INTERNATIONAL JOINT COMMISSION

PROGRESS REPORT

OF THE

INTERNATIONAL JOINT COMMISSION

ON THE REFERENCE BY THE UNITED STATES
AND CANADA

IN RE

THE POLLUTION OF BOUNDARY WATERS

WHETHER OR NOT SUCH POLLUTION EXTENDS ACROSS THE BOUNDARY IN CONTRAVENTION OF THE TREATY OF JANUARY 11, 1909, AND IF SO, IN WHAT MANNER OR BY WHAT MEANS IS IT POSSIBLE TO PREVENT THE SAME.

Including Report of the Sanitary Experts

DATED JANUARY 16, 1914

INTERNATIONAL JOINT COMMISSION.

Canada.	United States.
TH. CHASE CASGRAIN, K.C., Chairman.	JAMES A. TAWNEY, Chairman.
HENRY A. POWELL, K.C.	GEORGE TURNER,
CHARLES A. MAGRATH.	OBADIAH GARDNER,
Lawrence J. Burpee, *Secretary*.	Whitehead Kluttz, *Secretary*

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"1. To what extent and by what causes and in what localities have the boundary waters between the United States and Canada been polluted so as to be injurious to public health and unfit for domestic or other uses?

AUGUST 1, 1912.

International Joint Commission of the United States and Canada.

SIRS:

I have the honor to inform you that, at the joint request of the Government of the United States and of the Government of the Dominion of Canada, under the provisions of Article IX of the Treaty of January 11, 1909, between the United States and Great Britain, the questions or matters of difference set forth below, which have arisen between them involving the rights, obligations, or interests of each in relation to the other, or to the inhabitants of the other along their common frontier between the United States and the Dominion of Canada, are hereby referred to the International Joint Commission for examination and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate.

The questions so referred are as follows:

"1. To what extent and by what causes and in what localities have the boundary waters between the United States and Canada been polluted so as to be injurious to the public health and unfit for domestic or other uses?

"2. In what way or manner, whether by the construction and operation of suitable drainage canals or plants at convenient points or otherwise, is it possible and advisable to remedy or prevent the pollution of these waters, and by what means or arrangement can the proper construction or operation of remedial or preventive works, or a system or method of rendering these waters sanitary and suitable for domestic and other uses, be best secured and maintained in order to secure the adequate protection and development of all interests involved on both sides of the boundary, and to fulfil the obligations undertaken in Article IV of the waterways treaty of January 11, 1909, between the United States and Great Britain, in which it is agreed that the waters therein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other?"

I am, Sirs, your obedient servant,

P. C. KNOX.

NOVEMBER 19, 1912.

International Joint Commission, United States and Canada.

GENTLEMEN:

I have the honor to inform you that the Governments of the United States and Great Britain, having considered the inquiry of the International Joint Commission as to the scope of the investigation required by the first of the two questions submitted jointly by the two Governments in their letter of August 1 last, to the Commission for their investigation and report, namely: "To what extent and by what causes and in what localities have the boundary waters between the United States and Canada been polluted so as to be injurious to the public health and unfit for domestic or other uses?" have reached an accord that the inquiry is to be confined to cases of pollution of boundary waters on one side of the boundary which extend to and affect the boundary waters upon the other side.

I have the honor to be, Gentlemen,

Your obedient servant,

P. C. KNOX.

PROGRESS REPORT OF THE INTERNATIONAL JOINT COMMISSION ON THE REFERENCE BY THE UNITED STATES AND CANADA IN RE:—THE POLLUTION OF BOUNDARY WATERS EXTENDING ACROSS THE BOUNDARY TO THE INJURY OF HEALTH OR PROPERTY ON THE OTHER SIDE, AND BY WHAT MEANS IT IS POSSIBLE TO REMEDY THE SAME.

Under the terms of Article IX of the treaty of January 11, 1909, between the United States and Great Britain, the Governments of the United States and of the Dominion of Canada jointly referred to the International Joint Commission for examination and report, with such conclusions and recommendations as might seem appropriate, the following questions:—

(1) To what extent and by what causes and in what localities have the boundary waters between the United States and Canada been polluted so as to be injurious to the public health and unfit for domestic or other uses?

(2) In what way or manner, whether by the construction and operation of suitable drainage canals or plants at convenient points or otherwise, is it possible and advisable to remedy or prevent the pollution of these waters, and by what means or arrangement can the proper construction or operation of remedial or preventive works, or a system or method of rendering these waters sanitary and suitable for domestic and other uses be best secured and maintained in order to insure the adequate protection and development of all interests involved on both sides of the boundary, and to fulfil the obligations undertaken in Article IV of the waterways treaty of January 11, 1909, between the United States and Great Britain, in which it is agreed that the waters therein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other?

Extent and Importance of Investigation.

From the official census of the United States and Canada, it appears that more than seven million people live on the boundary waters between these two countries, from the Lake of the Woods on the west to St. John River on the east, a distance of almost two thousand miles.

By far the largest part of this population is centred in the growing cities on both sides of the line situated on the rivers connecting the Great Lakes system between the United States and Canada. At all these great centres of population, and at all other places on this boundary, these waters are used for sanitary and domestic purposes and also for the purpose of sewage disposal. As shown by the report of the sanitary experts herewith submitted, and made a part of this progress report, the use of these waters for the purpose of sewage disposal has at many places and at all of the large centres of population above referred to, especially those situated on the connecting rivers, resulted in gross pollution of these waters, and in some places it extends from shore to shore, reaching as high as 34,000 B. coli per 100 c.c. In addition to the pollution thus occasioned, twenty-six thousand vessels passed through the Detroit River alone in 1912. It is estimated that these and other vessels navigating the Great Lakes and their connecting rivers carried during the season of navigation that year a population of not less than fifteen million. The sewage of these vessels is discharged and disposed of indiscriminately along their sailing route, and in the harbors where they land, contributing very materially to the pollution found to exist and complained of by the peoples in both countries.

The foregoing facts serve to illustrate the territorial extent, as well as the magnitude and vital importance, of the questions contained in the reference of the two Governments to this Commission for investigation and report. They also show that the investigation of these questions involves seriously the

health of millions of people living in both countries, as well as the good faith of two great Governments in the observance of their solemn treaty stipulation that neither will injure the health or property of the people of the other by permitting these boundary waters to be polluted on either side.

PLAN FOR INVESTIGATION CONSIDERED AND ADOPTED.

With a profound sense of its responsibilities in the premises, and with a view to facilitating the work thus submitted to it by the two Governments, the International Joint Commission proceeded, first, to consider and prepare a practical, comprehensive plan for carrying on the investigation. For this purpose sanitary experts and health officers of the States and Provinces affected in both countries were called in, and their advice and co-operation were sought and freely obtained. As the result of these conferences and consultations it was agreed that the questions contained in the reference divided themselves naturally into two parts, namely, the fact and extent of pollution and the remedy. It being manifest that before the Commission could proceed intelligently with the investigation of remedies it must first ascertain at what places, from what causes and to what extent these waters were in fact polluted, and whether or not such pollution extended across the boundary so as to affect the waters on the other side, the Commission, with the aid and assistance of these eminent sanitary experts, prepared and, on the the 20th of February, 1913, adopted, a broad, comprehensive plan for the conduct of the investigation of the first questions to be ascertained, viz., at what places, from what causes and to what extent these waters are in fact polluted. At the same time the Commission appointed Messrs. Streeter (of the United States Section) and Powell (of the Canadian Section of the Commission) a committee, authorizing them to take charge of and have general supervision over the investigation of the first questions contained in the reference in pursuance of the plan adopted.

Thereafter, and until September, 1913, this investigation was conducted and carried on under the supervision and direction of this committee. In September, 1913, the committee reported fully to the Commission the progress of the investigation; the results accomplished by it up to that time, and what the Commission itself had done in the matter of promptly initiating and carrying on the investigation.

For the purpose of this report we herewith adopt and submit as a part thereof so much of the report of said committee as is relevant to the first branch of the investigation, reserving the remainder of said committee report for consideration in connection with the investigation and report on the second branch, or the remedies for the pollution found to exist as the result of the bacteriologic examination of these waters carried on by the sanitary experts under the direction of the committee.

PRELIMINARY COMMITTEE REPORT.

A brief record of the proceedings relating to this investigation prior to the making of this report may later be found useful.

The questions (see letter of reference) were considered at the October, 1912, meeting of the Commission at Ottawa, and, upon invitation, Dr. Allan J. McLaughlin, of the United States Public Health Service, and Dr. T. A. Starkey, of McGill University, Montreal, appeared before the Commission and were consulted with reference to formulating an advisable plan for the investigation of the questions referred.

A question having arisen with reference to the intended scope of the investigation, and adjournment was taken for the purpose of obtaining the views of both Governments upon that question (See infra). The two Governments having reached an agreement regarding it and forwarded the same to the Commission, November 19, 1912 (see infra), the matter was taken up at a special session of the Commission at Washington, November 21, 1912.

The methods of conducting the investigation were there considered in conference with experts representing the Canadian and Ontario Governments and others, but, it being thought advisable that the officials of the public health department of New York should be consulted and their co-operation invited, the adoption of a specific plan was postponed. Members of the Commission conferred with Health Commissioner Porter and Secretary Seymour, of the public health department of New York, who expressed the earnest desire of that department to co-operate with and aid the Commission in the investigation, but advised that a general conference of other State and Provincial boards of health interested in the investigation would be desirable; and at their suggestion a conference was held at Buffalo on

December 17, 1912, at which, upon invitation of the Commission, the following-named officials and experts were present and participated: Mr. John Thompson, K.C., representing the Dominion Government, Ottawa; Dr. Frederick Montizambert, Director-general of public health, Dominion of Canada, Ottawa; Dr. Charles A. Hodgetts, medical adviser, Commission of conservation, Ottawa; Dr. John A. Amyot (Director of laboratories), of Provincial board of health of Ontario, Toronto; Dr. J. W. S. McCullough, Chief health officer for Ontario, Toronto; Mr. F. A. Dallyn, C.E., Provincial sanitary engineer, Ontario, Toronto; Mr. Theodore J. Lafreniere, sanitary engineer, board of health Province of Quebec, Montreal; Dr. Allan J. McLaughlin, United States Public Health Service, Washington; Hon. George Clinton, Buffalo; Mr. A. H. Seymour, Secretary State department of health, Albany; Mr. Theodore Horton, chief engineer State department of health, Albany; Dr. Edward Clark, medical health officer, State board of health, Buffalo; Mr. George H. Norton, deputy engineer commissioner, department of public works, Buffalo; Dr. Francis E. Fronczak, health commissioner, Buffalo; Dr. H. A. Whittaker, assistant director, laboratory division, Minnesota State board of health, St. Paul, Minn.; Dr. John W. Hill, State board of health, Cincinnati, Ohio; Dr. Edward Bartow, director State water survey, Urbana, Ill., Mr. W. M. Mills, president Niagara frontier pure-water conference, North Tonawanda, N.Y.; Mr. W. G. Palmer, member of the Niagara pure-water conference, North Tonawanda, N.Y.; Mr. Irving L. Pruyn, Oneonta, N.Y. Representatives from the health departments of Michigan, Wisconsin and Pennsylvania were invited but were unable to attend.

The conference was organized by the appointment of Mr. A. H. Seymour, secretary of the New York public health department, as chairman, and Dr. Allan J. McLaughlin, of the United States Public Health Service, as secretary; and the Commission requested the advice of the conference as to the points in boundary waters where investigation should be made, the general nature of the investigation at these points, and other matters of detail.

The conclusion was reached that the points of investigation of international boundary waters as to pollution by sewage should include the Rainy River, St. Mary's River, Lake St. Clair, River St. Clair, Detroit River, Niagara River, St. Lawrence River, following this latter into Canadian territory as far as may be necessary; together with investigations of the waters in the vicinity of Port Arthur, Fort William and Duluth on Lake Superior, the Saginaw Bay on Lake Huron, and the lower end of Lake Huron in the vicinity of Sarnia and Port Huron, the western end of Lake Erie and in the vicinity of Cleveland and Port Stanley, the eastern and western ends of Lake Ontario, also at Rochester and Toronto, and that other international points on the boundaries outside of the Great Lakes system above described be investigated if subsequently deemed advisable.

The conference further advised the Commission that—

This investigation will include a bacteriological examination of samples taken, including the bacteria count and the qualitative and quantitative estimation of B. coli according to standard methods, and such chemical examination as may be subsequently deemed necessary.

Further details relating to the investigation were also considered. The Commission thereupon requested Drs. McLaughlin and Starkey to prepare a comprehensive detailed plan for the investigation, to be submitted to the Commission for its consideration at a meeting to be held at Detroit in February, 1913.

On February 20, 1913, at a meeting of the Commission at Detroit, a detailed plan was submitted for conducting the investigation and for carrying on the field work, which plan was adopted.

In pursuance of these plans Dr. McLaughlin was employed by the Commission as chief sanitary expert and director of field work, and Dr. J. W. S. McCullough, chief health officer of the Province of Ontario, and Dr. John A. Amyot, professor of hygiene, University of Toronto, were employed as consultants. The latter have been actively employed with Dr. McLaughlin and other competent experts in taking samples and making necessary bacteriological examinations of the waters at the points specified. Their work and the report to be made in October will hereafter be referred to.

At the same meeting, February 20, 1913, the general supervision of this investigation was assigned to Messrs. Streeter (representing the United States)

and Powell (representing Canada), and they were requested to examine and report at the April meeting what, if any, testimony could usefully be taken or other things done to forward the investigation pending the report of the sanitary experts to be had on or before November, 1913.

On April 7, 1913, at a meeting of the Commission in Washington, the committee made the following report:—

1. That we have examined the present status of the pollution question so far as it is related to the Niagara frontier, have had personal conference with parties interested, including the health and engineering departments of the city of Buffalo.

2. That we think it useful and desirable to take certain testimony of parties, associations, and municipalities at Buffalo, and possibly at other places on the Niagara frontier, during the coming summer, probably in May and June, but the extent to which such taking is advisable cannot be determined until the taking shall be begun.

3. That the record of such testimony as is here advised will be valuable for use in hearings on the second question after the sanitary experts shall make their report on the first question, and will materially advance the time for making a final report.

They recommend the adoption of an order in substance as follows:

ORDERED, that the committee having general supervision of the investigation of the pollution of boundary waters be requested to proceed as proposed by their report in the taking of such testimony on behalf of the Commission as may seem to them desirable and useful in forwarding the investigation of the questions submitted as rapidly as may be.

The foregoing order was adopted as recommended by the committee.

HEARING AT BUFFALO, N.Y., JUNE 9 AND 10, 1913.

Conferences were had with officials of Buffalo and New York departments of health and others, and the committee began an examination of various questions which almost necessarily would grow out of this investigation and the ascertainment and application of practicable and "advisable" remedies for the pollution of international waters. With reference to the pollution of the Niagara River, a hearing was had and testimony taken at the Federal Building, Buffalo, on June 9 and 10, 1913. A full notice of such hearing had been published generally in the newspapers on the Niagara frontier, and copies of the notice had been sent to the health department of the State of New York, to the chairman of the conservation commission, and others. By this notice, "all interested persons, associations, and municipalities desiring to submit evidence or statements relative to the foregoing questions are (were) invited to be present."

The following-named officials and parties interested entered their appearance before the committee:

For the New York public health department, Mr. Theodore Horton, chief engineer. For the city of Buffalo, Dr. Francis E. Fronczak, health commissioner, and Mr. George H. Norton deputy engineer commissioner. The Motor Island Channel Conference Association, organized to consider and act with reference to the matter of pollution of the Niagara River, was represented by Mr. A. C. Dwyer, of Lockport, its secretary; Hon. George A. Brock, mayor of Lockport; Dr. F. A. Waters, health officer of Lockport; Mr. Harlan W. Brush, of North Tonawanda (also representing the board of trade); Mr. A. W. Bradshaw (also president of Tonawanda Business Men's Association); and Mr. Charles G. Peterson (also superintendent of the waterworks, Lockport). The Niagara Water Conference appeared by its chairman, Mr. William M. Mills, of North Tonawanda, and the city of Lackawanna by its mayor, Mr. Robert H. Reed, and Mr. Frank D. Caldwell. Mr. Millard F. Bowen, president; Hon. George Clinton, counsel; George R. Sikes, engineer; appeared for the Erie and Ontario Sanitary Canal Company, in support of the proposed specific plan of that company for remedying existing pollution of Niagara River, but involving the diversion of 6,000 second-feet from the waters of Lake Erie.

All the foregoing were heard and all desired to co-operate with and aid the Commission in finding an efficient "advisable" remedy for the existing pollution of Niagara waters; but all, as well as the committee itself, fully appreciated the difficulties surrounding the solution of the problem, and the opinions brought out in the testimony were in the main tentative and preliminary. The representatives of New York and Buffalo, while admitting that the putting of raw sewage into the Niagara River should be stopped, desired further time to consider the question of method.

JURISDICTIONAL LIMITATIONS OF COMMISSION, SECRETARY KNOX'S NOTE OF NOVEMBER 19, 1912—PARTS OF BOUNDARY WATERS INCLUDED IN THE SCOPE OF THE INVESTIGATION.

The original reference of the questions by the two Governments, August 1, 1912, was broad enough to include an investigation of all boundary waters as the same are defined in the treaty; but, when the question first came before the Commission at the Ottawa meeting, October, 1912, the question arose whether, under the reference, all boundary waters were to be covered by the investigation, and a letter was addressed to both Governments, requesting an expression of their views in such manner as they might deem proper,

as to whether or not the broad scope of the inquiry is to be circumscribed by construction so as to confine the same to cases of pollution of the boundary waters upon one side of the boundary which may extend to and affect the boundary waters upon the other side.

Under date of November 19, 1912, the Commission were informed, through the letter of Mr. Knox, Secretary of State, that the Governments of the United States and Great Britain

have reached an accord that the inquiry is to be confined to cases of pollution of boundary waters on one side of the boundary which extend to and affect the boundary waters upon the other side.

Up to the adjournment of the Washington meeting, April, 1913, it was assumed by the Commission that, under the jurisdictional limitations suggested in Secretary Knox's note of November 19, 1912, those portions of boundary waters to be covered by the two questions could not be accurately determined until the sanitary experts' report should be completed and filed with the Commission; but, at the Buffalo hearing on June 9th the committee, through informal reports of the experts in charge of the field work, had information (although not official) that, under the strict terms of the reference, the investigation must in any event cover the entire Niagara River.

With this knowledge, the committee did not feel justified in delaying their investigation on the Niagara frontier to await an official report from the sanitary experts.

From the results compiled by the experts, we now know (September, 1913) that the investigation must cover at least five waterways, namely:—

(1) Niagara River.

(2) Detroit River and connecting waterways from Lake Huron to Lake Erie.

(3) St. Mary's River.

(4) St. Lawrence River, from Lake Ontario to a point where it departs from the boundary.

(5) A portion of the St. John River.

From our present information, the condition on the Niagara and Detroit waterways seems to be the most serious. We believe that, between Duluth and the outlet of Lake Ontario, the investigation will probably be limited to the boundary waters above named and the contiguous ends of the lakes and will not extend into the open waters of the lakes except with reference to that pollution caused by the discharge of sewage and polluted ballast water (see 4 infra) from steamers and other vessels in transit across the lakes.

POLLUTION DISTRIBUTED BY LAKE VESSELS.

Lake vessel data.—On June 10 the committee applied to the Secretary of the Treasury, through the State Department, to secure the necessary information, stating that—

The information required is whether lake vessels carry any retaining device for holding human excreta or whether the sewage outlet pipes of the vessels discharge directly into the water. It is desired to secure these data from as many vessels as possible during the period from July 1 to October 1.

On June 30 the committee were informed by the State Department that the Secretary of the Treasury had issued instructions to the officers of the Public Health Service on duty at Buffalo, Cleveland, Detroit and Chicago to obtain for the committee the information desired; and we understand that the report of the sanitary experts to be filed in October will furnish the Commission the necessary data to enable it to deal in part at least with the question of pollution by lake vessels.

Water ballast.—But the foregoing data may prove insufficient to cover a class of lake vessels complained of at the Buffalo hearing. This refers to those vessels which, before leaving port, take on a greater or

less amount of water ballast and discharge the same just before entering the port of destination. In such cases a vessel might discharge a large amount of dangerously polluted water in the otherwise uncontaminated waters of a harbor near enough to the intake of a city water supply to cause great damage.

Such danger would, however, be lessened if all cities shall be required to purify their water supplies as is hereinafter suggested.

This matter required further specific consideration by the Commission.

The Niagara River Situation—Buffalo and Other Cities.

Drainage area.—The area within the State of New York draining into Lake Erie and the Niagara River above the Falls is approximately estimated at 2,050 square miles; but that part of such area from which all sewage and surface drainage is discharged directly into the river is somewhat less. An accurate statement will be later furnished.

Present population.—The population of the territory on the American side at and above the Falls draining directly into the Niagara River or near its head is estimated at about 615,000, of which about 100,000 is rural or village population and somewhat over 500,000 are in the cities of Lackawanna, Buffalo, Tonawanda, North Tonawanda, and Niagara Falls. All the sewage of the above cities, except Lackawanna, is discharged in a raw state directly into the river, and the sewage of Lackawanna, also untreated, is discharged through Smoke's Creek, whose outlet is one and one-half miles above the head of the river.

Water supplies.—All the above cities, with Lockport (population 17,790 in 1910) and a part, if not all, of the villages near the river bank, take their public water supplies for drinking and domestic uses directly from the river.

Pollution.—The report of the Commission's sanitary experts will state with scientific accuracy the present pollution of the river, but we are now advised that below the Falls the waters of the river are uniformly and dangerously polluted from bank to bank, and that the municipalities on both the Canadian and American sides of the river are thereby affected.

Above the Falls the waters at varying distances from the American bank are polluted by the raw sewage of the above-named cities. What, if any, portion of the sewage pollution of these cities extends across the international boundary above the Falls will be determined by the sanitary experts' report, but the public water supplies of each of said cities, when taken from the river without purification, are in varying degrees and at varying times injuriously, if not dangerously, affected by the sewage pollution from the cities farther up the river.

The extent of sewage pollution of the Niagara River prior to 1911 and the danger to the public health is shown in Bulletin No. 77, prepared by Dr. McLaughlin and issued by the United States Public Health Service in July, 1911.

Buffalo.—The effect on the public water supplies of cities farther down the river by the discharge of raw sewage from cities above at times has been, and any time may become, a serious menace to public health, but the location of Buffalo at the head of the Niagara River, its population (now estimated at more than 460,000), and the fact that all its sewage is untreated and is discharged into the river above the intakes of the public water supplies of all the cities below, make Buffalo the most important factor in the problem of the pollution of the Niagara River.

While other cities contribute, the principal pollution of the river comes from the sewage of the city of Buffalo. Of the population within the drainage area of the river in New York, Buffalo has nearly or quite four-fifths. A large increase in the population of this territory in the near future may reasonably be anticipated, and with such increase, the necessity of diminishing the pollution of the river is apparent. That changes in its methods of sewage disposal must be made in the near future is frankly admitted by the Buffalo representatives who appeared before your committee. What changes can be made is being officially and seriously considered. An expert report, under date of June, 1913, on the availability of Squaw Island as a site for sewage-disposal works for the city has been officially examined and was submitted in evidence at the June hearing. Mr. Rudolph Hering has recently been consulted by the city with reference to its sewage conditions, and his report is expected at an early date. Examination is being made of the

recent progress of other cities in methods of sewage disposal.

From the beginning of our work, the representatives of Buffalo, as well as the chairman, secretary and engineer of the New York department of health, have not only expressed but have at all times exhibited an earnest desire heartily and sympathetically to co-operate with and aid your committee and the Commission in finding a practical and "advisable" remedy for the existing pollution of the Niagara River. They also desire the aid and advice of the Commission and its experts in working out their individual problems relating to this pollution.

We apprehend no difficulty in arranging future convenient procedure. From personal conferences with officials and representative men of all these cities (on the Niagara frontier) we believe that they earnestly desire respectively to adopt such preventive measures as will result in safeguarding the public health along the Niagara. We think they fully appreciate the necessity of united action to that end, and that the obstacle to their joint action hitherto has been their apprehension that an equitable adjustment of burdens which each should bear in the removal of the common danger could not be reached.

The International Joint Commission, enjoying the confidence of all these cities as an impartial international tribunal, after hearing all parties, can undoubtedly establish a just and equitable plan for remedying the Niagara conditions, which will be approved by all cities and municipalities affected thereby. We are confident the New York State department of health and the Canadian health authorities will co-operate with and render to the Commission the most available aid in working out an equitable and satisfactory solution.

Canadian municipalities on the Niagara.—In the foregoing report on the Niagara situation the committee has not referred to the municipalities on the Canadian shore, namely, Fort Erie, Bridgeburg, Chippewa, Niagara Falls, and Niagara-on-the-Lake. The water supplies of all these places are taken from and their sewage (untreated) is discharged into the Niagara River, but the extent of our investigation on the American side since the April meeting of the Commission has prevented an examination on the other side except with reference to Niagara-on-the-Lake, at the mouth of the river, where the injurious effects of the pollution from the upper cities on the river have been seriously felt.

Such examination will be greatly aided by the report of the sanitary experts in October and will be reported later.

Present status of Niagara investigation.—For the information of the Commission in its further investigation, we here record generally facts relating to the present status of the work of the committee in addition to those stated elsewhere herein.

At the Buffalo hearing, June 10, Mr. Theodore Horton, chief engineer of the New York State health department, submitted his views relative to this Niagara pollution, expressing *inter alia* the following opinions: (1) That all water supplies taken from the river should be purified in any event; (2) that it is not prudent to permit the raw sewage of these cities to be discharged into the Niagara River; (3) that all sewage should be treated before being discharged into the river. At the conclusion of the testimony a desire was expressed by the committee that Mr. Horton would further consider the questions, and the following reply was made:

> I should be very pleased to give it consideration. The commissioner of health and myself want to do everything we can to assist your Commission. We are working in co-operation and sympathy with you in getting light on this subject, and although my views may not be in perfect harmony with yours, I believe they are largely so.

We understand the New York health department has had under consideration the entire Niagara problem and is now ready to advise with the committee.

On the 24th of July a conference was had at Albany between Mr. A. H. Seymour, the secretary of the New York State health department, Mr. Horton, and a member of the committee, at which were discussed the questions being investigated and the method of procedure to best forward the investigation and the position which the department would take relative to the proceedings. Upon Mr. Seymour's suggestion, it was decided that a conference of the committee with Dr. Porter and Mr. Seymour (chairman and secretary of the State health department) and the Buffalo representatives, including the mayor, Dr. Fronczak, Colonel Ward, Mr. Norton, and others, should be held at Buffalo, August 26th, for the purpose of arranging definite plans of procedure

in which all interested parties should co-operate with the committee. This conference was unavoidably postponed, but we think it should be arranged for an early date.

At the Buffalo hearing, Dr. Francis E. Fronczak, health commissioner, and Mr. George H. Norton, deputy engineer commissioner, represented the city of Buffalo. Many conferences have been had by the committee with these two officials, and one with Colonel Ward, head of the public works department. The hearty and systematic co-operation of all these Buffalo representatives has been very helpful to your committee. We believe they desire to aid in the ascertainment of the best practical plan that can be devised for remedying the Niagara pollution.

At the conclusion of the hearing, the Buffalo representatives agreed to consider further what Buffalo would regard as a practical solution of the general problem and present their views to the committee within two or three months. It was then understood that a further hearing would be had in September. We are informed by Mr. Norton, under date of September 4th, that the city has been in consultation with Mr. Rudolph Hering regarding their sanitary conditions and expected to have an outlined report from him by that date, which had not been received. From a telegram received from Mr. Norton on September 11th, the committee hope to receive information regarding Mr. Hering's report which can be made use of herein before this report is filed.

We have had various conferences and correspondence with helpful suggestions from Mr. J. P. Chamberlain, of the legislative drafting research fund of Columbia University, with reference to questions which may grow out of this investigation.

Conferences have been had with Mr. X. H. Goodnough, engineer Massachusetts State board of health, relative to the sanitary questions involved. Many conferences have been had with Congressman Robert H. Gittins, of the Niagara Falls district, who has been helpful in many ways, and with others.

Field Work of the Commission in the Investigation of Pollution of Boundary Waters.

The field work is being carried out according to the plan adopted, with some slight modifications. The schedule of laboratory work set forth on page 11 of the plan of investigation has been closely followed. The officials of the State board of health of Michigan, after conference with Dr. McLaughlin, placed a laboratory in the field and took care of project No. 2 at Port Huron. Request was made to the Secretary of the Treasury for the detail of a revenue cutter to assist the commission on the Detroit River. This request was complied with, and the U.S. revenue cutter "Morrill," with a laboratory and staff furnished by the United States Public Health Service, carried out project No. 4 at the mouth of the Detroit River.

The New York department of health placed one laboratory in the field and carried out project No. 10 at Youngstown, N.Y. The Province of Quebec asked that in the project allotted to it (project No. 16) the work be done in Montreal instead of Valleyfield. Consent was given, and with this change project No. 16 was carried out by the Province of Quebec. The Province of Ontario and the United States Public Health Service carried out the other projects as outlined in the plan. In addition, the laboratories of the Province of Ontario made investigations at Fort Frances, Port Arthur, Fort William and Port Stanley.

The field work is now nearly completed, and the entire data will be in the hands of the director of field work before October 1.

Besides the changes noted above, changes in cross-section lines and sample points were made by making additions to the plan where those additions seemed necessary or desirable. As a result, the number of samples examined is considerably in excess of the estimate in the plan, and we believe that a very comprehensive and accurate map of the pollution of these waterways will be made. The results will show not only the existence of pollution and its extent in area, but also the degree of intensity of pollution measured by the number of B. coli to a hundred cubic centimetres of water.

The resulting data from the entire field work will be compiled and exhibited on diagrammatic plans so arranged as clearly to show to laymen as well as experts the exact sanitary condition found in all boundary waters included in the sanitary survey.

As the report of this survey will be made to the Commission at an early date, the statement of further details by your committee seems now unnecessary.

Detroit River and Connecting Waterways.

Your Committee are led to believe that the conditions on the Detroit River, including connecting waterways between Lake Huron and Lake Erie, furnish a difficult problem—possibly greater than the Niagara conditions. Your committee had arranged to go forward with this investigation early in the present month of September, but were unavoidably prevented.

We are satisfied, however, that in working out this problem the Commission will have the earnest support of the Michigan State board of health, with Professor Victor C. Vaughan, of the University of Michigan, as president, and Dr. R. L. Dixon, of Lansing, as secretary. These officials have been very helpful to the committee and the director of field work in the general sanitary survey.

By a recent act of the Legislature of Michigan, to become effective at an early date, the control over public water supplies and the disposal of sewage throughout the state has been given to the board of health, and the active co-operation of the board may be expected by the Commission.

Methods of Taking Expert Testimony.

Before determining what recommendations the Commission will make to the two Governments on the questions submitted, with reference to remedying the pollution of Niagara River (and other points in boundary waters), it will probably be thought wise to take the advice of sanitary experts to aid the Commission in forming their judgment thereon. This, of course, may be done in the usual way of taking testimony orally; but we refer to the method adopted by the metropolitan sewerage commission of New York, which will be found in their report of the present sanitary condition of New York Harbor and the degree of cleanness which is necessary and sufficient for the water (published Aug. 1, 1912).

On page 71 of that report will be found a chapter headed "Summary of opinions of various experts consulted by the Commission." It will be noted (p. 72) that a series of questions intended to elicit the opinions of the experts was prepared by the Commission and submitted in writing. The replies of the experts were published with the report of the Commission. We recommend this as a satisfactory method of obtaining such advice.

St. John River Investigation.

At a special meeting of the Commission held at Montreal, September 3, 1913, Mr. Powell, for the committee in charge of the first branch of the pollution investigation, reported that, from reliable information respecting the pollution of the waters of the St. John River, his committee would recommend a bacteriologic examination of these waters under the plan adopted by the Commission and under which the examination and investigation of other boundary waters have been conducted. Thereupon, the Commission adopted the following order:—

Pollution of Boundary Waters.
St. John River and tributaries:—

Ordered, that the chief sanitary expert in charge of the investigation of pollution of boundary waters be directed to extend his laboratory investigations to the international portion of the St. John River and its tributaries to such extent as he may deem necessary to fulfil the objects of the reference re pollution of boundary waters.

Montreal, September 3, 1913.

Under the direction of the committee, the sanitary experts thereafter installed and equipped a laboratory at Van Buren, Maine, and proceeded as directed by the Commission with the bacteriologic examination of the waters of said river where the same marks the boundary between the United States and Canada, a distance of about seventy miles.

At the regular session of the Commission held at Ottawa October 7, 1913, Mr. Powell, on behalf of the committee reported that the investigation of the waters of the St. John River would be concluded about November 1, 1913, and that with the completion of this investigation the field investigation of the first questions contained in the reference to the Commission by the two Governments would be finally concluded. He also reported that the data collected, including the necessary maps, would be tabulated and prepared, and that the final report of the sanitary experts on the first branch of the investigation could now be prepared, and he recommended that the report be made and signed by the sanitary experts as their joint report of the facts and conclusions as found by them as the result of their work.

At the same regular session of the Commission Mr. Obadiah Gardner, of the United States Section, was appointed a member of the committee having

general supervision over the investigation of the first questions contained in the reference, to succeed Mr. Frank S. Streeter, who had previously resigned as a member of the Commission. Thereupon, the committee was authorized to have a joint report of the sanitary experts prepared and to supervise its preparation, and the committee was also directed to have the report completed in time to be submitted to the Commission at a special session to be held at Washington about January 1, 1914.

On the 15th of January, 1914, at a special session of the Commission held in the city of Washington, the final report of the sanitary experts was presented and ordered printed, together with the maps and statistics accompanying the same. This report, with the accompanying maps and statistics, is full and exhaustive of the subject. The work of this branch of the investigation, performed as it was under the direct supervision of the Commission, has been executed in the most efficient, careful and conscientious manner by men recognized in both countries as being among the ablest known bacteriologists and sanitary experts.

While the Commission does not deem it necessary to go further into the details of the investigation thus concluded of the fact and extent of pollution, or to analyze the report of the sanitary experts, nevertheless a brief summary of both may be interesting and hereafter useful to both Governments.

Summary of Work and Cost.

An examination of the records of all previous bacteriologic examinations of water to ascertain and determine its fitness for use for domestic and sanitary purposes will show that this investigation and the bacteriologic examination of these boundary waters under the reference by the United States and Canada have been the most extensive that have ever been made in the world. The waters bacteriologically examined extend continuously almost two thousand miles. The samples of these waters so examined aggregate over nineteen thousand, and the time within which these waters were thus examined was a little less than seven months.

In the conduct of the investigation the Commission installed, equipped and used seventeen laboratories. These laboratories were distributed at convenient points all along these waters. The personnel of the field force engaged in the investigation consisted of thirty persons, almost all of whom were scientific men. In addition, there were employed a United States revenue cutter, numerous tug-boats, launches and rowboats, and also regular steamboat lines for the transportation of sample collectors.

At the special session of the Commission held at Buffalo, December 17, 1912, where a conference was had with about fifty sanitary experts and health officers of both Governments and the States and Provinces directly interested, it was estimated by these gentlemen in their report to the Commission on a plan of federal, state and provincial co-operation, that the investigation of the pollution of these waters, independent of the investigation of the second question, or remedies, would cost the two Governments not less than $50,000, and they recommended an appropriation for that amount. The records of the Commission show that the joint expense of the investigation, which, under the treaty, was paid in equal moieties by both Governments, including the travel expense and subsistence of the members of the Commission while engaged in this work, was $42,138.18.

Principal Factors in This Pollution.

The greatest single factor in this avoidable and remediable pollution is the sewage discharged without restriction or treatment of any kind by the municipalities situated on the boundary waters. The second factor in point of importance is the discharge of sewage by vessels. Vessels not only contribute their quota to the sewage pollution of these waterways, but they menace the public health in other ways. Vessels are supposed to fill their drinking-water tanks from mid-lake, remote from sources of pollution. The distance pollution travels from shore in the lakes, as shown in the report, demonstrates how difficult it may be to find an unpolluted area. There is excellent evidence to show that vessels frequently fill their tanks from polluted sources.*

During the season of 1913 several epidemics caused by polluted water aboard vessels were investigated by the United States Public Health Service. In the laboratories of the Commission also samples from water-tanks of vessels on the lakes were shown to be polluted. Another pernicious practice attributed to vessels is the taking on of water ballast from

*See Laboratory reports, Sarnia, Ont.: "Examination of Drinking Water on Boats."

1913

AUGMENTATION AND DISTRIBUTION OF POLLUTION

B. COLI. AVERAGES OF SEVERAL CROSS SECTIONS DURING PERIOD OF EXAMINATION

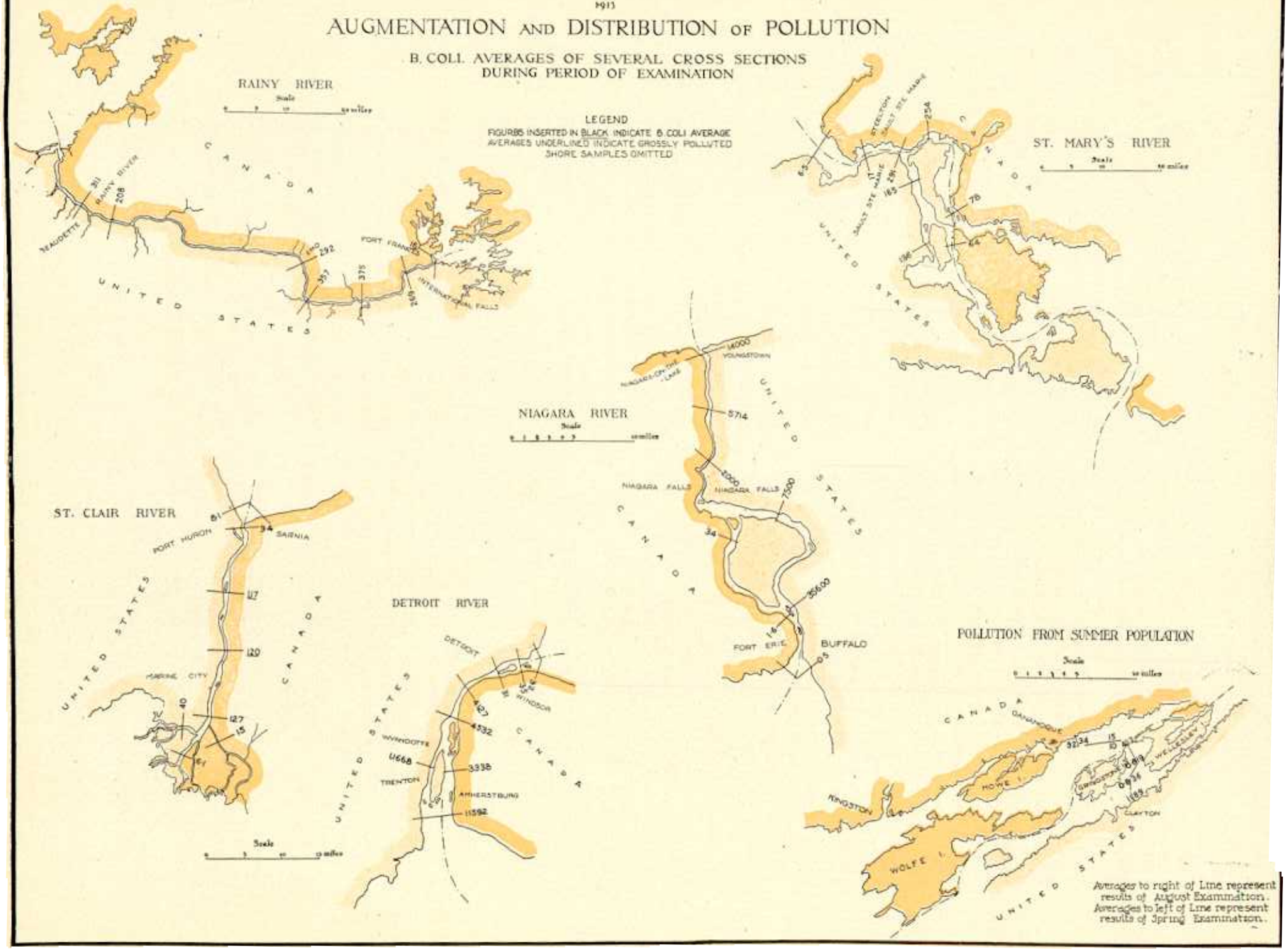


TABLE SUMMARIZING POINTS AT WHICH AVOIDABLE POLLUTION EXISTS IN CONTRAVENTION OF THE TREATY

Waterway.	Avoidable Causes of Pollution.	Extent of Pollution.
Rainy River.	Sewage and drainage from Fort Frances, Ont., and International Falls, Min. Spooner, Min., Beaudette, Min., and Rainy River, Ont.	Entire river from Rainy Lake to Lake of the Woods.
St. Mary's River above Sault Ste. Marie.	Sewage from vessels.	From Whitefish Bay to the canals.
St. Mary's River below Sault Ste. Marie.	Sewage and drainage from Sault Ste. Marie, Mich., and Sault Ste Marie, Ont., Steelton, Ont., and from vessels.	From the canals to below Neebish Island.
St. Clair River.	Sewage from Port Huron; sewage from Sarnia, numerous small municipalities on both sides of river, and sewage from vessels.	Variable, but extending across the entire stream at several points.
Lake St. Clair.	Sewage from vessels.	In the line of vessel traffic.
Detroit River.	Sewage from Detroit, Windsor, Walkerville, Sandwich, Wyandotte, Trenton, and Amherstburg; sewage from vessels.	Entire river.
West End of Lake Erie.	Sewage pollution from Detroit River. Sewage pollution from Maumee River. Sewage from Toledo, Ohio.	That portion of the Lake west of a line drawn from Grecian Shoal south to Niagara Reef Light.
Niagara River.	Sewage from Buffalo. Sewage from Niagara Falls, Tonawanda and North Tonawanda, N.Y., Fort Erie, Ont., Bridgeburg, Ont., Niagara Falls, Ont., Chippewa Creek; Lewiston, N.Y., Youngstown, N.Y., Niagara-on-the-Lake, Ont.	Tonawanda Channel; portions of the Chippewa Channel; entire river below the Falls.
Lake Ontario.	Sewage pollution from Niagara River.	Ordinarily within a radius of 10 miles, at times sixteen miles, from mouth of river.
St. Lawrence River (Thousand Islands.)	Sewage from Kingston and Gananoque, Ont., Cape Vincent and Clayton, N.Y. Summer resorts and vessels.	Water in the vicinity of the Thousand Islands, Channel north of Grindstone Island, and Wells Island.
St. Lawrence River below the Thousand Islands to Cornwall.	Sewage from Brockville and Prescott, Ont., Ogdensburg, N.Y., and from vessels.	Variable throughout the river; present in the line of vessel traffic throughout entire stretch.
St. John River.	Sewage and drainage from Edmonston, Van Buren, Maine, and St. Leonards, N.B.; wastes from potato starch factories.	Entire river from Edmonston to above Grand Falls.

a polluted harbor and the discharge of the same in less polluted waters, frequently within a short distance of some waterworks intake.

Effect of Pollution upon Public Health.

In the cities and towns upon the Great Lakes and their connecting rivers, sanitary and climatic conditions, exclusive of public water supplies, are much better than the average for the country as a whole. These sanitary conditions are infinitely better (with the exception of water supplies) than those which pertain in European cities. These Great Lakes cities lack the overcrowding, the filth and the poverty of less favored communities; yet the typhoid fever rate in these cities for many years has been excessive and punctuated at intervals by massive explosive epidemics which are without parallel in European countries. Typhoid fever death rates per 100,000 in the large cities of Northern Europe with safe water supplies have an average of less than 5. Without reverting to the appalling disasters of a decade ago, in the last three years a rate of over* 300 was registered in Ashland, Wisconsin; of 109 in Marquette, Michigan; of 196 in Port Huron Michigan; of 194 in Niagara Falls; of 190 in Erie, Pennsylvania, and above 50 in Alpena, Bay City, Sault Ste. Marie, Duluth and Sandusky; of 179 in Port Arthur, Ont; of 330 in Sault Ste. Marie, Ont; of 134 in Sarnia, Ont; of 55 and 57 in Windsor and Walkerville, Ont.; of 86 in Niagara Falls, Ont.; of 63 in Brockville, Ont.

Even in the more fortunate cities possessing intakes which are not so grossly polluted rates are attained for typhoid fever which would not be tolerated in European countries. Detroit has never registered a lower rate than 15, and in 1913 had a rate of above 30. In most instances these high typhoid fever rates were due to the use of sewage-polluted water without purification of any kind. In a number of cases, however, an alleged purification plant was in operation, but disasters have occurred in spite of these plants, either due to faulty construction or more frequently careless or unskilled operation.

Second Branch of Investigation.

Having concluded the investigation of the question at what places, from what causes and to what extent these boundary waters are polluted on either side to the injury of health or property on the other side, and it having been established by the investigation that these waters are thus polluted, the Commission will now proceed as rapidly as possible with the investigation of the second question, viz.:

"(2) In what way or manner, whether by the construction and operation of suitable drainage canals or plants at convenient points or otherwise, is it possible and advisable to remedy or prevent the pollution of these waters, and by what means or arrangement can the proper construction or operation of remedial or preventive works, or a system or method of rendering these waters sanitary and suitable for domestic and other uses, be best secured and maintained in order to secure the adequate protection and development of all interests involved on both sides of the boundary, and to fulfil the obligations undertaken in Article IV of the waterways treaty of January 11, 1909, between the United States and Great Britain, in which it is agreed that the waters therein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other?"

In view of the magnitude of the interests involved, an adequate plan must be prepared by the Commission, with the aid of sanitary engineers qualified to give competent and intelligent advice, to the end that the investigation of this second question may proceed along proper lines and be concluded at the earliest time possible. It is the intention of the Commission at its special session called to meet March 9, 1914, for the consideration of other matters pending before the Commission, to give this branch of the investigation consideration, and at that time to prepare and adopt a plan under which it shall be conducted and to outline the procedure that will be followed with respect to working out the sanitary engineering problems and affording the people and the municipalities affected on both sides of the line a full and complete opportunity to be heard regarding remedies where avoidable pollution has been found to exist.

Conclusion of Progress Report.

In prosecuting the investigation of the first question contained in the reference by the two Governments, the Commission was fortunate in securing the services of Dr. Allan J. McLaughlin, of the

*Years 1910, 1911 and 1912 only; 1913 not to hand at this date.

United States Public Health Service, who as Chief Sanitary Expert was given charge of the field work, both in Canada and in the United States. With him, however, the Commission associated Dr. J. W. S. McCullough, Chief Health Officer for the Province of Ontario, Dr. John A. Amyot, Professor of Hygiene at the University of Toronto, and Mr. F. A. Dallyn, C.E., Provincial Sanitary Engineer of Ontario. The services of these gentlemen were of special value to the Commission in the prosecution of the field work, preparation of the plan for the investigation, and in the preparation of the final report of the sanitary experts.

The Commission takes this opportunity of saying, because it is well deserved and abundantly merited, that these gentlemen applied themselves with untiring energy and with unremitting attention to the work given them to do. In the judgment of the Commission, both Governments may well congratulate themselves on the fact that this most extensive bacteriologic examination of water ever made has been conducted with incomparably greater speed and thoroughness by these sanitary experts, under the supervision of the International Joint Commission, and at less cost, than has any similar investigation been conducted by any individual country wholly within its own jurisdiction.

Finally, in submitting this report on the first of these important international questions involving treaty obligations vitally affecting the health of millions of people in both countries and their vast municipal and private interests; and in view of the international character of the work and the unanimous result thus far obtained, we feel justified in calling special attention to certain facts which illustrate the practical benefit and advantage of two governments under treaty stipulations agreeing to submit their differences and the differences between their people to an international organization for investigation and report in the first instance, or for final determination.

Although territorially this investigation covered an extensive area under the exclusive jurisdiction of both countries; although the services of scientists and citizens of both countries in carrying on the work were essential; and although the final result and recommendations of this Commission may vitally affect large financial and municipal interests on both sides of the boundary line, yet at no time during the progress of the investigation has there been any attempt on either side of the line to interfere with, to restrict or to thwart the effort of the Commission, or those employed by it, to ascertain accurate and scientific proof of whether or not the health or property of the people of the United States or of Canada were injured or menaced by the pollution of these boundary waters in contravention of the solemn treaty obligation between two great nations.

All this, we respectfully submit, indicates not alone a possible complete and unanimous agreement as to the final conclusions and recommendations of the Commission under this reference, but it is also a splendid tribute to the genius and progressive international statesmanship of two great English-speaking nations of the world in thus providing a means that under actual experience is proving practical and efficient for the judicial settlement of great international questions involving treaty obligations or the rights and interests, as well as the health, of their respective peoples.

TH. CHASE CASGRAIN.
JAMES A. TAWNEY.
HENRY A. POWELL.
GEORGE TURNER.
CHARLES A. MAGRATH.
OBADIAH GARDNER.

Dated at Washington,
this 16th day of January, 1914.

LETTER OF TRANSMITTAL

We, the undersigned, have the honor to transmit herewith the report of the field work done under your instructions in the Investigation of the Pollution of Boundary Waters.

ALLAN J. McLAUGHLIN

JOHN W. S. McCULLOUGH

JOHN A. AMYOT

FREDERICK A. DALLYN

The
International Joint Commission
January 16th, 1914.

THE REPORT OF THE SANITARY EXPERTS, IN WHICH IS INDICATED THE SOURCES, EXTENT AND DEGREE OF POLLUTION OF BOUNDARY WATERS, UPON THE REFERENCE:

"I. To what extent and by what causes and in what localities have the boundary waters between the United States and Canada been polluted so as to be injurious to public health and unfit for domestic or other uses?"

REPORT OF THE SANITARY EXPERTS

INTRODUCTION

In this report data are presented indicating the source, extent and degree of pollution of these waters in such a manner as will enable the Commission to answer the first of the two following questions propounded by the Governments of the United States and Canada:

1. To what extent and by what causes and in what localities have the boundary waters between the United States and Canada been polluted so as to be injurious to the public health and unfit for domestic or other uses?

2. In what way or manner, whether by the construction and operation of suitable drainage canals or plants at convenient points or otherwise, is it possible and advisable to remedy or prevent the pollution of these waters, and by what means or arrangement can the proper construction or operation of remedial or preventative works, or a system or method of rendering these waters sanitary and suitable for domestic or other uses, be best secured and maintained in order to ensure the adequate protection and development of all interests involved on both sides of the boundary and to fulfil the obligations undertaken in Article IV. of the waterways treaty of January 11, 1909, between the United States and Great Britain, in which it is agreed that the waters therein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.

Very valuable assistance was rendered to the Commission by the United States Public Health Service and the Provincial Board of Health of Ontario, Canada. The Provincial Board of Health of Quebec, the State Board of Health of Michigan and the Department of Health of the State of New York are also entitled to the thanks of the Commission for assistance in carrying on investigations on the St. Clair River, Niagara River and St. Lawrence River. The co-operation of these organizations made it possible to bring the work to an early completion.

The courtesy of the various municipal authorities, the United States War Department Corps of Engineers, the Weather Bureaus of the United States and Canada, and the Bureaus of the Census in both countries, is gratefully acknowledged.

We are also indebted to the Honorable the Secretary of the Treasury for furnishing the U.S. Revenue Cutter *Morrill* for the purpose of taking samples in Lake Erie, and to the officers of the *Morrill* for their courtesy and assistance to our bacteriologists and sample collectors.

The preparation of charts, sketches and diagrams was entrusted to the Provincial Board of Health of Ontario, under the supervision of Mr. F. A. Dallyn, B.A.Sc., the Board's sanitary engineer.

Scope of the Field Investigations.

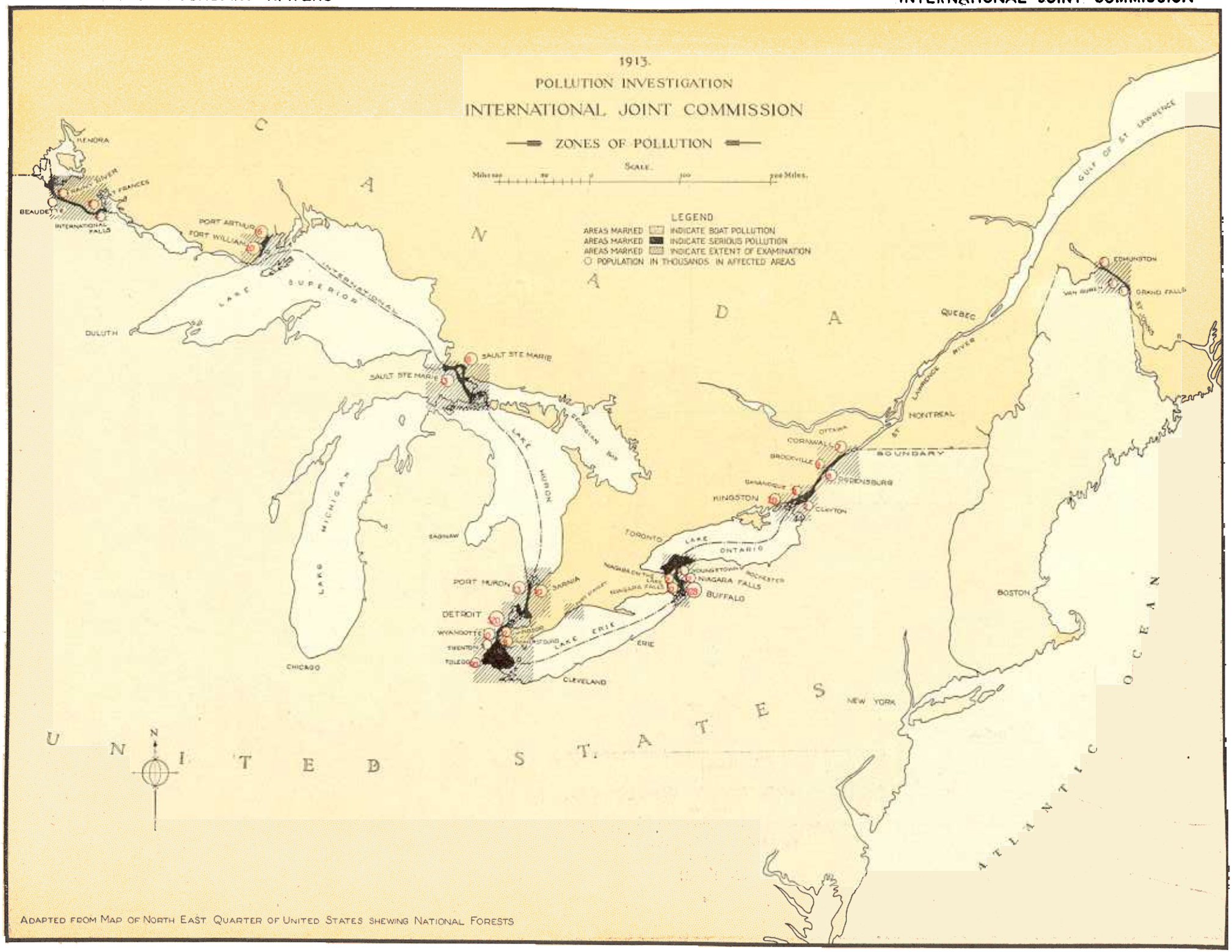
The field investigation covered the examination of the waters of Rainy River, parts of Rainy Lake and Lake of the Woods, that part of Lake Superior known as Thunder Bay, the St. Mary's River from the headwaters in Lake Superior to Mud Lake (including a set of samples through Detour Passage to Mackinac Island), Lower Lake Huron, the St. Clair River, Lake St. Clair, the Detroit River, the western end of Lake Erie, the central portions of Lake Erie (Port Stanley), the eastern end of Lake Erie, the Niagara River, the western portion of Lake Ontario, the eastern end of Lake Ontario, the St. Lawrence River to Cornwall, and that portion of the St. John River in which is the international boundary between the United States and Canada.

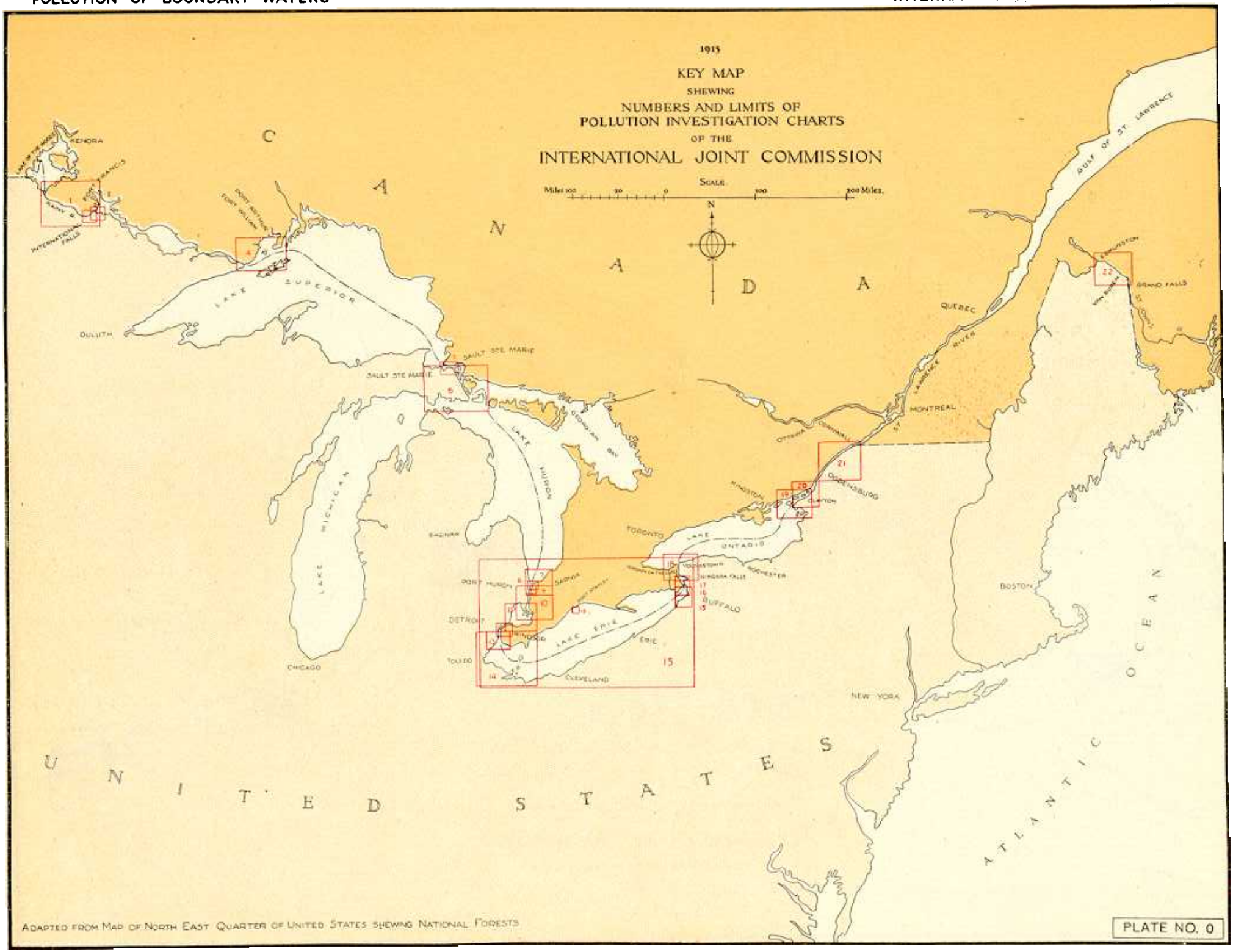
The area, population, source of water supply and quantity of water pumped for consumption, together with the probable quantity of sewage discharged, for each municipality in the areas under investigation, are included in the report.

The number of deaths from typhoid fever and the computation of the death rate per 100,000 for the greater number of municipalities on both sides of the border using these waters have been compiled and are included herein.

Meteorological data relative to the several points of investigation for the periods of examination were obtained from the Meteorological departments of the United States and Canada and are included in the appendix.

The number of sampling points was 1,447 and the total number of samples collected at these points was 17,784. Many other samples were taken to


1913.
POLLUTION INVESTIGATION
INTERNATIONAL JOINT COMMISSION
ZONES OF POLLUTION
Scale.
Miles 100 50 0 100 200 Miles.
LEGEND
AREAS MARKED INDICATE BOAT POLLUTION
AREAS MARKED INDICATE SERIOUS POLLUTION
AREAS MARKED INDICATE EXTENT OF EXAMINATION
POPULATION IN THOUSANDS IN AFFECTED AREAS
C A N A D A
U N I T E D S T A T E S
ATLANTIC OCEAN
GULF OF ST LAWRENCE
HENORA
BEAUDET
RAINY RIVER
LAKE OF THE WOODS
INTERNATIONAL FALLS
PORT ARTHUR
FORT WILLIAM
LAKE SUPERIOR
DULUTH
SAULT STE MARIE
LAKE MICHIGAN
CHICAGO
LAKE HURON
GEORGIAN BAY
SAGINAW
PORT HURON
SARNIA
DETROIT
WYANDOTTE
TRENTON
TOLEDO
LAKE ERIE
CLEVELAND
TORONTO
LAKE ONTARIO
NIAGARA FALLS
BUFFALO
YOUNGSTOWN
ROCHESTER
KINGSTON
BROCKVILLE
CORNWALL
OTTAWA
MONTREAL
ST LAWRENCE RIVER
QUEBEC
BOUNDARY
OGDENSBURG
CLAYTON
EDMUNSTON
GRAND FALLS
VAN BUREN
BOSTON
NEW YORK
Adapted from Map of North East Quarter of United States shewing National Forests


1915
KEY MAP
SHEWING
NUMBERS AND LIMITS OF
POLLUTION INVESTIGATION CHARTS
OF THE
INTERNATIONAL JOINT COMMISSION
Scale
Miles 100 50 0 100 200 Miles.
N
C A N A D A
U N I T E D S T A T E S
ATLANTIC OCEAN
KENORA
INTERNATIONAL FALLS
DULUTH
LAKE SUPERIOR
SAULT STE MARIE
LAKE MICHIGAN
CHICAGO
LAKE HURON
GEORGIAN BAY
TORONTO
LAKE ONTARIO
ROCHESTER
BUFFALO
NIAGARA FALLS
PORT HURON
DETROIT
LAKE ERIE
ERIE
TOLEDO
CLEVELAND
OTTAWA
MONTREAL
KINGSTON
QUEENSBURG
ST LAWRENCE RIVER
Quebec
GULF OF ST LAWRENCE
GRAND FALLS
BOSTON
NEW YORK
Adapted from Map of North East Quarter of United States shewing National Forests
PLATE NO. 0

SCHEDULE OF WORK PERFORMED

Date 1913.	Laboratory.	Waterway.	Headquarters.	No. of sample points.	Total number samples.
July 8-22	Provincial Board of Health, Ontario.	Rainy River.	Fort Frances Ont.	192	955
July 28. August 15.	" "	Lake Superior (Thunder Bay).	Port Arthur, Ont.	66	922
June 28- July 16.	" "	Lake Superior, St. Marys River.	Sault Ste. Marie, Mich.	104	1,065
July 29. August 25.	" "	Lake Huron, St. Clair River.	Sarnia, Ont.	142	1,606
September- October 10.	" "	Lake St. Clair, Detroit River.	Windsor, Ont.	174	1,755
September- October 3.	" "	Detroit River, Lake Erie.	Amherstburg, Ont.	114	1,306
October.	" "	Lake Erie, Port Stanley.	Windsor, Ont.	51	214
May 26- June 17.	" "	Lake Erie, Niagara River.	Fort Erie, Ont.	133	1,375
May 27- June 12-	" "	Niagara River.	Niagara-on-the-Lake, Ont.	59	840
April 10- May 23.	" "	Lake Ontario, St. Lawrence River.	Kingston, Ont.	113	928
May 23- August 27.	United States Public Health Service.	St. Clair River, Lake St. Clair, Detroit River, Lake Erie.	Detroit, Mich.	70	1,812
June 12. July 23.	" "	Lake Erie.	U.S. Revenue Cutter "Morrill"	20	480
May 12- July 29-	" "	Lake Erie, Niagara River.	Buffalo, N.Y.	60	1,624
August.	" "	Lake Ontario, St. Lawrence River.	Clayton, N.Y.	32	482
October.	" "	St. John River.	Van Buren Me.	32	672
July 3- August 13.	Michigan State Board of Health.	Lake Huron, St. Clair River.	Port Huron, Mich.	45	720
August 1- August 21.	New York State Department of Health.	Niagara River, Lake Ontario.	Youngstown, N.Y.	42	338
August.	Provincial Board of Health, Quebec.	St. Lawrence River.	Montreal, Quebec.	8	480

show the relation between local situations and municipal water supplies. In addition, samples were collected with a view to ascertaining the character and amount of pollution due to boat traffic. Some float and temperature experiments were made in conjunction with the bacteriological investigation.

Scope of Bacteriologic Examination.

The examination of these waters was essentially a bacteriological one–the determination of the total bacteria count on nutrient agar (+10) at 18°-22° C. (48 hours), the count at 37° C. (24 hours), and the quantitative estimation of B. Coli as indicated by fermentation in lactose bile at 37° C. (48 hours).

Presentation of Data.

The presentation of the data obtained during this investigation involved the preparation of maps showing the location of the various sampling points, the detailed tabulation showing for each sampling point the average bacterial count per cubic centimetre on agar, B. Coli per 100 c.c. by Phelps' method,* the number of samples collected, dates of collection, maximums obtained during the period of examination at each point, and some illustrations showing graphically the source, degree and extent of the pollution as indicated by the bacterial findings.

Indices of Pollution.

Since B. Coli is absent from unpolluted water, the estimation of this organism is therefore the most specific and best index available for showing the existence and degree of sewage pollution. The bacterial count at 37° C. on agar is nearly specific for intestinal organisms whose optimum growing temperature is that of the human body. The bacterial count at 18°-22° C. is less specific in an investigation to determine sewage pollution, but is valuable, nevertheless, the value being that it indicates the bacterial food value and quantity of the organic matter in a water. It does not indicate the character of the organic matter or whether the organic matter is faeces or decaying vegetable matter.

* Phelps, Earle B.: A method for calculating the number of B. Coli from the results of dilution tests. Reports and papers of the American Public Health Association, Vol. 33, 1907, pt. 2, pp. 9-13. Note: This method considerably underestimates the number of B. Coli, but was most convenient for the purposes of this report.

Purity of Great Lakes Water.

In certain localities on the Great Lakes and in all their connecting waterways dangerous sewage pollution was shown to exist, but the great bulk of the Great Lakes water remains in its pristine purity.

Our investigation shows that the colon bacillus is practically never normally present in unpolluted waters, and that the normal total bacterial count on nutrient agar (+10) of the Great Lakes waters is below 10 per c.c. This is clearly shown by the results of examination of samples collected in Thunder Bay, in Whitefish Bay, in Lake Huron, in Lake St. Clair, in Lake Erie at Abino Point section, and in cross-sections of Lake Ontario at both ends.

CLASSIFICATION OF GREAT LAKES WATER.

SUMMARY.

Class.	Number of B. Coli per 100 c.c.	Total Bacteria per c.c. agar (+10) 37° C.
1	Less than 2	Less than 10
2	2 to 10	10 to 25
3	10 to 20	25 to 50
4	20 to 50	50 to 100
5	Over 50	Over 100

Note: The total bacterial count on agar at 37° C. is included in the above table because of its rather definite relation to B. Coli.

Class 1 represents those relatively pure waters found outside the zones of pollution. It is doubtful if any purer surface water than this can be found daily for long periods in inhabited areas.

Class 2 represents a slight pollution of a relatively pure water. The character, origin and intermittency of this pollution would determine its measure of safety as a drinking water. At times, such a water is undoubtedly unsafe without purification.

Class 3 represents considerable pollution. A water belonging to this class requires unremitting care in its purification.

Class 4 shows serious pollution. This water, in our opinion, could not be classed as a good raw water. It would impose a much more serious responsibility on a purification plant than Classes 2 or 3. In the Great Lakes Basin such a water should not be selected

as a raw water for a purification plant; or, if the intake must be placed in such water, sources of pollution should be eliminated or nullified by sewage treatment in order to place such a water in Classes 2 or 3.

Class 5. This is gross pollution. It reaches in extent from 50 to 34,000 B. Coli per 100 c.c. Even in the lesser numbers, such pollution with its fluctuations imposes an unreasonable burden upon a purification plant. Considering the source of its pollution—faeces—such a water should not be considered for public use.

In considering this classification, it is to be remembered that it is *arbitrary*. The classification arises out of the data contained in this report. The difference in the bacterial flora of these lake waters and that of comparatively warm river waters, subject to agricultural and municipal drainage, is very great, especially when measured by bacterial counts on agar and B. Coli, which represent almost invariably for these lake waters recently added sewage organisms.

In many instances Class No. 1 can be observed changing through Classes 2 and 3 to Classes 4 and 5, the flow of water in the connecting bodies being such that the interval between a water's relative purity and its gross pollution is less than 24 hours. The danger and infectivity of a human pollution less than 24 hours old is not a question to speculate about; it is something to be faced with preventive measures such as filtration and sterilization of water supplies, aided by disinfection of the polluting sewage as the exigency of the situation may demand.

Intermittency of Pollution.

The average sheets present in somewhat concise form the information relating to each sample collection point. It will be observed that in many situations it is the intermittency of serious pollution wherein lies the great menace to water supplies.

We desire to accentuate the importance of the maximum as an index of intermittency. The maximum shows what may happen in a single day at any time. Averages give a very good idea of the general condition of the water, but do not show the extraordinary fluctuations which may occur on single days.

It is a well-known fact that disaster on a large scale may be the result of pollution which occurs only at infrequent intervals. Such a pollution would scarcely show in averages, but would be at once apparent if the maximum is stated. In other words, the maximum indicates the intermittency of pollution, a dangerous factor which must be reckoned with in any discussion of pollution.

Inevitable Pollution.

The seasonal effect of pollution reaching the lakes and rivers as the run-off from the watershed in time of flood following spring rains and thaws was nil during the investigation herein reported upon. It may at certain seasons of the year become considerable, depending upon the population, the number of cattle on the watershed, and the local topography. This pollution (with its menace) is practically inevitable.

Pollution from Vessels.

There is considerable, and in some localities, a dangerous pollution due to navigation; that is, the discharge of untreated excreta from passing vessels.

Evidence is presented in the appendix, page 381, which shows that practically all vessels on the Great Lakes discharge their sewage directly into the water.

The quantity of pollution contributed by vessels may be appreciated when it is considered that the population on lake vessels has been estimated by U.S. Census Reports as 14,000,000 persons taking passage during the season 1906.

Pollution from Urban Sewage.

At the present writing, every municipality, without exception, in the area investigated on the Great Lakes and their connecting rivers, avails itself of the opportunity to discharge its sewage untreated into these international waterways. This is the largest factor in their pollution. See appendix maps.

Distribution and Stratification of the Existing Pollution.

It may be observed from the chart that the bulk of the work was done on the connecting rivers and contiguous ends of the Lakes. Surface samples were found to be a fair index of the character of the water, especially where the combined effects of wave action, current, eddies and navigation lend themselves to distribution and dilution. Surface and deep samples were taken simultaneously at certain points in the St. Clair, Detroit and Niagara Rivers in order to definitely show this.

Vertical stratification, or the phenomenon of "pollution hugging the shore," may be met with in any depth. Some very striking examples are shown, especially in the St. Clair and Niagara Rivers. Horizontal stratification also occurs.

Local conditions were found to affect both dilution and stratification. These are dependent principally upon the current velocity of the diluting body, the bulk of the pollution (small sewer, main intercepter, polluted stream), and depth of sewer outlet. On the St. Clair and Detroit rivers the sewers on the United States side all discharge at the surface, while on the Canadian side the outlets are all submerged. On the upper Niagara the principal outlets are all deeply submerged. The situations under investigation were so complex, owing to the numerous sewer outlets, that it was found impossible to demonstrate, from the data obtained, the sedimentation that one naturally expects to be taking place.

Distance that Pollution May Travel in the Lakes.

The distance that pollution may travel in the Great Lakes was well demonstrated by investigations made during the progress of the work. It was found that the boundaries of the zone of pollution along the shores or at the mouths of rivers were constantly changing, due to the currents, which are themselves dependent upon the direction and velocity of the wind. In two situations, namely at the mouths of the Detroit and Niagara Rivers, serious pollution extends normally over ten miles into the lake receiving the discharge. At times it may travel much farther. It was shown to travel in Lake Ontario on occasion sixteen miles, and in Lake Erie eighteen miles.

Pollution in Relation to Bathing Beaches and Summer Resorts.

In addition to the effect of sewage pollution upon the public health through public water supplies, its influence upon the water of bathing beaches and summer resorts must be seriously considered. It will be readily appreciated how dangerous it must be for children and adults to bathe in sewage-laden water. The water in the vicinity of the bathing beaches in the lower portion of the Detroit River was shown to be laden with sewage.

Great Lakes Water as a Source of Municipal Supply.

The distance from municipalities of pure water in the Lakes, engineering difficulties both in placing and tunnelling to reach intakes located several miles from shore and below the 70-feet depth, and the cost of such tunnels and long pipe lines make it economically inadvisable in most instances, that is under existing conditions, to attempt to secure water from the lakes which would not require treatment.

The Water Supplies in the Great Lakes Cities are not Safe Without Treatment.

The position of the intakes and the pollution existing in the vicinity of municipal water supplies is such that there is not a municipality using lake water which can be said to possess a safe water supply without treatment. In spite of these facts until very recently the use of untreated water was the rule. The conditions responsible for the disgraceful record of water-borne typhoid in these cities are:

1. Unrestricted discharge of sewage by municipalities and vessels.
2. Failure to purify polluted water.
3. Inefficiency in the purification.

In certain localities the pollution is so great as to impose an unreasonable burden upon any known method of water purification, and where intakes are located in such localities some method of eliminating or reducing the pollution, whether from boats or municipalities, is absolutely necessary.

The failure to install a water purification plant is usually due to an undue confidence in a water supply which is safe "most of the time." It is difficult for some officials to understand, without a severe lesson, that it is not sufficient to have a water supply that is safe for 360 or 361 days in the year, and to these officials it seems scarcely justifiable to require expensive purification for the sake of the four or five days in the year which, due to weather conditions, pollution may take place. Such a supply, with a favorably placed intake, may escape pollution for more than a year. There was no evidence of serious pollution of the water supply of the city of Erie* from 1909 to December, 1910, yet the appalling disaster of

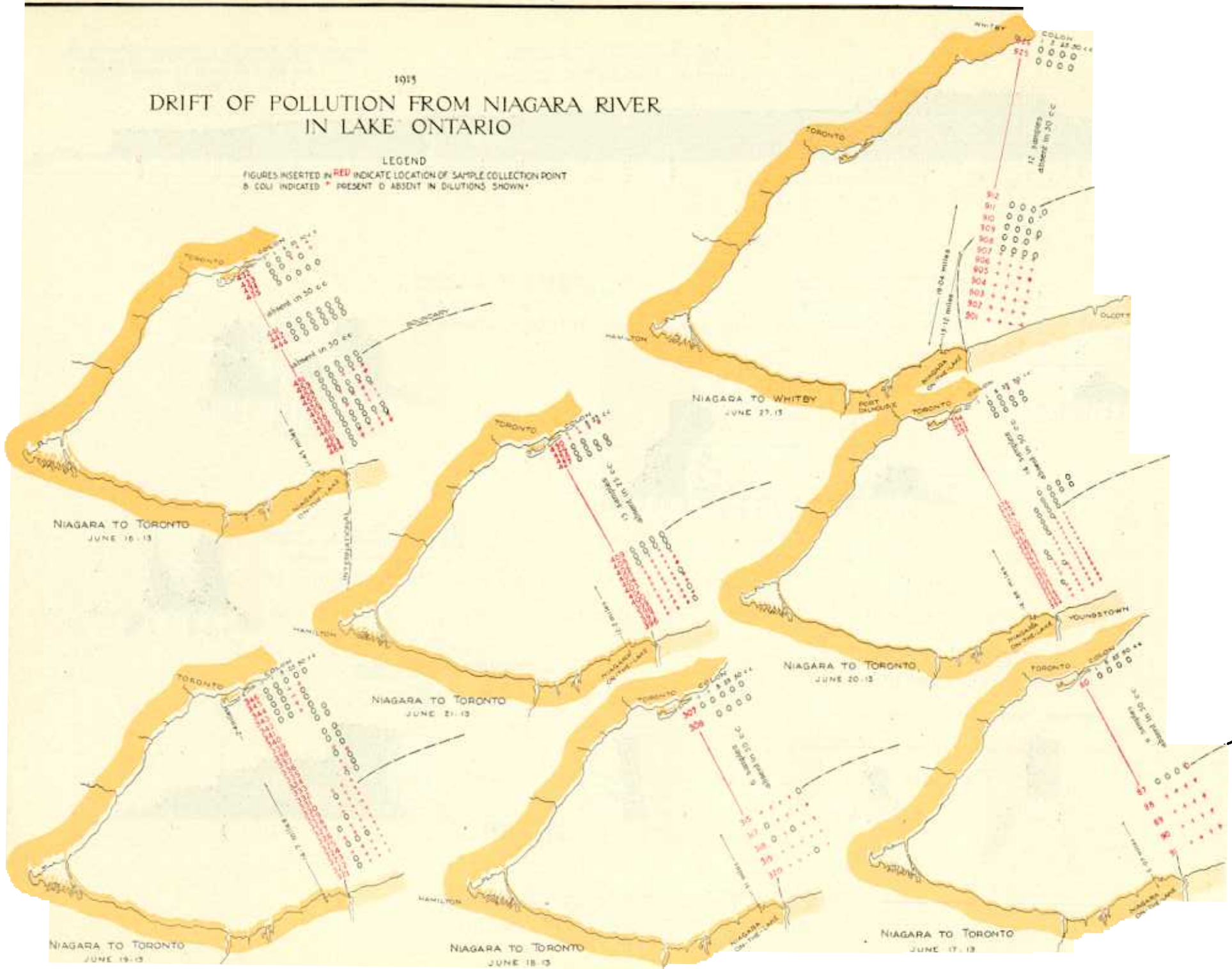
*Hygienic Laboratory Bulletin 77. United States Public Health Service.

1915

DRIFT OF POLLUTION FROM NIAGARA RIVER IN LAKE ONTARIO

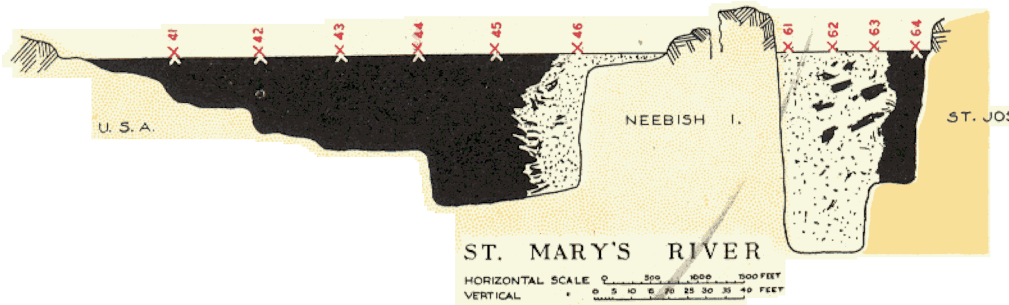
LEGEND

FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
B. COLI INDICATED * PRESENT O ABSENT IN DILUTIONS SHOWN*



1913

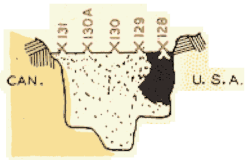
CROSS SECTIONS SHEWING THE PROBABLE DISTRIBUTION OF SEWAGE



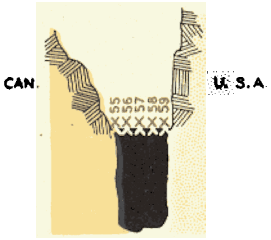
ST. MARY'S RIVER

HORIZONTAL SCALE 0 500 1000 1500 FEET

VERTICAL 0 5 10 15 20 25 30 35 40 FEET



OPPOSITE FORT ERIE

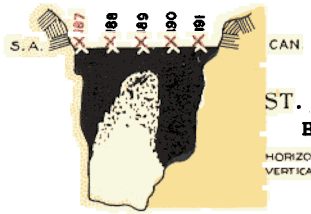


ABOVE LEWISTON

NIAGARA RIVER

HORIZONTAL SCALE 0 500 1000 1500 FEET

VERTICAL 0 5 10 15 20 25 30 35 40 FEET

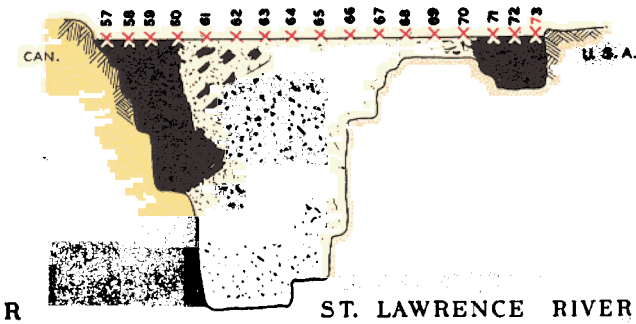


ST. CLAIR RIVER

BELOW ST. CLAIR

HORIZONTAL SCALE 0 500 1000 1500 FEET

VERTICAL 0 5 10 15 20 25 30 35 40 FEET

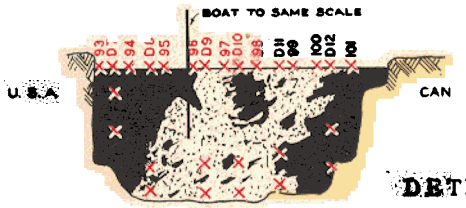


ST. LAWRENCE RIVER

OPPOSITE OGDENSBURG

HORIZONTAL SCALE 0 500 1000 1500 FEET

VERTICAL 0 5 10 20 30 40 FEET



DETROIT RIVER

OPPOSITE OJIBWA P. O.

HORIZONTAL SCALE 0 500 1000 1500 FEET

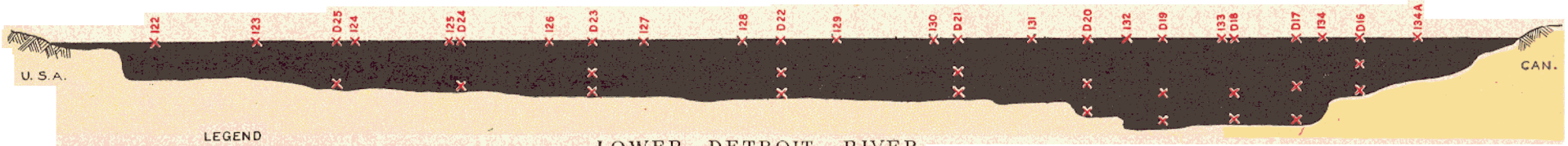
VERTICAL 0 5 10 15 20 25 30 35 40 FEET

RAINY RIVER

BELOW FORT FRANCES

HORIZONTAL SCALE 0 500 1000 1500 FEET

VERTICAL 0 5 10 15 20 25 30 35 40 FEET



LEGEND

X INDICATES POSITION OF SAMPLE COLLECTION POINT

FIGURES INSERTED IN RED INDICATE BASE LABORATORY NUMBER FOR INFORMATION RELATING TO THE SAMPLE COLLECTION POINT

LOWER DETROIT RIVER

HORIZONTAL SCALE 0 500 1000 1500 2000 FEET

VERTICAL 0 5 10 20 30 40 FEET

January and February, 1911, showed that pollution could take place under certain weather conditions. Many similar examples might be cited.

Danger in Assuming Water Supplies to be Safe Without Proper Evidence.

These untreated water supplies are in many instances delivered to the consumer as safe. It is our opinion that no water should be classed as safe and furnished as such which is not shown to be safe by daily bacteriologic examination.

Necessity for Sanitary Surveys.

Opinions based upon a few widely scattered bacteriologic examinations of samples of municipal water supplies collected at random have really very little value even though the tests appear to indicate good water. The public are apt to base their opinion of a water supply upon such tests. This is a dangerous error. Any report upon a water supply is incomplete without a comprehensive sanitary survey. The possibility of a serious pollution even as an exceptional occurrence would be disclosed by this survey.

Inefficient Operation of Water Purification Plants.

Inefficient management of any form of a water purification plant may be productive of disastrous results. In one, the capacity may be unduly forced; in another, the coagulant may be used in insufficient dose; in a third, the hypochlorite may be below strength, or the dose may be intermittently applied. For instance, in a town on the United States side the man in charge of the mechanical filtration plant thought a coagulant non-essential and failed to use it. At a Canadian town the waterworks superintendent, acting under instructions of the chairman of the water board, reduced his quantities of hypochlorite and obtained practically no efficiency whatever.

Necessity for Bacteriologic Control of Municipal Purification Plants.

Information collected during this investigation shows that for lack of *daily* bacteriologic examination satisfactory efficiency is not being obtained by the purification methods adopted by many of the municipalities attempting to protect themselves against the consequences of polluted water supplies.

REPORT OF INVESTIGATION RE POLLUTION OF RAINY LAKE, RAINY RIVER AND LAKE OF THE WOODS. LABORATORY HEADQUARTERS AT FORT FRANCES, ONT. FIELD EXAMINATIONS COVERED THE PERIOD JULY 8th—JULY 22nd, 1913.

FIG I.

Samples examined in Rainy Lake show pollution which one would not expect in a water with so little habitation about it. Some of this pollution could, no doubt, be accounted for by the fact that the Canadian Northern Railway construction camps had been working there, putting in a big fill across Rainy Lake. The construction camps and their operations were within a few miles of the points where samples were taken. The samples show intermittency of pollution. (Figure 1.)

The cross-section at head of Rainy River, just above the village of Ranier, showed an increase of pollution which would naturally be expected owing to the construction camps and lumber mills lying along the Canadian shore in this vicinity, together with the effects of the fish industry and some summer resort pollution just above this point on the United States shore and to the convergence and concentration of surface waters at this point.

Approaching the town of Fort Frances, the next cross-section shows a further increase of pollution. This is in the immediate vicinity of a summer camp and just below the village of Ranier.

The cross-section taken lower down in a wider part of the river, above Fort Frances waterworks intake, shows much the same degree of pollution. (Figure 2.)

Figure 1.—Rainy Lake. Daily variation in B. Coli findings, illustrating intermittency of pollution. Maximum pollution shown is 100 B. Coli per 100 c.c. of water. Sampling points 3, 6, 10, 12 and 17.

Table I.

WATERS OF RAINY LAKE.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
1	July 8-19	9	200	50	1.	76	10	16
2	"	10	520	10	1.	79	4	15
3	"	10	420	18	1.	126	4	17
4	"	10	110	16	5.	39	6	3.4
5	"	10	82	18	1.	29	5	13
6	"	10	125	22	1.	28	5	12
7	"	10	62	18	1.	23	4	15
8	"	10	165	25	1.	37	8	15
9	"	10	115	24	1.	57	11	8.8
10	"	10	250	33	5.	78	8	9.4
11	"	10	125	43	1.	74	7	17
12	"	10	210	16	1.	82	6	23
13	"	10	144	73	1.	67	15	13
14	"	10	75	34	1.	51	9	23
15	"	10	180	20	1.	53	10	13
16	"	10	158	22	1.	47	5	9.2
17	"	10	125	12	1.	56	5	11
18	"	10	280	56	1.	113	22	25
19	"	10	184	30	1.	104	14	35
20	"	10	140	20	1.	78	13	19
21	"	10	160	10	1.	61	5	27
22	"	10	152	16	1.	59	6	20
23	"	10	140	24	1.	72	7	26
24	"	10	200	73	1.	75	15	29
25	"	10	215	22	1.	104	12	32

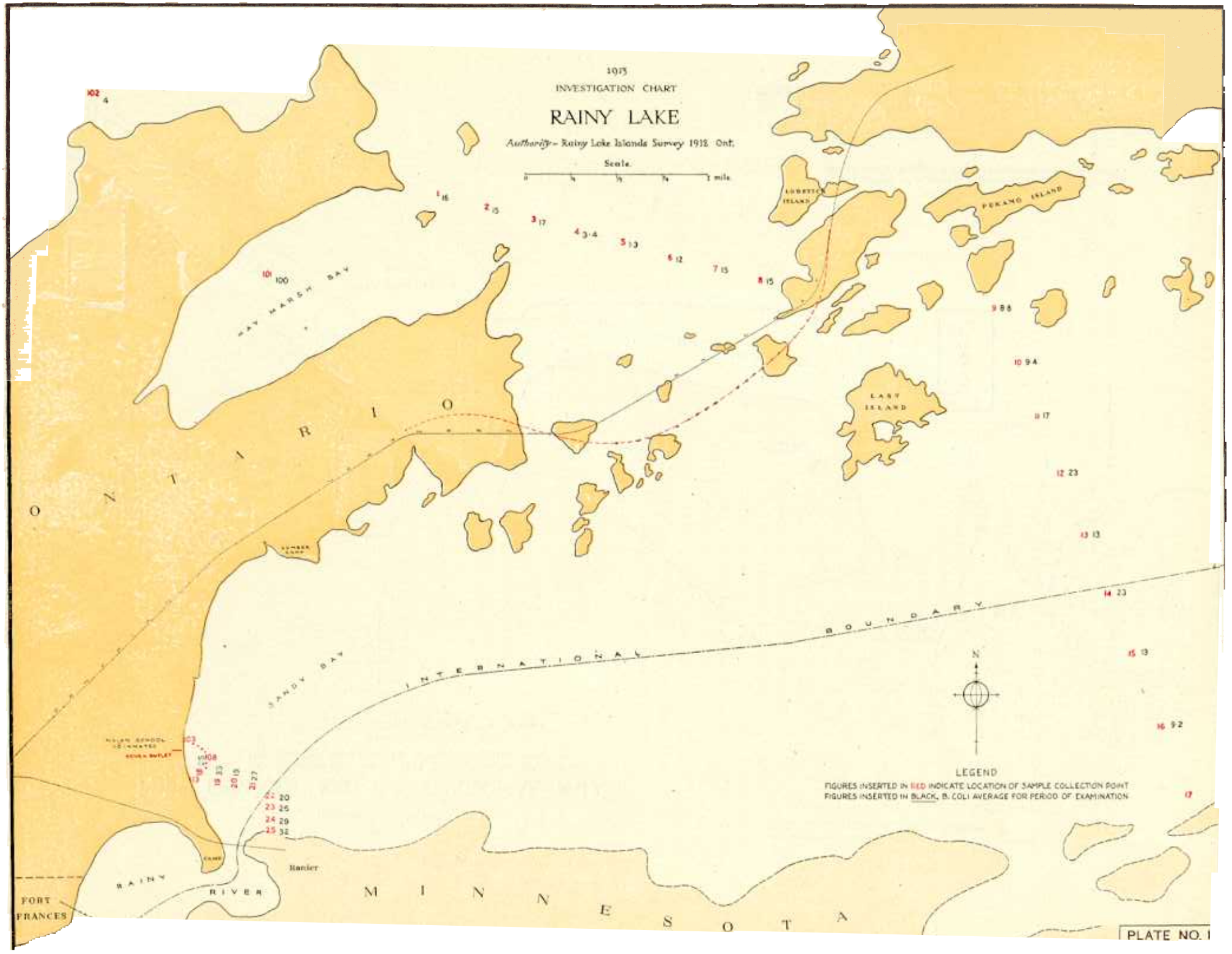

1915
INVESTIGATION CHART
RAINY LAKE
Authority – Rainy Lake Islands Survey 1912 Ont.
Scale.
0 ¼ ½ ¾ 1 mile
ONTARIO
MINNESOTA
INTERNATIONAL BOUNDARY
RAINY RIVER
FORT FRANCES
Ranier
SANDY BAY
HAY MARSH BAY
LOBSTICK ISLAND
PEKANG ISLAND
LAST ISLAND
N
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION

PLATE NO. I

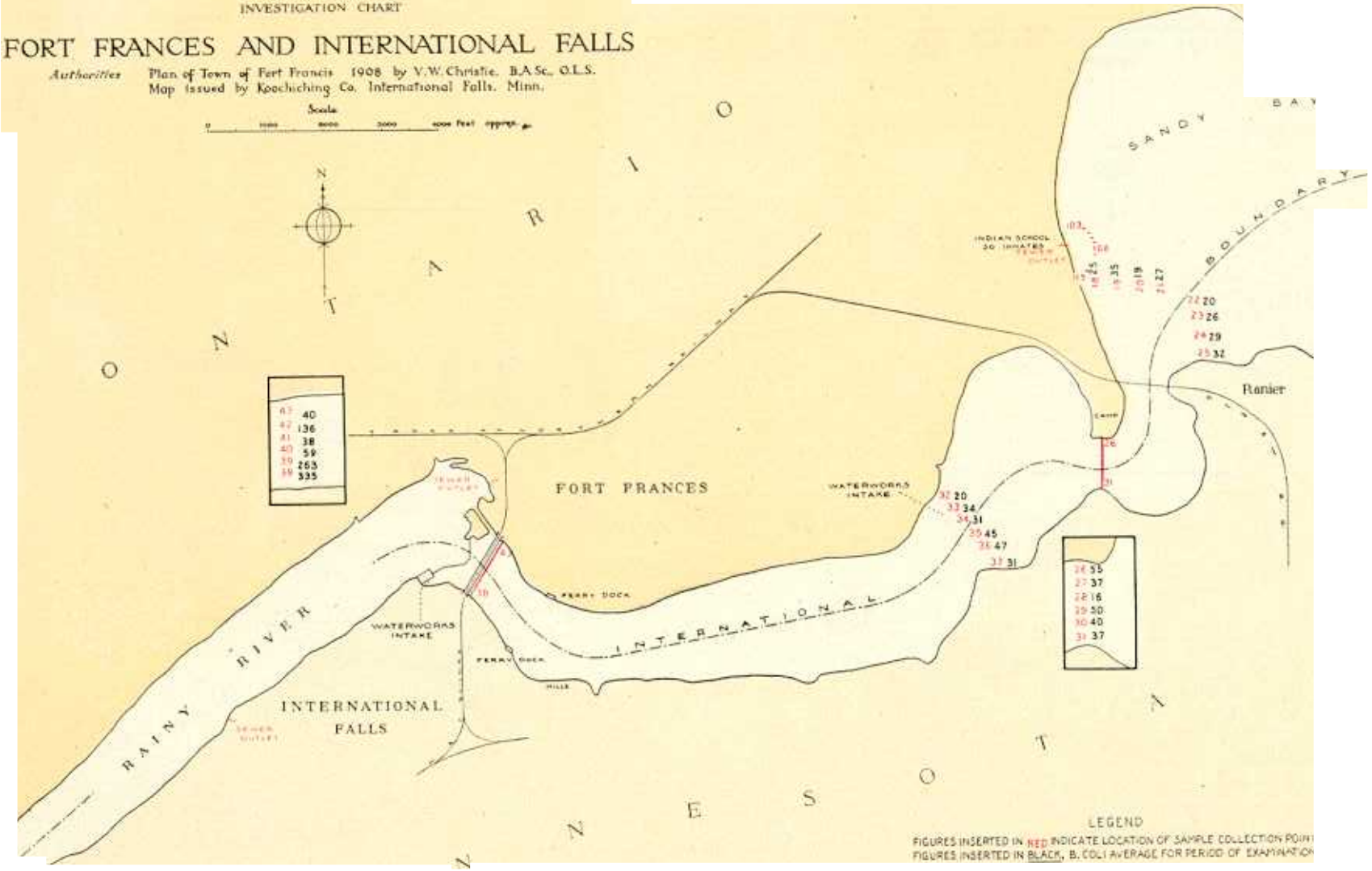
1915

INVESTIGATION CHART

FORT FRANCES AND INTERNATIONAL FALLS

Authorities Plan of Town of Fort Francis 1908 by V.W. Christie, B.A.Sc., O.L.S.
Map issued by Koochiching Co. International Falls, Minn.

Scale



Municipality	Date of Sys. tems	Area in Acres	Population	Density per Acre	Water Consumption Average Gallons per 24 Hours U.S.Gals.	Source	Treatment	Sewage Treatment	No. of Outlets	System
Fort Frances Ont.	1912	750	1925	2.6	175,000	Rainy R.	Disinfection	None	1	Combined
International Falls Minn.	1910	—	1487	—	—	"	"	"	1	"

Fig 2.

The samples collected from the international bridge connecting Fort Frances with the town of International Falls showed considerable pollution on the United States side above their waterworks intake. (Figure 3.) This can only be accounted for by local drainage, possibly of the mills and buildings around the ferry dock above the intake. The samples obtained from the Canadian side do not show quite so great a pollution, although it is of a dangerous type.

Fig 3.

The cross-section well below the drainage of Fort Frances and International Falls showed a very large increase in the degree of pollution. The gross pollution now found uniformly throughout the river is clearly due to the sewage discharged from these

Figure 2.—Rainy River. Daily variation in B. Coli findings above Fort Frances Waterworks intake, showing increase of pollution over that existing in Rainy Lake. Maximum pollution shown is 100 B. Coli per 100 c.c. of water. Sampling points 32, 33 and 36.

Figure 3.—Rainy River. Daily variation in B. Coli findings above International Falls Waterworks intake. Sampling point 38. Irregular line at top of maximum indicates more than 100 B. Coli per 100 c.c. of water.

Table II.

WATERS OF THE RAINY RIVER.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
26	July 8-19	10	195	150	1.	135	29	55
27	"	10	210	40	1.	95	17	37
28	"	10	220	30	5.	84	16	16
29	"	10	83	29	1.	53	16	50
30	"	10	260	38	1.	90	18	40
31	"	10	110	26	1.	74	11	37
32	"	10	164	21	1.	105	10	29
33	"	10	145	40	1.	87	14	34
34	"	10	180	20	1.	93	11	31
35	"	10	220	38	1.	88	14	45
36	"	10	155	82	1.	87	16	47
37	"	10	120	30	1.	72	11	31
38	"	10	13000	450	.1	2115	121	335
39	"	10	7000	180	.1	1512	58	263
40	"	10	2200	124	1.	632	38	59
41	"	10	2550	76	1.	576	24	38
42	"	10	1680	60	.1	514	33	136
43	"	10	2800	64	1.	731	44	40
44	"	10	850	195	.1	244	78	433
45	"	10	266	92	.1	141	54	361
46	"	10	216	112	.1	113	44	248
47	"	10	200	160	.1	106	47	165
48	"	10	1200	800	.1	264	148	253
49	"	10	4000	197	.1	1154	98	157

two towns. Samples from other sections were taken at varying distances from this point to just above the village of Emo, a distance of twenty-two miles. These showed practically no alteration in the condition of the river.

Fig 4.

Samples taken in the tributary streams near their mouths indicated that the water from these streams did not affect the pollution of the main river during the period of the investigation.

The samples taken from just above Baudette, Minn., and Rainy River, Ont., showed that the degree of pollution was unchanged. Thus for sixty miles the pollution is practically uniform. The cross-sections below the towns showed an increase in pollution of more than 25 per cent.

In order to find the effect of the polluted Rainy River on the waters of the Lake of the Woods, a cross-section was run from Zippel to Bigsby Island, a distance of eighteen miles, in which 105 samples were taken. These showed a more or less uniform pollution throughout this end of the lake.

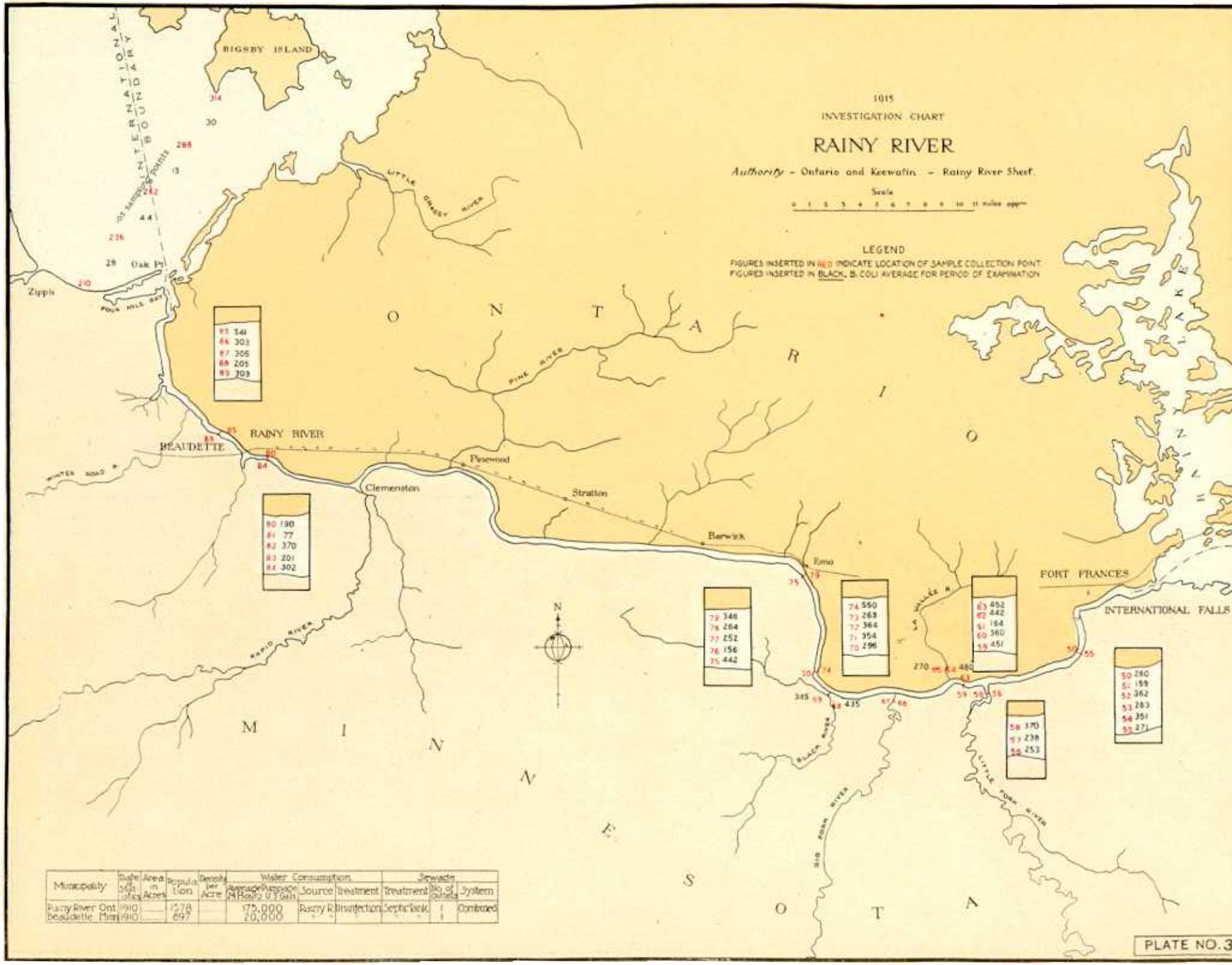
In general the Rainy River shows serious pollution throughout its length, but in an increased degree below Fort Frances and International Falls to the Lake of the Woods, making this whole river an unsafe source of water supply without very careful purification. The tap water of the towns of Fort Frances, International Falls and Rainy River was examined and shown to be of the same character as that of the river, the source of supply.

Figue 4. Rainy River. Daily variation in B. Coli findings showing gross pollution at sampling points 71, 72, and 73. Irregular line at top of maximum indicates more than 100 B. Coli per 100 c.c. of water.

Table III.

WATERS OF THE RAINY RIVER AND LAKE OF THE WOODS

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
			Bacterial Counts per CC. on Agar		B. Coli. Smallest No. of CC. used showing reaction.	Bacterial Counts per CC. on Agar.		B. Coli per 100 CC. by Phelps Method.
			18°–22°C.	37°C.		18° 22°C.	37°C.	
50	July 9-19	10	1900	430	.1	265	160	260
51	"	10	1500	308	.1	540	92	159
52	"	10	950	180	.1	337	81	362
53	"	10	800	400	.1	307	119	263
54	"	10	1400	184	.1	424	135	351
55	"	10	1100	300	.1	473	133	271
56	"	10	840	248	.1	387	137	253
57	"	10	1140	200	.1	595	114	238
58	"	10	1300	340	.1	573	116	370
59	"	10	2400	400	.1	555	108	451
60	"	10	440	332	.1	220	74	360
61	"	10	560	200	.1	286	72	164
62	"	10	1200	180	.1	366	73	442
63	"	10	1200	320	.1	456	151	452
64	"	10	8500	850	.1	2306	409	480
65	"	10	7000	750	.1	2171	364	270
68	"	10	4000	1400	.1	1255	345	435
69	"	10	2900	800	.1	1203	300	345
70	"	10	2500	340	.1	924	193	256
71	"	10	2400	480	.1	795	212	354
72	"	10	2050	400	.1	582	163	364
73	"	10	3500	520	.1	848	190	263
74	"	10	1250	520	.1	478	202	550
75	"	10	3000	650	.1	1016	247	442
76	"	10	2900	440	.1	836	156	156
77	"	10	6500	700	.1	1235	198	252
78	"	10	1600	500	.1	766	171	264
79	"	10	3700	400	.1	1042	167	346
80	"	8	1250	175	.1	448	90	190
81	"	8	820	205	1.	378	98	77
82	"	9	750	165	.1	295	79	370
83	"	8	950	615	.1	235	95	201
84	"	8	820	260	.1	384	90	302
85	"	8	780	350	.1	329	109	541
86	"	8	600	450	.1	292	110	303
87	"	8	1060	130	.1	338	71	305
88	"	8	480	200	.1	205	96	205
89	"	8	1200	1000	.1	396	274	303
103–113	July 18	8	1750	180	5.	1111	50	18
210–240	July 22	31	440	83	1.	155	29	29
241–270	"	30	184	22	5.	57	10	4.4
271–300	"	30	650	45	1.	75	13	13
301–314	"	14	96	18	1.	52	12	30



Municipality	Date of Incorporation	Area in Acres	Population	Density per Acre	Water Consumption: Average (M Gallons U.S.Gals)	Water Consumption: Pumpage (M Gallons U.S.Gals)	Water Source	Water Treatment	Sewage Treatment	Sewage No. of Outlets	Sewage System
Rainy River Ont	1910	——	1578	——	175,000		Rainy R.	Disinfection	Septic tank	1	Combined
Beaudette Mun	1910	——	697	——	20,000		"	"	"	1	

PLATE NO. 3

1913

INVESTIGATION CHART

LAKE SUPERIOR AT THUNDER BAY

Authority Lake Superior Coast Chart N°8 U.S. War Dept 1908-09

Scale 0 ½ 1 2 3 4 5 6 7 miles.

Municipality	Date of statistics	Area in Acres	Population	Density per Acre	Water Consumption: Average Pumpage 24 Hours U.S. gals	Water Consumption: Source	Water Consumption: Treatment	Sewage: Treatment	Sewage: No. of Outlets	Sewage: System
Port Arthur Ont	1912	10275	15654	1.5	2.104.996	Thunder B	Disinfection	None	5	Combined
Fort William "	"	9865	22807	2.2	4.200.000	L Lomond	None	"	23	"

LEGEND

FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT

FIGURES INSERTED IN BLACK B. COLI AVERAGE FOR PERIOD OF EXAMINATION

PORT ARTHUR

FORT WILLIAM

NEEBING R.

KAMINISTIKWIA R.

McINTYRE R.

WELCOME IS.

PAPOOSE ISLANDS.

AMETHYST BAY

THUNDER BAY

THUNDER CAPE

EDWARD I.

PIE ISLAND

JARVIS BAY

PIGEON BAY

PIGEON RIVER

ONTARIO

INTERNATIONAL BOUNDARY

ISLE ROYAL

PLATE NO. 4

REPORT OF INVESTIGATION RE POLLUTION OF LAKE SUPERIOR AT THUNDER BAY. LABORATORY HEADQUARTERS AT PORT ARTHUR, ONT. FIELD EXAMINATIONS COVERED THE PERIOD JULY 28th—AUGUST 19th, 1913.

The examination of the waters of Thunder Bay showed that the pollution found there did not reach the international boundary, some thirty-five miles distant, during the period of the investigation. The combined population of Fort William and Port Arthur is at present only about 40,000, and with the

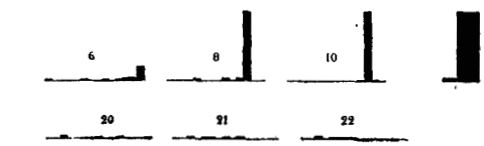


Fig 5.

enormous volume of water available for dilution of the sewage of these cities it is unlikely that existing pollution could reach the boundary.

The local situation is, however, an unfortunate one for these cities, the general tendency being to the spread of the sewage-polluted water along the shores rather than out into the Bay. The samples showed that the pollution ran either towards Papoose Island to the north or towards Pie Island to the south. On no occasion was it found beyond the Welcome Islands.

Fig 6.

Figure 5.—Thunder Bay, Lake Superior. Daily variation in B. Coli findings showing intermittent pollution. Sampling points 6, 8, 10, 20, 21, and 22. Maximum pollution shown is 100 B. Coli per 100 c.c. of water. Figure to right indicates diagrammatically the exceptional pollution that occurred August 9th due to the presence of harbor water at sample points 6, 7, 8, 9, 10.

Figure 6.—Thunder Bay, in vicinity of Port Arthur Waterworks intake. In contrast with Fig. 5 serious pollution is here shown. Maximum pollution shown is 100 B. Coli per 100 c.c. of water. Sampling points 39, 40, and 41.

Table IV.

WATERS OF LAKE SUPERIOR AT THUNDER BAY

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
1–5	Aug. 13-19 ..	5	..	..	50.	..	..	0.1
6	July 28-Aug.13	14	60	2	5.	6.7	.3	2.5
7	" "	14	70	2	25.	8.1	.4	1.0
8	" "	14	28	2	1.	3.7	.4	7.8
9	" "	14	30	8	1.	2.7	1.0	7.7
10	" "	14	24	2	1.	2.	.3	7.4
11	" "	16	54	26	1.	7.2	2.0	8.2
12	" "	16	11	5	5.	2.0	1.0	6.1
13	" "	16	16	3	5.	2.7	0.7	2.8
14	" "	16	16	4	5.	2.4	0.7	1.1
15	" "	16	12	6	1.	1.8	0.5	7.2
16	" "	16	3	10	25.	0.5	0.8	0.9
17	" "	16	26	5	25.	5.2	1.0	2.2
18	" "	16	8	4	25.	1.5	0.7	2.2
19	" "	16	17	140	25.	2.3	11.3	1.7
20	" "	16	70	5	25.	5.6	1.2	0.9
21	" "	16	13	3	50.	3.0	0.5	0.6
22	" "	16	6	4	50.	1.2	0.7	0.8
23	" "	15	5	2	5.	1.5	0.4	1.4
24	" "	15	5	2	5.	1.2	0.2	2.2
25	" "	14	3	2	25.	0.6	0.2	0.7
26	" "	15	10	8	50.	2.3	1.0	0.5
27	July 27-Aug.18	15	4	0	50.	1.0	0.0	0.1
28	" "	15	4	2	00.	0.7	0.1	0.0
29	" "	15	4	1	50.	0.5	0.1	0.2
30	" "	15	3	10	50.	1.0	1.0	0.2
31	" "	15	10	1	50.	1.2	0.0	0.4
32	" "	15	7	18	50.	0.7	1.4	0.2
33	July 28-Aug.13	15	300	48	1.	27.	3.5	7.6
34	" "	15	180	6	1.	14.	1.2	13.
35	" "	15	42	8	5.	3.4	1.1	2.4
36	" "	15	36	4	5.	3.4	0.7	3.2
37	" "	15	34	7	1.	3.8	1.5	7.6
38	" "	15	40	5	1.	4.0	1.0	7.7
39	" "	15	210	60	1.	84.	27.	84.
40	" "	15	300	68	1.	63.	8.9	64.
41	" "	15	60	38	1.	17.	5.6	15.
42	" "	15	50	42	1.	10.	5.2	16.
43	" "	15	30	24	5.	6.8	2.8	6.1
44	" "	15	18	8	5.	5.	1.	5.2
45	" "	15	1000	104	1.	155.	27.	70.
46	" "	15	76	14	5.	17.	4.4	9.3
47	" "	15	20	6	5.	5.5	1.8	3.4
48	" "	15	10	8	5.	2.2	1.3	2.2
49	" "	15	6	12	5.	2.0	3.0	2.

At times pollution from Port Arthur was found to extend along the north shore for a distance of nine miles—conditions of pollution which would seriously menace an untreated water supply taken from that source (See Fig. 6.)

Examinations of the tap water of these two cities showed that while the Loch Lomond water used by Fort William was practically pure, that of Port Arthur, taken from Thunder Bay, showed a serious pollution on several occasions.

The typhoid rate of Port Arthur is several times greater than that of Fort William—Typhoid Table No. xxv*. This can only be attributed to the water supply, since the sanitary conditions of Port Arthur are undoubtedly superior to those of Fort William.

*See page xx., appendix.

WATERS OF LAKE SUPERIOR AT THUNDER BAY—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
			Bacterial Counts per CC. on Agar		B. Coli. Smallest No. of CC. used showing reaction.	Bacterial Counts per CC. on Agar.		B. Coli per 100 CC. by Phelps Method.
			18°–22°C.	37°C.		18° 22'C.	37°C.	
50	" "	15	80	22	1.	30.	4.8	28.
51	" "	15	45	20	1.	13.	4.5	20.
52	" "	15	34	14	1.	6.7	3.0	17.
53	" "	15	35	4	5.	7.8	0.7	3.7
53a	" "	15	5	7	25.	2.0	1.3	1.8
53b	" "	15	8	3	5.	1.6	1.0	2.8
54	" "	15	80	57	1.	23.	6.1	14.
55	" "	15	12	6	5.	3.1	0.7	3.8
56	" "	15	6	3	25.	1.4	0.5	0.8
57	" "	15	4	6	50.	1.2	0.6	0.6
58	" "	15	10	5	50.	1.3	0.4	0.4
59	July 29-Aug.18	15	4000	16000	.1	1850	1821	520
60	" "	15	5000	16000	.1	1723	1443	340
61	" Aug. 7	7	1800	1200	.1	1285	291	757
62	" "	7	13000	200	.1	3114	153	742
63	" "	7	100	800	.1	58	135	371
64	" "	7	120	70	1.	38	33	100
65	" "	7	8000	4000	.1	4457	2314	742
66	" "	7	6000	4000	.1	4157	2138	742
67	" "	7	1500	180	.1	1068	124	742
68	" "	7	1500	200	.1	862	115	614
69	July 30-Aug.18	12	4	10	50.	0.6	1.6	0.5
70	" "	12	3	1	50.	0.5	0.1	0.3
71	" "	12	4	3	25.	1.0	0.3	1.0
72	" "	12	6	2	25.	1.4	0.1	0.6
72a	Aug.12-Aug.18	5	1	0	50	0.2	0	0.4
72b	" "	5	1	0	0	0	0	0
72c	" "	5	1	3	0	0.2	0.6	0
72d	" "	5	360	30	25	73.	6.	1.6

1915

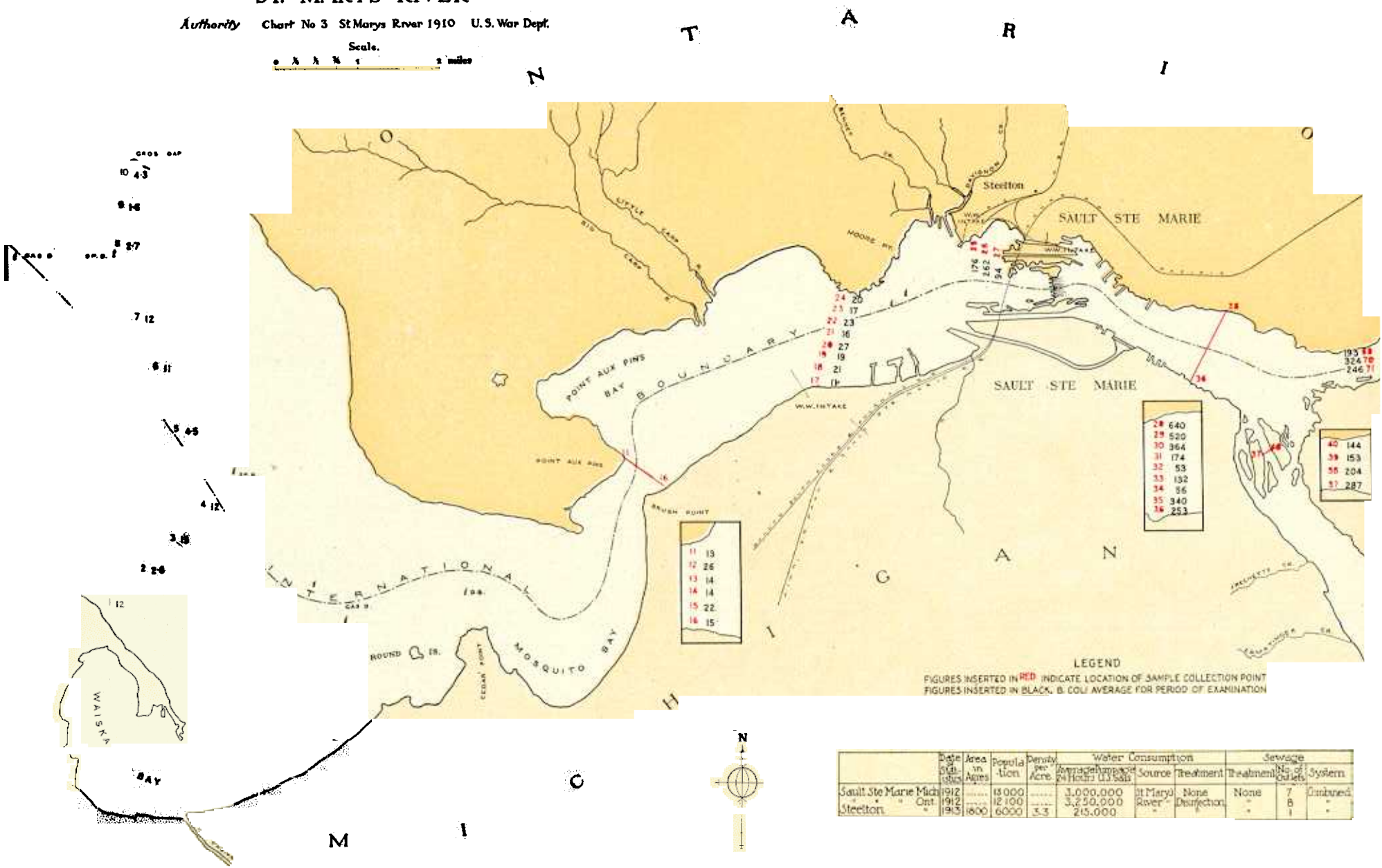
INVESTIGATION CHART

ST. MARYS RIVER

Authority Chart No 3 St Marys River 1910 U.S. War Dept.

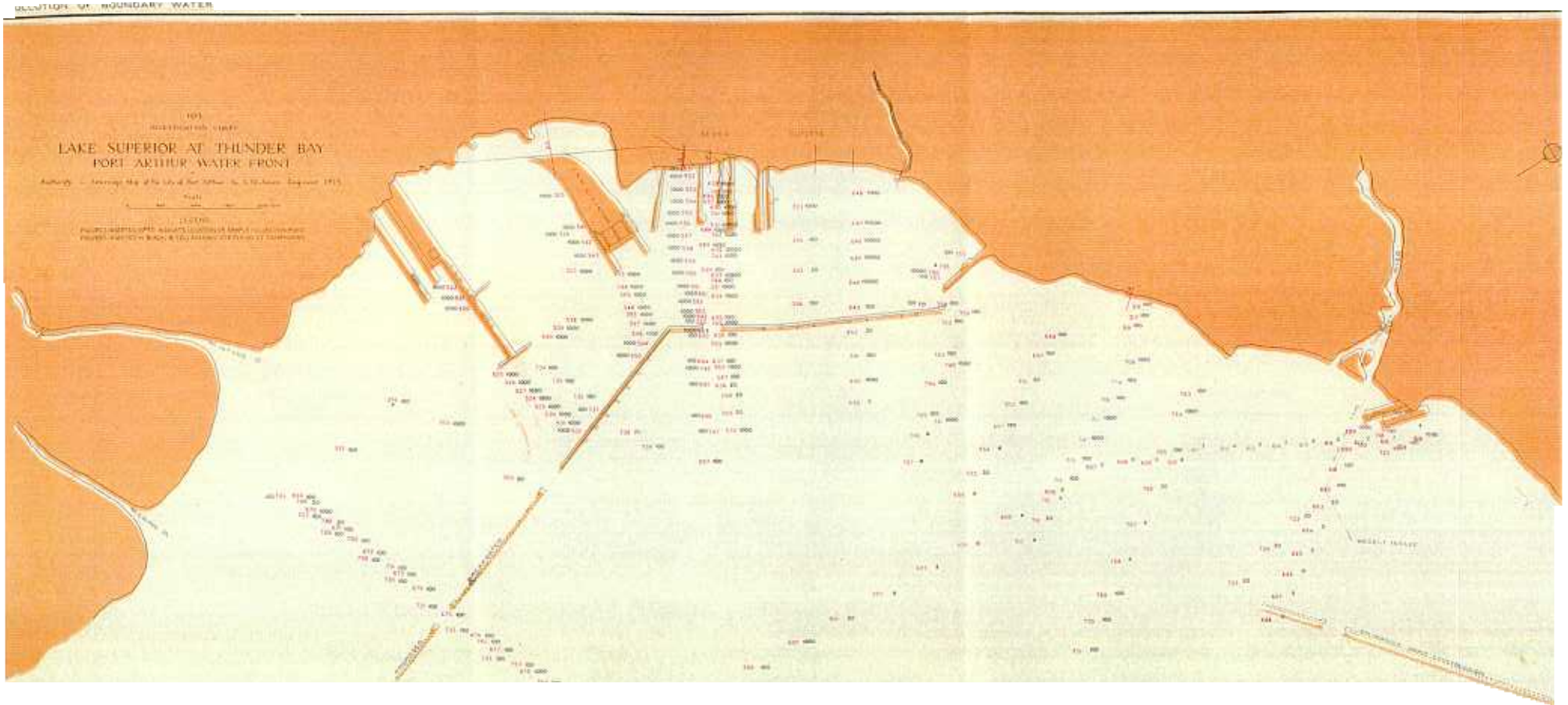
Scale.

0 ¼ ½ ¾ 1 2 miles



	Date (Organized)	Area in Acres	Population	Density per Acre	Water Consumption: Average per 24 Hours U.S. Gals	Water Consumption: Source	Water Consumption: Treatment	Sewage: Treatment	Sewage: No. of Outlets	Sewage: System
Sault Ste Marie Mich	1912	.....	13 000	.....	3,000,000	St Marys River	None Disinfection	None	7	Combined
" " Ont.	1912	.....	12 100	.....	3,250,000	"	"	"	8	"
Steelton "	1913	1800	6000	3.3	215,000	"	"	"	1	"

PLATE NO. 5


LAKE SUPERIOR AT THUNDER BAY
PORT ARTHUR WATER FRONT

REPORT OF INVESTIGATION RE POLLUTION OF ST. MARYS RIVER. LABORATORY HEADQUARTERS AT SAULT STE. MARIE, ONT. FIELD EXAMINATIONS COVERED THE PERIOD JUNE 28th—JULY 17th, 1913.

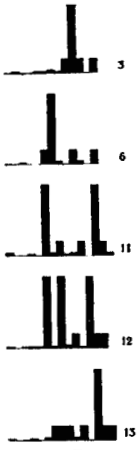


Fig 7.

The population upon the drainage area of Whitefish Bay, at the head of St. Marys River, is practically nil, but the lake traffic passing through this part of the river is enormous. Samples in the ship channel along the first cross-section extending from Gros Cap to a point above Bay Mills showed the average pollution to be greater than that existing between the ship channel and the shore. Obviously this pollution is due to boat traffic. Inshore samples show some pollution probably due to drift from the boat channel.

Fig 8.

The second cross-section between Brush Point and Point aux Pins showed in this narrow channel concentration of the pollution found higher up. (See Fig. 8.)

The third cross-section, just above the waterworks intake of Sault Ste. Marie, Mich., showed practically the same degree of pollution as the previous one. Water from this vicinity ought not to be furnished by the municipality without adequate treatment of some kind. The pollution of the water shown here probably explains the continued excessive typhoid rate of this city, especially during the navigation season.

Fig 9.

The samples from the points above the Canadian ship channel showed great increase of pollution, much

Figure 7.—St. Marys River. Daily B. Coli findings, showing effect of pollution due to vessel traffic. Sampling points 3, 6, 11, 12, and 13. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Figure 8.—St. Marys River. Daily variation in B. Coli findings, showing increase in pollution due to convergence of vessel traffic just above the town of Sault Ste. Marie. Sampling points 14, 15, and 16. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Figure 9.—St. Marys River above Waterworks intake, Sault Ste Marie, Mich. Pollution due to vessels. Sampling point 20. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Table V.
WATERS OF THE ST. MARYS RIVER

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
			Bacterial Counts per CC. on Agar		B. Coli. Smallest No. of CC. used showing reaction.	Bacterial Counts per CC. on Agar.		B. Coli per 100 CC. by Phelps Method.
			18°–22°C.	37°C.		18° 22°C.	37°C.	
1	Jun. 28-July 17	12	40	10	1.	12	2	12
2	" "	12	30	15	5.	8	2	2.8
3	" "	12	100	80	1.	16	8	13
4	" "	12	28	8	1.	7	1	12
5	" "	12	12	18	5.	3	3	4.5
6	" "	12	19	240	1.	5	20	11
7	" "	12	17	9	1.	8	1	12
8	" "	12	34	6	5.	9	2	2.7
9	" "	12	28	6	25.	7	1	1.6
10	" "	12	22	5	5.	5	1	4.3
11	" "	15	28	28	1.	5	2	13
12	" "	14	14	9	1.	5	1	26
13	" "	15	75	5	1.	12	1	14
14	" "	15	26	6	1.	6	1	14
15	" "	15	42	13	1.	14	3	22
16	" "	15	20	14	1.	9	1	15
17	" "	15	19	7	5.	6	1	11
18	" "	15	26	18	1.	6	3	21
19	" "	15	21	35	1.	6	4	19
20	" "	15	42	42	1.	9	9	27
21	" "	15	60	30	1.	11	4	16
22	" "	15	27	23	1.	8	2	23
23	" "	15	360	28	1.	33	4	17
24	" "	15	40	9	1.	8	2	20
25	Jun. 28-July 16	15	200	400	.1	33	43	176
26	" "	15	370	22	.1	52	8	262
27	" "	15	1000	360	.1	86	31	94
28	" "	15	300	80	.1	109	26	640
29	" "	15	300	34	.1	105	21	520
30	" "	15	240	150	.1	62	17	364
31	" "	15	80	50	.1	35	11	174
32	" "	15	100	75	1.	29	1	53
33	" "	15	200	12	.1	45	5	132
34	" "	15	600	18	1.	108	7	56
35	" "	15	350	60	.1	85	17	340
36	" "	15	110	100	.1	53	17	253
37	" "	15	120	29	.1	90	12	287
38	" "	15	260	28	.1	84	11	204
39	" "	15	120	36	.1	59	11	153
40	" "	15	200	28	.1	102	11	144
69	" "	15	150	66	.1	67	22	193
70	" "	15	140	130	.1	50	21	324
71	" "	15	86	54	.1	30	8	246

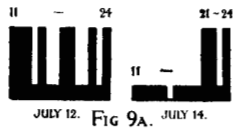


Fig 9A.

of which is probably due to the concentration of shipping at this point. The use of water from such a source is extremely dangerous. Unfortunately, the water supply of Sault Ste. Marie, Ont., is taken from the river just below these points. Acute outbreaks of typhoid must always be expected from the use of such seriously polluted water. (Fig. 10.) The typhoid rates of this town have been excessively high for many years. See appendix for Typhoid rates.

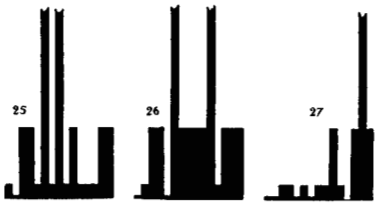


Fig 10.

Samples taken from cross-sections below the towns showed gross pollution continuously. The pollution was found to extend, practically undiminished, to Neebish Island. This whole section of the river

Fig 11.

is a very unsafe place from which to replenish the water tanks of vessels. The pollution is general throughout the river in both channels. The fact that pollution was found to be common to both channels is of importance to summer residents who frequently use water from this polluted river.

A series of running samples through Detour Passage to Mackinac Island showed colon in practically every sample (50 c.c.). This pollution is probably due to navigation, the samples being taken in the line of boat traffic.

Figure 9A.—St. Marys River. Contrasting results on July 12th with those of July 14th. Sampling points from 11 to 24. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

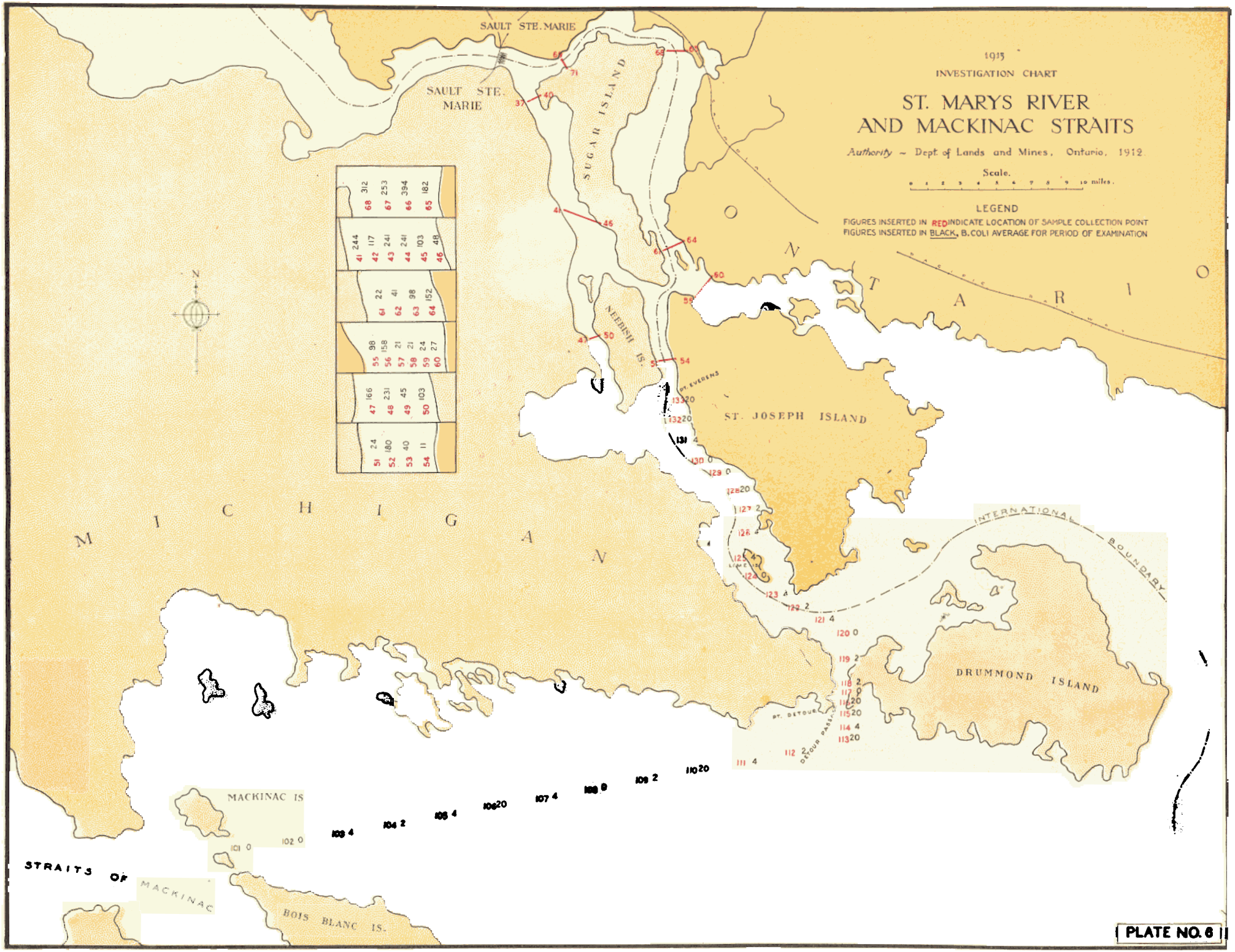
Figure 10.—St. Marys River above Waterworks intake of Sault Ste. Marie, Ont. Daily variation in the B. Coli findings. This pollution is almost entirely due to navigation. Sampling points 25, 26, and 27. Maximums with an irregular line at top represent gross pollution in excess of 100 B. Coli per 100 c.c. of water.

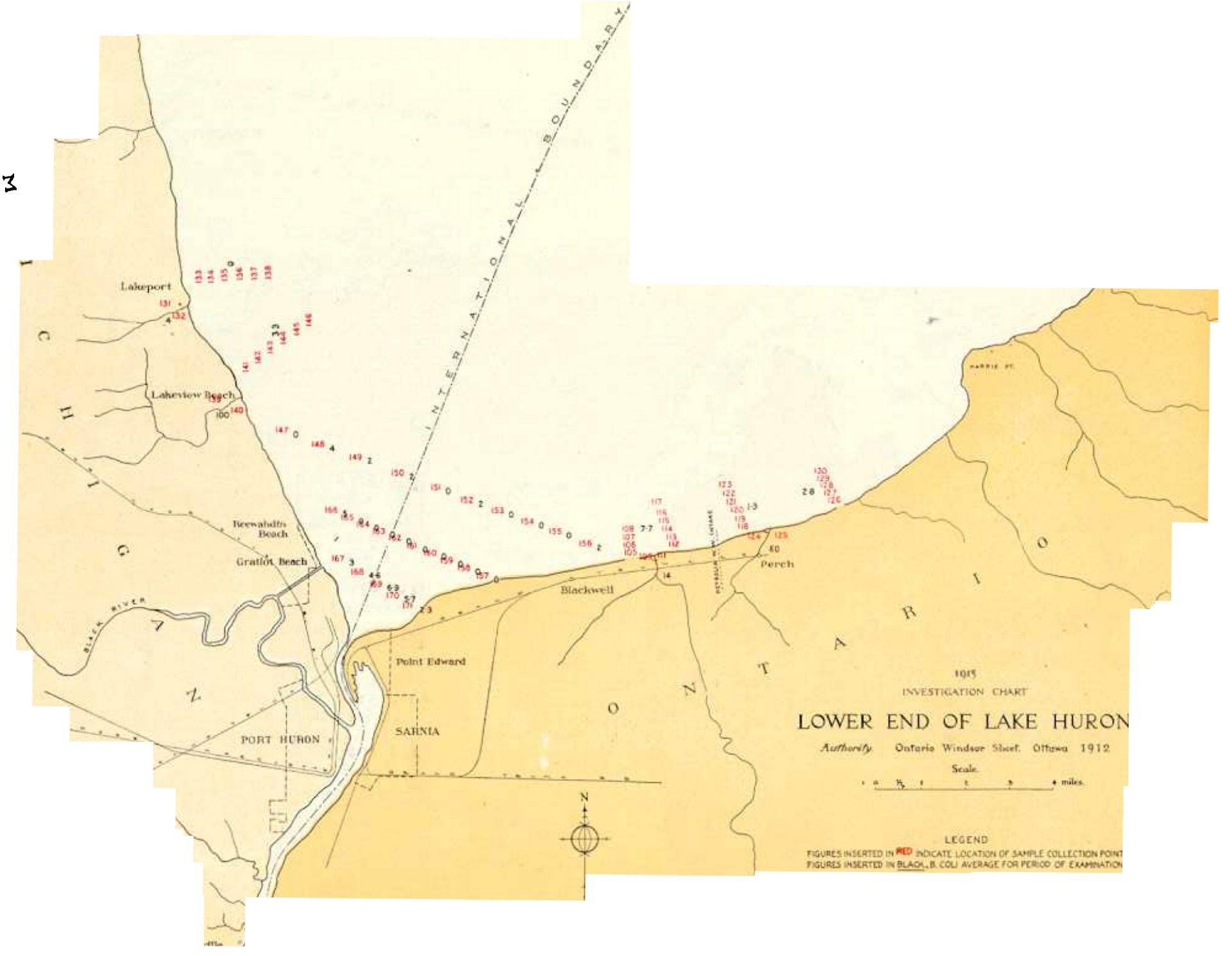
Figure 11.—St. Marys River. Daily variation in B. Coli findings, below cities of Sault Ste. Marie. Sampling points 48, 50, 69, 70, and 71. Maximum pollution greater than 100 B. Coli per 100 c.c. of water.

Table VI.

WATERS OF THE ST. MARYS RIVER—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
41	Jun.28-July 16	15	300	38	.1	53	10	244
42	" "	15	300	150	.1	81	18	117
43	" "	15	200	120	.1	63	16	241
44	" "	15	364	100	.1	93	13	241
45	" "	15	160	28	.1	44	7	103
46	" "	15	120	12	1.	29	5	48
47	" "	15	240	12	.1	36	5	166
48	" "	15	100	36	.1	36	8	231
49	" "	15	52	80	1.	21	15	45
50	" "	15	120	200	.1	30	23	103
51	" "	15	36	100	1.	11	9	24
52	" "	15	70	60	.1	23	8	180
53	" "	15	200	52	1.	38	6	40
54	" "	15	64	32	5.	18	4	11
55	" "	15	150	14	.1	24	3	98
56	" "	15	41	40	.1	14	5	158
57	" "	15	40	50	1.	13	6	21
58	" "	15	360	400	1.	46	31	21
59	" "	15	23	6	1.	10	2	24
60	" "	15	26	120	1.	7	10	27
61	" "	15	36	12	1.	13	3	22
62	" "	15	80	40	1.	16	5	41
63	" "	15	120	21	.1	25	5	97
64	" "	15	200	10	.1	24	4	152
65	" "	15	90	40	.1	29	8	182
66	" "	15	125	23	.1	40	9	394
67	" "	15	110	21	.1	41	8	254
68	" "	15	104	200	.1	41	30	312
101–133	July 17	33	62	8	5.	7	0	6.9


1913
INVESTIGATION CHART
ST. MARYS RIVER
AND MACKINAC STRAITS
Authority ~ Dept of Lands and Mines, Ontario, 1912.
Scale.
0 1 2 3 4 5 6 7 8 9 10 miles.
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B.COLI AVERAGE FOR PERIOD OF EXAMINATION
SAULT STE. MARIE
SAULT STE. MARIE
SUGAR ISLAND
NEEBISH IS.
ST. JOSEPH ISLAND
DRUMMOND ISLAND
INTERNATIONAL BOUNDARY
MACKINAC IS
STRAITS OF MACKINAC
BOIS BLANC IS.
MICHIGAN
ONTARIO
PLATE NO. 6


INTERNATIONAL BOUNDARY
Lakeport
Lakeview Beach
Beewahdin Beach
Gratiot Beach
Point Edward
SAHNIA
PORT HURON
Blackwell
Perch
1915
INVESTIGATION CHART
LOWER END OF LAKE HURON
Authority Ontario Windsor Sheet Ottawa 1912
Scale
miles
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK B. COLI AVERAGE FOR PERIOD OF EXAMINATION

REPORT OF INVESTIGATION RE POLLUTION OF THE LOWER END OF LAKE HURON. LABORATORY HEADQUARTERS AT PORT HURON, MICH., AND SARNIA, ONT. FIELD EXAMINATIONS COVERED THE PERIOD JULY 3rd—AUGUST 25th, 1913.

The examination of samples in the lower end of Lake Huron showed that this water would be practically pure were it not for the pollution due to boat traffic. That portion within a radius of three miles from Point Edward Light (this portion of the Lake is shown on plate 8) showed a slight though definite pollution. The sample points near the shore on both Canadian and United States sides (plate 8) gave an average of 15 B. Coli per 100 c.c. The slight general pollution found within this portion of Lake Huron, while due in part to the large summer population and seasonal effect of streams, must be accounted for chiefly by the enormous boat traffic through the middle of this area.

Table VII.

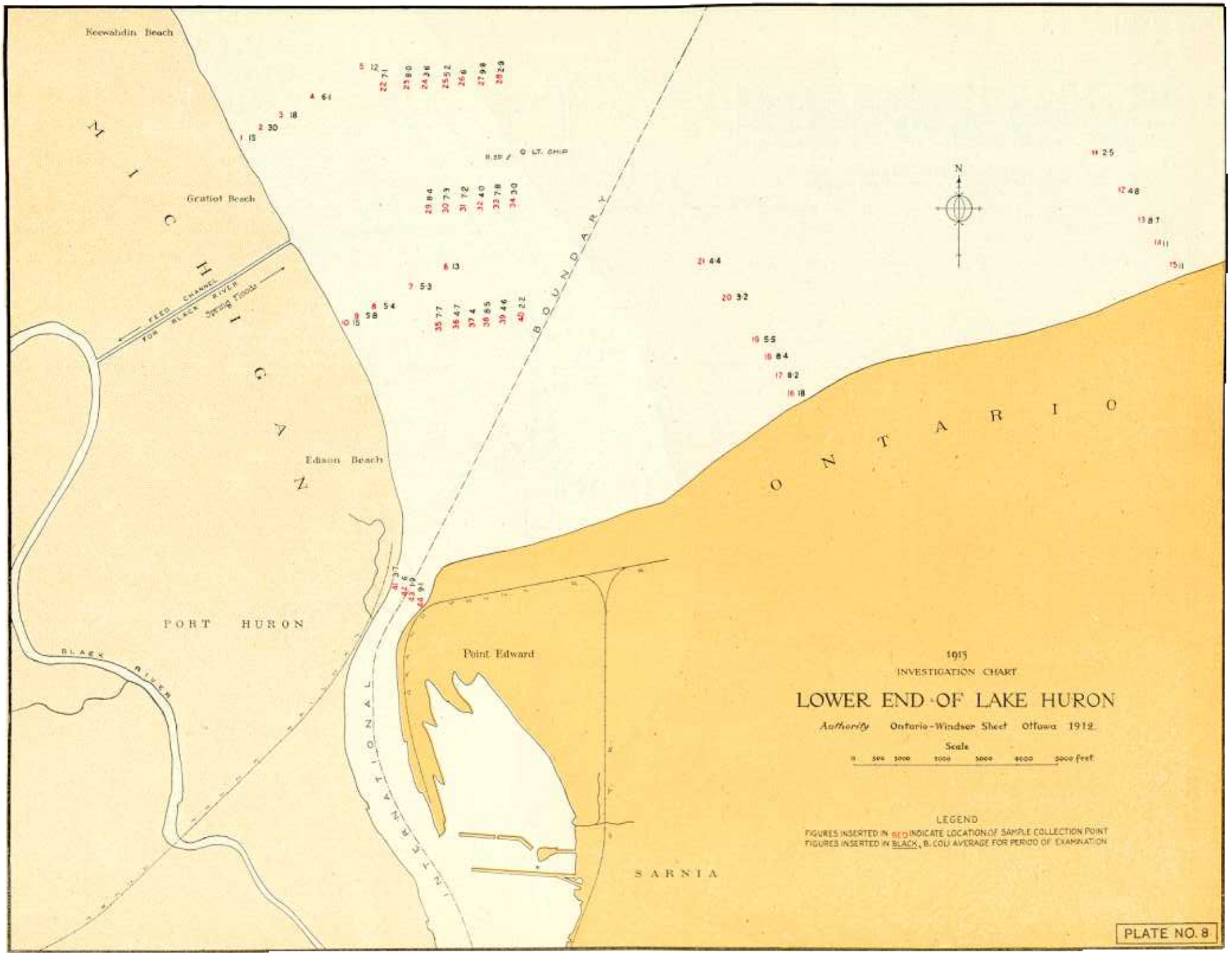
WATERS OF THE LOWER END OF LAKE HURON

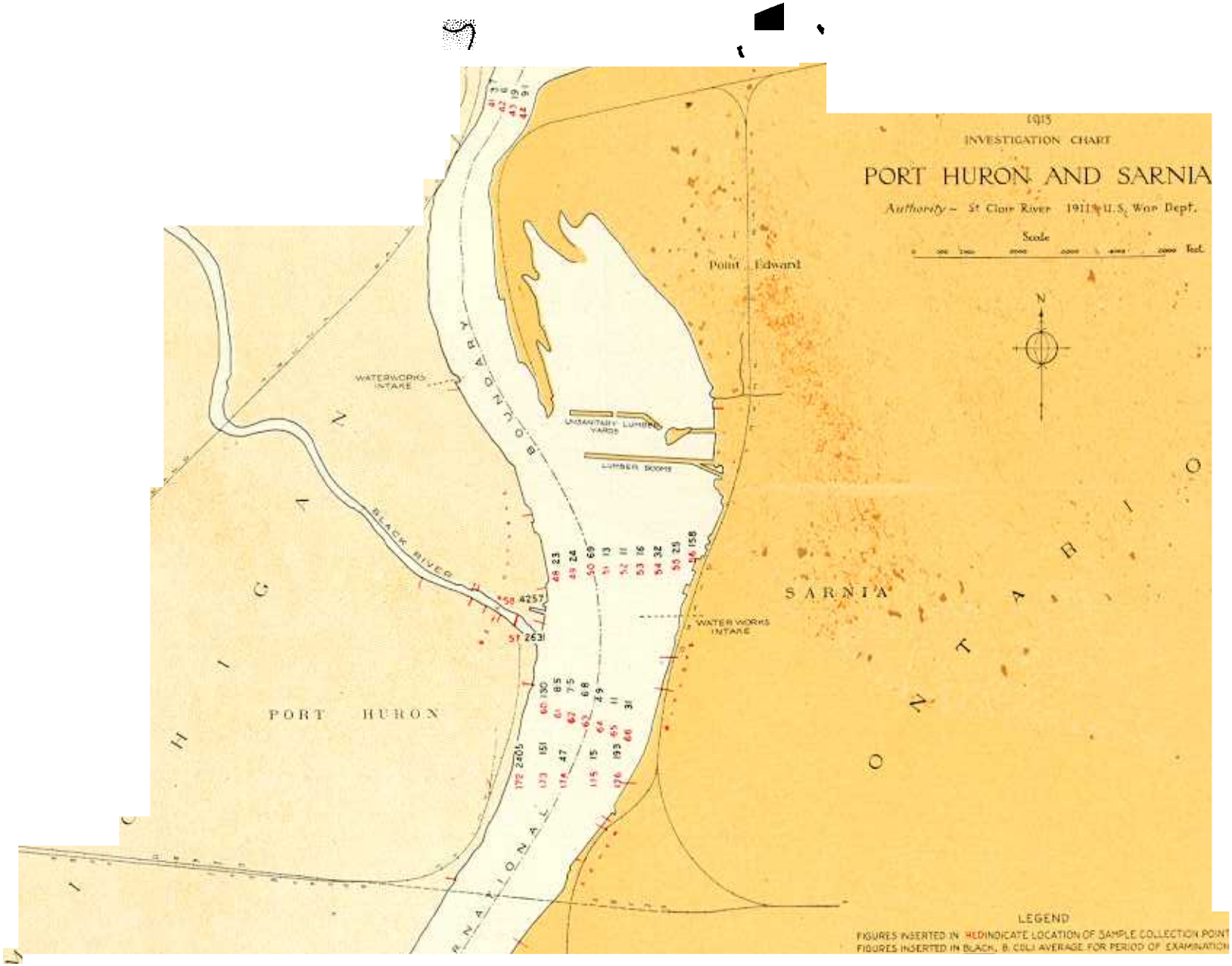
Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
			Bacterial Counts per CC. on Agar		B. Coli. Smallest No. of CC. used showing reaction.	Bacterial Counts per CC. on Agar.		B. Coli per 100 CC. by Phelps Method.
			18°–22°C.	37°C.		18° 22°C.	37°C.	
105–117	Aug. 18	10	200	160	5.	74	29	7.7
118–123	" 18.....	6	58	25	25.	31	8	1.3
124-125	" 18.....	2	160	142	1.	155	104	60
109–111	" 18.....	3	80	45	5.	52	34	14
126–130	" 18.....	5	18	6	25.	9	3	2.8
131–132	" 25.....	2	39	17	25.	30	14	4.0
133-138	" 25.....	6	9	4	00.	5	2	0.0
139–140	" 25.....	2	140	31	1.	125	28	100
141-146	" 25.....	6	12	6	5.	6	3	3.3
147	Aug. 8-13	5	..	31	0.	..	9	0
148	"	5	..	12	10.	..	6	4
149	"	5	..	8	10.	..	3	2
150	"	5	..	12	10.	..	4	2
151	"	5	..	8	0	..	3	0
152	"	5	..	42	10.	..	11	2
153	"	5	..	65	0.	..	15	0
154	"	5	..	14	0.	..	5	0
155	"	5	..	14	0.	..	3	0
156	"	5	..	20	10.	..	6	2
157	"	4	..	16	0.	..	7	0
158	"	4	..	2	0.	..	1	0
159	"	4	..	2	0.	..	1	0
160	"	4	..	3	0.	..	1	0
161	"	4	..	5	0.	..	3	0
162	"	4	..	3	0.	..	1	0
163	"	4	..	9	0.	..	4	0
164	"	4	..	3	0.	..	2	0
165	"	4	..	2	0.	..	1	0
166	"	4	..	4	10.	..	2	5
167	July 3—Aug. 7	26	..	6400	10.	..	255	3.0
168	" "	26	..	1800	10.	..	78	4.6
169	" "	26	..	450	1.	..	23	6.9
170	" "	26	..	..	1.	..	..	5.7
171	" "	26	..	400	10.	..	19	2.3

Table VIII.

WATERS OF LOWER END OF LAKE HURON—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
1	Jul. 29-Aug. 14	15	420	50	1.	129	12	15
2	" "	15	500	34	1.	64	10	30
3	" "	15	150	19	1.	32	6	18
4	" "	15	53	24	5.	20	8	6.1
5	" "	15	64	33	1.	18	9	12
6	" "	15	84	40	1.	20	7	13
7	" "	15	120	20	5.	30	7	5.3
8	" "	15	90	16	5.	22	6	5.4
9	" "	15	74	14	5.	22	7	5.8
10	" "	15	62	20	1.	22	7	15
11	" "	15	110	22	5.	24	7	2.5
12	" "	14	46	1500	5.	16	118	4.8
13	" "	14	140	47	1.	22	8	8.7
14	" "	14	52	50	1.	18	8	11
15	" "	14	65	20	1.	21	8	11
16	" "	14	43	120	1.	19	17	18
17	" "	14	33	47	5.	15	8	8.2
18	" "	14	220	24	5.	29	8	8.4
19	" "	14	42	22	5.	17	7	5.5
20	" "	14	66	33	5.	16	8	3.2
21	" "	14	33	17	5.	19	5	4.4
22	Jul. 29-Aug. 22	20	29	43	1.	10	10	7.1
23	" "	20	42	60	1.	12	8	8.0
24	" "	20	33	45	5.	12	8	3.6
25	" "	20	26	15	5.	11	5	5.2
26	" "	20	84	12	5.	18	5	6
27	" "	20	250	14	1.	26	6	9.8
28	" "	21	47	68	5.	14	9	2.9
29	" "	21	53	35	1.	12	6	8.4
30	" "	21	420	13	5.	30	5	7.3
31	" "	20	26	22	1.	8	6	7.2
32	" "	20	33	23	5.	12	5	4.0
33	" "	21	250	100	1.	26	12	7·8
34	" "	21	56	31	5.	12	5	3.0
35	" "	21	260	15	1.	24	6	7.7
36	" "	21	39	26	5.	11	6	4.7
37	" "	21	74	15	5.	15	5	4
38	" "	21	86	25	1.	16	8	8.5
39	" "	21	400	30	5.	38	9	4.6
40	" "	21	62	36	5.	14	6	2.2
41	" "	18	640	20	5.	56	7	3.7
42	" "	18	40	12	5.	16	6	6.0
43	" "	18	69	90	1.	16	16	19
44	" "	18	62	28	1.	13	8	91.


Keewahdin Beach
Gratiot Beach
Edison Beach
PORT HURON
Point Edward
SARNIA
ONTARIO
MICHIGAN
BOUNDARY
INTERNATIONAL
FEED CHANNEL FOR BLACK RIVER
Spring Floods
BLACK RIVER
N
1915
INVESTIGATION CHART
LOWER END OF LAKE HURON
Authority Ontario-Windsor Sheet Ottawa 1912.
Scale
500 1000 2000 3000 4000 5000 feet
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
PLATE NO. 8.



Municipality	Date of Statistics	Area in Acres	Population	Density per Acre	Water Consumption			Sewage		
					Average Pumpage 24 Hours U.S. gals	Source	Treatment	Treatment	No. of Outlets	System
Sarnia .... Ont.	1912	1511	10,048	6.6	3,066,000	St. Clair R.	Disinfection	None	7	Combined
Point Edward "	1911	...	907	...	.....	.....	.....	"	0	None
Port Huron Mich	1913	7680	23,000	3.0	10,000,000	St. Clair R.	"	"	12	Combined

REPORT OF INVESTIGATION RE POLLUTION OF RIVER ST. CLAIR. LABORATORY HEADQUARTERS AT PORT HURON, MICH., SARNIA, ONT., AND DETROIT, MICH. FIELD EXAMINATIONS COVERED THE PERIOD JULY 9th—AUGUST 25th, 1913.

The cross-section at the head of the river showed a slight increase in pollution over the water of the lake, probably due to the concentration of boat traffic.

Fig 12.

The cross-section above the mouth of the Black River showed a continued increase of pollution due to the sewage discharged by Port Huron above this point, and undoubtedly affected by the back currents in Sarnia Bay.

Samples from points 57, 58 and 59 taken from the Black River show an average count of 3,400 B. Coli per 100 c.c.

The two cross-sections taken below the mouth of the Black River showed an enormous increase in pollution in the St. Clair on the United States side. The pollution of the United States side is due to the sewage of Port Huron, while the pollution of the Canadian side is due to the sewage of Sarnia.

The cross-section just below the site of the International Tunnel continues to show marked pollution along both shores, illustrating vertical stratification.

The two cross-sections above Stag Island showed gross pollution extending a little farther towards the centre of the stream, while the two below this island showed that gross pollution extended over the entire width of the river.

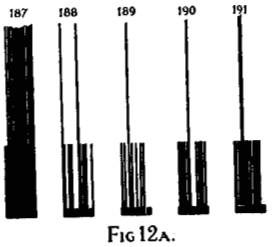


Fig 12A.

The waters of the River St. Clair from its head to Lake St. Clair are unsafe as a source of water supply without careful and unremitting purification.

The several cross-sections from St. Clair to Algonac show gross pollution of the river, more marked on the United States than on the Canadian side, owing to the fact that the discharge of sewage is chiefly from the United States side, the Canadian municipalities below Sarnia not being sewered.

Samples collected along the cross-sections at the branches of the delta where the river discharges into Lake St. Clair showed the main ship channel to be the least polluted, the bulk of the pollution existing on each side having passed through the Chenal Ecarté and North Channel respectively.

Figure 12.—Head of St. Clair River. Showing vessel pollution variation on different days: left figure Aug. 8th, central figure Aug. 11th, right figure Aug. 12th. Sampling points 41, 42, 43, and 44 from left to right. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Figure 12A.—St. Clair River. Daily variation in B. Coli findings. Showing the marked irregularity of gross pollution near mid-stream. The shore samples are continuously polluted. Sampling points 187, 188, 189, 190, and 191. Irregular line at top of maximum indicates gross pollution in excess of 100 B. Coli per 100 c.c. of water.

Table IX.

WATERS OF THE RIVER ST. CLAIR—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°-22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
48	Jul. 29-Aug. 25	17	230	140	1.	51	22	23
49	" "	17	3000	1200	1.	233	88	24
50	" "	17	2000	400	.1	138	37	69
51	" "	17	145	17	1.	20	5	13
52	" "	17	23	33	1.	15	7	11
53	" "	17	52	180	1.	18	18	16
54	" "	17	54	165	1.	26	18	32
55	" "	17	230	105	1.	38	21	25
56	" "	16	260	250	.1	88	43	158
57	" "	16	9500	3000	.01	3718	1477	2631
58	" "	16	15000	3000	.01	4160	1443	4257
60	"Aug. 14	16	3000	2500	.1	764	357	130
61	„ "	16	3000	1500	5.	340	133	8.5
62	" "	16	68	60	5.	18	10	7.5
63	" "	15	24	16	5.	9	5	6.8
64	" "	15	155	25	5.	27	8	4.9
65	" "	16	122	32	1.	24	10	11
66	" "	16	220	150	1.	47	23	31
67	Jul. 28-Aug. 21	16	5000	560	1.	793	120	55
68	" "	16	1000	300	.1	125	32	87
69	" "	16	85	22	5.	19	9	4.1
70	" "	16	45	10	25.	11	4	1.6
71	" "	16	25	35	5.	11	10	2.7
72	" "	16	90	200	1.	21	21	12
172	July 13-Aug. 7	21	..	550	.01	..	115	2405
173	" "	21	..	100	.1	..	17	151
174	" "	21	..	60	1.	..	8	47
175	" "	21	..	17	1.	..	4	15
176	" "	21	..	110	.1	..	26	193

Table X.

WATERS OF THE RIVER ST. CLAIR—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
73	July 28-Aug.21	15	500	200	.1	130	40	86
74	" "	15	500	23	5.	64	7	5.6
75	" "	15	47	12	1.	14	5	9.6
76	" "	15	900	420	1.	75	37	12
77	" "	15	2200	300	1.	388	112	40
78	" "	15	430	220	1.	89	41	25
79	" "	15	42	28	1.	14	9	10
80	" "	15	42	22	1.	16	6	13
81	" "	15	2500	4000	.1	916	530	232
82	" "	15	2000	3800	.1	609	429	163
83	" "	15	92	230	5.	43	47	5.8
84	" "	15	88	160	1.	31	28	18
85	July 28-Aug.16	15	2000	3200	.1	524	522	299
86	" "	15	1400	1500	.1	385	210	177
87	" "	15	220	54	1.	64	12	18
88	" "	15	195	110	1.	49	25	15
89	July 28-Aug. 7	9	66	60	25.	28	17	1.7
90	" "	9	66	38	5.	28	15	6.2
91	" "	9	45	22	5.	17	11	7.1
92	" "	9	42	48	5.	22	14	9.7
93	July 28-Aug.16	15	125	120	1.	40	33	21
94	" "	15	180	320	5.	44	49	9.4
95	" "	15	20000	5200	.1	1631	464	622
96	" "	15	580	500	.1	227	152	384
97	" "	15	11200	6000	.1	898	50	509
98	" "	15	6800	1600	.1	720	243	334
99	" "	8	5000	4000	.1	1041	801	662
100	" "	8	3900	5000	.1	1603	887	775
101	Aug. 8-16 ...	6	360	600	1.	179	198	60
102	" ...	6	3000	43	1.	1143	32	44
103	" ...	6	50	1700	1.	36	320	40
104	" ...	6	165	55	1.	53	31	40
177	July 13-Aug. 7	22	..	400	.01	..	113	1814
178	" "	22	..	60	1.	..	10	15
179	" "	22	..	112	1.	..	16	17
180	" "	22	..	125	.1	..	33	75
181	" "	22	..	240	.01	..	51	1895
182	July 14-Aug. 7	21	..	420	.01	..	137	1502
183	" "	21	..	400	.1	..	39	273
184	" "	21	..	115	1.	..	20	45
185	" "	21	..	170	1.	..	27	29
186	" "	21	..	370	.1	..	41	202
187	" "	21	..	470	.01	..	207	2073
188	" "	21	..	150	.1	..	25	142
189	" "	21	..	120	.1	..	19	82
190	" "	21	..	94	.1	..	17	104
191	" "	21	..	250	.1	..	55	159

WATERS OF THE RIVER ST. CLAIR —Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
306	July 30-Aug.14	15	..	37	.1	..	15	106
307	" "	15	..	97	.1	..	36	183
308	" "	15	..	150	1.	..	53	51
309	" "	15	..	59	.1	..	21	244
310	" "	15	..	1044	.01	..	281	1228
311	" "	15	..	390	.1	..	93	316
312	" "	15	..	521	.1	..	102	508
313	" "	15	..	146	.1	..	41	268
...	July 9-Aug. 8	27	..	1000	1.	..	56	22

Port Huron tap.

