday.

Yours very truly,

FTT:M

G. T. Theaites

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WRITE FOR BOOKLET

CITY OF WAUKESHA

Water Department



H. E. BLAIR, PRESIDENT
E. E. HOWARD, SECRETARY
A. P. KURANZ, SUPERINTENDENT

WATER COMMISSIONERS:

H. E. BLAIR
E. E. HOWARD
J. G. LAING
M. R. BUTLER, MAYOR
F. L. ROBERTS, COUNCIL MEMBER

WAUKESHA, WIS.

June 17, 1932

Professor F. T. Thwaites
Department of Geology
Science Hall
University of Wisconsin
Madison, Wisconsin

Dear Professor:

Some time ago I wrote you a little note stating that we would be very glad to get the logs of both our Baxter Street well and Moreland Avenue well made up into tubes such as you showed me of the Brookhill Farm well in Waukesha County. You stated at the time of my last visit that you expected to finish this work before summer vacation began, and I hope you have been able to get time enough to get these completed.

As stated in my letter to you that I am arranging an exhibit in one of our down town stores of this material, and I would appreciate having this as soon as you can conveniently complete it.

Very truly yours,

WAUKESHA WATER DEPARTMENT

A handwritten signature in green ink that reads 'A. P. Kuranz'. The signature is written in a cursive style with a large initial 'A' and a long, sweeping underline.

Supt.

APK:AH

Chilton Wis.

May 1, 1937.

Dear Sir:—

Am writing in regard to you bringing your class to our place for dinner on Sunday May 8. Will be glad to take care of you all, having remodelled our place a bit we will seat you all on the sun porch which we use for our dining room, our price is 50ct per plate, if you will let us know how many there will be & about what time you will be here will try & be ready for you. Thank you
Mrs. F. Kinner

April 27, 1932

Mr. Fred Kiesner,
Kiesner's Restaurant,
Chilton Motor,
Chilton, Wisconsin

Dear Mr. Kiesner:

I plan to bring my class to your restaurant on Sunday noon,
May 8. The number will probably be 13 or more. I would like to have the same
meal served to all. Payment will be in lump sum. Please let me know if you can
take care of us and your best price. I will then collect from the students in
advance and will let you know the exact number when we leave here. The trip will
be made regardless of weather.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

UNIVERSITY OF ILLINOIS
DEPARTMENT OF GEOLOGY
URBANA, ILLINOIS

Nov. 11, 1931

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

Dear Mr. Thwaites,

Being one of the fortunate five of Dr. Shepard's class of nine students who received your excellent treatise on the subject of glaciers and glaciation, I am writing to express my gratitude to you for so generously sending us the copies of your text, *Glacial Geology*. I have had mine bound and know that it will prove to be an invaluable aid and reference in the problems of glacial geology.

My co-worker, Mr. D. D. Utterback, asks that I carry his salutations to you in this letter. He has given me the opportunity in the post to look over your treatment of the material on Field Methods. We are both very grateful to you for your kindnesses.

Respectfully

Harry S. Kilian,
Asst. in Geology.

Department of Geology

George F. Kay
Arthur C. Trowbridge
Abram O. Thomas
Joseph J. Runner
Allen C. Tester

THE STATE UNIVERSITY OF IOWA
IOWA CITY

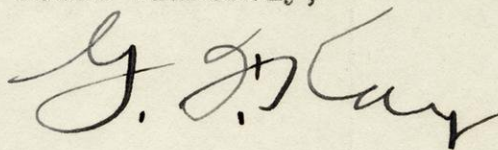
August 11, 1931

Dr. Fredrik T. Thwaites
Science Hall
Madison, Wisconsin

My dear Doctor Thwaites:

I am forwarding to you two papers entitled
"Origin of the Pebble Band on Iowan Till" and
"Classification and Duration of the Pleistocene
Period." If you read the Introduction and the
Concluding Statements of the latter paper you
will get the essential features with which it
deals.

Yours sincerely,



GFK:KS

Aug. 14, 1931

Dr. G. F. Kay,
Department of Geology,
State University of Iowa,
Iowa City, Iowa

Dear Dr. Kay:

In reply to yours of the 11th I wish to thank you for the two separate which are a most valued addition to my library. I have read both the papers.

This summer I have been trying to revise the Outline of Glacial Geology. It is slow work particularly as the next edition will be illustrated. It would seem as though most of us who are interested in the Pleistocene are now coming into substantial agreement.

I hope to get in two weeks field work on the Pleistocene of central Wisconsin just north of Alden's area before school opens. This will be done with some students as the state survey has withdrawn all support since 1928.

Very truly yours,

Lecturer in Geology

August 19, 1931.

Mr. F. T. Thwaites
R. 4, Madison, Wis.

Dear Mr. Thwaites,

In answer to your letter of August 14 I want to inform you that I will not be able to take your field trip to central Wisconsin.

I am now working and existing conditions make it necessary for me to continue later than September.

Wishing you success,
I remain

yours very truly
Arthur Knight

August 14, 1931

Mr. Arthur C. Knight,
46 North Spring Ave.,
La Grange, Illinois

Dear Mr. Knight:

The field trip to central Wisconsin about which I talked last spring has been postponed until Sept. 8. It will last two weeks so that those who go will have to make arrangements to have someone else register and pay their fees because we cannot get back until the Tuesday before classes begin.

If you are still interested in going please let me know within a week as I have to leave town on the 26th.

Very truly yours,

Lecturer in Geology

May 7, 1931

Kresners Restaurant,

Chilton Center,

Chilton, Wisconsin

Gentlemen:

As during the past two years I expect to stop with my class at your restaurant on the coming Sunday, May 10. There will probably be 11 in the party. We may be somewhat late, probably after 1 P. M. I thought it would be a good idea to let you know so you can be ready for us. This year I will pay in lump sum for all in the party so we would like to have same meal served to all.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

March 10, 1931

Dr. George F. Kay,
Department of Geology,
University of Iowa,
Iowa City, Iowa

Dear Dr. Kay:

Thank you for the copy of your paper on "The relative ages of the Iowan and Wisconsin drift sheets". I am pleased to see that we seem to be working along the same general lines. I hope to revise my mimeographed Outline of Glacial Geology soon and it will certainly treat the Iowan drift in a different manner from previous editions. Meantime my glacial work in Wisconsin is off except for short trips at private expense.

Very truly yours,

Kasdin's Grocery & Market

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Madison, Wisconsin, 12-24-1930

M *J. Mante*

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4		
5		<i>54</i>
6		<i>77</i>
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13		
14		
15		

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Jan. 16, 1930

Dr. G. F. Kay,
State University of Iowa,
Iowa City, Iowa

Dear Dr. Kay: In reply to yours of the 8th the book has arrived and I am very grateful for it. I have to go to the hospital for an operation and during my two weeks stay will have a chance to read it. This material will be of great value to me in connection with my course in Glacial Geology.

My work in northern Wisconsin was discontinued when Mr. Bean was removed from the Highway Commission last year as the result of a new law excluding the ex-officio members. This project had been paid for with road material funds. I still have hopes that someday the project may be taken up again.

I spent last summer working for the Illinois Survey and for two weeks roomed with Dr. Apfel so that I came to know him very well. I expect to go back on the same work this coming summer and am sorry that he will not be doing the same. I also got to know Dr. Brown.

I am wondering if Keyes will publish any more attacks on me having failed to draw a reply from anyone so far.

Very truly yours,

F. T. T.

Geologist

Department of Geology

George F. Kay
Arthur C. Trowbridge
Abram O. Thomas
Joseph J. Runner
Allen C. Tester
Freleigh F. Osborne

THE STATE UNIVERSITY OF IOWA
IOWA CITY

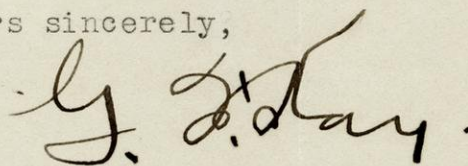
January 8, 1930

Dr. Fredrik Thwaites
Science Hall
Madison, Wisconsin

My dear Doctor Thwaites:

I am sending to you today a book entitled The Pre-Illinoian Pleistocene Geology of Iowa. It was prepared by myself and my research assistant, Doctor Apfel, who is now Associate Professor of Geology in Syracuse University. If you will read the Preface, the Introduction, and the Concluding Statements, you will get a fairly clear idea of the subject matter which is discussed in each of the several chapters.

Yours sincerely,



GFK:IS

STATE OF IOWA
IOWA GEOLOGICAL SURVEY
GEORGE F. KAY, DIRECTOR

JAMES H. LEES
ASST. STATE GEOLOGIST

NELLIE E. NEWMAN
SECRETARY

IOWA CITY, November 26, 1929

Mr. F. T. Thwaites
Geological and Natural History Survey
Madison, Wisconsin

My dear Sir:

In Dean Kay's absence, I am sending to Dr. James H. Lees, the Assistant State Geologist, your request for Volume XXXIII on artesian wells.

Dean Kay will appreciate receiving a copy of your report on Vilas County, Wisconsin.

Yours sincerely,

Laura C. Ansel

Secretary

LCA

Nov. 25, 1929

Dr. C. F. Kay,
State Geologist,
University of Iowa,
Iowa City, Iowa

Dear Dr. Kay: Under separate cover I am sending you a copy of my recent report on Vilas County, Wisconsin.

Could you send me a copy of your Volume 33 on artesian wells. I could use this in my work on wells to great advantage, and would greatly appreciate a copy.

Very truly yours,

F. T. T.

Geologist

Department of Geology

George F. Kay
Arthur C. Trowbridge
Abram O. Thomas
Joseph J. Runner
Allen C. Tester
Freleigh F. Osborne

THE STATE UNIVERSITY OF IOWA
IOWA CITY

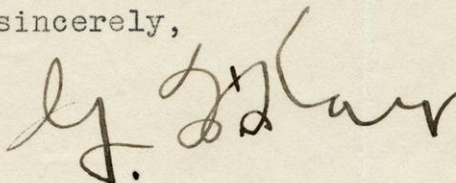
November 30, 1929

Mr. F. T. Thwaites
Wisconsin Geological and Natural History Survey
Madison, Wisconsin

My dear Mr. Thwaites:

I am pleased indeed to receive your reprint on
"Glacial Geology of Part of Vilas County, Wisconsin." I shall
take much interest in reading it.

Yours sincerely,



GFK-LCA

Sept. 8, 1934

Mr. W. G. Kirchoffer.
22 North Carroll St.,
Madison, Wisconsin

Dear Mr. Kirchoffer:

In reply to your telephone request of Friday night I disinterred from their resting place the pencil notes and field notes on the Mt. Herob drainage hole of 1923. As stated verbally I have grave doubts of the accuracy of the thicknesses especially of some of the lower formations. However, I will give you the data although it would simply not fit in with well logs on either side.

Log of Mt. Herob drainage hole
North line NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 6 N., R. 6 E.
L. P. O'Connors, driller, 1923

	Thickness	Depth, feet
Surface soil	10	10
Dolomite and limestone	66	96
Shale, bad cave	9	105
Dolomite, sandy	15	120
Sandstone, mostly fine-grained, little water	125	245
Shale, bad cave	6	251
Shale and dolomite in layers with many caves	157	308
Sandstone, coarse to fine	57	365
Siltstone, very dolomitic	35	400
Dolomite, sandy	44	444
Sandstone, fine to silty, dolomitic	186	630
Sandstone, coarse to fine	10	640
Sandstone, medium, white	27	667
Sandstone, fine to medium, dolomitic	14	681

No record of total depth and no more samples

Geological interpretation

	Base,	Depth	Elevation
Surface at well	0		1155
Flatteville	120		1035
St. Peter	251		901
Lower Magnesian	308		847
Jordan etc. = Trempealeau	444		711
Francenia (formerly Mazomanie)	640		515

My advice is in favor of a well to the Brosbach, total depth in the village of roughly 760 feet. Casing should be carried to the St. Peter. Great care should be taken to insure a straight hole down to level of the pump. I also suggest that the old drainage hole if still open be heavily chlorinated with several barrels of calcium hypochlorite, and then filled with concrete to the surface.

Sincerely,

F. T. Thwaites, In charge of well records

Sept. 4, 1934

Dr. W. A. VerWiebe,
Kansas Geological Society,
412 Union National Bank Bldg.,
Wichita, Kansas

Dear Dr. VerWiebe:

Your kind letter of August 28 was sent to my town address and so did not reach me until too late to go on the Conference. Before that I had received a letter and a telegram saying that I should come to Wichita where I could get transportation to Colorado. Unfortunately, a telegram from Mr. Carpenter also arrived on the Wednesday saying that I would have to be in Ottawa next morning. Naturally I had to assume that this superseded the previous instructions. It was impossible to arrive in Ottawa earlier than 11:10 A. M. Thursday so I was obliged to give up all plans to attend. Of course your letter which I got later made the matter clear but it was then too late. There were no Labor Day rates this year so it would have cost more than last time and besides some unexpected expenses at home such as the necessity of replacing my old car which wore out in field work this season make it just as well that I did not go.

Have had a number of favorable comments on the glacial geology text. I may take over the unsold copies from Edwards Brothers soon (finances permitting) and can then arrange the exchange you desired.

Hoping to see you at next years conference on which I am working, and thanking you for the trouble you went to,

Sincerely,

F. T. Thwaites

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WICHITA, KANSAS

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August 28, 1934.

Mr. F. T. Thwaites.
Geol. Dept.
University of Wisconsin.
Madison, Wis.

Dear Friend Thwaites:-

I have received a telegram from Mr. Folger indicating that we may have the pleasure of seeing you at the time of the Eighth Annual Field Conference. In arranging for transportation, I would suggest that you immediately get in touch with the following men - K.K.Landes, Geol. Dept. University of Kansas, Lawrence, Kans. A.C. Carpenter, Ottawa, Kansas. Each of these will probably be able to take you and in each case your journey from Wisconsin will be shortened considerably. If you should be unable to get in touch with either or both of these men, we can definitely assure you that transportation from Wichita can be arranged for, provided you arrive Thursday night or early Friday morning, August 31st.

Hoping to see you in your usual good health,
I am,

Very cordially yours.
KANSAS GEOLOGICAL SOCIETY.

BY W.A. VerWiebe

W.A. VerWiebe.
412 Union National Bk Bldg.

WAV*JC

PAN-AMERICAN GEOLOGIST

EDITORIAL ROOMS

OFFICE OF
GEOLOGICAL PUBLISHING CO.
944 FIFTH AVE.

DES MOINES, IOWA.

Sept 22

1934

Dear Professor Sherwin:

The Geologist will have a symposium on the advisability of recognizing the Patuxent ice center. Would you contribute something in regard to the question as affecting Wisconsin? I am to the fore would do, although I would not be obligated to be restricted to this number. The program will be Lyell's original summary of 1910.

How else would be the best way for me to obtain a copy of Merriam's "Physical Geography of Wisconsin" 2nd ed. published by The Wisconsin Dunes.

With best wishes and best regards I remain

Sincerely yours

Charles Key

For the next few months my address will be as below

AVALON, ORACLE ROAD
Route No. 1, Box 178
TUCSON, ARIZONA

Sept. 26, 1934

Dr. Charles Keyes,
Avalon, Oracle Road,
Route No. 1, Box 178,
Tucson, Arizona

Dear Dr. Keyes:

In reply to yours of the 22nd I am sorry to say that my time is so taken up for this winter that it is quite impossible to take on the writing of any more papers. My views on the Patrician center are expressed briefly in my new Outline of Glacial Geology which has been published by Edwards Brothers, Ann Arbor, Michigan. Further details on northeastern Wisconsin will appear in the final report on Northeastern Wisconsin on which I am now working.

The second edition of Martin's Physical Geography of Wisconsin is sold by the State Geological Survey for \$1.50 I regret that I cannot obtain any complimentary copies of it. I have only one personal copy.

Very truly yours,

F. T. Thwaites, Lecturer in Geology

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This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable sign above or preceding the address.

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F T THWAITES=

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A C CARPENTER.

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1030
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KANSAS GEOLOGICAL SOCIETY
WICHITA, KANSAS

August 28, 1934.

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Mr. F. T. Thwaites.
R#4.
Madison, Wis.

Dear Sir:-

We can furnish you transportation on the Eighth Annual Field Conference from Wichita and return. It will be necessary for you to be here Friday morning as most of the boys plan on leaving early that day.

Very truly yours,
KANSAS GEOLOGICAL SOCIETY.

BY H. E. White.
Manager.

HEW*JC

A. C. Carpenter
Ottawa, Kan.

SECOND ANNOUNCEMENT

Aug. 6, 1934.

EIGHTH ANNUAL FIELD CONFERENCE
KANSAS GEOLOGICAL SOCIETY

*your offer appreciated but
than arrangements present
arrival in time
Thursday*

The replies to our first announcement indicate an enrollment of about 35 geologists. We feel that we can take care of a larger number and in fact need a larger number to make the trip a success. We also feel that the geological features to be seen on this trip will be exceedingly interesting and that you will regret it if you do not go.

MEETING PLACES:- We shall meet at Lamar, Colo. on the evening of August 31, Friday. Most of the members will no doubt be able to reserve a room for the night at the BEN MAR HOTEL which will be the headquarters of the society. The overflow will be taken care of at the Kelsey Hotel.