WATERS OF THE RIVER ST. CLAIR—Continued

Sampling Point No.		DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18°–22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
177	Surf.	July 14-16....	3	..	150	1.	..	59	100
177	Deep	"	3	..	43	.1	..	23	370
179	Surf.	July 15-17....	3	..	82	1.	..	38	36
179	Deep	"	3	..	32	10.	..	12	6.6
181	Surf.	July 14-16....	3	..	200	.1	..	126	1000
181	Deep	"	3	..	24	.1	..	19	340
184	Surf.	"	3	..	115	10.	..	69	10
184	Deep	"	3	..	32	10.	..	14	6.6
186	Surf.	"	3	..	370	1.	..	163	40
186	Deep	"	3	..	55	.1	..	32	700
187	Surf.	"	3	..	420	.1	..	161	300
187	Deep	"	3	..	44	.1	..	23	400
189	Surf.	"	3	..	33	1.	..	27	40
189	Deep	"	3	..	29	0.	..	17	0
191	Surf.	"	3	..	137	1.	..	55	70
191	Deep	"	3	..	19	1.	..	9	70

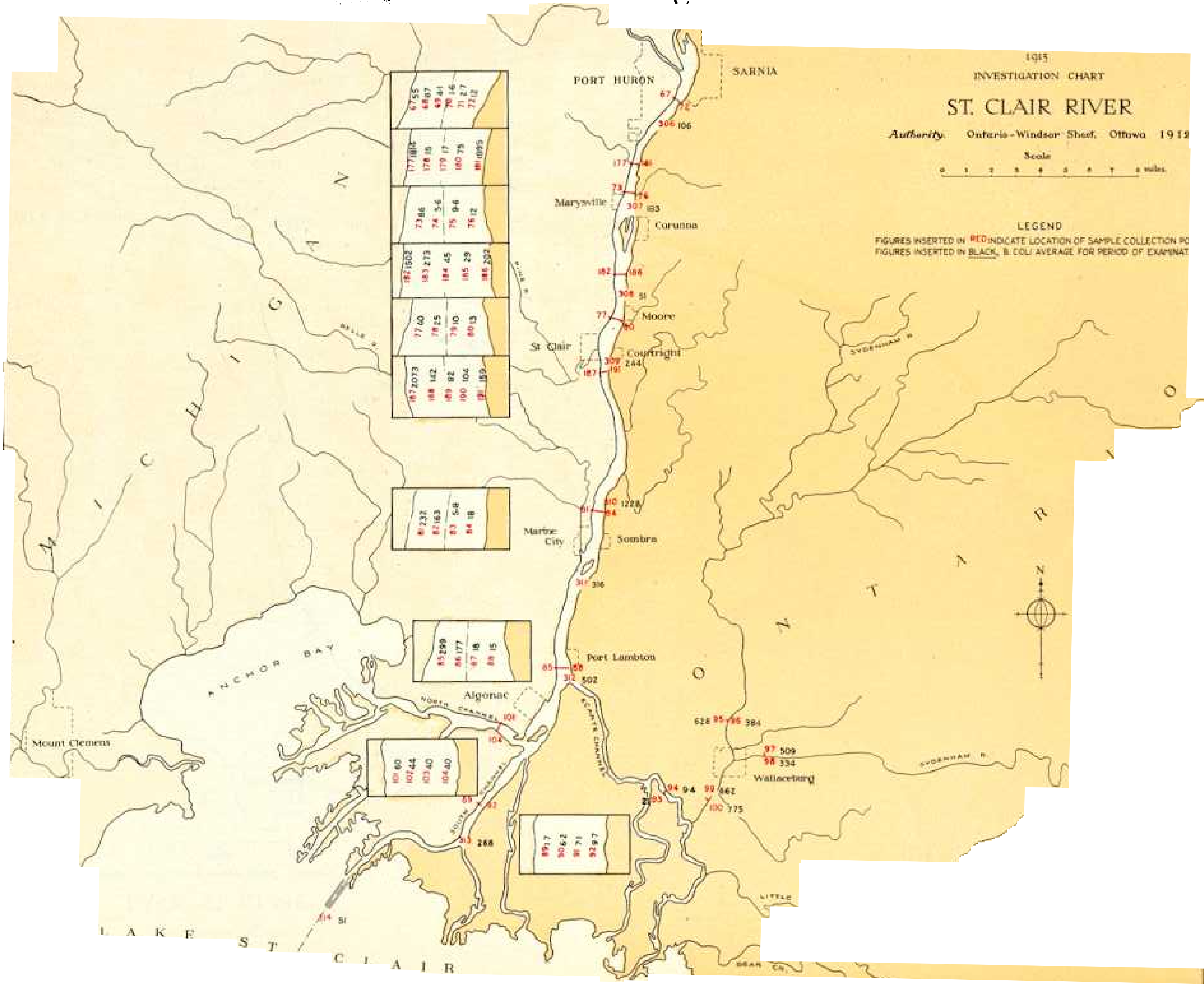
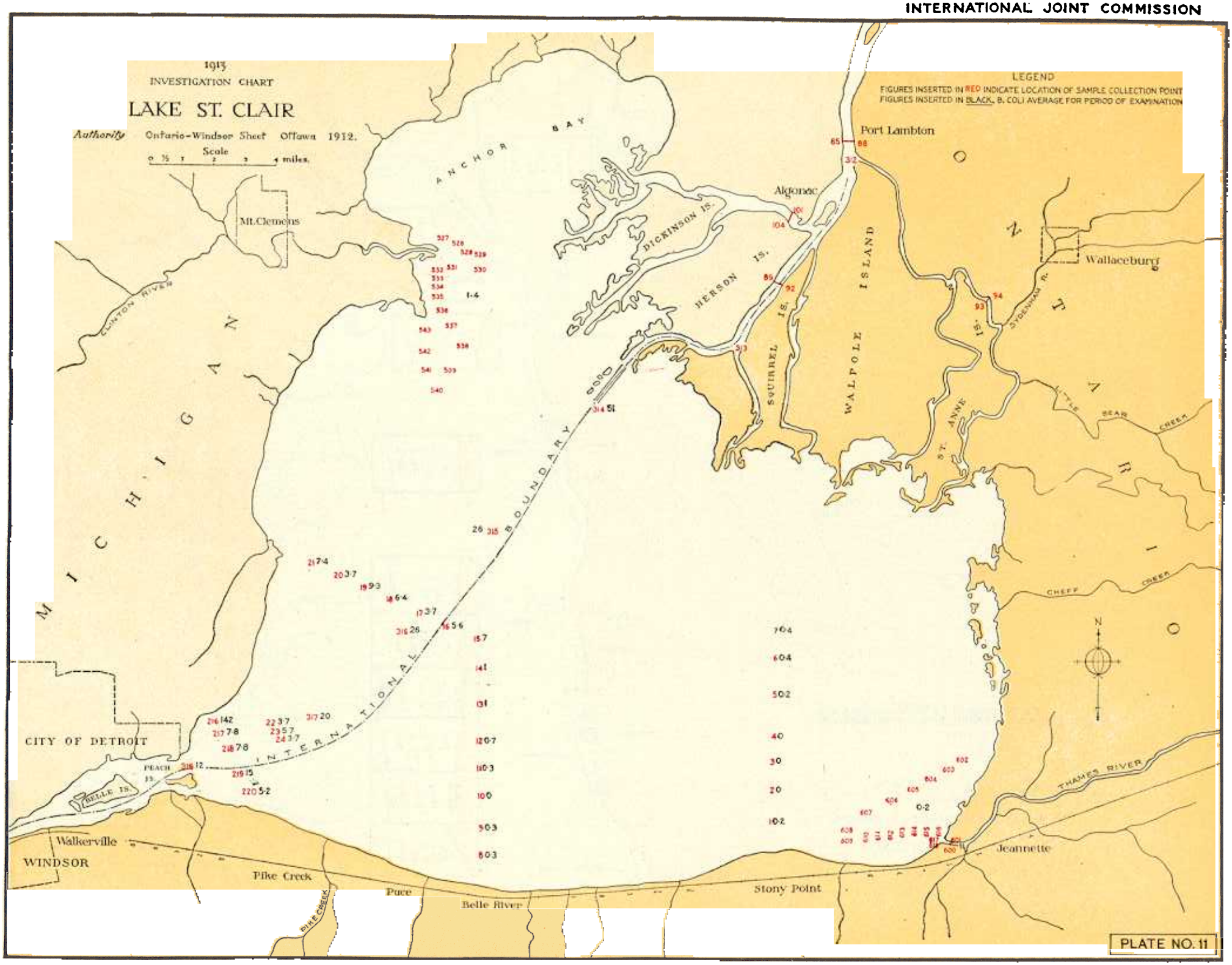

1913
INVESTIGATION CHART
ST. CLAIR RIVER
Authority. Ontario-Windsor Sheet, Ottawa 1912
Scale
miles
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION PO
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINAT
PORT HURON
SARNIA
Marysville
Corunna
Moore
St Clair
Courtright
Marine City
Sombra
Port Lambton
Algonac
Wallaceburg
Mount Clemens
ANCHOR BAY
NORTH CHANNEL
SOUTH CHANNEL
SNICARTE CHANNEL
SYDENHAM R.
PINE R.
BELLE R.
MICHIGAN
ONTARIO
LAKE ST. CLAIR
N

PLATE NO. 10


1913
INVESTIGATION CHART
LAKE ST. CLAIR
Authority Ontario-Windsor Sheet Ottawa 1912.
Scale
0 ½ 1 2 3 4 miles.
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
ANCHOR BAY
Mt. Clemens
CLINTON RIVER
DICKINSON IS.
HERSON IS.
Algonac
Port Lambton
SQUIRREL IS.
WALPOLE ISLAND
ST. ANNE IS.
Wallaceburg
SYDENHAM R.
LITTLE BEAR CREEK
CHEFF CREEK
THAMES RIVER
INTERNATIONAL BOUNDARY
CITY OF DETROIT
PEACH IS.
BELLE IS.
Walkerville
WINDSOR
Pike Creek
PIKE CREEK
Puce
Belle River
Stony Point
Jeannette
PLATE NO. 11

REPORT OF INVESTIGATION RE POLLUTION OF LAKE ST. CLAIR. LABORATORY HEADQUARTERS AT DETROIT, MICH., AND WINDSOR, ONT. FIELD EXAMINATIONS COVERED THE PERIOD MAY 23rd—OCTOBER 6th, 1913.

The bulk of the eastern portion of Lake St. Clair was shown to be comparatively pure.

Samples taken from the lake near the points where the Thames and Clinton Rivers discharge indicate that these rivers do not affect the general character of the lake water beyond a very short distance from their mouths. The examinations were made in July and August, and it is quite probable that when these streams are in flood, for instance in April, the pollution would extend farther out into the lake. Excluding the tributary streams, the largest of which (Thames and Clinton) were shown to have no appreciable effect at this season, there exists the pollution from the St. Clair River and the sewage discharged from vessels.

It will be remembered that cross-sections at the delta of the St. Clair River showed that the bulk of pollution left the river by the right-hand or North Channel and the Chenal Ecarté. The purer water with a relatively slight pollution entered the lake by the south channel (main ship channel).

The conditions in Anchor Bay and that very shallow portion of the lake north of the St. Clair Flats Canal are favorable for the action of sedimentation and other agencies which thin out and diminish pollution. As the drift from this portion of the lake is south toward the main ship channel, some pollution reduced by the natural agencies just mentioned probably again reaches the main ship channel.

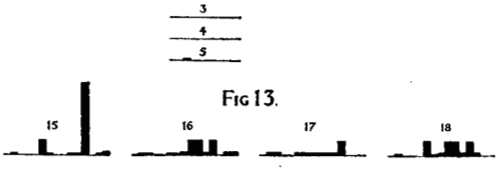


Fig 13.

Samples taken from a cross-section in mid-lake crossing the boundary half-way between the lower entrance of the St. Clair Flats Canal and Peach Island showed an average pollution of about 6 B. Coli per 100 c.c. of water in the vicinity of the ship channel and from this point to the United States shore. The Canadian portion of the lake is south and east of the line of vessel traffic (sample points 3, 4, 5, fig. 13) and, as already stated, showed very little pollution.

The effect of vessel pollution is considerable, and a series of samples taken from a passenger steamer in the direct line of traffic showed the average pollution in the ship channel from the St. Clair Flats to Belle Isle to be about 21 B. Coli per 100 c.c. of water.

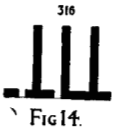


Fig 14.

Figure 13.—Lake St. Clair. Daily variation in B. Coli findings. Sampling points 3, 4, and 5 from eastern portion of lake show almost entire absence of pollution. Sampling points 15, 16, 17, and 18 in the line of vessel traffic show varying pollution. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Figure 14.—Lake St. Clair. Daily variation in B. Coli findings. Sampling point 316 in direct line of vessel traffic. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Table XI.

WATERS OF LAKE ST. CLAIR

Sampling Point No.	DATE. 1913	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
1	Sept. 5-24....	10	8	25	50.	4	7	0.2
2	"	10	11	18	0.	3	7	0.0
3	"	10	6	13	0.	2	7	0.0
4	"	10	11	20	0.	2	8	0.0
5	"	10	9	30	20.	3	9	0.2
6	"	10	4	12	05.	2	6	0.4
7	"	10	6	15	50.	2	5	0.4
8	Sept. 5-30....	16	17	22	5.	3	6	0.3
9	"	16	24	16	25.	4	6	0.3
10	"	16	11	10	20.	3	5	0.0
11	"	16	9	38	20.	3	7	0.3
12	"	16	26	28	5.	4	6	0.7
13	"	16	10	90	5.	2	11	1.0
14	"	15	6	18	5.	2	4	1.0
15	"	15	4	35	1.	1	4	7.0
16	"	15	8	7	5.	2	2	5.6
17	"	15	58	29	5.	6	6	3.7
18	"	15	16	6	5.	3	3	6.4
19	"	15	5	11	1.	1	2	9.3
20	"	15	4	44	5.	1	6	3.7
21	"	15	11	18	1.	2	5	7.4
22	Sept. 9-30....	14	3	8	55.	1	3	3.7
23	"	14	6	14	5.	2	5	5.7
24	"	14	13	85	.	3	8	3.7
520–525	Oct. 6.....	6	12000	600	.1	4700	200	350
526–543	"	18	40	33	25.	6	6	1.4
600–601	Sept. 30.....	2	20	140	5.	10	80	11
602–618	"	17	30	60	25.	4	10	0.2
216	May 23-July 7	23	..	110	.1	..	47	142
217	" "	23	..	25	1.	..	10	7.8
218	" "	23	..	83	1.	..	14	7.8
219	" "	23	..	175	1.	..	25	15
220	" "	23	..	181	10.	..	34	5.2
314	Jul. 30-Aug. 14	15	..	44	1.	..	27	51
315	" "	15	..	100	1.	..	19	26
316	" "	15	..	200	1.	..	26	26
317	" "	15	..	223	1.	..	40	20
318	" "	15	..	80	1.	..	20	12

REPORT OF INVESTIGATION RE POLLUTION OF DETROIT RIVER. LABORATORY HEADQUARTERS AT DETROIT, MICH., WINDSOR, ONT., AND AMHERSTBURG, ONT. FIELD EXAMINATIONS COVERED THE PERIOD MAY 23rd—OCTOBER 14th, 1913.

Samples taken along a cross-section where the Detroit River leaves Lake St. Clair showed about the same degree of pollution as the lake in the centre of the channel, with increased pollution close to the United States shore.

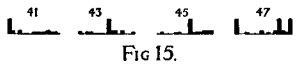


Fig 15.

Samples taken along a cross-section at the head of Belle Isle showed considerable pollution near both shores. This is enormously increased at the next cross-section, especially at the sample points near the United States shore. The results of our analyses of samples taken above the intake for the Detroit city water supply showed this to be an unsafe source of supply without careful treatment. The application of hypochlorite of lime in the quantities or by the method in vogue in Detroit during our investigation does not in our opinion represent adequate treatment.

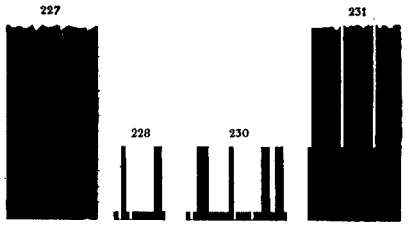


Fig 16.

Samples taken along the several cross-sections from this point to the site of Michigan Central Tunnel showed a marked increase of pollution in the shore samples.

The water intakes of Walkerville and Windsor are both located in dangerous situations, owing to the discharge of sewage above these intakes and to the pollution due to navigation. In spite of the efforts made by these towns to protect their supplies by means of chlorination, the typhoid rates remain too high. At times the pollution is so great that the

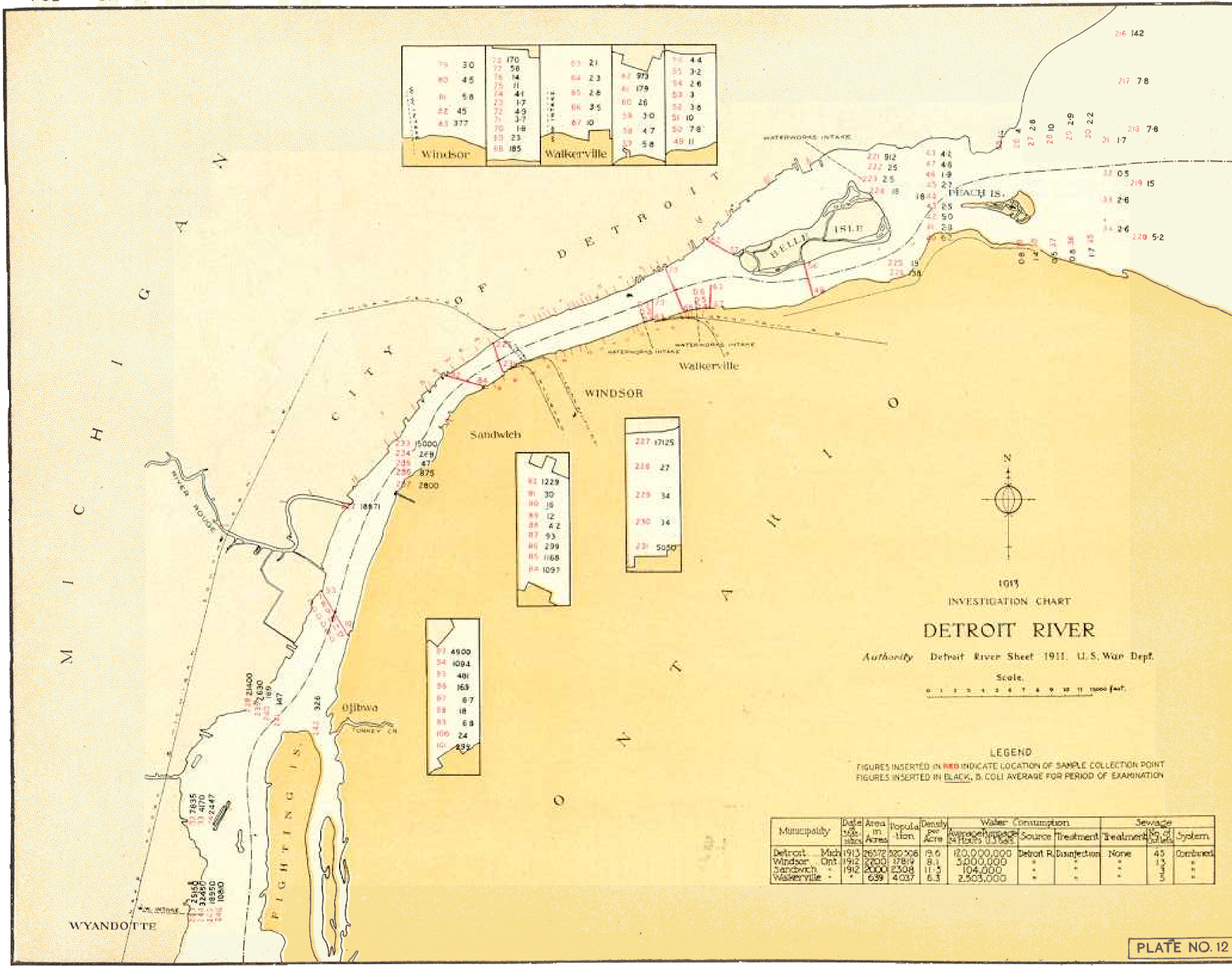
Figure 15.—Head of Detroit River. Daily variation in B. Coli findings. Intermittent pollution probably due to vessel traffic, Sept. 4 to 23, 1913. Sampling points 41, 43, 45, and 47. Maximum pollution shown is 20 B. Coli per 100 c.c. of water.

Figure 16.—Detroit River at M.C.R.R. Tunnel. Daily variation in B. Coli findings, showing enormous constant pollution at shore sampling points 227 and 231 and intermittent pollution at sampling points 228 and 230. Irregular line of maximum indicates gross pollution greatly in excess of 10,000 B. Coli per 100 c.c.

NOTE Averages Table XII continued. D1 to D12 on page 40

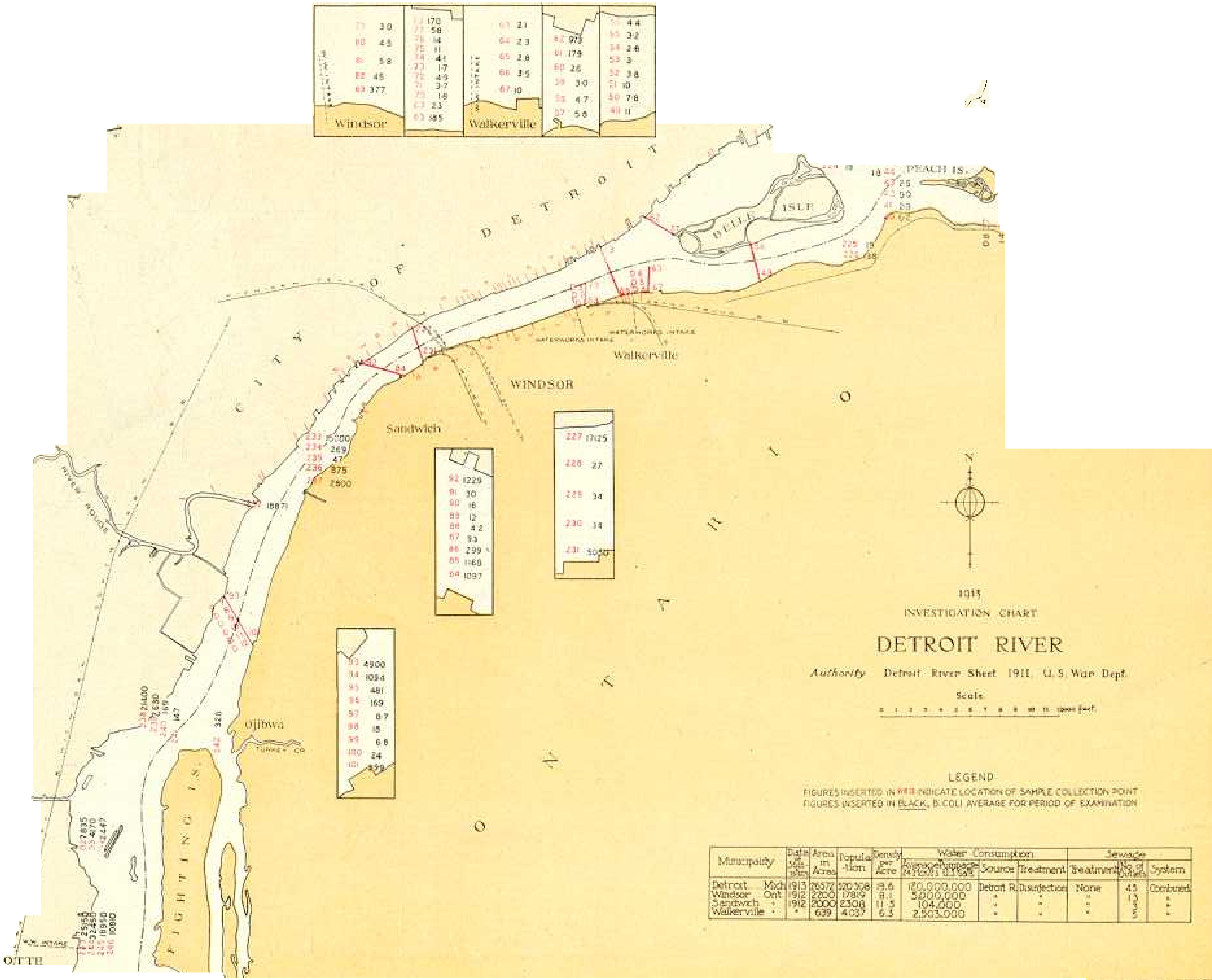
Table XII.
WATERS OF DETROIT RIVER.

Sampling Point No.	DATE. 1913	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
25	Sept. 9-30....	14	180	30	1.	36	9	14
26	"	15	40	12	5.	8	5	4.1
27	"	15	18	28	5.	6	7	2.8
28	Sept. 5-22....	15	22	46	1.	5	10	10
29	"	15	17	12	5.	5	5	2.9
30	"	15	19	17	25.	7	5	2.2
31	"	15	29	24	25.	9	7	1.7
32	"	15	33	24	25.	10	8	0.5
33	"	15	35	42	25.	10	13	2.6
34	"	15	39	42	25.	12	11	2.6
35	"	15	21	45	5.	7	8	1.7
36	"	15	32	34	25.	11	10	0.8
37	"	15	28	34	25.	9	11	0.5
38	"	15	34	27	25.	10	9	1.4
39	"	15	160	26	25.	19	9	0.8
40	Sept. 4-23....	15	21	18	5.	9	8	6.2
41	"	15	28	37	25.	10	9	2.9
42	"	15	38	37	5.	16	13	5.0
43	"	16	65	36	25.	13	10	2.5
44	"	16	33	36	25.	12	8	1.8
45	"	16	65	280	5.	13	22	2.7
46	"	16	46	39	25.	8	7	1.9
47	"	16	70	28	5.	8	6	4.8
48	"	16	23	22	5.	7	6	4.2
49	"	16	16	16	1.	6	6	11
50	"	16	42	27	5.	14	13	7.8
51	"	16	51	25	1.	14	11	10
52	"	16	92	24	25.	17	8	3.8
53	"	16	23	21	5.	9	9	3.0
54	"	15	52	19	5.	11	9	2.6
55	"	15	34	21	5.	9	7	3.2
56	"	15	14	13	5.	5	4	4.4
57	"	15	42	19	5.	9	6	5.8
58	"	16	140	10	5.	16	4	4.7
59	"	15	67	80	5.	18	11	3.0
60	"	16	1300	500	1.	239	76	26
61	"	16	4000	1400	.1	1165	437	179
62	"	16	16000	5600	.01	2602	1376	973
63	Sept. 4-22	15	19	50	25.	7	11	2.1
64	"	16	26	30	25.	9	10	2.3
65	"	16	32	11	25.	10	6	2.8
66	"	16	80	16	5.	14	8	3.5
67	"	16	45	21	1.	15	10	10
68	Sept. 4-20....	15	3000	2010	.1	363	217	185
69	"	15	85	100	1.	31	28	23
70	"	15	55	50	5.	14	11	1.8
71	"	15	41	62	5.	11	10	3.7
72	"	15	27	42	5.	7	7	4.9
73	"	15	15	18	25.	6	6	1.7
74	"	14	20	63	5.	6	9	4.1
75	"	15	460	35	1.	62	10	11
76	"	15	260	480	1.	27	37	14



Municipality	Date of [illegible]	Area in Acres	Population	Density per Acre	Water Consumption			Sewage		
					Average Amount 24 Hours U.S. Gals.	Source	Treatment	Treatment	No. of Outlets	System
Detroit Mich	1913	26572	520,306	19.6	120,000,000	Detroit R.	Disinfection	None	45	Combined
Windsor Ont	1912	2200	17819	8.1	3,000,000	"	"	"	13	"
Sandwich "	1912	2000	2308	11.5	104,000	"	"	"	3	"
Walkerville "	"	639	4037	6.3	2,503,000	"	"	"	5	"

PLATE NO. 12



1913

INVESTIGATION CHART

DETROIT RIVER

Authority Detroit River Sheet 1911. U. S. War Dept.

Scale

LEGEND

FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION

Municipality	Date [illegible]	Area in Acres	Population	Density per Acre	Water Consumption			Sewage		
					Average Pumpage (24 Hours) (U.S. Gals)	Source	Treatment	Treatment	No. of Outlets	System
Detroit Mich.	1913	26572	520,308	19.6	170,000,000	Detroit R.	Disinfection	None	43	Combined
Windsor Ont.	1912	2200	17819	8.1	5,000,000	"	"	"	13	"
Sandwich "	1912	2000	2308	11.5	104,000	"	"	"	[illegible]	"
Walkerville "	"	639	4037	6.3	2,503,000	"	"	"	[illegible]	"

PLATE NO. 12

quantity of chlorine required to overcome it gives objectionable taste to the water.

FIG 16A.

Investigation made of the effectiveness of chlorination in Windsor and Detroit showed that there were frequent breaks in its efficiency. These were probably due to lack of uniformity of the available chlorine content of the hypochlorite used, the tendency to reduce the necessary quantities on account of complaints of taste, and of intermittency in its administration.

Samples taken from a cross-section over the Michigan Central Railroad Tunnel showed gross pollution at sample points near the Canadian and United States shores, and a considerable pollution extending across the entire river. (Fig. 16.)

Samples taken from several cross-sections showed gross pollution throughout the entire river from the Michigan Central Railway Tunnel to Fighting Island.

From Fighting Island to the mouth of the river the water is grossly polluted and totally unfit as a source of water supply. It is our opinion that such raw water would impose an unreasonable responsibility on any known method of purification, even with most careful supervision. Unfortunately, Wyandotte, Trenton and Amherstburg are taking their water supplies from this part of the river.

The distribution and course of pollution are shown by the sketch, No. 1 (page 39). This shows the B. Coli average in figures for several of these cross-sections.

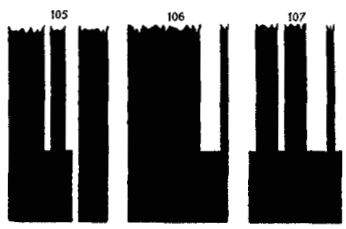


FIG 17

The B. Coli content per 100 c.c. has increased from below 5 in Lake St. Clair water to an average of 315

Figure 16A.—Detroit River cross-section above Fighting Island, sampling points 93 to 101, inclusive. Showing daily variation across this section on Sept. 6, 13, 18, and 27, 1913. Irregular line at top of maximum indicates gross pollution in excess of 100 B. Coli per 100 c.c. of water.

Figure 17.—Detroit River above Waterworks intake of Trenton, Mich. Showing constant gross pollution daily. The average for these three sampling points 105, 106, 107, was over 11,000 B. Coli per 100 c.c. of water.

Table XII.—Cont'd.

WATERS OF THE DETROIT RIVER—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
77	Sept. 4-20....	15	240	420	5.	34	41	5.8
78	"	15	6100	420	.1	998	162	170
79	"	15	39	600	25.	11	45	3.0
80	"	15	21	34	5.	8	7	4.5
81	"	15	48	27	5.	14	9	5.8
82	"	15	440	90	1.	103	27	45
83	"	15	380	180	.1	163	47	377
84	Sept. 4-Oct. 2	15	329	220	.01	178	54	1097
85	" "	15	220	160	.01	71	44	1168
86	" "	15	94	220	.1	33	28	299
87	" "	15	58	24	.1	16	14	93
88	" "	15	120	32	5.	22	10	4.2
89	" "	15	880	55	1.	10	15	12
90	" "	15	1360	280	5.	180	58	16
91	" "	15	2000	3000	1.	254	368	30
92	" "	15	4400	2600	.01	1976	835	1229
93	" "	15	92000	8700	.01	23778	3476	4900
94	" "	15	68000	5200	.01	13284	666	1094
95	" "	15	5100	2400	.1	1157	462	481
96	" "	15	1400	1000	.1	205	170	169
97	" "	15	130	80	5.	35	17	9.7
98	" "	15	80	60	1.	27	12	18
99	" "	15	85	30	5.	19	11	6.8
100	" "	15	75	1200	1.	26	105	24
101	" "	15	130	170	.1	51	33	299
102	Sept. 10-25...	13	26000	20000	.01	10124	6574	7853
103	" ..	13	25000	18200	.01	8333	4320	4170
104	" ..	13	3000	5000	.01	1116	1120	2447
221	May 23-July 7	23	..	1700	.01	..	293	912
222	" "	23	..	37	1	..	13	25
223	June 4-25....	12	..	41	10	..	16	2.5
224	May 23-July 7	23	..	135	1	..	18	18
225	" "	23	..	81	1	..	16	19
226	" "	23	..	538	.1	..	95	138
227	" "	25	..	17200	.001	..	21160	17125
228	June 18-July 7	14	..	72	1	..	36	27
229	May 23-July 7	25	..	555	1	..	43	34
230	" "	25	..	187	1	..	33	34
231	" "	25	..	1160	.01	..	472	5050
232	June 2-9	7	..	15400	.001	..	7337	18871
233	May 23-July 7	27	..	17500	.001	..	4744	15000
234	June 15-July 7	18	..	3400	.1	..	417	269
235	May 23-July 7	28	..	138	1.	..	28	47
236	June 18-July 7	18	..	5140	.01	..	497	875
237	May 23-July 7	31	..	4280	.01	..	630	2800
238	May 23-Jul. 16	30	..	35000	.001	..	12622	21400
239	" "	30	..	5000	.1	..	773	630
240	" "	30	..	300	.1	..	53	160
241	" "	30	..	120	.1	..	37	147
242	May 26-Jul. 16	29	..	219	.1	..	73	326
243	June 18-Jul. 31	22	..	213000	.001	..	38104	25150
244	" "	22	..	55000	.001	..	21766	32450
245	" "	22	..	30100	.001	..	13555	18950
246	" "	22	..	23000	.001	..	10319	10810

Table XII.—Continued.

WATERS OF THE DETROIT RIVER—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
264	July 21-31 ..	10	..	35000	.001	..	23804	24400
265	" ..	10	..	46000	.001	..	28678	34300
266	" ..	10	..	43400	.001	..	23911	23500
267	" ..	10	..	180000	.001	..	36035	24310
268	" ..	10	..	14000	.01	..	4215	2620
269	" ..	10	..	2461	.01	..	1548	2620
270	" ..	10	..	1140	.01	..	856	1720
271	" ..	10	..	660	.01	..	292	1630
272	" ..	10	..	160	.1	..	91	361
273	" ..	10	..	280	.1	..	137	460

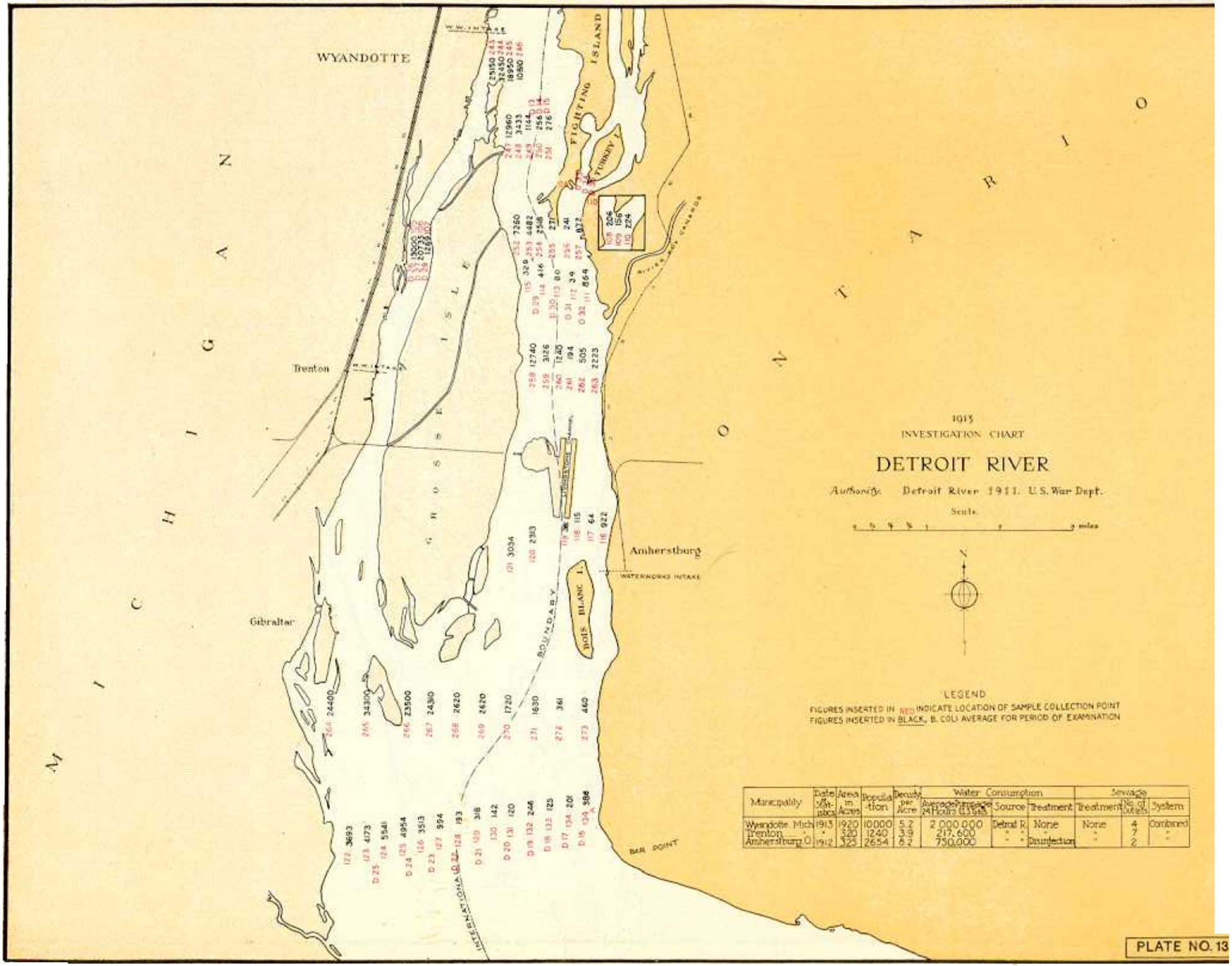
WATERS OF THE DETROIT RIVER—Continued.

Sampling Point No.		DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
228	Surf.	Aug. 18-27 ..	9	..	136	1.	..	76	70
228	12 ft.	"	9	..	240	1.	..	126	70
228	24 ft.	"	9	..	211	1.	..	142	70
234	Surf.	"	9	..	168	1.	..	69	80
234	12 ft.	"	9	..	271	1.	..	119	60
234	24 ft.	"	9	..	238	1.	..	123	70
240	Surf.	"	9	..	876	.1	..	551	690
240	12 ft.	"	9	..	735	.1	..	477	590
240	24 ft.	"	9	..	812	.1	..	522	490
D 25	Surf.	Oct. 6-10	3	10000	400	.1	9500	320	373
D 25	15 ft.	"	3	10000	420	.1	7450	320	700
D 26	Surf	Oct. 7-13	4	6500	760	.1	3820	436	285
D 26	8 ft.	"	3	8600	2200	1.	4725	1125	46
D 26	18 ft.	"	4	9000	1800	1.	6933	866	80
D 27	Surf.	"	4	3200	520	.1	7800	380	322
D 27	20 ft.	"	4	20000	600	1.	7600	350	76
D 27	30 ft	"	4	18000	1400	.1	7362	585	322
D 28	Surf.	"	4	18000	440	1.	6610	223	100
D 28	18 ft.	"	4	20000	520	1.	8140	272	75
D 28	28 ft.	"	2	12000	75	1.	730	67	60
D 29	Surf.	"	4	720	80	5.	235	33	7
D 29	26 ft.	"	4	1100	40	5.	335	24	8
D 29	36 ft.	"	4	480	80	1.	291	31	32

Table XII.—Continued.

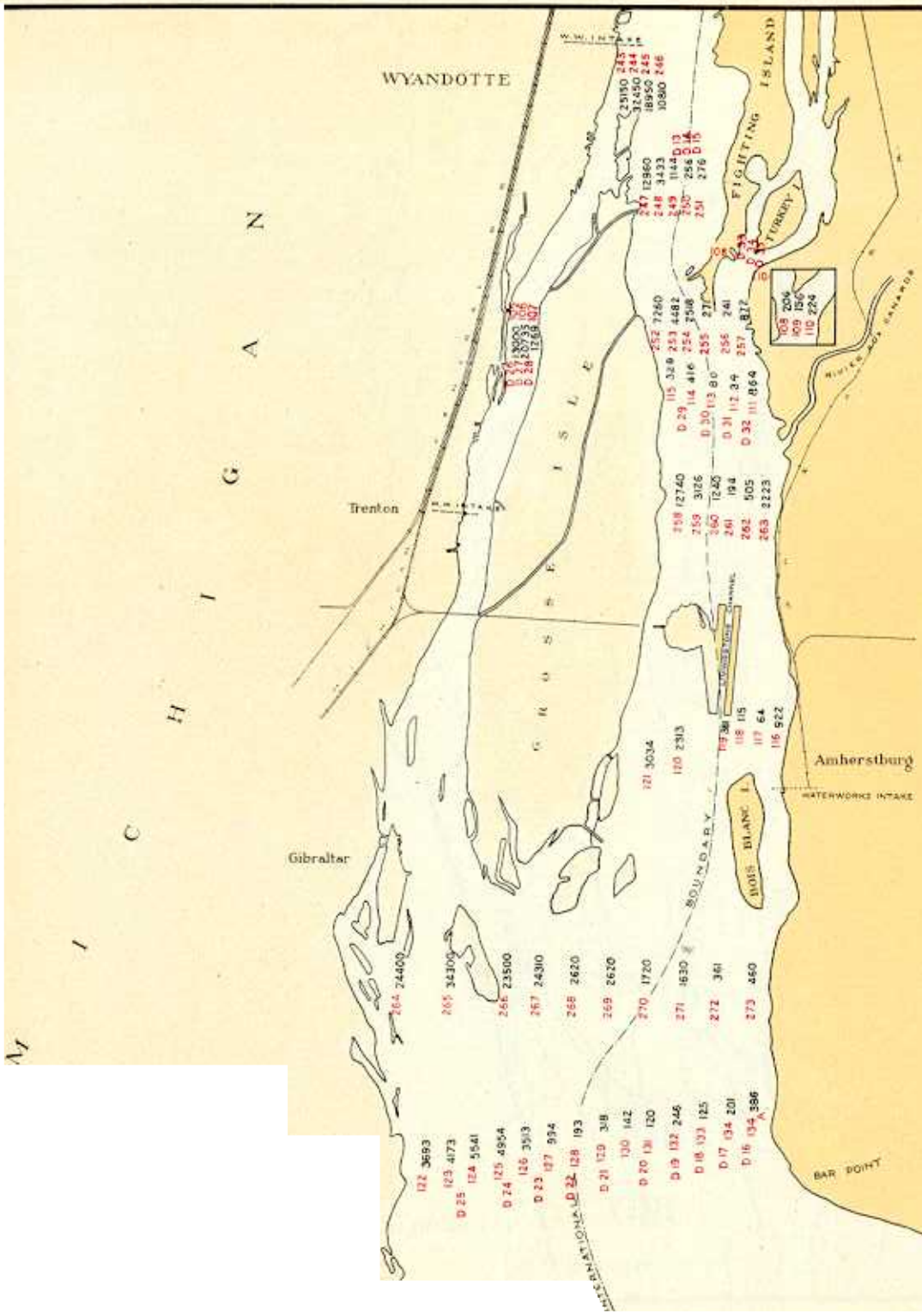
WATERS OF THE DETROIT RIVER—Continued.

Sampling Point No.		DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar. 18° 22'C.	MAXIMUM Bacterial Counts per CC. on Agar. 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
D 30	Surf.	Oct. 7-13	4	72	24	25.	26	14	1.5
D 30	17 ft.	"	4	54	9	25.	20	7	1.5
D 30	27 ft.	"	4	57	11	5.	21	5	7.0
D 31	Surf.	"	4	73	22	5.	26	14	7.5
D 31	27 ft.	"	3	45	17	5.	27	9	8.0
D 31	32 ft.	"	4	65	11	1.	26	8	28
D 32	Surf.	"	4	74	42	1.	46	17	32
D 32	20 ft.	"	4	98	155	1.	72	73	36
D 32	30 ft.	"	3	135	14	1.	70	8	41
D 13	Surf.	Oct. 4-7.....	2	14	8	50.	11.5	8	1
D 13	20 ft.	Oct. 4.....	1	36	10	1.	36	10	60
D 13	30 ft.	"	1	12	15	5.	12	15	68
D 14	Surf.	"	1	11	8	1.	11	8	100
D 14	32 ft.	"	1	14	12	1.	14	12	100
D 14	42 ft.	"	1	9	1	1.	9	1	100
D 15	Surf.	"	1	4	25	25.	4	25	4
D 15	10 ft.	"	1	4	1	25.	4	1	4
D 15	20 ft.	"	1	3	1	25.	3	1	4
D 16	Surf.	Oct. 6-10	4	320	180	5.	139	56	7
D 16	10 ft.	"	4	180	80	.1	100	32	305
D 16	18 ft.	Oct. 8	1	60	4	1.	60	4	100
D 17	Surf.	Oct. 6-10	4	180	140	5.	89	43	7.5
D 17	15 ft.	"	4	160	80	5.	81	25	11
D 17	25 ft.	Oct. 6-9.....	3	60	180	5.	36	71	14
D 18	Surf.	Oct. 10	4	160	30	5.	99	13	11
D 18	15 ft.	"	4	800	30	1.	238	13	36
D 18	25 ft.	"	4	110	110	1.	58	36	40
D 19	Surf.	"	4	140	8	25.	70	3	1.5
D 19	15 ft.	"	4	400	14	5.	184	5	16
D 19	25 ft.	"	4	400	18	1.	189	8	27
D 20	Surf.	Oct. 6-10	4	360	9	25.	183	5	1.5
D 20	20 ft.	"	4	300	40	1.	160	14	56
D 20	30 ft.	"	3	300	50	1.	159	17	36
D 21	Surf.	"	4	480	38	5.	245	12	6.5
D 21	11 ft.	"	4	820	80	1.	522	33	51
D 21	21 ft.	"	3	480	110	1.	296	46	40
D 22	Surf.	"	4	1100	25	1.	433	21	31
D 22	10 ft.	"	4	2000	85	1.	1220	43	32
D 22	20 ft.	"	2	180	30	5.	180	30	20
D 23	Surf.	"	4	3100	120	5.	2033	73	15
D 23	8 ft.	"	3	6900	200	1.	3600	100	46
D 23	18 ft.	"	4	3000	140	5.	1366	70	11
D 24	Surf.	"	4	9000	650	1.	4010	376	32
D 24	16 ft.	"	4	12000	320	1.	640	140	56



Municipality	Date of Statistics	Area in Acres	Population	Density per Acre	Water Consumption			Sewage		
					Average Gallons per 24 Hours	Gallons per Capita	Source	Treatment	Treatment	No. of Outlets	System
Wyandotte, Mich	1913	1920	10000	5.2	2,000,000	200	Detroit R.	None	None	4	Combined
Trenton "	"	320	1240	.39	217,600	175	"	"	"	2	"
Amherstburg, O	1912	325	2654	8.2	750,000	282	"	Disinfection	"	2	"

PLATE NO. 13



1913
INVESTIGATION CHART

DETROIT RIVER

Authority Detroit River 1911, U.S. War Dept.

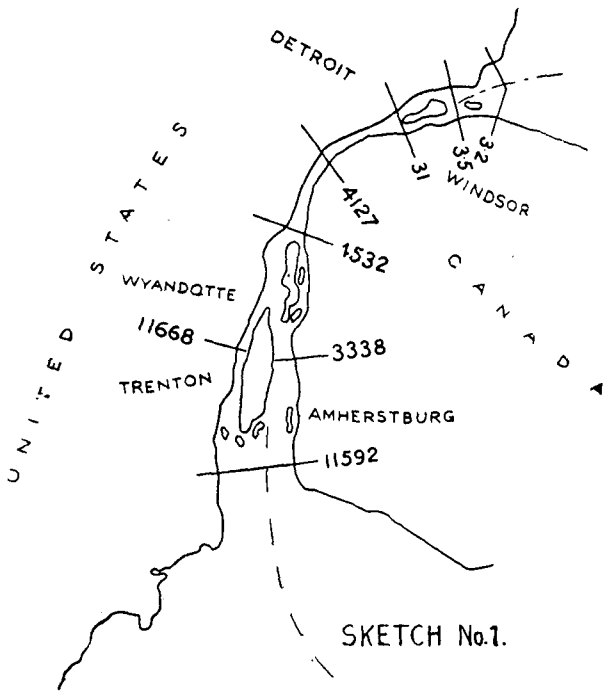
Scale

LEGEND

FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION

Municipality	Date of Statistics	Area in Acres	Population	Density per Acre	Water Consumption			Sewage		
					Average per 24 Hours U.S. Gals.	Source	Treatment	Treatment	No. of Outlets	System
Wyandotte, Mich.	1913	1920	10000	5.2	2,000,000	Detroit R.	None	None	4	Combined
Trenton, "	"	320	1240	3.9	217,600	"	Disinfection	"	7	"
Amherstburg, O.	1912	323	2654	8.2	750,000	"	"	"	2	"

PLATE NO. 13



at the head of Fighting Island. Fighting Island divides the river into two channels. There is a great difference in the degree of pollution in these two channels. In the channel between the United States Shore and Fighting Island the pollution is enormous. The channel east of Fighting Island shows gross pollution, but very much less than that in the United States channel. The extensive pollution of the Lower Detroit River is shown by the averages presented on the above sketch and reach the considerable figure of 11,592 B. Coli per 100 c.c. as is shown.

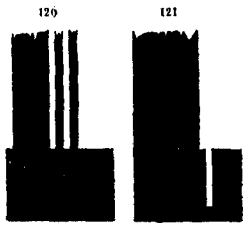


Fig 18

Figure 18.—Detroit River near bathing beaches, lower end of Grosse Isle. Sampling points 120 and 121. Showing that gross pollution is constantly present. An average B. Coli content of 2,675 per 100 c.c. of water was obtained in this neighborhood.

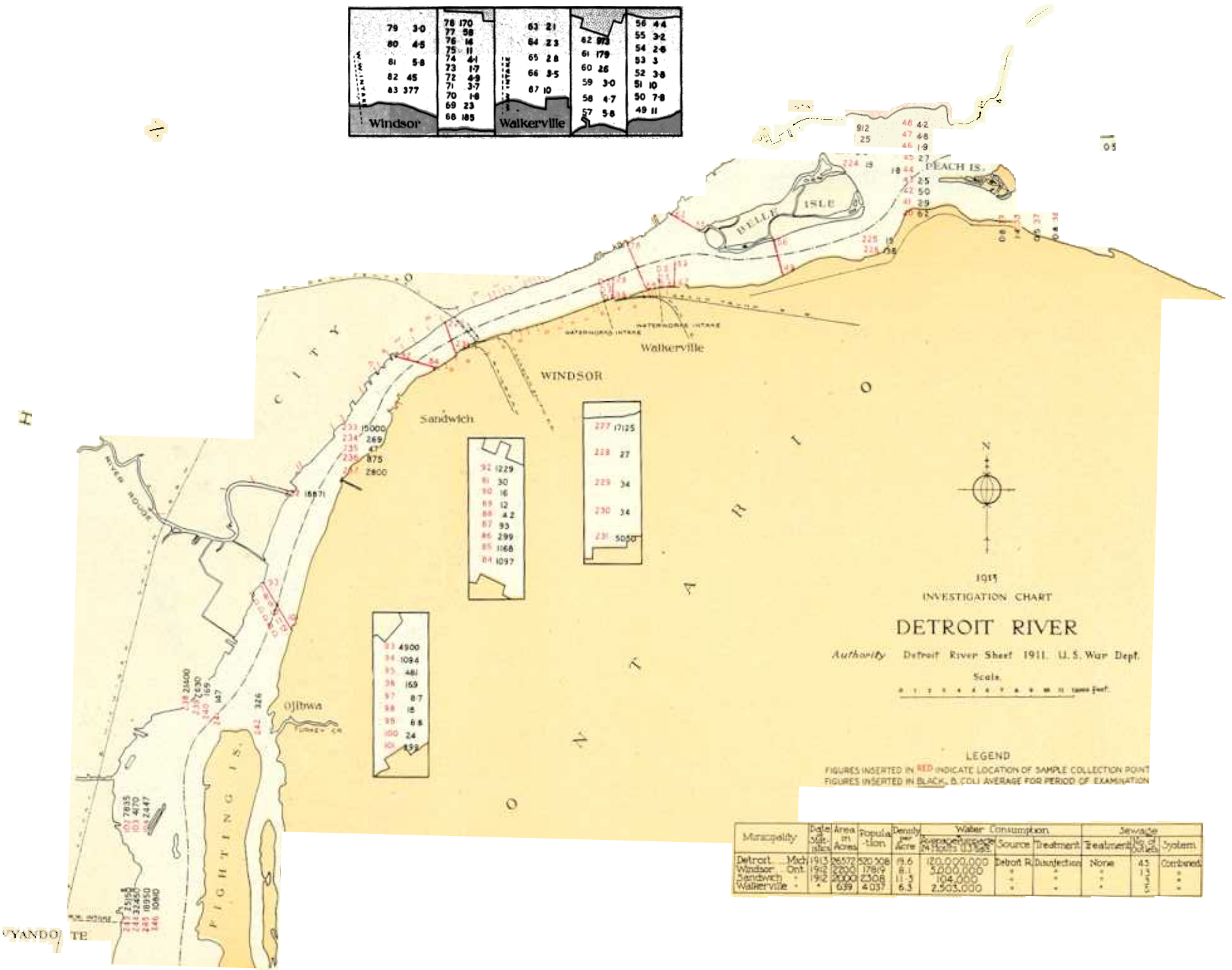
Table XII.—Continued.
WATERS OF THE DETROIT RIVER

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18°–22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
105	Sept. 10-25 ..	13	200000	30000	.001	34340	12660	13000
106	" ..	13	250000	20000	.001	55870	5826	20735
107	" ..	13	30000	15000	.1	10422	6626	1269
108	Sept. 9-25....	13	120	220	.1	61	45	206
109	"	13	140	90	.1	54	43	156
110	"	13	280	190	.1	80	49	224
111	"	15	85	100	.01	54	39	864
112	"	15	40	60	1.	20	15	34
113	"	15	140	70	1.	29	19	80
114	"	15	1440	1000	.1	286	200	416
115	"	15	10000	2000	.1	2042	562	329
116	"	14	800	260	.01	134	83	922
117	"	14	200	110	1.	56	30	64
118	"	14	130	80	.1	46	28	115
119	"	14	1280	450	.1	338	172	381
120	"	15	5760	3520	.01	1282	994	2313
121	"	15	10000	8000	.01	2853	1527	3034
122	Sept. 6-25....	15	120000	90000	.01	29214	12035	3693
123	"	15	160000	40000	.01	36062	12276	4173
124	"	15	50000	14000	.01	14927	5320	5541
125	"	15	30000	20000	.01	7849	3198	4954
126	"	15	30000	6000	.01	5699	1839	3513
127	"	15	30000	1800	.01	4172	414	994
128	"	15	10000	1600	.1	1392	320	193
129	"	15	10000	730	.1	1289	239	318
130	"	15	3120	1060	.1	593	251	142
131	"	15	540	250	.1	167	84	120
132	"	15	6000	544	.1	525	82	246
133	"	15	940	100	.1	158	35	125
134	"	15	1000	180	.1	174	65	201
134a	"	12	1400	180	.1	194	69	386
247	July18-July 31	27	..	112000	.001	..	12106	12960
248	" "	27	..	12000	.01	..	4278	3433
249	" "	25	..	1900	.01	..	406	1144
250	" "	27	..	2350	.1	..	234	256
251	" "	27	..	180	.1	..	61	276
252	May 23-Jun. 31	23	..	20400	.01	..	5974	7260
253	" "	23	..	9200	.01	..	3505	4482
254	" "	23	..	9900	.01	..	1750	2518
255	" "	23	..	570	.1	..	155	271
256	" "	23	..	3110	.1	..	201	241
257	" "	22	..	350	.01	..	137	872
258	July 3-July 31	22	..	4400	.001	..	1662	12740
259	" "	22	..	8600	.01	..	1032	3126
260	" "	22	..	490	.01	..	157	1240
261	" "	22	..	170	.1	..	67	194
262	" "	22	..	410	.1	..	83	505
263	" "	22	..	1100	.01	..	155	2223

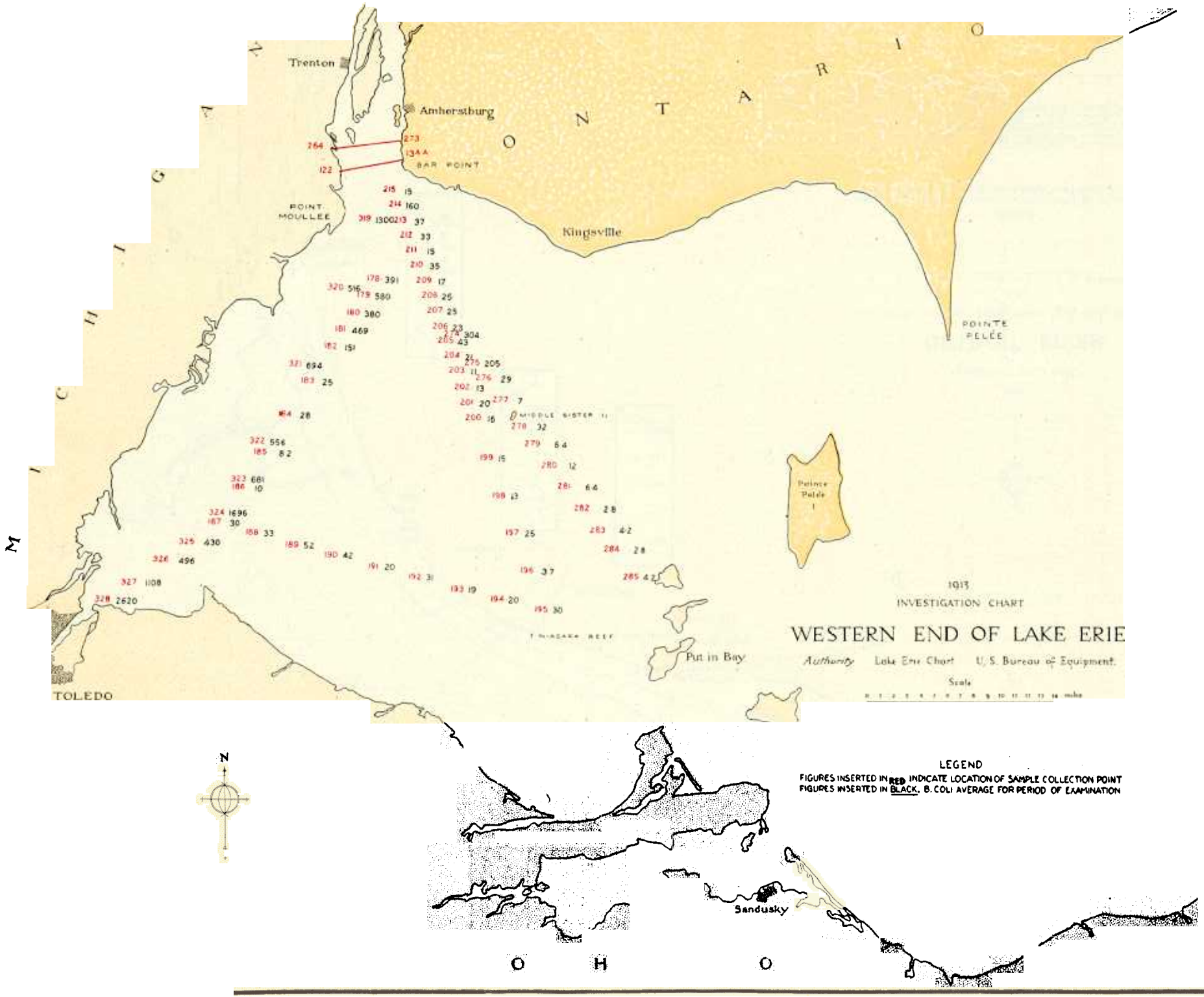
Table XII.—Continued.

WATERS OF THE DETROIT RIVER

Sampling Point No.		DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
				Bacterial Counts per CC. on Agar			Bacterial Counts per CC. on Agar		
				37°C.	18°–22°C.	B. Coli. Smallest No. of CC. used showing reaction.	18° 22°C.	37°C.	B. Coli per 100 CC. by Phelps Method.
D 1	Surf.	Oct. 11-14....	4	1200	240	.1	314	61	305
D 1	20 ft.	"	4	480	90	.1	135	28	755
D 1	30 ft.	"	4	290	11	.1	81	7	265
D 2	Surf.	"	4	34	65	25.	20	18	2.5
D 2	30 ft.	"	4	7	18	5.	4	6	5.5
D 2	40 ft.	"	4	75	5	25.	20	2	1.0
D 3	Surf.	"	4	41	5	50.	17	3	1.0
D 3	32 ft.	"	4	16	23	25.	10	9	2.5
D 3	42 ft.	"	4	15	9	25.	6	4	1.5
D 4	Surf.	"	4	12	16	25.	9	7	1.5
D 4	26 ft.	"	4	28	3	25.	9	2	3.0
D 4	36 ft.	"	4	6	30	25.	4	11	2.5
D 5	Surf.	"	4	12	16	50.	7	7	1.5
D 5	20 ft.	"	4	8	8	50.	3	3	1.0
D 5	30 ft.	"	4	8	7	50.	5	4	0.5
D 6	Surf.	"	4	20	8	0.	11	3	0.0
D 6	20 ft.	"	4	7	8	50.	4	3	0.5
D 6	30 ft.	"	4	34	6	5.	11	3	7.0
D 7	Surf.	Oct. 4-11	4	24000	5000	.1	11740	1606	555
D 7	6 ft.	"	4	36000	1100	.1	18666	420	700
D 7	16 ft.	"	4	80000	4500	.1	30440	1236	640
D 8	Surf.	"	4	1800	260	1.	697	111	26
D 8	30 ft.	"	4	1230	110	.1	642	52	277
D 8	40 ft.	"	4	2000	250	1.	523	65	31
D 9	Surf.	"	4	18	60	25.	12	21	1.0
D 9	26 ft.	"	4	22	50	1.	10	19	25
D 9	36 ft.	"	4	8	40	5.	4	12	7
D 10	Surf.	"	4	320	65	.1	83	20	250
D 10	26 ft.	"	4	145	36	1.	51	12	32
D 10	36 ft.	"	4	325	60	1.	84	17	32
D 11	Surf.	"	4	400	95	1.	150	35	40
D 11	26 ft.	"	4	620	110	1.	203	52	51
D 11	36 ft.	"	4	580	190	1.	158	59	50
D 12	Surf.	"	4	180	120	1.	88	34	32
D 12	20 ft.	"	4	310	140	1.	134	52	50
D 12	30 ft.	"	4	820	120	1.	255	41	57



Municipality		Date	Area in Acres	Population	Density per Acre	Water Consumption			Sewerage		
						Average per Capita Gallons	Source	Treatment	Treatment	No. of Outlets	System
Detroit	Mich	1913	26572	520 308	19.6	120,000,000	Detroit R.	Disinfection	None	43	Combined
Windsor	Ont.	1912	2800	17819	6.1	5,000,000	"	"	"	"	"
Sandwich	"	1912	20000	2308	11.5	104,000	"	"	"	"	"
Walkerville	"	"	639	4037	6.3	2,503,000	"	"	"	"	"


Trenton
Amherstburg
ONTARIO
MICHIGAN
BAR POINT
POINT MOULLEE
Kingsville
POINTE PELÉE
Pelee Island
Put in Bay
TOLEDO
Sandusky
OHIO
1913
INVESTIGATION CHART
WESTERN END OF LAKE ERIE
Authority Lake Erie Chart U.S. Bureau of Equipment.
Scale
N
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION

REPORT OF INVESTIGATION RE POLLUTION OF THE WESTERN END OF LAKE ERIE. LABORATORY HEADQUARTERS AT DETROIT, MICH., AMHERSTBURG, ONT., AND ON BOARD THE REVENUE CUTTER "MORREL." FIELD EXAMINATIONS COVERED THE PERIOD JUNE 11th—OCTOBER 2nd, 1913.

An extensive investigation was made of the area at the mouth of the Detroit River and western end of Lake Erie to Put-In Bay. The results of the examination of a large number of samples taken over this area show the existence of gross pollution, and the water in this part of the lake is unquestionably dangerous to crews and passengers of vessels using water pumped from this region.

In our opinion there is no point from the lower end of Lake Huron to the islands which separate the western end from the remainder of Lake Erie from which a safe supply of water could be taken for any considerable portion of the 365 days in a year.

The limit of the Western End of Lake Erie pollution is probably in the vicinity of the islands which separate this portion from the remainder of the lake.

Table XIII.

WATERS OF THE WESTERN END OF LAKE ERIE

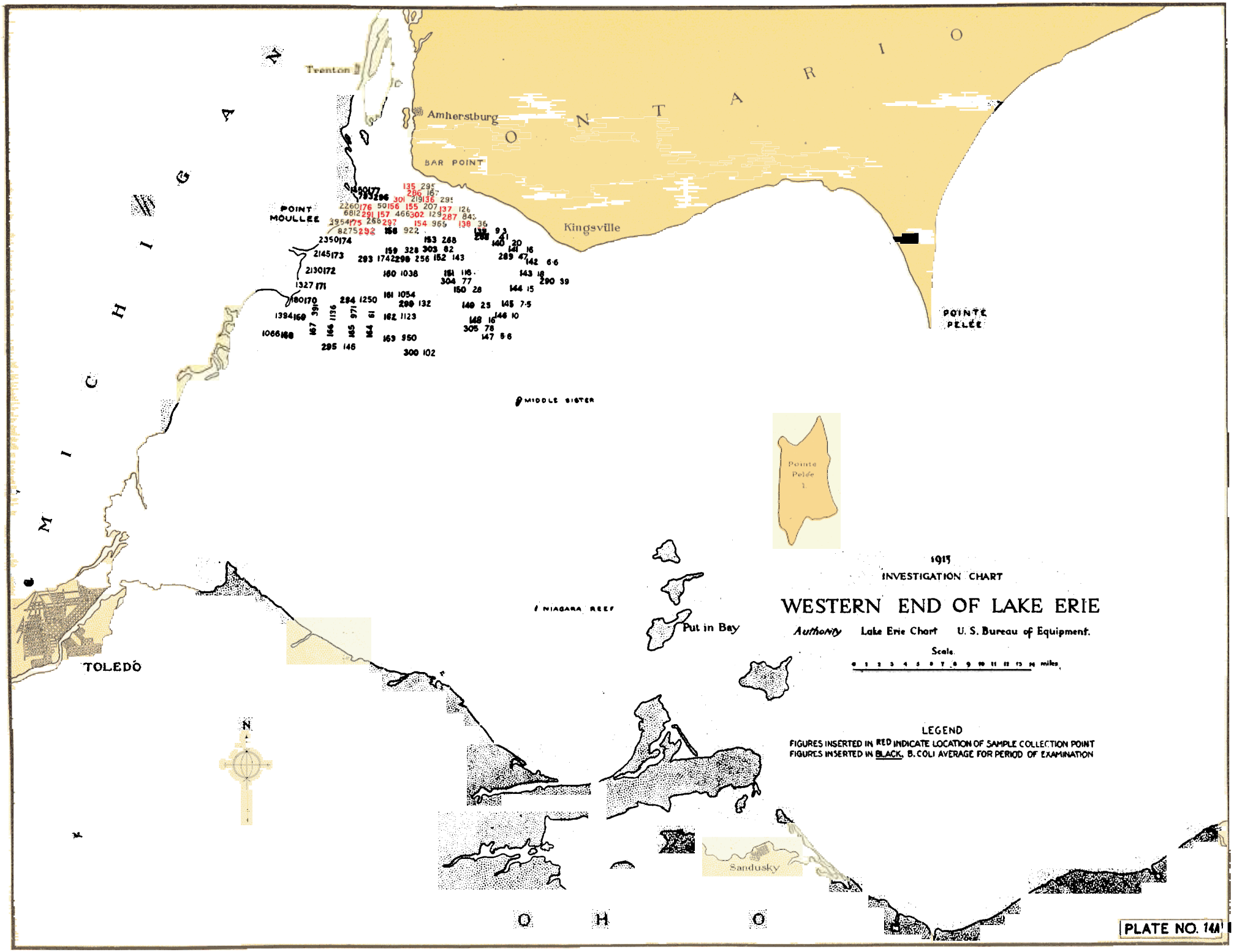
Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18°–22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
178	Sept. 12-Oct. 2	9	10000	3000	.1	3383	742	391
179	" "	9	6000	860	.1	2489	215	588
180	" "	9	5000	320	.1	1138	93	380
181	" "	9	1600	250	.1	714	97	469
182	" "	9	3000	300	.1	747	78	151
183	" "	9	250	26	1.	57	15	25
184	" "	9	30	64	1.	20	28	28
185	" "	9	46	28	5.	26	21	8.2
186	" "	9	34	40	5.	27	21	10
187	" "	9	61	48	1.	35	26	30
188	" "	8	52	60	1.	30	31	33
189	" "	8	47	78	1.	26	32	52
190	" "	8	44	110	1.	25	36	42
191	" "	8	18	14	1.	12	9	20
192	" "	8	19	18	1.	11	11	31
193	" "	8	87	52	1.	21	15	19
194	" "	8	18	16	1.	11	10	20
195	" "	8	60	12	1.	27	10	30
196	" "	8	62	12	5.	13	9	3.7
197	Sept. 12-Oct. 2	8	14	14	1.	64	9	25
198	" "	8	15	102	1.	7	22	13
199	" "	8	18	10	1.	6	5	15
200	" "	8	12	9	1.	4	6	16
201	" "	8	38	8	1.	11	5	20
202	" "	8	94	14	5.	30	8	13
203	" "	8	200	15	5,	56	8	11
204	" "	8	500	56	1.	121	15	21
205	" "	8	1000	38	1.	174	11	43
206	" "	8	22	22	1.	10	8	23
207	" "	8	22	18	1.	11	8	25
208	" "	8	600	200	1.	97	35	25
209	" "	8	120	40	5.	29	11	17
210	" "	8	160	80	1.	33	19	35
211	" "	8	80	60	5.	30	18	15
212	" "	8	64	32	1.	27	16	33
213	" "	8	38	18	1.	20	9	37
214	" "	8	32	14	.1	13	8	160
215	" "	8	44	42	5.	20	14	15
274	Aug. 16-27 ..	11	..	374	.1	..	108	304
275	" ..	11	..	480	.1	..	69	205
276	" ..	14	..	121	1.	..	24	29
277	" ..	14	..	90	10.	..	24	7
278	" ..	14	..	51	1.	..	16	32
279	" ..	14	..	256	10.	..	40	6.4
280	" ..	14	..	167	1.	..	40	12
281	" ..	14	..	100	10.	..	22	6.4
282	" ..	14	..	164	10.	..	28	2.8
283	" ..	14	..	106	10.	..	21	4.2
284	Aug. 1-16	14	..	65	10.	..	14	2.8
285	"	14	..	27	10.	..	9	4.2
319	"	15	..	4800	.01	..	959	1300
320	"	15	..	1001	.1	..	246	513
321	"	15	..	468	.1	..	137	694
322	"	15	..	231	.1	..	64	556
323	"	15	..	340	.1	..	9	681
324	"	15	..	450	.01	..	122	1696
325	"	15	..	138	.1	..	65	430
326	"	15	..	640	.1	..	201	496
327	"	15	..	970	.01	..	243	1108
328	"	15	..	910	.01	..	341	2620

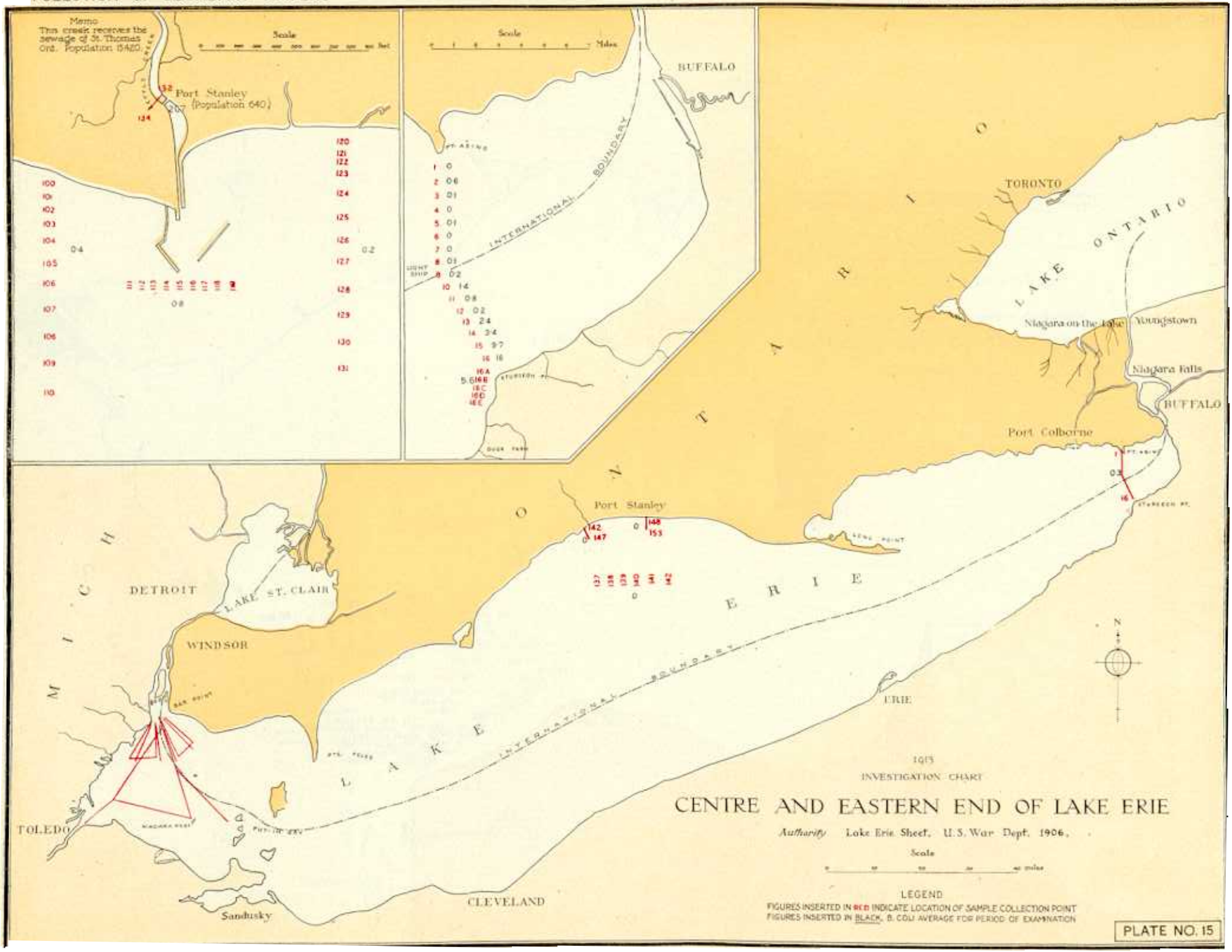
Table XIV.

WATERS OF THE WESTERN PORTION OF LAKE ERIE

(Continued)

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18°–22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
135	Sept. 6-22....	13	168	120	.1	69	59	295
136	"	13	164	140	.1	46	41	295
137	"	13	55	80	.1	24	32	126
138	"	13	36	60	1.	18	20	36
139	"	13	32	48	5.	17	16	9.3
140	"	13	200	400	1.	30	50	20
141	"	13	180	260	1.	24	32	16
142	"	13	32	76	5.	13	18	6.6
143	"	13	300	600	1.	43	74	18
144	"	13	480	400	1.	60	51	15
145	"	13	40	53	5.	11	16	7.5
146	"	13	20	34	5.	10	12	10
147	"	13	14	22	5.	8	10	5.6
148	"	13	1000	900	1.	110	100	16
149	"	13	1000	800	1.	111	90	25
150	"	13	83	116	1.	22	24	28
151	"	13	1000	600	.1	114	74	118
152	"	13	4000	1200	.1	472	151	143
153	"	13	3000	3000	.1	335	321	268
154	"	13	200	600	.01	54	82	969
155	"	13	100	260	.1	54	53	207
156	"	11	490	250	1.	122	70	50
157	" 24....	14	1580	1580	.1	602	380	466
158	"	15	7200	2000	.01	1455	397	922
159	"	15	6000	2000	.1	2484	537	328
160	" 22....	12	4000	950	.01	1122	314	1038
161	"	11	4500	800	.01	719	174	1054
162	"	11	3000	1500	.01	604	282	1123
163	"	11	3500	960	.01	523	149	950
164	Sept. 6-22....	11	2000	1500	1.	450	269	61
165	"	12	3500	2500	.01	663	415	971
166	"	11	3000	2500	.1	852	437	1136
167	Sept. 6-22....	11	10000	5000	.1	1370	669	391
168	"	11	4000	5000	.01	972	835	1066
169	"	11	12000	10000	.01	2325	1791	1394
170	"	10	4000	6000	.1	1590	1260	180
171	"	11	3500	6000	.1	1010	1190	1327
172	"	10	12000	5000	.01	4316	1983	2130
173	"	10	12000	15000	.01	3852	3938	2145
174	"	10	12000	12000	.01	3693	4134	2350
175	"	10	15000	8000	.01	6802	2701	3954
176	"	10	14000	6000	.01	3539	2150	2260
177	"	10	9700	3000	.01	1975	1191	1450
286	June12-July23	24	..	281	.1	..	35	167
287	" "	24	..	66	.1	..	20	48
288	" "	24	..	712	1.	..	62	41
289	" "	24	..	69	1.	..	20	47
290	" "	24	..	200	1.	..	21	39
291	June11-July23	24	..	4000	.001	..	557	6812
292	" "	24	..	2090	.001	..	551	8275
293	" "	24	..	1170	.01	..	250	1742
294	" "	24	..	980	.01	..	166	1250
295	" "	24	..	138	.1	..	27	166
296	June12-July23	24	..	360	.01	..	68	793
297	" "	24	..	180	.1	..	41	268
298	" "	24	..	1360	.1	..	165	256
299	" "	24	..	350	.1	..	42	132
300	" "	24	..	340	.1	..	43	102
301	" "	24	..	284	.1	..	51	219
302	" "	24	..	75	.1	..	18	129
303	" "	24	..	150	.1	..	17	82
304	" "	24	..	69	.1	..	18	77
305	" "	24	..	56	.1	..	12	78


MICHIGAN
ONTARIO
Trenton
Amherstburg
BAR POINT
POINT MOULLEE
Kingsville
POINTE PELÉE
MIDDLE SISTER
NIAGARA REEF
Put in Bay
TOLEDO
Sandusky
OHIO
Pointe Pelée
1913
INVESTIGATION CHART
WESTERN END OF LAKE ERIE
Authority Lake Erie Chart U. S. Bureau of Equipment.
Scale.
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
PLATE NO. 14A


Memo
This creek receives the sewage of St. Thomas Ont. Population 15420.
Scale
Port Stanley
(Population 640)
Scale
Miles
BUFFALO
INTERNATIONAL BOUNDARY
TORONTO
LAKE ONTARIO
Niagara on the Lake
Youngstown
Niagara Falls
BUFFALO
Port Colborne
Port Stanley
DETROIT
LAKE ST. CLAIR
WINDSOR
LAKE ERIE
INTERNATIONAL BOUNDARY
ERIE
TOLEDO
CLEVELAND
Sandusky
N
1913
INVESTIGATION CHART
CENTRE AND EASTERN END OF LAKE ERIE
Authority Lake Erie Sheet, U.S. War Dept. 1906.
Scale
miles
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
PLATE NO. 15

REPORT OF INVESTIGATION RE POLLUTION OF THE CENTRE AND EASTERN PORTION OF LAKE ERIE. LABORATORY HEADQUARTERS AT PORT STANLEY, ONT., AND FORT ERIE, ONT. FIELD EXAMINATIONS COVERED THE PERIOD MAY 26th—OCTOBER 13th, 1913.

At Port Stanley the evidence indicates that Lake Erie is pure and that where pollution is picked up in the neighborhood of any local source of contamination it is confined to that locality.

This condition is shown by the almost entire absence of B. Coli in the samples examined, even in 75 c.c. quantities.

Samples collected in the lake along a line from Point Abino to the United States shore about twelve miles above Buffalo show the waters of the eastern end of Lake Erie to be pure, except as they may be influenced by the effect of navigation. This condition is further emphasized by the examination of samples taken from the cross-sections at the foot of the lake before its waters become the Niagara River. It was found during the period of investigation that pollution from Buffalo and other sources extended but a short distance beyond the breakwaters, and that

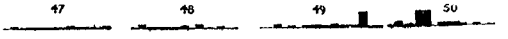


FIG 19.

the water from there across the boundary almost to the Canadian shore is relatively pure, except as directly influenced by navigation.

Figure 19.—Niagara River opposite Fort Erie, Ont. Daily variation in B. Coli findings. Sampling points 47, 48, 49, and 50. Maximum pollution shown is 20 B. Coli per 100 c.c. of water.

Table XV.

WATERS OF THE CENTRAL AND EASTERN END OF LAKE ERIE

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar 37°C.	B. Coli per 100 CC. by Phelps Method.
100–110	Oct. 6-13	44	4	6	25.	1	1	0.4
111–119	"	36	17	6	25.	2	1	0.8
120–131	"	48	450	18	50.	11	2	0.2
132–134	Oct. 6-14	18	6800	380	.1	932	96	207.
137–141	Oct. 6-13	20	5	6	00.	1	1	0.0
142–147	"	24	8	13	00.	1	1	0.0
148–153	"	24	8	90	00.	1	5	0.0
1	May 26-Jun. 17	14	24	17	.0	5	3	0.0
2	" "	15	18	48	25.	5	9	0.6
3	" "	14	192	45	50.	23	8	0.1
4	" "	14	20	25	0.	3	4	0.0
5	" "	14	9	12	50.	2	4	0.1
6	" "	15	29	19	0.	4	5	0.0
7	" "	14	8	57	0.	2	7	0.0
8	" "	14	540	25	50.	37	3	0.1
9	" "	15	10	32	50.	2	6	0.2
10	" "	15	15	44	5.	3	8	1.4
11	" "	15	22	20	25.	5	5	0.8
12	" "	15	22	16	25.	5	5	0.2
13	" "	15	25	46	5.	4	8	2.4
14	" "	15	116	34	5.	12	7	3.4
15	" "	15	244	14	1.	24	6	9.7
16	" "	15	516	58	1.	54	10	16.0

REPORT OF INVESTIGATION RE POLLUTION OF NIAGARA RIVER. LABORATORY HEADQUARTERS AT BUFFALO, N.Y., AND FORT ERIE, ONT. FIELD EXAMINATIONS COVERED THE PERIOD MAY 12th—JULY 29th, 1913.

The examination of samples taken from the first cross-section of the Upper Niagara River showed relatively pure water on the Canadian side and the beginning of noticeable pollution from Buffalo Harbor. From the next cross-section to the one below Squaw Island the pollution, though greatly increased in quantity on the United States side, was held to that

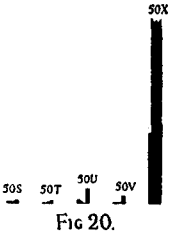


Fig 20.

Figure 20.—Niagara River opposite Fort Erie, Ont. Showing vertical stratification of pollution. Sampling points 50S, 50T, 50U, 50V, and 50X. Irregular line at top of maximum indicates gross pollution in excess of 100 B. Coli per 100 c.c. of water.

shore. The pollution on the Canadian side, though of less extent, was likewise confined to its shore. This phenomenon is due to the immense volume and the great velocity of the river, and the depth of the outlets of the Buffalo sewers. After passing Strawberry Island the pollution tended to extend across the entire Tonawanda Channel, and from Rattlesnake Island to the point where it again joins the main river the whole channel was shown to be grossly polluted. The use of this water as a public supply, even with the stringent purification, is attended with considerable risk.

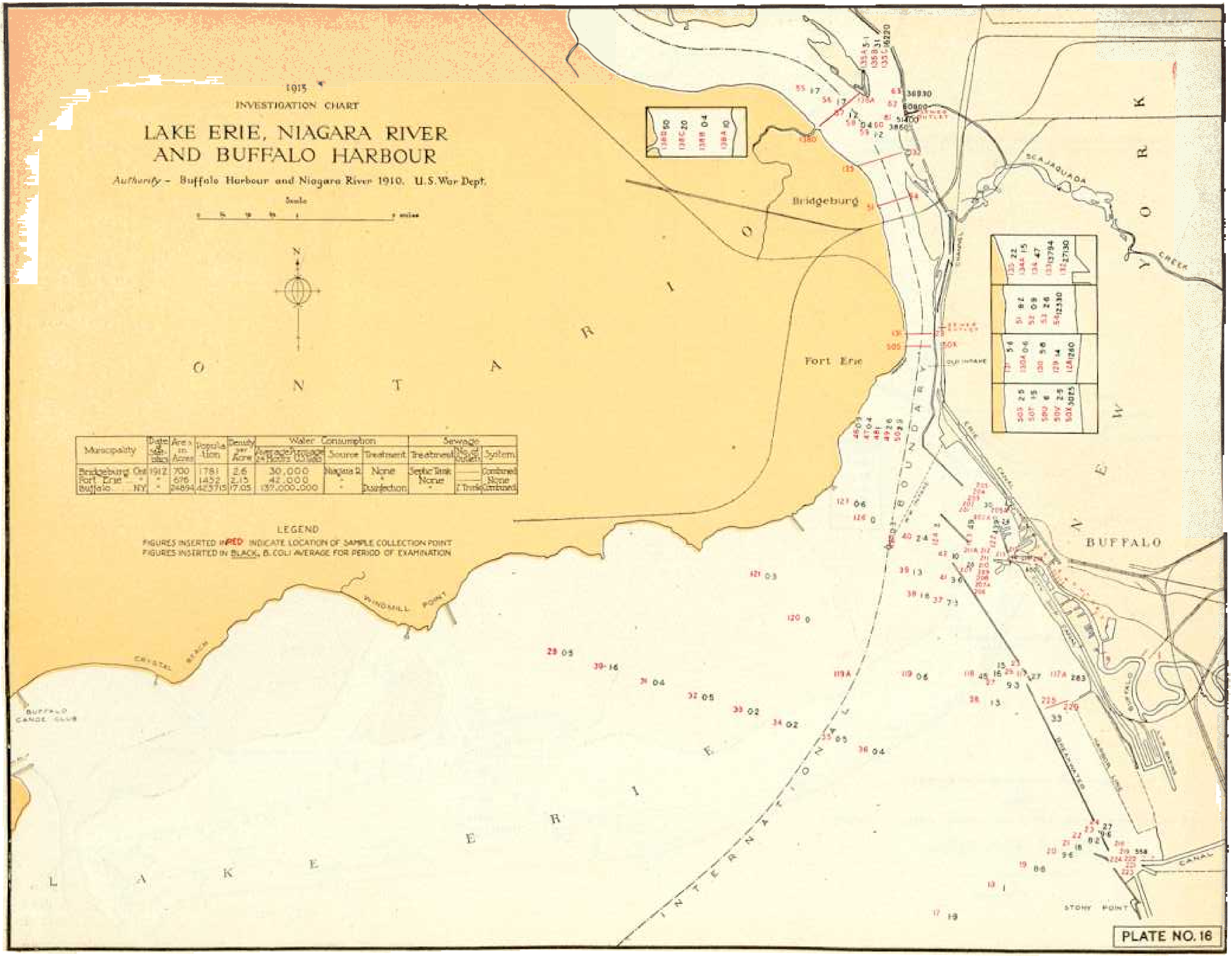
Table XVI.

WATERS OF LAKE ERIE, BUFFALO HARBOR AND THE NIAGARA RIVER

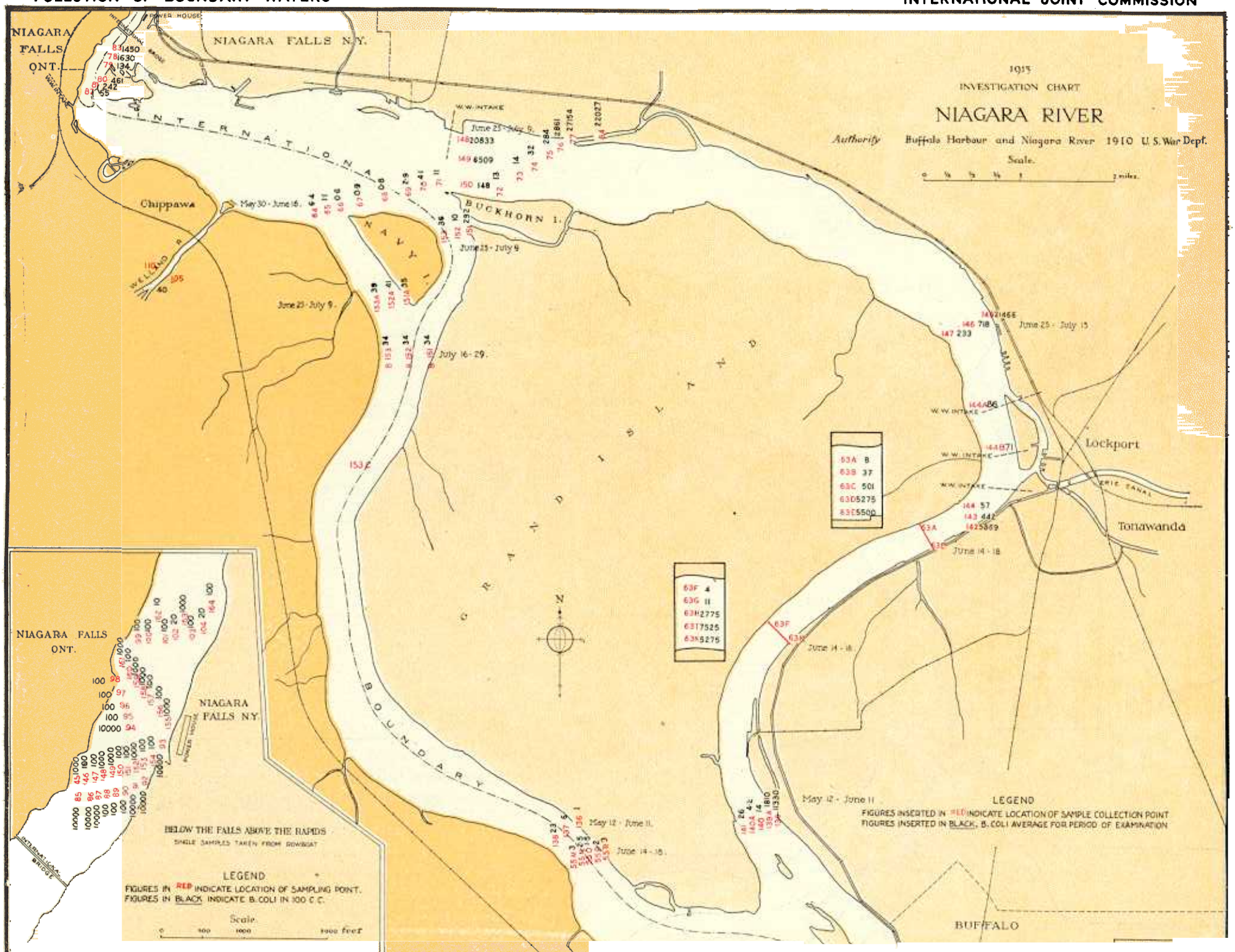
Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
17	May 26-June 12	15	25	9	25.	6	3	1.9
18	" "	15	30	32	25.	6	6	1.0
19	" "	14	176	12	1.	28	4	8.8
20	" "	14	104	28	1.	18	7	9.6
21	" "	15	102	180	1.	25	19	18
22	" "	15	520	60	5.	65	11	8.2
23	" "	15	348	34	5.	73	10	9.6
24	" "	15	670	520	1.	193	66	27
25	" "	15	84	78	1.	24	19	15
26	" "	15	160	75	1.	26	14	16
27	" "	15	960	56	1.	82	17	9.3
28	" "	15	144	215	5.	22	34	1.3
29	May 26-Jun. 17	15	134	24	25.	18	6	0.5
30	" "	15	18	90	5.	5	14	1.6

Table XVI.—continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
31	May 26-June 17	15	12	34	50.	4	6	0·4
32	" "	15	268	6	50.	44	3	0.5
33	" "	15	24	12	50.	8	3	0.2
34	" "	15	19	48	50.	6	7	0.2
35	" "	15	7	14	50.	2	5	0.5
36	" "	15	8	27	50.	4	7	0.4
37	" "	15	69	41	1.	8	8	7.3
38	" "	15	44	23	5.	9	6	1.8
39	" "	15	20	90	25.	5	12	1.3
40	" "	15	28	62	5.	5	10	2.4
41	" "	15	27	57	1.	6	9	3.6
42	" "	15	58	160	1.	16	20	10
46	" "	15	37	24	25.	10	6	0.9
47	" "	15	31	14	50.	7	4	0.4
48	" "	15	19	183	25.	6	19	1.0
49	" "	15	256	24	5.	24	6	2.6
50	" "	15	336	22	5.	48	8	2.9
50 S	June 14-18 ..	4	73	10	25	39	8	2.5
50 T	" ..	4	48	24	25	24	13	1.5
50 U	" ..	4	140	96	5	84	61	6
50 V	" ..	4	620	300	10	310	214	2·5
50 X	" ..	4	20000	4400	·01	5470	1303	3025
51	May 26-Jun. 12	15	2300	1400	1	173	134	8.2
52	" ..	15	100	42	50	13	6	0.9
53	" ..	15	20	25	5	6	6	2.6
54	" ..	15	3000	4360	.001	1435	741	12334
201–206	June 13-17 ..	24	3000	20000	1	661	1007	20
206a	May 26-Jun. 12	15	3220	300	1	390	77	24
207–211	June 13-17 ..	20	2560	8400	1	733	1059	20
211a212 202a	May 26-Jun. 12	34	2000	2000	1	172	149	23
213–217	June 14-18 ..	20	7000	5000	.01	1275	1788	650
218-224	" ..	28	5000	5000	·01	1356	1894	558
225–229	" ..	20	1500	1000	1	620	262	33
A117	June 5-21....	16	..	1520	.1	..	494	283
117	May 17-June 24	30	..	322	1.	..	52	27
118	" "	30	..	161	.1	..	15	45
119	" "	30	..	16	10.	..	4	0.6
119A	" "	29	..	28	0.	..	5	0.0
120	" "	28	..	13	0.	..	4	0.0
121	" "	28	..	14	10.	..	3	0.3
122	" "	31	..	1540	.1	..	435	439
123	" "	30	..	254	1.	..	58	49
124	" "	30	..	117	10.	..	14	2
125	" "	30	..	19	10.	..	4	0.3
126	" "	30	..	10	0.	..	3	0.0
127	" "	30	..	13	10.	..	4	0.6



Municipality	Date of Sanitary Data	Area in Acres	Population	Density per Acre	Water Consumption: Average 24 Hours U.S. Gal.	Water Consumption: Source	Water Consumption: Treatment	Sewage: Treatment	Sewage: No. of Outlets	Sewage: System
Bridgeburg Ont.	1912	700	1781	2.6	30,000	Niagara R.	None	Septic Tank	——	Combined
Fort Erie "	"	676	1452	2.15	42,000	"	"	None	——	None
Buffalo NY	"	24894	423715	17.05	137,000,000	"	Disinfection	"	2 Trunks	Combined


1915
INVESTIGATION CHART
NIAGARA RIVER
Authority Buffalo Harbour and Niagara River 1910 U.S. War Dept.
Scale.
NIAGARA FALLS ONT.
NIAGARA FALLS N.Y.
INTERNATIONAL BRIDGE
POWER HOUSE
W.W. INTAKE
Chippawa
WELLAND R.
NAVY I.
BUCKHORN I.
BOUNDARY
GRAND ISLAND
Lockport
Tonawanda
BUFFALO
ERIE CANAL
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
BELOW THE FALLS ABOVE THE RAPIDS
SINGLE SAMPLES TAKEN FROM ROWBOAT
LEGEND
FIGURES IN RED INDICATE LOCATION OF SAMPLING POINT.
FIGURES IN BLACK INDICATE B. COLI IN 100 C.C.
Scale.

Examination of samples collected in cross-sections in the Chippewa Channel (International Boundary Channel) shows that the pollution, while definite in character, is not so great in degree as that in the Tonawanda Channel. The pollution sometimes found in the Chippewa Channel cannot be fully accounted for by the drainage of Fort Erie and Bridgeburg. It is probable that a portion of the Buffalo sewage at times reaches this channel.

Fig 21.

The examination of samples taken from cross-section below Buckhorn and Navy Islands showed undiminished pollution on the United States side. On the Canadian side, the water, though less polluted, was still dangerous and should not be used without the most careful treatment; otherwise its use is liable to give rise to periodic epidemics of intestinal diseases.

The results from the examination of samples collected in the Gorge just below the two Falls demonstrated that the pollution coming over is more uniformly distributed. There is a popular impression that the action of the Falls tends to purify sewage. It simply mixes it more thoroughly with the water; it does not remove it or its danger. The pollution below the Falls is gross.

Figure 21.—Niagara River, Chippewa Channel. Daily variation in B. Coli findings. Intermittent pollution very slight in sampling points 65 and 66. Maximum pollution shown at sampling point 65 is 20 B. Coli per 100 c.c. of water. Contrast this slight pollution found in May and June with the average serious pollution found in the same channel in July shown on investigation chart, Plate No. 17.

Table XVII.

WATERS OF THE NIAGARA RIVER

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
			Bacterial Counts per CC. on Agar			Bacterial Counts per CC. on Agar.		
			18°–22°C.	37°C.	B. Coli. Smallest No. of CC. used showing reaction.	18° 22°C.	37°C.	B. Coli per 100 CC. by Phelps Method.
55	June 14-18....	15	26	28	25.	10	7	1.7
56	"	15	28	26	25.	9	7	1.7
57	"	15	34	22	25.	11	5	1.2
58	"	15	312	52	50.	28	10	0.4
59	"	15	24	28	25.	8	8	1.2
60	"	15	3000	600	.01	66	169	3866
61	"	15	8240	2400	.001	3092	1132	51400
62	"	15	8800	4960	.001	3369	1418	50800
63	"	15	7880	6000	.001	3075	1416	36934
55M	"	4	150	640	25.	73	268	3.0
55N	"	4	400	252	25.	146	77	2.5
55O	"	4	102	208	25.	51	93	1.5
55P	"	4	35	496	25.	23	142	2.0
55R	"	4	300	66	25.	94	30	3.0
63A	"	4	66	26	5.	39	16	8
63B	"	4	2400	1016	1.	623	344	37
63C	"	4	450	430	.1	265	260	501
63D	"	4	5200	1800	.01	3706	780	5275
63E	"	4	8000	6000	.01	6093	3066	5500
63F	"	4	80	420	25.	42	153	4
63G	"	4	428	984	5.	145	338	11
63H	"	4	3520	1060	.01	1770	746	2775
63 I	"	4	24000	1000	.01	12653	656	7525
63K	"	4	20000	1280	.01	14453	1093	5275
64	May 30-June 16	13	57	376	5.	21	44	6.4
65	" "	12	14	130	25.	7	14	1.1
66	" "	12	44	22	25.	10	7	0.6
67	" "	12	24	470	50.	8	47	0.9
68	" "	12	12	11	50.	6	5	0.8
69	" "	12	180	240	5.	30	24	2.9
70	" "	12	32	40	5.	12	8	4.1
71	" "	12	40	28	1.	17	7	11
72	" "	12	66	11	1.	17	5	13
73	" "	12	64	20	1.	35	7	14
74	" "	12	420	56	1.	162	19	32
75	" "	12	1240	354	.1	604	125	284
76	" "	13	8000	7000	.01	2175	822	2861
77	" "	13	7760	8360	.001	2796	1671	27154
84	" "	11	7000	3800	.001	3678	824	22027
78	May 30–June 10	10	800	1130	.1	440	222	1630
79	" "	10	2200	162	.1	508	68	134
80	" "	10	1560	356	.1	390	65	261
81	" "	10	1000	130	.1	332	61	242
82	" "	10	500	74	1.	183	44	55
83	" "	10	3800	1760	.1	1415	463	1450

Table XVII.—Continued.

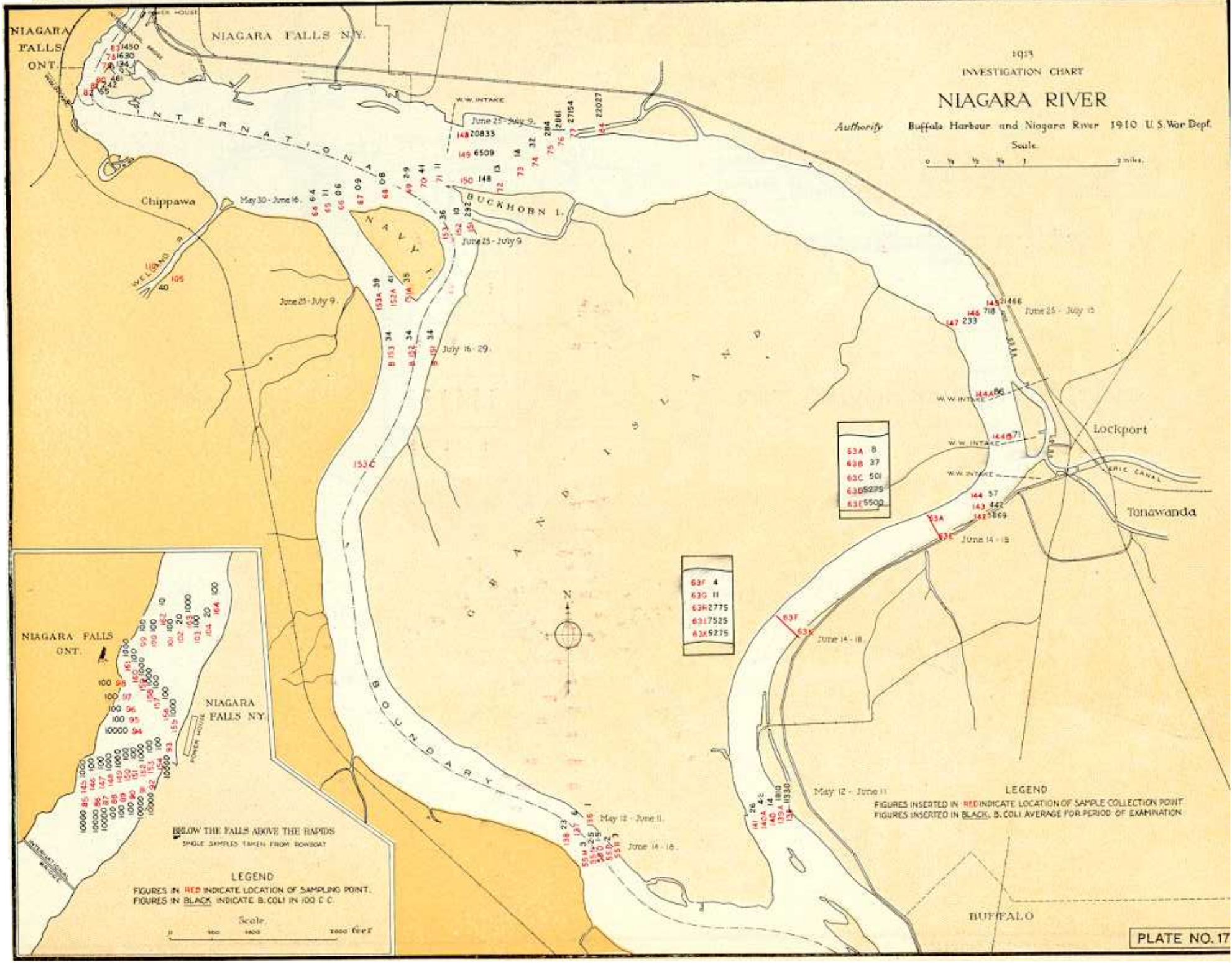
WATERS OF THE NIAGARA RIVER—Continued

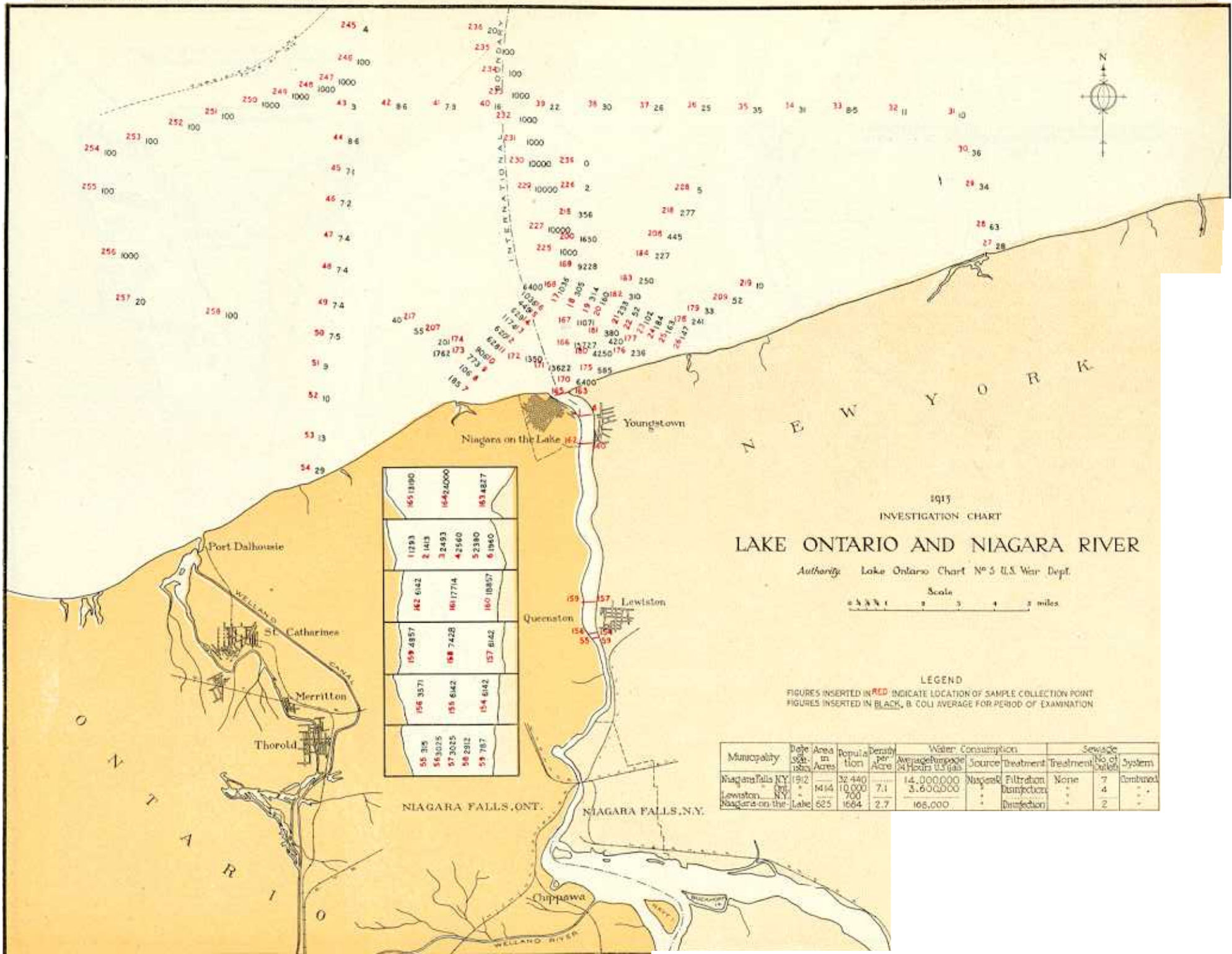
Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar 18°–22°C.	AVERAGE Bacterial Counts per CC. on Agar 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
128	May 17-June 24	31	..	7320	.01	..	971	1260
129	" "	31	..	278	1.	..	28	14
130	" "	31	..	76	1.	..	13	5.8
130A	" "	31	..	88	10.	..	9	0.6
131	" "	31	..	42	1.	..	10	5.6
132	May 12-June 24	33	..	30500	.001	..	4879	27130
133	" "	33	..	3850	.001	..	1576	13794
134	" "	33	..	41	1.	..	8	47
134A	" "	33	..	32	1.	..	6	1.5
135	" "	33	..	33	1.	..	9	22
135A	May 12-July 15	49	..	178	1.	..	10	5.1
135B	" "	49	..	291	.1	..	37	131
135C	" "	49	..	5330	.001	..	1627	16220
136	May 12-June 11	20	..	20	10.	..	3	1.0
137	" "	20	..	12	1.	..	4	6.0
138	" "	20	..	15	1.	..	6	23
138A	June 12-July 29	38	..	339	1.	..	17	10
138B	" "	12	..	6	0.	..	2	0.0
138C	" "	38	..	39	1.	..	6	20
138D	" "	38	..	46	1.	..	16	50
139	May 12-June 24	33	..	3400	.001	..	1453	11330
139A	" "	33	..	2120	.01	..	279	1810
140	" "	33	..	116	1.	..	12	14
140A	" "	33	..	40	1.	..	7	4.2
141	" "	33	..	30	1.	..	11	26
142	June 25-July 15	15	..	4430	.01	..	2132	5869
143	" "	15	..	238	.1	..	64	442
144	" "	15	..	91	1.	..	19	57
145	" "	15	..	6200	.001	..	2477	21466
146	" "	15	..	475	.1	..	178	718
147	" "	15	..	108	.1	..	30	233
148	June 25-July 24	23	..	8000	.001	..	3223	20833
149	" "	23	..	900	.001	..	288	6509
150	" "	23	..	53	.1	..	22	148
151	June 25-July 9	12	..	65	.1	..	18	292
152	" "	12	..	63	1.	..	12	10
153	" "	12	..	60	1.	..	12	36
151A	June 25-July 9	12	..	85	1.	..	14	35
152A	" "	12	..	34	1.	..	8	41
153A	" "	12	..	23	1.	..	8	39
151B	June 16-July 29	11	..	49	1.	..	22	34
152B	" "	11	..	171	1.	..	43	34
153B	" "	11	..	59	1.	..	24	34

Table XVII.—Continued.

WATERS OF THE NIAGARA RIVER—Continued

Sampling Point No.		DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar 18°–22°C.	AVERAGE Bacterial Counts per CC. on Agar 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
153 C	Surf.	July 11-29....	15	..	28	1.	..	10	20
153 C	Deep	"	15	..	22	.1	..	11	30
130 A	Surf.	July 11-24....	15	..	26	1.	..	9	12
130 A	Deep	"	15	..	42	1.	..	13	37
131 A	Surf.	July 12-29....	14	..	26	1.	..	12	7.1
131 A	Deep	"	14	..	26	1.	..	13	15
134 A	Surf.	July 11-29....	15	..	36	1.	..	12	15
134 A	Deep	"	15	..	20	1.	..	10	8
140 A	Surf.	July 11-14....	3	..	27	1.	..	22	36
140 A	Deep	"	3	..	35	1.	..	26	40
144 A		Jul. 27-Jul. 15	14	..	116	1.	..	26	86
144 B		Jul. 27-Jul. 15	14	..	151	1.	..	24	71
Buffa	lo tap	May 31-Jun. 20	18	..	25	1.	..	6	14


1915
INVESTIGATION CHART
NIAGARA RIVER
Authority Buffalo Harbour and Niagara River 1910 U.S. War Dept.
Scale.
NIAGARA FALLS ONT.
NIAGARA FALLS N.Y.
INTERNATIONAL
BUCKHORN I.
NAVY I.
Chippawa
WELLAND R.
May 30 - June 16.
June 25 - July 9.
July 16 - 29.
June 25 - July 15
W.W. INTAKE
Lockport
ERIE CANAL
Tonawanda
June 14 - 18.
May 12 - June 11.
BOUNDARY
GRAND ISLAND
BUFFALO
NIAGARA FALLS ONT.
NIAGARA FALLS N.Y.
POWER HOUSE
BELOW THE FALLS ABOVE THE RAPIDS
SINGLE SAMPLES TAKEN FROM ROWBOAT
LEGEND
FIGURES IN RED INDICATE LOCATION OF SAMPLING POINT.
FIGURES IN BLACK INDICATE B. COLI IN 100 C.C.
Scale.
2000 feet
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT.
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
PLATE NO. 17



Municipality	Date sewer built	Area in Acres	Population	Density per Acre	Water Consumption: Average 24 Hours U.S. gals	Water Consumption: Pumpage U.S. gals	Water Consumption: Source	Water Consumption: Treatment	Sewage: Treatment	Sewage: No. of Outlets	Sewage: System
Niagara Falls N.Y.	1912	—	32 440	—	14,000,000		Niagara R.	Filtration	None	7	Combined
" Ont.	"	1414	10,000	7.1	3,600,000		"	Disinfection	"	4	"
Lewiston N.Y.	"	—	700	—			"		"	—	"
Niagara-on-the-Lake	Lake	625	1664	2.7	166,000		"	Disinfection	"	2	"

REPORT OF INVESTIGATION RE POLLUTION OF LOWER NIAGARA RIVER AND WESTERN END OF LAKE ONTARIO. LABORATORY HEADQUARTERS AT NIAGARA-ON-THE-LAKE, ONT., AND YOUNGSTOWN, N.Y. FIELD EXAMINATIONS COVERED THE PERIOD MAY 28th—AUGUST 21st, 1913.

Before arriving at Lewiston the river passes over the Niagara Falls and through the Great Gorge. The mixing of the sewage effected by the Falls and Rapids with the river water is probably the most complete possible. The samples examined showed that from this point to the mouth of the river the water was uniformly polluted from shore to shore, and emphasized the fact that the use of water from this section of the river as a public water supply without the most careful and exacting purification should not be considered.

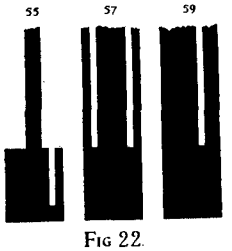


FIG 22.

Figure 22.—Niagara River at Lewiston, showing the effect of the Falls and Rapids in distributing a gross pollution uniformly throughout the cross-section. Maximum with irregular line at top indicates pollution in excess of 1,000 B. Coli per 100 c.c. of water. Sampling points 55, 56, 57, 58, 59.

TABLE XVIII

WATERS OF THE LOWER NIAGARA RIVER AND THE WESTERN END OF LAKE ONTARIO

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
1	May 29-Jun. 12	15	450	750	.01	311	171	1293
2	" "	15	2000	2000	.01	550	352	1413
3	" "	15	1000	1300	.01	400	245	2493
4	" "	15	1500	650	.01	390	184	2560
5	" "	15	1800	890	.01	563	246	2380
6	" "	15	1200	900	.01	365	223	1960
7	May 28-Jun. 16	16	2000	380	.1	260	58	185
8	" "	15	3000	1300	.1	275	146	106
9	" "	15	4000	1200	.01	396	108	773
10	" "	15	4000	500	.01	742	64	906
11	" "	15	3000	1200	.1	567	121	628
12	" "	15	4000	900	.1	678	138	620
13	" "	15	700	440	.01	303	85	1174
14	" "	15	3000	420	.1	623	92	629
15	" "	15	2000	260	.1	456	71	449
16	" "	15	400	60	.01	196	34	1036
17	" "	15	5000	140	.01	612	42	1036
18	" "	15	1700	120	.1	235	31	305

Table XVIII.—Continued.

WATERS OF THE LOWER NIAGARA RIVER AND THE WESTERN END OF LAKE ONTARIO—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
19	May 28-Jun. 16	15	500	200	.1	102	46	314
20	" "	15	650	600	.1	130	77	160
21	" "	15	200	300	.1	40	35	233
22	" "	15	200	30	1.	34	8	52
23	" "	15	200	800	.1	28	74	102
24	" "	15	250	1500	.1	39	145	184
25	" "	15	400	1500	.1	44	140	163
26	" "	15	150	1800	.1	31	231	147
27	May 30-Jun. 18	15	240	40	1.	43	10	28
28	" "	15	230	54	1.	91	17	63
29	" "	15	200	100	1.	85	22	34
30	" "	15	160	110	1.	60	20	36
31	" "	15	120	40	1.	25	7	10
32	" "	15	200	20	1.	29	4	11
33	" "	15	50	70	5.	18	9	8.5
34	" "	15	300	100	1.	72	13	31
35	" "	15	200	130	1.	51	19	35
36	" "	15	160	60	1.	28	15	20
37	" "	15	250	600	1.	64	60	26
38	" "	15	300	720	1.	75	71	30
39	" "	15	80	33	1.	17	8	22
40	" "	15	100	26	1.	22	7	16
41	" "	15	100	35	1.	15	3	7.3
42	" "	15	60	180	1.	8	19	8.6
43	" "	15	150	64	5.	15	11	3.0
44	" "	14	100	21	1.	10	6	8.6
45	" "	14	150	30	1.	16	7	7.1
46	" "	14	200	12	1.	16	2	7.2
47	" "	14	100	30	1.	12	5	7.4
48	" "	14	50	30	1.	6	6	7.4
49	" "	14	80	20	1.	9	3	7.4
50	" "	14	80	40	1.	10	7	7·5
51	" "	14	60	30	1.	9	7	9.0
52	" "	14	160	4	1.	22	2	10.0
53	" "	14	60	..	1.	10	3	13
54	" "	14	100	20	1.	20	6	29
55	June 5–14	8	1000	1600	.1	502	291	315
56	"	8	3000	300	.01	896	91	3025
57	"	8	1280	300	.01	482	125	3025
58	"	8	3000	350	.01	1183	215	2912
59	" "	8	1500	320	.1	532	183	787

The conditions found at the mouth of the Niagara River differ from those found at the mouth of the Detroit River. At the mouth of the Detroit River the discharge is into an enclosed end of the lake, where it is lagooned and drifted from point to point for a considerable time before it can get into the lake itself. At the mouth of the Niagara, the pollution is being discharged into a portion of the lake where conditions are such that the drift may take place north, east or west. Several limits of this polluted area were determined with a considerable degree of accuracy. A striking phenomenon exhibited was that very little diminution in pollution occurred until the limiting boundaries of the area were reached. For example, if at the mouth of the river pollution was such as would show 1,000 B. Coli per 100 c.c., the pollution ten miles from shore, wind conditions being favorable to put it there, would show practically the same degree of pollution.

The menace in this area is almost entirely directed at the present time towards navigation between Buffalo and Toronto. Further samples taken from the passenger boats along cross-sections from Niagara-on-the-Lake and other lake points in this vicinity to Toronto corroborated the observation that this polluted area extended as far as ten, twelve and even sixteen miles on occasion. It is reasonable to suppose that more favoring conditions than those occurring in the limited period of our observation would drift the pollution farther out.

At the present time the boats carrying passengers back and forward across this route have insufficient tankage to provide their patrons with safe water during the entire journey. They replenish *en route,* often from polluted areas. The many samples collected from their drinking-water taps showed on several occasions dangerous pollution.

Table XIX.

WATERS OF THE LOWER NIAGARA RIVER AND THE WESTERN END OF LAKE ONTARIO—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar 18°–22°C.	AVERAGE Bacterial Counts per CC. on Agar 37°C.	B. Coli per 100 CC. by Phelps Method.
154	Aug. 1–9	7	..	5170	.01	..	4030	6142
155	"	7	..	4150	.01	..	3160	6142
156	"	7	..	5700	.01	..	3580	3571
157	"	7	..	5960	.01	..	3640	6142
158	"	7	..	4300	.01	..	3150	7428
159	"	7	..	4170	.01	..	2800	4857
160	"	6	..	5840	.001	..	4210	18857
161	"	7	..	5820	.001	..	4510	17714
162	"	7	..	4800	.01	..	3820	6142
163	Aug. 1-14	11	..	2140	.01	..	1710	4827
164	"	11	..	5810	.001	..	2870	24000
165	"	11	..	4100	.001	..	2800	13190
166	Aug. 4-14	10	..	2620	.001	..	1870	15727
167	Aug. 4-21	14	..	3020	.001	..	1660	11071
168	Aug. 4-14	10	..	3490	.01	..	1890	6400
169	Aug. 4-21	14	..	2280	.001	..	1330	9228
206	Aug. 11-21 ..	8	..	3970	.01	..	2220	1650
216	" ..	9	..	3790	.1	..	1110	356
226	Aug. 15-21 ..	5	..	210	10.	..	9	2
236	Aug. 15-18 ..	3	..	120	0.	..	7	0
170	Aug. 4-21	15	..	3400	.01	..	2020	6400
171	Aug. 4-14	8	..	3040	.001	..	2190	15622
172	Aug. 4-21	12	..	1870	.01	..	740	1350
173	Aug. 4-14	8	..	910	.01	..	350	1762
174	Aug. 4-21	11	..	1690	.1	..	420	201
207	Aug. 15-21 ..	4	..	340	1.	..	210	55
217	Aug. 18-21 ..	1	..	130	1.	..	130	40
175	Aug. 5-14	7	..	1960	.1	..	980	585
176	Aug. 5-21	11	..	1920	.1	..	870	236
177	Aug. 5-18	10	..	2470	.1	..	780	420
178	Aug. 5-21	10	..	3780	.1	..	1080	241
179	Aug. 5-18	9	..	1960	1.	..	350	33
209	Aug. 15-21 ..	4	..	250	1.	..	140	52
219	Aug. 21.....	1	..	210	10.	..	210	10
180	Aug. 5-14	8	..	1960	.01	..	1080	4250
181	Aug. 5-21	12	..	5470	.1	..	1060	380
182	Aug. 5-14	8	..	840	.1	..	620	310
183	Aug. 5-21	11	..	830	.1	..	380	250
184	Aug. 5-14	7	..	350	.1	..	180	227
208	Aug.12-21....	7	..	4600	.1	..	1280	445
218	Aug.15-21....	4	..	1030	.1	..	530	277
228	Aug. 21.....	2	..	120	10.	..	70	5

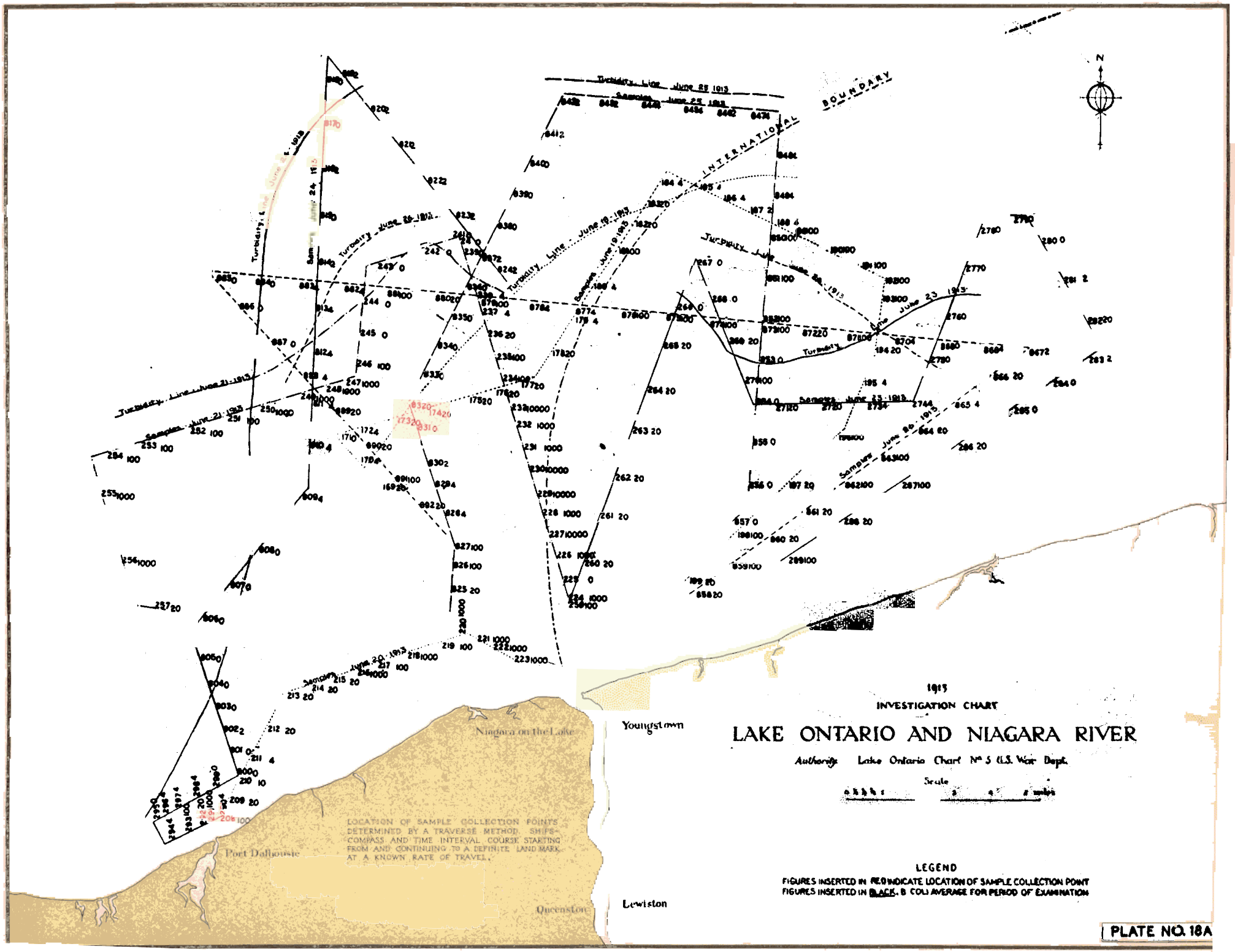

BOUNDARY
INTERNATIONAL
Turbidity Line June 25 1913
Samples June 25 1913
Turbidity Line June 24 1913
Samples June 24 1913
Turbidity Line June 21 1913
Samples June 21 1913
Turbidity Line June 19 1913
Samples June 19 1913
Turbidity June 23 1913
Samples June 23 1913
Samples June 9th 1913
Samples June 20 1913
Niagara on the Lake
Youngstown
Port Dalhousie
Queenston
Lewiston
1913
INVESTIGATION CHART
LAKE ONTARIO AND NIAGARA RIVER
Authority Lake Ontario Chart No 5 U.S. War Dept.
Scale
LOCATION OF SAMPLE COLLECTION POINTS DETERMINED BY A TRAVERSE METHOD. SHIPS COMPASS AND TIME INTERVAL COURSE STARTING FROM AND CONTINUING TO A DEFINITE LAND MARK AT A KNOWN RATE OF TRAVEL.
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B COLI AVERAGE FOR PERIOD OF EXAMINATION

PLATE NO. 18A

Municipality	Date of Last Census	Area in Acres	Population	Density per Acre	Water Consumption: Average per 24 Hours U.S.Gals.	Water Consumption: Pumpage U.S.Gals.	Water Consumption: Source	Water Consumption: Treatment	Sewerage: Treatment	Sewerage: No. of Outlets	Sewerage: System
Kingston ... Ont.	1912	2127	19869	9.34	2,990,000		St.Lawrence R.	Postlection	None	24	Combined
Cape Vincent N.Y.	----	----	1200	-----	300,000		- - -	None	-	11	-
Clayton ... N.Y.	----	----	1500	-----	256,000		- - -	-	-	3	-

LEGEND

FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT

FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION

1913

INVESTIGATION CHART

LAKE ONTARIO AT KINGSTON

Authority. Coast Chart No 1 Lake Ontario U.S. War Dept 1907-09

Scale

0 ¼ ½ ¾ 1 2 3 4 5 miles.

PLATE NO. 19

REPORT OF INVESTIGATION RE POLLUTION OF THE EASTERN END OF LAKE ONTARIO AND ST. LAWRENCE RIVER. LABORATORY HEADQUARTERS AT KINGSTON, ONT., CLAYTON, N.Y., AND MONTREAL, QUEBEC. FIELD EXAMINATIONS COVERED THE PERIOD APRIL 15th—SEPTEMBER 3rd, 1913.

The work at the lower end of Lake Ontario and on the St. Lawrence River was performed at two distinctly different seasons by different laboratories.

The work done early in the season before navigation commenced showed Lake Ontario water practically sterile; the work done later, in August, showed minor pollution in the lake. The difference in the findings emphasizes the effect of boat traffic and summer residents' pollution.

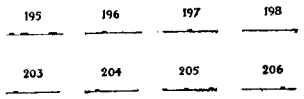


FIG 23.

Examination of samples taken below Kingston at Knapp's Point showed considerable pollution. The samples taken from the vicinity of Sheriff's Point after the water had come down the Bateau Channel, showed but slight decrease of the pollution.

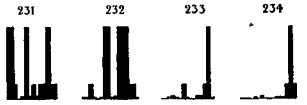


FIG 24.

Figure 23.—Lake Ontario, head of St. Lawrence River. Daily variation in B. Coli findings, showing almost entire absence of pollution in April and May. Sampling points 195, 196, 197, 198, 203, 204, 205, and 206. Maximum pollution shown is 2 B. Coli per 100 c.c. of water.

Figure 24.—St. Lawrence River below Kingston, Ont., at Knapp's Point. Daily variation in B. Coli findings, showing effect of Kingston sewage April 15 to May 17, 1913. Sampling points, 231, 232, 233, and 234. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Table XX.

WATERS OF THE EASTERN END OF LAKE ONTARIO AND THE ST. LAWRENCE RIVER

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22°C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	B. Coli per 100 CC. by Phelps Method.
74	Aug. 9-Sept. 3	13	..	58	10.	..	20	1.5
75	" "	13	..	48	10.	..	13	1.5
76	" "	13	..	98	10.	..	25	0.7
77	" "	13	..	77	10.	..	16	1.5
78	" "	13	..	71	10.	..	19	0.7
79	" "	13	..	93	10.	..	19	1.5
80	" "	13	..	71	10.	..	17	2.3
81	" "	13	..	39	10.	..	12	1.5
82	" "	13	..	54	10.	..	14	1.5
83	" "	13	..	76	10.	..	21	3.0
84	" "	13	..	104	10.	..	20	1.5
85	" "	13	..	92	10.	..	11	2.3
86	" "	17	..	299	1.	..	39	20
87	" "	17	..	528	.1	..	60	66
88	" "	17	..	392	10.	..	42	3.5
89	" "	17	..	212	10.	..	36	4.7
90	" "	17	..	272	10.	..	38	3.5
91	" "	17	..	228	1.	..	31	10
92	" "	17	..	302	10.	..	39	2.9
93	" "	17	..	248	1.	..	32	5.8
195	Apr. 15-May 15	16	42	90	50.	16	27	0.7
196	" "	16	110	34	0.	16	9	0
197	" "	16	28	180	0.	7	28	0
198	" "	16	27	100	0.	9	18	0
199	" "	15	24	14	0.	7	5	0
200	" "	15	21	9	0.	5	3	0
201	" "	15	18	10	0.	4	6	0
202	" "	15	10	14	0.	4	11	0
203	" "	15	24	45	0.	5	9	0
204	" "	15	26	60	0.	7	14	0
205	" "	15	21	40	0.	10	9	0
206	" "	15	155	24	0.	19	10	0
207	Apr. 15-May 17	15	50	10	50.	12	4	0.2
208	" "	15	76	40	50.	12	9	1
209	" "	14	130	10	50.	16	3	0.2
210	" "	15	42	18	50.	8	8	0.2
211	Apr. 16-May 4	15	73	34	5.	34	11	4.2
212	" "	15	58	140	5.	31	29	4.4
213	" "	16	120	74	5.	34	21	4.8
214	" "	16	220	50	25.	32	12	3.6
215	" "	15	250	130	25.	35	20	1.8
216	" "	15	58	36	25.	22	14	1.3
216A	" "	15	47	160	5.	22	35	2.8
217	" "	15	15	140	50.	8	19	0.9
218	" "	15	29	110	50.	9	16	0.6

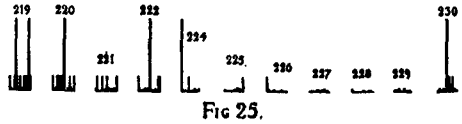


Fig 25.

The results of the August investigation showed that conditions were considerably worse than those obtained in April, especially at the sample points below Wolfe Island. Much of the intermittency of pollution occurring during the April investigation in this stretch may be fully accounted for by the periodical discharge of Cataraqui Bay at Kingston. This bay is grossly polluted and its contents are discharged into the St. Lawrence River with certain wind conditions.

While examination below Wolfe Island among the Thousand Islands did not show an average gross pollution, its intermittent character presents a menace to the summer residents in this section who take their supply of water from the river without purification.

Examinations made in the vicinity of Brockville showed that the shore samples collected from the cross-section above Brockville carried considerable pollution. Toward mid-stream, where dilution and mixing had taken place, the samples showed constant pollution of lesser degree. Below Brockville the major pollution remains near the banks of the river. Samples collected in mid-stream showed very little pollution in the early work before navigation opened. The later work in August showed a very general serious pollution, due probably to summer resort population and to boat traffic. The condition of the river between Brockville and Cornwall is very bad in the summer months, as evidenced by mid-stream samples Nos. 266-273.

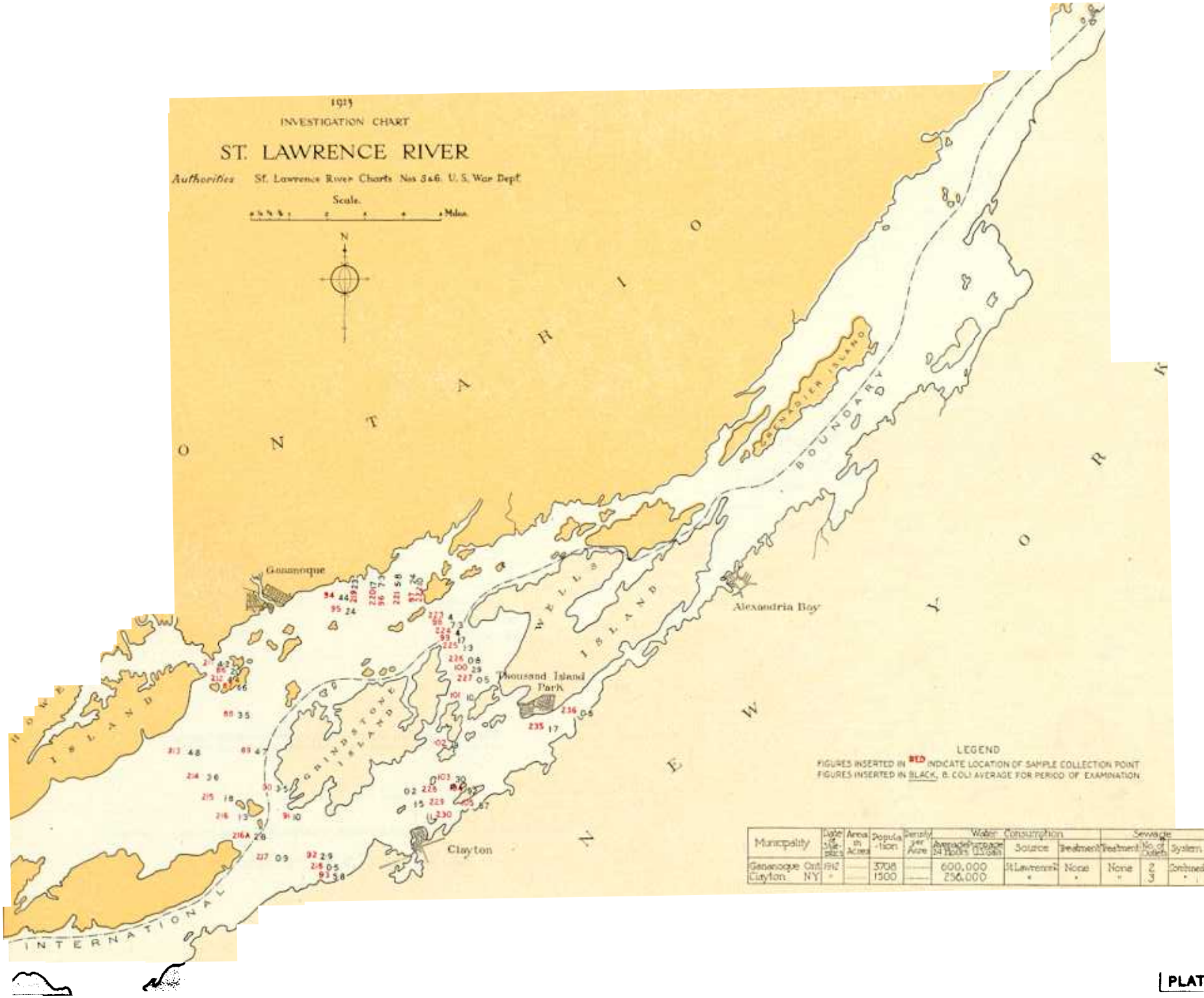
Unquestionably, the water from this portion of the St. Lawrence River should not be used as a water supply without adequate purification.

Figure 25.—St. Lawrence River, among the Thousand Islands. Daily variation in B. Coli findings, showing intermittent serious pollution. Sampling points 219, 220, 221, 222, 224, 225, 226, 227, 228, 229, and 230. Maximum pollution shown is 100 B. Coli per 100 c.c. of water.

Table XXI.

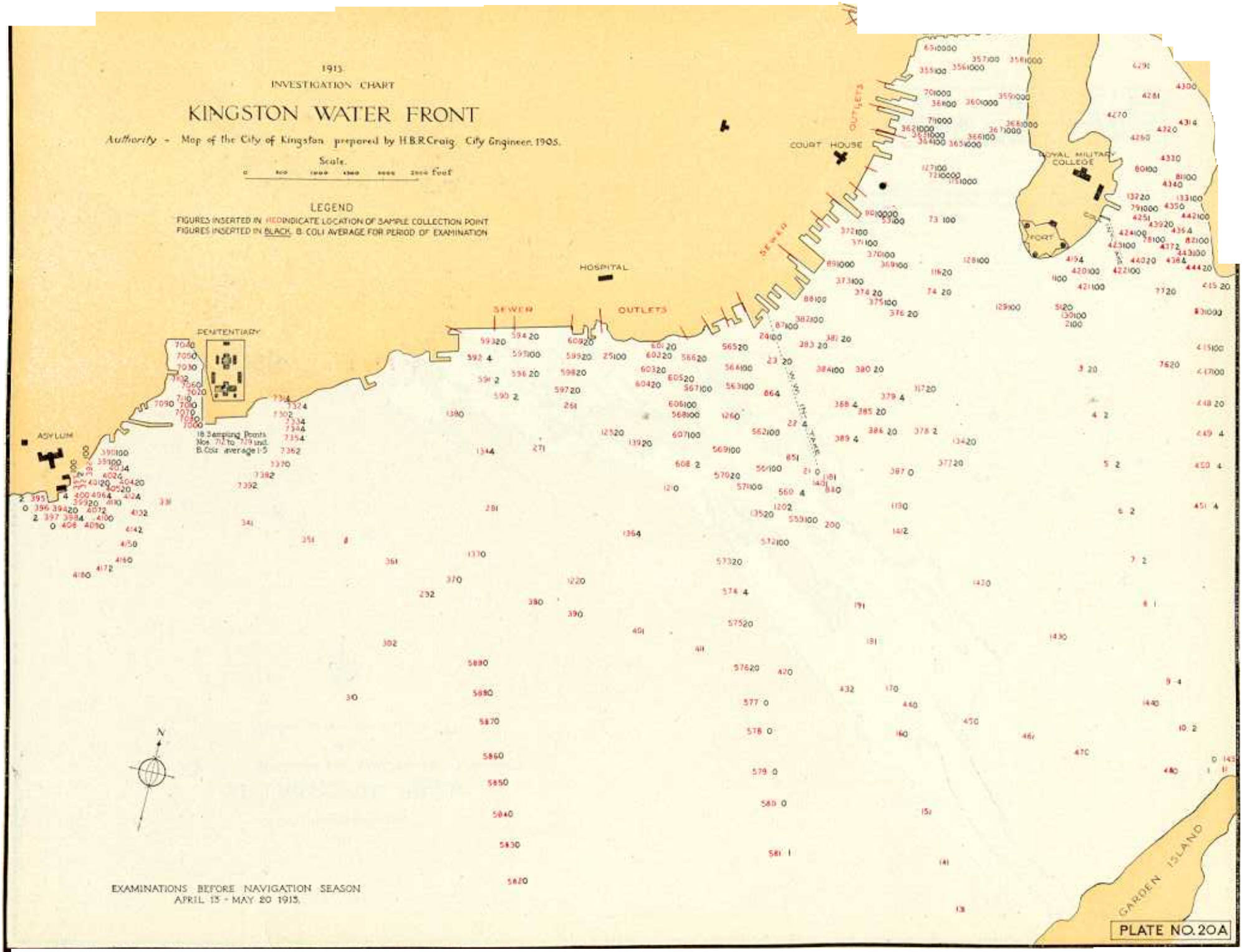
WATERS OF THE ST. LAWRENCE RIVER

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
			Bacterial Counts per CC. on Agar		B. Coli. Smallest No. of CC. used showing reaction.	Bacterial Counts per CC. on Agar.		B. Coli per 100 CC. by Phelps Method.
			18°–22°C.	37°C.		18° 22°C.	37°C.	
94	Aug. 7-30....	15	..	385	1.	..	76	44
95	"	15	..	392	1.	..	70	24
96	"	15	..	272	10.	..	65	7.3
97	"	15	..	321	1.	..	68	24
98	"	15	..	282	10.	..	55	7.3
99	"	15	..	258	1.	..	56	17
100	"	15	..	202	1.	..	51	29
101	"	15	..	211	1.	..	43	10
102	"	15	..	210	1.	..	49	19
103	"	15	..	161	1.	..	38	30
104	"	15	..	140	.1	..	34	92
105	"	15	..	62	.1	..	19	87
219	Apr. 19-May 4	15	102	50	1.	45	14	23
220	" "	15	84	20	1.	42	8	17
221	" "	16	106	200	5.	42	32	5.8
222	" "	15	75	38	1.	31	13	10.0
223	" "	15	180	700	5.	37	81	4.0
224	" "	15	76	540	5.	26	45	4.0
225	" "	15	45	450	25.	24	41	1.3
226	" "	15	75	300	25.	25	30	0.8
227	" "	15	70	10	50.	17	4	0.5
228	" "	15	150	100	50.	17	19	0.5
229	" "	13	110	90	25.	21	23	1.2
230	" "	15	26	120	1.	10	52	11
231	Apr. 15-May 4	15	66	500	1.	31	54	39
232	" "	15	71	44	1.	34	11	34
233	" "	15	85	200	1.	25	26	11
234	" "	15	44	460	1.	19	70	9.4
235	" "	14	35	100	25.	18	25	1.7
236	" "	13	35	120	50.	15	24	0.6



Municipality	Date of Installation	Area in Acres	Population	Density per Acre	Water Consumption: Average per 24 Hours U.S. Gals	Water Consumption: Source	Water Consumption: Treatment	Sewage: Treatment	Sewage: No. of Outlets	Sewage: System
Gananoque Ont.	1912	———	3708	———	600,000	St Lawrence R.	None	None	2	Combined
Clayton NY	"	———	1500	———	250,000	"	"	"	3	"

PLATE NO. 20


1915
INVESTIGATION CHART
KINGSTON WATER FRONT
Authority - Map of the City of Kingston prepared by H.B.R.Craig. City Engineer. 1905.
Scale.
feet
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
COURT HOUSE
OUTLETS
SEWER
ROYAL MILITARY COLLEGE
FORT
HOSPITAL
SEWER
OUTLETS
PENITENTIARY
ASYLUM
18 Sampling Points Nos. 712 to 729 incl. B.Coli average 1-5
EXAMINATIONS BEFORE NAVIGATION SEASON
APRIL 15 - MAY 20 1915.
GARDEN ISLAND
PLATE NO. 20A

1913.

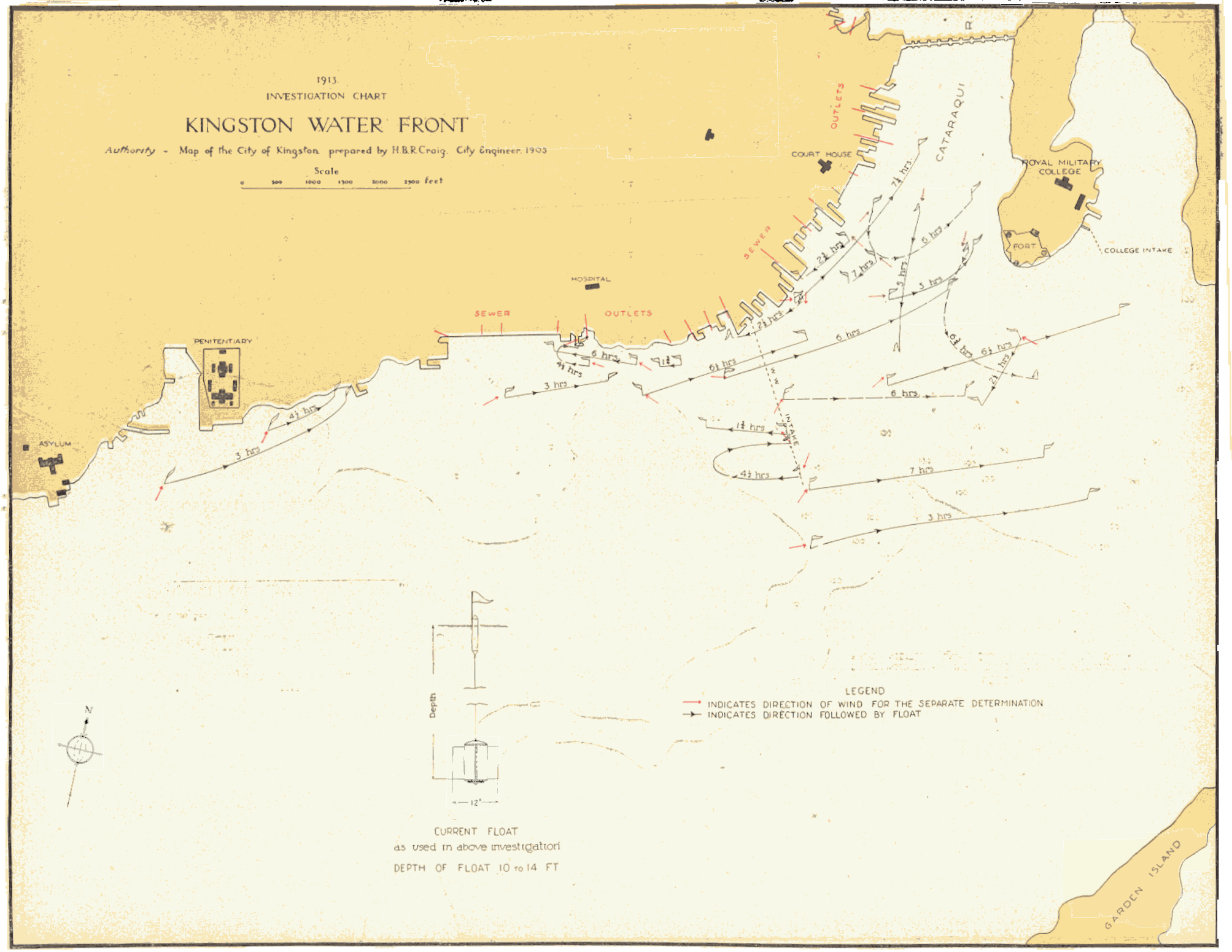
INVESTIGATION CHART

KINGSTON WATER FRONT

Authority - Map of the City of Kingston prepared by H.B.R.Craig. City Engineer. 1903

Scale

0 500 1000 1500 2000 2500 feet



LEGEND

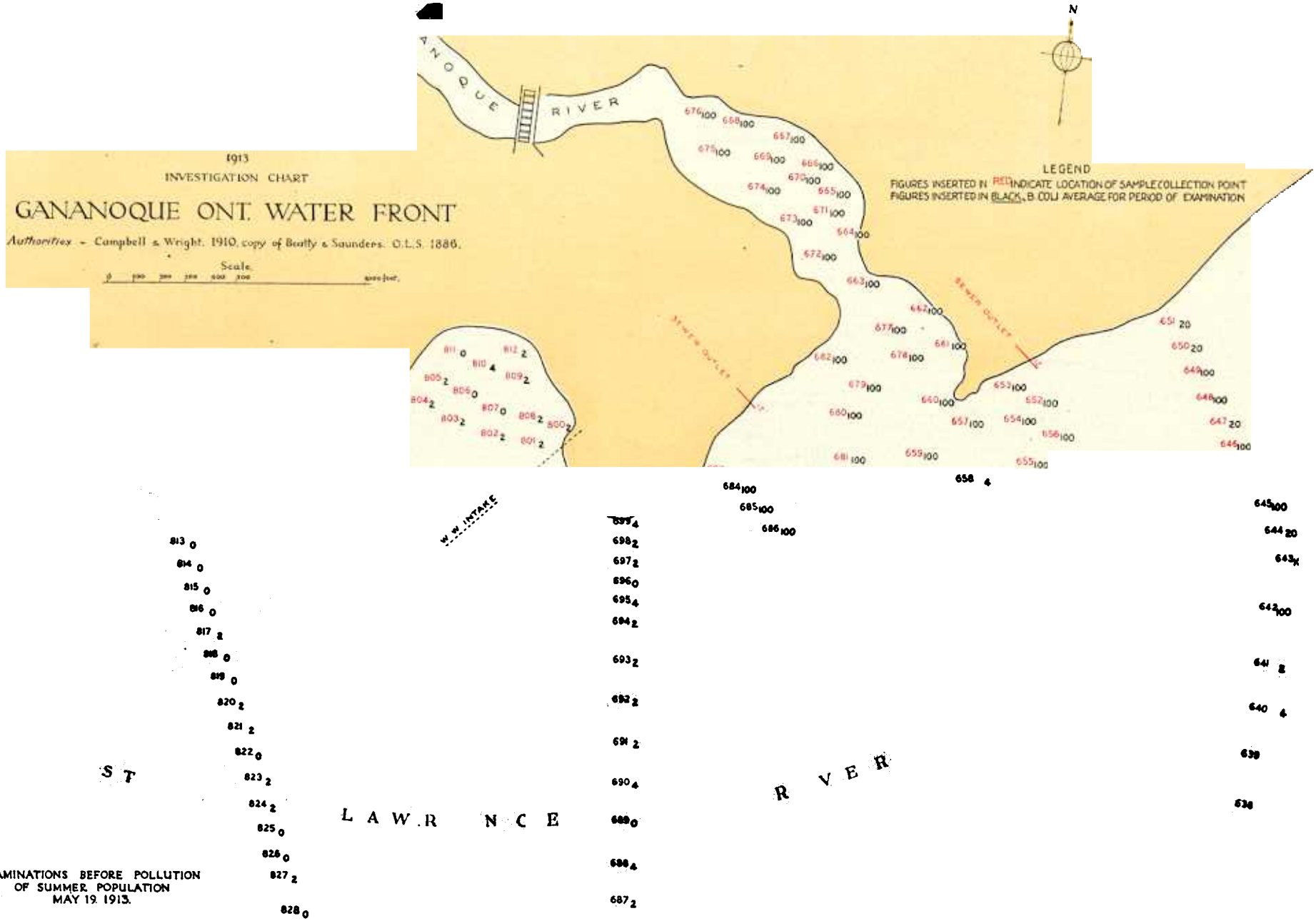
→ INDICATES DIRECTION OF WIND FOR THE SEPARATE DETERMINATION

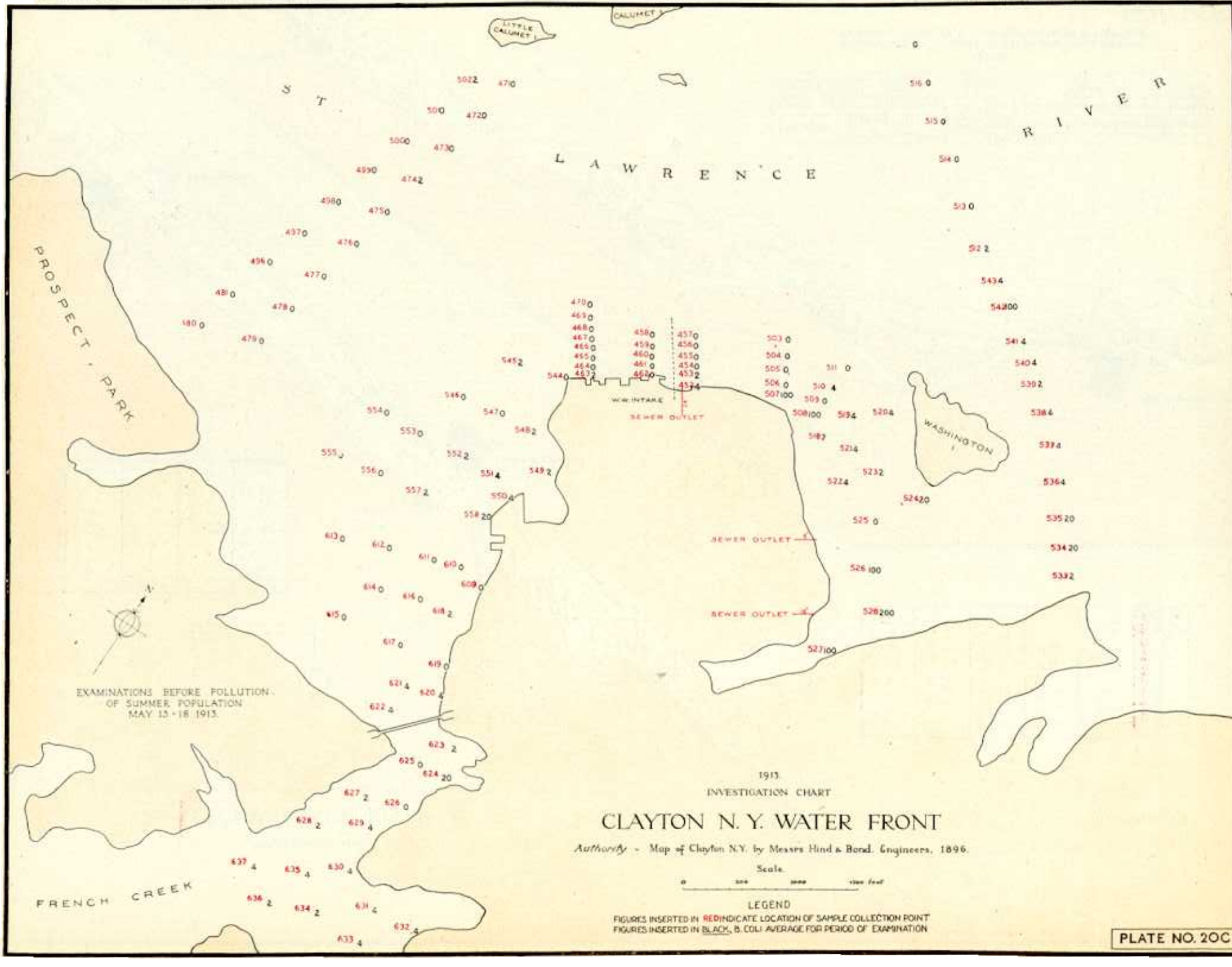
→ INDICATES DIRECTION FOLLOWED BY FLOAT

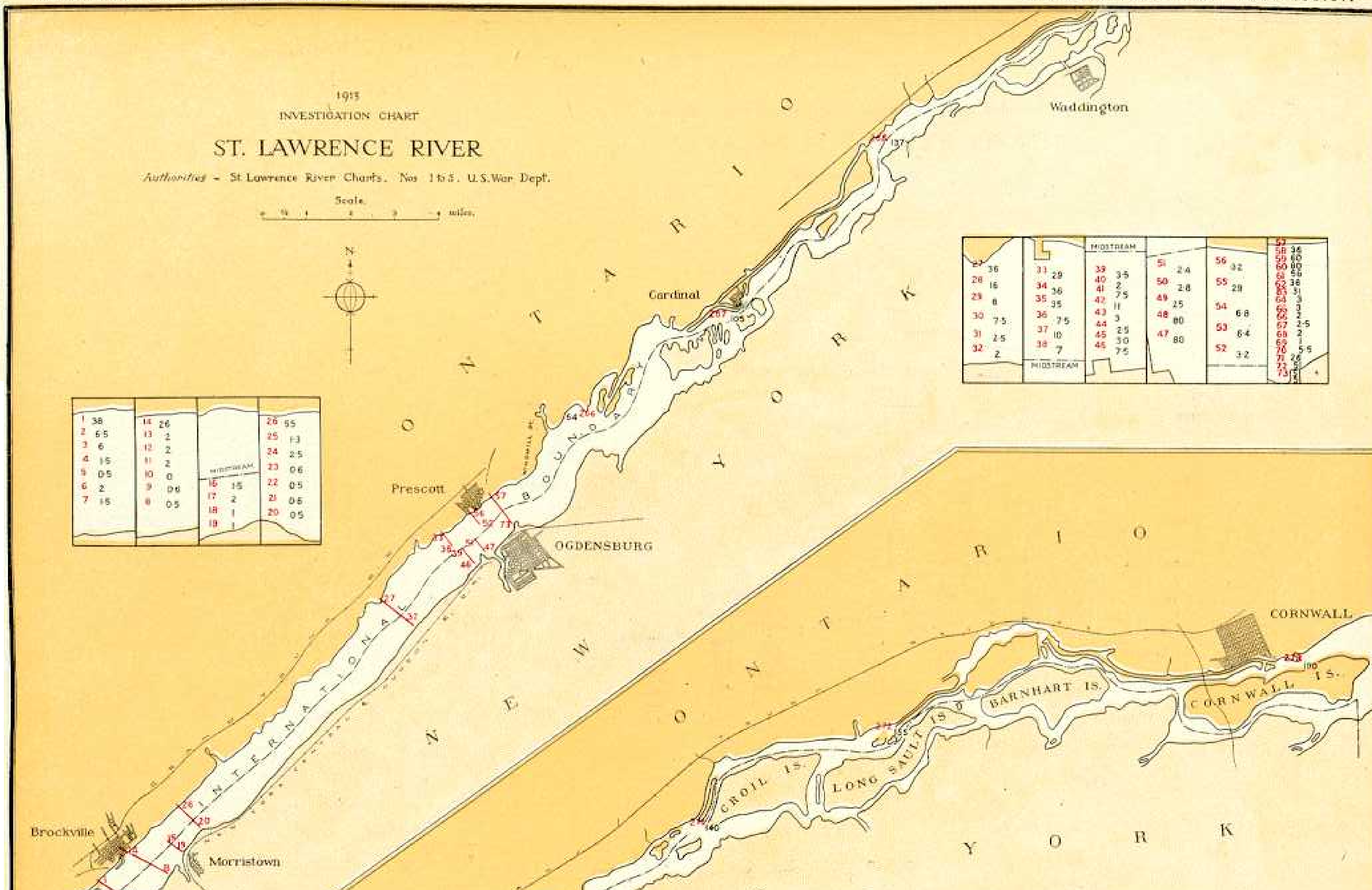
CURRENT FLOAT

as used in above investigation

DEPTH OF FLOAT 10 to 14 FT


1913
INVESTIGATION CHART
GANANOQUE ONT. WATER FRONT
Authorities - Campbell & Wright, 1910, copy of Beatty & Saunders, O.L.S. 1886.
Scale
N
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B COLI AVERAGE FOR PERIOD OF EXAMINATION
ANOQUE RIVER
SEWER OUTLET
SEWER OUTLET
W.W. INTAKE
ST LAWRENCE RIVER
EXAMINATIONS BEFORE POLLUTION
OF SUMMER POPULATION
MAY 19 1913.


LITTLE CALUMET
CALUMET
ST LAWRENCE RIVER
PROSPECT PARK
WASHINGTON
W.W. INTAKE
SEWER OUTLET
SEWER OUTLET
SEWER OUTLET
FRENCH CREEK
EXAMINATIONS BEFORE POLLUTION OF SUMMER POPULATION MAY 15 - 16 1913.
1913
INVESTIGATION CHART
CLAYTON N. Y. WATER FRONT
Authority - Map of Clayton N.Y. by Messrs Hind & Bond. Engineers. 1896.
Scale.
LEGEND
FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION
PLATE NO. 20C



Municipality	Date of Statistics	Area in Acres	Population	Density per Acre	Water Consumption Average Pumpage 24 Hours U.S. Gals.	Source	Treatment	Sewage Treatment	No. of Outlets	System
Brockville Ont.	1912	1242	9,400	7.6	3,050,000	St. Lawrence R.	Disinfection	None	2	Combined
Prescott Ont.	1912	640	3,000	4.7	275,000	"	None	"	3	Separate
Ogdensburg N.Y.	1913	......	16000	......	2,800,000	"	Filtered	"	13	Combined
Cornwall Ont.	1913	......	6,600	......	1,650,000	"	None	"	3	......

LEGEND

FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT
FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION

PLATE NO. 21

Table XXII.

WATERS OF THE ST. LAWRENCE RIVER

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
1	May 5-8	4	40	40	1.	27	26	38
2	"	4	20	60	5.	11	50	6.5
3	"	4	42	20	5.	20	20	6
4	"	4	24	80	25.	11	43	1.5
5	"	4	40	370	50.	20	153	0.5
6	"	4	22	90	50.	17	41	2.0
7	"	4	41	10	50.	25	6	1.5
8	"	4	13	40	50.	11	28	0.5
9	"	3	25	10	50.	16	7	0.6
10	"	4	20	10	0.	15	10	0
11	"	3	40	6	25.	32	5	2
12	"	4	34	10	50.	18	6	2
13	"	3	20	200	50.	15	102	2
14	"	4	32	18	1.	21	10	26
16	"	4	45	30	25.	27	30	1.5
17	"	4	33	14	25.	16	6	2.0
18	"	4	28	50	25.	14	25	1.0
19	"	4	20	30	50.	13	14	1.0
20	"	4	100	10	50.	38	6	0.5
21	"	3	70	8	50.	39	5	0.6
22	"	4	12	130	50.	11	10	0.5
23	"	3	26	..	50.	20	..	0.6
24	"	4	17	12	25.	13	43	2.5
25	"	3	34	5	25.	24	4	1.3
26	"	4	48	40	1.	34	19	55.0
	Brockville Tap	4	80	50	5.	40	20	6.0
27	May 9-16....	4	28	23	1.	17	15	36
28	"	4	32	40	5.	16	28	16
29	"	4	18	25	5.	11	13	8
30	"	4	16	10	5.	12	6	7.5
31	"	4	12	62	25.	8	18	2.5
32	"	4	38	30	50.	17	18	2.0
33	"	4	1200	150	1.	250	39	29
35	"	4	35	300	1.	20	83	35
36	"	4	30	280	5.	21	73	7.5
37	"	4	24	28	5.	13	14	10
38	"	4	24	40	5.	14	23	7
39	"	4	30	25	25.	15	10	3.5
40	"	4	30	20	25.	16	11	2.0
41	"	4	44	130	5.	20	69	7.5
42	"	4	22	160	5.	16	44	11

Table XXII.

WATERS OF THE ST. LAWRENCE RIVER—Continued.

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM Bacterial Counts per CC. on Agar 18°–22°C.	MAXIMUM Bacterial Counts per CC. on Agar 37°C.	MAXIMUM B. Coli. Smallest No. of CC. used showing reaction.	AVERAGE Bacterial Counts per CC. on Agar. 18° 22'C.	AVERAGE Bacterial Counts per CC. on Agar. 37°C.	AVERAGE B. Coli per 100 CC. by Phelps Method.
43	May 9-16	4	32	280	25.	19	76	3
44	"	4	22	70	25.	15	54	2.5
45	"	4	17	105	25.	10	41	3.0
46	"	4	24	180	5.	14	52	7.5
34	"	5	35	120	1.	25	31	35
47	May 9-15....	4	660	360	1.	292	123	80
48	"	4	440	150	1.	216	58	80
49	"	5	44	28	1.	30	11	25
50	"	5	38	10	25.	17	5	2.8
51	"	5	54	12	25.	18	6	2.4
52	"	5	48	120	25.	19	30	3.2
53	"	5	30	60	5.	19	18	6.4
54	"	5	38	230	5.	16	56	6.8
55	"	5	40	30	1.	16	13	29
56	"	5	84	20	1.	34	13	32
57	"	4	44	34	1.	21	13	36
58	"	4	42	35	1.	20	25	60
59	"	4	74	11	1.	31	7	80
60	"	4	48	42	1.	23	21	56
61	"	4	16	10	1.	10	9	36
62	"	4	12	10	1.	9	7	31
63	"	4	11	8	25.	10	5	3
64	"	4	15	34	25.	9	15	3
65	"	4	42	90	25.	20	25	2
66	"	4	24	20	25.	12	11	2.5
67	"	4	14	24	25.	11	14	2.0
68	"	4	68	40	50.	23	14	1.0
69	"	4	114	60	5.	35	21	5.5
70	"	4	120	41	1.	65	20	26
71	" ...	4	130	51	1.	81	31	51
72	"	4	160	200	1.	142	106	51
63	"	4	150	130	1.	84	56	51
	Prescott Tap	4	24	14	25.	13	6	1
266	Aug. 1-27....	60	..	2300	.1	..	319	64
267	"	60	..	230	.1	..	129	105
268	"	60	..	600	.1	..	160	137
269	"	60	..	38500	.1	..	4390	132
270	"	60	..	7400	.1	..	1967	183
271	"	60	..	4000	.1	..	1881	140
272	"	60	..	59000	.1	..	5546	155
273	"	60	..	1800	.1	..	1110	190

1915

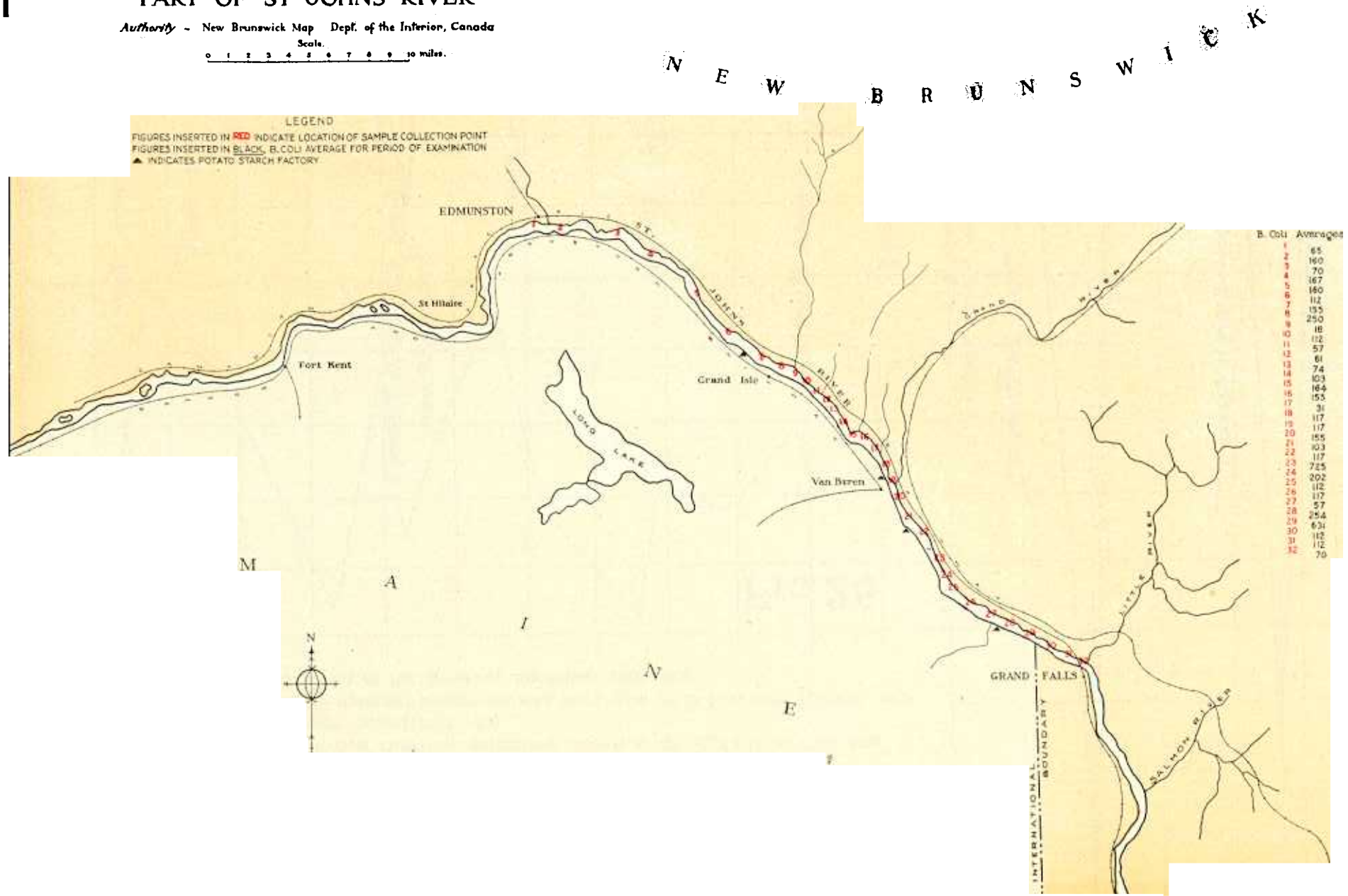
INVESTIGATION CHART

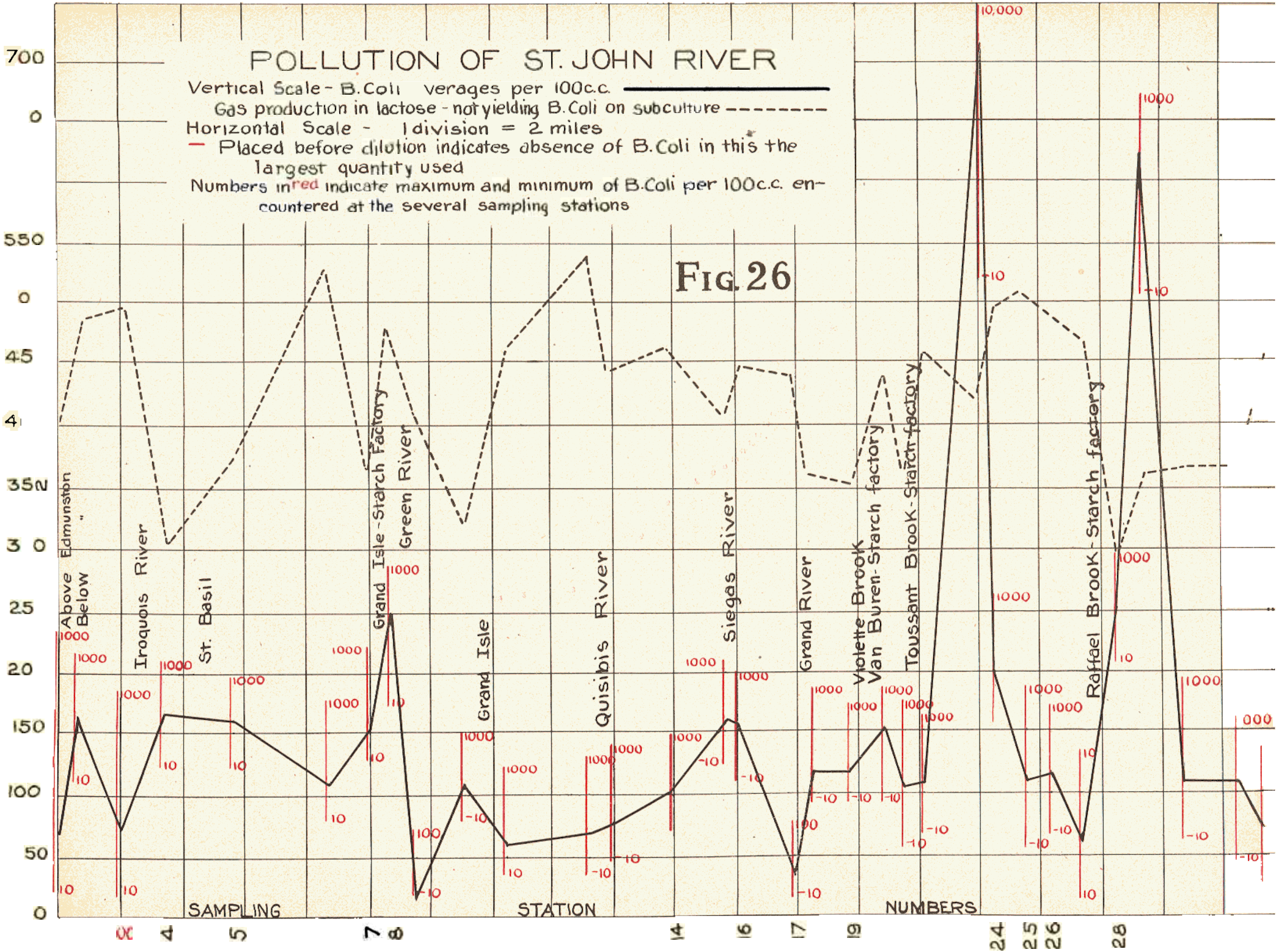
PART OF ST JOHNS RIVER

Authority - New Brunswick Map Dept. of the Interior, Canada

Scale.

0 1 2 3 4 5 6 7 8 9 10 miles.




POLLUTION OF ST. JOHN RIVER
Vertical Scale - B.Coli verages per 100c.c.
Gas production in lactose - not yielding B.Coli on subculture
Horizontal Scale - 1 division = 2 miles
— Placed before dilution indicates absence of B.Coli in this the largest quantity used
Numbers in red indicate maximum and minimum of B.Coli per 100c.c. encountered at the several sampling stations
FIG. 26
700
0
550
0
45
4
35
3 0
25
20
150
100
50
0
Above Edmunston
Below
Iroquois River
St. Basil
Grand Isle - Starch Factory
Green River
Grand Isle
Quisibis River
Siegas River
Grand River
Violette Brook
Van Buren - Starch factory
Toussant Brook - Starch factory
Raffael Brook - Starch factory
SAMPLING STATION NUMBERS
OC 4 5 7 8 14 16 17 19 24 25 26 28

REPORT OF INVESTIGATION RE POLLUTION OF THE ST. JOHN RIVER. LABORATORY HEADQUARTERS AT VAN BUREN, MAINE. FIELD EXAMINATIONS COVERED THE PERIOD OCTOBER 2nd—NOVEMBER 4th, 1913.

The St. John River forms the international boundary between Canada and the United States for about seventy miles of its course. The investigation was limited to that portion of the river between Edmunston and Grand Falls. This portion of the river forms the boundary for thirty-five miles and leaves the boundary entering Canadian territory three miles above Grand Falls.

Sources of Pollution.—There are no large urban communities in the drainage area of this portion of the river. In these small towns the bulk of the population depends upon cesspools and privies, owing to the lack of proper sewerage. Van Buren, Maine, population 1,900, has three small sewers, two discharging into Violette Brook and one directly into the river. These serve about 150 persons.

St. Leonards, N.B., has no municipal sewerage system. There is one sewer outlet from the Cyr Hotel direct into the river.

The direct sewage pollution of the St. John River from Edmunston to grand Falls is at present slight. There is a considerable rural pollution due to the drainage from small communities, manured fields, cesspools and other sources, which may be considered inevitable, especially after rains, thaws and floods. There are seven potato starch factories which have considerable effect upon the pollution of the river.

An average for this portion of the river during the period of investigation might be tentatively expressed as follows:

Average number of B. Coli per 100 c.c..... 125
Average number bacteria per c.c. on agar at 37° C.. 250

The rises in pollution noted are due to various causes, that below Edmunston being probably due to drainage from the village.

Increase is to be expected at Grand Isle because of the drainage from the town and wastes from the potato starch factory. A slight rise below the mouth of Grand River is probably due to pollution carried by that stream. The rise below Van Buren is due to sewage and drainage from Van Buren and St.

Table XXIII.

WATERS OF THE ST. JOHN RIVER

Sampling Point No.	DATE.	Number Samples taken.	MAXIMUM			AVERAGE		
			Bacterial Counts per CC. on Agar.		B. Coli per 100 CC. by Phelps Method.	Bacterial Counts per CC. on Agar.		B. Coli per 100 CC. by Phelps Method.
			18°–22°C.	37°C.		18° 22°C.	37°C.	
1	Oct. 7-Nov. 4...	21	..	1080	.1	..	275	65
2	" "	21	..	998	.1	..	285	160
3	" "	21	..	874	.1	..	237	70
4	" "	20	..	327	.1	..	153	167
5	" "	21	..	748	.1	..	183	160
6	" "	21	..	770	.1	..	182	112
7	" "	21	..	297	.1	..	110	155
8	" "	21	..	1420	.1	..	291	250
9	" "	21	..	370	1.	..	168	18
10	" "	21	..	908	.1	..	293	112
11	" "	21	..	568	.1	..	171	57
12	" "	21	..	630	.1	..	208	61
13	" "	21	..	310	.1	..	156	74
14	" "	21	..	506	.1	..	167	103
15	" "	21	..	386	.1	..	167	164
16	" "	21	..	578	.1	..	174	155
17	" "	21	..	564	1.	..	176	31
18	" "	21	..	752	.1	..	214	117
19	" "	21	..	1670	.1	..	253	117
20	" "	21	..	924	.1	..	318	155
21	" "	21	..	2248	.1	..	467	103
22	" "	21	..	1452	.1	..	432	112
23	Oct. 2-Nov. 4...	21	..	1320	.1	..	525	725
24	" "	21	..	1540	.1	..	456	202
25	" "	21	..	690	.1	..	274	112
26	" "	21	..	750	.1	..	313	117
27	" "	21	..	1160	.1	..	286	57
28	" "	20	..	760	.1	..	289	254
29	" "	21	..	760	.1	..	270	631
30	" "	20	..	826	.1	..	225	112
31	" "	21	..	900	.1	..	319	112
32	" "	21	..	630	.1	..	287	70

Leonards plus the wastes from potato starch factories on Violette Brook and Toussant Brook.

The rise at sampling points 28 and 29 is due to pollution of Rafael Brook, which also carries the waste of a potato starch factory.

Figure No. 26 shows clearly the fluctuations in the numbers of B. Coli and of the anaerobic organisms* which ferment lactose in mixed culture. This also shows a remarkable relation between potato starch factories and increase in B. Coli. The rise in the number of B. Coli below Grand Isle might be ascribed to the drainage from the village, although it is probably due to both the village drainage and the starch factory wastes. The sharp rise below Toussant Brook and about two miles below Van Buren suggests that the starch factory on Toussant Brook is a big factor in this sudden rise, although sewage and drainage from Van Buren and St. Leonards are also factors. Even more conclusive is the sudden rise below Rafael Brook. Here there is no question of sewage or other competing factor, and the starch factory wastes are the only considerable source of pollution in this vicinity.

In considering the pollution of the St. John River below Edmunston and Grand Falls there will be noted at least three points where the pollution was in excess of the usual amount. These three points are below Grand Isle, below Van Buren and Toussant Brook and below Rafael Brook. Other rises in the pollution index of much lesser importance are noticeable below Edmunston, below Iroquois River, below Siegas River and below Grand River.

* See Appendix re fermentation of Lactose by anaerobic organisms, p. 388.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Frances. Waters of Rainy Lake and Rainy River

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8	1	111	14	..	..	..	0	0	..	0	+
" 10		33	50	..	..	..	0	0	..	0	+
" 11		..	3	..	..	..	0	+	..	+	+
" 12		49	2	..	..	..	+	+	..	+	+
" 15		60	2	..	..	..	0	+	..	+	0
" 16		24	4	..	..	..	0	0	..	0	0
" 17		80	5	..	..	..	0	0	..	+	+
" 18		52	7	..	..	..	0	+	..	0	0
" 19		200	..	..	..	..	0	0	..	0	0
Averages		**76**	**10.8**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	2	40	4	..	..	..	0	0	..	0	+
" 9		34	9	..	..	..	0	+	..	+	+
" 10		36	10	..	..	..	0	+	..	+	+
" 11		..	6	..	..	..	+	+	..	+	+
" 12		49	1	..	..	..	..	..	..	+	+
" 15		22	1	..	..	..	0	0	..	+	0
" 16		26	5	..	..	..	0	0	..	+	0
" 17		60	4	..	..	..	0	0	..	0	+
" 18		240	2	..	..	..	0	0	..	0	0
" 19		210	..	..	..	..	0	0	..	0	+
Averages		**79**	**4.6**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	3	520	4	..	..	..	+	+	..	+	+
" 9		16	18	..	..	..	0	0	..	0	0
" 10		10	5	..	..	..	0	+	..	+	+
" 11		..	3	..	..	..	0	+	..	+	+
" 12		12	5	..	..	..	0	+	..	+	+
" 15		10	5	..	..	..	0	+	..	0	+
" 16		54	3	..	..	..	0	0	..	+	0
" 17		12	1	..	..	..	0	0	..	+	+
" 18		85	3	..	..	..	0	0	..	0	0
" 19		420	2	..	..	..	0	0	..	0	0
Averages		**126**	**17**	**17**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	4	70	..	..	..	..	0	0	..	0	0
" 9		11	3	..	..	..	0	0	..	0	+
" 10		16	14	..	..	..	0	0	..	+	0
" 11		..	16	..	..	..	0	0	..	+	+
" 12		12	1	..	..	..	+	0	..	+	+
" 15		20	2	..	..	..	0	0	..	0	0
" 16		15	3	..	..	..	0	0	..	0	+
" 17		40	3	..	..	..	0	0	..	0	+
" 18		60	3	..	..	..	0	0	..	0	0
" 19		110	10	..	..	..	0	0	..	0	0
Averages		**38**	**6.1**	**3.4**	**B.**	**Co**	**li**	**10**	**0**	**cc**	

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8	5	20	1	..	..	..	0	+	..	+	+
" 9		9	2	..	..	..	0	0	..	+	0
" 10		22	5	..	..	..	+	+	..	0	+
" 11		..	5	..	..	..	0	+	..	+	+
" 12		8	3	..	..	..	0	+	..	+	+
" 15		10	10	..	..	..	0	0	..	+	0
" 16		20	3	..	..	..	0	0	..	0	+
" 17		25	1	..	..	..	0	0	..	0	0
" 18		68	5	..	..	..	0	0	..	0	0
" 19		82	18	..	..	..	0	0	..	0	0
Averages		**29**	**5.3**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	6	20	0	..	..	..	0	0	..	0	0
" 9		9	3	..	..	..	0	0	..	0	0
" 10		14	22	..	..	..	0	+	..	+	+
" 11		..	12	..	..	..	+	+	..	+	+
" 12		12	1	..	..	..	0	0	..	+	+
" 15		10	3	..	..	..	0	0	..	0	0
" 16		14	2	..	..	..	0	0	..	+	+
" 17		8	2	..	..	..	0	0	..	0	0
" 18		40	6	..	..	..	0	0	..	0	0
" 19		125	1	..	..	..	0	0	..	0	0
Averages		**28**	**5.1**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	7	10	2	..	..	..	0	+	..	+	+
" 9		13	4	..	..	..	0	0	..	0	0
" 10		17	18	..	..	..	0	+	..	0	+
" 11		..	4	..	..	..	+	+	..	+	+
" 12		18	1	..	..	..	0	0	..	+	+
" 15		14	6	..	..	..	0	0	..	+	0
" 16		12	1	..	..	..	0	0	..	0	+
" 17		7	2	..	..	..	0	0	..	0	0
" 18		60	3	..	..	..	0	0	..	0	0
" 19		62	3	..	..	..	0	0	..	0	0
Averages		**23**	**4.4**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	8	33	12	..	..	..	0	0	..	0	+
" 9		36	14	..	..	..	0	0	..	0	0
" 10		10	25	..	..	..	+	+	..	+	0
" 11		..	10	..	..	..	0	0	..	+	+
" 12		11	8	..	..	..	0	+	..	+	+
" 15		25	6	..	..	..	0	+	..	0	0
" 16		16	5	..	..	..	0	+	..	+	+
" 17		6	4	..	..	..	0	0	..	0	+
" 18		35	4	..	..	..	0	0	..	+	0
" 19		165	0	..	..	..	0	0	..	0	+
Averages		**37**	**8.8**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Frances. Waters of Rainy Lake and Rainy River

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8.....	9	39	8	..	..	..	0	0	..	0	+
" 9.....		30	20	..	..	..	+	+	..	0	0
" 10.....		33	10	..	..	..	+	+	..	0	0
" 11.....		..	16	..	..	..	+	0	..	+	+
" 12.....		115	2	..	..	..	0	+	..	+	+
" 15.....		35	5	..	..	..	0	0	..	0	+
" 16.....		105	9	..	..	..	0	0	..	+	+
" 17.....		60	4	..	..	..	0	0	..	0	0
" 18.....		58	24	..	..	..	0	0	..	0	0
" 19.....		45	15	..	..	..	0	0	..	0	0
Averages		**57**	**11.3**	**8.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8.....	10	19	2	..	..	..	0	0	..	+	+
" 9.....		29	33	..	..	..	0	+	..	+	+
" 10.....		9	3	..	..	..	0	+	..	+	+
" 11.....		..	10	..	..	..	0	+	..	+	+
" 12.....		61	6	..	..	..	0	+	..	+	+
" 15.....		48	8	..	..	..	0	0	..	0	0
" 16.....		165	0	..	..	..	0	0	..	+	+
" 17.....		90	3	..	..	..	0	0	..	0	+
" 18.....		250	8	..	..	..	0	+	..	0	0
" 19.....		38	11	..	..	..	0	0	..	0	0
Averages		**78.**	**8.4**	**9.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8.....	11	37	2	..	..	..	0	0	..	0	0
" 9.....		38	43	..	..	..	0	+	..	+	+
" 10.....		22	4	..	..	..	+	+	..	+	+
" 11.....		114	spreader	..	..	..	0	0	..	+	+
" 12.....		..	8	..	..	..	0	0	..	+	+
" 15.....		120	1	..	..	..	0	+	..	0	0
" 16.....		90	2	..	..	..	0	+	..	+	+
" 17.....		*8000	0	..	..	..	0	0	..	0	+
" 18.....		52	8	..	..	..	0	0	..	0	0
" 19.....		125	0	..	..	..	0	0	..	0	0
Averages		**74**	**7.5**	**17**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8.....	12	79	3	..	..	..	+	+	..	+	+
" 9.....		46	12	..	..	..	0	+	..	0	+
" 10.....		22	5	..	..	..	+	+	..	+	+
" 11.....		spreader	13	..	..	..	0	0	..	+	+
" 12.....		78	1	..	..	..	0	0	..	+	+
" 15.....		100	3	..	..	..	0	0	..	0	0
" 16.....		45	3	..	..	..	0	+	..	+	+
" 17.....		128	4	..	..	..	0	0	..	0	+
" 18.....		35	16	..	..	..	0	0	..	0	0
" 19.....		210	spreader	..	..	..	0	0	..	0	0
Averages		**82**	**6.6**	**23**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8.....	13	43	3	..	..	..	0	0	..	0	+
" 9.....		50	73	..	..	..	0	+	..	+	+
" 10.....		40	4	..	..	..	+	+	..	+	+
" 11.....		70	8	..	..	..	0	0	..	+	+
" 12.....		32	18	..	..	..	0	0	..	+	+
" 15.....		80	12	..	..	..	0	+	..	0	+
" 16.....		95	5	..	..	..	0	0	..	+	+
" 17.....		78	5	..	..	..	0	0	..	0	0
" 18.....		44	12	..	..	..	0	0	..	0	0
" 19.....		144	12	..	..	..	0	0	..	0	0
Averages		**67**	**15**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8.....	14	62	3	..	..	..	0	0	..	0	0
" 9.....		58	34	..	..	..	+	+	..	0	+
" 10.....		28	4	..	..	..	+	+	..	+	+
" 11.....		44	16	..	..	..	0	0	..	+	+
" 12.....		28	6	..	..	..	0	0	..	+	+
" 15.....		60	9	..	..	..	0	+	..	+	+
" 16.....		75	4	..	..	..	0	+	..	0	0
" 17.....		74	4	..	..	..	0	0	..	+	+
" 18.....		35	6	..	..	..	0	0	..	0	0
" 19.....		850	8	..	..	..	0	0	..	0	0
Averages		**51**	**9.4**	**23**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8.....	15	180	0	..	..	..	+	0	..	0	0
" 9.....		20	9	..	..	..	0	+	..	0	0
" 10.....		21	3	..	..	..	+	+	..	+	+
" 11.....		54	12	..	..	..	0	0	..	+	+
" 12.....		22	9	..	..	..	0	0	..	+	+
" 15.....		75	12	..	..	..	0	0	..	+	0
" 16.....		40	10	..	..	..	0	+	..	+	+
" 17.....		30	7	..	..	..	0	0	..	0	+
" 18.....		48	20	..	..	..	0	0	..	0	0
" 19.....		40	20	..	..	..	0	0	..	0	0
Averages		**53**	**10**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8.....	16	28	3	..	..	..	0	0	..	0	0
" 9.....		18	22	..	..	..	0	+	..	0	0
" 10.....		28	6	..	..	..	+	+	..	0	+
" 11.....		80	5	..	..	..	0	+	..	+	+
" 12.....		35	0	..	..	..	0	0	..	+	+
" 15.....		56	4	..	..	..	0	+	..	+	+
" 16.....		14	1	..	..	..	0	+	..	+	+
" 17.....		25	0	..	..	..	0	0	..	0	+
" 18.....		35	2	..	..	..	+	0	..	0	0
" 19.....		158	13	..	..	..	0	0	..	0	0
Averages		**47**	**5.6**	**9.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not used in computing average.

1913

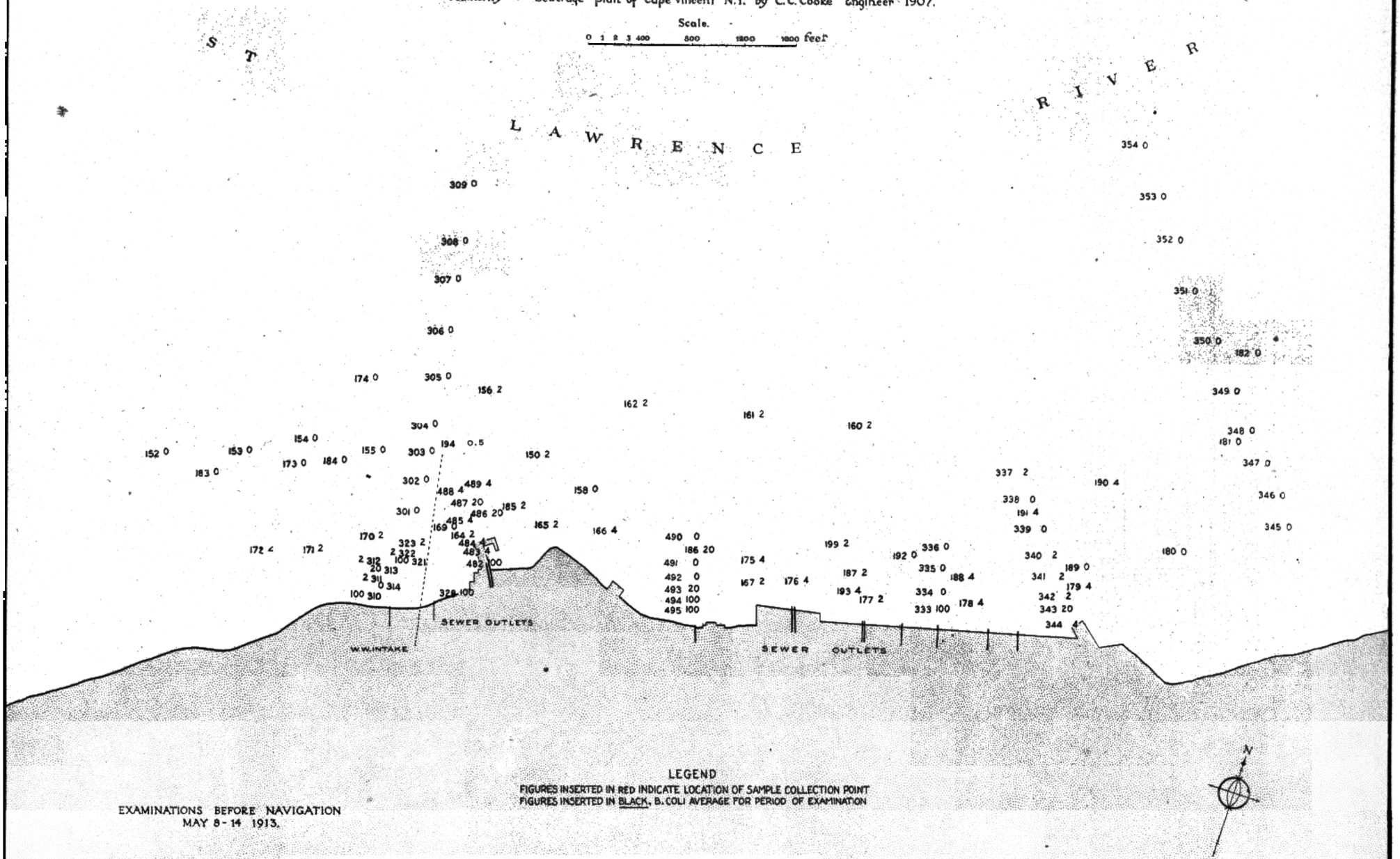
INVESTIGATION CHART

CAPE VINCENT N. Y. WATER FRONT

Authority - Sewerage plan of Cape Vincent N.Y. by C.C. Cooke Engineer 1907.

Scale.

0 1 2 3 400 800 1200 1600 feet



LEGEND

FIGURES INSERTED IN RED INDICATE LOCATION OF SAMPLE COLLECTION POINT

FIGURES INSERTED IN BLACK, B. COLI AVERAGE FOR PERIOD OF EXAMINATION

EXAMINATIONS BEFORE NAVIGATION
MAY 8 - 14 1913.

PLATE NO. 20D

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8	17	72	..	..	..	..	0	0	..	0	+
" 9		42	1	..	..	..	0	0	..	+	+
" 10		27	6	..	..	..	+	+	..	+	+
" 11		27	6	..	..	..	0	0	..	+	+
" 12		22	5	..	..	..	0	0	..	+	+
" 15		44	4	..	..	..	0	+	..	0	0
" 16		125	0	..	..	..	0	0	..	0	0
" 17		24	2	..	..	..	0	0	..	0	+
" 18		78	12	..	..	..	0	0	..	0	0
" 19		108	9	..	..	..	0	0	..	0	0
Averages		**56**	**5.**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	18	21	..	..	..	..	0	0	..	+	+
" 9		124	31	..	..	..	+	+	..	+	+
" 10		24	5	..	..	..	0	+	..	+	+
" 11		54	4	..	..	..	0	0	..	+	+
" 12		52	6	..	..	..	0	0	..	+	+
" 15		205	30	..	..	..	+	+	..	+	+
" 16		220	10	..	..	..	0	+	..	+	+
" 17		88	40	..	..	..	0	0	..	+	0
" 18		68	56	..	..	..	0	0	..	0	0
" 19		280	22	..	..	..	0	0	..	0	0
Averages		**113**	**22**	**25**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	19	21	15	..	..	..	0	0	..	+	+
" 9		84	14	..	..	..	+	+	..	+	0
" 10		43	9	..	..	..	+	+	..	+	+
" 11		184	16	..	..	..	0	+	..	+	+
" 12		72	5	..	..	..	0	0	..	+	+
" 15		124	15	..	..	..	0	+	..	+	0
" 16		80	15	..	..	..	+	+	..	+	+
" 17		160	17	..	..	..	0	0	..	+	+
" 18		105	10	..	..	..	0	0	..	0	+
" 19		168	30	..	..	..	+	0	..	0	0
Averages		**104**	**14**	**35**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	20	39	..	..	..	..	0	+	..	+	+
" 9		90	17	..	..	..	0	+	..	+	+
" 10		54	3	..	..	..	0	+	..	+	+
" 11		140	13	..	..	..	0	+	..	+	+
" 12		51	13	..	..	..	0	0	..	+	+
" 15		112	16	..	..	..	0	+	..	0	+
" 16		94	20	..	..	..	+	+	..	+	+
" 17		60	18	..	..	..	0	0	..	0	+
" 18		54	7	..	..	..	0	0	..	+	+
" 19		88	14	..	..	..	0	0	..	0	0
Averages		**78**	**13**	**19**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8	21	14	2	..	..	..	0	0	..	0	0
" 9		30	spreader	..	..	..	0	+	..	+	+
" 10		37	3	..	..	..	+	+	..	+	+
" 11		70	8	..	..	..	+	+	..	+	+
" 12		34	9	..	..	..	0	+	..	+	+
" 15		104	4	..	..	..	0	+	..	0	0
" 16		160	10	..	..	..	0	+	..	+	+
" 17		25	3	..	..	..	0	0	..	+	+
" 18		62	5	..	..	..	0	+	..	+	0
" 19		78	7	..	..	..	0	0	..	0	0
Averages		**61**	**5.6**	**27**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	22	15	0	..	..	..	0	0	..	+	+
" 9		43	9	..	..	..	0	0	..	+	0
" 10		51	4	..	..	..	0	+	..	+	+
" 11		14	8	..	..	..	+	+	..	+	+
" 12		34	16	..	..	..	0	+	..	+	+
" 15		85	5	..	..	..	+	+	..	0	+
" 16		152	10	..	..	..	+	0	..	+	+
" 17		65	2	..	..	..	0	+	..	+	+
" 18		68	4	..	..	..	0	0	..	+	0
" 19		72	10	..	..	..	0	0	..	0	0
Averages		**59**	**6.8**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	23	13	2	..	..	..	0	0	..	+	+
" 9		62	24	..	..	..	0	+	..	+	0
" 10		139	4	..	..	..	+	+	..	+	+
" 11		50	6	..	..	..	+	+	..	+	+
" 12		33	15	..	..	..	0	+	..	+	+
" 15		22	6	..	..	..	0	+	..	0	+
" 16		120	0	..	..	..	0	0	..	+	+
" 17		spreader	6	..	..	..	0	+	..	0	+
" 18		spreader	3	..	..	..	0	+	..	+	+
" 19		140	6	..	..	..	0	0	..	+	..
Averages		**72**	**7.2**	**26**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	24	20	1	..	..	..	0	0	..	+	+
" 9		18	20	..	..	..	0	0	..	+	+
" 10		170	11	..	..	..	+	+	..	+	+
" 11		200	73	..	..	..	+	+	..	+	+
" 12		35	24	..	..	..	0	+	..	+	+
" 15		30	2	..	..	..	0	+	..	+	0
" 16		38	3	..	..	..	0	+	..	+	0
" 17		82	7	..	..	..	0	+	..	+	+
" 18		120	4	..	..	..	0	0	..	+	+
" 19		44	5	..	..	..	0	0	..	+	0
Averages		**75**	**15**	**29**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 8	25	28	12	..	..	..	0	0	..	+	0
" 9		42	19	..	..	..	0	+	..	+	0
" 10		85	9	..	..	..	0	+	..	+	+
" 11		196	18	..	..	..	+	+	..	+	+
" 12		53	31	..	..	..	0	+	..	+	+
" 15		140	2	..	..	..	+	+	..	+	+
" 16		16	1	..	..	..	0	+	..	+	+
" 17		175	22	..	..	..	0	+	..	+	+
" 18		95	3	..	..	..	0	+	..	+	+
" 19		215	8	..	..	..	0	0	..	+	0
Averages		**104**	**12**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	26	136	10	..	..	..	+	+	..	+	+
" 9		32	10	..	..	..	+	+	..	+	0
" 10		69	5	..	..	..	0	+	..	+	+
" 11		172	12	..	..	..	+	+	..	+	+
" 12		118	spreader	..	..	..	0	+	..	+	+
" 15		160	20	..	..	..	+	+	..	+	0
" 16		190	25	..	..	..	+	+	..	+	+
" 17		128	10	..	..	..	0	0	..	0	+
" 18		150	24	..	..	..	0	0	..	+	+
" 19		195	150	..	..	..	0	0	..	+	+
Averages		**135**	**29**	**55**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	27	30	30	..	..	..	+	0	..	+	+
" 9		39	16	..	..	..	0	0	..	0	+
" 10		30	5	..	..	..	0	+	..	+	0
" 11		116	17	..	..	..	+	+	..	+	+
" 12		81	8	..	..	..	0	+	..	+	+
" 15		210	40	..	..	..	+	+	..	+	0
" 16		175	20	..	..	..	+	+	..	+	+
" 17		78	6	..	..	..	0	+	..	0	+
" 18		58	10	..	..	..	0	0	..	+	0
" 19		140	20	..	..	..	0	0	..	+	+
Averages		**95**	**17**	**37**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	28	14	6	..	..	..	+	+	..	0	0
" 9		90	26	..	..	..	0	0	..	+	0
" 10		28	7	..	..	..	0	+	..	+	0
" 11		72	7	..	..	..	0	+	..	+	+
" 12		108	10	..	..	..	0	+	..	+	+
" 15		54	30	..	..	..	0	+	..	+	+
" 16		80	10	..	..	..	0	+	..	+	+
" 17		98	11	..	..	..	0	+	..	0	+
" 18		220	..	..	..	..	0	+	..	+	+
" 19		..	42	..	..	..	..	..	..	..	..
Averages		**84**	**16**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 8	29	41	5	..	..	..	0	+	..	+	+
" 9		25	22	..	..	..	0	+	..	+	0
" 10		83	7	..	..	..	+	+	..	+	+
" 11		60	18	..	..	..	+	+	..	+	+
" 12		60	16	..	..	..	0	+	..	+	+
" 15		50	19	..	..	..	0	+	..	+	+
" 16		65	9	..	..	..	+	+	..	+	+
" 17		25	10	..	..	..	+	+	..	+	+
" 18		62	29	..	..	..	0	0	..	0	+
" 19		65	25	..	..	..	0	+	..	+	+
Averages		**53**	**16**	**50**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	30	31	14	..	..	..	0	0	..	+	0
" 9		17	20	..	..	..	0	+	..	+	+
" 10		64	4	..	..	..	0	+	..	+	+
" 11		72	14	..	..	..	+	+	..	+	+
" 12		56	38	..	..	..	0	+	..	+	+
" 15		95	20	..	..	..	+	+	..	+	0
" 16		150	24	..	..	..	+	+	..	+	+
" 17		80	13	..	..	..	0	0	..	+	+
" 18		75	22	..	..	..	0	+	..	+	+
" 19		260	11	..	..	..	0	+	..	+	+
Averages		**90**	**18**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	31	60	7	..	..	..	0	0	..	+	0
" 9		55	14	..	..	..	0	+	..	+	0
" 10		97	14	..	..	..	0	+	..	+	0
" 11		70	12	..	..	..	0	0	..	+	+
" 12		90	spreader	..	..	..	+	+	..	+	+
" 15		88	7	..	..	..	0	+	..	+	+
" 16		65	10	..	..	..	+	+	..	+	+
" 17		30	4	..	..	..	+	0	..	+	+
" 18		84	26	..	..	..	+	+	..	+	+
" 19		110	6	..	..	..	0	+	..	+	+
Averages		**74**	**11**	**37**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	32	31	8	..	..	..	0	+	..	+	+
" 9		132	4	..	..	..	0	+	..	+	0
" 10		73	12	..	..	..	+	+	..	+	+
" 11		164	15	..	..	..	0	0	..	+	+
" 12		126	21	..	..	..	+	+	..	+	+
" 15		92	16	..	..	..	0	+	..	+	+
" 16		155	12	..	..	..	0	+	..	+	+
" 17		96	3	..	..	..	0	0	..	+	+
" 18		98	12	..	..	..	0	..	..	0	0
" 19		86	4	..	..	..	0	0	..	+	+
Averages		**105**	**10**	**29**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Frances. Waters of Rainy Lake and Rainy River

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8	33	67	1	..	..	..	0	0	..	+	+
" 9		103	3	..	..	..	0	!	..	+	0
" 10		47	4000	..	..	..	+	+	..	+	0
" 11		48	10	..	..	..	0	+	..	+	+
" 12		80	27	..	..	..	+	+	..	+	+
" 15		88	17	..	..	..	0	+	..	+	+
" 16		145	40	..	..	..	0	+	..	+	+
" 17		72	6	..	..	..	0	0	..	+	+
" 18		92	20	..	..	..	0	+	..	+	+
" 19		135	8	..	..	..	0	+	..	+	+
Averages		**87**	**14**	**34**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	34	45	10	..	..	..	0	+	..	0	+
" 9		83	5	..	..	..	0	+	..	+	0
" 10		65	20	..	..	..	+	+	..	+	+
" 11		74	9	..	..	..	0	+	..	+	+
" 12		70	10	..	..	..	+	+	..	+	+
" 15		180	5	..	..	0	0	+	..	+	+
" 16		145	15	..	..	0	0	+	..	+	+
" 17		spreader	15	..	..	..	0	+	..	+	+
" 18		98	18	..	..	..	0	0	..	+	+
" 19		77	5	..	..	..	0	0	..	+	+
Averages		**93**	**11**	**31**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	35	69	11	..	..	..	+	+	..	+	+
" 9		..	7	..	..	..	+	+	..	+	+
" 10		39	9	..	..	..	0	+	..	+	+
" 11		37	4	..	..	..	0	0	..	+	+
" 12		64	7	..	..	..	+	+	..	+	+
" 15		120	6	..	..	..	0	+	..	+	+
" 16		98	25	..	..	..	+	+	..	+	+
" 17		70	14	..	..	..	0	0	..	+	+
" 18		82	20	..	..	..	0	0	..	+	+
" 19		220	38	..	..	..	0	0	..	+	+
Averages		**88**	**14**	**45**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	36	27	7	..	..	..	+	+	..	+	+
" 9		55	5	..	..	..	0	+	..	+	0
" 10		42	9	..	..	..	+	+	..	+	+
" 11		104	5	..	..	..	0	0	..	+	+
" 12		46	18	..	..	..	+	+	..	+	+
" 15		155	8	..	..	..	0	+	..	+	+
" 16		140	16	..	..	..	+	+	..	+	+
" 17		95	2	..	..	..	0	0	..	+	+
" 18		130	10	..	..	..	0	+	..	+	+
" 19		84	82	..	..	..	0	0	..	+	0
Averages		**87**	**16**	**47**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8	37	57	3	..	..	..	0	+	..	+	0
" 9		55	2	..	..	..	0	+	..	+	+
" 10		54	22	..	..	..	+	+	..	+	+
" 11		31	8	..	..	..	0	0	..	+	+
" 12		67	29	..	..	..	0	+	..	+	+
" 15		80	5	..	..	..	+	+	..	+	+
" 16		78	5	..	..	..	0	+	..	+	+
" 17		108	4	..	..	..	0	+	..	+	+
" 18		120	4	..	..	..	0	0	..	+	+
" 19		..	30	..	..	..	0	0	..	+	0
Averages		**72**	**11**	**31**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	38	216	30	..	..	..	+	+	..	+	+
" 9		98	6	..	..	..	0	+	..	+	0
" 10		96	60	..	..	..	+	+	..	+	+
" 11		100	14	..	..	..	0	0	..	+	+
" 12		200	450	..	..	..	+	+	..	+	+
" 15		950	60	..	..	+	+	+	..	+	..
" 16		3000	110	..	..	+	+	+	..	+	..
" 17		13000	300	..	..	+	+	0	..	+	..
" 18		1850	28	..	..	..	0	+	..	+	+
" 19		1640	155	..	0	0	0	..	+	..	..
Averages		**2115**	**121**	**335**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	39	118	13	..	..	..	+	+	..	+	+
" 9		135	3	..	..	..	+	+	..	+	+
" 10		194	6	..	..	..	+	+	..	+	0
" 11		184	10	..	..	..	+	+	..	+	+
" 12		87	158	..	..	..	+	+	..	+	+
" 15		1540	45	..	..	+	+	+	..	+	..
" 16		2900	65	..	..	+	+	+	..	+	..
" 17		7000	180	..	..	0	+	+	..	+	..
" 18		1420	17	..	..	..	0	+	..	+	+
" 19		1550	85	..	0	0	0	..	+	..	..
Averages		**1512**	**58**	**263**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	40	90	10	..	..	..	+	+	..	+	0
" 9		88	2	..	..	..	0	+	..	+	0
" 10		151	*4000	..	..	..	0	+	..	+	+
" 11		92	48	..	..	..	+	+	..	+	+
" 12		73	124	..	..	..	+	+	..	+	+
" 15		1100	15	..	..	..	+	+	..	+	..
" 16		spreader	14	..	..	0	+	+	..	+	..
" 17		800	50	..	..	0	0	+	..	+	..
" 18		1100	13	..	..	..	0	+	..	+	+
" 19		2200	74	..	0	0	0	..	+	..	..
Averages		**632**	**38**	**59**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in average.

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July 8	41	50	13	..	..	..	0	0	..	+	+
" 9		150	25	..	..	..	0	+	..	0	0
" 10		35	14	..	..	..	+	+	..	+	0
" 11		76	14	..	..	..	+	+	..	+	+
" 12		120	6	..	..	..	0	+	..	+	..
" 15		380	5	..	..	..	+	+	..	+	..
" 16		2550	40	..	..	0	0	0	..	+	..
" 17		1280	76	..	..	0	+	0	..	+	..
" 18		900	40	..	0	0	0	+	..	+	+
" 19		220	12	..	0	0	0	..	+	..	..
Averages		**576**	**24**	**38**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	42	80	10	..	..	..	0	0	..	+	+
" 9		109	31	..	..	..	+	+	..	+	+
" 10		74	8	..	..	..	+	+	..	+	+
" 11		104	40	..	..	..	+	+	..	+	+
" 12		650	54	..	..	..	0	+	..	+	+
" 15		150	1	..	..	0	0	+	..	+	..
" 16		1680	60	..	..	+	+	+	..	+	..
" 17		720	50	..	..	0	0	0	..	+	..
" 18		630	40	..	..	0	0	+	..	+	+
" 19		950	37	..	0	0	0	..	..	..	..
Averages		**514**	**33**	**136**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 8	43	96	3	..	..	..	+	+	..	+	+
" 9		62	15	..	..	..	0	0	..	+	0
" 10		51	14	..	..	..	0	+	..	+	0
" 11		122	23	..	..	..	+	+	..	+	+
" 12		600	190	..	..	..	0	+	..	+	+
" 15		200	2	..	..	0	0	+	..	+	..
" 16		2800	64	..	..	0	+	+	..	+	..
" 17		1600	60	..	..	0	+	0	..	+	..
" 18		820	42	..	..	..	0	+	..	+	+
" 19		960	28	..	0	0	0	..	0	..	..
Averages		**731**	**44**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9	44	77	74	..	..	..	+	+	..	+	+
" 10		76	23	..	..	..	+	+	..	+	+
" 11		350	80	..	..	+	+	+	..	+	..
" 12		172	64	..	..	+	+	+	..	+	..
" 14		20	3	..	..	+	+	+	..	+	..
" 15		180	60	..	..	0	+	+	..	+	..
" 16		850	126	..	..	+	+	+	..	+	..
" 17		200	100	..	0	0	+	0	..	+	..
" 18		200	60	..	0	0	0	..	+	..	..
" 19		320	195	..	0	0	+	..	0	..	..
Averages		**244**	**78**	**433**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 9	45	144	64	..	..	..	+	+	..	+	+
" 10		34	15	..	..	..	+	+	..	+	+
" 11		266	60	..	..	+	+	+	..	+	..
" 12		180	54	..	..	+	+	+	..	+	..
" 14		70	40	..	..	+	0	+	..	+	..
" 15		23	40	..	..	0	+	+	..	+	..
" 16		4	92	..	..	+	+	+	..	+	..
" 17		120	20	..	0	0	+	+	..	+	..
" 18		200	78	..	0	+	0	..	+	..	..
" 19		130	84	..	0	0	+	..	0	..	..
Averages		**141**	**54**	**361**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9	46	113	54	..	..	..	+	+	..	+	+
" 10		53	20	..	..	..	+	+	..	+	0
" 11		108	37	..	..	0	+	+	..	+	..
" 12		216	74	..	..	0	0	+	..	+	..
" 14		100	3	..	..	0	+	+	..	+	..
" 15		..	45	..	..	+	+	+	..	+	..
" 16		70	112	..	..	+	+	+	..	+	..
" 17		100	20	..	0	0	0	+	..	+	..
" 18		180	24	..	0	+	0	..	+	..	..
" 19		80	56	..	0	0	0	+	..	..	..
Averages		**113**	**44**	**248**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9	47	111	67	..	..	..	+	+	..	+	+
" 10		31	13	..	..	..	+	+	..	+	+
" 11		64	28	..	..	0	+	+	..	+	..
" 12		59	30	..	..	0	+	+	..	+	..
" 14		150	18	..	..	0	0	+	..	+	..
" 15		..	9	..	..	+	+	+	..	+	..
" 16		200	160	..	..	0	+	+	..	+	..
" 17		150	40	..	0	0	0	+	..	+	..
" 18		100	49	..	0	0	0	..	+	..	..
" 19		90	60	..	0	0	+	+	..	..	..
Averages		**106**	**47**	**165**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9	48	138	84	..	..	..	+	+	..	+	+
" 10		80	76	..	..	..	+	+	..	+	+
" 11		230	72	..	..	+	+	+	..	+	..
" 12		180	96	..	..	0	+	+	..	+	..
" 14		160	25	..	..	0	0	+	..	+	..
" 15		..	75	..	..	0	+	+	..	+	..
" 16		1200	800	..	..	+	+	+	..	+	..
" 17		150	30	..	0	0	+	+	..	+	..
" 18		200	160	..	0	0	0	..	+	..	..
" 19		40	68	..	0	0	0	..	..	..	..
Averages		**264**	**148**	**253**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 9.....	49	402	102	..	..	..	+	+	..	+	+
" 10.....		170	18	..	..	..	0	+	..	+	+
" 11.....		424	93	..	..	+	+	+	..	+	..
" 12.....		900	130	..	..	0	0	+	..	+	..
" 14.....		3200	100	..	..	0	+	+	..	+	..
" 15.....		4000	110	..	..	0	+	+	..	+	..
" 16.....		150	75	..	..	+	0	+	..	+	..
" 17.....		280	60	..	0	0	0	+	..	+	..
" 18.....		400	100	..	0	0	0	..	+	..	..
" 19.....		1620	197	..	0	0	+	+	..	..	..
Averages		**1154**	**98**	**157**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	50	470	105	..	..	..	+	+	..	+	+
" 10.....		120	44	..	..	..	+	+	..	+	+
" 11.....		500	156	..	..	+	+	+	..	+	..
" 12.....		1000	430	..	..	0	+	+	..	+	..
" 14.....		300	55	..	..	0	+	+	..	+	..
" 15.....		..	75	..	..	0	+	+	..	+	..
" 16.....		1900	390	..	..	+	+	+	..	+	..
" 17.....		250	48	..	0	0	0	..	..	+	..
" 18.....		400	120	..	0	0	+	..	+	..	..
" 19.....		200	185	..	0	0	0	0	..	..	..
Averages		**265**	**160**	**260**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	51	590	108	..	..	..	+	+	..	+	+
" 10.....		250	47	..	..	..	+	+	..	+	+
" 11.....		208	120	..	..	+	+	+	..	+	..
" 12.....		300	308	..	..	0	+	+	..	+	..
" 14.....		1500	30	..	..	0	0	+	..	+	..
" 15.....		600	75	..	..	0	0	+	..	+	..
" 16.....		1020	120	..	..	0	+	+	..	+	..
" 17.....		400	40	..	0	0	0	+	..	+	..
" 18.....		350	44	..	0	0	0	..	+	..	..
" 19.....		240	28	..	0	0	+	0	..	..	..
Averages		**540**	**92**	**159**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	52	156	97	..	..	..	+	+	..	+	+
" 10.....		45	10	..	..	..	0	+	..	+	+
" 11.....		240	100	..	..	+	+	+	..	+	..
" 12.....		50	86	..	..	0	+	+	..	+	..
" 14.....		150	35	..	..	0	+	+	..	+	..
" 15.....		300	110	..	..	0	+	+	..	+	..
" 16.....		950	180	..	..	+	+	+	..	+	..
" 17.....		300	75	..	0	+	+	+	..	+	..
" 18.....		380	70	..	0	+	0	+	..	..	..
" 19.....		800	52	..	0	0	+	..	+	..	..
Averages		**337**	**81**	**362**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 9.....	53	414	400	..	..	..	+	+	..	+	+
" 10.....		210	95	..	..	..	+	+	..	+	+
" 11.....		240	65	..	..	+	+	+	..	+	..
" 12.....		190	90	..	..	0	+	+	..	+	..
" 14.....		150	40	..	..	0	+	+	..	+	..
" 15.....		350	100	..	..	+	0	+	..	+	..
" 16.....		800	160	..	..	+	+	+	..	+	..
" 17.....		70	68	..	0	0	0	+	..	+	..
" 18.....		350	104	..	0	0	0	..	+	..	..
" 19.....		300	72	..	0	0	+	+	..	..	..
Averages		**307**	**119**	**263**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	54	100	120	..	..	..	+	+	..	+	+
" 10.....		..	84	..	..	..	+	+	..	+	+
" 11.....		260	34	..	..	+	0	+	..	+	..
" 12.....		200	184	..	..	+	+	+	..	+	..
" 14.....		160	40	..	..	0	0	0	..	+	..
" 15.....		280	120	..	..	0	+	+	..	+	..
" 16.....		1400	320	..	..	+	+	+	..	+	..
" 17.....		400	170	..	0	+	+	+	..	+	..
" 18.....		420	180	..	0	0	0	..	+	..	..
" 19.....		600	98	..	0	0	+	..	+	..	..
Averages		**424**	**135**	**351**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	55	268	100	..	..	..	+	+	..	+	+
" 10.....		71	53	..	..	..	+	+	..	+	+
" 11.....		450	160	..	..	+	+	+	..	+	..
" 12.....		400	250	..	..	+	+	+	..	+	..
" 14.....		340	60	..	..	0	+	0	..	+	..
" 15.....		300	300	..	..	0	+	+	..	+	..
" 16.....		1100	120	..	..	0	+	+	..	+	..
" 17.....		480	89	+	0	0	+	+	..	+	..
" 18.....		850	103	..	0	0	0	..	+	..	..
" 19.....		..	104	..	0	0	+	..	+	..	..
Averages		**473**	**133**	**271**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	56	204	136	..	..	..	+	+	..	+	+
" 10.....		120	46	..	..	..	+	+	..	+	+
" 11.....		360	56	..	..	+	0	+	..	+	..
" 12.....		300	240	..	..	+	+	+	..	+	..
" 14.....		800	160	..	..	0	+	+	..	+	..
" 15.....		350	154	..	..	0	0	+	..	+	..
" 16.....		620	248	..	..	+	+	+	..	+	..
" 17.....		200	158	..	0	0	+	+	..	+	..
" 18.....		80	98	..	0	0	0	..	+	..	..
" 19.....		840	78	..	0	0	0	..	0	..	..
Averages		**387**	**137**	**253**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9.....	57	223	148	..	..	..	+	+	..	+	+
" 10.....		60	24	..	..	..	0	+	..	+	+
" 11.....		140	55	..	..	0	+	0	..	+	..
" 12.....		150	164	..	..	+	+	+	..	+	..
" 14.....		1000	160	..	..	0	+	+	..	+	..
" 15.....		940	152	..	..	0	0	+	..	+	..
" 16.....		1140	125	..	..	+	+	+	..	+	..
" 17.....		400	200	..	0	0	+	+	..	+	..
" 18.....		800	68	..	0	0	0	..	+	..	..
" 19.....		1100	48	..	0	0	0	..	+	..	..
Averages		**595**	**114**	**238**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	58	200	44	..	..	..	+	+	..	+	+
" 10.....		104	45	..	..	..	+	+	..	+	+
" 11.....		284	43	..	..	+	+	+	..	+	..
" 12.....		..	340	..	..	0	+	+	..	+	..
" 14.....		1300	180	..	..	+	+	+	..	+	..
" 15.....		320	80	..	..	0	+	+	..	+	..
" 16.....		980	70	..	..	+	+	+	..	+	..
" 17.....		120	120	..	0	0	+	+	..	+	..
" 18.....		1000	132	..	0	+	0	..	+	..	..
" 19.....		850	110	..	0	0	+	..	+	..	..
Averages		**573**	**116**	**370**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	59	107	25	..	..	..	+	+	..	+	+
" 10.....		112	41	..	..	..	+	+	..	+	+
" 11.....		340	52	..	..	+	+	+	..	+	..
" 12.....		100	400	..	..	+	+	+	..	+	..
" 14.....		2400	100	..	..	0	+	+	..	+	..
" 15.....		480	124	..	..	0	+	+	..	+	..
" 16.....		560	130	..	..	+	+	+	..	+	..
" 17.....		580	115	..	0	+	+	+	..	+	..
" 18.....		400	35	..	0	0	0	..	+	..	..
" 19.....		480	65	..	0	0	+	..	+	..	..
Averages		**555**	**108**	**451**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	60	200	37	..	..	..	+	+	..	+	+
" 10.....		87	18	..	..	..	+	+	..	+	+
" 11.....		440	46	..	..	+	+	+	..	+	..
" 12.....		200	332	..	..	+	+	+	..	+	..
" 14.....		200	25	..	..	+	0	+	..	+	..
" 15.....		220	48	..	..	0	+	+	..	+	..
" 16.....		240	95	..	..	+	+	+	..	+	..
" 17.....		320	30	..	0	0	+	+	..	+	..
" 18.....		spreader	59	..	0	0	0	..	0	..	..
" 19.....		80	58	..	0	+	0	..	+	..	..
Averages		**220**	**74**	**360**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9.....	61	144	60	..	..	..	+	+	..	+	+
" 10.....		73	20	..	..	..	+	+	..	+	+
" 11.....		230	26	..	..	0	+	+	..	+	..
" 12.....		170	200	..	..	+	+	+	..	+	..
" 14.....		500	60	..	..	0	+	+	..	+	..
" 15.....		190	72	..	..	0	0	+	..	+	..
" 16.....		560	150	..	0	0	+	+	..	+	..
" 17.....		100	25	..	0	0	+	+	..	+	..
" 18.....		500	82	..	0	0	0	..	+	..	..
" 19.....		400	25	..	0	0	0	..	+	..	..
Averages		**286**	**72**	**164**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	62	98	5	..	..	..	+	+	..	+	+
" 10.....		117	43	..	..	..	+	+	..	+	+
" 11.....		200	36	..	..	+	+	+	..	+	..
" 12.....		200	180	..	..	+	+	+	..	+	..
" 14.....		400	35	..	..	0	+	+	..	+	..
" 15.....		250	112	..	..	+	+	+	..	+	..
" 16.....		1200	140	..	..	0	+	+	..	+	..
" 17.....		520	32	..	+	0	+	+	..	+	..
" 18.....		400	78	..	0	0	0	..	+	..	..
" 19.....		280	75	..	0	0	0	..	+	..	..
Averages		**366**	**73**	**442**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	63	400	54	..	..	..	0	+	..	+	+
" 10.....		180	97	..	..	..	+	+	..	+	+
" 11.....		300	22	..	..	+	+	+	..	+	..
" 12.....		200	320	..	..	+	+	+	..	+	..
" 14.....		60	150	..	..	0	+	+	..	+	..
" 15.....		220	240	..	..	+	+	+	..	+	..
" 16.....		1200	175	..	..	+	+	+	..	+	..
" 17.....		320	104	..	0	0	+	+	..	+	..
" 18.....		600	195	..	0	0	+	..	+	..	..
" 19.....		540	160	..	0	0	+	..	+	..	..
Averages		**456**	**151**	**452**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	64	330	65	..	..	..	0	+	..	+	+
" 10.....		280	70	..	..	..	+	+	..	+	+
" 11.....		..	400	..	..	..	+	+	..	+	..
" 14.....		4000	320	..	..	+	0	+	..	+	..
" 15.....		3200	600	..	..	+	+	+	..	+	..
" 16.....		8500	850	..	..	+	+	+	..	+	..
" 17.....		1000	560	..	0	+	+	+	..	+	..
" 18.....		100	600	..	0	+	+	..	+	..	..
" 19.....		1040	220	..	0	0	0	..	+	..	..
Averages		**2306**	**409**	**480**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 9.....	65	400	26	..	..	..	0	+	..	+	+
" 10.....		400	62	..	..	..	+	+	..	+	+
" 14.....		4000	400	..	..	..	..	..	..	+	..
" 15.....		1100	520	..	..	0	+	+	..	+	..
" 16.....		7000	750	..	..	+	+	+	..	+	..
" 17.....		2640	540	..	..	+	+	+	..	+	..
" 18.....		750	350	..	0	0	+	+	..	+	..
" 19.....		1080	310	..	0	0	+	..	+	..	..
Averages		**2171**	**364**	**270**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	68	256	111	..	..	..	0	+	..	+	+
" 10.....		260	33	..	..	..	+	+	..	+	+
" 11.....		260	39	..	..	+	+	+	..	+	+
" 12.....		960	400	..	..	+	+	+	..	+	+
" 14.....		4000	240	..	..	0	0	+	..	+	..
" 15.....		1250	280	..	..	+	+	+	..	+	..
" 16.....		1550	450	..	..	+	+	+	..	+	..
" 17.....		1600	1400	..	0	0	+	+	..	+	..
" 18.....		1600	300	..	0	0	+	..	+	..	..
" 19.....		820	198	..	0	0	0	..	+	..	..
Averages		**1255**	**345**	**435**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	69	270	40	..	..	..	0	+	..	+	+
" 10.....		127	44	..	..	..	0	+	..	+	+
" 11.....		300	39	..	..	+	+	+	..	+	+
" 12.....		1000	420	..	..	+	+	+	..	+	+
" 14.....		2000	320	..	..	0	+	+	..	+	..
" 15.....		690	240	..	..	+	+	+	..	+	..
" 16.....		2900	550	..	..	0	+	+	..	+	..
" 17.....		2000	800	..	0	0	+	+	..	+	..
" 18.....		2100	340	..	0	0	+	..	+	..	..
" 19.....		650	216	..	0	0	0	..	+	..	..
Averages		**1203**	**300**	**345**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	70	480	105	..	..	..	0	+	..	+	+
" 10.....		400	105	..	..	..	0	+	..	+	+
" 11.....		460	53	..	..	+	+	+	..	+	+
" 12.....		420	70	..	..	+	+	+	..	+	+
" 14.....		1000	280	..	..	0	+	+	..	+	..
" 15.....		400	250	..	..	0	+	+	..	+	..
" 16.....		2500	260	..	..	0	+	+	..	+	..
" 17.....		2000	320	..	0	0	+	+	..	+	..
" 18.....		1100	340	..	0	0	+	..	+	..	..
" 19.....		480	150	..	0	0	0	+	..	..	..
Averages		**924**	**193**	**256**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9.....	71	360	60	..	..	..	0	+	..	+	+
" 10.....		208	52	..	..	..	+	+	..	+	0
" 11.....		330	52	..	..	+	+	+	..	+	+
" 12.....		430	280	..	..	+	+	+	..	+	+
" 14.....		1700	160	..	..	0	+	+	..	+	..
" 15.....		700	285	..	..	+	+	+	..	+	..
" 16.....		2400	360	..	..	0	+	+	..	+	..
" 17.....		800	280	..	0	0	+	+	..	+	..
" 18.....		750	480	..	0	0	+	..	+	..	..
" 19.....		280	115	..	0	0	0	+	..	..	..
Averages		**795**	**212**	**354**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	72	450	98	..	..	..	0	+	..	+	+
" 10.....		160	35	..	..	..	+	+	..	+	+
" 11.....		130	44	..	..	+	+	+	..	+	..
" 12.....		570	192	..	..	+	+	+	..	+	..
" 14.....		1200	180	..	..	0	+	+	..	+	..
" 15.....		100	140	..	..	0	+	+	..	+	..
" 16.....		2050	230	..	..	0	+	+	..	+	..
" 17.....		160	400	..	0	0	+	+	..	+	..
" 18.....		600	225	..	0	+	+	..	+	..	+
" 19.....		400	94	..	0	0	0	+	..	..	..
Averages		**582**	**163**	**364**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	73	340	106	..	..	..	0	+	..	+	+
" 10.....		200	34	..	..	..	+	+	..	+	+
" 11.....		130	65	..	..	0	+	+	..	+	..
" 12.....		800	176	..	..	+	+	+	..	+	..
" 14.....		600	240	..	..	0	+	+	..	+	..
" 15.....		150	35	..	..	0	+	+	..	+	..
" 16.....		3500	520	..	..	0	+	+	..	+	..
" 17.....		1600	450	..	0	0	+	+	..	+	..
" 18.....		800	160	..	0	+	+	..	+	..	..
" 19.....		360	118	..	0	0	0	..	+	..	..
Averages		**848**	**190**	**263**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	74	300	170	..	..	..	+	+	..	+	+
" 10.....		320	45	..	..	..	+	+	..	+	0
" 11.....		100	80	..	..	0	+	+	..	+	..
" 12.....		430	520	..	..	+	+	+	..	+	..
" 14.....		350	120	..	..	+	+	+	..	+	..
" 15.....		300	130	..	..	+	+	+	..	+	..
" 16.....		1250	280	..	..	+	+	+	..	+	..
" 17.....		650	475	..	0	+	+	+	..	+	..
" 18.....		600	95	..	0	0	+	..	+	..	..
" 19.....		580	108	..	0	0	+	+	..	..	..
Averages		**478**	**202**	**550**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 9.....	75	300	160	..	..	..	0	+	..	+	+
" 10.....		140	48	..	..	..	+	+	..	+	+
" 11.....		190	7	..	..	0	+	+	..	+	..
" 12.....		270	160	..	..	+	+	+	..	+	..
" 14.....		3000	220	..	..	+	+	+	..	+	..
" 15.....		700	140	..	..	+	+	+	..	+	..
" 16.....		1550	450	..	..	+	+	+	..	+	..
" 17.....		2800	650	..	..	0	..	..	..	+	..
" 18.....		590	445	..	0	0	+	..	+	..	..
" 19.....		620	185	..	0	0	+	+	..	..	..
Averages		**1016**	**247**	**442**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	76	300	43	..	..	..	+	+	..	+	+
" 10.....		60	37	..	..	..	+	+	..	+	+
" 11.....		80	5	..	..	0	+	+	..	+	..
" 12.....		380	120	..	..	0	0	+	..	+	..
" 14.....		900	150	..	..	0	0	+	..	+	..
" 15.....		700	120	..	..	+	+	+	..	+	..
" 16.....		1200	300	..	..	0	+	+	..	+	..
" 17.....		2900	440	..	0	0	+	+	..	+	..
" 18.....		1000	170	..	0	0	0	..	+	..	..
" 19.....		840	182	..	0	0	0	..	+	..	..
Averages		**836**	**156**	**158**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	77	670	100	..	..	..	+	+	..	+	+
" 10.....		70	60	..	..	..	+	+	..	+	+
" 11.....		200	72	..	..	0	+	+	..	+	..
" 12.....		180	220	..	..	+	+	+	..	+	..
" 14.....		900	180	..	..	+	+	+	..	+	..
" 15.....		840	150	..	..	0	+	+	..	+	..
" 16.....		960	200	..	..	0	0	0	..	+	..
" 17.....		6500	700	..	0	0	+	+	..	+	..
" 18.....		880	108	..	0	0	0	..	+	..	..
" 19.....		1150	197	..	0	0	0	..	+	..	..
Averages		**1235**	**198**	**252**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	78	460	60	..	..	..	0	+	..	+	+
" 10.....		260	75	..	..	..	+	+	..	+	+
" 11.....		170	4	..	..	0	+	+	..	+	..
" 12.....		270	300	..	..	0	0	+	..	+	..
" 14.....		1500	120	..	..	+	0	+	..	+	..
" 15.....		450	120	..	..	+	+	+	..	+	..
" 16.....		350	160	..	..	+	+	+	..	+	..
" 17.....		1600	500	..	0	0	+	+	..	+	..
" 18.....		400	260	..	0	0	+	..	+	..	..
" 19.....		1200	120	..	0	0	+	..	+	..	..
Averages		**766**	**171**	**264**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 9.....	79	700	20	..	..	..	0	+	..	+	+
" 10.....		250	80	..	..	..	+	+	..	+	+
" 11.....		210	spreader	..	..	0	0	+	..	+	..
" 12.....		250	320	..	..	0	0	+	..	+	..
" 14.....		1600	70	..	..	+	+	0	..	+	..
" 15.....		750	90	..	..	+	+	+	..	+	..
" 16.....		980	170	..	..	0	+	+	..	+	..
" 17.....		3700	400	..	0	+	+	+	..	+	..
" 18.....		560	245	..	0	0	+	..	+	..	..
" 19.....		1420	112	..	0	0	+	..	+	..	..
Averages		**1042**	**167**	**348**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	80	144	33	..	..	..	+	+	..	+	+
" 10.....		spreader	120	..	..	..	+	+	..	+	+
" 11.....		122	15	..	..	0	+	+	..	+	..
" 12.....		130	80	..	..	+	+	+	..	+	..
" 15.....		490	115	..	..	0	+	+	..	+	..
" 17.....		300	60	..	0	0	+	+	..	+	..
" 18.....		1250	175	..	0	0	0	..	+	..	..
" 19.....		700	124	..	0	0	0	..	+	..	..
Averages		**448**	**90**	**190**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	81	172	26	..	..	..	+	+	..	+	+
" 10.....		80	66	..	..	..	+	+	..	+	+
" 11.....		112	19	..	..	0	+	+	..	+	..
" 12.....		100	48	..	..	0	+	+	..	+	..
" 15.....		500	100	..	..	0	+	+	..	+	..
" 17.....		500	180	..	0	0	+	+	..	+	..
" 18.....		820	205	..	0	0	0	..	+	..	..
" 19.....		740	142	..	0	0	0	..	+	..	..
Averages		**378**	**98**	**77**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	82	143	20	..	..	..	+	+	..	+	+
" 10.....		50	78	..	..	..	+	+	..	+	+
" 11.....		88	23	..	..	0	+	+	..	+	..
" 12.....		120	38	..	..	+	+	+	..	+	..
" 15.....		280	110	..	..	+	+	+	..	+	..
" 17.....		250	44	..	0	+	+	+	..	+	..
" 18.....		750	160	..	0	0	0	..	+	..	..
" 19.....		680	165	..	0	0	0	..	+	..	..
Averages		**295**	**79**	**370**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 9.....	83	109	12	..	..	..	+	+	..	+	+
" 10.....		100	56	..	..	..	+	+	..	+	+
" 11.....		176	61	..	..	+	+	+	..	+	..
" 12.....		100	82	..	..	0	+	+	..	+	..
" 15.....		520	80	..	..	0	+	+	..	+	..
" 17.....		90	100	..	0	0	+	+	..	+	..
" 18.....		950	263	..	0	0	+	..	+	..	..
" 19.....		40	108	..	0	0	0	..	+	..	..
Averages		**235**	**95**	**201**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	84	173	15	..	..	..	+	+	..	+	+
" 10.....		60	17	..	..	..	+	+	..	+	0
" 11.....		164	53	..	..	+	+	+	..	+	..
" 12.....		60	80	..	..	+	+	+	..	+	..
" 15.....		800	84	..	..	0	+	+	..	+	..
" 17.....		820	180	..	0	0	+	+	..	+	..
" 18.....		800	32	..	0	0	0	..	+	..	..
" 19.....		200	260	..	0	0	0	..	+	..	..
Averages		**384**	**80**	**302**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	85	226	3	..	..	..	+	+	..	+	+
" 10.....		80	40	..	..	..	+	+	..	+	+
" 11.....		264	24	..	..	0	+	+	..	+	..
" 12.....		150	220	..	..	+	+	+	..	+	..
" 15.....		680	75	..	..	0	0	+	..	+	..
" 17.....		780	350	..	0	+	+	+	..	+	..
" 18.....		spreader	135	..	0	0	0	..	+	..	..
" 22.....		128	30	..	+	+	0	+	..	+	+
Averages		**328**	**109**	**541**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	86	142	17	..	..	..	+	+	..	+	+
" 10.....		100	37	..	..	..	0	+	..	+	+
" 11.....		226	18	..	..	0	+	+	..	+	..
" 12.....		100	100	..	..	+	+	+	..	+	..
" 15.....		390	170	..	..	0	+	+	..	+	..
" 17.....		300	450	..	0	0	+	+	..	+	..
" 18.....		600	35	..	0	0	0	..	+	..	..
" 22.....		480	60	..	+	+	0	+	..	+	+
Averages		**292**	**116**	**303**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9.....	87	95	34	..	..	..	+	+	..	+	+
" 10.....		50	49	..	..	..	+	+	..	+	+
" 11.....		200	28	..	..	+	+	+	..	+	..
" 12.....		110	112	..	..	0	+	+	..	+	..
" 15.....		650	130	..	..	0	0	+	..	+	..
" 17.....		350	72	..	0	+	+	+	..	+	..
" 18.....		106	104	..	0	0	+	..	+	..	..
" 22.....		190	39	..	0	0	0	+	..	+	+
Averages		**338**	**71**	**305**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	88	84	8	..	..	..	+	+	..	+	+
" 10.....		200	64	..	..	..	+	+	..	+	0
" 11.....		152	56	..	..	0	+	+	..	+	..
" 12.....		150	102	..	..	0	+	+	..	+	..
" 15.....		150	106	..	..	0	0	+	..	+	..
" 17.....		480	200	..	0	+	+	+	..	+	..
" 22.....		225	140	..	0	0	0	+	..	+	+
Averages		**205**	**86**	**205**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 9.....	89	212	44	..	..	..	+	+	..	+	+
" 10.....		50	112	..	..	..	+	+	..	+	+
" 11.....		176	80	..	..	+	+	+	..	+	..
" 12.....		250	500	..	..	+	+	+	..	+	..
" 15.....		350	240	..	..	+	0	+	..	+	..
" 17.....		720	1000	..	0	0	+	+	..	+	..
" 18.....		1200	97	..	0	0	0	..	+	..	..
" 22.....		210	122	..	0	0	0	+	..	+	+
Averages		**396**	**274**	**303**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 11.....	101	20	9	..	..	..	+	+	..	+	+
July 12.....	102	12	156	..	..	..	0	0	..	+	+
" 18.....	103	1100	30	..	..	..	0	+	..	+	+
" 18.....	104	940	10	..	..	..	0	+	..	+	+
" 18.....	105	850	40	..	..	..	0	0	..	+	+
" 18.....	106	spreader	32	..	..	..	0	+	..	+	+
" 18.....	107	1000	20	..	..	..	0	+	..	+	+
" 18.....	108	1200	24	..	..	..	0	+	..	+	+
" 18.....	109	840	12	..	..	..	0	+	..	+	+
" 18.....	110	1080	62	..	..	..	0	+	..	+	+
" 18.....	111	1220	48	..	..	..	0	+	..	+	+
" 18.....	112	1120	96	..	..	..	0	+	..	+	+
" 18.....	113	1750	180	..	..	..	0	+	..	+	+
Averages		**1111**	**50**	**18**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Frances. Waters of Lake of the Woods and Rainy River

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 22	210	140	24	..	..	..	0	+	..	+	+
" 22	211	135	36	..	..	..	0	+	..	+	+
" 22	212	195	57	..	..	..	0	+	..	+	+
" 22	213	96	16	..	..	..	0	+	..	+	+
" 22	214	190	57	..	..	..	0	+	..	+	+
" 22	215	280	16	..	..	..	0	+	..	+	+
" 22	216	..	34	..	..	..	+	+	..	+	+
" 22	217	156	55	..	..	..	0	+	..	+	+
" 22	218	145	33	..	..	..	0	+	..	+	+
" 22	219	290	26	..	..	..	+	+	+	+	+
" 22	220	160	35	..	..	..	+	+	+	+	+
" 22	221	184	30	..	..	..	0	+	+	+	+
" 22	222	123	24	..	..	..	0	+	+	+	+
" 22	223	110	33	..	..	..	0	+	+	+	+
" 22	224	90	20	..	..	..	0	+	+	+	+
" 22	225	105	26	..	..	..	0	0	..	+	+
" 22	226	140	2	..	..	..	+	0	..	0	+
" 22	227	145	9	..	..	..	0	0	..	+	+
" 22	228	440	83	..	..	..	0	+	..	+	+
" 22	229	160	26	..	..	..	+	+	..	+	+
" 22	230	220	58	..	..	..	0	0	..	+	+
" 22	231	120	15	..	..	..	0	+	..	+	+
" 22	232	95	22	..	..	..	+	+	..	+	+
" 22	233	135	48	..	..	..	+	+	..	+	+
" 22	234	104	36	..	..	..	0	0	..	0	+
" 22	235	75	23	..	..	..	0	0	..	+	+
" 22	236	167	14	..	..	..	0	0	..	+	+
" 22	237	115	18	..	..	..	0	0	..	+	+
" 22	238	97	14	..	..	..	0	0	..	+	+
" 22	239	150	19	..	..	..	0	0	..	0	+
" 22	240	99	9	..	..	..	0	0	..	+	+
" 22	241	55	9	..	..	..	0	0	..	0	+
" 22	242	65	10	..	..	..	0	0	..	+	+
" 22	243	25	8	..	..	..	0	0	..	0	+
" 22	244	32	17	..	..	..	0	0	..	+	+
" 22	245	41	20	..	..	..	0	0	..	0	+
" 22	246	60	22	..	..	..	0	0	..	0	+
" 22	247	108	12	..	..	..	0	0	..	0	+
" 22	248	55	15	..	..	..	0	+	..	0	+
" 22	249	72	17	..	..	..	0	+	..	+	+
" 22	250	42	6	..	..	..	0	+	..	+	0
" 22	251	72	6	..	..	..	0	0	..	+	+
" 22	252	70	5	..	..	..	0	+	..	+	+
" 22	253	54	8	..	..	..	0	0	..	+	0
" 22	254	55	8	..	..	..	0	+	..	+	0
" 22	255	22	..	..	..	..	0	0	..	+	+
" 22	256	54	..	..	..	..	0	0	..	0	+
" 22	257	24	..	..	..	..	0	0	..	+	0
" 22	258	68	..	..	..	..	0	0	..	0	+
" 22	259	75	..	..	..	..	0	0	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 22	260	184	9	..	..	..	0	0	..	0	+
" 22	261	48	8	..	..	..	+	0	..	0	+
" 22	262	40	5	..	..	..	0	0	..	+	+
" 22	263	98	13	..	..	..	+	0	..	0	+
" 22	264	32	9	..	..	..	+	0	..	0	+
" 22	265	28	9	..	..	..	0	0	..	0	0
" 22	266	25	10	..	..	..	0	0	..	0	0
" 22	267	44	5	..	..	..	0	0	..	0	0
" 22	268	35	16	..	..	..	0	0	..	+	+
" 22	269	48	10	..	..	..	0	0	..	+	+
" 22	270	106	14	..	..	..	0	0	..	+	+
" 22	271	78	5	..	..	..	0	0	..	0	0
" 22	272	20	4	..	..	..	0	0	..	+	+
" 22	273	650	40	..	..	..	+	+	..	+	+
" 22	274	10	8	..	..	..	0	0	..	+	+
" 22	275	20	10	..	..	..	0	+	..	0	0
" 22	276	32	11	..	..	..	0	+	..	0	0
" 22	277	16	7	..	..	..	0	+	..	0	0
" 22	278	35	5	..	..	..	0	0	..	0	0
" 22	279	28	15	..	..	..	0	+	..	0	0
" 22	280	38	5	..	..	..	0	0	..	0	0
" 22	281	67	9	..	..	..	0	0	..	0	0
" 22	282	52	2	..	..	..	+	0	..	0	0
" 22	283	44	16	..	..	..	0	0	..	0	0
" 22	285	40	7	..	..	..	+	0	..	0	0
" 22	286	36	8	..	..	..	0	0	..	+	+
" 22	287	38	12	..	..	..	0	0	..	+	+
" 22	288	35	18	..	..	..	0	0	..	+	+
" 22	289	37	21	..	..	..	+	+	..	+	+
" 22	290	34	9	..	..	..	+	+	..	+	+
" 22	291	320	45	..	..	..	0	+	..	+	+
" 22	292	15	23	..	..	..	0	0	..	0	+
" 22	293	32	9	..	..	..	0	0	..	0	+
" 22	294	84	12	..	..	..	0	0	..	+	+
" 22	295	75	18	..	..	..	0	0	..	+	+
" 22	296	40	8	..	..	..	0	0	..	+	+
" 22	297	35	15	..	..	..	0	0	..	+	+
" 22	298	96	12	..	..	..	0	0	..	+	+
" 22	299	99	32	..	..	..	0	0	..	+	+
" 22	300	90	18	..	..	..	0	0	..	+	+
" 22	301	44	7	..	..	..	0	0	..	+	+
" 22	302	25	8	..	..	..	0	0	..	+	+
" 22	305	55	11	..	..	..	0	0	..	+	+
" 22	304	68	14	..	..	..	0	0	..	+	+
" 22	305	48	16	..	..	..	0	0	..	0	0
" 22	306	35	11	..	..	..	+	+	..	+	0
" 22	307	58	13	..	..	..	+	+	..	+	+
" 22	308	69	11	..	..	..	0	+	..	+	+
" 22	309	35	16	..	..	..	0	+	..	+	0
" 22	310	42	15	..	..	..	+	+	..	+	0

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Frances. Waters of Lake of the Woods and Rainy River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 22.....	311	57	18	..	..	..	0	+	..	+	0
" 22.....	313	36	7	..	..	..	0	+	..	+	0
" 22.....	314	96	18	..	..	..	+	0	..	+	0
" 22.....		65	16	..	..	..	0	+	..	0	0
Averages	**210–**	**240**	**155**	**29**	**29**	**B.**	**Co**	**li**	**pe**	**r 1**	**00 cc**
Averages	**241–**	**270**	**57**	**10**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00 ce**
Averages	**271–**	**300**	**75**	**13**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00 cc**
Averages	**301–**	**314**	**52**	**12**	**30**	**B.**	**Co**	**li**	**pe**	**r 1**	**00 cc**
		Fort	Frances	Tap Wa	te	r					
July 8.....			113	3	..	..	..	0	0	..	+	+
" 9.....			50	4	..	..	..	0	0	..	+	+
" 9.....			37	29	..	..	..	0	0	..	0	0
" 10.....			46	46	..	..	..	0	+	..	0	0
" 14.....			5	20	..	..	0	0	0	..	+	..
" 15.....			300	60	..	..	0	0	+	..	+	..
" 16.....			1	50	..	..	0	0	+	..	+	..
" 21.....			370	10	..	..	..	0	0	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
		Fort	Frances	Tap		W	at	er			
July 21.....			30	6	..	..	..	0	0	..	+	+
			45	20	..	..	..	0	0	..	+	+
Samples taken			28	27	..	..	..	0	0	..	+	+
at hourly			55	30	..	..	..	0	0	..	+	+
intervals.			48	38	..	..	..	0	0	..	+	+
			25	22	..	..	..	0	0	..	+	+
			62	10	..	..	..	0	0	..	+	+
			50	18	..	..	..	0	0	..	+	+
" 22.....			300	14	..	..	..	+	+	..	+	+
		Inte	rnational	Falls	Ta	p	W	at	er		
July 11.....			3	10	..	..	..	0	0		0	+
		Rai	ny River,	Ont.,	Ta	p	W	at	er		
July 9.....			106	28	..	..	..	0	+	..	+	+
" 10.....			600	37	..	..	..	+	+	..	+	+
" 12.....			..	80	..	..	..	0	0	..	+	..
" 15.....			560	200	..	..	..	0	0	..	+	..
" 17.....			150	560	..	0	0	+	+	..	+	..
" 18.....			650	297	..	0	0	+	+	..	..	..
" 19.....			180	158	..	0	0	+	+	..	..	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Waters of Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 13.....	1	0	0	..	..	..	0	0	..	0	0
" 19.....		0	1	..	..	..	0	0	..	0	+
" 13.....	2	1	0	..	..	..	0	0	..	0	0
" 19.....		0	0	..	..	..	0	0	..	0	0
" 13.....	3	0	1	..	..	..	0	0	..	0	0
" 19.....		0	0	..	..	..	0	0	..	0	0
" 13.....	4	0	0	..	..	..	0	0	..	0	0
" 19.....		0	0	..	..	..	0	0	..	0	0
" 13.....	5	0	0	..	..	..	0	0	..	0	0
" 19.....		0	0	..	..	..	0	0	..	0	0
Averages		**0**	**0**	**0.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	6	0	0	..	..	..	0	0	..	0	+
" 29.....		3	0	..	..	..	0	0	..	0	0
" 30.....		1	0	..	..	..	0	0	..	0	0
" 31.....		1	0	..	..	..	0	0	..	0	0
Aug. 1.....		0	0	..	..	..	0	0	..	0	0
" 2.....		0	0	..	..	..	+	0	..	0	0
" 4.....		12	0	..	..	..	0	0	..	0	0
" 5.....		0	1	..	..	..	0	0	..	0	0
" 6.....		2	0	..	..	..	0	0	..	0	+
" 7.....		1	1	..	..	..	0	0	..	0	0
" 8.....		4	2	..	..	..	0	0	..	0	+
" 9.....		6	0	..	..	..	0	0	..	+	+
" 11.....		60	0	..	..	..	0	0	..	+	+
" 13.....		4	1	..	..	..	0	+	..	+	+
Averages		**6.7**	**0.3**	**2.5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	7	0	0	..	..	..	0	0	..	0	0
" 29.....		4	0	..	..	..	0	0	..	0	0
" 30.....		7	0	..	..	..	0	0	..	+	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		5	0	..	..	..	0	0	..	0	0
" 2.....		2	0	..	..	..	0	0	..	0	0
" 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		5	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		3	2	..	..	..	0	0	..	0	+
" 8.....		4	1	..	..	..	0	0	..	0	+
" 9.....		14	0	..	..	..	0	0	..	+	+
" 11.....		70	1	..	..	..	0	0	..	0	+
" 13.....		0	2	..	..	..	0	0	..	0	0
Averages		**8.1**	**0.4**	**1.0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	8	0	0	..	..	..	0	0	..	0	0
" 29.....		3	1	..	..	..	0	0	..	0	0
" 30.....		0	1	..	..	..	0	0	..	0	0
" 31.....		2	2	..	..	..	0	0	..	0	0
Aug. 1.....		2	0	..	..	..	0	0	..	+	0
" 2.....		2	0	..	..	..	0	0	..	0	0
" 4.....		3	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	+	+
" 7.....		2	0	..	..	..	0	0	..	0	0
" 8.....		2	2	..	..	..	0	0	..	+	+
" 9.....		28	0	..	..	..	+	+	..	+	+
" 11.....		8	0	..	..	..	0	0	..	0	0
" 13.....		0	0	..	..	..	0	0	..	0	0
Averages		**3.7**	**0.4**	**7.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	9	0	0	..	..	..	0	0	..	0	0
" 29.....		0	spreader	..	..	..	0	0	..	0	0
" 30.....		0	0	..	..	..	0	0	..	0	0
" 31.....		1	4	..	..	..	0	0	..	0	0
Aug. 1.....		0	0	..	..	..	0	0	..	0	0
" 2.....		2	0	..	..	..	0	+	..	0	0
" 4.....		5	0	..	..	..	0	0	..	0	+
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	8	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	+
" 9.....		30	0	..	..	..	+	+	..	+	+
" 11.....		0	2	..	..	..	0	+	..	0	0
" 13.....		0	0	..	..	..	0	0	..	0	0
Averages		**2.7**	**1.0**	**7.7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	10	1	0	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		0	2	..	..	..	0	0	..	0	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		1	0	..	..	..	0	0	..	0	0
" 2.....		0	0	..	..	..	0	0	..	0	0
" 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		2	1	..	..	..	0	0	..	0	+
" 9.....		24	2	..	..	..	+	+	..	+	+
" 11.....		0	0	..	..	..	0	+	..	0	0
" 13.....		0	0	..	..	..	0	0	..	0	0
Averages		**2.0**	**0.3**	**7.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in average.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Waters of Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	11	0	2	..	..	..	0	0	..	0	0
" 29.....		3	0	..	..	..	0	0	..	0	0
" 30.....		17	0	..	..	..	0	0	..	0	0
" 31.....		2	0	..	..	..	0	+	..	0	+
Aug. 1.....		8	0	..	..	..	0	0	..	0	0
" 2.....		0	0	..	..	..	0	0	..	0	0
" 4.....		2	0	..	..	..	0	0	..	0	0
" 5.....		4	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		54	3	..	..	..	0	0	..	0	0
" 8.....		2	0	..	..	..	0	0	..	+	+
" 9.....		2	0	..	..	..	0	+	..	+	+
" 11.....		3	0	..	..	..	0	+	..	0	0
" 12.....		1	0	..	..	..	0	0	..	0	0
" 13.....		25	4	..	..	..	+	+	..	+	+
" 14.....		0	26	..	..	..	0	0	..	0	+
" 15.....		0	0	..	..	..	..	..	..	..	..
Averages		**7.2**	**2.**	**8.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	12	0	0	..	..	..	0	0	..	0	0
" 29.....		3	0	..	..	..	0	0	..	0	0
" 30.....		11	0	..	..	..	0	0	..	0	0
" 31.....		0	1	..	..	..	0	0	..	+	0
Aug. 1.....		2	3	..	..	..	0	0	..	+	+
" 2.....		0	1	..	..	..	0	0	..	+	0
" 4.....		2	0	..	..	..	0	0	..	0	0
" 5.....		..	0	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		1	0	..	..	..	0	0	..	0	0
" 8.....		*1200	1	..	..	..	0	0	..	+	+
" 9.....		6	2	..	..	..	0	0	..	+	+
" 11.....		0	0	..	..	..	0	0	..	0	+
" 12.....		0	0	..	..	..	0	0	..	0	0
" 13.....		5	4	..	..	..	0	+	..	+	+
" 14.....		0	5	..	..	..	0	0	..	0	+
" 15.....		0	0	..	..	..	0	0	..	0	0
Averages		**2.0**	**1**	**6.1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	13	1	0	..	..	..	0	0	..	0	0
" 29.....		0	1	..	..	..	0	0	..	0	0
" 30.....		7	1	..	..	..	0	0	..	0	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		4	2	..	..	..	0	+	..	+	+
" 2.....		0	2	..	..	..	0	0	..	0	0
" 4.....		10	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		0	0	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 8.....	13	0	1	..	..	..	0	0	..	0	+
" 9.....		16	3	..	..	..	0	+	..	+	+
" 11.....		5	0	..	..	..	0	0	..	0	+
" 12.....		0	0	..	..	..	0	0	..	0	0
" 13.....		3	0	..	..	..	0	0	..	0	0
" 14.....		1	2	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	..	..	..	..	..
Averages		**2.7**	**0.7**	**2.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	14	0	0	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		0	0	..	..	..	0	0	..	0	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		14	0	..	..	..	0	0	..	+	+
" 2.....		4	2	..	..	..	0	0	..	+	0
" 4.....		* 0	0	..	..	..	0	0	..	0	0
" 5.....		3	3	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 5.....		0	4	..	..	..	0	0	..	0	0
" 8.....		2	0	..	..	..	0	0	..	0	0
" 9.....		16	2	..	..	..	0	0	..	+	+
" 11.....		0	0	..	..	..	0	+	..	0	+
" 12.....		0	0	..	..	..	0	0	..	+	0
" 13.....		3	0	..	..	..	0	0	..	0	0
" 14.....		0	1	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	+
Averages		**2.4**	**0.7**	**1.1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	15	0	2	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		0	0	..	..	..	0	0	..	0	0
" 31.....		0	0	..	..	..	0	0	..	0	0 *
Aug. 1.....		12	6	..	..	..	+	+	..	+	+
" 2.....		0	0	..	..	..	0	0	..	+	0
" 4.....		6	0	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	0	..	..	..	0	0	..	0	+
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	0	..	..	..	+	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	+	+
" 12.....		0	0	..	..	..	+	+	..	0	+
" 13.....		2	0	..	..	..	0	0	..	0	0
" 14.....		0	2	..	..	..	0	0	..	0	0
" 15.....		10	0	..	..	..	..	..	..	..	..
Averages		**1.8**	**0.5**	**7.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in average.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Waters of Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	16	0	0	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		2	0	..	..	..	0	0	..	0	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		2	3	..	..	..	0	0	..	+	+
" 2.....		0	0	..	..	..	0	+	..	0	+
" 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	+
" 9.....		3	spreader	..	..	..	0	0	..	0	0
" 11.....		2	0	..	..	..	0	0	..	0	0
" 12.....		0	1	..	..	..	0	0	..	0	0
" 13.....		0	0	..	..	..	0	0	..	0	0
" 14.....		0	10	..	..	..	0	0	..	+	0
" 15.....		0	0	..	..	..	0	+	..	0	0
Averages		**0.5**	**0.8**	**0.9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	17	0	0	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		10	3	..	..	..	0	0	..	0	0
Aug. 4.....		4	5	..	..	..	0	0	..	0	+
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	+	0	..	+	+
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	+
" 9.....		0	0	..	..	..	0	0	..	0	+
" 11.....		13	1	..	..	..	0	0	..	0	+
" 12.....		0	1	..	..	..	0	+	..	0	0
" 14.....		3	3	..	..	..	0	0	..	0	+
" 15.....		18	0	..	..	..	0	0	..	0	0
" 16.....		26	2	..	..	..	0	0	..	0	0
Averages		**5.2**	**1.0**	**2.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	18	0	1	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		4	0	..	..	..	0	0	..	0	0
Aug. 4.....		2	0	..	..	..	0	0	..	0	+
" 5.....		0	1	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		8	0	..	..	..	0	0	..	0	0
" 8.....		4	0	..	..	..	0	0	..	0	+
" 9.....		0	0	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 11.....	18	0	0	..	..	..	0	0	..	0	0
" 12.....		0	..	..	..	..	0	+	..	0	+
" 14.....		0	4	..	..	..	0	0	..	0	0
" 15.....		*600	0	..	..	..	0	0	..	0	0
" 16.....		0	4	..	..	..	0	+	..	+	+
Averages		**1.5**	**0.7**	**2.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	19	0	0	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		17	0	..	..	..	0	0	..	0	0
Aug. 4.....		3	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	+		0	0
" 6.....		0	0	..	..	..	+	0	..	+	+
" 7.....		0	9	..	..	..	0	0	..	0	0
" 8.....		0	140	..	..	..	0	0	..	0	+
" 9.....		0	1	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	+	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		13	20	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		2	0	..	..	..	0	0	..	0	0
Averages		**2.3**	**11.3**	**1.7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	20	0	0	..	..	..	0	0	..	0	0
" 29.....		3	0	..	..	..	0	0	..	0	0
" 30.....		70	3	..	..	..	0	+	..	0	+
Aug. 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	4	..	..	..	0	0	..	0	0
" 8.....		0	4	..	..	..	0	0	..	0	+
" 9.....		4	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		0	0	..	..	..	0	+	..	0	0
" 14.....		5	5	..	..	..	0	0	..	0	0
" 15.....		0	1	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	1	..	..	..	0	0	..	+	0
Averages		**5.6**	**1.2**	**0.9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in average.

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	21	0	3	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		13	2	..	..	..	0	0	..	0	+
Aug. 4.....		3	0	..	..	..	0	0	..	0	0
" 5.....		3	0	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		5	0	..	..	..	0	0	..	0	0
" 8.....		2	0	..	..	..	0	0	..	0	+
" 9.....		3	2	..	..	..	0	0	..	0	0
" 11.....		1	0	..	..	..	0	+	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		13	0	..	..	..	0	0	..	0	0
" 15.....		2	0	..	..	..	0	0	..	0	0
" 16.....		1	1	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**3.0**	**0.5**	**0.6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**c.**
July 28.....	22	0	2	..	..	..	0	0	..	0	0
" 29.....		3	0	..	..	..	0	0	..	0	0
" 30.....		6	0	..	..	..	0	0	..	+	+
Aug. 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		1	1	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		0	3	..	..	..	0	0	..	0	+
" 8.....		5	0	..	..	..	0	0	..	0	+
" 9.....		0	4	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		2	1	..	..	..	0	0	..	0	0
" 14.....		1	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**1.2**	**0.7**	**0.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	23	0	0	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		5	2	..	..	..	0	+	..	+	+
Aug. 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		4	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		4	2	..	..	..	0	0	..	0	0
" 8.....		4	0	..	..	..	0	0	..	0	0
Aug. 9.....	23	2	2	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	+	..	0	0
" 12.....		1	0	..	..	..	0	0	..	0	0
" 14.....		0	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		1	0	..	..	..	0	0	..	0	0
" 18.....		2	0	..	..	..	0	0	..	0	0
Averages		**1.5**	**0.4**	**1.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	24	0	0	..	..	..	0	0	..	0	0
" 29.....		4	0	..	..	..	0	0	..	+	+
" 30.....		5	0	..	..	..	0	0	..	+	+
Aug. 4.....		0	2	..	..	..	0	0	..	0	0
" 5.....		4	0	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		3	0	..	..	..	0	0	..	0	0
" 8.....		2	2	..	..	..	0	0	..	0	+
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	+	..	+	+
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		1	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**1.2**	**0.2**	**2.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	25	0	1	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	+
" 30.....		1	0	..	..	..	0	+	..	0	+
Aug. 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		3	0	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		2	0	..	..	..	0	0	..	0	0
" 8.....		0	2	..	..	..	0	0	..	0	0
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		*88	0	..	..	..	0	0	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	+
" 14.....		0	1	..	..	..	0	0	..	0	0
" 15.....		..	..	..	..	..	0	0	..	0	0
" 16.....		1	0	..	..	..	0	0	..	0	0
" 18.....		2	0	..	..	..	0	0	..	0	0
Averages		**0.6**	**0.2**	**0.7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in averages.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Waters of Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	26	2	0	..	..	..	0	+	..	0	0
" 29.....		6	1	..	..	..	0	0	..	0	+
" 30.....		6	0	..	..	..	0	0	..	+	0
Aug. 4.....		10	3	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		2	8	..	..	..	0	0	..	0	0
" 8.....		2	..	..	..	..	0	0	..	0	0
" 9.....		4	3	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		1	0	..	..	..	0	0	..	0	0
" 14.....		0	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	0	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**2.3**	**1.0**	**0**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 28.....	27	2	0	..	..	..	0	0	..	0	0
" 29.....		4	0	..	..	..	0	0	..	0	0
" 30.....		2	0	..	..	..	0	0	..	0	0
Aug. 4.....		3	0	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	+
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		1	0	..	..	..	0	0	..	0	0
" 14.....		..	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**1.0**	**0**	**0.1**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 28.....	28	2	0	..	..	..	0	0	..	0	0
" 29.....		4	0	..	..	..	0	0	..	0	0
" 30.....		1	0	..	..	..	0	0	..	0	0
Aug. 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	2	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		0	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		1	0	..	..	..	0	0	..	0	0
" 18.....		1	0	..	..	..	0	0	..	0	0
Averages		**0.7**	**0.1**	**0.**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	29	4	0	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		*66	0	..	..	..	0	0	..	0	0
Aug. 4.....		2	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	+
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		0	1	..	..	..	0	0	..	0	0
" 14.....		0	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	+	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**0.5**	**0.1**	**0.2**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 28.....	30	1	0	..	..	..	0	0	..	0	0
" 29.....		3	1	..	..	..	0	0	..	0	0
" 30.....		3	3	..	..	..	0	0	..	0	0
Aug. 4.....		2	0	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	+	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		3	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		1	0	..	..	..	0	0	..	0	0
" 14.....		0	10	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	+	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	1	..	..	..	0	0	..	0	0
Averages		**1.0**	**1.0**	**0.2**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 28.....	31	0	spreader	..	..	..	0	0	..	0	0
" 29.....		3	0	..	..	..	0	0	..	0	0
" 30.....		10	0	..	..	..	0	0	..	0	0
Aug. 4.....		4	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	+
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	+
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		*130	0	..	..	..	0	0	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		6	*200	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	1	..	..	..	0	+	..	0	0
Averages		**1.2**	**0.0**	**0.4**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

* Not included in averages.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28	32	0	0	..	..	..	0	0	..	0	0
" 29		2	0	..	..	..	0	0	..	0	0
" 30		2	0	..	..	..	0	0	..	0	0
Aug. 4		7	0	..	..	..	0	0	..	0	+
" 5		0	0	..	..	..	0	0	..	0	0
" 6		0	0	..	..	..	0	0	..	0	0
" 7		0	0	..	..	..	0	0	..	0	0
" 8		0	18	..	..	..	0	0	..	0	0
" 9		0	0	..	..	..	0	0	..	0	0
" 11		0	0	..	..	..	0	0	..	0	0
" 12		0	0	..	..	..	0	0	..	0	0
" 14		0	4	..	..	..	0	0	..	0	0
" 15		0	0	..	..	..	0	0	..	0	0
" 16		0	0	..	..	..	0	0	..	0	0
" 18		0	0	..	..	..	0	0	..	+	0
Averages		**0.7**	**1.4**	**0.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	33	1	1	..	..	..	0	+	..	+	0
" 29		4	0	..	..	..	0	0	..	0	0
" 30		0	0	..	..	..	0	0	..	0	0
" 31		0	0	..	..	..	0	0	..	0	0
Aug. 1		15	5	..	..	..	0	0	..	+	+
" 2		0	0	..	..	..	0	0	..	0	0
" 4		0	0	..	..	..	0	0	..	0	0
" 5		0	0	..	..	..	0	0	..	+	0
" 6		0	0	..	..	..	0	0	..	0	0
" 7		0	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	0	0	..	0	+
" 9		300	48	..	..	..	+	+	..	+	+
" 11		0	0	..	..	..	0	0	..	0	+
" 12		0	0	..	..	..	0	0	..	0	0
" 13		94	3	..	..	..	0	0	..	0	0
" 14		..	0	..	..	..	0	0	..	0	0
Averages		**27**	**3.5**	**7.6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	34	0	0	..	..	..	0	0	..	0	0
" 29		0	1	..	..	..	0	0	..	0	0
" 30		1	0	..	..	..	0	0	..	0	0
" 31		0	0	..	..	..	0	0	..	0	0
Aug. 1		25	6	..	..	..	+	+	..	+	+
" 2		4	2	..	..	..	0	0	..	+	+
" 4		0	0	..	..	..	0	0	..	0	0
" 5		0	2	..	..	..	0	0	..	0	0
" 6		0	0	..	..	..	0	0	..	0	0
" 7		0	0	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 8	34	0	3	..	..	..	0	0	..	0	0
" 9		180	spreader	..	..	..	+	+	..	+	+
" 11		0	0	..	..	..	0	0	..	0	0
" 12		0	1	..	..	..	0	0	..	0	0
" 13		3	2	..	..	..	0	0	..	+	0
Averages		**14.2**	**1.2**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	35	0	0	..	..	..	0	0	..	0	0
" 29		2	4	..	..	..	0	0	..	0	0
" 30		0	0	..	..	..	0	0	..	0	0
" 31		3	0	..	..	..	0	0	..	0	0
Aug. 1		42	4	..	..	..	0	+	..	+	+
" 2		0	1	..	..	..	0	0	..	0	+
" 4		1	0	..	..	..	0	0	..	+	0
" 5		0	0	..	..	..	0	0	..	0	0
" 6		0	0	..	..	..	0	0	..	0	0
" 7		2	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	+	+	..	0	0
" 9		2	8	..	..	..	0	0	..	+	+
" 11		0	0	..	..	..	0	0	..	+	+
" 12		0	0	..	..	..	0	0	..	0	0
" 13		0	0	..	..	..	0	0	..	0	0
Averages		**3.4**	**1.1**	**2.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	36	0	1	..	..	..	0	0	..	0	0
" 29		2	1	..	..	..	0	+	..	0	0
" 30		2	0	..	..	..	0	0	..	0	0
" 31		6	0	..	..	..	0	0	..	0	0
Aug. 1		36	4	..	..	..	0	+	..	+	+
" 2		0	1	..	..	..	0	+	..	+	+
" 4		0	0	..	..	..	0	0	..	0	0
" 5		0	0	..	..	..	0	0	..	0	0
" 6		0	0	..	..	..	0	0	..	0	0
" 7		0	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	0	0	..	0	0
" 9		2	4	..	..	..	0	0	..	+	+
" 11		3	0	..	..	..	0	0	..	0	+
" 12		0	0	..	..	..	0	0	..	0	0
" 13		0	0	..	..	..	0	+	..	0	0
Averages		**3.4**	**0.7**	**3.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 28.....	37	0	2	..	..	..	0	0	..	0	0
" 29.....		3	0	..	..	..	0	0	..	0	0
" 30.....		6	0	..	..	..	0	0	..	+	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		34	7	..	..	..	+	+	..	+	+
" 2.....		3	0	..	..	..	0	0	..	+	0
" 4.....		3	4	..	..	..	0	0	..	0	+
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		3	4	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	+
" 9.....		2	6	..	..	..	0	0	..	+	+
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	0
" 13.....		3	0	..	..	..	0	0	..	0	0
Averages		**3.8**	**1.5**	**7.6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	38	1	*400	..	..	..	0	0	..	0	0
" 29.....		0	0	..	..	..	0	0	..	0	0
" 30.....		2	0	..	..	..	0	0	..	0	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		40	5	..	..	..	+	+	..	+	+
" 2.....		2	0	..	..	..	0	0	..	0	+
" 4.....		3	3	..	..	..	0	0	..	+	+
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	2	..	..	..	0	0	..	0	+
" 8.....		4	0	..	..	..	0	0	..	+	+
" 9.....		0	3	..	..	..	0	0	..	+	+
" 11.....		2	0	..	..	..	0	0	..	0	0
" 12.....		1	0	..	..	..	0	0	..	0	0
" 13.....		6	1	..	..	..	0	0	..	0	0
Averages		**4.0**	**1.0**	**7.7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	39	112	56	..	..	..	0	+	..	+	+
" 29.....		114	36	..	..	..	+	+	..	+	+
" 30.....		25	2	..	..	..	0	+	..	+	+
" 31.....		76	8	..	..	..	0	+	..	+	+
Aug. 1.....		104	18	..	..	..	+	+	..	+	+
" 2.....		94	40	..	..	..	+	+	..	+	+
" 4.....		210	12	..	..	..	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 5.....	39	28	7	..	..	..	+	+	..	+	+
" 6.....		38	38	..	..	..	+	+	..	+	+
" 7.....		140	12	..	..	..	+	+	..	+	+
" 8.....		68	54	..	..	..	+	+	..	+	+
" 9.....		48	60	..	..	..	+	+	..	+	+
" 11.....		50	35	..	..	..	+	+	..	+	+
" 12.....		40	3	..	..	..	+	+	..	0	+
" 13.....		120	28	..	..	..	+	+	..	+	+
Averages		**84**	**27**	**84**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	40	300	7	..	..	..	0	+	..	+	+
" 29.....		100	15	..	..	..	+	+	..	+	+
" 30.....		9	2	..	..	..	+	+	..	+	+
" 31.....		69	7	..	..	..	+	+	..	+	+
Aug. 1.....		84	4	..	..	..	+	+	..	+	+
" 2.....		28	7	..	..	..	0	0	..	+	+
" 4.....		180	4	..	..	..	+	+	..	+	+
" 5.....		4	2	..	..	..	0	0	..	0	+
" 6.....		16	6	..	..	..	+	+	..	+	+
" 7.....		80	7	..	..	..	+	+	..	+	+
" 8.....		7	0	..	..	..	0	+	..	+	+
" 9.....		60	68	..	..	..	+	+	..	+	+
" 11.....		3	3	..	..	..	0	0	..	0	+
" 12.....		3	2	..	..	..	0	+	..	0	+
" 13.....		5	0	..	..	..	+	+	..	+	+
Averages		**63**	**8.9**	**64**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	41	0	1	..	..	..	0	0	..	0	0
" 29.....		40	0	..	..	..	0	+	..	+	+
" 30.....		5	3	..	..	..	0	0	..	+	+
" 31.....		35	8	..	..	..	+	0	..	+	+
Aug. 1.....		39	0	..	..	..	0	+	..	+	+
" 2.....		12	6	..	..	..	0	0	..	+	+
" 4.....		18	3	..	..	..	0	0	..	0	0
" 5.....		3	4	..	..	..	0	0	..	0	0
" 6.....		4	2	..	..	..	0	0	..	0	+
" 7.....		60	18	..	..	..	+	+	..	+	+
" 8.....		0	0	..	..	..	0	0	..	+	+
" 9.....		38	38	..	..	..	0	+	..	+	+
" 11.....		1	0	..	..	..	0	0	..	+	+
" 12.....		0	1	..	..	..	0	+	..	+	+
" 13.....		10	1	..	..	..	..	..	..	..	..
Averages		**17**	**5.6**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in averages.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Waters of Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°-22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28	42	3	0	..	..	..	0	0	..	+	0
" 29		50	0	..	..	..	0	+	..	+	+
" 30		7	0	..	..	..	0	0	..	+	+
" 31		4	0	..	..	..	+	+	..	+	+
Aug. 1		34	10	..	..	..	+	+	..	+	..
" 2		8	1	..	..	..	0	0	..	0	+
" 4		6	3	..	..	..	0	0	..	0	0
" 5		14	2	..	..	..	0	0	..	0	0
" 6		3	14	..	..	..	0	0	..	0	0
" 7		3	2	..	..	..	0	0	..	0	+
" 8		2	0	..	..	..	0	0	..	0	0
" 9		18	42	..	..	..	0	+	..	+	+
" 11		1	0	..	..	..	0	0	..	0	0
" 12		0	2	..	..	..	0	0	..	0	0
" 13		4	2	..	..	..	0	0	..	0	+
Averages		**10.4**	**5.2**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	43	6	0	..	..	..	0	+	..	0	0
" 29		30	0	..	..	..	0	+	..	+	+
" 30		3	0	..	..	..	0	0	..	0	0
" 31		8	2	..	..	..	0	+	..	+	+
Aug. 1		11	1	..	..	..	0	+	..	+	+
" 2		8	1	..	..	..	0	0	..	0	0
" 4		3	4	..	..	..	0	0	..	+	+
" 5		4	2	..	..	..	0	0	..	0	0
" 6		2	1	..	..	..	0	0	..	0	0
" 7		2	4	..	..	..	0	0	..	0	+
" 8		0	0	..	..	..	0	0	..	0	0
" 9		22	24	..	..	..	+	0	..	+	+
" 11		0	0	..	..	..	0	0	..	0	+
" 12		0	1	..	..	..	0	0	..	0	+
" 13		3	2	..	..	..	0	0	..	0	0
Averages		**6.8**	**2.8**	**6.1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	44	0	1	..	..	..	0	0	..	0	0
" 29		12	0	..	..	..	0	+	..	+	+
" 30		4	0	..	..	..	0	0	..	0	0
" 31		5	0	..	..	..	0	+	..	+	0
Aug. 1		18	0	..	..	..	0	+	..	+	+
" 2		4	0	..	..	..	0	0	..	+	+
" 4		7	3	..	..	..	0	0	..	0	+
" 5		9	2	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp 18°-22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 6	44	2	0	..	..	..	0	0	..	0	0
" 7		0	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	0	0	..	0	0
" 9		2	8	..	..	..	0	0	..	+	+
" 11		8	0	..	..	..	0	0	..	0	0
" 12		0	0	..	..	..	0	0	..	0	+
" 13		4	1	..	..	..	0	+	..	+	+
Averages		**5**	**1.0**	**5.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	45	16	6	..	..	..	0	+	..	+	+
" 29		400	3	..	..	..	0	+	..	+	+
" 30		144	50	..	..	..	+	+	..	+	+
Aug. 1		47	9	..	..	..	+	+	..	+	+
" 2		130	18	..	..	..	+	+	..	+	+
" 4		24	8	..	..	..	0	+	..	+	+
" 5		6	2	..	..	..	0	+	..	+	+
" 6		12	5	..	..	..	0	+	..	0	+
" 7		1000	44	..	..	..	+	+	..	+	+
" 8		42	12	..	..	..	+	+	..	+	+
" 9		140	104	..	..	..	+	+	..	+	+
" 11		100	7	..	..	..	+	+	..	+	+
" 12		17	110	..	..	..	+	+	..	+	+
" 13		105	8	..	..	..	+	+	..	+	+
Averages		**155**	**27**	**70**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	46	8	2	..	..	..	0	0	..	0	0
" 29		40	6	..	..	..	+	+	..	0	+
" 30		2	4	..	..	..	0	0	..	+	0
" 31		5	1	..	..	..	0	0	..	0	+
Aug. 1		11	1	..	..	..	0	0	..	+	+
" 2		76	14	..	..	..	0	+	..	+	+
" 4		60	12	..	..	..	0	+	..	+	+
" 5		0	0	..	..	..	0	0	..	0	+
" 6		6	4	..	..	..	+	+	..	0	+
" 7		2	2	..	..	..	0	0	..	0	0
" 8		18	3	..	..	..	+	+	..	+	+
" 9		18	12	..	..	..	0	+	..	+	+
" 11		3	5	..	..	..	0	+	..	+	0
" 12		7	0	..	..	..	0	0	..	0	+
" 13		0	0	..	..	..	0	+	..	+	0
Averages		**17**	**4.4**	**9.3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports, Laboratory at Port Arthur, Waters of Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	47	20	5	..	..	..	0	0	..	0	0
" 29.....		12	0	..	..	..	0	0	..	0	+
" 30.....		0	0	..	..	..	0	0	..	+	+
" 31.....		5	0	..	..	..	0	0	..	0	0
Aug. 1.....		3	1	..	..	..	0	0	..	0	0
" 2.....		14	2	..	..	..	0	0	..	+	+
" 5.....		0	0	..	..	..	0	0	..	+	+
" 6.....		2	5	..	..	..	0	0	..	0	0
" 7.....		0	2	..	..	..	0	0	..	0	0
" 8.....		6	4	..	..	..	0	+	..	+	+
" 9.....		4	6	..	..	..	0	0	..	+	+
" 11.....		3	0	..	..	..	0	0	..	+	0
" 12.....		8	0	..	..	..	0	+	..	0	+
" 13.....		0	1	..	..	..	0	0	..	+	+
Averages		**5.5**	**1.8**	**3.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	48	1	0	..	..	..	0	0	..	0	0
" 29.....		6	0	..	..	..	0	0	..	0	+
" 30.....		2	0	..	..	..	0	+	..	0	0
" 31.....		0	1	..	..	..	0	0	..	0	0
Aug. 1.....		2	0	..	..	..	0	0	..	0	0
" 2.....		8	2	..	..	..	0	0	..	0	0
" 4.....		10	8	..	..	..	0	+	..	+	+
" 5.....		0	0	..	..	..	0	0	..	0	+
" 6.....		0	4	..	..	..	0	0	..	0	+
" 7.....		0	2	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	+	+
" 9.....		0	spreader	..	..	..	0	0	..	0	0
" 11.....		2	2	..	..	..	0	0	..	0	0
" 12.....		2	0	..	..	..	0	0	..	0	+
" 13.....		0	0	..	..	..	0	0	..	0	0
Averages		**2.2**	**1.3**	**2.2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	49	4	12	..	..	..	+	+	..	0	+
" 29.....		3	7	..	..	..	0	+	..	0	+
" 30.....		3	3	..	..	..	0	0	..	+	0
" 31.....		0	0	..	..	..	0	0	..	0	0
Aug. 1.....		4	0	..	..	..	0	0	..	0	0
" 2.....		6	4	..	..	..	0	0	..	0	0
" 4.....		6	4	..	..	..	0	0	..	+	+
" 5.....		0	0	..	..	..	0	0	..	0	+
" 6.....		0	9	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7.....	49	0	3	..	..	..	0	0	..	0	0
" 8.....		0	2	..	..	..	0	+	..	0	+
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		2	0	..	..	..	0	0	..	0	0
" 12.....		2	1	..	..	..	0	0	..	0	0
" 13.....		0	0	..	..	..	0	0	..	+	0
Averages		**2.0**	**3.0**	**2.6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	50	10	2	..	..	..	0	+	..	0	0
" 29.....		22	3	..	..	..	+	+	..	+	+
" 30.....		38	2	..	..	..	0	+	..	+	+
" 31.....		80	9	..	..	..	+	+	..	+	+
Aug. 1.....		40	4	..	..	..	0	+	..	+	+
" 2.....		26	2	..	..	..	0	+	..	+	+
" 4.....		42	7	..	..	..	0	0	..	+	+
" 5.....		6	2	..	..	..	0	0	..	+	+
" 6.....		52	22	..	..	..	+	+	..	0	+
" 7.....		50	2	..	..	..	0	+	..	+	+
" 8.....		0	2	..	..	..	0	+	..	0	+
" 9.....		0	3	..	..	..	0	..	..	0	+
" 11.....		8	0	..	..	..	0	0	..	+	+
" 12.....		2	3	..	..	..	0	0	..	+	+
" 13.....		80	10	..	..	..	..	+	..	+	+
Averages		**30.**	**4.8**	**28**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	51	..	..	..	..	..	0	0	..	0	0
" 29.....		20	1	..	..	..	0	0	..	0	+
" 30.....		31	0	..	..	..	0	+	..	+	+
" 31.....		8	spreader	..	..	..	0	+	..	+	+
Aug. 1.....		6	1	..	..	..	0	0	..	+	+
" 2.....		14	1	..	..	..	0	+	..	0	+
" 4.....		18	6	..	..	..	0	+	..	+	+
" 5.....		26	16	..	..	..	+	+	..	+	+
" 6.....		4	4	..	..	..	0	0	..	0	+
" 7.....		..	spreader	..	..	..	0	+	..	+	+
" 8.....		2	3	..	..	..	0	+	..	+	+
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		2	0	..	..	..	0	+	..	0	+
" 12.....		3	2	..	..	..	0	0	..	0	+
" 13.....		45	20	..	..	..	+	+	..	+	+
Averages		**13.**	**4.5**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Waters of Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28	52	4	1	..	..	..	0	0	..	0	0
" 29		16	0	..	..	..	0	0	..	0	+
" 30		..	0	..	..	..	0	+	..	+	+
" 31		1	spreader	..	..	..	0	0	..	0	+
Aug. 1		2	5	..	..	..	0	0	..	0	0
" 2		6	4	..	..	..	0	0	..	0	0
" 4		8	2	..	..	..	0	+	..	+	+
" 5		34	12	..	..	..	+	+	..	+	+
" 6		4	2	..	..	..	0	0	..	0	+
" 7		6	14	..	..	..	+	+	..	+	+
" 8		6	0	..	..	..	0	+	..	+	+
" 9		0	0	..	..	..	0	0	..	0	+
" 11		4	0	..	..	..	0	0	..	0	0
" 12		4	2	..	..	..	0	0	..	0	0
" 13		0	0	..	..	..	0	0	..	0	0
Averages		**6.7**	**3.0**	**17**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30	53a	2	0	..	..	..	0	0	..	0	+
" 31		5	3	..	..	..	0	0	..	0	+
Aug. 1		3	0	..	..	..	0	0	..	0	0
" 2		2	7	..	..	..	0	0	..	+	+
" 4		4	0	..	..	..	0	0	..	0	0
" 5		3	1	..	..	..	0	0	..	+	+
" 6		0	2	..	..	..	0	0	..	0	+
" 7		3	2	..	..	..	0	+	..	0	+
" 8		4	0	..	..	..	0	0	..	0	+
" 9		0	2	..	..	..	0	0	..	+	+
" 11		0	0	..	..	..	0	0	..	0	0
" 12		0	0	..	..	..	0	0	..	0	0
" 13		0	0	..	..	..	0	0	..	0	0
Averages		**2**	**1.3**	**1.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30	53b	4	0	..	..	..	0	0	..	+	+
" 31		2	0	..	..	..	0	0	..	+	+
Aug. 1		3	3	..	..	..	0	+	..	+	+
" 2		8	3	..	..	..	0	0	..	0	0
" 5		0	1	..	..	..	0	0	..	0	+
" 6		0	0	..	..	..	0	0	..	0	+
" 7		0	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	0	0	..	0	+
" 9		0	0	..	..	..	0	0	..	0	0
" 11		1	3	..	..	..	0	0	..	0	0
" 12		2	2	..	..	..	0	0	..	0	0
" 13		0	0	..	..	..	0	0	..	0	0
Averages		**1.6**	**1.0**	**2.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	53	0	0	..	..	..	0	0	..	0	0
" 29		4	0	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30	53	35	0	..	..	..	0	0	..	+	0
" 31		4	0	..	..	..	0	0	..	0	+
Aug. 1		6	0	..	..	..	0	0	..	0	0
" 2		2	4	..	..	..	0	0	..	+	+
" 4		3	0	..	..	..	0	0	..	0	+
" 5		30	2	..	..	..	0	+	..	+	+
" 6		0	2	..	..	..	0	0	..	0	+
" 7		4	spreader	..	..	..	0	+	..	+	+
" 8		28	0	..	..	..	0	0	..	0	0
" 9		0	0	..	..	..	0	+	..	0	+
" 11		0	0	..	..	..	0	0	..	0	0
" 12		1	1	..	..	..	0	0	..	0	0
" 13		0	1	..	..	..	0	0	..	0	0
Averages		**7.8**	**0.7**	**3.7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	54	40	0	..	..	..	0	+	..	+	+
" 29		34	7	..	..	..	0	0	..	0	+
" 30		75	8	..	..	..	0	+	..	+	+
" 31		..	146	..	..	..	0	0	..	0	0
Aug. 4		30	9	..	..	..	0	0	..	+	0
" 5		16	0	..	..	..	0	+	..	+	+
" 6		6	3	..	..	..	0	0	..	0	+
" 7		40	2	..	..	..	0	+	..	+	+
" 8		4	0	..	..	..	0	+	..	+	+
" 9		6	spreader	..	..	..	0	+	..	+	+
" 11		25	0	..	..	..	0	0	..	+	0
" 12		2	0	..	..	..	0	0	..	0	+
" 14		0	0	..	..	..	0	0	..	0	0
" 15		0	0	..	..	..	0	0	..	0	0
" 16		1	0	..	..	..	0	0	..	0	0
" 18		80	57	..	..	..	+	+	..	+	+
Averages		**24**	**6.1**	**14**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	55	0	0	..	..	..	0	0	..	+	+
" 29		12	0	..	..	..	0	0	..	0	+
" 30		3	0	..	..	..	0	+	..	+	+
Aug. 4		6	6	..	..	..	0	0	..	0	0
" 5		6	0	..	..	..	0	0	..	0	+
" 6		0	0	..	..	..	0	0	..	0	0
" 7		8	0	..	..	..	0	+	..	+	+
" 8		0	2	..	..	..	0	0	..	+	0
" 9		0	3	..	..	..	0	0	..	0	+
" 11		2	0	..	..	..	0	0	..	0	0
" 12		1	0	..	..	..	0	0	..	0	+
" 15		6	0	..	..	..	0	0	..	0	0
" 16		0	0	..	..	..	0	0	..	0	0
" 18		0	0	..	..	..	0	0	..	0	0
Averages		**3.1**	**0.7**	**3.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Waters of Lake Superior at Thunder Bay.

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July 28.....	56	5	0	..	..	..	0	0	..	0	0
" 29.....		6	1	..	..	..	0	0	..	0	+
" 30.....		3	0	..	..	..	0	0	..	0	0
Aug. 4.....		4	3	..	..	..	0	0	..	0	+
" 5.....		2	0	..	..	..	0	0	..	0	0
" 6.....		0	2	..	..	..	0	0	..	0	0
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	2	..	..	..	0	0	..	+	+
" 11.....		0	0	..	..	..	0	+	..	0	+
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		1	spreader	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**1.4**	**0.6**	**0.8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	57	0	0	..	..	..	0	0	..	0	0
" 29.....		4	0	..	..	..	0	0	..	0	0
" 30.....		0	0	..	..	..	0	0	..	0	+
Aug. 4.....		3	2	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		2	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	0	..	..	..	0	0	..	0	+
" 11.....		3	0	..	..	..	0	0	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		*800	6	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	+
" 16.....		1	0	..	..	..	0	0	..	0	0
" 18.....		3	2	..	..	..	0	0	..	0	0
Averages		**1.2**	**0.6**	**0.6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	58	2	0	..	..	..	0	0	..	0	0
" 29.....		6	0	..	..	..	0	0	..	0	+
" 30.....		10	0	..	..	..	0	0	..	0	+
Aug. 4.....		0	0	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	5	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	+	..	0	0
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		0	0	..	..	..	0	0	..	0	0
" 14.....		0	*200	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 15.....	58	1	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		1	1	..	..	..	0	0	..	0	0
Averages		**1.3**	**0.4**	**0.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	59	2000	210	..	..	..	+	+	..	+	+
" 30.....		800	90	..	..	..	+	+	..	+	+
" 31.....		960	..	..	..	+	+	+	..	+	..
Aug. 1.....		2000	..	..	..	..	+	+	..	+	+
" 2.....		2300	600	..	..	+	+	+	..	+	..
" 5.....		7	0	..	..	0	+	+	..	+	+
" 6.....		2000	200	..	..	+	+	+	..	+	+
" 7.....		2000	1600	..	..	..	+	+	..	+	+
" 8.....		2000	1400	..	..	..	+	+	..	+	+
" 9.....		2000	1200	..	..	+	+	+	..	+	+
" 11.....		800	340	..	..	+	+	+	.	+	+
" 12.....		38	100	..	..	+	+	+	..	+	+
" 13.....		4000	100	..	..	..	+	+	..	+	+
" 16.....		3000	16000	..	..	+	+	+	..	+	+
" 18.....		2000	360	..	..	..	+	+	..	+	+
Averages		**1850**	**1821**	**520**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	60	2000	110	..	..	..	+	+	..	+	+
" 30.....		760	74	..	..	..	+	+	..	+	+
" 31.....		110	50	..	..	+	+	+	..	+	..
Aug. 1.....		1500	200	..	..	..	+	+	..	+	+
" 2.....		5000	740	..	..	+	+	+	..	+	..
" 5.....		300	80	..	..	0	+	+	..	+	+
" 6.....		2000	200	..	..	0	+	+	..	+	+
" 7.....		2000	1600	..	..	..	+	+	..	+	+
" 8.....		2400	480	..	..	..	+	+	..	+	+
" 9.....		1800	1200	..	..	0	+	+	..	+	+
" 11.....		500	200	..	..	0	+	+	..	+	+
" 12.....		1280	50	..	..	+	+	+	..	+	+
" 13.....		2200	120	..	..	..	+	+	..	+	+
" 16.....		3000	16000	..	..	+	+	+	..	+	+
" 18.....		1000	350	..	..	..	+	+	..	+	+
Averages		**1723**	**1443**	**340**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	61	800	44	..	..	..	+	+	..	+	+
" 31.....		400	240	..	..	+	+	+	..	+	..
Aug. 1.....		1100	120	..	..	..	+	+	..	+	+
" 2.....		500	260	..	..	+	+	+	..	+	..
" 4.....		1400	80	..	..	+	+	+	..	+	..
" 5.....		3000	94	..	..	+	+	+	..	+	..
" 7.....		1800	1200	..	..	+	+	+	..	+	+
Averages		**1285**	**291**	**7**	**57**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in averages.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	62	624	70	..	..	..	+	+	..	+	+
" 31.....		13000	190	..	..	+	+	+	..	+	..
Aug. 1.....		2000	200	..	..	..	+	+	..	+	+
" 2.....		480	180	..	..	+	+	+	..	+	..
" 4.....		900	200	..	..	+	+	+	..	+	..
" 5.....		3000	80	..	..	+	+	+	..	+	..
" 7.....		1800	..	..	..	+	+	+	..	+	+
Averages		**3114**	**153**	**742**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	63	48	27	..	..	..	+	+	..	+	+
" 31.....		50	10	..	..	+	+	+	..	+	..
Aug. 1.....		100	26	..	..	..	+	+	..	+	+
" 2.....		80	..	..	..	0	+	+	..	+	..
" 4.....		56	52	..	..	+	+	+	..	+	..
" 5.....		24	40	..	..	..	+	+	..	+	+
" 7.....		52	800	..	..	+	0	+	..	+	+
Averages		**58**	**135**	**371**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	64	120	21	..	..	..	+	+	..	+	+
" 31.....		50	..	..	..	0	+	+	..	+	..
Aug. 1.....		45	33	..	..	..	+	+	..	+	+
" 2.....		60	35	..	..	0	+	+	..	+	..
" 4.....		48	70	..	..	0	+	+	..	+	..
" 5.....		40	35	..	..	..	+	+	..	+	+
" 7.....		44	40	..	..	+	0	+	..	+	+
Averages		**38**	**33**	**100**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	65	3000	2500	..	..	..	+	+	..	+	+
" 31.....		8000	2000	..	..	+	+	+	..	+	..
Aug. 1.....		2200	500	..	..	..	+	+	..	+	+
" 2.....		2000	1200	..	..	+	+	+	..	+	..
" 4.....		4000	3000	..	..	+	+	+	..	+	..
" 5.....		6000	3000	..	..	+	+	+	..	+	..
" 7.....		6000	4000	..	..	+	+	+	..	+	+
Averages		**4457**	**2314**	**742**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	66	2500	2500	..	..	..	+	+	..	+	+
" 31.....		6000	1400	..	..	+	+	+	..	+	..
Aug. 1.....		2000	450	..	..	..	+	+	..	+	+
" 2.....		2600	1120	..	..	+	+	+	..	+	..
" 4.....		4000	3000	..	..	+	+	+	..	+	..
" 5.....		6000	3000	..	..	+	+	+	..	+	..
" 7.....		6000	4000	..	..	+	+	+	..	+	+
Averages		**4157**	**2138**	**742**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	67	800	164	..	..	..	+	+	..	+	+
" 31.....		1400	140	..	..	+	+	+	..	+	..
Aug. 1.....		1000	65	..	..	..	+	+	..	+	+
" 2.....		180	140	..	..	+	+	+	..	+	..
" 4.....		1400	180	..	..	+	+	+	..	+	..
" 5.....		1200	60	..	..	+	+	+	..	+	..
" 7.....		1500	120	..	..	+	+	+	..	+	+
Averages		**1068**	**124**	**742**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	68	700	170	..	..	..	+	+	..	+	+
" 31.....		700	110	..	..	+	+	+	..	+	..
Aug. 1.....		800	150	..	..	..	+	+	..	+	+
" 2.....		140	40	..	..	+	+	+	..	+	..
" 4.....		1400	200	..	..	+	+	+	..	+	..
" 5.....		800	40	..	..	+	+	+	..	+	..
" 7.....		1500	100	..	..	..	+	+	..	+	+
Averages		**862**	**115**	**614**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30.....	69	1	0	..	..	..	0	+	..	0	0
Aug. 4.....		4	10	..	..	..	0	0	..	0	0
" 5.....		2	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7..... ..		0	0	..	..	..	+	0	..	0	0
" 8.....		0	0	..	..	..	0	+	..	0	0
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 14.....		0	10	..	..	..	..	..	..	..	..
" 15.....		0	0	..	..	0	0	..	0	0	
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		1	0	..	..	..	0	0	..	0	0
Averages		**0.6**	**1.6**	**0.5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30.....	70	0	0	..	..	..	0	0	..	0	0
Aug. 4.....		2	0	..	..	..	0	0	..	+	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		2	1	..	..	..	0	0	..	0	+
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 14.		3	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	1	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**0.5**	**0.1**	**0.3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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July 30.....	71	3	0	..	..	..	0	0	..	0	+
Aug. 4.....		4	3	..	..	..	0	0	..	+	0
" 5.....		0	0	..	..	..	0	0	..	+	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		2	0	..	..	..	0	0	..	0	+
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		0	0	..	..	..	0	0	..	+	+
" 11.....		0	0	..	..	..	0	0	..	0	0
" 14.....		0	1	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		3	0	..	..	..	0	0	..	0	0
Averages		**1.0**	**0.3**	**1.0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30.....	72	6	0	..	..	..	0	0	..	+	+
" 31.....		..	10	..	..	..	..	..	..	..	..
Aug. 4.....		6	2	..	..	..	0	0	..	0	0
" 5.....		0	0	..	..	..	0	0	..	0	0
" 6.....		0	0	..	..	..	0	0	..	0	0
" 7.....		0	0	..	..	..	0	0	..	0	0
" 8.....		0	*200	..	..	..	0	0	..	0	+
" 9.....		0	0	..	..	..	0	0	..	0	0
" 11.....		0	0	..	..	..	0	0	..	0	0
" 14.....		4	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		1	0	..	..	..	0	0	..	0	+
Averages		**1.4**	**0.1**	**0.6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12.....	72a	0	0	..	..	..	0	0	..	0	0
" 14.....		0	0	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	+
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		1	0	..	..	..	0	0	..	0	0
Averages		**0.2**	**0**	**0.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12.....	72b	0	0	..	..	..	0	0	..	0	0
" 14.....		*750	*10	..	..	..	0	0	..	0	0
" 15.....		0	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**0**	**0**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 12.....	72c	0	0	..	..	..	0	0	..	0	0
" 14.....		0	0	..	..	..	0	0	..	0	0
" 15.....		1	0	..	..	..	0	0	..	0	0
" 16.....		0	3	..	..	..	0	0	..	0	0
" 18.....		0	0	..	..	..	0	0	..	0	0
Averages		**0.2**	**0.6**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12.....	72d	6	0	..	..	..	0	0	..	0	0
" 14.....		360	30	..	..	..	0	0	..	0	+
" 15.....		2	0	..	..	..	0	0	..	0	0
" 16.....		0	0	..	..	..	0	0	..	0	+
" 18.....		0	0	..	..	..	0	+	..	+	0
Averages		**73**	**6.**	**1.6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 15.....	316	320	96	..	..	0	+	+	..	+	+
" 15.....	317	90	20	..	..	0	+	+	..	+	+
" 15.....	318	1000	1500	..	..	0	+	+	..	+	+
Aug. 16.....	333	290	120	..	..	+	+	+	..	+	+
" 16.....	334	270	110	..	..	+	0	+	..	+	+
" 16.....	335	240	90	..	..	0	0	+	..	+	+
" 16.....	336	180	450	..	..	0	+	+	..	+	+
" 16.....	350	300	150	..	..	0	0	+	..	+	+
" 16.....	355	2500	750	..	..	+	+	+	..	+	+
" 18.....	376	352	125	..	..	+	0	+	..	+	+
" 18.....	377	354	200	..	..	+	+	+	..	+	+
" 19.....	520	220	10	..	..	+	+	+	..	+	+
" 19.....	521	212	52	..	..	+	+	+	..	+	+
" 19.....	522	384	52	..	..	+	+	+	..	+	+
" 19.....	525	240	39	..	..	0	+	+	..	+	+
" 19.....	326	184	25	..	..	+	+	+	..	+	+
" 19.....	527	108	48	..	..	+	+	+	..	+	+
" 19.....	528	168	46	..	..	+	+	+	..	+	+
" 19.....	529	72	36	..	..	+	+	+	..	+	+
" 19.....	530	240	spreader	..	..	+	+	+	..	+	+
" 19.....	531	108	6	..	..	+	+	+	..	+	+
" 19.....	532	68	6	..	..	+	+	+	..	+	+
" 19.....	533	688	120	..	..	+	+	+	..	+	+
" 19.....	538	200	80	..	..	+	+	+	..	+	+
" 19.....	539	400	112	..	..	+	+	+	..	+	+
" 19.....	540	320	144	..	..	+	+	+	..	+	+
" 19.....	541	448	120	..	..	+	+	+	..	+	+
" 19.....	542	336	76	..	..	+	+	+	..	+	+
" 19.....	543	480	160	..	..	+	+	+	..	+	+
" 19.....	544	640	200	..	..	+	+	+	..	+	+
" 19.....	545	656	80	..	..	+	+	+	..	+	+
" 19.....	546	524	38	..	..	+	+	+	..	+	+
" 19.....	547	700	150	..	..	+	+	+	..	+	+

* Not included in averages.

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Aug. 19.....	548	600	300	..	..	+	+	+	..	+	+
" 19.....	549	608	300	..	..	+	+	+	..	+	+
" 19.....	550	560	180	..	..	+	+	+	..	+	+
" 19.....	551	2000	1000	..	..	+	+	+	..	+	+
" 19.....	552	1000	1200	..	..	+	+	+	..	+	+
" 19.....	553	1500	1200	..	..	+	+	+	..	+	+
" 19.....	554	3000	1000	..	..	+	+	+	..	+	+
" 19.....	555	3000	600	..	..	+	+	+	..	+	+
" 19.....	556	2000	500	..	..	+	+	+	..	+	+
" 19.....	557	1500	400	..	..	+	+	+	..	+	+
" 19.....	558	1500	400	..	..	+	+	+	..	+	+
" 19.....	559	1000	90	..	..	+	+	+	..	+	+
" 19.....	560	800	66	..	..	+	+	+	..	+	+
" 19.....	561	250	160	..	..	+	+	+	..	+	+
" 19.....	562	300	25	..	..	+	+	+	..	+	+
" 19.....	563	624	50	..	..	+	+	+	..	+	+
" 19.....	564	568	30	..	..	+	+	+	..	+	+
" 20.....	594	2	0	..	..	0	0	+	..	+	+
" 20.....	595	0	0	..	..	0	0	+	..	+	+
" 20.....	596	6	3	..	..	+	+	+	..	+	+
" 20.....	597	0	0	..	..	+	+	+	..	+	+
" 20.....	598	0	0	..	..	0	+	0	..	+	+
" 20.....	599	2	0	..	..	0	+	+	..	+	+
" 20.....	600	0	0	..	..	+	+	+	..	+	+
" 20.....	601	2	0	..	..	0	0	+	..	+	+
" 20.....	602	3	0	..	..	0	0	+	..	0	+
" 20.....	603	0	0	..	..	0	0	+	..	0	0
" 20.....	604	0	0	..	..	0	0	0	..	0	0
" 20.....	605	0	0	..	..	0	0	0	..	+	+
" 20.....	606	0	0	..	..	0	0	0	..	0	+
" 20.....	607	0	0	..	..	0	0	+	..	0	0
" 20.....	608	0	0	..	..	0	0	0	..	0	0
" 20.....	609	0	0	..	..	0	0	0	..	0	0
" 20.....	610	0	0	..	..	0	0	0	..	+	+
" 20.....	611	0	1	..	..	..	0	0	..	0	+
" 20.....	612	1	1	..	..	..	0	0	..	0	0
" 20.....	613	0	1	..	..	..	0	0	..	0	+
" 20.....	614	0	0	..	..	..	0	0	..	0	+
" 20.....	615	0	0	..	..	..	0	+	..	0	+
" 20.....	616	0	0	..	..	..	0	0	..	0	0
" 20.....	617	0	3	..	..	..	0	0	..	0	+
" 20.....	618	0	0	..	..	..	0	0	..	0	+
" 21.....	629	580	152	..	0	+	+	+	..	+	..
" 21.....	630	660	180	..	0	+	+	+	..	+	..
" 21.....	631	1120	300	..	+	+	+	+	..	+	..
" 21.....	632	880	200	..	+	+	+	+	..	+	..
" 21.....	633	670	400	..	+	+	+	+	..	+	..
" 21.....	634	280	40	..	0	+	+	+	..	+	..
" 21.....	635	150	8	..	0	0	+	+	..	+	..
" 21.....	636	23	0	..	0	0	+	+	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 21.....	637	10	0	..	0	0	+	+	..	+	..
" 21.....	638	12	10	..	0	0	0	+	..	+	..
" 21.....	639	0	3	..	0	0	0	+	..	+	..
" 21.....	640	13	1	..	0	+	+	+	..	+	..
" 21.....	641	51	6	..	0	0	+	+	..	+	..
" 21.....	642	33	10	..	0	0	0	+	..	+	..
" 21.....	043	220	112	..	0	+	0	+	..	+	..
" 21.....	644	800	100	..	+	+	+	+	..	+	..
" 21.....	64b	1080	spreader	..	+	+	+	+	..	+	..
" 21.....	646	1000	160	..	+	+	+	+	..	+	..
" 21.....	647	900	12	..	+	+	+	+	..	+	..
" 21.....	648	2000	116	..	0	+	+	+	..	+	..
" 21.....	649	38	2	..	0	0	+	+	..	+	..
" 21.....	650	23	1	..	0	0	+	+	..	+	..
" 21.....	651	4	1	..	0	0	0	+	..	+	..
" 21.....	652	28	5	..	0	0	+	+	..	+	..
" 21.....	653	20	0	..	0	0	+	+	..	+	..
" 21.....	654	12	1	..	0	0	0	0	..	+	..
" 21.....	655	1	0	..	0	0	0	+	..	+	..
" 21.....	656	0	0	..	0	0	0	0	..	+	..
" 21.....	659	110	66	..	0	+	+	+	..	+	..
" 21.....	660	84	20	..	0	0	+	+	..	+	..
" 21.....	661	76	10	..	0	0	+	+	..	+	..
" 21.....	662	20	7	..	0	0	+	+	..	+	..
" 21.....	663	0	1	..	0	+	0	0	..	+	..
" 21.....	664	0	0	..	0	0	0	0	..	0	..
" 21.....	665	0	3	..	0	0	0	0	..	+	..
" 21.....	666	0	0	..	0	0	0	0	..	0	..
" 21.....	667	0	0	..	0	0	0	0	..	+	..
" 21.....	668	0	0	..	0	0	0	0	..	0	..
" 21.....	669	284	21	..	0	0	+	+	..	+	..
" 21.....	670	146	26	..	0	+	+	+	..	+	..
" 21.....	671	114	5	..	0	0	+	+	..	+	..
" 21.....	672	144	20	..	0	0	+	+	..	+	..
" 21.....	673	230	14	..	0	0	+	+	..	+	..
" 21.....	674	154	19	..	0	0	+	+	..	+	..
" 21.....	675	222	22	..	0	+	+	+	..	+	..
" 21.....	676	144	9	..	0	+	+	+	..	+	..
" 21.....	677	64	20	..	0	0	+	+	..	+	..
" 21.....	678	50	17	..	0	+	+	+	..	+	..
" 22.....	686	400	42	..	..	+	+	+	..	+	..
" 22.....	687	546	134	..	..	+	+	+	..	+	..
" 22.....	688	600	128	..	..	+	+	+	..	..	..
" 22.....	689	1000	7	..	..	..	..	..	..	..	..
" 22.....	690	200	68	..	..	0	+	+	..	+	..
" 22.....	691	160	70	..	..	0	+	+	..	+	..
" 22.....	692	50	28	..	..	+	+	+	..	+	..
" 22.....	693	48	16	..	..	0	+	+	..	+	..
" 22.....	694	400	800	..	..	0	+	+	..	+	..
" 22.....	695	35	13	..	..	0	+	+	..	+	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Lake Superior at Thunder Bay.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 22.....	696	18	9	..	0	0	+	+	..	+	..
" 22.....	700	1000	1500	..	+	+	+	+	..	+	..
" 22.....	701	300	122	..	0	0	+	+	..	0	..
" 22.....	702	1000	1200	..	0	0	+	+	..	0	..
" 22.....	703	1600	1000	..	0	0	+	+	..	0	..
" 22.....	704	1000	5000	..	0	+	+	+	..	0	..
" 22.....	705	3	5	..	0	0	+	+	..	0	..
" 22.....	706	14	0	..	0	0	0	+	..	0	..
" 22.....	707	12	1	..	0	0	0	+	..	0	..
" 22.....	708	29	5	..	0	+	+	+	..	0	..
" 22.....	709	45	5	..	0	0	+	+	..	0	..
" 22.....	710	87	10	..	0	0	+	+	..	0	..
" 22.....	711	100	16	..	0	+	+	+	..	0	..
" 22.....	712	112	17	..	+	0	+	+	..	+	..
" 22.....	713	17	3	..	0	0	+	+	..	0	..
" 22.....	714	36	7	..	0	0	+	+	..	0	..
" 22.....	715	7	0	..	0	0	+	0	..	0	..
" 22.....	716	3	1	..	0	0	0	+	..	+	..
" 22.....	717	0	0	..	0	0	0	0	..	+	..
" 22.....	718	30	8	..	0	0	+	+	..	+	..
" 22.....	719	88	38	..	0	0	+	+	..	+	..
" 22.....	720	28	18	..	0	0	+	+	..	+	..
" 22.....	723	29	7	..	0	0	0	+	..	+	..
" 22.....	724	60	14	..	0	0	0	+	..	+	..
" 22.....	725	22	3	..	0	0	0	+	..	+	..
" 22.....	726	90	31	..	0	0	+	..	..	+	..
" 22.....	727	260	40	..	0	0	+	..	..	+	..
" 22.....	728	120	56	..	0	0	+	..	..	+	..
" 22.....	729	122	25	..	0	0	+	..	..	+	..
" 22.....	730	280	26	..	0	0	+	..	..	+	..
" 22.....	731	160	13	..	0	0	+	..	..	+	..
" 22.....	732	37	4	..	0	0	+	..	..	+	..
" 22.....	733	6	0	..	0	0	0	..	..	+	..
" 22.....	734	80	24	..	0	0	+	..	..	+	..
" 22.....	735	70	16	..	0	0	+	..	..	+	..
" 22.....	736	100	20	..	0	0	+	+	..	+	..
" 22.....	737	160	34	..	0	0	+	+	..	+	..
" 22.....	738	48	13	..	0	0	0	+	..	+	..
" 22.....	739	32	4	..	0	0	+	+	..	+	..
" 23.....	740	..	300	..	0	+	+	+	..	+	..
" 23.....	741	..	100	..	0	+	+	+	..	+	..
" 23.....	742	..	190	..	+	+	+	+	..	+	..
" 23.....	743	..	110	..	0	+	+	+	..	+	..
" 23.....	744	..	110	..	0	0	+	+	..	+	..
" 23.....	745	..	140	..	0	+	+	+	..	+	..
" 23.....	746	..	60	..	0	+	+	+	..	+	..
" 23.....	747	..	40	..	0	0	+	+	..	+	..
" 23.....	748	..	20	..	0	0	0	+	..	+	..
" 23.....	749	..	32	..	0	0	0	+	..	+	..
" 23.....	750	..	48	..	0	0	+	+	..	+	..
Aug. 23.....	751	..	18	..	0	0	+	+	..	+	..
" 23.....	752	..	28	..	0	0	+	+	..	+	..
" 23.....	753	..	24	..	0	0	+	+	..	+	..
" 23.....	754	..	40	..	0	0	+	+	..	+	..
" 23.....	755	..	38	..	0	0	+	+	..	+	..
" 23.....	756	..	8	..	0	0	0	0	..	+	..
" 23.....	757	..	14	..	0	0	+	+	..	+	..
" 23.....	758	..	90	..	0	0	+	+	..	+	..
" 23.....	759	..	90	..	0	0	+	+	..	+	..
" 23.....	760	..	..	..	..	..	..	..	..	..	..
" 23.....	761	..	120	..	0	+	+	+	..	+	..
" 23.....	763	..	240	..	0	0	+	+	..	+	..
" 23.....	764	..	120	..	0	+	+	+	..	+	..
" 23.....	765	..	16	..	0	+	0	+	..	+	..
" 23.....	766	..	16	..	0	0	0	+	..	+	..
" 23.....	767	..	12	..	0	0	0	0	..	+	..
" 23.....	768	..	6	..	0	0	0	0	..	+	..
" 23.....	769	..	8	..	0	+	0	+	..	+	..
" 23.....	770	..	3	..	0	+	0	+	..	+	..
" 23.....	771	..	5	..	0	+	0	+	..	+	..
	*Port Arthur	Tap	Water	†							
July 28.....			31	5	..	..	..	+	+	..	+	+
" 29.....			3	2	..	..	..	0	0	..	0	0
" 29.....			320	38	..	..	..	+	+	..	+	+
" 29.....			360	13	..	..	..	0	+	..	+	+
" 29.....			50	4	..	..	..	+	+	..	+	+
" 29.....			60	12	..	..	..	0	..	..	..	..
" 29.....			60	5	..	..	..	0	+	..	+	+
" 29.....			30	2	..	..	..	+	+	..	+	+
" 29.....			12	4	..	..	..	+	+	..	+	+
" 29.....			24	37	..	..	..	+	+	..	+	+
" 29.....			56	14	..	..	..	+	+	..	+	+
Aug. 1.....			20	33	..	..	..	0	+	..	+	+
" 1.....			8	1	..	..	..	0	0	..	+	+
" 2.....			78	5	..	..	..	0	0	..	0	0
" 2.....			24	2	..	..	..	+	+	..	+	+
" 2.....			12	7	..	..	..	0	+	..	+	+
" 2.....			6	1	..	..	..	0	0	..	+	+
" 2.....			6	3	..	..	..	0	0	..	0	+
" 2.....			7	1	..	..	..	0	0	..	0	+
" 2.....			3	1	..	..	..	0	0	..	0	0
" 2.....			42	26	..	..	..	+	+	..	+	+
" 4.....			14	5	..	..	..	0	+	..	+	+
" 4.....			8	4	..	..	..	0	+	..	+	+
" 5.....			4	1	..	..	0	0	0	..	+	+
" 5.....			3	1	..	..	..	0	0	..	+	0
" 5.....			18	5	..	..	..	0	0	..	0	0
" 5.....			14	1	..	..	..	0	0	..	+	+

*This water was improperly dosed with hypochlorite solution.