FIRST DAY:- Saturday, September 1, we shall go south to see the TWO BUTTES uplift (# 2 on map) in which Permian, Triassic, Comanchean and Cretaceous rocks are exposed within a small area. Other stops will be made to see certain structures of a local nature and the flanks of the large Las Animas (Sierra Grande) arch. Among the small structures examined will be the Pipe Springs and the Table Mesa anticlines, (see #3 & 4 on map) where deep tests were drilled by the Marland Oil Co. Stops will also be made to examine the Morrison, Exter and higher beds at favorable exposures. The night will be spent at the Kit Carson Hotel in La Junta. Mr. Harry Osborne will be the leader for the day.

SECOND DAY:- Sunday, September 2, we shall see one of the most interesting spots in Colorado, the Purgatoire Dome. (see #6 on the map.) A very fine and complete section reveals Permian, Triassic red beds with Comanchean and Cretaceous above. This section has some puzzling features which we hope to explain in the field. It will also be interesting to compare these rocks with those seen at Two Buttes. Other stops will be made during the day to see ~~xxx xxxxxx~~ certain stratigraphic and structural features. Mr. Ross Heaton will be the leader. The night will be spent at Raton, New Mexico. The SWASTIKA HOTEL will be headquarters and the Hotel Seaburg will be used for the members who cannot be accommodated at the Swastika.

THIRD DAY:- Monday, September 3, (Labor Day) we proceed eastward to Mt. Capulin, one of the most perfectly preserved extinct volcanoes. Thence the route follows the Cimarron Valley where exposures of Jurassic, Triassic, Comanchean and Cretaceous are almost continuous. Many stops will be made to see these as well as the angular unconformity between the Triassic and Jurassic. The new formations delimited by Parker will be studied. Of great interest are the peculiar dikes and plugs of sandstone which appear along the route. Another one of the high lights of this day will be the fossil

reptile tracks in the Sloan Canyon formation. Mr. Ben Parker will be the leader. The night will be spent at Boise City, Oklahoma. 2

FOURTH DAY:- For those who can spare the time a post-conference trip across the Panhandle of Oklahoma and through Clark and Comanche Counties, Kansas has been arranged. This will culminate at Belvidere, Kansas where the classic sections of the Comanchean are so well exposed. Mr. A. C. Tester of Iowa who has spent a number of field seasons on the Dakota and the Comanchean has kindly consented to serve as leader.

EVENING MEETINGS:- Informal meetings will be held each evening at which time the leader for the ensuing day will outline the points of interest along the line of travel.

GUIDE BOOK:- A guide book will be furnished to each member of the conference upon payment of the registration fee. This book will contain a detailed road log of each day's route explaining the geological features along the line of travel as well as giving detailed information about the rocks at each "Stop". It will also contain a summary of the geology of the area of the conference, (2) bibliography of important papers on the area, (3) index of stratigraphic names and descriptions, (4) Special paper on the Hugoton Gas Field and the geology of southwestern Kansas, (5) special paper on the Two Buttes uplift. Among the MAPS included are areal outcrop maps for each system, a map showing the large structural features, another showing the smaller domes and anticlines; a cross section from the Rocky Mountains to western Kansas. A map 48" by 44" has been prepared to show the areal geology in detail. Another map of the same size shows all oil wells, gas wells, and dry holes drilled in the area.

As the supply of these books will depend upon the number of members and the advance orders you are urged to send in your order on the enclosed reply blank.

EXPENSES:- Each member will be asked to pay a registration fee. This fee will not exceed \$10 and will be proportionately less according to the number of registrants. Please send in your check for \$10 with your reply blank. In case you do not go, the money will be refunded. Also the amount of difference between the actual fee and your deposit will be refunded in case you do go.

Expenses for hotels and meals vary according to the tastes of the individual but need not exceed \$2 per day. Transportation has always been furnished free to those members who do not bring a car. We confidently expect to do the same this year but of course cannot guarantee to do so.

HOTELS:- Please make your own reservations at Lamar for the first night. For other nights your arrangements will be made by the committee.

W.A.Ver Wiebe - Glenn Woolley - L.I. Yaeger
Committee on Arrangements

EIGHTH ANNUAL FIELD CONFERENCE

of the

KANSAS GEOLOGICAL SOCIETY

FIRST NOTICE

Wichita, Kansas
June 1, 1934

The Eighth Annual Field Conference of the Kansas Geological Society will be held on September 1, 2, & 3, 1934.

AREA:- The area that has been chosen for the field conference of 1934 lies in southwestern Kansas and the adjacent parts of Colorado, New Mexico, Oklahoma and Texas. It is shown on the map which accompanies this notice and involves over 10,000 square miles.

GEOLOGY:- Many interesting and instructive geological phenomena may be studied in this area. For the stratigrapher there are excellent exposures of formations belonging to the Cretaceous, Comanchean, Jurassic, Triassic and Permian systems. The Dakota sandstone and the underlying Purgatoire beds will be seen at many points so that variations in lithology may be noted. The Morrison beds and the Jurassic Exter sandstone crop out on a number of structural highs and will be studied in detail. An effort will be made to see as many localities as possible where the Triassic redbeds and Permian redbeds are exposed so that the lithologic characteristics of these confusing groups may become better known.

The dominant structural feature of the area is the Mesa de Maya anticline (Animas arch). This will be traversed at a number of places. Several high domes on the arch such as the Purgatoire Dome and the dome in the northeastern part of Las Animas County are along the line of travel. A considerable portion of the second day will be devoted to the detailed examination of the Purgatoire Dome. The equally interesting Two Buttes Dome in northern Baca County will be studied on the first day.

Those who are interested in unique phenomena will have a treat on the third day when the remarkable clastic dikes and plugs of northern Union County (N. Mex.) are examined. On the same day a side trip will be made to the Mt. Capulin volcanic cone.

ROUTE MAP:- The committee has prepared a route map which is being sent out with this announcement. On it the most interesting "stops" are indicated by number. They are as follows:-

1. Darbyshire structure.
2. TWO BUTTES DOME where a section from the Permian up to the Dakota is seen as well as igneous rock.
3. Deep well drilled at Pipe Springs by Continental Oil Co.
4. Deep well drilled at Table Mesa by the Continental Oil Co.
5. One of the domes on the Animas Arch in which Permian rocks appear at the surface.
6. The Purgatoire Dome which reveals a magnificent section from the Permian up to and including the Dakota sandstone.
7. Mt. Capulin volcanic cone and associated extrusive rocks.

8. Exposures of Triassic to upper Cretaceous along the Cimarron River.
9. Clastic plugs and dikes. Angular unconformity between the Jurassic and Triassic rocks.
10. Carrizo Canyon.

LEADERS:- The committee feels particularly fortunate in being able to announce that several geologists who have spent years in studying the details of the area will serve as leaders. Mr. Ross Heaton of Denver will have general charge of outlining the route and planning stops for detailed observations. Mr. Ben Parker of the Colorado School of Mines will log the route through Colorado and northern New Mexico. He will be assisted by Davies of the California Company and Brainerd of the Continental Oil Company. The log through the Panhandle of Oklahoma will be prepared by C. W. Sanders of the Shell Petroleum Corporation of Amarillo. A portion of the route in southeastern Colorado will be mapped by Harry W. Osborne of Lamar

GUIDE BOOK:- As has been the custom on previous field conferences a guide book will be prepared and furnished to each member. It will contain minutely itemized details of geological interest along the route of travel. In addition there will be all necessary diagrams, cross sections, stratigraphic sections, geologic maps which the members will need to make the conference profitable and interesting. Inasmuch as only enough of these guide books will be printed to supply the members of the conference and those who order copies in advance, the committee is asking the recipient of this notice to kindly fill in the order blank attached.

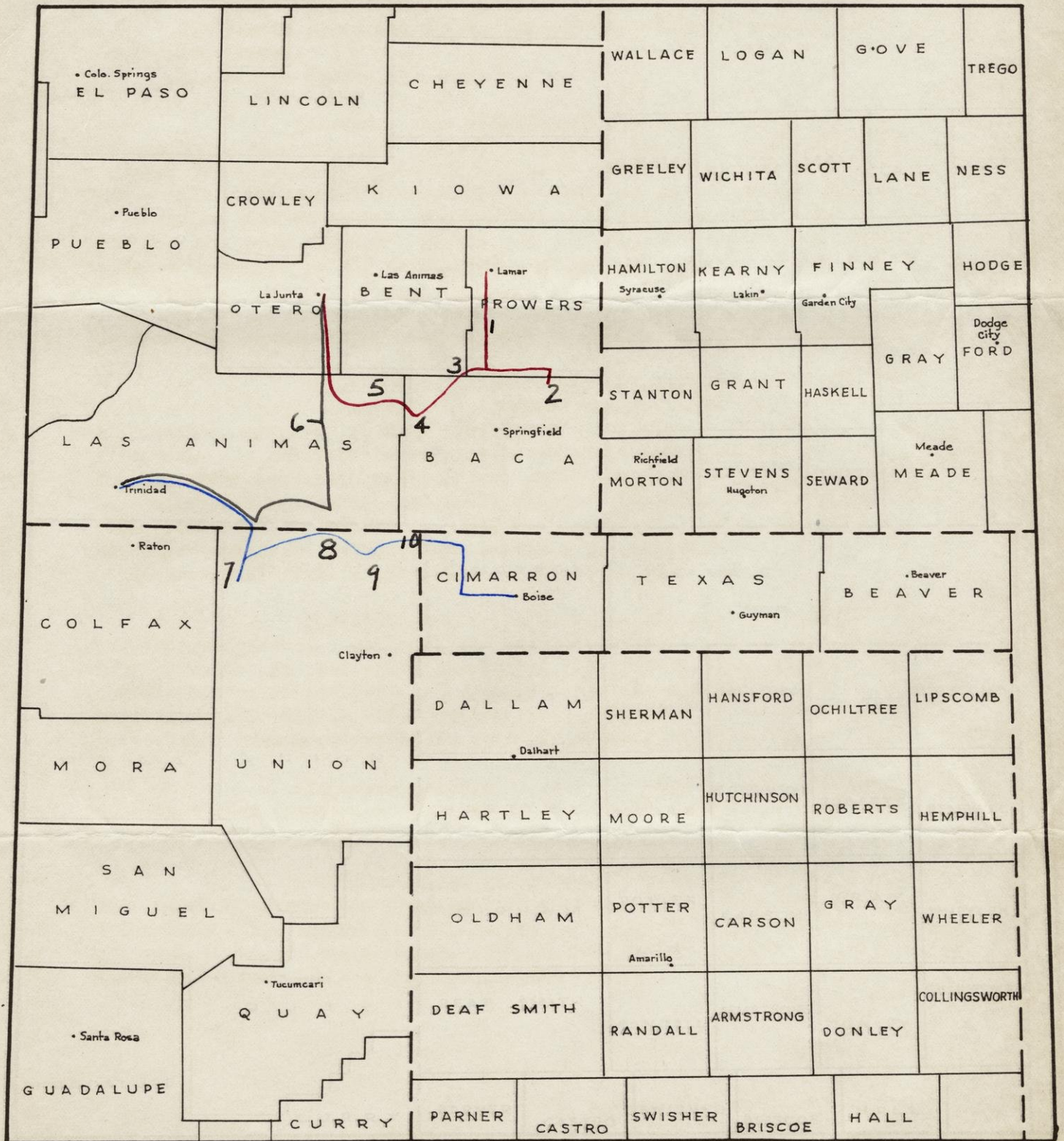
POST-CONFERENCE TRIPS:- Two optional post-conference trips have been suggested. One of these will leave Boise City on the morning of the fourth day and proceed to Amarillo. The interesting outcrops in the Canadian River in northern Potter County will be studied en route. From Amarillo a trip will be made during the afternoon of the same day to some interesting Permian outcrops in Paloduro Canyon in southern Armstrong County.

The other trip will cover the area of the Hugoton gas field in southwestern Kansas and proceed to Belvidere, Kansas. At this point exceptionally fine outcrops of Comanchean rocks will be studied.

REGISTRATION:- In order to defray the expenses of the guide book, baggage truck and similar items, a small registration fee will be charged. The amount of the fee will not exceed \$10.00 and will probably be less. A second announcement will be sent out on or about August first, to those who return the enclosed application blank.

Field Conference Committee.

W.A. VerWiebe
Glenn Woolley
L.I. Yeager



April 16, 1934

Mr. G. W. Kraft,
Kraft-Phoenix Dairies, Inc.,
Wausau, Wisconsin

Dear Sir:

I wish to thank you for yours of the 3rd and for the three samples of material from the well at Alma. It is greatly to be regretted that my instructions on sample taking did not arrive soon enough since this number is desperately inadequate for the making of an accurate log which would be of value in repair work on the well in the future. Laboratory examination disclosed many characteristics in the formation which are not suspected by the driller when on the job. To leave to the driller the problem of determining "changes" in formation is about like determining butter fat in milk by just looking at a sample! However, that data supplied are far better than nothing and I hope that if you drill other wells we may have an opportunity to get fuller information on the rock formations.

Very truly yours,

F. T. Thwaites, In charge of well records,
Wisconsin Geological Survey

Feb. 24, 1934

Mr. Stanley W. Keys,
Keys Well Drilling Co.,
413 No. Lexington Ave.,
St. Paul, Minnesota

Dear Mr. Keys:

In reply to yours of the 20th geological conditions at Camp Douglas, Wisconsin are likely to be much like those at Tomah. I estimate that granite or other hard rock will be encountered at a depth of around 385 feet. There will be more or less loose sand with possibly some clay above the rock but no estimate of the depth is possible without knowing just where drilling is contemplated. However, I doubt that the depth will be over 60 feet at most places in the village. The bed rock is sandstone and is very soft at the top. Trouble may be encountered in landing the drive pipe. Indeed, I suggest a string of conductor to ledge with a heavier liner cemented inside, this to be done before drilling far into the rock. I would set my liner with a plug in the bottom so as to force the cement into the pores of the soft rock. The sandstone is coarsest near the bottom and there are some thin layers of shale within it.

You may be able to get a specific capacity of 15 or better from a 12 inch hole. The water is liable to contain iron and this trouble is worst if drilling goes clear to the granite. I would be tempted to test the well both for quantity and quality before reaching a depth of over ~~200~~.300

Log of north side well, Tomah	Thickness	Depth
Sand, gravel, and clay	59	59 feet
Sandstone, medium to very fine, soft	86	145
Sandstone, coarse to fine, a few hard layers	90	235
Shale, gray	10	245
Sandstone, fine to coarse, some shale streaks	10	255
Shale, red	5	270
Sandstone coarse to fine, some shale streaks	5	275
Sandstone, very coarse to medium	30	305
Granite, soft at top		

12 inch drive pipe landed at 76 feet, 12 inch hole below

Trust above will be satisfactory and hoping to get samples if this hole goes in,

Feb. 9, 1934

Dr. G. Marshall Kay,
Department of Geology,
Columbia University,
New York City

Dear Dr. Kay:

I wish to thank you for the reprints of your two papers on bentonite and on the Trenton of New York which came yesterday. One of our students here is now at work on the Ordovician section paying special attention to supposed bentonite layers. I have never had much luck in finding them in well samples. Recently I have been checking correlations in parts of the Ordovician by means of the residues but have not done much with the Platteville horizon yet.

I now understand that after arguing for over 20 years Ulrich has at last agreed that I was right about the correlation of the ^Mendota after all! He has also abandoned the Devils Lake formation. If these reports are correct there soon will not be much left to argue about!

I fear that the publication of the Outline of Glacial Geology will fail thus postponing it for another indefinite period. It is too bad, but in these days one cannot possibly spend much on publication.

Meantime I am working with Workman and McQueen on a cross section from Wisconsin to Missouri.

With best regards,

Sincerely,

F. T. Thwaites

Sunday evening.

Dear Mr. Thwaites,

I planned on coming into Madison today, but due to the rainy weather the latter part of the week I didn't quite finish all I would like to have. The side roads were pretty greasy and almost impassible in spots. I have completed just about all of the leveling, and have gotten the contacts pretty well. However I am a little uncertain yet about the Ivouton Galisville contact and would like to have you clear it up. I was wondering if you would be able to get out this weekend. I plan to be in Wednesday or Thursday and will be in to see you then. With your field trips coming up in the next few weeks you will be kept pretty busy until June.

Hope you had a pleasant week at Devil's Lake. The weather with the exception of a few days was not too severe.

Hope to be seeing you soon.

Very truly yours,

Alk Krumholz

May 27, 1938

Dear Mr. and Mrs. Krumholz:

I have been intending for a long time to write and tell you how much both Tommy and I enjoyed the visit at your house. But it was just a few days ago that I got my films developed and I waited until I had some of the photos to send.

These are some of the extra prints I had. Alk and Spud have a full set.

Field trips are now over. Although I enjoy them I am always glad when nobody has been hurt for highway travel is so dangerous.

My mother who lives next door is now very poorly so will not be able to go away this summer. Just counted up that we have five serious heart cases in the three houses next to us.

Thanking you for what you did for us,

Sincerely,

FIELD CONFERENCE
COMMITTEE

ROBT. L. CASSINGHAM
HOWARD S. BRYANT
PHIL K. COCHRAN
JOHN W. INKSTER

TWELFTH ANNUAL FIELD CONFERENCE

KANSAS GEOLOGICAL SOCIETY

in co-operation with

THE ROCKY MOUNTAIN ASSOCIATION OF
PETROLEUM GEOLOGISTS
WICHITA, KANSAS

DIRECTOR
HARRY W. OBORNE

LEADERS
C. E. DOBBIN
ROSS L. HEATON
A. E. BRAINERD

August 9, 1938

FINAL ANNOUNCEMENT

The Kansas Geological Society with the cooperation of the Rocky Mountain Association of Petroleum Geologists has completed plans for its Twelfth Annual Field Conference to be held along the Front Range of the Rocky Mountains in Colorado, September 1st to 3rd, inclusive. The number of replies to date indicates a large attendance on this trip. The conference will convene at the Kit Carson Hotel, La Junta, Colorado, Wednesday evening, August 31st, where participants will register and receive guide books.

The conference will be devoted to a study of all the sedimentary rocks exposed along the Front Range from their contact with the pre-Cambrian granites to the Oligocene beds. Large unconformities, lateral gradation of beds, and wedging out of formations are some of the features of the conference.

Conference Program

Thursday, September 1. The conference will leave La Junta promptly at 7:00 A. M. The morning trip will be devoted to observing the Cretaceous beds exposed on the Apishapa Uplift as we travel across it. After leaving Walsenburg a number of dikes in the Pierre shale, and the Dakota sandstone overlapping pre-Cambrian will be seen. In the afternoon the type locality of the Harding Sandstone (Simpson) and other Ordovician beds will be seen. Also excellent exposures of the Fountain sandstone, Morrison and Cretaceous beds will be observed at Canon City. A brief stop to collect fossils in the lower part of the Fountain formation will be made. Headquarters for the night stop will be at the Antlers Hotel, Colorado Springs, where special rates of \$3.50 for a single room and \$6.00 for two in a room has been arranged for the conference.

Friday, September 2. During the morning the conference will visit Williams Canyon where excellent exposures of Manitou limestone and Sawatch sandstone will be seen. Buried pre-Cambrian highs beneath the Sawatch also will be observed when passing through the Narrows. We will visit the Glen Eyrie Estate, type locality of the Glen Eyrie shales. During the afternoon the conference will continue northward along the Front Range viewing outcrops of the Fountain and Lyons sandstone. An oil seep in the Dakota sandstone will be one of the afternoon's features. A stop will be made at the Lyons Quarry, type locality of the Lyons sandstone.

The night stop will be at the Northern Hotel, Ft. Collins, Colorado. Rates of \$1.25 to \$1.50 for single rooms without bath, and \$2.25 to \$2.50 with bath.

Saturday, September 3. The conference will continue northwest from Ft. Collins. The Bellevue dome will be seen. Thinning of the Lyons sandstone to the north can be observed. A stop at Oil Canyon will be made to study the thickening of the fossiliferous Ingleside formation of the Upper Pennsylvanian and to collect fossils. The conference will end at the Stanley Hotel, Estes Park, where some entertainment and dancing will be provided.

Rates at the Stanley Hotel are as follows: Two in a room with twin beds will be \$7.00 a day per person, American Plan; single rooms when specified, \$8.00 a day. If the guests register on the American Plan, there can be no deduction for meals eaten elsewhere, but guests may register on the European Plan, eating their meals where they choose, at the rate of \$4.00 a day for a single room or \$3.50 a day per person for a double room. Those who will stay at the Stanley, please indicate such intention on the enclosed reply blank.

It is only an hour and a half drive from Ft. Collins to Estes Park. Those who wish to spend Saturday night at Ft. Collins may attend the dinner dance at the Stanley Hotel by paying \$1.50 for dinner.

Sunday, September 4. Dr. Margaret Fuller Boos of the department of Geology of Denver University, Mr. Ross L. Heaton of the Bureau of Reclamation, and Dr. L. O. Quam of the Department of Geology of the University of Colorado, have kindly offered to conduct groups on trips near Estes Park to study features of pre-Cambrian geology and Quaternary glaciation as a post-conference feature. A number of geologists have indicated their intentions to spend Sunday and Labor Day in Estes Park.

Only one evening meeting is planned for this conference. It will be held in the ballroom of the Antlers Hotel, Colorado Springs. Dr. Don B. Gould will give his paper "Pikes Peak, Past and Present."

Guide Book

The guide book will contain a detailed road log of the route to be traveled, many columnar sections with descriptions of the rocks shown, cross sections, a correlation chart, structure maps, etc. Also a number of papers have been prepared for the book covering various phases of the geology of the area.

Each participant in the conference will receive a guide book at time of registration. Additional books may be purchased for \$4.00 each.

Registration Fee

A registration fee of \$7.50 will be charged each member of the conference, irrespective of the length of time of his attendance. It will be of great assistance to the Society if check to cover this fee accompanies your return of the enclosed reply blanks. A full refund will be sent to anyone who makes advance payment and fails to attend.

Hotel Reservations

All hotel reservations, with the exception of Wednesday night, August 31, at La Junta, will be arranged for you by an advance agent who will make every effort to provide comfortable accommodations for each participant. If the conference attendance is large, it may be necessary for some members to occupy hotel rooms jointly.

Transportation and Baggage

As on previous conferences, travel will be in the automobiles of the participants. If you are unable to bring a car, transportation will be arranged for you in the cars of other party members. The seating arrangement for all members, except drivers, will be changed daily. Baggage will be carried in a light truck provided by the Society and will be placed in the proper hotel rooms at the night stops prior to the arrival of the party.

Automobiles, Boots, and Water Jugs

Automobiles used by participants should be in first class condition and equipped with good tires. Each person is urged to wear boots or drillers' shoes in the field. There will be considerable climbing and rough walking.

Due to the fact that there will be two package lunch stops, and long drives between places where good drinking water can be obtained, it is highly important that at least one water jug should be in every car going on the conference.

Mail and Telegrams

Messages may be sent to members of the Conference, care of the Kansas Geological Society Field Conference, at any of the night stops.

Reply Blanks

Enclosed are two reply blanks. If you expect to attend this conference, or wish to purchase a guide book, please fill out, sign, and return the blanks as soon as possible. Your promptness in doing this will greatly facilitate the work of the committee.

Committee on Arrangements.

Robert L. Cassingham
Howard S. Bryant
Phil K. Cochran
John W. Inkster

TWELFTH ANNUAL FIELD CONFERENCE

FIELD CONFERENCE COMMITTEE

ROBT. L. CASSINGHAM
HOWARD S. BRYANT
PHIL K. COCHRAN
JOHN W. INKSTER

KANSAS GEOLOGICAL SOCIETY
in co-operation with
THE ROCKY MOUNTAIN ASSOCIATION OF
PETROLEUM GEOLOGISTS
WICHITA, KANSAS

DIRECTOR
HARRY W. OBORNE

LEADERS
C. E. DOBBIN
ROSS L. HEATON
A. E. BRAINERD

May 21, 1938

PRELIMINARY ANNOUNCEMENT

The Kansas Geological Society announces its Twelfth Annual Field Conference to be held along the Front Range of the Rocky Mountains in Colorado, September 1st to 3rd, inclusive. This Conference is held with the cooperation of the Rocky Mountain Association of Petroleum Geologists.

The purpose of this conference will be primarily to study the Pennsylvanian and pre-Pennsylvanian rocks exposed along the Front Range and to attempt to correlate them with rocks of similar age in western Kansas and other areas. Outcrops ranging from pre-Cambrian to Cretaceous in age will be visited and studied. The pronounced unconformity at the base of the Pennsylvanian and some old structures exposed along the mountains with no apparent reflection in the younger rocks are some of the features to be observed.

Mr. Harry W. Osborne, consulting geologist of Colorado Springs, Colorado, has kindly consented to act as Director of the Conference. He will be ably assisted by Mr. C.E. Dobbin of the United States Geological Survey, Denver, Colorado, Mr. A.E. Brainerd of the Continental Oil Company, Denver, Colorado, and Mr. Ross L. Heaton of the Bureau of Reclamation, Denver, Colorado. These men are intimately acquainted with the geology of the Rocky Mountain Front Range and their leadership will be a great help in our studies, assuring us a successful field trip.

The Conference will convene at La Junta, Colorado, and travel southwest across the Apishapa Uplift to Walsenburg. Thence in a northwesterly direction it will proceed through Rye and Beulah to Canon City. The northwest extension of the Apishapa Uplift and the overlap of the Dakota sandstone on the pre-Cambrian near Rye and excellent pre-Pennsylvanian sections at Beulah and Canon City will be observed.

On the Second day the route will go northward from Canon City to Colorado Springs. The type locality of the Fountain sandstone and Glen Eyrie shales (Cherokee) will be visited at Colorado Springs, where an interesting pre-Pennsylvanian section will also be studied. A section from the pre-Cambrian to the Pierre shale will be inspected in a distance of about one and one-half miles. From Colorado Springs the Conference continues northward through Perry Park to Boulder. Enroute the most northerly extension of pre-Pennsylvanian rocks known to occur in Colorado and an oil seep in fractured pre-Cambrian rocks north of Golden will be observed.

The third day the Conference will continue northward from Boulder to the Wyoming line, visiting the type locality of the Lyons sandstone and the fossiliferous Ingleside formation of upper Pennsylvanian age. An exposure of Pennsylvanian basal conglomerate composed of Mississippian boulders will also be seen. From Beulah northward to this area the unconformity at the base of the Pennsylvanian should be of particular interest to those geologists familiar with the Pennsylvanian basal conglomerates of the Central Kansas Uplift. The geology of the Big Thompson Canyon -- Grand Lake Area will be discussed by Mr. Ross L. Heaton, Geologist for the Bureau of Reclamation, and Dr. Margaret Fuller Boos of Denver University. The party will then return to Estes Park where a dance and social entertainment are planned for Saturday night.

The distances to be traversed on this field trip are not long, thus providing ample time for examination and study of the more important features.

Each participant will be provided with a guide book containing a detailed log of the route followed, the location of all points visited, explanatory notes and columnar sections pertaining to stops made and other material relating to the geology of the region traversed. There will be directions concerning hotels, garages, etc. Reservation for night stops will be made for you. In short, the conference will be conducted in a manner similar to the previous ones sponsored by this Society.

Private automobiles will be used for transportation. If you are unable to bring your own car the committee will undertake to provide you a seat in the car of another participant.

A registration fee will be charged to help defray the expenses of the conference. This will not exceed eight dollars, including the price of the guide book. Extra guide books may be purchased for not more than five dollars each.

A final and more detailed notice concerning the conference will be sent out later in the summer to those who care to receive it.

If you hope to be able to attend this conference, or wish to order one of the guide books, please fill out the enclosed reply blank and return to us at your first opportunity. It is important that the committee be able to make an estimate of the number of participants at the earliest possible date.

If you know of interested geologists who have not received one of these announcements, kindly send us their names and addresses.

Committee on Arrangements.

Robt. L. Cassingham.
Howard S. Bryant.
Phil K. Cochran.
John W. Inkster.

April 8, 1938

Keuffel & Esser Company
Adams & Third Streets
Hoboken, N. J.

Gentlemen:

Would you please send me ten copies of the
K & E Solar Ephemeris for 1938
so that I may use it in my classes?

Very truly yours,

N

F. T. Thwaites

June 28, 1937

Mr. Miro S. Kovac
5412 Leland Avenue
Chicago, Illinois

Dear Mr. Kovac:

Mr. C. L. Cooper of the National Park Service was in my office this afternoon and says that he has the position of geologist at Patisson State Park still open. The work is general geological survey of the park which is located on the contact of the Keweenawan traps and the Lake Superior sandstones. The pay is \$75.00 a month and living quarters are at the CCC camp. Board is charged for at the rate of approximately 50 cents a day, but I believe there is no charge for living quarters. If you are interested in this job, please advise me as soon as possible as they are nearly a month late in filling the job. The work will last until September 15th.

Very truly yours,

FTT:N

F. T. Thwaites

PAN-AMERICAN GEOLOGIST

EDITORIAL ROOMS

OFFICE OF
GEOLOGICAL PUBLISHING CO.
944 FIFTH AVE.

DES MOINES, IOWA,

July 28

1932

Dear Dr. Alcoaster:

I thank you for your favor of the 24 inst. I should be glad to have Mr. Bay take part in the symposium on the Galena problem. If you will kindly send him my former letter to you or tell him of its contents, it will indicate to him the treatment of his contribution. There it would help out the doctors there immensely for many future papers.

If he will send us his paper at once we can give him a chance at the last to pass in review all that has been said.

Anticipating to hear from him soon I remain,

Sincerely yours

Chamberlain

5412 Leland Ave
Chicago, Ill
July 1, 1937.

Ms. F. J. Thwaites,
Science Hall,
Madison, Wis.

Dear Ms. Thwaites:

I am sorry to inform
you that I shall not be able
to accept the job offered me.
Since I will not attend school
next fall it is necessary for
me to obtain a permanent
position.

I do, however, wish to thank
you for writing to me.

Appreciatively yours,

Miris Kavac

P.S. - will you please tell
Mrs. Nelson that she has
my correct address.

The third day will be spent near Bartlesville and in eastern Osage County, on the Oklahoma equivalents of the Missouri and lowermost Virgil series (Kansas classification), from the Dewey limestone upward through the Ochelata and Nelagoney formations. This day's trip will afford good opportunity to study some of the characteristic changes which occur in these formations as they pass from Kansas southward into the northern Oklahoma basin. The night stop will be at Pawhuska, the capital of the well known Osage Indian tribe.

The fourth day will be devoted to examination of the Elgin sandstone, the Pawhuska and higher formations (equivalents of the Shawnee and Wabaunsee groups of Kansas), of northern Osage County; thence the route will pass into southern Chautauqua County, Kansas, where simple types of cyclic sedimentary units are very clearly represented in the excellent outcrops of the Virgil series. The conference will end near the village of Cedarvale, Kansas.

The distances to be traveled on this field trip are not long and our plan is to permit adequate time for examination and study of the more important features.

Each participant will be provided with a guide book containing a detailed log of the route followed, the location of all points visited, explanatory notes and columnar sections pertaining to stops made, and other material relating to the geology of the region traversed. There will be directions concerning hotels, garages, etc. Reservation for night stops will be made for you. In short, the conference will be conducted in a manner similar to the previous ones sponsored by this Society.

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If you know of interested geologists who have not received one of these announcements kindly send us their names and addresses.

Committee on Arrangements.

J.L. Garlough.
A.E. Cheyney.
R.A. Whortan.
A.L. Morrow.

OFFICERS

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1107 UNION NATIONAL BANK BLDG.

KANSAS GEOLOGICAL SOCIETY

WICHITA, KANSAS

June 12, 1937

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Preliminary Announcement

The Kansas Geological Society announces its Eleventh Annual Field Conference to be held in southeastern Kansas and northeastern Oklahoma, September 3rd to 6th, inclusive.

The conference will be primarily a continuation of previous conference studies sponsored by this Society of the Pennsylvanian rocks of Kansas and adjoining states. Detailed field work during recent years by the United States Geological Survey and the Kansas Geological Survey, covering an area which we shall traverse in part, has revealed many interesting stratigraphic features.

Beginning at the contact of the "Mississippi lime" and the Pennsylvanian beds, examination will be made of the coals and sandstones of the Cherokee shale and the shales and limestones of the Marmaton group, comprising the Des Moines series. The rocks of the overlying Missouri series, as exposed in southern Kansas, will be studied in detail, providing opportunity to compare them with the same stratigraphic section visited on last year's trip in the Missouri and Kaw valleys of northeastern Kansas. Passing south a few miles into Oklahoma the equivalent section will again be traversed and note made of the marked change in the character of the rocks.

At a number of points visited we shall be able to observe the disconformities between the Des Moines, Missouri and Virgil series and also some very fine examples of cyclic sedimentation.

Dr. R.C. Moore, State Geologist of Kansas, has kindly consented to act as Director of the conference. He will be assisted by Dr. K.K. Landos, Ass't State Geologist of Kansas. Mr. Robert Dott, Director of the Oklahoma Geological Survey, and Mr. J.M. Jowett, University of Wichita, will aid in the preliminary field work and the conduct of the conference. These men are intimately acquainted with the Pennsylvanian stratigraphy of Kansas and Oklahoma, having in recent years carried on intensive studies covering this system. Their leadership assures us of a profitable field trip.

The conference will convene at Pittsburg, Kansas, and travel southward to the contact of the "Mississippi lime" and the Cherokee shale, thence westward across the outcrop of the whole Des Moines series to Coffeyville, Kansas, for an overnight stop.

On the second day the route will lie northwestward from Coffeyville across the beds of the very interesting Missouri series to the outcrop of the Stanton limestone at the top of the Lansing group; thence will return southeastward to the vicinity of Nowata, Oklahoma, for inspection of the more southern facies of the uppermost Des Moines and lowermost Missouri beds. This is an excellent locality for study of the stratigraphy of the Marmaton group. The night stop will be at Bartlesville.

February 9, 1937

Mr. Carl Kundert

Iron River, Wisconsin

Dear Mr. Kundert

Last June you borrowed a plane table and alidade belonging to the University. These have not come in and they are needed immediately. Will you kindly see that they are returned?

Very truly yours,

F. T. Thwaites

FTT:M

2134 CHADBOURNE AVENUE
MADISON, WISCONSIN

Dear Robert, Thomas, and William,

I thank you very much for bringing such a lovely book to me on my birthday. I like it better than almost any other book I have ever seen, because it has so many wonderful pictures which I can understand.