† Supposed to be chlorinated.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Port Arthur Tap Water.*

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 5		5	0	..	..	..	0	0	..	+	+
" 5		2	2	..	..	..	0	0	..	+	+
" 6		38	4	..	..	..	0	0	..	+	+
" 6		8	4	..	..	..	0	0	..	+	+
" 6		26	2	..	..	..	0	0	..	+	+
" 6		12	2	..	..	..	0	0	..	+	+
" 8		14	6	..	..	..	0	0	..	0	0
" 8		18	2	..	..	..	0	0	..	0	0
" 8		8	3	..	..	..	0	0	..	0	0
" 9		18	5	..	..	..	0	+	..	0	+
" 9		4	2	..	..	..	0	0	..	0	0
" 9		8	3	..	..	..	+	+	..	+	+
" 9		3	2	..	..	..	0	0	..	0	0
" 11		1600	800	..	..	..	+	+	..	+	+
" 11		250	2	..	..	..	+	+	..	+	+
" 11		12	5	..	..	..	0	0	..	+	+
" 11		50	0	..	..	..	0	0	..	+	+
" 11		180	2	..	..	..	0	+	..	+	+
" 11		200	700	..	..	..	+	+	..	+	+
" 11		2	1	..	..	..	0	0	..	+	0
" 12		31	3	..	..	..	0	+	..	+	..
" 12		1	3	..	..	..	0	0	..	+	+
" 12		3	0	..	..	..	0	0	..	0	+
" 12		2	0	..	..	..	0	0	..	0	0
" 13		15	1	..	..	..	0	+	..	+	+
" 13		130	0	..	..	..	0	0	..	+	+
" 13		20	33	..	..	..	0	+	..	+	+
" 13		5	0	..	..	..	0	0	..	0	0
" 14		54	spreader	..	..	..	0	0	..	0	0
" 14		65	6	..	..	..	0	+	..	+	+
" 14		..	6	..	..	..	0	+	..	0	0
" 14		0	4	..	..	..	0	0	..	0	0
" 14		5	3	..	..	..	0	0	..	0	0
" 14		20	20	..	..	..	+	+	..	+	+
" 14		1	0	..	..	..	+	0	..	0	+
" 14		1	3	..	..	..	+	+	..	+	+
" 14		70	60	..	..	..	+	+	..	+	+
" 14		9	1	..	..	..	0	0	..	0	0
" 14		0	30	..	..	..	0	0	..	0	0
" 14		0	4	..	..	..	0	0	..	0	0
" 15		40	2	..	..	..	0	+	..	0	+
" 15		38	36	..	..	..	0	0	..	+	0
" 15		9	0	..	..	..	0	0	..	+	+
" 15		4	0	..	..	..	0	0	..	0	0
" 15		3	3	..	..	..	+	+	..	+	+
" 15		0	1	..	..	..	0	0	..	0	0
" 16		120	0	..	..	..	0	0	..	0	0
" 16		9	8	..	..	..	0	0	..	+	0
" 16		8	5	..	..	..	0	0	..	0	0
" 16		13	4	..	..	..	0	0	..	0	+
Aug. 16		6	2	..	..	..	0	0	..	+	+
" 16		4	1	..	..	..	0	0	..	+	+
" 16		0	2	..	..	..	0	0	..	0	+
" 16		0	48	..	..	..	0	0	..	+	+
" 16		6	45	..	..	..	0	0	..	+	+
" 16		5	1	..	..	..	0	0	..	0	+
" 18		0	4	..	..	..	0	0	..	0	+
" 18		148	60	..	..	..	+	+	..	+	+
" 18		11	9	..	..	..	+	+	..	+	+
" 18		0	3	..	..	..	0	0	..	0	+
" 18		0	0	..	..	..	0	0	..	0	0
" 18		1	7	..	..	..	0	+	..	0	+
" 18		11	4	..	..	..	+	+	..	+	+
" 18		..	0	..	..	..	0	0	..	+	0
" 18		..	100	..	..	..	+	+	..	+	+
" 19		8	15	..	..	..	0	+	..	+	+
" 19		3	0	..	..	..	0	0	..	0	0
" 19		496	140	..	..	..	+	+	..	+	+
" 19		0	0	..	..	..	0	0	..	0	0
" 19		0	0	..	..	..	0	0	..	0	0
" 19		0	1	..	..	..	0	0	..	0	0
" 19		0	0	..	..	..	0	0	..	0	0
" 19		2	0	..	..	..	0	0	..	0	0
" 19		13	2	..	..	..	0	0	..	0	0
" 20		3	1	..	..	..	0	0	..	0	0
" 20		0	0	..	..	..	0	0	..	0	0
" 20		5	0	..	..	..	0	0	..	0	0
" 20		0	..	..	..	..	0	0	..	0	0
" 20		200	100	..	..	..	+	+	..	0	+
" 20		0	0	..	..	..	0	0	..	0	0
" 20		0	0	..	..	..	0	0	..	0	0
" 21		1	0	..	..	..	0	0	..	0	0
" 21		0	0	..	..	..	0	0	..	0	0
" 21		0	0	..	..	..	0	0	..	0	0
" 21		10	0	..	..	..	0	0	..	0	+
" 21		4	0	..	..	..	0	0	..	0	+
" 21		6	0	..	..	..	0	0	..	0	0
" 21		3	0	..	..	..	0	0	..	0	0
" 21		3	0	..	..	..	0	0	..	0	0
" 22		..	0	..	..	..	0	+	..	+	+
" 22		..	1	..	..	..	0	0	..	0	0
" 22		..	19	..	..	..	+	+	..	+	+
" 22		..	28	..	..	..	+	+	..	+	+
" 22		..	0	..	..	..	0	0	..	0	0
" 22		..	..	..	..	..	0	0	..	0	0
" 22		..	0	..	..	..	0	0	..	0	0
" 22		..	4	..	..	..	+	+	..	+	+
" 22		..	4	..	..	..	0	0	..	0	0
" 25		5	0	..	..	..	0	0	..	0	0
" 25		6	4	..	..	..	0	0	..	+	0

* This water, as is seen, was inadequately dosed with hypochlorite.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Arthur. Tap Water.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Port Arthur	**Tap**	**Water**									
Aug. 25		3	3	..	..	..	0	0	..	0	0
" 25		0	1	..	..	..	0	0	..	+	+
" 25		3	0	..	..	..	0	0	..	+	+
" 25		0	1	..	..	..	0	0	..	0	+
" 25		0	0	..	..	..	0	0	..	0	0
" 25		14	30	..	..	..	+	+	..	+	+
" 25		..	0	..	..	..	0	+	..	+	+
" 25		0	10	..	..	..	+	+	..	+	+
" 26		0	4	..	..	..	0	0	..	0	0
" 26		0	2	..	..	..	0	0	..	0	0
" 26		2	0	..	..	..	0	0	..	0	0
" 26		3	2	..	..	..	0	0	..	0	0
" 26		2	0	..	..	..	0	0	..	0	0
" 27		3	3	..	..	..	0	0	..	0	+
" 27		2	2	..	..	..	0	0	..	0	0
" 27		0	0	..	..	..	0	0	..	0	0
" 27		0	0	..	..	..	0	0	..	0	0
" 27		4	0	..	..	..	0	0	..	0	0
" 27		10	0	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Fort William	**Tap**	**Water**									
July 28		22	0	..	..	..	0	0	..	0	+
Aug. 1		6	1	..	..	..	0	0	..	0	0
" 1		14	1	..	..	..	0	0	..	0	0
" 2		9	3	..	..	..	0	0	..	0	+
" 4		4	0	..	..	..	0	0	..	0	+
" 5		80	180	..	..	..	+	+	..	+	+
" 7		5	0	..	..	..	0	0	..	0	0
" 11		4	2	..	..	..	0	0	..	0	0
" 12		11	0	..	..	..	0	0	..	0	0
" 12		1	0	..	..	..	0	0	..	0	0
" 12		8	0	..	..	..	0	+	..	+	0
" 13		6	0	..	..	..	+	+	..	+	+
" 14		0	2	..	..	..	..	..	..	..	..
" 16		11	3	..	..	..	0	0	..	0	+
" 18		..	0	..	..	..	0	+	..	+	0
" 21		94	0	..	..	..	+	+	..	+	+
" 21		56	2	..	..	..	0	0	..	0	0
" 21		20	0	..	..	..	0	0	..	+	+
" 21		70	0	..	..	..	0	+	..	0	0
" 21		10	2	..	..	..	0	+	..	0	0
" 23		16	..	..	..	..	0	0	..	0	+
" 23		12	..	..	..	..	0	0	..	0	+
" 23		4	..	..	..	..	0	0	..	0	0
" 23		3	..	..	..	..	0	0	..	+	+
" 23		10	..	..	..	..	0	0	..	0	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	1	2	0	..	..	..	0	0	..	0	0
" 30.....		10	6	..	..	..	0	0	..	0	0
July 1.....		40	1	..	..	..	0	0	..	0	0
" 2.....		21	0	..	..	..	0	0	..	0	0
" 3.....		8	0	..	..	..	0	0	..	0	0
" 4.....		21	3	..	..	..	0	+	..	0	0
" 5.....		1	5	..	..	..	0	+	..	0	+
" 11.....		1	4	..	..	..	..	+	..	+	+
" 12.....		..	..	..	..	..	..	..	..	..	..
" 14.....		6	0	..	..	..	0	+	..	0	+
" 15.....		10	0	..	..	..	0	+	..	+	+
" 16.....		11	10	..	..	..	+	+	..	+	+
" 17.....		21	1	..	..	..	0	0	..	+	+
Averages		**12.5**	**2**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	2	0	0	..	..	..	0	0	..	0	0
July 1.....		0	2	..	..	..	0	0	..	0	0
" 2.....		15	0	..	..	..	0	0	..	0	0
" 3.....		15	0	..	..	..	0	0	..	0	0
" 4.....		15	2	..	..	..	0	0	..	0	0
" 5.....		30	15	..	..	..	0	+	..	0	0
" 8.....		10	3	..	..	..	0	0	..	+	+
" 11.....		0	0	..	..	..	..	0	..	0	+
" 14.....		0	0	..	..	..	0	0	..	0	+
" 15.....		6	0	..	..	..	0	0	..	+	0
" 16.....		5	1	..	..	..	0	0	..	0	+
" 17.....		..	3	..	..	..	0	+	..	+	+
Averages		**8**	**2**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	3	0	0	..	..	..	0	0	..	0	0
" 30.....		5	3	..	..	..	0	0	..	+	0
July 1.....		10	8	..	..	..	0	0	..	0	0
" 2.....		5	16	..	..	..	0	0	..	0	0
" 3.....		23	0	..	..	..	0	0	..	0	+
" 4.....		40	6	..	..	..	0	+	..	0	0
" 5.....		100	80	..	..	..	0	0	..	+	+
" 8.....		6	0	..	..	..	0	0	..	+	0
" 11.....		6	1	..	..	..	..	+	..	+	+
" 14.....		3	1	..	..	..	+	+	..	+	+
" 15.....		4	0	..	..	..	0	+	..	+	+
" 16.....		8	1	..	..	..	0	0	..	0	0
" 17.....		5	0	..	..	..	0	+	..	+	+
Averages		**16.5**	**8**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	4	1	0	..	..	..	0	0	..	0	0
" 30.....		2	0	..	..	..	0	0	..	0	0
July 1.....		7	1	..	..	..	0	0	..	0	0
" 2.....		5	0	..	..	..	0	0	..	0	0
" 3.....		28	2	..	..	..	0	0	..	0	0
" 4.....		3	0	..	..	..	0	+	..	0	+
" 5.....		10	8	..	..	..	0	+	..	0	0
" 8.....		3	0	..	..	..	0	+	..	+	+
" 11.....		3	1	..	..	..	..	0	..	0	+
" 14.....		2	0	..	..	..	0	+	..	+	+
" 15.....		21	4	..	..	..	+	+	..	+	+
" 16.....		1	1	..	..	..	0	0	..	+	+
" 17.....		16	4	..	..	..	0	+	..	0	+
Averages		**7**	**1**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	5	0	2	..	..	..	0	0	..	0	0
July 1.....		0	0	..	..	..	0	0	..	0	0
" 2.....		1	18	..	..	..	0	0	..	0	0
" 3.....		10	2	..	..	..	0	0	..	0	0
" 4.....		6	8	..	..	..	0	0	..	0	0
" 5.....		4	3	..	..	..	0	0	..	+	0
" 8.....		3	0	..	..	..	0	0	..	+	+
" 11.....		3	0	..	..	..	..	+	..	+	+
" 14.....		1	1	..	..	..	0	+	..	+	+
" 15.....		12	1	..	..	..	0	0	..	+	+
" 16.....		4	1	..	..	..	0	0	..	0	+
" 17.....		3	7	..	..	..	0	0	..	0	+
Averages		**3**	**3**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	6	0	1	..	..	..	0	0	..	0	0
" 30.....		3	1	..	..	..	0	0	..	0	0
July 1.....		0	240	..	..	..	0	0	..	0	+
" 2.....		6	0	..	..	..	0	0	..	0	0
" 3.....		1	0	..	..	..	0	0	..	0	0
" 4.....		18	11	..	..	..	0	+	..	+	0
" 5.....		8	5	..	..	..	+	+	..	+	0
" 8.....		10	0	..	..	..	0	0	..	+	+
" 11.....		0	0	..	..	..	..	0	..	0	0
" 14.....		3	2	..	..	..	0	+	..	+	+
" 15.....		4	4	..	..	..	0	0	..	+	+
" 16.....		1	0	..	..	..	0	0	..	0	0
" 17.....		19	0	..	..	..	0	+	..	+	+
Averages		**5**	**20.3**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	7	2	0	..	..	..	0	0	..	0	0
" 30.....		17	0	..	..	..	0	0	..	0	0
July 1.....		2	4	..	..	..	0	0	..	0	0
" 2.....		8	0	..	..	..	0	0	..	0	0
" 3.....		7	1	..	..	..	0	0	..	0	0
" 4.....		10	0	..	..	..	0	0	..	+	0
" 5.....		15	9	..	..	..	0	+	..	+	+
" 8.....		15	1	..	..	..	+	+	..	+	+
" 11.....		0	3	..	..	..	..	0	..	0	0
" 14.....		2	1	..	..	..	0	+	..	+	+
" 15.....		8	0	..	..	..	0	+	..	+	+
" 16.....		10	0	..	..	..	0	0	..	+	0
" 17.....		16	4	..	..	..	0	0	..	+	+
Averages		**8**	**1**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	8	2	0	..	..	..	0	0	..	0	0
" 30.....		7	4	..	..	..	0	0	..	0	0
July 1.....		1	2	..	..	..	0	0	..	0	0
" 2.....		13	2	..	..	..	0	0	..	0	0
" 3.....		17	6	..	..	..	0	0	..	0	+
" 4.....		12	3	..	..	..	0	0	..	0	+
" 5.....		3	6	..	..	..	0	0	..	+	+
" 8.....		3	spreader	..	..	..	0	+	..	+	+
" 11.....		1	0	..	..	..	..	0	..	0	0
" 14.....		2	1	..	..	..	0	+	..	0	+
" 15.....		5	0	..	..	..	0	0	..	0	0
" 16.....		18	1	..	..	..	0	0	..	0	0
" 17.....		34	0	..	..	..	0	0	..	+	+
Averages		**9**	**2**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	9	0	0	..	..	..	0	0	..	0	0
" 30.....		17	0	..	..	..	0	0	..	0	0
July 1.....		28	0	..	..	..	0	0	..	0	0
" 2.....		9	1	..	..	..	0	0	..	0	0
" 3.....		6	4	..	..	..	0	0	..	0	0
" 4.....		6	3	..	..	..	0	+	..	+	0
" 5.....		8	1	..	..	..	0	0	..	0	+
" 8.....		6	6	..	..	..	0	0	..	+	+
" 11.....		2	0	..	..	..	..	0	..	0	+
" 14.....		1	0	..	..	..	0	0	..	0	+
" 15.....		5	2	..	..	..	0	0	..	+	+
" 16.....		5	1	..	..	..	0	0	..	0	0
" 17.....		4	2	..	..	..	0	0	..	+	+
Averages		**7**	**1**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	10	0	0	..	..	..	0	0	..	+	0
" 30.....		2	1	..	..	..	0	0	..	0	0
July 1.....		2	1	..	..	..	0	0	..	0	0
" 2.....		10	5	..	..	..	0	0	..	0	0
" 3.....		8	1	..	..	..	0	0	..	0	0
" 4.....		22	4	..	..	..	0	0	..	+	0
" 5.....		6	4	..	..	..	0	0	..	0	0
" 8.....		5	0	..	..	..	0	+	..	+	+
" 11.....		1	0	..	..	..	..	0	..	0	0
" 14.....		6	1	..	..	..	0	+	..	+	+
" 15.....		6	0	..	..	..	0	0	..	+	+
" 16.....		2	0	..	..	..	0	0	..	+	+
" 17.....		1	0	..	..	..	0	0	..	+	+
Averages		**5**	**1**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	11	0	0	..	..	..	0	+	..	0	+
" 30.....		6	1	..	..	..	0	0	..	0	0
July 1.....		2	0	..	..	..	0	0	..	0	0
" 2.....		28	0	..	..	..	0	0	..	+	0
" 3.....		5	0	..	..	..	0	0	..	0	0
" 4.....		5	2	..	..	..	+	+	..	0	+
" 5.....		0	1	..	..	..	0	0	..	+	+
" 7.....		2	0	..	..	..	0	+	..	+	+
" 8.....		0	28	..	..	..	0	0	..	0	+
" 9.....		6	10	..	..	..	0	+	..	0	+
" 10.....		6	0	..	..	..	0	+	..	+	+
" 11.....		0	0	..	..	..	0	0	..	0	0
" 12.....		2	0	..	..	..	+	+	..	+	+
" 14.....		9	2	..	..	..	0	+	..	+	+
" 15.....		4	0	..	..	..	0	0	..	+	+
Averages		**5**	**2**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	12	6	..	..	..	..	0	0	..	0	+
July 1.....		0	0	..	..	..	0	0	..	0	0
" 2.....		9	0	..	..	..	0	0	..	+	0
" 3.....		5	0	..	..	..	0	0	..	0	+
" 4.....		8	1	..	..	..	+	0	..	0	0
" 5.....		14	6	..	..	..	+	+	..	+	+
" 7.....		0	0	..	..	..	0	0	..	0	+
" 8.....		8	9	..	..	..	+	+	..	+	+
" 9.....		3	0	..	..	..	0	0	..	+	+
" 10.....		10	1	..	..	..	0	+	..	+	+
" 11.....		4	0	..	..	..	0	+	..	0	0
" 12.....		5	4	..	..	..	+	+	..	+	+
" 14.....		4	3	..	..	..	0	+	..	+	+
" 15.....		4	0	..	..	..	0	+	..	+	+
Averages		**5**	**1**	**26**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28	13	0	0	..	..	..	0	0	..	+	0
" 30		12	0	..	..	..	0	0	..	0	0
July 1		75	2	..	..	..	0	0	..	0	0
" 2		3	0	..	..	..	0	+	..	0	0
" 3		7	0	..	..	..	0	0	..	0	0
" 4		6	3	..	..	..	0	0	..	+	+
" 5		40	spreader	..	..	..	+	0	..	+	+
" 7		7	5	..	..	..	0	+	..	+	+
" 8		21	1	..	..	..	0	+	..	+	+
" 9		4	0	..	..	..	0	+	..	0	+
" 10		4	1	..	..	..	0	+	..	+	+
" 11		1	0	..	..	..	0	0	..	0	0
" 12		5	2	..	..	..	+	+	..	+	+
" 14		3	1	..	..	..	0	+	..	+	+
" 15		3	1	..	..	..	0	+	..	+	0
Averages		**12.7**	**1**	**14**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	14	2	0	..	..	..	0	0	..	+	+
" 30		0	0	..	..	..	0	0	..	0	0
July 1		0	1	..	..	..	0	0	..	0	+
" 2		9	1	..	..	..	0	0	..	0	0
" 3		0	0	..	..	..	0	0	..	0	0
" 4		16	1	..	..	..	0	+	..	0	0
" 5		10	10	..	..	..	0	+	..	+	+
" 7		1	0	..	..	..	+	+	..	+	+
" 8		10	2	..	..	..	0	0	..	+	+
" 9		9	6	..	..	..	0	+	..	+	+
" 10		0	0	..	..	..	0	0	..	+	+
" 11		0	0	..	..	..	0	0	..	0	0
" 12		3	5	..	..	..	0	+	..	+	+
" 14		4	2	..	..	..	0	+	..	+	+
" 15		26	1	..	..	..	0	+	..	+	+
Averages		**6**	**1**	**14**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	15	0	2	..	..	..	0	0	..	+	0
" 30		0	7	..	..	..	0	0	..	0	0
July 1		35	1	..	..	..	0	0	..	0	0
" 2		11	0	..	..	..	0	0	..	0	0
" 3		5	0	..	..	..	0	0	..	+	0
" 4		21	4	..	..	..	+	+	..	+	0
" 5		8	4	..	..	..	0	+	..	+	+
" 7		18	8	..	..	..	+	+	..	+	+
" 8		15	4	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9	15	9	3	..	..	..	0	+	..	+	0
" 10		30	0	..	..	..	0	+	..	+	+
" 11		1	0	..	..	..	0	0	..	0	+
" 12		7	13	..	..	..	+	+	..	+	+
" 14		16	3	..	..	..	0	+	..	+	+
" 15		42	4	..	..	..	0	+	..	+	+
Averages		**14.5**	**3**	**22**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	16	0	0	..	..	..	0	0	..	+	0
" 30		12	1	..	..	..	0	0	..	0	0
July 1		20	14	..	..	..	0	0	..	0	0
" 2		14	2	..	..	..	0	+	..	0	0
" 3		5	0	..	..	..	0	0	..	+	+
" 4		35	3	..	..	..	+	+	..	0	+
" 5		9	0	..	..	..	0	+	..	+	+
" 7		5	0	..	..	..	0	0	..	+	0
" 8		4	1	..	..	..	0	+	..	+	+
" 9		15	3	..	..	..	0	+	..	+	+
" 10		15	0	..	..	..	+	+	..	+	+
" 11		4	0	..	..	..	0	0	..	+	+
" 12		3	0	..	..	..	0	+	..	+	+
" 14		6	1	..	..	..	0	0	..	0	+
" 15		1	1	..	..	..	0	+	..	+	+
Averages		**9**	**1**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	17	0	0	..	..	..	0	+	..	+	0
" 30		0	2	..	..	..	0	0	..	0	0
July 1		0	0	..	..	..	0	0	..	+	0
" 2		19	0	..	..	..	0	0	..	0	0
" 3		7	0	..	..	..	0	0	..	0	+
" 4		17	7	..	..	..	0	+	..	0	+
" 5		4	3	..	..	..	0	+	..	0	+
" 7		8	0	..	..	..	0	+	..	+	+
" 8		5	3	..	..	..	0	+	..	+	+
" 9		3	0	..	..	..	0	+	..	+	+
" 10		7	0	..	..	..	0	+	..	+	+
" 11		5	0	..	..	..	0	+	..	+	+
" 12		16	3	..	..	..	+	0	..	+	+
" 14		2	1	..	..	..	0	+	..	+	+
" 15		5	2	..	..	..	0	+	..	+	+
Averages		**6**	**1**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports: Laboratory at Sault Ste. Marie. Ont. Waters of St. Mary s River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28	18	0	1	..	..	..	0	0	..	0	0
" 30		2	0	..	..	..	0	0	..	0	0
July 1		5	1	..	..	..	+	0	..	+	+
" 2		3	0	..	..	..	0	0	..	0	+
" 3		7	9	..	..	..	0	+	..	0	0
" 4		26	0	..	..	..	0	+	..	0	+
" 5		6	8	..	..	..	+	0	..	+	+
" 7		0	0	..	..	..	0	0	..	+	+
" 8		3	0	..	..	..	0	+	..	+	+
" 9		5	2	..	..	..	0	+	..	+	+
" 10		12	6	..	..	..	+	+	..	+	+
" 11		3	2	..	..	..	0	+	..	+	+
" 12		4	3	..	..	..	+	+	..	..	+
" 14		1	18	..	..	..	0	+	..	+	+
" 15		26	4	..	..	..	0	+	..	+	0
Averages		**6**	**3**	**21**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	19	0	2	..	..	..	0	+	..	+	0
" 30		5	0	..	..	..	0	0	..	+	0
July 1		2	1	..	..	..	0	0	..	+	+
" 2		5	3	..	..	..	0	0	..	0	0
" 3		13	3	..	..	..	0	0	..	+	+
" 4		5	5	..	..	..	0	0	..	+	+
" 5		21	33	..	..	..	+	0	..	+	+
" 7		0	0	..	..	..	+	+	..	+	+
" 8		5	3	..	..	..	0	+	..	0	+
" 9		6	1	..	..	..	0	+	..	0	0
" 10		5	0	..	..	..	0	0	..	+	+
" 11		3	2	..	..	..	0	0	..	+	+
" 12		17	12	..	..	..	+	+	..	+	+
" 14		3	1	..	..	..	0	+	..	+	+
" 15		13	0	..	..	..	0	+	..	+	+
Averages		**6**	**4**	**19**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	20	..	42	..	..	..	+	+	..	+	+
" 30		2	39	..	..	..	0	0	..	0	0
July 1		3	1	..	..	..	0	0	..	+	+
" 2		10	1	..	..	..	0	0	..	0	0
" 3		9	3	..	..	..	0	0	..	0	0
" 4		11	3	..	..	..	0	+	..	+	0
" 5		8	1	..	..	..	+	+	..	+	+
" 7		0	0	..	..	..	0	0	..	0	+
" 8		15	5	..	..	..	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9	20	1	1	..	..	..	0	+	..	+	+
" 10		3	6	..	..	..	0	+	..	+	+
" 11		2	0	..	..	..	0	+	..	0	+
" 12		15	21	..	..	..	0	+	..	+	+
" 14		10	2	..	..	..	0	+	..	+	+
" 15		42	12	..	..	..	0	+	..	+	+
Averages		**9**	**9**	**27**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	21	0	8	..	..	..	0	0	..	0	+
" 30		1	0	..	..	..	0	0	..	0	+
July 1		3	0	..	..	..	0	+	..	+	0
" 2		2	0	..	..	..	0	0	..	0	0
" 3		8	4	..	..	..	0	0	..	0	+
" 4		36	6	..	..	0	..	0	..	0	+
" 5		5	3	..	..	..	0	+	..	+	+
" 7		7	0	..	..	..	0	0	..	+	0
" 8		20	5	..	..	..	0	+	..	+	..
" 9		5	1	..	..	..	0	+	..	+	..
" 10		5	7	..	..	..	0	0	..	0	..
" 11		9	2	..	..	..	0	0	..	0	..
" 12		3	30	..	..	..	0	+	..	+	..
" 14		60	4	..	..	..	+	+	..	+	..
" 15		14	1	..	..	..	+	+	..	+	..
Averages		**11.8**	**4**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	22	2	2	..	..	..	0	0	..	+	+
" 30		1	1	..	..	..	0	0	..	+	0
July 1		12	0	..	..	..	0	0	..	+	+
" 2		2	1	..	..	..	0	0	..	+	0
" 3		3	0	..	..	..	0	0	..	+	0
" 4		5	3	..	..	0	..	+	..	0	+
" 5		8	0	..	..	..	0	+	..	0	+
" 7		0	0	..	..	..	0	+	..	+	+
" 8		25	0	..	..	..	0	+	..	+	..
" 9		27	2	..	..	..	0	+	..	0	..
" 10		2	1	..	..	..	+	0	..	0	..
" 11		9	0	..	..	..	0	0	..	+	0
" 12		11	23	..	..	..	+	+	..	+	..
" 14		15	5	..	..	..	+	+	..	+	..
" 15		5	4	..	..	..	+	+	..	+	..
Averages		**8**	**2**	**23**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	23	0	28	..	..	..	+	0	..	+	+
" 30.....		0	..	..	..	..	0	0	..	0	0
July 1.....		360	0	..	..	..	+	0	..	+	0
" 2.....		5	0	..	..	..	0	0	..	0	0
" 3.....		5	2	..	..	..	0	0	..	+	+
" 4.....		23	4	..	..	+	..	0	..	0	+
" 5.....		24	18	..	..	..	0	+	..	+	+
" 7.....		1	0	..	..	..	0	0	..	+	0
" 8.....		6	1	..	..	..	0	+	..	+	..
" 9.....		5	0	..	..	..	0	+	..	+	..
" 10.....		9	0	..	..	..	+	0	..	0	..
" 11.....		2	0	..	..	..	0	+	..	+	..
" 12.....		3	3	..	..	..	0	+	..	+	..
" 14.....		35	3	..	..	..	0	+	..	+	..
" 15.....		26	10	..	..	..	+	+	..	+	..
Averages		**33.6**	**4**	**17**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	24	0	..	..	..	..	0	0	..	0	+
" 30.....		2	0	..	..	..	0	0	..	0	+
July 1.....		15	2	..	..	..	0	+	..	+	0
" 2.....		1	0	..	..	..	0	0	..	+	0
" 3.....		5	0	..	..	..	0	0	..	+	+
" 4.....		22	5	..	..	0	..	+	..	+	+
" 5.....		6	7	..	..	..	0	+	..	+	+
" 7.....		2	2	..	..	..	0	0	..	+	0
" 8.....		6	2	..	..	..	0	0	..	+	..
" 9.....		11	2	..	..	..	0	+	..	+	..
" 10.....		2	3	..	..	..	0	0	..	0	..
" 11.....		2	0	..	..	..	0	+	..	+	..
" 12.....		3	9	..	..	..	+	+	..	+	..
" 14.....		40	9	..	..	..	+	+	..	+	..
" 15.....		14	0	..	..	..	0	0	..	+	..
Averages		**8.6**	**2**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	25	3	3	..	..	..	0	+	..	+	+
" 30.....		2	1	..	..	..	0	0	..	+	+
July 1.....		70	60	..	..	..	+	+	..	+	+
" 2.....		19	400	..	..	..	+	+	..	+	+
" 3.....		28	7	..	..	0	0	+	..	+	+
" 4.....		60	21	..	..	+	..	+	..	+	..
" 5.....		28	4	..	..	0	0	+	..	+	..
" 7.....		0	1	..	..	+	+	+	..	+	+
" 8.....		5	0	..	..	0	0	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9.....	25	40	7	..	..	0	+	+	..	..	..
" 10.....		8	10	..	..	0	+	0	..	..	..
" 11.....		2	1	..	..	0	0	+	..	..	..
" 12.....		20	10	..	..	0	0	+	..	..	..
" 14.....		18	12	..	..	0	+	+	..	..	..
" 15.....		200	120	..	..	0	+	+	..	..	..
Averages		**33.5**	**43.8**	**176**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	26	4	12	..	..	..	0	0	..	+	+
" 30.....		12	21	..	..	..	0	+	..	+	0
July 1.....		90	1	..	..	..	+	+	..	+	0
" 2.....		14	0	..	..	..	+	+	..	+	+
" 3.....		8	0	..	..	0	0	0	..	+	+
" 4.....		100	21	..	..	+	..	+	..	+	..
" 5.....		14	9	..	..	0	+	+	..	+	..
" 7.....		..	6	..	..	0	+	+	..	+	+
" 8.....		0	0	..	..	0	+	+	..	..	..
" 9.....		370	4	..	..	+	0	+	..	..	..
" 10.....		14	20	..	..	+	+	0	..	..	..
" 11.....		20	0	..	..	0	0	+	..	..	..
" 12.....		13	3	..	..	0	+	+	..	..	..
" 14.....		85	22	..	..	0	+	+	..	..	..
" 15.....		50	3	..	..	0	+	+	..	..	..
Averages		**52.9**	**8**	**262**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	27	10	3	..	..	..	0	0	..	+	+
" 30.....		2	24	..	..	..	0	0	..	+	+
July 1.....		6	3	..	..	..	0	+	..	+	0
" 2.....		48	360	..	..	..	0	+	..	+	+
" 3.....		8	2	..	..	0	0	0	..	+	+
" 4.....		60	14	..	..	0	..	+	..	+	..
" 5.....		6	3	..	..	0	0	0	..	+	..
" 7.....		10	3	..	..	0	0	+	..	+	+
" 8.....		6	4	..	..	0	0	+	..	..	..
" 9.....		1000	3	..	..	0	+	+	..	..	..
" 10.....		9	3	..	..	0	+	0	..	..	..
" 11.....		10	0	..	..	0	0	0	..	..	..
" 12.....		4	4	..	..	0	+	+	..	..	..
" 14.....		60	30	..	..	+	+	+	..	..	..
" 15.....		60	12	..	..	0	+	+	..	..	..
Averages		**86.6**	**31.2**	**94**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28	28	70	16	..	..	..	+	+	..	+	+
" 30		180	9	..	..	..	+	+	..	+	+
July 1		120	68	..	..	+	+	+	..	+	+
" 2		20	5	..	..	0	+	+	..	0	+
" 3		60	18	..	..	+	+	+	..	+	+
" 4		60	41	..	..	+	..	+	..	+	..
" 5		49	40	..	..	0	+	+	..	+	..
" 7		150	7	..	..	+	+	+	..	+	+
" 8		110	10	..	..	+	+	+	..	..	..
" 9		210	3	..	..	+	+	+	..	..	..
" 10		40	15	..	..	0	+	+	..	..	..
" 11		300	16	..	0	0	+	+	..	..	..
" 12		48	60	..	0	+	+	+	..	..	..
" 14		40	8	..	0	+	+	+	..	..	..
" 15		180	80	..	..	+	+	+	..	..	..
Averages		**109.01**	**26.4**	**640**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	29	200	74	..	..	..	+	+	..	+	+
" 30		0	17	..	..	..	+	+	..	+	+
July 1		150	34	..	..	+	+	+	..	+	0
" 2		22	0	..	..	0	+	+	..	+	+
" 3		26	32	..	..	0	+	+	..	+	+
" 4		33	8	..	..	+	..	+	..	+	..
" 5		21	23	..	..	0	+	+	..	+	..
" 7		210	12	..	..	+	+	+	..	+	+
" 8		75	13	..	..	+	+	+	..	..	..
" 9		300	20	..	..	+	+	+	..	..	..
" 10		30	9	..	..	0	+	0	..	..	..
" 11		150	6	..	0	+	+	+	..	..	..
" 12		36	30	..	0	+	+	+	..	..	..
" 14		76	18	..	0	0	+	+	..	..	..
" 15		260	32	..	..	0	+	+	..	..	..
Averages		**105.9**	**21.8**	**520**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	30	240	150	..	..	..	0	+	..	+	+
" 30		3	13	..	..	..	0	0	..	+	+
July 1		40	0	..	..	..	0	+	..	+	0
" 2		16	12	..	..	..	0	+	..	+	0
" 3		18	10	..	..	0	+	+	..	+	+
" 4		28	3	..	..	+	..	+	..	+	..
" 5		14	5	..	..	0	0	+	..	+	..
" 7		0	2	..	..	0	0	+	..	+	+
" 8		80	15	..	..	+	+	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9	30	150	10	..	..	+	+	+	..	..	..
" 10		10	5	..	..	0	+	0	..	..	..
" 11		80	5	..	0	+	0	+	..	..	..
" 12		21	15	..	0	+	+	+	..	..	..
" 14		26	3	..	0	0	+	+	..	..	..
" 15		210	18	..	..	+	+	+	..	..	..
Averages		**62.4**	**17.7**	**364**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	31	60	40	..	..	..	0	+	..	+	+
" 30		0	14	..	..	..	0	+	..	0	+
July 1		7	2	..	..	..	0	0	..	+	+
" 2		13	1	..	..	..	0	+	..	+	+
" 3		9	0	..	..	0	0	+	..	+	+
" 4		46	13	..	..	..	0	0	..	0	+
" 5		10	5	..	..	0	0	+	..	+	+
" 7		0	0	..	..	0	0	+	..	+	+
" 8		80	1	..	..	0	+	+	..	..	..
" 9		50	8	..	..	0	+	+	..	..	..
" 10		12	5	..	..	+	+	+	..	..	..
" 11		40	3	..	..	+	+	+	..	..	..
" 12		80	50	..	..	..	+	+	..	..	..
" 14		40	21	..	..	0	+	+	..	..	..
" 15		80	7	..	..	0	+	+	..	..	..
Averages		**35.1**	**11.3**	**174**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	32	70	24	..	..	..	0	+	..	+	+
" 30		0	29	..	..	..	0	0	..	+	+
July 1		32	1	..	..	..	0	+	..	+	+
" 2		26	5	..	..	..	0	+	..	+	+
" 3		3	0	..	..	0	0	0	..	+	+
" 4		8	1	..	..	..	0	0	..	+	+
" 5		10	4	..	..	0	0	0	..	+	+
" 7		10	0	..	..	0	0	+	..	+	+
" 8		40	2	..	..	+	0	+	..	..	..
" 9		20	2	..	..	0	+	+	..	..	..
" 10		60	2	..	..	0	+	+	..	..	..
" 11		10	0	..	..	+	0	+	..	..	..
" 12		100	75	..	..	..	+	+	..	..	..
" 14		6	5	..	..	0	+	+	..	..	..
" 15		50	8	..	..	0	+	+	..	..	..
Averages		**28.6**	**10**	**53**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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June 28.....	33	102	12	..	..	..	0	+	..	+	+
" 30.....		0	..	..	..	..	+	+	..	+	+
July 1.....		160	1	..	..	..	0	+	..	+	+
" 2.....		6	0	..	..	..	0	+	..	+	+
" 3.....		9	0	..	..	0	+	+	..	+	+
" 4.....		35	8	..	..	..	+	+	..	+	+
" 5.....		16	9	..	..	0	0	0	..	+	..
" 7.....		10	0	..	..	+	0	0	..	+	+
" 8.....		20	3	..	..	0	+	+	..	..	..
" 9.....		10	12	..	..	0	+	+	..	..	..
" 10.....		10	11	..	..	0	+	+	..	..	..
" 11.....		200	2	..	..	+	0	+	..	..	..
" 12.....		14	7	..	..	..	+	+	..	..	..
" 14.....		26	10	..	..	+	+	+	..	..	..
" 15.....		60	6	5	..	+	0	+	..	..	..
Averages		**45.2**	**5**	**132**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	34	210	28	..	..	..	0	+	..	+	+
" 30.....		2	..	..	..	..	+	0	..	+	+
July 1.....		280	18	..	..	..	+	+	..	+	+
" 2.....		33	1	..	..	..	+	+	..	+	+
" 3.....		10	2	..	..	0	0	+	..	+	+
" 4.....		29	7	..	..	0	+	+	..	+	+
" 5.....		14	3	..	..	0	0	0	..	+	..
" 7.....		10	4	..	..	0	+	0	..	+	+
" 8.....		600	1	..	..	0	0	+	..	..	..
" 9.....		190	2	..	..	0	+	+	..	..	..
" 10.....		0	3	..	..	0	+	+	..	..	..
" 11.....		60	5	..	..	0	+	+	..	..	..
" 12.....		48	17	..	..	..	+	+	..	..	..
" 14.....		36	12	..	..	0	0	+	..	..	..
" 15.....		..	0	..	..	0	0	+	..	..	..
Averages		**108.7**	**7**	**56**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	35	42	32	..	..	..	0	+	..	+	+
" 30.....		20	26	..	..	..	+	+	..	+	0
July 1.....		180	40	..	..	..	1	+	..	+	+
" 2.....		26	2	..	..	..	0	+	..	+	+
" 3.....		60	0	..	..	+	+	+	..	+	+
" 4.....		80	8	..	..	0	+	+	..	+	+
" 5.....		40	20	..	..	0	0	+	..	+	..
" 7.....		0	2	..	..	0	+	+	..	+	+
" 8.....		350	4	..	..	+	0	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9.....	35	0	6	..	..	+	+	+	..	..	..
" 10.....		0	4	..	..	0	+	+	..	..	..
" 11.....		260	19	..	0	+	+	+	..	..	..
" 12.....		14	20	..	0	0	+	+	..	..	..
" 14.....		85	60	..	..	+	+	+	..	..	..
" 15.....		120	..	..	..	..	..	..	..	..	..
Averages		**85.11**	**17.3**	**340**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	36	64	30	..	..	..	0	+	..	+	+
" 30.....		5	24	..	..	..	+	+	..	+	0
July 1.....		100	12	..	..	..	+	+	..	+	+
" 2.....		7	8	..	..	..	0	+	..	+	+
" 3.....		18	10	..	..	+	0	+	..	+	+
" 4.....		21	1	..	..	0	+	+	..	+	+
" 5.....		26	26	..	..	0	+	+	..	+	..
" 7.....		70	5	..	..	+	+	+	..	+	+
" 8.....		80	10	..	..	0	0	+	..	..	..
" 9.....		60	2	..	..	+	0	+	..	..	..
" 10.....		30	6	..	..	0	+	+	..	..	..
" 11.....		110	7	..	0	0	0	+	..	..	..
" 12.....		10	13	..	0	0	0	+	..	..	..
" 14.....		100	100	..	..	+	+	+	..	..	..
" 15.....		100	15	..	..	+	+	+	..	..	..
Averages		**53.4**	**17.9**	**253**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	37	110	8	..	..	..	+	+	..	+	0
" 30.....		400	29	..	..	..	+	+	..	+	+
July 2.....		80	7	..	..	..	+	+	..	+	+
" 3.....		100	26	..	..	0	+	+	..	+	+
" 4.....		7	13	..	..	..	+	+	..	+	+
" 7.....		14	2	..	..	0	0	+	..	..	..
" 8.....		40	3	..	..	+	0	+	..	..	..
" 9.....		100	10	..	..	+	+	+	..	..	..
" 10.....		38	2	..	..	0	+	+	..	..	..
" 11.....		40	4	..	..	0	+	+	..	..	..
" 12.....		36	22	..	0	+	0	+	..	..	..
" 14.....		..	12	..	0	0	+	+	..	..	..
" 15.....		86	18	..	..	+	+	+	..	..	..
" 16.....		120	15	..	..	+	+	+	..	..	..
Averages		**90.07**	**12.2**	**287**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	38	70	18	..	..	..	0	+	..	+	0
" 30.....		260	16	..	..	..	+	+	..	+	+
July 2.....		100	spreader	..	..	..	+	+	..	+	+
" 3.....		75	10	..	..	0	+	+	..	+	+
" 4.....		100	10	..	..	..	+	+	..	+	+
" 5.....		40	21	..	..	0	+	+	..	+	+
" 7.....		60	28	..	..	0	+	+	+	..	..
" 8.....		30	3	..	..	0	+	+	..	..	..
" 9.....		60	7	..	..	+	0	+	..	..	..
" 10.....		5	0	..	..	+	+	+	..	..	..
" 11.....		60	1	..	..	0	0	+	..	..	..
" 12.....		21	14	..	..	+	0	+	..	..	..
" 14.....		..	9	..	..	0	+	+	..	..	..
" 15.....		200	12	..	..	+	+	+	..	..	..
" 16.....		100	8	..	..	0	0	+	..	..	..
Averages		**84.3**	**11.2**	**287**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	39	62	14	..	..	..	0	+	..	+	0
" 30.....		100	14	..	..	..	0	+	..	+	+
July 2.....		48	7	..	..	..	+	+	..	+	+
" 3.....		100	12	..	..	+	+	+	..	+	+
" 4.....		100	9	..	..	..	+	+	..	+	+
" 5.....		60	26	..	..	0	0	+	..	+	+
" 7.....		20	36	..	..	0	+	+	+	..	..
" 8.....		60	3	..	..	0	+	+	..	..	..
" 9.....		40	10	..	..	0	0	+	..	..	..
" 10.....		1	0	..	..	0	+	+	..	..	..
" 11.....		40	2	..	..	0	+	+	..	..	..
" 12.....		18	8	..	..	+	0	+	..	..	..
" 14.....		..	6	..	..	0	+	+	..	..	..
" 15.....		120	20	..	..	0	+	+	..	..	..
" 16.....		60	6	..	..	0	0	+	..	..	..
Averages		**59.2**	**11.5**	**153**	**B.**	**Cc**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	40	10	18	..	..	..	+	+	..	+	0
" 30.....		680	9	..	..	..	+	+	..	+	+
July 2.....		100	1	..	..	..	0	+	..	+	+
" 3.....		60	15	..	..	0	+	+	..	+	+
" 4.....		200	28	..	..	..	+	+	..	+	+
" 5.....		90	26	..	..	+	0	+	..	+	+
" 7.....		12	28	..	..	0	0	+	+	..	..
" 8.....		50	10	..	..	0	+	+	..	..	..
" 9.....		20	6	..	..	0	+	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10.....	40	5	2	..	..	0	+	+	..	..	..
" 11.....		22	5	..	..	+	0	+	..	..	..
" 12.....		80	6	..	..	0	+	+	..	..	..
" 14.....		..	6	..	..	+	+	+	..	..	..
" 15.....		80	8	..	..	0	+	+	..	..	..
" 16.....		30	3	..	..	0	0	+	..	..	..
Averages		**102.7**	**11.4**	**144**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	41	90	8	..	..	..	0	+	..	+	0
" 30.....		14	38	..	..	..	0	+	..	+	+
July 2.....		80	0	..	..	..	0	+	..	+	+
" 3.....		26	0	..	..	0	0	+	..	+	0
" 4.....		300	12	..	..	+	+	+	..	+	+
" 5.....		60	32	..	..	+	0	+	..	+	+
" 7.....		8	4	..	..	0	0	+	+	..	..
" 8.....		20	4	..	..	0	+	+	..	..	..
" 9.....		13	5	..	..	0	0	+	..	..	..
" 10.....		21	0	..	..	+	+	+	..	..	..
" 11.....		30	2	..	..	0	0	+	..	..	..
" 12.....		20	1	..	..	0	0	0	..	..	..
" 14.....		..	36	..	..	+	+	+	..	..	..
" 15.....		32	7	..	..	0	+	+	..	..	..
" 16.....		32	4	..	..	0	0	+	..	..	..
Averages		**53.2**	**10.3**	**244**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	42	260	42	..	..	..	+	+	..	+	0
" 30.....		40	10	..	..	..	0	+	..	+	+
July 2.....		150	11	..	..	..	0	+	..	+	+
" 3.....		28	7	..	..	0	0	+	..	+	+
" 4.....		35	5	..	..	0	0	+	..	+	+
" 5.....		300	150	..	..	0	0	+	..	+	+
" 7.....		15	0	..	..	0	0	+	+	..	..
" 8.....		65	5	..	..	+	0	+	..	..	..
" 9.....		8	21	..	..	+	0	+	..	..	..
" 10.....		12	0	..	..	0	+	+	..	..	..
" 11.....		40	7	..	..	0	0	+	..	..	..
" 12.....		8	4	..	..	0	0	+	..	..	..
" 14.....		120	12	..	..	+	+	+	..	..	..
" 15.....		60	5	..	..	0	+	+	..	..	..
" 16.....		82	2	..	..	0	+	+	..	..	..
Averages		**81.5**	**18.7**	**117**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28	43	210	48	..	..	..	0	+	..	+	0
" 30		26	1	..	..	..	0	+	..	+	+
July 2		32	12	..	..	..	+	+	..	+	+
" 3		18	6	..	..	0	0	0	..	+	+
" 4		200	16	..	..	0	+	+	..	+	+
" 5		60	120	..	..	0	0	+	..	+	+
" 7		5	0	..	..	0	0	+	+	..	..
" 8		35	1	..	..	0	0	+	..	..	..
" 9		54	6	..	..	+	+	+	..	..	..
" 10		18	0	..	..	0	+	+	..	..	..
" 11		18	4	..	..	0	0	+	..	..	..
" 12		28	5	..	..	+	+	+	..	..	..
" 14		140	8	..	..	0	+	+	..	..	..
" 15		68	21	..	..	+	+	+	..	..	..
" 16		33	1	..	..	0	+	+	..	..	..
Averages		**63**	**16.6**	**241**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	44	160	20	..	..	..	+	+	..	+	0
" 30		364	30	..	..	..	0	+	..	+	+
July 2		38	3	..	..	..	+	+	..	+	+
" 3		58	9	..	..	0	0	+	..	+	+
" 4		130	3	..	..	0	0	+	..	+	+
" 5		16	15	..	..	+	0	+	..	+	+
" 7		15	0	..	..	+	+	+	+	..	..
" 8		325	2	..	..	0	0	+	..	..	..
" 9		40	100	..	..	0	0	+	..	..	..
" 10		32	0	..	..	0	+	+	..	..	..
" 11		10	4	..	..	0	0	0	..	..	..
" 12		14	3	..	..	0	+	+	..	..	..
" 14		80	2	..	..	+	+	+	..	..	..
" 15		100	10	..	..	+	+	+	..	..	..
" 16		25	1	..	..	0	0	+	..	..	..
Averages		**93.2**	**13.4**	**241**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	45	98	28	..	..	..	0	+	..	+	0
" 30		70	0	..	..	..	0	0	..	+	+
July 2		38	23	..	..	..	0	+	..	+	+
" 3		23	4	..	..	..	0	0	..	+	+
" 4		160	3	..	..	0	+	+	..	+	+
" 5		40	11	..	..	0	+	+	..	+	+
" 7		20	3	..	..	0	0	+	+	..	..
" 8		18	8	..	..	0	+	+	+	..	..
" 9		20	10	..	..	0	0	+	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10	45	21	0	..	..	0	0	+	+	..	..
" 11		12	2	..	..	0	0	+	..	..	..
" 12		15	6	..	..	0	+	+	..	..	..
" 14		26	6	..	..	0	0	+	+	..	..
" 15		60	9	..	..	+	+	+	..	..	..
" 16		42	2	..	..	0	0	+	..	..	..
Averages		**44.2**	**7**	**103**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	46	60	12	..	..	..	0	+	..	+	0
" 30		30	5	..	..	..	0	+	..	+	+
July 2		20	8	..	..	..	0	0	..	+	+
" 3		32	0	..	..	..	0	+	..	+	+
" 4		120	6	..	..	0	0	0	..	+	+
" 5		26	12	..	..	+	0	+	..	+	+
" 7		8	0	..	..	0	0	+	+	..	..
" 8		21	1	..	..	0	+	0	0	..	..
" 9		10	4	..	..	0	+	+	+	..	..
" 10		2	2	..	..	0	0	+	+	..	..
" 11		8	5	..	..	0	0	+	..	..	..
" 12		10	4	..	..	+	0	+	+	..	..
" 14		40	8	..	..	0	+	+	0	..	..
" 15		28	7	..	..	+	0	+	..	..	..
" 16		23	3	..	..	0	+	+	..	..	..
Averages		**29.3**	**5**	**48**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	47	40	10	..	..	..	0	0	..	+	0
" 30		240	..	..	..	..	0	+	..	+	+
July 2		18	6	..	..	..	+	0	..	+	+
" 3		21	3	..	..	..	0	+	..	+	+
" 4		14	3	..	..	0	0	+	..	+	+
" 5		30	10	..	..	0	0	+	..	+	+
" 7		12	4	..	..	0	0	+	+	..	..
" 8		15	6	..	..	0	0	0	+	..	..
" 9		21	12	..	..	+	+	+	+	..	..
" 10		10	0	..	..	0	0	+	+	..	..
" 11		15	5	..	..	0	0	+	+	..	..
" 12		36	4	..	..	0	0	+	+	..	..
" 14		26	3	..	..	0	+	+	+	..	..
" 15		3	1	..	..	0	+	+	+	..	..
" 16		44	3	..	..	+	+	+	+	..	..
Averages		**36**	**5**	**166**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28	48	58	16	..	..	..	0	+	..	+	0
" 30		40	7	..	..	..	0	+	..	+	0
July 2		26	5	..	..	..	+	+	..	+	+
" 3		100	17	..	..	..	+	+	..	+	+
" 4		60	36	..	..	0	0	+	..	+	+
" 5		40	18	..	..	+	+	+	..	+	+
" 7		15	4	..	..	0	+	+	+	..	..
" 8		10	2	..	..	0	0	+	+	..	..
" 9		12	8	..	..	0	0	+	+	..	..
" 10		32	2	..	..	0	0	+	+	..	..
" 11		18	2	..	..	+	0	0	0	..	..
" 12		12	6	..	..	0	0	+	+	..	..
" 14		63	2	..	..	+	+	+	+	..	..
" 15		6	0	..	..	0	0	+	+	..	..
" 16		48	2	..	..	+	+	+	+	..	..
Averages		**36**	**8**	**231**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	49	52	80	..	..	..	0	+	..	+	+
" 30		11	6	..	..	..	0	+	..	+	+
July 2		21	0	..	..	..	+	0	..	+	+
" 3		17	6	..	..	..	+	+	..	+	+
" 4		70	13	..	..	0	0	+	..	+	+
" 5		14	14	..	..	0	0	+	..	+	+
" 7		12	4	..	..	0	0	+	+	..	..
" 8		8	7	..	..	0	0	+	0	..	..
" 9		21	2	..	..	0	+	+	+	..	..
" 10		4	1	..	..	0	0	+	+	..	..
" 11		5	6	..	..	0	0	0	+	..	..
" 12		6	2	..	..	0	0	+	+	..	..
" 14		38	38	..	..	0	+	+	+	..	..
" 15		3	2	..	..	+	0	+	+	..	..
" 16		32	42	..	..	0	+	+	+	..	..
Averages		**21**	**15**	**45**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	50	62	24	..	..	..	0	+	..	+	+
" 30		31	11	..	..	..	+	+	..	+	+
July 2		23	3	..	..	..	+	0	..	+	+
" 3		41	12	..	..	..	0	0	..	+	0
" 4		48	5	..	..	0	+	+	..	+	+
" 5		20	16	..	..	0	0	0	..	+	+
" 7		12	7	..	..	0	+	+	+	..	..
" 8		15	10	..	..	0	0	+	0	..	..
" 9		120	40	..	..	0	+	+	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10	50	1	0	..	..	0	0	+	+	..	..
" 11		21	3	..	..	0	0	+	0	..	..
" 12		6	7	..	..	0	0	+	+	..	..
" 14		28	200	..	..	+	+	+	+	..	..
" 15		4	0	..	..	0	0	+	+	..	..
" 16		19	2	..	..	0	0	+	+	..	..
Averages		**30**	**23**	**103**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	51	36	8	..	..	..	+	0	..	0	+
" 30		8	5	..	..	..	0	+	..	+	+
July 2		15	1	..	..	..	0	0	..	+	+
" 3		3	0	..	..	..	0	0	..	+	+
" 4		21	0	..	..	0	+	+	..	+	+
" 5		8	0	..	..	0	0	0	..	+	+
" 7		5	1	..	..	0	+	0	+	..	..
" 8		3	8	..	..	0	0	+	+	..	..
" 9		10	100	..	..	0	+	0	+	..	..
" 10		7	0	..	..	0	0	+	0	..	..
" 11		9	2	..	..	+	0	0	+	..	..
" 12		5	1	..	..	0	0	0	+	..	..
" 14		15	11	..	..	0	0	+	0	..	..
" 15		3	2	..	..	0	0	+	0	..	..
" 16		26	2	..	..	0	+	+	+	..	..
Averages		**11.6**	**9**	**24**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	52	48	3	..	..	..	+	0	..	+	0
" 30		16	0	..	..	..	+	+	..	+	+
July 2		20	4	..	..	..	+	+	..	+	+
" 3		11	3	..	..	..	0	0	..	+	0
" 4		70	9	..	..	0	0	+	..	+	+
" 5		30	10	..	..	+	+	0	..	+	+
" 7		6	5	..	..	0	0	0	+	..	..
" 8		7	13	..	..	0	+	+	0	..	..
" 9		6	60	..	..	+	0	+	+	..	..
" 10		4	2	..	..	0	+	+	+	..	..
" 11		40	0	..	..	0	0	+	0	..	..
" 12		spreader	0	..	..	0	0	+	+	..	..
" 14		23	2	..	..	+	+	+	0	..	..
" 15		spreader	8	..	..	+	+	+	+	..	..
" 16		23	4	..	..	0	0	+	+	..	..
Averages		**23**	**8**	**180**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28	53	42	6	..	..	..	0	0	..	+	0
" 30		16	0	..	..	..	0	0	..	+	0
July 2		28	1	..	..	..	0	0	..	+	+
" 3		18	2	..	..	..	0	0	..	+	+
" 4		120	13	..	..	0	0	+	..	+	+
" 5		40	52	..	..	0	0	+	..	+	+
" 7		2	0	..	..	0	0	+	+	..	..
" 8		6	0	..	..	0	0	0	+	..	..
" 9		200	9	..	..	0	+	+	+	..	..
" 10		9	0	..	..	0	0	+	+	..	..
" 11		16	4	..	..	+	0	+	0	..	..
" 12		12	0	..	..	0	0	+	0	..	..
" 14		28	9	..	..	+	0	+	0	..	..
" 15		2	0	..	..	0	+	0	0	..	..
" 16		31	2	..	..	0	+	+	0	..	..
Averages		**38**	**6**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	54	22	3	..	..	..	0	0	..	0	0
" 30		5	0	..	..	..	0	+	..	+	0
July 2		26	5	..	..	..	0	0	..	+	+
" 3		6	0	..	..	..	0	0	..	+	+
" 4		64	6	..	..	0	0	+	..	+	+
" 5		17	32	..	..	0	0	+	..	+	+
" 7		3	0	..	..	0	0	+	+	..	..
" 8		14	5	..	..	0	0	+	+	..	..
" 10		2	0	..	..	0	0	+	+	..	..
" 11		13	2	..	..	0	0	+	0	..	..
" 12		30	0	..	..	0	0	0	0	..	..
" 14		30	0	..	..	0	0	+	0	..	..
" 15		3	2	..	..	0	+	+	0	..	..
" 16		26	14	..	..	0	0	+	+	..	..
Averages		**18.6**	**4**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	55	12	6	..	..	..	0	0	..	+	0
" 30		8	2	..	..	..	+	0	..	+	0
July 2		4	4	..	..	..	0	+	..	+	+
" 3		2	0	..	..	..	0	+	..	+	+
" 4		150	6	..	..	0	+	+	..	+	+
" 5		6	1	..	..	+	0	+	..	+	+
" 7		100	14	..	..	+	+	+	+	..	..
" 8		6	10	..	..	0	0	+	+	..	..
" 9		13	2	..	..	0	+	0	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10	55	15	0	..	..	0	0	+	0	..	..
" 11		3	2	..	..	0	+	0	0	..	..
" 12		14	1	..	..	0	0	+	+	..	..
" 14		12	5	..	..	+	0	0	0	..	..
" 15		0	0	..	..	0	0	+	+	..	..
" 16		14	4	..	..	0	0	+	+	..	..
Averages		**24**	**3**	**[8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	56	22	6	..	..	..	0	0	..	+	0
" 30		2	4	..	..	..	0	0	..	0	0
July 2		28	0	..	..	..	0	0	..	+	+
" 3		8	1	..	..	..	0	0	..	+	+
" 4		24	2	..	..	+	+	+	..	+	+
" 5		16	spreader	..	..	0	0	0	..	+	0
" 7		8	2	..	..	0	0	0	0	..	..
" 8		3	0	..	..	0	0	+	0	..	..
" 9		10	40	..	..	0	+	+	+	..	..
" 10		1	6	..	..	0	0	+	+	..	..
" 11		14	3	..	..	+	0	+	0	..	..
" 12		21	2	..	..	0	+	0	+	..	..
" 14		8	4	..	..	+	0	+	0	..	..
" 15		8	3	..	..	0	0	+	0	..	..
" 16		41	8	..	..	+	+	+	+	..	..
Averages		**14.2**	**5**	**158**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28	57	14	6	..	..	..	0	+	..	+	+
" 30		5	4	..	..	..	0	0	..	0	0
July 2		4	3	..	..	..	0	+	..	+	+
" 3		7	1	..	..	..	0	+	..	+	+
" 4		40	7	..	..	0	0	+	..	+	+
" 5		21	50	..	..	0	0	0	..	+	0
" 7		4	6	..	..	..	0	+	..	+	+
" 8		6	1	..	..	..	0	+	..	+	+
" 9		10	0	..	..	..	0	+	..	+	+
" 10		9	1	..	..	..	+	0	..	+	+
" 11		1	..	..	..	..	0	+	..	0	+
" 12		8	0	..	..	..	0	+	..	+	+
" 14		14	8	..	..	..	0	0	..	+	+
" 15		21	1	..	..	..	0	+	..	+	..
" 16		32	0	..	..	..	+	+	..	+	+
Averages		**13.1**	**6**	**21**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	58	360	11	..	..	..	0	0	..	0	0
" 30.....		4	0	..	..	..	0	0	..	+	0
July 2.....		6	3	..	..	..	0	0	..	0	0
" 3.....		0	0	..	..	..	0	+	..	+	+
" 4.....		18	0	..	..	0	0	0	..	+	+
" 5.....		200	400	..	..	0	0	+	..	+	+
" 7.....		3	2	..	..	..	+	0	..	+	+
" 8.....		6	1	..	..	..	0	0	..	+	+
" 9.....		10	2	..	..	..	+	+	..	+	+
" 10.....		10	4	..	..	..	0	0	..	+	+
" 11.....		11	..	..	..	..	0	+	..	0	0
" 12.....		12	6	..	..	..	0	+	..	0	+
" 14.....		26	1	..	..	..	0	+	..	+	+
" 15.....		1	3	..	..	..	0	+	..	+	..
" 16.....		21	3	..	..	..	+	+	..	+	+
Averages		**46**	**31**	**21**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	59	22	6	..	..	..	0	0	..	0	0
" 30.....		2	1	..	..	..	0	0	..	0	0
July 2.....		12	0	..	..	..	0	+	..	0	0
" 3.....		7	4	..	..	..	0	0	..	+	+
" 4.....		23	0	..	..	0	0	+	..	+	+
" 5.....		10	3	..	..	0	0	+	..	+	+
" 7.....		3	2	..	..	..	+	+	..	+	+
" 8.....		8	1	..	..	..	0	+	..	+	+
" 9.....		4	2	..	..	..	0	+	..	+	+
" 10.....		6	0	..	..	..	0	+	..	+	+
" 11.....		8	..	..	..	..	0	0	..	0	+
" 12.....		10	0	..	..	..	+	+	..	0	+
" 14.....		6	4	..	..	..	0	+	..	+	+
" 15.....		14	2	..	..	..	+	+	..	+	..
" 16.....		18	6	..	..	..	0	+	..	+	+
Averages		**10.2**	**2**	**24**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	60	8	3	..	..	..	0	0	..	0	+
" 30.....		0	0	..	..	..	0	0	..	+	0
July 2.....		5	3	..	..	..	0	0	..	0	0
" 3.....		0	0	..	..	..	0	0	..	+	+
" 4.....		2	0	..	..	0	0	0	..	0	0
" 5.....		21	4	..	..	0	+	+	..	+	+
" 7.....		1	0	..	..	..	0	+	..	+	+
" 8.....		2	2	..	..	..	0	+	..	+	0
" 9.....		8	1	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10.....	60	10	1	..	..	..	0	0	..	+	+
" 11.....		0	..	..	..	..	0	0	..	+	+
" 12.....		8	6	..	..	..	+	+	..	0	+
" 14.....		5	120	..	..	..	0	+	..	0	+
" 15.....		14	0	..	..	..	+	+	..	+	..
" 16.....		26	6	..	..	..	+	+	..	+	+
Averages		**7**	**10.4**	**27**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	61	12	3	..	..	..	0	0	..	0	0
" 30.....		4	1	..	..	..	0	0	..	0	0
July 2.....		18	5	..	..	..	0	0	..	0	0
" 3.....		5	1	..	..	..	0	0	..	+	+
" 4.....		36	6	..	..	0	0	0	..	+	+
" 5.....		12	2	..	..	0	0	+	..	+	+
" 7.....		0	0	..	..	..	0	0	..	+	0
" 8.....		7	5	..	..	..	0	+	..	+	+
" 9.....		20	0	..	..	..	+	+	..	+	+
" 10.....		7	4	..	..	..	0	0	..	+	+
" 11.....		3	..	..	..	..	0	+	..	+	+
" 12.....		20	12	..	..	..	0	+	..	+	+
" 14.....		13	2	..	..	..	+	0	..	+	+
" 15.....		36	2	..	..	..	+	0	..	+	..
" 16.....		13	2	..	..	..	0	+	..	+	+
Averages		**13.7**	**3**	**22**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 28.....	62	6	2	..	..	..	0	0	..	0	0
" 30.....		1	4	..	..	..	+	+	..	+	0
July 2.....		4	5	..	..	..	0	0	..	0	0
" 3.....		0	0	..	..	..	0	+	..	+	+
" 4.....		14	4	..	..	0	+	0	..	+	+
" 5.....		18	7	..	..	0	+	+	..	+	+
" 7.....		10	3	..	..	0	0	0	0	..	..
" 8.....		4	3	..	..	0	0	+	..	..	..
" 9.....		14	40	..	..	0	0	+	..	..	..
" 10.....		23	2	..	..	0	0	0	..	..	..
" 11.....		0	3	..	..	0	0	+	..	..	..
" 12.....		4	1	..	..	0	0	+	..	..	..
" 14.....		38	2	..	..	0	+	+	..	..	..
" 15.....		80	2	..	..	+	0	+	..	+	..
" 16.....		30	1	..	..	0	+	+	..	..	..
Averages		**16.4**	**5**	**41**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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June 28	63	3	6	..	..	..	0	0	..	0	+
" 30		0	2	..	..	..	0	0	..	+	0
July 2		4	2	..	..	..	0	0	..	+	+
" 3		6	2	..	..	..	+	0	..	+	+
" 4		38	3	..	..	0	+	0	..	+	+
" 5		12	7	..	..	0	0	+	..	+	+
" 7		8	0	..	..	0	+	+	+	..	..
" 8		10	7	..	..	0	0	+	..	..	..
" 9		36	3	..	..	0	0	+	..	..	..
" 10		14	1	..	..	0	0	+	..	..	..
" 11		5	0	..	..	0	0	+	..	..	..
" 12		10	10	..	..	0	+	+	..	..	..
" 14		50	3	..	..	0	+	+	..	..	..
" 15		120	21	..	..	+	+	+	..	+	..
" 16		52	10	..	..	0	+	+	..	..	..
Averages		**25**	**5**	**97**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**
June 28	64	4	4	..	..	..	+	0	..	0	0
" 30		1	4	..	..	..	0	0	..	0	0
July 2		20	10	..	..	..	+	+	..	0	+
" 3		3	1	..	..	..	0	0	..	+	+
" 4		0	3	..	..	0	0	0	..	0	+
" 5		6	3	..	..	0	0	+	..	+	+
" 7		2	2	..	..	0	0	+	+	..	..
" 8		9	5	..	..	0	0	0	..	..	..
" 9		8	3	..	..	+	0	+	..	..	..
" 10		13	2	..	..	0	0	0	..	..	..
" 11		9	2	..	..	0	0	0	..	..	..
" 12		9	1	..	..	0	0	+	..	..	..
" 14		30	1	..	..	0	+	+	..	..	..
" 15		200	13	..	..	+	+	+	..	+	..
" 16		41	6	..	..	+	+	+	..	..	..
Averages		**24**	**4**	**152**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**
June 28	65	14	6	..	..	..	+	+	..	+	+
" 30		90	10	..	..	..	0	+	..	+	+
July 2		30	12	..	..	..	0	+	..	+	+
" 3		6	1	..	..	0	0	+	..	+	+
" 4		40	3	..	..	0	0	+	..	+	+
" 5		21	13	..	..	0	0	+	..	+	+
" 7		1	2	..	..	0	0	+	+	..	..
" 8		22	4	..	..	0	+	+	..	..	..
" 9		38	9	..	..	0	+	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10	65	21	2	..	..	0	+	+	..	..	..
" 11		18	1	..	..	0	0	+	..	..	..
" 12		5	40	..	..	0	+	+	..	..	..
" 14		28	3	..	..	+	+	+	..	..	..
" 15		65	8	..	..	+	+	+	..	+	..
" 16		35	10	..	..	0	+	+	..	..	..
Averages		**28**	**8**	**182**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**
June 28	66	125	23	..	..	..	+	+	..	+	+
" 30		55	6	..	..	..	+	+	..	+	+
July 2		21	12	..	..	..	0	+	..	+	+
" 3		18	2	..	..	0	+	+	..	+	+
" 4		90	4	..	..	0	+	+	..	+	+
" 5		41	11	..	..	+	+	+	..	+	+
" 7		10	7	..	..	0	+	+	+	..	..
" 8		10	3	..	..	+	+	+	..	..	..
" 9		13	2	..	0	+	+	+	..	..	..
" 10		48	6	..	0	0	+	+	..	..	..
" 11		12	5	..	0	0	+	+	..	..	..
" 12		14	10	..	0	0	+	+	..	..	..
" 14		80	21	..	0	+	+	+	..	..	..
" 15		42	15	..	..	+	+	+	..	+	..
" 16		23	10	..	..	0	+	+	..	..	..
Averages		**40**	**9**	**394**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**
June 28	67	110	14	..	..	..	+	+	..	+	+
" 30		50	5	..	..	..	0	+	..	+	0
July 2		14	7	..	..	..	0	+	..	+	+
" 3		18	4	..	..	0	0	+	..	+	+
" 4		40	10	..	..	+	+	+	..	+	+
" 5		18	16	..	..	+	0	+	..	+	+
" 7		12	1	..	..	0	0	+	0	..	..
" 8		23	8	..	0	0	+	+	..	..	..
" 9		28	3	..	0	0	+	+	..	..	..
" 10		39	4	..	0	0	+	+	..	..	..
" 11		30	3	..	0	+	+	+	..	..	..
" 12		14	6	..	0	0	0	+	..	..	..
" 14		100	7	..	0	0	+	+	..	..	..
" 15		46	15	..	..	+	+	+	..	..	..
" 16		80	21	..	..	0	+	+	..	..	..
Averages		**41.4**	**8**	**253**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sault Ste. Marie, Ont. Waters of St. Mary's River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	68	104	16	..	..	..	0	+	..	+	+
" 30.....		26	10	..	..	..	+	+	..	+	+
July 2.....		40	31	..	..	..	+	+	..	+	+
" 3.....		15	5	..	..	0	+	0	..	+	0
" 4.....		50	4	..	..	+	0	+	..	+	+
" 5.....		20	108	..	..	+	+	+	..	+	+
" 7.....		21	2	..	..	+	0	+	+	..	..
" 8.....		30	9	..	0	0	+	+	..	..	..
" 9.....		21	0	..	0	+	+	+	..	..	..
" 10.....		29	5	..	0	0	0	+	..	..	..
" 11.....		9	2	..	0	0	0	0	..	..	..
" 12.....		15	14	..	0	0	0	+	..	..	..
" 14.....		90	21	..	+	0	+	+	..	..	..
" 15.....		100	26	..	..	+	+	+	..	..	..
" 16.....		..	200	..	..	+	0	+	..	..	..
Averages		**41**	**30**	**312**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
June 28.....	69	80	66	..	..	..	+	+	..	+	+
" 30.....		125	14	..	..	..	+	+	..	+	+
July 2.....		18	spreader	..	..	..	+	+	..	+	+
" 3.....		26	0	..	..	0	+	0	..	+	0
" 4.....		80	4	..	..	0	0	+	..	+	+
" 5.....		40	35	..	..	0	0	+	..	+	+
" 7.....		30	6	..	..	+	0	+	+	..	..
" 8.....		35	0	..	0	0	+	+	..	..	..
" 9.....		80	spreader	..	0	0	+	+	..	..	..
" 10.....		50	11	..	0	+	0	+	..	..	..
" 11.....		21	3	..	0	0	0	+	..	..	..
" 12.....		80	40	..	0	+	+	+	..	..	..
" 14.....		150	42	..	0	0	+	+	..	..	..
" 15.....		80	36	..	..	+	+	+	..	..	..
" 16.....		110	30	..	..	0	0	+	..	..	..
Averages		**67**	**22**	**193**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
June 28.....	70	140	130	..	..	..	+	+	..	+	+
" 30.....		12	4	..	..	..	+	+	..	+	+
July 2.....		21	21	..	..	..	+	+	..	+	+
" 3.....		36	10	..	..	+	0	0	..	+	0
" 4.....		80	16	..	..	+	+	+	..	+	+
" 5.....		18	41	..	..	0	+	+	..	+	+
" 7.....		6	5	..	..	+	0	+	+	..	..
" 8.....		6	2	..	0	0	+	+	..	..	..
" 9.....		60	10	..	0	+	+	+	..	..	..
" 10.....		60	8	..	0	0	0	+	..	..	..
" 11.....		10	3	..	0	0	0	+	..	..	..
" 12.....		14	6	..	0	0	+	+	..	..	..
" 14.....		60	11	..	0	0	+	+	..	..	..
" 15.....		100	15	..	..	+	+	+	..	..	..
" 16.....		120	26	..	..	+	+	+	..	..	..
Averages		**50**	**21**	**324**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 28.....	71	84	54	..	..	..	0	+	..	+	+
" 30.....		14	4	..	..	..	+	0	..	+	+
July 2.....		18	4	..	..	..	+	+	..	+	+
" 3.....		4	1	..	..	..	0	0	..	+	0
" 4.....		86	7	..	..	0	+	+	..	+	+
" 5.....		20	9	..	..	+	+	+	..	+	+
" 7.....		2	4	..	..	0	0	+	0	..	..
" 8.....		22	4	..	0	0	+	+	..	..	..
" 9.....		14	0	..	0	0	+	+	..	..	..
" 10.....		8	6	..	0	+	0	+	..	..	..
" 11.....		9	1	..	0	0	0	+	..	..	..
" 12.....		8	4	..	0	0	0	+	..	..	..
" 14.....		45	8	..	0	+	+	+	..	..	..
" 15.....		70	5	..	..	+	+	+	..	..	..
" 16.....		45	14	..	..	0	+	+	..	..	..
Averages		**30**	**8**	**246**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 17.....	101	1	0	..	..	..	0	0	..	0	0
	102	2	1	..	..	..	0	0	..	0	0
	103	9	0	..	..	..	0	+	..	0	+
	104	0	0	..	..	..	0	0	..	0	+
Mackinac Island to Detour.	105	0	0	..	..	..	0	+	..	+	+
	106	8	0	..	..	..	0	+	..	+	+
	107	15	2	..	..	..	0	0	..	+	+
	108	0	0	..	..	..	0	0	..	0	0
	109	9	0	..	..	..	+	0	..	+	+
	110	7	1	..	..	..	0	+	..	+	+
	111	2	0	..	..	..	0	0	..	+	+
	112	9	1	..	..	..	0	0	..	0	+
	113	15	0	..	..	..	+	0	..	+	+
	114	16	3	..	..	..	0	0	..	+	+
	115	26	8	..	..	..	0	+	..	+	+
	116	62	3	..	..	..	0	+	..	+	+
Detour to Point Everens (Mud Lake)	117	10	1	..	..	..	0	0	..	0	+
	118	8	4	..	..	..	0	0	..	0	+
	119	4	1	..	..	..	0	0	..	0	+
	120	0	1	..	..	..	0	0	..	0	0
	121	0	0	..	..	..	0	0	..	+	+
	122	2	0	..	..	..	0	0	..	0	+
	123	2	0	..	..	..	0	0	..	+	+
	124	3	1	..	..	..	0	0	..	0	0
	125	7	0	..	..	..	0	0	..	+	+
	126	1	0	..	..	..	0	0	..	+	+
	127	1	0	..	..	..	0	0	..	0	+
	128	13	0	..	..	..	0	+	..	+	+
	128	2	0	..	..	..	0	0	..	0	0
	130	0	1	..	..	..	0	0	..	0	0
	131	2	0	..	..	..	0	0	..	+	+
	132	5	0	..	..	..	0	+	..	+	+
	133	5	0	..	..	..	0	+	..	+	+
Averages		**7**	**0.85**	**6**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

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Sault. Ste. Marie, Ontario, tap water.											
July 2.....		12	0	..	..	..	+	0	..	0	0
" 3.....		10	1	..	..	..	0	+	..	+	0
" 4.....		18	0	..	..	0	+	+	..	+	+
" 5.....	*	16	20	..	..	..	+	+	..	+	+
" 5.....	*	12	51	..	..	..	+	+	..	+	+
" 5.....	*	0	24	..	..	+	0	+	..	+	+
" 5.....	*	40	120	..	..	..	..	..	..	..	..
" 7.....		6	2	..	..	..	+	+	..	+	+
" 7.....		4	0	..	..	..	0	+	..	+	+
" 8.....		11	0	..	..	0	0	+	..	+	+
" 8.....		9	1	..	0	0	+	0	..	+	+
" 9.....		30	2	..	0	0	+	+	..	+	+
" 9.....		3	0	..	0	+	+	+	..	+	+
" 10.....		12	5	..	0	..	0	+	+	+	+
" 11.....		16	7	..	0	0	+	+	..	+	+
" 11.....		1	5	..	0	0	0	0	+	+	+
" 12.....		20	10	..	0	0	0	+	..	+	+
" 12.....		10	5	..	0	0	+	+	+	+	+
" 14.....		28	1	..	..	0	+	+	+	+	+
" 14.....		14	41	..	..	0	+	+	..	+	+
" 15.....	*	28	1	..	..	0	0	+	..	+	+
" 15.....	*	65	4	..	..	0	0	+	+	+	+
" 15.....	*	..	..	..	..	0	0	+	+	+	+
July 16.....		60	60	..	..	+	+	+	..	0	+
" 17.....		43	43	..	..	0	+	+	..	+	+
" 18.....		..	..	..	..	0	0	0	..	+	+
Sault Ste. Marie, Michigan, tap water											
July 8.....		7	1	..	..	0	0	+	..	+	+
" 9.....		10	2	..	..	0	0	+	..	+	+
" 11.....		35	2	..	..	0	0	+	..	+	+
" 12.....		9	7	..	..	0	0	0	..	0	+
" 14.....		32	1	..	..	0	0	+	..	+	+
" 15.....		60	3	..	0	0	0	+	..	+	+
" 16.....		150	10	..	0	0	0	+	..	+	+
" 17.....		36	1	..	..	0	0	+	..	+	+
" 18.....		..	0	..	..	0	+	+	..	+	+
Steel Works, Steelton, Ont Tap water											
July 15.....		60	3	..	0	0	0	+	..	+	+
" 16.....		43	..	..	..	0	+	+	..	+	+
" 17.....		..	0	..	..	+	0	+	..	+	+
" 16.....		62	..	..	..	0	0	+	..	+	+
" 17.....		..	4	..	..	0	+	+	..	+	+

* Where several samples appear for the same day the samples were taken at different times, usually at hourly intervals.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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July 29.....	1	14	14	..	..	..	0	0	..	+	+
" 30.....		8	5	..	..	..	0	+	..	+	+
" 31.....		..	3	..	..	..	0	0	..	+	+
Aug. 1.....		18	40	..	..	..	0	0	..	0	0
" 2.....		210	4	..	..	..	0	0	..	0	0
" 4.....		59	2	..	..	..	0	+	..	+	+
" 5.....		10	4	..	..	..	0	0	..	0	+
" 6.....		22	17	..	..	..	0	+	..	+	+
" 7.....		350	6	..	..	..	0	0	..	0	0
" 8.....		12	7	..	..	..	0	+	..	+	+
" 9.....		16	5	..	..	..	0	0	..	0	0
" 11.....		420	14	..	..	..	0	0	..	0	0
" 12.....		400	50	..	..	..	+	+	..	+	+
" 13.....		210	17	..	..	..	0	+	..	+	+
" 14.....		65	2	..	..	..	0	+	..	+	+
Averages		**129.5**	**12.6**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	2	24	4	..	..	..	0	0	..	+	+
" 30.....		spreader	7	..	..	..	0	0	..	+	+
" 31.....		..	2	..	..	..	0	0	..	+	+
Aug. 1.....		11	spreader	..	..	..	0	0	..	0	+
" 2.....		500	2	..	..	..	0	0	..	0	0
" 4.....		29	9	..	..	..	0	+	..	0	+
" 5.....		14	6	..	..	..	0	0	..	0	+
" 6.....		86	34	..	..	..	+	+	..	+	+
" 7.....		26	16	..	..	..	0	+	..	+	+
" 8.....		6	2	..	..	..	+	+	..	+	+
" 9.....		14	8	..	..	..	0	0	..	+	+
" 11.....		55	17	..	..	..	0	0	..	0	+
" 12.....		150	21	..	..	..	+	+	..	+	+
" 13.....		32	9	..	..	..	+	+	..	+	+
" 14.....		25	16	..	..	..	0	0	..	+	+
Averages		**64.3**	**10.9**	**36**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	3	9	1	..	..	..	0	0	..	+	+
" 30.....		25	3	..	..	..	0	+	..	+	+
" 31.....		..	1	..	..	..	0	0	..	0	0
Aug. 1.....		9	3	..	..	..	0	0	..	0	+
" 2.....		150	1	..	..	..	0	0	..	+	0
" 4.....		27	spreader	..	..	..	0	+	..	0	+
" 5.....		15	3	..	..	..	0	0	..	0	+
" 6.....		8	9	..	..	..	0	+	..	+	+
" 7.....		7	12	..	..	..	0	0	..	0	0

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Aug. 8.....	3	14	6	..	..	..	0	0	..	+	+
" 9.....		4	3	..	..	..	0	0	..	0	0
" 11.....		72	19	..	..	..	0	0	..	0	+
" 12.....		16	2	..	..	..	+	+	..	+	+
" 13.....		84	18	..	..	..	+	+	..	+	+
" 14.....		19	12	..	..	..	0	+	..	+	+
Averages		**32.7**	**6**	**18**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	4	53	6	..	..	..	0	+	..	+	+
" 30.....		22	4	..	..	..	0	0	..	+	+
" 31.....		..	5	..	..	..	0	0	..	0	0
Aug. 1.....		27	14	..	..	..	0	0	..	0	+
" 2.....		26	0	..	..	..	0	0	..	0	0
" 4.....		35	spreader	..	..	..	0	+	..	+	+
" 5.....		8	3	..	..	..	0	0	..	0	+
" 6.....		21	20	..	..	..	0	+	..	+	+
" 7.....		3	4	..	..	..	0	0	..	+	+
" 8.....		19	12	..	..	..	0	0	..	+	+
" 9.....		6	3	..	..	..	0	0	..	+	+
" 11.....		42	24	..	..	..	0	0	..	+	+
" 12.....		6	6	..	..	..	0	0	..	0	+
" 13.....		12	5	..	..	..	0	0	..	+	+
" 14.....		7	8	..	..	..	0	0	..	0	+
Averages		**20.5**	**8**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	5	12	2	..	..	..	0	0	..	0	0
" 30.....		20	2	..	..	..	0	0	..	+	+
" 31.....		..	3	..	..	..	0	0	..	0	+
Aug. 1.....		7	12	..	..	..	0	0	..	0	0
" 2.....		24	1	..	..	..	0	0	..	0	0
" 4.....		46	17	..	..	..	0	0	..	+	+
" 5.....		12	8	..	..	..	0	0	..	+	+
" 6.....		27	16	..	..	..	+	+	..	+	+
" 7.....		6	15	..	..	..	0	0	..	+	+
" 8.....		3	10	..	..	..	0	0	..	0	0
" 9.....		9	3	..	..	..	0	+	..	+	+
" 11.....		64	33	..	..	..	0	+	..	+	+
" 12.....		6	5	..	..	..	0	0	..	+	0
" 13.....		7	6	..	..	..	0	0	..	0	+
" 14.....		spreader	3	..	..	..	0	+	..	+	+
Averages		**18.6**	**9**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 29.....	6	17	1	..	..	..	0	+	..	+	+
" 30.....		..	3	..	..	..	0	0	..	+	+
" 31.....		..	9	..	..	..	0	0	..	+	+
Aug. 1.....		12	..	..	..	..	0	0	..	0	0
" 2.....		15	3	..	..	..	0	0	..	0	+
" 4.....		28	8	..	..	..	0	+	..	+	+
" 5.....		15	3	..	..	..	0	0	..	0	+
" 6.....		19	5	..	..	..	+	+	..	+	+
" 7.....		spreader	13	..	..	..	0	+	..	+	+
" 8.....		9	5	..	..	..	0	+	..	+	+
" 9.....		12	40	..	..	..	0	0	..	+	+
" 11.....		28	11	..	..	..	0	0	..	0	+
" 12.....		4	2	..	..	..	0	0	..	0	+
" 13.....		84	3	..	..	..	0	0	..	0	0
" 14.....		8	5	..	..	..	0	0	..	+	+
Averages		**20.9**	**7**	**13**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
July 29.....	7	80	12	..	..	..	0	+	..	+	+
" 30.....		120	2	..	..	..	0	0	..	+	+
" 31.....		..	2	..	..	..	0	0	..	+	+
Aug. 1.....		11	20	..	..	..	0	0	..	0	0
" 3.....		22	5	..	..	..	0	0	..	0	0
" 4.....		15	14	..	..	..	0	+	..	0	+
" 5.....		29	6	..	..	..	0	0	..	0	+
" 6.....		21	7	..	..	..	0	+	..	+	+
" 7.....		14	9	..	..	..	0	0	..	0	+
" 8.....		68	6	..	..	..	0	0	..	0	0
" 9.....		7	3	..	..	..	0	0	..	0	0
" 11.....		23	spreader	..	..	..	0	+	..	+	+
" 12.....		9	2	..	..	..	0	0	..	0	+
" 13.....		8	2	..	..	..	0	0	..	0	+
" 14.....		3	9	..	..	..	0	0	..	0	0
Averages		**30.7**	**7**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
July 29.....	8	19	3	..	..	..	0	+	..	+	+
" 30.....		17	1	..	..	..	0	0	..	+	+
" 31.....		..	3	..	..	..	0	0	..	0	+
Aug. 1.....		90	6	..	..	..	0	0	..	0	0
" 2.....		38	4	..	..	..	0	0	..	0	0
" 4.....		16	16	..	..	..	0	0	..	0	+
" 5.....		16	7	..	..	..	0	0	..	0	+
" 6.....		9	4	..	..	..	0	0	..	+	+
" 7.....		14	8	..	..	..	0	+	..	0	+
Aug. 8.....	8	14	6	..	..	..	0	+	..	+	+
" 9.....		5	4	..	..	..	0	0	..	0	+
" 11.....		48	7	..	..	..	0	+	..	+	+
" 12.....		7	8	..	..	..	0	0	..	0	+
" 13.....		9	4	..	..	..	0	0	..	0	0
" 14.....		8	11	..	..	..	0	0	..	0	0
Averages		**22.1**	**6**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
July 29.....	9	30	5	..	..	..	0	+	..	+	+
" 30.....		74	4	..	..	..	0	+	..	+	+
" 31.....		..	3	..	..	..	0	0	..	+	+
Aug. 1.....		17	12	..	..	..	0	0	..	0	0
" 2.....		11	2	..	..	..	0	0	..	0	0
" 4.....		19	11	..	..	..	0	0	..	+	+
" 5.....		24	8	..	..	..	0	0	..	0	+
" 6.....		32	14	..	..	..	0	+	..	+	+
" 7.....		7	3	..	..	..	0	0	..	0	+
" 8.....		18	spreader	..	..	..	0	0	..	0	+
" 9.....		8	7	..	..	..	0	0	..	+	+
" 11.....		24	11	..	..	..	0	0	..	+	+
" 12.....		5	9	..	..	..	0	0	..	0	+
" 13.....		14	5	..	..	..	0	0	..	0	0
" 14.....		26	5	..	..	..	0	0	..	+	+
Averages		**22.07**	**7**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
July 29.....	10	12	2	..	..	..	0	0	..	0	+
" 30.....		17	4	..	..	..	0	0	..	+	+
" 31.....		..	4	..	..	..	0	0	..	0	+
Aug. 1.....		8	3	..	..	..	0	0	..	0	0
" 2.....		29	6	..	..	..	0	0	..	0	0
" 4.....		21	9	..	..	..	0	0	..	0	0
" 5.....		14	spreader	..	..	..	+	+	..	0	+
" 6.....		20	20	..	..	..	0	0	..	+	+
" 7.....		13	3	..	..	..	0	0	..	0	0
" 8.....		18	5	..	..	..	+	+	..	+	+
" 9.....		35	4	..	..	..	0	0	..	0	0
" 11.....		38	20	..	..	..	0	0	..	0	+
" 12.....		16	6	..	..	..	0	+	..	0	0
" 13.....		62	16	..	..	..	+	+	..	+	+
" 14.....		9	9	..	..	..	0	0	..	0	+
Averages		**22.2**	**7**	**15**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	11	14	0	..	..	..	0	0	..	0	0
" 30.....		spreader	3	..	..	..	0	0	..	+	+
" 31.....		2	13	..	..	..	0	0	..	0	0
Aug. 1.....		56	14	..	..	..	0	0	..	+	0
" 2.....		110	7	..	..	..	0	0	..	0	0
" 4.....		24	9	..	..	..	0	0	..	0	0
" 5.....		9	1	..	..	..	0	0	..	0	+
" 6.....		6	7	..	..	..	0	0	..	0	+
" 7.....		20	22	..	..	..	0	0	..	0	+
" 8.....		22	4	..	..	..	0	0	..	+	+
" 9.....		11	6	..	..	..	0	0	..	0	0
" 12.....		13	6	..	..	..	0	0	..	0	0
" 13.....		27	10	..	..	..	0	+	..	+	+
" 14.....		5	6	..	..	..	0	0	..	0	0
Averages		**24.5**	**7**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	12	6	5	..	..	..	0	0	..	0	+
" 30.....		8	5	..	..	..	0	0	..	+	+
" 31.....		5	10	..	..	..	0	0	..	+	+
Aug. 1.....		46	2	..	..	..	0	0	..	0	0
" 2.....		30	1	..	..	..	0	0	..	0	0
" 4.....		12	7	..	..	..	0	0	..	+	+
" 5.....		8	15	..	..	..	0	0	..	0	+
" 6.....		21	13	..	..	..	0	+	..	0	0
" 7.....		13	3	..	..	..	0	0	..	0	+
" 8.....		12	4	..	..	..	0	+	..	+	+
" 9.....		18	7	..	..	..	0	+	..	0	+
" 12.....		14	*1500	..	..	..	0	+	..	+	+
" 13.....		26	81	..	..	..	0	0	..	+	+
" 14.....		9	7	..	..	..	0	0	..	0	0
Averages		**16.2**	**12**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	13	7	*500	..	..	..	0	0	..	0	0
" 30.....		14	8	..	..	..	0	0	..	+	+
" 31.....		2	2	..	..	..	0	0	..	0	0
Aug. 1.....		140	3	..	..	..	0	+	..	0	0
" 2.....		42	6	..	..	..	0	0	..	0	0
" 4.....		14	4	..	..	..	0	0	..	+	+
" 5.....		8	16	..	..	..	0	0	..	+	+
" 6.....		18	5	..	..	..	0	0	..	+	+
" 7.....		16	1	..	..	..	0	0	..	0	0
" 8.....		4	2	..	..	..	0	0	..	+	+
" 9.....		5	4	..	..	..	0	0	..	0	0
" 12.....		22	5	..	..	..	+	+	..	+	+
" 13.....		21	47	..	..	..	0	0	..	0	0
" 14.....		7	9	..	..	..	0	0	..	0	0
Averages		**22.8**	**8.**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	14	9	1	..	..	..	0	0	..	0	0
" 30.....		7	3	..	..	..	0	0	..	+	+
" 31.....		2	2	..	..	..	0	0	..	0	0
Aug. 1.....		27	4	..	..	..	0	0	..	0	0
" 2.....		52	0	..	..	..	0	0	..	0	0
" 4.....		25	6	..	..	..	0	0	..	0	+
" 5.....		34	12	..	..	..	+	+	..	+	+
" 6.....		19	12	..	..	..	0	+	..	+	+
" 7.....		8	2	..	..	..	0	0	..	0	+
" 8.....		5	3	..	..	..	0	0	..	0	+
" 9.....		11	3	..	..	..	0	+	..	0	+
" 12.....		34	12	..	..	..	0	+	..	+	+
" 13.....		18	50	..	..	..	0	0	..	+	+
" 14.....		2	9	..	..	..	0	0	..	0	0
Averages		**18.07**	**8**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	15	10	2	..	..	..	0	0	..	0	0
" 30.....		24	7	..	..	..	0	0	..	+	+
" 31.....		1	0	..	..	..	0	0	..	0	0
Aug. 1.....		29	15	..	..	..	0	0	..	0	0
" 2.....		65	0	..	..	..	0	0	..	0	0
" 4.....		4	3	..	..	..	0	0	..	0	+
" 5.....		44	18	..	..	..	0	+	..	+	+
" 6.....		18	8	..	..	..	0	+	..	+	+
" 7.....		13	6	..	..	..	0	0	..	0	+
" 8.....		14	4	..	..	..	0	0	..	+	+
" 9.....		26	19	..	..	..	0	0	..	0	+
" 12.....		32	9	..	..	..	+	+	..	+	+
" 13.....		15	20	..	..	..	0	0	..	+	+
" 14.....		8	8	..	..	..	0	0	..	0	0
Averages		**21.5**	**8**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	16	23	0	..	..	..	0	0	..	0	0
" 30.....		17	spreader	..	..	..	0	0	..	+	+
" 31.....		3	4	..	..	..	0	0	..	+	0
Aug. 1.....		43	2	..	..	..	0	0	..	0	0
" 2.....		40	14	..	..	..	0	0	..	0	0
" 4.....		8	28	..	..	..	0	0	..	+	+
" 5.....		18	9	..	..	..	0	0	..	+	+
" 6.....		20	12	..	..	..	0	+	..	+	+
" 7.....		8	5	..	..	..	0	0	..	+	+
" 8.....		10	3	..	..	..	0	+	..	+	+
" 9.....		10	3	..	..	..	0	0	..	0	+
" 12.....		11	24	..	..	..	+	+	..	+	+
" 13.....		32	120	..	..	..	+	+	..	+	+
" 14.....		18	[illegible]	..	..	..	0	0	..	0	0
Averages		**19.3**	**17.6**	**18**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Not included in averages.

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July 29	17	10	3	..	..	..	0	+	..	+	+
" 30		9	1	..	..	..	0	0	..	+	+
" 31		2	2	..	..	..	0	0	..	0	0
Aug. 1		33	..	..	..	..	..	..	..	..	..
" 2		30	47	..	..	..	0	0	..	0	0
" 4		15	8	..	..	..	0	0	..	0	+
" 5		24	9	..	..	..	0	0	..	0	+
" 6		6	10	..	..	..	0	+	..	+	+
" 7		16	6	..	..	..	0	0	..	+	+
" 8		9	2	..	..	..	0	+	..	+	+
" 9		10	1	..	..	..	0	0	..	+	+
" 12		18	8	..	..	..	0	+	..	+	+
" 13		26	spreader	..	..	..	0	+	..	+	+
" 14		11	9	..	..	..	0	0	..	0	0
Averages		**15.6**	**8**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29	18	220	3	..	..	..	0	+	..	+	+
" 30		35	4	..	..	..	0	+	..	+	+
" 31		5	2	..	..	..	0	0	..	0	0
Aug. 1		12	24	..	..	..	0	+	..	+	0
" 2		35	12	..	..	..	0	0	..	0	0
" 4		22	spreader	..	..	..	0	0	..	0	+
" 5		17	17	..	..	..	0	0	..	+	+
" 6		13	16	..	..	..	0	+	..	+	+
" 7		9	4	..	..	..	0	0	..	+	+
" 8		8	4	..	..	..	0	0	..	0	+
" 9		8	4	..	..	..	0	0	..	0	+
" 12		7	5	..	..	..	0	0	..	0	+
" 13		15	5	..	..	..	0	+	..	+	+
" 14		2	12	..	..	..	0	0	..	0	+
Averages		**29.4**	**8**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29	19	4	0	..	..	..	0	0	..	0	0
" 30		35	5	..	..	..	0	+	..	+	+
" 31		2	2	..	..	..	0	0	..	0	0
Aug. 1		28	10	..	..	..	0	0	..	0	0
" 2		42	9	..	..	..	0	0	..	0	0
" 4		38	spreader	..	..	..	0	0	..	+	+
" 5		16	8	..	..	..	0	0	..	0	+
" 6		9	22	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7		10	12	..	..	..	0	0	..	+	+
" 8		12	3	..	..	..	0	0	..	+	+
" 9		8	7	..	..	..	0	0	..	0	0
" 12		22	3	..	..	..	0	0	..	0	+
" 13		14	9	..	..	..	0	+	..	+	+
" 14		8	11	..	..	..	0	0	..	0	+
Averages		**17.7**	**7**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29	20	28	5	..	..	..	0	0	..	+	+
" 30		66	2	..	..	..	0	1	..	+	+
" 31		3	0	..	..	..	0	0	..	0	0
Aug. 1		17	33	..	..	..	0	0	..	0	0
" 2		18	5	..	..	..	0	0	..	0	0
" 4		15	22	..	..	..	0	0	..	+	+
" 5		19	5	..	..	..	0	0	..	0	+
" 6		8	9	..	..	..	0	0	..	+	+
" 7		15	6	..	..	..	0	0	..	+	+
" 8		5	4	..	..	..	0	0	..	0	+
" 9		13	5	..	..	..	0	0	..	0	+
" 12		7	3	..	..	..	0	+	..	0	0
" 13		8	9	..	..	..	0	0	..	0	+
" 14		14	7	..	..	..	0	0	..	0	0
Averages		**16.8**	**8**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29	21	18	2	..	..	..	0	+	..	+	+
" 30		13	1	..	..	..	0	0	..	0	+
" 31		2	0	..	..	..	0	0	..	0	0
Aug. 1		32	9	..	..	..	0	0	..	+	+
" 2		7	6	..	..	..	0	0	..	0	0
" 4		33	2	..	..	..	0	0	..	0	0
" 5		14	17	..	..	..	0	0	..	+	+
" 6		11	8	..	..	..	0	0	..	0	+
" 7		14	6	..	..	..	0	0	..	0	+
" 8		6	4	..	..	..	0	+	..	+	+
" 9	....	.....	.....	..	..	..	..	..	..	..	..
" 12		16	2	..	..	..	0	0	..	0	0
" 13		17	2	..	..	..	0	0	..	+	+
" 14		7	6	..	..	..	0	0	..	0	0
Averages		**19.5**	**5**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 29.....	22	15	5	..	..	..	0	0	..	+	+
" 30.....		19	0	..	..	..	+	+	..	+	+
" 31.....		..	..	..	..	..	..	..	..	..	..
Aug. 1.....		18	43	..	..	..	0	0	..	0	0
" 2.....		8	7	..	..	..	0	+	..	0	..
" 4.....		29	5	..	..	..	0	+	..	0	0
" 4.....		22	5	..	..	..	0	0	..	0	+
" 6.....		12	9	..	..	..	0	0	..	+	+
" 7.....		9	12	..	..	..	0	0	..	0	+
" 8.....		3	3	..	..	..	0	+	..	0	+
" 9.....		6	..	..	..	..	0	0	..	0	+
" 11.....		28	48	..	..	..	0	+	..	+	+
" 12.....		3	6	..	..	..	0	0	..	0	+
" 13.....		10	5	..	..	..	0	0	..	0	0
" 14.....		5	5	..	..	..	0	0	..	0	0
" 15.....		4	6	..	..	..	0	0	..	0	0
" 16.....		3	8	..	..	..	0	0	..	0	0
" 19.....		17	22	..	..	..	0	0	..	+	+
" 20.....		5	7	..	..	..	0	0	..	0	0
" 21.....		1	2	..	..	..	0	0	..	0	0
" 22.....		0	0	..	..	..	0	0	..	0	0
Averages		**10.8**	**10.4**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 29.....	23	5	1	..	..	..	0	0	..	+	+
" 30.....		10	1	..	..	..	0	+	..	+	+
" 31.....		42	1	..	..	..	0	0	..	0	0
Aug. 1.....		15	8	..	..	..	0	0	..	0	0
" 2.....		11	2	..	..	..	0	+	..	0	0
" 4.....		3	3	..	..	..	0	0	..	+	+
" 5.....		32	12	..	..	..	0	0	..	+	+
" 6.....		13	9	..	..	..	+	+	..	+	+
" 7.....		spreader	60	..	..	..	0	0	..	0	+
" 8.....		spreader	5	..	..	..	0	+	..	+	+
" 9.....		8	4	..	..	..	0	0	..	+	+
" 11.....		22	6	..	..	..	0	0	..	+	+
" 12.....		11	9	..	..	..	0	0	..	0	0
" 13.....		5	4	..	..	..	0	0	..	0	0
" 14.....		14	8	..	..	..	0	0	..	0	0
" 15.....		7	9	..	..	..	0	0	..	0	0
" 16.....		5	4	..	..	..	0	0	..	0	0
" 19.....		4	17	..	..	..	0	0	..	+	+
" 20.....		5	5	..	..	..	0	0	..	0	0
" 21.....		0	3	..	..	..	0	0	..	0	0
" 22.....		20	1	..	..	..	0	0	..	0	0
Averages		**12.2**	**8**	**8**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	24	12	spreader	..	..	..	0	+	..	+	+
" 30.....		22	5	..	..	..	0	0	..	+	+
" 31.....		2	1	..	..	..	0	0	..	0	0
Aug. 1.....		23	13	..	..	..	0	+	..	+	+
" 2.....		10	4	..	..	..	0	0	..	0	+
" 4.....		19	6	..	..	..	0	0	..	+	+
" 5.....		28	9	..	..	..	0	0	..	+	+
" 6.....		14	14	..	..	..	0	0	..	0	+
" 7.....		22	11	..	..	..	0	+	..	0	+
" 8.....		2	4	..	..	..	0	0	..	+	+
" 9.....		9	3	..	..	..	0	0	..	+	+
" 11.....		14	7	..	..	..	0	0	..	0	+
" 12.....		9	9	..	..	..	0	0	..	0	+
" 13.....		14	4	..	..	..	0	0	..	0	+
" 14.....		6	7	..	..	..	0	0	..	0	0
" 15.....		5	11	..	..	..	0	0	..	0	0
" 16.....		5	8	..	..	..	0	0	..	0	0
" 19.....		6	45	..	..	..	0	0	..	0	+
" 20.....		spreader	6	..	..	..	0	0	..	0	0
" 21.....		3	3	..	..	..	0	0	..	0	0
" 22.....		33	0	..	..	..	0	0	..	0	0
Averages		**12.9**	**8**	**3**	**B.**	**CO**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 29.....	25	12	spreader	..	..	..	0	0	..	+	+
" 30.....		25	5	..	..	..	0	+	..	+	+
" 31.....		4	3	..	..	..	0	0	..	0	0
Aug. 1.....		26	7	..	..	..	0	+	..	+	+
" 2.....		11	14	..	..	..	0	0	..	0	0
" 4.....		2	6	..	..	..	0	0	..	0	0
" 5.....		25	7	..	..	..	0	0	..	+	+
" 6.....		10	15	..	..	..	0	0	..	+	+
" 7.....		26	8	..	..	..	0	+	..	+	+
" 8.....		12	6	..	..	..	0	+	..	+	+
" 9.....		13	2	..	..	..	0	0	..	+	+
" 11.....		9	4	..	..	..	0	0	..	+	+
" 12.....		22	8	..	..	..	0	+	..	0	+
" 13.....		8	3	..	..	..	0	0	..	+	+
" 14.....		8	2	..	..	..	0	0	..	0	0
" 15.....		6	8	..	..	..	0	0	..	0	0
" 16.....		3	3	..	..	..	0	0	..	0	0
" 19.....		9	5	..	..	..	0	0	..	0	0
" 20.....		spreader	spreader	..	..	..	0	0	..	0	0
" 21.....		0	1	..	..	..	0	0	..	0	0
" 22.....		2	0	..	..	..	0	0	..	0	+
Averages		**11.6**	**5**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of Lower End of Lake Huron.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	26	84	6	..	..	..	0	+	..	+	+
" 30.....		21	2	..	..	..	0	+	..	+	+
" 31.....		19	2	..	..	..	0	0	..	0	0
Aug. 1.....		41	9	..	..	..	0	+	..	+	+
" 2.....		20	2	..	..	..	0	0	..	0	+
" 4.....		2	2	..	..	..	0	0	..	0	0
" 5.....		24	9	..	..	..	0	+	..	+	+
" 6.....		7	6	..	..	..	0	0	..	+	+
" 7.....		19	9	..	..	..	0	+	..	+	+
" 8.....		spreader	3	..	..	..	0	+	..	0	+
" 9.....		4	2	..	..	..	0	0	..	+	+
" 11.....		36	9	..	..	..	0	0	..	0	+
" 12.....		18	12	..	..	..	0	0	..	+	+
" 13.....		12	2	..	..	..	0	0	..	+	+
" 14.....		18	5	..	..	..	0	0	..	0	0
" 15.....		9	5	..	..	..	0	0	..	0	0
" 16.....		6	9	..	..	..	0	0	..	0	0
" 19.....		8	spreader	..	..	..	0	0	..	0	+
" 20.....		8	3	..	..	..	0	0	..	0	0
" 21.....		spreader	5	..	..	..	0	0	..	0	0
" 22.....		2	1	..	..	..	0	0	..	0	0
Averages		**18.8**	**5**	**B**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	27	15	6	..	..	..	0	0	..	+	+
" 30.....		36	6	..	..	..	0	+	..	+	+
" 31.....		5	3	..	..	..	0	0	..	0	0
Aug. 1.....		37	6	..	..	..	0	+	..	+	+
" 2.....		22	9	..	..	..	0	0	..	+	0
" 4.....		3	4	..	..	..	0	0	..	0	0
" 5.....		21	5	..	..	..	0	0	..	+	+
" 6.....		14	14	..	..	..	0	+	..	+	+
" 7.....		28	4	..	..	..	+	+	..	+	+
" 8.....		7	2	..	..	..	+	+	..	0	+
" 9.....		11	4	..	..	..	0	0	..	0	+
" 11.....		16	9	..	..	..	0	0	..	0	+
" 12.....		5	8	..	..	..	0	0	..	+	+
" 13.....		15	14	..	..	..	0	0	..	+	+
" 14.....		250	3	..	..	..	0	0	..	0	0
" 15.....		32	14	..	..	..	0	0	..	0	0
" 16.....		3	4	..	..	..	0	0	..	0	0
" 19.....		12	4	..	..	..	0	0	..	0	+
" 20.....		14	4	..	..	..	0	0	..	0	0
" 21.....		0	3	..	..	..	0	0	..	+	0
" 22.....		8	2	..	..	..	0	0	..	0	0
Averages		**26.3**	**6**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	28	3	5	..	..	..	0	+	..	+	+
" 30.....		38	0	..	..	..	0	0	..	0	+
" 31.....		47	4	..	..	..	0	+	..	+	+
Aug. 1.....		12	68	..	..	..	0	0	..	0	0
" 2.....		28	14	..	..	..	0	0	..	0	0
" 4.....		3	3	..	..	..	0	0	..	0	0
" 5.....		17	8	..	..	..	0	0	..	+	+
" 6.....		6	7	..	..	..	0	0	..	+	+
" 7.....		43	9	..	..	..	0	0	..	0	+
" 8.....		7	2	..	..	..	0	0	..	0	+
" 9.....		15	..	..	..	..	0	0	..	+	+
" 11.....		13	5	..	..	..	0	0	..	0	+
" 12.....		3	9	..	..	..	0	0	..	0	+
" 13.....		9	2	..	..	..	0	0	..	0	0
" 14.....		5	9	..	..	..	0	0	..	0	0
" 15.....		8	9	..	..	..	0	0	..	0	0
" 16.....		9	3	..	..	..	0	0	..	0	0
" 19.....		12	17	..	..	..	0	0	..	0	0
" 20.....		13	1	..	..	..	0	0	..	0	0
" 21.....		4	2	..	..	..	0	0	..	0	0
" 22.....		1	4	..	..	..	0	0	..	0	0
Averages		**14.9**	**9**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	29	5	1	..	..	..	0	+	..	+	+
" 30.....		5	35	..	..	..	0	0	..	0	+
" 31.....		14	6	..	..	..	0	0	..	+	+
Aug. 1.....		10	12	..	..	..	0	0	..	+	+
" 2.....		spreader	5	..	..	..	0	0	..	+	+
" 4.....		5	3	..	..	..	0	0	..	+	+
" 5.....		15	5	..	..	..	0	0	..	+	+
" 6.....		14	13	..	..	..	0	+	..	+	+
" 7.....		16	7	..	..	..	+	+	..	+	+
" 8.....		53	5	..	..	..	0	0	..	+	+
" 9.....		9	4	..	..	..	0	0	..	0	+
" 11.....		19	6	..	..	..	0	0	..	+	+
" 12.....		12	5	..	..	..	0	0	..	0	0
" 13.....		7	3	..	..	..	0	0	..	0	+
" 14.....		10	6	..	..	..	0	0	..	0	+
" 15.....		6	7	..	..	..	0	0	..	0	0
" 16.....		4	4	..	..	..	0	0	..	0	0
" 19.....		6	11	..	..	..	0	0	..	0	0
" 20.....		19	4	..	..	..	0	0	..	0	0
" 21.....		1	3	..	..	..	0	0	..	0	0
" 22.....		26	1	..	..	..	0	+	..	0	+
Averages		**12.8**	**6**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of Lower End of Lake Huron.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	30	12	spreader	..	..	..	0	0	..	+	+
" 30.....		17	2	..	..	..	0	0	..	+	+
" 31.....		7	5	..	..	..	0	0	..	+	+
Aug. 1.....		20	4	..	..	..	0	+	..	+	+
" 2.....		21	1	..	..	..	0	0	..	+	0
" 4.....		5	2	..	..	..	0	0	..	0	+
" 5.....		14	9	..	..	..	0	+	..	+	+
" 6.....		22	12	..	..	..	0	0	..	+	+
" 7.....		420	5	..	..	..	0	0	..	+	+
" 8.....		8	2	..	..	..	0	+	..	+	+
" 9.....		14	3	..	..	..	0	0	..	+	+
" 11.....		14	5	..	..	..	0	+	..	+	+
" 12.....		8	8	..	..	..	0	+	..	+	+
" 13.....		12	13	..	..	..	0	0	..	0	+
" 14.....		12	8	..	..	..	0	0	..	0	+
" 15.....		7	..	..	..	..	0	0	..	0	0
" 16.....		4	4	..	..	..	0	0	..	0	0
" 19.....		4	10	..	..	..	0	0	..	0	0
" 20.....		15	5	..	..	..	0	+	..	+	+
" 21.....		3	4	..	..	..	0	0	..	0	0
" 22.....		3	1	..	..	..	0	0	..	0	+
Averages		**30.5**	**5**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
July 29.....	31	20	6	..	..	..	0	0	..	+	+
" 30.....		26	4	..	..	..	0	+	..	+	+
" 31.....		6	4	..	..	..	0	0	..	0	+
Aug. 1.....		9	17	..	..	..	0	0	..	0	0
" 2.....		spreader	2	..	..	..	0	0	..	+	+
" 4.....		4	3	..	..	..	0	0	..	+	+
" 5.....		14	7	..	..	..	0	0	..	+	+
" 7.....		7	3	..	..	..	0	0	..	0	+
" 8.....		3	..	..	..	..	0	0	..	0	+
" 9.....		12	22	..	..	..	0	0	..	0	+
" 11.....		17	9	..	..	..	+	+	..	+	+
" 12.....		15	3	..	..	..	0	0	..	+	+
" 13.....		6	8	..	..	..	0	0	..	0	0
" 14.....		8	12	..	..	..	0	0	..	0	+
" 15.....		..	spreader	..	..	..	0	0	..	0	0
" 16.....		8	spreader	..	..	..	0	0	..	0	0
" 19.....		3	5	..	..	..	0	0	..	0	0
" 20.....		5	3	..	..	..	0	0	..	0	0
" 21.....		4	2	..	..	..	0	0	..	0	0
" 22.....		0	0	..	..	..	0	0	..	0	+
Averages		**8**	**6**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	32	18	2	..	..	..	0	+	..	+	+
" 30.....		33	6	..	..	..	0	0	..	+	+
" 31.....		5	12	..	..	..	0	0	..	0	+
Aug. 1.....		24	3	..	..	..	0	0	..	0	0
" 2.....		14	2	..	..	..	0	0	..	0	+
" 4.....		2	4	..	..	..	0	0	..	0	0
" 5.....		17	4	..	..	..	0	0	..	+	+
" 6.....		16	5	..	..	..	0	0	..	0	+
" 7.....		9	3	..	..	..	0	+	..	+	+
" 8.....		4	..	..	..	..	0	0	..	+	+
" 9.....		16	23	..	..	..	0	0	..	0	+
" 11.....		17	6	..	..	..	0	0	..	0	+
" 12.....		11	3	..	..	..	0	0	..	0	+
" 13.....		11	5	..	..	..	0	0	..	0	+
" 14.....		14	8	..	..	..	0	0	..	+	+
" 15.....		6	..	..	..	..	0	0	..	0	0
" 16.....		3	spreader	..	..	..	0	0	..	0	0
" 19.....		22	2	..	..	..	0	+	..	+	+
" 20.....		8	2	..	..	..	0	0	..	0	0
" 21.....		0	2	..	..	..	0	0	..	0	0
" 22.....		3	5	..	..	..	0	0	..	0	0
Averages		**12.04**	**5**	**4**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
July 29.....	33	250	8	..	..	..	0	0	..	+	+
" 30.....		52	2	..	..	..	0	+	..	+	+
" 31.....		7	11	..	..	..	0	0	..	0	+
Aug. 1.....		8	9	..	..	..	0	0	..	0	0
" 2.....		11	1	..	..	..	0	0	..	0	0
" 4.....		9	5	..	..	..	0	0	..	0	0
" 5.....		8	4	..	..	..	0	0	..	+	+
" 6.....		3	2	..	..	..	0	+	..	0	+
" 7.....		12	4	..	..	..	+	+	..	+	+
" 8.....		10	..	..	..	..	0	0	..	+	+
" 9.....		13	12	..	..	..	0	0	..	0	+
" 11.....		27	9	..	..	..	0	0	..	+	+
" 12.....		24	*47	..	..	..	0	0	..	0	0
" 13.....		6	2	..	..	..	0	0	..	0	0
" 14.....		9	7	..	..	..	0	0	..	0	0
" 15.....		8	8	..	..	..	0	0	..	0	0
" 16.....		65	*100	..	..	..	0	0	..	0	0
" 19.....		7	2	..	..	..	0	+	..	+	+
" 20.....		17	3	..	..	..	0	0	..	0	0
" 21.....		3	3	..	..	..	0	0	..	0	0
" 22.....		4	3	..	..	..	0	0	..	0	0
Averages		**26.3**	**5.2.**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**

* Not included in averages.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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July 29.....	34	12	3	..	..	..	0	+	..	+	+
" 30.....		9	3	..	..	..	0	0	..	0	0
" 31.....		6	8	..	..	..	0	0	..	0	+
Aug. 1.....		18	5	..	..	..	0	0	..	0	0
" 2.....		2	3	..	..	..	0	0	..	0	0
" 4.....		3	2	..	..	..	0	0	..	0	+
" 5.....		17	7	..	..	..	0	0	..	+	+
" 6.....		5	6	..	..	..	0	0	..	0	0
" 7.....		14	4	..	..	..	0	+	..	0	+
" 8.....		4	..	..	..	..	0	0	..	+	+
" 9.....		22	3	..	..	..	0	0	..	0	0
" 11.....		14	6	..	..	..	0	0	..	+	+
" 12.....		7	5	..	..	..	0	0	..	0	0
" 13.....		18	3	..	..	..	0	0	..	0	+
" 14.....		56	5	..	..	..	0	0	..	0	+
" 15.....		..	..	..	..	..	0	0	..	0	0
" 16.....		13	31	..	..	..	0	0	..	0	0
" 19.....		14	2	..	..	..	0	+	..	+	+
" 20.....		6	2	..	..	..	0	0	..	0	0
" 21.....		5	9	..	..	..	0	0	..	0	0
" 22.....		2	6	..	..	..	0	0	..	0	0
Averages		**12.3**	**5**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	35	19	3	..	..	..	0	0	..	+	+
" 30.....		23	2	..	..	..	0	0	..	+	+
" 31.....		3	15	..	..	..	0	0	..	0	+
Aug. 1.....		25	12	..	..	..	0	0	..	0	0
" 2.....		14	2	..	..	..	0	0	..	0	0
" 4.....		15	6	..	..	..	0	0	..	0	+
" 5.....		12	6	..	..	..	0	0	..	0	0
" 6.....		16	5	..	..	..	+	+	..	+	+
" 7.....		9	4	..	..	..	0	+	..	+	+
" 8.....		14	..	..	..	..	0	+	..	+	+
" 9.....		8	7	..	..	..	0	0	..	+	+
" 11.....		32	9	..	..	..	0	0	..	+	+
" 12.....		11	5	..	..	..	0	0	..	0	+
" 13.....		12	spreader	..	..	..	0	0	..	0	+
" 14.....		8	4	..	..	..	0	0	..	0	+
" 15.....		..	12	..	..	..	0	0	..	0	0
" 16.....		7	spreader	..	..	..	0	0	..	0	0
" 19.....		3	3	..	..	..	0	0	..	0	+
" 20.....		15	spreader	..	..	..	0	0	..	0	0
" 21.....		14	9	..	..	..	0	0	..	0	0
" 22.....		0	8	..	..	..	0	0	..	0	0
" 23.....		260	4	..	..	..	+	0	..	0	0
Averages		**24.7**	**6**	**7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	36	8	6	..	..	..	0	0	..	0	0
" 30.....		16	2	..	..	..	0	+	..	+	+
" 31.....		6	9	..	..	..	0	+	..	+	+
Aug. 1.....		10	26	..	..	..	0	0	..	0	0
" 2.....		14	0	..	..	..	0	0	..	0	0
" 4.....		18	6	..	..	..	0	0	..	0	+
" 5.....		39	3	..	..	..	0	0	..	+	+
" 6.....		8	5	..	..	..	0	0	..	0	0
" 7.....		18	spreader	..	..	..	0	0	..	+	+
" 8.....		3	..	..	..	..	0	+	..	+	+
" 9.....		16	7	..	..	..	0	0	..	0	+
" 11.....		23	12	..	..	..	0	0	..	+	+
" 12.....		14	7	..	..	..	0	+	..	+	+
" 13.....		12	2	..	..	..	0	0	..	0	+
" 14.....		12	9	..	..	..	0	0	..	0	0
" 15.....		7	8	..	..	..	0	0	..	0	0
" 16.....		3	9	..	..	..	0	0	..	0	0
" 19.....		4	5	..	..	..	0	0	..	0	+
" 20.....		5	spreader	..	..	..	0	0	..	0	0
" 21.....		0	7	..	..	..	0	0	..	0	0
" 22.....		2	0	..	..	..	0	0	..	0	+
" 23.....		4	3	..	..	..	0	0	..	+	0
Averages		**11**	**6**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	37	12	..	..	..	..	0	+	..	+	+
" 30.....		74	7	..	..	..	0	+	..	+	+
" 31.....		4	5	..	..	..	0	0	..	+	+
Aug. 1.....		9	15	..	..	..	0	0	..	0	0
" 2.....		16	3	..	..	..	0	0	..	0	0
" 4.....		7	2	..	..	..	0	0	..	0	0
" 5.....		15	3	..	..	..	0	0	..	+	+
" 6.....		9	12	..	..	..	0	0	..	0	+
" 7.....		9	4	..	..	..	0	0	..	+	+
" 8.....		12	..	..	..	..	0	+	..	+	+
" 9.....		22	12	..	..	..	0	0	..	0	+
" 11.....		21	5	..	..	..	0	0	..	+	+
" 12.....		9	6	..	..	..	0	0	..	0	+
" 13.....		7	2	..	..	..	0	0	..	+	+
" 14.....		14	12	..	..	..	0	0	..	0	0
" 15.....		7	8	..	..	..	0	0	..	0	0
" 16.....		5	3	..	..	..	0	0	..	0	0
" 19.....		3	3	..	..	..	0	0	..	0	0
" 20.....		6	2	..	..	..	0	0	..	0	+
" 21.....		2	2	..	..	..	0	0	..	0	0
" 22.....		1	0	..	..	..	0	0	+	0	+
" 23.....		69	4	..	..	..	0	0	..	0	0
Averages		**15.1**	**5**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of Lower End of Lake Huron.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	38	10	23	..	..	..	0	0	..	+	+
" 30.....		57	4	..	..	..	0	+	..	+	+
" 31.....		0	7	..	..	..	0	+	..	+	+
Aug. 1.....		22	5	..	..	..	0	0	..	0	0
" 2.....		11	10	..	..	..	0	0	..	0	0
" 4.....		4	5	..	..	..	0	0	..	0	0
" 5.....		28	spreader	..	..	..	0	0	..	+	+
" 6.....		7	..	..	..	..	0	0	..	0	+
" 7.....		8	3	..	..	..	+	+	..	+	+
" 8.....		5	..	..	..	..	0	0	..	+	+
" 9.....		27	8	..	..	..	0	0	..	0	+
" 11.....		24	5	..	..	..	0	0	..	+	+
" 12.....		12	7	..	..	..	0	0	..	+	0
" 13.....		8	6	..	..	..	0	0	..	+	+
" 14.....		9	14	..	..	..	0	0	..	0	0
" 15.....		8	15	..	..	..	0	0	..	0	0
" 16.....		6	7	..	..	..	0	0	..	0	0
" 19.....		3	4	..	..	..	0	0	..	0	0
" 20.....		16	4	..	..	..	0	0	..	0	+
" 21.....		4	spreader	..	..	..	0	0	..	0	0
" 22.....		4	0	..	..	..	0	0	..	0	0
" 23.....		86	25	..	..	..	+	+	..	0	+
Averages		**16.3**	**8**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	39	18	8	..	..	..	0	+	..	+	+
" 30.....		39	3	..	..	..	0	+	..	+	+
" 31.....		70	40	..	..	..	0	0	..	+	+
Aug. 1.....		46	9	..	..	..	0	0	..	0	0
" 2.....		12	4	..	..	..	0	0	..	0	0
" 4.....		3	2	..	..	..	0	0	..	0	+
" 5.....		22	14	..	..	..	0	0	..	0	0
" 6.....		..	..	..	..	..	0	0	..	+	+
" 7.....		7	1	..	..	..	0	+	..	+	+
" 8.....		35	..	..	..	..	0	0	..	+	+
" 9.....		8	26	..	..	..	0	0	..	0	0
" 11.....		25	10	..	..	..	0	0	..	0	+
" 12.....		14	6	..	..	..	0	0	..	0	0
" 13.....		8	2	..	..	..	0	0	..	0	0
" 14.....		15	6	..	..	..	0	0	..	0	+
" 15.....		12	14	..	..	..	0	0	..	0	0
" 16.....		400	4	..	..	..	0	0	..	0	0
" 19.....		spreader	1	..	..	..	0	0	..	0	0
" 20.....		15	3	..	..	..	0	0	..	0	0
" 21.....		2	1	..	..	..	0	0	..	0	0
" 22.....		9	0	..	..	..	0	+	..	+	+
" 23.....		3	30	..	..	..	0	0	..	+	+
Averages		**38.1**	**8**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29.....	40	0	22	..	..	..	0	0	..	0	+
" 30.....		9	1	..	..	..	0	0	..	0	0
" 31.....		2	5	..	..	..	0	0	..	0	+
Aug. 1.....		37	12	..	..	..	0	0	..	0	0
" 2.....		7	1	..	..	..	0	0	..	0	0
" 4.....		12	3	..	..	..	0	0	..	0	+
" 5.....		12	6	..	..	..	0	+	..	+	+
" 6.....		..	..	..	..	..	0	0	..	0	+
" 7.....		14	0	..	..	..	0	0	..	+	+
" 8.....		4	..	..	..	..	0	0	..	0	0
" 9.....		23	4	..	..	..	0	0	..	0	0
" 11.....		22	36	..	..	..	0	0	..	0	+
" 12.....		8	7	..	..	..	0	0	..	+	0
" 13.....		7	3	..	..	..	0	0	..	0	+
" 14.....		9	..	..	..	..	0	0	..	0	0
" 15.....		6	6	..	..	..	0	0	..	0	0
" 16.....		62	spreader	..	..	..	0	0	..	0	0
" 19.....		9	1	..	..	..	0	0	..	0	+
" 20.....		22	3	..	..	..	0	0	..	0	0
" 21.....		5	2	..	..	..	0	0	..	0	0
" 22.....		3	spreader	..	..	..	0	0	..	+	+
" 23.....		9	5	..	..	..	0	+	..	0	+
Averages		**14.1**	**6**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 18.....	105	120	3	..	..	..	0	0	..	0	+
" 18.....	106	100	6	..	..	..	0	+	..	+	+
" 18.....	107	42	4	..	..	..	0	0	..	0	0
" 18.....	108	60	6	..	..	..	0	+	..	+	+
" 18.....	109	28	32	..	..	..	0	0	..	+	+
" 18.....	110	50	26	..	..	..	0	+	..	+	+
" 18.....	111	80	45	..	..	..	0	+	..	+	+
" 18.....	112	35	7	..	..	..	0	0		0	0
" 18.....	113	68	8	..	..	..	0	0	..	+	+
" 18.....	114	33	9	..	..	..	0	0	..	+	+
" 18.....	115	150	160	..	..	..	0	0	..	+	+
" 18.....	116	200	48	..	..	..	0	0	..	0	+
" 18.....	117	8	28	..	..	..	0	0	..	0	+
Averages, 105-117 omitting 109, 110 111, inc.		**74.30**	**29.38**	**7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 18.....	118	32	25	..	..	..	0	0	..	+	+
" 18.....	119	22	4	..	..	..	0	0	..	0	0
" 18.....	120	58	5	..	..	..	0	0	..	0	0
" 18.....	121	33	8	..	..	..	0	0	..	+	+
" 18.....	122	24	9	..	..	..	0	0	..	0	0
" 18.....	123	19	2	..	..	..	0	0	..	0	0
Averages 118-123 inc.		**31.3**	**8**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of Lower End of Lake Huron.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 18.....	124	150	142	..	..	..	0	+	..	+	+
" 18.....	125	160	66	..	..	..	+	+	..	+	+
Averages Nos. 124-125 inc		**155**	**104**	**60**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 18.....	126	7	5	..	..	..	0	0	..	0	+
" 18.....	127	4	3	..	..	..	0	0	..	+	+
" 18.....	128	18	4	..	..	..	0	0	..	+	+
" 18.....	129	8	0	..	..	..	0	0	..	+	+
" 18.....	130	8	6	..	..	..	0	0	..	0	0
Averages, No. 126-130 Inc		**9**	**3**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 25.....	131	21	12	..	..	..	0	0	..	+	0
" 25.....	132	39	17	..	..	..	0	0	..	+	+
Averages		**30**	**14.5**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 25.....	133	7	2	..	..	..	0	0	..	0	0
" 25.....	134	2	3	..	..	..	0	0	..	0	0
" 25.....	135	4	2	..	..	..	0	0	..	0	0
" 25.....	136	9	2	..	..	..	0	0	..	0	0
" 25.....	137	5	4	..	..	..	0	0	..	0	0
" 25.....	138	7	2	..	..	..	0	0	..	0	0
Averages		**5.**	**2**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 25.....	139	110	31	..	..	..	+	+	..	+	+
" 25.....	140	140	26	..	..	..	+	+	..	+	+
Averages		**125**	**28.5**	**100**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 25.....	141	4	6	..	..	..	0	0	..	0	0
" 25.....	142	2	5	..	..	..	0	0	..	0	0
" 25.....	143	7	1	..	..	..	0	0	..	0	0
" 25.....	144	12	2	..	..	..	0	+	..	+	+
" 25.....	145	4	6	..	..	..	0	0	..	0	0
" 25.....	146	7	2	..	..	..	0	0	..	0	0
Averages		**6**	**3**	**300**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of Lower End of Lake Huron.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 8...	147	..	8	..	..	..	0	..	0	..	..
" 9...		..	31	..	..	..	0	..	0	..	..
" 10...		..	3	..	..	..	0	..	0	..	..
" 12...		..	2	..	..	..	0	..	0	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			**9**	**0.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	148	..	7	..	..	..	0	..	+	..	..
" 9...		..	12	..	..	..	0	..	+	..	..
" 10...		..	9	..	..	..	0	..	0	..	..
" 12...		..	3	..	..	..	0	..	0	..	..
" 13...		..	3	..	..	..	0	..	0	..	..
Averages ...			**6**	**4.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	149	..	2	..	..	..	0	..	0	..	..
" 9...		..	8	..	..	..	0	..	+	..	..
" 10...		..	3	..	..	..	0	..	0	..	..
" 12...		..	0	..	..	..	0	..	0	..	..
" 13...		..	2	..	..	..	0	..	0	..	..
Averages ...			**3**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	150	..	4	..	..	..	0	..	+	..	..
" 9...		..	12	..	..	..	0	..	0	..	..
" 10...		..	1	..	..	..	0	..	0	..	..
" 12...		..	2	..	..	..	0	..	0	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			**4**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	151	..	8	..	..	..	0	..	0	..	..
" 9...		..	4	..	..	..	0	..	0	..	..
" 10...		..	0	..	..	..	0	..	0	..	..
" 12...		..	2	..	..	..	0	..	0	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			**3**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	152	..	42	..	..	..	0	..	0	..	..
" 9...		..	2	..	..	..	0	..	0	..	..
" 10...		..	13	..	..	..	0	..	0	..	..
" 12...		..	1	..	..	..	0	..	+	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			**11**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 8...	153	..	65	..	..	..	0	..	0	..	..
" 9...		..	4	..	..	..	0	..	0	..	..
" 10...		..	4	..	..	..	0	..	0	..	..
" 12...		..	3	..	..	..	0	..	0	..	..
" 13...		..	2	..	..	..	0	..	0	..	..
Averages ...			**15**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	154	..	14	..	..	..	0	..	0	..	..
" 9...		..	2	..	..	..	0	..	0	..	..
" 10...		..	5	..	..	..	0	..	0	..	..
" 12...		..	3	..	..	..	0	..	0	..	..
" 13...		..	4	..	..	..	0	..	0	..	..
Averages ...			**5**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	155	..	14	..	..	..	0	..	0	..	..
" 9...		..	2	..	..	..	0	..	0	..	..
" 10...		..	1	..	..	..	0	..	0	..	..
" 12...		..	1	..	..	..	0	..	0	..	..
" 13..		..	0	..	..	..	0	..	0	..	..
Averages ...			**3**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8...	156	..	20	..	..	..	0	..	0	..	..
" 9...		..	4	..	..	..	0	..	0	..	..
" 10...		..	1	..	..	..	0	..	+	..	..
" 12...		..	1	..	..	..	0	..	0	..	..
" 13...		..	4	..	..	..	0	..	0	..	..
Averages ...			**6**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 9...	157	..	9	..	..	..	0	..	0	..	..
" 10...		..	16	..	..	..	0	..	0	..	..
" 12...		..	3	..	..	..	0	..	0	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			**7**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 9...	158	..	2	..	..	..	0	..	0	..	..
" 10...		..	2	..	..	..	0	..	0	..	..
" 12...		..	1	..	..	..	0	..	0	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			**1**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 9...	159	..	2	..	..	..	0	..	0	..	..
" 10...		..	1	..	..	..	0	..	0	..	..
" 12...		..	2	..	..	..	0	..	0	..	..
" 13...		..	0	..	..	..	0	..	0	..	..
Averages ...			**1**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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Aug. 9...	160	..	0	..	..	..	0	..	0	..	..
" 10...		..	3	..	..	..	0	..	0	..	..
" 12...		..	0	..	..	..	0	..	0	..	..
" 13...		..	3	..	..	..	0	..	0	..	..
Averages ...			1	0	B.	Co	li	pe	r 1	00	cc
Aug. 9...	161	..	2	..	..	..	0	..	0	..	..
" 10...		..	2	..	..	..	0	..	0	..	..
" 12...		..	3	..	..	..	0	..	0	..	..
" 13...		..	5	..	..	..	0	..	0	..	..
Averages ...			3	0	B.	Co	li	pe	r 1	00	cc
Aug. 9....	162	..	2	..	..	..	0	..	0	..	..
" 10...		..	3	..	..	..	0	..	0	..	..
" 12...		..	0	..	..	..	0	..	0	..	..
" 13...		..	0	..	..	..	0	..	0	..	..
Averages ...			1	0	B.	Co	li	pe	r 1	00	cc
Aug. 9...	163	..	2	..	..	..	0	..	0	..	..
" 10....		..	5	..	..	..	0	..	0	..	..
" 12...		..	9	..	..	..	0	..	0	..	..
" 13...		..	0	..	..	..	0	..	0	..	..
Averages ...			4	0	B.	CO	li	pe	r 1	00	cc
Aug. 9...	164	..	2	..	..	..	0	..	0	..	..
" 10....		..	3	..	..	..	0	..	0	..	..
" 12...		..	3	..	..	..	0	..	0	..	..
" 13....		..	2	..	..	..	0	..	0	..	..
Averages ...			2	0	B.	Co	li	pe	r 1	00	cc
Aug. 9...	165	..	1	..	..	..	0	..	0	..	..
" 10...		..	2	..	..	..	0	..	0	..	..
" 12...		..	2	..	..	..	0	..	0	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			1	0	B.	Co	li	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9...	166	..	1	..	..	..	0	..	+	..	..
" 10....		..	4	..	..	..	0	..	0	..	..
" 12...		..	2	..	..	..	0	..	+	..	..
" 13...		..	1	..	..	..	0	..	0	..	..
Averages ...			2	5	B.	Co	li	pe	r 1	00	cc
July 3...	167	..	2	..	..	..	0	..	0	..	..
" 4...		..	0	..	..	..	0	..	0	..	..
" 5....		..	11	..	..	..	0	..	0	..	..
" 6...		..	..	..	..	..	..	..	..	..	..
" 7...		..	6400	..	..	..	..	..	0	..	..
" 8...		..	1	..	..	..	..	..	0	..	..
" 9...		..	5	..	..	..	..	..	0	..	..
" 10...		..	..	..	..	..	..	..	..	..	..
" 11...		..	30	..	..	..	..	..	0	..	..
" 12...		..	6	..	..	..	..	..	+	..	..
" 13...		..	8	..	..	..	0	..	0	..	..
" 15...		..	3	..	..	..	0	..	0	..	..
" 16...		..	1	..	..	..	0	..	+	..	..
" 17...		..	3	..	..	..	0	..	+	..	..
" 18...		..	4	..	..	..	0	..	+	..	..
" 19...		..	20	..	..	..	0	..	0	..	..
" 21...		..	2	..	..	..	0	..	+	..	..
" 23...		..	1	..	..	..	0	..	0	..	..
" 24...		..	..	..	..	..	..	..	..	..	..
" 25....		..	3	..	..	..	0	..	0	..	..
" 26...		..	2	..	..	..	0	..	0	..	..
" 28....		..	0	..	..	..	0	..	+	..	..
" 29...		..	31	..	..	..	0	..	+	..	..
" 30...		..	6	..	..	..	0	..	0	..	..
" 31....		..	75	..	..	..	0	..	0	..	..
Aug. 1....		..	6	..	..	..	0	..	+	..	..
" 2...		..	9	..	..	..	0	..	0	..	..
" 4....		..	..	..	..	..	..	..	..	..	..
" 5...		..	5	..	..	..	0	..	0	..	..
" 7...		..	3	..	..	..	0	..	0	..	..
Averages ...			255	3.	0	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of Lower End of Lake Huron.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 3...	168	..	3	..	..	..	0	..	0	..	..
" 4...		..	5	..	..	..	0	..	0	..	..
" 5...		..	1	..	..	..	0	..	0	..	..
" 6...		..	..	..	..	..	..	..	..	..	..
" 7...		..	1800	..	..	..	0	..	+	..	..
" 8...		..	2	..	..	..	0	..	0	..	..
" 9...		..	4	..	..	..	0	..	+	..	..
" 10...		..	..	..	..	..	..	..	..	..	..
" 11...		..	8	..	..	..	0	..	+	..	..
" 12...		..	14	..	..	..	0	..	+	..	..
" 13...		..	80	..	..	..	0	..	+	..	..
" 14...		..	..	..	..	..	..	..	..	..	..
" 15...		..	3	..	..	..	0	..	0	..	..
" 16...		..	1	..	..	..	0	..	0	..	..
" 17...		..	2	..	..	..	0	..	+	..	..
" 18...		..	4	..	..	..	0	..	+	..	..
" 19...		..	5	..	..	..	0	..	0	..	..
" 21...		..	0	..	..	..	0	..	0	..	..
" 23...		..	0	..	..	..	0	..	0	..	..
" 24...		..	..	..	..	..	..	..	..	..	..
" 25...		..	9	..	..	..	0	..	0	..	..
" 26...		..	48	..	..	..	0	..	0	..	..
" 28...		..	3	..	..	..	0	..	+	..	..
" 29...		..	7	..	..	..	0	..	0	..	..
" 30...		..	10	..	..	..	0	..	+	..	..
" 31...		..	21	..	..	..	0	..	+	..	..
Aug. 1...		..	8	..	..	..	0	..	+	..	..
" 2...		..	1	..	..	..	0	..	+	..	..
" 5...		..	3	..	..	..	0	..	0	..	..
" 7...		..	2	..	..	..	0	..	0	..	..
Averages ...			**78**	**4.**	**6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 3...	169	..	2	..	..	..	0	..	0	..	..
" 4...		..	0	..	..	..	0	..	0	..	..
" 5...		..	0	..	..	..	0	..	0	..	..
" 6...		..	..	..	..	..	..	..	..	..	..
" 7...		..	450	..	..	..	0	..	+	..	..
" 8...		..	4	..	..	..	0	..	0	..	..
" 9...		..	3	..	..	..	0	..	0	..	..
" 10...		..	..	..	..	..	..	..	..	..	..
" 11...		..	16	..	..	..	0	..	0	..	..
" 12...		..	4	..	..	..	0	..	+	..	..
" 13...		..	20	..	..	..	+	..	+	..	..
" 14...		..	..	..	..	..	..	..	..	..	..
" 15...		..	2	..	..	..	0	..	0	..	..
" 16...		..	0	..	..	..	0	..	+	..	..
" 17...		..	0	..	..	..	0	..	0	..	..
" 18...		..	5	..	..	..	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 19...	169	..	4	..	..	..	0	..	0	..	..
" 21...		..	60	..	..	..	0	..	+	..	..
" 23...		..	5	..	..	..	0	..	0	..	..
" 24...		..	..	..	..	..	..	..	..	..	..
" 25...		..	14	..	..	..	0	..	0	..	..
" 26...		..	2	..	..	..	0	..	+	..	..
" 28...		..	1	..	..	..	0	..	+	..	..
" 29...		..	4	..	..	..	0	..	0	..	..
" 30...		..	4	..	..	..	0	..	0	..	..
" 31...		..	1	..	..	..	0	..	0	..	..
Aug. 1...		..	2	..	..	..	0	..	0	..	..
" 2...		..	6	..	..	..	0	..	0	..	..
" 5...		..	5	..	..	..	0	..	0	..	..
" 7...		..	2	..	..	..	0	..	0	..	..
Averages ...			**23**	**6.**	**9**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 3...	170	..	..	..	..	..	0	..	0	..	..
" 4...		..	..	..	..	..	0	..	0	..	..
" 5...		..	..	..	..	..	0	..	0	..	..
" 6...		..	..	..	..	..	..	..	0	..	..
" 7...		..	..	..	..	..	0	..	0	..	..
" 8...		..	..	..	..	..	0	..	0	..	..
" 9...		..	..	..	..	..	0	..	0	..	..
" 10...		..	..	..	..	..	..	..	..	..	..
" 11...		..	..	..	..	..	0	..	0	..	..
" 12...		..	..	..	..	..	0	..	0	..	..
" 13...		..	..	..	..	..	0	..	0	..	..
" 14...		..	..	..	..	..	..	..	..	..	..
" 15...		..	..	..	..	..	0	..	0	..	..
" 16...		..	..	..	..	..	0	..	+	..	..
" 17...		..	..	..	..	..	0	..	+	..	..
" 18...		..	..	..	..	..	+	..	+	..	..
" 19...		..	..	..	..	..	0	..	0	..	..
" 21...		..	..	..	..	..	0	..	0	..	..
" 23...		..	..	..	..	..	0	..	0	..	..
" 24...		..	..	..	..	..	..	..	..	..	..
" 25...		..	..	..	..	..	0	..	0	..	..
" 26...		..	..	..	..	..	0	..	+	..	..
" 28...		..	..	..	..	..	0	..	+	..	..
" 29...		..	..	..	..	..	0	..	0	..	..
" 30...		..	..	..	..	..	0	..	0	..	..
" 31...		..	..	..	..	..	0	..	0	..	..
Aug. 1...		..	..	..	..	..	0	..	0	..	..
" 2...		..	..	..	..	..	0	..	0	..	..
" 5...		..	..	..	..	..	0	..	0	..	..
" 7...		..	..	..	..	..	0	..	0	..	..
Averages ...				**5.**	**7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of Lower End of Lake Huron.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 3...	171	..	400	..	..	..	0	..	0	..	..
" 4...		..	0	..	..	..	0	..	0	..	..
" 5...		..	3	..	..	..	0	..	0	..	..
" 6...		..	..	..	..	..	..	..	..	..	..
" 7...		..	2	..	..	..	0	..	0	..	..
" 8...		..	0	..	..	..	0	..	0	..	..
" 9...		..	0	..	..	..	0	..	0	..	..
" 10...		..	..	..	..	..	..	..	..	..	..
" 11...		..	7	..	..	..	0	..	0	..	..
" 12...		..	4	..	..	..	0	..	+	..	..
" 13...		..	3	..	..	..	0	..	0	..	..
" 14...		..	..	..	..	..	..	..	..	..	..
" 15...		..	9	..	..	..	0	..	+	..	..
" 16...		..	2	..	..	..	0	..	0	..	..
" 17...		..	2	..	..	..	0	..	0	..	..
" 18...		..	2	..	..	..	0	..	0	..	..
July 19...	171	..	3	..	..	..	0	..	+	..	..
" 21...		..	2	..	..	..	0	..	+	..	..
" 23...		..	0	..	..	..	0	..	0	..	..
" 24...		..	..	..	..	..	..	..	..	..	..
" 25...		..	3	..	..	..	0	..	0	..	..
" 26...		..	1	..	..	..	0	..	+	..	..
" 28...		..	1	..	..	..	0	..	0	..	..
" 29...		..	3	..	..	..	0	..	0	..	..
" 30...		..	4	..	..	..	0	..	0	..	..
" 31...		..	5	..	..	..	0	..	0	..	..
Aug. 1...		..	26	..	..	..	0	..	+	..	..
" 2...		..	3	..	..	..	0	..	0	..	..
" 5...		..	11	..	..	..	0	..	0	..	..
" 7...		..	3	..	..	..	0	..	0	..	..
Averages ...			19	2.	3	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	41	25	0	..	..	0	0	0	..	0	0
" 29.....		63	20	..	..	0	0	+	..	+	..
" 30.....		12	0	..	..	0	0	0	..	+	+
" 31.....		5	8	..	..	0	0	0	..	0	0
Aug. 1.....		11	2	..	..	..	0	0	..	0	0
" 2.....		8	3	..	..	..	0	0	..	0	+
" 4.....		105	6	..	..	..	0	+	..	+	+
" 5.....		22	5	..	..	..	0	0	..	+	+
" 6.....		3	5	..	..	..	0	0	..	0	0
" 7.....		9	4	..	..	..	0	0	..	0	0
" 8.....		2	3	..	..	..	0	0	..	+	+
" 9.....		8	3	..	..	..	0	0	..	0	+
" 11.....		39	10	..	..	..	0	0	..	+	+
" 12.....		25	29	..	..	..	0	0	..	+	+
" 13.....		28	5	..	..	..	0	0	..	+	+
" 14.....		640	14	..	..	..	0	0	..	0	0
" 23.....		6	3	..	..	..	0	0	..	0	0
" 25.....		1	6	..	..	..	0	0	..	0	0
Averages		**56.2**	**7**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	42	22	5	..	..	0	0	0	..	0	0
" 29.....		13	10	..	..	0	0	+	..	+	..
" 30.....		17	2	..	..	..	0	0	..	+	+
" 31.....		3	4	..	..	..	0	0	..	0	0
Aug. 1.....		2	9	..	..	..	0	0	..	0	0
" 2.....		6	6	..	..	..	0	0	..	0	+
" 4.....		40	4	..	..	..	0	+	..	+	+
" 5.....		20	3	..	..	..	0	0	..	+	+
" 6.....		18	5	..	..	..	0	0	..	+	+
" 7.....		spreader	2	..	..	..	0	+	..	+	+
" 8.....		12	..	..	..	..	0	0	..	+	+
" 9.....		11	1	..	..	..	0	0	..	0	+
" 11.....		50	14	..	..	..	0	+	..	+	+
" 12.....		15	5	..	..	..	0	0	..	+	+
" 13.....		28	spreader	..	..	..	0	0	..	0	+
" 14.....		9	14	..	..	..	0	0	..	0	0
" 23.....		8	12	..	..	..	0	0	..	0	0
" 25.....		0	4	..	..	..	0	0	..	+	0
Averages		**16.1**	**6**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	43	26	5	..	..	0	0	0	..	+	+
" 29.....		10	9	..	..	0	0	+	..	+	..
" 30.....		34	9	..	..	..	+	+	..	+	+
" 31.....		1	7	..	..	..	0	0	..	0	0
Aug. 1.....		8	16	..	..	..	0	0	..	0	0
" 2.....		3	6	..	..	..	0	0	..	0	0
" 4.....		18	2	..	..	..	0	0	..	0	0
" 5.....		14	6	..	..	..	0	0	..	+	+
" 6.....		38	80	..	..	..	+	+	..	+	+
" 7.....		17	3	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 8.....	43	6	..	..	..	..	0	0	..	0	+
" 9.....		8	4	..	..	..	+	+	..	+	+
" 11.....		69	22	..	..	..	0	+	..	+	+
" 12.....		24	2	..	..	..	0	0	..	0	+
" 13.....		9	8	..	..	..	0	0	..	0	0
" 14.....		5	6	..	..	..	0	0	..	0	0
" 23.....		11	90	..	..	..	0	0	..	0	+
" 25.....		3	4	..	..	..	0	0	..	+	0
Averages		**16.9**	**16.4**	**19**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	44	21	4	..	..	0	0	0	..	0	+
" 29.....		18	7	..	..	0	0	0	..	+	..
" 30.....		12	6	..	..	0	0	0	..	0	0
" 31.....		0	7	..	..	..	0	0	..	0	0
Aug. 1.....		5	4	..	..	..	0	0	..	0	0
" 2.....		8	3	..	..	..	0	0	..	0	0
" 4.....		19	18	..	..	..	0	0	..	0	+
" 5.....		28	22	..	..	..	0	0	..	+	+
" 6.....		6	2	..	..	..	0	0	..	+	+
" 7.....		3	3	..	..	..	0	0	..	+	+
" 8.....		6	..	..	..	..	0	0	..	+	+
" 9.....		6	2	..	..	..	0	0	..	0	+
" 11.....		62	28	..	..	..	+	+	..	+	+
" 12.....		18	7	..	..	..	0	+	..	+	+
" 13.....		3	4	..	..	..	0	0	..	+	+
" 14.....		4	9	..	..	..	0	0	..	0	0
" 23.....		21	10	..	..	..	0	+	..	+	+
" 25.....		6	4	..	..	..	0	0	..	+	+
Averages		**13.6**	**8**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 29.....	48	94	16	..	..	0	0	0	..	+	..
" 30.....		22	7	..	..	0	0	+	..	+	..
" 31.....		12	14	..	..	..	0	0	..	+	+
Aug. 1.....		54	10	..	..	..	0	+	..	+	+
" 2.....		26	7	..	..	..	0	0	..	+	+
" 4.....		32	9	..	..	..	+	+	..	+	+
" 5.....		18	8	..	..	..	0	0	..	+	+
" 6.....		19	15	..	..	..	0	0	..	+	+
" 7.....		85	6	..	..	..	0	+	..	+	+
" 8.....		20	..	..	..	..	0	+	..	0	+
" 9.....		138	62	..	..	..	0	+	..	+	+
" 11.....		230	140	..	..	..	+	+	..	+	+
" 12.....		14	18	..	..	..	0	+	..	+	+
" 13.....		7	18	..	..	..	0	+	..	+	+
" 14.....		44	3	..	..	..	0	+	..	+	+
" 23.....		37	8	..	..	..	0	+	..	+	+
" 25.....		15	11	..	..	..	0	+	..	+	+
Averages		**51**	**22**	**23**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	49	3000	1200	..	..	0	+	+	..	+	+
" 29.....		7	3	..	..	0	0	0	..	+	..
" 30.....		3	2	..	..	0	0	0	..	0	..
" 31.....		2	6	..	..	..	0	0	..	0	0
Aug. 1.....		16	4	..	..	..	0	0	..	0	0
" 2.....		19	4	..	..	..	0	0	..	+	+
" 4.....		..	2	..	..	..	+	+	..	+	+
" 6.....		12	3	..	..	..	0	0	..	+	+
" 7.....		9	5	..	..	..	0	+	..	+	+
" 8.....		21	..	..	..	..	0	+	..	+	+
" 9.....		12	6	..	..	..	0	0	..	0	+
" 11.....		380	150	..	..	..	+	+	..	+	+
" 12.....		20	10	..	..	..	0	+	..	+	+
" 13.....		22	6	..	..	..	0	0	..	+	+
" 14.....		14	9	..	..	..	0	0	..	0	+
" 23.....		9	9	..	..	..	0	+	..	+	+
" 25.....		22	4	..	..	..	0	+	..	+	+
Averages		**233**	**88.9**	**24**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	50	2000	400	..	..	+	+	+	..	+	+
" 29.....		12	3	..	..	0	0	0	..	+	..
" 30.....		14	4	..	..	0	0	0	..	0	..
" 31.....		2	2	..	..	..	0	0	..	0	0
Aug. 1.....		7	2	..	..	..	0	0	..	0	0
" 2.....		12	2	..	..	..	0	0	..	0	0
" 4.....		24	9	..	..	..	0	0	..	0	+
" 6.....		8	2	..	..	..	0	0	..	+	+
" 7.....		7	5	..	..	..	0	+	..	+	+
" 8.....		4	..	..	..	..	0	0	..	+	+
" 9.....		54	23	..	..	..	0	+	..	+	+
" 11.....		160	48	..	..	..	+	+	..	+	+
" 12.....		12	5	..	..	..	0	0	..	+	+
" 13.....		8	17	..	..	..	0	0	..	0	+
" 14.....		15	4	..	..	..	0	0	..	0	0
" 23.....		16	3	..	..	..	0	+	..	+	+
" 25.....		1	70	..	..	..	0	0	..	0	+
Averages		**138.5**	**37.4**	**69**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	51	27	0	..	..	0	0	0	..	0	+
" 29.....		20	0	..	..	0	0	0	..	0	..
" 30.....		16	4	..	..	0	0	0	..	..	0
" 31.....		3	9	..	..	..	0	0	..	0	0
Aug. 1.....		22	3	..	..	..	0	0	..	0	0
" 2.....		10	3	..	..	..	0	0	..	0	+
" 4.....		8	6	..	..	..	0	0	..	0	+
" 6.....		10	3	..	..	..	0	0	..	+	+
" 7.....		12	2	..	..	..	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 8.....	51	12	..	..	..	..	0	0	..	+	+
" 9.....		7	5	..	..	..	0	0	..	0	0
" 11.....		145	17	..	..	..	+	+	..	+	+
" 12.....		14	5	..	..	..	0	0	..	+	+
" 13.....		6	8	..	..	..	0	0	..	0	+
" 14.....		14	13	..	..	..	0	0	..	0	0
" 23.....		15	5	..	..	..	0	+	..	0	+
" 25.....		8	3	..	..	..	0	0	..	+	0
Averages		**20.5**	**5**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	52	23	10	..	..	0	0	0	..	+	+
" 29.....		22	10	..	..	0	0	0	..	0	..
" 30.....		21	8	..	..	..	0	0	..	0	0
" 31.....		12	9	..	..	..	0	0	..	0	0
Aug. 1.....		8	2	..	..	..	0	0	..	0	0
" 2.....		14	2	..	..	..	0	0	..	0	+
" 4.....		11	5	..	..	..	0	0	..	0	+
" 6.....		9	8	..	..	..	0	0	..	+	+
" 7.....		1	2	..	..	..	0	+	..	+	+
" 8.....		13	9	..	..	..	0	+	..	+	+
" 9.....		8	33	..	..	..	0	+	..	+	+
" 11.....		50	9	..	..	..	+	+	..	+	+
" 12.....		16	9	..	..	..	0	+	..	+	+
" 13.....		16	5	..	..	..	0	0	..	+	+
" 14.....		9	5	..	..	..	0	0	..	0	0
" 23.....		22	1	..	..	..	0	0	..	0	0
" 25.....		3	2	..	..	..	0	0	..	+	0
Averages		**15.1**	**7**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	53	5	0	..	..	0	0	0	..	0	0
" 29.....		18	5	..	..	0	0	+	..	0	..
" 30.....		22	4	..	..	..	0	0	..	..	0
" 31.....		7	3	..	..	..	0	0	+	0	0
Aug. 1.....		25	23	..	..	..	0	0	..	0	0
" 2.....		10	8	..	..	..	0	0	..	0	+
" 4.....		18	2	..	..	..	0	0	..	0	+
" 6.....		20	10	..	..	..	0	0	..	+	+
" 7.....		18	4	..	..	..	+	+	..	0	+
" 8.....		9	..	..	..	..	0	+	..	+	+
" 9.....		28	17	..	..	..	0	0	..	+	+
" 11.....		52	180	..	..	..	+	+	..	+	+
" 12.....		43	9	..	..	..	+	+	..	+	+
" 13.....		12	8	..	..	..	0	0	..	0	+
" 14.....		12	8	..	..	..	0	0	..	0	+
" 23.....		21	17	..	..	..	0	+	..	+	+
" 25.....		5	3	..	..	..	0	0	..	0	0
Averages		**18.8**	**18.8**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratcry Reports. Laboratory at Sarnia, Ont. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°-22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	54	17	3	..	..	0	0	0	..	0	0
" 29.....		22	2	..	..	0	0	0	..	0	..
" 30.....		12	5	..	..	..	0	0	..	..	0
" 31.....		9	8	..	..	..	0	0	..	+	+
Aug. 1.....		14	8	..	..	..	0	0	..	0	0
" 2.....		32	6	..	..	..	0	0	..	0	+
" 4.....		19	7	..	..	..	0	0	..	+	+
" 6.....		32	14	..	..	..	0	0	..	+	+
" 7.....		9	3	..	..	..	0	0	..	0	0
" 8.....		9	..	..	..	..	0	+	..	+	+
" 9.....		56	28	..	..	..	+	+	..	+	+
" 11.....		54	165	..	..	..	+	+	..	+	+
" 12.....		49	7	..	..	..	+	+	..	0	+
" 13.....		32	12	..	..	..	+	+	..	+	+
" 14.....		45	15	..	..	..	0	0	..	0	+
" 23.....		36	7	..	..	..	0	+	..	+	+
" 25.....		6	5	..	..	..	+	+	..	+	+
Averages		**26.6**	**18.4**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	55	25	0	..	..	0	0	0	..	+	+
" 29.....		50	60	..	..	0	0	0	..	0	..
" 30.....		9	2	..	..	..	0	0	..	..	0
" 31.....		10	27	..	..	..	0	0	..	0	+
Aug. 1.....		29	3	..	..	..	0	+	..	0	+
" 2.....		9	0	..	..	..	0	0	..	0	+
" 4.....		14	7	..	..	..	+	+	..	+	+
" 5.....		12	16	..	..	..	0	+	..	+	+
" 6.....		85	22	..	..	..	0	0	..	+	+
" 7.....		5	9	..	..	..	0	0	..	0	0
" 8.....		4	..	..	..	..	0	+	..	+	+
" 9.....		46	62	..	..	..	0	+	..	+	+
" 11.....		230	105	..	..	..	0	+	..	+	+
" 12.....		86	8	..	..	..	0	+	..	+	+
" 13.....		36	7	..	..	..	+	+	..	+	+
" 14.....		14	..	..	..	..	0	+	..	+	+
" 25.....		17	17	..	..	..	0	+	..	+	+
" 25.....		3	3	..	..	..	+	+	..	+	0
Averages		**38**	**21.7**	**25**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	56	30	0	..	..	0	0	+	..	+	+
" 29.....		26	40	..	..	+	+	+	..	+	..
" 30.....		100	22	..	..	0	0	+	..	+	..
" 31.....		120	250	..	..	+	+	+	..	+	+
Aug. 1.....		32	3	..	..	..	0	0	..	+	+
" 2		260	106	..	..	..	0	0	..	0	+
" 6.....		18	8	..	..	..	0	0	..	+	+
" 7.....		20	9	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°-22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 8.....	56	..	..	..	..	..	0	+	..	+	+
" 9.....		250	92	..	..	..	+	+	..	+	+
" 11.....		180	13	..	..	..	0	+	..	+	+
" 12.....		58	16	..	..	..	+	+	..	+	+
" 13.....		118	spreader	..	..	..	0	+	..	+	+
" 14.....		14	5	..	..	..	0	+	..	+	+
" 23.....		90	26	..	..	..	+	+	..	+	+
" 25.....		14	12	..	..	..	+	+	..	+	+
Averages		**88.6**	**43**	**15**	**.8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 28.....	57	2500	1000	..	..	+	+	+	..	+	+
" 29.....		3000	1000	..	..	+	+	+	..	+	..
" 30.....		2000	800	..	..	+	+	+	+	..	..
" 31.....		2000	1500	..	..	+	+	+	..	+	+
Aug. 1.....		3000	2000	..	..	+	+	+	..	+	+
" 2.....		5800	1500	..	..	+	+	+	..	+	+
" 4.....		4000	90	..	..	..	+	+	..	+	+
" 5.....		9000	3000	..	0	+	+	+	..	..	..
" 6.....		70	3000	..	0	+	+	+	..	+	..
" 7.....		950	..	..	+	+	+	+	..	..	..
" 8.....		5000	..	..	0	+	+	+	..	+	+
" 9.....		2900	spreader	..	+	+	+	+	..	..	..
" 11.....		2200	3000	..	+	+	+	+	..	..	..
" 12.....		2300	400	..	0	+	+	+	..	..	..
" 13.....		spreader	spreader	..	0	+	+	+	..	..	..
" 14.....		2500	440	..	0	+	+	+	..	..	..
Averages		**3718**	**1477.5**	**26**	**31**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 28.....	58	3000	600	..	..	+	+	+	..	+	+
" 29.....		3000	2000	..	..	0	0	+	..	0	..
" 30.....		2500	1500	..	..	+	+	+	+	..	..
" 31.....		2500	1500	..	..	+	+	+	..	+	+
Aug. 1.....		2000	2000	..	..	+	+	+	..	+	+
" 2.....		4900	600	..	..	+	+	+	..	+	+
" 4.....		2000	400	..	..	..	+	+	..	+	+
" 5.....		8000	2500	..	+	+	+	+	..	..	..
" 6.....		3000	3000	..	+	+	+	+	..	..	..
" 7.....		15000	2000	..	0	+	+	+	..	..	..
" 8.....		8000	..	..	+	+	+	+	..	+	+
" [illegible].....		1700	2000	..	+	+	+	+	..	..	..
" 11.....		2600	1500	..	+	+	+	+	..	..	..
" 12.....		3000	280	..	+	+	+	+	..	..	..
" 13.....		spreader	spreader	..	0	+	+	+	..	..	..
" 14.....		1200	330	..	0	+	+	+	..	..	..
Averages		**4160**	**1443.5**	**42**	**57**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°-22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	60	250	80	..	..	+	+	+	..	+	+
" 29.....		26	2	..	..	0	0	+	..	+	..
" 30.....		33	10	..	..	0	0	+	+	..	..
" 31.....		2000	440	..	..	0	0	0	0	..	+
Aug. 1.....		2000	400	..	..	..	+	+	..	+	+
" 2.....		68	38	..	..	0	0	0	..	+	+
" 4.....		165	50	..	..	..	+	+	..	+	+
" 5.....		350	260	..	..	..	+	+	..	+	+
" 6.....		1280	2500	..	..	..	0	+	..	+	+
" 7.....		2000	62	..	..	..	+	+	..	+	+
" 8.....		140	..	..	..	..	+	+	..	+	+
" 9.....		62	12	..	..	..	+	+	..	+	+
" 11.....		3000	640	..	..	..	0	+	..	+	+
" 12.....		200	150	..	..	..	+	+	..	+	+
" 13.....		390	spreader	..	..	..	+	+	..	+	+
" 14.....		260	spreader	..	..	..	+	+	..	+	+
Averages		**764**	**357.7**	**1**	**30**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 28.....	61	29	3	..	..	0	0	0	..	+	+
" 29.....		80	14	..	..	0	0	+	..	0	..
" 30.....		10	6	..	..	..	0	0	..	0	0
" 31.....		310	50	..	..	..	0	0	..	+	+
Aug. 1.....		19	5	..	..	..	0	0	..	0	+
" 2.....		2	9	..	..	..	0	0	..	0	0
" 4.....		..	12	..	..	..	0	0	..	+	+
" 5.....		14	5	..	..	..	0	0	..	+	+
" 6.....		3000	1500	..	..	..	0	+	..	+	+
" 7.....		600	95	..	..	..	0	0	..	+	+
" 8.....		6	..	..	..	..	0	+	..	+	+
" 9.....		33	16	..	..	..	0	0	..	+	+
" 11.....		960	spreader	..	..	..	0	+	..	+	+
" 12.....		12	4	..	..	..	0	+	..	+	+
" 13.....		17	14	..	..	..	0	+	..	+	+
Averages		**340.5**	**133.3**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	62	19	0	..	..	0	0	0	..	0	+
" 29.....		10	6	..	..	0	0	0	..	0	..
" 30.....		8	3	..	..	..	0	0	..	..	0
" 31.....		4	5	..	..	..	0	0	..	0	0
Aug. 1.....		26	9	..	..	..	0	0	..	0	0
" 2.....		..	4	..	..	..	0	+	..	+	+
" 4.....		9	3	..	..	..	0	0	..	+	+
" 5.....		4	5	..	..	..	0	0	..	+	+
" 6.....		40	42	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°-22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7.....	62	11	2	..	..	..	0	0	..	+	+
" 8.....		4	..	..	..	..	0	+	..	+	+
" 9.....		14	7	..	..	..	0	0	..	+	+
" 11.....		68	60	..	..	..	0	+	..	+	+
" 12.....		18	2	..	..	..	0	0	..	0	+
" 13.....		24	5	..	..	..	0	+	..	+	+
" 14.....		12	3	..	..	..	0	0	..	0	0
Averages		**18.06**	**10.4**	**7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	63	4	1	..	..	0	0	0	..	0	0
" 29.....		13	2	..	..	0	0	0	..	0	..
" 30.....		5	4	..	..	..	0	0	..	..	0
" 31.....		3	4	..	..	..	0	0	..	0	+
Aug. 1.....		24	6	..	..	..	0	0	..	0	0
" 2.....		9	4	..	..	..	0	0	..	0	+
" 4.....		9	4	..	..	..	0	0	..	+	+
" 5.....		3	3	..	..	..	0	0	..	+	+
" 6.....		9	6	..	..	..	0	0	..	+	+
" 7.....		14	2	..	..	..	0	0	..	0	+
" 8.....		5	..	..	..	..	0	+	..	+	+
" 9.....		9	8	..	..	..	0	0	..	+	+
" 11.....		24	16	..	..	..	0	+	..	+	+
" 12.....		9	9	..	..	..	0	+	..	+	+
" 13.....		8	4	..	..	..	0	+	..	+	+
Averages		**9**	**5**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	64	12	0	..	..	0	0	0	..	0	0
" 29.....		14	5	..	..	0	0	0	..	0	..
" 30.....		9	2	..	..	..	0	0	..	..	0
" 31.....		6	5	..	..	..	0	0	..	0	0
Aug. 1.....		19	4	..	..	..	0	0	..	0	0
" 2.....		1	1	..	..	..	0	0	..	0	+
" 4.....		5	5	..	..	..	0	0	..	0	0
" 5.....		14	11	..	..	..	0	0	..	0	+
" 6.....		35	25	..	..	..	0	0	..	+	+
" 7.....		90	22	..	..	..	0	0	..	0	0
" 8.....		8	..	..	..	..	0	+	..	+	+
" 9.....		10	8	..	..	..	0	0	..	+	+
" 11.....		155	18	..	..	..	0	+	..	+	+
" 12.....		15	4	..	..	..	0	0	..	0	+
" 13.....		22	spreader	..	..	..	0	+	..	+	+
Averages		**27.6**	**8**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	65	19	0	..	..	0	0	0	..	0	+
" 29.....		10	3	..	..	0	0	0	..	0	..
" 30.....		21	2	..	..	0	0	0	+	..	..
" 31.....		4	7	..	..	..	0	0	..	0	0
Aug. 1.....		14	32	..	..	0	0	0	..	0	0
" 2.....		22	2	..	..	..	0	0	..	0	0
" 4.....		14	3	..	..	..	0	+	..	0	+
" 5.....		12	12	..	..	..	0	0	..	+	+
" 6.....		5	6	..	..	..	0	0	..	+	+
" 7.....		spreader	17	..	..	..	0	0	..	+	+
" 8.....		8	..	..	..	..	0	+	..	+	+
" 8.....		33	16	..	..	..	0	+	..	0	+
" 11.....		122	14	..	..	..	0	+	..	+	+
" 12.....		25	8	..	..	..	0	+	..	+	+
" 13.....		52	22	..	..	..	+	+	..	+	+
" 14.....		9	..	..	..	..	0	0	..	+	+
Averages		**24.6**	**10.2**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	66	26	3	..	..	0	+	+	..	+	+
" 29.....		22	2	..	..	0	0	0	..	0	..
" 30.....		14	2	..	..	0	0	0	+	..	..
" 31.....		16	9	..	..	0	0	0	..	0	0
Aug. 1.....		60	8	..	..	0	0	+	..	+	+
" 2.....		14	15	..	..	0	0	+	..	+	+
" 4.....		19	8	..	..	..	0	0	..	+	+
" 5.....		22	9	..	..	..	+	+	..	+	+
" 6.....		24	7	..	..	..	0	0	..	+	+
" 7.....		8	spreader	..	..	..	0	0	..	0	0
" 8.....		4	..	..	..	..	0	+	..	+	+
" 9.....		220	43	..	..	..	0	+	..	+	+
" 11.....		210	150	..	..	..	0	+	..	+	+
" 12.....		42	25	..	..	..	+	+	..	+	+
" 13.....		58	38	..	..	..	+	+	..	+	+
" 14.....		36	9	..	..	..	0	0	..	0	0
Averages.....		**47.1**	**23.4**	**31**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	67	1500	400	..	..	0	+	+	..	+	+
" 29.....		200	70	..	..	0	0	0	..	0	..
" 30.....		285	90	..	..	0	0	0	+	..	..
" 31.....		500	40	..	..	0	0	+	..	+	+
Aug. 1.....		680	87	..	..	0	0	0	..	0	+
" 4.....		460	68	..	..	..	+	+	..	+	+
" 5.....		9	6	..	..	..	+	+	..	0	+
" 6.....		1200	560	..	..	..	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7.....	67	5000	65	..	..	..	+	+	..	+	+
" 8.....		1500	160	..	..	..	+	+	..	+	+
" 9.....		540	220	..	..	..	+	+	..	+	+
" 15.....		250	25	..	..	..	0	+	..	+	+
" 16.....		240	8	..	..	..	+	+	..	+	+
" 19.....		99	48	..	..	..	0	+	..	+	+
" 20.....		170	62	..	..	..	0	0	..	+	+
" 21.....		62	16	..	..	..	0	+	..	+	+
Averages.....		**793.4**	**120.3**	**55**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	68	1000	300	..	..	0	+	+	..	+	+
" 29.....		16	3	..	..	0	0	0	..	0	..
" 30.....		27	9	..	..	+	+	+	+	..	..
" 31.....		3	16	..	..	0	0	0	0	..	0
Aug. 1.....		38	22	..	..	..	0	0	0	0	0
" 4.....		63	12	..	..	..	+	0	..	+	+
" 5.....		10	5	..	..	..	0	0	..	0	+
" 6.....		80	32	..	..	..	+	+	..	+	+
" 7.....		42	3	..	..	..	0	0	..	+	+
" 8.....		220	12	..	..	..	0	+	..	+	+
" 9.....		92	44	..	..	..	+	+	..	+	+
" 15.....		9	4	..	..	..	0	0	..	0	0
" 16.....		96	5	..	..	..	0	+	..	+	+
" 19.....		100	19	..	..	..	0	+	..	+	+
" 20.....		19	8	..	..	..	0	0	..	0	0
" 21.....		200	18	..	..	..	0	+	..	+	+
Averages.....		**125.9**	**32**	**87**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	69	33	1	..	..	0	0	0	..	0	0
" 29.....		19	5	..	..	0	0	0	..	0	..
" 30.....		17	3	..	..	0	0	0	..	0	0
" 31.....		4	18	..	..	0	0	0	..	+	+
Aug. 1.....		2	6	..	..	..	0	0	..	0	0
" 4.....		18	2	..	..	..	0	+	..	+	+
" 5.....		15	6	..	..	..	0	0	..	0	+
" 6.....		5	2	..	..	..	0	0	..	0	+
" 7.....		21	14	..	..	..	0	0	..	0	+
" 8.....		spreader	2	..	..	..	0	0	..	+	+
" 9.....		22	8	..	..	..	0	0	..	+	+
" 15.....		8	6	..	..	..	0	0	..	0	0
" 16.....		7	14	..	..	..	0	0	..	+	+
" 19.....		22	6	..	..	..	0	0	..	+	+
" 20.....		12	22	..	..	..	0	0	..	0	0
" 21.....		85	9	..	..	..	+	+	..	0	+
Averages		**19.3**	**9**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	70	17	3	..	..	0	0	0	..	0	0
" 29.....		20	3	..	..	0	0	0	..	0	..
" 30.....		19	0	..	..	..	0	0	..	0	0
" 31.....		4	10	..	..	..	0	0	..	0	0
Aug. 1.....		2	2	..	..	..	0	0	..	0	+
" 4.....		9	1	..	..	..	0	0	..	0	+
" 5.....		7	7	..	..	..	0	0	..	+	+
" 6.....		17	8	..	..	..	0	0	..	+	+
" 7.....		4	2	..	..	..	0	0	..	0	0
" 8.....		5	6	..	..	..	0	0	..	0	+
" 9.....		45	7	..	..	..	0	0	..	+	+
" 15.....		5	9	..	..	..	0	0	..	0	0
" 16.....		3	7	..	..	..	0	0	..	+	+
" 19.....		10	2	..	..	..	0	0	..	0	+
" 20.....		8	7	..	..	..	0	0	..	0	0
" 21.....		1	3	..	..	..	0	0	..	0	+
Averages		**11**	**4**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	71	7	3	..	..	0	0	0	..	0	0
" 29.....		24	7	..	..	0	0	0	..	0	..
" 30.....		18	3	..	..	..	0	0	..	0	0
" 31.....		4	35	..	..	..	0	0	..	0	0
Aug. 1.....		4	3	..	..	..	0	0	..	+	+
" 4.....		25	4	..	..	..	0	0	..	0	+
" 5.....		12	2	..	..	..	0	0	..	+	+
" 6.....		16	22	..	..	..	0	0	..	+	+
" 7.....		spreader	3	..	..	..	0	0	..	+	+
" 8.....		4	5	..	..	..	0	0	..	0	+
" 9.....		17	6	..	..	..	0	0	..	0	+
" 15.....		8	9	..	..	..	0	0	..	0	0
" 16.....		11	48	..	..	..	0	0	..	0	0
" 19.....		4	3	..	..	..	0	+	..	+	+
" 20.....		16	9	..	..	..	0	0	..	0	0
" 21.....		1	4	..	..	..	0	0	..	0	+
Averages		**11.4**	**10.3**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	72	21	0	..	..	0	0	0	..	+	+
" 29.....		90	200	..	..	0	0	0	..	+	..
" 30.....		33	6	..	..	..	0	+	..	+	+
" 31.....		..	..	..	..	..	0	0	..	0	0
Aug. 1.....		3	2	..	..	..	0	0	..	+	+
" 4.....		18	5	..	..	..	0	0	..	+	+
" 5.....		18	30	..	..	..	0	+	..	+	+
" 6.....		28	17	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7.....	72	16	5	..	..	..	0	+	..	+	+
" 8.....		10	2	..	..	..	0	0	..	0	+
" 9.....		25	22	..	..	..	+	+	..	+	+
" 15.....		16	2	..	..	..	0	0	..	0	0
" 16.....		12	15	..	..	..	0	0	..	0	0
" 19.....		8	2	..	..	..	0	0	..	+	+
" 20.....		21	6	..	..	..	0	0	..	+	+
" 21.....		5	9	..	..	..	0	0	..	0	+
Averages		**21.5**	**21.5**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	73	500	200	..	..	+	+	+	..	+	1
" 30.....		42	9	..	..	..	..	0	0	..	..
" 31.....		100	84	..	..	0	0	0	..	+	+
Aug. 1.....		290	62	..	..	..	0	0	..	+	+
" 4.....		76	28	..	..	..	+	+	..	+	+
" 5.....		12	6	..	..	..	0	0	..	0	+
" 6.....		18	9	..	..	..	0	0	..	0	+
" 7.....		140	4	..	..	..	0	0	..	+	+
" 8.....		260	80	..	..	..	+	+	..	+	+
" 9.....		210	66	..	..	..	+	+	..	0	+
" 15.....		25	10	..	..	..	0	0	..	0	0
" 16.....		120	12	..	..	..	0	+	..	+	+
" 19.....		112	35	..	..	..	0	+	..	+	+
" 20.....		17	3	..	..	..	0	0	..	0	+
" 21.....		28	3	..	..	..	0	+	..	+	+
Averages		**130**	**40.7**	**86**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	74	500	15	..	..	0	0	+	..	+	+
" 30.....		11	4	..	..	0	0	0	0	..	..
" 31.....		60	..	..	..	0	0	0	..	0	0
Aug. 1.....		4	23	..	..	..	0	0	..	0	0
" 4.....		31	7	..	..	..	0	0	..	+	+
" 5.....		5	5	..	..	..	0	0	..	0	+
" 6.....		20	5	..	..	..	0	0	..	0	+
" 7.....		9	2	..	..	..	0	0	..	+	+
" 8.....		150	14	..	..	..	0	0	..	+	+
" 9.....		9	3	..	..	..	0	0	..	+	+
" 15.....		10	6	..	..	..	0	0	..	0	0
" 16.....		66	4	..	..	..	0	+	..	+	+
" 19.....		45	9	..	..	..	0	+	..	+	+
" 20.....		16	4	..	..	..	0	0	..	+	+
" 21.....		26	7	..	..	..	0	0	..	0	0
Averages		**64.1**	**7**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28	75	47	3	..	..	0	0	0	..	+	+
" 30		5	3	..	..	..	0	0	..	0	0
" 31		1	..	..	..	..	0	0	..	0	0
Aug. 1		5	11	..	..	..	0	0	..	+	+
" 4		22	3	..	..	..	0	0	..	+	+
" 5		12	7	..	..	..	0	+	..	+	+
" 6		18	9	..	..	..	0	0	..	+	+
" 7		17	5	..	..	..	0	0	..	0	0
" 8		4	2	..	..	..	0	0	..	0	+
" 9		4	..	..	..	..	0	0	..	0	0
" 15		8	5	..	..	..	0	0	..	0	0
" 16		12	12	..	..	..	+	+	..	+	+
" 19		24	2	..	..	..	0	0	..	0	+
" 20		28	spreader	..	..	..	0	0	..	0	+
" 21		3	5	..	..	..	0	0	..	0	+
Averages		**14**	**5**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	76	30	0	..	..	0	0	0	..	+	+
" 30		29	4	..	..	..	0	+	..	0	0
" 31		24	32	..	..	..	0	0	..	+	+
Aug. 1		9	3	..	..	..	0	0	..	0	0
" 4		8	8	..	..	..	0	0	..	0	+
" 5		62	40	..	..	..	+	0	..	+	+
" 6		900	420	..	..	..	+	+	..	+	+
" 7		6	2	..	..	..	0	0	..	+	+
" 8		9	0	..	..	..	0	0	..	0	+
" 9		7	3	..	..	..	0	0	..	+	+
" 15		5	9	..	..	..	0	0	..	0	0
" 16		10	21	..	..	..	0	0	..	0	+
" 19		16	8	..	..	..	0	+	..	+	+
" 20		3	6	..	..	..	0	0	..	0	0
" 21		3	4	..	..	..	0	0	..	0	+
Averages		**75.4**	**37.3**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	77	300	0	..	..	0	0	0	..	+	+
" 30		332	200	..	..	..	0	+	..	+	+
" 31		500	150	..	..	..	+	+	..	+	+
Aug. 1		170	16	..	..	..	+	+	..	+	+
" 4		185	45	..	..	..	+	+	..	+	+
" 5		62	250	..	..	..	+	0	..	+	+
" 6		220	300	..	..	..	0	+	..	+	+
" 7		320	..	..	..	..	0	0	..	+	+
" 8		600	230	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9	77	510	spreader	..	..	..	+	+	..	+	+
" 15		88	32	..	..	..	0	0	..	0	+
" 16		38	15	..	..	..	0	0	..	0	0
" 19		110	92	..	..	..	0	+	..	+	+
" 20		400	135	..	..	..	+	+	..	+	+
" 21		10	3	..	..	..	0	0	..	0	+
Averages		**388.3**	**112.9**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	78	24	0	..	..	0	0	0	..	0	+
" 30		29	5	..	..	..	0	0	..	0	0
" 31		24	42	..	..	..	+	+	..	+	+
Aug. 1		54	5	+	..	..	0	0	..	0	+
" 4		45	10	..	..	..	0	0	..	+	+
" 5		320	115	..	..	..	0	+	..	+	+
" 6		105	220	..	..	..	+	+	..	+	+
" 7		4	..	..	..	..	0	0	..	0	+
" 8		140	29	..	..	..	0	+	..	+	+
" 9		98	9	..	..	..	0	0	..	+	+
" 15		26	spreader	..	..	..	0	0	..	0	+
" 16		9	7	..	..	..	0	0	..	0	+
" 19		34	6	..	..	..	0	+	..	+	+
" 20		430	87	..	..	..	+	+	..	+	+
" 21		2	2	..	..	..	0	0	..	0	+
Averages		**89.6**	**41.3**	**25**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28	79	20	5	..	..	0	0	0	..	0	+
" 30		27	4	..	..	..	0	0	..	0	0
" 31		3	17	..	..	..	0	0	..	0	0
Aug. 1		5	3	..	..	..	0	0	..	0	+
" 4		14	11	..	..	..	0	0	..	+	+
" 5		42	24	..	..	..	0	0	..	0	+
" 6		6	5	..	..	..	0	0	..	+	+
" 7		12	..	..	..	..	0	0	..	0	0
" 8		6	12	..	..	..	0	0	..	+	+
" 9		11	6	..	..	..	0	0	..	+	+
" 15		22	9	..	..	..	0	0	+	0	+
" 16		6	5	..	..	..	0	0	..	0	+
" 19		10	8	..	..	..	0	+	..	+	+
" 20		28	28	..	..	..	+	+	..	+	+
" 21		4	2	..	..	..	0	0	..	0	+
Averages		**14.4**	**9**	**10**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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July 28	80	30	0	..	..	0	0	0	..	0	+
" 30		17	3	..	..	..	0	0	..	0	0
" 31		5	17	..	..	..	0	0	..	0	0
Aug. 1		spreader	2	..	..	..	0	0	..	0	+
" 4		25	3	..	..	..	0	+	..	+	+
" 5		19	22	..	..	..	0	0	..	0	+
" 6		15	9	..	..	..	0	+	..	+	+
" 7		..	..	..	..	..	0	0	..	+	+
" 8		2	2	..	..	..	0	+	..	+	+
" 9		42	14	..	..	..	+	+	..	+	+
" 15		12	14	..	..	..	0	0	..	0	0
" 16		24	4	..	..	..	0	0	..	0	0
" 19		12	3	..	..	..	0	+	..	+	+
" 20		6	3	..	..	..	0	0	..	0	0
" 21		3	1	..	..	..	0	0	..	+	+
Averages		**16.3**	**6**	**13**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 28	81	500	36	..	..	0	+	+	..	+	+
" 30		460	320	..	..	0	0	+	+	..	..
" 31		1000	170	..	..	..	0	+	..	+	+
Aug. 1		1500	182	..	..	..	+	+	..	+	+
" 2		2500	1000	..	..	..	+	+	..	+	+
" 4		2000	650	..	..	..	0	+	..	+	+
" 5		450	1000	..	..	0	0	0	..	+	+
" 6		1200	4000	..	..	+	+	+	..	+	+
" 7		460	80	..	..	0	0	0	..	+	+
" 8		1080	80	..	..	0	+	+	..	+	+
" 11		1200	150	..	..	+	+	+	..	+	..
" 12		580	16	..	..	+	+	+	..	+	..
" 13		240	90	..	..	0	0	+	..	+	..
" 14		270	50	..	..	0	0	0	..	0	..
" 15		320	140	..	..	0	0	0	..	0	..
Averages		**916**	**530.9**	**2**	**32**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
July 28	82	250	5	..	..	0	0	0	..	+	+
" 30		275	144	..	..	0	0	0	0	..	..
" 31		1000	180	..	..	..	+	+	..	+	+
Aug. 1		1000	400	..	..	..	0	+	..	+	+
" 2		2000	320	..	..	..	+	+	..	+	+
" 4		900	88	..	..	..	0	0	..	..	..
" 5		320	spreader	..	..	0	0	+	..	+	+
" 6		690	3800	..	..	+	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7	82	520	spreader	..	..	0	0	0	..	+	+
" 8		1040	60	..	..	0	+	+	..	+	+
" 11		480	280	..	..	+	+	+	..	+	..
" 12		540	12	..	..	0	+	+	..	+	..
" 13		36	11	..	..	0	0	0	..	0	..
" 14		50	20	..	..	0	0	0	..	0	..
" 16		50	160	..	..	0	0	0	..	0	..
Averages		**609.6**	**429.1**	**1**	**63**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
July 28	83	30	0	..	..	0	0	0	..	+	+
" 30		9	2	..	..	0	0	0	0	..	..
" 31		54	67	..	..	..	0	0	..	+	+
Aug. 1		92	4	..	..	..	+	0	..	+	+
" 2		87	14	..	..	..	0	0	..	0	0
" 4		33	14	..	..	..	0	0	..	0	+
" 5		25	49	..	..	..	0	0	..	+	+
" 6		50	40	..	..	0	0	0	..	+	+
" 7		50	30	..	..	0	0	0	..	+	+
" 8		40	30	..	..	0	0	+	..	+	+
" 11		72	200	..	..	0	0	0	..	+	..
" 12		38	11	..	..	..	0	0	..	+	+
" 13		51	230	..	..	..	0	+	..	+	+
" 14		12	4	..	..	..	0	0	..	0	0
" 16		6	16	..	..	..	0	0	..	0	0
Averages		**43.2**	**47.4**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
July 28	84	20	4	..	..	0	0	0	..	0	+
" 30		29	5	..	..	0	0	0	0	..	..
" 31		26	14	..	..	..	0	0	..	+	+
Aug. 1		23	4	..	..	..	0	0	..	0	0
" 2		32	10	..	..	..	+	+	..	+	+
" 4		35	33	..	..	..	+	+	..	+	+
" 5		28	43	..	..	..	0	+	..	+	+
" 6		19	30	..	..	0	0	0	..	+	+
" 7		20	20	..	..	0	0	0	..	0	+
" 8		30	..	..	..	0	0	0	..	0	+
" 11		88	36	..	..	0	0	0	..	+	..
" 12		38	160	..	..	..	0	+	..	+	+
" 13		42	26	..	..	..	0	+	..	+	+
" 14		15	9	..	..	..	0	0	..	0	0
" 16		22	6	..	..	..	0	0	..	0	0
Averages		**31.1**	**28.5**	**18**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	85	100	100	..	..	0	0	+	..	+	+
" 30.....		35	170	..	..	+	+	+	+	..	..
" 31.....		280	160	..	..	..	0	0	..	+	+
Aug. 1.....		1500	62	..	..	0	+	+	..	+	+
" 2.....		900	800	..	..	0	+	+	..	+	+
" 4.....		2000	750	..	..	..	+	+	..	+	+
" 5.....		220	1000	..	..	0	0	+	..	+	+
" 6.....		1500	3200	..	..	+	+	+	..	+	+
" 7.....		30	80	..	..	0	0	+	..	+	+
" 8.....		980	70	..	..	0	+	+	..	+	+
" 11.....		800	480	..	..	+	+	+	..	+	..
" 12.....		520	670	..	..	+	+	+	..	+	..
" 13.....		1250	180	..	..	0	0	+	..	+	..
" 14.....		180	80	..	..	0	0	0	..	+	..
" 16.....		170	30	..	..	0	0	0	..	+	..
Averages.....		**524.2**	**522.1**	**2**	**98**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 28.....	86	1000	100	..	..	0	0	+	..	+	+
" 30		29	26	..	..	0	0	0	0	..	..
" 31.....		450	57	..	..	..	0	0	..	+	+
Aug. 1.....		170	15	..	..	..	+	+	..	+	+
" 2.....		spreader	400	..	..	..	0	0	..	+	+
" 4.....		280	365	..	..	..	+	+	..	+	+
" 5.....		270	1500	..	..	..	+	+	..	+	+
" 6.....		640	42	..	..	+	0	+	..	+	+
" 7.....		1400	50	..	..	+	+	+	..	+	+
" 8.....		280	160	..	..	+	+	+	..	0	+
" 11.....		1200	25	..	..	0	0	+	..	+	..
" 12.....		90	90	..	..	0	0	+	..	+	..
" 13.....		180	100	..	..	0	0	+	..	+	..
" 14.....		100	20	..	..	0	0	0	..	0	..
" 16.....		..	50	..	..	0	0	0	..	0	..
Averages.....		**385.3**	**210.7**	**1**	**77**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 28.....	87	35	0	..	..	0	0	+	..	+	+
" 30.....		11	6	..	..	0	0	0	0	..	..
" 31.....		44	9	..	..	..	0	0	+	+	+
Aug. 1.....		86	5	..	..	..	0	+	..	+	+
" 2.....		42	34	..	..	..	0	0	..	+	+
" 4.....		108	12	..	..	..	0	0	..	+	+
" 5.....		60	47	..	..	..	0	+	..	+	+
" 6.....		38	54	..	..	..	0	0	..	+	+
" 7.....		62	4	..	..	..	+	+	..	+	+
" 8.....		220	12	..	..	..	+	+	..	0	+
" 11.....		152	26	..	..	0	0	+	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 12.....	87	16	25	..	..	0	0	+	..	+	..
" 13.....		13	40	..	..	0	0	0	..	0	..
" 14.....		20	3	..	..	0	0	0	..	0	..
" 16.....		..	5	..	..	0	0	0	..	0	..
Averages.....		**84.7**	**12.1**	**18**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	88	27	3	..	..	0	0	+	..	+	+
" 30.....		19	10	..	..	0	0	0	+	..	..
" 31.....		22	spreader	..	..	..	0	0	..	0	0
Aug. 1.....		195	2	..	..	..	0	0	..	+	+
" 2.....		69	17	..	..	..	0	+	..	+	+
" 4.....		5	11	..	..	..	0	0	..	+	+
" 5.....		16	37	..	..	..	0	0	..	+	+
" 6.....		18	52	..	..	..	0	0	..	+	+
" 7.....		31	3	..	..	..	0	0	..	+	+
" 8.....		48	spreader	..	..	..	+	+	..	+	+
" 11.....		115	25	..	..	0	0	+	..	+	..
" 12.....		48	40	..	..	0	0	+	..	+	+
" 13.....		38	110	..	..	..	0	+	..	+	+
" 14.....		35	6	..	..	..	0	0	..	+	+
" 16.....		52	21	..	..	..	0	0	..	0	0
Averages.....		**49.2**	**25.9**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	89	32	8	..	..	0	0	0	..	+	+
" 30.....		16	22	..	..	0	0	0	0	..	..
" 31.....		12	9	..	..	..	0	0	..	0	0
Aug. 1.....		39	4	..	..	..	0	0	+	0	0
" 2.....		66	25	..	..	..	0	0	..	0	+
" 4.....		9	12	..	..	..	0	+	..	0	0
" 5.....		14	5	..	..	..	0	0	..	0	+
" 6.....		32	00	..	..	..	0	0	..	+	+
" 7.....		32	8	..	..	..	0	0	..	0	+
"		4	..	..	..	..	..	..	..	..	..
Averages..		**28**	**17**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	90	17	8	..	..	0	0	+	..	+	+
" 30.....		20	15	..	..	0	0	0	0	..	..
" 31.....		20	spreader	..	..	..	0	0	..	0	0
Aug. 1.....		14	16	..	..	..	0	0	..	+	+
" 2.....		30	12	..	..	..	0	0	..	+	+
" 4.....		22	18	..	..	..	0	0	..	+	+
" 5.....		17	9	..	..	..	0	0	..	+	+
" 6.....		66	38	..	..	..	0	+	..	+	+
" 7.....		52	11	..	..	..	0	0	..	0	0
Averages.....		**28.6**	**15.8**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28.....	91	30	13	..	..	0	0	+	..	+	+
" 30.....		2	11	..	..	0	0	0	+	..	..
" 31.....		3	12	..	..	..	0	0	..	0	0
Aug. 1.....		27	22	..	..	..	0	0	..	0	0
" 2.....		11	3	..	..	..	0	0	..	0	+
" 4.....		9	9	..	..	..	0	0	..	+	+
" 5.....		6	5	..	..	..	0	0	..	+	+
" 6.....		45	16	..	..	..	0	0	..	+	+
" 7.....		20	14	..	..	..	0	+	..	+	+
Averages		**17**	**11.6**	**7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	92	spreader	5	..	..	0	0	+	..	+	+
" 30.....		24	5	..	..	0	0	0	+	..	..
" 31.....		25	2	..	..	..	0	0	..	+	+
Aug. 1.....		24	48	..	..	..	0	0	..	0	+
" 2.....		2	2	..	..	..	0	0	..	+	+
" 4.....		5	9	..	..	..	0	0	..	+	+
" 5.....		40	18	..	..	..	0	0	..	+	+
" 6.....		42	32	..	..	..	0	+	..	+	+
" 7.....		19	6	..	..	..	0	+	..	+	0
Averages		**22.3**	**14.1**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	93	25	36	..	..	0	0	+	..	+	+
" 30.....		23	5	..	..	0	0	0	0	..	..
" 31.....		25	11	..	..	..	0	0	..	+	+
Aug. 1.....		5	38	..	..	..	0	0	..	0	+
" 2.....		22	27	..	..	..	0	0	..	0	+
" 4.....		12	22	..	..	..	0	0	..	+	+
" 5.....		4	2	..	..	..	0	0	..	0	+
" 6.....		33	18	..	..	..	+	+	..	+	+
" 7.....		41	12	..	..	..	+	+	..	+	+
" 8.....		84	9	..	..	..	0	+	..	+	+
" 11.....		125	100	..	..	..	0	+	..	+	+
" 12.....		95	120	..	..	..	0	+	..	+	+
" 13.....		62	46	..	..	..	0	+	..	+	+
" 14.....		18	16	..	..	..	0	0	..	+	+
" 16.....		38	28	..	..	..	0	0	..	0	0
Averages.....		**40.8**	**33**	**21**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	94	60	15	..	..	0	0	+	..	+	+
" 30.....		spreader	52	..	..	0	0	0	0	..	..
" 31.....		39	spreader	..	..	..	0	0	..	+	+
Aug. 1.....		4	320	..	..	..	0	0	..	0	0
" 2.....		25	22	..	..	..	0	0	..	+	+
" 4.....		24	spreader	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 5.....		25	28	..	..	..	0	0	..	+	+
" 6.....		28	16	..	..	..	0	+	..	+	+
" 7.....		36	8	..	..	..	0	+	..	+	+
" 8.....		..	4	..	..	..	0	+	..	+	+
" 11.....		180	19	..	..	..	0	+	..	+	+
" 12.....		65	112	..	..	..	0	+	..	+	+
" 13.....		26	5	..	..	..	0	0	..	+	+
" 14.....		38	26	..	..	..	0	0	..	+	+
" 16.....		33	14	..	..	..	0	0	..	0	0
Averages.....		**44.8**	**49.3**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 28.....	95	2000	90	..	..	+	+	+	..	+	+
" 30.....		32	58	..	..	0	0	0	+	..	..
" 31.....		67	40	..	..	..	+	+	..	+	+
Aug. 1.....		200	90	..	..	+	+	+	..	+	..
" 2.....		3	15	..	..	0	0	+	..	+	..
" 4.....		63	130	..	..	+	+	..	..	+	+
" 5.....		140	260	..	..	0	0	+	..	+	+
" 6.....		90	170	..	..	+	+	+	..	+	+
" 7.....		220	60	..	..	+	+	+	..	+	+
" 8.....		110	30	..	..	+	+	+	..	+	+
" 11.....		630	210	..	..	+	+	+	..	+	..
" 12.....		20000	5200	..	..	0	+	+	..	+	..
" 13.....		160	150	..	..	0	+	+	..	+	..
" 14.....		340	120	..	..	+	+	+	..	+	..
" 16.....		420	340	..	..	+	+	+	..	+	..
Averages.....		**1631.6**	**464.2**	**6**	**22**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 28.....	96	50	170	..	..	0	+	+	..	+	+
" 30.....		14	52	..	..	+	+	+	+	..	..
" 31.....		25	37	..	..	..	0	+	..	+	+
Aug. 1.....		spreader	16	..	..	0	0	+	..	+	..
" 2.....		..	3	..	..	0	+	+	..	+	+
" 4.....		130	52	..	..	..	+	+	..	+	+
" 5.....		90	90	..	..	0	0	+	..	+	+
" 6.....		250	160	..	..	+	+	+	..	+	+
" 7.....		450	40	..	..	0	+	+	..	+	+
" 8.....		70	40	..	..	+	+	+	..	+	+
" 11.....		340	50	..	..	+	+	+	..	+	..
" 12.....		580	220	..	..	0	+	+	..	+	..
" 13.....		120	110	..	..	0	+	+	..	+	..
" 14.....		380	260	..	..	0	+	+	..	+	..
" 16.....		460	430	..	..	+	+	+	..	+	..
Averages.....		**227.6**	**152**	**3**	**84**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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July 28	97	57	60	..	..	+	+	+	..	+	+
" 30		12	40	..	..	+	+	+	+	..	..
" 31		12	29	..	..	..	+	+	..	+	+
Aug. 1		32	26	..	..	0	+	+	..	+	..
" 2		80	25	..	..	+	+	+	..	+	..
" 4		40	66	..	..	..	0	+	..	+	+
" 5		50	100	..	..	0	0	+	..	+	+
" 6		128	19	..	..	0	+	+	..	+	+
" 7		250	20	..	..	0	+	+	..	+	+
" 8		160	20	..	..	+	+	+	..	+	+
" 11		11200	6000	..	..	+	+	+	..	+	..
" 12		480	530	..	..	0	+	+	..	+	..
" 13		560	290	..	..	+	+	+	..	+	..
" 14		180	230	..	..	+	+	+	..	+	..
" 16		230	160	..	..	0	+	+	..	+	..
Averages		**898.06**	**507**	**5**	**09**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 28	98	80	80	..	..	0	+	+	..	+	+
" 30		spreader	47	..	..	+	+	+	+	..	..
" 31		35	26	..	..	..	+	+	..	+	+
Aug. 1		29	22	..	..	0	+	+	..	+	..
" 2		120	2	..	..	0	+	+	..	+	..
" 4		44	50	..	..	..	+	+	+	..	+
" 5		60	40	..	..	0	0	+	..	+	+
" 6		85	30	..	..	+	+	+	..	+	+
" 7		280	20	..	..	0	+	+	..	+	+
" 8		40	70	..	..	0	+	+	..	+	+
" 11		6800	720	..	..	+	+	+	..	+	..
" 12		870	160	..	..	0	+	+	..	+	..
" 13		1120	560	..	..	+	+	+	..	+	..
" 14		330	220	..	..	0	+	+	..	+	..
" 16		190	170	..	..	0	+	+	..	+	..
Averages		**720.2**	**243.8**	**3**	**34**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Toledo Tap											
Aug. 6	99	250	400	..	..	+	+	+	..	+	+
" 7		890	200	..	..	+	+	+	..	+	+
" 8		50	20	..	..	0	+	+	..	+	+
" 11		540	220	..	..	+	+	+	..	+	..
" 12		700	660	..	..	0	+	+	..	+	..
" 13		480	650	..	..	+	+	+	..	+	..
" 14		5000	4000	..	..	+	+	+	..	+	+
" 16		420	160	..	..	0	+	+	..	+	..
Averages		**1041.2**	**801**	**6**	**62**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 6	100	220	250	..	..	..	+	+	..	+	+
" 7		3900	800	..	..	+	+	+	..	+	+
" 8		2900	50	..	..	+	+	+	..	+	+
" 11		800	250	..	..	+	+	+	..	+	..
" 12		490	80	..	..	+	+	+	..	+	..
" 13		420	600	..	..	+	+	+	..	+	..
" 14		1600	5000	..	..	+	+	+	..	+	..
" 16		2500	70	..	..	0	+	+	..	+	..
Averages		**1603.7**	**887.5**	**7**	**75**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 8	101	350	9	..	..	..	0	+	..	+	+
" 11		360	440	..	..	..	+	+	..	+	+
" 12		240	600	..	..	..	+	+	..	+	+
" 13		104	78	..	..	..	0	+	..	+	+
" 14		12	52	..	..	..	+	+	..	+	+
" 16		12	12	..	..	..	0	+	..	+	+
Averages		**179.6**	**198.5**	**60**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8	102	3000	22	..	..	..	0	+	..	+	+
" 11		spreader	40	..	..	..	+	+	..	+	+
" 12		110	40	..	..	..	+	+	..	+	+
" 13		96	43	..	..	..	0	+	..	+	+
" 14		9	16	..	..	..	0	0	..	+	+
" 16		2500	spreader	..	..	..	0	+	..	+	+
Averages		**1143**	**32.2**	**44**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8	103	..	16	..	..	..	0	+	..	+	+
" 11		36	100	..	..	..	+	+	..	+	+
" 12		50	95	..	..	..	0	+	..	+	+
" 13		26	1700	..	..	..	0	0	..	0	+
" 14		25	9	..	..	..	+	+	..	+	+
" 16		44	4	..	..	..	0	0	..	0	0
Averages		**36.2**	**320.6**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 8	104	165	7	..	..	..	0	+	..	0	+
" 11		30	49	..	..	..	+	+	..	+	+
" 12		25	55	..	..	..	0	+	..	+	+
" 13		16	28	..	..	..	0	0	..	0	+
" 14		38	19	..	..	..	+	+	..	+	+
" 16		44	spreader	..	..	..	0	0	..	0	+
Averages		**53**	**31.6**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 13...	172	..	30	0	+	+	+	..	+	..	..
" 14...		..	..	..	..	..	..	..	..	..	..
" 15...		..	225	0	0	+	+	..	+	..	..
" 16...		..	200	0	0	+	+	..	..	..	..
" 17...		..	200	..	+	+	+	..	..	..	..
" 18...		..	80	..	0	0	+	..	..	..	..
" 19...		..	100	..	0	+	+	..	..	..	..
" 21...		..	60	..	0	+	+	..	..	..	..
" 23...		..	80	..	0	+	+	..	..	..	..
" 24...		..	20	..	0	0	+	..	..	..	..
" 25...		..	50	..	0	0	+	..	..	..	..
" 26...		..	160	..	+	+	+	..	..	..	..
" 28...		..	53	0	0	+	+	..	..	..	..
" 29...		..	5	0	+	+	+	..	..	..	..
" 30...		..	550	0	0	+	+	..	+	..	..
" 31...		..	220	0	0	0	+	..	+	..	..
Aug. 1...		..	50	..	0	+	+	..	+	..	..
" 2...		..	40	..	0	0	0	..	+	..	..
" 4...		..	170	..	0	0	+	..	+	..	..
" 5...		..	20	..	0	+	+	..	+	..	..
" 6...		..	60	..	0	+	+	..	+	..	..
" 7...		..	50	..	0	0	+	..	..	..	..
Averages....		..	**115**	**24**	**05**	**B**	**C**	**pe**	**r 1**	**00**	**cc**
July 13...	173	..	3	..	..	0	+	..	+	..	..
" 14...		..	..	..	..	..	..	..	..	..	..
" 15...		..	7	..	..	0	0	..	+	..	..
" 16...		..	6	..	..	0	0	..	+	..	..
" 17...		..	4	..	..	0	0	..	+	..	..
" 18...		..	12	..	..	0	+	..	+	..	..
" 19...		..	8	..	..	0	+	..	+	..	..
" 21...		..	2	..	..	+	+	..	+	..	..
" 23...		..	10	..	..	0	+	..	+	..	..
" 24...		..	1	..	..	0	0	..	+	..	..
" 25...		..	43	..	..	0	0	..	+	..	..
" 26...		..	100	..	..	0	0	..	+	..	..
" 28...		..	6	..	..	0	0	..	+	..	..
" 29...		..	3	..	..	0	+	..	+	..	..
" 30...		..	6	..	..	0	+	..	+	..	..
" 31...		..	21	..	..	0	+	..	+	..	..
Aug. 1...		..	8	..	..	+	+	..	+	..	..
" 2...		..	17	..	..	0	+	..	+	..	..
" 4...		..	40	..	..	0	+	..	+	..	..
" 5...		..	3	..	..	0	+	..	+	..	..
" 6...		..	51	..	..	0	+	..	+	..	..
" 7...		..	10	..	..	0	0	..	+	..	..
Averages....		..	**17**	**1**	**51**	**B**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 13...	174	..	3	..	..	0	+	..	+	..	..
" 14...		..	....	..	..	..	..	..	..	..	..
" 15...		..	3	..	..	0	+	..	+	..	..
" 16...		..	2	..	..	0	0	..	+	..	..
" 17...		..	3	..	..	0	0	..	+	..	..
" 18...		..	30	..	..	0	0	..	+	..	..
" 19...		..	5	..	..	0	0	..	+	..	..
" 21...		..	60	..	..	0	+	..	+	..	..
" 23...		..	2	..	..	0	0	..	+	..	..
" 24...		..	0	..	..	0	0	..	0	..	..
" 25...		..	0	..	..	0	0	..	0	..	..
" 26...		..	0	..	..	0	0	..	+	..	..
" 28...		..	4	..	..	0	+	..	+	..	..
" 29...		..	5	..	..	0	+	..	+	..	..
" 30...		..	5	..	..	0	+	..	+	..	..
" 31...		..	4	..	..	0	+	..	+	..	..
Aug. 1...		..	18	..	..	0	+	..	+	..	..
" 2...		..	6	..	..	0	0	..	+	..	..
" 4...		..	14	..	..	0	0	..	+	..	..
" 5...		..	3	..	..	0	0	..	+	..	..
" 6...		..	5	..	..	0	+	..	+	..	..
" 7...		..	7	..	..	0	0	..	+	..	..
Averages....		..	**8**	**4**	**7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 13...	175	..	5	..	..	0	0	..	+	..	..
" 14...		..	..	..	..	..	..	..	..	..	..
" 15...		..	4	..	..	0	0	..	+	..	..
" 16...		..	1	..	..	0	0	..	+	..	..
" 17...		..	0	..	..	0	0	..	+	..	..
" 18...		..	3	..	..	0	0	..	+	..	..
" 19...		..	3	..	..	0	0	..	+	..	..
" 21...		..	17	..	..	0	0	..	+	..	..
" 23...		..	0	..	..	0	0	..	0	..	..
" 24...		..	1	..	..	0	0	..	+	..	..
" 25...		..	2	..	..	0	0	..	+	..	..
" 26...		..	4	..	..	0	0	..	0	..	..
" 28...		..	3	..	..	0	0	..	+	..	..
" 29...		..	5	..	..	0	0	..	+	..	..
" 30...		..	10	..	..	0	0	..	0	..	..
" 31...		..	2	..	..	0	+	..	+	..	..
Aug. 1...		..	7	..	..	0	+	..	+	..	..
" 2...		..	7	..	..	0	0	..	0	..	..
" 4...		..	9	..	..	0	0	..	0	..	..
" 5...		..	5	..	..	0	0	..	+	..	..
" 6...		..	3	..	..	0	0	..	0	..	..
" 7...		..	7	..	..	0	0	..	0	..	..
Averages....		..	**4**	**1**	**5**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 13...	176	..	110	..	0	0	+	..	+	..	..
" 14...		..	..	..	..	..	.	..	..	..	..
" 15...		..	5	..	..	0	0	..	+	.	..
" 16....		..	2	..	..	0	0	..	+	.	..
" 17....		..	55	..	..	0	0	..	+	.	..
" 18...		..	4	..	0	0	+	..	+	..	..
" 19...		..	6	..	0	+	+	..	+	..	..
" 21....		..	100	..	0	0	+	..	+	..	..
" 23...		..	6	..	0	0	+	..	+	..	..
" 24...		..	9	..	..	0	+	..	+	..	..
" 25...		..	12		..	0	+	..	+	.	..
" 26...		..	0	..	..	0	0	..	+		..
" 28...		..	9	..	..	0	+	..	+		..
" 29...		..	19	..	.	0	+	..	+	..	..
" 30...		..	50	..	..	+	+	..	+	..	..
" 31...		..	50	..	0	0	+	..	+	..	..
Aug. 1...		..	19	..	0	0	+	..	+	..	..
" 2....		..	42	..	0	+	+	..	+	..	..
" 4...		..	30	..	0	0	0	..	+	.	..
" 5...		..	10	..	0	0	0	..	+	..	..
" 6...		..	8	..	0	0	0	..	+	..	..
" 7...		..	1	..	0	0	0	..	0	..	..
Averages....			**26**	**19**	**3.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 13...	177	..	44	..	0	+	+	..	+	..	..
" 14...		..	10	..	0	0	+	..	+	..	..
" 15...		..	150	..	0	0	+	..	+	..	..
" 16....		..	19	..	0	0	+	..	+	..	..
" 17...		..	265	..	+	+	+	..	+	.	..
" 18...		..	50	0	+	+	+	..	+	..	..
" 19...		..	200	0	0	0	+	..	+	..	..
" 21...		..	110	0	0	0	+	..	+	..	..
" 23...		..	30	0	0	0	+	..	+	..	..
" 24...		..	112	..	0	0	0	..	+	..	..
" 25...		..	74	..	0	0	+	..	+	..	..
" 26...		..	84	..	0	+	+	..	..	..	..
" 28...		..	105	..	0	+	+	..	..	..	..
" 29...		..	52	..	0	+	+	..	..	..	..
" 30...		..	400	..	0	+	+	..	..	..	..
" 31...		..	35	..	+	+	+	..	..	..	..
Aug. 1...		..	160	..	0	+	+	..	..	..	..
" 2...		..	85	..	0	+	+	..	..	..	..
" 4...		..	9	..	0	+	+	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 5...	177	..	185	..	0	+	+	..	..	..	..
" 6. .		..	240	..	0	0	+	..	..	..	..
" 7...		..	70	..	0	0	+	..	..	..	..
Averages....			**113**	**18**	**14**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples, 6 fe et from b ottom											
July 14...	177	..	12	..	0	0	+	..	+	..	..
" 15...		..	43	..	0	+	+	..	+	..	..
" 16...		..	15	..	0	0	0	..	+	..	..
Averages....			**23**	**37**	**0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 13....	178	..	2	..	..	0	+	..	+	..	..
" 14...		..	3	..	..	0	0	..	+	..	..
" 15...		..	10	..	..	0	0	..	+	..	..
" 16....		..	4	..	..	0	0	..	+	..	..
" 17...		..	3	..	..	0	0	..	+	..	..
" 18...		..	5	..	..	0	0	..	+	..	..
" 19...		..	10	..	..	0	0	..	+	..	..
" 21...		..	5	..	..	0	0	..	+	..	..
" 23...		..	3	..	..	0	0	..	+	..	..
" 24...		..	16	..	..	0	0	..	+	..	..
" 25...		..	4	..	..	0	0	..	0	..	..
" 26...		..	4	..	..	0	0	..	0	..	..
" 28...		..	60	..	..	0	0	..	+	..	..
" 29...		..	4	..	..	0	0	..	+	..	..
" 30...		..	40	..	..	0	0	..	0	..	..
" 31...		..	8	..	..	0	0	..	0	..	..
Aug. 1...		..	9	..	..	0	+	..	+	..	..
" 2...		..	11	..	..	0	0	..	+	..	..
" 4...		..	6	..	..	0	0	..	+	..	..
" 5...		..	5	..	..	0	0	..	0	..	..
" 6...		..	7	..	..	0	0	..	+	..	..
" 7...		..	19	..	..	0	0	..	0	..	..
Averages....			**10**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 13....	179	..	5	..	..	0	0	..	+	..	..
" 14...		..	6	..	..	0	0	..	0	..	..
" 15...		..	82	..	..	0	0	..	0	..	..
" 16....		..	28	..	..	0	+	..	+	..	..
" 17....		..	4	..	..	0	0	..	+	..	..
" 18....		..	5	..	..	0	0	..	0	..	..
" 19...		..	5	..	..	0	0	..	+	..	..
" 21....		..	112	..	..	0	0	..	+	..	..
" 23...		..	0	..	..	0	0	..	+	..	..
" 24...		..	14	..	..	0	+	..	+	..	..
" 25...		..	1	..	..	0	0	..	+	..	..
" 26....		..	3	..	..	0	0	..	0	..	..
" 28...		..	32	..	..	0	0	..	+	..	..
" 29...		..	2	..	..	0	+	..	+	..	..
" 30...		..	15	..	..	0	0	..	0	..	..
" 31...		..	11	..	..	0	0	..	0	..	..
Aug. 1...		..	14	..	..	0	0	..	0	..	..
" 2...		..	8	..	..	0	0	..	0	..	..
" 4...		..	2	..	..	0	0	..	+	..	..
" 5...		..	0	..	..	0	0	..	0	..	..
" 6...		..	9	..	..	0	0	..	+	..	..
" 7...		..	11	..	..	0	0	..	0	..	..
Averages....			**16**	**17**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Deep Samples	**6 fe**	**et from b**	**ottom**								
July 15...	179	..	3	..	..	0	0	..	0	..	..
" 16...		..	32	..	..	0	0	..	+	..	..
" 17...		..	3	..	..	0	0	..	+	..	..
Averages....			**12**	**G.**	**G**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 13....	180	..	11	..	..	0	0	..	+	..	..
" 14...		..	67	..	..	0	0	..	0	..	..
" 15...		..	65	..	..	0	0	..	+	..	..
" 16...		..	29	..	..	0	0	..	+	..	..
" 17...		..	15	..	..	0	0	..	+	..	..
" 18...		..	60	..	..	0	+	..	+	..	..
" 19...		..	25	..	..	0	0	..	+	..	..
" 21...		..	125	..	..	0	+	..	+	..	..
" 23...		..	100	..	..	0	+	..	+	..	..
" 24...		..	59	..	..	0	0	..	0	..	..
" 25...		..	1	..	..	0	0	..	0	..	..
" 26...		..	3	..	..	0	+	..	+	..	..
" 28...		..	28	..	..	0	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 29...	180	..	14	..	..	0	+	..	+	..	..
" 30....		..	52	..	..	0	0	..	+	..	..
" 31...		..	4	..	..	0	0	..	0	..	..
Aug. 1....		..	12	..	..	0	+	..	+	..	..
" 2...		..	6	..	..	+	+	..	+	..	..
" 3....		..	..	..	..	..	..	..	..	..	..
" 4...		..	27	..	..	0	0	..	0	..	..
" 5...		..	5	..	..	0	0	..	0	..	..
" 6...		..	31	..	..	0	0	..	0	..	..
" 7...		..	2	..	..	0	0	..	0	..	..
Averages....			**33**	**7**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 13....	181	..	5	..	0	0	+	..	+	..	..
" 14...		..	200	..	0	+	+	..	+	..	..
" 15...		..	50	..	0	+	+	..	..	..	..
" 16...		..	130	..	0	+	+	..	..	..	..
" 17...		..	5	..	+	+	+	..	..	..	..
" 18...		..	240	..	0	0	+	..	..	..	..
" 19...		..	25	..	0	0	+	..	..	..	..
" 21...		..	30	..	0	+	+	..	..	..	..
" 23...		..	25	..	0	+	+	..	..	..	..
" 24...		..	49	..	0	+	+	..	..	..	..
" 25...		..	27	..	0	+	+	..	..	..	..
" 26...		..	2	..	0	0	+	..	..	..	..
" 28...		..	26	..	0	+	+	..	..	..	..
" 29...		..	73	..	+	+	+	..	..	..	..
" 30...		..	80	0	0	+	+	..	..	..	..
" 31...		..	16	0	0	0	+	..	..	..	..
Aug. 1...		..	33	0	+	+	+	..	..	..	..
" 2...		..	19	0	0	+	+	..	..	..	..
" 4...		..	31	0	0	+	+	..	..	..	..
" 5...		..	28	0	0	0	+	..	+	..	..
" 6...		..	21	..	0	0	+	..	+	..	..
" 7...		..	26	..	0	0	+	..	+	..	..
Averages....			**51**	**18**	**95**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples,	**6 fe**	**et from b**	**ottom**								
July 14....	181	..	24	..	..	0	0	..	+	..	..
" 15...		..	17	..	..	0	0	..	+	..	..
" 16...		..	17	..	..	+	+	..	+	..	..
Averages....			**19**	**34**	**0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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July 14....	182	..	140	..	..	0	0	..	+	..	..
" 15...		..	34	..	..	0	0	..	+	..	..
" 16...		..	11	..	..	0	+	..	+	..	..
" 17....		..	285	..	0	0	+	..	+	..	..
" 18....		..	21	..	+	+	+	..	+	..	..
" 19...		..	150	..	0	+	+	..	+	..	..
" 21...		..	135	..	0	+	+	..	..	..	..
" 23....		..	120	..	0	+	+	..	..	..	..
" 24...		..	420	..	0	+	+	..	+	..	..
" 25...		..	79	..	0	0	+	..	..	..	..
" 26...		..	110	..	0	0	+	..	..	..	..
" 28...		..	113	..	0	+	+	..	..	..	..
" 29...		..	160	..	0	+	+	..	..	..	..
" 30....		..	120	..	0	0	+	..	+	..	..
" 31...		..	5	..	0	0	+	..	..	..	..
Aug. 1....		..	240	..	+	+	+	..	..	..	..
" 2...		..	200	..	0	+	+	..	..	..	..
" 4...		..	109	..	0	+	+	..	..	..	..
" 5....		..	235	..	0	+	+	..	..	..	..
" 6...		..	20	..	0	+	+	..	..	..	..
" 7...		..	190	..	0	+	+	..	..	..	..
Averages....			**137**	**15**	**02**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 14....	183	..	103	..	0	0	0	..	+	..	..
" 15...		..	4	..	0	+	+	..	+	..	..
" 16...		..	400	..	0	+	+	..	+	..	..
" 17....		..	12	..	0	+	+	..	+	..	..
" 18....		..	15	..	0	0	0	..	+	..	..
" 19...		..	8	..	0	0	+	..	+	..	..
" 21...		..	115	..	0	0	+	..	+	..	..
" 23....		..	7	..	0	0	0	..	+	..	..
" 24...		..	1	..	..	0	+	..	+	..	..
" 25...		..	5	..	..	0	0	..	0	..	..
" 26...		..	20	..	..	+	+	..	+	..	..
" 28...		..	14	..	0	+	+	..	+		..
" 29...		..	7	..	0	0	+	..	+	..	..
" 30....		..	26	..	..	0	+	..	+	..	..
" 31...		..	13	..	..	0	+	..	+	..	..
Aug. 1....		..	36	..	..	0	+	..	+	..	..
" 2....		..	10	..	..	0	0	..	0	..	..
" 4...		..	17	..	..	0	0	..	0	..	..
" 5...		..	4	..	..	0	0	..	0	..	..
" 6...		..	7	..	..	0	0	..	+	..	..
" 7...		..	5	..	..	0	0	..	+	..	..
Averages....			**39**	**27**	**3**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 14....	184	..	115	..	0	0	0	..	+	..	..
" 15...		..	27	..	0	0	0	..	+	..	..
" 16...		..	65	..	..	0	0	..	+	..	..
July 17...	184	..	2	..	..	0	+	..	+	..	..
" 18...		..	3	..	..	0	0	..	+	..	..
" 19...		..	4	..	..	0	+	..	+	..	..
" 21...		..	75	..	..	0	+	..	+	..	..
" 23...		..	18	..	..	0	+	..	+	..	..
" 24...		..	2	..	..	0	0	..	+	..	..
" 25...		..	8	..	..	0	0	..	0	..	..
" 26...		..	1	..	..	0	0	..	0	..	..
" 28...		..	1	..	..	0	+	..	+	..	..
" 29...		..	5	..	..	0	0	..	+	..	..
" 30...		..	19	..	..	0	0	..	+	..	..
" 31...		..	6	..	..	0	+	..	+	..	..
Aug. 1....		..	29	..	..	0	+	..	+	..	..
" 2...		..	7	..	..	0	+	..	+	..	..
" 4...		..	14	..	..	0	0	..	0	..	..
" 5...		..	17	..	..	0	0	..	0	..	..
" 6...		..	7	..	..	0	0	..	0	..	..
" 7...		..	3	..	..	0	+	..	+	..	..
Averages....		..	**20**	**45**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Deep Samples, 6 feet from bottom											
July 14....	184	..	32	..	..	0	0	..	0	..	..
" 15...		..	6	..	..	0	0	..	+	..	..
" 16....		..	5	..	..	0	0	..	+	..	..
Averages....		..	**14**	**6.**	**6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 14....	185	..	170	..	..	0	0	..	0	..	..
" 15....		..	70	..	..	0	0	..	0	..	..
" 16....		..	16	..	..	0	0	..	+	..	..
" 17....		..	2	..	..	0	+	..	+	..	..
" 18....		..	7	..	..	0	0	..	+	..	..
" 19...		..	7	..	..	0	0	..	+	..	..
" 21...		..	150	..	..	0	0	..	+	..	..
" 23...		..	13	..	+	0	+	..	+	..	..
" 24...		..	0	..	..	0	0	..	+	..	..
" 25...		..	12	..	..	0	0	..	+	..	..
" 26...		..	2	..	..	0	0	..	+	..	..
" 28...		..	6	..	..	0	+	..	+	..	..
" 29...		..	14	..	..	0	0	..	+	..	..
" 30...		..	9	..	..	0	0	..	+	..	..
" 31...		..	1	..	..	0	0	..	0	..	..
Aug. 1....		..	13	..	..	0	+	..	+	..	..
" 2...		..	11	..	..	0	+	..	+	..	..
" 4...		..	7	..	..	0	0	..	0	..	..
" 5....		..	16	..	..	0	0	..	+	..	..
" 6...		..	23	..	..	0	0	..	+	..	..
" 7...		..	20	..	..	0	0	..	+	..	..
Averages....		..	**27**	**2**	**9**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 14....	186	..	370	..	0	0	0	..	+	..	+
" 15...		..	37	..	0	0	0	..	+	+	+
" 16...		..	83	..	0	0	+	..	+	..	+
" 17....		..	39	..	0	+	+	..	+	..	..
" 18....		..	7	..	0	0	+	..	+	..	..
" 19...		..	10	..	0	0	+	..	+	..	..
" 21...		..	50	..	0	0	+	..	+	..	..
" 23...		..	4	..	..	0	+	..	+	..	..
" 24...		..	6	..	..	0	+	..	+	..	..
" 25...		..	9	..	..	0	+	..	+	..	..
" 26...		..	2	..	..	0	0	..	+	..	..
" 28...		..	36	..	..	0	+	..	+	..	..
" 29...		..	19	..	..	0	0	..	+	..	..
" 30....		..	12	..	..	0	+	..	+	..	..
" 31...		..	7	..	..	+	+	..	+	..	..
Aug. 1....		..	35	..	0	0	+	..	+	..	..
" 2....		..	10	..	0	0	0	..	+	..	..
" 4....		..	5	..	..	0	0	..	+	..	..
" 5....		..	16	..	..	0	+	..	+	..	..
" 6...		..	110	..	..	+	+	..	+	..	..
" 7...		..	9	..	..	0	+	..	+	..	..
Averages....		..	**41**	**20**	**2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples, 6 feet from bottom											
July 14....	186	..	55	..	0	+	+	..	+	..	..
" 15...		..	33	..	0	+	+	..	+	..	..
" 16...		..	8	..	..	0	+	..	+	..	..
Averages....		..	**32**	**70**	**0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 14....	187	..	29	..	0	0	+	..	+	..	..
" 15...		..	136	..	0	0	+	..	+	..	..
" 16...		..	420	..	0	+	+	..	+	..	..
" 17...		..	85	..	0	0	+	..	+	..	..
" 18....		..	50	..	0	+	+	..	+	..	..
" 19...		..	100	..	0	+	+	..	+	..	..
" 21...		..	165	..	0	0	+	..	+	..	..
" 23...		..	57	..	0	+	+	..	..	..	..
" 24...		..	220	..	+	+	+	..	..	..	..
" 25...		..	26	0	0	+	+	..	..	..	..
" 26...		..	30	0	0	+	+	..	..	..	..
July 28...	187	..	34	0	0	+	+	..	..	..	..
" 29...		..	76	..	0	+	+	..	..	..	..
" 30...		..	3	..	0	+	+	..	..	..	..
" 31...		..	104	..	0	+	+	..	..	..	..
Aug. 1....		..	420	..	+	+	+	..	..	..	..
" 2...		..	75	0	0	0	+	..	..	..	..
" 4...		..	51	0	0	+	+	..	..	..	..
" 5...		..	135	..	0	+	+	..	..	..	..
" 6...		..	470	..	0	+	+	..	..	..	..
" 7...		..	150	..	+	+	+	..	..	..	..
Averages....		..	**207**	**207**	**3**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples, 6 feet from bottom											
July 14...	187	..	9	..	..	0	+	..	+	..	..
" 15...		..	17	..	0	0	+	..	+	..	..
" 16...		..	44	..	0	+	+	..	+	..	..
Averages....		..	**23**	**40**	**0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 14...	188	..	11	..	0	+	+	..	+	..	..
" 15...		..	5	..	0	0	+	..	+	..	..
" 16...		..	70	..	0	0	0	..	+	..	..
" 17...		..	4	..	0	0	0	..	+	..	..
" 18...		..	60	..	..	0	+	..	+	..	..
" 19...		..	80	..	..	0	+	..	+	..	..
" 21...		..	150	..	..	0	+	..	+	..	..
" 23...		..	11	..	..	0	0	..	+	..	..
" 24...		..	10	..	..	0	0	..	+	..	..
" 25...		..	12	..	..	0	0	..	+	..	..
" 26...		..	7	..	..	0	0	..	+	..	..
" 28...		..	7	..	..	+	+	..	+	..	..
" 29...		..	23	..	0	0	+	..	+	..	..
" 30...		..	5	..	0	0	0	..	+	..	..
" 31...		..	5	..	..	0	+	..	+	..	..
Aug. 1...		..	12	..	..	0	+	..	+	..	..
" 2...		..	18	..	..	0	+	..	+	..	..
" 4...		..	3	..	..	0	0	..	0	..	..
" 5...		..	2	..	..	0	0	..	+	..	..
" 6...		..	29	..	..	0	0	..	+	..	..
" 7...		..	10	..	..	0	+	..	+	..	..
Average....		..	**25**	**14**	**2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron Mich. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 14...	189	..	32	..	0	0	0	..	+	..	..
" 15...		..	17	..	0	0	+	..	+	..	..
" 16...		..	33	..	..	0	0	..	+	..	..
" 17...		..	8	..	..	0	+	..	+	..	..
" 18...		..	120	..	..	0	0	..	+	..	..
" 19...		..	10	..	..	0	0	..	+	..	..
" 21...		..	32	..	..	+	+	..	+	..	..
" 23...		..	1	..	0	0	0	..	+	..	..
" 24...		..	15	..	..	0	+	..	+	..	..
" 25...		..	4	..	..	0	0	..	+	..	..
" 26...		..	9	..	..	0	0	..	+	..	..
" 28...		..	9	..	..	0	+	..	+	..	..
" 29...		..	8	..	..	0	0	..	+	..	..
" 30...		..	14	..	..	0	0	..	+	..	..
" 31...		..	6	..	..	0	+	..	+	..	..
Aug. 1...		..	12	..	..	0	0	..	+	..	..
" 2...		..	22	..	..	0	+	..	+	..	..
" 4...		..	4	..	..	0	0	..	0	..	..
" 5...		..	5	..	..	0	0	..	+	..	..
" 6...		..	3	..	..	0	0	..	+	..	..
" 7...		..	50	..	..	0	0	..	+	..	..
Averages....			**19**	**8**	**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Sample, 6 feet from bottom											
July 14...	189	..	29	..	..	0	0	..	0	..	..
" 15...		..	6	..	..	0	0	..	0	..	..
" 16...		..	18	..	..	0	0	..	0	..	..
Averages....			**17**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 14...	190	..	94	..	..	0	0	..	+	..	..
" 15...		..	15	..	..	0	+	..	+	..	..
" 16...		..	4	..	..	0	+	..	+	..	..
" 17...		..	12	..	..	0	+	..	+	..	..
" 18...		..	60	..	..	0	+	..	+	..	..
" 19...		..	20	..	..	0	+	..	+	..	..
" 21...		..	35	..	..	0	0	..	+	..	..
" 23...		..	5	..	..	0	+	..	+	..	..
" 24...		..	3	..	..	+	+	..	+	..	..
" 25...		..	8	..	..	0	0	..	+	..	..
" 26...		..	0	..	..	0	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 28...		..	22	..	..	0	0	..	+	..	..
" 29...		..	28	..	..	0	0	..	+	..	..
" 30...		..	5	..	..	0	+	..	+	..	..
" 31...		..	3	..	..	0	0	..	+	..	..
Aug. 1....		..	10	..	..	0	+	..	+	..	..
" 2...		..	25	..	..	0	+	..	+	..	..
" 4...		..	12	..	..	0	+	..	+	..	..
" 5...		..	3	..	..	0	0	..	+	..	..
Deep Sample, 6 feet from bottom											
Aug. 6...	190	..	8	..	..	0	+	..	+	..	..
" 7...		..	5	..	..	0	0	..	+	..	..
Averages....			**17**	**10**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 14...	191	..	137	..	0	0	+	..	+	..	..
" 15...		..	27	..	0	0	+	..	+	..	..
" 16...		..	3	..	0	0	0	..	+	..	..
" 17...		..	72	..	0	0	+	..	+	..	..
" 18...		..	240	..	0	0	+	..	+	..	..
" 19...		..	40	..	0	+	+	..	+	..	..
" 21...		..	200	..	0	+	+	..	+	..	..
" 23...		..	15	..	0	0	+	..	+	..	..
" 24...		..	27	..	0	0	+	..	+	..	..
" 25...		..	21	..	..	0	+	..	+	..	..
" 26...		..	4	..	..	0	0	..	0	..	..
" 28...		..	30	..	..	0	+	..	+	..	..
" 29...		..	20	..	..	0	0	..	+	..	..
" 30...		..	12	..	..	0	+	..	+	..	..
" 31...		..	9	..	..	0	+	..	+	..	..
Aug. 1...		..	22	..	..	0	+	..	+	..	..
" 2...		..	20	..	..	..	+	..	+	..	..
" 4...		..	250	..	..	0	+	..	+	..	..
" 5...		..	6	..	..	0	0	..	+	..	..
" 6...		..	3	..	..	0	0	..	+	..	..
" 7...		..	11	..	..	0	0	..	+	..	..
Averages....			**55**	**15**	**9.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Sample six feet from bottom											
July 14...	191	..	19	..	..	0	+	..	+	..	..
" 15...		..	3	..	0	0	+	..	+	..	..
" 16...		..	6	..	0	0	0	..	+	..	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30...	*306	..	9	..	..	0	0	..	+	..	..
" 31...		..	10	..	..	0	0	..	+	..	..
Aug. 1....		..	18	..	..	0	+	..	+	..	..
" 2...		..	31	..	..	0	+	..	+	..	..
" 4...		..	16	..	..	0	+	..	+	..	..
" 5...		..	37	..	..	0	0	..	+	..	..
" 6...		..	18	..	..	0	+	..	+	..	..
" 7...		..	8	..	..	0	0	..	+	..	..
" 8...		..	12	..	..	0	0	..	+	..	..
" 9...		..	6	..	..	0	0	..	+	..	..
" 10...		..	8	..	..	0	0	..	+	..	..
" 11...		..	37	..	..	+	+	..	+	..	..
" 12...		..	10	..	..	0	+	..	+	..	..
" 13...		..	12	..	..	0	0	..	+	..	..
" 14...		..	7	..	..	0	0	..	+	..	..
Averages....			**15**	**10**	**8.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 30...	307	..	22	..	..	0	0	..	+	..	..
" 31...		..	14	..	..	0	0	..	+	..	..
Aug. 1....		..	44	..	..	0	+	..	+	..	..
" 2...		..	61	..	..	0	+	..	+	..	..
" 4....		..	27	..	..	0	0	..	+	..	..
" 5...		..	30	..	..	+	+	..	+	..	..
" 6...		..	19	..	..	0	0	..	+	..	..
" 7...		..	13	..	..	0	0	..	+	..	..
" 8...		..	18	..	..	0	0	..	0	..	..
" 9...		..	67	..	..	0	+	..	+	..	..
" 10...		..	14	..	..	0	+	..	+	..	..
" 11...		..	37	..	..	+	+	..	+	..	..
" 12...		..	57	..	..	0	+	..	+	..	..
" 13...		..	97	..	..	0	+	..	+	..	..
" 14...		..	27	..	..	0	+	..	+	..	..
Averages....		..	**36**	**18**	**3**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30...	308	..	23	..	..	0	+	..	+	..	..
" 31...		..	3	..	..	0	0	..	+	..	..
Aug. 1....		..	38	..	..	0	+	..	+	..	..
" 2...		..	150	..	..	0	0	..	+	..	..
" 4...		..	31	..	..	0	+	..	+	..	..
" 5...		..	18	..	..	0	+	..	+	..	..
" 6...		..	36	..	..	0	+	..	+	..	..
" 7...		..	19	..	..	0	0	..	+	..	..
" 8...		..	36	..	..	0	0	..	+	..	..
" 9...		..	14	..	..	0	0	..	+	..	..
" 10...		..	19	..	..	0	+	..	+	..	..
" 11...		..	64	..	..	0	+	..	+	..	..
" 12...		..	69	..	..	0	+	..	+	..	..
" 13...		..	83	..	..	0	0	..	+	..	..
" 14...		..	24	..	..	0	0	..	+	..	..
Averages....		..	**53**	**51**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30...	309	..	21	..	..	0	+	..	+	..	..
" 31...		..	1	..	..	0	0	..	+	..	..
Aug. 1....		..	38	..	..	0	+	..	+	..	..
" 2...		..	8	..	..	0	0	..	+	..	+
" 4...		..	18	..	..	0	0	..	+	..	..
" 5...		..	15	..	..	0	+	..	+	..	..
" 6...		..	32	..	..	0	+	..	+	..	..
" 7...		..	9	..	..	0	+	..	+	..	..
" 8...		..	24	..	..	0	0	..	+	..	..
" 9...		..	19	..	..	0	+	..	+	..	..
" 10...		..	10	..	..	0	+	..	+	..	..
" 11...		..	59	..	..	0	+	..	+	..	..
" 12...		..	14	..	..	0	0	..	+	..	..
" 13...		..	6	..	..	0	0	..	+	..	..
" 14...		..	46	..	..	0	+	..	+	..	..
Averages....		..	**21**	**24**	**4**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