Mother was surprised to have so many presents arrive at the party for she did not think that any one would guess it was my birthday. She says I am a lucky girl.

I hope we shall have some fun together again soon.

Tratifully yours,

Margaret Ann Kennedy

Saturday, September 5th - Noon - Eldridge Hotel, Lawrence, Kansas.
Night - Kansan Hotel, Topeka, Kansas.
Sunday, September 6th - Noon - Meeker Cafe, Eskridge, Kansas.
Night - Broadview Hotel, Emporia, Kansas.
Monday, September 7th - Noon - Broughton's Cafe, Cottonwood Falls
Kansas.

Leadership

Leadership for the Conference is as follows:

Director - Dr. Raymond C. Moore, State Geologist of Kansas.

Assistant Director - Dr. K. K. Landes, Asst. State Geologist
of Kansas.

Leaders

Frank C. Greene, Missouri Geological Survey.
Norman D. Newell, Kansas Geological Survey.
M.K. Elias, Kansas Geological Survey.

Advisory Leaders

G.E. Condra, State Geologist of Nebraska.
A.C. Tester, Asst. State Geologist of Iowa.
Robert Dott, State Geologist of Oklahoma.
H.S. McQueen, Asst. State Geologist of Missouri.
G.C. Branner, State Geologist of Arkansas.
H.D. Miser, United States Geological Survey.

Outline of the Conference

The purpose of the Conference is to make a detailed study of the Pennsylvanian and Permian rocks between the base of the Missouri series and the middle portion of the Big Blue series. On the first day, the classic sections of the Kansas City and Bronson groups will be studied in detail in and around Kansas City, Missouri, whence we will proceed up Missouri river to St. Joseph, Missouri, studying the Lansing group and the post-Lansing unconformity. (These studies will cover the correlatives of some of the most important producing horizons of central and western Kansas) The second day will include a study of the Douglas and Peedee groups between St. Joseph, Missouri and Topeka, Kansas as well as the details of Shawnee stratigraphy. On the last two days of the Conference, careful attention will be given to important individual members of the Waubaunsee group and the Big Blue series, including the Americus, Neva, Cottonwood, Wreford, Fort Riley, and Herington limestones. The problem of the Permo-Pennsylvanian boundary will be reviewed. The leaders have arranged longer stops than heretofore in order that careful examination of individual beds may be made and detailed sampling of beds may be possible.

The route of the Conference has been laid on all weather roads. We will travel by automobile. Bring a car if you can.

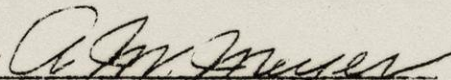
Please return the enclosed blanks promptly. It is very important that we know if you will be on this Conference. If you will participate, answer all questions on each blank.

E. C. Moncrief
Chairman

Arrangements for this trip and for the convenience of our guests will be handled in the same detailed manner as on past conferences of this Society. Further details will be announced in the final notice to be sent out early in August. A registration fee, including the cost of the Guide Book, will not exceed \$10.00. Non-participants may purchase the Guide Book for not more than \$7.50. Whether you expect to attend or not, you are urged to order a Guide Book now, so that we may know how many to prepare.

If you know other interested parties who may wish information concerning this Conference, please send us their names and addresses. Insofar as possible, please complete the attached reply blank and return to us at an early date

Committee on Arrangements


Chairman.

FIELD CONFERENCE
COMMITTEE

A. M. MEYER, CHAIRMAN
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DIRECTOR

TENTH ANNUAL FIELD CONFERENCE

KANSAS GEOLOGICAL SOCIETY

412 UNION NATIONAL BANK BUILDING

WICHITA, KANSAS

June 30, 1936

BOARD OF DIRECTORS

R. A. WHORTAN, PRES.
HOWARD S. BRYANT
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CHARLES W. ROOP
HAROLD O. SMEDLEY
WARD R. VICKERY

The Kansas Geological Society extends to all geologists a cordial invitation to attend its Tenth Annual Field Conference in northeastern Kansas and northwestern Missouri, September 4th to 7th inclusive.

The purpose of the Conference is to make a detailed study of Pennsylvanian and Permian rocks between the base of the Missouri series and the middle portion of the Big Blue series. This includes the Lansing and Kansas City groups, which are productive of oil in central and western Kansas, as well as the Oread, Topeka, Howard, Americus, Neva, Cottonwood, and Fort Riley limestones, which are important in surface and subsurface correlations. Emphasis will be placed on unconformities in the sequence and the Permian-Pennsylvanian contact. The Permian and Pennsylvanian section of Kansas is increasingly being recognized as one of the important standard sections of Paleozoic rocks of the world, as mentioned at the recent International Congress on the Carboniferous held in Holland. An advantageous opportunity will be afforded participants of this Conference to reap the benefits of the work done in preparation of the new geological map of Kansas.

We are very fortunate in securing as Director of the Conference Dr. Raymond C. Moore, State Geologist of Kansas, who will be aided by the Assistant State Geologist, Dr. K. K. Landes. Assisting them as leaders are Frank C. Greene, Norman D. Howell, and M. K. Elias. G. E. Condra, A. C. Tester, Robert Dott, H. S. McQueen, G. C. Branner and H. D. Miser will serve as Advisory Leaders.

Participants will convene at Kansas City, Thursday night Sept. 3rd, for registration and instructions. Friday will be spent in a study of the Lansing and Kansas City groups in the vicinity of Kansas City and along the Missouri river as far north as St. Joseph, Mo., the first night stop. Saturday will be devoted to an examination of the upper Lansing to Peedee part of the section, with a night stop at Topeka, Kansas. On Sunday the section from the upper Topeka to the base of the Council Grove will be seen. Emporia will be the night stop. Beds from the Council Grove to the top of the Herington will be reviewed on the last day.

Ample time will be given at the more important stops for detailed study and collection of samples.

~~xxxxxxx~~ 41 Roby Road

Sept. 7, 1939

Mr. Julian Krumholz,
314 East Main St.,
Arcadia, Wisconsin

Dear Spud:

Yours of Aug. 31 arrived after I had left on a 10 day inspection trip of some of our farms (If you can dignify them by that name).

I can come up over the 10th. As I understand it you will come after me and take me back but if not please advise me. Or maybe you could take me to some point where I could get a train or bus direct here. If too late to make arrangements here maybe we could get up later or even settle some of the matters by map study.

I have no blueprints of surface sections in that vicinity but have one of the Trompealeau well.

The boys are getting ready for school although Tommy says every now and then that he is not going!

Sincerely,

Thursday Evening,

Aug. 31, 1939.

Dear Mr. Thwaites:

You undoubtedly have been waiting for a letter from me for sometime but my mother is not in the best of health since her heart attack last spring and I thought any excitement might disturb her. I wanted to have you up over Labor Day but since that is rather a busy weekend we might be able to arrange the following weekend of Sept. 10th providing it meets your approval. I would prefer to make only one trip into Madison prior to the opening of classes if it could be arranged as such.

Do you have prints of the type section of the Galesville and the Trempealeau formation which are shown in the Kansas Geological Guide Book? I have trouble correlating the terraces on the river and also the Galesville Sandstone at Trempealeau Mountain. Give my regards to Mrs. Thwaites and the boys. No doubt they will be starting school in a very reluctant mood as most children will.

I shall be anxiously waiting a reply from you regarding the weekend of Sept. 10th.

With love,

Julian (Spud) Krumholz
314 East Main

Arcadia, Wis.

Sunday Evening
Sept. 10, 1939

Dear Mr. Thwaites:

I received your interesting letter yesterday and am sorry I could not inform you earlier concerning our plans but it apparently seems I shall be forced to put it off until some later date. Probably after school starts we may be able to run up. I have some very important pictures in mind which I would very much like to have you take especially near Galesville and Fountain City. I often regret that I haven't a postal card size camera rather than this old antique.

The boys undoubtedly got a thrill out of your inspection trip to the farms. Did they do any horseback riding or aren't the farms of the ranch-like nature. So Tommy isn't enthused about going to school. I'll bet he is too much interested in his girl friends. Incidentally how is this one he has on the string who lives up at Baraboo?

Well, must close and hope to see you the latter part of this week or the fore part of next and many thanks for what you have done for me.

With love,

Pauline Krumholz
314 East Main
Arcadia, Wis

Apartado 5
Barcelona, Venezuela

Sunday May 28th

Dear Mr. Thwaites & family,

I have meant to write you ever since I arrived here but there has been so much to see and do that I didn't get around to it.

Undoubtedly your field trips are over by now so that there is a big load off of your shoulders. They always take a lot of planning and are quite a responsibility.

Gus Pyre arrived here last week. He said he saw all your people at Science Hall before he left and after being in Madison for 3 months hated to leave the place. I have seen Al Setter several times. He is a well-sampler for standard, about 25 miles from here and likes his work a lot. Setter says he has seen Bishop who is working for Sacoony about 50 miles from here.

The climate here is wonderful. The days are warm but the nights are cool and there is a constant breeze which makes very comfortable sleeping. It has gotten pretty cold on several occasions and I have used my jacket when out on the rigs after sun down.

Hope you and your family are all well and that you have a most enjoyable summer.

With love,

Al Krumholz

THE STATE UNIVERSITY OF IOWA
IOWA CITY

15 August 1939

My dear Thwaites:

You will find herein a copy of a recent letter which I received from Mr. Leverett in response to a note which I forwarded to him after the appearance of his article entitled "The Place of the Iowan Drift". I think enough has already been said on the Iowan problem. In this connection, perhaps I was indiscreet in making a reply to his letter of August 12th. You will find a copy of this letter enclosed.

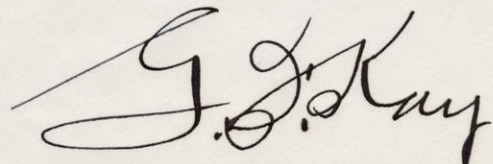
As I mentioned in my letter, it has always seemed strange to me that Mr. Leverett has for nearly thirty years been contending either that there is no Iowan or that it is related to the Illinoian rather than maintaining the view which he held with other geologists previous to about 1909 and which all other geologists except Mr. Leverett hold today, viz., that the Iowan is more closely related to the Wisconsin than to the Illinoian.

I am glad to learn from Mr. Leverett's letter that you are planning to visit the place where the Iowan and Illinoian drifts come together in southeastern Minnesota. I shall be interested in learning the results of your studies.

Hoping that your work is going nicely, I am

Yours very sincerely,

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



Ann Arbor, Michigan
August 12, 1939

Dear Professor Kay:

I think the Iowan problem has now been under consideration for fully 30 years. It was in 1909 that I prepared the "Comparison of European and North American drifts" that was published in the *Zeitschrift für Gletscherkunde*, and I there raised the question of the place of the Iowan drift. In the paper published this year I presented the new idea that in view of the apparent stagnant condition of the ice sheet at the culmination of the Iowan drift deposition it seems more reasonable to regard this Iowan movement as the dying phase of the Illinoian than the opening phase of the Wisconsin. You do not seem to desire to look into this matter or you would not say "I find in it no additional evidence to that which you have previously presented" etc. Other geologists are writing me that it seems unnatural for stagnation to occur in an opening phase. Hobbs, Case, Scott and Lovering here in Ann Arbor have all expressed this sentiment. In fact, no one has formed the view that a stagnant phase is likely to have characterised the opening of a glacial stage. A letter received yesterday from one of the men who has worked under Leighton says "It seems to me to be quite incompatible with the picture of climatic conditions to have stagnant ice right at the beginning of a glacial stage. I shall be most interested to learn how your suggestion is received in the circle of students of glacial geology." Thwaites has written me that he plans an early visit to the place where the Iowan and Illinoian drifts come together in southeastern Minnesota. He also stated that the soil profile of Weidman's Marshfield moraine is

about like that of the Iowan drift. This suggests a new line of approach and I have written him to look carefully into the soil profiles of the Hampton moraine of Illinoian drift and the neighboring moraine of Iowan in Wabasha County, Minnesota, and then compare them carefully with the soil profile of the Illinoian in Green and Rock counties in southern Wisconsin. He seems to be taking the right attitude in the matter and I am hoping for decisive results. It seems as if this question is amenable to settlement if persons drop prejudice and take advantage of all lines of evidence.

Very truly yours,

(Signed)

Frank Leverett

14 August 1939

My dear Mr. Leverett:

In response to your letter of August 12th, I note your statement "In the paper published this year I presented the new idea that in view of the apparent stagnant condition of the ice sheet at the culmination of the Iowan drift deposition it seems more reasonable to regard this Iowan movement as the dying phase of the Illinoian than the opening phase of the Wisconsin." To be sure an idea is not evidence and, of course, in our attempts to solve the place of the Iowan we must resort to the facts themselves as revealed by the field evidence. Your "idea" may well appear logical to Hobbs, Case, Scott and Lovering, no one of whom knows anything about the evidence as revealed by field studies in Iowa and Illinois, where, it must be granted, there is considerable evidence bearing upon the subject involved. I shall be glad to have you study your "idea" in relation to the following facts: (1) the Illinoian drift has on it three to four feet of gumbotil, whereas the Iowan drift has no such material; (2) on the Illinoian drift there are two loesses, the older of which lies below the Iowan drift, only the upper one being present on both of them; (3) there is evidence of erosion having taken place between the time of the development of the gumbotil on the Illinoian and the deposition of the older loess.

It has always seemed strange to me that you had the same interpretation of the Iowan as other geologists had previous to 1909, and practically the same interpretation as is now being put upon it by those who differ

Dr. Frank Leverett - 2, August 14, 1939

from you. If I interpret the situation correctly, you stand alone among the several persons who are familiar with the field evidence pertaining to the Illinoian and Iowan drifts in the view that the Iowan is more closely related to the Illinoian than it is to the Wisconsin. How do you account for the fact that your present viewpoint is in direct opposition to your own views based upon evidence examined by you prior to 1909? Your "new idea", it seems to me, must be backed up by field evidence before you can hope to have it accepted by glacial geologists. In former times you have expressed the viewpoint that theoretically there ought to be a drift from the Keewatin center corresponding in age to the Illinoian drift from the Labrador center. In theory one might expect this statement to have considerable weight. However, when the field evidence is studied there is no good basis for maintaining the theory. Such, I believe, to be the case in relation to your "new idea". It is all right in theory but does not fit the facts. I shall continue to be interested in the Iowan in relation to new evidence rather than in basing my judgments only on new ideas not supported by field evidence.

I appreciate fully your attitude in this matter, but again express my regret that I cannot, on the basis of my field work in areas with which you are thoroughly familiar, accept your interpretation rather than the one which I have outlined as fully as possible in my publications, particularly in my articles entitled "The Relative Ages of the Iowan and Illinoian Drifts", and "The Relative Ages of the Iowan and Wisconsin Drifts".

With my kindest personal regards, I am

Yours very sincerely,

Dr. Frank Leverett
Department of Geology
University of Michigan
Ann Arbor, Michigan

(Signed) H. F. Kay

GFK:v


THE STATE UNIVERSITY OF IOWA
IOWA CITY

23 September 1939

My dear Dr. Thwaites:

I read with great interest the copy of your letter to Dr. Leverett. I have been proceeding on the basis that all persons except Mr. Leverett who are familiar with the field evidence, are convinced that the Iowan drift is more closely related in age to the Wisconsin than to the Illinoian. Anything which you find in the areas which you are studying which strengthens or weakens this general consensus should be brought to our attention. Keep me informed regarding any new generalizations which you are able to make from further studies of yourself and of your assistant.

Yours very sincerely,

A handwritten signature in cursive script, appearing to read "G. J. Kay". The signature is written in dark ink and is positioned to the right of the typed closing.

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

XXXXXXXX 41 Roby Road

Sept. 20, 1939

Dean G. F. Kay,
University of Iowa,
Iowa City, Iowa

Dear Dean Kay:

Reply to yours of Aug. 15 was delayed until I had been to Minnesota. The trip was made with all the family also along and was primarily to visit some foreclosed "farms" in the northern part of that state. One of my boys has hay fever and we tried to get him north as soon as possible so time for examination was limited. I hope to go over there again in connection with the work of Mr. Mathieson.

Enclosed is copy of letter to Leverett which I trust will make my position clear. I am at date of writing inclined to think that there is much Patrician Iowan east from the type locality and have in fact shown such on the second edition of my map in the "Outline". I now think that the border may be moved outward if anything. It is curious to recall that way back in 1926 I kept remarking on the similarity of much of Weidman's Third Drift to the original Iowan!

With best regards,

Sincerely,

~~XXXXXXXX~~ 41 Roby Road,

Aug. 2, 1940

Prof. O. L. Kowalke,
Ellison Bay, Wisconsin

Dear Kowalke:

Thank you for yours of July 24. I hold up reply until I was more certain of our summer plans. I am sorry to say that I now find that we are going west to the San Francisco fair this summer instead of our usual northern trip. It will, therefore, be impossible for us to take advantage of your kind offer but we will hope to be able to next year.

I have been kept with my nose to the grindstone drafting maps for the report on northeastern Wisconsin. Until that is completed I do not feel able to take time out except when I absolutely have to. But the block diagram maps are completed and most of the statistical work on gravels of different origins is done and I can soon start work on the text. I was discussing the matter with one of my former students of them finishing the Pleistocene geology east of Fox River and the Bay which project, if we go ahead with it, would surely bring us to Door County. So we will hope for the future!

Sincerely,

Ellison Bay, Wis.,
July 24, 1940.

Prof. Frederick T. Thwaites,
Science Hall,
Madison, Wis.

My dear Thwaites:-

The possibility of your coming to Door County and to Ellison Bay on your way north this summer is of much interest to me. I hope that you can arrange to make this "detour" so that I may have the benefit of your counsel on the problem of the beach ridges here and the effects of the glaciers.

When you are ready to come, please send me a note so I can notify Mrs. Wickman of Ellison Bay Lodge to provide for your food and shelter. I have spoken to her about your coming and she tells me that she can take care of you. You are to be our guest there as we do not have accommodations for more than two people in our cottage.

Cordially yours,

Kowalke.

O. L. Kowalke

P.S. Should Mrs. Thwaites be coming along with you, we shall wish to include her in our invitation to stay at the Lodge.

O.L.K.

Field Conference
Committee

VIRGIL B. COLE, Chairman
BURTON E. ASHLEY
JOHN L. GARLOUGH
GEORGE D. PUTNAM
DON B. WINES

Fifteenth Annual Field Conference

KANSAS GEOLOGICAL SOCIETY

Wichita, Kansas

In Co-operation with
MISSOURI GEOLOGICAL SURVEY
UNIVERSITY OF MISSOURI
STATE GEOLOGICAL SURVEY OF ILLINOIS

Directors

E. B. BRANSON
H. A. BUEHLER
M. M. LEIGHTON

Leaders

H. S. McQUEEN
J. MARVIN WELLER

May 29, 1941

PRELIMINARY ANNOUNCEMENT

The Kansas Geological Society announces its Fifteenth Annual Field Conference to be held in central and eastern Missouri and western Illinois, August 27 to 31, inclusive. This conference is to be held in cooperation with the University of Missouri, the Missouri Geological Survey and Water Resources, and the State Geological Survey of Illinois.

The conference will study the pre-Pennsylvanian rocks of central and eastern Missouri and the Mississippian rocks in Illinois. Principal attention will be given to the Siluro-Devonian and the Ordovician rocks in Missouri. The conference leaders this year will be Dr. E. B. Branson, head of the Department of Geology at the University of Missouri; Dr. H. A. Buehler, State Geologist of Missouri; and Dr. M. M. Leighton, Chief of the Geological Survey of Illinois. They will be assisted by Mr. H. S. McQueen, Assistant State Geologist of Missouri, and Dr. J. Marvin Weller, head of Stratigraphy and Paleontology Division of the Illinois Geological Survey. The conference will convene at Sedalia, Missouri, and proceed as follows:

FIRST DAY -- WEDNESDAY, AUGUST 27:

The party will proceed eastward and northward from Sedalia by way of Boonville, Arrow Rock, Glasgow and Fayette to Columbia, Missouri. The section on this first day extends from the Jefferson City (Arbuckle) through the Ordovician, Devonian, and Mississippian to the lower Pennsylvanian rocks. Emphasis will be placed on the major formational contacts. An interesting contact of the St. Peter sandstone with the Jefferson City dolomite will be examined on this day. The area covered the first day lies on the northwest flank of the Ozark Region and is a region of considerable complexity, interesting stratigraphy, major unconformities, and regional overlaps. This will be the first opportunity of the Kansas Field Conference to examine the central Missouri Devonian rocks.

SECOND DAY -- THURSDAY, AUGUST 28:

The party will proceed southward from Columbia along the Missouri River crossing to Jefferson City and returning to Columbia that night. We will examine in one outcrop along the bluffs of the Missouri River a section extending from the Mississippian to the Ordovician in which there are five unconformities. There will be an opportunity to visit a rock wool plant which is using Chouteau limestone from a nearby quarry. After studying the type section of the Jefferson City formation at our lunch stop in Jefferson City, the group will proceed northward and view an excellent sinkhole in the "Mississippi lime" which is filled with coarse conglomerate. If time permits, the party may inspect the Green Fire Brick Plant at Mexico, Missouri, and then proceed westward across the Brown station anticline to Columbia.

THIRD DAY -- FRIDAY, AUGUST 29:

The trip will start east of Columbia where we will view the western-most exposure of the Plattin. Several new quarries have been opened in recent months which permit examinations of excellent exposures of Mississippian and Ordovician

rocks. In one such quarry a Pennsylvanian sinkhole occupies part of the Burlington, Chouteau, and Callaway formations. The party will reach St. Louis this evening, and will probably stay in one of the hotels in the west end of the city near Forest Park.

FOURTH DAY -- SATURDAY, AUGUST 30:

On this day the trip will proceed northward from St. Louis crossing the Cap-au-Gres fault and time will be devoted to this fault and associated folding. To the northwest this fault passes into an asymmetrical fold of considerable magnitude known as the Lincoln fold. This day's trip will cross the axis of this fold in several places. The section to be studied will range from Canadian up to the Ste. Genevieve. Emphasis will be placed on the stratigraphy of the Ordovician, Silurian, and Kinderhook-Mississippian. This day's trip lies on the west side of the valley of the Mississippi River and will offer an excellent opportunity for examination of the topography and physiography of this side of the Mississippi Valley. This area contains geological problems which will be important to those working in the northern Mid-Continent area and the Illinois Basin. The party will stop at Hannibal, Missouri, Saturday evening.

FIFTH DAY -- SUNDAY, AUGUST 31:

On this day's trip the party will cross the Mississippi River and examine excellent exposures of Kinderhook and other Mississippian formations. The day's trip will terminate at Keokuk, Iowa.

It is believed that the driving distance in this year's conference will be shorter than before--which should allow more time to be spent on the outcrops.

The above general outline of the conference can give but a vague idea of the detail in which the stratigraphic problems of the region are being attacked by our leaders. Much of this detail will be included in the guide book, a copy of which will be given to each participant. Several papers dealing with the stratigraphy and structures of the area are being prepared and will be included in the guide book. Maps and cross sections will also be included. In short, this conference will be conducted in a manner similar to the previous ones sponsored by this Society.

Private automobiles will be used for transportation. If you are unable to bring your own car, the committee will undertake to provide you a seat in the car of another participant.

The registration fee will not exceed \$9.00 and includes the price of one copy of the guide book. Additional copies of the guide book may be purchased for not more than \$5.00. ALL PARTICIPANTS MUST PAY THE REGISTRATION FEE, no matter how much of the conference they attend.

It is important that the committee be able to make an estimate of the number of participants at the earliest possible date. If you hope to attend, or wish to receive further notices of the conference, fill out and return the enclosed reply blank. If you wish a copy of the guide book, whether or not you attend, fill out the enclosed order blank. If you know any interested geologist who may not have received this notice, please send us his name and address.

A final notice will be issued about August 1. It will include complete information about the guide book, hotel arrangements, noon and night stops, and other important data.

Field Conference
Committee

VIRGIL B. COLE, Chairman
BURTON E. ASHLEY
JOHN L. GARLOUGH
GEORGE D. PUTNAM
DON B. WINES

Fifteenth Annual Field Conference

KANSAS GEOLOGICAL SOCIETY

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E. B. BRANSON
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M. M. LEIGHTON

Leaders

H. S. McQUEEN
J. MARVIN WELLER

August 4, 1941

FINAL ANNOUNCEMENT

The Kansas Geological Society invites you to attend its Fifteenth Annual Field Conference to be held in central and northeastern Missouri and adjacent portion of Illinois, August 27 to 31 inclusive. This Conference is held with the cooperation of the University of Missouri, the Missouri Geological Survey and Water Resources, and the State Geological Survey of Illinois.

The primary purpose of this Conference is to study the pre-Pennsylvanian rocks of central and northeastern Missouri and central western Illinois. In Missouri the Conference will concentrate on the Silurian and Devonian and the upper portion of the Ordovician, in Illinois we will spend most of our time studying Mississippian rocks.

The area chosen for this Conference is half-way between the Forest City Basin and the Illinois Basin. Here most of the beds which produce oil in these two basins, as well as most of the pre-Pennsylvanian producing horizons in Kansas, will be studied.

CONFERENCE PROGRAM

Wednesday, August 27, first day:- The area traversed today lies between the Ozark region to the south and southeast and the Forest City basin to the northwest and thus affords certain important structural and stratigraphic correlations between the two areas. It affords excellent opportunity for study of formational and systemic contacts, some of which are marked by development of basal conglomerates, the filling of sinks, crevices, and other features of solution formed at or near surfaces of weathering. Overlaps of importance will be observed. Stratigraphic highlights will be two unusual contacts of the Pennsylvanian and Mississippian; two contacts of the Devonian and Mississippian; two contacts of the Devonian and the Ordovician, with different formations being involved at each stop.

Thursday and Friday, August 28 and 29, will be devoted to the study of parts of the Mississippian, the Devonian, and the upper part of the Ordovician. We will be afforded the opportunity to study the type section of Devonian, which is the producing formation in the Fall City oil field in the Forest City basin. The first stop on Thursday on Little Bonne Femme Creek is of special importance to the Kansas Geological Society as it was stop No. 1 of the First Annual Field Conference of this Society (September 5, 1927). At this stop five unconformities can be readily studied.

Saturday, August 30, fourth day:- Our route takes us north from St. Louis to Hannibal, Missouri. The dominant feature of this day's trip is the Lincoln Fold an asymmetrical anticline of regional proportions. This fold is probably the largest known structural feature north of the Missouri River between the Forest City basin on the west and the Illinois basin on the east. Structural relief is more than 600 feet. The area traversed has splendid exposures of formations ranging in age from Lower Ordovician (Canadian-Cotter) to the Pennsylvanian (Cherokee). Of particular interest will be the overlap of the Mississippian onto the Devonian and the Silurian, one or the other coming into or cutting out of the section at various stops. Attention will be given to the development of a sandstone within the Devonian. This will be of particular interest to workers in the Illinois basin. Topography in this area is unique and interesting.

In the evening a trip to the Mark Twain Cave and back by his home and museum as guests of the Hannibal Chamber of Commerce has been planned.

Sunday, August 31, fifth day:- The route follows up the Mississippi valley. We will have the opportunity of visiting the type localities of several of the Mississippian formations which are well exposed. The Conference will terminate at Nauvoo, Illinois, former capital of the Mormons and in 1843 the largest city in the state.

GUIDE BOOK

The guide book will include all pertinent data regarding the geology of the area visited and the geologic problems studied. It will contain a detailed road log of the route to be traveled with graphic sections of the rocks seen at each stop. It will also include interesting historical data, a correlation chart, structure maps, and numerous cross sections. The list of special articles to be included in the guide book is incomplete at the present time, but we expect to have a paper on the Devonian of this area, one on Trenton production in Illinois, and one on the Lincoln Fold of northeastern Missouri. Each participant in the Conference will receive a guide book at the time of registration. Additional books may be purchased for \$5.00 each.

REGISTRATION FEE

In order to defray the expense of the Conference and the preparation of the guide book, a registration fee of \$9.00 will be charged each member of the Conference, irrespective of the length of his attendance. One copy of the Guide Book is given each participant at the time of registration.

If you wish to be assured a copy of the guide book and have not already ordered one, fill out and send in the enclosed order blank. A limited number will be printed.

Hotel Reservations

All hotel reservations, with the exception of Tuesday night, August 26 at Sedalia, Missouri, will be made for you by an advance agent, who will make every effort to provide comfortable accommodations for each participant. If the Conference attendance is large it may be necessary for a few members to occupy hotel rooms jointly.

Headquarter hotels are as follows:

August 26	Sedalia	Hotel Terry
August 27 & 28	Columbia	Hotel Tiger
August 29	St. Louis	Hotel Chase
August 30	Hannibal	Mark Twain Hotel

Transportation and Baggage

As on previous conferences private automobiles will be used for transportation. If you are unable to bring a car, transportation will be arranged for you in the car of some other participant. The seating arrangement for all members, except drivers, will be changed daily. Baggage will be carried in a truck provided by the Society and will be placed in your hotel room each night prior to your arrival.

Automobiles and water jugs

Automobiles should be in first-class condition and equipped with good tires and brakes. At least one water jug should be in every car on the Conference.

Mail and Telegrams

Messages may be sent to members of the Conference in care of the Kansas Geological Society Field Conference. Lunch stops are as follows:

August 27	Boonville	Hotel Frederick
August 28	Fulton	Hotel Seminole
August 29	Montgomery City	Methodist Church
August 30	Clarksville	Community Club

Reply Blanks

Enclosed are two reply blanks. If you expect to attend this Conference, fill out and sign the enclosed reply blanks. The more we know of your plans the better we can plan for you. If you wish to be assured a guide book, whether or not you attend, fill out the enclosed order blank, unless you have already ordered. Even though you replied to the first notice, please return promptly the enclosed reply blanks completely filled out.

COMMITTEE ON ARRANGEMENTS

P.S. Don't delay in making your hotel reservations at Sedalia, Missouri, where the Conference convenes, as there is a convention in the city at the same time. Mr. Ellsworth Green, Jr., Secretary Chamber of Commerce, has agreed to help secure hotel reservations at Sedalia if you will supply him with your needs.

May 22, 1943

Dear Mrs. Thwaites:

As a member of the Courtesy committee of the Romanians' Club and also on behalf of my own self, I wish to tell you how sorry we all are to learn that you are in the hospital. I hope you will soon

be out again and feeling much improved in health.

Please do not try to make the effort to answer this note. It accomplishes its purpose when it reaches you and that is sufficient.

Most sincerely

Winifred Titus Kowalke

Dear Prof. Thwaites and Family,

I am still doing geological work here in Eastern Venezuela. Am writing you from my tent in the jungles. Have been living in a tent for over a year now, so am getting in condition for the army. You undoubtedly got to see Gus Pyre, on his way into the service. He left here in September and ~~altd~~ I haven't heard from him I expect, he is now in some Camp. Setler also left here some time ago. Bishop and his wife are still here.

Many of the young fellows who haven't been laid off have been getting to enlist in the army.

Hope you all have a Merry Xmas and a Happy New Year

with love

Alk



MERRY CHRISTMAS TO YOU



HOW DE DO!



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

BOARD OF NATURAL RESOURCES
AND CONSERVATION
FRANK G. THOMPSON, CHAIRMAN
GEOLOGY - - - EDSON S. BASTIN
CHEMISTRY - - - ROGER ADAMS
ENGINEERING - - - LOUIS R. HOWSON
BIOLOGY - - - WILLIAM TRELEASE
FORESTRY - - - EZRA JACOB KRAUS
STATE UNIVERSITY
PRESIDENT ARTHUR CUTTS WILLARD

April 29, 1943

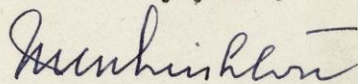
Dear Colleague in Glacial Science:

It is with deep regret that I inform you of the unfortunate serious illness of our beloved and honored colleague in Glacial Science, Dr. George F. Kay, Dean Emeritus of the University of Iowa, Iowa City, Iowa. Following an operation of an exploratory character, his surgeon pronounced his case as far advanced,

On the occasion of my recent visit to Iowa City, I learned that the second part of his two-fold work on the Pleistocene of Iowa is in press. Professor A. C. Trowbridge and I gave thought to a plan whereby all of us who have been more or less associated with him in his research field might pay him honor, individually and collectively, by writing him a letter appropriate to the circumstances, all of the letters to be bound together in a volume and presented to him.

It is suggested therefore that you address your letter to Dr. Kay, write it on 8 1/2 x 11 letter-size paper and send it to Dr. A. C. Trowbridge, Head of the Department of Geology, University of Iowa, Iowa City, Iowa, for him to assemble and bind. May I also suggest that you have this in Dr. Trowbridge's hands by May 8 if possible.

Sincerely yours,



M. M. Leighton

(Please pardon the mimeographed form of this letter which circumstances necessitate.)

May 3, 1943

Dr. George F. Kay,
Iowa City, Iowa

Dear Dr. Kay:

I was very sorry to learn of your illness in a letter from Dr. Leighton and hasten to write you. However, I was pleased to learn at the same time that your second report on the Pleistocene of Iowa is in press. I have long awaited it.

Doubtless you have seen my report on northeastern Wisconsin. I did not send separates to members of the G. S. A. to any extent as the paper is unduly bulky because of poor folding of the maps. I had hoped to continue work in northern Wisconsin using the aerial photos and the maps based on them which are now coming out. But at my age with the delay due to the war this may never come to pass. I am not even teaching Glacial Geology this year. Only one student appeared and he was virtually blind! The proposed revision of the Outline of Glacial Geology is, therefore, off "for the duration". I was glad that the northeastern report could be finished, however, also the map prepared under Flint's direction.

The war has hit our department very hard. There are so few students left that most of the rooms are entirely deserted. Two of my courses failed from lack of students. However, the course in Mapping including my 21st trip to Devils Lake went through almost as normal. We had a party of 11 at the Lake for 6 days in spite of rationing and the Powder Plant just over the bluff. They let us live in comparative luxury in the old C. C. C. camp and at the Lake one would scarcely imagine that a war is going on and that a busy factory covering mile after mile of former farm land is just over the hill! But three of our department, including me, have had to teach Physics. Over there all is activity and hurry. Nobody seems to care much about geology, however. We had a temporary rush with well records while camps and factories were building but that is almost over now and it looks like a dull summer were it not for Physics again.