* These samples were examined at the Detroit Laboratory Base.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the St. Clair River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30...	310	..	162	..	..	+	+	..	+	..	..
" 31...		..	228	..	..	+	+	..	+	..	..
Aug. 1....		..	1044	..	..	+	+	..	+	..	..
" 2...		..	45	..	..	0	0	..	+	..	..
" 4...		..	626	..	+	+	+	..	+	..	..
" 5...		..	37	..	0	0	+	..	..	..	..
" 6...		..	254	..	0	+	+	..	..	..	..
" 7...		..	19	..	0	0	+	..	..	..	..
" 8 ..		..	280	..	0	0	+	..	..	..	..
" 9...		..	688	..	0	+	+	..	..	..	..
" 10...		..	146	..	0	+	+	..	..	..	..
" 11...		..	224	..	0	+	+	..	..	..	..
" 12...		..	250	..	0	0	+	..	..	..	..
" 13...		..	178	..	..	0	0	..	+	..	..
" 14...		..	37	..	0	+	+	..	..	..	..
Averages....		..	**281**	**12**	**28**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30...	312	..	23	..	..	0	+	..	+	..	..
" 31...		..	21	..	..	0	+	..	+	..	..
Aug. 1....		..	81	..	..	0	+	..	+	..	..
" 2...		..	96	..	..	+	+	..	+	..	..
" 4...		..	28	..	..	+	+	..	+	..	..
" 5...		..	98	..	0	+	+	..	..	..	..
" 6...		..	521	..	0	+	+	..	..	..	..
" 7....		..	19	..	..	0	+	..	+	..	..
" 8...		..	29	..	..	0	0	..	+	..	..
" 9....		..	61	..	..	0	+	..	+	..	..
" 10...		..	59	..	..	+	+	..	+	..	..
" 11...		..	232	..	..	+	+	..	+	..	..
" 12...		..	203	..	..	+	+	..	+	..	..
" 13....		..	57	..	..	0	+	..	+	..	..
" 14...		..	74	..	..	0	+	..	+	..	..
Averages....			**102**	**50**	**8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30...	311	..	40	..	..	0	+	..	+	..	..
" 31...		..	36	..	..	0	+	..	+	..	..
Aug. 1....		..	126	..	..	0	+	..	+	..	..
" 2...		..	38	..	..	0	0	..	+	..	..
" 4...		..	71	..	..	0	+	..	+	..	..
" 5...		..	37	..	..	0	+	..	+	..	..
" 6. .		..	368	..	..	+	+	..	+	..	..
" 7...		..	34	..	..	0	0	..	+	..	..
" 8...		..	44	..	..	0	0	..	+	..	..
" 9...		..	24	..	..	0	+	..	+	..	..
" 10...		..	60	..	..	+	+	..	+	..	..
" 11...		..	390	..	..	+	+	..	+	..	..
" 12...		..	54	..	..	0	+	..	+	..	..
" 13...		..	58	..	..	0	+	..	+	..	..
" 14...		..	26	..	..	0	0	..	+	..	..
Averages....			**93**	**31**	**6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30...	313	..	33	..	..	0	+	..	+	..	..
" 31...		..	18	..	..	0	+	..	+	..	..
Aug. 1....		..	57	..	..	+	+	..	+	..	..
" 2...		..	21	..	..	0	+	..	+	..	..
" 4...		..	40	..	0	0	+	..	..	..	..
" 5...		..	14	..	0	0	+	..	..	..	..
" 6...		..	25	..	0	+	+	..	..	..	..
" 7...		..	26	..	0	0	+	..	..	..	..
" 8...		..	40	..	..	0	0	..	+	..	..
" 9...		..	12	..	..	0	+	..	+	..	..
" 10...		..	31	..	..	0	+	..	+	..	..
" 11...		..	146	..	..	+	+	..	+	..	..
" 12...		..	116	..	..	0	+	..	+	..	..
" 13...		..	24	..	..	0	+	..	+	..	..
" 14...		..	12	..	..	0	0	..	+	..	..
Averages....			**41**	**26**	**8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Huron, Mich. Waters of the St. Clair River.

Tap water of Port Huron, Michigan.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 9...		..	1000	..	..	..	0	..	+	..	..
" 10...		..	25	..	..	..	0	..	0	..	..
" 11...		..	10	..	..	..	0	..	0	..	..
" 12...		..	38	..	..	..	+	..	+	..	..
" 13...		..	8	..	..	0	0	..	0	..	..
" 14...		..	10	..	..	0	0	..	+	..	..
" 15...		..	51	..	..	0	+	..	+	..	..
" 16...		..	94	..	..	0	0	..	0	..	..
" 17...		..	56	..	..	0	+	..	+	..	..
" 18...		..	10	..	..	0	0	..	+	..	..
" 19...		..	3	..	..	0	0	..	+	..	..
" 21...		..	2	..	..	0	0	..	+	..	..
" 23...		..	12	..	..	0	+	..	+	..	..
" 24...		..	3	..	..	0	0	..	+	..	..
July 25...		..	2	..	..	0	0	..	0	..	..
" 26...		..	14	..	..	0	0	..	+	..	..
" 28...		..	6	..	..	0	0	..	+	..	..
" 29...		..	52	..	..	0	0	..	0	..	..
" 30...		..	7	..	..	0	0	..	+	..	..
" 31...		..	5	..	..	0	0	..	0	..	..
Aug. 1...		..	12	..	..	0	0	..	+	..	..
" 2...		..	0	..	..	0	0	..	+	..	..
" 4...		..	69	..	..	0	0	..	+	..	..
" 5...		..	1	..	..	0	0	..	0	..	..
" 6...		..	14	..	..	0	0	..	0	..	..
" 7...		..	8	..	..	0	0	..	0	..	..
" 8...		..	18	..	..	0	+	..	+	..	..
Averages....		..	**56.**	**22**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont.

Drinking Water obtained from passenger boats docking at Sarnia and Port Huron Wharves.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Boat "City of Toledo"											
Aug. 1.....		250	44	..	..	..	0	+	..	+	+
" 2.....		135	28	..	..	..	0	0	..	+	+
" 4.....		..	105	..	..	..	0	+	..	+	+
" 7.....		92	32	..	..	..	0	0	..	0	+
" 8.....		..	200	..	..	..	0	+	..	+	+
" 11.....		200	18	..	..	0	0	+	..	+	+
" 12.....		120	33	..	..	..	+	+	..	..	..
" 13.....		1200	700	..	..	..	+	+	..	+	+
" 14.....		2000	600	..	..	..	0	+	..	+	+
" 16.....		1500	spreader	..	..	..	0	0	..	+	+
" 23.....		40	3	..	..	..	+	+	..	+	+
" 25.....		45	1	..	..	..	0	+	..	+	+
" 26.....		53	4	..	..	..	+	+	..	+	+
" 27.....		575	4	..	..	..	+	+	..	+	+
Boat "Tashmoo"											
Aug. 6.....		290	240	..	..	..	+	+	..	+	+
" 16.....		42	9	..	..	..	0	+	..	+	+
" 22.....		180	12	..	..	..	+	+	..	+	..
" 23.....		38	24	..	..	..	0	+	..	+	+
Boat "Hamonic"											
Aug. 23.....		14	3	..	..	..	0	0	..	0	0
Boat "Huronic"											
Aug. 26.....		130	1	..	..	..	0	+	..	0	+

DATE 1913	Hour Plated P.M	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Village of St. Clair	**tap**	**water.**									
July 31.....	4	11	9	..	..	..	0	0	..	0	+
Aug. 1.....	4	2	3	..	..	..	0	0	..	0	+
" 4.....	4	9	8	..	..	..	0	0	..	0	+
" 5.....	4	5	5	..	..	..	0	0	..	0	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Sarnia Water Supply.

Before Chlorination. Samples taken from Well outside Pump house.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 15...	9.15	..	44	6	..	..	..	+	+	..	+	+
" 15...	9.30	..	52	spreader	..	..	..	0	+	..	+	+
" 15...	9.45	..	14	12	..	..	..	0	+	..	+	+
" 15...	10.00	..	16	10	..	..	..	0	+	..	+	+
" 15...	10.15	..	24	36	..	..	..	0	+	..	+	+
" 15...	10.30	..	120	9	..	..	..	0	+	..	+	+
" 15...	10.45	..	79	46	..	..	..	0	+	..	+	+
" 15...	11.00	..	36	3	..	..	..	0	+	..	+	+
" 15...	11.15	..	47	6	..	..	..	+	+	..	+	+
" 15...	11.30	..	12	220	..	..	..	0	0	..	+	+
" 15...	11.45	..	22	9	..	..	..	0	+	..	+	+
" 15...	..	12.00	24	15	..	..	..	0	+	..	+	+
" 15...	..	12.15	27	3	..	..	..	0	0	..	+	+
" 15...	..	12.30	30	26	..	..	..	0	0	..	+	+
" 15...	..	1.00	11	15	..	..	..	0	+	..	+	+
" 15...	..	1.15	14	9	..	..	..	0	+	..	+	+
" 15...	..	1.30	12	21	..	..	..	0	0	..	+	+
" 15...	..	1.45	11	4	..	..	..	0	+	..	+	+
" 15...	..	2.00	spreader	18	..	..	..	+	+	..	+	+
" 15...	..	2.15	14	12	..	..	..	0	+	..	+	+
" 15...	..	2.30	7	4	..	..	..	0	+	..	+	+
" 15...	..	2.45	9	20	..	..	..	0	0	..	+	+
" 15...	..	3.00	10	14	..	..	..	0	+	..	+	+
" 15...	..	3.15	14	22	..	..	..	0	0	..	+	+
" 15...	..	3.30	18	17	..	..	..	0	0	..	+	+
" 15...	..	3.45	22	600	..	..	..	0	0	..	+	+
" 15...	..	4.00	8	26	..	..	..	0	+	..	+	+
" 15...	..	4.15	..	48	..	..	..	0	0	..	+	+
" 15...	..	4.30	6	..	..	..	..	0	0	..	+	+
Aug. 18...	8.15	..	60	8	..	..	..	+	+	..	+	+
" 18...	8.30	..	..	7	..	..	..	0	0	..	+	+
" 18...	8.45	..	..	22	..	..	..	0	0	..	+	+
" 18...	9.00	..	82	20	..	..	..	0	0	..	+	+
" 18...	9.15	..	80	12	..	..	..	0	0	..	+	+
" 18...	9.30	..	14	9	..	..	..	0	+	..	+	+
" 18...	9.45	..	54	32	..	..	..	0	+	..	+	+
" 18...	10.00	..	44	5	..	..	..	0	0	..	+	+
" 18...	10.15	..	12	11	..	..	..	0	+	..	+	+
" 18...	10.30	..	175	140	..	..	..	0	+	..	+	+
" 18...	10.45	..	280	32	..	..	..	0	+	..	+	+
" 18...	11.00	..	32	16	..	..	..	0	+	..	+	+
" 18...	11.15	..	180	..	..	..	..	0	+	..	+	+
" 18...	11.30	..	240	..	..	..	..	0	+	..	+	+
" 18...	11.45	..	62	..	..	..	..	0	+	..	+	+
" 18...	..	12.00	320	..	..	..	..	0	+	..	+	+
" 18...	..	1.30	69	50	..	..	..	0	+	..	+	+
" 18...	..	2.30	17	6	..	..	..	0	+	..	+	+
" 18...	..	3.30	10	4	..	..	..	0	+	..	+	+
" 18...	..	4.30	140	26	..	..	..	0	+	..	+	+

After Chlorination. Samples taken from a City tap and plated immediately.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 15...	10.00	..	28	30	..	..	..	0	+	..	+	+
" 15...	11.00	..	15	22	..	..	..	0	+	..	+	+
" 15...	..	12.00	30	3	..	..	..	0	+	..	+	+
" 15...	..	1.00	58	18	..	..	..	+	+	..	+	+
" 15...	..	2.00	46	12	..	..	..	0	+	..	+	+
" 15...	..	3.00	32	10	..	..	..	0	+	..	+	+
" 15...	..	4.00	16	33	..	..	..	0	0	..	+	+
Aug. 18...	9.00	..	9	3	..	..	..	0	+	..	+	+
" 18...	10.00	..	16	6	..	..	..	0	+	..	+	+
" 18...	11.00	..	33	5	..	..	..	0	+	..	+	+
" 18...	..	12.00	54	..	..	..	..	0	+	..	+	+
" 18...	..	1.30	28	11	..	..	..	+	+	..	+	+
" 18...	..	1.45	12	14	..	..	..	+	+	..	+	+
" 18...	..	2.00	26	8	..	..	..	0	+	..	+	+
" 18...	..	2.15	23	12	..	..	..	0	+	..	+	+
" 18...	..	2.30	12	7	..	..	..	0	+	..	+	+
" 18...	..	2.45	13	3	..	..	..	0	+	..	+	+
" 18...	..	3.00	5	14	..	..	..	0	+	..	+	+
" 18...	..	3.15	9	9	..	..	..	0	+	..	+	+
" 18...	..	3.30	20	6	..	..	..	0	0	..	+	+
" 18...	..	3.45	18	9	..	..	..	0	0	..	+	+
" 18...	..	4.00	8	7	..	..	..	0	+	..	+	+
" 18...	..	4.15	9	9	..	..	..	0	0	..	+	+
" 18...	..	4.30	36	7	..	..	..	0	+	..	+	+
" 18...	..	4.45	42	57	..	..	..	0	+	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Sarnia, Ont. Sarnia Water Supply.

Before Chlorination. Samples taken from Well outside Pump house.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 19...	8.00	..	110	48	..	..	..	0	0	..	+	+
" 19...	9.00	..	320	80	..	..	..	0	0	..	+	+
" 19...	10.00	..	230	12	..	..	..	0	+	..	+	+
" 19...	11.00	..	16	20	..	..	..	+	+	..	+	+
" 19...	..	1.30	82	17	..	..	..	0	+	..	+	+
" 19...	..	2.30	140	9	..	..	..	0	+	..	+	+
" 19..	..	3.30	220	6	..	..	..	0	+	..	+	+
" 19...	..	4.30	48	14	..	..	..	0	+	..	+	+

After Chlorination. Samples taken from a City tap and plated immediately.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 19...	8.15	..	130	250	..	..	..	+	+	..	+	+
" 19...	8.30	..	spreader	22	..	..	..	0	+	..	+	+
" 19...	8.45	..	35	21	..	..	..	0	+	..	+	+
" 19...	9.00	..	33	8	..	..	..	0	+	..	+	+
" 19...	9.15	..	22	9	..	..	..	+	+	..	+	+
" 19...	9.30	..	60	8	..	..	..	0	+	..	+	+
" 19...	9.45	..	80	16	..	..	..	+	+	..	+	+
" 19...	10.00	..	49	9	..	..	..	0	+	..	+	+
" 19...	10.15	..	46	19	..	..	..	+	+	..	+	+
" 19...	10.30	..	..	7	..	..	..	0	+	..	+	+
" 19...	10.45	..	..	..	..	..	..	+	+	..	+	+
" 19...	11.00	..	..	..	..	..	..	+	+	..	+	+
" 19...	11.15	..	22	..	..	..	..	+	+	..	+	+
" 19...	11.30	..	24	8	..	..	..	+	+	..	+	+
" 19...	11.45	..	36	13	..	..	..	+	+	..	+	+
" 19...	..	12.00	26	14	..	..	..	+	+	..	+	+
" 19...	..	1.30	9	3	..	..	..	0	+	..	+	+
" 19...	..	1.45	45	18	..	..	..	+	+	..	+	+
" 19...	..	2.00	52	225	..	..	..	0	+	..	+	+
" 19...	..	2.15	24	32	..	..	..	0	+	..	+	+
" 19...	..	2.30	350	16	..	..	..	+	+	..	+	+
" 19...	..	2.45	9	170	..	..	..	0	+	..	+	+
" 19...	..	3.00	10	650	..	..	..	+	+	..	+	+
" 19...	..	3.15	12	280	..	..	..	0	+	..	+	+
" 19...	..	3.30	11	180	..	..	..	0	0	..	+	+
" 19...	..	3.45	14	5	..	..	..	0	0	..	+	+
" 19...	..	4.00	10	3	..	..	..	0	+	..	+	+
" 19...	..	4.15	13	2	..	..	..	0	0	..	+	+
" 19...	..	4.30	..	4	..	..	..	0	0	..	+	+
" 19...	..	4.45	32	12	..	..	..	0	0	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Report. Laboratory at Sarnia, Ont. Sarnia Water Supply.

Before chlorination. Samples taken from well outside pump house.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 21...	9.00	..	190	spreader	..	..	..	0	+	..	+	+
" 21...	10.00	..	21	spreader	..	..	..	0	+	..	+	+
" 21...	11.00	..	11	7	..	..	..	0	+	..	+	+
" 21...	12.00	..	170	7	..	..	..	0	+	..	+	+
" 21...		1.30	12	6	..	..	..	0	0	..	+	+
" 21...		2.30	18	5	..	..	..	0	+	..	0	+
" 21...		3.30	65	19	..	..	..	0	+	..	+	+
" 21...		4.30	33	14	..	..	..	0	+	..	+	+

After chlorination. Samples taken from a city tap and plated immediately.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 21...	8.00	..	140	29	..	..	..	0	+	..	+	+
" 21...	8.15	..	18	3	..	..	..	0	+	..	+	+
" 21...	8.30	..	30	15	..	..	..	0	+	..	+	+
" 21...	8.45	..	54	6	..	..	..	0	+	..	+	+
" 21...	9.00	..	50	13	..	..	..	+	+	..	+	+
" 21...	9.15	..	9	11	..	..	..	+	+	..	+	+
" 21...	9.30	..	9	8	..	..	..	+	+	..	+	+
" 21...	9.45	..	15	9	..	..	..	+	+	..	+	+
" 21...	10.00	..	33	5	..	..	..	0	+	..	+	+
" 21...	10.15	..	50	3	..	..	..	0	+	..	+	+
" 21...	10.30	..	..	4	..	..	..	+	+	..	+	+
" 21...	10.45	..	45	7	..	..	..	0	+	..	+	+
" 21...	11.00	..	19	9	..	..	..	0	+	..	+	+
" 21...	11.15	..	24	6	..	..	..	0	+	..	+	+
" 21...	11.30	..	28	11	..	..	..	0	+	..	+	+
" 21...	11.45	..	16	8	..	..	..	0	+	..	+	+
" 21...	..	12.00	1500	100	..	..	..	+	+	..	+	+
" 21...	..	12.15	26	150	..	..	..	0	+	..	+	+
" 21...	..	1.45	19	5	..	..	..	0	+	..	+	+
" 21...	..	2.00	70	11	..	..	..	+	+	..	+	+
" 21...	..	2.15	32	9	..	..	..	0	+	..	+	+
" 21 ..	..	2.30	11	14	..	..	..	0	+	..	+	+
" 21...	..	2.45	26	11	..	..	..	+	+	..	+	+
" 21...	..	3.00	26	12	..	..	..	0	+	..	+	+
" 21...	..	3.15	65	22	..	..	..	+	+	..	+	+
" 21...	..	3.30	70	23	..	..	..	+	+	..	+	+
" 21...	..	3.45	45	14	..	..	..	+	+	..	+	+
" 21 ..	..	4.00	60	22	..	..	..	+	+	..	+	+
" 21...	..	4.15	38	9	..	..	..	+	+	..	+	+
" 21...	..	4.30	85	18	..	..	..	+	+	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Report. Laboratory at Sarnia, Ont. Sarnia Water Supply.

Before chlorination. Samples taken from well outside pump house.

DATE 1913	Hour Plated A.M	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 22...	9.30	..	14	2	..	..	..	0	+	..	+	..
" 22...	10.30	..	39	15	..	..	..	0	+	..	+	..
" 22...	11.30	..	65	20	..	..	..	+	+	..	+	..
" 22...	..	2.00	5	3	..	..	..	+	+	..	+	..
" 22...	..	3.00	49	7	..	..	..	+	+	..	+	..
" 22...	..	4.00	42	6	..	..	..	+	+	..	+	..
Aug. 23...	9.00	..	65	8	..	..	..	+	+	..	+	+
" 23...	10.00	..	35	6	..	..	..	+	+	..	+	+
" 23...	11.00	..	16	300	..	..	..	0	+	..	+	+
" 23...	..	12.00	26	25	..	..	..	0	+	..	+	+
" 23...	..	2.30	6	4	..	..	..	0	+	..	+	+
" 23...	..	3.30	21	5	..	..	..	0	+	..	+	+

After chlorination. Samples taken from a city tap and plated immediately.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 22...	9.45	..	42	12	..	..	..	0	+	..	+	..
" 22...	10.00	..	65	6	..	..	..	+	+	..	+	..
" 22...	10.15	..	53	2	..	..	..	+	+	..	+	..
" 22...	10.30	..	64	4	..	..	..	0	+	..	+	..
" 22...	10.45	..	59	20	..	..	..	+	+	..	+	..
" 22...	11.00	..	53	7	..	..	..	+	+	..	+	..
" 22...	11.15	..	30	0	..	..	..	0	+	..	+	..
" 22...	11.30	..	130	15	..	..	..	0	0	..	+	..
" 22...	11.45	..	13	10	..	..	..	+	+	..	+	..
" 22...	..	12.00	14	0	..	..	..	0	+	..	+	..
" 22...	..	2.00	9	2	..	..	..	+	+	..	+	..
" 22...	..	2.15	27	spreader	..	..	..	+	+	..	+	..
" 22...	..	2.30	21	6	..	..	..	+	+	..	+	..
" 22...	..	2.45	17	4	..	..	..	+	+	..	+	..
" 22...	..	3.00	44	0	..	..	..	+	+	..	+	..
" 22...	..	3.15	49	8	..	..	..	+	+	..	+	..
" 22...	..	3.30	15	21	..	..	..	+	+	..	+	..
" 22...	..	3.45	32	5	..	..	..	+	+	..	+	..
" 22...	..	4.00	48	31	..	..	..	+	+	..	+	..
" 22...	..	4.15	46	14	..	..	..	+	+	..	+	..
" 22...	..	4.30	15	30	..	..	..	0	+	..	+	..
" 22...	..	4.45	480	15	..	..	..	+	+	..	+	..
Aug. 23...	8.15	..	40	900	..	..	..	+	+	..	+	+
" 23...	8.30	..	60	200	..	..	..	+	+	..	+	+
" 23...	8.45	..	18	500	..	..	..	+	+	..	+	+
" 23...	9.00	..	40	100	..	..	..	+	+	..	+	+
" 23...	9.15	..	32	46	..	..	..	+	+	..	+	+
" 23...	9.30	..	37	12	..	..	..	+	+	..	+	+
" 23...	9.45	..	38	15	..	..	..	0	+	..	+	+
" 23...	10.00	..	55	23	..	..	..	+	+	..	+	+
" 23...	10.15	..	30	28	..	..	..	+	+	..	+	+
" 23...	10.30	..	48	22	..	..	..	+	+	..	+	+
" 23...	10.45	..	55	9	..	..	..	+	+	..	+	+
" 23...	11.00	..	44	11	..	..	..	+	+	..	+	+
" 23...	11.15	..	29	19	..	..	..	+	+	..	+	+
" 23...	11.30	..	16	20	..	..	..	+	+	..	+	+
" 23...	11.45	..	41	9	..	..	..	+	+	..	+	+
" 23...	..	12.00	60	30	..	..	..	+	+	..	+	+
" 23...	..	2.15	9	41	..	..	..	0	+	..	+	+
" 23...	..	2.30	15	4	..	..	..	0	+	..	+	+
" 23...	..	2.45	22	13	..	..	..	+	+	..	+	+
" 23...	..	3.00	50	5	..	..	..	0	+	..	+	+
" 23...	..	3.30	83	120	..	..	..	+	+	..	+	+
" 23...	..	3.45	23	52	..	..	..	+	+	..	+	+
" 23...	..	4.00	21	9	..	..	..	+	+	..	+	+
" 23...	..	4.15	27	18	..	..	..	+	+	..	+	+
" 23...	..	4.30	29	9	..	..	..	+	+	..	+	+
" 23...	..	4.45	46	4	..	..	..	+	+	..	+	+
" 23...	..	5.00	59	3	..	..	..	0	+	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Report. Laboratory at Sarnia, Ont. Sarnia Water Supply.

Before chlorination. Samples taken from well outside pump house.

DATE 1913	Hour Plated A.M	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 25...	9.00	..	11	3	..	..	..	0	+	..	+	+
" 25...	10.00	..	16	2	..	..	..	0	+	..	+	+
" 25...	11.00	..	6	3	..	..	..	0	+	..	+	+
" 25...	..	4.00	1	3	..	..	..	0	0	..	+	+
" 25...	..	5.00	8	4	..	..	..	0	+	..	+	+
Aug. 26...	9.00	..	16	2	..	..	..	+	+	..	+	+
" 26...	10.00	..	36	1	..	..	..	+	..	+	+	..
" 26...	11.00	..	56	3	..	..	..	0	+	..	+	..
" 26...	..	12.00	14	6	..	..	..	+	+	..	+	..
" 26...	..	2.00	6	0	..	..	..	0	0	..	+	..
" 26...	..	3.00	8	0	..	..	..	0	+	..	+	..

After chlorination. Samples taken from a city tap and plated immediately.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 25...	8.30	..	6	2	..	..	..	0	+	..	+	+
" 25....	8.45	..	16	10	..	..	..	+	+	..	+	+
" 25....	9.00	..	22	6	..	..	..	0	+	..	+	+
" 25...	9.15	..	2	2	..	..	..	0	+	..	+	+
" 25....	9.45	..	28	4	..	..	..	+	+	..	+	+
" 25....	10.00	..	32	4	..	..	..	0	+	..	+	+
" 25....	10.15	..	33	23	..	..	..	0	+	..	+	+
" 25....	10.30	..	10	1	..	..	..	0	+	..	+	+
" 25....	10.45	..	9	3	..	..	..	0	+	..	+	+
" 25....	11.00	..	19	3	..	..	..	0	+	..	+	+
" 25....	11.15	..	62	6	..	..	..	+	+	..	+	+
" 25....	11.30	..	41	2	..	..	..	0	+	..	+	+
" 25....	11.45	..	13	3	..	..	..	0	+	..	+	+
" 25....	..	12.00	30	3	..	..	..	+	+	..	+	+
" 25....	..	4.00	0	2	..	..	..	0	0	..	+	+
" 25....	..	4.15	4	6	..	..	..	0	+	..	+	+
" 25....	..	4.30	16	6	..	..	..	+	+	..	+	+
" 25...	..	5.00	19	5	..	..	..	+	+	..	+	+
" 25...	..	5.15	..	6	..	..	..	0	+	..	+	+
" 25...	..	5.30	19	8	..	..	..	0	+	..	+	+
Aug. 26...	8.45	..	33	2	..	..	..	0	+	..	+	+
" 26...	9.00	..	45	4	..	..	..	+	+	..	+	+
" 26...	9.15	..	61	33	..	..	..	+	+	..	+	..
" 26...	10.30	..	24	8	..	..	..	0	+	..	+	..
" 26...	10.45	..	32	12	..	..	..	+	+	..	+	..
" 26...	11.05	..	16	4	..	..	..	+	+	..	+	..
" 26...	11.15	..	27	5	..	..	..	+	+	..	+	..
" 26..	11.30	..	57	11	..	..	..	+	+	..	+	..
" 26...	11.45	..	30	7	..	..	..	+	+	..	+	..
" 26...	12.00	..	34	11	..	..	..	+	+	..	+	..
" 26...	..	2.00	34	5	..	..	..	0	+	..	0	..
" 26...	..	2.15	24	4	..	..	..	0	+	..	+	..
" 26...	..	2.30	35	4	..	..	..	+	0	..	+	..
" 26...	..	2.45	42	0	..	..	..	0	+	..	+	..
" 26...	..	3.00	39	3	..	..	..	0	+	..	+	..
" 26...	..	3.15	26	1	..	..	..	0	0	..	+	..
" 26...	..	3.30	22	3	..	..	..	0	0	..	+	..
" 26...	..	3.45	22	1	..	..	..	0	0	..	+	..
" 26...	..	4.00	..	..	..	..	..	0	0	..	+	..
" 26...	..	4.15	..	..	..	..	..	0	0	..	+	..
" 26...	..	4.30	..	..	..	..	..	0	0	..	+	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Report. Laboratory at Sarnia, Ont. Sarnia Water Supply.

Before chlorination. Samples taken from well outside pump house.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 27...	8.30	..	19	3	..	..	..	0	+	..	+	..
" 27...	9.20	..	21	6	..	..	..	0	+	..	+	..
" 27...	10.30	..	17	1	..	..	..	0	0	..	+	..
" 27...	11.30	..	10	2	..	..	..	0	+	..	+	..
" 27...	..	2.00	16	11	..	..	..	0	+	..	+	..
" 27...	..	3.00	4	6	..	..	..	0	0	..	+	..
" 27...	..	4.00	24	11	..	..	..	+	0	..	+	..

After chlorination. Samples taken from a city tap and plated immediately.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug 27...	8.30	..	45	4	..	..	..	0	+	..	+	..
" 27...	8.45	..	50	8	..	..	..	0	+	..	+	..
" 27...	9.00	..	44	7	..	..	..	+	+	..	+	..
" 27...	9.15	..	27	1	..	..	..	+	+	..	+	..
" 27...	9.30	..	62	7	..	..	..	0	+	..	+	..
" 27...	9.45	..	33	52	..	..	..	0	+	..	+	..
" 27...	10.00	..	29	13	..	..	..	+	+	..	+	..
" 27...	10.15	..	12	7	..	..	..	0	+	..	+	..
" 27...	10.30	..	39	3	..	..	..	0	+	..	+	..
" 27...	10.45	..	85	4	..	..	..	+	+	..	+	..
" 27...	11.00	..	51	10	..	..	..	+	+	..	+	..
" 27...	11.15	..	12	0	..	..	..	0	+	..	+	..
" 27...	11.30	..	38	23	..	..	..	0	0	..	+	..
" 27...	11.45	..	22	4	..	..	..	0	0	..	+	..
" 27...	..	12.00	56	13	..	..	..	0	+	..	+	..
" 27...	..	1.45	50	12	..	..	..	0	+	..	+	..
" 27...	..	2.00	26	5	..	..	..	0	0	..	+	..
" 27...	..	2.15	21	6	..	..	..	+	+	..	+	..
" 27...	..	2.30	19	6	..	..	..	0	0	..	+	..
" 27...	..	2.45	24	10	..	..	..	0	0	..	+	..
" 27...	..	3.00	9	21	..	..	..	+	+	..	+	..
" 27...	..	3.15	32	23	..	..	..	+	+	..	+	..
" 27...	..	3.30	8	1	..	..	..	0	0	..	+	..
" 27...	..	3.45	15	1	..	..	..	0	0	..	+	..
" 27...	..	4.00	14	4	..	..	..	0	0	..	+	..
" 27...	..	4.15	6	2	..	..	..	+	0	..	+	..
" 27...	..	4.30	4	11	..	..	..	+	0	..	+	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor Ont. Waters of Lake St. Clair.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 5.....	1	4	5	..	..	..	0	0	..	0	..
" 11.....		5	4	..	..	..	0	0	..	0	0
" 12.....		8	3	..	..	..	0	0	..	+	0
" 16.....		8	13	..	..	..	0	0	..	0	0
" 17.....		4	1	..	..	..	0	0	..	0	0
" 19.....		6	7	..	..	..	0	0	..	0	0
" 20.....		3	25	..	..	..	0	0	..	0	0
" 22.....		2	11	..	..	..	0	0	..	0	0
" 23.....		2	5	..	..	..	0	0	..	0	0
" 24.....		2	5	..	..	..	0	0	..	0	0
Averages.....		**4**	**7**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5.....	2	11	3	..	..	..	0	0	..	0	0
" 11.....		3	3	..	..	..	0	0	..	0	0
" 12.....		1	8	..	..	..	0	0	..	0	0
" 16.....		5	14	..	..	..	0	0	..	0	0
" 17.....		7	2	..	..	..	0	0	..	0	0
" 19.....		2	4	..	..	..	0	0	..	0	0
" 20.....		1	10	..	..	..	0	0	..	0	0
" 22.....		3	5	..	..	..	0	0	..	0	0
" 23.....		4	18	..	..	..	0	0	..	0	0
" 24.....		1	5	..	..	..	0	0	..	0	0
Averages.....		**3**	**7**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5.....	3	6	9	..	..	..	0	0	..	0	0
" 11.....		3	2	..	..	..	0	0	..	0	0
" 12.....		3	7	..	..	..	0	0	..	0	0
" 16.....		3	7	..	..	..	0	0	..	0	0
" 17.....		3	7	..	..	..	0	0	..	0	0
" 19.....		3	6	..	..	..	0	0	..	0	0
" 20.....		3	9	..	..	..	0	0	..	0	0
" 22.....		0	8	..	..	..	0	0	..	0	0
" 23.....		3	13	..	..	..	0	0	..	0	0
" 24.....		1	6	..	..	..	0	0	..	0	0
Averages.....		**2**	**7**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5.....	4	11	0	..	..	..	0	0	..	0	0
" 11.....		2	2	..	..	..	0	0	..	0	0
" 12.....		2	5	..	..	..	0	0	..	0	0
" 16.....		4	8	..	..	..	0	0	..	0	0
" 17.....		2	4	..	..	..	0	0	..	0	0
" 19.....		5	8	..	..	..	0	0	..	0	0
" 20.....		1	10	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 22.....	4	0	20	..	..	..	0	0	..	0	0
" 23.....		2	11	..	..	..	0	0	..	0	0
" 24.....		0	14	..	..	..	0	0	..	0	0
Averages.....		**2**	**8**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5.....	5	9	14	..	..	..	0	0	..	0	0
" 11.....		5	4	..	..	..	0	0	..	0	0
" 12.....		3	1	..	..	..	0	0	..	0	+
" 16.....		6	6	..	..	..	0	0	..	0	0
" 17.....		2	1	..	..	..	0	0	..	0	0
" 19.....		4	3	..	..	..	0	0	..	0	0
" 20.....		2	5	..	..	..	0	0	..	0	0
" 22.....		1	3	..	..	..	0	0	..	0	0
" 23.....		2	24	..	..	..	0	0	..	0	0
" 24.....		4	30	..	..	..	0	0	..	0	0
Averages.....		**3**	**9**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5.....	6	4	1	..	..	..	0	0	..	0	0
" 11.....		0	5	..	..	..	0	0	..	0	0
" 12.....		1	11	..	..	..	0	0	..	0	0
" 16.....		3	3	..	..	..	0	0	..	+	+
" 17.....		3	3	..	..	..	0	0	..	0	0
" 19.....		2	80	..	..	..	0	0	..	0	0
" 20.....		4	12	..	..	..	0	0	..	0	0
" 22.....		4	5	..	..	..	0	0	..	0	0
" 23.....		0	7	..	..	..	0	0	..	0	0
" 24.....		2	11	..	..	..	0	0	..	0	0
Averages.....		**2**	**6**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5.....	7	2	0	..	..	..	0	0	..	0	0
" 11.....		3	5	..	..	..	0	0	..	0	0
" 12.....		1	4	..	..	..	0	0	..	0	0
" 16.....		6	5	..	..	..	0	0	..	0	+
" 17.....		4	4	..	..	..	0	0	..	0	0
" 19.....		3	12	..	..	..	0	0	..	0	0
" 20.....		2	15	..	..	..	0	0	..	0	0
" 22.....		0	3	..	..	..	0	0	..	0	0
" 23.....		2	1	..	..	..	0	0	..	0	+
" 24.....		2	5	..	..	..	0	0	..	0	0
Averages.....		**2**	**5**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor Ont. Waters of Lake St. Clair.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 5	8	7	1	..	..	..	0	0	..	0	0
" 9		17	22	..	..	..	0	0	..	0	0
" 10		5	14	..	..	..	0	0	..	0	0
" 11		2	9	..	..	..	0	0	..	0	0
" 12		4	7	..	..	..	0	0	..	0	0
" 13		..	5	..	..	..	0	0	..	0	+
" 16		9	9	..	..	..	0	0	..	+	+
" 17		3	3	..	..	..	0	0	..	0	0
" 19		1	5	..	..	..	0	0	..	0	0
" 20		3	6	..	..	..	0	0	..	0	0
" 23		0	5	..	..	..	0	0	..	0	0
" 24		0	4	..	..	..	0	0	..	0	0
" 25		2	4	..	..	..	0	0	..	0	0
" 26		0	5	..	..	..	0	0	..	0	0
" 27		3	2	..	..	..	0	0	..	0	0
" 29		3	10	..	..	..	..	..	..	..	..
" 30		0	3	..	..	..	0	0	..	0	0
Averages		**3**	**6**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	9	3	1	..	..	..	0	0	..	0	0
" 9		7	16	..	..	..	0	0	..	0	+
" 10		7	6	..	..	..	0	0	..	0	0
" 11		4	4	..	..	..	0	0	..	0	0
" 12		2	8	..	..	..	0	0	..	0	0
" 16		24	17	..	..	..	0	0	..	+	+
" 17		4	5	..	..	..	0	0	..	0	0
" 19		4	1	..	..	..	0	0	..	0	0
" 20		5	2	..	..	..	0	0	..	0	0
" 23		4	13	..	..	..	0	0	..	0	0
" 24		2	3	..	..	..	0	0	..	0	0
" 25		1	2	..	..	..	0	0	..	0	0
" 26		0	7	..	..	..	0	0	..	0	0
" 27		2	3	..	..	..	0	0	..	0	0
" 29		4	5	..	..	..	0	0	..	0	0
" 30		4	7	..	..	..	0	0	..	0	0
Averages		**4**	**6**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	10	4	6	..	..	..	0	0	..	0	0
" 9		11	4	..	..	..	0	0	..	0	0
" 10		7	6	..	..	..	0	0	..	0	0
" 11		4	2	..	..	..	0	0	..	0	0
" 12		1	3	..	..	..	0	0	..	0	0
" 16		9	7	..	..	..	0	0	..	0	0
" 17		3	9	..	..	..	0	0	..	0	0
" 19		3	10	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 20	10	3	7	..	..	..	0	0	..	0	0
" 23		2	5	..	..	..	0	0	..	0	0
" 24		2	4	..	..	..	0	0	..	0	0
" 25		0	1	..	..	..	0	0	..	0	0
" 26		0	6	..	..	..	0	0	..	0	0
" 27		4	4	..	..	..	0	0	..	0	0
" 29		8	4	..	..	..	0	0	..	0	0
" 30		..	6	..	..	..	0	0	..	0	0
Averages		**3**	**5**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	11	5	3	..	..	..	0	0	..	0	0
" 9		4	4	..	..	..	0	0	..	0	+
" 10		9	13	..	..	..	0	0	..	0	0
" 11		2	1	..	..	..	0	0	..	0	0
" 12		2	4	..	..	..	0	0	..	0	0
" 16		5	9	..	..	..	0	0	..	0	+
" 17		3	5	..	..	..	0	0	..	0	0
" 19		4	14	..	..	..	0	0	..	0	0
" 20		2	8	..	..	..	0	0	..	0	+
" 23		2	4	..	..	..	0	0	..	0	0
" 24		1	38	..	..	..	0	0	..	0	0
" 25		2	8	..	..	..	0	0	..	0	0
" 26		0	3	+	..	..	0	0	..	0	0
" 27		3	2	..	..	..	0	0	..	0	0
" 29		3	0	..	..	..	0	0	..	0	0
" 30		4	5	..	..	..	0	0	..	0	0
Averages		**3**	**7**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	12	7	6	..	..	..	0	0	..	0	0
" 9		6	5	..	..	..	0	0	..	9	+
" 10		26	3	..	..	..	0	0	..	0	0
" 11		1	3	..	..	..	0	0	..	0	0
" 12		2	4	..	..	..	0	0	..	0	0
" 16		4	16	..	..	..	0	0	..	0	0
" 17		2	6	..	..	..	0	0	..	0	+
" 19		6	28	..	..	..	0	0	..	0	0
" 20		3	10	..	..	..	0	0	..	0	0
" 23		3	6	..	..	..	0	0	..	+	+
" 24		2	4	..	..	..	0	0	..	0	0
" 25		1	4	..	..	..	0	0	..	0	+
" 26		0	11	..	..	..	0	0	..	0	0
" 27		4	1	..	..	..	0	0	..	+	0
" 29		2	0	..	..	..	0	0	..	0	0
" 30		2	3	..	..	..	0	0	..	0	0
Averages		**4**	**6**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 5	13	10	14	..	..	..	0	0	..	0	0
" 9		3	4	..	..	..	0	0	..	0	+
" 10		0	6	..	..	..	0	0	..	0	0
" 11		3	5	..	..	..	0	0	..	0	0
" 12		3	2	..	..	..	0	0	..	0	0
" 16		4	7	..	..	..	0	0	..	0	0
" 17		3	4	..	..	..	0	0	..	0	0
" 19		2	90	..	..	..	0	0	..	0	0
" 23		0	25	..	..	..	0	0	..	+	+
" 24		1	2	..	..	..	0	0	..	0	0
" 25		0	3	..	..	..	0	0	..	0	+
" 26		1	..	..	..	..	0	+	..	0	0
" 27		2	2	..	..	..	0	0	..	+	+
" 29		1	0	..	..	..	0	0	..	0	0
" 30		4	1	..	..	..	0	0	..	+	0
Averages		**2**	**11.7**	**1**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	14	0	5	..	..	..	0	0	..	0	0
" 9		6	4	..	..	..	0	0	..	0	+
" 10		2	2	..	..	..	0	0	..	0	+
" 11		1	5	..	..	..	0	0	..	0	0
" 12		3	2	..	..	..	0	0	..	0	0
" 16		6	3	..	..	..	0	0	..	0	0
" 17		1	3	..	..	..	0	0	..	0	+
" 19		1	18	..	..	..	0	+	..	0	0
" 23		1	6	..	..	..	0	0	..	0	0
" 24		2	8	..	..	..	0	0	..	0	0
" 25		2	7	..	..	..	0	0	..	+	+
" 26		0	3	..	..	..	0	0	..	+	+
" 27		2	0	..	..	..	0	0	..	0	0
" 29		2	1	..	..	..	0	0	..	0	0
" 30		2	6	..	..	..	0	0	..	0	0
Averages		**2**	**4**	**1**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	15	1	5	..	..	..	0	0	..	0	0
" 9		3	0	..	..	..	0	0	..	0	+
" 10		4	1	..	..	..	0	0	..	0	0
" 11		1	..	..	..	..	0	0	..	0	0
" 12		0	4	..	..	..	0	0	..	0	0
" 16		2	5	..	..	..	0	+	..	+	0
" 17		1	0	..	..	..	0	0	..	+	0
" 19		0	35	..	..	..	0	0	..	0	0
" 23		1	4	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 24	15	4	3	..	..	..	0	0	..	+	+
" 25		2	2	..	..	..	0	0	..	+	+
" 26		0	5	..	..	..	+	+	..	+	+
" 27		0	2	..	..	..	0	0	..	0	0
" 29		0	0	..	..	..	0	0	..	0	+
" 30		0	2	..	..	..	0	+	..	0	+
Averages		**1**	**4**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	16	1	3	..	..	..	0	0	..	0	0
" 9		4	2	..	..	..	0	0	..	0	+
" 10		3	2	..	..	..	0	0	..	0	+
" 11		0	3	..	..	..	0	0	..	0	0
" 12		1	0	..	..	..	0	0	..	0	0
" 16		5	2	..	..	..	0	0	..	+	0
" 17		2	2	..	..	..	0	0	..	0	+
" 19		8	3	..	..	..	0	+	..	0	+
" 23		2	3	..	..	..	+	0	..	+	+
" 24		3	2	..	..	..	0	+	..	+	+
" 25		0	7	..	..	..	0	0	..	+	+
" 26		0	4	..	..	..	0	+	..	+	0
" 27		2	2	..	..	..	0	0	..	0	0
" 29		2	0	..	..	..	0	0	..	+	+
" 30		0	3	..	..	..	0	0	..	+	+
Averages:		**2**	**2**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	17	4	4	..	..	..	0	0	..	0	0
" 9		7	2	..	..	..	0	0	..	+	+
" 11		58	3	..	..	..	0	0	..	+	+
" 10		..	29	..	..	..	0	0	..	0	0
" 12		2	1	..	..	..	0	0	..	0	0
" 16		3	4	..	..	..	0	0	..	+	+
" 17		3	4	..	..	..	0	+	..	0	+
" 19		6	2	..	..	..	0	0	..	+	+
" 23		3	3	..	..	..	0	0	..	+	+
" 24		0	3	..	..	..	0	0	..	+	+
" 25		1	6	..	..	..	0	0	..	+	+
" 26		2	19	..	..	..	0	+	..	+	+
" 27		0	3	..	..	..	0	0	..	0	0
" 29		1	1	..	..	..	0	0	..	0	0
" 30		5	8	..	..	..	0	0	..	0	0
Averages		**6**	**6**	**3**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**

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Sept. 5	18	6	11	..	..	..	0	0	..	0	0
" 9		5	1	..	..	..	0	..	..	0	+
" 10		16	1	..	..	..	0	0	..	0	0
" 11		1	3	..	..	..	0	0	..	0	0
" 12		1	2	..	..	..	0	0	..	0	0
" 16		9	3	..	..	..	0	+	..	+	+
" 17		4	2	..	..	..	0	0	..	0	+
" 19		0	2	..	..	..	0	0	..	+	+
" 23		3	2	..	..	..	0	+	..	+	+
" 24		0	5	..	..	..	0	+	..	+	+
" 25		2	3	..	..	..	0	0	..	+	+
" 26		1	6	..	..	..	0	+	..	+	+
" 27		1	2	..	..	..	0	0	..	+	+
" 29		1	3	..	..	..	0	0	..	0	0
" 30		0	2	..	..	..	0	0	..	0	0
Averages		**3**	**3**	**6**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	19	2	4	..	..	..	0	0	..	0	+
" 9		0	1	..	..	..	0	..	..	0	+
" 10		5	2	..	..	..	0	0	..	0	0
" 11		0	2	..	..	..	0	0	..	0	0
" 12		0	3	..	..	..	0	0	..	0	0
" 16		5	2	..	..	..	0	0	..	+	0
" 17		4	1	..	..	..	0	0	..	+	+
" 19		0	5	..	..	..	0	0	..	+	0
" 23		3	0	..	..	..	0	+	..	+	+
" 24		1	3	..	..	..	0	0	..	0	+
" 25		0	2	..	..	..	0	0	..	+	+
" 26		3	11	..	..	..	+	+	..	+	+
" 27		2	1	..	..	..	0	0	..	0	+
" 29		4	1	..	..	..	0	0	..	0	0
" 30		0	3	..	..	..	0	0	..	0	0
Averages		**1**	**2**	**9**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	20	3	12	..	..	..	0	0	..	0	0
" 9		3	3	..	..	..	0	..	..	0	0
" 10		2	8	..	..	..	0	0	..	0	0
" 11		0	44	..	..	..	0	0	..	0	0
" 12		2	1	..	..	..	0	0	..	+	+
" 16		4	6	..	..	..	0	0	..	0	0
" 17		3	2	..	..	..	0	+	..	+	+
" 19		0	4	..	..	..	0	0	..	0	0
" 23		2	3	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 24	20	0	1	..	..	..	0	0	..	+	+
" 25		2	1	..	..	..	0	0	..	0	+
" 26		0	3	..	..	..	0	+	..	0	0
" 27		0	6	..	..	..	0	0	..	+	+
" 29		2	4	..	..	..	0	0	..	0	0
" 30		3	4	..	..	..	0	0	..	0	0
Averages		**1**	**6**	**3**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	21	8	9	..	..	..	0	0	..	0	0
" 9		4	11	..	..	..	0	..	..	0	0
" 10		1	9	..	..	..	0	0	..	0	0
" 11		4	4	..	..	..	0	0	..	0	0
" 12		0	4	..	..	..	0	0	..	0	0
" 16		11	5	..	..	..	0	0	..	0	0
" 17		2	1	..	..	..	0	0	..	+	0
" 19		1	18	..	..	..	0	0	..	0	0
" 23		3	2	..	..	..	+	+	..	+	+
" 24		1	2	..	..	..	0	+	..	0	+
" 25		1	4	..	..	..	0	0	..	+	+
" 26		0	8	..	..	..	0	0	..	0	0
" 27		1	3	..	..	..	0	0	..	0	0
" 29		0	4	..	..	..	0	0	..	0	+
" 30		2	2	..	..	..	0	0	..	0	0
Averages		**2**	**5**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 9	22	3	2	..	..	..	0	..	..	0	+
" 10		2	8	..	..	..	0	0	..	+	+
" 11		1	3	..	..	..	0	0	..	+	+
" 12		3	2	..	..	..	0	0	..	0	0
" 16		3	3	..	..	..	0	0	..	0	0
" 17		2	3	..	..	..	0	+	..	0	+
" 19		3	6	..	..	..	0	0	..	0	0
" 23		1	5	..	..	..	0	0	..	+	+
" 24		0	2	..	..	..	0	+	..	+	+
" 25		0	5	..	..	..	0	0	..	0	0
" 26		0	4	..	..	..	0	+	..	+	+
" 27		0	2	..	..	..	0	0	..	0	0
" 29		2	0	..	..	..	0	0	..	0	0
" 30		3	3	..	..	..	0	0	..	0	0
Averages		**1**	**3**	**3**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Waters of Lake St. Clair.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 5	23	6	14	..	..	..	0	0	..	0	0
" 9		5	3	..	..	..	0	..	..	0	+
" 10		4	8	..	..	..	0	0	..	0	0
" 11		3	9	..	..	..	0	+	..	0	0
" 12		0	2	..	..	..	0	0	..	+	+
" 16		3	7	..	..	..	0	0	..	+	+
" 17		4	3	..	..	..	0	0	..	0	+
" 19		4	8	..	..	..	0	0	..	0	0
" 23		2	11	..	..	..	0	+	..	+	+
" 24		3	4	..	..	..	0	+	..	+	+
" 25		1	5	..	..	..	0	0	..	0	+
" 26		0	3	..	..	..	0	+	..	+	+
" 27		0	3	..	..	..	0	0	..	+	+
" 29		1	3	..	..	..	0	0	..	+	+
" 30		1	2	..	..	..	0	0	..	0	+
Averages		**2**	**5**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 9	24	9	4	..	..	..	0	..	..	+	+
" 10		6	3	..	..	..	0	0	..	+	+
" 11		1	3	..	..	..	0	0	..	0	0
" 12		13	6	..	..	..	0	0	..	0	0
" 16		4	3	..	..	..	0	0	..	+	+
" 17		2	0	..	..	..	0	0	..	+	+
" 19		0	1	..	..	..	0	0	..	0	0
" 23		2	85	..	..	..	0	0	..	+	+
" 24		4	3	..	..	..	0	0	..	+	+
" 25		0	2	..	..	..	0	0	..	0	+
" 26		0	3	..	..	..	0	+	..	+	+
" 27		1	5	..	..	..	0	0	..	0	0
" 29		5	4	..	..	..	0	0	..	+	+
" 30		3	1	..	..	..	0	0	..	+	+
Averages		**3**	**8**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Lake St Clair.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 48 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 23...	216	..	100	..	..	0	+	..	+	..	..
" 26...		..	32	..	..	0	0	..	+	..	..
" 27...		..	200	..	..	0	+	..	+	..	..
" 28...		..	20	..	..	0	0	..	+	..	..
" 29...		..	103	..	..	0	0	..	+	..	..
" 31...		..	19	..	..	0	+	..	+	..	..
June 2...		..	17	..	..	0	0	..	+	..	..
" 3...		..	19	..	..	0	+	..	+	..	..
" 4...		..	34	..	..	0	+	..	+	..	..
" 5...		..	18	..	..	0	0	..	+	..	..
" 6...		..	19	..	..	0	0	..	+	..	..
" 7...		..	84	..	..	0	+	..	+	..	..
" 9...		..	59	..	..	0	+	..	+	..	..
" 10...		..	27	..	..	0	0	..	+	..	..
" 19...		..	11	..	..	0	0	..	0	..	..
" 20...		..	59	..	..	+	+	..	+	..	..
" 21...		..	58	..	..	0	+	..	+	..	..
" 24...		..	13	..	..	0	+	..	+	..	..
" 25...		..	26	..	..	0	+	..	+	..	..
July 4...		..	110	..	..	+	+	..	+	..	..
" 5...		..	32	..	..	0	+	..	+	..	..
" 6...		..	11	..	..	0	0	..	+	..	..
" 7...		..	27	..	..	0	+	..	+	..	..
Averages....			**47**	**14**	**2**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 23...	217	..	5	..	..	0	0	..	+	..	..
" 26...		..	2	..	..	0	0	..	+	..	..
" 27...		..	15	..	..	0	0	..	0	..	..
" 28...		..	10	..	..	0	0	..	+	..	..
" 29...		..	16	..	..	0	0	..	+	..	..
" 31...		..	3	..	..	0	0	..	0	..	..
June 2...		..	8	..	..	0	0	..	+	..	..
" 3...		..	3	..	..	0	0	..	0	..	..
" 4...		..	12	..	..	0	0	..	0	..	..
" 5...		..	5	..	..	0	0	..	0	..	..
" 6...		..	4	..	..	0	0	..	0	..	..
" 7...		..	13	..	..	0	0	..	+	..	..
" 9...		..	20	..	..	0	0	..	0	..	..
" 10...		..	14	..	..	0	0	..	0	..	..
" 19...		..	13	..	..	0	0	..	0	..	..
" 20...		..	25	..	..	0	0	..	0	..	..
" 21...		..	16	..	..	0	0	..	0	..	..
" 24...		..	1	..	..	0	0	..	0	..	..
" 25...		..	13	..	..	0	0	..	+	..	..
Aug. 4...		..	20	..	..	0	+	..	+	..	..
" 5...		..	12	..	..	0	0	..	+	..	..
" 6...		..	11	..	..	0	0	..	+	..	..
" 7...		..	8	..	..	0	0	..	+	..	..
Averages....			**10**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 23...	218	..	12	..	..	0	0	..	+	..	..
" 26...		..	1	..	..	0	0	..	0	..	..
" 27...		..	4	..	..	0	0	..	0	..	..
" 28...		..	8	..	..	0	0	..	+	..	..
" 29...		..	13	..	..	0	0	..	0	..	..
" 31...		..	3	..	..	0	0	..	0	..	..
" 2...		..	6	..	..	0	0	..	+	..	..
" 3...		..	19	..	..	0	0	..	+	..	..
" 4...		..	3	..	..	0	0	..	0	..	..
" 5...		..	16	..	..	0	0	..	+	..	..
" 6...		..	9	..	..	0	0	..	+	..	..
" 7...		..	83	..	..	0	0	..	0	..	..
" 9...		..	33	..	..	0	0	..	0	..	..
" 10...		..	20	..	..	0	0	..	0	..	..
" 19...		..	13	..	..	0	0	..	0	..	..
" 20...		..	13	..	..	0	0	..	0	..	..
" 21...		..	5	..	..	0	0	..	0	..	..
" 24...		..	3	..	..	0	0	..	0	..	..
" 25...		..	7	..	..	0	0	..	0	..	..
Aug. 4...		..	17	..	..	0	0	..	+	..	..
" 5...		..	17	..	..	0	+	..	+	..	..
" 6...		..	17	..	..	0	0	..	+	..	..
" 7...		..	9	..	..	0	0	..	0	..	..
Averages....			**14**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 23...	219	..	3	..	..	0	0	..	+	..	..
" 26...		..	17	..	..	0	0	..	0	..	..
" 27...		..	35	..	..	0	0	..	+	..	..
" 28...		..	12	..	..	0	0	..	+	..	..
" 29...		..	7	..	..	0	0	..	0	..	..
" 31...		..	20	..	..	0	0	..	0	..	..
" 2...		..	7	..	..	0	0	..	0	..	..
" 3...		..	12	..	..	0	0	..	+	..	..
" 4...		..	7	..	..	0	0	..	0	..	..
" 5...		..	13	..	..	0	0	..	0	..	..
" 6...		..	10	..	..	0	0	..	0	..	..
" 7...		..	175	..	..	0	0	..	0	..	..
" 9...		..	68	..	..	0	0	..	+	..	..
" 10...		..	68	..	..	0	0	..	0	..	..
" 19...		..	10	..	..	0	0	..	0	..	..
" 20...		..	13	..	..	0	0	..	0	..	..
" 21...		..	28	..	..	0	0	..	0	..	..
" 24...		..	4	..	..	0	0	..	+	..	..
" 25...		..	15	..	..	0	0	..	0	..	..
Aug. 4...		..	26	..	..	0	+	..	+	..	..
" 5...		..	18	..	..	0	+	..	+	..	..
" 6...		..	8	..	..	0	+	..	+	..	..
" 7...		..	20	..	..	0	0	..	0	..	..
Averages....			**25**	**15**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Lake St. Clair.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 23...	220	..	3	..	..	0	0	..	+	..	..
" 26...		..	31	..	..	0	0	..	+	..	..
" 27...		..	92	..	..	0	0	..	+	..	..
" 28...		..	10	..	..	0	0	..	+	..	..
" 29...		..	14	..	..	0	0	..	+	..	..
" 31...		..	8	..	..	0	0	..	0	..	..
" 2....		..	17	..	..	0	0	..	0	..	..
" 3...		..	68	..	..	0	0	..	+	..	..
" 4...		..	37	..	..	0	0	..	0	..	..
" 5...		..	16	..	..	0	0	..	0	..	..
" 6...		..	11	..	..	0	0	..	0	..	..
" 7...		..	181	..	..	0	0	..	0	..	..
" 9....		..	61	..	..	0	0	..	0	..	..
" 10....		..	16	..	..	0	0	..	0	..	..
" 19...		..	25	..	..	0	0	..	0	..	..
" 20...		..	51	..	..	0	0	..	+	..	..
" 21...		..	15	..	..	0	0	..	0	..	..
" 24....		..	29	..	..	0	0	..	0	..	..
" 25....		..	30	..	..	0	0	..	+	..	..
Aug. 4...		..	6	..	..	0	0	..	+	..	..
" 5...		..	38	..	..	0	0	..	+	..	..
" 6...		..	20	..	..	0	0	..	+	..	..
" 7...		..	21	..	..	0	0	..	+	..	..
Averages....			**34**	**5.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30....	314	..	22	..	..	0	0	..	+	..	..
" 31...		..	9	..	..	0	0	..	+	..	..
Aug. 1....		..	42	..	..	0	+	..	+	..	..
" 2....		..	21	..	..	0	0	..	+	..	..
" 4....		..	30	..	..	0	0	..	+	..	..
" 5....		..	36	..	..	0	+	..	+	..	..
" 6...		..	31	..	..	0	0	..	+	..	..
" 7...		..	7	..	..	0	0	..	0	..	..
" 8...		..	24	..	..	0	0	..	+	..	..
" 9...		..	12	..	..	0	0	..	+	..	..
" 10...		..	44	..	..	0	+	..	+	..	..
" 11...		..	38	..	..	0	+	..	+	..	..
" 12...		..	38	..	..	0	+	..	+	..	..
" 13....		..	43	..	..	0	+	..	+	..	..
" 14...		..	8	..	..	0	+	..	+	..	..
Averages....			**27**	**51**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30....	315	..	9	..	..	0	0	..	+	..	..
" 31...		..	9	..	..	0	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 1....	315	..	38	..	..	0	0	..	+	..	..
" 2....		..	8	..	..	0	0	..	+	..	..
" 4....		..	29	..	..	0	0	..	+	..	..
" 5...		..	23	..	..	0	0	..	+	..	..
" 6...		..	5	..	..	0	0	..	+	..	..
" 7...		..	5	..	..	0	0	..	+	..	..
" 8...		..	4	..	..	0	0	..	+	..	..
" 9...		..	9	..	..	0	0	..	+	..	..
" 10...		..	14	..	..	0	+	..	+	..	..
" 11...		..	8	..	..	0	+	..	+	..	..
" 12...		..	26	..	..	0	+	..	+	..	..
" 13...		..	100	..	..	0	0	..	+	..	..
" 14...		..	11	..	..	0	0	..	0	..	..
Averages....			**19**	**26**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30....	316	..	200	..	..	0	0	..	+	..	..
" 31...		..	3	..	..	0	0	..	+	..	..
Aug. 1...		..	6	..	..	0	0	..	0	..	..
" 2....		..	1	..	..	0	0	..	+	..	..
" 4...		..	20	..	..	0	+	..	+	..	..
" 5...		..	16	..	..	0	0	..	+	..	..
" 6...		..	4	..	..	0	0	..	+	..	..
" 7...		..	5	..	..	0	0	..	0	..	..
" 8...		..	22	..	..	0	+	..	+	..	..
" 9...		..	3	+	+	0	0	..	+	..	..
" 10...		..	6	+	+	0	0	..	+	..	..
" 11...		..	9	..	..	0	0	..	+	..	..
" 12...		..	55	..	..	0	+	..	+	..	..
" 13....		..	15	..	..	0	0	..	+	..	..
" 14....		..	34	..	..	0	0	..	+	..	..
Averages....			**26**	**26**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 30....	317	..	223	..	..	0	0	..	0	..	..
" 31....		..	6	..	..	0	0	..	+	..	..
Aug. 1....		..	23	..	..	0	0	..	+	..	..
" 2....		..	36	..	..	0	+	..	+	..	..
" 4....		..	21	..	..	0	0	..	+	..	..
" 5....		..	3	..	..	0	0	..	+	..	..
" 6...		..	31	..	..	0	0	..	0	..	..
" 7...		..	24	..	..	0	0	..	+	..	..
" 8...		..	14	..	..	0	0	..	+	..	..
" 9...		..	2	..	..	0	0	..	+	..	..
" 10...		..	5	..	..	0	0	..	+	..	..
" 11...		..	3	..	..	0	0	..	+	..	..
" 12...		..	155	..	..	0	+	..	+	..	..
" 13....		..	18	..	..	0	0	..	+	..	..
" 14....		..	39	..	..	0	0	..	+	..	..
Averages....			**40**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Lake St. Clair.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 30....	318	..	7	..	..	0	0	..	0	..	..
" 31....		..	5	..	..	0	0	..	0	..	..
Aug. 1....		..	21	..	..	0	0	..	+	..	..
" 2....		..	12	..	..	0	0	..	+	..	..
" 4....		..	9	..	..	0	0	..	+	..	..
" 5....		..	3	..	..	0	0	..	+	..	..
" 6...		..	28	..	..	0	0	..	+	..	..
" 7....		..	10	..	..	0	0	..	0	..	..
Aug. 8...	318	..	18	..	..	0	0	..	+	..	..
" 9...		..	3	..	..	0	0	..	+	..	..
" 10...		..	11	..	..	0	0	..	0	..	..
" 11...		..	20	..	..	0	0	..	0	..	..
" 12...		..	56	..	..	0	0	..	+	..	..
" 13...		..	80	..	..	0	+	..	+	..	..
" 14...		..	17	..	..	0	0	..	+	..	..
Averages....			20	12 B. Coli per 100 cc							

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Report. Laboratory at Windsor, Ont. Waters of Lake St. Clair.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc.
Clinton River	**Mt. Clement.**										
Oct. 6.....	520	12000	240	..	0	0	+	+	..	+	+
" 6.....	521	9000	600	..	0	+	+	+	..	+	+
" 6.....	522	4200	220	..	0	0	+	+	..	+	+
" 6.....	523	2900	140	..	0	+	+	+	..	+	+
" 6.....	524	110	30	..	0	0	0	0	..	+	+
" 6.....	525	0	10	..	0	0	0	0	..	0	0
" 6.....	526	40	6	..	0	0	0	0	..	0	+
" 6.....	527	0	0	..	..	..	0	0	..	0	+
" 6.....	528	0	0	..	..	..	0	0	..	0	0
" 6.....	529	0	0	..	..	..	0	0	..	0	0
" 6.....	530	3	25	..	..	..	0	0	..	0	0
" 6.....	531	0	3	..	..	..	0	0	..	0	+
" 6.....	532	1	3	..	..	..	0	0	..	0	0
" 6.....	533	2	2	..	..	..	0	0	..	0	0
" 6.....	524	0	4	..	..	..	0	0	..	0	0
" 6.....	535	29	1	..	..	..	0	0	..	+	+
" 6.....	536	8	12	..	..	..	0	0	..	+	+
" 6.....	537	9	3	..	..	..	0	0	..	0	+
" 6.....	538	2	2	..	..	..	0	0	..	0	+
" 6.....	539	1	1	..	..	..	0	0	..	0	0
" 6.....	540	2	33	..	..	..	0	0	..	+	+
" 6.....	541	3	4	..	..	..	0	0	..	0	0
" 6.....	542	3	8	..	..	..	0	0	..	0	0
" 6.....	543	..	3	..	..	..	0	0	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Vicinity of Thames River											
Sept. 30.....	600	0	140	..	0	0	0	+	..	+	+
" 30.....	601	20	20	..	0	0	0	0	..	0	+
" 30.....	602	0	6	..	0	0	0	0	..	0	0
" 30.....	603	6	3	..	..	0	0	0	..	0	0
" 30.....	604	2	5	..	..	0	0	0	..	0	0
" 30.....	605	2	6	..	..	0	0	0	..	0	0
" 30.....	606	3	6	..	..	0	0	0	..	0	0
" 30.....	607	0	3	..	..	0	0	0	..	0	0
" 30.....	608	1	4	..	..	0	0	0	..	0	0
" 30.....	609	1	1	..	..	0	0	0	..	0	0
" 30.....	610	0	1	..	..	0	0	0	..	0	0
" 30.....	611	2	3	..	..	0	0	0	..	0	0
" 30.....	612	0	1	..	..	0	0	0	..	0	0
" 30.....	613	3	3	..	..	0	0	0	..	0	0
" 30.....	614	2	8	..	..	0	0	0	..	0	0
" 30.....	615	4	11	..	..	0	0	0	..	0	0
" 30.....	616	2	5	..	..	0	0	0	..	0	0
" 30.....	617	30	60	..	..	0	0	0	..	0	0
" 30.....	618	10	40	..	..	0	0	+	..	0	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Water Supplies, Detroit River.
Detroit Tap Water, after Chlorination.

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 1...	11,20	..	..	..	..	..	..	+	0	..	+	+
" 1...	11,25	..	..	..	..	..	..	+	0	..	+	+
" 1...	11.30	..	..	..	..	..	..	0	0	..	+	+
" 1...	11.35	..	..	..	..	..	..	0	+	..	+	+
" 1...	11.40	..	..	..	..	..	..	0	0	..	+	+
" 1...	11.45	..	..	..	..	..	..	0	0	..	+	+
" 1...	11.50	..	..	..	..	..	..	0	0	..	+	+
" 1...	11.55	..	..	..	..	..	..	0	+	..	+	+
" 1...	..	12.00	..	..	..	..	..	0	+	..	+	+
" 1...	..	12.05	..	..	..	..	..	0	+	..	+	+
" 1...	..	12.10	..	..	..	..	..	0	0	..	+	+
" 1...	..	12.15	..	..	..	..	..	0	0	..	+	+
" 1...	..	12.20	..	..	..	..	..	0	0	..	+	+
" 1...	..	12.25	..	..	..	..	..	0	0	..	0	+
" 1...	..	12.30	..	..	..	..	..	0	0	..	+	+
" 1...	..	12.35	..	..	..	..	..	0	+	..	0	+
" 1...	..	12.40	..	..	..	..	..	0	0	..	+	+
" 1...	..	12.45	..	..	..	..	..	0	0	..	+	+
" 1...	..	12.50	..	..	..	..	..	0	0	..	+	+
" 1...	..	12.55	..	..	..	..	..	0	0	..	+	0
" 4...	10.45	..	..	..	..	..	..	0	0	..	0	0
" 4...	10.55	..	..	..	..	..	..	0	0	..	0	0
" 4...	11.05	..	..	..	..	..	..	0	0	..	0	0
" 4...	11.15	..	..	..	..	..	..	0	0	..	0	0
" 4...	11.25	..	..	..	..	..	..	0	0	..	0	0

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 4...	11.35	..	..	..	..	..	..	0	0	..	0	0
" 4...	11.45	..	..	..	..	..	..	0	0	..	0	0
" 4...	11.55	..	..	..	..	..	..	0	0	..	0	0
" 4...	..	12.05	..	..	..	..	..	0	0	..	0	0
" 4...	..	12.15	..	..	..	..	..	0	0	..	0	0
" 4...	..	12.25	..	..	..	..	..	0	0	..	0	0
" 4...	..	12.35	..	..	..	..	..	0	0	..	0	0
" 4...	..	12.45	..	..	..	..	..	+	0	..	0	0
" 4...	..	12.55	..	..	..	..	..	0	0	..	0	0
" 4...	..	1.05	..	..	..	..	..	0	0	..	0	0
" 4...	..	1.15	..	..	..	..	..	0	0	..	0	0
" 4...	..	1.25	..	..	..	..	..	0	0	..	0	0
" 4...	..	1.35	..	..	..	..	..	0	0	..	0	0
" 4...	..	1.45	..	..	..	..	..	0	0	..	0	0
" 4...	..	1.55	..	..	..	..	..	0	0	..	0	0
" 4...	..	2.05	..	..	..	..	..	0	0	..	0	0
" 4...	..	2.15	..	..	..	..	..	0	0	..	0	0
" 4...	..	2.25	..	..	..	..	..	0	0	..	0	0
" 4...	..	2.35	..	..	..	..	..	0	0	..	0	0
" 4...	..	2.45	..	..	..	..	..	0	0	..	0	0
" 4...	..	2.55	..	..	..	..	..	0	0	..	0	0
" 4...	..	3.05	..	..	..	..	..	+	0	..	0	0
" 4...	..	3.15	..	..	..	..	..	0	0	..	0	0
" 4...	..	3.20	..	..	..	..	..	0	0	..	0	0
" 4...	..	4.00	..	..	..	..	..	0	0	..	0	0

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Water Supplies, Detroit River.
Windsor Tap Water after Chlorination.

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Windsor	**Tap**											
Sept. 4...	..	1.00	19	11	..	..	..	0	0	..	+	+
" 4...	..	1.15	32	29	..	..	..	+	+	..	+	+
" 4...	..	1.30	33	8	..	..	..	0	+	..	+	+
" 4...	..	1.45	64	68	..	..	..	+	+	..	+	+
" 4...	..	2.00	35	23	..	..	..	0	0	..	+	+
" 4...	..	2.15	17	5	..	..	..	0	0	..	+	+
" 4...	..	2.30	15	15	..	..	..	0	0	..	+	+
" 4...	..	2.45	19	2	..	..	..	+	+	..	+	+
" 4...	..	3.00	28	27	..	..	..	+	+	..	+	+
" 4...	..	3.15	28	25	..	..	..	+	0	..	+	+
" 4...	..	3.30	12	10	..	..	..	+	+	..	+	+
" 4...	..	3.45	15	9	..	..	..	0	0	..	+	+
" 4...	..	4.00	39	11	..	..	..	0	+	..	+	+
" 4...	..	4.15	26	6	..	..	..	+	+	..	+	+
" 4...	..	4.30	22	4	..	..	..	0	0	..	0	+
" 4...	..	4.45	21	18	..	..	..	+	+	..	+	+
" 4...	..	5.00	13	8	..	..	..	0	0	..	+	+
" 4...	..	5.15	13	9	..	..	..	0	0	..	0	+
" 4...	..	5.30	13	14	..	..	..	0	0	..	0	0
" 4...	..	5.45	17	2	..	..	..	0	+	..	+	+
Windsor	**Tap**											
Sept. 19...	..	2.45	65	31	..	..	..	+	+	..	+	+
" 19...	..	2.50	38	90	..	..	..	+	+	..	+	+
" 19...	..	2.55	40	28	..	..	..	0	+	..	+	+
" 19...	..	3.00	89	32	..	..	..	+	+	..	+	+
" 19...	..	3.05	85	25	..	..	..	0	0	..	+	+
" 19...	..	3.10	80	45	..	..	..	+	+	..	+	+
" 19...	..	3.15	55	22	..	..	..	+	+	..	+	+
" 19...	..	3.20	..	..	..	..	..	+	+	..	+	+
" 19...	..	3.25	50	45	..	..	..	+	+	..	+	+
" 19...	..	3.30	65	38	..	..	..	+	+	..	—	+
" 19...	..	3.35	20	11	..	..	..	0	+	..	+	+
" 19...	..	3.40	24	7	..	..	..	0	0	..	+	+
" 19...	..	3.45	14	8	..	..	..	0	0	..	+	0
" 19...	..	3.50	6	8	..	..	..	0	0	..	0	+
" 19...	..	3.55	3	13	..	..	..	0	0	..	0	0
" 19...	..	4.00	2	3	..	..	..	0	0	..	0	+
" 19...	..	4.05	6	9	..	..	..	0	0	..	0	0
" 19...	..	4.10	4	5	..	..	..	0	0	..	0	0
" 19...	..	4.15	18	18	..	..	..	0	0	..	+	+
" 19...	..	4.25	120	19	..	..	..	0	+	..	+	+
Sept. 22...	..	12.00	2	0	..	..	0	0	0	..	0	0
" 22...	..	12.05	4	9	..	..	0	0	0	..	0	0
" 22...	..	12.10	0	5	..	..	0	0	0	..	0	0
" 22...	..	12.15	0	8	..	..	0	0	0	..	0	0
" 22...	..	12.20	0	2	..	..	0	0	0	..	0	0

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Windsor	**Tap**											
Sept. 22...	..	12.25	2	5	..	..	0	0	0	..	0	0
" 22...	..	12.30	0	7	..	..	0	0	0	..	0	0
" 22...	..	12.35	3	6	..	..	0	0	0	..	0	0
" 22...	..	1.40	2	8	..	..	0	+	0	..	+	+
" 22...	..	1.45	1	14	..	..	+	+	+	..	+	+
" 22...	..	1.55	4	6	..	..	+	+	+	..	+	+
" 22...	..	2.00	3	0	..	..	0	0	0	..	+	+
" 22...	..	2.05	3	3	..	..	0	0	0	..	0	0
" 22...	..	2.10	2	2	..	..	0	0	0	..	0	0
" 22...	..	2.20	4	2	..	..	0	0	+	..	+	+
" 22...	..	2.30	3	3	..	..	0	+	+	..	+	+
" 22...	..	2.40	1	3	..	..	+	+	+	..	+	+
" 22...	..	2.50	2	6	..	..	+	+	+	..	+	+
" 22...	..	3.00	0	4	..	..	0	+	+	..	+	+
" 22...	..	3.10	0	0	..	..	0	+	+	..	+	+
" 22...	..	3.20	2	3	..	..	0	+	+	..	+	+
" 22...	..	3.30	0	5	..	..	0	0	+	..	+	+
" 22...	..	3.40	3	8	..	..	0	0	+	..	+	+
" 22...	..	3.50	3	22	..	..	0	0	0	..	+	+
" 22...	..	4.00	5	9	..	..	0	0	0	..	+	+
" 22...	..	4.10	..	9	..	..	0	0	+	..	+	+
" 22...	..	4.20	..	5	..	..	0	0	0	..	+	+
" 22...	..	4.30	3	9	..	..	0	0	+	..	+	+
" 22...	..	4.40	6	3	..	..	0	0	+	..	+	+
" 22...	..	4.50	2	6	..	..	0	+	+	..	+	+
Sept. 23...	10.40	..	3	3	..	..	0	0	0	..	0	0
" 23...	10.50	..	0	8	..	..	0	0	0	..	0	0
" 23...	11.00	..	2	4	..	..	0	0	0	..	0	0
" 23...	11.10	..	2	7	..	..	0	0	0	..	0	0
" 23...	11.20	..	0	5	..	..	0	0	0	..	0	0
" 23...	11.30	..	0	7	..	..	0	0	0	..	0	0
" 23...	11.40	..	1	13	..	..	0	0	0	..	0	0
" 23...	11.50	..	2	3	..	..	0	0	0	..	0	0
" 23...	..	12.00	0	5	..	..	0	0	0	..	0	0
" 23...	..	12.10	0	4	..	..	0	0	0	..	0	0
" 23...	..	2.15	5	2	..	..	0	0	+	..	+	+
" 23...	..	2.25	2	3	..	..	0	0	+	..	+	+
" 23...	..	2.45	6	2	..	..	0	0	0	..	+	+
" 23...	..	2.55	2	8	..	..	0	0	+	..	+	+
" 23...	..	52.5	1	2	..	..	0	0	+	..	+	+
" 23...	..	3.05	4	3	..	..	0	0	+	..	+	+
" 23...	..	3.15	4	14	..	..	0	0	+	..	+	+
" 23...	..	3.25	9	9	..	..	0	+	0	..	+	+
" 23...	..	3.35	3	5	..	..	0	0	+	..	+	+
" 23...	..	3.45	0	8	..	..	0	0	0	..	+	+
" 23...	..	3.55	0	6	..	..	0	0	0	..	0	0
" 23...	..	4.05	2	3	..	..	0	0	0	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS.

Field Laboratory Report. Laboratory at Windsor, Ont. Water Supplies Detroit River.
Windsor Tap Water after Chlorination, Trenton and Wyandotte Tap Water.

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Windsor	**Lab.**	**Tap**										
Sept. 23...	..	4.15	0	4	..	..	0	0	0	..	0	0
" 23...	..	4.25	0	0	..	..	0	0	0	..	0	0
" 23...	..	4.35	0	4	..	..	0	0	0	..	0	0
" 23...	..	4.45	5	3	..	..	0	0	0	..	0	0
" 23...	..	4.55	4	1	..	..	0	0	0	..	0	0
" 23...	..	5.05	6	0	..	..	0	0	0	..	0	0
" 23...	..	5.15	2	3	..	..	0	0	0	..	0	0
" 23..	..	5.25	2	0	..	..	0	0	0	..	0	0
Sept. 24...	10.45	..	4	1	..	..	0	0	0	..	0	0
" 24...	10.50	..	6	8	..	..	0	0	0	..	0	0
" 24...	10.55	..	3	11	..	..	0	0	0	..	0	0
" 24...	11.00	..	1	5	..	..	0	0	0	..	0	0
" 24...	11.05	..	2	11	..	..	0	0	0	..	0	0
" 24...	11.10	..	7	14	..	..	0	0	0	..	0	0
" 24...	11.15	..	5	5	..	..	0	0	0	..	0	0
" 24...	11.20	..	8	10	..	..	0	0	0	..	0	0
" 24...	11.25	..	4	3	..	..	0	0	0	..	0	0
" 24...	11.30	..	0	4	..	..	0	0	0	..	0	0
" 24...	11.35	..	1	1	..	..	0	0	0	..	0	0
" 24...	11.40	..	3	6	..	..	0	0	0	..	+	0
" 24...	11.45	..	0	4	..	..	0	0	0	..	0	0
" 24...	11.50	..	0	5	..	..	0	0	0	..	0	0
" 24...	11.55	..	0	1	..	..	0	0	0	..	0	0
" 24...	..	12.00	14	10	..	..	0	0	0	..	0	+
" 24...	..	12.05	3	4	..	..	0	0	0	..	+	+
" 24...	..	12.10	4	1	..	..	0	0	+	..	+	+
" 24...	..	12.15	11	5	..	..	0	+	+	..	+	+
" 24...	..	12.20	4	4	..	..	+	+	+	..	+	+
" 24...	..	1.50	3	0	..	..	0	0	0	..	+	+
" 24...	..	1.55	2	0	..	..	0	0	0	..	0	0
" 24...	..	2.00	1	7	..	..	0	0	0	..	0	0
" 24...	..	2.05	1	5	..	..	0	0	0	..	0	0
" 24...	..	2.10	2	2	..	..	0	0	0	..	0	0
" 24...	..	2.15	1	3	..	..	0	0	0	..	0	0
" 24...	..	2.20	1	11	..	..	0	0	0	..	0	0
" 24...	..	2.25	1	0	..	..	0	0	0	..	0	0
" 24...	..	2.30	2	0	..	..	0	0	0	..	0	0
" 24...	..	2.35	2	1	..	..	0	0	0	..	0	0
Sept. 26...	11.15	..	0	3	..	..	0	0	0	..	0	0
" 26...	11.25	..	1	58	..	..	0	0	0	..	0	0
" 26...	11.30	..	0	9	..	..	0	0	0	..	0	0
" 26...	11.35	..	1	6	..	..	0	0	0	..	0	0
" 26...	11.40	..	4	5	..	..	0	0	0	..	0	0
" 26...	11.45	..	2	1	..	..	0	0	0	..	0	0
" 26...	11.50	..	1	11	..	..	0	0	0	..	0	0
" 26...	11.55	..	2	3	..	..	0	0	0	..	0	0
" 26...	..	12.00	1	14	..	..	0	0	0	..	0	0

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Windsor	**Lab.**	**Tap**										
Sept 26...	..	12.05	2	3	..	..	0	0	0	..	0	0
" 26...	..	12.10	3	8	..	..	0	0	0	..	0	0
" 26...	..	12.15	0	5	..	..	0	0	0	..	+	+
" 26...	..	12.20	2	3	..	..	0	0	0	..	0	0
" 26...	..	12.25	0	6	..	..	0	0	0	..	0	0
" 26...	..	12.30	4	4	..	..	0	0	0	..	0	0
Sept 27...	..	1.05	3	4	..	..	0	0	0	..	0	0
" 27...	..	1.10	2	2	..	..	0	0	0	..	0	0
" 27...	..	1.15	3	3	..	..	0	0	0	..	0	0
" 27...	..	1.20	2	2	..	..	0	0	0	..	0	0
" 27...	..	1.25	1	4	..	..	0	0	0	..	0	0
" 27...	..	2.25	0	0	..	..	0	0	0	..	0	0
" 27...	..	2.30	1	4	..	..	0	0	0	..	0	+
" 27...	..	2.35	2	6	..	..	0	0	+	..	+	+
" 27...	..	2.40	0	4	..	..	0	0	0	..	0	0
" 27...	..	2.50	0	2	..	..	0	0	0	..	0	0
Trenton	**Tap**	**Water**										
Sept 27...	..	..	5400	285	..	0	0	+	+	..	+	+
" 27...	..	..	22000	240	..	0	0	+	+	..	+	+
Wyandotte	**Tap**	**Water**										
Sept 27...	..	..	900	260	..	0	0	+	0	..	+	+
" 27...	..	..	2000	220	..	0	0	+	0	..	+	+
" 27...	..	..	2800	340	..	0	0	+	+	..	+	+
Oct. 4...		..	3000	800	..	..	+	+	+	..	+	+
" 4...		..	2800	850	..	..	+	+	+	..	+	+
" 4...		..	1280	spreader	..	..	+	+	+	..	+	+
" 4...		..	2500	900	..	..	+	+	+	..	+	+
" 4...		..	1440	900	..	..	+	+	+	..	+	+
" 4...		..	2200	1300	..	..	+	+	+	..	+	+
" 4...		..	1060	1500	..	..	+	+	+	..	+	+
" 4...		..	940	1600	..	..	+	+	+	..	+	+
" 4...		..	2200	1600	..	..	+	+	+	..	+	+
" 4...		..	980	2000	..	..	+	+	+	..	+	+
" 4...		..	520	1600	..	..	+	+	+	..	+	+
" 4...		..	1320	1100	..	..	+	+	+	..	+	+
" 4...		..	1400	1600	..	..	+	+	+	..	+	+
" 4...		..	640	650	..	..	+	+	0	..	+	+
" 4...		..	1420	2200	..	..	0	+	0	..	+	+
" 4...		..	880	1400	..	..	0	+	0	..	+	+
" 4...		..	14000	5000	..	..	+	+	0	..	+	+
" 4...		..	6000	3000	..	..	+	+	0	..	+	+
" 4...		..	2500	900	..	..	+	+	+	..	+	+
" 4...		..	1900	1100	..	..	+	+	+	..	+	+
" 4...		..	1400	1500	..	..	+	+	+	..	+	+
" 4...		..	1800	1500	..	..	+	+	+	..	+	+
" 4...		..	120	450	..	..	+	+	+	..	+	+

Samples collected at 10-minute intervals.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Water Supplies Detroit River. Walkerville Tap Water after Disinfection by Chlorination.

DATE 1913	Hour collected. Plated immediately A.M.	Hour collected. Plated immediately P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Walkerville	**tap**	**Water**										
Sept. 26...	..	3.15	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.20	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.25	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.30	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.35	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.40	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.45	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.50	..	..	..	..	0	0	0	..	0	0
" 26...	..	3.55	..	..	..	..	0	0	+	..	+	0
" 26...	..	4.00	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.05	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.10	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.15	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.20	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.25	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.30	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.35	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.40	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.45	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.50	..	..	..	..	0	0	0	..	0	0
" 26...	..	4.55	..	..	..	..	0	0	0	..	0	0

DATE 1913	Hour collected. Plated immediately A.M.	Hour collected. Plated immediately P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Walkerville	**Tap**	**Water**										
Oct. 2...	..	2.40	..	..	..	..	..	0	0	..	0	0
" 2...	..	2.45	..	..	..	..	..	0	0	..	0	0
" 2...	..	2.50	..	..	..	..	..	0	0	..	0	0
" 2...	..	2.55	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.00	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.05	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.10	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.15	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.20	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.25	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.30	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.35	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.40	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.45	..	..	..	..	..	0	0	..	0	0
" 2...	..	3.50	..	..	..	..	..	0	0	..	0	0

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Water Supplies, Detroit River.
Amherstburg Tap Water, Improper Chlorination.