I had a student work on the drifts north of the Driftless Area the last three years. He had studied soils and made several borings to depths of over 30 feet. In this wise we checked two reports of old soils although failing to find any drift below the soils. His paper is in proof for the American Journal of Science and should be out very soon. I will send you a copy as soon as I can. The conclusion was that much of the marginal drift is nowhere near as old as was once thought, certainly not older than Iowan. We found that despite former opinions the till is calcareous at some places within a few feet of the surface.

At this time of pause in normal activities it is a pleasure to look back at our long association in Pleistocene geology and to feel that practically all controversies now appear to be settled. But there will be other problems that are yet to be solved though just what they are or who will labor with them we know not.

With best regards from all of us at Wisconsin,
Sincerely,

226 Hubbell
Honey Blon, Michigan
January? '44

Dear Tommy,

How's the chemistry business coming along? Glad to hear you made some crystal radios. Why don't you make a 2 or 3 tube set? After the war there will be a big future in chem. & radio.

o thanks a lot for the little beaker. I hate to use it because I don't like to get it dirty & I'm sure careful not to break it.

the Amos card was nice. At first I thought it was "store hot"

I'm making a 20' glider now. I'm putting skis on it for the winter.

I hope to see you next fall & thanks again for the beaker

Sincerely,

Bob Kitson

September 11, 1944

Dear Mrs. Klotz:

Tom and I want to thank you for the wonderful lunch. When Tom opened the box, he exclaimed: "Boy, she certainly does not want us to starve!" It is very seldom that we see bananas in Madison. All three trains were very crowded and the diner was back five cars.

Thanking you again for your kindness, I am

Yours very truly,

zone 6

May 7, 1945

Dr. A. C. Tillman,
State Teachers College,
Macomb, Illinois

Dear Tillman:

Mr. J. W. Kenny has asked me to write you in regard to his work here. Mr. Kenny took both Physiography of the United States and Glacial Geology under me and made an excellent record in both. I have a very high regard for his ability and feel confident that he would be a very good instructor in your school.

With kindest personal regards,

Sincerely,

F. T. Thwaites,
Assistant Professor of Geology



To Cor

KENT STATE UNIVERSITY

KENT, OHIO

September 14, 1945

DEPARTMENT OF GEOGRAPHY
AND GEOLOGY

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

Dear Mr. Thwaites:

At the suggestion of a personal friend, Dr. Kenneth Bertrand, I am writing to you regarding recommendations for a post here in the field of geology. The chairman who has just retired, Dr. David Olson, formerly handled all the geology, but when I came here recently it was stipulated that someone else would handle the geology courses. We are looking for a relatively young man, with or without the doctorate, to come in as an instructor. The rank might be higher if the individual's qualifications were good. I am not at the moment able to make a statement concerning the salary, but that again would depend on the applicant.

The courses which are scheduled are Survey of Geological Processes and the Evolution of Land Forms; Historical Geology; and Economic Geology. I believe the geology program might be expanded to advantage, for the department is equipped for mineralogy and some other work.

If you have former students who would be interested in the place, I would be pleased to receive applications and biographical data.

Yours very truly,

H. F. Raup

H.F. Raup, Chairman

Hole?



KENT STATE UNIVERSITY

KENT, OHIO

January 10, 1946

DEPARTMENT OF GEOGRAPHY
AND GEOLOGY

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

Dear Mr. Thwaites:

In September you wrote me that a former student, Mr. F.D. Hole, might be available for an appointment here in the field of geology. I did not hear from Mr. Hole, and have been wondering whether your letter finally reached him.

The place is still open, and we are most anxious to find a good man for the fall quarter opening. Do you know whether Mr. Hole is out of service yet? Possibly you know by this time whether an offer from Kent State would interest him. If you have any information on the matter, I would appreciate it.

It was a pleasure to see Ken Bertrand at Knoxville again in December; in fact it is always a pleasure to see Ken anywhere and any time.

Yours very truly,

H. F. Raup

H.F. Raup, Department Head

v 276

Jan. 23, 1946

Dr. H. P. Raup,
Department of Geography and Geology,
Kent State University,
Kent, Ohio

Dear Dr. Raup:

Reply to yours of Jan. 10 was delayed while I investigated the matter. I found that Dr. Hole has accepted a position with the Soil Survey here which he will take up as soon as they can get him here.

Other names which have been suggested are Dr. Ray E. Wilcox who is now in the Signal Corps but will soon return here. He has had teaching experience here although I personally know little about how well he did. Another is Harris Palmer who is now teaching in the High School at Spooner, Wisconsin. I know nothing about his work there but understand he has been there several years. He formerly worked on the Road Material Survey and was mentioned by Mr. Bean, State Geologist.

I am sorry I can not do any better for you but shifts due to the war added to the recent make over of our department due to several retirements at the same time make it unusually hard to pick out any candidates. Sincerely,

West Allis. Wis. June 26. 1946
7809 West National Ave.

Prof F.T.Thwaites
Madison, Wis.

Dear Prof Thwaites :-

I expect to be in Madison next Friday, the 28th. and would like very much to see you for a brief interview, if you are in the city, and are at leisure. The matter is not particularly urgent, so I would not want you to inconvenience your self, or to neglect other important work you may have in hand.

The time is too short for you to reply to this inquiry, so I will call you by telephone soon after I arrive in Madison, around noon, Fri., to 28th., and we can arrange a meeting for any hour that may be convenient to you during the P.M.; or not at all if you are busy with prior engagements.

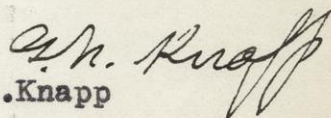
I have been gathering data in Milwaukee county the past few months, as spare time permitted, and contributing short sketches on local geology to "The Trilobite", which the Wisconsin Geological Society publishes monthly.

I have confined my self to the problem of the old rock floor, i.e., the configuration of the Paleozoic rock surface, and the over-burden of Pleistocene material.

I am not asking for data at this time, but just an opportunity to discuss some of the problems involved. I know that you have a vast amount of data of this nature in you files.

Sincerely yours

G.N.Knapp



November 12, 1946

Kencrest, Kenosha,
Kenosha, Wisconsin.

Gentlemen:

Please send nylon stocking cards to
the following:

Mrs. Walter Garske,
140 South Blair Street,
Madison 3, Wisconsin.

Mrs. C. O. Braden,
21 East Gorham Street,
Madison 5, Wisconsin.

Mrs. F. T. Thwaites,
41 Roby Road,
Madison 5, Wisconsin.

Yours very truly,

Mrs. F. T. Thwaites



The State of Wisconsin

TEACHERS COLLEGE

OSHKOSH, WISCONSIN

Thursday
Oct 9, 1947

Dear Mr. Thwaites:

I am writing this letter to tell you how much both President Polk and I regret that we are not able to take in the Tri-State Field Trip this week end.

President Polk is going to be out of the city this week end and I am tied up too. I am faculty manager of athletics here, having charge of the gate and field and our first football game comes this Saturday. I don't feel that I can get away. I would come over to Manitowoc for the banquet and ~~go~~ with you Sunday morning but I have just this week had my car overhauled and must drive very slowly for a few hundred miles. I sincerely hope that you have a successful trip and that I can join you another year.

With kindest personal regards,

I am,

Sincerely yours,

Burton E. Karges

December 9, 1948

Mr. M. W. Krasno,
3118 N. Menlo Blvd.,
Milwaukee 11, Wisconsin

Dear Mr. Krasno;

I learned indirectly that you were taken ill and confined to a hospital. I then called your room and confirmed the report. We were all very sorry to learn this and hope you are soon out again.

Please do not worry over making up your work. I will be here all vacation if you decide to come back early. I expect to clean up the well records or at least make a dent in them. The hole made during the current semester looks like one in quicksand, it fills again just as soon as made! But I keep hoping for better results next time. Then there is the map of northeastern Wisconsin which gets a bit added from time to time as there was today. But that was because Harder did not get many samples ready for me!

As I could not find which hospital you are in I am sending this to the home address given in the Directory.

With best wishes for a speedy recovery, and for the holiday season,

Sincerely yours,

F. T. Thwaites

never returned

EDWARD A. KOESTER

PETROLEUM GEOLOGIST

302 ORPHEUM BUILDING

WICHITA, KANSAS

May 13, 1949

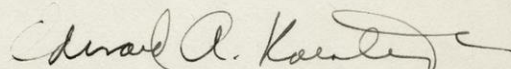
Dr. Fredrik T. Thwaites
University of Madison, Wisconsin
Madison, Wisconsin

Dear Dr. Thwaites:

I wish to thank you for the separates on deep well drilling in Wisconsin, Illinois, and Michigan which were received this morning. These will prove most valuable to me as these references are not readily available in our local libraries.

I am enclosing an invitation to you to the opening of our service building the latter part of this month. I am sure the officers and members of the Kansas Geological Society would be pleased to have you with us at that time.

Yours very truly,



Edward A. Koester

EAK:mzm
Enc.

EDWARD A. KOESTER

PETROLEUM GEOLOGIST

302 ORPHEUM BUILDING

WICHITA, KANSAS

March 29, 1949

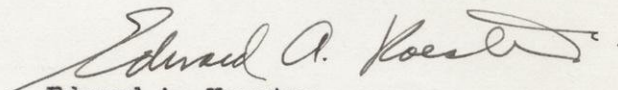
Dr. F. T. Thwaites
Department of Geology
University of Wisconsin
Madison, Wisconsin

Dear Dr. Thwaites:

I am wondering if you have published any papers concerning the surface or sub-surface stratigraphy of Wisconsin since the 1935 Field Conference which we enjoyed so much? If so, I would appreciate learning of these later papers especially those dealing with deep well studies.

If you can spare separates of your earlier papers, especially your 1923 paper published in the Journal of Geology and your 1931 paper in the Bulletin of the Geological Society of America, I would certainly appreciate receiving a copy of them.

Sincerely yours,


Edward A. Koester

EAK:mzm

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

October 6, 1949

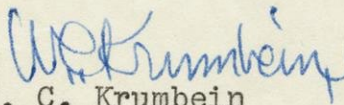
THE COLLEGE OF LIBERAL ARTS

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

Dear Dr. Thwaites:

Bill Powers recently gave me a copy of your mimeographed publication on physiographic principles. This has proved to be a very valuable addition to my library, inasmuch as I have been struggling with courses which include some aspects of geomorphology. You certainly have succeeded in compressing a great deal of material in your pages, and I find reading them to be very thought-provoking. I would like to see that material more generally accessible by publication in book form. I appreciate your kindness in making a copy available to me.

Sincerely,


W. C. Krumbein

WCK:dfm

as from University of South Africa,
Bot 1525, Durban,
Union of South Africa.
23.XII.1951

Dr. F. W. Thwaites
University of Wisconsin,
Madison, 6.

Dear Dr. Thwaites,

I am very pleased to receive your most helpful notes upon pediments & other geomorphologic topics. It is indeed unfortunate that Madison was not included in my tour, for we should have had several interesting points to talk over.

The notes will be very helpful & I shall keep them by me as a stimulant to my own thought. On my return to South Africa in February I shall send you sundry reprints.

With all good wishes, & apologies for haste - so many things to do before sailing

Yours sincerely,
Lester King

December 3, 1951

Prof. L. C. King
Geological Society of America
419 West 117th St.
New York 27, New York

Dear Prof. King:

Enclosed please find some of the recent supplementary material given to my class in Geomorphology. You will note references to your work. If I have made any errors in quotation I would be glad to know it. I hope you will find my method of presentation understandable. Of course, everyone varies in this regard. I greatly regret that you are not coming here.

With best regards.

Sincerely yours,

F. T. Thwaites

FTT:b

Enc.

February 23, 1953

Mr. M. D. Olson
530 N. 5th Street
Klamath Falls, Oregon

Dear Sir:

Yours of the 16th was given to me for reply. We have had fluoridation wished on us over the protests of many authorities. The job was put over by bringing pressure on dentists to sign up or be suspected of wanting to increase business. The feeling of those who have looked into the matter is that the effect of fluorine on the teeth has never been proved. In Deaf Smith County, Texas, they claim that dental decay is very slight. But that is all they really know. A few years ago they claimed that fluorine was harmful to the teeth in a concentration of only 2 parts per million. Now they tell us that one part per million is beneficial. This does not sound logical to some of us. It is extremely difficult to tell just what in diet affects dental decay. They claim great benefits from the few years of use of fluorine but just how do they know that. Water drunk or consumed in cooking is surely only a part of the total fluid intake particularly if milk is also consumed. How are they so sure of themselves? How can anyone ever be absolutely sure on such matters? How can we be sure that fluorine is harmless otherwise? Every time a new drug is discovered many doctors try it excessively. Then it appears that it will not work with every person and at last finds its place. I feel as many others here do that it would be best to wait a time before joining the present rush to fluoridation.

Sincerely yours,

F. T. Thwaites

530-N. 5th St.

Klamath Falls, Oregon

2-29-1953

Mr. F. T. Thwaites

Madison, Wisconsin

Dear Sir,

I have your letter of Feb. 23, 1953. It is an enlightening letter.

My question is, will you permit our local newspaper to publish this letter? Both sides of the question is being published.

I have been a teacher of health & physical training, in Spokane, Wash. public schools (for 17 yrs) before moving to this town. And I'm very much interested in health of our people.

Sincerely

M. W. Olson

An early reply will be appreciated

March 4, 1953

Mr. M. M. D. Olson
530 N. 5th Street
Klamath Falls, Oregon

Dear Sir:

Your special delivery letter of February 28 is at hand.

I see no objection to your publishing my letter or letters to you in regard to fluorination of public drinking water supplies. I might add that I have been engaged in studies of water supplies since 1912 and am in almost daily consultation with the Sanitary Engineering Division of the State Board of Health. The whole controversy is tied up with a common mental attitude, namely that of presenting only one side of an argument or problem. Politicians and lawyers must do just this but those with scientific training should avoid falling into that error. Unfortunately, many do not like to admit that they (and in most cases many others) do not know the final answer or perhaps even know enough about a problem to permit of an honest opinion of the weight of conflicting lines of evidence. The fluorine problem is in my opinion one of the things on which a final answer is not yet possible. But the protests of those here who felt this way were swamped by the louder voices of those in favor. I had many conferences with those on the committee but personally kept out of it. Perhaps this was a mistake but if I can help you people I am happy to do so.

Sincerely yours,

F. T. Thwaites

April 4, 1952

Prof. Lester King
University of South Africa
Box 1525
Durban, Union of South Africa

Dear Prof. King:

I wish to thank you for the reprints of your papers which came recently. Some I had not seen because they are not in our library.

This semester I do not have time to even think about geomorphology for my time is taken up with a large class in geological surveying as well as a class in glacial geology which takes several trips.

With best regards.

Sincerely yours,

F. T. Thwaites

FTT:b

530 N. 5th. St. Klamath Falls, Oregon.

2-16- 53.

Science Department,
University of Wisconsin.

Dear Sirs: Klamath Falls ,Oregon is considering fluoridation of the city water. The water company is leaving it to the people to decide by cards sent to the water company.

Dr. Emmanuel H. Bronner of 447 , Hope St. LosAngeles, California has an article in one of the church papers. In this article he codems theuse of it. He calls it RAT Poisin. He states that it not only hardens teeth but our arteries,causing heart trouble andother dieases.

Do you in the science department agree with him? Do you know any thing about him?

He backs up this statement by paying \$10000 if he is proven wrong. This is a statement in the article.

I will be very grateful for some help on this problem.

Sincerely,

M.D. Olson

March 14, 1953

Prof. L. C. King,
University of Natal,
Durban, South Africa

Dear Prof. King:

Thank you for the reprints of your three papers which came some time ago. I have also been reading the 1951 edition of your book on South African Sedimentology. The second semester, as usual, keeps me very busy hence I did not get around to writing any sooner.

During the first semester I had more time and did considerable work on geomorphology. Several mimeographed supplements were finished to bring much of my material up to date. Just now I am summarizing a new Professional Paper (No. 252) of the U. S. Survey on the geometry of rivers. Ideas gained from this compilation of actual hydraulic data will make me change my mind about a number of geomorphic problems. But large classes now leave little time for research and next year is to be my last at the University. However, with the help of one of my former students I still hope to publish some of my ideas on geomorphic processes.

With best regards,

Sincerely yours,

TELEPHONES :
56566/7/8/9
P.O. BOX 1525



IN REPLY PLEASE
QUOTE
No.....

UNIVERSITY OF NATAL
(HOWARD COLLEGE)
DURBAN

21st April, 1953.

Dr. F.T. Thwaites,
41 North Roby Road,
Madison 5,
Wisconsin,
U.S.A.

Dear Dr. Thwaites,

Thank you for your little note acknowledging reprints. What a great deal of reading you seem to do. When I realise how much ground you have covered, I feel quite happy that next year is to be your last at the University and that we may hope thereafter to see many of your ideas put into print. I did not know of the professional paper No. 252 of the U.S. Survey of which you write, so shall look into it in the hope of gaining useful material. In the meantime, I hope you will find the paper, for which I have corrected the proofs, due to appear in the Bull. G.S.A., of some interest.

With all good wishes,

Very sincerely yours,

Lester King

UNIVERSITY OF WASHINGTON
DEPARTMENT OF ENGLISH
SEATTLE, 5

October 5th, 1956

F.T. Thwaites
41 Roby Road
Madison, Wisconsin

Dear Sir (or Madam):

I am eager to communicate with Mrs. Jessie Thwaites or her heirs with regard to the copyright of Reuben Gold Thwaites' edition of the journals of Lewis and Clark. Can you be of any assistance in this matter?

I should be grateful for a prompt reply.

Yours truly,

Jacob Korg
Jacob Korg
Department of English

UNIVERSITY OF WASHINGTON
DEPARTMENT OF ENGLISH
SEATTLE, 5

October 13th, 1956

Mr. F. T. Thwaites
41 North Roby Road
Madison, 5

Dear Mr. Thwaites:

Many thanks for your prompt reply to my inquiry. I am very grateful for your generosity in granting permission in advance to a request to reproduce part of the Lewis and Clark journals. However, I feel that it would be best to explain exactly what I have in mind.

Professor Sylvia F. Anderson and I are collaborating in publishing a booklet of original source material by men who travelled in the early west; the booklet is to be used by classes in freshman English as a source for library research papers. I have enclosed one booklet in this series (slightly mutilated, I'm afraid) as an example. Our booklet will consist of a number of accounts, totalling some 80,000 words. We have planned to use about 12,000 words from the first three or four volumes of the Thwaites edition of the Lewis and Clark journals.

It will be necessary, for our purposes, to make certain changes in the Thwaites text. We want to omit the list of courses and positions that follow many of the entries, and all of the footnotes. In addition, our text will consist of extracts rather than long connected passages, so that there will be many indicated omissions in the text itself. We feel justified in doing this, because our booklet will not be used to teach history, but writing; on the other hand, it will have the side-effect of acquainting students with many of the facts of the historical events involved.

We do not propose, of course, to make any changes except omissions. In fact, we have transcribed the portions we are interested in by photostat in order to get a faithful reprinting of the Thwaites text. Suitable acknowledgement will, of course, be made. It is worth noting, I think, that nearly all of the portions we intend to use have already appeared in the De Voto edition.

I should, again, be grateful for a prompt reply.

Sincerely,
Jacob Korg
Jacob Korg

8 October, 1956

Prof. Jacob Korg,
Dept. of English,
University of Washington,
Seattle 5, Washington

Dear sir:

In reply to yours of 5 October I find that I must
own the copyright of the Journals of Lewis and Clark.
They are not mentioned in my mothers will. She died in 1938.

If it is to publish a short extract with due
credit that you want it is all right with me.

Sincerely yours,

March 3, 1926.

Dr. George F. Kay,
State Geologist,
Iowa City, Iowa.

Dear Dr. Kay:

In reply to yours of the first, I am glad to note that you are preparing a paper on the history of the Pleistocene in Iowa. I am afraid that you will have to list me for the present as one who doubts the presence of three tills and two interglacial epochs in northeastern Iowa. I base this doubt mainly upon prima facie evidence, namely no section has even been found which shows beyond question the presence of three tills or at least no one has ever been able to point out such a section which is now available. All of the old sections which I have read about or examined have a very grave element of doubt within them. Next, the peculiar topography of the Iowan area is by no means confined to the region now described as Iowan drift. It is also present in the northwestern part of the state and down to the Mississippi River. Its boundary is nowhere that which could have been formed by ice work even allowing for subsequent erosion. It is true that after I have been over the area I have had very varying reactions as to the meaning of this topography and as to whether it is really the same type of thing in different places, but pending seeing more of this I think that a strong case against a post Kansan glaciation rests upon the two forgoing statements. If you will read over my outline of glacial geology, you will find twenty-five other points, some of which are not worth very much and some of which are not my own. Perhaps a third important point is the apparent improbability of a long narrow Iowan lobe without a southern extension and probably a western one. If, however, we ~~claim~~ ^{admit} that it is post Kansan till in northwestern Iowa and that the border of this till approximates that of the Wisconsin near Des Moines, then I should not make very much of this objection.

^{classification}
It always struck me that the weakest places in the Pleistocene glaciation are the Iowan drift as a separate stage separated from the Wisconsin by a long interval and the failure

G.F.K...2.

to find a Kewatin Illinoian drift. Should the Iowan be correlated with the Illinoian, it would remove one of these difficulties. On the other hand I would not see much to object to in placing the Iowan as an early advance of the Wisconsin similar to the oldest of the Wisconsin of Illinois.

I hope that I will be able to get over to Iowa and see more of these questions. I am thoroughly open to conviction, having raised my objections as stated upon the broader aspects of the question which it seems to me have been overlooked by many.

Yours very truly,

FTT-M

Geologist

STATE OF IOWA
IOWA GEOLOGICAL SURVEY

GEORGE F. KAY, DIRECTOR

JAMES H. LEES
ASST. STATE GEOLOGIST
NELLIE E. NEWMAN
SECRETARY

IOWA CITY March 1, 1926

Mr. F. T. Thwaites,
Geological and Natural History Survey,
Madison, Wisconsin

My dear Mr. Thwaites:

I have just read with much interest your letter of February 26. I am now preparing a paper on the history of classification of some phases of the Pleistocene of Iowa. In this paper I expect to discuss in some detail the history of usage of the names Iowan and Kansan. With regard to Mc Cee's Northeastern Iowan area, I do not know of any one who doubts the presence of three tills and two interglacial epochs. Even Leverett, who at one time, as you know, was skeptical of there being a post-Kansan till in that area, is now convinced that he was in error. I am positive about this because he and I were in the field together last summer. The only difference between Leverett and myself with respect to this area is that he believes that the post-Kansan till, the Iowan, should be correlated with the Illinoian. I am contending, and this view is shared by Alden and Leighton, that the Illinoian till is much older than the Iowan. In fact, I believe that the interval between the Illinoian and the Iowan is a very significant one, more so than that between the Iowan and the Wisconsin.

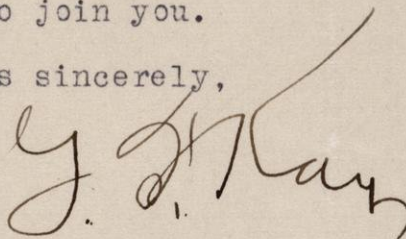
I wish it were possible for me to come to Madison to discuss matters of mutual interest. It may develop that University duties will take me there later in the year; if so, I shall

Mr. F. T. Thwaites - 2

March 1, 1926

plan to see you. I was pleased to learn that you had had a conference with Leighton, and that some time during the summer you and he would be in Iowa. Be sure to let me know when you come because I shall plan to join you.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "G. J. Kay". The signature is written in dark ink and is positioned to the right of the typed name "GFK-LCA".

GFK-LCA

X

February 26, 1926.

Dr. George F. Kay,
State Geologist,
Iowa City, Iowa.

Dear Dr. Kay:

In reply to yours of January 28 I have been a long time in getting time to read the articles which you mentioned. I find that I had read the paper by McGee in the Iowa Horticultural Society and summarized it in my paper which you had last winter. I never had any doubt from reading the Eleventh Annual Report that McGee placed the forest bed between ~~these~~ upper and lower tills. In fact he appears to have distinguished the gumbotil at Davenport which is now placed between the Illinoian and Kansan as the same as his forest bed. I have on my desk a photograph which obviously dates back a long time which shows the Harrison Street exposure and is labeled loess, upper till, forest bed, lower till.

I noted a conflict between the statements of Bain and Calvin in regard to the discrimination of the Iowan drift. Bain in volume 6 states distinctly that McGee's lower till may be pre-Kansan. In the American Geologist, volume 21, he is more specific and states that two different interglacial formations in northeastern Iowa had been confused and regarded as McGee's forest bed. He says that the work in that region had resulted in "dividing the formation which McGee calls his 'upper till'" into Kansan and Iowan drift. In the same volume, however, Calvin stated that there were two interglacial horizons in northeastern Iowa. He states "McGee looked upon the forest bed as the plane of division between his lower and upper till, but later investigators..... reached the conclusion that his lower till embraces two distinct drift sheets and that it is between these two that the forest bed invariably lies." I added the statement that this appears to disagree with the ideas of Bain. As I see it, the matter is purely one of history and has no connection with the Iowan controversy of the present date which consists of the proof of there being two or more than two pre-Wisconsin drifts in northeastern Iowa. I do not see, however, but that

G.F.K...2.

the Iowan till as defined by Calvin is only a portion of McGee's upper till although it corresponds to his mapping of the supposed surface distribution of the upper till. It is very apparent to me that McGee was endeavoring to treat the drift sheets in the same way as one would marine sediments. He was always attempting to find a type section, a type lithology, etc. It was therefore not surprising that he reached results considerably different from those of later investigators.

You will note that in the paper of McGee's in the Iowa Horticultural Society he states that the formations are just the same along the 89th Meridian and of course we now know that that conclusion is incorrect.

I cannot at all agree with the statement on the ~~second~~ ^{lower} ~~page~~ ^{till} of this letter to Chamberlain that McGee's is your Kansan till and that his forest bed is the horizon between the Kansan and Iowan. That does not seem to match at all with what I gather from the writings of Bain and Beyer although it does correspond to the statement made by Calvin which as you note is in conflict with statements made by the others.

I do not regard the controversy of the correlation of McGee's writings as of any material importance at this time. The real question is: "Can we find any sections in northeastern Iowa which demonstrate two long breaks between glaciations outside of the Wisconsin terminal moraine?"

I am in hopes that you will be able to come to Madison and will then be glad to talk over some of the matters on which we differ. I recently went down to see Leighton and found that we do not differ materially on the correlation of formations in the vicinity of the south line of Wisconsin but did not have an opportunity to thrash out anything about Iowa. I have hopes of being able to come out to Iowa either just after school closes in the spring or just before school opens in the fall. Mr. Leighton has promised to go out with me at the latter time as he finds it easier to get away then.

Yours very truly,

FTT-M

Geologist

F. KAY
HUR C. TROWBRIDGE
ABRAM O. THOMAS
JOSEPH J. RUNNER
ALLEN C. TESTER
WM. A. P. GRAHAM

THE STATE UNIVERSITY OF IOWA
IOWA CITY

Jan. 28, 1926

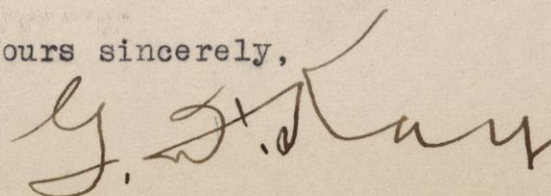
Mr. F. T. Thwaites,
Geological and Natural History Survey,
Madison, Wisconsin

My dear Mr. Thwaites:

I wish to thank you for writing to me with regard to the samples of a well at Dubuque which was drilled by C. W. Varner. I am forwarding your letter to Prof. W. H. Norton of Cornell College, who has charge of the Underground Water Investigations of our Survey. Samples of wells are usually forwarded to him. If he has received a duplicate set he will so inform you.

I have been hoping to find time to write to you with regard to some Pleistocene matters in which we are mutually interested. Because I have not written you recently does not mean at all that I have forgotten to do so. I hope that some of my University duties may bring me to Madison when you and I may have an opportunity to discuss some aspects of our work on the Pleistocene about which there may be some differences of opinion. I cannot refrain at this time from asking you to read again Mc Gee's paper in the Transactions of the Iowa Horticultural Society, Vol. XVI, 1881, pp. 227-240. This paper throws light upon Mc Gee's Upper and Lower Till and his Forest Bed. My interpretation of Mc Gee's judgments is reflected in two letters which I am enclosing. After you have read the paper again I shall be glad to have you criticize the viewpoint I now have with regard to it.

Yours sincerely,



GFK-LCA

October 1, 1925.

Dr. George F. Kay,
State Geologist,
Iowa City, Iowa.

Dear Dr. Kay:

Your letter of September 25 and the inclosed manuscript arrived yesterday. I am sorry that you have not made any detailed suggestions at the points where you placed question marks in the margin. This matter was the splitting up of McGee's two tills into three. I will reread the articles in question and see whether I have misunderstood them or whether they had misunderstood McGee because I cannot at present reconcile the statements.

With regard to the second paragraph, are you not confusing this paper with my outline for the use of students? I have not intentionally made any statement of my own conclusions in this paper but only summarized those things which appeared vital in the reports. This is entirely independent of whether I have or have not seen the localities in question. I think that has no bearing on this paper. In the other paper written for the use of students I have not intentionally expressed any definite opinion about either the Iowan or Illinoian drifts. All statements made about northwestern Iowa, which region I have seen very little of, were made on the authority of Carman. In this outline no foot notes are given and no attempt was made to discriminate between personal observations and things on the authority of others. At the time it was written Carman's report was said to be the very last word and Leverett's criticisms had never been stated except in a letter to me.

In regard to northeastern Iowa, I have seen a good deal of the region although I have not been south of Independence. Of course it is impossible to revisit many of the localities cited by the older geologists because the exposures are no longer in existence. I have, however, made a very close study of topographic forms in this region and have seen some of the later sections which were pointed out to me by your assistants. I have also received information from some of my students who have been in Iowa. I think, therefore, there is justification for raising the questions which I have. They are simply presented as a case against the Iowan drift parallel with the case for it with the final conclusion that the matter is not settled because there are a number of points which may be raised (justly or unjustly) which have not been answered by those who have been over the area in detail.

G. F. K...2.

With regard to the Illinoian and Kansan drifts I have specifically stated that none of the doubts may have any value. The criticisms of Schoewe's report on Lake Calvin are based in part on my personal knowledge of him as a student and are only questions and suggestions of alternative explanations. He has described the phenomena very well, but I think that other explanations are justified.

You will recall that I did not have to visit Iowa very long to become convinced of the correctness of your explanation of gumbotil. *A* ~~The~~ five minute examination of the type exposure of the Aftonian was sufficient to show that the conditions could not have been such as originally described. Examination of the type locality of the Buchanan also showed that conditions were not as the reports stated. Now in some cases this may be due to changes in the exposures, but I think most of the discrepancy was due to mistaking of weathered gravel with occasional boulders for till. Road material work has shown very plainly that many of the older geologists regarded areas as till which deeper excavation show to be underlain by assorted materials.

Some of the other questions raised were on prima-facie evidence, that is the extraordinary boundaries assigned to the Iowan drift, the peculiar marginal lobation described in places in Minnesota and the Dakotas where as far as I know there is no topographic cause for such excrescences in the glacial margin. These things are raised simply as suggestions and not as final or definite conclusions. The contrast between the smooth boundaries of the Wisconsin drift in Wisconsin and Iowa and some of the older mapping is I think good evidence that something is wrong. It may be simply the location of the boundary; it may be the entire interpretation. I did not attempt to say in every case, but I do think one is justified in citing these things as evidence ~~as~~ opposed to other points.

Another difficulty has been the very confused presentation of some of the evidence in older reports. Many of the Iowa county reports present no evidence at all and I have ^{never} been able to get students to learn very much out of Leverett's monographs - his positive statements are so buried in a mass of detail. I trust these points will make my attitude clear.

followers of Part of my skeptical attitude is due to my personal acquaintance with a glacial geologist for whom I once worked and this feeling was fostered by another man for whom I worked who was bitter against anything derived from the ~~Holmes~~ or Chamberlain with whom he probably had a personal quarrel. I have tried, however, to keep away from all personal feeling in connection with such arguments. Another has been the scathing criticisms of Pleistocene geology on the part of other geologists. Some of these are probably unjustified, but I do think an overhauling of the older literature is justified.

I am inclosing a letter which I found among the papers. It was caught on one of the clips.

Yours very truly,

FTT-M

Geologist

September 25, 1925.

Prof. F. T. Thwaites,
Geological and Natural History Survey,
Madison, Wisconsin.

My dear Mr. Thwaites:

I am today returning your manuscript which you were kind enough to permit me to retain until now. I have read it with interest and profit.

My chief adverse criticism is that I get the impression that you have not sufficiently differentiated between papers of importance and papers which have had little or any significance in relation to our present judgments of the Pleistocene. Another impression I get, and this is particularly true in connection with your discussion of the Iowan problem, is that without sufficient detailed field study on your own part, you are inclined to express yourself with too much assurance. In other words, I am inclined to think that some of your skepticism with respect to certain phases of the Pleistocene would be removed if it were possible for you to see at first hand the field evidence from which some of your conclusions have been reached. Of course, in making these criticisms of your paper, I am thinking largely of those parts which pertain to Iowa.

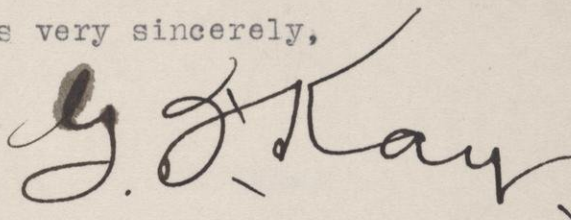
On the other hand, you have gotten together in this paper an immense amount of valuable information and I feel sure that after you have revised it very carefully in the light of the criticisms which have been forwarded to you by

Prof. F. T. Thwaites, - 2.

those who have read the manuscript, it will make a worthy publication.

Again thanking you for permitting me to read your paper, I am

Yours very sincerely,

A handwritten signature in cursive script, reading "G. J. Kay". The signature is written in dark ink and is positioned to the right of the typed name "G. J. Kay".

GFK:CP

R
March 24, 1925.

Mr. George F. Kay,
State Geologist,
Iowa City, Iowa.