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 8...	..	..	1000	400	..	..	..	+	+	..	+	+
" 9...	10.00	..	1000	1000	..	..	..	+	+	..	+	+
" 9...	..	2.00	500	200	..	..	..	+	+	..	+	+
" 9...	..	3.30	500	300	..	..	..	+	+	..	+	0
" 10...	9.00	..	5000	3000	..	..	..	+	+	..	+	+
" 10...	10.30	..	5000	3000	..	..	..	+	+	..	+	+
" 10...	..	12.30	5000	3000	..	..	..	+	+	..	+	+
" 10...	..	2.45	5000	3000	..	..	..	+	+	..	+	+
" 11...	9.20	..	800	800	..	..	..	0	0	..	0	0
" 11...	10.30	..	504	300	..	..	..	0	0	..	0	0
" 11...	..	12.00	700	800	..	..	..	+	+		+	+
" 11...	..	2.00	250	160	..	..	..	0	0	..	0	0
" 12...	8.00	..	1800	316	..	..	..	0	0	..	+	+
" 12...	8.30	..	2000	476	..	..	..	0	+	..	+	+
" 12...	9.00	..	172	65	..	..	..	+	+	..	+	+
" 12...	9.30	..	220	62	..	..	..	0	+	..	+	+
" 12...	10.00	..	170	45	..	..	..	+	+	..	+	+
" 12...	10.30	..	250	35	..	..	..	0	0	..	+	+
" 12...	11.00	..	480	140	..	..	..	0	0	+	+	+
" 12...	11.40	..	650	108	..	..	..	0	0	..	+	+
" 12...	..	12.00	1000	124	..	..	..	+	+	..	+	+
" 12...	..	12.30	1000	244	..	..	..	0	0	..	+	+
" 12...	..	1.45	480	121	..	..	..	0	+	..	+	+
" 12...	..	2.15	360	84	..	..	..	0	0	..	+	+
" 12...	..	3.45	600	144	..	..	..	0	+	..	+	+
" 12...	..	3.15	2500	116	..	..	..	0	+	..	+	+
" 12...	..	3.45	450	188	..	..	..	0	0	..	+	+
" 12...	..	4.15	3000	92	..	..	..	+	+	..	+	+
" 12...	..	4.45	400	268	..	..	..	+	+	..	+	+
" 12...	..	5.15	3500	340	..	..	..	+	+	..	+	+
" 13...	..	12.15	1500	75	..	..	..	0	+	..	+	+
" 13...	..	1.45	450	42	..	..	..	0	+	..	+	+
" 13...	..	3.00	250	38	..	..	..	0	+	..	+	+
" 13...	..	4.00	2500	57	..	..	..	+	+	..	+	+
" 13...	..	5.00	2000	160	..	..	..	0	+	..	+	+
" 13...	10.00	..	22	8	..	..	..	0	+	..	+	+
" 16...	10.30	..	33	12	..	..	..	0	+	..	+	+
" 16...	11.00	..	42	15	..	..	..	0	+	..	+	+
" 16...	11.30	..	30	16	..	..	..	0	+	..	+	+
" 16...	12.00	..	..	..	..	..	..	+	+	..	+	+
Sept. 16...	..	2.00	short of s	olid med	ia	..	..	+	+	..	+	+
" 16...	..	2.30	..	..	..	..	..	0	+	..	+	+
" 16...	..	3.00	..	..	..	..	..	+	+	..	+	+
" 16...	..	3.30	..	..	..	..	..	0	+	..	+	+
" 16...	..	5.00	..	..	..	..	..	0	0	..	+	+
" 17...	..	3.00	560	75	..	..	..	+	+	..	+	+
" 19...	9.00	..	80	122	..	..	..	+	+	..	+	+
" 19...	9.30	..	60	63	..	..	..	+	+	..	+	+
" 19...	10.00	..	35	64	..	..	..	+	+	..	+	+
" 19...	10.30	..	50	42	..	..	..	+	+	..	+	+
" 19...	11.00	..	30	39	..	..	..	+	+	..	+	+
" 19...	11.30	..	25	11	..	..	..	+	+	..	+	+
" 19...	..	12.00	70	22	..	..	..	0	+	..	+	+
" 22...	..	..	110	64	..	..	..	+	+	..	+	+
" 22...	..	..	12	12	..	..	..	0	0	..	0	+
" 22...	..	..	12	10	..	..	..	0	0	..	0	0
" 22...	..	..	14	8	..	..	..	0	0	..	0	0
" 22...	..	..	6	8	..	..	..	0	0	..	0	0
" 23...	10.00	..	64	18	..	..	..	+	+	..	+	+
" 23...	11.00	..	36	48	..	..	..	+	+	..	+	+
" 23...	..	1.00	68	30	..	..	..	0	+	..	+	+
" 23...	..	5.00	60	22	..	..	..	0	+	..	+	+
" 26...	..	..	40	30	..	..	..	+	+	..	+	+
" 26...	..	..	46	28	..	..	..	+	+	..	+	+
" 26...	..	..	58	68	..	..	..	+	+	..	+	+
" 26...	..	..	70	70	..	..	..	+	+	..	+	+
" 30...	10.00	..	250	59	..	..	..	+	+	..	+	+
" 30...	11.00	..	300	74	..	..	..	+	+	..	+	+
" 30...	..	2.00	300	132	..	..	..	+	+	..	+	+
" 30...	..	3.00	350	98	..	..	..	+	+	..	+	+
" 30...	..	4.00	45	35	..	..	..	+	+	..	+	+
" 30...	..	5.00	300	38	..	..	..	+	+	..	+	+
Oct. 2...	..	4.00	4	14	..	0	0	0	0	..	+	+
" 2...	9.00	..	..	..	..	0	0	+	+	..	+	+
" 2...	10.00	..	..	..	..	0	+	+	+	..	+	+
" 2...	12.00	..	..	..	..	0	0	0	+	..	+	+
" 2..	..	2.00	..	..	..	0	0	0	0	..	0	0
" 2..	..	3.00	..	..	..	0	0	0	0	..	0	0

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 5	25	43	11	..	..	..	0	0	..	+	+
" 6		15	2	..	..	..	0	0	..	0	0
" 8		6	6	..	..	..	0	0	..	+	+
" 9		9	10	..	..	..	0	0	..	0	0
" 10		7	4	..	..	..	0	0	..	0	+
" 11		7	6	..	..	..	0	0	..	0	0
" 12		2	2	..	..	..	0	0	..	0	0
" 13		0	8	..	..	..	0	0	..	0	+
" 15		14	6	..	..	..	+	0	..	0	+
" 16		3	6	..	..	..	0	0	..	0	0
" 17		3	9	..	..	..	0	0	..	+	+
" 18		180	28	..	..	..	+	+	..	+	+
" 19		88	30	..	..	..	+	+	..	+	+
" 20		157	6	..	0	0	0	0	..	0	0
" 22		8	5	..	..	0	0	0	..	+	+
Averages		**36.1**	**9**	**14**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	26	8	4	..	..	..	0	0	..	0	0
" 6		6	5	..	..	..	0	0	..	0	0
" 8		7	7	..	..	..	0	0	..	0	+
" 9		8	8	..	..	..	0	0	..	0	0
" 10		9	9	..	..	..	0	0	..	+	0
" 11		5	2	..	..	..	0	0	..	0	0
" 12		3	3	..	..	..	0	+	..	0	0
" 13		1	3	..	..	..	0	0	..	0	+
" 15		8	7	..	..	..	0	+	..	0	+
" 16		6	3	..	..	..	0	+	..	0	0
" 17		7	3	..	..	..	0	0	..	+	+
" 18		8	4	..	..	..	0	+	..	+	+
" 19		40	12	..	..	..	0	0	..	+	+
" 20		4	10	..	..	..	0	0	..	0	0
" 22		3	3	..	..	..	0	+	..	+	+
Averages		**8**	**5**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	27	4	7	..	..	..	0	0	..	0	0
" 6		10	3	..	..	..	0	0	..	+	0
" 8		1	28	..	..	..	0	0	..	+	+
" 9		16	4	..	..	..	0	0	..	0	0
" 10		9	7	..	..	..	0	0	..	0	0
" 11		5	6	..	..	..	0	0	..	0	0
" 12		1	2	..	..	..	0	0	..	0	0
" 13		0	4	..	..	..	0	+	..	0	0
" 15		12	14	..	..	..	0	0	..	0	+
Sept 16	27	4	4	..	..	..	0	0	..	+	0
" 17		2	4	..	..	..	0	0	..	0	0
" 18		5	6	..	..	..	0	0	..	0	+
" 19		18	7	..	..	..	0	0	..	+	+
" 20		5	5	..	..	..	0	0	..	+	+
" 22		2	5	..	..	..	0	+	..	+	+
Averages		**6**	**7**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	28	22	46	..	..	..	0	0	..	+	+
" 6		11	25	..	..	..	0	0	..	+	0
" 8		8	9	..	..	..	0	0	..	+	+
" 9		5	1	..	..	..	0	+	..	0	+
" 10		6	12	..	..	..	0	0	..	0	0
" 11		1	8	..	..	..	0	0	..	0	0
" 12		6	4	..	..	..	0	0	..	0	0
" 13		1	7	..	..	..	0	0	..	+	+
" 15		2	18	..	..	..	0	+	..	0	+
" 16		2	5	..	..	..	0	0	..	0	0
" 17		3	3	..	..	..	0	0	..	+	+
" 18		5	3	..	..	..	0	0	..	0	+
" 19		8	12	..	..	..	0	+	..	+	+
" 20		3	6	..	..	..	0	+	..	0	+
" 22		3	2	..	..	..	+	+	..	+	+
Averages		**5**	**10.7**	**10**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 5	29	8	4	..	..	..	0	0	..	0	+
" 6		11	10	..	..	..	0	0	..	0	0
" 8		7	3	..	..	..	0	0	..	0	+
" 9		17	6	..	..	..	0	0	..	0	+
" 10		4	11	..	..	..	0	0	..	0	0
" 11		2	0	..	..	..	0	0	..	0	0
" 12		1	2	..	..	..	0	0	..	0	0
" 13		0	12	..	..	..	0	0	..	0	+
" 15		5	7	..	..	..	0	+	..	0	+
" 16		5	1	..	..	..	+	0	..	0	+
" 17		4	6	..	..	..	0	0	..	0	0
" 18		4	4	..	..	..	0	0	..	0	0
" 19		7	3	..	..	..	0	+	..	+	+
" 20		4	5	..	..	..	0	0	..	+	+
" 22		2	4	..	..	..	0	0	..	+	+
Averages		**5**	**5**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 5	30	12	1	..	..	..	0	0	..	0	+
" 6		4	4	..	..	..	0	0	..	0	+
" 8		9	6	..	..	..	0	0	..	0	0
" 9		19	7	..	..	..	0	0	..	0	+
" 10		11	7	..	..	..	0	0	..	0	+
" 11		6	1	..	..	..	0	0	..	0	0
" 12		6	2	..	..	..	0	+	..	0	+
" 13		0	4	..	..	..	0	0	..	0	0
" 15		18	17	..	..	..	0	0	..	+	+
" 16		3	3	..	..	..	0	0	..	0	+
" 17		5	9	..	..	..	0	0	..	0	+
" 18		3	3	..	..	..	0	0	..	+	+
" 19		5	5	..	..	..	0	0	..	+	0
" 20		5	8	..	..	..	0	0	..	+	+
" 22		1	3	..	..	..	0	0	..	+	+
Averages		**7**	**5**	**2**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	31	9	5	..	..	..	0	0	..	+	+
" 6		27	12	..	..	..	0	0	..	0	+
" 8		29	5	..	..	..	0	0	..	0	+
" 9		19	6	..	..	..	0	0	..	0	+
" 10		7	24	..	..	..	0	0	..	0	0
" 11		11	1	..	..	..	0	0	..	0	0
" 12		2	7	..	..	..	0	0	..	0	0
" 13		3	2	..	..	..	0	0	..	0	0
" 15		12	13	..	..	..	0	0	..	+	+
" 16		6	11	..	..	..	0	0	..	+	+
" 17		6	4	..	..	..	0	0	..	0	0
" 18		3	6	..	..	..	0	0	..	+	0
" 19		8	3	..	..	..	0	0	..	+	+
" 20		3	6	..	..	..	0	0	..	0	0
" 22		2	2	..	..	..	0	0	..	0	+
Averages		**9**	**7**	**1**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	32	4	5	..	..	..	0	0	..	0	+
" 6		9	24	..	..	..	0	0	..	0	0
" 8		18	5	..	..	..	0	0	..	0	0
" 9		23	13	..	..	..	0	0	..	0	0
" 10		22	9	..	..	..	0	0	..	0	0
" 11		7	6	..	..	..	0	0	..	0	0
" 12		3	1	..	..	..	0	0	..	0	0
" 13		1	4	..	..	..	0	0	..	0	0
" 15		32	18	..	..	..	0	+	..	+	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 16	32	9	13	..	..	..	0	0	..	0	0
" 17		4	3	..	..	..	0	0	..	0	0
" 18		4	4	..	..	..	0	0	..	0	+
" 19		5	5	..	..	..	0	0	..	0	0
" 20		2	spreader	..	..	..	0	0	..	0	0
" 22		2	16	..	..	..	0	0	..	0	0
Averages		**10.3**	**8**								
Sept. 5	33	13	19	..	..	..	0	0	..	0	+
" 6		17	18	..	..	..	0	0	..	0	0
" 8		11	9	..	..	..	0	0	..	0	0
" 9		35	42	..	..	..	0	0	..	0	0
" 10		20	7	..	..	..	0	0	..	0	0
" 11		5	4	..	..	..	0	0	..	0	0
" 12		6	10	..	..	..	0	0	..	0	0
" 13		3	8	..	..	..	0	+	..	0	0
" 15		18	12	..	..	..	0	0	..	+	+
" 16		13	1	..	..	..	0	0	..	0	0
" 17		8	10	..	..	..	0	0	..	0	0
" 18		4	3	..	..	..	0	+	..	+	+
" 19		2	6	..	..	..	0	0	..	0	+
" 20		5	42	..	..	..	0	0	..	+	+
" 22		1	6	..	..	..	0	0	..	+	+
Averages		**10.7**	**13.1**	**2**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**
Sept. 5	34	9	8	..	..	..	0	0	..	0	0
" 6		5	11	..	..	..	0	0	..	0	0
" 8		39	29	..	..	..	0	0	..	0	0
" 9		34	42	..	..	..	0	0	..	0	0
" 10		11	4	..	..	..	0	0	..	0	0
" 11		4	5	..	..	..	0	0	..	0	0
" 12		9	6	..	..	..	0	0	..	0	0
" 13		..	5	..	..	..	0	0	..	0	0
" 15		25	21	..	..	..	0	+	..	0	+
" 16		12	14	..	..	..	0	0	..	+	+
" 17		5	8	..	..	..	0	+	..	0	+
" 18		4	6	..	..	..	0	0	..	0	+
" 19		5	5	..	..	..	0	0	..	+	+
" 20		4	10	..	..	..	0	0	..	0	+
" 22		2	3	..	..	..	0	0	..	+	+
Averages		**12**	**11.8**	**2**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00cc**

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Field Laboratory Reports. Laboratory at Windsor, Ont. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 5	35	13	6	..	..	..	0	0	..	0	0
" 6		4	8	..	..	..	0	0	..	0	0
" 8		11	18	..	..	..	0	0	..	0	0
" 9		21	45	..	..	..	0	0	..	0	0
" 10		2	7	..	..	..	0	0	..	0	0
" 11		6	3	..	..	..	0	0	..	0	0
" 12		..	3	..	..	..	0	0	..	0	0
" 13		18	3	..	..	..	0	0	..	0	0
" 16		3	10	..	..	..	0	0	..	0	0
" 17		4	1	..	..	..	0	0	..	0	0
" 18		8	4	..	..	..	0	0	..	0	+
" 19		3	3	..	..	..	0	+	..	+	+
" 20		5	spreader	..	..	..	0	0	..	0	0
" 22		1	4	..	..	..	0	0	..	+	+
Averages		**7**	**8**	**1 B. Coli per 100 cc**							
Sept. 5	36	12	14	..	..	..	0	0	..	+	0
" 6		31	14	..	..	..	0	0	..	0	0
" 8		13	34	..	..	..	0	0	..	0	0
" 9		19	29	..	..	..	0	0	..	0	0
" 10		32	4	..	..	..	0	0	..	0	0
" 11		6	9	..	..	..	0	0	..	0	0
" 12		2	3	..	..	..	0	0	..	0	0
" 13		..	1	..	..	..	0	0	..	0	0
" 15		17	7	..	..	..	0	0	..	+	+
" 16		13	5	..	..	..	0	0	..	..	0
" 17		2	10	..	..	..	0	0	..	0	0
" 18		2	8	..	..	..	0	0	..	0	+
" 19		4	2	..	..	..	0	0	..	0	0
" 20		3	5	..	..	..	0	0	..	0	0
" 22		1	6	..	..	..	0	0	..	+	+
Averages		**11.2**	**10.7**								
Sept. 5	37	11	5	..	..	..	0	0	..	0	0
" 6		9	spreader	..	..	..	0	0	..	0	0
" 8		19	30	..	..	..	0	0	..	0	0
" 9		28	34	..	..	..	0	0	..	0	0
" 10		22	28	..	..	..	0	0	..	0	0
" 11		3	8	..	..	..	0	0	..	0	0
" 12		3	9	..	..	..	0	0	..	0	0
" 13		..	10	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 15	37	18	10	..	..	..	0	0	..	0	+
" 16		5	11	..	..	..	0	0	..	0	0
" 17		1	4	..	..	..	0	0	..	0	0
" 18		9	3	..	..	..	0	0	..	0	+
" 19		4	2	..	..	..	0	+	..	0	0
" 20		4	5	..	..	..	0	0	..	0	0
" 22		0	8	..	..	..	0	0	..	0	+
Averages		**9**	**11.9**								
Sept. 5	38	33	19	..	..	..	0	0	..	0	0
" 6		7	8	..	..	..	0	0	..	0	0
" 8		11	27	..	..	..	0	0	..	+	+
" 9		14	2	..	..	..	0	+	..	0	0
" 10		34	9	..	..	..	0	0	..	0	0
" 11		8	7	..	..	..	0	0	..	0	0
" 12		7	6	..	..	..	0	0	..	0	0
" 13		18	7	..	..	..	0	0	..	+	+
" 16		9	12	..	..	..	0	0	..	..	0
" 17		4	3	..	..	..	0	0	..	+	+
" 18		1	2	..	..	..	0	0	..	+	+
" 19		2	8	..	..	..	0	0	..	0	0
" 20		4	12	..	..	..	0	0	..	0	0
" 22		0	5	..	..	..	0	0	..	+	+
Averages		**10.8**	**9**	**1 B. Coli per 100 cc**							
Sept. 5	39	21	17	..	..	..	0	0	..	0	0
" 6		5	4	..	..	..	0	0	..	0	0
" 8		160	21	..	..	..	0	0	..	+	0
" 9		25	6	..	..	..	0	0	..	+	0
" 10		6	7	..	..	..	0	0	..	0	0
" 11		5	15	..	..	..	0	0	..	0	0
" 12		9	5	..	..	..	0	0	..	0	0
" 13		..	12	..	..	..	0	0	..	0	0
" 15		22	26	..	..	..	0	0	..	0	0
" 16		5	7	..	..	..	0	0	..	0	0
" 17		3	4	..	..	..	0	0	..	+	0
" 18		3	5	..	..	..	0	0	..	+	+
" 19		5	3	..	..	..	0	0	..	0	0
" 20		2	spreader	..	..	..	0	0	..	0	0
" 22		1	6	..	..	..	0	0	..	0	+
Averages		**19.4**	**9**								

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Sept. 4	40	5	13	..	..	..	0	0	..	0	+
" 5		11	10	..	..	..	0	0	..	+	+
" 8		14	9	..	..	..	0	0	..	0	0
" 9		21	spreader	..	..	..	0	0	..	0	0
" 10		9	5	..	..	..	0	0	..	0	0
" 11		6	5	..	..	..	0	0	..	0	0
" 12		14	9	..	..	..	0	0	..	0	0
" 13		1	10	..	..	..	+	0	..	+	+
" 15		16	14	..	..	..	0	+	..	+	+
" 17		3	4	..	..	..	0	+	..	0	+
" 18		11	18	..	..	..	0	0	..	+	+
" 19		20	..	..	..	..	0	+	..	+	+
" 20		9	spreader	..	..	..	0	0	..	0	0
" 22		2	4	..	..	..	0	+	..	+	+
" 23		3	6	..	..	..	0	0	..	0	0
Averages		**9**	**8**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	41	28	37	..	..	..	0	+	..	+	+
" 5		18	1	..	..	..	0	0	..	+	+
" 6		11	4	..	..	..	0	0	..	0	0
" 8		12	17	..	..	..	0	0	..	+	+
" 9		19	9	..	..	..	0	0	..	0	0
" 10		18	2	..	..	..	0	0	..	0	0
" 11		5	7	..	..	..	0	0	..	0	0
" 12		7	9	..	..	..	0	+	..	0	0
" 13		0	12	..	..	..	0	0	..	0	+
" 15		10	10	..	..	..	0	0	..	0	+
" 17		2	1	..	..	..	0	0	..	0	+
" 18		2	4	..	..	..	0	0	..	+	+
" 19		25	5	..	..	..	0	0	..	0	+
" 20		..	3	..	..	..	0	0	..	0	+
" 22		2	..	..	..	..	0	..	..	..	..
" 23		3	16	..	..	..	0	0	..	0	0
Averages		**10.8**	**9**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	42	35	23	..	..	..	0	+	..	+	+
" 5		25	29	..	..	..	0	0	..	+	+
" 6		11	11	..	..	..	0	0	..	0	+
" 8		19	37	..	..	..	0	0	..	0	+
" 9		34	1	..	..	..	0	0	..	0	0
" 10		38	7	..	..	..	0	0	..	0	0
" 11		7	3	..	..	..	0	0	..	0	0
" 12		12	14	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept 13	42	2	1	..	..	..	0	0	..	0	0
" 15		14	34	..	..	..	0	+	..	+	+
" 16		13	6	..	..	..	0	0	..	+	0
" 17		11	16	..	..	..	0	0	..	0	+
" 18		8	3	..	..	..	0	+	..	+	+
" 19		15	18	..	..	..	0	0	..	0	0
" 22		0	3	..	..	..	0	0	..	+	+
Averages		**16.2**	**13.7**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	43	9	18	..	..	..	0	0	..	0	+
" 5		15	10	..	..	..	0	0	..	0	0
" 6		32	6	..	..	..	0	0	..	0	+
" 8		6	36	..	..	..	0	0	..	+	0
" 9		12	2	..	..	..	0	0	..	0	0
" 10		10	11	..	..	..	0	0	..	0	0
" 11		65	5	..	..	..	0	0	..	0	0
" 12		6	11	..	..	..	0	0	..	0	0
" 13		0	8	..	..	..	+	0	..	+	0
" 15		24	18	..	..	..	0	+	..	0	+
" 16		5	6	..	..	..	0	0	..	+	+
" 17		8	4	..	..	..	0	0	..	0	0
" 18		5	9	..	..	..	0	0	..	+	+
" 19		10	5	..	..	..	0	0	..	0	0
" 20		3	8	..	..	..	0	0	..	0	0
" 22		1	5	..	..	..	0	0	..	0	+
Averages		**13.1**	**10.1**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	44	21	15	..	..	..	0	0	..	0	0
" 5		17	2	..	..	..	0	0	..	+	+
" 6		11	7	..	..	..	0	0	..	0	0
" 8		17	12	..	..	..	0	0	..	+	+
" 9		23	1	..	..	..	0	0	..	0	0
" 10		33	36	..	..	..	0	0	..	0	+
" 11		14	6	..	..	..	0	0	..	0	0
" 12		5	6	..	..	..	0	0	..	0	0
" 13		1	3	..	..	..	0	0	..	0	0
" 15		22	10	..	..	..	0	0	..	+	+
" 16		14	3	..	..	..	0	0	..	+	+
" 17		5	11	..	..	..	0	0	..	0	0
" 18		6	8	..	..	..	0	0	..	0	0
" 19		3	6	..	..	..	0	0	..	+	+
" 20		2	10	..	..	..	0	+	..	+	0
" 22		2	0	..	..	..	0	0	..	+	+
Averages		**12.2**	**8**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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Sept. 4	45	3	6	..	..	..	0	0	..	0	0
" 5		9	8	..	..	..	0	0	..	0	+
" 6		9	8	..	..	..	0	0	..	0	0
" 8		3	6	..	..	..	0	0	..	0	0
" 9		11	3	..	..	..	0	0	..	0	0
" 10		65	4	..	..	..	0	0	..	0	+
" 11		17	9	..	..	..	0	0	..	0	+
" 12		6	2	..	..	..	0	0	..	0	0
" 13		1	4	..	..	..	0	0	..	0	0
" 15		30	7	..	..	..	0	+	..	+	+
" 16		11	3	..	..	..	0	0	..	0	+
" 17		8	3	..	..	..	0	0	..	0	+
" 18		5	5	..	..	..	0	0	..	0	+
" 19		25	280	..	..	..	0	0	..	+	+
" 20		6	6	..	..	..	0	0	..	+	+
" 22		0	4	..	..	..	0	0	..	+	+
Averages		**13.0**	**22.3**	**2**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	46	7	13	..	..	..	0	0	..	+	0
" 6		13	3	..	..	..	0	0	..	0	+
" 6		4	9	..	..	..	0	+	..	0	0
" 8		8	6	..	..	..	0	0	..	0	0
" 9		5	1	..	..	..	0	0	..	0	0
" 10		46	2	..	..	..	0	0	..	0	+
" 11		3	7	..	..	..	0	0	..	0	0
" 12		2	3	..	..	..	0	0	..	0	+
" 13		3	5	..	..	..	0	0	..	+	..
" 15		10	3	..	..	..	0	+	..	0	+
" 16		13	9	..	..	..	0	0	..	0	0
" 17		10	1	..	..	..	0	0	..	0	+
" 18		2	5	..	..	..	0	0	..	+	0
" 19		7	39	..	..	..	0	+	..	+	0
" 20		3	6	..	..	..	0	0	..	+	0
" 22		0	5	..	..	..	0	0	..	+	+
Averages		**8**	**7**	**1**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	47	4	3	..	..	..	0	+	..	+	+
" 5		7	1	..	.	..	0	0	..	0	0
" 6		14	4	..	.	..	0	0	..	0	0
" 8		5	6	..	.	..	0	0	..	0	+
" 9		3	2	..	.	..	0	0	..	0	0
" 10		70	18	..	.	..	0	0	..	0	0
" 11		5	1	..	.	..	0	0	..	0	0
" 12		5	3	..	.	..	0	0	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 13	47	1	3	..	..	..	0	0	..	0	0
" 15		3	12	..	..	..	0	0	..	0	+
" 16		5	3	..	..	..	0	0	..	0	0
" 17		11	3	..	..	..	0	+	..	0	+
" 18		0	2	..	..	..	+	0	..	+	+
" 19		4	28	..	..	..	0	0	..	+	+
" 20		4	7	..	..	..	0	0	..	0	+
" 22		0	4	..	..	..	0	+	..	+	+
Averages		**8**	**6**	**4**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	48	6	2	..	..	..	0	0	..	0	+
" 5		8	7	..	..	..	0	0	..	+	0
" 6		23	8	..	..	..	0	0	..	+	+
" 8		7	4	..	..	..	0	0	..	0	0
" 9		4	2	..	..	..	0	0	..	0	0
" 10		22	22	..	..	..	0	0	..	0	+
" 11		4	3	..	..	..	0	0	..	0	+
" 12		3	7	..	..	..	0	0	..	0	0
" 13		4	2	..	..	..	0	0	..	0	+
" 15		6	3	..	..	..	0	0	..	+	+
" 16		5	5	..	..	..	0	+	..	+	+
" 17		3	3	..	..	..	0	0	..	0	+
" 18		5	2	..	..	..	0	0	..	+	+
" 19		20	18	..	..	..	0	+	..	0	0
" 20		2	5	..	..	..	0	0	..	0	0
" 22		4	4	..	..	..	0	+	..	+	+
Averages		**7**	**6**	**4**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	49	0	3	..	..	..	0	0	..	0	+
" 5		3	15	..	..	..	0	0	..	+	0
" 6		12	11	..	..	..	0	0	..	+	+
" 8		13	16	..	..	..	0	0	..	0	0
" 9		7	6	..	..	..	0	0	..	0	0
" 10		16	14	..	..	..	0	0	..	+	0
" 11		6	2	..	..	..	0	+	..	+	+
" 12		6	1	..	..	..	0	+	..	+	+
" 13		0	2	..	..	..	0	0	..	+	+
" 15		4	spreader	..	..	..	0	0	..	+	+
" 16		5	8	..	..	..	0	0	..	0	+
" 17		14	4	..	..	..	+	+	..	+	+
" 18		4	3	..	..	..	0	0	..	0	0
" 19		9	1	..	..	..	0	+	..	+	+
" 20		5	5	..	..	..	0	0	..	+	0
" 22		3	3	..	..	..	0	0	..	+	0
Averages		**6**	**6**	**11**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 4	50	23	27	..	..	..	0	+	..	+	+
" 5		11	11	..	..	..	0	0	..	0	+
" 6		34	18	..	..	..	0	0	..	+	+
" 8		13	14	..	..	..	0	0	..	0	+
" 9		23	11	..	..	..	0	+	..	0	0
" 10		42	21	..	..	..	0	0	..	0	0
" 11		8	6	..	..	..	0	0	..	+	+
" 12		6	9	..	..	..	0	0	..	+	+
" 13		3	27	..	..	..	0	0	..	+	+
" 15		4	12	..	..	..	0	0	..	0	0
" 16		7	1	..	..	..	0	+	..	+	+
" 17		13	1	..	..	..	+	+	..	0	+
" 18		8	9	..	..	..	0	0	..	+	+
" 19		25	18	..	..	..	0	+	..	+	+
" 20		3	15	..	..	..	0	0	..	0	+
" 22		4	2	..	..	..	0	+	..	+	+
Averages		**14.2**	**13.7**	**7**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	51	4	7	..	..	..	0	+	..	+	+
" 5		29	11	..	..	..	0	+	..	0	+
" 6		32	spreader	..	..	..	0	+	..	+	+
" 8		15	33	..	..	..	0	0	..	+	+
" 9		14	4	..	..	..	0	0	..	0	0
" 10		51	4	..	..	..	0	0	..	0	0
" 11		11	12	..	..	..	0	0	..	0	+
" 12		7	14	..	..	..	0	0	..	0	+
" 13		2	10	..	..	..	0	+	..	0	+
" 15		5	6	..	..	..	0	0	..	0	+
" 16		13	1	..	..	..	+	+	..	+	+
" 17		7	32	..	..	..	0	0	..	0	+
" 18		5	3	..	..	..	0	0	..	+	+
" 19		23	10	..	..	..	0	0	..	+	+
" 20		11	25	..	..	..	0	0	..	0	0
" 22		0	5	..	..	..	0	0	..	+	0
Averages		**14.3**	**11.8**	**10**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	52	8	17	..	..	..	+	0	..	+	+
" 5		8	10	..	..	..	0	+	..	0	+
" 6		14	9	..	..	..	0	0	..	+	+
" 8		17	10	..	..	..	0	0	..	+	+
" 9		92	1	..	..	..	0	0	..	0	0
" 10		39	8	..	..	..	0	0	..	0	0
" 11		11	11	..	..	..	0	0	..	+	0
" 12		13	24	..	..	..	0	0	..	+	+
" 13		..	8	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 15	52	9	6	..	..	..	0	0	..	+	+
" 16		15	6	..	..	..	0	0	..	+	0
" 17		8	2	..	..	..	0	0	..	0	+
" 18		5	3	..	..	..	0	0	..	+	+
" 19		20	10	..	..	..	0	0	..	+	+
" 20		4	spreader	..	..	..	0	0	..	0	+
" 22		2	3	..	..	..	0	0	..	+	+
Averages		**17.6**	**8**	**3**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	53	7	6	..	..	..	0	0	..	+	+
" 5		12	11	..	..	..	0	0	..	0	+
" 6		11	11	..	..	..	0	+	..	0	0
" 8		16	9	..	..	..	0	0	..	0	0
" 9		9	7	..	..	..	0	0	..	0	0
" 10		23	21	..	..	..	0	0	..	+	+
" 11		8	9	..	..	..	0	0	..	+	0
" 12		9	12	..	..	..	0	0	..	0	0
" 13		3	7	..	..	..	0	0	..	0	+
" 15		23	2	..	..	..	0	+	..	+	+
" 16		5	13	..	..	..	0	0	..	0	0
" 17		11	12	..	..	..	0	0	..	0	+
" 18		3	6	..	..	..	0	0	..	0	0
" 19		6	14	..	..	..	0	0	..	+	+
" 20		8	10	..	..	..	0	0	..	0	+
" 22		0	5	..	..	..	0	+	..	0	+
Averages		**9.**	**9.**	**3**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4	54	2	5	..	..	..	0	0	..	0	+
" 5		13	19	..	..	..	0	0	..	0	0
" 8		9	8	..	..	..	0	0	..	0	0
" 9		29	16	..	..	..	0	0	..	0	0
" 10		0	18	..	..	..	0	0	..	0	+
" 11		9	8	..	..	..	0	0	..	0	+
" 12		7	5	..	..	..	0	0	..	0	0
" 13		2	4	..	..	..	0	0	..	0	+
" 15		18	14	..	..	..	0	+	..	0	+
" 16		7	11	..	..	..	0	0	..	0	0
" 17		9	11	..	..	..	0	0	..	0	+
" 18		6	2	..	..	..	0	0	..	+	0
" 19		52	9	..	..	..	0	+	..	+	+
" 20		9	6	..	..	..	0	0	..	0	0
" 22		2	2	..	..	..	0	0	..	+	+
Averages		**11.6**	**9.**	**2**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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Sept. 4.....	55	1	4	..	..	..	0	0	..	0	+
" 5.....		28	11	..	..	..	0	0	..	0	+
" 6.....		14	11	..	..	..	0	+	..	+	+
" 8.....		6	3	..	..	..	0	0	..	0	0
" 9.....		9	7	..	..	..	0	0	..	0	0
" 10.....		34	21	..	..	..	0	0	..	0	0
" 11.....		2	4	..	..	..	0	0	..	0	0
" 12.....		5	6	..	..	..	0	0	..	0	+
" 15.....		4	6	..	..	..	0	0	..	0	+
" 16.....		2	8	..	..	..	0	0	..	0	+
" 17.....		5	2	..	..	..	0	+	..	0	+
" 18.....		4	5	..	..	..	0	0	..	+	+
" 19.....		20	6	..	..	..	0	0	..	+	+
" 20.....		3	15	..	..	..	0	0	..	0	+
" 22.....		0	3	..	..	..	0	0	..	+	+
Averages.....		**9**	**7**	**3**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4.....	56	2	2	..	..	..	0	0	..	0	0
" 5.....		12	4	..	..	..	0	+	..	0	+
" 6.....		13	5	..	..	..	0	0	..	0	0
" 8.....		5	2	..	..	..	0	0	..	0	0
" 9.....		2	3	..	..	..	0	0	..	0	0
" 10.....		14	7	..	..	..	0	0	..	+	+
" 12.....		1	3	..	..	..	0	0	..	0	+
" 13.....		6	13	..	..	..	0	0	..	0	+
" 15.....		9	3	..	..	..	0	0	..	+	+
" 16.....		2	6	..	..	..	0	0	..	+	+
" 17.....		2	1	..	..	..	0	0	..	0	+
" 18.....		3	5	..	..	..	0	0	..	+	+
" 19.....		12	3	..	..	..	0	+	..	+	+
" 20.....		4	6	..	..	..	0	0	..	0	+
" 22.....		2	3	..	..	..	0	+	..	+	+
Averages.....		**5**	**4**	**4**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4.....	57	5	2	..	..	..	0	0	..	0	0
" 5.....		14	6	..	..	..	0	0	..	0	0
" 6.....		14	8	..	..	..	0	+	..	+	+
" 8.....		2	19	..	..	..	0	0	..	0	0
" 9.....		3	3	..	..	..	0	0	..	0	+
" 10.....		19	5	..	..	..	0	0	..	+	+
" 11.....		6	5	..	..	..	0	0	..	+	+
" 12.....		42	3	..	..	..	0	0	..	0	+
" 13.....		5	3	..	..	..	0	0	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 15.....	57	8	18	..	..	..	0	0	..	0	+
" 16.....		4	1	..	..	..	0	0	..	+	+
" 17.....		5	2	..	..	..	0	0	..	+	+
" 18.....		2	4	..	..	..	0	+	..	+	+
" 19.....		13	18	..	..	..	0	+	..	0	+
" 20.....		5	7	..	..	..	0	0	..	+	+
" 22.....		1	3	..	..	..	0	+	..	+	+
Averages.....		**9**	**6**	**5**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4.....	58	6	1	..	..	..	0	0	..	+	+
" 5.....		5	2	..	..	..	0	+	..	+	+
" 6.....		5	10	..	..	..	0	0	..	+	0
" 8.....		4	3	..	..	..	0	0	..	0	+
" 9.....		5	4	..	..	..	0	0	..	0	+
" 10.....		4	8	..	..	..	0	0	..	0	0
" 11.....		4	6	..	..	..	0	+	..	+	0
" 12.....		140	9	..	..	..	0	0	..	+	+
" 13.....		18	2	..	..	..	0	+	..	+	+
" 15.....		11	7	..	..	..	0	0	..	+	+
" 16.....		2	5	..	..	..	0	0	..	+	+
" 17.....		2	2	..	..	..	0	0	..	0	+
" 18.....		21	5	..	..	..	0	0	..	+	+
" 19.....		9	5	..	..	..	0	0	..	0	0
" 22.....		4	2	..	..	..	0	0	..	0	+
Averages.....		**16.**	**4**	**4**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 4.....	59	12	4	..	..	..	0	0	..	0	0
" 5.....		7	1	..	..	..	0	0	..	0	0
" 6.....		67	8	..	..	..	0	0	..	0	+
" 8.....		13	2	..	..	..	0	0	..	0	0
" 9.....		4	3	..	..	..	0	+	..	0	+
" 10.....		45	9	..	..	..	0	0	..	+	+
" 11.....		7	2	..	..	..	0	0	..	0	+
" 12.....		65	6	..	..	..	0	0	..	0	+
" 13.....		14	1	..	..	..	0	0	..	+	+
" 15.....		3	2	..	..	..	0	0	..	+	+
" 16.....		4	1	..	..	..	0	0	..	0	0
" 17.....		4	2	..	..	..	0	0	..	0	+
" 18.....		32	14	..	..	..	+	0	..	+	+
" 19.....		14	40	..	..	..	0	0	..	0	0
" 20.....		..	spreader	..	..	..	0	0	..	0	0
" 22.....		3	3	..	..	..	0	0	..	+	+
Averages.....		**18.3**	**11.1**	**3**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

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Sept. 4	60	9	12	..	..	..	+	+	..	+	+
" 5		16	5	..	..	..	0	+	..	+	+
" 6		780	500	..	..	..	+	+	..	+	+
" 8		40	40	..	..	0	0	0	..	+	+
" 9		270	20	..	..	0	0	0	..	0	+
" 10		1300	110	..	..	0	0	+	..	+	+
" 11		470	..	..	..	0	0	0	..	+	+
" 12		20	80	..	..	0	0	0	..	0	+
" 13		30	20	..	..	0	0	0	..	+	+
" 15		30	20	..	..	0	0	+	..	+	+
" 16		70	40	..	..	..	+	+	..	+	+
" 17		60	60	..	..	0	0	0	..	0	+
" 18		40	90	..	..	0	0	+	..	+	+
" 19		400	7600	..	..	0	0	+	..	+	+
" 20		..	60	..	..	0	0	0	..	0	0
" 22		50	10	..	..	0	0	0	..	+	+
Averages		**239**	**76**	**26**	**B.**	**Co**	**li**	**pe**	**r1**	**00**	**cc**
Sept. 4		480	540	..	..	..	0	+	..	+	+
" 5	61	420	120	..	..	..	+	+	..	+	+
" 6		1200	1100	..	..	..	+	+	..	+	+
" 8		1600	1400	..	..	0	0	+	..	+	+
" 9		4000	310	..	..	0	+	+	..	+	+
" 10		2100	800	..	..	0	+	+	..	+	+
" 11		2400	..	..	..	0	0	0	..	+	+
" 12		130	20	..	..	0	0	0	..	+	+
" 13		80	40	..	..	0	+	+	..	+	+
" 15		60	10	..	..	0	0	+	..	+	+
" 16		350	50	..	..	0	+	+	..	+	+
" 17		3400	1200	..	..	0	+	+	..	+	+
" 18		180	110	..	..	0	+	+	..	+	+
" 19		2200	940	..	..	+	+	+	..	+	+
" 20		40	610	..	..	+	+	+	..	+	+
" 22		0	30	..	..	0	0	0	..	+	+
Averages		**1165**	**437**	**1**	**79**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
Sept. 4	62	1280	680	..	..	..	+	+	..	+	+
" 5		1600	1600	..	..	..	+	+	..	+	+
" 6		1400	1600	..	..	..	+	+	..	+	+
" 8		4200	5900	..	..	+	0	+	..	+	+
" 9		16000	1200	..	..	+	+	+	..	+	+
" 10		9000	2200	..	..	0	+	+	..	+	+
" 11		200	1200	..	..	0	0	+	..	+	+
Sept. 12	62	2500	2300	..	0	0	0	+	..	+	+
" 13		..	270	..	0	0	0	+	..	+	+
" 15		700	0	..	0	0	0	+	..	+	+
" 17		300	300	..	0	0	0	+	..	+	+
" 18		800	500	..	0	+	+	+	..	+	+
" 19		20000	1800	..	0	+	+	+	..	+	+
" 20		100	1000	..	+	+	+	+	..	+	+
" 22		1400	400	..	0	+	+	+	..	+	+
Averages		**2602**	**1376**	**9**	**73**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
Sept. 4	63	6	6	..	..	..	0	0	..	+	+
" 5		8	5	..	..	..	0	0	..	0	+
" 6		16	250	..	..	..	0	0	..	0	0
" 8		3	2	..	..	..	0	0	..	0	0
" 9		19	7	..	..	..	0	0	..	0	+
" 10		17	16	..	..	..	0	0	..	0	0
" 11		13	9	..	..	..	0	0	..	0	0
" 12		2	7	..	..	..	0	0	..	+	+
" 13		..	10	..	..	..	0	0	..	+	+
" 15		8	4	..	..	..	0	0	..	+	+
" 16		7	50	..	..	..	0	0	..	+	+
" 17		3	30	..	..	..	0	+	..	0	0
" 18		2	5	..	..	..	0	0	..	+	+
" 19		6	8	..	..	..	0	0	..	0	0
" 20		3	..	..	..	..	0	0	..	0	0
" 22		3	8	..	..	..	0	+	..	0	+
Averages		**7**	**11.9**	**2**	**B.**	**Co**	**li**	**pe**	**r1**	**00**	**cc**
Sept. 4	64	11	22	..	..	..	0	0	..	0	+
" 5		21	9	..	..	..	0	0	..	0	0
" 6		16	30	..	..	..	0	0	..	0	0
" 8		5	4	..	..	..	0	0	..	+	+
" 9		2	6	..	..	..	0	0	..	0	0
" 10		13	18	..	..	..	0	0	..	0	0
" 11		9	14	..	..	..	0	0	..	0	0
" 12		5	6	..	..	..	0	0	..	0	0
" 13		..	spreader	..	..	..	0	+	..	0	0
" 15		13	2	..	..	..	0	0	..	+	+
" 16		26	6	..	..	..	0	0	..	0	0
" 17		5	12	..	..	..	0	0	..	0	0
" 18		2	9	..	..	..	0	0	..	+	+
" 19		7	5	..	..	..	0	0	..	0	0
" 20		3	..	..	..	..	0	0	..	0	+
" 22		2	9	..	..	..	0	+	..	+	+
Averages		**9**	**10.8**	**2**	**B.**	**Co**	**li**	**pe**	**r1**	**00**	**cc**

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Sept. 4	65	19	10	..	..	..	0	+	..	0	+
" 5		24	7	..	..	..	0	0	..	0	+
" 6		32	10	..	..	..	0	0	..	0	0
" 8		6	5	..	..	..	0	0	..	0	0
" 9		12	7	..	..	..	0	0	..	0	+
" 10		12	11	..	..	..	0	0	..	0	0
" 11		5	4	..	..	..	0	0	..	0	0
" 12		3	7	..	..	..	0	+	..	0	+
" 13		..	6	..	..	..	0	0	..	0	+
" 15		10	2	..	..	..	0	0	..	+	+
" 16		13	5	..	..	..	0	0	..	0	0
" 17		4	3	..	..	..	0	0	..	0	0
" 18		1	1	..	..	..	0	+	..	0	+
" 19		4	11	..	..	..	0	0	..	0	0
" 20		6	..	..	..	..	0	0	..	+	+
" 22		3	3	..	..	..	0	+	..	+	+
Averages		**10.2**	**6**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	66	13	10	..	..	..	0	+	..	+	+
" 5		9	16	..	..	..	0	0	..	0	0
" 6		7	9	..	..	..	0	0	..	0	+
" 8		12	8	..	..	..	0	0	..	0	+
" 9		16	13	..	..	..	0	0	..	0	+
" 10		22	1	..	..	..	0	0	..	0	+
" 11		80	14	..	..	..	0	0	..	0	0
" 12		6	6	..	..	..	0	0	..	0	0
" 13		..	20	..	..	..	0	+	..	+	+
" 15		12	9	..	..	..	0	0	..	0	0
" 16		12	11	..	..	..	0	0	..	0	0
" 17		5	2	..	..	..	0	0	..	0	0
" 18		6	1	..	..	..	0	0	..	+	+
" 19		3	8	..	..	..	0	0	..	0	+
" 20		3	..	..	..	..	0	0	..	+	0
" 22		4	2	..	..	..	0	0	..	0	0
Averages		**14**	**8**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	67	34	16	..	..	..	0	+	..	+	+
" 5		22	6	..	..	..	0	0	..	+	+
" 6		6	8	..	..	..	0	0	..	+	+
" 8		8	11	..	..	..	+	0	..	0	0
" 9		30	21	..	..	..	+	+	..	+	+
" 10		37	17	..	..	..	0	0	..	0	0
" 11		45	8	..	..	0	0	+	..	0	+
" 12		6	5	..	..	0	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 13	67	..	14	..	..	0	0	0	..	+	+
" 15		12	14	..	..	0	0	0	..	0	+
" 16		14	3	..	..	..	0	+	..	+	+
" 17		3	6	..	..	..	0	0	..	0	0
" 18		3	8	..	..	..	0	0	..	0	+
" 19		6	18	..	..	0	0	0	..	+	+
" 20		5	..	..	..	0	0	0	..	0	0
" 22		1	8	..	..	0	0	0	..	0	+
Averages		**15.4**	**10.8**	**10**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	68	110	38	..	..	..	+	+	..	+	+
" 5		95	39	..	..	..	0	+	..	+	+
" 6		72	42	..	..	..	+	0	..	+	+
" 8		80	50	..	..	0	0	0	..	+	+
" 9		340	160	..	..	..	0	+	..	+	+
" 10		130	90	..	..	..	0	+	..	+	+
" 11		55	120	..	..	0	+	+	..	+	+
" 12		90	60	..	..	0	+	+	..	+	+
" 13		..	130	..	..	0	0	0	..	+	+
" 15		180	60	..	..	0	+	+	..	+	+
" 16		140	60	..	..	..	+	+	..	+	+
" 17		40	10	..	..	0	+	+	..	+	+
" 18		..	30	..	..	0	+	+	..	+	+
" 19		750	380	..	..	+	+	+	..	+	+
" 20		3000	2010	..	..	+	+	+	..	+	+
Averages		**363**	**217**	**1**	**85**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	69	12	22	..	..	..	0	0	..	+	+
" 5		27	19	..	..	..	0	0	..	+	+
" 6		15	80	..	..	..	0	0	..	+	+
" 8		7	15	..	..	..	0	0	..	0	0
" 9		27	26	..	..	..	+	+	..	0	+
" 10		53	39	..	..	..	+	+	..	+	+
" 11		28	4	..	..	0	0	0	..	+	0
" 12		12	3	..	..	0	0	0	..	0	0
" 13		..	3	..	..	0	0	0	..	0	+
" 15		8	6	..	..	0	0	+	..	0	+
" 16		140	9	..	..	..	+	+	..	+	+
" 17		5	6	..	..	..	0	0	..	0	0
" 18		2	11	..	..	..	0	+	..	+	+
" 19		25	80	..	..	0	0	0	..	+	+
" 20		85	100	..	..	0	0	0	..	0	+
Averages		**31.8**	**28.**	**23**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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Sept. 4.....	70	13	9	..	..	..	0	0	..	0	+
" 5.....		1	5	..	..	..	0	0	..	+	+
" 6.....		16	50	..	..	..	0	0	..	0	0
" 8.....		5	4	..	..	..	0	0	..	0	0
" 9.....		55	24	..	..	..	0	0	..	0	+
" 10.....		30	12	..	..	..	0	0	..	0	0
" 11.....		4	2	..	..	..	0	0	..	0	0
" 12.....		5	5	..	..	..	0	0	..	0	0
" 13.....		..	13	..	..	..	0	0	..	0	0
" 15.....		18	8	..	..	..	0	0	..	0	0
" 16.....		14	6	..	..	..	0	0	..	0	0
" 17.....		2	1	..	..	..	0	0	..	0	0
" 18.....		7	11	..	..	..	0	0	..	0	0
" 19.....		8	7	..	..	..	0	+	..	+	+
" 20.....		18	8	..	..	..	0	0	..	0	0
Averages.....		**14**	**11**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	71	3	6	..	..	..	0	+	..	+	+
" 5.....		3	10	..	..	..	0	0	..	0	+
" 6.....		20	62	..	..	..	0	+	..	0	0
" 8.....		5	3	..	..	..	0	0	..	0	0
" 9.....		41	4	..	..	..	0	0	..	0	0
" 10.....		29	10	..	..	..	0	+	..	0	0
" 11.....		14	8	..	..	..	0	0	..	0	0
" 12.....		2	5	..	..	..	0	0	..	0	0
" 13.....		..	3	..	..	..	0	0	..	0	0
" 15.....		9	9	..	..	..	0	0	..	0	+
" 16.....		12	11	..	..	..	0	+	..	0	+
" 17.....		3	3	..	..	..	0	0	..	0	0
" 18.....		3	8	..	..	..	0	+	..	0	+
" 19.....		6	5	..	..	..	0	+	..	+	+
" 20.....		5	8	..	..	..	0	0	..	0	0
Averages.....		**11**	**10.3**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	72	7	3	..	..	..	0	0	..	0	0
" 5.....		27	3	..	..	..	0	0	..	+	+
" 6.....		15	42	..	..	..	0	0	..	0	0
" 8.....		4	3	..	..	..	0	0	..	0	0
" 9.....		8	3	..	..	..	0	+	..	+	+
" 10.....		18	13	..	..	0	0	0	..	0	+
" 11.....		0	5	..	..	..	0	0	..	0	0
" 12.....		5	6	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 13.....	72	..	1	..	..	..	0	+	..	+	+
" 15.....		5	5	..	..	..	0	0	..	0	+
" 16.....		8	17	..	..	..	0	0	..	+	0
" 17.....		3	1	..	..	..	0	0	..	0	0
" 18.....		2	4	..	..	..	0	+	..	+	+
" 19.....		5	3	..	..	..	0	0	..	+	+
" 20.....		4	spreader	..	..	..	0	0	..	0	0
Averages.....		**7**	**7**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	73	11	0	..	..	..	+	0	..	0	+
" 5.....		6	10	..	..	..	0	0	..	+	+
" 6.....		3	18	..	..	..	0	0	..	0	0
" 8.....		12	8	..	..	..	0	0	..	+	0
" 9.....		15	6	..	..	..	0	0	..	0	+
" 10.....		6	6	..	..	0	0	0	..	0	0
" 11.....		6	8	..	..	..	0	+	..	0	0
" 12.....		9	13	..	..	..	0	0	..	0	0
" 13.....		..	3	..	..	..	0	0	..	0	0
" 15.....		4	7	..	..	..	0	+	..	0	+
" 17.....		3	3	..	..	..	0	0	..	0	0
" 18.....		5	3	..	..	..	0	0	..	+	+
" 19.....		7	3	..	..	..	0	0	..	0	+
" 20.....		2	4	..	..	..	0	0	..	0	+
Averages.....		**6**	**6**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	74	20	1	..	..	..	0	0	..	0	+
" 5.....		11	3	..	..	..	0	0	..	+	0
" 6.....		4	20	..	..	..	0	0	..	0	0
" 8.....		15	7	..	..	..	0	0	..	0	+
" 9.....		10	4	..	..	0	0	0	..	+	0
" 10.....		1	63	..	..	..	0	0	..	0	0
" 11.....		3	5	..	..	..	0	0	..	0	0
" 12.....		2	3	..	..	..	0	0	..	+	+
" 13.....		..	6	..	..	..	0	+	..	+	+
" 15.....		3	6	..	..	..	0	0	..	0	0
" 16.....		6	6	..	..	..	0	0	..	0	0
" 17.....		2	4	..	..	..	0	+	..	+	+
" 18.....		3	1	..	..	..	0	0	..	+	0
" 19.....		3	5	..	..	..	..	..	..	..	..
Averages.....		**6.**	**9.**	**4.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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Sept. 4.....	75	36	3	..	..	..	+	+	..	+	+
" 5.....		56	16	..	..	..	0	0	..	0	0
" 6.....		6	9	..	..	..	0	0	..	0	0
" 8.....		210	35	..	..	..	+	0	..	+	+
" 9.....		9	11	..	..	..	0	0	..	+	+
" 10.....		460	13	..	..	0	0	+	..	+	+
" 11.....		34	9	..	..	0	0	0	..	0	+
" 12.....		6	4	..	..	0	0	0	..	+	+
" 13.....		..	14	..	..	0	0	+	..	0	+
" 15.....		4	14	..	..	0	0	0	..	+	+
" 16.....		4	3	..	..	0	0	0	..	0	+
" 17.....		6	1	..	..	..	0	0	..	+	0
" 18.....		31	14	..	..	..	0	0	..	+	+
" 19.....		8	3	..	..	0	0	0	..	+	+
" 20.....		3	spreader	..	..	0	0	0	..	0	0
Averages.....		**62**	**10.6**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	76	6	8	..	..	..	0	+	..	+	+
" 5.....		260	480	..	..	..	0	0	..	+	+
" 6.....		12	16	..	..	..	0	0	..	+	+
" 8.....		17	4	..	..	..	0	0	..	+	+
" 9.....		12	3	..	0	..	+	0	..	+	+
" 10.....		24	2	..	..	0	+	+	..	+	+
" 11.....		5	6	..	..	..	0	0	..	0	+
" 12.....		19	7	..	..	..	0	+	..	+	+
" 13.....		..	3	..	..	..	0	+	..	+	+
" 15.....		5	5	..	..	..	0	0	..	0	0
" 16.....		7	1	..	..	..	0	0	..	+	+
" 17.....		4	2	..	..	..	0	+	..	0	0
" 18.....		5	9	..	..	..	0	+	..	+	+
" 19.....		7	5	..	..	..	0	0	..	0	0
" 20.....		4	6	..	..	..	0	0	..	+	+
Averages.....		**27.6**	**37.1**	**14**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	77	16	5	..	..	..	0	0	..	0	0
" 5.....		240	420	..	..	..	0	+	..	+	+
" 6.....		8	40	..	..	..	0	0	..	+	+
" 8.....		22	8	..	..	..	0	+	..	+	+
" 9.....		7	4	..	0	..	0	0	..	0	+
" 10.....		0	2	..	..	0	0	0	..	0	0
" 11.....		6	8	..	..	..	0	0	..	0	+
" 12.....		9	17	..	..	..	0	0	..	0	0

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Sept. 13.....	77	..	4	..	..	..	0	+	..	+	+
" 15.....		5	14	..	..	..	0	0	..	+	+
" 16.....		45	32	..	..	..	0	0	..	0	0
" 17.....		4	3	..	..	..	0	0	..	+	+
" 18.....		28	11	..	..	..	0	0	..	+	+
" 19.....		45	14	..	..	..	0	0	..	+	+
" 20.....		48	spreader	..	..	..	0	0	..	+	+
Averages.....		**34.5**	**41.5**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	78	70	7	..	..	..	0	+	+	..	+
" 5.....		520	420	..	..	..	0	+	..	+	+
" 6.....		22	110	..	..	..	0	0	..	+	+
" 8.....		240	14	..	..	..	0	+	..	+	+
" 9.....		440	240	..	0	..	0	+	..	+	+
" 10.....		480	14	..	..	0	+	+	..	+	+
" 11.....		1200	140	..	..	..	0	+	..	+	+
" 12.....		160	60	..	..	..	0	+	..	+	+
" 13.....		..	320	..	..	..	+	+	..	+	+
" 15.....		2400	80	..	..	..	0	+	..	+	+
" 16.....		440	360	..	..	0	+	+	..	+	+
" 17.....		320	160	..	..	0	+	+	..	+	+
" 18.....		30	50	..	..	..	0	+	..	+	+
" 19.....		1560	210	..	..	+	+	+	..	+	+
" 20.....		6100	300	..	..	+	+	+	..	+	+
Averages.....		**998**	**162**	**1**	**70**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4.....	79	20	5	..	..	..	+	0	..	+	+
" 6.....		9	10	..	..	..	0	0	..	0	0
" 8.....		9	3	..	..	..	0	0	..	0	0
" 9.....		29	6	..	..	..	0	0	..	+	+
" 10.....		15	4	..	..	..	0	0	..	0	+
" 11.....		3	5	..	..	..	0	0	..	0	0
" 12.....		8	8	..	..	..	0	+	..	0	0
" 13.....		..	3	..	..	..	0	0	..	+	0
" 15.....		8	1	..	..	..	0	0	..	0	+
" 16.....		11	600	..	..	..	0	0	..	0	+
" 17.....		8	2	..	..	..	0	0	..	0	0
" 18.....		6	8	..	..	..	0	0	..	+	+
" 19.....		39	11	..	..	..	0	0	..	+	+
" 20.....		3	spreader	..	..	..	0	0	..	+	0
" 22.....		3	14	..	..	..	0	0	..	0	+
Averages.....		**11.5**	**45.5**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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Sept. 4	80	19	6	..	..	..	0	+	..	+	+
" 6		9	15	..	..	..	0	0	..	0	0
" 8		11	6	..	..	..	0	0	..	0	+
" 9		21	13	..	..	..	0	0	..	0	+
" 10		18	5	..	..	..	0	0	..	+	+
" 11		9	9	..	..	..	0	0	..	0	0
" 12		1	4	..	..	..	0	0	..	0	+
" 13		..	8	..	..	..	0	0	..	+	0
" 15		11	34	..	..	..	0	+	..	0	+
" 16		6	8	..	..	..	0	0	..	0	0
" 17		4	4	..	..	..	0	0	..	0	+
" 18		5	1	..	..	..	0	0	..	+	+
" 19		4	2	..	..	..	0	0	..	0	+
" 20		3	5	..	..	..	0	0	..	0	+
" 22		2	3	..	..	..	0	+	..	+	+
Averages		**8**	**7**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	81	33	5	..	..	..	0	0	..	+	+
" 6		17	18	..	..	..	0	0	..	+	+
" 8		16	15	..	..	..	0	0	..	0	0
" 9		48	27	..	..	..	0	0	..	+	+
" 10		2	15	..	..	..	0	+	..	+	+
" 11		11	6	..	..	..	0	0	..	0	0
" 12		3	..	..	..	..	0	0	..	0	+
" 13		..	4	..	..	..	0	0	..	0	+
" 15		9	14	..	..	..	0	0	..	+	+
" 16		34	9	..	..	..	0	+	..	+	+
" 17		6	4	..	..	..	0	+	..	0	0
" 18		4	8	..	..	..	0	0	..	+	+
" 19		8	3	..	..	..	0	+	..	+	+
" 20		14	4	..	..	..	0	0	..	0	0
" 22		4	4	..	..	..	0	+	..	+	+
Averages		**14.0**	**9**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	82	55	22	..	..	..	0	+	..	+	+
" 6		110	34	..	..	..	0	+	..	+	+
" 8		90	15	..	..	..	0	+	..	+	+
" 9		80	9	..	..	..	0	0	..	+	+
" 10		220	59	..	..	..	+	+	..	+	+
" 11		14	12	..	..	..	0	0	..	0	+
" 12		160	35	..	..	..	0	+	..	+	+
" 13		..	5	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 15	82	13	40	..	..	..	0	+	..	+	+
" 16		29	25	..	..	0	+	+	..	+	+
" 17		44	7	..	..	0	+	+	..	+	+
" 18		70	40	..	..	..	0	+	..	+	+
" 19		198	90	..	..	0	+	+	..	+	+
" 20		440	20	..	..	0	+	+	..	+	+
" 22		4	8	..	..	0	0	+	..	+	+
Averages		**103**	**27.5**	**45**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	83	340	8	..	..	..	0	+	..	+	+
" 6		70	175	..	..	..	0	+	..	+	+
" 8		210	21	..	..	..	0	+	..	+	+
" 9		260	34	..	..	..	+	+	..	+	+
" 10		60	22	..	..	..	+	+	..	+	+
" 11		78	18	..	..	0	+	+	..	+	+
" 12		21	14	..	..	0	0	0	..	+	+
" 13		..	60	..	..	0	+	+	..	+	+
" 15		130	14	..	0	0	+	+	..	+	+
" 16		360	35	..	..	+	+	+	..	+	+
" 17		50	3	..	..	+	+	+	..	+	+
" 18		120	58	..	0	+	+	+	..	+	+
" 19		220	180	..	0	+	+	+	..	+	+
" 20		380	spreader	..	..	+	+	+	..	+	+
" 22		110	45	..	0	0	+	+	..	+	+
Averages		**163**	**47.**	**3**	**77**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	84	270	14	..	..	..	0	+	..	+	+
" 6		280	220	..	..	..	0	+	..	+	+
" 8		180	19	..	..	..	0	+	..	+	+
" 9		180	55	..	..	..	+	0	..	+	+
" 10		120	7	..	..	+	+	+	..	+	+
" 13		..	72	..	..	..	+	+	..	+	+
" 15		120	180	..	0	+	+	+	..	+	+
" 18		120	49	..	+	+	+	+	..	+	+
" 25		140	5	..	0	+	+	+	..	+	+
" 26		200	38	..	0	+	+	+	..	+	+
" 27		4	30	..	0	+	+	+	..	+	+
" 29		180	20	..	0	+	+	+	..	+	+
" 30		90	19	..	0	0	+	+	..	+	+
Oct. 1		320	2	..	+	+	+	+	..	+	+
" 2		290	80	..	0	0	+	+	..	+	+
Averages		**178**	**54**	**10**	**97**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 4	85	22	19	..	..	..	0	0	..	0	+
" 6		59	60	..	..	..	+	+	..	+	+
" 8		110	22	..	..	..	0	+	..	+	+
" 9		85	110	..	..	..	+	+	..	+	+
" 10		63	14	..	..	0	+	0	..	+	+
" 13		..	114	..	..	+	+	+	..	+	+
" 15		220	48	..	..	+	+	+	..	+	+
" 18		38	16	..	+	+	+	+	..	+	+
" 25		38	15	..	0	+	+	+	..	+	+
" 26		80	6	..	0	+	+	+	..	+	+
" 27		6	2	..	0	+	+	+	..	+	+
" 29		38	30	..	0	+	+	+	..	+	+
" 30		34	8	..	0	0	+	+	..	+	+
Oct. 1		120	160	..	0	0	+	+	..	+	+
" 2		85	36	..	0	+	+	+	..	+	+
Averages		**71.3**	**44**	**11**	**68**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	86	18	4	..	..	..	0	+	..	0	+
" 6		9	28	..	..	..	0	0	..	+	+
" 8		7	4	..	..	..	0	+	..	+	+
" 9		75	36	..	..	..	0	0	..	+	+
" 10		31	5	..	..	0	0	0	..	0	+
" 13		..	56	..	..	..	+	+	..	+	+
" 15		60	22	..	..	..	+	+	..	+	+
" 18		19	6	..	..	0	0	+	..	+	+
" 25		28	18	..	0	0	+	+	..	+	+
" 26		20	4	..	0	+	+	+	..	+	+
" 27		2	2	..	0	+	+	+	..	+	+
" 29		18	10	..	..	+	+	+	..	+	+
" 30		80	3	..	..	0	0	+	..	+	+
Oct. 1		94	220	..	0	+	+	+	..	+	+
" 2		11	14	..	0	0	+	+	..	+	+
Averages		**33.7**	**28.**	**2**	**99**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	87	19	13	..	..	..	0	0	..	+	0
" 6		12	18	..	..	..	0	0	..	0	0
" 8		12	6	..	..	..	0	0	..	+	+
" 9		34	16	..	..	..	0	0	..	+	..
" 10		23	8	..	..	0	+	0	..	0	0
" 13		..	6	..	..	..	+	+	..	+	+
" 15		58	17	..	..	..	+	+	..	+	+
" 18		8	11	..	..	0	0	0	..	+	0
" 25		19	17	..	..	+	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 26	87	8	4	..	..	0	0	+	..	+	+
" 27		1	4	..	0	0	0	0	..	+	+
" 29		8	60	..	0	0	0	+	..	+	+
" 30		8	6	..	..	..	0		..	+	+
Oct. 1		11	24	..	0	0	0	+	..	+	+
" 2		8	4	..	0	0	0	0	..	0	0
Averages		**16.3**	**14.2**	**93**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	88	38	9	..	..	..	0	+	..	+	+
" 6		28	15	..	..	..	0	0	..	+	0
" 8		30	32	..	..	..	0	0	..	+	+
" 9		120	4	..	..	..	0	0	..	+	..
" 10		34	11	..	..	0	0	0	..	0	0
" 13		..	5	..	..	..	0	0	..	0	0
" 15		18	16	..	..	..	0	0	..	+	+
" 18		5	7	..	..	..	0	+	..	+	+
" 25		14	3	..	..	..	0	0	..	0	0
" 26		1	3	..	..	..	0	0	..	0	+
" 27		0	3	..	..	..	0	0	..	+	+
" 29		2	30	..	0	0	0	0	..	0	+
" 30		5	4	..	..	..	0	0	..	+	+
Oct. 1		4	4	..	0	0	0	0	..	0	+
" 2		12	5	..	..	0	0	0	..	0	0
Averages		**22**	**10**	**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	89	880	55	..	..	..	0	+	..	+	+
" 6		36	27	..	..	..	0	0	..	+	+
" 8		9	10	..	..	..	0	+	..	0	+
" 9		35	14	..	0	..	0	0	..	+	..
" 10		60	10	..	..	0	0	0	..	0	0
" 13		..	40	..	..	..	0	0	..	0	+
" 15		60	50	..	..	..	0	+	..	+	+
" 18		3	5	..	..	..	0	+	..	+	+
" 25		5	5	..	..	..	0	0	..	0	0
" 26		300	5	..	..	..	+	+	..	+	+
" 27		1	1	..	..	..	0	0	..	+	+
" 29		2	4	..	..	0	0	0	..	0	+
" 30		2	7	..	..	..	0	0	..	0	0
Oct. 1		6	1	..	0	0	0	0	..	0	+
" 2		11	4	..	..	0	0	0	..	0	0
Averages		**10**	**15.8**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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Sept. 4	90	1360	240	..	..	..	+	+	..	+	+
" 6		440	280	..	..	..	0	+	..	+	+
" 8		290	77	..	..	0	0	0	..	+	+
" 9		110	26	..	0	0	0	0	..	+	..
" 10		20	40	..	0	0	0	0	..	0	0
" 13		..	30	..	..	0	0	+	..	+	0
" 15		50	110	..	0	+	0	+	..	+	+
" 18		10	4	..	..	0	0	0	..	0	0
" 25		20	2	..	0	0	0	0	..	0	+
" 26		60	3	..	0	0	0	0	..	0	..
" 27		3	20	..	0	0	0	0	..	+	..
" 29		50	20	..	0	0	0	+	..	0	0
" 30		60	30	..	0	0	0	0	..	0	+
Oct. 1		20	1	..	0	0	0	0	..	0	+
" 2		30	2	..	0	0	0	0	..	+	+
Averages		**180**	**58.3**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	91	560	3000	..	..	..	+	+	..	+	+
" 6		2000	2000	..	..	..	+	+	..	+	+
" 8		230	47	..	..	0	0	0	..	+	+
" 9		480	120	..	0	0	0	0	..	+	..
" 10		40	20	..	0	0	0	0	..	0	+
" 13		..	80	..	0	0	0	0	..	+	+
" 15		40	80	..	..	+	0	+	..	+	+
" 18		20	110	..	..	0	0	0	..	+	+
" 25		20	30	..	0	0	0	0	..	0	+
" 26		10	10	..	0	0	0	0	..	+	..
" 27		3	0	..	0	0	+	+	..	+	..
" 29		30	0	..	0	0	0	+	..	+	+
" 30		20	20	..	0	0	0	0	..	+	+
Oct. 1		40	7	..	0	0	0	0	..	+	+
" 2		70	10	..	0	0	0	0	..	0	+
Averages		**254**	**388**	**30**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	92	2000	320	..	..	..	+	+	..	+	+
" 6		3000	2500	..	..	..	0	+	..	+	+
" 8		3600	1700	..	..	0	+	+	..	+	+
" 9		3000	320	..	0	+	+	+	..	+	..
" 10		4400	320	..	0	+	+	+	..	+	..
" 13		....	1700	..	0	+	+	+	..	+	+
" 15		60	120	..	0	0	+	+	..	+	..
" 18		10	70	..	0	0	0	+	..	+	+
" 25		700	230	..	0	0	+	+	..	+	..
Sept. 26	92	1000	10	..	0	+	+	+	..	+	..
" 27		800	..	..	+	+	+	+	..	+	..
" 29		100	500	..	0	+	+	+	..	+	+
" 30		2800	90	..	0	+	+	+	..	+	+
Oct. 1		4400	2600	..	0	+	+	+	..	+	+
" 2		1800	1200	..	0	+	+	+	..	+	+
Averages		**1976**	**835**	**12**	**29**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	93	2000	120	..	..	..	+	+	..	+	+
" 6		3000	2200	..	..	..	+	+	..	+	+
" 8		10000	3200	..	..	0	+	+	..	+	+
" 9		2500	180	..	0	0	+	+	..	+	..
" 10		14400	2400	..	0	+	+	+	..	+	..
" 13		....	8700	..	+	+	+	+	..	+	+
" 15		3600	3600	..	..	0	+	+	..	+	..
" 18		....	1900	..	+	+	+	+	..	+	+
" 25		5200	2300	..	+	+	+	+	..	+	..
" 26		7000	450	..	+	+	+	+	..	+	..
" 27		6000	2800	..	+	+	+	+	..	+	..
" 29		200	700	..	0	+	+	+	..	+	+
" 30		56000	200	..	0	+	+	+	..	+	+
Oct. 1		68000	19200	..	+	+	+	+	..	+	+
" 2		92000	4200	..	+	+	+	+	..	+	+
Averages		**23778**	**3476**	**49**	**00**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	94	130	14	..	..	..	0	+	..	+	+
" 6		74	50	..	..	..	0	0	..	+	+
" 8		2000	..	..	..	..	+	+	..	..	..
" 9		500	30	..	0	..	0	+	..	+	..
" 10		80	50	..	0	0	0	0	..	+	..
" 13		....	1200	..	..	..	+	+	..	+	+
" 15		3100	640	..	..	0	+	+	..	+	..
" 18		29000	940	..	..	+	+	+	..	+	+
" 25		3200	150	..	0	+	+	+	..	+	..
" 26		15000	140	..	0	+	+	+	..	+	..
" 27		12000	300	..	0	+	+	+	..	+	..
" 29		4400	100	..	0	0	+	+	..	+	+
" 30		500	180	..	0	+	+	+	..	+	+
Oct. 1		48000	5200	..	+	+	+	+	..	+	+
" 2		68000	360	..	0	+	+	+	..	+	+
Averages		**13284**	**6667**	**10**	**94**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Sept. 4	95	42	7	..	..	..	0	0	..	+	+
" 6		57	12	..	..	..	0	0	..	+	+
" 8		2000	..	..	..	..	+	+	..	..	..
" 9		70	11	..	0	..	0	0	..	0	..
" 10		50	20	..	0	0	0	0	..	0	..
" 13		....	1850	..	..	..	0	+	..	+	+
" 15		1400	200	..	..	..	+	+	..	+	+
" 18		....	200	..	..	+	+	+	..	+	+
" 25		350	110	..	0	+	+	+	..	+	..
" 26		2000	130	..	0	+	+	+	..	+	..
" 27		80	230	..	0	+	+	+	..	+	..
" 29		70	80	..	0	+	+	+	..	+	+
" 30		80	20	..	0	0	0	+	..	+	+
Oct. 1		5100	2400	..	0	+	+	+	..	+	+
" 2		4900	1200	..	0	+	+	+	..	+	+
Averages		**1157**	**462**	**4**	**81**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	96	20	3	..	..	..	0	0	..	0	+
" 6		6	6	..	..	..	0	0	..	+	0
" 8		1400	..	..	..	..	+	+	..	+	+
" 9		110	2	..	0	..	0	+	..	+	..
" 10		60	30	..	0	0	0	0	..	0	..
" 13		....	1000	..	..	0	+	+	..	+	..
" 15		250	80	..	..	..	+	+	..	+	..
" 18		40	800	..	..	+	+	+	..	+	+
" 25		180	80	..	0	0	0	+	..	+	..
" 26		200	80	..	0	0	+	+	..	+	+
" 27		5	20	..	0	0	0	+	..	+	+
" 29		80	130	..	0	+	+	+	..	+	+
" 30		30	20	..	0	0	0	0	..	+	+
Oct. 1		380	120	..	0	0	+	+	..	+	+
" 2		120	9	..	0	0	0	0	..	+	+
Averages		**205**	**170**	**1**	**69**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 4	97	65	14	..	..	..	0	0	..	+	+
" 6		39	12	..	..	..	0	0	..	0	+
" 8		76	..	..	..	..	0	0	..	+	+
" 9		49	6	..	0	..	0	0	..	+	..
" 10		90	10	..	0	0	0	0	..	0	..
" 13		..	80	..	..	..	0	+	..	+	+
" 15		130	12	..	..	..	0	+	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 18	97	3	32	..	..	..	0	0	..	+	+
" 25		3	6	..	..	0	0	+	..	0	+
" 26		10	8	..	..	0	0	+	..	+	+
" 27		6	3	..	..	0	0	+	..	+	+
" 29		4	11	..	..	0	0	0	..	0	+
" 30		2	30	..	..	0	0	0	..	0	+
Oct. 1		18	12	..	..	0	0	0	..	+	+
" 2		5	8	..	..	0	0	+	..	+	+
Averages		**35**	**17**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	98	75	4	..	..	..	0	+	..	+	+
" 6		28	6	..	..	..	0	0	..	+	+
" 8		69	..	..	..	..	+	0	..	+	+
" 9		41	4	..	0	..	0	0	..	0	..
" 10		80	20	..	0	0	0	0	..	0	..
" 13		..	60	..	..	..	+	+	..	+	+
" 15		70	4	..	..	..	0	0	..	+	..
" 18		2	11	..	..	0	0	0	..	+	+
" 25		1	4	..	..	0	0	0	..	+	..
" 26		6	8	..	..	0	0	0	..	+	+
" 27		2	1	..	..	0	0	0	..	+	+
" 29		1	30	..	..	0	0	0	..	0	+
" 30		3	1	..	..	..	0	0	..	0	0
Oct. 1		5	18	..	..	0	0	0	..	0	+
" 2		7	6	..	..	..	0	+	..	0	+
Averages		**27**	**12**	**18**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 4	99	85	18	..	..	..	0	0	..	+	+
" 6		16	15	..	..	..	0	0	..	+	+
" 8		18	..	..	..	..	0	0	..	+	+
" 9		47	23	..	0	..	0	0	..	+	..
" 10		10	20	..	0	0	0	0	..	+	..
" 13		..	10	..	..	..	0	+	..	+	+
" 15		70	6	..	..	..	0	0	..	+	..
" 18		1	4	..	..	..	0	0	..	0	+
" 25		2	30	..	..	..	0	+	..	+	+
" 26		7	9	..	..	0	0	0	..	+	+
" 27		1	5	..	..	0	0	0	..	+	+
" 29		3	6	..	..	0	0	0	..	+	+
" 30		2	4	..	..	..	0	0	..	0	0
Oct. 1		3	4	..	..	0	0	0	..	+	+
" 2		4	5	..	..	..	0	+	..	+	+
Averages		**19**	**11**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 4	100	39	17	..	..	..	0	+	..	+	+
" 6		55	12	..	..	..	0	+	..	+	+
" 8		20	..	..	..	0	0	0	..	+	+
" 9		75	11	..	0	0	0	+	..	+	..
" 10		60	90	..	0	0	0	+	..	+	..
" 13		..	50	..	0	0	+	+	..	+	+
" 15		50	40	..	..	0	0	+	..	..	..
" 18		10	120	..	..	0	0	0	..	+	+
" 25		20	20	..	..	0	0	+	..	+	..
" 26		10	20	..	..	0	0	+	..	+	+
" 27		4	2	..	..	0	+	+	..	+	+
" 29		2	6	..	..	0	0	0	..	+	+
" 30		8	2	..	..	0	0	0	..	0	+
Oct. 1		4	4	..	..	0	0	0	..	0	+
" 2		13	4	..	..	0	0	0	..	+	+
Averages		26	105	24	B.	Co	li	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 4	101	130	19	..	..	..	+	+	..	+	+
" 6		52	28	..	..	..	0	+	..	+	+
" 8		20	..	..	..	0	0	0	..	0	+
" 9		80	370	..	0	+	+	+	..	+	..
" 10		110	20	..	0	0	0	0	..	+	..
" 13		..	10	..	0	+	+	+	..	+	+
" 15		50	30	..	..	0	+	+	..	..	..
" 18		0	170	..	..	0	0	+	..	+	+
" 25		20	50	..	..	+	+	+	..	+	+
" 26		20	50	..	..	0	0	0	..	+	+
" 27		18	8	..	0	0	+	0	..	+	+
" 29		38	32	..	..	0	+	+	..	+	+
" 30		4	30	..	0	0	0	+	..	+	+
Oct. 1		120	3	..	0	+	+	+	..	+	+
" 2		65	14	..	0	0	0	+	..	+	+
Averages		51	33	2	99	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 10	102	3520	10000	..	+	+	+	+	..	..	..
" 11		10000	8000	..	0	+	+	+	..	+	..
" 12		..	..	..	+	+	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	..	..
" 15		..	..	..	+	+	+	..	..	..	..
" 16		..	..	0	+	+	+	+	..	..	..
" 17		10000	4900	..	+	+	+	+	..	+	..
" 18		20000	20000	0	+	+	+	+	..	+	..
" 19		11000	2000	..	0	+	+	+	..	+	..
" 22		3600	1800	..	+	0	+	+	..	+	..
" 23		14000	8000	..	+	0	+	+	..	+	..
" 24		11000	300	..	+	0	+	+	..	+	..
" 25		26000	3200	..	0	0	+	+	..	+	..
Averages		**10124**	**6574.**	**78**	**53**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 10	103	10000	1500	..	0	+	+	+	..	..	..
" 11		10000	..	..	0	+	+	+	..	+	..
" 12		..	..	..	0	+	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	..	..
" 15		..	..	..	+	+	+	..	..	..	..
" 16		..	..	0	0	+	+	+	..	..	..
" 17		8000	280	..	+	+	+	+	..	+	..
" 18		25000	18200	0	+	+	+	+	..	+	..
" 19		8000	4000	..	0	0	+	+	..	+	..
" 22		1400	3000	..	+	0	+	+	..	+	..
" 23		6000	400	..	0	0	+	+	..	+	..
" 24		4000	300	..	0	0	0	+	..	+	..
" 25		2400	1200	..	0	0	+	+	..	+	..
Averages		**8333**	**4320**	**41**	**70**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 10	104	1080	1000	..	0	0	+	+	..	..	..
" 11		1080	1250	..	0	0	+	+	..	+	..
" 12		..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	..	..
" 15		..	..	..	0	0	+	..	..	..	..
" 16		..	..	..	0	0	+	+	..	..	..
" 17		1050	5000	..	+	+	+	+	..	+	..
" 18		1950	950	0	0	0	+	+	..	+	..
" 19		3000	780	..	+	0	+	+	..	+	..
" 22		600	120	..	0	0	+	+	..	+	..
" 23		600	400	..	0	0	0	+	..	0	..
" 24		400	120	..	+	+	+	+	..	+	..
" 25		280	460	..	0	0	+	+	..	+	..
Averages		**1116.**	**1120**	**24**	**47**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 10	105	10000	30000	..	+	+	+	+	..	..	..
" 11		26000	30000	..	+	+	+	+	..	+	..
" 12		..	..	..	+	+	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	..	..
" 15		..	..	..	+	+	+	..	..	..	..
" 16		..	..	0	0	0	+	+	..	..	..
" 17		6000	20000	..	0	+	+	+	..	+	..
" 18		200000	9500	+	+	+	+	+	..	+	..
" 19		2000	16000	..	0	0	+	+	..	+	..
" 20		400	200	..	0	0	0	0	..	0	..
" 22		4000	4800	..	0	+	+	+	..	+	..
" 23		16000	6800	..	+	0	+	+	..	+	..
" 24		60000	6800	..	+	+	+	+	..	+	..
" 25		7000	2500	..	+	+	+	+	..	+	..
Averages		**34340**	**12660**	**1**	**30**	**00**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 10	106	15000	10000	..	+	+	+	+	..	..	..
" 11		30000	10000	..	+	+	+	+	..	+	..
" 12		..	..	..	+	+	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	..	..
" 15		..	..	..	+	+	+	..	..	..	..
" 16		..	..	..	+	+	+	+	..	..	..
" 17		8000	15000	..	+	+	+	+	..	+	..
" 18		250000	10000	+	+	+	+	+	..	+	..
" 19		40000	16000	..	+	+	+	+	..	+	..
" 20		200000	8000	..	+	0	+	+	..	+	..
" 22		300	800	..	0	0	+	+	..	+	..
" 23		1800	1000	..	0	0	+	+	..	+	.
" 24		8000	1400	..	0	0	+	+	..	+	..
" 25		5600	500	..	+	0	+	+	..	+	..
Averages		**55870**	**5826**	**2**	**07**	**35**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 11	107	30000	20000	..	0	0	+	+	..	..	..
" 12		..	..	..	0	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	..	..
" 15		..	..	..	0	+	+	..	..	..	..
" 16		5000	..	..	0	0	+	+	..	..	..
" 17		15000	10000	..	0	+	+	+	..	+	..
" 18		20000	7500	..	0	+	+	+	..	+	..
" 19		10000	3200	..	0	+	+	+	..	+	..
" 20		800	1200	..	0	0	+	+	..	+	..
" 22		1600	260	..	0	0	+	+	..	+	..
" 23		7400	1800	..	0	0	+	+	..	+	..
" 24		4000	700	..	+	0	+	+	..	+	..
" 25		..	15000	..	0	0	+	+	..	+	..
Averages		**10422**	**6826**	**12**	**89**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 9	108	120	220	..	0	0	+	+	..	+	..
" 10		60	40	..	0	0	+	+	..	..	..
" 12		..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	0	+	..	..	..
" 15		..	..	..	..	+	0	..	..	+	..
" 16		..	..	..	..	0	0	+	..	+	..
" 17		43	15	..	0	0	+	+	..	+	..
" 18		28	29	..	0	0	+	+	..	+	..
" 19		100	17	..	0	0	+	+	..	+	..
" 22		18	40	..	0	0	0	+	..	+	..
" 23		80	14	..	+	0	+	+	..	+	..
" 24		16	8	..	0	..	0	+	..	0	+
" 25		86	27	..	0	0	0	0	..	0	..
Averages		**61.2**	**46**	**2**	**06**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 9	109	60	70	..	0	0	+	+	..	+	..
" 10		140	90	..	0	0	+	+	..	..	..
" 12		..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	+	+	..	..	..
" 15		..	..	..	..	+	0	..	..	+	..
" 16		..	..	..	..	+	+	+	..	+	..
" 17		26	11	..	0	0	+	+	..	+	..
" 18		60	50	..	0	0	+	+	..	+	..
" 19		80	62	..	0	0	+	+	..	+	..
" 22		14	48	..	0	0	+	+	..	+	..
" 23		38	24	..	0	0	0	+	..	0	..
" 24		22	22	..	0	..	0	+	..	+	+
" 25		48	18	..	0	0	+	+	..	+	..
Averages		**54.2**	**44**	**1**	**56**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 9	110	120	190	..	0	0	+	+	..	0	..
" 10		280	440	..	0	0	+	+	..	..	..
" 12		..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	..	..
" 15		..	..	..	..	0	0	..	..	+	..
" 16		..	..	..	..	+	+	+	..	+	..
" 17		44	18	..	0	0	+	+	..	+	..
" 18		98	62	..	0	0	+	+	..	+	..
" 19		60	19	..	0	0	+	+	..	+	..
" 22		16	30	..	0	0	+	+	..	+	..
" 23		24	8	..	0	0	0	+	..	+	..
" 24		30	28	..	0	..	+	+	..	+	+
" 25		56	52	..	0	0	+	+	..	+	..
Averages		**81**	**50**	**2**	**24**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 9	111	70	100	..	0	0	+	+	..	0	..
" 10		70	50	..	0	0	+	+	..	..	..
" 11		70	30	..	0	0	+	+	..	+	..
Sept. 12	111	..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	+	..
" 15		..	..	..	..	+	+	..	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		85	7	..	0	+	+	+	..	+	..
" 18		52	73	..	0	0	+	+	..	+	..
" 19		50	..	..	0	0	0	+	..	+	..
" 20		100	34	..	0	0	0	+	..	0	..
" 22		12	40	..	0	0	+	+	..	+	..
" 23		42	6	..	0	0	+	+	..	0	..
" 24		14	18	..	0	..	0	+	..	+	+
" 25		38	spreader	..	0	0	+	+	..	0	..
Averages		**55**	**40**	**8**	**64**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 9	112	10	60	..	0	0	+	+	..	0	..
" 10		40	10	..	0	0	0	+	..	..	..
" 11		20	20	..	0	0	0	0	..	+	..
" 12		..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	0	+	..	..	..
" 15		..	..	..	..	0	..	+	..	+	..
" 16		..	..	..	0	0	0	0	..	+	..
" 17		36	8	..	0	0	+	+	..	+	..
" 18		22	25	..	0	0	0	+	..	+	..
" 19		18	13	..	0	0	+	+	..	+	..
" 20		14	14	..	0	0	0	+	..	+	..
" 22		18	10	..	0	0	0	0	..	+	..
" 23		18	8	..	0	0	0	+	..	0	+
" 24		6	4	..	..	..	0	0	..	0	+
" 25		26	2	..	0	0	0	0	..	+	..
Averages		**21**	**15.9**	**34**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 9	113	50	70	..	0	0	0	+	..	+	..
" 10		40	20	..	0	0	0	+	..	..	..
" 11		140	50	..	0	0	0	+	..	+	..
" 12		..	..	..	0	0	0	+	..	+	..
" 13		..	..	..	0	0	0	+	..	..	..
" 15		..	..	..	..	0	0	..	..	+	..
" 16		..	..	..	..	+	+	+	..	+	..
" 17		22	4	..	0	0	0	+	..	+	..
" 18		13	7	..	0	0	0	+	..	+	..
" 19		12	17	..	0	0	0	+	..	+	..
" 20		8	10	..	0	0	0	0	..	0	..
" 22		10	10	..	0	0	0	+	..	0	..
" 23		14	12	..	0	0	0	+	..	+	..
" 24		3	10	..	..	0	0	0	..	0	+
" 25		14	5	..	0	0	0	0	..	+	..
Averages		**30**	**19.5**	**80**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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Sept. 9	114	1440	840	..	0	0	0	+	..	+	..
" 10		120	20	..	0	0	0	+	..	..	..
" 11		1040	1000	..	0	+	+	+	..	+	..
" 12		..	..	..	0	0	0	+	..	+	..
" 13		..	..	..	0	+	+	+	..	..	..
" 15		..	..	..	..	0	..	0	..	+	..
" 16		..	..	..	..	+	0	+	..	+	..
" 17		230	60	..	0	+	+	+	..	+	..
" 18		70	120	..	0	0	+	+	..	+	..
" 19		60	80	..	0	0	0	+	..	+	..
" 20		60	20	..	0	0	0	+	..	0	..
" 22		4	7	..	0	0	0	+	..	0	..
" 23		14	12	..	+	0	0	+	..	0	..
" 24		24	8	..	..	0	0	+	..	0	+
" 25		86	37	..	0	+	+	+	..	+	..
Averages		**286**	**200**	**4**	**16**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Sept. 9	115	1280	150	..	0	0	+	+	..	+	..
" 10		680	960	..	0	0	+	+	..	..	.
" 11		10000	500	..	0	+	+	+	..	+	..
" 12		..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	+	+	..		..
" 15			..	..	..	+	..	0	..	+	..
" 16		..	..	..	..	0	0	+	..	+	..
" 17		2500	250	..	0	+	+	+	..	+	..
" 18		2200	720	..	+	0	+	+	.	+	..
" 19		1100	390	..	0	0	+	+	..	+	..
" 20		2000	700	..	0	0	+	+	..	+	..
" 22		120	300	..	0	0	+	+	..	+	..
" 23		1400	140	..	0	0	+	+	..	+	..
" 24		500	80	..	0	0	0	+	.	+	..
" 25		700	2000	..	0	0	+	+	..	+	.
Averages		**2043**	**563**	**3**	**28**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Sept. 9	116	90	260	..	0	0	+	+	..	+	..
" 10		120	90	..	0	0	0	+	..	..	..
" 11		90	70	..	0	+	+	+	..	+	..
" 12		..	..	..	0	0	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	..	..
" 15		..	..	..	..	+	+	+	..	+	..
" 16		..	..	..	..	..	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 17	116	59	10	..	0	+	+	+	..	+	..
" 18		70	122	..	0	0	+	+	..	+	..
" 19		62	26	..	0	0	+	+	..	+	..
" 20		74	40	..	0	0	+	+	..	+	..
" 22		22	40	..	0	0	+	+	..	+	..
" 23		800	210	..	0	0	+	+	..	+	..
" 24		14	18	..	0	0	0	+	..	+	..
" 25		78	33	..	0	0	+	0	..	+	..
Averages		**134**	**84**	**9**	**22**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Sept. 9	117	50	40	..	0	0	+	+	.	+	..
" 10		20	30	..	0	0	+	+	..	..	..
" 11		60	30	..	0	0	0	+	..	+	..
" 12		..	..	.	0	0	0	+	..	+	..
" 13		..	..	.	0	0	+	+	..	..	..
" 15		..	..	..	..	0	+	+	..	+	..
" 16			..	..	..	..	..	..	..	..	..
" 17		25	5	..	0	0	0	+	..	+	..
" 18		13	26	..	0	0	0	+	..	+	..
" 19		36	16		0	0	+	+	..	+	..
" 20		18	18		0	0	+	+	.	+	..
" 22		14	28	..	0	0	0	+	..	+	.
" 23		200	110	..	0	0	+	+	..	+	..
" 24		10	12	..	..	0	+	+	..	0	+
" 25		12	18	..	0	0	0	0	..	0	..
Averages		**56**	**30**	**64**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Sept. 9	118	110	80	..	0	0	0	+	..	+	..
" 10		130	80	..	0	0	+	+	..	..	..
" 11		70	10	..	0	0	+	+	..	+	..
" 12		.	..	..	0	0	0	+	..	+	..
" 13		..	..	..	0	0	+	+	..	..	..
" 15		..	..	..	..	..	..	..	..	..	..
" 16		..	..	..	..	0	0	+	..	+	..
" 17		54	25	..	0	+	+	+	..	+	..
18		8	14	..	0	0	0	0	..	+	..
" 19		38	33	..	0	0	+	+	..	+	..
" 20		9	10	..	0	0	0	0	..	+	..
" 22		18	14	..	0	0	+	+	..	+	..
" 23		50	34	..	0	0	0	+	..	0	..
" 24		6	6	..	0	0	0	+	..	+	..
" 25		14	5	..	0	0	0	0	..	+	..
Averages		**46**	**28**	**1**	**15**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 9	119	820	320	..	0	0	+	+	..	+	..
" 10		1280	540	..	0	0	+	+	..	..	..
" 11		600	450	..	0	0	+	+	..	+	..
" 12		..	..	..	0	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	..	..
" 15		..	..	..	..	+	..	+	..	+	..
" 16		..	..	..	..	+	+	+	..	..	..
" 17		500	60	..	0	0	+	+	..	+	..
" 18		140	90	..	0	+	+	+	..	+	..
" 19		140	220	..	0	0	+	+	..	+	..
" 20		80	14	..	0	0	0	+	..	+	..
" 22		56	180	..	0	0	+	+	..	+	..
" 23		16	9	..	0	0	0	0	..	0	..
" 24		18	6	..	0	0	0	+	..	+	..
" 25		64	8	..	0	0	+	+	..	+	..
Averages		**338**	**172**	**3**	**81**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 9	120	460	480	..	0	0	+	+	..	+	..
" 10		5760	3520	..	+	+	+	+	..	..	..
" 11		500	700	..	+	+	+	+	..	0	..
" 12		..	..	..	0	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	..	..
" 15		..	..	..	0	+	..	+	..	..	..
" 16		..	..	..	0	0	+	+	..	..	..
" 17		1670	1100	..	+	+	+	+	..	+	..
" 18		2300	3200	..	0	0	+	+	..	+	..
" 19		1100	950	..	0	+	+	+	..	+	..
" 20		1400	180	..	0	0	+	+	..	+	..
" 22		340	500	..	0	0	+	+	..	+	..
" 23		0	240	..	0	0	+	+	..	+	..
" 24		360	40	..	0	0	+	+	..	+	..
" 25		210	23	..	0	0	+	+	..	+	..
Averages		**1282**	**994**	**23**	**13**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 9	121	8000	2080	..	+	0	+	+	..	+	..
" 10		10000	8000	..	0	+	+	+	..	..	..
" 11		760	1000	..	0	+	+	+	..	0	..
" 12		..	..	..	0	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	..	..
" 15		..	..	..	0	+	..	+	..	..	..
" 16		..	..	..	+	+	+	+	..	..	..
" 17		5000	250	..	+	+	+	+	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 18	121	3200	1600	..	+	+	+	+	..	+	..
" 19		960	1550	..	0	0	+	+	..	+	..
" 20		1200	300	..	0	0	0	+	..	+	..
" 22		800	560	..	0	0	+	+	..	+	..
" 23		240	80	..	0	0	+	+	..	+	..
" 24		580	180	..	0	0	+	+	..	+	..
" 25		640	1200	..	0	0	+	+	..	+	..
Averages		**2853**	**1527**	**30**	**34**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	122	3000	3000	..	..	..	+	+	..	+	+
" 8		2120	1030	..	..	+	+	+	..	+	..
" 9		2160	2620	..	0	+	+	+	..	+	..
" 10		15000	10000	..	+	+	+	+	..	..	..
" 11		10000	410	..	+	+	+	+	..	0	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	0	+	..	+	..	..	..
" 17		4500	1000	..	+	+	+	+	..	+	..
" 18		35000	15000	..	+	+	+	+	..	+	..
" 19		20000	4000	..	0	+	+	+	..	+	..
" 20		120000	6800	0	+	0	+	+	..	+	..
" 22		24000	90000	..	0	0	+	+	..	+	..
" 23		40000	6000	..	..	..	..	..	..	..	..
" 24		80000	12000	..	0	0	+	+	..	+	..
" 25		24000	4600	..	0	0	+	+	..	+	..
Averages		**29214**	**12035**	**36**	**93**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	123	3000	2500	..	..	..	+	+	..	+	+
" 8		800	1700	..	..	+	+	+	..	+	..
" 9		4000	960	..	0	0	+	+	..	+	..
" 10		15000	4000	..	0	+	+	+	..	..	..
" 11		20000	10000	..	+	+	+	+	..	0	..
" 13		..	..	..	+	+	+	+	..	+	..
" 15		..	..	..	+	+	0	+	..	..	..
" 17		4000	1300	..	+	+	+	+	..	+	..
" 18		30000	22000	..	0	+	+	+	..	+	..
" 19		20000	3500	..	+	+	+	+	..	+	..
" 20		160000	5000	0	0	0	+	+	..	+	..
" 22		24000	60000	..	0	0	+	+	..	+	..
" 23		80000	40000	..	0	0	+	+	..	+	..
" 24		80000	8000	..	+	+	+	+	..	+	..
" 25		28000	1800	..	0	0	+	+	..	+	..
Averages		**36062**	**12276**	**41**	**73**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	124	3000	2000	..	..	..	+	+	..	+	+
" 8		1000	1750	..	..	+	+	+	..	+	..
" 9		5250	800	..	0	0	+	+	..	+	..
" 10		30000	8000	..	0	+	+	+	..	..	..
" 11		1300	10000	..	+	+	+	+	..	0	..
" 13		..	..	..	+	+	+	+	..	+	..
" 15		..	..	..	+	+	..	+	..	0	..
" 17		500	15	..	+	+	+	+	..	+	..
" 18		15000	5000	..	0	+	+	+	..	+	..
" 19		18000	2000	..	+	+	+	+	..	+	..
" 20		20000	800	0	+	0	+	+	..	+	..
" 22		12000	..	..	0	0	0	+	..	+	..
" 23		30000	10000	..	+	0	+	+	..	+	..
" 24		50000	11000	..	0	+	+	+	..	+	..
" 25		8000	3800	..	+	0	+	+	..	+	..
Averages		**14927**	**5320**	**55**	**41**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	125	2000	1500	..	..	..	+	+	..	+	+
" 8		600	370	..	..	+	+	+	..	+	..
" 9		1140	530	..	0	0	+	+	..	+	..
" 10		8000	1360	..	0	0	+	+	..	+	..
" 11		30000	2500	..	+	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	+	+	..	+	..	0	..
" 17		300	10	..	+	+	+	+	..	+	..
" 18		2600	2100	..	0	+	+	+	..	+	..
" 19		15000	1000	..	+	+	+	+	..	+	..
" 20		20000	800	..	+	0	+	+	..	+	..
" 22		2000	1200	..	+	0	0	+	..	+	..
" 23		18000	9000	..	+	+	+	+	..	+	..
" 24		8000	1200	..	0	0	0	+	..	+	..
" 25		8000	20000	..	0	+	+	+	..	+	..
Averages		**7849**	**3128**	**49**	**54**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	126	1500	1300	..	..	..	+	+	..	+	+
" 8		1200	1100	..	..	+	+	+	..	+	..
" 9		350	50	..	0	0	+	+	..	+	..
" 10		3400	1120	..	0	0	+	+	..	+	..
" 11		30000	3500	..	+	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	+	+	+	..	..	0	..
" 17		320	19	..	+	+	+	+	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 18	126	920	620	..	0	0	+	+	..	+	..
" 19		15000	400	..	+	+	+	+	..	+	..
" 20		2000	590	..	0	0	+	0	..	+	..
" 22		1400	4000	..	0	0	+	+	..	+	..
" 23		6000	6000	..	+	+	+	+	..	+	..
" 24		4000	1100	..	0	0	+	+	..	+	..
" 25		8000	4260	..	0	0	+	+	..	+	..
Averages		**5699**	**1839**	**35**	**13**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	127	400	500	..	..	..	+	+	..	+	+
" 8		540	680	..	..	0	+	+	..	+	..
" 9		230	130	..	0	0	+	+	..	+	..
" 10		4540	4240	..	0	0	+	+	..	+	..
" 11		30000	2500	..	0	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	0	+	+	..	..	+	..
" 17		3700	18	..	+	+	+	+	..	+	..
" 18		540	50	..	0	0	+	+	..	+	..
" 19		8000	160	..	0	0	+	+	..	+	..
" 20		1600	400	..	0	0	0	+	..	+	..
" 22		1200	1800	..	0	0	+	+	..	+	..
" 23		2000	800	..	0	+	+	+	..	+	..
" 24		480	120	..	0	0	+	+	..	+	..
" 25		1000	53	..	0	0	+	+	..	+	..
Averages		**4172**	**414**	**9**	**94**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	128	250	150	..	..	..	0	+	..	+	+
" 8		540	110	..	..	+	+	+	..	+	..
" 9		110	60	..	0	0	0	+	..	+	..
" 10		740	100	..	0	0	+	+	..	..	..
" 11		10000	1600	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	+	+	..	+	..
" 15		..	..	..	..	+	+	..	..	+	..
" 17		940	60	..	0	0	+	+	..	+	..
" 18		400	55	..	0	0	0	+	..	+	..
" 19		3000	800	..	0	0	+	+	..	+	..
" 20		800	400	..	0	0	+	+	..	+	..
" 22		360	800	..	0	0	+	+	..	+	..
" 23		180	260	..	0	0	0	+	..	+	..
" 24		180	40	..	0	0	0	+	..	+	..
" 25		600	30	..	0	0	+	+	..	+	..
Averages		**1392**	**320**	**1**	**93**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Sept. 6	129	..	60	..	..	..	+	+	..	+	+
" 8		250	390	..	..	+	+	+	..	+	..
" 9		410	120	..	0	0	+	+	..	+	..
" 10		1640	400	..	0	0	+	+	..	..	..
" 11		10000	750	..	0	+	+	+	..	+	..
" 13		..	..	..	0	0	0	+	..	+	..
" 15		..	..	..	..	+	0	..	..	+	..
" 17		920	170	..	0	+	+	+	..	+	..
" 18		800	26	..	..	..	+	+	..	+	+
" 19		600	70	..	0	..	+	+	..	+	+
" 20		400	140	..	0	0	0	+	..	+	..
" 22		140	160	..	0	0	+	+	..	+	..
" 23		60	140	..	0	0	+	+	..	+	..
" 24		140	460	..	0	0	0	+	..	+	..
" 25		105	..	..	..	..	0	+	..	+	+
Averages		**1289**	**239**	**3**	**18**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	130	220	350	..	..	..	+	+	..	+	+
" 8		470	380	..	..	+	+	+	..	+	..
" 9		520	1060	..	0	0	+	+	..	+	..
" 10		3120	740	..	0	0	+	+	..	..	..
" 11		920	30	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	+	+	..	+	..
" 15		..	..	..	..	0	+	..	..	+	..
" 17		450	50	..	0	0	+	+	..	+	..
" 18		720	62	..	..	..	+	+	..	+	+
" 19		400	40	..	..	..	+	+	..	+	+
" 20		500	80	..	..	..	+	+	..	+	..
" 22		160	300	..	0	0	+	+	..	+	..
" 23		60	120	..	0	0	+	+	..	+	..
" 24		110	32	..	..	0	0	+	..	+	+
" 25		54	17	..	..	..	0	+	..	+	+
Averages		**593**	**251**	**1**	**42**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	131	14	6	..	..	..	0	+	..	+	+
" 8		152	105	..	..	0	+	+	..	+	..
" 9		80	240	..	0	0	+	+	..	+	..
" 10		410	130	..	..	0	0	+	..	..	..
" 11		540	110	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	+	+	..	+	..
" 15		..	..	..	..	+	+	..	..	+	..
" 17		10	30	..	0	0	+	+	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept 18	131	32	24	..	..	..	0	+	..	+	+
" 19		90	22	..	..	..	0	0	..	+	+
" 20		440	80	..	..	..	+	+	..	+	..
" 22		200	250	..	0	0	0	+	..	+	..
" 23		40	60	..	0	0	+	+	..	+	..
" 24		86	24	..	..	0	0	+	..	+	+
" 25		82	6	..	..	..	0	+	..	+	+
Averages		**167**	**84**	**1**	**20**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	132	12	18	..	..	..	+	+	..	+	+
" 8		25	19	..	..	0	+	+	..	0	..
" 9		90	130	..	0	0	+	+	..	+	..
" 10		60	20	..	..	+	+	+	..	..	..
" 11		6000	544	..	0	0	0	+	..	+	..
" 13		..	..	..	0	0	+	+	..	+	..
" 15		..	..	..	.	+	+	..	..	+	..
" 17		22	13	..	0	+	+	+	..	+	..
" 18		42	68	..	..	..	+	+	..	+	+
" 19		12	13	..	..	..	0	+	..	+	+
" 20		400	50	..	..	..	0	+	..	+	..
" 22		30	120	..	0	0	0	+	..	+	..
" 23		120	50	..	0	0	+	+	..	+	..
" 24		6	12	..	..	0	0	+	..	0	+
" 25		10	14	..	..	..	0	0	..	+	+
Averages		**525**	**82**	**2**	**46**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	133	18	38	..	..	..	+	+	..	+	+
" 8		40	28	..	..	+	0	+	..	+	..
" 9		20	100	..	0	0	0	+	..	+	..
" 10		60	20	..	..	0	0	+	..	..	..
" 11		940	30	..	0	0	+	+	..	+	..
" 13		..	..	..	0	0	+	+	..	+	..
" 15		..	..	..	..	0	0	..	..	+	..
" 17		30	14	..	0	0	+	+	..	+	..
" 18		350	21	..	..	..	+	+	..	+	+
" 19		130	34	..	..	..	+	+	..	+	+
" 20		22	18	..	..	..	+	0	..	+	..
" 22		14	60	..	0	0	0	+	..	+	..
" 23		400	60	..	0	0	+	+	..	+	..
" 24		18	10	..	..	0	0	+	..	+	+
" 25		18	3	..	..	..	0	+	..	+	+
Averages		**158**	**34**	**1**	**25**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Sept. 6	134	17	52	..	..	..	+	+	..	+	+
" 8		52	78	..	..	0	+	+	..	+	..
" 9		70	10	..	0	0	+	+	..	+	..
" 10		180	..	..	..	+	+	+	..	..	..
" 11		1000	152	..	0	0	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	..	0	0	..	..	+	..
" 17		35	spreader	..	0	0	+	+	..	+	+
" 18		480	180	..	..	..	+	+	..	+	+
" 19		80	33	..	..	..	+	+	..	+	+
" 20		30	30	..	..	..	0	0	..	0	..
" 22		28	26	..	0	0	0	+	..	+	..
" 23		220	160	..	0	0	+	+	..	+	..
" 24		28	64	..	..	0	+	+	..	+	+
" 25		36	25	..	..	..	+	+	..	+	+
Averages		174	65	2	01	B.	C.	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 10	134a	80	10	..	..	+	+	+	..	..	..
" 11		1400	123	..	0	0	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	..	+	+	..	..	+	..
" 17		38	16	..	0	+	+	+	..	+	..
" 18		170	85	..	..	..	+	+	..	+	+
" 19		40	48	..	..	..	+	+	..	+	+
" 20		38	30	..	..	..	+	+	..	+	..
" 22		40	30	..	0	0	0	+	..	+	..
" 23		80	180	..	0	0	+	+	..	+	..
" 24		34	48	..	..	0	0	+	..	+	+
" 25		24	120	..	..	..	+	+	..	+	+
Averages		194	69	3	86	B.	C.	pe	r 1	00	cc

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 23	221	..	10	..	..	0	0	..	+	..	..
" 26		..	156	..	..	..	+	..	+	..	..
" 27		..	1600	..	..	..	+	..	+	..	..
" 28		..	1700	..	..	..	+	..	+	..	..
" 29		..	438	..	..	..	+	..	+	..	..
" 31		..	93	..	..	..	+	..	+	..	..
June 2		..	37	..	..	0	+	..	+	..	..
" 3		..	57	..	0	0	+	..	..	..	..
" 4		..	205	..	0	0	+	..	..	..	..
" 5		..	97	..	0	0	+	..	..	..	..
" 6		..	160	..	0	0	+	..	..	..	..
" 7		..	299	..	+	+	+	..	..	..	..
" 9		..	142	..	0	+	+	..	..	..	..
" 10		..	274	..	0	0	+	..	..	..	..
" 19		..	81	..	0	+	+	..	..	.	..
" 20		..	196	..	0	0	+	..	..	..	..
" 21		..	216	..	0	+	+	..	..	..	..
" 24		..	38	..	0	0	0	..	..	..	..
" 25		..	320	..	0	+	+	..	..	..	..
July 4		..	340	..	0	0	+	..	..	..	..
" 5		..	130	..	0	0	+	..	..	..	..
" 6		..	60	..	0	+	+	..	..	..	..
" 7		..	107	..	0	0	+	..	..	..	..
Averages			**293**	**91**	**2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23	222	..	5	..	..	0	0	..	0	..	..
" 26		..	17	..	..	0	0	..	0	..	..
" 27		..	27	..	..	0	0	..	0	..	..
" 28		..	7	..	..	0	0	..	+	..	..
" 29		..	2	..	..	0	0	..	+	..	..
" 31		..	7	..	..	0	0	..	0	..	..
June 2		..	4	..	..	0	0	..	0	..	..
" 3		..	10	..	..	0	+	..	+	..	..
" 4		..	7	..	..	0	0	..	0	..	..
" 5		..	12	..	..	0	+	..	+	..	..
" 6		..	8	..	..	0	0	..	+	..	..
" 7		..	41	..	..	0	0	..	+	..	..
" 9		..	37	..	..	0	0	..	+	..	..
" 10		..	8	..	..	0	0	..	+	..	..
" 19		..	8	..	..	0	0	..	+	..	..
" 20		..	18	..	..	0	0	..	+	..	..
" 21		..	11	..	..	0	0	..	+	..	..
" 24		..	32	..	..	0	+	..	+	..	..
" 25		..	5	..	..	0	0	..	0	..	..
July 4		..	4	..	..	0	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 5	222	..	16	..	..	0	+	..	+	..	..
" 6		..	22	..	..	0	+	..	+	..	..
" 7		..	16	..	..	0	0	..	+	..	..
" —		..	11	..	..	0	0	..	+	..	..
Averages			**13**	**25**	**.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 4	223	..	11	..	..	0	0	..	0	..	..
" 5		..	41	..	..	0	0	..	0	..	..
" 6		..	19	..	..	0	0	..	+	..	..
" 7		..	29	..	..	0	0	..	0	..	..
" 9		..	9	..	..	0	0	..	0	..	..
" 10		..	4	..	..	0	0	..	0	..	..
" 14		..	9	..	..	0	0	..	0	..	..
" 20		..	19	..	..	0	0	..	0	..	..
" 21		..	14	..	..	0	0	..	0	..	..
" 23		..	22	..	..	0	0	..	+	..	..
" 24		..	5	..	..	0	0	..	0	..	..
" 25		..	18	..	..	0	0	..	+	..	..
Averages			**16**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 23	224	..	8	..	..	0	0	..	+	..	..
" 26		..	9	..	..	0	0	..	0	..	..
" 27		..	16	..	..	0	0	..	+	..	..
" 28		..	5	..	..	0	0	..	+	..	..
" 29		..	10	..	..	0	0	..	+	..	..
" 31		..	7	..	..	0	0	..	0	..	..
June 2		..	5	..	..	0	+	..	+	..	..
" 3		..	5	..	..	0	0	..	+	..	..
" 4		..	1	..	..	0	0	..	0	..	..
" 5		..	8	..	..	0	0	..	0	..	..
" 6		..	135	..	..	0	0	..	+	..	..
" 7		..	38	..	..	0	0	..	+	..	..
" 9		..	13	..	..	0	0	..	+	..	..
" 10		..	15	..	..	0	+	..	+	..	..
" 19		..	21	..	..	0	0	..	0	..	..
" 20		..	17	..	..	0	0	..	0	..	..
" 21		..	30	..	..	0	0	..	+	..	..
" 24		..	6	..	..	0	0	..	0	..	..
" 25		..	7	..	..	0	0	..	+	..	..
July 4		..	13	..	..	0	+	..	+	..	..
" 5		..	20	..	..	0	0	..	+	..	..
" 6		..	23	..	..	0	0	..	+	..	..
" 7		..	20	..	..	0	0	..	+	..	..
Averages			**18**	**18**	**.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 23	225	..	5	..	..	0	0	..	0	..	..
" 26		..	16	..	..	0	0	..	0	..	..
" 27		..	43	..	..	0	0	..	0	..	..
" 28		..	3	..	..	0	0	..	0	..	..
" 29		..	10	..	..	0	0	..	0	..	..
" 31		..	7	..	..	0	0	..	0	..	..
June 2		..	6	..	..	0	0	..	+	..	..
" 3		..	1	..	..	0	0	..	+	..	..
" 4		..	19	..	..	0	0	..	+	..	..
" 5		..	8	..	..	0	0	..	+	..	..
" 6		..	26	..	..	0	0	..	+	..	..
" 7		..	81	..	..	0	+	..	+	..	..
" 9		..	14	..	..	0	0	..	+	..	..
" 10		..	24	..	..	0	0	..	+	..	..
" 19		..	8	..	..	0	0	..	+	..	..
" 20		..	7	..	..	0	0	..	+	..	..
" 21		..	19	..	..	0	0	..	+	..	..
" 24		..	6	..	..	0	0	..	+	..	..
" 25		..	3	..	..	0	0	..	+	..	..
July 4		..	21	..	..	0	+	..	+	..	..
" 5		..	3	..	..	0	0	..	+	..	..
" 6		..	20	..	..	0	+	..	+	..	..
" 7		..	19	..	..	0	0	..	+	..	..
Averages			**16**	**19**	**.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23	226	..	3	..	..	0	0	..	+	..	..
" 26		..	26	..	..	0	0	..	0	..	..
" 27		..	538	..	..	0	+	..	+	..	..
" 28		..	450	..	..	+	+	..	+	..	..
" 29		..	264	..	..	+	+	..	+	..	..
" 31		..	55	..	..	0	+	..	+	..	..
June 2		..	46	..	..	0	+	..	+	..	..
" 3		..	14	..	..	0	+	..	+	..	..
" 4		..	52	..	..	0	0	..	+	..	..
" 5		..	64	..	..	0	0	..	+	..	..
" 6		..	16	..	..	0	+	..	+	..	..
" 7		..	180	..	..	0	0	..	+	..	..
" 9		..	93	..	..	0	+	..	+	..	..
" 10		..	115	..	..	0	0	..	+	..	..
" 19		..	18	..	..	0	0	..	+	..	..
" 20		..	16	..	..	0	0	..	+	..	..
" 21		..	53	..	..	0	0	..	+	..	..
" 24		..	12	..	..	0	0	..	0	..	..
" 25		..	63	..	..	0	+	..	+	..	..
July 4		..	36	..	..	0	+	..	+	..	..
July 5	226	..	41	..	..	0	+	..	+	..	..
" 6		..	14	..	..	0	+	..	+	..	..
" 7		..	21	..	..	0	+	..	+	..	..
Averages			**95**	**13**	**8.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23	227	..	575	..	..	+	+	..	+	..	..
" 26		..	600	..	..	+	+	..	+	..	..
" 27		..	2800	..	..	+	+	..	+	..	..
" 28		..	2290	..	..	+	+	..	+	..	..
" 29		..	1900	..	..	+	+	..	+	..	..
" 31		..	2560	..	..	+	+	..	+	..	..
June 2		..	1500	..	..	+	+	..	+	..	..
" 3		..	1200	0	0	+	..	..	..	..	..
" 4		..	1580	0	+	+	..	..	..	..	..
" 5		..	4100	0	+	+	..	..	..	..	..
" 6		..	2900	0	+	+	..	..	..	..	..
" 7		..	4870	0	+	+	..	..	..	..	..
" 9		..	3510	0	+	+	..	..	..	..	..
" 10		..	4000	+	+	+	..	..	..	..	..
" 19		..	11550	+	+	+	..	..	..	..	..
" 20		..	4450	0	+	+	..	..	..	..	..
" 5		..	1850	0	+	+	..	..	..	..	..
" 25		..	3600	+	+	+	..	..	..	..	+
" 26		..	3100	0	+	+	..	..	..	..	..
" 28		..	9600	+	+	+	..	..	..	..	..
" 29		..	2910	0	+	+	..	..	..	..	..
July 4		..	4000	0	+	+	..	..	..	..	..
" 5		..	17200	0	+	+	..	..	..	..	..
" 6		..	6200	0	+	+	..	..	..	..	..
" 7		..	1800	0	0	+	..	..	..	..	..
Averages		..	**21.160**	**171**	**25**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18	228	..	21	..	..	0	0	..	+	..	..
" 19		..	23	..	..	0	0	..	0	..	..
" 20		..	15	..	..	0	+	..	+	..	..
" 21		..	14	..	..	0	0	..	+	..	..
" 23		..	20	+	..	0	0	..	0	..	..
" 5		..	19	..	..	0	0	..	+	..	..
" 25		..	84	..	..	0	0	..	+	..	..
" 26		..	32	..	..	0	0	..	+	..	..
" 28		..	41	..	..	0	0	..	+	..	..
" 28		..	72	..	..	0	0	..	+	..	..
July 4		..	46	..	..	0	0	..	+	..	..
" 5		..	43	..	..	0	+	..	+	..	..
" 6		..	57	..	..	0	+	..	+	..	..
" 7		..	20	..	..	0	0	..	+	..	..
Averages		..	**36**	**2**	**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Surface											
Aug. 18.....	228	..	68	..	..	0	+	..	+	..	..
" 19.....		..	130	..	..	0	+	..	+	..	..
" 20.....		..	20	..	..	0	+	..	+	..	..
" 21.....		..	33	..	..	0	+	..	+	..	..
" 22.....		..	136	.	.	0	+	..	+	..	..
" 23.....		..	111	..	..	0	0	..	+	..	..
" 25.....		..	39	..	..	0	0	..	+	..	..
" 26.....		..	39	..	..	0	+	..	+	..	..
" 27.....		..	114	..	..	0	0	..	+	..	..
Averages.....		..	**76**	**70**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Deep Samples,	**12**	**feet deep**									
Aug. 18.....	228	..	102	..	..	0	+	..	+	..	..
" 19.....		..	130	..	..	0	+	..	+	..	..
" 20.....		..	107	..	..	0	+	..	+	..	..
" 21.....		..	59	..	..	0	0	..	+	..	..
" 22.....		..	240	..	..	0	+	..	+	..	..
" 23.....		..	165	..	..	0	+	..	+	..	..
" 25.....		..	48	..	..	0	+	..	+	..	..
" 26.....		..	152	..	..	0	0	..	+	..	..
" 27.....		..	139	..	..	0	0	..	+	..	..
Averages.....		..	**126**	**70**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Deep Samples,	**24**	**feet deep**									
Aug. 18.....	228	..	202	..	..	0	+	..	+	..	..
" 19.....		..	191	..	..	0	0	..	+	..	..
" 20.....		..	206	..	..	0	+	..	+	..	..
" 21.....		..	96	..	..	0	+	..	+	..	..
" 22.....		..	152	..	..	0	+	..	+	..	..
" 23.....		..	211	..	..	0	+	..	+	..	..
" 25.....		..	61	..	..	0	+	..	+	..	..
" 26.....		..	110	..	..	0	0	..	+	..	..
" 27.....		..	57	..	..	0	0	..	+	..	..
Averages.....		..	**142**	**70**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 23.....	229	..	8	..	..	0	0	..	+	..	..
" 26.....		..	5	..	..	0	0	..	0	..	..
" 27.....		..	29	..	..	0	0	..	+	..	..
" 28.....		..	11	..	..	0	0	..	+	..	..
" 29.....		..	11	..	..	0	+	..	+	..	..
" 31.....		..	7	..	..	0	+	..	+	..	..
June 2.....		..	19	..	..	0	0	..	+	..	..
" 3.....		..	7	..	..	0	0	..	+	..	..
" 4.....		..	6	..	..	0	+	..	+	..	..
" 5.....		..	12	..	..	0	0	..	+	..	..
" 6.....		..	11	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 7.....	229	..	28	..	..	0	0	..	+	..	..
" 9.....		..	12	..	..	0	0	..	+	..	..
" 10.....		..	47	..	..	0	+	..	+	..	..
" 18.....		..	555	..	..	0	+	..	+	..	..
" 19.....		..	22	..	..	0	0	..	+	..	..
" 20.....		..	20	..	..	0	0	..	+	..	..
" 21.....		..	34	..	..	0	0	..	+	..	..
" 23.....		..	24	..	..	0	0	..	+	..	..
" 24.....		..	13	..	..	0	0	..	0	..	..
" 25.....		..	72	..	..	0	+	..	+	..	..
July 4.....		..	36	..	..	0	0	..	+	..	..
" 5.....		..	36	..	..	0	0	..	+	..	..
" 6.....		..	27	..	..	0	0	..	+	..	..
" 7.....		..	23	..	..	0	0	..	+	..	..
Averages.....		..	**43**	**34**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 23.....	230	..	6	..	..	0	0	..	+	..	..
" 26.....		..	12	..	..	0	0	..	0	..	..
" 27.....		..	40	..	..	0	0	..	+	..	..
" 28.....		..	15	..	..	0	+	..	+	..	..
" 29.....		..	24	..	..	0	+	..	+	..	..
" 31.....		..	10	..	..	0	+	..	+	..	..
June 2.....		..	6	..	..	0	0	..	+	..	..
" 3.....		..	10	..	..	0	0	..	+	..	..
" 4.....		..	16	..	..	0	0	..	+	..	..
" 5.....		..	22	..	..	0	0	..	+	..	..
" 6.....		..	8	..	..	0	0	..	+	..	..
" 7.....		..	76	..	..	0	0	..	+	..	..
" 9.....		..	60	..	..	0	+	..	+	..	..
" 10.....		..	113	..	..	0	0	..	0	..	..
" 18.....		..	18	..	..	0	0	..	+	..	..
" 19.....		..	46	..	..	0	0	..	+	..	..
" 20.....		..	8	..	..	0	0	..	+	..	..
" 21.....		..	60	..	..	0	0	..	+	..	..
" 23.....		..	26	..	..	0	0	..	0	..	..
" 24.....		..	20	..	..	0	0	..	+	..	..
" 25.....		..	16	..	..	0	0	..	+	..	..
" 26.....		..	33	..	..	0	+	..	+	..	..
" 28.....		..	7	..	..	0	+	..	+	..	..
" 29.....		..	41	..	..	0	0	..	+	..	..
July 4.....		..	187	..	..	0	0	..	+	..	..
" 5.....		..	10	..	..	0	+	..	+	..	..
" 6.....		..	14	..	..	0	+	..	+	..	..
" 7.....		..	37	..	..	0	0	..	+	..	..
Averages.....		..	**33**	**34**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	231	..	18	..	..	0	+	..	+	..	..
" 26		..	172	..	..	+	+	..	+	..	..
" 27		..	1160	..	..	+	+	..	+	..	..
" 28		..	360	..	..	+	+	..	+	..	..
" 29		..	245	..	..	+	+	..	+	..	..
" 31		..	113	..	..	+	+	..	+	..	..
June 2		..	298	..	..	+	+	..	+	..	..
" 3		..	184	0	0	+	..	..	..	..	..
" 4		..	513	0	0	+	..	..	..	..	..
" 5		..	240	..	0	0	+	..	..	..	..
" 6		..	543	0	0	+	..	..	..	..	..
" 7		..	560	0	+	+	..	..	..	..	..
" 9		..	323	0	+	+	..	..	..	..	..
" 10		..	620	0	+	+	..	..	..	..	..
" 18		..	780	0	+	+	..	..	..	..	..
" 19		..	370	0	+	+	..	..	..	..	..
" 21		..	260	0	0	+	..	..	..	..	..
" 23		..	300	0	0	+	..	..	..	..	..
" 24		..	500	..	0	0	+	..	..	..	..
" 25		..	540	0	+	+	..	..	..	..	..
" 26		..	940	0	+	+	..	..	..	..	..
" 28		..	990	0	+	+	..	..	..	..	..
July 4		..	620	0	+	+	..	..	..	..	..
" 5		..	190	0	+	+	..	..	..	..	..
" 6		..	340	0	+	+	..	..	..	..	..
" 7		..	1110	0	+	+	..	..	..	..	..
Averages			**472**	**50**	**50**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 2	232	..	3800	..	..	+	+	..	+	..	..
" 3		..	3200	..	..	+	+	..	+	..	..
" 4		..	3260	..	0	0	+	..	..	..	..
" 5		..	6780	0	+	+	..	..	..	..	..
" 6		..	14720	0	+	+	..	..	..	..	..
" 7		..	15400	0	+	+	..	..	..	..	..
" 9		..	4200	+	+	+	..	..	..	..	..
Averages			**7337**	**188**	**71**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23	233	..	1600	..	..	+	+	..	+	..	..
" 26		..	1800	..	..	+	+	..	+	..	..
" 27		..	4120	..	..	+	+	..	+	..	..
" 28		..	1850	..	..	+	+	..	+	..	..
" 29		..	800	..	..	+	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 31	233	..	1530	..	..	+	+	..	+	..	..
June 2		..	900	..	..	+	+	..	+	..	..
" 3		..	1100	0	0	+	..	..	..	..	..
" 4		..	4780	0	+	+	..	..	..	..	..
" 5		..	2340	0	0	+	..	..	..	..	..
" 6		..	2760	+	+	+	..	..	..	..	..
" 7		..	14960	0	+	+	..	..	..	..	..
" 9		..	3580	0	+	+	..	..	..	..	..
" 10		..	6800	0	+	+	..	..	..	..	..
" 19		..	1225	0	0	+	..	..	..	..	..
" 20		..	15000	0	+	+	..	..	..	..	..
" 25		..	6900	+	+	+	..	..	..	..	..
" 18		..	12200	0	+	+	..	..	..	..	..
" 25		..	3828	+	+	+	..	..	..	..	..
" 26		..	2240	+	+	+	..	..	..	..	..
" 28		..	800	0	0	+	..	..	..	..	..
" 29		..	1030	0	+	+	..	..	..	..	..
" 31		..	4200	0	+	+	..	..	..	..	..
July 4		..	9100	0	0	+	..	..	..	..	..
" 5		..	17500	0	+	+	..	..	..	..	..
" 6		..	4100	0	0	+	..	..	..	..	..
" 7		..	1060	0	0	+	..	..	..	..	..
Averages			**4744**	**150**	**00**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 15	234	..	3400	..	..	0	+	..	+	..	..
" 19		..	350	..	..	0	+	..	+	..	..
" 20		..	21	..	..	0	+	..	+	..	..
" 21		..	921	..	..	+	+	..	+	..	..
" 23		..	220	..	..	0	0	..	+	..	..
" 24		..	21	..	..	0	0	..	+	..	..
" 25		..	810	..	..	+	+	..	+	..	..
" 17		..	114	..	..	0	0	..	+	..	..
" 25		..	110	..	..	0	+	..	+	..	..
" 26		..	98	..	..	0	0	..	+	..	..
" 28		..	135	..	..	+	+	..	+	..	..
" 29		..	20	..	..	0	0	..	+	..	..
" 30		..	83	..	..	0	+	..	+	..	..
" 31		..	360	..	..	0	+	..	+	..	..
July 4		..	235	..	..	0	+	..	+	..	..
" 5		..	138	..	..	0	+	..	+	..	..
" 6		..	424	..	..	+	+	..	+	..	..
" 7		..	61	..	..	0	0	..	+	..	..
Averages			**417**	**26**	**9**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Surface											
Aug. 18.....	234	..	14	..	..	0	0	..	+	..	..
" 19.....		..	51	..	..	0	+	..	+	..	..
" 20.....		..	67	..	..	0	+	..	+	..	..
" 21.....		..	50	..	..	0	+	..	+	..	..
" 22.....		..	117	..	..	0	+	..	+	..	..
" 23.....		..	94	..	..	0	+	..	+	..	..
" 25.....		..	37	..	..	0	+	..	+	..	..
" 26.....		..	26	..	..	0	+	..	+	..	..
" 27.....		..	168	..	..	0	0	..	+	..	..
Averages.....			**68**		**80**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples,	**12**	**feet deep**									
Aug. 18.....	234	..	198	..	..	0	+	..	+	..	..
" 19.....		..	167	..	..	0	+	..	+	..	..
" 20.....		..	87	..	..	0	0	..	+	..	..
" 21.....		..	69	..	..	0	0	..	+	..	..
" 22.....		..	271	..	..	0	+	..	+	..	..
" 23.....		..	82	..	..	0	+	..	+	..	..
" 25.....		..	93	..	..	0	+	..	+	..	..
" 26.....		..	66	..	..	0	0	..	+	..	..
" 27.....		..	44	..	..	0	0	..	+	..	..
Averages.....			**119.**		**60**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples,	**24**	**feet deep**									
Aug. 18.....	234	..	238	..	..	0	+	..	+	..	..
" 19.....		..	173	..	..	0	+	..	+	..	..
" 20.....		..	89	..	..	0	+	..	+	..	..
" 21.....		..	202	..	..	0	+	..	+	..	..
" 22.....		..	112	..	..	0	+	..	+	..	..
" 23.....		..	91	..	..	0	+	..	+	..	..
" 25.....		..	71	..	..	0	0	..	+	..	..
" 26.....		..	41	..	..	0	0	..	+	..	..
" 27.....		..	98	..	..	0	0	..	+	..	..
Averages.....			**123**		**70**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23.....	235	..	8	..	..	0	+	..	+	..	..
" 26.....		..	31	..	..	0	0	..	+	..	..
" 27.....		..	26	..	..	0	0	..	+	..	..
" 28.....		..	9	..	..	0	+	..	+	..	..
" 29.....		..	49	..	..	0	+	..	+	..	..
" 31.....		..	9	..	..	0	0	..	+	..	..
June 2.....		..	9	..	..	0	+	..	+	..	..
June 3.....	235	..	4	..	..	0	+	..	+	..	..
" 4.....		..	17	..	..	0	0	..	0	..	..
" 5.....		..	41	..	..	0	0	..	+	..	..
" 6.....		..	9	..	..	0	0	..	+	..	..
" 7.....		..	59	..	..	0	0	..	+	..	..
" 9.....		..	23	..	..	0	0	..	+	..	..
" 10.....		..	63	..	..	0	0	..	0	..	..
" 18.....		..	29	..	..	0	0	..	+	..	..
" 19.....		..	13	..	..	0	0	..	+	..	..
" 20.....		..	18	..	..	0	+	..	+	..	..
" 21.....		..	40	..	..	0	+	..	+	..	..
" 23.....		..	21	..	..	0	0	..	+	..	..
" 24.....		..	138	..	..	0	+	..	+	..	..
" 25.....		..	37	..	..	0	+	..	+	..	..
" 28.....		..	20	..	..	0	0	..	+	..	..
" 29.....		..	29	..	..	0	+	..	+	..	..
" 31.....		..	18	..	..	0	0	..	+	..	..
July 4.....		..	7	..	..	0	+	..	+	..	..
" 5.....		..	15	..	..	0	0	..	+	..	..
" 6.....		..	28	..	..	0	+	..	+	..	..
" 7.....		..	35	..	..	0	0	..	+	..	..
Averages.....			**28**	**4**	**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18.....	236	..	127	..	..	0	+	..	+	..	..
" 19.....		..	125	..	..	0	0	..	+	..	..
" 20.....		..	124	..	..	+	+	..	+	..	..
" 21.....		..	108	..	0	+	+	..	..	..	..
" 23.....		..	190	..	..	0	0	..	+	..	..
" 24.....		..	5140	..	..	+	+	..	+	..	..
" 25.....		..	26	..	..	0	0	..	+	..	..
" 18.....		..	102	..	..	0	+	..	+	..	..
" 25.....		..	121	..	..	0	+	..	+	..	..
" 26.....		..	620	..	..	+	+	..	+	..	..
" 28.....		..	100	0	0	+	..	..	..	..	..
" 29.....		..	715	..	+	+	+	..	..	..	..
" 30.....		..	860	..	..	0	0	..	+	..	..
" 31.....		..	220	..	..	0	+	..	+	..	..
July 4.....		..	321	..	..	0	+	..	+	..	..
" 5.....		..	28	..	..	0	+	..	+	..	..
" 6.....		..	19	..	..	0	+	..	+	..	..
" 7.....		..	10	..	..	0	0	..	+	..	..
Averages.....		..	**497**	**87**	**5**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 23	237	..	5	..	..	+	+	..	+	..	..
" 26		..	119	..	..	+	+	..	+	..	..
" 27		..	425	..	..	0	+	..	+	..	..
" 28		..	185	..	..	+	+	..	+	..	..
" 29		..	85	..	..	+	+	..	+	..	..
" 31		..	97	..	..	0	+	..	+	..	..
June 2		..	64	..	..	0	+	..	+	..	..
" 3		..	43	..	..	+	+	..	..	..	..
" 4		..	140	..	..	+	+	..	..	..	..
" 5		..	210	..	..	0	+	..	..	..	..
" 6		..	56	..	..	+	+	..	..	..	..
" 7		..	644	..	..	+	+	..	..	..	..
" 9		..	226	..	+	+	+	..	..	..	..
" 10		..	320	..	0	+	+	..	..	..	..
" 18		..	171	..	0	0	+	..	..	..	..
" 19		..	95	..	0	+	+	..	..	..	..
" 21		..	310	..	+	+	+	..	..	..	..
" 23		..	162	..	0	+	+	..	..	..	..
" 24		..	127	..	0	+	+	..	..	..	..
" 25		..	232	..	+	+	+	..	..	..	..
" 17		..	136	..	0	0	+	..	..	..	..
" 25		..	710	0	+	+	..	..	..	..	..
" 26		..	4280	0	0	+	..	..	..	..	..
" 28		..	2680	0	+	+	..	..	..	..	..
" 29		..	2500	0	0	+	..	..	..	..	..
" 30		..	3500	0	0	+	..	..	..	..	..
" 31		..	200	..	0	0	+	..	..	..	..
July 4		..	300	..	0	0	+	..	..	..	..
" 5		..	240	..	0	+	+	..	..	..	..
" 6		..	490	0	+	+	..	..	..	..	..
" 7		..	800	0	+	+	..	..	..	..	..
Averages		..	**630**	**280**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23	238	..	243	..	..	+	+	..	+	..	..
" 26		..	634	..	..	+	+	..	+	..	..
" 27		..	12000	..	..	+	+	..	+	..	..
" 28		..	134	..	•	+	+	..	+	..	..
" 29		..	159	..	..	+	+	..	+	..	..
" 31		..	646	..	..	+	+	..	+	..	..
June 2		..	86	..	..	+	+	..	+	..	..
" 3		..	333	..	0	+	+	..	..	..	..
" 4		..	15000	..	+	+	+	..	..	..	..
" 5		..	16000	0	+	+	..	..	..	..	..
" 6		..	15000	0	+	+	..	..	..	..	..
" 7		..	24520	0	0	+	..	..	..	..	..
" 9		..	15720	+	+	+	..	..	..	..	..
" 10		..	20500	0	0	+	..	..	..	..	..
" 18		..	30600	+	+	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 19	228	..	12400	0	+	+	..	..	..	..	..
" 20		..	35000	+	+	+	..	..	..	..	..
" 21		..	24000	0	+	+	..	..	..	..	..
" 23		..	11100	0	+	+	..	..	..	..	..
" 25		..	4670	0	0	+	..	..	..	..	..
July 3		..	7200	0	+	+	..	..	..	..	..
" 5		..	3200	0	+	+	..	..	..	..	..
" 7		..	3800	0	+	+	..	..	..	..	..
" 8		..	21300	0	+	+	..	..	..	..	..
" 10		..	34000	+	+	+	..	..	..	..	..
" 11		..	15000	0	+	+	..	..	..	..	..
" 12		..	2400	0	0	+	..	..	..	..	..
" 14		..	1800	+	+	+	..	..	..	..	..
" 15		..	31600	0	+	+	..	..	..	..	..
" 16		..	5400	0	+	+	..	..	..	..	..
Averages		..	**12622**	**214**	**00**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23	239	..	48	..	..	0	+	..	+	..	..
" 26		..	298	..	..	+	+	..	+	..	..
" 27		..	420	..	..	0	+	..	+	..	..
" 28		..	21	..	..	+	+	..	+	..	..
" 29		..	103	..	..	+	+	..	+	..	..
" 31		..	21	..	..	0	+	..	+	..	..
June 2		..	152	..	..	0	+	..	+	..	..
" 3		..	15	..	..	0	0	..	0	..	..
" 4		..	39	..	..	0	+	..	+	..	..
" 5		..	25	..	..	0	0	..	+	..	..
" 6		..	4760	..	0	0	+	..	..	..	..
" 7		..	61	..	..	0	0	..	+	..	..
" 9		..	189	..	0	+	+	..	..	..	..
" 10		..	3710	..	0	+	+	..	..	..	..
" 18		..	2100	..	0	+	+	..	..	..	..
" 19		..	440	..	0	+	+	..	..	..	..
" 20		..	222	..	0	0	+	..	..	..	..
" 21		..	1400	..	0	+	+	..	..	..	..
" 23		..	124	..	0	+	+	..	..	..	..
" 24		..	13	..	0	0	+	..	..	..	..
July 3		..	150	..	0	+	+	..	..	..	..
" 5		..	630	..	0	+	+	..	..	..	..
" 7		..	510	..	0	+	+	..	..	..	..
" 8		..	108	..	0	+	+	..	..	..	..
" 10		..	5000	..	0	+	+	..	..	..	..
" 11		..	580	..	0	+	+	..	..	..	..
" 12		..	600	0	0	+	..	..	..	..	..
" 14		..	100	0	0	+	..	..	..	..	..
" 15		..	100	..	0	0	+	..	..	..	..
" 16		..	1260	0	0	+	..	..	..	..	..
Averages			**773**	**63**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 23	240	..	16	..	..	0	+	..	+	..	..
" 26		..	15	..	..	0	0	..	+	..	..
" 27		..	24	..	..	0	0	..	+	..	..
" 28		..	21	..	..	0	+	..	+	..	..
" 29		..	32	..	..	0	+	..	+	..	..
" 31		..	12	..	..	0	0	..	+	..	..
June 2		..	4	..	..	0	+	..	+	..	..
" 3		..	12	..	..	0	0	..	+	..	..
" 4		..	41	..	..	0	0	..	+	..	..
" 5		..	47	..	..	0	0	..	+	..	..
" 6		..	16	..	..	0	+	..	+	..	..
" 7		..	55	..	..	0	0	..	+	..	..
" 9		..	41	..	..	0	0	..	+	..	..
" 10		..	85	..	..	0	+	..	+	..	..
" 18		..	300	..	..	0	+	..	+	..	..
" 19		..	28	..	..	0	0	..	+	..	..
" 20		..	29	..	..	0	+	..	+	..	..
" 21		..	55	..	..	0	+	..	+	..	..
" 23		..	51	..	..	+	+	..	+	..	..
" 24		..	17	..	..	0	+	..	+	..	..
July 3		..	33	..	..	0	+	..	+	..	..
" 5		..	42	..	..	0	+	..	+	..	..
" 7		..	206	..	..	0	+	..	+	..	..
" 8		..	34	..	..	+	+	..	+	..	..
" 10		..	122	..	..	0	+	..	+	..	..
" 11		..	19	..	..	0	+	..	+	..	..
" 12		..	190	..	..	+	+	..	+	..	..
" 14		..	13	..	..	0	0	..	+	..	..
" 15		..	31	..	..	0	+	..	+	..	..
" 16		..	28	..	..	0	+	..	+	..	..
Averages			**53**	**16**	**0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Surface											
Aug. 18	240	..	816	..	..	+	+	..	+	..	..
" 19		..	296	..	..	+	+	..	+	..	..
" 20		..	745	..	0	+	+	..	..	..	..
" 21		..	834	..	0	+	+	..	..	..	..
" 22		..	876	..	0	+	+	..	..	..	..
" 23		..	756	..	0	+	+	..	..	..	..
" 25		..	170	..	..	0	+	..	+	..	..
" 26		..	58	..	..	0	0	..	+	..	..
" 27		..	416	..	..	0	+	..	+	..	..
Averages			**551**	**6**	**90**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples,	**12**	**feet deep**									
Aug. 18	240	..	374	..	..	+	+	..	+	..	..
" 19		..	441	..	..	+	+	..	+	..	..
" 20		..	671	..	0	+	+	..	..	..	..
" 21		..	810	..	0	0	+	..	..	..	..
" 22		+	648	..	0	+	+	..	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 23	240	..	735	..	0	+	+	..	..	..	..
" 25		..	70	..	+	0	+	..	+	..	..
" 26		..	160	..	+	0	0	..	+	..	..
" 27		..	390	..	+	0	+	..	+	..	..
Averages			**477**	**6**	**90**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Samples,	**24**	**feet deep**									
Aug. 18	240	..	564	..	..	+	+	..	+	..	..
" 19		..	491	..	0	0	+	..	..	..	..
" 20		..	475	..	0	+	+	..	..	..	..
" 21		..	542	..	0	0	+	..	..	..	..
" 22		..	798	..	0	+	+	..	..	..	..
" 23		..	812	..	0	+	+	..	..	..	..
" 25		..	114	..	0	0	+	..	..	..	..
" 26		..	460	..	..	0	0	..	+	..	..
" 27		..	450	..	..	0	+	..	+	..	..
Averages			**522**	**4**	**90**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 23	241	..	5	..	..	0	+	..	+	..	..
" 26		..	14	..	..	0	0	..	+	..	..
" 27		..	92	..	..	+	+	..	+	..	..
" 28		..	32	..	..	0	+	..	+	..	..
" 29		..	25	..	..	+	+	..	+	..	..
" 31		..	9	..	..	0	+	..	+	..	..
June 2		..	12	..	..	0	0	..	+	..	..
" 3		..	6	..	..	0	0	..	+	..	..
" 4		..	52	..	..	0	+	..	+	..	..
" 5		..	36	..	..	0	0	..	+	..	..
" 6		..	31	..	..	0	+	..	+	..	..
" 7		..	25	..	..	0	+	..	+	..	..
" 9		..	56	..	..	0	+	..	+	..	..
" 10		..	107	..	..	0	0	..	+	..	..
" 18		..	22	..	..	0	0	..	+	..	..
" 19		..	75	..	..	0	+	..	+	..	..
" 20		..	33	..	..	+	+	..	+	..	..
" 12		..	97	..	..	0	+	..	+	..	..
" 23		..	120	..	..	0	+	..	+	..	..
" 24		..	29	..	..	0	0	..	0	..	..
July 3		..	16	..	..	0	0	..	+	..	..
" 5		..	21	..	..	0	0	..	+	..	..
" 7		..	21	..	..	0	0	..	+	..	..
" 8		..	20	..	..	0	0	..	+	..	..
" 10		..	52	..	..	0	0	..	+	..	..
" 11		..	19	..	..	0	0	..	+	..	..
" 12		..	44	..	..	0	+	..	+	..	..
" 14		..	11	..	..	0	0	..	+	..	..
" 15		..	22	..	..	0	+	..	+	..	..
" 16		..	20	..	..	0	+	..	+	..	..
Averages			**37**	**14**	**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	242	..	21	..	..	0	+	..	+	..	..
" 27		..	147	..	..	0	+	..	+	..	..
" 28		..	50	..	..	0	+	..	+	..	..
" 29		..	21	..	..	0	+	..	+	..	..
" 31		..	37	..	..	0	+	..	+	..	..
June 2		..	12	..	..	0	+	..	+	..	..
" 3		..	13	..	..	0	+	..	+	..	..
" 4		..	91	..	..	0	0	..	+	..	..
" 5		..	81	..	..	0	0	..	+	..	..
" 6		..	66	..	..	0	+	..	+	..	..
" 7		..	219	..	..	0	0	..	+	..	..
" 8		..	98	..	..	+	+	..	+	..	..
" 10		..	114	..	..	0	+	..	+	..	..
" 18		..	41	..	..	0	0	..	+	..	..
" 19		..	55	..	0	+	+	..	..	..	..
" 20		..	87	..	0	+	+	..	..	..	..
" 21		..	197	..	0	+	+	..	..	..	..
" 22		..	28	..	0	0	+	..	..	..	..
" 24		..	43	..	0	0	+	..	..	..	..
July 3		..	43	..	0	0	+	..	..	..	..
" 5		..	113	..	0	+	+	..	..	..	..
" 7		..	86	..	0	+	+	..	..	..	..
" 8		..	111	..	0	0	+	..	..	..	..
" 10		..	56	..	0	0	+	..	..	..	..
" 11		..	89	..	0	+	+	..	..	..	..
" 12		..	80	..	0	+	+	..	..	..	..
" 14		..	21	..	..	0	+	..	+	..	..
" 15		..	52	..	..	0	+	..	+	..	..
" 16		..	60	..	..	0	0	..	+	..	..
Averages			**73**	**32**	**6.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18	243	..	30000	..	..	+	+	..	+	..	..
" 19		..	43000	0	+	+	+	..	..	..	..
" 20		..	45000	+	+	+	..	..	..	..	..
" 21		..	15000	0	+	+	..	..	..	..	..
" 23		..	6100	0	0	+	..	..	..	..	..
" 24		..	43000	0	+	+	..	..	..	..	..
July 3		..	6400	0	+	+	..	..	..	..	..
" 7		..	7500	0	+	+	..	..	..	..	..
" 8		..	13200	0	+	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10	243	..	45000	0	+	+	..	..	..	..	..
" 11		..	213000	0	+	+	..	..	..	..	..
" 12		..	18700	0	+	+	..	..	..	..	..
" 14		..	2400	0	+	+	..	..	..	..	..
" 15		..	38000	+	+	+	..	..	..	..	..
" 16		..	59600	+	+	+	..	..	..	..	..
" 17		..	37600	0	+	+	..	..	..	..	..
" 18		..	48000	0	+	+	..	..	..	..	..
" 19		..	48000	0	+	+	..	..	..	..	..
" 28		..	11000	0	0	+	..	..	..	..	
" 29		..	46000	0	+	+	..	..	..	..	..
" 30		..	41000	0	+	+	..	..	..	..	..
" 31		..	20800	+	+	+	..	..	..	..	..
Averages			**38104**	**251**	**50**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18	244	..	25000	..	..	+	+	..	+	..	..
" 19		..	6360	0	0	+	..	..	..	..	..
" 20		..	18000	0	+	+	..	..	..	..	..
" 21		..	37000	0	+	+	..	..	..	..	..
" 23		..	8400	0	+	+	..	..	..	..	..
" 24		..	9800	0	+	+	..	..	..	..	..
July 3		..	4900	0	+	+	..	..	..	..	..
" 7		..	3300	0	0	+	..	..	..	..	..
" 9		..	37000	0	+	+	..	..	..	..	..
" 10		..	42000	0	+	+	..	..	..	..	..
" 11		..	4300	0	0	+	..	..	..	..	..
" 12		..	12700	0	+	+	..	..	..	..	..
" 14		..	5900	0	0	+	..	..	..	..	..
" 15		..	55000	+	+	+	..	..	..	..	..
" 16		..	7400	0	+	+	..	..	..	..	..
" 17		..	42400	0	+	+	..	..	..	..	..
" 18		..	40200	+	+	+	..	..	..	..	..
" 19		..	44000	+	+	+	..	..	..	..	..
" 28		..	6200	+	+	+	..	..	..	..	..
" 29		..	40400	0	+	+	..	..	..	..	..
" 30		..	19000	+	+	+	..	..	..	..	..
" 31		..	9600	+	+	+	..	..	..	..	..
Averages			**21766**	**324**	**50**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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June 18	245	..	5180	..	..	+	.	..	.	..	..
" 19		..	22100	0	+	+	.	.	.	..	..
" 20		..	19000	..	0	+	+	..	..	..	..
" 21		..	21430	..	+	+	+	..	..	..	..
" 23		..	21600	..	0	+	+	..	..	..	..
" 24		..	22500	..	0	+	+	..	..	..	..
July 3		..	4600	..	+	+	+	..	..	..	..
" 7		..	4900	..	0	+	+	..	..	..	..
" 9		..	12200	..	+	+	+	..	..	..	..
" 10		..	30100	..	+	+	+	..	..	..	..
" 11		..	1500	..	+	+	+	..	..	..	..
" 12		..	4500	0	0	+	..	..	..	..	..
" 14		..	2000	0	0	+	..	..	..	..	..
" 15		..	18000	+	+	+	..	..	..	..	..
" 16		..	6300	0	+	+	..	..	..	..	..
" 17		..	20400	+	+	+	..	..	..	..	..
" 18		..	18800	0	0	+	..	..	..	..	..
" 19		..	22800	0	+	+	..	..	..	..	..
" 28		..	3600	0	+	+	..	..	..	..	..
" 29		..	24600	+	+	+	..	..	..	..	..
" 30		..	7400	0	+	+	..	..	..	..	..
" 31		..	4700	0	+	+	..	..	..	..	..
Averages			**13555**	**1895**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18	246	..	23000	..	..	+	+	..	+	..	..
" 19		..	16800	..	+	+	+	..	..	..	..
" 20		..	18000	..	+	+	+	..	..	..	..
" 21		..	10800	..	+	+	+	..	..	..	..
" 23		..	9400	..	+	+	+	..	..	..	..
" 24		..	8700	..	0	+	+	..	..	..	..
July 3		..	1800	..	0	+	+	..	..	..	..
" 7		..	2630	..	0	+	+	..	..	..	..
" 9		..	2000	..	+	+	+	..	..	..	..
" 10		..	22000	..	+	+	+	..	..	..	..
" 11		..	6800	0	0	+	..	..	..	..	..
" 12		..	8000	0	0	+	..	..	..	..	..
" 14		..	1200	0	0	+	..	..	..	..	..
" 15		..	8500	0	+	+	..	..	..	..	..
" 16		..	1100	0	+	+	..	..	..	..	..
" 17		..	18700	0	+	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 18	246	..	20200	0	+	+	..	..	..	..	..
" 19		..	20000	0	+	+	..	..	..	..	..
" 28		..	2400	0	0	+	..	..	..	..	..
" 29		..	22900	0	+	+	..	..	..	..	..
" 30		..	1300	0	+	+	..	..	..	..	..
" 31		..	800	+	+	+	..	..	..	..	..
Averages			**10319**	**108**	**10**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18	247	..	2920	..	..	+	+	..	+	..	..
" 19		..	4900	..	+	+	..	..	..	..	..
" 20		..	13000	..	+	+	+	..	..	..	..
" 21		..	7000	..	0	+	..	..	..	..	..
" 23		..	2700	..	0	0	+	..	..	..	..
" 24		..	9000	..	0	+	+	..	..	..	..
July 7		..	1340	0	+	+	..	..	..	..	..
" 8		..	1300	0	0	+	..	..	..	..	..
" 10		..	18900	0	+	+	..	..	..	..	..
" 11		..	1600	0	0	+	..	..	..	..	..
" 12		..	8000	0	0	+	..	..	..	..	..
" 14		..	1700	0	0	+	..	..	..	..	..
" 15		..	3500	0	+	+	..	..	..	..	..
" 16		..	1220	0	+	+	..	..	..	..	..
" 17		..	24000	+	+	+	..	..	..	..	..
" 18		..	11000	0	+	+	..	..	..	..	..
" 19		..	112000	0	0	+	..	..	..	..	..
" 21		..	8400	0	+	+	..	..	..	..	..
" 22		..	4600	0	+	+	..	..	..	..	..
" 23		..	30000	0	+	+	..	..	..	..	..
" 24		..	7500	0	+	+	..	..	..	..	..
" 25		..	8600	0	+	+	..	..	..	..	..
" 26		..	15000	0	0	+	..	..	..	..	..
" 28		..	4000	0	0	+	..	..	..	..	..
" 29		..	17000	0	+	+	..	..	..	..	..
" 30		..	4300	+	+	+	..	..	..	..	..
" 31		..	3400	0	+	+	..	..	..	..	..
Averages			**12106**	**128**	**60**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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June 18	248	..	2870	..	..	0	+	..	+	..	..
" 19		..	4090	0	+	+	..	..	..	..	..
" 20		..	5500	0	0	+	..	..	..	..	..
" 21		..	1950	..	0	0	+	..	..	..	..
" 23		..	3500	..	..	+	+	..	+	..	..
" 24		..	600	..	0	0	+	..	..	..	..
July 7		..	1220	..	+	+	+	..	..	..	..
" 8		..	9600	..	0	+	+	..	..	..	..
" 10		..	3500	..	+	+	+	..	..	..	..
" 11		..	1500	..	0	0	+	..	..	..	..
" 12		..	1680	0	+	+	..	..	..	..	..
" 14		..	800	0	0	+	..	..	..	..	..
" 15		..	1200	0	+	+	..	..	..	..	..
" 16		..	1640	0	0	+	..	..	..	..	..
" 17		..	2400	..	0	0	+	..	..	..	..
" 18		..	7500	0	+	+	..	..	..	..	..
" 19		..	5400	0	0	+	..	..	..	..	..
" 21		..	1700	0	0	+	..	..	..	..	..
" 22		..	2260	0	0	+	..	..	..	..	..
" 23		..	560	0	0	0	+	..	..	..	..
" 24		..	1900	..	0	0	+	..	..	..	..
" 25		..	2600	0	0	+	..	..	..	..	..
" 26		..	10600	0	+	+	..	..	..	..	..
" 28		..	2460	0	+	+	..	..	..	..	..
" 29		..	16300	0	0	+	..	..	..	..	..
" 30		..	12000	0	0	+	..	..	..	..	..
" 31		..	10200	0	0	+	..	..	..	..	..
Averages			**4278**	**34**	**33**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18	249	..	440	..	..	0	+	..	+	..	..
" 19		..	580	..	..	0	+	..	+	..	..
" 23		..	321	..	..	0	+	..	+	..	..
" 24		..	381	..	0	0	+	..	..	..	..
July 7		..	260	..	..	0	+	..	+	..	..
" 8		..	50	..	0	0	+	..	..	..	..
" 10		..	1400	..	0	+	+	..	..	..	..
" 11		..	270	..	..	0	+	..	+	..	..
" 12		..	180	..	..	0	+	..	+	..	..
" 14		..	80	..	0	0	+	..	..	..	..
" 15		..	20	..	0	0	+	..	..	..	..
" 16		..	36	0	+	+	+	..	..	..	..
" 17		..	120	0	+	+	..	..	..	..	..
" 18		..	1230	0	0	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 19	249	..	1900	0	0	+	..	..	..	..	..
" 21		..	400	0	0	0	+	..	..	..	..
" 22		..	200	..	0	0	+	..	..	..	..
" 23		..	310	..	0	0	+	..	+	..	..
" 24		..	400	..	0	+	+	..	..	..	..
" 25		..	300	..	0	0	+	..	..	..	..
" 26		..	780	..	0	0	+	..	..	..	..
" 28		..	320	..	0	+	+	..	..	..	..
" 29		..	130	..	0	+	+	..	..	..	..
" 30		..	110	..	0	+	+	..	..	..	..
" 31		..	40	..	0	0	+	..	..	..	..
Averages			**406**	**114**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 18	250	..	118	..	..	0	0	..	+	..	..
" 19		..	580	..	..	0	+	..	+	..	..
" 20		..	2350	..	..	+	+	..	+	..	..
" 21		..	206	..	..	0	+	..	+	..	..
" 23		..	340	..	..	0	+	..	+	..	..
" 24		..	179	..	..	0	+	..	+	..	..
July 7		..	210	..	..	0	+	..	+	..	..
" 8		..	96	..	0	+	+	..	..	..	..
" 10		..	103	..	0	+	+	..	..	..	..
" 11		..	42	..	..	0	0	..	+	..	..
" 12		..	190	..	..	+	+	..	+	..	..
" 14		..	40	..	..	0	+	..	+	..	..
" 15		..	24	..	..	0	+	..	+	..	..
" 16		..	40	..	..	0	+	..	+	..	..
" 17		..	87	..	..	0	+	..	+	..	..
" 18		..	160	..	..	0	+	..	+	..	..
" 19		..	330	..	..	0	+	..	+	..	..
" 21		..	64	..	..	0	+	..	+	..	..
" 22		..	70	..	..	0	0	..	+	..	..
" 23		..	110	..	..	0	+	..	+	..	..
" 24		..	300	..	0	+	+	..	..	..	..
" 25		..	275	..	0	0	+	..	..	..	..
" 26		..	180	..	0	0	+	..	..	..	..
" 28		..	120	..	0	0	+	..	..	..	..
" 29		..	50	..	0	0	+	..	..	..	..
" 30		..	50	..	0	0	+	..	..	..	..
" 31		..	30	..	0	0	+	..	..	..	..
Averages			**234**	**2**	**56**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 18.....	251	..	23	..	..	0	0	..	+	..	..
" 19.....		..	30	..	..	0	0	..	+	..	..
" 20.....		..	81	..	..	0	+	..	+	..	..
" 21.....		..	70	..	..	0	+	..	+	..	..
" 23.....		..	50	..	..	0	+	..	+	..	..
" 24.....		..	80	..	..	0	+	..	+	..	..
July 7.....		..	109	..	..	+	+	..	+	..	..
" 8.....		..	31	..	..	+	+	..	+	..	..
" 10.....		..	160	..	..	0	+	..	+	..	..
" 11.....		..	26	..	..	0	0	..	+	..	..
" 12.....		..	38	..	..	0	+	..	+	..	..
" 14.....		..	30	..	..	0	0	..	+	..	..
" 15.....		..	51	..	..	+	+	..	+	..	..
" 16.....		..	18	..	..	0	+	..	+	..	..
" 17.....		..	96	..	..	0	+	..	+	..	..
" 18.....		..	62	..	..	0	+	..	+	..	..
" 19.....		..	180	..	..	0	0	..	+	..	..
" 21.....		..	32	..	..	0	+	..	+	..	..
" 22.....		..	20	..	..	+	+	..	+	..	..
" 23.....		..	160	..	..	0	0	..	+	..	..
" 24.....		..	34	..	..	0	+	..	+	..	..
" 25.....		..	50	..	..	0	+	..	+	..	..
" 26.....		..	70	..	..	+	+	..	+	..	..
" 28.....		..	60	..	..	+	+	..	+	..	..
" 29.....		..	40	..	..	0	+	..	+	..	..
" 30.....		..	40	..	..	0	+	..	+	..	..
" 31.....		..	30	..	..	0	0	..	+	..	..
Averages.....			**61**	**2**	**76**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 23.....	252	..	2160	..	..	+	+	..	+	..	..
July 3.....		..	100	0	+	+	..	..	..	..	..
" 7.....		..	2400	0	+	+	..	..	..	..	..
" 8.....		..	3500	0	0	+	..	..	..	..	..
" 10.....		..	5400	0	0	+	..	..	..	..	..
" 11.....		..	4400	0	+	+	..	..	..	..	..
" 12.....		..	500	0	0	+	..	..	..	..	..
" 14.....		..	1900	0	0	+	..	..	..	..	..
" 15.....		..	4500	0	+	+	..	..	..	..	..
" 16.....		..	1100	0	+	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 17.....	252	..	14800	0	+	+	..	..	..	..	..
" 18.....		..	2500	0	+	+	..	..	..	..	..
" 19.....		..	8700	0	0	+	..	..	..	..	..
" 21.....		..	1300	0	+	+	..	..	..	..	..
" 22.....		..	5700	0	+	+	..	..	..	..	..
" 23.....		..	18000	0	+	+	..	..	..	..	..
" 24.....		..	19200	0	+	+	..	..	..	..	..
" 25.....		..	2500	0	+	+	..	..	..	..	..
" 26.....		..	13400	0	+	+	..	..	..	..	..
" 28.....		..	20400	0	+	+	..	..	..	..	..
" 29.....		..	2160	0	0	+	..	..	..	..	..
" 30.....		..	1000	0	+	+	..	..	..	..	..
" 31.....		..	1800	0	+	+	..	..	..	..	..
Averages.....			**5974**	**72**	**60**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 23.....	253	..	1720	..	..	+	+	..	+	..	..
July 3.....		..	3800	0	0	+	..	..	..	..	..
" 7.....		..	1900	0	+	+	..	..	..	..	..
" 8.....		..	2770	0	+	+	..	..	..	..	..
" 10.....		..	4600	0	+	+	..	..	..	..	..
" 11.....		..	1400	0	0	+	..	..	..	..	..
" 12.....		..	5500	0	0	+	..	..	..	..	..
" 14.....		..	600	0	0	+	..	..	..	..	..
" 15.....		..	5900	0	+	+	..	..	..	..	..
" 16.....		..	1100	..	0	0	+	..	..	..	..
" 17.....		..	6400	0	+	+	..	..	..	..	..
" 18.....		..	3200	0	0	+	..	..	..	..	..
" 19.....		..	5400	0	0	+	..	..	..	..	..
" 21.....		..	4200	0	0	+	..	..	..	..	..
" 22.....		..	3800	0	+	+	..	..	..	..	..
" 23.....		..	3400	0	0	+	..	..	..	..	..
" 24.....		..	3600	0	+	+	..	..	..	..	..
" 25.....		..	3100	0	+	+	..	..	..	..	..
" 26.....		..	6200	0	0	+	..	..	..	..	..
" 28.....		..	920	0	0	+	..	..	..	..	..
" 29.....		..	9200	0	+	+	..	..	..	..	..
" 30.....		..	1010	0	0	+	..	..	..	..	..
" 31.....		..	900	0	0	+	..	..	..	..	..
Averages.....			**3505**	**44**	**82**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

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June 23	254	..	1580	..	..	0	+	..	+	..	..
July 3		..	162	..	..	+	+	..	+	..	..
" 7		—	540	..	0	+	+	..	..	..	..
" 8		..	176	..	0	0	+	..	..	..	..
" 10		..	2500	..	+	+	+	..	..	..	..
" 11		..	124	..	..	0	+	..	+	..	..
" 12		..	2440	..	..	+	+	..	+	..	..
" 14		..	600	..	+	+	+	..	..	..	..
" 15		..	9600	..	0	+	+	..	..	..	..
" 16		..	930	..	..	+	+	..	+	..	..
" 17		..	9900	..	+	+	+	..	..	..	..
" 18		..	780	..	+	+	+	..	..	..	..
" 19		..	720	..	0	0	+	..	..	..	..
" 21		..	600	..	0	0	+	..	..	..	..
" 22		..	1300	..	0	+	+	..	..	..	..
" 23		..	250	..	0	0	+	..	..	..	..
" 24		..	3400	..	0	+	+	..	..	..	..
" 25		..	700	..	0	0	+	..	..	..	..
" 26		..	510	..	0	0	+	..	..	..	..
" 28		..	415	..	0	0	+	..	..	..	..
" 29		..	1080	..	0	+	+	..	..	..	..
" 30		..	1690	..	+	+	+	..	..	..	..
" 31		..	290	..	0	0	0	..	+	..	..
Averages			**1750**	**25**	**18**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
June 23	255	..	570	..	..	0	0	..	+	..	..
July 3		..	8	..	..	0	0	..	+	..	..
" 7		..	127	..	..	0	+	..	+	..	..
" 8		..	120	..	..	0	+	..	+	..	..
" 10		..	420	..	..	0	+	..	+	..	..
" 11		..	330	..	..	0	0	..	+	..	..
" 12		..	300	..	..	+	+	..	+	..	..
" 14		..	110	..	..	0	+	..	+	..	..
" 15		..	20	..	..	0	0	..	+	..	..
" 16		..	250	..	..	+	+	..	+	..	..
" 17		..	270	..	..	+	+	..	+	..	..
" 18		..	90	..	..	0	+	..	+	..	..
" 19		..	100	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 21	255	..	130	..	..	0	0	..	0	..	..
" 22		..	90	..	..	+	+	..	+	..	..
" 23		..	130	..	..	0	+	..	+	..	..
" 24		..	70	..	..	0	+	..	+	..	..
" 25		..	111	..	..	0	+	..	+	..	..
" 26		..	50	..	..	0	+	..	+	..	..
" 28		..	107	..	..	0	+	..	+	..	..
" 29		..	65	..	..	0	+	..	+	..	..
" 30		..	46	..	..	+	+	..	+	..	..
" 31		..	60	..	..	0	0	..	+	..	..
Averages			**155**	**27**	**1.**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
June 23	256	..	180	..	..	+	+	..	+	..	..
" 24		..	3110	..	..	+	+	..	+	..	..
July 7		..	35	..	..	0	+	..	+	..	..
" 8		..	160	..	..	0	+	..	+	..	..
" 10		..	46	..	..	0	+	..	+	..	..
" 11		..	35	..	..	0	0	..	+	..	..
" 12		..	120	..	..	0	0	..	+	..	..
" 14		..	100	..	..	0	+	..	+	..	..
" 15		..	80	..	..	0	+	..	+	..	..
" 16		..	60	..	..	+	+	..	+	..	..
" 17		..	110	..	..	+	+	..	+	..	..
" 18		..	63	..	..	0	0	..	+	..	..
" 19		..	58	..	..	0	+	..	+	..	..
" 21			55	..	..	0	+	..	+	..	..
" 22		..	60	..	..	0	+	..	+	..	..
" 23		..	66	..	..	0	+	..	+	..	..
" 24		..	50	..	..	0	0	..	+	..	..
" 25		..	62	..	..	0	+	..	+	..	..
" 26		..	30	..	..	0	+	..	+	..	..
" 28		..	44	..	..	0	+	..	+	..	..
" 29		..	57	..	..	0	+	..	+	..	..
" 30		..	21	..	..	0	+	..	+	..	..
" 31		..	30	..	..	0	+	..	+	..	..
Averages		..	**201**	**24**	**1.**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

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May 3	257	..	59	..	..	+	+	..	+	..	..
" 7		..	59	..	0	0	+	..	..	..	..
" 8		..	120	..	0	+	+	..	..	..	..
" 10		..	125	..	..	0	+	..	+	..	..
" 11		..	80	..	..	0	+	..	+	..	..
" 12		..	60	..	..	0	0	..	+	..	..
" 14		..	150	..	0	0	+	..	..	..	..
" 15		..	141	..	..	+	+	..	+	..	..
" 16		..	70	..	..	0	+	..	+	..	..
" 17		..	350	..	..	+	+	..	+	..	..
" 18		..	112	..	..	+	+	..	+	..	..
" 19		..	270	..	..	0	+	..	+	..	..
" 21		..	120	..	..	0	+	..	+	..	..
" 22		..	70	..	..	+	+	..	+	..	..
" 23		..	150	..	..	0	+	..	+	..	..
" 24		..	170	..	..	0	+	..	+	..	..
" 25		..	110	..	..	+	+	..	+	..	..
" 26		..	250	..	0	0	+	..	..	..	..
" 28		..	160	..	0	0	+	..	..	..	..
" 29		..	140	..	+	+	+	..	..	..	..
" 30		..	64	..	0	+	+	..	..	..	..
" 31		..	200	..	0	0	+	..	..	..	..
Averages		..	**137**	**87**	**2.**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
May 3	258	..	799	..	..	+	+	..	+	..	..
" 7		..	780	..	0	+	+	..	..	..	..
" 8		..	840	..	0	+	+	..	..	..	..
" 10		..	2400	..	+	+	+	..	..	..	..
" 11		..	450	..	..	0	+	..	+	..	..
" 12		..	2300	0	0	+	..	..	..	..	..
" 14		..	800	0	0	+	..	..	..	..	..
" 15		..	680	+	+	+	..	..	..	..	..
" 16		..	2400	..	..	0	+	..	+	..	..
" 17		..	1100	0	0	+	..	..	..	..	..
" 18		..	4400	+	+	+	..	..	..	..	..
" 19		..	2700	0	0	+	..	..	..	..	..
" 21		..	1700	..	0	0	+	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 22	258	..	1300	0	+	+	..	..	..	..	..
" 23		..	3900	0	0	+	..	..	..	..	..
" 24		..	2700	0	+	+	..	..	..	..	..
" 25		..	1400	0	+	+	..	..	..	..	..
" 26		..	2300	0	+	+	..	..	..	..	..
" 28		..	490	0	+	+	..	..	..	..	..
" 29		..	2600	0	0	+	..	..	..	..	..
" 30		..	430	0	+	+	..	..	..	..	..
" 31		..	100	0	0	+	..	..	..	..	..
Averages		..	**1662**	**12**	**74**	**0.**	**B.**	**C.**	**pe**	**r**	**1 00 cc**
May 3	259	..	371	..	..	+	+	..	+	..	..
" 7		..	145	..	0	0	+	..	..	..	..
" 8		..	450	..	0	+	+	..	..	..	..
" 10		..	790	..	+	+	+	..	..	..	..
" 11		..	225	..	..	0	+	..	+	..	..
" 12		..	540	..	..	+	+	..	+	..	..
" 14		..	600	..	0	0	+	..	..	..	..
" 15		..	960	0	+	+	..	..	..	..	..
" 16		..	520	0	+	+	..	..	..	..	..
" 17		..	1120	0	0	+	..	..	..	..	..
" 18		..	8600	0	+	+	..	..	..	..	..
" 19		..	2800	0	0	+	..	..	..	..	..
" 21		..	2420	0	+	+	..	..	..	..	..
" 22		..	240	..	0	0	+	..	..	..	..
" 23		..	400	0	+	+	..	..	..	..	..
" 24		..	270	..	..	0	+	..	+	..	..
" 25		..	369	..	0	0	+	..	..	..	..
" 26		..	269	..	0	0	+	..	..	..	..
" 28		..	610	..	0	+	+	..	..	..	..
" 29		..	515	..	0	0	+	..	..	..	..
" 30		..	60	..	0	+	+	..	..	..	..
" 31		..	440	..	0	+	+	..	..	..	..
Averages		..	**1032**	**31**	**26**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**

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May 3	260	..	283	..	..	+	+	..	+	..	..
" 7		..	280	0	0	+	..	..	..	..	..
" 8		..	168	..	..	0	+	..	+	..	..
" 10		..	490	..	..	0	+	..	+	..	..
" 11		..	24	..	..	0	0	..	+	..	..
" 12		..	210	..	..	0	+	..	+	..	..
" 14		..	168	..	0	0	+	..	..	..	..
" 15		..	70	..	..	0	+	..	+	..	..
" 16		..	152	0	+	+	..	..	..	..	..
" 17		..	380	0	0	+	..	..	..	..	..
" 18		..	126	0	+	+	..	..	..	..	..
" 19		..	190	0	0	+	..	..	..	..	..
" 21		..	80	..	0	0	+	..	..	..	..
" 22		..	150	..	0	0	-	..	..	..	..
" 23		..	73	..	0	0	·	..	..	..	..
" 24		..	230	0	0	+	..	..	..	..	..
" 25		..	136	..	0	0	+	..	..	..	..
" 26		..	69	..	0	0	+	..	..	..	..
" 28		..	62	..	0	0	+	..	..	..	..
" 29		..	51	..	0	0	+	..	..	..	..
" 30		..	53	..	0	+	+	..	..	..	..
" 31		..	30	..	0	0	+	..	..	..	..
Averages		..	**157**	**1**	**24**	**0.**	**B.**	**C.**	**per**	**1**	**00 cc**
May 3	261	..	37	..	..	0	0	..	+	..	..
" 7		..	42	..	..	0	0	..	+	..	..
" 8		..	45	..	..	0	0	..	+	..	..
" 10		..	116	..	..	0	+	..	+	..	..
" 11		..	29	..	..	0	0	..	+	..	..
" 12		..	134	..	..	0	0	..	+	..	..
" 14		..	30	..	..	0	+	..	+	..	..
" 15		..	100	..	..	0	+	..	+	..	..
" 16		..	26	..	..	0	+	..	+	..	..
" 17		..	97	..	..	0	0	..	+	..	..
" 18		..	31	..	..	+	+	..	+	..	..
" 19		..	170	..	..	0	+	..	+	..	..
" 21		..	36	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 22	261	..	60	..	..	0	+	..	+	..	..
" 23		..	54	..	..	0	+	..	+	..	..
" 24		..	86	..	..	0	+	..	+	..	..
" 25		..	50	..	..	0	+	..	+	..	..
" 26		..	110	..	..	0	0	..	+	..	..
" 28		..	106	..	0	0	+	..	..	..	..
" 29		..	49	..	0	+	+	..	..	..	..
" 30		..	49	..	0	+	+	+	..	..	..
" 31		..	30	..	0	0	+	..	..	..	..
Averages		..	**67**	**1**	**94**	**B.**	**C.**	**per**	**1**	**00 cc**	
May 3	262	..	32	..	..	+	+	..	+	..	..
" 7		..	124	..	..	0	+	..	+	..	..
" 8		..	50	..	..	+	+	..	+	..	..
" 10		..	62	..	..	0	+	..	+	..	..
" 11		..	42	..	..	0	+	..	+	..	..
" 12		..	110	..	..	0	+	..	+	..	..
" 14		..	40	..	..	0	+	..	+	..	..
" 15		..	123	..	..	+	+	..	+	..	..
" 16		..	40	..	..	+	+	..	+	..	..
" 17		..	230	..	..	+	+	..	+	..	..
" 18		..	50	..	..	0	0	..	+	..	..
" 19		..	410	..	..	+	+	..	+	..	..
" 21		..	71	..	..	0	+	..	+	..	..
" 22		..	34	..	..	+	+	..	+	..	..
" 23		..	124	..	..	+	+	..	+	..	..
" 24		..	20	..	..	0	+	..	+	..	..
" 25		..	37	..	0	0	+	..	..	..	..
" 26		..	41	..	0	0	+	..	..	..	..
" 28		..	31	..	0	+	+	..	..	..	..
" 29		..	89	..	0	0	+	..	..	..	..
" 30		..	41	..	0	0	+	..	..	..	..
" 31		..	30	..	0	+	+	..	..	..	..
Averages		**83**		**50**	**5.**	**B.**	**C.**	**per**	**1**	**00 cc**	

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 3.....	263	..	32	..	..	0	+	..	+	..	..
" 7.....		..	253	..	..	+	+	..	+	..	..
" 8.....		..	160	..	..	+	+	..	+	..	..
" 10.....		..	172	..	..	0	+	..	+	..	..
" 11.....		..	66	..	..	0	+	..	+	..	..
" 12.....		..	60	..	..	0	0	..	+	..	..
" 14.....		..	40	..	..	0	+	..	+	..	..
" 15.....		..	210	..	..	+	+	..	+	..	..
" 16.....		..	45	..	..	+	+	..	+	..	..
" 17.....		..	96	..	..	+	+	..	+	..	..
" 18.....		..	100	0	+	+	..	..	..	..	..
" 19.....		..	90	0	0	+	..	..	..	..	..
" 21.....		..	82	0	0	+	..	..	..	..	..
" 22.....		..	110	0	0	0	+	..	..	..	..
" 23.....		..	226	..	0	0	+	..	..	..	..
" 24.....		..	1100	0	+	+	..	..	..	..	..
" 25.....		..	86	0	+	+	..	..	..	..	..
" 26.....		..	102	..	0	0	+	..	..	..	..
" 28.....		..	67	..	0	0	+	..	..	..	..
" 29.....		..	111	..	+	+	+	..	..	..	..
" 30.....		..	143	..	0	+	+	..	..	..	..
" 31.....		..	80	..	0	0	+	..	..	..	..
Averages.....		..	**155**	**22**	**23**	**B.**	**C.**	**per**	**1**	**00**	**cc**
May 21.....	264	..	1100	..	..	+	+	..	+	..	..
" 22.....		..	28000	..	..	+	+	..	+	..	..
" 23.....		..	35000	..	..	+	+	..	+	..	..
" 24.....		..	65000	0	+	+	..	..	..	..	..
" 25.....		..	24800	0	+	+	..	..	..	..	..
" 26.....		..	27000	+	+	+	..	..	..	..	..
" 28.....		..	24000	0	+	+	..	..	..	..	..
" 29.....		..	27240	+	+	+	..	..	..	..	..
" 30.....		..	3500	0	+	+	..	..	..	..	..
" 31.....		..	2400	0	+	+	..	..	..	..	..
Averages.....		..	**23804**	**24**	**40**	**0.**	**B.**	**C.**	**per**	**1**	**00cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 21.....	265	..	980	..	..	+	+	..	+	..	..
" 22.....		..	22000	..	..	+	+	..	+	..	..
" 23.....		..	32000	..	..	+	+	..	+	..	..
" 24.....		..	34000	0	+	+	..	..	..	..	..
" 25.....		..	34200	+	+	+	..	..	..	..	..
" 26.....		..	29200	0	+	+	..	..	..	..	..
" 28.....		..	24000	0	+	+	..	..	..	..	..
" 29.....		..	46000	+	+	+	..	..	..	..	..
" 30.....		..	32000	0	+	+	..	..	..	..	..
" 31.....		..	32400	+	+	+	..	..	..	..	..
Averages.....		..	**28678**	**3**	**43**	**00**	**B.**	**C.**	**per**	**1**	**00cc**
May 21.....	266	..	1210	..	..	+	+	..	+	..	..
" 22.....		..	19000	..	..	+	+	..	+	..	..
" 23.....		..	14000	..	..	+	+	..	+	..	..
" 24.....		..	29000	..	..	+	+	..	+	..	..
" 25.....		..	6600	0	+	+	..	..	..	..	..
" 26.....		..	43400	0	+	+	..	..	..	..	..
" 28.....		..	32500	0	0	+	..	..	..	..	..
" 29.....		..	41400	+	+	+	..	..	..	..	..
" 30.....		..	43200	+	+	+	..	..	..	..	..
" 31.....		..	8800	0	+	+	..	..	..	..	..
Averages.....		..	**23811**	**2**	**35**	**00**	**B.**	**C.**	**per**	**1**	**00cc**
May 21.....	267	..	2200	..	..	+	+	..	+	..	..
" 22.....		..	8400	..	..	+	+	..	+	..	..
" 23.....		..	180000	..	..	+	+	..	+	..	..
" 24.....		..	140000	0	+	+	..	..	..	..	..
" 25.....		..	8500	0	+	+	..	..	..	..	..
" 26.....		..	14200	..	0	0	+	..	..	..	..
" 28.....		..	13250	0	+	+	..	..	..	..	..
" 29.....		..	24000	+	+	+	..	..	..	..	..
" 30.....		..	22000	0	+	+	..	..	..	..	..
" 31.....		..	19800	+	+	+	..	..	..	..	..
Averages.....		..	**36035**	**24**	**31**	**0.**	**B.**	**C.**	**per**	**1**	**00cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of the Detroit River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 21	268	..	1080	..	..	+	+	..	+	..	..
" 22		..	680	..	..	0	+	..	+	..	..
" 23		..	14000	..	..	+	+	..	+	..	..
" 24		..	3400	0	0	+	..	..	..	..	..
" 25		..	3840	0	0	+	..	..	..	..	..
" 26		..	1800	0	0	+	..	..	..	..	..
" 28		..	2400	..	0	0	+	..	..	..	..
" 29		..	7200	..	+	+	+	..	..	..	..
" 30		..	3750	..	+	+	+	..	..	..	..
" 31		..	4000	..	0	+	+	..	..	..	..
Averages			**4215**	**26**	**20**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 21	269	..	210	..	..	+	+	..	+	..	..
" 22		..	200	..	..	+	+	..	+	..	..
" 23		..	2070	..	..	+	+	..	+	..	..
" 24		..	2100	0	0	+	..	..	..	..	..
" 25		..	1610	0	0	+	..	..	..	..	..
" 26		..	400	..	0	0	+	..	..	..	..
" 28		..	2100	..	0	0	+	..	..	..	..
" 29		..	2461	..	0	+	+	..	..	..	..
" 30		..	390	..	+	+	+	..	..	..	..
" 31		..	1240	..	+	+	+	..	..	..	..
Averages			**1548**	**26**	**20**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 21	270	..	890	..	..	0	+	..	+	..	..
" 22		..	100	..	..	0	+	..	+	..	..
" 23		..	1480	..	..	+	+	..	+	..	..
" 24		..	1600	0	0	+	..	..	..	..	..
" 25		..	159	0	+	+	..	..	..	..	..
" 26		..	760	0	0	+	..	..	..	..	..
" 28		..	820	..	0	+	+	..	..	..	..
" 29		..	730	..	0	+	+	..	..	..	..
" 30		..	1140	..	0	+	+	..	..	..	..
" 31		..	890	..	0	+	+	..	..	..	..
Averages			**856**	**17**	**20**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 21	271	..	90	..	..	+	+	..	+	..	..
" 22		..	110	..	..	+	+	..	+	..	..
" 23		..	390	..	..	+	+	..	+	..	..
" 24		..	380	..	0	0	+	..	..	..	..
" 25		..	79	..	0	0	+	..	..	..	..
" 26		..	580	0	0	+	..	..	..	..	..
" 28		..	96	..	0	0	+	..	..	..	..
" 29		..	390	..	0	+	+	..	..	..	..
" 30		..	150	..	..	+	+	..	+	..	..
" 31		..	660	..	+	+	+	..	..	..	..
Averages			**292**	**16**	**30**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 21	272	..	108	..	..	+	+	..	+	..	..
" 22		..	100	..	..	0	+	..	+	..	..
" 23		..	60	..	..	+	+	..	+	..	..
" 24		..	160	..	0	+	+	..	..	..	..
" 25		..	59	..	0	0	+	..	..	..	..
" 26		..	102	..	0	0	+	..	..	..	..
" 28		..	76	..	..	0	+	..	+	..	..
" 29		..	105	..	..	0	+	..	+	..	..
" 30		..	76	..	..	0	+	..	+	..	..
" 31		..	70	..	..	0	0	..	+	..	..
Averages			**91**	**36**	**1**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 21	273	..	94	..	..	+	+	..	+	..	..
" 22		..	140	..	..	0	+	..	+	..	..
" 23		..	110	..	..	0	+	..	+	..	..
" 24		..	280	..	0	0	+	..	..	..	..
" 25		..	86	..	0	+	+	..	..	..	..
" 26		..	220	..	0	0	+	..	..	..	..
" 28		..	130	..	0	0	+	..	..	..	..
" 29		..	162	..	0	+	+	..	..	..	..
" 30		..	67	..	0	+	+	..	..	..	..
" 31		..	90	..	0	0	+	..	..	..	..
Averages			**137**	**46**	**0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Records. Laboratory at Windsor, Ont. Waters of the Detroit River. Deep Water Samples.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
	*										
Oct. 11.....	D-1-1	1200	240	..	..	+	+	+	..	0	+
" 13.....		9	3	..	..	0	0	+	..	0	+
" 14.....		25	0	..	..	+	0	+	..	+	+
" 14.....		25	2	..	..	+	0	+	..	+	+
Averages.....		**314.7**	**61.2**	**3**	**05**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-1-20	480	90	..	..	+	+	+	..	0	+
" 13.....		21	18	..	..	+	+	+	..	+	+
" 14.....		24	1	..	..	+	+	+	..	+	+
" 14.....		16	3	..	..	+	0	0	..	+	+
Averages.....		**135.2**	**28**	**7**	**55**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-1-30	290	11	..	..	0	0	+	..	+	+
" 13.....		15	8	..	..	+	+	+	..	+	+
" 14.....		15	9	..	..	0	+	0	..	+	+
" 14.....		6	3	..	..	0	0	+	..	0	+
Averages.....		**81.5**	**7**	**2**	**65**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-2-1	34	1	..	..	0	0	0	..	0	0
" 13.....		33	65	..	..	0	0	0	..	+	+
" 14.....		6	3	..	..	0	0	0	..	+	+
" 14.....		8	3	..	..	0	0	0	..	+	0
Averages.....		**20.2**	**18**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-2-30	2	2	..	..	0	0	0	..	0	0
" 13.....		7	18	..	..	0	0	+	..	+	+
" 14.....		4	4	..	..	0	0	0	..	+	0
" 14.....		4	3	..	..	0	0	0	..	0	0
Averages.....		**4**	**6**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-2-40	1	3	..	..	0	0	0	..	0	0
" 13.....		75	5	..	..	0	0	+	..	0	+
" 14.....		3	2	..	..	0	0	0	..	0	0
" 14.....		4	0	..	..	0	0	0	..	0	0
Averages.....		**20.7**	**2**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-3-1	3	4	..	..	0	0	0	..	0	0
" 13.....		18	5	..	..	0	0	0	..	0	0
" 14.....		41	1	..	..	0	0	0	..	+	0
" 14.....		6	2	..	..	0	0	0	..	0	+
Averages.....		**17**	**3**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 11.....	D-3-32	12	23	..	..	0	0	0	..	0	0
" 13.....		12	4	..	..	0	0	+	..	0	+
" 14.....		16	1	..	..	0	0	+	..	+	0
" 14.....		2	11	..	..	0	0	0	..	0	+
Averages.....		**10.5**	**9.**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-3-42	4	5	..	..	0	0	0	..	0	0
" 13.....		4	1	..	..	0	0	0	..	0	+
" 14.....		15	1	..	..	0	0	0	..	+	+
" 14.....		2	9	..	..	0	0	0	..	0	0
Averages.....		**6.**	**4**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-4-1	3	16	..	..	0	0	0	..	+	+
" 13.....		11	5	..	..	0	0	0	..	0	+
" 14.....		10	5	..	..	0	0	0	..	0	0
" 14.....		12	5	..	..	0	0	0	..	0	0
Averages.....		**9**	**7.**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-4-26	2	3	..	..	0	0	0	..	+	+
" 13.....		28	3	..	..	0	0	0	..	+	+
" 14.....		5	3	..	..	0	0	0	..	+	+
" 14.....		4	1	..	..	0	0	0	..	0	0
Averages.....		**9.**	**2.**	**3.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-4-36	1	4	..	..	0	0	0	..	0	0
" 13.....		5	30	..	..	0	0	0	..	+	+
" 14.....		6	1	..	..	0	0	0	..	+	0
" 14.....		5	11	..	..	0	0	0	..	+	+
Averages.....		**4.**	**11.5**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-5-1	5	4	..	..	0	0	0	..	0	0
" 13.....		6	16	..	..	0	0	0	..	0	+
" 14.....		12	7	..	..	0	0	0	..	+	0
" 14.....		7	1	..	..	0	0	0	..	0	+
Averages.....		**7.**	**7**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 11.....	D-5-20	0	0	..	..	0	0	0	..	0	0
" 13.....		4	3	..	..	0	0	0	..	0	+
" 14.....		8	8	..	..	0	0	0	..	0	0
" 14.....		3	1	..	..	0	0	0	..	0	+
Averages.....		**3.**	**3.**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Symbols read—D = Deep sample; -1 = Sampling point number; -1, -20, -30 = Depth from surface at which samples were collected.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Waters of the Detroit River. Deep Water Samples.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
	*												
Oct. 11.....	D-5-30	3	3	..	..	0	0	0	..	0	0
" 13.....		8	3	..	..	0	0	0	..	0	+
" 14.....		5	3	..	..	0	0	0	..	0	0
" 14.....		4	7	..	..	0	0	0	..	0	0
..											
Averages.....		**5**	**4**	**0**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Oct. 11.....	D-6-1	2	2	..	..	0	0	0	..	0	0
" 13.....		13	1	..	..	0	0	0	..	0	0
" 14.....		10	1	..	..	0	0	0	..	0	0
" 14.....		20	8	..	..	0	0	0	..	0	0
Averages.....		**11.2**	**3**	**0**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Oct. 11.....	D-6-20	1	2	..	..	0	0	0	..	0	0
" 13.....		5	8	..	..	0	0	0	..	0	0
" 14.....		6	1	..	..	0	0	0	..	0	0
" 14.....		7	3	..	..	0	0	0	..	0	0
Averages.....		**4.**	**3.**	**0.**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Oct. 11.....	D-6-30	34	6	..	..	0	0	0	..	+	+
" 13.....		3	3	..	..	0	0	+	..	+	+
" 14.....		2	3	..	..	0	0	0	..	+	+
" 14.....		6	1	..	..	0	0	0	..	0	0
Averages.....		**11.2**	**3.**		**7**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-7-1	7000	5000	..	..	..	+	+	..	+	+
" 6.....		2900	10	..	0	0	+	+	..	+	+
" 7.....		4800	2000	..	..	0	+	0	..	+	+
" 8.....		20000	320	..	..	+	+	+	..	+	+
" 11.....		24000	700	..	..	+	+	+	..	+	+
Averages.....		**11740**	**1606**	**5**	**55**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-7-6	5000	1	..	..	..	+	+	..	+	+
" 8.....		15000	160	..	..	+	+	+	..	+	+
" 11.....		36000	1100	..	..	+	+	+	..	+	+
Averages.....		**18666.6**	**420.3**	**7**	**00**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-7-16	6000	1	..	..	..	+	+	..	+	+
" 6.....		80000	800	..	0	+	+	+	..	+	+
" 7.....		12200	4500	..	..	0	+	0	..	+	+
" 8.....		2000	180	..	..	+	+	+	..	+	+
" 11.....		52000	700	..	..	+	+	+	..	+	+
Averages.....		**30440**	**1236.2**	**6**	**40**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 4.....	D-8-1	840	160	..	..	..	+	+	..	+	+
" 7.....		48	5	..	..	0	0	0	..	+	+
" 8.....		80	20	..	..	0	0	0	..	0	0
" 11.....		1800	260	..	..	0	0	0	..	0	0
Averages.....		**697**	**111.2**	**26**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-8-30	720	90	..	..	..	+	+	..	+	+
" 7.....		580	110	..	..	0	0	0	..	+	+
" 8.....		40	10	..	..	0	0	0	..	+	+
" 11.....		1230	60	..	..	+	+	+	..	+	+
Averages.....		**642.5**	**52.5**	**2**	**77**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-8-40	2000	250	..	..	..	+	+	..	+	+
" 7.....		42	3	..	..	0	+	0	..	+	+
" 8.....		20	10	..	..	0	0	0	..	0	+
" 11.....		30	0	..	..	0	0	+	..	0	0
Averages.....		**523**	**65.7**	**31**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-9-1	3	8	..	..	..	0	0	..	+	+
" 7.....		14	11	..	..	0	0	0	..	0	0
" 8.....		16	60	..	..	0	0	0	..	0	+
" 11.....		18	6	..	..	0	0	0	..	0	+
Averages.....		**12.7**	**21.2**	**1.**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-9-26	8	18	..	..	..	+	+	..	+	+
" 7.....		11	6	..	..	0	0	0	..	+	0
" 8.....		2	50	..	..	0	0	0	..	0	0
" 11.....		22	4	..	..	0	0	0	..	0	0
Averages.....		**10.7**	**19.5**	**2**	**5.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-9-36	3	5	..	..	..	0	+	..	+	+
" 7.....		8	0	..	..	0	0	0	..	+	+
" 8.....		3	40	..	..	0	0	0	..	+	+
" 11.....		3	6	..	..	0	0	0	..	0	0
Averages.....		**4.**	**12.7**	**7**	**B.**	**Co**	**li**	**pe**	**r l**	**00**	**cc**
Oct. 4.....	D-10-1	4	2	..	..	..	0	0	..	0	0
" 7.....		5	3	..	..	0	0	0	..	0	0
" 8.....		4	10	..	..	0	0	0	..	0	0
" 11.....		320	65	..	..	+	+	+	..	+	+
Averages.....		**83.2**	**20**	**2**	**50**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