Dear Dr. Kay:

I am returning inclosed the manuscript of your recent paper on the Aftonian gravels. I was very glad indeed to see this. Your general conclusion coincides exactly with mine although based on slightly different grounds. I visited only the Thayer pit and I am inclosing a copy of my notes on this. The interbedding of till and gravel was what struck me most forcibly as evidence of there being no definite gravel horizon. It seems to me that the older geologists in Iowa were students of marine sediments. They were totally unfamiliar with stony drifts in which the interbedding of till and gravel is very frequent. To them till meant a glacial advance and a gravel a glacial recession, in which of course they were correct in as far as that spot went. The error lay in trying to correlate the tills and gravels on the basis of elevation and lithology. Ideas of correlating the first gravel bed met in wells over a large portion of the state as of the same age must surely have been erroneous. The applying of formation names was I think an unfortunate venture in this field of trying to reduce glacial deposits to a stratigraphic sequence like that of marine beds.

The older conception of the term weathering also appears to me to be a confusing thing. Apparently some of the older geologists regarded any oxidized material as weathered at the surface disregarding the obvious fact that porous beds show oxidation when impervious material does not. The idea that waters escaping from gravel beds deposited iron oxide was also unknown to them.

With regard to the Aftonian gravels of western Iowa, I think your paper is not quite clear. As I understand it those contain shells which seem to indicate much less rigorous conditions than the milky outwash streams of ice-cold waters which deposited glacial gravels. May it not be that there are true Aftonian gravels along the Missouri River or may not Shimek have confused as interglacial some gravels which are really pre-Kansan and have simply been buried by slump and wash? Again may

post

he not have interpreted some gravels as Aftonian which are really pro-glacial or preglacial? These might readily contain the remains of a mild climate. The only gravel bed which I saw near Shimek's locality appeared to be buried by till, but on account of the steep slope and small depth of the pit I would not be confident but that the material above is due to land slides. I am inclosing some notes on this pit which is at Loveland. Unfortunately I was obliged to leave that vicinity on account of an approaching storm as I did not desire to be stranded for several days. Thus I did not get a chance to see the original fossil localities. Would it not be well to make clear that the study of the type locality does not necessarily carry with it the interpretation of these western beds as glacial outwash?

Some minor criticisms are the inconsistency of some of your foot notes. I have endeavored to straighten them out, also the use of the titles. I would not be certain that all the men who wrote about these deposits had Ph. D. degrees and I would suggest that you follow the usage of the United States Geological Survey as explained in Directions to Authors. Otherwise in some places it is Dr.; in other places Doctor; and in still other places simply Chamberlin. Most people perhaps would not notice this, but I think the omission of the title is in accordance with most peoples' usage today.

I also noticed that some of the peoples' writings and opinions were expressed in the present tense and others in the past and I would suggest that they all be made in the past tense as some of the living authors may desire to change their opinions in the future or may have changed them at the present time. I know how difficult it is for an author to see some of these things; hence you will pardon my mentioning them.

There is one other matter and that is the use of McGee's terms upper till and lower till and the changes which came about from Bain's work. As I understand it, McGee divided his upper and lower tills at the forest bed and that when the Iowan drift was separated, it was a division of the upper till and not the entire upper till as it was at first defined, i.e. as I understand it, McGee's upper till was later divided into Kansan and Iowan, leaving his forest bed equivalent to the Aftonian. I have been very much mixed up by the numerous articles which describe this change of usage in different ways. That is one of the things which I hoped you would straighten out in my summary of the literature.

In regard to the summary, you will note that Alden denies that Chamberlin desired to return to the old nomenclature of calling the upper ^{reworked} till in southern Iowa the Iowan. As I recall it, you said he desired to do this and certainly says this in the paper to which Alden refers.

Thanking you again for the privilege of seeing this manuscript, I am

Yours very truly,

March 9, 1925.

Mr. George F. Kay,
State Geologist,
Iowa City, Iowa.

Dear Dr. Kay:

In reply to your two recent letters I am inclosing the manuscript. I am also including letters containing comments by Mr. Leverett and Mr. Alden which you will probably find interesting. The manuscript is very crude and has never been thoroughly edited since I ran it off last year. It has not been brought up-to-date and I have found a number of references since, most of which are entered in the margins where they will be inserted. Mr. Alden indicates a conclusion which I have not yet prepared. It will state that evidence shows very clearly that the Pleistocene was long and composed of several glacial invasions, but that some of the conclusions and inferences from particular kinds of data are unreliable.

I will send you a copy of my outline of glacial geology when it is done.

I have been very much interested recently in the matter of the two ages of loess in Iowa and have puzzled a great deal over what significance these deposits have. I notice that you have not said much about them in any of your papers. I have also been puzzled over the reported deposits of loess in the Yarmouth deposits, but have not been able to find the original reference. I wish to thank you very much for your answers to my questions.

I have made some studies on the forest bed of north-eastern Wisconsin but found nothing except spruce in it. I think the deposits do not indicate an interglacial climate, but the phenomena do indicate a very extensive recession of the ice, one which was probably worthy of dividing the Wisconsin into two major divisions.

Yours very truly,

FTT-M

Geologist

THE STATE UNIVERSITY OF IOWA
IOWA CITY

March 6, 1925

Prof. F. T. Thwaites,
Dept. of Geology,
University of Wisconsin,
Madison, Wis.

My dear Professor Thwaites:

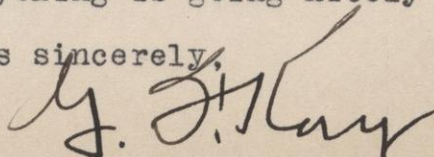
I have delayed writing to you with regard to Mc Gee's interpretation of a temperate climate as indicated from a study of his forest bed, until I had had time to give a little study to this problem.

I regret to state that I am unable to throw any light on the questions involved. Evidently it has been assumed that the early information was correct, and hence little or no additional work has been done on the interglacial floras. I have been fully alive to the necessity of such studies, but at no time have I been able to find a person who is sufficiently trained to undertake such a problem. I have now found one of our graduate students who may be able to do some work along this line this summer. Doctor Shimek of our Botany department states that not only is the flora of a temperate climate but that the molluscan fauna also indicates a temperate climate. It is clear that we must secure more facts than we now have.

I wish to thank you for the prints which you sent to me. I expect to be this summer in both of the areas in which your photographs were taken. I shall make a restudy of your sections in the light of the comments that you have made.

Hoping that everything is going nicely with you, I am,

Yours sincerely,



August 4, 1924.

Mr. George F. Kay,
Iowa Geological Survey,
Iowa City, Iowa.

Dear Mr. Kay:

Your letter of July 30 and inclosed copy are at hand. I am very much interested in the same. I am contemplating a trip across Iowa in the near future, possibly in about two weeks. Would it be too much trouble for you to furnish me with a list of the localities at which I could see some of the important things? I want to go to near Muscatine to see the base of the Illinois drift overlying the Kansan, to Fort Madison to see the supposed three drifts, to central Iowa to see the original Aftonian and some of the gumbotil, to western Iowa to see some of Shineck's Aftonian, and Loveland. There is very little use, as you know, to look up localities in old reports because things have changed. If you would kindly furnish me with a list of those which are now accessible, it would be greatly appreciated. I have no intention of restudying the question but would like to see the places so as to have a clear picture of what they look like in reading about them. Any information you can furnish me will be very much appreciated.

I expect to return across northern Iowa and see the debatable area in that region and possibly also some of the Iowan area although I have studied that before.

Yours very truly,

FTT-M

Geologist

STATE OF IOWA
IOWA GEOLOGICAL SURVEY
GEORGE F. KAY, DIRECTOR

8-1-24

IOWA CITY, July 30, 1924

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

My dear Professor Thwaites:

In relation to correspondence between Mr. Leverett and me with regard to the gumbotils, I believe you will be interested in reading a copy of a letter which I have just sent to Mr. Leverett. You will note that the statements which are made in this letter are based upon a re-examination of evidence which I have been collecting within the last fifteen years.

Yours sincerely

G. F. Kay

File
under
Gumbotil

July 30, 1924

Mr. Frank Leverett,
Ann Arbor, Michigan

My dear Mr. Leverett:

Just a note to tell you that I have returned to Iowa City from a trip of more than 3,000 miles by auto in Iowa, in connection with which I re-examined practically all the important Pleistocene sections which I had seen in the last twelve years. I have been in all parts of the State, and hence my work has given me an opportunity to see again the field evidence which has formed the basis for our interpretations of glacial and interglacial deposits. As you can well understand, my most critical studies have been directed towards the gumbotils. My review of the evidence has only strengthened my interpretation that there are three gumbotils, the Nebraskan gumbotil, the Kansan gumbotil, and the Illinoian gumbotil, each of which has a definite topographic position, and each of which I believe is the result chiefly of the chemical weathering of till. I can find no evidence to justify me in thinking that the thicker deposits of gumbotil have been formed, as you suggest, by wind action, slope wash, and other factors. These factors must, in my judgment, take a subordinate position. The evidence shows unquestionably that there is a transition zone between the gumbotils and the tills. Moreover, the gumbotils are thickest on the divides and not down on the slopes; in fact, the Kansan gumbotil is not found thicker

anywhere than on the Great Divide separating the Missouri drainage from the Mississippi drainage.

In this connection I wish to refer to the Templeton cut, which is on the Divide, and to which I have made reference in one or two of my papers. On page 221 of Vol. XXVI of the reports of the Iowa Geological Survey, I refer to the Templeton section as follows:

	Feet	Inches
4. Loess,		
Buff colored, leached,	15	
Buff colored, unleached	10	
3. Gumbotil (Kansan), gray to dark drab to chocolate colored, <u>upper few feet</u> <u>reddish</u> , a few small siliceous pebbles	20	6
2. Drift (Kansan), oxidized yellow to buff, leached, closely related to number 3	7	
1. Drift (Kansan), oxidized, unleached; many calcareous concretions	8	

I find in my notes that when this section was first studied, July 9, 1916, I separated 5 feet 6 inches of a reddish joint clay which was very sticky when wet and which contained few pebbles from the normal gumbotil. In my paper I included this 5 feet 6 inches with the normal gumbotil making a total thickness of 20 feet 6 inches. Since that time I have recognized that there is an old loess in western Iowa which Shimek called the Loveland and which has the characters of this reddish joint

19 Feb., 1957

Prof. Jacob Koss,
Dept. of English,
University of Washington,
Seattle 5, Washington

Dear Prof. Koss:

I have not checked the dates of our former letters in letters but so far as I can recall you only wrote me once. If more than that the letter was lost. We have lost some mail here probably from careless delivery.

It will be all right for you to reproduce the longer extract from the Journals of Lewis and Clark as you now desire.

Sincerely yours,

UNIVERSITY OF WASHINGTON
DEPARTMENT OF ENGLISH
SEATTLE, 5

February 9, 1957

Mr. F.T. Thwaites
41 North Roby Road
Madison, 5, Wisconsin

Dear Mr. Thwaites:

You may remember that we exchanged letters last October on the subject of the copyright you hold to the Thwaites edition of the Lewis and Clark journals, which Professor Anderson and I would like to reprint (in part) in a textbook.

In your reply you said that you had no objection to our reprinting a short extract. However, as my reply (accompanied by an example of our booklets) said, the portion of the journals we would like to use could not be described as a short extract, for it came to about 12,000 words, and presented the text with many omissions, all necessitated by the purpose for which we are using it.

We are now ready to go into production with our booklet. However, I am in need of a reply to my last letter, a grant of permission to make use of the Thwaites text in accordance with the description in my letter to you of October 13th, 1956.

Sincerely,

Jacob Korg
Jacob Korg

Madison, Wis.

Nov. 11, 1957.

Dear Fred:-

You were most kind to send me a copy of your paper on the "Pleistocene Geology of Door Peninsula" and I thank you most cordially for your good will and for the paper.

I enjoyed reading your story. The description of the district between Kaukauna and Manitowish cleared up some ideas. I surveyed on the C.V.N.W. R.R. in that area.

Thank you again!

Cordially
Oth Kowalke

Morris M. Leighton
611 West Pennsylvania Avenue
Urbana, Illinois

September 3, 1958

Dr. Fred T. Thwaites
41 North Roby Road
Madison 5, Wisconsin

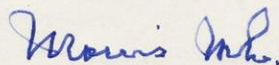
Dear Fred:

I suggest that in going to Chicago for the September 20 meeting you follow the schedule that is convenient to you and don't worry about getting there ~~after~~ 10:00 a.m. If you come in late we will try to bring you up to date. We have been assigned Room 41, 4th floor, Rosenwald Hall, Department of Geology, and we will all take lunch at the Quadrangle (University) Club, corner of 57th and University, southeast corner.

The more I consider the matter of applying the stratigraphic classification and nomenclature for the older rocks to the glacial Pleistocene the more senseless I think the suggestion is. I can see no objection to applying it to the marine Pleistocene and most of the nonglacial. It might even apply in Kansas where the Pleistocene is less complex, although as shown in the Kansas Bulletin 99 it seems awkward.

Don't fail to represent Wisconsin. I did not invite Black because he has spent so little time in the classic area. If this is a mistake let me know.

Cordially yours,



Morris M. Leighton

ROBERT W. KASTENMEIER
2D DISTRICT, WISCONSIN
1725 HOUSE OFFICE BUILDING

COMMITTEE ON
JUDICIARY
HOME OFFICE:
214 NORTH FIRST STREET
WATERTOWN, WISCONSIN

Congress of the United States

House of Representatives

Washington, D. C.

April 28, 1959

Mr. and Mrs. F. T. Thwaites
41 North Roby Road
Madison 5, Wisconsin

Dear Mr. and Mrs. Thwaites:

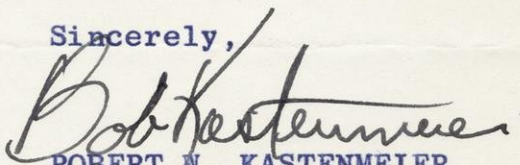
Thank you for your letter of April 24 in which you urge my favorable consideration of Senator Frear's Bill, S. 200.

This bill provides that stock received through involuntary distributions required by antitrust proceedings be known as divested stock and no gain or loss shall be recognized to such shareholder on the receipt of such divested stock. S. 200 is pending before the Senate Finance Committee, and no hearings have been scheduled yet as the Committee has not received the necessary departmental reports.

Undoubtedly, it will be a long while before the House gets this bill, but I shall certainly keep your views in mind.

With kindest regards,

Sincerely,



ROBERT W. KASTENMEIER
Member of Congress

RWK:sm

April 24, 1959

Congressman Robert Kastenmeyer
House Office Building
Washington, D. C.

Dear Congressman Kastenmeyer:

As stockholders in E. I. Du Pont de Nemours & Company, we would like to call your attention to Senator Frear's Senate Bill No. 200. As stockholders in Du Pont we own a share in General Motors and receive our share of dividends paid by that stock. Taxation of General Motors stock distributed by Du Pont in response to court order as income would, therefore, be a tax on capital and would be grossly unfair. Please give Senate Bill No. 200 your favorable consideration.

In order not to waste natural resources we consider the 27 $\frac{1}{2}$ % depletion allowance on oil production a "must." If this consideration is not given, companies cannot afford to extract all the oil.

Yours very truly,

F. T. Thwaites
Amy M. Thwaites

April 24, 1959

Congressman Tom Tews
House Office Building
Washington, D. C.

Dear Congressman Tews:

As stockholders in E. I. DuPont de Nemours & Company, we would like to call your attention to Senator Frear's Senate Bill No. 200. As stockholders in Du Pont we own a share in General Motors and receive our share of dividends paid by that stock. Taxation of General Motors stock distributed by Du Pont in response to court order as income would, therefore, be a tax on capital and would be grossly unfair. Please give Senate Bill No.200 your favorable consideration.

In order not to waste natural resources we consider the 27 $\frac{1}{2}$ % depletion allowance on oil production a "must." If this consideration is not given, companies cannot afford to extract all the oil.

Yours very truly,

F. T. Thwaites
Amy M. Thwaites

Congress of the United States
House of Representatives
Washington, D. C.

June 8, 1960

K

Mr. & Mrs. F.T. Thwaites
41 North Roby Road
Madison 5, Wisconsin

Dear Mr. & Mrs. Thwaites:

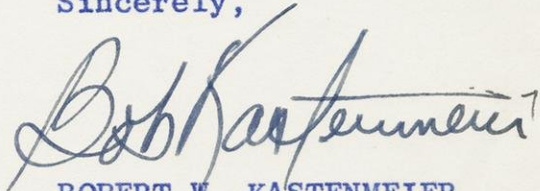
Thank you for your recent letter urging my opposition to the proposed Bruce Eddy Dam and my support of the Wilderness bill. My check with the Appropriations Committee indicates that funds for a study of the effect on wild life and recreation in the Bruce Eddy area have already been made available and that the dam itself has not yet been authorized.

You can be sure of my continuing interest in this proposal and of my concern for the wild life refuge which might be inundated.

I have said several times that I support the Wilderness bill and am happy for this opportunity to assure you of my continuing interest and support of this legislation. I feel rather strongly that these areas of natural wildness should be protected from the inroads of civilization. I am sorry to have to report that the bill apparently lies dead for this session since it has not been granted a hearing by the Senate Committee.

With kindest regards,

Sincerely,



ROBERT W. KASTENMEIER
Member of Congress

RWK:jlz