* Symbols read—D = Deep sample; -5 = Sampling point number; -30, -1, -20 = Depth from surface at which samples were collected.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Records. Laboratory at Windsor, Ont. Waters of the Detroit River. Deep Water Samples.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
	*										
Oct. 4.....	D-10-26	..	10	..	..	..	0	+	..	+	+
" 7.....		7	2	..	..	0	0	0	..	0	0
" 8.....		2	0	..	..	0	0	0	..	+	+
" 11.....		145	36	..	..	0	+	+	..	+	+
Averages.....		**51.3**	**12.**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-10-36	5	5	..	..	..	0	0	..	+	+
" 7.....		4	4	..	..	0	0	+	..	+	+
" 8.....		3	0	..	..	0	0	0	..	+	+
" 11.....		325	60	..	..	0	+	+	..	+	+
Averages.....		**84.2**	**17.2**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-11-1	24	11	..	..	..	0	+	..	+	+
" 8.....		28	0	..	..	0	0	0	..	0	0
" 11.....		400	95	..	..	0	+	+	..	+	+
Averages.....		**150.6**	**35.3**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-11-26	160	90	..	..	..	+	+	..	+	+
" 7		16	9	..	..	0	0	0	..	+	+
" 8.....		18	1	..	..	0	0	0	..	+	+
" 11.....		620	110	..	..	0	+	+	..	+	+
Averages.....		**203.5**	**52.5**	**51**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-11-36	16	40	..	..	..	+	+	..	+	+
" 7.....		12	4	..	..	0	0	0	..	0	0
" 8.....		24	2	..	..	0	0	0	..	0	+
" 11.....		580	190	..	..	0	+	+	..	+	+
Averages.....		**158**	**59**	**50**	**B.**	**CO**	**i**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-12-1	130	15	..	..	..	0	+	..	+	+
" 7.....		18	3	..	..	0	0	0	..	+	+
" 8.....		24	0	..	..	0	0	0	..	+	+
" 11.....		180	120	..	..	0	+	+	..	+	+
Averages.....		**88**	**34.5**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-12-20	120	15	..	..	..	+	+	..	+	+
" 7.....		28	42	..	..	0	0	0	..	+	0
" 8.....		80	14	..	..	0	0	0	..	+	0
" 11.....		310	140	..	..	0	+	+	..	+	+
Averages.....		**134.5**	**52.7**	**50**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 4.....	D-12-30	115	25	..	..	..	+	+	..	+	+
" 7.....		18	16	..	..	0	0	0	..	+	+
" 8.....		80	4	..	..	0	0	0	..	+	0
" 11.....		820	120	..	..	0	+	+	..	+	+
Averages.....		**255.7**	**41.2**	**57**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-13-1	9	8	..	..	..	0	0	..	0	+
" 7.....		14	8	..	..	0	0	0	..	+	0
Averages.....		**11.5**	**8**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 4.....	D-13-20	36	10	..	..	..	+	+	..	+	+
" 7.....	D-13-30	12	15	..	..	..	0	+	..	+	+
" 4.....	D-14-1	11	8	..	..	..	+	0	..	0	+
" 4.....	D-14-32	14	12	..	..	..	+	+	..	+	+
" 4.....	D-14-42	9	1	..	..	..	+	+	..	+	+
" 4.....	D-15-1	4	25	..	..	..	0	0	..	+	+
" 4.....	D-15-10	4	1	..	..	..	0	0	..	+	0
" 4.....	D-15-20	3	1	..	..	..	0	0	..	+	+
Oct. 6.....	D-16-1	160	180	..	..	0	0	0	..	+	+
" 8.....		38	3	..	..	0	0	0	..	+	0
" 9.....		40	7	..	..	0	0	+	..	0	0
" 10.....		320	34	..	..	0	0	+	..	+	+
Averages.....		**139.5**	**56**	**7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-16-10	180	80	..	..	0	+	+	..	+	+
" 8.....		68	28	..	..	0	+	+	..	+	+
" 9.....		75	12	..	..	+	+	+	..	+	+
" 10.....		78	32	..	..	0	0	+	..	+	+
Averages.....		**100.2**	**32**	**3**	**05**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 8.....	D-16-18	60	4	..	..	0	+	+	..	+	+
" 6.....	D-17-1	180	140	..	..	0	+	0	..	0	+
" 8.....		4	2	..	..	0	0	+	..	0	0
" 9.....		34	10	..	..	0	0	+	..	0	+
" 10.....		140	21	..	..	0	0	+	..	+	+
Averages.....		**89.5**	**43.2**	**7.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-17-15	160	80	..	..	0	0	+	..	+	+
" 8.....		18	2	..	..	0	0	0	..	+	0
" 9.....		36	14	..	..	0	+	+	..	0	+
" 10.....		110	6	..	..	0	0	0	..	+	+
Averages.....		**81**	**25.5**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Symbols read—D = Deep sample; -10 = Sampling point number; -26, -36, -1 = Depth from surface at which samples were collected.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Records. Laboratory at Windsor, Ont. Waters of the Detroit River. Deep Water Samples.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
	*										
Oct. 6.....	D-17-25	60	180	..	..	0	0	0	..	+	+
" 8.....		6	1	..	..	0	0	+	..	+	+
" 9.....		44	34	..	..	0	+	+	..	0	+
Averages.....		**36.6**	**71.6**	**14**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-18-1	110	30	..	..	0	+	0	..	+	+
" 8.....		160	3	..	..	0	0	0	..	+	+
" 9.....		7	2	..	..	0	0	0	..	0	0
" 10.....		120	18	..	..	0	0	+	..	+	+
Averages.....		**99.2**	**13.2**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-18-15	70	30	..	..	0	+	+	..	+	+
" 8.....		800	1	..	..	0	0	+	..	+	+
" 9.....		9	2	..	..	0	0	+	..	0	+
" 10.....		65	19	..	..	0	0	+	..	+	+
Averages.....		**238**	**13**	**36**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-18-25	110	110	..	..	0	+	+	..	+	+
" 8.....		..	1	..	..	0	0	+	..	+	+
" 9.....		11	6	..	..	0	0	+	..	+	+
" 10.....		55	29	..	..	0	0	+	..	+	+
Averages.....		**58.6**	**36.5**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-19-1	40	..	..	..	0	0	0	..	0	0
" 8.....		24	1	..	..	0	0	0	..	0	0
" 9.....		140	3	..	..	0	0	+	..	0	0
" 10.....		76	8	..	..	0	0	0	..	+	+
Averages.....		**70**	**3**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-19-15	40	..	..	..	0	0	0	..	+	+
" 8.....		400	1	..	..	0	0	+	..	+	+
" 9.....		280	14	..	..	0	+	+	..	0	0
" 10.....		18	7	..	..	0	0	+	..	+	+
Averages.....		**184.5**	**5**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-19-25	30	10	..	..	0	0	0	..	0	0
" 8.....		400	1	..	..	0	+	+	..	+	+
" 9.....		290	8	..	..	0	0	+	..	0	+
" 10.....		37	14	..	..	0	0	+	..	+	0
Averages.....		**188.2**	**8**	**27**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 6.....	D-20-1	..	..	..	..	0	0	0	..	0	0
" 8.....		180	3	..	..	0	0	0	..	0	0
" 9.....		360	8	..	..	0	0	0	..	0	+
" 10.....		192	9	..	..	0	0	0	..	+	+
Averages.....		**183**	**5**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-20-20	10	40	..	..	0	0	+	..	+	+
" 8.....		300	3	..	..	+	0	+	..	+	+
" 9.....		190	12	..	..	0	+	+	..	0	+
" 10.....		140	3	..	..	0	0	0	..	+	+
Averages.....		**160**	**14.5**	**56**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-20-30	140	..	..	..	0	+	+	..	+	+
" 8.....		300	2	..	..	0	0	0	..	+	+
" 10.....		37	1	..	..	0	0	0	..	+	+
Averages.....		**159**	**17.6**	**36**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-21-1	80	..	..	..	0	0	0	..	0	0
" 8.....		200	1	..	..	0	0	0	..	+	0
" 9.....		480	38	..	..	0	+	+	..	0	+
" 10.....		220	9	..	..	0	0	0	..	+	+
Averages.....		**245**	**12**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-21-11	190	20	..	..	0	+	+	..	+	+
" 8.....		800	5	..	..	0	0	0	..	+	0
" 9.....		820	80	..	..	0	+	+	..	+	+
" 10.....		280	28	..	..	0	0	0	..	+	+
Averages.....		**522.5**	**33.2**	**51**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-21-21	480	110	..	..	0	+	+	..	+	+
" 8.....		140	14	..	..	0	0	0	..	0	0
" 10.....		270	14	..	..	0	0	+	..	+	+
Averages.....		**286.6**	**46**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-22-1	80	20	..	..	0	+	+	..	+	+
" 8.....		120	25	..	..	0	0	0	..	+	0
" 9.....		1100	20	..	..	0	0	+	..	0	0
" 10.....		..	..	..	..	0	0	+	..	+	+
Averages.....		**433.3**	**21.6**	**31**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* Symbols read—D = Deep sample; -17 = Sampling point number; -25, -1, -15 = Depth from surface at which samples were collected.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Windsor, Ont. Waters of the Detroit River. Deep Water Samples.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
	*										
Oct. 6.....	D-22–10	60	10	..	..	0	0	0	..	+	+
" 8.....		2000	85	..	..	0	0	+	..	+	+
" 9.....		1600	36	..	..	0	+	+	..	+	+
" 10.....		..	..	..	..	0	0	+	..	0	+
Averages.....		**1220**	**43.6**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-22–20	180	30	..	..	0	0	+	..	+	+
" 10.....		..	..	..	..	0	0	+	..	+	+
" 6.....	D-23–1	..	20	..	..	0	0	0	..	0	0
" 8.....		3000	120	..	..	0	0	+	..	+	+
" 9.....		3100	80	..	..	0	+	+	..	+	0
" 10.....		..	..	..	..	0	0	+	..	+	+
Averages.....		**2033.3**	**73.3**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-23–8	30	..	..	..	0	0	+	..	+	+
" 9.....		6900	200	..	..	0	+	+	..	0	+
" 10.....		..	..	..	..	0	+	+	..	+	+
Averages.....		**3600**	**100**	**46**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-23-18	..	10	..	..	0	0	+	..	+	+
" 8.....		3000	140	..	..	0	0	0	..	+	+
" 9.....		1100	60	..	..	0	0	+	..	0	0
" 10.....		..	..	..	..	0	0	+	..	+	+
Averages.....		**1366.6**	**70**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-24-1	40	650	..	..	0	0	0	..	+	+
" 8.....		3000	420	..	..	0	+	+	..	+	+
" 9.....		9000	60	..	..	0	0	+	..	+	+
" 10.....		..	..	..	..	0	0	+	..	0	+
Averages.....		**4010**	**376.6**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	D-24-16	220	40	..	..	0	0	+	..	+	+
" 8.....		5000	320	..	..	0	+	+	..	+	+
" 9.....		12000	60	..	..	+	+	0	..	0	+
" 10.....		..	..	..	..	0	0	0	..	+	+
Averages.....		**8406.6**	**140**	**56**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 8.....	D-25–1	10000	400	..	..	+	+	+	..	+	+
" 9.....		9000	240	..	..	+	+	0	..	0	+
" 10.....		..	..	..	..	0	0	+	..	+	+
Averages.....		**8500**	**320**	**3**	**73**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 8.....	D-25–15	10000	420	..	..	+	+	+	..	+	+
" 9.....		4900	220	..	..	+	+	+	..	+	+
" 10.....		..	..	..	..	0	+	+	..	+	+
Averages.....		**7450**	**320**	**7**	**00**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 7.....	D-26–1	4400	440	..	..	+	0	0	..	+	+
" 10.....		560	..	..	..	0	0	+	..	+	+
" 11.....		6500	760	..	..	0	+	+	..	+	+
" 13.....		..	110	..	..	+	+	+	..	+	+
Averages.....		**3820**	**436.6**	**2**	**85**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 7.....	D-26–8	8600	2200	..	..	+	0	+	..	+	+
" 10.....		..	..	..	..	0	0	+	..	+	+
" 13.....		850	50	..	..	0	0	+	..	+	+
Averages.....		**4725**	**1125**	**46**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 7.....	D-26-18	3600	1800	..	..	+	0	+	..	+	+
" 10.....		..	..	..	..	0	0	+	..	+	+
" 11.....		8200	720	..	..	0	+	+	..	+	+
" 13.....		9000	80	..	..	0	+	+	..	+	+
Averages.....		**6933.3**	**866.6**	**80**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 7.....	D-27–1	2100	440	..	..	0	+	+	..	+	0
" 10.....		18000	520	..	..	0	+	+	..	+	+
" 11.....		7900	480	..	..	+	+	0	..	+	+
" 13.....		3200	80	..	..	+	+	+	..	+	+
Averages.....		**7800**	**380**	**3**	**22**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 7.....	D-27–20	2400	180	..	..	0	+	+	..	+	+
" 10.....		20000	600	..	..	0	+	+	..	+	+
" 11.....		6800	560	..	..	0	0	0	..	+	+
" 13.....		1200	60	..	..	+	0	+	..	+	+
Averages.....		**7600**	**350**	**76**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 7.....	D-27–30	3800	4500	..	..	0	+	+	..	+	+
" 10.....		18000	1400	..	..	0	+	+	..	+	+
" 11.....		850	420	..	..	+	+	0	..	+	+
" 13.....		6800	80	..	..	+	+	+	..	+	+
Averages.....		**7382.5**	**585**	**3**	**22**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

* Symbols read—D = Deep sample; -22 = Sampling point number; -10,-20.-1 = Depth from surface at which samples were collected.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Records. Laboratory at Windsor, Ont. Waters of the Detroit River. Deep Water Samples.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7.....	*D-28-1	1800	65	..	..	0	+	+	..	+	+
" 10.....		18000	350	..	..	0	+	+	..	+	+
" 11.....		6500	440	..	..	+	+	0	..	+	+
" 13.....		140	40	..	..	0	+	+	..	+	+
Averages.....		**6610**	**223.7**	**1**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-28-18	3400	80	..	..	0	+	+	..	+	0
" 10.....		20000	520	..	..	0	+	+	..	+	+
" 11.....		9000	460	..	..	+	+	0	..	+	+
" 13.....		160	30	..	..	0	0	+	..	0	0
Averages.....		**8140**	**272.5**	**75**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-28-28	2600	75	..	..	0	+	+	..	+	+
" 10.....		12000	60	..	..	0	0	+	..	+	+
Averages.....		**730**	**67.5**	**60**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-29-1	140	80	..	..	0	0	0	..	+	+
" 10.....		720	45	..	..	0	0	+	..	+	+
" 11.....		65	4	..	..	0	0	0	..	+	+
" 13.....		16	6	..	..	0	0	0	..	0	0
Averages.....		**235.2**	**33.5**	**7**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-29-26	40	40	..	..	0	0	+	..	+	+
" 10.....		1100	32	..	..	0	0	+	..	0	+
" 11.....		75	6	..	..	0	0	0	..	+	+
" 13.....		120	18	..	..	0	0	+	..	0	+
Averages.....		**335.7**	**24**	**8**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-29-36	140	80	..	..	0	0	+	..	+	+
" 10.....		480	4	..	..	0	0	+	..	+	0
" 11.....		460	21	..	..	0	0	0	..	+	+
" 13.....		85	21	..	..	+	0	+	..	+	+
Averages.....		**281.2**	**31.5**	**32**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-30-1	11	1	..	..	0	0	0	..	0	0
" 10.....		72	24	..	..	0	0	0	..	0	+
" 11.....		13	16	..	..	0	0	0	..	+	+
" 13.....		11	16	..	..	0	0	0	..	0	0
Averages.....		**26.7**	**14.2**	**1**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-30-17	5	3	..	..	0	0	0	..	0	0
" 10.....		54	9	..	..	0	0	0	..	0	+
Oct. 11.....		15	7	..	..	0	0	0	..	+	+
" 13.....		9	9	..	..	0	0	0	..	0	0
Averages.....		**20.7**	**7**	**1**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-30-27	8	3	..	..	0	0	+	..	+	+
" 10.....		57	1	..	..	0	0	0	..	0	+
" 11.....		14	8	..	..	0	0	0	..	+	+
" 13.....		5	11	..	..	0	0	0	..	0	+
Averages.....		**21.**	**5.**	**7**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-31-1	4	9	..	..	0	0	0	..	0	+
" 10.....		73	14	..	..	0	0	0	..	+	+
" 11.....		21	21	..	..	0	0	0	..	+	+
" 13.....		6	11	..	..	0	+	+	..	+	0
Averages.....		**26**	**14**	**7**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
" 10.....	D-31-22	45	6	..	..	0	0	0	..	+	+
" 11.....		18	17	..	..	0	0	0	..	+	+
" 13.....		19	5	..	..	0	0	+	..	+	+
Averages.....		**27.3**	**9.**	**8**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-31-32	28	5	..	..	0	+	+	..	+	+
" 10.....		65	11	..	..	0	0	0	..	+	+
" 11.....		9	10	..	..	0	0	0	..	+	+
" 13.....		4	6	..	..	0	0	0	..	+	+
Averages.....		**26**	**8**	**28**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-32-1	36	7	..	..	0	0	+	..	+	+
" 10.....		74	5	..	..	0	0	0	..	+	+
" 11.....		29	42	..	..	0	0	0	..	+	+
" 13.....		46	15	..	..	+	+	+	..	+	+
Averages.....		**46.2**	**17.2**	**32**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-32-20	16	11	..	..	0	0	+	..	+	+
" 10.....		90	9	..	..	0	0	0	..	+	+
" 11.....		85	155	..	..	0	+	0	..	+	+
" 13.....		98	18	..	..	0	+	+	..	+	+
Averages.....		**72.2**	**73.2**	**36**	**B.**	**Coli**		**pe**	**r 1**	**cc**	
Oct. 7.....	D-32-30	11	9	..	..	0	0	+	..	+	+
" 10.....		135	14	..	..	0	0	0	..	+	+
" 13.....		64	3	..	..	+	+	+	..	+	+
Averages.....		**70**	**8.**	**41**	**B.**	**Coli**		**pe**	**r 1**	**cc**	

* Symbols read—D = Deep sample; -28 = Sampling point number; -1, -18, -28 = Depth from surface at which samples were collected.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	135	17	15	..	..	..	0	+	..	+	+
" 8		36	80	..	..	..	+	+	..	+	+
" 9		156	72	..	..	..	+	+	..	+	+
" 10		70	40	..	..	+	+	+	..	..	..
" 11		70	60	..	0	0	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	0	0	+	..	..	0	..
" 16		..	..	..	0	0	+	..	..	+	..
" 17		54	4	..	0	0	+	+	..	+	..
" 18		168	77	..	0	+	+	+	..	+	..
" 19		26	50	..	0	0	+	+	..	+	..
" 20		60	30	..	0	0	+	+	..	+	..
" 22		36	120	..	0	0	0	+	..	+	..
Averages		**69**	**59**	**2**	**95**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	136	13	14	..	..	..	0	+	..	+	+
" 8		40	20	..	..	..	+	+	..	+	+
" 9		36	52	..	..	..	+	+	..	+	+
" 10		164	78	..	..	..	+	+	..	+	+
" 11		0	30	..	0	0	+	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 15		..	..	..	0	+	+	..	..	..	..
" 16		..	..	..	0	0	+	..	..	+	..
" 17		18	5	..	0	0	+	+	..	+	..
" 18		62	26	..	0	+	+	+	..	+	..
" 19		28	18	..	0	0	+	+	..	+	..
" 20		44	24	..	0	0	+	+	..	+	..
" 22		40	140	..	0	0	0	+	..	+	..
Averages		**46**	**41**	**2**	**95**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	137	11	8	..	..	..	0	+	..	+	+
" 8		8	14	..	..	..	+	0	..	+	+
" 9		11	16	..	..	..	0	0	..	+	+
" 10		55	46	..	..	..	+	+	..	+	+
" 11		30	32	..	..	..	0	+	..	+	+
" 13		..	..	..	..	..	+	+	..	+	+
" 15		..	..	..	..	..	+	+	..	+	+
" 16		..	..	..	0	0	+	0	..	+	..
" 17		12	..	..	0	0	+	+	..	+	..
" 18		30	24	..	0	0	0	0	..	+	..
" 19		30	52	..	0	+	+	+	..	+	..
" 20		14	16	..	0	0	0	0	..	+	..
" 22		40	80	..	0	0	0	+	..	+	..
Averages		**24**	**32**	**1**	**26**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 37°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	138	8	9	..	..	..	0	0	..	+	0
" 8		4	22	..	..	..	0	+	..	+	+
" 9		11	6	..	..	..	0	0	..	0	0
" 10		36	39	..	..	..	+	+	..	+	+
" 11		18	13	..	..	..	0	+	..	+	+
" 13		..	..	..	..	..	0	0	..	+	+
" 15		..	..	..	..	..	+	+	..	+	+
" 16		..	..	..	..	..	+	0	..	+	+
" 17		24	12	..	..	..	0	0	..	+	+
" 18		33	18	..	..	..	+	+	..	+	+
" 19		14	12	..	..	..	0	0	..	+	+
" 20		6	12	..	..	..	0	0	..	0	+
" 22		28	60	..	..	..	0	+	..	+	+
Averages		**18**	**20**	**36**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6	139	3	8	..	..	..	0	0	..	0	+
" 8		4	7	..	..	..	0	0	..	0	+
" 9		6	15	..	..	..	0	+	..	0	0
" 10		26	15	..	..	..	0	0	..	+	+
" 11		26	11	..	..	..	0	0	..	+	+
" 13		..	..	..	..	..	0	0	..	0	+
" 15		..	..	..	..	..	9	+	..	+	+
" 16		..	..	..	..	..	+	0	..	+	+
" 17		32	17	..	..	..	0	+	..	+	+
" 18		28	8	..	..	..	0	+	..	+	+
" 19		12	12	..	..	..	0	+	..	+	+
" 20		12	18	..	..	..	0	0	..	0	+
" 22		18	48	..	..	..	0	+	..	+	+
Averages		**17**	**16**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6	140	5	26	..	..	..	0	0	..	+	+
" 8		2	5	..	..	..	0	0	..	0	0
" 9		8	7	..	..	..	0	0	..	0	+
" 10		17	9	..	..	..	0	+	..	+	0
" 11		13	1	..	..	..	0	+	..	+	+
" 13		..	..	..	..	..	0	0	..	0	+
" 15		..	..	..	..	..	+	+	..	+	+
" 16		..	..	..	..	..	+	+	..	+	+
" 17		21	8	..	..	..	0	0	..	+	+
" 18		20	7	..	..	..	0	0	..	+	+
" 19		10	28	..	..	..	0	0	..	+	+
" 20		8	8	..	..	..	0	0	..	0	+
" 22		200	499	..	..	..	9	+	..	+	+
Averages		**30.4**	**50**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6.....	141	7	7	..	..	..	0	0	..	+	+
" 8.....		6	6	..	..	..	0	+	..	0	+
" 9.....		6	3	..	..	..	0	0	..	0	+
" 10.....		17	11	..	..	..	0	+	..	+	+
" 11.....		5	3	..	..	..	0	0	..	+	+
" 13.....		..	..	..	..	..	0	0	..	+	+
" 15.....		..	..	..	..	..	0	+	..	+	+
" 16.....		..	..	..	..	..	0	+	..	+	+
" 17.....		4	12	..	..	..	0	+	..	+	+
" 18.....		5	9	..	..	..	0	0	..	+	+
" 19.....		8	6	..	..	..	0	0	..	+	+
" 20.....		4	8	..	..	..	0	0	..	0	+
" 22.....		180	260	..	..	..	+	+	..	+	+
Averages.....		**24.2**	**32**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6.....	142	4	12	..	..	..	0	0	..	0	0
" 8.....		2	22	..	..	..	0	0	..	0	0
" 9.....		11	12	..	..	..	0	+	..	0	+
" 10.....		32	76	..	..	..	0	+	..	+	+
" 11.....		5	10	..	..	..	0	+	..	0	+
" 13.....		..	..	..	..	..	0	0	..	+	+
" 15.....		..	..	..	..	..	0	+	..	+	+
" 16.....		..	..	..	..	..	+	0	..	0	+
" 17.....		26	8	..	..	..	0	0	..	+	+
" 18.....		9	14	..	..	..	0	0	..	0	0
" 19.....		8	2	..	..	..	0	0	..	+	+
" 20.....		3	6	..	..	..	0	0	..	0	+
" 22.....		30	20	..	..	..	0	+	..	+	+
Averages.....		**13**	**18**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6.....	143	3	22	..	..	..	0	0	..	0	0
" 8.....		4	5	..	..	..	0	0	..	0	0
" 9.....		12	3	..	..	..	0	+	..	+	+
" 10.....		17	14	..	..	..	+	+	..	+	+
" 11.....		7	9	..	..	..	0	0	..	+	+
" 13.....		..	..	..	..	..	0	0	..	+	+
" 15.....		..	..	..	..	..	0	0	..	+	+
" 16.....		..	..	..	..	..	0	0	..	+	+
" 17.....		32	6	..	..	..	0	0	..	0	+
" 18.....		8	5	..	..	..	0	+	..	+	0
" 19.....		..	..	..	..	..	..	..	..	..	..
" 20.....		4	6	..	..	..	0	0	..	0	0
" 22.....		300	600	..	..	..	+	+	..	+	+
Averages.....		**43**	**74**	**18**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6.....	144	5	15	..	..	..	0	+	..	0	+
" 8.....		3	8	..	..	..	0	0	..	0	+
" 9.....		12	5	..	..	..	+	0	..	+	+
" 10.....		1	8	..	..	..	0	0	..	+	+
" 11.....		12	7	..	..	..	0	+	..	+	+
" 13.....		..	..	..	..	..	0	0	..	+	+
" 15.....		..	..	..	..	..	0	+	..	+	+
" 16.....		..	..	..	..	..	0	0	..	+	+
" 17.....		13	5	..	..	..	0	0	..	+	+
" 18.....		16	7	..	..	..	0	0	..	+	+
" 20.....		0	4	..	..	..	0	0	..	0	+
" 22.....		480	400	..	..	..	+	+	..	+	+
Averages.....		**60**	**51**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6.....	145	3	..	..	..	..	0	0	..	0	+
" 8.....		6	53	..	..	..	0	0	..	+	+
" 9.....		15	11	..	..	..	0	0	..	+	+
" 10.....		12	5	..	..	..	0	0	..	+	+
" 11.....		6	6	..	..	..	0	+	..	+	+
" 13.....		..	..	..	..	..	0	0	..	+	+
" 15.....		..	..	..	..	..	0	+	..	+	+
" 16.....		..	..	..	..	..	0	0	..	+	+
" 17.....		8	4	..	..	..	0	0	..	+	+
" 18.....		9	7	..	..	..	0	0	..	+	+
" 20.....		2	8	..	..	..	0	0	..	0	0
" 22.....		40	40	..	..	..	0	+	..	+	+
Averages.....		**11.2**	**16.5**	**7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6.....	146	7	10	..	..	..	0	0	..	0	+
" 8.....		4	9	..	..	..	0	0	..	0	+
" 9.....		20	11	..	..	..	0	0	..	+	+
" 10.....		6	16	..	..	..	0	+	..	+	+
" 11.....		12	11	..	..	..	0	0	..	+	+
" 13.....		..	..	..	..	..	0	+	..	+	+
" 15.....		..	..	..	..	..	0	+	..	+	+
" 16.....		..	..	..	..	..	0	+	..	+	+
" 17.....		9	5	..	..	..	0	0	..	+	+
" 18.....		16	8	..	..	..	0	0	..	+	+
" 20.....		4	5	..	..	..	0	0	..	0	0
" 22.....		18	34	..	..	..	0	+	..	+	+
Averages.....		**10.6**	**12.1**	**10**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	147	5	12	..	..	..	0	0	..	0	+
" 8		8	3	..	..	..	0	0	..	0	+
" 9		13	8	..	..	..	0	+	..	+	+
" 10		11	18	..	..	..	0	0	..	+	+
" 11		14	4	..	..	..	0	0	..	+	+
" 13		..	..	..	..	..	0	0	..	+	+
" 15		..	..	..	..	..	0	0	..	+	+
" 16		..	..	..	..	..	0	0	..	+	+
" 17		6	.4	..	..	..	0	0	..	+	+
" 18		10	7	..	..	..	0	0	..	+	+
" 19		2	22	..	..	..	0	0	..	0	0
" 20		0	6	..	0	0	0	0	..	0	+
" 22		14	18	..	..	..	0	+	..	+	+
Averages		**8**	**10.2**	**5**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6	148	18	5	..	..	..	0	0	..	0	+
" 8		9	12	..	..	..	0	+	..	0	+
" 9		7	8	..	..	..	0	0	..	+	+
" 10		8	13	..	..	..	0	+	..	+	+
" 11		12	15	..	..	..	0	0	..	+	+
" 15		..	..	..	..	..	0	+	..	+	+
" 16		..	..	..	..	..	0	+	..	+	+
" 17		11	3	..	..	..	0	0	..	0	+
" 18		13	5	..	..	..	0	0	..	+	+
" 19		10	32	..	..	..	0	0	..	+	+
" 20		8	10	..	0	0	0	0	..	0	0
" 22		1000	900	..	..	..	+	+	..	+	+
Averages		**110**	**100**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6	149	8	8	..	..	..	0	0	..	0	+
" 8		9	18	..	..	..	0	+	..	+	0
" 9		10	5	..	..	..	0	0	..	+	+
" 10		24	20	..	..	..	0	+	..	+	+
" 11		21	9	..	..	..	0	0	..	+	+
" 13		..	..	..	..	..	0	0	..	+	..
" 15		..	..	..	..	..	+	+	..	+	+
" 16		..	..	..	..	..	0	+	..	+	+
" 17		7	3	..	..	..	0	+	..	+	+
" 18		11	7	..	..	..	0	+	..	+	+
" 19		4	19	..	..	..	0	0	..	0	+
" 20		12	8	..	0	0	0	+	..	0	+
" 22		1000	800	..	..	..	+	+	..	+	+
Averages		**111**	**90**	**25**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	150	18	9	..	..	..	0	0	..	0	0
" 8		6	9	..	..	..	0	0	..	+	+
" 9		25	11	..	..	..	0	+	..	+	+
" 10		83	116	..	..	..	0	+	..	0	+
" 11		5	3	..	..	..	0	+	..	+	+
" 13		..	..	..	..	..	0	+	..	+	..
" 15		..	..	..	..	..	0	+	..	+	+
" 16		..	..	..	..	..	+	+	..	+	+
" 17		14	10	..	..	..	0	+	..	+	+
" 18		17	17	..	..	..	+	+	..	+	+
" 19		10	20	..	..	..	0	0	..	0	+
" 20		18	18	..	0	0	0	+	..	+	-
" 22		..	..	..	..	..	+	0	..	+	+
Averages		**22**	**24**	**28**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6	151	6	14	..	..	..	0	0	..	0	+
" 8		1	6	..	..	..	0	+	..	+	+
" 9		29	20	..	..	..	0	+	..	+	+
" 10		13	7	..	..	..	0	+	..	+	+
" 11		18	16	..	..	..	+	+	..	+	+
" 13		..	..	..	..	+	+	+	..	+	..
" 15		..	..	..	..	0	0	+	..	+	0
" 16		..	..	..	0	0	+	+	..	+	..
" 17		10	9	..	0	0	0	+	..	+	..
" 18		43	42	..	0	0	+	+	..	+	..
" 19		4	11	..	0	0	0	+	..	+	..
" 20		16	12	..	0	0	0	+	..	+	..
" 22		1000	600	..	0	..	+	+	..	+	+
Averages		**114**	**74**	**1**	**18**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	152	8	spreader	..	..	..	0	0	..	+	+
" 8		10	8	..	..	..	+	+	..	+	+
" 9		56	28	..	..	..	0	+	..	+	+
" 10		80	50	..	..	0	+	+	..	..	..
" 11		..	11	..	..	0	+	+	..	+	+
" 13		..	..	..	..	0	+	+	..	+	..
" 15		..	..	..	..	+	+	+	..	+	+
" 16		..	..	..	0	0	0	+	..	+	..
" 17		25	10	..	0	0	+	+	..	+	..
" 18		43	27	..	0	0	+	+	..	+	..
" 19		16	11	..	0	0	+	+	..	+	..
" 20		14	18	..	0	0	0	+	..	+	..
" 22		4000	1200	..	0	..	+	+	..	+	+
Averages		**472**	**151**	**1**	**43**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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Sept. 6	153	8	13	..	..	..	0	0	..	0	0
" 8		38	14	..	..	..	+	+	..	+	+
" 9		33	7	..	..	..	0	+	..	+	+
" 10		130	100	..	..	0	+	+	..	..	..
" 11		53	4	..	..	0	0	+	..	+	+
" 13		..	..	..	..	0	0	+	..	+	..
" 15		..	..	..	..	+	+	+	..	+	0
" 16		..	..	..	0	0	+	+	..	+	..
" 17		62	25	..	0	+	+	+	..	+	..
" 18		20	27	..	0	0	+	+	..	+	..
" 19		6	2	..	0	0	0	0	..	+	..
" 20		16	14	..	0	0	0	+	..	+	..
" 22		3000	3000	..	+	..	+	+	..	+	+
Averages		**335**	**321**	**2**	**68**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	154	5	6	..	..	..	0	+	..	+	+
" 8		31	19	..	..	..	+	+	..	+	+
" 9		42	21	..	..	..	0	+	..	+	+
" 10		80	100	..	..	+	0	+	..	..	..
" 11		76	18	..	..	+	0	+	..	+	+
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	0	0	0	+	..	+	..
" 16		..	..	..	+	+	+	+	..	+	..
" 17		37	5	..	0	+	+	+	..	+	..
" 18		30	32	..	0	0	0	+	..	+	..
" 19		18	12	..	0	0	+	+	..	+	..
" 20		20	8	..	0	0	0	+	..	+	..
" 22		200	600	..	0	..	+	+	..	+	+
Averages		**54**	**82**	**9**	**68**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	155	12	8	..	..	..	0	+	..	+	+
" 8		60	42	..	..	..	+	+	..	+	+
" 9		10	8	..	..	..	0	+	..	+	+
" 10		100	70	..	..	+	0	+	..	..	..
" 11		77	32	..	..	+	+	+	..	+	+
" 13		..	..	..	0	0	0	+	..	+	..
" 15		..	..	..	..	0	0	+	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		51	10	..	0	0	+	+	..	+	..
" 18		60	60	..	0	+	+	+	..	+	..
" 19		40	30	..	0	0	+	+	..	+	..
" 20		26	12	..	0	0	0	+	..	+	..
" 22		100	260	..	0	..	+	+	..	+	+
Averages		**54**	**53**	**2**	**07**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	156	22	16	..	..	..	0	0	..	+	+
" 8		40	35	..	..	..	+	+	..	+	+
" 9		128	35	..	..	..	0	+	..	+	+
" 10		490	250	..	..	0	0	+	..	..	..
" 11		210	13	..	..	0	0	+	..	+	+
" 13		..	..	..	0	0	+	+	..	+	..
" 15		..	..	..	..	..	..	..	..	..	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		35	4	..	0	0	+	+	..	+	..
" 18		64	13	..	0	0	+	+	..	+	..
" 20		34	18	..	0	0	0	+	..	+	..
" 22		160	250	..	0	..	0	+	..	+	+
Averages		**122**	**70**	**50**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 6	157	..	..	..	..	..	..	..	..	..	..
" 8		1500	280	..	..	..	+	+	..	+	+
" 9		340	96	..	..	..	+	+	..	+	+
" 10		1580	1580	..	..	+	+	+	..	..	..
" 11		560	770	..	0	0	+	+	..	+	..
" 12		..	..	..	..	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 15		..	..	..	..	+	+	+	..	+	..
" 16		..	..	..	0	0	0	+	..	+	..
" 17		190	100	..	0	0	+	+	..	+	..
" 18		225	145	..	0	0	0	+	..	+	..
" 20		400	120	..	0	0	0	+	..	+	..
" 22		1200	600	..	0	+	+	+	..	+	..
" 23		80	80	..	0	0	0	+	..	+	..
" 24		42	34	..	..	0	+	0	..	+	..
Averages		**602**	**380**	**4**	**66**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	158	120	400	..	..	..	0	+	..	+	+
" 8		1200	225	..	..	..	+	+	..	+	+
" 9		244	144	..	..	..	+	+	..	0	+
" 10		7200	..	..	..	+	+	+	..	..	..
" 11		2860	300	..	0	0	+	+	..	+	..
" 12		..	..	..	..	0	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	+	..
" 15		..	..	..	0	0	+	..	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		3200	2000	..	0	+	+	+	..	+	..
" 18		100	280	..	0	0	+	+	..	+	..
" 20		400	150	..	0	0	0	+	..	+	..
" 22		400	240	..	0	0	+	+	..	+	..
" 23		210	160	..	0	0	0	+	..	+	..
" 24		76	74	..	..	0	0	0	..	+	..
Averages		**1455**	**397**	**9**	**22**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Sept. 6	159	spreader	125	..	..	..	0	+	..	+	+
" 8		2000	560	..	..	..	+	+	..	+	+
" 9		302	56	..	..	..	+	+	..	+	+
" 10		6000	..	..	..	+	+	+	..	..	..
" 11		640	340	..	0	0	+	+	..	+	..
" 12		..	..	..	..	+	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	0
" 15		..	..	..	0	..	+	..	..	0	+
" 16		..	..	..	0	0	0	0	..	0	..
" 17		4000	1500	..	0	+	+	+	..	+	..
" 18		3500	100	..	0	0	+	+	..	+	..
" 20		2000	110	..	0	0	+	+	..	+	..
" 22		300	360	..	0	0	+	+	..	+	..
" 23		2100	2000	..	0	0	+	+	..	+	..
" 24		4000	220	..	..	0	+	+	..	+	..
Averages		**2484**	**537**	**3**	**28**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	160	600	100	..	..	..	0	+	..	+	+
" 8		2000	480	..	..	..	+	+	..	+	+
" 9		104	13	..	..	..	0	+	..	+	+
" 10		230	..	..	..	0	+	+	..	..	..
" 11		380	50	..	0	0	0	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 15		..	..	..	+	..	+	..	..	0	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		2300	600	..	0	+	+	+	..	+	..
" 18		4000	950	..	0	0	0	+	..	+	..
" 20		240	60	..	0	0	0	+	..	+	..
" 22		240	260	..	0	0	+	+	..	+	..
Averages		**1122**	**314**	**10**	**38**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	161	spreader	spreader	..	..	..	0	+	..	+	+
" 8		1000	800	..	..	..	+	+	..	+	+
" 9		120	50	..	..	..	+	+	..	+	+
" 10		100	..	..	..	0	0	+	..	..	..
" 11		130	20	..	0	0	0	+	..	+	..
" 13		..	..	..	0	0	0	+	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		98	8	..	0	0	0	+	..	+	..
" 18		4500	260	..	+	+	+	+	..	+	..
" 20		110	40	..	0	0	+	+	..	+	..
" 22		140	40	..	0	0	+	+	..	+	..
Averages		**719**	**174**	**0**	**54**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	162	spreader	120	..	..	..	0	+	..	+	+
" 8		40	13	..	..	..	+	0	..	+	+
" 9		1000	220	..	..	..	+	+	..	+	+
" 10		50	..	..	..	0	+	+	..	..	..
" 11		40	60	..	0	0	0	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 15		..	..	..	..	+	+	+	..	+	..
" 16		..	..	..	0	0	0	+	..	+	..
" 17		540	160	..	0	+	+	+	..	+	..
" 18		3000	1500	..	+	+	+	+	..	+	..
" 20		80	40	..	0	0	+	+	..	+	..
" 22		81	140	..	0	0	0	+	..	+	..
Averages		**804**	**282**	**11**	**23**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	163	10	8	..	..	..	0	0	..	+	+
" 8		24	24	..	..	..	0	+	..	+	+
" 9		25	13	..	..	..	0	+	..	+	+
" 10		1000	200	..	..	..	+	+	..	+	+
" 11		10	60	..	0	0	0	+	..	+	..
" 13		..	..	..	..	0	0	+	..	+	..
" 15		..	..	..	..	0	+	+	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		33	8	..	0	+	+	+	..	+	..
" 18		3500	960	..	+	+	+	+	..	+	..
" 20		44	30	..	0	0	0	+	..	+	..
" 22		60	40	..	0	0	0	0	..	+	..
Averages		**523**	**148**	**8**	**50**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	164	23	17	..	..	..	0	+	..	+	+
" 8		144	44	..	..	..	+	+	..	+	+
" 9		500	144	..	..	..	+	+	..	+	+
" 10		800	352	..	..	..	+	+	..	+	+
" 11		20	30	..	0	0	0	+	..	+	..
" 13		..	..	..	..	0	0	+	..	+	..
" 15		..	..	..	..	0	+	+	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		68	34	..	0	0	0	0	..	0	..
" 18		2000	1500	..	0	0	+	+	..	+	..
" 20		48	30	..	0	0	0	+	..	+	..
Averages		**450**	**289**	**81**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	165	7	14	..	..	..	0	+	..	+	+
" 8		1000	150	..	..	..	+	+	..	+	+
" 9		1000	824	..	..	..	+	+	..	+	+
" 10		212	136	..	..	..	+	+	..	+	+
" 11		0	0	..	0	0	+	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 15		..	..	..	..	0	0	+	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		52	25	..	0	0	0	0	..	0	..
" 18		3500	2500	..	+	+	+	+	..	+	..
" 20		140	50	..	0	0	0	+	..	+	..
" 22		60	40	..	0	0	+	+	..	+	..
Averages		**883**	**415**	**9**	**71**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	166	15	4	..	..	..	0	+	..	+	+
" 8		800	400	..	..	..	+	+	..	+	+
" 9		656	104	..	..	..	0	+	..	0	+
" 10		39	54	..	..	..	+	+	..	+	+
" 11		40	20	..	0	0	+	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 15		..	..	..	..	0	+	+	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		75	35	..	0	0	0	0	..	+	..
" 18		3000	2500	..	0	+	+	+	..	+	..
" 20		3000	800	..	+	0	+	+	..	+	
" 22		40	20	..	0	+	+	+	..	+	..
Averages		**852**	**437**	**11**	**38**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	167	16	11	..	..	..	0	0	..	+	+
" 8		spreader	120	..	..	..	+	+	..	+	+
" 9		176	48	..	..	..	+	+	..	+	+
" 10		110	..	..	..	+	+	+	..	..	..
" 11		40	20	..	0	0	+	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 15		..	..	..	..	+	+	+	..	+	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		98	62	..	0	0	+	+	..	+	..
" 18		480	49	..	0	+	+	+	..	+	..
" 20		10000	5000	..	0	0	+	+	..	+	..
" 22		40	40	..	0	0	+	0	..	0	..
Averages		**1370**	**689**	**3**	**91**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	168	14	4	..	..	..	0	0	..	+	+
" 8		spreader	24	..	..	..	+	+	..	+	+
" 9		56	24	..	..	..	+	+	..	+	+
" 10		80	..	..	..	+	+	+	..	..	..
" 11		60	20	..	0	0	+	+	..	+	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 13	168	..	..	..	..	0	+	+	..	+	..
" 15		..	..	..	0	..	+	..	..	+	..
" 16		..	..	..	+	+	+	+	..	+	..
" 17		3500	1500	..	0	0	+	+	..	+	..
" 18		64	68	..	0	+	+	+	..	+	..
" 20		4000	5000	..	0	0	+	+	..	+	..
" 22		0	40	..	0	0	+	+	..	+	..
Averages		**972**	**835**	**10**	**66**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	169	16	9	..	..	..	0	+	..	+	+
" 8		150	spreader	..	..	..	0	+	..	+	+
" 9		1000	440	..	..	..	+	+	..	+	+
" 10		120	..	..	..	+	+	+	..	..	..
" 11		3000	730	..	0	0	+	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 16		..	..	..	+	+	+	+	..	+	..
" 17		3100	1000	..	0	+	+	+	..	+	..
" 18		1500	340	..	0	+	+	+	..	+	..
" 20		12000	10000	..	0	+	+	+	..	+	..
" 22		40	20	..	0	0	+	+	..	+	..
Averages		**2325**	**1781**	**13**	**84**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	170	28	8	..	..	..	+	+	..	+	+
" 8		200	33	..	..	..	+	+	..	+	+
" 9		2000	2000	..	..	..	+	+	..	+	+
" 10		150	..	..	..	0	+	+	..	..	..
" 11		2600	1040	..	0	0	+	+	..	+	..
" 13		..	..	..	..	+	+	+	..	+	..
" 17		3250	900	..	0	0	+	+	..	+	..
" 18		2000	43	..	0	0	+	+	..	+	..
" 20		4000	6000	..	0	0	+	+	..	+	..
" 22		80	60	..	0	0	+	+	..	+	..
Averages		**1590**	**1260**	**1**	**80**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	171	88	48	..	..	..	0	0	..	+	+
" 8		1200	800	..	..	..	+	+	..	+	+
" 9		3000	2000	..	..	..	+	+	..	+	+
" 10		150	..	..	..	+	+	+	..	..	..
" 11		150	60	..	0	0	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 16		..	..	..	0	+	+	+	..	+	..
" 17		720	18	..	0	+	+	+	..	0	..
" 18		650	450	..	+	0	+	+	..	+	..
" 20		3500	6000	..	0	0	+	+	..	+	..
" 22		80	140	..	0	0	+	+	..	+	..
Averages		**1010**	**1190**	**13**	**27**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 6	172	24	40	..	..	..	0	+	..	+	+
" 8		2000	200	..	..	..	+	+	..	+	+
" 9		3000	5000	..	..	..	+	+	..	+	+
" 10		5420	..	..	..	0	0	+	..	..	..
" 11		10000	2000	..	0	0	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	+	..
" 16		..	..	..	0	+	+	+	..	+	..
" 17		3000	700	..	+	0	+	+	..	+	..
" 18		3200	940	..	0	+	+	+	..	+	..
" 20		12000	5000	..	0	+	+	+	..	+	..
" 22		200	600	..	0	0	+	+	..	+	..
Averages		**4316**	**1983**	**21**	**30**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	123	84	105	..	..	..	+	+	..	+	+
" 8		2000	650	..	..	..	+	+	..	+	+
" 9		3000	1200	..	..	..	+	+	..	+	+
" 10		3480	..	..	..	+	+	+	..	..	..
" 11		6000	4000	..	0	0	+	+	..	+	..
" 13		..	..	..	0	+	+	+	..	+	..
" 16		..	..	..	0	+	+	+	..	+	..
" 17		900	150	..	0	0	+	+	..	0	..
" 18		5400	15000	..	+	+	+	+	..	+	..
" 20		12000	10000	..	+	+	+	+	..	+	..
" 22		200	400	..	0	0	+	+	..	+	..
Averages		**3852**	**3838**	**21**	**45**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	174	42	38	..	..	..	+	+	..	+	+
" 8		2000	1500	..	..	..	+	+	..	+	+
" 9		3000	2000	..	..	..	+	+	..	+	+
" 10		4800	..	..	..	+	+	+	..	..	..
" 13		..	..	..	0	+	+	+	..	..	..
" 16		..	..	..	+	+	+	+	..	+	..
" 17		3600	3000	..	0	0	+	+	..	+	..
" 18		3800	12000	..	0	+	+	+	..	+	..
" 20		12000	10000	..	+	+	+	+	..	+	..
" 22		300	400	..	0	0	+	+	..	+	..
Averages		**3693**	**4134**	**23**	**50**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	175	500	110	..	..	..	+	+	..	+	+
" 8		3000	2000	..	..	..	+	+	..	+	+
" 9		5000	2000	..	..	..	+	+	..	+	+
" 10		5920	..	..	..	+	+	+	..	..	..
" 11		10000	8000	..	0	0	+	+	..	+	..
" 13		..	..	..	+	+	+	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 16	175	..	..	..	0	+	+	0	..	+	..
" 17		1800	800	..	+	0	+	+	..	+	..
" 18		15000	1900	..	+	+	+	+	..	+	..
" 20		8000	6000	..	0	0	+	+	..	+	..
" 22		12000	800	..	+	0	0	+	..	+	..
Averages		**6802**	**2701**	**38**	**54**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	176	450	800	..	..	..	+	+	..	+	+
" 8		5000	1000	..	..	..	+	+	..	+	+
" 9		3000	2000	..	..	..	+	+	..	+	+
" 10		1440	..	..	..	0	+	+	..	..	..
" 13		..	..	..	+	+	+	+	..	..	..
" 16		..	..	..	0	0	+	+	..	+	..
" 17		600	3000	..	0	0	+	+	..	+	..
" 18		280	450	..	0	+	+	+	..	+	..
" 20		14000	6000	..	0	+	+	+	..	+	..
" 22		8000	1800	..	+	0	+	+	..	+	..
Averages		**3539**	**2150**	**22**	**60**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 6	177	500	850	..	..	..	+	+	..	+	+
" 8		3000	1200	..	..	..	+	+	..	+	+
" 9		280	70	..	..	..	+	+	..	+	+
" 10		170	..	..	..	+	+	+	..	..	..
" 13		..	..	..	0	+	+	+	..	..	..
" 16		..	..	..	0	+	+	+	..	+	..
" 17		9700	2500	..	+	+	+	+	..	+	..
" 18		350	320	..	0	+	+	+	..	+	..
" 20		1200	300	..	0	0	+	+	..	+	..
" 22		600	400	..	0	0	+	+	..	+	..
Averages		**1975**	**1191**	**14**	**50**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Sept. 12	178	..	..	..	..	+	+	+	..	+	..
" 23		60	60	..	0	0	0	+	..	0	..
" 24		10000	640	..	..	0	+	+	..	+	..
" 25		500	115	..	..	0	+	+	..	+	+
" 26		3000	280	..	..	0	+	+	..	+	+
" 27		5000	3000	..	..	0	+	+	..	+	+
" 29		3500	1500	..	..	+	+	+	..	+	+
" 30		3000	38	..	..	0	+	+	..	+	+
Oct. 2		2000	300	..	..	+	0	+	..	+	+
Averages		**3383**	**742**	**3**	**91**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 12	179	..	..	..	..	+	+	+	..	+	..
" 23		42	28	..	0	0	0	+	..	0	..
" 24		6000	860	..	0	0	+	+	..	+	..
" 25		800	25	..	..	+	+	+	..	+	+
" 26		2000	94	..	..	0	+	+	..	+	+
" 27		67	46	..	..	+	+	+	..	+	+
" 29		3000	240	..	..	0	+	+	..	+	+
" 30		5000	270	..	..	+	+	+	..	+	+
Oct. 2		3000	160	..	..	+	0	+	..	+	+
Averages		**2489**	**215**	**5**	**88**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
Sept. 12	180	..	..	..	..	+	+	+	..	+	..
" 23		20	14	..	0	0	0	0	..	0	..
" 24		24	22	..	0	0	0	+	..	+	..
" 25		1200	320	..	..	+	+	+	..	+	+
" 26		800	44	..	..	0	+	+	..	0	+
" 27		400	58	..	..	0	+	+	..	+	+
" 29		1500	64	..	..	0	+	+	..	+	+
" 30		5000	147	..	..	0	+	+	..	+	+
Oct. 2		160	64	..	..	+	+	+	..	+	+
Averages		**1138**	**93**	**3**	**80**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
Sept. 12	181	..	..	..	..	+	+	+	..	+	..
" 23		16	8	..	0	0	0	0	..	0	..
" 24		4	20	..	0	0	+	+	..	0	..
" 25		1600	250	..	..	+	+	+	..	+	+
" 26		240	40	..	..	0	0	+	..	+	+
" 27		1500	180	..	..	0	+	+	..	+	+
" 29		250	16	..	..	0	0	0	..	+	+
" 30		1500	180	..	..	+	+	+	..	+	+
Oct. 2		600	80	..	..	+	+	+	..	+	+
Averages		**714**	**97**	**4**	**89**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
Sept. 12	182	..	..	..	..	..	+	+	..	+	+
" 23		8	3	..	0	0	0	+	..	0	..
" 24		12	16	..	0	0	0	+	..	+	..
" 25		22	10	..	..	0	0	0	..	0	+
" 26		80	32	..	..	0	0	0	..	0	+
" 27		3000	400	..	..	0	+	+	..	+	+
" 29		400	12	..	..	0	+	0	..	+	+
" 30		2000	90	..	..	0	0	+	..	+	+
Oct. 2		450	58	..	..	+	+	+	..	+	+
Averages		**747**	**78**	**1**	**51**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 12	183	..	..	..	..	..	+	+	..	+	+
" 23		10	10	..	0	0	0	0	..	0	..
" 24		10	22	..	0	0	+	+	..	+	..
" 25		12	26	..	..	0	0	0	..	0	+
" 26		56	16	..	..	0	0	0	..	0	0
" 27		6	16	..	..	0	0	+	..	+	+
" 29		30	6	..	..	0	0	0	..	0	0
" 30		250	7	..	..	0	0	0	..	+	+
Oct. 2		80	18	..	..	0	0	0	..	..	..
Averages		**57**	**15.1**	**25**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 12	184	..	..	..	..	..	+	+	..	+	+
" 23		26	24	..	0	0	0	0	..	0	..
" 25		12	26	..	..	0	0	0	..	0	+
" 26		8	28	..	..	0	0	0	..	0	0
" 27		22	18	..	..	0	+	+	..	+	+
" 29		19	14	..	..	0	0	0	..	0	0
" 30		21	19	..	..	0	0	0	..	+	+
Oct. 2		30	64	..	..	0	0	+	..	+	+
Averages		**20**	**28**	**28**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 12	185	..	..	..	..	..	0	+	..	+	+
" 23		46	26	..	0	0	0	0	..	0	0
" 25		16	26	..	..	0	0	+	..	0	0
" 26		18	28	..	..	0	0	0	..	0	0
" 27		19	16	..	..	0	0	+	..	+	+
" 29		26	9	..	..	0	0	0	..	0	0
" 30		37	11	..	..	0	0	0	..	+	+
Oct. 2		18	28	..	..	0	0	+	..	+	+
Averages		**28**	**21**	**8**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Sept. 12	186	..	..	..	..	..	0	+	..	+	+
" 23		34	34	..	..	0	0	0	..	0	0
" 25		22	10	..	..	0	0	0	..	0	0
" 26		24	14	..	..	0	0	0	..	0	+
" 27		32	12	..	..	0	0	+	..	+	+
" 29		32	8	..	..	0	0	0	..	0	0
" 30		26	32	..	..	0	0	+	..	+	+
Oct. 2		22	40	..	..	0	0	+	..	+	+
Averages		**27**	**21**	**10**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

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Sept. 12	187	..	..	..	..	..	0	+	..	+	+
" 23		44	36	..	..	..	0	0	..	0	+
" 25		38	11	..	..	0	0	0	..	0	+
" 26		16	24	..	..	0	0	0	..	0	0
" 27		47	22	..	..	0	+	+	..	+	+
" 29		61	14	..	..	0	0	0	..	0	0
" 30		22	29	..	..	0	0	+	..	+	+
Oct. 2		16	48	..	..	+	0	+	..	+	+
Averages		**35**	**26**	**30**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	188	..	..	..	..	..	0	+	..	+	+
" 23		52	48	..	..	..	0	0	..	0	0
" 25		32	3	..	..	0	+	0	..	0	0
" 26		8	24	..	..	0	0	0	..	0	0
" 27		40	26	..	..	..	0	+	..	+	+
" 29		48	..	..	..	0	+	+	..	+	+
" 30		19	22	..	..	..	0	+	..	+	+
Oct. 2		14	60	..	..	0	0	0	..	+	+
Averages		**30**	**31**	**33**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	189	..	..	..	..	..	+	+	..	+	+
" 23		30	40	..	0	0	0	0	..	0	0
" 25		20	6	..	..	0	0	0	..	0	0
" 26		8	30	..	..	0	0	0	..	0	0
" 27		28	30	..	..	..	+	+	..	+	+
" 29		47	18	..	..	0	+	+	..	+	+
" 30		34	24	..	..	..	0	+	..	+	+
Oct. 2		12	78	..	..	0	+	+	..	+	+
Averages		**26**	**32**	**52**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	190	..	..	..	..	..	+	+	..	+	+
" 23		32	24	..	0	0	0	0	..	0	..
" 25		16	spreader	..	..	0	0	0	..	0	0
" 26		14	18	..	..	0	0	0	..	0	+
" 27		32	8	..	..	..	0	+	..	+	+
" 29		44	24	..	..	0	+	+	..	+	+
" 30		25	29	..	..	..	0	+	..	+	+
Oct. 2		10	110	..	..	0	+	+	..	+	+
Averages		**25**	**36**	**42**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	191	..	..	..	..	..	0	+	..	+	+
" 23		18	14	..	..	..	0	0	..	0	0
" 25		12	9	..	..	0	0	0	..	0	+
" 26		16	12	..	..	+	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 27	191	11	10	..	..	..	0	+	..	+	+
" 29		8	5	..	..	0	0	0	..	0	0
" 30		12	11	..	..	..	0	+	..	+	+
Oct. 2		10	8	..	..	0	+	+	..	+	+
Averages		**12.4**	**9**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	192	..	..	..	..	..	0	+	..	+	+
" 23		12	16	..	..	..	0	0	..	0	0
" 25		6	12	..	..	0	0	0	..	+	0
" 26		6	10	..	..	+	0	0	..	0	+
" 27		16	14	..	..	..	0	0	..	+	+
" 29		13	6	..	..	0	+	+	..	+	+
" 30		19	6	..	..	..	0	+	..	+	+
Oct. 2		8	18	..	..	0	+	+	..	+	+
Averages		**11.4**	**11.7**	**31**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	193	..	..	..	..	..	0	0	..	+	+
" 23		22	52	..	..	..	0	0	..	0	0
" 25		4	6	..	..	0	0	0	..	0	+
" 26		8	16	..	..	+	0	0	..	0	+
" 27		10	8	..	..	..	0	+	..	+	+
" 29		87	8	..	..	0	0	0	..	0	+
" 30		12	3	..	..	..	0	+	..	+	+
Oct. 2		5	12	..	..	0	+	+	..	+	+
Averages		**21**	**15**	**19**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	194	..	..	..	..	..	0	+	..	+	+
" 23		18	16	..	..	..	0	+	..	0	0
" 25		6	8	..	..	0	0	0	..	0	0
" 26		12	10	..	..	+	0	0	..	0	0
" 27		17	12	..	..	..	0	+	..	+	+
" 29		9	7	..	..	0	0	+	..	+	+
" 30		14	4	..	..	..	0	0	..	0	+
Oct. 2		3	14	..	..	0	+	+	..	+	+
Averages		**11.2**	**10.1**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12	195	..	..	..	..	..	0	+	..	+	+
" 23		60	12	..	..	..	0	0	..	0	0
" 25		14	10	..	..	0	0	0	..	0	0
" 26		16	8	..	..	+	0	0	..	0	0
" 27		9	12	..	..	..	0	+	..	+	+
" 29		62	8	..	..	0	+	+	..	+	+
" 30		19	11	..	..	..	0	+	..	+	+
Oct. 2		8	12	..	..	0	+	+	..	+	+
Averages		**27**	**10.4**	**30**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 12.....	196	..	..	..	..	..	0	+	..	+	+
" 23.....		62	8	..	..	..	0	0	..	0	0
" 25.....		10	11	..	..	0	0	0	..	0	0
" 26.....		6	12	..	..	0	0	0	..	0	0
" 27.....		7	8	..	..	..	0	0	..	+	+
" 29.....		8	13	..	..	0	0	0	..	0	+
" 30.....		4	9	..	..	..	0	0	..	0	+
Oct. 2.....		0	8	..	..	0	0	0	..	0	+
Averages.....		**13.8**	**9.**	**3.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12.....	197	..	..	..	..	..	+	+	..	+	+
" 23.....		14	12	..	0	0	0	0	..	0	0
" 25.....		6	14	..	..	0	0	0	..	0	0
" 26.....		6	14	..	..	0	0	0	..	0	0
" 27.....		9	6	..	..	..	+	+	..	+	+
" 29.....		5	6	..	..	0	0	0	..	0	0
" 30.....		3	5	..	..	..	0	0	..	0	+
Oct. 2.....		2	12	..	..	0	0	0	..	0	+
Averages.....		**6.**	**9.**	**25**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12.....	198	..	..	..	..	..	+	+	..	+	+
" 23.....		8	8	..	0	0	0	0	..	0	0
" 25.....		10	7	..	..	0	0	0	..	0	0
" 26.....		4	spreader	..	..	0	0	0	..	0	0
" 27.....		15	4	..	..	..	0	0	..	0	0
" 29.....		4	8	..	..	..	0	0	..	0	+
" 30.....		4	102	..	..	..	0	0	..	+	+
Oct. 2.....		6	8	..	..	0	0	0	..	0	+
Averages.....		**7**	**22.8**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12.....	199	..	..	..	..	..	+	+	..	+	+
" 23.....		6	10	..	0	0	0	0	..	0	0
" 25.....		2	8	..	..	0	0	0	..	0	0
" 26.....		6	4	..	..	0	0	0	..	0	0
" 27.....		18	2	..	..	..	0	0	..	0	0
" 29.....		3	3	..	..	..	0	0	..	+	+
" 30.....		9	5	..	..	..	0	+	..	+	+
Oct. 2.....		0	6	..	..	0	0	0	..	0	+
Averages.....		**8**	**5**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	200	..	..	..	..	..	+	+	..	+	+
" 23.....		8	8	..	0	0	0	0	..	0	0
" 25.....		0	9	..	..	0	0	0	..	0	0
" 26.....		2	4	..	..	0	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 27.....	200	12	4	..	..	..	0	0	..	+	+
" 29.....		7	6	..	..	..	0	0	..	0	+
" 30.....		2	7	..	..	..	0	0	..	+	+
Oct. 2.....		2	6	..	..	0	+	0	..	+	+
Averages.....		**4.**	**6.**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	201	..	..	..	..	..	0	+	..	+	+
" 23.....		6	6	..	..	..	0	0	..	0	+
" 25.....		4	4	..	..	..	0	0	..	0	0
" 26.....		2	7	..	..	0	0	0	..	0	+
" 27.....		7	3	..	..	..	0	+	..	+	+
" 29.....		..	..	..	..	..	..	..	..	..	..
" 30.....		14	8	..	..	..	0	+	..	+	+
Oct. 2.....		38	6	..	..	0	+	+	..	+	+
Averages.....		**11.8**	**5**	**20**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	202	..	..	..	..	..	0	+	..	+	+
" 23.....		6	4	..	..	..	0	0	..	0	+
" 25.....		4	5	..	..	..	0	0	..	0	0
" 26.....		26	12	..	..	0	0	+	..	0	+
" 27.....		18	3	..	..	..	0	+	..	+	+
" 29.....		9	7	..	..	..	0	+	..	+	+
" 30.....		54	11	..	..	..	0	+	..	+	+
Oct. 2.....		94	14	..	..	0	0	+	..	+	+
Averages.....		**30**	**8**	**13**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	203	..	..	..	..	..	0	0	..	+	+
" 23.....		4	12	..	..	..	0	0	..	+	..
" 25.....		3	12	..	..	0	0	0	..	0	0
" 26.....		48	6	..	..	0	0	+	..	0	+
" 27.....		8	1	..	..	..	0	+	..	+	+
" 29.....		125	15	..	..	..	0	+	..	+	+
" 30.....		200	10	..	..	..	0	+	..	+	+
Oct. 2.....		2	2	..	..	0	+	0	..	+	+
Averages.....		**56**	**8**	**11**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	204	..	..	..	..	..	0	+	..	+	+
" 23.....		12	4	..	..	..	0	0	..	0	+
" 25.....		0	8	..	..	0	0	0	..	0	+
" 26.....		8	4	..	..	0	0	+	..	0	+
" 27.....		4	6	..	..	..	0	+	..	+	+
" 29.....		320	56	..	..	..	0	+	..	+	+
" 30.....		500	22	..	..	..	+	+	..	+	+
Oct. 2.....		3	8	..	..	0	0	0	..	0	+
Averages.....		**121**	**15.4**	**21**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept 12.....	205	..	..	..	..	..	0	0	..	0	+
" 23.....		14	12	..	..	..	+	+	..	0	+
" 25.....		6	7	..	..	0	0	0	..	0	+
" 26.....		2	8	..	..	0	0	+	..	+	+
" 27.....		spreader	2	..	..	..	+	+	..	+	+
" 29.....		1000	38	..	..	..	+	+	..	+	+
" 30.....		22	5	..	..	..	0	+	..	+	+
Oct. 2.....		2	6	..	..	0	0	0	..	0	+
Averages.....		**174**	**11.1**	**43**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	206	..	..	..	..	..	0	+	..	+	+
" 23.....		18	6	..	..	..	0	0	..	0	+
" 25.....		4	6	..	..	0	0	0	..	0	+
" 26.....		6	8	..	..	0	0	+	..	0	+
" 27.....		8	4	..	..	..	0	+	..	+	+
" 29.....		22	22	..	..	..	+	+	..	+	+
" 30.....		9	8	..	..	..	0	+	..	+	+
Oct. 2.....		4	4	..	..	0	0	+	..	+	0
Averages.....		**10.1**	**8**	**23**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	207	..	..	..	..	..	0	+	..	+	+
" 23.....		20	18	..	..	..	0	+	..	+	+
" 25.....		3	15	..	..	0	0	0	..	0	+
" 26.....		12	6	..	..	0	0	+	..	+	+
" 27.....		22	3	..	..	..	+	+	..	+	+
" 29.....		9	3	..	..	..	0	0	..	+	+
" 30.....		9	6	..	..	..	0	+	..	+	+
Oct. 2.....		4	8	..	..	0	0	+	..	+	+
Averages.....		**11.2**	**8**	**25**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	208	..	..	..	..	..	0	+	..	+	+
" 23.....		600	200	..	..	..	0	+	..	+	+
" 25.....		2	9	..	..	0	0	0	..	0	+
" 26.....		6	6	..	..	0	0	0	..	+	+
" 27.....		31	12	..	..	..	0	+	..	+	+
" 29.....		18	2	..	..	..	0	+	..	+	+
" 30.....		7	3	..	..	..	0	+	..	+	+
Oct. 2.....		18	14	..	..	0	+	+	..	+	+
Averages.....		**97**	**35**	**25**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	209	..	..	..	..	..	0	+	..	+	+
" 23.....		120	40	..	..	..	0	+	..	+	+
" 25.....		2	8	..	..	0	0	0	..	0	0
" 27.....		18	10	..	..	0	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept. 27.....	209	44	6	..	..	..	0	+	..	+	+
" 29.....		6	4	..	..	..	0	+	..	+	+
" 30.....		11	7	..	..	..	0	+	..	+	+
Oct. 2.....		2	8	..	..	0	+	0	..	0	+
Averages.....		**28**	**11.8**	**17**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	210	..	..	..	..	..	+	+	..	+	+
" 23.....		160	80	..	..	..	0	+	..	+	+
" 25.....		0	29	..	..	0	0	+	..	0	0
" 27.....		16	12	..	..	+	0	+	..	+	+
" 27.....		35	4	..	..	..	0	+	..	+	+
" 29.....		11	2	..	..	..	0	+	..	+	+
" 30.....		5	5	..	..	..	0	+	..	+	+
Oct. 2.....		4	6	..	..	0	0	0	..	0	0
Averages.....		**33**	**19.7**	**35**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	211	..	..	..	..	..	0	+	..	+	+
" 23.....		80	60	..	..	..	0	+	..	+	+
" 25.....		4	18	..	..	0	0	0	..	0	+
" 27.....		22	18	..	..	0	0	+	..	+	+
" 27.....		52	8	..	..	..	0	+	..	+	+
" 29.....		31	8	..	..	..	0	+	..	+	+
" 30.....		18	9	..	..	..	0	+	..	+	+
Oct. 2.....		4	8	..	..	0	0	0	..	0	+
Averages.....		**30**	**18.4**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept 12.....	212	..	..	..	..	0	0	+	..	+	..
" 23.....		64	32	..	..	..	0	+	..	+	+
" 25.....		8	16	..	..	0	0	0	..	0	0
" 26.....		12	26	..	..	0	0	0	..	+	+
" 27.....		43	18	..	..	..	+	+	..	+	+
" 29.....		52	9	..	..	..	+	+	..	+	+
" 30.....		6	3	..	..	..	0	+	..	+	+
Oct. 2.....		2	8	..	..	0	0	0	..	0	0
Averages.....		**27**	**16**	**33**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Sept. 12.....	213	..	..	..	..	0	+	+	..	+	..
" 23.....		34	18	..	..	..	0	+	..	+	+
" 25.....		6	15	..	..	0	0	0	..	0	+
" 26.....		38	18	..	..	0	0	+	..	+	+
" 27.....		26	6	..	..	..	0	+	..	+	+
" 29.....		13	4	..	..	..	+	+	..	+	+
" 30.....		14	2	..	..	..	0	+	..	+	+
Oct. 2.....		12	6	..	..	0	0	+	..	+	+
Averages.....		**20.4**	**9.**	**37**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Amherstburg, Ont. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept 12.....	214	..	..	..	..	+	+	+	..	+	..
" 23.....		12	8	..	..	..	0	+	..	0	+
" 25.....		4	12	..	..	0	0	0	..	0	+
" 26.....		6	14	..	..	0	0	+	..	+	+
" 27.....		24	2	..	..	..	+	+	..	+	+
" 29.....		8	3	..	..	..	+	+	..	+	+
" 30.....		32	7	..	..	..	0	+	..	+	+
Oct. 2.....		6	12	..	..	0	0	+	..	0	+
Averages.....		**13.1**	**8**	**1**	**60**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Sept 12.....	215	..	..	..	..	+	0	0	..	+	..
" 23.....		spreader	12	..	..	..	0	0	..	0	+
" 25.....		8	42	..	..	0	0	0	..	0	+
" 26.....		2	9	..	..	0	+	0	..	+	+
" 27.....		26	8	..	..	..	0	+	..	+	+
" 29.....		44	4	..	..	..	0	+	..	+	+
" 30.....		26	11	..	..	..	0	+	..	+	+
Oct. 2.....		16	16	..	..	0	0	+	..	0	+
Averages.....		**20**	**14.5**	**15**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 16	274	..	56	..	..	0	0	..	+	..	..
" 17		..	34	..	..	0	0	..	+	..	..
" 18		..	17	..	..	0	0	..	+	..	..
" 19		..	374	..	..	+	+	..	+	..	..
" 20		..	18	..	..	0	0	..	+	..	..
" 21		..	66	..	..	0	+	..	+	..	..
" 22		..	7	..	..	0	+	..	+	..	..
" 23		..	9	..	..	+	+	..	+	..	..
" 25		..	26	..	..	0	+	..	+	..	..
" 26		..	560	..	..	+	+	..	+	..	..
" 27		..	21	..	..	0	0	..	+	..	..
Averages			**108**	**30**	**4**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 16	275	..	9	..	..	0	0	..	+	..	..
" 17		..	13	..	..	0	0	..	+	..	..
" 18		..	4	..	..	0	0	..	0	..	..
" 19		..	13	..	..	0	+	..	+	..	..
" 20		..	7	..	..	0	0	..	+	..	..
" 21		..	40	..	..	0	0	..	+	..	..
" 22		..	17	..	..	0	0	..	+	..	..
" 23		..	9	..	..	+	+	..	+	..	..
" 25		..	8	..	..	0	0	..	+	..	..
" 26		..	480	..	..	+	+	..	+	..	..
" 27		..	166	..	..	0	+	..	+	..	..
Averages			**69**	**30**	**4**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 12	276	..	121	..	..	0	+	..	+	..	..
" 13		..	10	..	..	0	0	..	+	..	..
" 14		..	13	..	..	0	0	..	+	..	..
" 16		..	74	..	..	0	0	..	+	..	..
" 17		..	4	..	..	0	0	..	+	..	..
" 18		..	10	..	..	0	0	..	+	..	..
" 19		..	15	..	..	0	+	..	+	..	..
" 20		..	15	..	..	0	0	..	+	..	..
" 21		..	11	..	..	0	0	..	+	..	..
" 22		..	17	..	..	0	0	..	+	..	..
" 23		..	8	..	..	0	+	..	+	..	..
" 25		..	6	..	..	0	0	..	+	..	..
" 26		..	26	..	..	0	0	..	+	..	..
" 27		..	11	..	..	0	0	..	+	..	..
Averages			**24**	**28**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12	277	..	14	..	..	0	0	..	+	..	..
" 13		..	57	..	..	0	0	..	0	..	..
" 14		..	44	..	..	0	0	..	+	..	..
" 16		..	90	..	..	0	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 17	277	..	3	..	..	0	0	..	0	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	27	..	..	0	0	..	+	..	..
" 20		..	15	..	..	0	0	..	+	..	..
" 21		..	23	..	..	0	0	..	+	..	..
" 22		..	20	..	..	0	0	..	+	..	..
" 23		..	8	..	..	0	0	..	+	..	..
" 25		..	5	..	..	0	0	..	+	..	..
" 26		..	13	..	..	0	0	..	0	..	..
" 27		..	25	..	..	0	0	..	+	..	..
Averages			**24**	**7**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12	278	..	28	..	..	0	0	..	+	..	..
" 13		..	4	..	..	0	0	..	0	..	..
" 14		..	5	..	..	0	0	..	0	..	..
" 16		..	24	..	..	0	0	..	+	..	..
" 17		..	4	..	..	0	0	..	+	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	29	..	..	0	+	..	+	..	..
" 20		..	23	..	..	0	+	..	+	..	..
" 21		..	30	..	..	0	0	..	+	..	..
" 22		..	9	..	..	0	0	..	0	..	..
" 23		..	51	..	..	0	+	..	+	..	..
" 25		..	10	..	..	0	+	..	+	..	..
" 26		..	11	..	..	0	0	..	+	..	..
" 27		..	3	..	..	0	0	..	0	..	..
Averages			**16**	**32**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12	279	..	9	..	..	0	0	..	+	..	..
" 13		..	9	..	..	0	0	..	0	..	..
" 14		..	8	..	..	0	0	..	0	..	..
" 16		..	165	..	..	0	0	..	+	..	..
" 17		..	6	..	..	0	0	..	0	..	..
" 18		..	4	..	..	0	0	..	0	..	..
" 19		..	24	..	..	0	0	..	+	..	..
" 20		..	12	..	..	0	0	..	+	..	..
" 21		..	256	..	..	0	0	..	+	..	..
" 22		..	27	..	..	0	0	..	+	..	..
" 23		..	16	..	..	0	0	..	+	..	..
" 25		..	8	..	..	0	0	..	+	..	..
" 26		..	9	..	..	0	0	..	0	..	..
" 27		..	17	..	..	0	0	..	+	..	..
Averages			**40**	**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 12	280	..	13	..	..	0	0	..	+	..	..
" 13		..	120	..	..	0	0	..	0	..	..
" 14		..	9	..	..	0	0	..	0	..	..
" 16		..	167	..	..	0	0	..	+	..	..
" 17		..	8	..	..	0	0	..	0	..	..
" 18		..	5	..	..	0	0	..	0	..	..
" 19		..	43	..	..	0	0	..	+	..	..
" 20		..	16	..	..	0	0	..	0	..	..
" 21		..	155	..	..	0	+	..	+	..	..
" 22		..	5	..	..	0	0	..	+	..	..
" 23		..	16	..	..	0	0	..	0	..	..
" 25		..	3	..	..	0	0	..	+	..	..
" 26		..	5	..	..	0	0	..	+	..	..
" 27		..	5	..	..	0	0	..	+	..	..
Averages			**40**		**12**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 12	281	..	30	..	..	0	0	..	+	..	..
13		..	3	..	..	0	0	..	0	..	..
" 14		..	5	..	..	0	0	..	0	..	..
" 16		..	53	..	..	0	0	..	+	..	..
" 17		..	8	..	..	0	0	..	0	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	17	..	..	0	0	..	+	..	..
" 20		..	12	..	..	0	0	..	0	..	..
" 21		..	100	..	..	0	0	..	+	..	..
" 22		..	22	..	..	0	0	..	+	..	..
" 23		..	42	..	..	0	0	..	+	..	..
" 25		..	8	..	..	0	0	..	+	..	..
" 26		..	4	..	..	0	0	..	+	..	..
" 27		..	4	..	..	0	0	..	+	..	..
Averages			**22**		**6**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12	282	..	34	..	..	0	0	..	0	..	..
" 13		..	5	..	..	0	0	..	0	..	..
" 14		..	7	..	..	0	0	..	0	..	..
" 16		..	164	..	..	0	0	..	+	..	..
" 17		..	1	..	..	0	0	..	0	..	..
" 18		..	5	..	..	0	0	..	0	..	..
" 19		..	54	..	..	0	0	..	+	..	..
" 20		..	6	..	..	0	0	..	0	..	..
" 21		..	75	..	..	0	0	..	+	..	..
" 22		..	15	..	..	0	0	..	+	..	..
" 23		..	11	..	..	0	0	..	0	..	..
" 25		..	3	..	..	0	0	..	0	..	..
" 26		..	12	..	..	0	0	..	0	..	..
" 27		..	5	..	..	0	0	..	0	..	..
Averages			**28**		**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 12	283	..	13	..	..	0	0	..	+	..	..
" 13		..	11	..	..	0	0	..	+	..	..
" 14		..	4	..	..	0	0	..	0	..	..
" 16		..	106	..	..	0	0	..	+	..	..
" 17		..	4	..	..	0	0	..	0	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	72	..	..	0	0	..	+	..	..
" 20		..	7	..	..	0	0	..	0	..	..
" 21		..	15	..	..	0	0	..	0	..	..
" 22		..	16	..	..	0	0	..	+	..	..
" 23		..	18	..	..	0	0	..	+	..	..
" 25		..	8	..	..	0	0	..	0	..	..
" 26		..	16	..	..	0	0	..	0	..	..
" 27		..	7	..	..	0	0	..	0	..	..
Averages			**21**		**4**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 12	284	..	14	..	..	0	0	..	0	..	..
" 13		..	22	..	..	0	0	..	0	..	..
" 14		..	3	..	..	0	0	..	0	..	..
" 16		..	8	..	..	0	0	..	+	..	..
" 17		..	2	..	..	0	0	..	0	..	..
" 18		..	14	..	..	0	0	..	0	..	..
" 19		..	7	..	..	0	0	..	0	..	..
" 20		..	5	..	..	0	0	..	0	..	..
" 21		..	65	..	..	0	0	..	+	..	..
" 22		..	13	..	..	0	0	..	0	..	..
" 23		..	15	..	..	0	0	..	+	..	..
" 25		..	7	..	..	0	0	..	0	..	..
" 26		..	20	..	..	0	0	..	+	..	..
" 27		..	2	..	..	0	0	..	0	..	..
Averages			**14**		**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 12	285	..	4	..	..	0	0	..	0	..	..
" 13		..	10	..	..	0	0	..	0	..	..
" 14		..	9	..	..	0	0	..	0	..	..
" 16		..	8	..	..	0	0	..	0	..	..
" 17		..	4	..	..	0	0	..	0	..	..
" 18		..	5	..	..	0	0	..	+	..	..
" 19		..	10	..	..	0	0	..	+	..	..
" 20		..	16	..	..	0	0	..	0	..	..
" 21		..	27	..	..	0	0	..	+	..	..
" 22		..	11	..	..	0	0	..	+	..	..
" 23		..	4	..	..	0	0	..	+	..	..
" 25		..	3	..	..	0	0	..	0	..	..
" 26		..	13	..	..	0	0	..	+	..	..
" 27		..	7	..	..	0	0	..	0	..	..
Averages			**9**		**4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 12.....	286	..	8	..	..	0	0	..	+	..	..
" 13.....		..	13	..	..	0	0	..	+	..	..
" 14.....		..	6	..	..	0	0	..	+	..	..
" 16.....		..	7	..	..	0	0	..	+	..	..
" 17.....		..	281	..	..	0	0	..	+	..	..
" 25.....		..	7	..	..	0	0	..	+	..	..
" 26.....		..	8	..	..	0	0	..	+	..	..
" 27.....		..	5	..	..	0	0	..	+	..	..
" 28.....		..	23	..	..	+	+	..	+	..	..
" 30.....		..	4	..	..	0	0	..	+	..	..
July 1.....		..	10	..	..	0	0	..	+	..	..
" 4.....		..	14	..	..	0	+	..	+	..	..
" 10.....		..	13	..	..	0	+	..	+	..	..
" 12.....		..	4	..	..	0	+	..	+	..	..
" 13.....		..	133	..	..	0	+	..	+	..	..
" 14.....		..	25	..	..	0	+	..	+	..	..
" 15.....		..	20	..	..	0	+	..	+	..	..
" 16.....		..	12	..	..	0	+	..	+	..	..
" 17.....		..	15	..	..	+	+	..	+	..	..
" 18.....		..	49	..	..	0	0	..	+	..	..
" 19.....		..	24	..	..	0	+	..	+	..	..
" 21.....		..	6	..	..	0	0	..	+	..	..
" 22.....		..	93	..	..	0	+	..	+	..	..
" 23.....		..	65	..	..	+	+	..	+	..	..
Averages.....			**35**	**1**	**67**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 12.....	287	..	4	..	..	0	0	..	0	..	..
" 13.....		..	14	..	..	0	0	..	0	..	..
" 14,.....		..	4	..	..	0	0	..	+	..	..
" 16.....		..	7	..	..	0	0	..	+	..	..
" 17.....		..	66	..	..	0	0	..	0	..	..
" 25.....		..	4	..	..	0	0	..	0	..	..
" 26.....		..	3	..	..	0	0	..	0	..	..
" 27.....		..	3	..	..	0	0	..	+	..	..
" 28.....		..	20	..	..	0	0	..	+	..	..
" 30.....		..	57	..	..	0	+	..	+	..	..
July 1.....		..	60	..	..	0	0	..	0	..	..
" 9.....		..	10	..	..	0	+	..	+	..	..
" 10.....		..	10	..	..	0	+	..	+	..	..
" 12.....		..	7	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 13.....	287	..	8	..	..	0	+	..	+	..	..
" 14.....		..	39	..	..	0	0	..	+	..	..
" 15.....		..	19	..	..	0	0	..	+	..	..
" 16.....		..	12	..	..	0	+	..	+	..	..
" 17.....		..	5	..	..	0	+	..	+	..	..
" 18.....		..	5	..	..	0	0	..	+	..	..
" 19.....		..	13	..	..	0	+	..	+	..	..
" 21.....		..	11	..	..	0	+	..	+	..	..
" 22.....		..	49	..	..	+	+	..	+	..	..
" 23.....		..	60	..	..	0	+	..	+	..	..
Averages.....			**20**	**48**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 12.....	288	..	2	..	..	0	0	..	0	..	..
" 13.....		..	4	..	..	0	0	..	+	..	..
" 14.....		..	3	..	..	0	0	..	0	..	..
" 16.....		..	712	..	..	0	+	..	+	..	..
" 17.....		..	139	..	..	0	0	..	+	..	..
" 25.....		..	3	..	..	0	0	..	0	..	..
" 26.....		..	3	..	..	0	0	..	0	..	..
" 27.....		..	0	..	..	0	0	..	0	..	..
" 28.....		..	5	..	..	0	+	..	+	..	..
" 30.....		..	3	..	..	0	0	..	0	..	..
July 1.....		..	340	..	..	0	0	..	+	..	..
" 9.....		..	7	..	..	0	+	..	+	..	..
" 10.....		..	3	..	..	0	+	..	+	..	..
" 13.....		..	3	..	..	0	+	..	+	..	..
" 12.....		..	73	..	..	0	+	..	+	..	..
" 14.....		..	71	..	..	0	0	..	+	..	..
" 15.....		..	8	..	..	0	0	..	+	..	..
" 16.....		..	5	..	..	0	+	..	+	..	..
" 17.....		..	4	..	..	0	+	..	+	..	..
" 18.....		..	3	..	..	0	0	..	0	..	..
" 19.....		..	21	..	..	0	0	..	+	..	..
" 21.....		..	3	..	..	0	0	..	+	..	.
" 22.....		..	33	..	..	0	+	..	+	..	..
" 22.....		..	45	..	..	0	0	..	+	..	..
Averages.....			**62**	**41**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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June 12	289	..	67	..	..	0	0	..	0	..	..
" 13		..	3		..	0	0	..	0	..	..
" 14		..	7	..	..	0	0	..	0	..	..
" 16		..	69	..	..	0	+	..	+	..	..
" 17		..	28	..	..	0	0	..	+	..	..
" 25		..	7	..	..	0	0	..	0	..	..
" 26		..	4	..	..	0	0	..	0	..	..
" 27		..	2	..	..	0	0	..	0	..	..
" 28		..	5	..	..	0	0	..	0	..	..
" 30		..	6	..	..	0	0	..	0	..	..
July 1		..	3	..	..	0	0	..	0	..	..
" 9		..	6	..	..	0	+	..	+	..	..
" 10		..	10	..	..	0	+	..	+	..	..
" 12		..	60	..	..	0	+	..	+	..	..
" 13		..	48	..	..	0	+	..	+	..	..
" 14		..	22	..	..	0	+	..	+	..	..
" 15		..	7	..	..	0	0	..	+	..	..
" 16		..	8	..	..	0	+	..	+	..	..
" 17		..	5	..	..	0	+	..	+	..	..
" 18		..	7	..	..	0	0	..	+	..	..
" 19		..	54	..	..	0	+	..	+	..	..
" 21		..	17	..	..	0	+	..	+	..	..
" 22		..	7	..	..	0	0	..	+	..	..
" 23		..	40	..	..	0	+	..	+	..	..
Averages			**20**	**47**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 12	290	..	9	..	..	0	0	..	0	..	..
" 13		..	10	..	..	0	0	..	0	..	..
" 14		..	4	..	..	0	0	..	0	..	..
" 16		..	6	..	..	0	0	..	+	..	..
" 17		..	41	..	..	0	0	..	0	..	..
" 25		..	10	..	..	0	0	..	0	..	..
" 26		..	4	..	..	0	0	..	0	..	..
" 27		..	5	..	..	0	0	..	0	..	..
" 28		..	3	..	..	0	0	..	0	..	..
" 30		..	9	..	..	0	0	..	+	..	..
July 1		..	5	..	..	0	0	..	0	..	..
" 9		..	11	..	..	0	+	..	+	..	..
" 10		..	21	..	..	0	+	..	+	..	..
" 12		..	9	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 13	290	..	200	..	..	0	+	..	+	..	..
" 14		..	18	..	..	0	+	..	+	..	..
" 15		..	18	..	..	0	0	..	+	..	..
" 16		..	10	..	..	0	+	..	+	..	..
" 17		..	5	..	..	0	+	..	+	..	..
" 18		..	4	..	..	0	0	..	+	..	..
" 19		..	51	..	..	0	+	..	+	..	..
" 21		..	4	..	..	0	+	..	+	..	..
" 22		..	23	..	..	0	0	..	0	..	..
" 23		..	30	..	..	0	0	..	+	..	..
Averages			**21**	**38**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 11	291	..	19	..	..	0	+	..	+	..	..
" 12		..	570	..	..	0	+	..	+	..	..
" 13		..	420	..	..	+	+	..	+	..	..
" 16		..	14	..	..	+	+	..	+	..	..
" 17		..	192	..	..	+	+	..	+	..	..
" 25		..	69	..	0	+	+	..	..	..	..
" 26		..	420	..	0	+	+	..	..	..	..
" 27		..	130	..	0	+	+	..	..	..	..
" 28		..	180	..	0	+	+	..	..	..	..
" 30		..	84	..	0	0	+	..	..	..	..
July 1		..	340	..	0	+	+	..	..	..	..
" 9		..	963	..	0	+	+	..	..	..	..
" 10		..	54	..	+	+	+	..	..	..	..
" 12		..	90	..	0	+	+	..	..	..	..
" 13		..	500	..	0	0	+	..	..	..	..
" 14		..	54	..	0	+	+	..	..	..	..
" 15		..	380	..	0	+	+	..	..	..	..
" 16		..	2160	..	0	+	+	..	..	..	..
" 17		..	419	..	0	+	+	..	..	..	..
" 18		..	300	0	+	+	..	..	..	..	..
" 19		..	980	+	+	+	..	..	..	..	..
" 21		..	120	0	+	+	..	..	..	..	..
" 22		..	930	0	+	+	..	..	..	..	..
" 23		..	4000	0	+	+	..	..	..	..	..
Averages			**557**	**88**	**12**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 11	292	..	51	..	..	0	+	..	+	..	..
" 12		..	700	..	..	+	+	..	+	..	..
" 13		..	2090	..	..	0	+	..	+	..	..
" 16		..	45	..	..	0	+	..	+	..	..
" 17		..	790	..	..	+	+	..	+	..	..
" 25		..	241	..	0	0	+	..	..	..	..
" 26		..	39	..	0	0	+	..	..	..	..
" 27		..	140	..	+	+	+	..	..	..	..
" 28		..	175	..	0	+	+	..	..	..	..
" 30		..	270	..	0	+	+	..	..	..	..
July 1		..	390	..	0	+	+	..	..	..	..
" 9		..	20	..	0	0	+	..	..	..	..
" 10		..	1390	..	+	+	+	..	..	..	..
" 12		..	380	..	0	+	+	..	..	..	..
" 13		..	159	..	+	+	+	..	..	..	..
" 14		..	264	..	+	+	+	..	..	..	..
" 15		..	810	..	+	+	+	..	..	..	..
" 16		..	1800	..	+	+	+	..	..	..	..
" 17		..	580	..	0	+	+	..	..	..	..
" 18		..	120	0	0	+	..	..	..	..	..
" 19		..	1800	0	+	+	..	..	..	..	..
" 21		..	50	0	0	+	..	..	..	..	..
" 22		..	600	+	+	+	..	..	..	..	..
" 23		..	340	0	+	+	..	..	..	..	..
Averages			**551**	**68**	**12**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 11	293	..	20	..	..	0	0	..	+	..	..
" 12		..	462	..	..	+	+	..	+	..	..
" 13		..	390	..	..	0	+	..	+	..	..
" 16		..	5	..	..	+	+	..	+	..	..
" 17		..	190	..	..	0	+	..	+	..	..
" 25		..	103	..	0	+	+	..	..	..	..
" 26		..	33	..	0	0	+	..	..	..	..
" 27		..	4	..	0	0	+	..	..	..	..
" 28		..	13	..	0	+	+	..	..	..	..
" 30		..	230	..	0	+	+	..	..	..	..
July 1		..	490	..	0	+	+	..	..	..	..
" 9		..	7	..	0	0	+	..	..	..	..
" 10		..	2	..	0	0	+	..	..	..	..
" 12		..	34	..	0	0	+	..	..	..	..
July 13	293	..	130	..	0	0	+	..	..	..	..
" 14		..	160	..	0	+	+	..	..	..	..
" 15		..	1170	..	0	+	+	..	..	..	..
" 16		..	390	..	+	+	+	..	..	..	..
" 17		..	1100	..	0	+	+	..	..	..	..
" 18		..	70	0	+	+	..	..	..	..	..
" 19		..	500	0	+	+	..	..	..	..	..
" 21		..	20	0	0	+	..	..	..	..	..
" 22		..	330	+	0	0	+	..	..	..	..
" 23		..	170	0	0	+	..	..	..	..	..
Averages			**250**	**17**	**42**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 12	294	..	50	..	..	+	+	..	+	..	..
" 13		..	15	..	..	0	0	..	+	..	..
" 14		..	49	..	..	0	+	..	+	..	..
" 16		..	29	..	..	0	+	..	+	..	..
" 17		..	196	..	..	0	+	..	+	..	..
" 25		..	45	..	..	0	+	..	+	..	..
" 26		..	37	..	..	0	+	..	+	..	..
" 27		..	5	..	..	0	0	..	+	..	..
" 28		..	390	..	0	+	+	..	..	..	..
" 30		..	47	..	0	0	+	..	..	..	..
July 1		..	110	..	0	+	+	..	..	..	..
" 9		..	14	..	0	0	+	..	..	..	..
" 10		..	5	..	0	0	0	..	..	..	..
" 12		..	13	..	0	+	+	..	..	..	..
" 13		..	163	..	0	+	+	..	..	..	..
" 14		..	30	..	0	+	+	..	..	..	..
" 15		..	980	..	0	0	+	..	..	..	..
" 16		..	160	..	0	+	+	..	..	..	..
" 17		..	187	..	0	0	+	..	..	..	..
" 18		..	20	0	+	+	..	..	..	..	..
" 19		..	560	0	+	+	..	..	..	..	..
" 21		..	20	0	0	0	+	..	..	..	..
" 22		..	240	0	0	+	..	..	..	..	..
" 23		..	640	0	0	+	..	..	..	..	..
Averages		..	**166**	**12**	**50**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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June 12	295	..	25	..	..	0	+	..	+	..	..
" 13		..	138	..	..	0	+	..	+	..	..
" 14		..	19	..	..	0	+	..	+	..	..
" 16		..	15	..	..	0	0	..	0	..	..
" 17		..	45	..	..	0	+	..	+	..	..
" 25		..	20	..	..	0	0	..	0	..	..
" 26		..	10	..	..	0	0	..	+	..	..
" 27		..	4	..	..	0	0	..	+	..	..
" 28		..	31	..	..	0	0	..	+	..	..
" 30		..	6	..	..	0	0	..	+	..	..
July 1		..	58	..	..	+	+	..	+	..	..
" 9		..	3	..	..	0	0	..	+	..	..
" 10		..	9	..	..	0	+	..	+	..	..
" 12		..	4	..	..	0	+	..	+	..	..
" 13		..	4	..	..	+	+	..	+	..	..
" 14		..	31	..	..	0	+	..	+	..	..
" 15		..	40	..	..	0	+	..	+	..	..
" 16		..	22	..	..	0	+	..	+	..	..
" 17		..	5	..	..	0	+	..	+	..	..
" 18		..	5	..	..	0	+	..	+	..	..
" 19		..	47	..	..	0	+	..	+	..	..
" 21		..	5	..	..	0	0	..	0	..	..
" 22		..	46	..	..	0	0	..	+	..	..
" 23		..	64	..	..	0	+	..	+	..	..
Averages		..	27	1	66	B.	C.	pe	r 1	00	cc
June 12	296	..	5	..	..	0	0	..	+	..	..
" 13		..	38	..	..	0	+	..	+	..	..
" 14		..	9	..	..	0	+	..	+	..	..
" 16		..	3	..	..	0	0	..	+	..	..
" 17		..	50	..	..	0	0	..	+	..	..
" 25		..	50	..	..	0	+	..	+	..	..
" 26		..	22	..	..	+	+	..	+	..	..
" 27		..	18	..	..	0	0	..	+	..	..
" 28		..	215	..	+	+	+	..	..	..	..
" 30		..	24	..	0	0	+	..	..	..	..
July 1		..	9	..	0	+	+	..	..	..	..
" 9		..	24	..	0	+	+	..	..	..	..
" 10		..	8	..	..	0	+	..	+	..	..
" 12		..	290	..	0	+	+	..	..	..	..
July 13	296	..	190	..	0	0	+	..	..	..	..
" 14		..	160	..	..	0	+	..	+	..	..
" 15		..	27	..	..	0	0	..	+	..	..
" 16		..	26	..	..	+	+	..	+	..	..
" 17		..	4	..	..	0	+	..	+	..	..
" 18		..	10	..	..	0	+	..	+	..	..
" 19		..	360	..	..	+	+	..	+	..	..
" 21		..	15	..	..	0	+	..	+	..	..
" 22		..	63	..	..	+	+	..	+	..	..
" 23		..	26	..	..	0	+	..	+	..	..
Averages		..	68	7	93	B.	C.	pe	r 1	00	cc
June 12	297	..	6	..	..	0	+	..	+	..	..
" 13		..	26	..	..	0	+	..	+	..	..
" 14		..	5	..	..	0	0	..	+	..	..
" 16		..	16	..	..	0	+	..	+	..	..
" 17		..	50	..	..	0	0	..	+	..	..
" 25		..	10	..	..	0	+	..	+	..	..
" 26		..	79	..	..	+	+	..	+	..	..
" 27		..	4	..	..	0	0	..	+	..	..
" 28		..	28	..	..	0	+	..	+	..	..
" 30		..	7	..	..	0	+	..	+	..	..
July 1		..	29	..	..	0	+	..	+	..	..
" 9		..	43	..	..	+	+	..	+	..	..
" 10		..	140	..	..	+	+	..	+	..	..
" 12		..	30	..	..	0	+	..	+	..	..
" 13		..	180	..	..	0	+	..	+	..	..
" 14		..	13	..	..	0	+	..	+	..	..
" 15		..	43	..	..	0	0	..	+	..	..
" 16		..	19	..	..	0	0	..	+	..	..
" 17		..	7	..	..	+	+	..	+	..	..
" 18		..	12	..	..	0	+	..	+	..	..
" 19		..	33	..	..	+	+	..	+	..	..
" 21		..	7	..	..	0	+	..	+	..	..
" 22		..	65	..	..	0	+	..	+	..	..
" 23		..	141	..	..	0	+	..	+	..	..
Averages		..	41	2	68	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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June 12	298	..	8	..	..	0	0	..	+	..	..
" 13		..	201	..	..	0	0	..	0	..	..
" 14		..	6	..	..	0	0	..	+	..	..
" 16		..	7	..	..	0	+	..	+	..	..
" 17		..	131	..	..	0	+	..	+	..	..
" 25		..	4	..	..	0	0	..	+	..	..
" 26		..	5	..	..	0	+	..	+	..	..
" 27		..	40	..	..	+	+	..	+	..	..
" 28		..	8	..	..	0	+	..	+	..	..
" 30		..	11	..	..	0	0	..	+	..	..
July 1		..	13	..	..	0	+	..	+	..	..
" 9		..	1360	..	..	+	+	..	+	..	..
" 10		..	29	..	..	+	+	..	+	..	..
" 12		..	30	..	..	0	+	..	+	..	..
" 13		..	7	..	..	0	0	..	+	..	..
" 14		..	23	..	..	0	0	..	+	..	..
" 15		..	187	..	..	0	+	..	+	..	..
" 16		..	37	..	..	0	+	..	+	..	..
" 17		..	12	..	..	0	+	..	+	..	..
" 18		..	4	..	..	0	0	..	0	..	..
" 19		..	50	..	..	0	+	..	+	..	..
" 21		..	7	..	..	0	+	..	+	..	..
" 22		..	450	..	..	+	+	..	+	..	..
" 23		..	1350	..	..	+	+	..	+	..	..
Averages		..	**165**	**2**	**56**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
June 12	299	..	4	..	..	0	0	..	0	..	..
" 13		..	30	..	..	0	+	..	+	..	..
" 14		..	6	..	..	0	0	..	+	..	..
" 16		..	104	..	..	0	+	..	+	..	..
" 17		..	30	..	..	0	0	..	0	..	..
" 25		..	4	..	..	0	0	..	+	..	..
" 26		..	18	..	..	0	+	..	+	..	..
" 27		..	12	..	..	0	0	..	+	..	..
" 28		..	12	..	..	0	0	..	+	..	..
" 30		..	5	..	..	0	0	..	+	..	..
July 1		..	15	..	..	0	+	..	+	..	..
" 9		..	5	..	..	0	+	..	+	..	..
" 10		..	15	..	..	0	+	..	+	..	..
" 12		..	20	..	..	+	+	..	+	..	..
" 13		..	12	..	..	0	+	..	+	..	..
July 14	299	..	23	..	..	0	+	..	+	..	..
" 15		..	195	..	..	0	+	..	+	..	..
" 16		..	9	..	..	0	+	..	+	..	..
" 17		..	9	..	..	0	0	..	+	..	..
" 18		..	8	..	..	0	0	..	+	..	..
" 19		..	60	..	..	0	0	..	+	..	..
" 21		..	4	..	..	0	0	..	+	..	..
" 22		..	62	..	..	0	+	..	+	..	..
" 23		..	350	..	..	+	+	..	+	..	..
Averages			**42**	**13**	**2**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
June 12	300	..	10	..	..	0	0	..	+	..	..
" 13		..	10	..	..	0	0	..	+	..	..
" 14		..	7	..	..	0	0	..	+	..	..
" 16		..	5	..	..	0	0	..	+	..	..
" 17		..	340	..	..	0	+	..	+	..	..
" 25		..	5	..	..	0	0	..	+	..	..
" 26		..	10	..	..	0	+	..	+	..	..
" 27		..	2	..	..	0	0	..	+	..	..
" 28		..	22	..	..	0	+	..	+	..	..
" 30		..	2	..	..	0	0	..	0	..	..
July 1		..	10	..	..	0	+	..	+	..	..
" 9		..	8	..	..	0	+	..	+	..	..
" 10		..	14	..	..	0	+	..	+	..	..
" 12		..	4	..	..	0	+	..	+	..	..
" 13		..	24	..	..	0	+	..	+	..	..
" 14		..	68	..	..	0	+	..	+	..	..
" 15		..	221	..	..	0	+	..	+	..	..
" 16		..	15	..	..	0	+	..	+	..	..
" 17		..	7	..	..	0	+	..	+	..	..
" 18		..	8	..	..	0	+	..	+	..	..
" 19		..	5	..	..	0	0	..	0	..	..
" 21		..	3	..	..	0	0	..	0	..	..
" 22		..	33	..	..	+	+	..	+	..	..
" 23		..	200	..	..	0	+	..	+	..	..
Averages			**43**	**10**	**2**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

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June 12	301	..	6	..	..	0	0	..	+	..	..
" 13		..	15	..	..	0	0	..	+	..	..
" 14		..	13	..	..	0	0	..	+	..	..
" 16		..	7	..	..	0	0	..	+	..	..
" 17		..	284	..	..	0	+	..	+	..	..
" 25		..	4	..	..	0	0	..	0	..	..
" 26		..	19	..	..	0	+	..	+	..	..
" 27		..	3	..	..	0	0	..	+	..	..
" 28		..	11	..	..	0	+	..	+	..	..
" 30		..	20	..	..	0	0	..	+	..	..
July 1		..	117	..	..	0	+	..	+	..	..
" 9		..	20	..	..	0	+	..	+	..	..
" 10		..	142	..	..	0	+	..	+	..	..
" 12		..	8	..	..	0	+	..	+	..	..
" 13		..	24	..	..	0	+	..	+	..	..
" 14		..	7	..	..	0	+	..	+	..	..
" 15		..	32	..	..	0	+	..	+	..	..
" 16		..	44	..	..	+	+	..	+	..	..
" 17		..	8	..	..	+	+	..	+	..	..
" 18		..	5	..	..	0	+	..	+	..	..
" 19		..	175	..	..	+	+	..	+	..	..
" 21		..	9	..	..	0	0	..	+	..	..
" 22		..	107	..	..	+	+	..	+	..	..
" 23		..	165	..	..	0	+	..	+	..	..
Averages			**51**	**21**	**9**	**B.**	**C.**	**pe**	**r 1.**	**00**	**cc**
June 12	302	..	7	..	..	0	0	..	+	..	..
" 13		..	10	..	..	0	+	..	+	..	..
" 14		..	4	..	..	0	0	..	+	..	..
" 16		..	7	..	..	0	0	..	+	..	..
" 17		..	20	..	..	0	0	..	+	..	..
" 25		..	6	..	..	0	0	..	+	..	..
" 26		..	16	..	..	0	0	..	+	..	..
" 27		..	22	..	..	0	0	..	+	..	..
" 28		..	11	..	..	0	+	..	+	..	..
" 30		..	6	..	..	0	0	..	0	..	..
July 1		..	15	..	..	0	+	..	+	..	..
" 9		..	22	..	..	0	+	..	+	..	..
" 10		..	11	..	..	0	0	..	+	..	..
" 12		..	20	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 13	302	..	34	..	..	+	+	..	+	..	..
" 14		..	3	..	..	0	0	..	+	..	..
" 15		..	38	..	..	0	+	..	+	..	..
" 16		..	13	..	..	0	+	..	+	..	..
" 17		..	10	..	..	0	0	..	+	..	..
" 18		..	3	..	..	0	+	..	+	..	..
" 19		..	28	..	..	+	+	..	+	..	..
" 21		..	3	..	..	0	0	..	+	..	..
" 22		..	56	..	..	0	+	..	+	..	..
" 23		..	75	..	..	0	+	..	+	..	..
Averages			**18**	**1**	**29**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 12	303	..	7	..	..	0	0	..	+	..	..
" 13		..	18	..	..	0	0	..	+	..	..
" 14		..	3	..	..	0	0	..	+	..	..
" 16		..	6	..	..	0	0	..	+	..	..
" 17		..	150	..	..	0	0	..	+	..	..
" 25		..	3	..	..	0	0	..	0	..	..
" 26		..	4	..	..	0	0	..	0	..	..
" 27		..	3	..	..	0	0	..	0	..	..
" 28		..	23	..	..	0	+	..	+	..	..
" 30		..	6	..	..	0	0	..	0	..	..
July 1		..	3	..	..	0	0	..	0	..	..
" 9		..	16	..	..	0	+	..	+	..	..
" 10		..	7	..	..	0	+	..	+	..	..
" 12		..	7	..	..	0	+	..	+	..	..
" 13		..	24	..	..	+	+	..	+	..	..
" 14		..	15	..	..	0	+	..	+	..	..
" 15		..	16	..	..	0	0	..	+	..	..
" 16		..	5	..	..	0	+	..	+	..	..
" 17		..	4	..	..	0	0	..	+	..	..
" 18		..	6	..	..	0	0	..	+	..	..
" 19		..	23	..	..	0	0	..	+	..	..
" 21		..	3	..	..	0	+	..	+	..	..
" 22		..	29	..	..	0	+	..	+	..	..
" 23		..	39	..	..	0	+	..	+	..	..
Averages			**17**	**82**	**B.**	**Coli**		**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 12	304	..	13	..	..	0	0	..	0	..	..
" 13		..	15	..	..	0	0	..	+	..	..
" 14		..	16	..	..	0	0	..	0	..	..
" 16		..	8	..	..	0	0	..	+	..	..
" 17		..	57	..	..	0	0	..	+	..	..
" 25		..	8	..	..	0	0	..	0	..	..
" 26		..	4	..	..	0	0	..	0	..	..
" 27		..	2	..	..	0	0	..	+	..	..
" 28		..	5	..	..	0	0	..	+	..	..
" 30		..	2	..	..	0	0	..	0	..	..
July 1		..	39	..	..	0	0	..	0	..	..
" 9		..	41	..	..	0	+	..	+	..	..
" 10		..	5	..	..	0	+	..	+	..	..
" 12		..	8	..	..	0	+	..	+	..	..
" 13		..	14	..	..	0	+	..	+	..	..
" 14		..	12	..	..	0	+	..	+	..	..
" 15		..	39	..	..	0	+	..	+	..	..
" 16		..	5	..	..	+	+	..	+	..	..
" 17		..	5	..	..	0	+	..	+	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	16	..	..	0	0	..	+	..	..
" 21		..	4	..	..	0	0	..	0	..	..
" 22		..	69	..	..	0	0	..	+	..	..
" 23		..	65	..	..	0	+	..	+	..	..
Averages			**18**	**77**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 12	305	..	2	..	..	0	0	..	0	..	..
" 13		..	2	..	..	0	0	..	0	..	..
" 14		..	5	..	..	0	0	..	0	..	..
" 16		..	35	..	..	0	0	..	+	..	..
" 17		..	46	..	..	0	0	..	0	..	..
" 25		..	2	..	..	0	0	..	+	..	..
" 26		..	5	..	..	0	0	..	0	..	..
" 27		..	2	..	..	0	0	..	+	..	..
" 28		..	2	..	..	0	0	..	0	..	..
" 30		..	1	..	..	0	0	..	0	..	..
July 1		..	1	..	..	0	0	..	+	..	..
" 9		..	6	..	..	+	+	..	+	..	..
" 10		..	51	..	..	0	+	..	+	..	..
" 12		..	5	..	..	0	+	..	+	..	..
" 13		..	16	..	..	0	+	..	+	..	..
" 14		..	8	..	..	0	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 15	305	..	19	..	..	0	+	..	+	..	..
" 16		..	7	..	..	0	+	..	+	..	..
" 17		..	2	..	..	0	+	..	+	..	..
" 18		..	4	..	..	0	0	..	+	..	..
" 19		..	5	..	..	0	+	..	+	..	..
" 21		..	3	..	..	0	+	..	+	..	..
" 22		..	15	..	..	0	0	..	+	..	..
" 23		..	56	..	..	0	0	..	+	..	..
Averages			**12**	**78**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Aug. 1	319	..	1602	..	..	0	+	..	+	..	..
" 2		..	134	..	..	+	+	..	+	..	..
" 3		..	4800	..	..	+	+	..	+	..	..
" 4		..	3200	..	..	+	+	..	+	..	..
" 5		..	469	..	..	0	+	..	+	..	..
" 6		..	890	..	0	+	+	..	..	..	..
" 7		..	150	..	0	0	+	..	..	..	..
" 8		..	1200	..	+	+	+	..	..	..	..
" 9		..	750	..	0	+	+	..	..	..	..
" 10		..	567	..	0	+	+	..	..	..	..
" 12		..	94	..	0	0	+	..	..	..	..
" 13		..	199	..	0	+	+	..	..	..	..
" 14		..	82	..	0	+	+	..	..	..	..
" 15		..	96	..	0	0	+	..	..	..	..
" 16		..	153	..	0	+	+	..	..	..	..
Averages		..	**858**	**13**	**00**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1	320	..	52	..	..	0	+	..	+	..	..
" 2		..	239	..	..	0	+	..	+	..	..
" 3		..	430	..	..	+	+	..	+	..	..
" 4		..	1001	..	..	+	+	..	+	..	..
" 5		..	180	..	0	+	+	..	+	..	..
" 6		..	310	..	0	+	+	..	+	..	..
" 7		..	220	..	0	0	+	..	+	..	..
" 8		..	390	..	0	+	+	..	..	..	..
" 9		..	190	..	0	+	+	..	..	..	..
" 10		..	186	..	0	0	+	..	..	..	..
" 12		..	10	..	0	0	+	..	..	..	..
" 13		..	366	..	0	+	+	..	..	..	..
" 14		..	99	..	0	0	+	..	..	..	..
" 15		..	12	..	0	0	+	..	..	..	..
" 16		..	19	..	0	+	+	..	..	..	..
Averages			**248**	**5**	**13**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 1.....	321	..	61	..	..	0	+	..	+	..	..
" 2.....		..	30	..	..	0	+	..	+	..	..
" 3.....		..	160	..	..	+	+	..	+	..	..
" 4.....		..	64	..	..	0	+	..	+	..	..
" 5.....		..	436	..	..	+	+	..	+	..	..
" 6.....		..	117	..	..	+	+	..	+	..	..
" 7.....		..	45	..	..	0	0	..	+	..	..
" 8.....		..	100	..	0	+	+	..	..	..	..
" 9.....		..	90	..	0	+	+	..	..	..	..
" 10.....		..	215	..	0	+	+	..	..	..	..
" 12.....		..	67	..	0	+	+	..	..	..	..
" 13.....		..	468	..	0	+	+	..	..	..	..
" 14.....		..	104	..	0	+	+	..	..	..	..
" 15.....		..	28	..	0	0	+	..	..	..	..
" 16.....		..	80	..	0	+	+	..	..	..	..
Averages.....			**137**	**6**	**94**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 1.....	322	..	12	..	..	0	0	..	+	..	..
" 2.....		..	10	..	..	0	0	..	+	..	..
" 3.....		..	143	..	..	+	+	..	+	..	..
" 4.....		..	14	..	..	0	0	..	+	..	..
" 5.....		..	231	..	..	+	+	..	+	..	..
" 6.....		..	43	..	..	+	+	..	+	..	..
" 7.....		..	26	..	..	0	0	..	+	..	..
" 8.....		..	110	..	0	+	+	..	..	..	..
" 9.....		..	25	..	0	0	+	..	..	..	..
" 10.....		..	40	..	0	+	+	..	..	..	..
" 12.....		..	91	..	0	+	+	..	..	..	..
" 13.....		..	117	..	0	+	+	..	..	..	..
" 14.....		..	74	..	0	+	+	..	..	..	..
" 15.....		..	17	..	0	0	+	..	..	..	..
" 16.....		..	17	..	0	0	+	..	..	..	..
Averages.....			**64**	**5**	**56**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 1.....	323	..	3	..	..	0	0	..	0	..	..
" 2.....		..	10	..	..	0	+	..	+	..	..
" 3.....		..	340	..	..	+	+	..	+	..	..
" 4.....		..	9	..	..	0	0	..	+	..	..
" 5.....		..	47	..	..	+	+	..	+	..	..
" 6.....		..	27	..	..	+	+	..	+	..	..
" 7.....		..	79	..	..	0	0	..	+	..	..
" 8.....		..	280	..	0	+	+	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9.....	323	..	90	..	0	+	+	..	..	..	..
" 10.....		..	85	..	0	+	+	..	..	..	..
" 12.....		..	268	..	0	+	+	..	..	..	..
" 13.....		..	36	..	0	+	+	..	..	..	..
" 14.....		..	132	..	0	+	+	..	..	..	..
" 15.....		..	11	..	0	0	+	..	..	..	..
" 16.....		..	35	..	0	+	+	..	..	..	..
Averages.....			**96**	**6**	**81**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 1.....	324	..	23	..	..	0	0	..	+	..	..
" 2.....		..	21	..	..	0	+	..	+	..	..
" 3.....		..	240	..	..	+	+	..	+	..	..
" 4.....		..	41	..	..	0	+	..	+	..	..
" 5.....		..	450	..	..	+	+	..	+	..	..
" 6.....		..	245	..	..	0	0	..	+	..	..
" 7.....		..	71	..	..	0	0	..	+	..	..
" 8.....		..	130	..	+	+	+	..	..	..	..
" 9.....		..	150	..	0	0	+	..	..	..	..
" 10.....		..	160	..	0	+	+	..	..	..	..
" 12.....		..	155	..	+	+	+	..	..	..	..
" 13.....		..	88	..	0	+	+	..	..	..	..
" 14.....		..	36	..	0	+	+	..	..	..	..
" 15.....		..	16	..	0	0	+	..	..	..	..
" 16.....		..	12	..	..	0	0	..	+	..	..
Averages.....			**122**	**16**	**96**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 1.....	325	..	37	..	..	0	0	..	+	..	..
" 2.....		..	33	..	..	0	0	..	+	..	..
" 3.....		..	98	..	..	+	+	..	+	..	..
" 4.....		..	106	..	..	0	+	..	+	..	..
" 5.....		..	46	..	..	1	+	..	+	..	..
" 6.....		..	57	..	..	+	+	..	+	..	..
" 7.....		..	20	..	..	0	0	..	+	..	..
" 8.....		..	80	..	..	+	+	..	+	..	..
" 9.....		..	120	..	..	0	0	..	+	..	..
" 10.....		..	121	..	..	+	+	..	+	..	..
" 12.....		..	138	..	..	0	+	..	+	..	..
" 13.....		..	55	..	..	+	+	..	+	..	..
" 14.....		..	24	..	..	0	+	..	+	..	..
" 15.....		..	24	..	..	0	0	..	+	..	..
" 16.....		..	18	..	..	0	+	..	+	..	..
Averages.....			**65**	**4**	**30**	**B.**	**C.**	**per**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Detroit, Mich. Waters of Western End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 1.....	326	..	82	..	..	0	0	+	+	..	..
" 2.....		..	140	..	..	0	+	..	+	..	..
" 3.....		..	240	..	..	+	+	..	+	..	..
" 4.....		..	340	..	..	+	+	..	+	..	..
" 5.....		..	583	..	..	+	+	..	+	..	..
" 6.....		..	640	..	..	+	+	..	+	..	..
" 7.....		..	100	..	..	0	0	..	+	..	..
" 8.....		..	70	..	..	0	0	..	+	..	..
" 9.....		..	200	..	..	0	+	..	+	..	..
" 10.....		..	240	..	..	0	+	..	+	..	..
" 12.....		..	119	..	..	+	+	..	+	..	..
" 13.....		..	126	..	..	+	+	..	+	..	..
" 14.....		..	93	..	..	0	0	..	+	..	..
" 15.....		..	12	..	..	0	+	..	+	..	..
" 16.....		..	25	..	..	+	+	..	+	..	..
Averages.....			**201**	**4**	**96**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	327	..	81	..	..	0	+	..	+	..	..
" 2.....		..	72	..	..	0	+	..	+	..	..
" 3.....		..	199	..	..	+	+	..	+	..	..
" 4.....		..	160	..	..	+	+	..	+	..	..
" 5.....		..	416	..	..	+	+	..	+	..	..
" 6.....		..	619	..	+	+	+	..	..	..	..
" 7.....		..	970	..	0	+	+	..	..	..	..
" 8.....		..	80	..	0	+	+	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9.....	327	..	300	..	0	0	+	..	..	..	..
" 10.....		..	210	..	0	0	+	..	..	..	..
" 12.....		..	226	..	0	+	+	..	..	..	..
" 13.....		..	132	..	0	0	+	..	..	..	..
" 14.....		..	114	..	..	0	0	..	+	..	..
" 15.....		..	38	..	..	0	+	..	+	..	..
" 16.....		..	18	..	..	0	0	..	+	..	..
Averages.....			**243**	**11**	**08**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	328	..	153	..	..	+	+	..	+	..	..
" 2.....		..	122	..	..	+	+	..	+	..	..
" 3.....		..	430	..	+	+	+	..	..	..	..
" 4.....		..	242	..	+	+	+	..	..	..	..
" 5.....		..	164	..	0	+	+	..	..	..	..
" 6.....		..	790	..	0	+	+	..	..	..	..
" 7.....		..	910	..	0	0	+	..	..	..	..
" 8.....		..	880	..	0	+	+	..	..	..	..
" 9.....		..	350	..	0	+	+	..	..	..	..
" 10.....		..	160	..	0	+	+	..	..	..	..
" 12.....		..	424	..	+	+	+	..	..	..	..
" 13.....		..	235	..	0	+	+	..	..	..	..
" 14.....		..	115	..	0	+	+	..	..	..	..
" 15.....		..	97	..	0	0	+	..	..	..	..
" 16.....		..	68	..	0	0	+	..	..	..	..
Averages.....			**341**	**26**	**20**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Stanley. Waters of Centre and Eastern End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation – Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation – Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 6	100	0	1	..	..	..	0	0	..	0	0
" 8		0	1	..	..	..	0	0	..	+	+
" 9		1	1	..	..	..	0	0	..	0	0
" 13		3	3	..	..	..	0	0	..	0	0
Oct. 6	101	1	2	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	0	0	..	0	+
" 9		1	1	..	..	..	..	..	..	0	0
" 13		2	2	..	..	..	0	0	..	0	0
Oct. 6	102	0	1	..	..	..	0	0	..	0	0
" 8		0	1	..	..	..	0	0	..	0	+
" 9		1	4	..	..	..	..	..	..	+	0
" 13		0	0	..	..	..	0	0	..	0	0
Oct. 6	103	1	0	..	..	..	0	0	..	0	0
" 8		0	1	..	..	..	0	0	..	0	0
" 9		2	4	..	..	..	..	..	..	+	0
" 13		1	1	..	..	..	0	0	..	0	0
Oct. 6	104	2	0	..	..	..	0	0	..	0	0
" 8		0	5	..	..	..	0	0	..	0	0
" 9		2	4	..	..	..	..	..	..	+	0
" 13		0	2	..	..	..	0	0	..	0	0
Oct. 6	105	0	0	..	..	..	0	0	..	0	0
" 8		1	1	..	..	..	0	0	..	0	0
" 9		3	3	..	..	..	..	..	..	+	0
" 13		1	1	..	..	..	0	0	..	0	0
Oct. 6	106	0	0	..	..	..	0	0	..	0	0
" 8		2	1	..	..	..	0	0	..	0	0
" 9		4	2	..	..	..	..	..	..	+	0
" 13		1	4	..	..	..	0	0	..	0	0
Oct. 6	107	0	6	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	0	0	..	0	0
" 9		2	0	..	..	..	..	..	..	+	0
" 13		2	1	..	..	..	0	0	..	0	0
Oct. 6	108	0	0	..	..	..	0	0	..	0	0
" 8		1	0	..	..	..	0	0	..	0	0
" 9		1	1	..	..	..	..	..	..	0	0
" 13		2	3	..	..	..	0	0	..	0	0
Oct. 6	109	0	0	..	..	..	0	0	..	0	0
" 8		0	1	..	..	..	0	0	..	0	0
" 9		0	2	..	..	..	..	..	..	0	0
" 13		0	1	..	..	..	0	0	..	0	0
Oct. 6	110	1	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	0	0	..	0	0
" 9		0	2	..	..	..	..	..	..	0	0
" 13		0	3	..	..	..	0	0	..	0	0
Averages		**0.79**	**1.**	**0**	**.4**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation – Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation – Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 6	111	0	0	..	..	..	0	0	..	0	0
" 8		2	2	..	..	..	..	..	..	+	+
" 9		8	0	..	..	..	..	..	..	+	0
" 13		2	4	..	..	..	0	0	..	0	0
Oct. 6	112	0	1	..	..	..	0	0	..	0	0
" 8		3	3	..	..	..	..	..	..	+	0
" 9		6	3	..	..	..	..	..	..	+	0
" 13		1	2	..	..	..	..	..	..	0	0
Oct. 6	113	2	4	..	..	..	0	0	..	0	0
" 8		2	6	..	..	..	..	..	..	+	+
" 9		3	0	..	..	..	..	..	..	+	0
" 13		1	0	..	..	..	0	0	..	0	0
Oct. 6	114	0	2	..	..	..	0	0	..	0	0
" 8		17	0	..	..	..	..	..	..	+	+
" 9		0	2	..	..	..	..	..	..	+	0
" 13		1	1	..	..	..	0	0	..	0	0
Oct. 6	115	0	0	..	..	..	0	0	..	0	0
" 8		9	0	..	..	..	..	0	..	+	+
" 9		1	6	..	..	..	..	..	..	0	0
" 13		2	1	..	..	..	0	0	..	0	0
Oct. 6	116	0	0	..	..	..	0	0	..	0	0
" 8		3	2	..	..	..	..	0	..	+	0
" 9		3	3	..	..	..	..	..	..	0	0
" 13		9	2	..	..	..	0	0	..	0	0
Oct. 6	117	0	0	..	..	..	0	0	..	0	0
" 8		1	0	..	..	..	..	..	..	+	0
" 9		2	2	..	..	..	..	..	..	0	0
" 13		3	5	..	..	..	0	0	..	0	0
Oct. 6	118	0	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	..	..	..	0	0
" 9		4	3	..	..	..	..	..	..	+	0
" 13		4	6	..	..	..	0	0	..	0	0
Oct. 6	119	1	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	..	..	..	0	0
" 9		1	4	..	..	..	..	..	..	+	0
" 13		1	3	..	..	..	0	0	..	0	0
Averages		**2.5**	**1.87**	**0**	**.8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Stanley. Waters of Centre and Eastern End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 6.....	120	1	1	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	..	..	..	0	+
" 9.....		3	2	..	..	..	..	..	..	0	0
" 13.....		25	9	..	..	..	0	0	..	0	0
Oct. 6.....	121	0	0	..	..	..	0	0	..	0	0
" 8.....		0	1	..	..	..	..	..	..	0	0
" 9.....		14	3	..	..	..	..	..	..	+	0
" 13.....		1	8	..	..	..	0	0	..	+	..
Oct. 6.....	122	0	..	..	..	..	0	0	..	0	0
" 8.....		2	0	..	..	..	..	..	..	0	0
" 9.....		450	2	..	..	..	..	..	..	0	0
" 13.....		2	11	..	..	..	0	0	..	0	0
Oct. 6.....	123	1	..	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	..	..	..	0	0
" 9.....		0	0	..	..	..	..	..	..	0	0
" 13.....		0	18	..	..	..	0	0	..	+	0
Oct. 6.....	124	0	1	..	..	..	0	0	..	0	0
" 8.....		5	0	..	..	..	..	..	..	0	0
" 9.....		5	2	..	..	..	..	..	..	0	0
" 13.....		3	5	..	..	..	0	0	..	+	0
Oct. 6.....	125	2	2	..	..	..	0	0	..	0	0
" 8.....		6	0	..	..	..	..	..	..	0	+
" 9.....		3	0	..	..	..	..	..	..	0	0
" 13.....		6	8	..	..	..	0	0	..	0	0
Oct. 6.....	126	1	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	..	..	..	0	0
" 9.....		3	2	..	..	..	..	..	..	0	0
" 13.....		1	3	..	..	..	0	0	..	0	0
Oct. 6.....	127	0	3	..	..	..	0	0	..	0	0
" 8.....		4	1	..	..	..	..	..	..	0	0
" 9.....		1	2	..	..	..	..	..	..	0	0
" 13.....		2	1	..	..	..	0	0	..	0	0
Oct. 6.....	128	1	1	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	..	..	..	0	+
" 9.....		0	0	..	..	..	..	..	..	0	0
" 13.....		3	5	..	..	..	0	0	..	0	0
Oct. 6.....	129	0	0	..	..	..	0	0	..	0	0
" 8.....		0	1	..	..	..	..	..	..	0	0
" 9.....		1	1	..	..	..	..	..	..	0	0
" 13.....		0	8	..	..	..	0	0	..	0	0
Oct. 6.....	130	1	1	..	..	..	0	0	..	0	0
" 8.....		3	0	..	..	..	0	0	..	0	0
" 9.....		5	0	..	..	..	0	0	..	0	0
" 13.....		1	11	..	..	..	0	0	..	0	0
Oct. 6.....	131	0	0	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		1	3	..	..	..	0	0	..	0	0
" 13.....		2	2	..	..	..	0	0	..	0	0
Averages.....		**11.9**	**2.5**	**1.**	**87**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 6.....	132	100	0	..	0	0	0	0	..	0	+
" 7.....		4400	160	..	0	0	0	0	..	+	0
" 8.....		54	19	..	..	0	0	0	..	+	+
" 9.....		140	20	..	..	+	+	+	..	+	0
" 13.....		94	240	..	0	0	+	+	..	0	+
" 14.....		110	64	..	..	0	0	0	..	+	+
Oct. 6.....	133	100	140	..	0	0	0	0	..	0	+
" 7.....		6800	110	..	0	0	0	+	..	+	+
" 8.....		80	11	..	..	0	+	+	..	+	+
" 9.....		140	60	..	..	+	+	+	..	+	0
" 13.....		170	48	..	0	+	+	0	..	+	+
" 14.....		150	25	..	..	0	0	+	..	+	+
Oct. 6.....		100	380	..	0	0	+	+	..	+	+
" 7.....		3800	140	..	0	0	0	0	..	+	0
" 8.....		60	30	..	..	0	+	+	..	+	+
" 9.....		160	120	..	0	+	+	+	..	+	0
" 13.....		225	120	..	0	+	+	0	..	+	+
" 14.....		100	50	..	..	0	+	+	..	+	+
Averages.....		**832.4**	**98**	**2**	**07**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Oct. 6.....	137	0	0	..	..	..	0	0	..	0	0
" 8.....		0	4	..	..	..	0	0	..	0	0
" 9.....		5	0	..	..	..	..	..	..	0	0
" 13.....		2	3	..	..	..	0	0	..	0	0
Oct. 6.....	138	1	0	..	..	..	0	0	..	0	0
" 8.....		0	1	..	..	..	0	0	..	0	0
" 9.....		3	0	..	..	..	..	..	..	0	0
" 13.....		3	1	..	..	..	0	0	..	0	0
Oct. 6.....	139	0	1	..	..	..	0	0	..	0	0
" 8.....		0	0	..	..	..	0	0	..	0	0
" 9.....		1	0	..	..	..	..	..	..	0	0
" 13.....		0	0	..	..	..	0	0	..	0	0
Oct. 6.....	140	0	0	..	..	..	0	0	..	0	0
" 8.....		1	0	..	..	..	..	..	..	0	0
" 9.....		2	0	..	..	..	..	..	..	0	0
" 13.....		1	0	..	..	..	0	0	..	0	0
Oct. 6.....	141	0	0	..	..	..	0	0	..	0	0
" 8.....		0	1	..	..	..	..	..	..	0	0
" 9.....		0	2	..	..	..	..	..	..	0	0
" 13.....		0	6	..	..	..	0	0	..	0	0
Averages.....		**0.9**	**0.9**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Port Stanley. Waters of Centre and Eastern End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 6	142	0	1	..	..	..	0	0	..	0	0
" 8		8	0	..	..	..	..	..	..	0	0
" 9		0	2	..	..	..	..	..	..	0	0
" 13		0	0	..	..	..	0	+	..	0	0
Oct. 6	143	0	1	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	..	..	..	0	0
" 9		0	0	..	..	..	..	..	..	0	0
" 13		1	2	..	..	..	0	0	..	0	0
Oct. 6	144	0	13	..	..	..	0	0	..	0	0
" 8		6	1	..	..	..	..	..	..	0	0
" 9		1	0	..	..	..	..	..	..	0	0
" 13		1	3	..	..	..	0	0	..	0	0
Oct. 6	145	0	0	..	..	..	0	0	..	0	0
" 8		0	1	..	..	..	..	..	..	0	0
" 9		1	0	..	..	..	..	..	..	0	0
" 13		2	5	..	..	..	0	0	..	0	0
Oct. 6	146	1	1	..	..	..	0	0	..	0	0
" 8		0	1	..	..	..	..	..	..	0	0
" 9		1	0	..	..	..	..	..	..	0	0
" 13		0	2	..	..	..	0	0	..	0	0
Oct. 6	147	0	0	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	..	..	..	0	0
" 9		1	1	..	..	..	..	..	..	0	0
" 13		0	1	..	..	..	0	0	..	0	0
Averages		.96	1.46	0	B.	Co	li	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 6	148	1	0	..	..	..	0	0	..	0	0
" 8		0	1	..	..	..	..	..	..	0	0
" 9		2	4	..	..	..	..	..	..	0	0
" 13		0	3	..	..	..	0	0	..	0	0
Oct. 6	149	0	1	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	..	..	..	0	0
" 9		1	2	..	..	..	..	..	..	0	0
" 13		1	2	..	..	..	0	0	..	0	0
Oct. 6	150	3	1	..	..	..	0	0	..	0	0
" 8		0	0	..	..	..	..	..	..	0	0
" 9		0	0	..	..	..	..	..	..	0	0
" 13		0	5	..	..	..	0	0	..	0	0
Oct. 6	151	0	0	..	..	..	0	0	..	0	0
" 8		3	0	..	..	..	..	..	..	0	0
" 9		2	0	..	..	..	..	..	..	0	0
" 13		1	90	..	..	..	0	+	..	0	0
Oct. 6	152	1	1	..	..	..	0	0	..	0	0
" 8		8	2	..	..	..	..	..	..	0	0
" 9		1	1	..	..	..	..	..	..	0	0
" 13		2	3	..	..	..	0	0	..	0	0
Oct. 6	153	3	1	..	..	..	0	0	..	0	0
" 8		2	0	..	..	..	..	..	..	0	0
" 9		3	0	..	..	..	..	..	..	0	0
" 13		2	5	..	..	..	0	0	..	0	0
Averages		1	5	0	B.	Co	li	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Waters of Centre and Eastern End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	1	1	17	..	..	..	0	0	..	0	0
" 27		5	0	..	..	..	0	0	..	0	0
" 28		2	2	..	..	..	0	0	..	0	0
" 29		5	0	..	..	..	0	0	..	0	0
" 30		1	2	..	..	..	0	0	..	0	0
June 2		3	0	..	..	..	0	0	..	0	0
" 3		3	3	..	..	..	0	0	..	0	0
" 4		6	2	..	..	..	0	0	..	0	0
" 5		3	3	..	..	..	0	0	..	0	0
" 7		..	spreader	..	..	..	0	0	..	0	0
" 9		0	3	..	..	..	0	0	..	0	0
" 10		14	3	..	..	..	0	0	..	0	0
" 12		5	2	..	..	..	0	0	..	0	0
" 17		24	172	..	..	..	0	0	..	0	0
Averages		**5**	**3**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	2	3	20	..	..	..	0	0	..	0	0
" 27		3	6	..	..	..	0	0	..	0	0
" 28		3	1	..	..	..	0	0	..	0	0
" 29		9	2	..	..	..	0	+	..	0	0
" 30		..	1	..	..	..	0	0	..	+	+
June 2		7	spreader	..	..	..	0	0	..	0	0
" 3		2	spreader	..	..	..	0	0	..	0	0
" 4		0	spreader	..	..	..	0	0	..	0	0
" 5		2	1	..	..	..	0	0	..	0	0
" 7		3	4	..	..	..	0	0	..	0	0
" 9		1	spreader	..	..	..	0	0	..	0	+
" 10		16	spreader	..	..	..	0	0	..	0	0
" 11		..	spreader	..	..	..	0	0	..	0	0
" 12		10	2	..	..	..	0	0	..	0	0
" 17		1	48	..	..	..	0	0	..	0	+
Averages		**5**	**9**	**0**	**.6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	3	3	..	..	..	..	0	0	..	0	0
" 27		2	4	..	..	..	0	0	..	0	0
" 28		2	2	..	..	..	0	0	..	0	+
" 29		94	2	..	..	..	0	0	..	0	0
" 30		1	1	..	..	..	0	0	..	0	0
June 2		1	1	..	..	..	0	0	..	0	0
" 3		3	2	..	..	..	0	0	..	0	0
" 4		1	0	..	..	..	0	0	..	0	0
" 5		3	spreader	..	..	..	0	0	..	0	0
" 7		1	2	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 10	3	3	45	..	..	..	0	0	..	0	0
" 11		4	4	..	..	..	0	0	..	0	0
" 12		192	30	..	..	..	0	0	..	0	0
" 17		17	6	..	..	..	0	0	..	0	0
Averages		**23.3**	**8**	**0**	**.1**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	4	0	3	..	..	..	0	0	..	0	0
" 27		3	3	..	..	..	0	0	..	0	0
" 28		2	2	..	..	..	0	0	..	0	0
" 29		3	2	..	..	..	0	0	..	0	0
" 30		0	3	..	..	..	0	0	..	0	0
June 2		0	4	..	..	..	0	0	..	0	0
" 3		2	3	..	..	..	0	0	..	0	0
" 4		4	2	..	..	..	0	0	..	0	0
" 5		3	25	..	..	..	0	0	..	0	0
" 7		2	spreader	..	..	..	0	0	..	0	0
" 9		1	3	..	..	..	0	0	..	0	0
" 10		8	6	..	..	..	0	0	..	0	0
" 11		0	3	..	..	..	0	0	..	0	0
" 12		20	1	..	..	..	0	0	..	0	0
" 17		10	8	..	..	..	0	0	..	0	0
Averages		**3**	**4**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	5	0	6	..	..	..	0	0	..	0	0
" 27		2	4	..	..	..	0	0	..	0	0
" 28		0	1	..	..	..	0	0	..	0	0
" 29		4	4	..	..	..	0	0	..	0	0
" 30		2	5	..	..	..	0	0	..	0	0
June 2		2	2	..	..	..	0	0	..	0	0
" 3		4	4	..	..	..	0	0	..	0	0
" 4		3	spreader	..	..	..	0	0	..	0	0
" 5		1	10	..	..	..	0	0	..	0	0
" 7		2	6	..	..	..	0	0	..	0	0
" 9		0	1	..	..	..	0	0	..	0	0
" 10		0	1	..	..	..	0	0	..	0	0
" 11		..	..	..	..	..	0	0	..	0	0
" 12		1	1	..	..	..	0	0	..	0	+
" 17		9	12	..	..	..	0	0	..	0	0
Averages		**2**	**4**	**0**	**.1**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Waters of Centre and Eastern End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	6	3	19	..	..	..	0	0	..	0	0
" 27		4	4	..	..	..	0	0	..	0	0
" 28		4	2	..	..	..	0	0	..	0	0
" 29		12	3	..	..	..	0	0	..	0	0
" 30		4	3	..	..	..	0	0	..	0	0
June 2		1	3	..	..	..	0	0	..	0	0
" 3		3	spreader	..	..	..	0	0	..	0	0
" 4		1	spreader	..	..	..	0	0	..	0	0
" 5		1	1	..	..	..	0	0	..	0	0
" 7		0	spreader	..	..	..	0	0	..	0	0
" 9		1	0	..	..	..	0	0	..	0	0
" 10		4	6	..	..	..	0	0	..	0	0
" 11		2	2	..	..	..	0	0	..	0	0
" 12		0	3	..	..	..	0	0	..	0	0
" 17		29	18	..	..	..	0	0	..	0	0
Averages		**4**	**5**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	7	3	spreader	..	..	..	0	0	..	0	0
" 27		3	10	..	..	..	0	0	..	0	0
" 28		1	1	..	..	..	0	0	..	0	0
" 29		3	0	..	..	..	0	0	..	0	0
" 30		7	2	..	..	..	0	0	..	0	0
June 2		2	1	..	..	..	0	0	..	0	0
" 3		3	spreader	..	..	..	0	0	..	0	0
" 4		3	7	..	..	..	0	0	..	0	0
" 5		1	0	..	..	..	0	0	..	0	0
" 7		1	3	..	..	..	0	0	..	0	0
" 9		2	0	..	..	..	0	0	..	0	0
" 10		1	57	..	..	..	0	0	..	0	0
" 11		1	2	..	..	..	0	0	..	0	0
" 17		8	spreader	..	..	..	0	0	..	0	0
Averages		**2**	**7**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	8	4	25	..	..	..	0	0	..	0	0
" 27		3	4	..	..	..	0	0	..	0	0
" 28		0	0	..	..	..	0	0	..	0	0
" 29		4	3	..	..	..	0	0	..	0	0
" 30		2	0	..	..	..	0	0	..	0	0
June 2		0	2	..	..	..	0	0	..	0	0
" 3		0	spreader	..	..	..	0	0	..	0	0
" 4		2	2	..	..	..	0	0	..	0	0
" 5		2	2	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 7	8	2	4	..	..	..	0	0	..	0	0
" 9		0	2	..	..	..	0	0	..	0	0
" 10		1	5	..	..	..	0	0	..	0	0
" 11		0	1	..	..	..	0	0	..	0	0
" 12		3	0	..	..	..	0	0	..	0	0
" 17		540	spreader	..	..	..	0	0	..	0	+
Averages		**37.5**	**3**	**0**	**.1**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	9	2	8	..	..	..	0	0	..	0	0
" 27		5	6	..	..	..	0	0	..	+	0
" 28		0	2	..	..	..	0	0	..	0	0
" 29		4	1	..	..	..	0	0	..	0	0
" 30		1	2	..	..	..	0	0	..	0	0
June 2		10	12	..	..	..	0	0	..	0	0
" 3		6	spreader	..	..	..	0	0	..	0	0
" 4		2	5	..	..	..	0	0	..	0	0
" 5		3	3	..	..	..	0	0	..	0	0
" 7		2	0	..	..	..	0	0	..	0	0
" 9		2	3	..	..	..	0	0	..	0	0
" 10		0	18	..	..	..	0	0	..	0	0
" 11		1	2	..	..	..	0	0	..	0	0
" 12		0	3	..	..	..	0	0	..	0	0
" 17		1000	32	..	..	..	0	0	..	0	0
Averages		**2**	**6**	**0**	**.2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	10	0	13	..	..	..	0	0	..	0	0
" 27		3	spreader	..	..	..	0	0	..	0	0
" 28		0	1	..	..	..	0	0	..	0	+
" 29		3	1	..	..	..	0	0	..	0	0
" 30		1	2	..	..	..	0	0	..	0	0
June 2		4	44	..	..	..	0	0	..	0	0
" 3		6	6	..	..	..	0	0	..	0	0
" 4		1	0	..	..	..	0	0	..	0	0
" 5		2	0	..	..	..	0	0	..	0	0
" 7		11	5	..	..	..	0	0	..	0	0
" 9		0	1	..	..	..	0	0	..	0	0
" 10		15	10	..	..	..	0	0	..	0	0
" 11		0	6	..	..	..	0	0	..	0	0
" 12		1	0	..	..	..	0	0	..	0	0
" 17		spreader	28	..	..	..	0	+	..	+	+
Averages		**3**	**8**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Waters of Centre and Eastern End of Lake Erie.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	11	4	..	..	..	..	0	0	..	0	0
" 27		4	6	..	..	..	0	0	..	0	+
" 28		1	0	..	..	..	0	0	..	0	0
" 29		3	0	..	..	..	0	0	..	0	0
" 30		2	2	..	..	..	0	+	..	0	0
June 2		12	8	..	..	..	0	0	..	+	+
" 3		4	9	..	..	..	0	0	..	0	0
" 4		2	spreader	..	..	..	0	0	..	0	0
" 5		8	2	..	..	..	0	0	..	0	0
" 7		..	2	..	..	..	0	0	..	0	0
" 9		0	5	..	..	..	0	0	..	0	0
" 10		2	20	..	..	..	0	0	..	0	0
" 11		1	spreader	..	..	..	0	0	..	0	0
" 12		1	1	..	..	..	0	+	..	0	+
" 17		9	spreader	..	..	..	0	0	..	0	0
Averages		**5**	**5**	**0**	**.8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	12	2	3	..	..	..	0	0	..	0	0
" 27		3	spreader	..	..	..	0	0	..	0	0
" 28		2	0	..	..	..	0	0	..	0	0
" 29		6	0	..	..	..	0	0	..	0	0
" 30		..	..	..	..	..	..	..	..	..	..
June 2		9	12	..	..	..	0	0	..	+	+
" 3		4	7	..	..	..	0	0	..	0	0
" 4		2	2	..	..	..	0	0	..	0	0
" 5		22	16	..	..	..	0	0	..	0	0
" 7		3	3	..	..	..	0	0	..	0	0
" 9		0	6	..	..	..	0	0	..	0	0
" 10		15	spreader	..	..	..	0	0	..	0	0
" 11		0	0	..	..	..	0	0	..	0	0
" 12		2	3	..	..	..	0	0	..	0	0
" 17		3	12	..	..	..	0	0	..	0	0
Averages		**5**	**5**	**0**	**.2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	13	4	4	..	..	..	0	0	..	+	+
" 27		2	0	..	..	..	0	0	..	+	0
" 28		1	1	..	..	..	0	0	..	0	0
" 29		5	1	..	..	..	0	0	..	0	0
" 30		2	2	..	..	..	0	0	..	0	0
June 2		14	46	..	..	..	0	0	..	+	+
" 3		3	spreader	..	..	..	0	0	..	0	0
" 4		0	spreader	..	..	..	0	0	..	0	+
" 5		spreader	spreader	..	..	..	+	0	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 7	13	3	spreader	..	..	..	0	0	..	0	0
" 9		1	8	..	..	..	0	0	..	0	+
" 10		25	8	..	..	..	0	0	..	0	0
" 11		0	24	..	..	..	0	0	..	0	0
" 12		5	1	..	..	..	0	0	..	0	0
" 17		4	8	..	..	..	0	0	..	0	0
Averages		**4**	**8**	**2**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	14	6	4	..	..	..	0	0	..	+	+
" 27		4	9	..	..	..	0	0	..	+	0
" 28		1	0	..	..	..	0	0	..	+	0
" 29		3	4	..	..	..	0	0	..	0	0
" 30		18	3	..	..	..	0	0	..	0	0
June 2		7	17	..	..	..	+	0	..	+	+
" 3		2	spreader	..	..	..	0	0	..	0	0
" 4		3	1	..	..	..	0	0	..	+	+
" 5		spreader	spreader	..	..	..	0	+	..	+	+
" 7		4	spreader	..	..	..	0	0	..	0	0
" 9		2	1	..	..	..	0	0	..	0	0
" 10		116	4	..	..	..	0	0	..	0	0
" 11		3	34	..	..	..	0	0	..	0	0
" 12		2	1	..	..	..	0	0	..	0	0
" 17		3	6	..	..	..	0	0	..	0	0
Averages		**12.3**	**7**	**3**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	15	10	9	..	..	..	0	0	..	+	+
" 27		5	3	..	..	..	0	0	..	0	+
" 28		0	6	..	..	..	0	0	..	0	0
" 29		8	5	..	..	..	0	0	..	0	0
" 30		73	14	..	..	..	+	+	..	+	+
June 2		1	4	..	..	..	0	0	..	+	+
" 3		2	spreader	..	..	..	0	0	..	0	+
" 4		1	3	..	..	..	0	+	..	+	+
" 5		244	spreader	..	..	..	0	0	..	+	+
" 7		9	6	..	..	..	0	+	..	0	0
" 9		1	3	..	..	..	0	0	..	0	0
" 10		0	10	..	..	..	0	0	..	0	0
" 11		0	12	..	..	..	0	0	..	0	0
" 12		5	3	..	..	..	0	0	..	0	+
" 17		3	8	..	..	..	0	+	..	0	+
Averages		**24.1**	**6**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26.....	16	14	8	..	..	..	0	0	..	+	+
" 27.....		2	4	..	..	..	0	0	..	0	0
" 28.....		0	0	..	..	..	0	0	..	0	0
" 29.....		7	3	..	..	..	0	+	..	0	+
" 30.....		516	58	..	..	..	+	+	..	+	+
June 2.....		6	spreader	..	..	..	0	+	..	0	+
" 3.....		140	spreader	..	..	..	0	+	..	+	+
" 4.....		24	5	..	..	..	0	0	..	+	+
" 5.....		3720	4	..	..	..	0	0	..	0	+
" 7.....		8	7	..	..	..	0	0	..	0	0
" 9.....		6	8	..	..	..	0	0	..	0	0
" 10.....		7	10	..	..	..	0	0	..	0	+
" 11.....		7	14	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 12.....	16	8	5	..	..	..	0	0	..	+	0
" 17.....		17	10	..	..	..	+	+	..	+	+
Averages.....		**54.4**	**10.4**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 17.....	16a	326	20	..	..	..	0	0	..	+	+
" 17.....	16a	32	10	..	..	..	0	0	..	+	+
" 17.....	16b	16	8	..	..	..	0	0	..	+	+
" 17.....	16c	18	32	..	..	..	0	0	..	0	+
" 17.....	16d	34	12	..	..	..	0	+	..	+	+
" 17.....	16e	18	16	..	..	..	0	0	..	0	0
Averages.....		**74**	**16**	**5**	**.6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Waters of Lake Erie and the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Niagara Falls N.Y. Tap											
June 6		4	3	..	..	..	0	0	..	0	0
" 7		1	spreader	..	..	..	0	0	..	0	0
" 10		2	spreader	..	..	..	0	0	..	0	0
" 11		3	..	..	..	..	0	0	..	0	0
" 12		..	spreader	..	..	..	0	0	..	0	0
" 13		..	5	..	..	..	..	..	..	..	..
Western N Y. Water Co. Tap											
June 5		0	9	..	..	..	0	0	..	0	0
" 6		7	18	..	..	..	0	0	..	0	0
" 7		spreader	3	..	..	..	0	0	..	0	0
" 10		2	13	..	..	..	0	+	..	+	+
" 11		2	1	..	..	..	0	0	..	0	+
Niagara Falls Ont. Tap											
June 5		18	18	..	..	..	0	+	..	+	+
" 6		6	9	..	..	..	0	0	..	+	+
" 7		4	6	..	..	..	0	+	..	+	+
" 9		1	3	..	..	..	0	0	..	+	+
" 10		4	3	..	..	..	0	+	..	+	+
" 11		1	4	..	..	..	0	0	..	0	+
May 26	17	12	4	..	..	..	0	0	..	0	0
" 27		5	6	..	..	..	0	0	..	0	0
" 28		1	0	..	..	..	0	0	..	0	0
" 29		5	4	..	..	..	0	0	..	0	+
" 30		5	0	..	..	..	0	0	..	0	0
" 31		5	spreader	..	..	..	0	0	..	0	+
June 2		2	spreader	..	..	..	0	0	..	0	0
" 3		8	3	..	..	..	0	0	..	0	0
" 4		24	3	..	..	..	+	0	..	+	+
" 5		25	2	..	..	..	0	0	..	0	0
" 7		3	5	..	..	..	0	0	..	0	+
" 9		1	2	..	..	..	0	0	..	0	0
" 10		1	8	..	..	..	0	0	..	0	0
" 11		0	9	..	..	..	0	0	..	0	+
" 12		2	2	..	..	..	0	0	..	0	0
Averages		**6**	**3**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	18	8	7	..	..	..	0	0	..	0	0
" 27		2	4	..	..	..	0	0	..	0	0
" 28		2	0	..	..	..	0	0	..	0	0
" 29		5	1	..	..	..	0	0	..	0	0
" 30		2	1	..	..	..	0	+	..	+	0
" 31		30	10	..	..	..	0	0	..	+	+
June 2		2	2	..	..	..	0	0	..	0	0
" 3		2	4	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 4	18	12	10	..	..	..	0	0	..	+	+
" 5		9	5	..	..	..	0	0	..	0	0
" 7		5	6	..	..	..	0	0	..	0	0
" 9		0	1	..	..	..	0	0	..	0	0
" 10		5	32	..	..	..	0	0	..	0	0
" 11		5	6	..	..	..	0	0	..	0	+
" 12		1	4	..	..	..	0	0	..	+	0
Averages		**6**	**6**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	19	8	4	..	..	..	0	+	..	0	+
" 27		150	6	..	..	..	0	0	..	0	0
" 28		0	0	..	..	..	0	0	..	0	+
" 29		8	1	..	..	..	0	0	..	0	+
" 30		0	6	..	..	..	0	0	..	+	+
" 31		29	12	..	..	..	0	0	..	+	+
June 2		0	2	..	..	..	0	0	..	0	0
" 3		3	6	..	..	..	0	0	..	0	+
" 4		176	spreader	..	..	..	+	+	..	+	+
" 5		4	4	..	..	..	+	0	..	0	+
" 7		3	spreader	..	..	..	0	0	..	0	0
" 9		0	2	..	..	..	0	0	..	0	0
" 11		2	3	..	..	..	0	0	..	0	0
" 12		12	2	..	..	..	0	0	..	0	+
Averages		**28.2**	**4**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	20	54	14	..	..	..	0	+	..	+	+
" 27		6	3	..	..	..	0	0	..	0	0
" 28		2	0	..	..	..	0	0	..	0	0
" 29		14	2	..	..	..	+	+		+	+
" 30		..	28	..	..	..	0	0	..	+	+
" 31		42	24	..	..	..	0	0	..	+	+
June 2		3	5	..	..	..	0	0	..	+	+
" 3		4	4	..	..	..	0	0	..	0	+
" 4		104	spreader	..	..	..	0	0	..	+	+
" 5		spreader	10	..	..	..	0	0	..	+	0
" 7		3	4	..	..	..	0	0	..	+	0
" 9		0	5	..	..	..	0	0	..	0	0
" 10		2	4	..	..	..	0	0	..	0	0
" 11		1	6	..	..	..	0	0	..	0	0
" 12		7	0	..	..	..	0	0	..	0	0
Averages		**18.8**	**7**	**9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	21	68	5	..	..	..	0	0	..	0	0
" 27		5	8	..	..	..	0	0	..	0	+
" 28		2	1	..	..	..	0	0	..	0	0
" 29		14	spreader	..	..	..	+	+	..	+	+
" 30		14	3	..	..	..	0	+	..	+	+
" 31		102	14	..	..	..	+	0	..	+	+
June 2		70	180	..	..	..	0	0	..	+	+
" 3		20	7	..	..	..	0	+	..	+	+
" 4		34	spreader	..	..	..	0	0	..	+	+
" 5		13	3	..	..	..	+	+	..	+	+
" 7		7	5	..	..	..	0	0	..	+	+
" 9		4	4	..	..	..	0	0	..	0	0
" 10		1	19	..	..		0	0	..	0	0
" 11		0	2	..	..	..	0	0	..	0	0
" 12		15	4	..	..	..	0	0	..	0	+
Averages		**25**	**18.6**	**1**	**8**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 26	22	..	60	..	..	..	0	+	..	+	+
" 27		4	6	..	..	..	0	+	..	+	+
" 28		4	2	..	..	..	0	0	..	0	0
" 29		16	1	..	..	..	0	0	..	0	+
" 30		520	5	..	..	..	0	+	..	+	+
" 31		226	spreader	..	..	..	0	+	..	+	+
June 2		4	spreader	..	..	..	0	0	..	+	+
" 3		6	6	..	..	..	0	+	..	+	+
" 4		56	spreader	..	..	..	0	0	..	+	+
" 5		24	26	..	..	..	0	0	..	+	+
" 7		14	6	..	..	..	0	0	..	+	+
" 9		6	2	..	..	..	0	0	..	0	0
" 10		20	8	..	..	..	0	0	..	0	0
" 11		2	spreader	..	..	..	0	0	..	0	+
" 12		15	1	..	..	..	0	+	..	0	+
Averages		**65.5**	**11.1**	**8**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 26	23	18	14	..	..	..	0	0	..	+	+
" 27		5	8	..	..	..	0	0	..	+	+
" 28		2	2	..	..	..	0	0	..	0	+
" 29		38	3	..	..	..	0	+	..	+	+
" 30		45	2	..	..	..	0	0	..	0	+
" 31		140	34	..	..	..	0	0	..	+	+
June 2		9	14	..	..	..	0	0	..	0	+
" 3		22	2	..	..	..	0	+	..	+	+
June 4	23	51	spreader	..	..	..	+	0	..	+	+
" 5		..	..	..	..	..	0	+	..	+	+
" 7		350	spreader	..	..	..	0	+	..	+	+
" 9		41	2	..	..	..	0	0	..	0	0
" 10		6	34	..	..	..	0	0	..	0	+
" 11		21	spreader	..	..	..	0	+	..	+	+
" 12		280	2	..	..	..	0	0	..	+	+
Averages		**73.2**	**10.6**	**9**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 26	24	10	6	..	..	..	0	+	..	0	0
" 27		6	8	..	..	..	0	0	..	0	0
" 28		5	0	..	..	..	0	0	..	0	0
" 29		36	2	..	..	..	0	+	..	+	+
" 30		200	14	..	..	..	0	0	..	+	+
" 31		260	94	..	..	..	0	+	..	+	+
June 2		4	spreader	..	..	..	0	0	..	+	+
" 3		650	520	..	..	..	+	+	..	+	+
" 4		420	16	..	..	..	+	0	..	+	+
" 5		..	..	..	..	..	0	+	..	+	+
" 7		416	24	..	..	..	+	+	..	+	+
" 9		3	2	..	..	..	0	0	..	0	0
" 10		1	40	..	..	..	0	0	..	0	0
" 11		33	55	..	..	..	0	+	..	+	+
" 12		670	84	..	..	..	+	+	..	+	+
Averages		**183.8**	**66.5**	**27**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 26	25	10	2	..	..	..	0	0	..	0	0
" 27		5	6	..	..	..	0	+	..	0	+
" 28		3	1	..	..	..	0	0	..	0	0
" 29		10	15	..	..	..	0	0	..	0	0
" 30		10	47	..	..	..	0	0	..	0	+
" 31		68	26	..	..	..	0	0	..	+	+
June 2		1	4	..	..	..	0	0	..	0	+
" 3		62	3	..	..	..	0	+	..	+	+
" 4		27	78	..	..	..	0	0	..	0	+
" 5		..	..	..	..	..	+	+	..	+	+
" 7		84	28	..	..	..	+	+	..	+	+
" 9		10	5	..	..	..	0	0	..	0	0
" 10		2	38	..	..	..	0	0	..	0	0
" 11		41	spreader	..	..	..	0	+	..	0	0
" 12		5	1	..	..	..	0	+	..	0	0
Averages		**24.1**	**18.5**	**1**	**5**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

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May 26.....	26	8	7	..	..	..	0	+	..	0	0
" 27.....		3	3	..	..	..	0	0	..	+	0
" 28.....		5	1	..	..	..	0	0	..	0	0
" 29.....		5	3	..	..	..	0	+	..	0	0
" 30.....		13	2	..	..	..	0	0	..	0	0
" 31.....		44	14	..	..	..	0	+	..	+	+
June 2.....		2	5	..	..	..	0	0	..	+	+
" 3.....		14	6	..	..	..	+	+	..	+	+
" 4.....		21	spreader	..	..	..	0	0	..	0	+
" 5.....		..	..	..	..	..	+	+	..	+	+
" 7.....		39	spreader	..	..	..	0	+	..	+	+
" 9.....		2	3	..	..	..	0	0	..	0	0
" 10.....		38	37	..	..	..	0	0	..	0	0
" 11.....		16	spreader	..	..	..	0	0	..	0	0
" 12.....		160	75	..	..	..	0	0	..	0	+
Averages.....		**26.4**	**14.1**	**16**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26.....	27	6	8	..	..	..	0	+	..	+	0
" 27.....		4	4	..	..	..	0	0	..	+	0
" 28.....		4	7	..	..	..	0	0	..	0	0
" 29.....		12	3	..	..	..	0	+	..	0	0
" 30.....		..	..	..	..	..	..	..	..	..	..
" 31.....		46	34	..	..	..	0	0	..	+	+
June 2.....		3	spreader	..	..	..	0	0	..	+	+
" 3.....		8	6	..	..	..	0	+	..	+	+
" 4.....		7	spreader	..	..	..	0	0	..	0	0
" 5.....		3	..	..	..	..	+	+	..	+	+
" 9.....		0	2	..	..	..	0	0	..	0	0
" 10.....		960	51	..	..	..	0	0	..	0	0
" 11.....		10	56	..	..	..	0	0	..	0	0
" 12.....		3	6	..	..	..	0	0	..	+	0
Averages.....		**82**	**17.7**	**9.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26.....	28	12	19	..	..	..	0	0	..	0	0
" 27.....		5	9	..	..	..	0	0	..	0	0
" 28.....		0	0	..	..	..	0	0	..	0	0
" 29.....		12	3	..	..	..	0	0	..	0	0
" 30.....		144	143	..	..	..	0	0	..	0	0
" 31.....		28	34	..	..	..	0	0	..	+	+
June 2.....		3	5	..	..	..	0	0	..	+	+
" 3.....		6	3	..	..	..	0	0	..	0	0
June 4.....	28	70	22	..	..	..	0	0	..	0	+
" 5.....		..	..	..	..	..	0	0	..	+	+
" 7.....		3	10	..	..	..	0	0	..	+	0
" 9.....		2	5	..	..	..	0	0	..	0	0
" 10.....		0	215	..	..	..	0	0	..	0	0
" 11.....		1	0	..	..	..	0	0	..	0	0
" 12.....		28	18	..	..	..	+	0	..	+	0
Averages.....		**22.4**	**34.7**	**1**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26.....	29	4	4	..	..	..	0	0	..	0	0
" 27.....		3	4	..	..	..	0	0	..	0	0
" 28.....		6	1	..	..	..	0	0	..	0	0
" 29.....		43	20	..	..	..	0	0	..	+	+
" 30.....		40	3	..	..	..	0	0	..	0	0
June 2.....		0	6	..	..	..	0	0	..	0	0
" 3.....		0	2	..	..	..	0	0	..	0	0
" 4.....		2	8	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	0	..	+	0
" 7.....		1	spreader	..	..	..	0	0	..	0	+
" 9.....		1	3	..	..	..	0	0	..	0	0
" 10.....		11	8	..	..	..	0	0	..	0	0
" 11.....		6	0	..	..	..	0	0	..	0	0
" 12.....		134	1	..	..	..	0	0	..	0	0
" 17.....		11	24	..	..	..	0	0	..	0	0
Averages.....		**18.7**	**6.**	**0**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26.....	30	6	7	..	..	..	0	0	..	0	0
" 27.....		2	4	..	..	..	0	0	..	0	0
" 28.....		0	3	..	..	..	0	0	..	0	0
" 29.....		18	5	..	..	..	0	+	..	+	+
" 30.....		14	90	..	..	..	0	0	..	0	0
June 2.....		4	5	..	..	..	0	0	..	+	+
" 3.....		2	1	..	..	..	0	0	..	0	0
" 4.....		4	0	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	0	..	0	0
" 7.....		8	spreader	..	..	..	0	0	..	0	0
" 9.....		2	4	..	..	..	0	0	..	0	0
" 10.....		2	3	..	..	..	0	0	..	0	0
" 11.....		7	2	..	..	..	0	0	..	0	0
" 12.....		2	57	..	..	..	0	0	..	0	0
" 17.....		4	8	..	..	..	0	0	..	0	0
Averages.....		**5**	**14.5**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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May 26	31	0	5	..	..	..	0	0	..	0	0
" 27		12	..	..	..	..	0	0	..	0	0
" 28		5	2	..	..	..	0	0	..	0	0
" 29		6	0	..	..	..	0	0	..	0	0
" 30		8	5	..	..	..	0	0	..	0	0
June 2		2	1	..	..	..	0	0	..	0	0
" 3		0	5	..	..	..	0	0	..	0	0
" 4		2	14	..	..	..	0	0	..	0	0
" 5		..	..	..	..	..	0	0	..	0	0
" 7		7	34	..	..	..	0	+	..	0	0
" 9		1	6	..	..	..	0	0	..	0	+
" 10		1	2	..	..	..	0	0	..	0	+
" 11		2	3	..	..	..	0	0	..	0	0
" 12		8	4	..	..	..	0	0	..	0	0
" 17		5	5	..	..	..	0	0	..	0	0
Averages		**4.**	**6.**	**0**	**.4**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	32	4	8	..	..	..	0	0	..	0	0
" 27		8	6	..	..	..	0	0	..	0	0
" 28		2	2	..	..	..	0	+	..	0	0
" 29		8	2	..	..	..	0	0	..	0	0
" 30		6	2	..	..	..	0	0	..	0	0
June 2		1	6	..	..	..	0	0	..	0	0
" 3		6	3	..	..	..	0	0	..	0	0
" 4		40	spreader	..	..	..	0	0	..	0	0
" 5		..	..	..	..	..	0	0	..	0	0
" 7		33	4	..	..	..	0	0	..	0	0
" 9		3	3	..	..	..	0	0	..	0	+
" 10		208	4	..	..	..	0	0	..	+	0
" 11		0	3	..	..	..	0	0	..	0	0
" 12		268	4	..	..	..	0	0	..	+	0
" 17		1	3	..	..	..	0	0	..	0	0
Averages		**44.9**	**3.**	**0**	**.5**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	33	24	3	..	..	..	0	0	..	0	0
" 27		6	6	..	..	..	0	0	..	0	+
" 28		0	2	..	..	..	0	0	..	0	0
" 29		5	4	..	..	..	0	0	..	0	0
" 30		20	5	..	..	..	0	0	..	0	0
June 2		1	5	..	..	..	0	0	..	0	0
" 3		0	1	..	..	..	0	0	..	0	0

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June 4	33	10	4	..	..	..	0	0	..	0	0
" 5		..	..	..	..	..	0	0	..	0	0
" 7		23	12	..	..	..	0	0	..	0	0
" 9		0	1	..	..	..	0	0	..	0	0
" 10		4	2	..	..	..	0	0	..	0	0
" 11		0	2	..	..	..	0	0	..	0	+
" 12		20	2	..	..	..	0	0	..	0	0
" 17		4	2	..	..	..	0	0	..	0	0
Averages		**8.**	**3.**	**0**	**.2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	34	6	3	..	..	..	0	0	..	0	0
" 27		3	48	..	..	..	0	0	..	+	0
" 28		3	1	..	..	..	0	0	..	0	0
" 29		8	1	..	..	..	0	0	..	0	0
" 30		15	0	..	..	..	0	0	..	0	+
June 2		1	2	..	..	..	0	0	..	0	0
" 3		0	spreader	..	..	..	0	0	..	0	0
" 4		16	4	..	..	..	0	0	..	0	0
" 5		..	..	..	..	..	0	0	..	0	0
" 7		3	14	..	..	..	0	0	..	0	0
" 10		1	2	..	..	..	0	0	..	0	0
" 11		1	4	..	..	..	0	0	..	0	0
" 12		15	3	..	..	..	0	0	..	0	0
" 17		11	4	..	..	..	0	0	..	0	0
Averages		**6.**	**7.**	**0**	**.2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	35	4	7	..	..	..	0	0	..	0	0
" 27		3	8	..	..	..	0	0	..	0	+
" 28		2	2	..	..	..	0	0	..	0	+
" 29		4	5	..	..	..	0	0	..	0	+
" 30		0	7	..	..	..	0	0	..	0	0
June 2		0	7	..	..	..	0	0	..	0	0
" 3		2	1	..	..	..	0	0	..	0	0
" 4		2	4	..	..	..	0	0	..	0	0
" 5		1	..	..	..	..	0	0	..	0	0
" 9		..	3	..	..	..	0	0	..	0	0
" 10		1	14	..	..	..	0	0	..	0	+
" 11		3	4	..	..	..	0	0	..	0	0
" 12		7	2	..	..	..	0	0	..	0	0
" 17		4	2	..	..	..	0	0	..	0	0
Averages		**2.**	**5.07**	**0**	**.5**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 26	36	6	2	..	..	..	0	0	..	0	0
" 27		600	7	..	..	..	0	0	..	+	0
" 28		0	3	..	..	..	0	0	..	0	0
" 29		6	27	..	..	..	0	0	..	0	0
" 30		8	21	..	..	..	0	0	..	0	0
June 2		2	spreader	..	..	..	0	0	..	0	0
" 3		0	0	..	..	..	0	0	..	0	0
" 4		0	4	..	..	..	0	0	..	0	+
" 5		..	..	..	..	..	0	0	..	0	0
" 9		4	2	..	..	..	0	0	..	0	0
" 10		3	12	..	..	..	0	0	..	0	0
" 11		0	2	..	..	..	0	0	..	0	0
" 12		8	5	..	..	..	0	0	..	0	+
" 17		5	0	..	..	..	0	0	..	0	0
Averages		**4.**	**7.08**	**0**	**.4**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	37	6	3	..	..	..	0	0	..	0	0
" 27		4	12	..	..	..	0	0	..	0	0
" 28		4	4	..	..	..	0	0	..	0	0
" 29		10	5	..	..	..	0	0	..	0	0
" 30		69	4	..	..	..	0	0	..	0	0
" 31		4	14	..	..	..	0	0	..	0	0
June 2		0	2	..	..	..	0	0	..	0	0
" 3		2	1	..	..	..	0	0	..	0	+
" 4		6	11	..	..	..	0	0	..	+	+
" 5		..	..	..	..	..	+	+	..	+	+
" 7		3	7	..	..	..	0	0	..	0	0
" 9		1	3	..	..	..	0	0	..	0	0
" 10		2	41	..	..	..	0	0	..	0	+
" 11		1	3	..	..	..	0	0	..	0	0
" 12		1	3	..	..	..	0	0	..	+	0
Averages		**8.07**	**8.07**	**7**	**.3**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	38	4	10	..	..	..	0	0	..	0	0
" 27		6	7	..	..	..	0	0	..	0	0
" 28		..	3	..	..	..	0	0	..	0	0
" 29		3	7	..	..	..	0	0	..	0	0
" 30		44	1	..	..	..	0	0	..	0	0
" 31		5	10	..	..	..	0	0	..	0	0
June 2		1	4	..	..	..	0	0	..	0	0
" 3		3	3	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 4	38	18	9	..	..	..	0	0	..	+	+
" 5		..	..	..	..	..	0	+	..	+	+
" 7		5	8	..	..	..	0	0	..	0	0
" 9		1	4	..	..	..	0	0	..	0	0
" 10		30	23	..	..	..	0	0	..	0	+
" 11		4	3	..	..	..	0	0	..	0	0
" 12		3	5	..	..	..	0	0	..	0	0
Averages		**9.**	**6.**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	39	8	3	..	..	..	0	0	..	0	0
" 27		6	6	..	..	..	0	0	..	0	0
" 28		2	3	..	..	..	0	0	..	0	0
" 29		6	6	..	..	..	0	0	..	0	0
" 30		11	1	..	..	..	0	0	..	0	+
" 31		6	28	..	..	..	0	0	..	0	+
June 2		1	3	..	..	..	0	0	..	0	+
" 3		3	1	..	..	..	0	0	..	0	+
" 4		20	16	..	..	..	0	0	..	0	+
" 5		..	..	..	..	..	0	0	..	+	+
" 7		5	4	..	..	..	0	0	..	0	+
" 9		3	4	..	..	..	0	0	..	0	0
" 10		4	90	..	..	..	0	0	..	0	0
" 11		0	8	..	..	..	0	0	..	0	0
" 12		0	1	..	..	..	0	0	..	+	+
Averages		**5.**	**12.3**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	40	6	3	..	..	0	0	0	..	0	0
" 27		3	..	..	..	..	0	0	..	0	0
" 28		3	3	..	..	..	0	0	..	+	+
" 29		12	4	..	..	..	0	0	..	0	0
" 30		0	11	..	..	..	0	0	..	0	0
" 31		7	spreader	..	..	..	0	0	..	0	0
June 2		1	2	..	..	..	0	0	..	0	+
" 3		0	1	..	..	..	0	0	..	0	+
" 4		28	12	..	..	..	0	+	..	0	+
" 5		..	..	..	..	..	0	+	..	+	+
" 7		3	18	..	..	..	0	0	..	0	0
" 9		7	6	..	..	..	0	0	..	0	0
" 10		1	62	..	..	..	0	0	..	0	0
" 11		1	2	..	..	..	0	0	..	0	+
" 12		3	4	..	..	..	0	0	..	0	+
Averages		**5.**	**10.6**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Waters of Lake Erie and the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26.....	41	6	3	..	..	..	0	0	..	0	0
" 27.....		4	8	..	..	..	0	0	..	0	+
" 28.....		8	6	..	..	..	0	0	..	0	0
" 29.....		6	4	..	..	..	0	0	..	0	0
" 30.....		9	1	..	..	..	0	0	..	0	0
" 31.....		3	spreader	..	..	..	0	0	..	0	0
June 2.....		7	6	..	..	..	+	+	..	0	+
" 3.....		5	10	..	..	..	0	0	..	+	0
" 4.....		27	10	..	..	..	0	0	..	+	+
" 5.....		..	..	..	..	..	0	+	..	+	+
" 7.....		7	spreader	..	..	..	0	0	..	+	+
" 9.....		0	1	..	..	..	0	0	..	0	0
" 10.....		2	57	..	..	..	0	0	..	0	0
" 11.....		2	8	..	..	..	0	0	..	0	+
" 12.....		4	2	..	..	..	0	0	..	0	0
Averages.....		**6.**	**9.**	**3.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26.....	42	3	4	..	..	..	0	0	..	0	+
" 27.....		3	9	..	..	..	0	0	..	+	0
" 28.....		16	5	..	..	..	0	0	..	+	+
" 29.....		58	160	..	..	..	0	0	..	+	+
" 30.....		..	..	..	..	..	..	..	..	..	..
" 31.....		56	spreader	..	..	..	0	0	..	+	+
June 2.....		7	11	..	..	..	0	0	..	+	+
" 3.....		3	4	..	..	..	0	0	..	0	0
" 4.....		12	12	..	..	..	0	0	..	+	+
" 5.....		..	..	..	..	..	0	+	..	0	+
" 7.....		52	18	..	..	..	+	+	..	+	+
" 9.....		1	0	..	..	..	0	0	..	0	0
" 10.....		0	12	..	..	..	0	0	..	0	0
" 11.....		1	6	..	..	..	0	+	..	0	0
" 12.....		7	4	..	..	..	0	+	..	0	+
Averages.....		**16.8**	**20.4**	**1**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26.....	46	10	..	..	..	0	0	0	..	0	+
" 27.....		5	24	..	..	..	0	0	..	0	0
" 28.....		26	6	..	..	..	0	0	..	+	+
" 29.....		8	3	..	..	..	0	0	..	+	0
" 30.....		2	2	..	..	..	0	0	..	0	+
" 31.....		37	6	..	..	..	0	0	..	0	0
June 2.....		4	2	..	..	..	0	0	..	0	0
" 3.....		10	3	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 4.....	46	4	2	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	0	..	0	0
" 7.....		10	spreader	..	..	..	0	0	..	0	0
" 9.....		6	3	..	..	..	0	0	..	0	0
" 10.....		27	21	..	..	..	0	0	..	0	0
" 11.....		3	5	..	..	..	0	0	..	0	0
" 12.....		1	1	..	..	..	0	0	..	0	+
Averages.....		**10.9**	**6**	**.9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26.....	47	8	8	..	..	..	0	0	+	0	0
" 27.....		16	14	..	..	..	0	0	..	0	+
" 28.....		8	5	..	..	..	0	0	+	0	0
" 29.....		8	7	..	..	..	0	0		0	0
" 30.....		5	3	..	..	..	0	0	..	0	0
" 31.....		31	spreader	..	..	..	0	0	..	0	0
June 2.....		1	2	..	..	..	0	0	..	0	0
" 3.....		8	2	..	..	..	0	0	..	0	0
" 4.....		1	6	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	0	..	0	+
" 7.....		4	2	..	..	..	0	0	..	0	0
" 9.....		3	5	..	..	..	0	0	..	0	0
" 10.....		2	3	..	..	..	0	0	..	0	0
" 11.....		2	2	..	..	..	0	0	..	..	..
" 12.....		1	0	..	..	..	+	0	..	0	0
Averages.....		**7.**	**4.**	**.4**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26.....	48	4	183	..	..	..	0	0	..	0	0
" 27.....		10	8	..	..	..	0	0	0	+	+
" 28.....		19	spreader	..	..	..	0	0	..	0	+
" 29.....		9	7	..	..	..	0	0	..	0	0
" 30.....		1	3	..	..	..	0	0	..	0	0
" 31.....		18	16	..	..	..	0	0	..	0	0
June 2.....		0	2	..	..	..	0	0	..	0	0
" 3.....		5	0	..	..	..	0	0	..	0	+
" 4.....		12	14	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	0	..	+	+
" 7.....		4	8	..	..	..	0	0	..	0	0
" 9.....		4	4	..	..	..	0	0	..	0	0
" 10.....		3	0	..	..	..	0	0	..	0	+
" 11.....		4	5	..	..	..	0	0	..	0	0
" 12.....		4	6	..	..	..	0	0	..	0	0
Averages.....		**6.**	**18.6**	**1**	**.0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C. Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	49	..	3	..	0	0	0	..	0	0	..
" 27		8	14	..	0	0	0	..	..	0	..
" 28		7	3	..	0	0	0	..	..	+	..
" 29		6	6	..	0	0	0	..	..	0	..
" 30		2	4	..	..	..	0	0	..	0	+
" 31		10	24	..	..	..	0	0	..	0	0
June 2		2	1	..	..	..	0	0	..	0	+
" 3		5	1	..	..	..	0	0	..	0	+
" 4		8	22	..	..	..	0	0	..	0	+
" 5		..	..	..	..	..	0	0	..	0	+
" 7		5	2	..	..	..	0	0	..	+	+
" 9		4	2	..	..	..	0	0	..	0	+
" 10		256	6	..	..	..	0	0	..	0	+
" 11		0	2	..	..	..	0	0	..	0	0
" 12		3	3	..	..	..	+	0	..	+	+
Averages		**24.3**	**6.**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	50	4	15	..	0	0	0	..	0	0	..
" 27		12	9	..	0	0	0	..	..	+	..
" 28		6	3	..	0	0	0	..	..	0	..
" 29		6	7	..	0	0	0	..	..	0	..
" 30		5	22	..	..	..	0	+	..	+	+
" 31		50	7	..	..	..	+	0	..	+	0
June 2		8	8	..	..	..	0	0	..	+	+
" 3		6	7	..	..	..	0	0	..	+	+
" 4		4	14	..	..	..	0	0	..	+	+
" 5		..	..	..	..	..	0	0	..	0	+
" 7		14	4	..	..	..	0	0	..	0	0
" 9		336	16	..	..	..	0	0	..	0	+
" 10		196	3	..	..	..	0	0	..	0	0
" 11		2	3	..	..	..	0	0	..	0	+
" 12		23	4	..	..	..	0	0	..	0	+
Averages		**48**	**8**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	50s	73	8	..	..	..	0	0	..	0	+
" 16		18	10	..	..	..	0	0	..	0	+
" 17		30	6	..	..	..	0	0	..	0	+
" 18		36	spreader	..	..	..	0	0	..	+	+
Averages		**39.2**	**8.**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C. Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 14	50t	19	24	..	..	..	0	0	..	0	0
" 16		16	15	..	..	..	0	0	..	0	0
" 17		14	12	..	..	..	0	0	..	0	+
" 18		48	4	..	..	..	0	0	..	+	+
Averages		**24.2**	**13.7**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	50u	spreader	92	..	0	..	0	..	0	+	..
" 16		130	46	..	..	..	0	0	..	0	+
" 17		9	12	..	..	..	0	0	..	0	0
" 18		58	96	..	..	..	0	+	..	+	+
Averages		**84.2**	**61.5**	**6.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	50v	spreader	240	..	0	..	0	..	0	0	..
" 16		210	..	..	..	..	0	0	..	0	0
" 17		90	86	..	0	0	0	..	0	..	..
" 18		620	300	0	0	0	0	..	+	..	..
Averages		**310**	**214**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	50w	340	340	..	0	..	+	..	..	..	..
" 16		360	380	..	0	+	+	+	..	+	+
" 17		20000	94	..	0	+	+	..	+	..	..
" 18		1180	4400	0	+	+	+	..	+	..	..
Averages		**5470**	**1303.5**	**302**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 26	51	18	8	..	..	..	0	0	..	+	0
" 27		30	8	..	..	..	0	0	..	0	+
" 28		26	2	..	..	..	0	..	..	0	+
" 29		22	11	..	..	..	+	0	..	0	+
" 30		50	292	..	..	..	0	0	..	+	+
" 31		24	6	..	..	..	0	0	..	0	0
June 2		4	7	..	..	..	0	0	..	0	0
" 3		8	spreader	..	..	..	0	0	..	0	0
" 4		2	3	..	..	..	0	0	..	0	0
" 5		..	..	..	..	..	0	0	..	0	+
" 7		2300	1400	..	..	..	+	+	..	+	+
" 9		11	4	..	..	..	0	0	..	0	0
" 10		9	4	..	..	..	0	0	..	+	+
" 11		44	5	..	..	..	0	0	..	+	0
" 12		16	2	..	..	..	0	0	..	0	+
Averages		**173.1**	**134.7**	**8.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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May 26	52	8	4	..	..	..	0	0	..	0	0
" 27		8	42	..	..	..	0	0	..	0	0
" 28		8	2	..	..	..	0	..	..	+	0
" 29		14	6	..	..	..	0	0	..	0	0
" 30		4	5	..	..	..	0	0	..	0	0
" 31		100	10	..	..	..	0	0	..	0	0
June 2		1	1	..	..	..	0	0	..	0	+
" 3		4	3	..	..	..	0	0	..	+	0
" 4		4	6	..	..	..	0	0	..	0	0
" 5		..	..	..	..	..	0	0	..	+	0
" 7		5	5	..	..	..	0	0	..	0	+
" 9		12	2	..	..	..	0	0	..	0	0
" 10		6	1	..	..	..	0	0	..	0	+
" 11		4	2	..	..	..	0	0	..	0	+
" 12		4	1	..	..	..	0	0	..	0	0
Averages		**13**	**6**	**.9**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 26	53	3	7	..	..	..	0	0	..	0	0
" 27		4	14	..	..	..	0	0	..	0	+
" 28		..	..	..	..	..	0	0	..	+	0
" 29		6	6	..	..	..	0	0	..	+	+
" 30		14	4	..	..	..	0	0	..	0	0
" 31		20	25	..	..	..	0	+	..	0	0
June 2		3	2	..	..	..	0	0	..	0	0
" 3		2	2	..	..	..	0	0	..	0	0
" 4		1	4	..	..	..	0	0	..	+	0
" 5		..	..	..	..	..	0	+	..	+	+
" 7		4	4	..	..	..	0	0	..	0	+
" 9		1	7	..	..	..	0	0	..	0	0
" 10		8	4	..	..	..	0	0	..	0	+
" 11		8	4	..	..	..	0	0	..	0	0
" 12		13	2	..	..	..	0	0	..	+	+
Averages		**6.**	**6.**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**1c**	**cc**
May 26	54	3000	230	..	+	+	+	..	..	+	..
" 27		86	112	..	+	+	+	..	..	+	..
" 28		..	..	..	0	+	+	..	..	+	..
" 29		3000	1700	..	0	+	+	..	..	+	..
" 30		..	528	0	+	+	+	..	+	+	+
" 31		1000	440	..	+	+	+	+	+	+	..
June 2		1500	300	..	0	+	+	+	+	..	..
" 3		1280	307	0	0	+	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 4	54	1400	1000	0	+	+	+	..	+	..	..
" 5		..	..	0	0	+	+	..	+	..	..
" 7		17	8	0	0	0	0	..	+	..	..
" 9		400	100	0	+	+	..	..	+	..	..
" 10		1780	500	+	+	+	+	..	+	..	..
" 11		2340	420	0	+	+	+	..	+	..	..
" 12		..	530	0	+	+	+	..	+	..	..
" 13		..	4360	..	..	..	..	..	..	..	..
Averages		**1435.7**	**741.3**	**123**	**34**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 14	55m	75	..	..	..	..	0	0	..	+	+
" 16		60	..	..	..	..	0	0	..	0	+
" 17		10	42	..	..	..	0	0	..	0	+
" 18		150	124	..	..	..	0	0	..	+	+
Averages		**73.7**	**268.6**	**3.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	55n	31	12	..	..	..	0	0	..	0	+
" 16		..	37	..	..	..	0	0	..	0	+
" 17		9	8	..	..	..	0	0	..	0	+
" 18		400	252	..	..	..	0	0	..	+	+
Averages		**1466**	**77.2**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	55o	37	64	..	..	..	0	0	..	0	0
" 16		46	..	..	..	..	0	0	..	0	0
" 17		22	9	..	..	..	0	0	..	0	+
" 18		102	208	..	..	..	0	0	..	+	+
Averages		**517**	**93.6**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	55p	22	46	..	..	..	0	0	..	0	0
" 16		20	20	..	..	..	0	0	..	0	+
" 17		16	6	..	..	..	0	0	..	0	+
" 18		35	496	..	..	..	0	0	..	+	+
Averages		**23.2**	**142**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	55r	35	16	..	..	..	0	0	..	+	+
" 16		36	..	..	..	..	0	0	..	0	+
" 17		8	66	..	..	..	0	0	..	0	+
" 18		300	10	..	..	..	0	0	..	+	+
Averages		**94.7**	**30.6**	**3.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26.....	55	10	4	..	..	..	0	0	..	0	0
" 27.....		7	38	..	..	..	0	+	..	+	0
" 28.....		16	3	..	..	..	0	0	..	+	+
" 29.....		26	2	..	..	..	0	0	..	0	0
" 30.....		17	10	..	..	..	0	0	..	0	+
" 31.....		18	spreader	..	..	..	0	0	..	0	0
June 2.....		..	..	..	..	..	..	..	..	..	..
" 3.....		9	3	..	..	..	0	0	..	+	0
" 4.....		3	3	..	..	..	0	0	..	0	+
" 5.....		..	..	..	..	..	0	+	..	0	0
" 7.....		9	6	..	..	..	0	0	..	0	0
" 9.....		10	2	..	..	..	0	0	..	0	0
" 10.....		6	4	..	..	..	0	0	..	0	+
" 11.....		10	15	..	..	..	0	0	..	+	+
" 12.....		1	0	..	..	..	0	0	..	+	0
Averages.....		**10.9**	**7.**	**1.**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 26.....	56	16	7	..	..	..	0	0	..	0	+
" 27.....		9	26	..	..	..	0	0	..	0	0
" 28.....		18	4	..	..	..	0	0	..	0	0
" 29.....		6	3	..	..	..	0	0	..	0	0
" 30.....		5	8	..	..	..	0	0	..	0	..
" 31.....		28	18	..	..	..	0	0	..	0	0
June 2.....		0	2	..	..	..	0	0	..	0	0
" 3.....		7	2	..	..	..	0	0	..	+	0
" 4.....		2	2	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	+	..	+	+
" 7.....		20	10	..	..	..	0	0	..	0	0
" 9.....		4	5	..	..	..	0	0	..	0	0
" 10.....		13	4	..	..	..	0	0	..	0	+
" 11.....		5	8	..	..	..	0	0	..	0	0
" 12.....		1	0	..	..	..	0	0	..	0	0
Averages.....		**9.**	**7.07**	**1.**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 26.....	57	12	5	..	..	..	0	0	..	0	0
" 27.....		7	22	..	..	..	0	0	..	0	0
" 28.....		26	3	..	..	..	..	..	..	+	0
" 29.....		8	3	..	..	..	0	0	..	0	0
" 30.....		..	9	..	..	..	0	0	..	0	+
" 31.....		15	8	..	..	..	0	0	..	0	+
June 2.....		0	2	..	..	..	0	0	..	0	+
" 3.....		6	5	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 4.....	57	0	0	..	..	..	0	0	..	0	+
" 5.....		..	..	..	..	..	0	+	..	0	+
" 7.....		34	spreader	..	..	..	0	0	..	0	+
" 9.....		6	4	..	..	..	0	0	..	0	0
" 10.....		23	0	..	..	..	0	0	..	0	+
" 11.....		1	3	..	..	..	0	0	..	0	0
" 12.....		6	1	..	..	..	0	0	..	0	0
Averages.....		**11.07**	**5**	**1.**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 26.....	58	10	spreader	..	..	..	0	0	..	0	0
" 27.....		0	52	..	..	..	0	0	..	0	0
" 28.....		6	..	..	..	..	..	..	..	0	0
" 29.....		8	4	..	..	..	0	0	..	0	0
" 30.....		3	1	..	..	..	0	0	..	0	0
" 31.....		36	10	..	..	..	0	0	..	+	0
June 2.....		1	3	..	..	..	0	0	..	0	0
" 3.....		8	2	..	..	..	0	0	..	0	0
" 4.....		2	spreader	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	+	..	0	0
" 7.....		4	3	..	..	..	0	0	..	0	0
" 9.....		4	6	..	..	..	0	0	..	0	0
" 10.....		312	7	..	..	..	0	0	..	0	+
" 11.....		1	3	..	..	..	0	0	..	0	0
" 12.....		4	20	..	..	..	0	0	..	0	0
Averages.....		**28.5**	**10.9**	**.4**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 26.....	59	20	18	..	0	0	0	..	..	0	..
" 27.....		7	28	..	0	0	0	..	..	0	..
" 28.....		5	0	..	0	0	..	..	..	0	..
" 29.....		24	spreader	..	0	0	0	..	..	0	..
" 30.....		3	..	..	..	..	0	0	..	0	0
" 31.....		4	10	..	..	..	0	..	..	+	..
June 2.....		0	5	..	..	..	0	0	..	0	+
" 3.....		8	1	..	..	..	0	0	..	+	0
" 4.....		12	6	..	..	..	0	0	..	+	+
" 5.....		..	..	..	..	..	0	+	..	0	0
" 7.....		8	spreader	..	..	..	0	0	..	0	+
" 9.....		4	5	..	..	..	0	0	..	0	0
" 10.....		1040	..	..	..	..	0	0	..	0	0
" 11.....		7	9	..	..	..	0	0	..	+	+
" 12.....		11	1	..	..	..	0	0	..	0	0
Averages.....		**8.**	**8.**	**1.**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

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May 26.....	60	46	7	..	0	0	0	..	..	+	..
" 27.....		26	100	..	+	+	+	..	..	+	..
" 28.....		480	26	..	0	+	..	..	..	+	..
" 29.....		..	38	..	0	+	+	..	..	+	..
" 30.....		19	..	0	0	+	0	..	0	0	..
" 31.....		240	240	0	0	+	+	..	+	+	..
June 2.....		370	170	+	0	+	+	+	+	..	..
" 3.....		940	350	0	+	+	+	..	+	..	..
" 4.....		3000	600	0	0	+	+	..	+	..	..
" 5.....		..	..	0	0	+	+	..	+	..	..
" 7.....		360	100	0	0	+	+	..	+	..	..
" 9.....		480	170	0	+	+	+	..	+	..	..
" 10.....		30	0	0	0	0	+	..	+	..	..
" 11.....		40	20	0	0	+	+	..	+	..	..
" 12.....		2200	210	0	+	..	+	..	+	..	..
Averages.....		**66.08**	**169.2**	**3**	**86**	**6.**	**B.**	**C.**	**per 100 cc**		
May 26.....	61	600	300	..	+	+	+	..	..	+	..
" 27.....		200	78	..	+	+	+	..	..	+	..
" 28.....		4000	125	..	+	+	+	..	..	+	..
" 29.....		230	1350	..	+	+	+	..	..	+	..
" 30.....		..	97	+	+	+	+	..	+	+	..
" 31.....		..	1240	0	0	+	+	..	+	+	..
June 2.....		1730	1860	+	0	+	+	+	+	..	..
" 3.....		6000	2000	0	+	+	+	..	+	..	..
" 4.....		6000	2400	+	0	+	+	..	+	..	..
" 5.....		..	..	0	+	+	+	..	+	..	..
" 7.....		3520	2400	+	+	+	+	..	+	..	..
" 9.....		3640	1160	+	+	+	+	..	+	..	..
" 10.....		2060	180	+	+	+	+	..	+	..	..
" 11.....		890	92	0	+	+	+	..	+	..	..
" 12.....		8240	174	+	+	..	+	..	..	..	..
Averages.....		**3092.5**	**1132.1**	**51**	**40**	**0.**	**B.**	**C.**	**per 100 cc**		
May 26.....	62	4000	420	..	+	+	+	..	..	+	..
" 27.....		47	140	..	0	+	+	..	..	+	..
" 28.....		2160	74	..	0	+	+	..	..	+	..
" 29.....		7000	4960	..	+	+	+	..	..	+	..
" 30.....		high	500	+	+	+	+	..	+	+	..
" 31.....		high	4000	+	+	+	+	..	+	+	..
June 2.....		2160	550	+	0	+	+	+	+	..	..
" 3.....		4000	1900	0	+	+	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 4.....	62	..	2500	0	+	+	+	..	+	..	..
" 5.....		..	..	+	+	+	+	..	+	..	..
" 7.....		8800	2100	+	+	+	+	..	+	..	..
" 9.....		1320	730	0	+	+	+	..	+	..	..
" 10.....		2000	270	+	+	+	+	..	+	..	..
" 11.....		3500	860	0	+	+	+	..	+	..	..
" 12.....		2080	860	+	+	..	+	..	+	..	..
Averages.....		**3369.7**	**1418.8**	**50**	**80**	**0.**	**B.**	**C.**	**per 100 cc**		
May 26.....	63	1000	390	..	+	+	+	..	..	+	..
" 27.....		94	140	..	0	+	+	..	..	+	..
" 28.....		640	176	..	0	+	+	..	..	+	..
" 29.....		4500	4500	..	0	+	+	..	..	+	..
" 30.....		high	2680	+	+	+	+	..	..	+	..
" 31.....		high	6000	0	+	+	+	..	+	+	..
June 2.....		6500	2330	+	0	+	+	+	+	..	..
" 3.....		..	1640	0	0	+	+	..	+	..	..
" 4.....		3000	2100	0	0	0	+	..	+	..	..
" 5.....		940	110	+	+	+	+	..	+	..	..
" 7.....		7880	2000	0	+	+	+	..	+	..	..
" 9.....		1730	260	0	+	+	+	..	+	..	..
" 10.....		2880	240	+	+	+	+	..	+	..	..
" 11.....		460	170	0	+	+	+	..	+	..	..
" 12.....		7760	51	+	+	..	+	..	+	..	..
Averages.....		**3075.6**	**1416.4**	**36**	**93**	**4.**	**B.**	**C.**	**per 100 cc**		
June 14.....	63a	66	14	..	..	..	+	..	..	+	+
" 16.....		42	26	..	..	..	0	..	..	+	+
" 17.....		24	8	..	..	..	0	0	..	+	+
" 18.....		27	spreader	..	..	..	0	0	..	+	+
Averages.....		**39.7**	**16**	**8.**	**B.**	**Coli**			**per 100 cc**		
June 14.....	3b	30	10	..	..	..	0	0	..	+	+
" 16.....		36	..	..	..	..	0	+	..	+	+
" 17.....		26	6	..	..	..	0	0	..	+	+
" 18.....		2400	1016	..	..	..	+	+	..	+	+
Averages.....		**623**	**344**	**37**	**B.**	**Coli**			**per 100 cc**		

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June 14.....	63c	450	430	..	0	..	0	..	0	+	..
" 16.....		200	..	..	0	+	+	..	+	..	..
" 17.....		200	180	..	0	0	0	..	0	..	..
" 18.....		210	170	..	0	+	+	..	+	..	..
Averages.....		**265**	**260**	**5**	**01**	**B.**	**C.**	**pe**	**1r**	**00**	**cc**
" 14.....	63d	3720	920	..	0	..	+	..	+	+	..
" 16.....		..	20	..	0	+	+	..	+	..	..
" 17.....		2200	380	..	+	+	+	..	+	..	..
" 18.....		5200	1800	..	+	+	+	..	+	..	..
Averages.....		**3706.6**	**780**	**5**	**27**	**5.**	**B.**	**C.**	**pe**	**r**	
									1	**00**	**cc**
" 14.....	63e	6800	1200	..	0	..	+	..	+	+	..
" 16.....		..	..	..	0	..	+	..	..	..	..
" 17.....		8000	2000	..	+	+	+	..	+	..	..
" 18.....		3480	6000	..	+	+	+	..	+	..	..
Averages.....		**6093.3**	**3066.6**	**5**	**50**	**0.**	**B.**	**C.**	**pe**	**r**	
									1	**00**	**cc**
" 14.....	63f	52	12	..	..	..	0	0	..	+	+
" 16.....		30	..	..	..	..	0	..	..	+	+
" 17.....		8	28	..	..	..	0	0	..	+	+
" 18.....		80	420	..	..	..	0	0	..	+	+
Averages.....		**42.5**	**153.3**	**4.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
" 14.....	63g	45	14	..	..	..	0	0	0	0	0
" 16.....		24	..	..	..	..	0	+	..	+	+
" 17.....		84	18	..	..	..	0	0	..	+	+
" 18.....		428	984	..	..	..	0	+	..	+	+
Averages.....		**145.5**	**338.6**	**1**	**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
" 14.....	63h	690	800	..	0	..	0	..	0	0	..
" 16.....		..	..		0	0	+	..	+	..	..
" 17.....		1100	1060	..	+	+	+	..	+	..	..
" 18.....		3520	380	..	0	+	+	..	+	..	..
Averages.....		**1770**	**746.6**	**2**	**77**	**5.**	**B.**	**C.**	**pe**	**r**	
									1	**00**	**cc**

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June 14.....	63i	24000	1000	..	0	..	+	..	+	+	..
" 16.....		..	..	..	+	+	+	..	+	..	..
" 17.....		8000	900	..	+	+	+	..	+	..	..
" 18.....		5960	70	..	+	+	+	..	+	..	..
Averages.....		**12653.3**	**656.6**	**752**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
" 14.....	63k	13360	1100	..	0	..	+	..	+	+	..
" 16.....		..	..	..	+	+	+	..	+	..	..
" 17.....		20000	900	..	0	+	+	..	+		..
" 18.....		20000	1280	..	+	+	+	..	+	..	..
Averages.....		**14453.3**	**1093.3**	**5**	**27**	**5.**	**B.**	**C.**	**pe**	**r**	
									1	**00**	**cc**
May 30.....	64	6	3	..	..	..	0	0	..	+	+
" 31.....		14	spreader	..	..	..	0	0	..	+	..
June 2.....		42	9	..	..	..	0	+	..	+	+
" 3.....		30	spreader	..	..	..	0	0	..	0	0
" 4.....		57	4	..	..	..	0	0	..	+	+
" 5.....		6	376	..	..	..	0	+	..	0	0
" 6.....		2	2	..	..	..	0	+	..	+	+
" 7.....		5	3	..	..	..	0	0	..	0	+
" 9.....		3	34	..	..	..	+	+	..	0	0
" 10.....		9	5	..	..	..	0	0	..	0	+
" 13.....		14	5	..	..	..	0	0	..	0	+
" 14.....		33	6	..	..	..	0	+	..	+	+
" 16.....		18	spreader	..	..	..	0	0	..	+	0
Averages.....		**21.8**	**44.7**	**6.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 30.....	65	4	8	..	..	..	0	0	..	+	0
" 31.....		12	130	..	..	..	0	0	..	0	..
June 2.....		8	7	..	..	..	0	0	..	0	0
" 3.....		12	3	..	..	..	0	0	..	0	+
" 4.....		5	2	..	..	..	0	0	..	+	+
" 5.....		10	4	..	..	..	0	0	..	0	+
" 6.....		3	3	..	..	..	0	0	..	0	0
" 7.....		14	4	..	..	..	0	0	..	0	0
" 9.....		0	3	..	..	..	0	0	..	0	0
" 10.....		8	4	..	..	..	0	0	..	0	0
" 13.....		12	3	..	..	..	0	0	..	0	+
" 14.....		7	3	..	..	..	0	0	..	+	0
Averages.....		**7.**	**14.5**	**1.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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May 30	66	2	18	..	..	..	0	0	..	0	0
" 31		14	10	..	..	..	0	0	..	0	..
June 2		7	..	..	..	..	0	0	..	+	+
" 3		26	5	..	..	..	0	0	..	0	+
" 4		44	2	..	..	..	0	0	..	0	0
" 5		4	2	..	..	..	0	0	..	0	0
" 6		3	2	..	..	..	0	0	..	0	0
" 7		5	5	..	..	..	0	0	..	0	0
" 9		1	2	..	..	..	0	0	..	0	0
" 10		17	2	..	..	..	0	0	..	0	0
" 13		8	spreader	..	..	..	0	0	..	0	0
" 14		3	3000	..	..	..	0	0	..	0	0
" 16		4	22	..	..	..	0	0	..	0	+
Averages		**10.6**	**7.**	**.6**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 30	67	3	5	..	..	..	0	0	..	0	0
" 31		18	spreader	..	..	..	0	0	..	0	0
June 2		2	2	..	..	..	0	0	..	0	+
" 3		24	spreader	..	..	..	0	0	..	0	+
" 4		5	4	..	..	..	0	0	..	+	0
" 5		16	6	..	..	..	0	0	..	0	0
" 6		4	0	..	..	..	0	0	..	0	0
" 7		10	spreader	..	..	..	0	0	..	0	+
" 9		2	3	..	..	..	0	0	..	0	+
" 10		2	6	..	..	..	0	0	..	0	0
" 13		4	8	..	..	..	0	0	..	0	+
" 14		9	6	..	..	..	0	0	..	0	0
" 16		9	10	..	..	..	0	0	..	0	0
Averages		**8.**	**47.2**	**.9**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 30	68	6	3	..	..	..	0	0	..	0	0
" 31		10	10	..	..	..	0	0	..	0	0
June 2		9	5	..	..	..	0	0	..	0	+
" 3		12	spreader	..	..	..	0	0	..	0	+
" 4		9	6	..	..	..	0	0	..	0	0
" 5		4	3	..	..	..	0	0	..	0	0
" 6		3	5	..	..	..	0	0	..	+	0
" 7		0	spreader	..	..	..	0	0	..	0	0
" 9		3	3	..	..	..	0	0	..	0	+
" 10		5	2	..	..	..	0	0	..	0	0
" 14		4	8	..	..	..	0	0	..	0	0
" 16		7	11	..	..	..	0	0	..	0	+
Averages		**6**	**5.**	**.8**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 30	69	3	3	..	..	..	0	0	..	0	0
" 31		8	spreader	..	..	..	0	0	..	0	0
June 2		7	8	..	..	..	0	0	..	0	+
" 3		16	spreader	..	..	..	0	0	..	0	+
" 4		16	6	..	..	..	0	0	..	+	+
" 5		4	2	..	..	..	0	0	..	0	0
" 6		2	2	..	..	..	0	0	..	0	0
" 7		17	4	..	..	..	+	0	..	+	+
" 9		9	1	..	..	..	0	0	..	0	0
" 10		39	6	..	..	..	0	+	..	0	+
" 13		84	6	..	..	..	0	0	..	0	+
" 14		14	7	..	..	..	0	0	..	0	+
" 16		180	6	..	..	..	0	0	..	0	+
Averages		**30.6**	**24.2**	**2**	**.9**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 30	70	6	9	..	..	..	0	0	..	0	0
" 31		14	spreader	..	0	0	0	..	0	0	..
June 2		4	5	..	..	..	0	0	..	0	+
" 3		32	2	..	..	..	0	+	..	+	+
" 4		15	6	..	..	..	0	0	..	0	0
" 5		16	2	..	..	..	0	0	..	0	0
" 6		7	2	..	..	..	0	0	..	+	0
" 9		0	4	..	..	..	0	+	..	0	0
" 10		9	6	..	..	..	0	+	..	0	0
" 13		22	spreader	..	..	..	0	+	..	+	+
" 14		10	8	..	..	..	0	0	..	0	+
" 16		11	9	..	..	..	0	0	..	0	0
Averages		**12.1**	**8.**	**4.**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
May 30	71	4	8	..	0	0	0	..	0	0	..
" 31		..	28	..	0	0	0	..	0	+	..
June 2		15	19	..	..	..	0	0	..	+	+
" 3		40	spreader	..	..	..	0	+	..	+	+
" 4		26	5	..	..	..	+	+	..	+	+
" 5		26	2	..	..	..	0	0	..	+	+
" 6		12	1	..	..	..	0	0	..	0	0
" 7		20	4	..	..	..	0	+	..	0	+
" 9		1	2	..	..	..	0	+	..	0	0
" 10		12	4	..	..	..	0	0	..	0	+
" 13		20	3	..	..	..	0	0	..	0	+
" 14		4	9	..	..	..	0	0	..	0	+
" 16		26	9	..	..	..	0	0	..	0	+
Averages		**17.1**	**7.**	**1**	**1.**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 30	72	2	8	..	0	0	0	..	0	0	..
" 31		32	11	..	0	0	0	..	0	+	..
June 2		7	6	..	..	..	0	0	..	+	+
" 3		24	spreader	..	..	..	+	+	..	+	+
" 4		66	11	..	..	..	0	+	..	+	0
" 5		12	spreader	..	..	..	0	+	..	+	+
" 6		10	5	..	..	..	0	0	..	+	0
" 7		14	4	..	..	..	0	0	..	0	+
" 9		5	2	..	..	..	0	0	..	0	0
" 10		11	3	..	..	..	0	0	..	0	0
" 13		16	3	..	..	..	0	0	..	0	+
" 14		9	6	..	..	..	+	0	..	+	0
" 16		18	6	..	..	..	0	+	..	0	+
Averages		**17.3**	**5.**	**1**	**3.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	73	24	7	..	0	0	0	..	0	0	..
" 31		64	20	..	0	0	+	..	0	+	..
June 2		5	15	..	..	..	0	0	..	+	+
" 3		48	spreader	..	..	..	0	0	..	+	+
" 4		11	8	..	..	..	0	0	..	0	0
" 5		23	9	..	..	..	0	0	..	+	+
" 6		38	1	..	..	..	+	0	..	+	0
" 7		92	7	..	..	..	+	+	..	+	+
" 9		26	4	..	..	..	0	+	..	+	+
" 10		8	2	..	..	..	+	+	..	0	+
" 13		58	5	..	..	..	0	0	..	+	+
" 14		37	12	..	..	..	0	+	..	+	0
" 16		22	2	..	..	..	0	+	..	0	0
Averages		**35.07**	**7.**	**1**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	74	58	56	..	0	0	0	..	+	0	..
" 31		48	16	0	0	0	0	..	+	+	+
June 2		22	16	..	0	0	0	..	..	0	..
" 3		320	spreader	..	..	..	+	+	..	+	+
" 4		224	54	..	..	..	+	0	..	+	0
" 5		240	4	..	..	..	0	+	..	+	+
" 6		68	17	..	..	..	0	+	..	+	+
" 7		392	12	..	..	..	0	+	..	+	+
" 9		30	spreader	..	..	..	+	+	..	0	+
" 10		62	15	..	..	..	0	..	..	..	+
" 13		110	6	..	..	..	+	+	..	+	+
" 14		118	11	..	..	..	0	0	..	+	0
" 16		420	7	..	..	..	0	+	..	+	+
Averages		**162.4**	**19.4**	**3**	**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 30	75	96	36	..	0	0	0	..	0	0	..
" 31		800	40	0	0	0	0	..	+	+	..
June 2		650	spreader	..	0	0	0	..	..	0	..
" 3		1240	35	..	0	0	+	..	+	+	..
" 4		980	248	..	0	0	+	..	+	+	..
" 5		..	..	..	..	..	..	..	..	..	..
" 6		260	354	..	0	+	+	..	+	..	..
" 7		..	..	0	0	+	+	..	..	..	..
" 9		140	20	0	0	+	+	..	..	..	..
" 10		290	320	0	0	0	0	..	..	..	..
" 13		800	spreader	..	..	..	+	+	..	+	+
" 14		790	38	..	..	..	+	+	..	+	+
" 16		600	39	..	..	..	0	0	..	+	+
Averages		**604.1**	**125.5**	**28**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	76	140	200	..	0	0	0	..	0	0	..
" 31		800	64	..	0	+	+	..	+	+	..
June 2		670	spreader	..	+	+	0	..	..	+	..
" 3		2400	60	..	+	+	+	..	+	+	..
" 4		8000	840	..	0	+	+	..	+	+	..
" 5		3280	150	..	0	+	+	..	..	+	..
" 6		3000	7000	..	0	+	+	..	+	..	..
" 7		..	..	0	+	+	+	..	..	..	..
" 9		300	20	0	0	+	+	..	..	..	..
" 10		630	110	0	0	+	+	..	..	..	..
" 13		3000	584	..	..	+	+	..	+	+	..
" 14		3000	210	..	..	..	+	+	..	+	+
" 16		900	108	..	..	..	+	+	..	+	+
Averages		**2175**	**822.1**	**28**	**61**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	77	600	4300	..	0	+	+	..	+	+	..
" 31		..	48	+	+	+	..	..	+	+	..
June 2		2320	1980	..	+	+	+	..	..	+	..
" 3		3500	spreader	0	0	+	+	..	+	+	..
" 4		2040	1400	0	+	+	+	..	+	+	..
" 5		1240	630	..	+	+	+	..	..	+	..
" 6		3200	836	0	0	+	+	..	+	..	..
" 7		..	..	0	+	+	+	..	..	..	..
" 9		520	120	0	+	+	+	..	..	..	..
" 10		2580	160	+	+	+	+	..	..	..	..
" 13		4000	430	+	0	0	+	..	+	..	..
" 14		7760	640	..	0	+	+	..	+	..	..
" 16		3000	320	..	0	0	0	..	+	..	..
Averages		**2796.3**	**1671**	**271**	**54**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 30	78	32	132	..	0	0	+	..	+	+	..
" 31		800	64	..	0	+	0	..	+	+	..
June 2		560	368	..	0	+	+	..	..	+	..
" 3		240	32	..	0	+	+	..	+	+	0
" 4		740	400	..	0	+	+	..	+	+	..
" 5		50	20	..	0	+	+	..	+	..	..
" 6		340	1130	..	0	0	+	..	+	..	..
" 7		..	..	0	+	..	+	..	..	..	..
" 9		704	220	0	0	+	+	..	..	..	..
" 10		500	40	0	0	0	+	..	..	..	..
Averages		**440.6**	**222.6**	**16**	**30**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	79	800	29	..	0	0	0	..	+	0	..
" 31		125	spreader	..	0	0	0	..	+	+	..
June 2		480	162	..	0	0	+	..	..	+	..
" 3		2200	spreader	..	0	0	0	..	+	+	..
" 4		82	spreader	..	0	0	0	..	+	+	..
" 5		180	30	..	0	+	+	..	+	..	..
" 6		260	217	..	0	0	+	..	+	..	..
" 7		..	..	0	0	0	0	..	..	..	..
" 9		207	1	0	0	0	0	..	..	..	..
" 10		240	..	0	0	0	+	..	..	..	..
Averages		**508.2**	**68.6**	**1**	**34**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	80	125	64	..	0	0	0	..	+	0	..
" 31		90	spreader	..	0	0	+	..	+	+	+
June 2		103	spreader	..	0	0	0	..	..	+	..
" 3		116	4	..	0	0	+	..	+	+	..
" 4		250	26	..	0	+	+	..	+	+	..
" 5		420	0	..	0	0	+	..	..	+	..
" 6		240	356	..	0	+	0	..	+	..	..
" 7		..	..	0	0	0	+	..	..	..	..
" 9		1560	4	0	0	0	+	..	..	..	..
" 10		610	..	0	0	0	+	..	..	..	..
Averages		**390.4**	**65.5**	**2**	**61**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	81	140	100	..	0	0	0	..	+	0	0
" 31		450	spreader	..	0	0	0	..	+	+	+
June 2		310	spreader	..	0	0	0	..	..	+	..
" 3		210	4	..	0	0	+	..	+	+	..
" 4		320	80	..	0	+	+	..	+	+	..
" 5		40	120	..	0	+	+	..	..	+	..
" 6		320	spreader	..	0	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 7	81	..	..	0	0	0	+	..	..	..	..
" 9		1000	3	0	0	0	0	..	..	..	..
" 10		200	0	0	0	0	+	..	..	..	..
Averages		**332.2**	**61.8**	**2**	**42**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	82	120	74	..	0	0	0	..	+	+	..
" 31		200	56	..	0	0	0	..	+	+	..
June 2		90	50	..	0	0	0	..	+	+	..
" 3		500	19	..	0	0	0	..	+	+	..
" 4		30	48	..	0	0	+	..	+	+	..
" 5		120	40	..	0	0	+	..	..	+	..
" 6		280	68	..	0	0	0	..	+	..	..
" 7		..	..	0	0	0	+	..	..	..	..
" 9		..	spreader	0	0	0	+	..	..	..	..
" 10		128	0	0	0	0	+	..	..	..	..
Averages		**183.5**	**44.3**	**5**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	83	900	420	..	0	0	+	..	+	+	..
" 31		..	1100	..	0	0	+	..	+	+	..
June 2		1900	spreader	..	0	+	+	..	+	+	..
" 3		1040	spreader	..	0	+	+	..	+	+	..
" 4		1100	200	..	0	0	+	..	+	+	..
" 5		2160	310	..	0	+	+	..	..	+	..
" 6		2800	1760	..	+	+	0	..	+	..	..
" 7		..	..	0	0	0	+	..	..	..	..
" 9		50	110	0	0	+	+	..	..	..	..
" 10		370	10	0	0	0	+	..	..	..	..
Averages		**1415**	**463.3**	**145**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
" 31	84	Too high	3800	..	+	+	+	..	+	+	..
June 2		2850	179	..	0	0	+	..	+	..	..
" 3		7000	spreader	0	+	+	+	..	+	+	..
" 4		4760	spreader	+	+	+	+	..	+	+	..
" 5		1360	390	+	+	+	+	..	..	+	..
" 6		6500	1200	0	0	+	+	..	+	..	..
" 7		..	..	0	0	0	+	..	..	..	..
" 9		240	140	0	0	+	+	..	..	..	..
" 13		3000	320	0	0	0	+	..	+	..	..
" 14		4000	520	..	+	+	+	..	+	..	..
" 16		3400	..	..	+	0	+	..	+	..	..
Averages		**3678.8**	**824**	**220**	**27**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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June 11.....	85	2576	548	..	+	..	+	+	..	+	+
" 11.....	86	1120	234	..	+	..	+	+	..	+	+
" 11.....	87	688	170	..	+	..	+	+	..	+	+
" 11.....	88	1720	15	..	0	..	+	+	..	+	+
" 11.....	89	808	248	..	0	..	+	+	..	+	+
" 11.....	90	1040	144	..	0	..	+	+	..	+	+
" 11.....	91	2328	342	..	+	..	+	+	..	+	+
" 11.....	92	1280	756	..	+	..	+	+	..	+	+
" 11.....	93	1656	308	..	+	..	+	+	..	+	+
" 11.....	94	2500	600	..	+	..	+	+	..	+	+
" 11.....	95	500	152	..	0	..	+	+	..	+	+
" 11.....	96	1000	220	..	0	..	+	+	..	0	+
" 11.....	97	1600	300	..	0	..	+	+	..	+	+
" 11.....	98	900	136	..	0	..	+	+	..	+	+
" 11.....	99	2000	144	..	0	..	+	+	..	+	+
" 11.....	100	2500	380	..	0	..	+	+	..	+	+
" 11.....	101	1500	156	..	+	..	0	+	..	+	+
" 11.....	102	1000	spreader	..	0	..	0	+	..	+	+
" 11.....	103	1200	spreader	..	+	..	0	+	..	+	+
" 11.....	104	800	spreader	..	0	..	0	+	..	+	+
June 12.....	105	142	3	..	0	..	+	..	+	+	..
" 13.....		50	spreader	..	0	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 14.....	105	276	94	..	..	0	0	..	..	+	..
" 16.....		..	..	..	0	0	0	..	+	..	..
" 12.....	106	8	7	..	0	..	+	..	+	+	..
" 13.....		54	spreader	..	0	0	+	..	+	..	..
" 14.....		154	74	..	..	0	0	..	..	+	..
" 16.....		680	..	..	0	0	0	..	0	..	..
" 12.....	107	26	107	..	0	..	+	..	+	+	..
" 13.....		30	spreader	..	0	0	+	..	+	..	..
" 14.....		35	164	..	..	0	0	..	..	0	..
" 16.....		840	..	..	0	0	0	..	0	..	..
" 12.....	108	150	spreader	..	0	..	0	..	+	+	..
" 13.....		26	34	..	0	0	+	..	+	..	..
" 14.....		101	48	..	..	0	0	..	..	+	..
" 16.....		..	340	..	0	0	0	..	0	..	..
" 12.....	109	140	66	..	0	..	0	..	+	+	..
" 14.....		57	78	..	..	0	0	..	..	+	..
" 16.....		720	12	..	0	0	0	..	0	..	..
" 12.....	110	32	130	..	0	..	+	..	+	+	..
" 14.....		83	64	..	..	0	0	..	..	+	..
Averages.....				40 B. Coli per 100 cc							

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of Lake Erie and the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 5	a117	..	104	..	..	+	+	..	+	..	..
" 6		..	78	..	..	0	0	..	+	..	..
" 7		..	96	..	..	0	+	..	+	..	..
" 9		..	26	..	..	0	+	..	0	..	..
" 10		..	176	..	..	0	0	..	+	..	..
" 11		..	121	..	..	0	+	..	..	..	..
" 12		..	315	..	..	0	0	..	+	..	..
" 13		..	612	..	..	0	+	..	+	..	..
" 14		..	310	..	..	0	0	..	+	..	..
" 16		..	1520	..	..	+	+	..	+	..	..
" 17		..	710	..	..	0	0	..	+	..	..
" 18		..	940	..	..	0	0	..	+	..	..
" 19		..	510	..	..	0	0	..	+	..	..
" 21		..	530	..	..	+	+	..	..	..	..
" 23		..	770	..	..	0	+	..	+	..	..
" 24		..	1100	..	..	+	+	..	+	..	..
Averages			**494**	**28**	**3.**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 6	117	..	223	0	0	..	+	..	..	..	..
" 17		..	10	..	0	0	0	..	..	..	..
" 18		..	16	..	..	0	0	..	+	..	..
" 19		..	9	..	..	0	0	..	+	..	..
" 22		..	9	..	..	0	0	..	0	..	..
" 23		..	15	..	..	..	0	..	+	..	..
" 24		..	7	..	..	0	+	..	+	..	..
" 26		..	12	..	..	..	0	..	0	..	..
" 27		..	6	..	..	0	0	..	0	..	..
" 28		..	6	..	..	0	0	..	0	..	..
June 2		..	7	..	..	0	0	..	0	..	..
" 3		..	167	..	..	0	0	..	0	..	..
" 4		..	18	..	..	..	0	..	0	..	..
" 5		..	124	..	..	0	0	..	+	..	..
" 6		..	81	..	..	..	0	..	+	..	..
" 7		..	117	..	..	0	+	..	+	..	..
" 9		..	8	..	..	0	0	..	+	..	..
" 10		..	18	..	..	0	0	..	0	..	..
" 11		..	15	..	..	0	0	..	0	..	..
" 12		..	14	..	..	0	0	..	+	..	..
" 13		..	99	..	..	0	0	..	+	..	..
" 14		..	322	..	..	0	+	..	+	..	..
" 16		..	10	..	..	0	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 17	117	..	52	..	..	0	+	..	..	..	..
" 18		..	54	..	..	+	0	..	0	..	..
" 19		..	3	+	+	0	0	..	0	..	..
" 20		..	8	..	..	0	0	..	0	..	..
" 21		..	1	..	..	0	0	..	0	..	..
" 23		..	60	..	..	0	+	..	+	..	..
" 24		..	31	..	..	0	0	..	+	..	..
Averages			**52**		**27**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 6	118	..	80	0	0	..	+	..	..	..	..
" 17		..	12	..	0	0	+	..	..	..	..
" 18		..	8	..	0	0	0	..	..	..	..
" 19		..	6	..	..	0	0	..	0	..	..
" 22		..	5	..	..	0	0	..	0	..	..
" 23		..	6	..	..	..	0	..	0	..	..
" 24		..	4	..	..	..	0	..	0	..	..
" 26		..	8	..	..	..	0	..	0	..	..
" 27		..	6	..	..	..	0	..	0	..	..
" 28		..	18	..	..	..	0	..	0	..	..
June 2		..	18	..	..	..	0s	..	+	..	..
" 3		..	2	..	..	..	0	..	0s	..	..
" 4		..	25	..	..	..	0	..	+	..	..
" 5		..	41	..	..	+	+	..	+	..	..
" 6		..	6	..	..	..	0	..	0	..	..
" 9		..	5	..	..	..	0	..	0	..	..
" 10		..	7	..	..	..	0	..	0	..	..
" 11		..	8	..	..	..	0	..	0	..	..
" 12		..	2	..	..	..	0	..	0	..	..
" 13		..	6	..	..	..	0	..	0	..	..
" 14		..	3	..	..	..	0	..	0	..	..
" 16		..	2	..	..	..	0	..	0	..	..
" 17		..	161	..	..	..	+	..	+	..	..
" 18		..	2	..	..	..	0	..	0	..	..
" 19		..	1	..	..	..	0	..	0	..	..
" 20		..	6	..	..	..	0	..	0	..	..
" 21		..	2	..	..	..	0	..	0	..	..
" 23		..	0	..	..	..	0	..	0	..	..
" 24		..	4	..	..	..	0	..	0	..	..
Averages			**15**		**45**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of Lake Erie and the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 6	119	..	4	..	..	0	0	..	0	..	..
" 17		..	6	..	..	0	0	..	0	..	..
" 18		..	6	..	..	..	0	..	0	..	..
" 22		..	3	..	..	..	0	..	0	..	..
" 23		..	3	..	..	..	0	..	0	..	..
" 24		..	3	..	..	..	0	..	0	..	..
" 26		..	2	..	..	..	0	..	0	..	..
" 27		..	10	..	..	..	0	..	0	..	..
" 28		..	4	..	..	..	0	..	0	..	..
June 2		..	5	..	..	..	0	..	0	..	..
" 3		..	1	..	..	..	0	..	0	..	..
" 4		..	16	..	..	..	0	..	+	..	..
" 5		..	6	..	..	..	0	..	+	..	..
" 6		..	3	..	..	..	0	..	0	..	..
" 9		..	9	..	..	..	0	..	0	..	..
" 10		..	1	..	..	..	0	..	0	..	..
" 11		..	5	..	..	..	0	..	0	..	..
" 12		..	5	..	..	..	..	..	0	..	..
" 13		..	1	..	..	..	0	..	0	..	..
" 14		..	1	..	..	..	0	..	0	..	..
" 16		..	3	..	..	..	0	..	0	..	..
" 17		..	1	..	..	..	..	..	0	..	..
" 18		..	1	..	..	..	..	..	0	..	..
" 19		..	2	..	..	..	..	..	0	..	..
" 20		..	4	..	..	..	..	..	0	..	..
" 21		..	2	..	..	..	0	..	0	..	..
" 23		..	8	..	..	..	0	..	0	..	..
" 24		..	3	..	..	..	0	..	0	..	..
Averages			4	**0**	**.6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6	119a	..	10	..	..	0	0	..	0	..	..
" 17		..	7	..	..	..	0	..	0	..	..
" 18		..	5	..	..	..	0	..	0	..	..
" 19		..	16	..	..	..	0	..	0	..	..
" 22		..	7	..	..	..	0	..	0	..	..
" 23		..	4	..	..	..	0	..	0	..	..
" 24		..	3	..	..	..	0	..	0	..	..
" 26		..	9	..	..	..	0	..	0	..	..
" 27		..	4	..	..	..	0	..	0	..	..
" 28		..	4	..	..	..	0	..	0s	..	..
June 2		..	2	..	..	..	0	..	0	..	..
" 3		..	28	..	..	..	0	..	0	..	..
" 4		..	6	..	..	..	0	..	0	..	..
" 5		..	1	..	..	..	0	..	0	..	..
" 6		..	9	..	..	..	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 9	119a	..	11	..	..	..	0	..	0	..	..
" 10		..	1	..	..	..	0	..	0	..	..
" 11		..	1	..	..	..	0	..	0	..	..
" 12		..	1	..	..	..	..	..	0	..	..
" 13		..	5	..	..	..	..	..	0	..	..
" 14		..	3	..	..	..	..	..	0	..	..
" 16		..	1	..	..	..	0	..	0	..	..
" 17		..	1	..	..	..	..	..	0	..	..
" 18		..	3	..	..	..	..	..	0	..	..
" 19		..	2	..	..	..	..	..	0	..	..
" 20		..	4	..	..	..	..	..	0	..	..
" 21		..	1	..	..	..	..	..	0	..	..
" 23		..	3	..	..	..	..	..	0	..	..
" 24		..	2	..	..	..	..	..	0	..	..
Averages			5		**.0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 17	120	..	3	..	..	..	0	..	0	..	..
" 18		..	3	..	..	..	0	..	0	..	..
" 19		..	5	..	..	..	0	..	0	..	..
" 22		..	5	..	..	..	0	..	0	..	..
" 23		..	4	..	..	..	0	..	0	..	..
" 24		..	3	..	..	..	0	..	0	..	..
" 26		..	11	..	..	..	0	..	0	..	..
" 27		..	9	..	..	..	0	..	0	..	..
" 28		..	4	..	..	..	0	..	0	..	..
June 2		..	3	..	..	..	0	..	0	..	..
" 3		..	5	..	..	..	0	..	0	..	..
" 4		..	9	..	..	..	0	..	0	..	..
" 5		..	3	..	..	..	0	..	0	..	..
" 6		..	2	..	..	..	0	..	0	..	..
" 9		..	7	..	..	..	..	..	0	..	..
" 10		..	3	..	..	..	0	..	0	..	..
" 11		..	3	..	..	..	0	..	0	..	..
" 12		..	1	..	..	..	..	..	0	..	..
" 13		..	5	..	..	..	..	..	0	..	..
" 14		..	5	..	..	..	..	..	0	..	..
" 16		..	4	..	..	..	0	..	0	..	..
" 17		..	13	..	..	..	..	..	0	..	..
" 18		..	3	..	..	..	..	..	0	..	..
" 19		..	2	..	..	..	..	..	0	..	..
" 20		..	4	..	..	..	..	..	0	..	..
" 21		..	3	..	..	..	..	..	0	..	..
" 23		..	5	..	..	..	..	..	0	..	..
" 24		..	4	..	..	..	..	..	0	..	..
Averages			4	**.0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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May 17	121	..	1	..	..	0	0	..	0	..	..
" 18		..	1	..	..	..	0	..	0	..	..
" 19		..	3	..	..	..	0	..	0	..	..
" 22		..	6	..	..	..	0	..	0	..	..
" 23		..	6	..	..	..	0	..	0	..	..
" 24		..	14	..	..	..	0	..	0	..	..
" 26		..	4	..	..	..	0	..	0	..	..
" 27		..	10	..	..	..	0	..	0	..	..
" 28		..	2	..	..	..	0	..	0	..	..
June 2		..	5	..	..	..	0	..	+	..	..
" 3		..	4	..	..	..	0	..	0	..	..
" 4		..	8	..	..	..	0	..	0	..	..
" 5		..	3	..	..	..	0	..	0	..	..
" 6		..	2	..	..	..	0	..	0	..	..
" 9		..	5	..	..	..	..	..	0	..	..
" 10		..	2	..	..	..	0	..	0	..	..
" 11		..	3	..	..	..	0	..	0	..	..
" 12		..	5	..	..	..	..	..	0	..	..
" 13		..	3	..	..	..	..	..	0	..	..
" 14		..	1	..	..	..	0	..	0	..	..
" 16		..	2	..	..	..	0	..	0	..	..
" 17		..	4	..	..	..	..	..	0	..	..
" 18		..	2	..	..	..	..	..	0	..	..
" 19		..	1	..	..	..	0	..	0	..	..
" 20		..	2	..	..	..	0	..	0	..	..
" 21		..	2	..	..	..	..	..	0	..	..
" 23		..	3	..	..	..	..	..	0	..	..
" 24		..	5	..	..	..	..	..	0	..	..
Averages			**3**	**0.**	**3**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6	122	..	141	0	0	..	0	..	..	..	..
" 17		..	57	..	..	0	+	..	+	..	..
" 18		..	36	..	..	0	+	..	+	..	..
" 19		..	20	..	..	+	0	..	+	..	..
" 22		..	172	..	0	+	+	..	+	..	..
" 23		..	410	0	0	+	+	..	+	..	..
" 24		..	1540	..	..	0	+	..	+	..	..
" 26		..	680	..	0	0	0	..	+	..	..
" 27		..	340	..	..	0	+	..	+	..	..
" 28		..	1160	..	0	+	+	..	+	..	..
" 31		..	340	..	0	+	+	..	..	..	..
June 2		..	480	..	0	+	+	..	..	..	..
" 3		..	1290	..	..	0	+	..	+	..	..
" 4		..	270	..	0	0	0	..	..	..	..
" 5		..	60	..	0	+	+	..	..	..	..
" 6		..	180	..	0	+	+	..	+	..	..
" 7		..	380	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 9	122	..	1540	..	0	+	+	..	+	..	..
" 10		..	151	..	..	+	+	..	+	..	..
" 11		..	100	..	..	0	0	..	+	..	..
" 12		..	87	..	0	0	+	..	..	..	..
" 13		..	314	..	..	0	+	..	+	..	..
" 14		..	183	..	..	+	0	..	+	..	..
" 16		..	390	..	..	0	0	..	+	..	..
" 17		..	460	..	..	0	0	..	+	..	..
" 18		..	280	..	..	0	0	..	+	..	..
" 19		..	720	..	..	0	+	..	+	..	..
" 20		..	410	..	..	0	+	..	+	..	..
" 21		..	392	..	..	0	+	..	+	..	..
" 23		..	243	..	..	+	+	..	+	..	..
" 24		..	210	..	..	0	+	..	+	..	..
Averages			**435**	**43**	**9**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6	123	..	91	..	0	0	+	..	+	..	..
" 17		..	18	..	..	0	0	..	+	..	..
" 18		..	15	..	..	0	+	..	+	..	..
" 19		..	9	..	..	0	0	..	0	..	..
" 22		..	51	..	..	0	+	..	+	..	..
" 23		..	70	..	..	0	+	..	+	..	..
" 24		..	124	..	..	0	+	..	+	..	..
" 26		..	34	..	..	0	0	..	+	..	..
" 27		..	30	..	..	0	+	..	+	..	..
" 28		..	14	..	..	0	0	..	0	..	..
June 2		..	89	..	..	0	0	..	+	..	..
" 3		..	52	..	..	0	0	..	+	..	..
" 4		..	93	..	..	0	0	..	0	..	..
" 5		..	22	..	..	..	0	..	+	..	..
" 6		..	47	..	..	+	+	..	0	..	..
" 7		..	44	..	..	0	+	..	+	..	..
" 9		..	19	..	..	0	+	..	..	..	..
" 10		..	53	..	..	0	0	..	+	..	..
" 11		..	23	..	..	0	0	..	0	..	..
" 12		..	90	..	..	0	+	..	+	..	..
" 13		..	96	..	..	..	+	..	0	..	..
" 14		..	35	..	..	..	+	..	+	..	..
" 16		..	152	..	..	0	0	..	+	..	..
" 17		..	49	..	..	..	0	..	+	..	..
" 18		..	191	..	..	..	0	..	+	..	..
" 19		..	25	..	..	..	0	..	0	..	..
" 20		..	38	..	..	..	0	..	+	..	..
" 21		..	96	..	..	..	+	..	+	..	..
" 22		..	254	..	..	0	+	..	+	..	..
" 23		..	91	..	..	0	0	..	+	..	..
Averages			**58**	**49**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

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May 6.....	124	..	4	0	0	..	0	..	0	..	..
" 17.....		..	10	..	..	..	0	..	+	..	..
" 18.....		..	6	..	..	..	0	..	0	..	..
" 19.....		..	5	..	..	..	0	..	+	..	..
" 22.....		..	10	..	..	..	0	..	0	..	..
" 23.....		..	8	..	..	..	0	..	0	..	..
" 24.....		..	35	..	..	..	0	..	0	..	..
" 26.....		..	22	..	..	..	0	..	0	..	..
" 27.....		..	6	..	..	..	0	..	0	..	..
" 28.....		..	4	..	..	..	0	..	0	..	..
June 2.....		..	11	..	..	..	0	..	+	..	..
" 3.....		..	3	..	..	..	0	..	0	..	..
" 4.....		..	21	..	..	..	0	..	0	..	..
" 5.....		..	23	..	..	..	0	..	+	..	..
" 6.....		..	27	..	..	..	0	..	+	..	..
" 7.....		..	2	..	..	..	0	..	0	..	..
" 9.....		..	2	..	..	..	0	..	0	..	..
" 10.....		..	9	..	..	..	0	..	0	..	..
" 11.....		..	7	..	..	..	0	..	0	..	..
" 12.....		..	3	..	..	..	0	..	0	..	..
" 13.....		..	6	..	..	..	0	..	0	..	..
" 14.....		..	5	..	..	..	0	..	0	..	..
" 16.....		..	12	..	..	..	0	..	0	..	..
" 17.....		..	2	..	..	..	..	..	0	..	..
" 18.....		..	117	..	..	..	..	..	+	..	..
" 19.....		..	8	..	..	..	..	..	0	..	..
" 20.....		..	11	..	..	..	..	..	0	..	..
" 21.....		..	1	..	..	..	..	..	0	..	..
" 23.....		..	1	..	..	..	..	..	0	..	..
" 24.....		..	2	..	..	..	..	..	0	..	..
Averages.....			**14**	**2.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 6.....	125	..	7	0	0	..	0	..	0	..	..
" 17.....		..	6	..	..	..	0	..	0	..	..
" 18.....		..	4	..	..	..	0	..	0	..	..
" 19.....		..	6	..	..	..	0	..	0	..	..
" 22.....		..	3	..	..	..	0	..	0	..	..
" 23.....		..	6	..	..	..	0	..	0	..	..
" 24.....		..	6	..	..	..	0	..	0	..	..
" 26.....		..	7	..	..	..	0	..	0	..	..
" 27.....		..	3	..	..	..	0	..	0	..	..
" 28.....		..	2	..	..	..	0	..	0	..	..
June 2.....		..	2	..	..	..	0	..	0	..	..
" 3.....		..	7	..	..	..	0	..	0	..	..
" 4.....		..	19	..	..	..	0	..	0	..	..
" 5.....		..	3	..	..	..	0	..	0	..	..
" 6.....		..	4	..	..	..	0	..	0	..	..
" 7.....		..	6	..	..	..	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 9.....	125	..	3	..	..	..	0	..	0	..	..
" 10.....		..	4	..	..	..	0	..	0	..	..
" 11.....		..	3	..	..	..	0	..	0	..	..
" 12.....		..	3	..	..	..	0	..	0	..	..
" 13.....		..	3	..	..	..	..	..	0	..	..
" 14.....		..	7	..	..	..	..	..	0	..	..
" 16.....		..	4	..	..	..	0	..	0	..	..
" 17.....		..	2	..	..	..	..	..	0	..	..
" 18.....		..	2	..	..	..	0	..	0	..	..
" 19.....		..	3	..	..	..	..	..	0	..	..
" 20.....		..	4	..	..	..	..	..	0	..	..
" 21.....		..	2	..	..	..	..	..	0	..	..
" 23.....		..	4	..	..	..	..	..	0	..	..
" 24.....		..	2	..	..	..	..	..	0	..	..
Averages.....			**4**	**0**	**.3**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6.....	126	..	9	..	..	0	0	..	0	..	..
" 17.....		..	2	..	..	..	0	..	0	..	..
" 18.....		..	1	..	..	..	0	..	0	..	..
" 19.....		..	5	..	..	..	0	..	0	..	..
" 22.....		..	4	..	..	..	0	..	0	..	..
" 23.....		..	4	..	..	..	0	..	0	..	..
" 24.....		..	1	..	..	..	0	..	0	..	..
" 26.....		..	6	..	..	..	0	..	0	..	..
" 27.....		..	3	..	..	..	0	..	0	..	..
" 28.....		..	7	..	..	..	0	..	0	..	..
June 2.....		..	4	..	..	..	0	..	0	..	..
" 3.....		..	2	..	..	..	0	..	0	..	..
" 4.....		..	5	..	..	..	0	..	0	..	..
" 5.....		..	2	..	..	..	0	..	0	..	..
" 6.....		..	4	..	..	..	0	..	0	..	..
" 7.....		..	4	..	..	..	0	..	0	..	..
" 9.....		..	8	..	..	..	0	..	0	..	..
" 10.....		..	5	..	..	..	0	..	0	..	..
" 11.....		..	3	..	..	..	0	..	0	..	..
" 12.....		..	2	..	..	..	0	..	0	..	..
" 13.....		..	2	..	..	..	..	..	0	..	..
" 14.....		..	10	..	..	..	..	..	0	..	..
" 16.....		..	2	..	..	..	0	..	0	..	..
" 17.....		..	2	..	..	..	..	..	0	..	..
" 18.....		..	1	..	..	..	..	..	0	..	..
" 19.....		..	4	..	..	..	..	..	0	..	..
" 20.....		..	2	..	..	..	..	..	0	..	..
" 21.....		..	1	..	..	..	..	..	0	..	..
" 23.....		..	1	..	..	..	..	..	0	..	..
" 24.....		..	0	..	..	..	..	..	0	..	..
Averages.....			**3**	**0**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of Lake Erie and the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 6	127	..	10	..	..	0	0	..	0	..	..
" 17		..	7	..	..	..	0	..	0	..	..
" 18		..	4	..	..	..	0	..	0	..	..
" 19		..	4	..	..	..	0	..	0	..	..
" 22		..	4	..	..	..	0	..	0	..	..
" 23		..	13	..	..	..	0	..	0	..	..
" 24		..	4	..	..	..	0	..	0	..	..
" 26		..	4	..	..	..	0	..	0	..	..
" 27		..	7	..	..	..	0	..	0	..	..
" 28		..	10	..	..	..	0	..	0	..	..
June 2		..	4	..	..	..	0	..	0	..	..
" 3		..	4	..	..	..	0	..	0	..	..
" 4		..	3	..	..	..	0	..	0	..	..
" 5		..	3	..	..	..	0	..	0	..	..
" 6		..	3	..	..	..	0	..	0	..	..
" 7		..	7	..	..	..	0	..	+	..	..
" 9		..	3	..	..	..	0	..	0	..	..
" 10		..	4	..	..	..	0	..	0	..	..
" 11		..	3	..	..	..	0	..	+	..	..
" 12		..	3	..	..	..	0	..	0	..	..
" 13		..	2	..	..	..	..	..	0	..	..
" 14		..	4	..	..	..	0	..	0	..	..
" 16		..	1	..	..	..	0	..	0	..	..
" 17		..	2	..	..	..	..	..	0	..	..
" 18		..	1	..	..	..	..	..	0	..	..
" 19		..	4	..	..	..	..	..	0	..	..
" 20		..	2	..	..	..	..	..	0	..	..
" 21		..	4	..	..	..	..	..	0	..	..
" 23		..	3	..	..	..	..	..	0	..	..
" 24		..	2	..	..	..	..	..	0	..	..
Averages			**4**	**0**	**.6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6	128	..	18	0	0	..	0	..	0	..	..
" 16		..	22	..	0	0	0	..	+	..	..
" 17		..	233	..	..	0	+	..	+	..	..
" 18		..	171	..	..	+	+	..	+	..	..
" 19		..	82	..	..	0	+	..	+	..	..
" 22		..	790	..	0	+	+	..	+	..	..
" 23		..	600	..	..	+	+	..	+	..	..
" 24		..	850	..	..	+	+	..	+	..	..
" 26		..	1470	..	+	+	+	..	..	..	..
" 27		..	770	..	0	+	+	..	..	..	..
" 28		..	540	..	0	+	+	..	..	..	..
June 2		..	1230	..	0	0	+	..	..	..	..
" 3		..	450	..	0	+	+	..	..	..	..
" 4		..	720	..	0	+	+	..	..	..	..
" 5		..	270	..	0	0	+	..	..	..	..
" 6		..	3070	..	+	+	+	..	..	..	..
" 7		..	2270	..	0	+	+	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 9	128	..	1400	..	0	+	+	..	..	..	..
" 10		..	1310	..	0	0	+	..	..	..	..
" 11		..	140	..	0	0	+	..	..	..	..
" 12		..	210	..	0	0	+	..	..	..	..
" 13		..	290	..	..	+	+	..	..	..	..
" 14		..	230	..	..	+	+	..	..	..	..
" 16		..	370	..	..	0	+	..	..	..	..
" 17		..	280	..	0	+	+	..	..	..	..
" 18		..	7320	..	0	+	+	..	..	..	..
" 19		..	1150	..	0	+	+	..	..	..	..
" 20		..	1210	..	0	+	+	..	..	..	..
" 21		..	232	..	0	+	+	..	..	..	..
" 23		..	47	..	0	0	+	..	..	..	..
" 24		..	212	..	0	+	+	..	..	..	..
Averages			**971**	**126**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6	129	..	13	0	0	..	0	..	+	..	..
" 16		..	5	..	..	0	0	..	+	..	..
" 17		..	15	..	..	0	0	..	+	..	..
" 18		..	14	..	..	0	0	..	+	..	..
" 19		..	6	..	..	..	0	..	0	..	..
" 22		..	9	..	..	..	0	..	0	..	..
" 23		..	9	..	..	..	0	..	0	..	..
" 24		..	12	..	..	..	0	..	+	..	..
" 26		..	4	..	..	..	0	..	0	..	..
" 27		..	5	..	..	..	0	..	0	..	..
" 28		..	8	..	..	..	0	..	0	..	..
June 2		..	9	..	..	..	0	..	+	..	..
" 3		..	8	..	..	..	0	..	0	..	..
" 4		..	19	..	..	..	+	..	+	..	..
" 5		..	19	..	..	..	0	..	+	..	..
" 6		..	42	..	..	..	+	..	+	..	..
" 7		..	7	..	..	0	0	..	+	..	..
" 9		..	5	..	..	0	0	..	0	..	..
" 10		..	14	..	..	0	0	..	0	..	..
" 11		..	7	..	..	..	0	..	0	..	..
" 12		..	12	..	..	..	0	..	+	..	..
" 13		..	72	..	..	..	0	..	+	..	..
" 14		..	25	..	..	..	0	..	0	..	..
" 16		..	66	..	..	..	0	..	0	..	..
" 17		..	278	..	..	..	+	..	+	..	..
" 18		..	57	..	..	..	0	..	+	..	..
" 19		..	30	..	..	..	0	..	+	..	..
" 20		..	39	..	..	..	0	..	+	..	..
" 21		..	33	..	..	..	0	..	+	..	..
" 23		..	4	..	..	..	0	..	+	..	..
" 24		..	42	..	..	..	0	..	+	..	..
Averages			**28**	**1**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 16.....	130	..	4	..	..	..	0	..	0	..	..
" 17.....		..	7	..	..	..	0	..	0	..	..
" 18.....		..	52	..	..	..	0	..	0	..	..
" 19.....		..	5	..	..	..	0	..	0	..	..
" 22.....		..	11	..	..	..	0	..	0	..	..
" 23.....		..	8	..	..	..	0	..	0	..	..
" 24.....		..	8	..	..	..	0	..	0	..	..
" 26.....		..	3	..	..	..	0	..	0	..	..
" 27.....		..	3	..	..	..	0	..	0	..	..
" 28.....		..	2	..	..	..	0	..	0	..	..
June 2.....		..	7	..	..	..	0	..	0	..	..
" 3.....		..	46	..	..	..	0	..	+	..	..
" 4.....		..	32	..	..	..	0	..	+	..	..
" 5.....		..	12	..	..	..	0	..	+	..	..
" 6.....		..	4	..	..	..	0	..	+	..	..
" 7.....		..	11	..	..	..	0	..	0	..	..
" 9.....		..	8	..	..	..	0	..	0	..	..
" 10.....		..	4	..	..	..	0	..	0	..	..
" 11.....		..	2	..	..	..	0	..	0	..	..
" 12.....		..	2	..	..	..	0	..	0	..	..
" 13.....		..	14	..	..	..	0	..	0	..	..
" 14.....		..	24	..	..	..	0	..	0	..	..
" 16.....		..	5	..	..	..	0	..	0	..	..
" 17.....		..	6	..	..	..	0	..	0	..	..
" 18.....		..	76	..	..	..	+	..	+	..	..
" 19.....		..	2	..	..	..	0	..	0	..	..
" 20.....		..	6	..	..	..	0	..	0	..	..
" 21.....		..	3	..	..	..	0	..	0	..	..
" 23.....		..	4	..	..	0	+	..	0	..	..
" 24.....		..	6	..	..	0	0	..	0	..	..
Averages.....		..	**13**	**5.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 6.....	130a	..	7	..	..	0	0	..	0	..	..
" 16.....		..	9	..	..	..	0	..	0	..	..
" 17.....		..	3	..	..	..	0	..	0	..	..
" 18.....		..	27	..	..	..	0	..	0	..	..
" 19.....		..	5	..	..	..	0	..	0	..	..
" 22.....		..	18	..	..	..	0	..	0	..	..
" 23.....		..	4	..	..	..	0	..	0	..	..
" 24.....		..	2	..	..	..	0	..	0	..	..
" 26.....		..	6	..	..	..	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 27.....	130a	..	1	..	..	0	0	..	0	..	..
" 28.....		..	88	..	..	..	0	..	0	..	..
June 2.....		..	5	..	..	..	0	..	0	..	..
" 3.....		..	7	..	..	..	0	..	0	..	..
" 4.....		..	6	..	..	..	0	..	0	..	..
" 5.....		..	9	..	..	..	0	..	0	..	..
" 6.....		..	5	..	..	..	0	..	0	..	..
" 7.....		..	6	..	..	..	0	..	0	..	..
" 9.....		..	14	..	..	..	0	..	0	..	..
" 10.....		..	4	..	..	..	0	..	0	..	..
" 11.....		..	5	..	..	..	0	..	0	..	..
" 12.....		..	6	..	..	..	0	..	0	..	..
" 13.....		..	2	..	..	..	0	..	0	..	..
" 14.....		..	10	..	..	..	0	..	0	..	..
" 16.....		..	7	..	..	..	0	..	0	..	..
" 17.....		..	6	..	..	..	0	..	0	..	..
" 18.....		..	7	..	..	..	0	..	+	..	..
" 19.....		..	6	..	..	..	0	..	0	..	..
" 20.....		..	4	..	..	..	0	..	0	..	..
" 21.....		..	4	..	..	..	0	..	0	..	..
" 23.....		..	4	..	..	..	0	..	0	..	..
" 24.....		..	2	..	..	..	0	..	0	..	..
Averages.....		..	**9**	**0.**	**6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
July 11.....	130a	..	4	..	..	0	0	..	+	..	..
" 12.....		..	1	..	..	0	+	..	+	..	..
" 14.....		..	10	..	..	0	0	..	+	..	..
" 15.....		..	6	..	..	0	0	..	0	..	..
" 16.....		..	9	..	..	0	0	..	+	..	..
" 17.....		..	10	..	..	0	0	..	+	..	..
" 18.....		..	11	..	..	0	0	..	0	..	..
" 19.....		..	6	..	..	0	+	..	+	..	..
" 22.....		..	7	..	..	0	0	..	+	..	..
" 23.....		..	11	..	..	0	0	..	+	..	..
" 24.....		..	26	..	..	0	0	..	+	..	..
" 25.....		..	2	..	..	0	+	..	+	..	..
" 26.....		..	1	..	..	0	0	..	0	..	..
" 28.....		..	14	..	..	0	0	..	0	..	..
" 29.....		..	6	..	..	0	0	..	+	..	..
Averages.....		..	**9**	**12**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 11.....	130a	..	10	..	..	0	+	..	+	..	..
" 12.....		..	10	..	..	0	+	..	+	..	..
" 14.....		..	16	..	..	0	+	..	+	..	..
" 15.....		..	2	..	..	0	+	..	+	..	..
" 16.....		..	18	..	..	0	0	..	+	..	..
" 17.....		..	21	..	..	0	0	..	+	..	..
" 18.....		..	11	..	..	0	0	..	+	..	..
" 19.....		..	3	..	..	0	+	..	+	..	..
" 22.....		..	15	..	..	0	0	..	0	..	..
" 23.....		..	6	..	..	0	0	..	+	..	..
" 24.....		..	15	..	..	0	0	..	+	..	..
" 25.....		..	42	..	..	0	+	..	+	..	..
" 26.....		..	8	..	..	0	0	..	+	..	..
" 28.....		..	15	..	..	0	+	..	+	..	..
" 29.....		..	7	..	..	0	0	..	+	..	..
Averages.....		..	**13**	**1**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 16.....	131	..	4	..	..	..	0	..	0	..	..
" 17.....		..	4	..	..	..	0	..	0	..	..
" 18.....		..	17	..	..	..	0	..	0	..	..
" 19.....		..	3	..	..	..	0	..	0	..	..
" 22.....		..	38	..	..	..	0	..	0	..	..
" 23.....		..	11	..	..	..	0	..	0	..	..
" 24.....		..	5	..	..	..	0	..	0	..	..
" 26.....		..	10	..	..	..	0	..	0	..	..
" 27.....		..	4	..	..	..	0	..	0	..	..
" 28.....		..	6	..	..	..	0	..	0	..	..
June 2.....		..	6	..	..	..	0	..	0	..	..
" 3.....		..	5	..	..	..	0	..	+	..	..
" 4.....		..	6	..	..	..	0	..	+	..	..
" 5.....		..	12	..	..	..	0	..	+	..	..
" 6.....		..	6	..	..	..	+	..	+	..	..
" 7.....		..	5	..	..	..	0	..	+	..	..
" 9.....		..	4	..	..	..	0	..	0	..	..
" 10.....		..	10	..	..	..	0	..	0	..	..
" 11.....		..	5	..	..	..	0	..	+	..	..
" 12.....		..	3	..	..	..	+	..	0	..	..
" 13.....		..	14	..	..	..	0	..	0	..	..
" 14.....		..	42	..	..	..	0	..	0	..	..
" 16.....		..	38	..	..	..	0	..	0	..	..
" 17.....		..	12	..	..	..	0	..	0	..	..
" 18.....		..	7	..	..	..	0	..	+	..	..
" 19.....		..	10	..	..	..	..	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 20.....	131	..	6	..	..	..	..	..	0	..	..
" 21.....		..	9	..	..	..	0	..	0	..	..
" 23.....		..	7	..	..	..	0	..	0	..	..
" 24.....		..	18	..	..	..	0	..	+	..	..
Averages.....		..	**10**	**5.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 12.....	131a	..	6	..	..	0	0	..	+	..	..
" 14.....		..	12	..	..	0	+	..	+	..	..
" 15.....		..	26	..	..	0	0	..	0	..	..
" 16.....		..	22	..	..	0	0	..	+	..	..
" 17.....		..	22	..	..	0	+	..	+	..	..
" 18.....		..	14	..	..	0	0	..	+	..	..
" 19.....		..	15	..	..	0	0	..	+	..	..
" 22.....		..	18	..	..	0	0	..	+	..	..
" 23.....		..	6	..	..	0	+	..	+	..	..
" 24.....		..	12	..	..	0	0	..	0	..	..
" 25.....		..	1	..	..	0	+	..	+	..	..
" 26.....		..	4	..	..	0	+	..	+	..	..
" 28.....		..	9	..	..	0	+	..	+	..	..
" 29.....		..	6	..	..	0	+	..	+	..	..
Averages.....		..	**12.**	**7.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 12.....	131a	..	11	..	..	0	0	..	+	..	..
" 14.....		..	19	..	..	0	0	..	+	..	..
" 15.....		..	18	..	..	0	0	..	+	..	..
" 16.....		..	21	..	..	0	0	..	+	..	..
" 17.....		..	26	..	..	0	+	..	+	..	..
" 18.....		..	14	..	..	0	0	..	+	..	..
" 19.....		..	13	..	..	0	0	..	+	..	..
" 22.....		..	1	..	..	0	0	..	0	..	..
" 23.....		..	8	..	..	0	0	..	+	..	..
" 24.....		..	8	..	..	0	0	..	+	..	..
" 25.....		..	16	..	..	+	+	..	+	..	..
" 26.....		..	11	..	..	0	0	..	+	..	..
" 28.....		..	16	..	..	0	0	..	+	..	..
" 29.....		..	11	..	..	0	0	..	+	..	..
Averages.....		..	**13**	**1**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	132	..	700	..	..	+	+	..	+	..	..
" 13		..	1100	..	..	+	+	..	+	..	..
" 16		..	11700	..	+	+	+	..	..	..	..
" 17		..	8000	..	0	+	+	..	..	..	..
" 20		..	2900	+	+	+	+	..	..	..	..
" 21		..	1480	0	+	+	+	..	..	..	..
" 23		..	2800	..	+	+	+	..	..	..	..
" 24		..	1210	0	+	+	+	..	..	..	..
" 26		..	1830	0	0	+	+	..	..	..	..
" 27		..	3890	0	+	+	+	..	..	..	..
" 28		..	3500	+	+	+	+	..	..	..	..
" 29		..	3850	0	+	+	+	..	..	..	..
" 31		..	1950	+	+	+	..	..	..	..	..
June 2		..	1440	+	0	+	+	..	..	..	..
" 3		..	740	0	+	+	+	..	..	..	..
" 4		..	3390	+	+	+	..	..	..	..	..
" 5		..	13160	0	+	+	..	..	..	..	..
" 6		..	15100	+	+	+	..	..	..	..	..
" 7		..	30500	+	+	+	..	..	..	..	..
" 9		..	9200	0	+	+	..	..	..	..	..
" 10		..	2550	0	+	+	..	..	..	..	..
" 11		..	4330	0	+	+	..	..	..	..	..
" 12		..	2980	0	+	+	..	..	..	..	..
" 13		..	3210	0	0	+	..	..	..	..	..
" 14		..	2980	0	+	+	..	..	..	..	..
" 16		..	1920	0	+	+	..	..	..	..	..
" 17		..	2980	+	+	+	..	..	..	..	..
" 18		..	970	0	..	+	..	..	..	..	..
" 19		..	240	0	0	0	..	..	..	..	..
" 20		..	5780	0	+	+	..	..	..	..	..
" 21		..	3100	0	+	+	..	..	..	..	..
" 23		..	2570	0	+	+	..	..	..	..	..
" 24		..	2520	0	+	+	..	..	..	..	..
Averages		..	**4879**	**27**	**13**	**0.**	**B.**	**C.**	**per 100 cc**		

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 16	133	..	810	..	0	+	+	..	..	..	..
" 17		..	740	..	..	0	+	..	+	..	..
" 20		..	870	..	..	+	+	..	+	..	..
" 21		..	1240	..	0	+	+	..	..	..	..
" 23		..	1240	..	+	+	+	..	+	..	..
" 24		..	1620	..	+	+	+	..	..	..	..
" 26		..	1520	0	0	0	+	..	..	..	..
" 27		..	920	0	0	+	+	..	..	..	..
" 28		..	740	0	0	+	+	..	..	..	..
" 29		..	980	0	0	+	+	..	..	..	..
" 31		..	660	+	+	+	+	..	..	..	..
June 2		..	870	+	+	+	+	..	..	..	..
" 3		..	1150	+	0	+	+	..	..	..	..
" 4		..	2390	0	0	+	..	..	..	..	..
" 5		..	2320	0	+	+	..	..	..	..	..
" 6		..	1870	0	+	+	..	..	..	..	..
" 7		..	1970	0	+	+	..	..	..	..	..
" 9		..	2130	0	+	+	..	..	..	..	..
" 10		..	970	0	+	+	..	..	..	..	..
" 11		..	1220	0	+	+	..	..	..	..	..
" 12		..	980	0	0	+	..	..	..	..	..
" 13		..	2690	0	+	+	..	..	..	..	..
" 14		..	2100	0	+	+	..	..	..	..	..
" 16		..	1170	0	+	+	..	..	..	..	..
" 17		..	2790	0	+	+	..	..	..	..	..
" 18		..	1920	0	+	+	..	..	..	..	..
" 19		..	3850	0	0	+	..	..	..	..	..
" 20		..	2400	0	0	+	..	..	..	..	..
" 21		..	1600	0	0	+	..	..	..	..	..
" 23		..	1680	0	+	+	+	..	..	..	..
" 24		..	2230	0	0	+	..	..	..	..	..
Averages		..	**1576**	**27**	**13**	**0.**	**B.**	**C.**	**per 100 cc**		

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	134	..	4	..	..	0	0	..	0	..	..
" 13		..	7	..	..	0	0	..	0	..	..
" 16		..	18	..	..	..	0	..	0	..	..
" 17		..	4	..	..	..	0	..	0	..	..
" 20		..	27	..	..	..	0	..	+	..	..
" 21		..	5	..	..	0	0	..	0	..	..
" 23		..	12	..	..	0	0	..	+	..	..
" 24		..	8	..	..	..	0	..	0	..	..
" 26		..	5	..	..	..	0	..	0	..	..
" 27		..	8	..	..	..	0	..	0	..	..
" 28		..	41	..	..	..	+	..	+	..	..
" 29		..	4	..	..	0	0	..	+	..	..
" 31		..	3	..	..	+	+	..	+	..	..
June 2		..	5	..	..	0	0	..	0	..	..
" 3		..	3	..	..	..	0	..	0	..	..
" 4		..	21	..	..	0	0	..	+	..	..
" 5		..	24	..	..	0	+	..	+	..	..
" 6		..	6	..	..	0	0	..	0	..	..
" 7		..	6	..	..	..	+	..	+	..	..
" 9		..	2	..	..	0	0	..	0	..	..
" 10		..	8	..	..	0	+	..	+	..	..
" 11		..	3	..	..	0	0	..	0	..	..
" 12		..	2	..	..	..	0	..	0	..	..
" 13		..	2	..	..	..	0	..	0	..	..
" 14		..	12	..	..	..	0	..	+	..	..
" 16		..	1	..	..	..	0	..	0	..	..
" 17		..	2	..	..	..	0	..	0	..	..
" 18		..	8	..	..	..	0	..	0	..	..
" 19		..	1	..	..	..	0	..	0	..	..
" 20		..	4	..	..	..	+	..	+	..	..
" 21		..	5	..	..	..	0	..	+	..	..
" 23		..	6	..	..	..	0	..	0	..	..
" 24		..	1	..	..	..	0	..	0	..	..
Averages		..	8	4	7.	B.	C.	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	134a	..	4	..	..	0	0	..	0	..	..
" 13		..	12	..	..	0	0	..	0	..	..
" 16		..	10	..	..	..	0	..	0	..	..
" 17		..	4	..	..	..	0	..	0	..	..
" 20		..	8	..	..	..	0	..	0	..	..
" 21		..	3	..	..	..	0	..	0	..	..
" 23		..	32	..	..	..	0	..	+	..	..
" 24		..	9	..	..	..	0	..	0	..	..
" 26		..	3	..	..	..	0	..	0	..	..
" 27		..	8	..	..	..	0	..	0	..	..
" 28		..	5	..	..	..	0	..	0	..	..
" 29		..	4	..	..	..	0	..	0	..	..
" 31		..	2	..	..	..	0	..	0	..	..
June 2		..	4	..	..	..	0	..	0	..	..
" 3		..	2	..	..	..	0	..	0	..	..
" 4		..	9	..	..	..	0	..	0	..	..
" 5		..	14	..	..	..	0	..	0	..	..
" 6		..	4	..	..	..	0	..	0	..	..
" 7		..	5	..	..	..	+	..	+	..	..
" 9		..	5	..	..	..	0	..	0	..	..
" 10		..	5	..	..	..	0	..	0	..	..
" 11		..	3	..	..	..	0	..	0	..	..
" 12		..	4	..	..	..	0	..	+	..	..
" 13		..	5	..	..	..	0	..	0	..	..
" 14		..	11	..	..	..	0	..	+	..	..
" 16		..	4	..	..	..	0	..	0	..	..
" 17		..	5	..	..	..	0	..	0	..	..
" 18		..	8	..	..	..	0	..	0	..	..
" 19		..	2	..	..	..	..	..	0	..	..
" 20		..	1	..	..	..	0	..	+	..	..
" 21		..	1	..	..	..	0	..	0	..	..
" 23		..	2	..	..	..	0	..	0	..	..
" 24		..	3	..	..	+	0	..	0	..	..
Averages		..	6	1.	B.	Co	li	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 11	134a	..	12	..	..	0	0	..	+	..	..
" 12		..	11	..	..	0	+	..	+	..	..
" 14		..	7	..	..	0	+	..	+	..	..
" 15		..	4	..	..	0	+	..	+	..	..
" 16		..	8	..	..	0	0	..	+	..	..
" 17		..	12	..	..	0	0	..	+	..	..
" 18		..	9	..	..	0	0	..	+	..	..
" 19		..	13	..	..	0	0	..	+	..	..
" 22		..	4	..	..	0	0	..	+	..	..
" 23		..	15	..	..	0	0	..	0	..	..
" 24		..	36	..	..	0	0	..	+	..	..
" 25		..	5	..	..	0	+	..	+	..	..
" 26		..	20	..	..	0	0	..	+	..	..
" 28		..	24	..	..	+	+	..	+	..	..
" 29		..	9	..	..	0	+	..	+	..	..
Averages			**12**	**15**	**.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Deep Sample—	**18 f**	**eet below**	**the surfa**	**ce**							
July 11	134a	..	12	..	..	0	0	..	+	..	..
" 12		..	12	..	..	0	+	..	+	..	..
" 14		..	20	..	..	0	0	..	+	..	..
" 15		..	5	..	..	0	+	..	+	..	..
" 16		..	12	..	..	0	0	..	+	..	..
" 17		..	10	..	..	0	+	..	+	..	..
" 18		..	10	..	..	0	+	..	+	..	..
" 19		..	12	..	..	0	0	..	0	..	..
" 22		..	11	..	..	0	0	..	+	..	..
" 23		..	15	..	..	0	+	..	+	..	..
" 24		..	14	..	..	0	0	..	0	..	..
" 25		..	10	..	..	0	0	..	+	..	..
" 26		..	9	..	..	0	0	..	+	..	..
" 28		..	9	..	..	0	+	..	+	..	..
" 29		..	2	..	..	0	0	..	+	..	..
Averages			**10**	**8**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	135	..	6	..	..	.0	0	..	0	..	..
" 13		..	2	..	..	0	0	..	0	..	..
" 16		..	9	..	..	..	0	..	+	..	..
" 17		..	12	..	..	..	0	..	0	..	..
" 20		..	8	..	..	..	0	..	+	..	..
" 21		..	20	..	..	..	0	..	+	..	..
" 23		..	22	..	..	..	+	..	0	..	..
" 24		..	26	..	..	..	0	..	0	..	..
" 26		..	16	..	..	..	0	..	0	..	..
" 27		..	33	..	..	..	0	..	+	..	..
" 28		..	15	..	..	..	0	..	+	..	..
" 29		..	8	..	..	0	0	..	+	..	..
" 31		..	5	..	..	0	0	..	+	..	..
June 2		..	8	..	..	..	+	..	+	..	..
" 3		..	4	..	..	0	0	..	0	..	..
" 4		..	3	..	..	..	0	..	0	..	..
" 5		..	10	..	..	0	0	..	0	..	..
" 6		..	6	..	..	..	+	..	+	..	..
" 7		..	6	..	..	0	0	..	+	..	..
" 9		..	4	..	..	..	0	..	0	..	..
" 10		..	3	..	..	..	0	..	+	..	..
" 11		..	8	..	..	..	0	..	+	..	..
" 12		..	5	..	..	..	0	..	+	..	..
" 13		..	7	..	..	..	+	..	+	..	..
" 14		..	8	..	..	..	0	..	+	..	..
" 16		..	3	..	..	..	+	..	+	..	..
" 17		..	4	..	..	..	+	..	+	..	..
" 18		..	6	..	..	..	0	..	+	..	..
" 19		..	4	..	..	..	0	..	0	..	..
" 20		..	17	..	..	..	+	..	+	..	..
" 21		..	12	..	..	0	0	..	+	..	..
" 23		..	22	..	..	0	+	..	+	..	..
" 24		..	9	..	..	0	0	..	+	..	..
Averages			**9**	**22**	**.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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May 12	135a	..	5	..	..	0	0	..	0	..	..
" 13		..	7	..	..	0	0	..	0	..	..
" 16		..	2	..	..	..	0	..	0	..	..
" 17		..	10	..	..	..	0	..	0	..	..
" 20		..	3	..	..	..	0	..	0	..	..
" 21		..	12	..	..	..	0	..	0	..	..
" 23		..	3	..	..	..	0	..	0	..	..
" 24		..	5	..	..	..	0	..	0	..	..
" 26		..	3	..	..	..	0	..	0	..	..
" 27		..	7	..	..	..	0	..	0	..	..
" 28		..	4	..	..	..	0	..	0	..	..
" 29		..	6	..	..	..	0	..	0	..	..
" 31		..	3	..	..	..	0	..	0	..	..
June 2		..	8	..	..	..	0	..	0	..	..
" 3		..	5	..	..	..	0	..	0	..	..
" 4		..	7	..	..	..	0	..	0	..	..
" 5		..	7	..	..	..	0	..	0	..	..
" 6		..	5	..	..	..	0	..	+	..	..
" 7		..	2	..	..	..	0	..	0	..	..
" 9		..	2	..	..	..	0	..	0	..	..
" 10		..	6	..	..	..	0	..	0	..	..
" 11		..	3	..	..	..	0	..	0	..	..
" 12		..	3	..	..	..	0	..	+	..	..
" 13		..	5	..	..	..	0	..	0	..	..
" 14		..	8	..	..	..	0	..	0	..	..
" 16		..	7	..	..	..	0	..	0	..	..
" 17		..	4	..	..	..	0	..	0	..	..
" 18		..	6	..	..	..	0	..	0	..	..
" 19		..	3	..	..	..	0	..	0	..	..
" 20		..	4	..	..	..	0	..	+	..	..
" 23		..	1	..	..	..	0	..	0	..	..
" 24		..	1	..	..	..	+	..	+	..	..
" 25		..	8	..	..	0	0	..	0	..	..
" 26		..	3	..	..	..	0	..	0	..	..
" 27		..	1	..	..	0	0	..	0	..	..
" 28		..	2	..	..	0	0	..	0	..	..
" 30		..	1	..	..	..	0	..	0	..	..
July 1		..	3	..	..	..	0	..	0	..	..
" 2		..	2	..	..	0	0	..	0	..	..
" 3		..	4	..	..	..	0	..	0	..	..
" 5		..	3	..	..	0	+	..	+	..	..
" 7		..	23	..	..	0	+	..	+	..	..
" 8		..	178	..	..	0	+	..	+	..	..
" 9		..	46	..	..	0	0	..	0	..	..
" 10		..	36	..	..	..	0	..	+	..	..
" 11		..	12	..	..	0	0	..	+	..	..
" 12		..	11	..	..	0	0	..	0	..	..
" 14		..	26	..	..	0	0	..	0	..	..
" 15		..	7	..	..	0	0	..	0	..	..
Averages			10	5.	B.	Co	li	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 13	135b	..	12	..	..	0	0	..	+	..	..
" 16		..	12	..	..	0	+	..	+	..	..
" 17		..	22	..	..	..	+	..	+	..	..
" 20		..	12	..	..	+	+	..	+	..	..
" 21		..	21	..	..	0	+	..	+	..	..
" 23		..	56	..	..	0	+	..	+	..	..
" 24		..	21	..	..	0	+	..	+	..	..
" 26		..	17	..	..	0	0	..	0	..	..
" 27		..	19	..	..	..	0	..	+	..	..
" 28		..	58	..	..	0	+	..	+	..	..
" 29		..	34	..	..	0	+	..	+	..	..
" 31		..	12	..	..	0	+	..	+	..	..
June 2		..	27	..	..	0	0	..	+	..	..
" 3		..	14	..	..	0	0	..	+	..	..
" 4		..	11	..	..	0	0	..	+	..	..
" 5		..	29	..	..	0	0	..	+	..	..
" 6		..	35	..	..	0	+	..	+	..	..
" 7		..	18	..	..	0	+	..	+	..	..
" 9		..	12	..	..	0	0	..	+	..	..
" 10		..	13	..	..	0	0	..	+	..	..
" 11		..	6	..	..	..	0	..	0	..	..
" 12		..	8	..	..	..	0	..	0	..	..
" 13		..	10	..	..	0	0	..	+	..	..
" 14		..	19	..	..	0	0	..	+	..	..
" 16		..	16	..	..	0	0	..	+	..	..
" 17		..	27	..	..	0	+	..	+	..	..
" 18		..	21	..	..	0	0	..	+	..	..
" 19		..	32	..	..	0	0	..	+	..	..
" 20		..	24	..	..	0	0	..	+	..	..
" 23		..	40	..	..	0	+	..	+	..	..
" 24		..	24	..	..	0	+	..	+	..	..
" 25		..	123	..	..	0	+	..	+	..	..
" 26		..	19	..	..	0	+	..	+	..	..
" 27		..	38	..	..	0	+	..	+	..	..
" 28		..	42	..	..	0	+	..	+	..	..
" 30		..	4	..	..	0	0	..	0	..	..
July 1		..	7	..	..	0	+	..	+	..	..
" 2		..	22	..	..	0	0	..	+	..	..
" 3		..	212	..	..	+	+	..	+	..	..
" 5		..	42	..	..	0	+	..	+	..	..
" 7		..	73	..	..	+	+	..	+	..	..
" 8		..	291	..	..	+	+	..	+	..	..
" 9		..	97	..	..	0	+	..	+	..	..
" 10		..	49	..	..	0	+	..	+	..	..
" 11		..	43	..	..	0	+	..	+	..	..
" 12		..	13	..	..	0	+	..	+	..	..
" 14		..	50	..	..	0	0	..	+	..	..
" 15		..	17	..	..	+	+	..	+	..	..
Averages			37	13	1.	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	135c	..	420	..	..	+	+	..	+	..	..
" 13		..	259	..	..	+	+	..	+	..	..
" 16		..	890	..	0	+	+	..	..	..	..
" 17		..	1060	..	+	+	+	..	..	..	..
" 20		..	770	0	+	+	+	..	..	..	..
" 21		..	820	0	0	+	+	..	..	..	..
" 23		..	1020	0	+	+	+	..	..	..	..
" 24		..	1280	0	+	+	+	..	..	..	..
" 26		..	850	0	+	+	+	..	..	..	..
" 27		..	2060	0	+	+	+	..	..	..	..
" 28		..	710	+	+	+	+	..	..	..	..
" 29		..	1190	0	+	+	+	..	..	..	..
" 31		..	920	0	+	+	+	..	..	..	..
June 2		..	940	0	0	+	..	..	..	..	..
" 3		..	790	0	+	+	+	..	..	..	..
" 4		..	3590	+	0	+	+	..	..	..	..
" 5		..	2860	0	+	+	+	..	..	..	..
" 6		..	2060	0	+	+	+	..	..	..	..
" 7		..	3600	0	+	+	..	..	..	..	..
" 9		..	2340	0	+	+	..	..	..	..	..
" 10		..	2280	0	+	+	..	..	..	..	..
" 11		..	1180	0	0	+	..	..	..	..	..
" 12		..	1090	0	0	+	..	..	..	..	..
" 13		..	2210	0	0	+	+	..	..	..	..
" 14		..	1100	0	+	+	..	..	..	..	..
" 16		..	1290	0	+	+	..	..	..	..	..
" 17		..	1770	0	+	+	..	..	..	..	..
" 18		..	970	0	+	+	..	..	..	..	..
" 19		..	4780	+	+	+	..	..	..	..	..
" 20		..	3720	0	+	+	..	..	..	..	..
" 23		..	910	0	0	+	..	..	..	..	..
" 24		..	1610	+	+	+	..	..	..	..	..
" 25		..	1870	0	0	+	..	..	..	..	..
" 26		..	1910	0	0	+	..	..	..	..	..
" 27		..	1770	0	+	+	..	..	..	..	..
" 28		..	3820	0	+	+	..	..	..	..	..
" 30		..	890	0	0	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 1	135c	..	2160	0	+	+	..	..	..	..	..
" 2		..	3820	+	+	+	..	..	..	..	..
" 3		..	3270	0	+	+	..	..	..	..	..
" 5		..	2890	0	+	+	..	..	..	..	..
" 7		..	1400	0	0	+	..	..	..	..	..
" 8		..	5330	0	+	+	..	..	..	..	..
" 9		..	5090	+	+	+	..	..	..	..	..
" 10		..	4050	0	+	+	..	..	..	..	..
" 11		..	4120	0	0	+	..	..	..	..	..
" 12		..	2910	0	0	+	..	..	..	..	..
" 14		..	2190	0	+	+	..	..	..	..	..
" 15		..	3800	0	+	+	..	..	..	..	..
Averages			1627	162	20	B.	C.	pe	r 1	00	cc
May 12	136	..	3	..	..	0	0	..	0	..	..
" 13		..	5	..	..	0	0	..	+	..	..
" 16		..	0	..	..	..	0	..	0	..	..
" 20		..	5	..	..	..	0	..	0	..	..
" 21		..	11	..	..	..	0	..	+	..	..
" 24		..	7	..	..	..	0	..	0	..	..
" 26		..	6	..	..	..	0	..	0	..	..
" 27		..	20	..	..	..	0	..	0	..	..
" 28		..	4	..	..	..	0	..	0	..	..
" 29		..	2	..	..	..	0	..	0	..	..
" 31		..	4	..	..	..	0	..	0	..	..
June 2		..	3	..	..	..	0	..	0	..	..
" 3		..	3	..	..	..	0	..	+	..	..
" 4		..	3	..	..	..	0	..	0	..	..
" 5		..	6	..	..	..	0	..	+	..	..
" 6		..	1	..	..	..	0	..	0	..	..
" 7		..	2	..	..	..	+	..	+	..	..
" 9		..	2	..	..	..	0	..	0	..	..
" 10		..	4	..	..	..	0	..	*0	..	..
" 11		..	2	..	..	..	0	..	*0	..	..
Averages			3	1.	B.	Co	li	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	137	..	5	..	..	0	0	..	0	..	..
" 13		..	12	..	..	0	0	..	0	..	..
" 16		..	7	..	..	..	0	..	+	..	..
" 20		..	6	..	..	..	0	..	0	..	..
" 21		..	5	..	..	..	0	..	0	..	..
" 24		..	8	..	..	..	0	..	0	..	..
" 26		..	4	..	..	..	0	..	0	..	..
" 27		..	6	..	..	..	0	..	0	..	..
" 28		..	2	..	..	..	0	..	0	..	..
" 29		..	2	..	..	..	0	..	*0	..	..
" 31		..	3	..	..	..	0	..	0	..	..
June 2		..	2	..	..	..	0	..	0	..	..
" 3		..	2	..	..	..	0	..	+	..	..
" 4		..	3	..	..	..	0	..	0	..	..
" 5		..	8	..	..	..	0	..	*0	..	..
" 6		..	2	..	..	..	0	..	0	..	..
" 7		..	3	..	..	..	+	..	+	..	..
" 9		..	2	..	..	..	0	..	0	..	..
" 10		..	1	..	..	..	0	..	*0	..	..
" 11		..	4	..	..	..	0	..	*0	..	..
Averages			4.	6.	B.	Co	li	pe	r 1	00	cc
May 12	138	..	5	..	..	0	0	..	0	..	..
" 13		..	4	..	..	0	0	..	0	..	..
" 16		..	15	..	..	..	+	..	0	..	..
" 20		..	7	..	..	0	0	..	+	..	..
" 21		..	7	..	..	..	0	..	0	..	..
" 24		..	6	..	..	..	0	..	0	..	..
" 26		..	4	..	..	..	0	..	0	..	..
" 27		..	8	..	..	..	0	..	+	..	..
" 28		..	3	..	..	..	+	..	+	..	..
" 29		..	7	..	..	..	+	..	+	..	..
" 31		..	4	..	..	..	0	..	0	..	..
June 2		..	5	..	..	0	0	..	0	..	..
" 3		..	3	..	..	0	0	..	+	..	..
" 4		..	5	..	..	..	0	..	+	..	..
" 5		..	9	..	..	0	0	..	+	..	..
" 6		..	11	..	..	..	+	..	+	..	..
" 7		..	14	..	..	..	0	..	+	..	..
" 9		..	6	..	..	..	0	..	+	..	..
" 10		..	7	..	..	..	0	..	0	..	..
" 11		..	3	..	..	..	0	..	0	..	..
Averages		..	6.	2	3.	B.	C.	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	138a	..	2	..	..	..	0	..	0	..	..
" 13		..	1	..	..	..	0	..	0	..	..
" 14		..	2	..	..	..	0	..	0	..	..
" 16		..	3	..	..	..	0	..	0	..	..
" 17		..	2	..	..	..	..	..	0	..	..
" 18		..	2	..	..	..	..	..	0	..	..
" 19		..	1	..	..	..	..	..	0	..	..
" 20		..	5	..	..	..	0	..	0	..	..
June 23		..	2	..	..	..	0	..	+	..	..
" 24		..	1	..	..	..	0	..	+	..	..
" 25		..	3	..	..	..	0	..	+	..	..
" 26		..	1	..	..	..	+	..	+	..	..
" 27		..	5	..	..	..	0	..	0	..	..
" 28		..	1	..	..	0	0	..	+	..	..
" 30		..	1	..	..	0	0	..	0	..	..
July 1		..	0	..	..	..	0	..	0	..	..
" 2		..	1	..	..	..	0	..	0	..	..
" 3		..	1	..	..	..	0	..	0	..	..
" 5		..	1	..	..	..	0	..	0	..	..
" 7		..	22	..	..	..	+	..	+	..	..
" 8		..	339	..	+	..	+	..	+	..	..
" 9		..	30	..	..	..	+	..	+	..	..
" 10		..	34	..	..	..	0	..	0	..	..
" 11		..	19	..	..	..	0	..	+	..	..
" 12		..	12	..	..	..	0	..	0	..	..
" 14		..	15	..	..	..	0	..	0	..	..
" 15		..	16	..	..	..	0	..	0	..	..
" 17		..	2	..	..	..	0	..	+	..	..
" 18		..	14	..	..	..	0	..	+	..	..
" 19		..	16	..	..	..	+	..	+	..	..
" 22		..	2	..	..	0	0	..	+	..	..
" 23		..	8	..	..	0	+	..	+	..	..
" 24		..	26	..	..	0	0	..	+	..	..
" 25		..	16	..	..	0	+	..	+	..	..
" 26		..	11	..	..	0	+	..	+	..	..
" 28		..	6	..	..	0	+	..	+	..	..
" 29		..	3	..	..	0	0	..	0	..	..
Averages		..	17	10	B.	Co	li	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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June 12	138b	..	5	..	..	..	0	..	0	..	..
" 13		..	1	..	..	..	0	..	0	..	..
" 14		..	4	..	..	..	0	..	0	..	..
" 16		..	2	..	..	..	0	..	0	..	..
" 17		..	2	..	..	..	..	..	0	..	..
" 18		..	4	..	..	..	..	..	0	..	..
" 19		..	0	..	..	..	0	..	0	..	..
" 20		..	2	..	..	..	0	..	0	..	..
" 23		..	1	..	..	..	..	..	0	..	..
" 24		..	6	..	..	..	0	..	0	..	..
" 25		..	1	..	..	..	0	..	0	..	..
" 26		..	1	..	..	..	0	..	0	..	..
Averages		..	**2.**	**0.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 12	138c	..	1	..	..	..	0	..	0	..	..
" 13		..	3	..	..	..	0	..	0	..	..
" 14		..	4	..	..	..	0	..	0	..	..
" 16		..	6	..	..	..	0	..	0	..	..
" 17		..	6	..	..	..	..	..	0	..	..
" 18		..	5	..	..	..	..	..	0	..	..
" 19		..	2	..	..	..	..	..	+	..	..
" 20		..	3	..	..	..	0	..	0	..	..
June 23		..	1	..	..	..	..	..	0	..	..
" 24		..	7	..	..	..	0	..	0	..	..
" 25		..	10	..	..	..	0	..	0	..	..
" 26		..	2	..	..	..	0	..	0	..	..
" 27		..	1	..	..	..	0	..	0	..	..
" 28		..	1	..	..	..	0	..	+	..	..
" 30		..	1	..	..	..	0	..	0	..	..
July 1		..	2	..	..	..	0	..	0	..	..
" 2		..	3	..	..	..	0	..	0	..	..
" 3		..	0	..	..	..	0	..	0	..	..
" 5		..	6	..	..	..	0	..	+	..	..
" 7		..	16	..	..	..	+	..	+	..	..
" 8		..	39	..	..	..	+	..	+	..	..
" 9		..	22	..	..	..	0	..	0	..	..
" 10		..	11	..	..	..	+	..	+	..	..
" 11		..	7	..	..	..	0	..	+	..	..
" 12		..	6	..	..	..	+	..	+	..	..
" 14		..	10	..	..	..	0	..	+	..	..
" 15		..	1	..	..	..	+	..	+	..	..
" 17		..	13	..	..	..	0	..	0	..	..
" 18		..	12	..	..	..	0	..	+	..	..
" 19		..	11	..	..	..	0	..	+	..	..
" 22		..	2	..	..	..	0	..	0	..	..
" 23		..	12	..	..	..	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 24	138c	..	5	..	..	..	+	..	+	..	..
" 25		..	1	..	..	0	+	..	+	..	..
" 26		..	8	..	..	0	0	..	+	..	..
" 28		..	10	..	..	0	+	..	+	..	..
" 29		..	1	..	..	0	+	..	+	..	..
Averages		..	**6.**	**20**	**.B**	**.C**	**.**	**pe**	**r 1**	**00**	**cc**
May 12	138d	..	12	..	..	0	0	..	0	..	..
" 13		..	20	..	..	..	+	..	+	..	..
" 14		..	22	..	..	0	0	..	+	..	..
" 16		..	36	..	..	..	+	..	+	..	..
" 17		..	9	..	..	..	+	..	+	..	..
" 18		..	21	..	..	0	0	..	+	..	..
" 19		..	14	..	..	..	+	..	+	..	..
" 20		..	24	..	..	0	+	..	+	..	..
" 23		..	8	..	..	0	0	..	+	..	..
" 24		..	13	..	..	0	+	..	+	..	..
" 25		..	8	..	..	0	+	..	+	..	..
" 26		..	22	..	..	0	+	..	+	..	..
" 27		..	13	..	..	0	+	..	+	..	..
" 28		..	3	..	..	+	+	..	+	..	..
" 30		..	4	..	..	0	+	..	+	..	..
July 1		..	11	..	..	0	+	..	+	..	..
" 2		..	15	..	..	0	+	..	+	..	..
" 3		..	19	..	..	0	+	..	+	..	..
" 5		..	12	..	..	0	0	..	+	..	..
" 7		..	17	..	..	0	+	..	+	..	..
" 8		..	19	..	..	0	+	..	+	..	..
" 9		..	19	..	..	0	+	..	+	..	..
" 10		..	10	..	..	0	0	..	+	..	..
" 11		..	15	..	..	0	0	..	+	..	..
" 12		..	20	..	..	0	+	..	+	..	..
" 14		..	29	..	..	0	+	..	+	..	..
" 15		..	26	..	..	0	+	..	+	..	..
" 17		..	46	..	..	0	0	..	+	..	..
" 18		..	9	..	..	0	+	..	+	..	..
" 19		..	29	+	..	0	0	..	+	..	..
" 22		..	11	+	+	0	0	..	+	..	..
" 23		..	22	..	..	0	+	..	+	..	..
" 24		..	19	..	..	0	0	..	+	..	..
" 25		..	9	..	..	0	+	..	+	..	..
" 26		..	23	..	..	0	+	..	+	..	..
" 28		..	6	..	..	0	0	..	+	..	..
" 29		..	10	..	..	0	+	..	+	..	..
Averages		..	**16.**	**5**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	139	..	414	..	..	+	+	..	+	..	..
" 13		..	418	..	..	+	+	..	+	..	..
" 16		..	1112	..	+	+	+	..	..	..	..
" 17		..	420	..	+	+	+	..	..	..	..
" 20		..	360	0	+	+	+	..	..	..	..
" 21		..	770	0	0	+	+	..	+	..	..
" 23		..	1210	0	+	+	+	..	..	..	..
" 24		..	1100	+	+	+	+	..	..	..	..
" 26		..	540	0	+	+	+	..	..	..	..
" 27		..	1620	0	+	+	+	..	..	..	..
" 28		..	610	0	0	+	+	..	..	..	..
" 29		..	590	+	+	+	+	..	..	..	..
" 31		..	690	0	0	+	+	..	..	..	..
June 2		..	570	0	0	+	..	..	..	..	..
" 3		..	370	0	+	+	+	..	..	..	..
" 4		..	2540	0	0	+	+	..	..	..	..
" 5		..	2180	0	0	+	+	..	..	..	..
" 6		..	2710	0	0	+	+	..	..	..	..
" 7		..	3170	0	+	+	+	..	..	..	..
" 9		..	2160	0	+	+	+	..	..	..	..
" 10		..	1910	0	+	+	..	..	..	..	..
" 11		..	620	0	0	+	+	..	..	..	..
" 12		..	1570	0	+	+	..	..	..	..	..
" 13		..	2330	0	+	+	..	..	..	..	..
" 14		..	1920	0	0	+	..	..	..	..	..
" 16		..	1620	0	+	+	+	..	..	..	..
" 17		..	1450	0	+	0	..	..	..	..	..
" 18		..	2120	0	+	+	..	..	..	..	..
" 19		..	3400	0	0	+	..	..	..	..	..
" 20		..	3120	0	+	+	..	..	..	..	..
" 21		..	920	0	0	+	..	..	..	..	..
" 23		..	880	0	0	+	..	..	..	..	..
" 24		..	1570	0	0	+	..	..	..	..	..
Averages			1453	1	13	30	B. C. per 100 cc				

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Incub. temp 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 12	139a	..	166	..	..	+	+	..	+	..	..
" 13		..	350	..	..	+	+	..	+	..	..
" 16		..	24	..	0	0	+	..	..	..	..
" 17		..	93	..	0	0	+	..	..	..	..
" 20		..	105	..	..	0	+	..	..	..	..
" 21		..	720	..	..	+	+	..	+	..	..
" 23		..	210	..	0	+	+	..	+	..	..
" 24		..	150	0	+	+	+	..	..	..	..
" 26		..	100	..	0	+	+	..	..	..	..
" 27		..	80	0	0	+	+	..	..	..	..
" 28		..	180	0	0	+	+	..	..	..	..
" 29		..	46	+	0	+	+	..	..	..	..
" 31		..	380	0	0	+	+	..	..	..	..
June 2		..	121	0	0	+	..	..	..	..	..
" 3		..	140	0	+	+	+	..	..	..	..
" 4		..	202	..	0	0	+	..	..	..	..
" 5		..	770	..	0	+	+	..	..	..	..
" 6		..	2120	0	+	+	+	..	..	..	..
" 7		..	190	..	0	+	+	..	..	..	..
" 9		..	510	0	0	+	+	..	..	..	..
" 10		..	520	..	0	0	+	..	..	..	..
" 11		..	131	0	0	+	+	..	..	..	..
" 12		..	10	0	0	0	..	..	..	..	..
" 13		..	290	..	..	+	+	..	..	..	..
" 14		..	120	..	0	0	+	..	..	..	..
" 16		..	60	..	0	0	+	..	..	..	..
" 17		..	30	..	0	+	+	..	..	..	..
" 18		..	210	..	0	+	+	..	..	..	..
" 19		..	150	0	0	0	+	..	..	..	..
" 20		..	220	..	0	+	+	..	..	..	..
" 21		..	130	0	0	0	+	..	..	..	..
" 23		..	110	0	0	0	0	..	..	..	..
" 24		..	90	0	0	+	+	..	..	..	..
Averages			279	1	8	1	0. B. C. per 100 cc				

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

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May 12	140	..	20	..	..	0	0	..	+	..	..
" 13		..	116	..	..	0	+	..	+	..	..
" 16		..	22	..	..	0	0	..	0	..	..
" 17		..	11	..	..	..	0	..	0	..	..
" 20		..	4	..	..	..	0	..	+	..	..
" 21		..	29	..	..	..	+	..	+	..	..
" 23		..	33	..	..	..	0	..	+	..	..
" 24		..	8	..	..	0	0	..	0	..	..
" 26		..	9	..	..	..	0	..	0	..	..
" 27		..	7	..	..	0	+	..	+	..	..
" 28		..	3	..	..	..	0	..	+	..	..
" 29		..	4	..	..	..	0	..	0	..	..
" 31		..	5	..	..	0	0	..	+	..	..
June 2		..	15	..	..	..	0	..	0	..	..
" 3		..	1	..	..	..	0	..	0	..	..
" 4		..	8	..	..	..	0	..	+	..	..
" 5		..	5	..	..	..	0	..	+	..	..
" 6		..	8	..	..	..	+	..	0	..	..
" 7		..	7	..	..	..	0	..	0	..	..
" 9		..	4	..	..	0	0	..	0	..	..
" 10		..	5	..	..	..	0	..	0	..	..
" 11		..	2	..	..	..	0	..	0	..	..
" 12		..	1	..	..	..	0	..	0	..	..
" 13		..	4	..	..	..	0	..	0	..	..
" 14		..	6	..	..	..	0	..	0	..	..
" 16		..	3	..	..	..	0	..	0	..	..
" 17		..	12	..	..	..	..	..	+	..	..
" 18		..	8	..	..	..	..	..	0	..	..
" 19		..	4	..	..	..	0	..	0	..	..
" 20		..	2	..	..	..	0	..	0	..	..
" 21		..	3	..	..	..	0	..	0	..	..
" 23		..	8	..	..	..	0	..	+	..	..
" 24		..	3	..	..	..	0	..	0	..	..
Averages			**12**	**14**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
May 12	140a	..	10	..	..	0	0	..	0	..	..
" 13		..	40	..	..	0	0	..	0	..	..
" 16		..	12	..	..	..	0	..	0	..	..
" 17		..	5	..	..	..	0	..	0	..	..
" 20		..	3	..	..	..	0	..	0	..	..
" 21		..	9	..	..	..	+	..	+	..	..
" 23		..	12	..	..	..	0	..	0	..	..
May 24	140a	..	13	..	..	..	0	..	0	..	..
" 26		..	3	..	..	..	0	..	0	..	..
" 27		..	3	..	..	..	0	..	0	..	..
" 28		..	6	..	..	..	0	..	0	..	..
" 29		..	1	..	..	..	0	..	0	..	..
" 31		..	2	..	..	..	0	..	0	..	..
June 2		..	7	..	..	..	0	..	0	..	..
" 3		..	16	..	..	..	0	..	+	..	..
" 4		..	13	..	..	..	0	..	+	..	..
" 5		..	3	..	..	..	0	..	+	..	..
" 6		..	5	..	..	..	0	..	0	..	..
" 7		..	7	..	..	..	0	..	0	..	..
" 9		..	4	..	..	..	0	..	0	..	..
" 10		..	4	..	..	..	0	..	0	..	..
" 11		..	2	..	..	..	0	..	0	..	..
" 12		..	1	..	..	..	0	..	0	..	..
" 13		..	7	..	..	..	0	..	0	..	..
" 14		..	6	..	..	..	0	..	0	..	..
" 16		..	5	..	..	..	0	..	0	..	..
" 17		..	2	..	..	..	..	..	0	..	..
" 18		..	4	..	..	..	..	..	0	..	..
" 19		..	4	..	..	..	0	..	0	..	..
" 20		..	4	..	..	..	0	..	0	..	..
" 21		..	3	..	..	..	0	..	0	..	..
" 23		..	13	..	..	..	0	..	+	..	..
" 24		..	1	..	..	..	0	..	0	..	..
Averages			**7**	**4.**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 11	140a	..	27	..	..	0	+	..	+	..	..
" 12		..	16	..	..	..	0	..	0	..	..
" 14		..	24	..	..	..	0	..	0	..	..
Averages			**22**	**36**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
July 11	140a	..	20	..	..	0	0	..	+	..	..
" 12		..	35	..	..	..	0	..	+	..	..
" 14		..	29	..	..	0	+	..	+	..	..
Averages			**26**	**40**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

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May 12	141	..	5	..	..	0	0	..	0	..	..
" 13		..	6	..	..	0	0	..	+	..	..
" 16		..	24	..	..	..	0	..	+	..	..
" 17		..	27	..	..	..	0	..	+	..	..
" 20		..	15	..	..	..	0	..	0	..	..
" 21		..	22	..	..	..	0	..	+	..	..
" 23		..	12	..	..	..	0	..	+	..	..
" 24		..	30	..	..	..	0	..	0	..	..
" 26		..	19	..	..	..	0	..	0	..	..
" 27		..	4	..	..	..	0	..	0	..	..
" 28		..	7	..	..	..	0	..	+	..	..
" 29		..	5	..	..	..	0	..	+	..	..
" 31		..	2	..	..	..	0	..	+	..	..
June 2		..	5	..	..	..	0	..	0	..	..
" 3		..	21	..	..	..	+	..	+	..	..
" 4		..	7	..	..	..	+	..	0	..	..
" 5		..	13	..	..	..	0	..	+	..	..
" 6		..	19	..	..	..	0	..	+	..	..
" 7		..	14	..	..	..	+	..	+	..	..
" 9		..	7	..	..	0	0	..	0	..	..
" 10		..	14	..	..	0	+	..	+	..	..
" 11		..	3	..	..	..	0	..	+	..	..
" 12		..	1	..	..	0	+	..	0	..	..
" 13		..	3	..	..	..	+	..	0	..	..
" 14		..	4	..	..	..	0	..	0	..	..
" 16		..	6	..	..	..	0	..	+	..	..
" 17		..	6	..	..	..	0	..	+	..	..
" 18		..	12	..	..	..	0	..	+	..	..
" 19		..	8	..	..	..	0	..	+	..	..
" 20		..	24	..	..	0	+	..	+	..	..
" 21		..	18	..	..	..	0	..	+	..	..
" 23		..	4	..	..	..	0	..	+	..	..
" 24		..	7	..	..	..	0	..	+	..	..
Averages			**11**	**26**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
June 25	142	..	1490	..	..	+	+	..	+	..	..
" 26		..	1080	..	..	+	+	..	+	..	..
" 27		..	1980	..	..	+	+	..	+	..	..
" 28		..	3020	0	+	+	..	..	..	..	..
" 30		..	420	+	0	+	..	..	..	..	..
July 1		..	2120	0	+	+	..	..	..	..	..
" 2		..	2340	0	0	+	..	..	..	..	..
" 3		..	2840	0	0	+	..	..	..	..	..
" 7		..	750	0	0	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 8	142	..	2450	0	0	+	+	..	..	..	..
" 9		..	4430	0	+	+	..	..	..	..	..
" 10		..	2380	0	+	+	..	..	..	..	..
" 12		..	3590	0	+	+	..	..	..	..	..
" 14		..	1100	0	0	+	..	..	..	..	..
" 15		..	2000	0	+	+	..	..	..	..	..
Averages			**2132**	**5**	**86**	**9.**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
June 25	143	..	17	..	..	0	0	..	+	..	..
" 26		..	71	..	..	..	+	..	+	..	..
" 27		..	59	..	..	..	+	..	+	..	..
" 28		..	5	0	0	+	+	..	..	..	..
" 30		..	13	..	..	0	0	..	+	..	..
July 1		..	26	..	..	0	0	..	+	..	..
" 2		..	52	..	..	0	+	..	+	..	..
" 3		..	25	..	..	0	+	..	+	..	..
" 7		..	60	..	..	+	+	..	+	..	..
" 8		..	238	..	..	+	+	..	+	..	..
" 9		..	141	..	0	+	+	..	+	..	..
" 10		..	36	..	..	0	+	..	+	..	..
" 12		..	83	..	0	0	+	..	..	..	..
" 14		..	90	..	0	+	+	..	..	..	..
" 15		..	58	..	0	0	+	..	..	..	..
Averages			**84**	**44**	**2.**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
June 25	144	..	4	..	..	0	0	..	+	..	..
" 26		..	9	..	..	..	0	..	+	..	..
" 27		..	5	..	..	..	+	..	+	..	..
" 28		..	1	..	..	0	+	..	+	..	..
" 30		..	1	..	..	0	0	..	+	..	..
July 1		..	5	..	..	0	0	..	0	..	..
" 2		..	8	..	..	0	0	..	+	..	..
" 3		..	19	..	..	..	0	..	+	..	..
" 7		..	24	..	..	..	+	..	+	..	..
" 8		..	91	..	..	0	+	..	+	..	..
" 9		..	36	..	..	0	+	..	+	..	..
" 10		..	27	..	..	0	0	..	+	..	..
" 12		..	20	..	..	0	0	..	0	..	..
" 14		..	16	..	..	0	0	..	+	..	..
" 15		..	32	..	..	0	0	..	+	..	..
Averages			**19**	**57**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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June 27.....	144a	..	15	..	..	..	+	..	+	..	..
" 28.....		..	10	..	..	..	0	..	+	..	..
" 30.....		..	3	..	..	0	0	..	+	..	..
July 1.....		..	4	..	..	0	+	..	+	..	..
" 2.....		..	8	..	..	0	0	..	+	..	..
" 3.....		..	11	..	..	0	+	..	+	..	..
" 7.....		..	20	..	..	0	0	..	+	..	..
" 8.....		..	116	..	..	0	+	..	+	..	..
" 9.....		..	41	..	..	0	+	..	+	..	..
" 10.....		..	14	..	..	0	0	..	+	..	..
" 12.....		..	12	..	..	0	0	..	+	..	..
" 14.....		..	21	..	..	0	+	..	+	..	..
" 15.....		..	45	..	..	0	+	..	+	..	..
Averages.....			**26**	**86**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 27.....	144b	..	4	..	..	..	0	..	+	..	..
" 28.....		..	10	..	..	..	+	..	+	..	..
" 30.....		..	3	..	..	0	0	..	0	..	..
July 1.....		..	9	..	..	0	+	..	+	..	..
" 2.....		..	8	..	..	0	0	..	+	..	..
" 3.....		..	7	..	..	0	0	..	+	..	..
" 7.....		..	38	..	..	0	0	..	+	..	..
" 8.....		..	151	..	..	0	0	..	+	..	..
" 9.....		..	30	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 10.....	144b	..	5	..	..	0	0	..	+	..	..
" 12.....		..	27	..	..	0	0	..	+	..	..
" 14.....		..	36	..	..	0	+	..	+	..	..
" 15.....		..	12	..	..	0	+	..	+	..	..
Averages.....			**24**	**71**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 25.....	145	..	2320	..	..	+	+	..	+	..	..
" 26.....		..	3530	..	..	+	+	..	+	..	..
" 27.....		..	3830	+	+	+	..	..	..	..	..
" 28.....		..	1560	0	0	+	..	..	..	..	..
" 30.....		..	758	+	+	+	..	..	..	..	..
July 1.....		..	2090	0	+	+	+	..	..	..	..
" 2.....		..	3120	0	+	+	..	..	..	..	..
" 3.....		..	2130	0	+	+	..	..	..	..	..
" 5.....		..	1000	0	+	+	+	..	..	..	..
" 7.....		..	1010	0	0	+	..	..	..	..	..
" 8.....		..	3850	0	+	+	..	..	..	..	..
" 9.....		..	3310	0	+	+	..	..	..	..	..
" 10.....		..	6200	0	+	+	..	..	..	..	..
" 12.....		..	740	0	+	+	..	..	..	..	..
" 14.....		..	870	0	+	+	..	..	..	*	..
" 15.....		..	3320	0	+	+	..	..	..	..	..
Averages.....			**2477**	**214**	**66**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie, Ont. Water below the Falls at Niagara.
(Collected from a rowboat.)

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 17.....	145	11600	360	0	0	+	+	..	+	..	..
" 17.....	146	3160	280	0	0	0	+	..	+	..	..
" 17.....	147	920	260	0	0	0	+	..	+	..	..
" 17.....	148	3280	280	0	0	+	+	..	+	..	..
" 17.....	149	3800	340	0	0	+	+	..	+	..	..
" 17.....	150	3000	160	0	0	0	+	..	+	..	..
" 17.....	151	980	80	0	0	0	+	..	+	..	..
" 17.....	152	4700	260	..	0	+	+	..	+	..	..
" 17.....	153	800	180	..	0	0	+	..	+	..	..
" 17.....	154	8000	260	..	0	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 17.....	155	2160	380	..	0	+	+	..	+	..	..
" 17.....	156	3120	240	..	0	0	+	..	+	..	..
" 17.....	157	1560	..	..	0	0	+	..	+	..	..
" 17.....	158	650	260	..	0	+	+	..	+	..	..
" 17.....	159	490	120	..	0	+	+	..	+	..	..
" 17.....	160	840	280	..	0	0	+	..	+	..	..
" 17.....	161	660	380	..	0	+	+	..	+	..	..
" 17.....	162	800	180	..	0	0	0	..	+	..	..
" 17.....	163	600	440	..	0	+	+	..	+	..	..
" 17.....	164	920	300	..	0	0	+	..	+	..	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 25	146	..	167	..	..	+	+	..	+	..	..
" 26		..	123	..	..	+	+	..	+	..	..
" 27		..	396	..	0	+	+	..	..	..	..
" 28		..	117	..	..	0	+	..	+	..	..
" 30		..	48	..	..	0	+	..	+	..	..
July 1		..	37	..	..	0	+	..	+	..	..
" 2		..	102	..	..	+	+	..	+	..	..
" 3		..	116	..	..	0	+	..	+	..	..
" 5		..	357	..	..	+	+	..	+	..	..
" 7		..	33	..	0	0	0	..	..	..	..
" 8		..	475	..	0	+	+	..	..	..	..
" 9		..	271	..	0	+	+	..	+	..	..
" 10		..	247	..	0	+	+	..	..	..	..
" 12		..	93	..	0	0	+	..	..	..	..
" 14		..	108	..	0	0	+	..	..	..	..
" 15		..	168	..	0	+	+	..	..	..	..
Averages		..	**178**	**7**	**18**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 25	147	..	1	..	..	0	0	..	0	..	..
" 26		..	14	..	..	..	+	..	+	..	..
" 27		..	22	..	..	..	+	..	+	..	..
" 28		..	2	..	..	0	0	..	+	..	..
" 30		..	2	..	..	0	0	..	0	..	..
July 1		..	11	..	..	0	0	..	+	..	..
" 2		..	16	..	..	0	0	..	+	..	..
" 3		..	14	..	..	0	0	..	+	..	..
" 5		..	82	..	..	+	+	..	+	..	..
" 7		..	28	..	0	+	+	..	+	..	..
" 8		..	108	..	0	0	+	..	+	..	..
" 9		..	43	..	..	0	+	..	+	..	..
" 10		..	27	..	..	0	0	..	+	..	..
" 12		..	23	..	..	0	+	..	+	..	..
" 14		..	67	..	..	0	+	..	+	..	..
" 15		..	29	..	..	0	0	..	+	..	..
Averages		..	**30**	**2**	**33**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 25	148	..	1090	..	..	+	+	..	+	..	..
" 26		..	1710	..	..	+	+	..	+	..	..
" 27		..	1510	..	0	+	+	..	..	..	..
" 28		..	4020	0	0	+	+	..	..	..	..
" 30		..	1200	0	+	+	+	..	..	..	..
July 1		..	1590	0	+	+	..	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 2	148	..	2420	0	+	+	..	..	..	..	..
" 3		..	2350	0	+	+	..	..	..	..	..
" 5		..	1380	0	+	+	..	..	..	..	..
" 7		..	690	0	+	+	..	..	..	..	..
" 8		..	3470	0	+	+	..	..	..	..	..
" 9		..	2540	0	+	+	..	..	..	..	..
" 16		..	7200	+	+	+	..	..	..	..	..
" 17		..	8000	+	+	+	..	..	..	..	..
" 18		..	5100	0	+	+	..	..	..	..	..
" 19		..	4800	0	+	+	..	..	..	..	..
" 22		..	4130	0	+	+	..	..	..	..	..
" 23		..	3730	0	+	+	..	..	..	..	..
" 24		..	4310	..	..	..	..	..	..	..	..
" 25		..	4300	0	+	+	..	..	..	..	..
" 26		..	4400	0	+	+	..	..	..	..	..
" 28		..	450	0	0	+	..	..	..	..	..
" 29		..	4480	0	+	+	..	..	..	..	..
Averages		..	**3223**	**208**	**33**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 25	149	..	141	..	..	+	+	..	+	..	..
" 26		..	44	..	..	0	+	..	+	..	..
" 27		..	101	0	0	+	+	..	..	..	..
" 28		..	131	..	..	+	+	..	+	..	..
" 30		..	48	0	0	0	+	..	..	..	..
July 1		..	51	..	0	+	+	..	+	..	..
" 2		..	102	..	0	+	+	..	+	..	..
" 3		..	115	..	0	+	+	..	+	..	..
" 5		..	55	..	0	+	+	..	..	..	..
" 7		..	126	0	0	0	..	..	..	..	..
" 8		..	720	0	+	+	+	..	+	..	..
" 9		..	600	..	0	+	+	..	..	..	..
" 16		..	760	0	+	+	+	..	..	..	..
" 17		..	240	0	0	+	+	..	..	..	..
" 18		..	900	+	+	+	+	..	..	..	..
" 19		..	780	0	0	+	+	..	..	..	..
" 22		..	197	0	0	+	+	..	..	..	..
" 23		..	142	0	0	0	+	..	..	..	..
" 24		..	223	..	..	..	..	..	..	..	..
" 25		..	650	0	+	+	+	..	..	..	..
" 26		..	453	0	+	+	+	..	..	..	..
" 28		..	56	0	0	+	+	..	..	..	..
" 29		..	205	0	0	+	+	..	..	..	..
Averages		..	**288**	**65**	**08**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 25	150	..	7	..	..	0	+	..	+	..	..
" 26		..	3	..	..	..	0	..	+	..	..
" 27		..	11	..	..	0	0	..	+	..	..
" 28		..	13	..	..	..	0	..	+	..	..
" 30		..	5	..	..	0	0	..	+	..	..
July 1		..	5	..	..	0	0	..	+	..	..
" 2		..	4	..	..	0	0	..	+	..	..
" 3		..	1	..	..	..	0	..	0	..	..
" 5		..	12	..	..	..	0	..	+	..	..
" 7		..	52	..	..	0	+	..	+	..	..
" 8		..	49	..	..	+	+	..	+	..	..
" 9		..	34	..	..	0	0	..	+	..	..
" 16		..	28	..	..	0	+	..	+	..	..
" 17		..	53	..	..	0	+	..	+	..	..
" 18		..	41	..	..	0	+	..	+	..	..
" 19		..	32	..	..	0	0	..	+	..	..
" 22		..	9	..	..	0	+	..	+	..	..
" 23		..	28	..	..	0	0	..	+	..	..
" 24		..	36	..	..	..	..	..	..	..	..
" 25		..	24	..	..	0	+	..	+	..	..
" 26		..	32	..	..	0	+	..	+	..	..
" 28		..	38	..	..	+	+	..	+	..	..
" 29		..	11	..	..	+	+	..	+	..	..
Averages			**22**	**14**	**8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 25	151	..	5	..	..	0	+	..	+	..	..
" 26		..	8	..	..	0	+	..	+	..	..
" 27		..	19	..	..	+	+	..	+	..	..
" 28		..	11	..	..	0	+	..	+	..	..
" 30		..	6	..	..	0	0	..	+	..	..
July 1		..	5	..	..	0	+	..	+	..	..
" 2		..	9	..	..	0	0	..	+	..	..
" 3		..	8	..	..	+	+	..	+	..	..
" 5		..	14	..	..	0	+	..	+	..	..
" 7		..	44	..	..	0	+	..	+	..	..
" 8		..	65	..	..	+	+	..	+	..	..
" 9		..	27	..	..	0	+	..	+	..	..
Averages			**18**	**2**	**92**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 25	152	..	1	..	..	0	0	..	0	..	..
" 26		..	3	..	..	..	0	..	0	..	..
" 27		..	6	..	..	..	+	..	+	..	..
June 28	152	..	4	..	..	0	+	..	+	..	..
" 30		..	4	..	..	0	+	..	+	..	..
July 1		..	8	..	..	0	+	..	+	..	..
" 2		..	7	..	..	0	0	..	0	..	..
" 3		..	14	..	..	0	+	..	+	..	..
" 5		..	5	..	..	+	+	..	+	..	..
" 7		..	16	..	..	0	0	..	+	..	..
" 8		..	63	..	..	0	+	..	+	..	..
" 9		..	17	..	..	0	+	..	+	..	..
Averages			**12**	**10**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 25	153	..	5	..	..	0	0	..	+	..	..
" 26		..	4	..	..	..	0	..	+	..	..
" 27		..	7	..	..	0	+	..	+	..	..
" 28		..	5	..	..	0	+	..	+	..	..
" 30		..	1	..	..	0	0	..	+	..	..
July 1		..	5	..	..	0	+	..	+	..	..
" 2		..	3	..	..	0	0	..	+	..	..
" 3		..	4	..	..	0	+	..	+	..	..
" 5		..	11	..	..	0	+	..	+	..	..
" 7		..	20	..	..	0	+	..	+	..	..
" 8		..	60	..	..	0	+	..	+	..	..
" 9		..	23	..	..	0	+	..	+	..	..
Averages			**12**	**36**	**B.**	**C.**		**pe**	**r 1**	**00**	**cc**
June 25	151a	..	2	..	..	0	0	..	0	..	..
" 26		..	4	..	..	0	0	..	0	..	..
" 27		..	8	..	..	0	+	..	0	..	..
" 28		..	8	..	..	0	+	..	+	..	..
" 30		..	7	..	..	0	0	..	0	..	..
July 1		..	2	..	..	0	0	..	+	..	..
" 2		..	1	..	..	0	0	..	0	..	..
" 3		..	8	..	..	0	0	..	0	..	..
" 5		..	13	..	..	0	+	..	+	..	..
" 7		..	17	..	..	0	+	..	+	..	..
" 8		..	85	..	..	0	+	..	+	..	..
" 9		..	22	..	..	0	0	..	0	..	..
Averages			**14**	**35**	**B.**	**C.**		**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 25	152a	..	3	..	..	0	0	..	0	..	..
" 26		..	4	..	..	0	0	..	+	..	..
" 27		..	8	..	..	0	+	..	+	..	..
" 28		..	4	..	..	0	+	..	+	..	..
" 30		..	3	..	..	0	0	..	0	..	..
July 1		..	8	..	..	0	0	..	+	..	..
" 2		..	5	..	..	0	0	..	0	..	..
" 3		..	0	..	..	0	0	..	0	..	..
" 5		..	4	..	..	0	0	..	0	..	..
" 7		..	14	..	..	0	+	..	+	..	..
" 8		..	34	..	..	..	+	..	+	..	..
" 9		..	17	..	..	0	+	..	+	..	..
Averages			8		41	B.	C.	pe	r 1	00	cc
June 25	153a	..	1	..	..	0	0	..	+	..	..
" 26		..	5	..	..	0	0	..	+	..	..
" 27		..	4	..	..	0	+	..	+	..	..
" 28		..	4	..	..	0	+	..	+	..	..
" 30		..	3	..	..	0	0	..	+	..	..
July 1		..	4	..	..	0	0	..	+	..	..
" 2		..	12	..	..	0	0	..	+	..	..
" 3		..	8	..	..	0	+	..	+	..	..
" 5		..	10	..	..	0	0	..	+	..	..
" 7		..	17	..	..	0	0	..	0	..	..
" 8		..	23	..	..	0	+	..	+	..	..
" 9		..	11	..	..	0	0	..	+	..	..
Averages			8	39	B.	Co	li	pe	r 1	00	cc
July 16	151b	..	48	..	..	0	+	..	+	..	..
" 17		..	14	..	..	0	+	..	+	..	..
" 18		..	49	..	..	0	0	..	0	..	..
" 19		..	33	..	..	0	0	..	+	..	..
" 22		..	4	..	..	+	+	..	+	..	..
" 23		..	8	..	..	0	0	..	+	..	..
" 24		..	9	..	..	0	0	..	+	..	..
" 25		..	23	..	..	0	+	..	+	..	..
" 26		..	32	..	..	0	0	..	+	..	..
" 28		..	27	..	..	0	0	..	+	..	..
" 29		..	2	..	..	0	0	..	+	..	..
Averages			22	34	B.	Co	li	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 16	152b	..	28	..	..	+	+	..	+	..	..
" 17		..	29	..	..	0	0	..	+	..	..
" 18		..	171	..	..	+	+	..	+	..	..
" 19		..	92	..	..	0	0	..	+	..	..
" 22		..	11	..	..	0	+	..	+	..	..
" 23		..	12	..	..	0	+	..	+	..	..
" 24		..	46	..	..	0	0	..	+	..	..
" 25		..	7	..	..	0	+	..	+	..	..
" 26		..	47	..	..	+	+	..	+	..	..
" 28		..	35	..	..	0	+	..	+	..	..
" 29		..	2	..	..	0	+	..	+	..	..
Averages			43	34	B.	Co	li	pe	r 1	00	cc
July 16	155b	..	13	..	..	0	+	..	+	..	..
" 17		..	47	..	..	0	+	..	+	..	..
" 18		..	59	..	..	0	+	..	+	..	..
" 19		..	41	..	..	0	0	..	+	..	..
" 22		..	5	..	..	0	+	..	+	..	..
" 23		..	14	..	..	0	0	..	+	..	..
" 24		..	33	..	..	0	0	..	+	..	..
" 25		..	6	..	..	0	+	..	+	..	..
" 26		..	25	..	..	+	+	..	+	..	..
" 28		..	19	..	..	0	0	..	+	..	..
" 29		..	2	..	..	0	+	..	+	..	..
Averages			24	34	B.	Co	li	pe	r 1	00	cc
July 11	153c	..	16	..	..	0	0	..	+	..	..
" 12		..	28	..	..	0	0	..	+	..	..
" 14		..	22	..	..	0	+	..	+	..	..
" 15		..	8	..	..	..	0	..	+	..	..
" 16		..	11	..	..	0	0	..	+	..	..
" 17		..	8	..	..	0	+	..	+	..	..
" 18		..	6	..	..	0	0	..	0	..	..
" 19		..	18	..	..	0	+	..	+	..	..
" 22		..	11	..	..	0	0	..	+	..	..
" 23		..	2	..	..	0	+	..	+	..	..
" 24		..	5	..	..	0	0	..	0	..	..
" 25		..	6	..	..	0	0	..	0	..	..
" 26		..	3	..	..	0	0	..	+	..	..
" 28		..	4	..	..	0	0	..	+	..	..
" 29		..	4	..	..	0	0	..	0	..	..
Averages			10	20	B.	Co	li	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of the Niagara River.
Deep sample—18 feet below surface.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
July 11.....	153c	..	15	..	..	0	0	..	0	..	..
" 12.....		..	12	..	..	0	0	..	0	..	..
" 14.....		..	17	..	..	*0	0	..	0	..	..
" 15.....		..	4	..	..	..	0	..	+	..	..
" 16.....		..	9	..	..	0	0	..	+	..	..
" 17.....		..	8	..	..	0	+	..	+	..	..
" 18.....		..	4	..	..	0	0	..	+	..	..
" 19.....		..	11	..	..	0	+	..	+	..	..
" 22.....		..	11	..	..	0	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
	153c										
July 23.....		..	7	..	..	0	0	..	+	..	..
" 24.....		..	19	..	..	0	0	..	0	..	..
" 25.....		..	22	..	..	0	+	..	+	..	..
" 26.....		..	16	..	..	0	0	..	+	..	..
" 28.....		..	10	..	..	0	0	..	0	..	..
" 29.....		..	6	..	..	0	+	..	0	..	..
Averages.....			11	30	B.	Co	li	pe	r	1	00 cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie. Waters of Buffalo Harbour.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 13	201	34	spreader	..	..	..	0	0	..	+	+
" 14		84	28	..	..	..	0	0	..	+	+
" 16		spreader	200	..	..	..	0	0	..	+	+
" 17		568	160	..	..	..	0	+	..	+	+
" 13	202	57	17	..	..	..	0	0	..	0	+
" 14		89	18	..	..	..	0	0	..	+	+
" 16		70	35	..	..	..	0	+	..	+	+
" 17		156	42	..	..	..	0	+	..	+	+
May 26	202a	88	39	..	0	0	0	..	+	+	..
" 27		64	36	..	0	0	0	..	..	+	..
" 28		54	24	..	0	0	0	..	..	+	..
" 29		88	44	..	0	0	0	..	..	+	..
" 30		19	3	..	..	..	0	+	..	0	0
" 31		400	140	..	..	..	+	+	..	+	+
June 2		16	43	..	..	..	0	+	..	+	+
" 3		110	spreader	..	..	..	0	+	..	+	+
" 4		63	29	..	..	..	0	0	..	+	+
" 5		..	..	..	..	..	0	0	..	0	+
" 7		45	16	..	..	..	0	0	..	+	+
" 9		12	5	..	..	..	0	0	..	+	+
" 10		3	42	..	..	..	0	0	..	0	+
" 11		102	43	..	..	..	0	0	..	+	+
" 12		61	116	..	..	..	+	+	..	+	+
" 13	203	104	spreader	..	..	..	0	+	..	+	+
" 14		166	24	..	..	..	0	+	..	..	+
" 16		94	90	..	..	..	0	+	..	+	+
" 17		200	56	..	..	..	0	+	..	+	+
" 13	204	300	174	..	..	..	0	+	..	+	+
" 14		760	180	..	..	..	+	+	..	+	+
" 16		620	63	..	..	..	0	+	..	+	+
" 17		500	260	..	..	..	0	+	..	+	+
" 13	205	260	15	..	..	..	0	+	..	+	+
" 14	•	2240	220	..	..	..	..	+	..	+	+
" 16		1400	328	..	..	..	0	+	..	+	+
" 17		2000	..	..	..	..	0	+	..	+	+
" 13	206	3000	158	..	..	..	+	+	..	0	+
" 14		254	40	..	..	..	0	0	..	+	+
" 16		260	250	0	0	..	0	+	0	..	..
" 17		2000	800	..	..	..	0	+	..	+	+
Averages Excluding 202a.		**661.5**	**1007.3**	**20**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 10	205a	..	28	..	..	..	+	+	..	+	+
" 11		290	85	..	..	..	+	+	..	+	+
" 12		5000	403	..	..	..	+	+	..	+	+
May 26	207a	14	90	..	0	0	0	0	0	+	..
" 27		28	36	..	0	0	0	..	..	+	..
" 28		28	8	..	0	0	0	..	..	0	..
" 29		400	300	..	0	0	+	..	..	+	..
" 30		420	199	..	..	..	0	0	..	+	+
" 31		400	spreader	..	..	..	+	+	..	..	+
June 2		171	spreader	..	..	..	+	+	..	+	+
" 3		300	spreader	..	..	0	+	+	..	+	+
" 4		116	94	..	..	..	0	0	..	+	+
" 5		..	..	0	0	0	0	..	0	+	..
" 7		276	spreader	..	..	..	+	+	..	+	+
" 9		46	96	..	..	..	0	0	..	+	+
" 10		3220	56	..	..	..	0	0	..	+	+
" 11		134	spreader	..	..	..	0	+	..	+	+
" 12		9	4	..	..	..	0	+	..	+	+
Averages Excluding 205a.		**390.1**	**77.1**	**24**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
June 13	207	90	120	..	..	..	0	0	..	0	+
" 14		220	42	..	..	..	+	0	..	+	+
" 16		spreader	310	..	..	..	0	+	..	+	+
" 17		2400	2000	..	..	..	0	+	..	+	+
" 13	208	110	spreader	..	..	..	0	+	..	+	+
" 14		160	34	..	..	..	0	+	..	+	+
" 16		156	460	..	..	..	0	+	..	+	+
" 17		2560	2000	..	..	..	0	+	..	+	+
" 13	209	226	107	..	..	..	0	+	..	+	+
" 14		156	26	..	..	..	0	+	..	+	+
" 16		220	680	..	..	..	0	+	..	+	+
" 17		2000	2000	..	..	..	0	0	..	+	+
" 13	210	440	22	..	..	..	0	+	..	+	+
" 14		212	74	..	..	..	+	0	..	+	+
" 16		400	500	..	..	..	+	+	..	+	+
" 17		2000	1500	..	..	..	0	0	..	+	+
" 13	211	180	spreader	..	..	..	0	+	..	+	+
" 14		114	54	..	..	..	0	+	..	+	+
" 16		380	300	..	..	..	0	0	..	+	+
" 17		2500	1500	..	..	..	0	+	..	+	+
Averages		**733.9**	**1059.4**	**20**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Fort Erie. Waters of Buffalo Harbour.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 26	211a	74	87	..	0	0	+	0	+	+	..
" 27		26	48	..	0	0	0	..	..	+	..
" 28		36	8	..	0	0	0	..	..	+	..
" 29		..	650	..	0	0	+	..	..	+	..
" 30		296	268	..	0	0	0	0	0	+	..
" 31		270	spreader	..	0	0	+	+	..	+	..
June 2		247	134	..	..	..	0	+	..	+	+
" 3		104	spreader	..	..	0	0	+	..	+	+
" 4		68	135	..	..	..	0	+	..	+	+
" 5		..	..	0	0	0	0	..	0	+	+
" 7		29	32	..	..	..	0	+	..	+	0
" 9		23	64	..	..	..	+	+	..	+	+
" 10		60	spreader	..	..	..	0	0	..	+	+
" 11		45	8	..	..	..	0	+	..	+	+
" 12		68	11	..	..	..	0	+	..	+	+
" 13	212	260	13	..	..	..	+	+	..	+	+
" 14		160	40	..	..	..	0	0	..	+	+
" 16		460	300	..	0	..	0	..	+	..	..
" 17		2000	2000	..	..	..	0	+	..	+	+
Averages Including 202a.		**172.6**	**149.9**	**23**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
June 14	213	150	80	..	..	..	0	+	..	+	+
" 16		240	310	..	0	..	0	..	+	..	..
" 17		1500	1500	..	..	..	0	0	..	+	+
" 18		..	..	..	..	..	..	..	..	..	..
" 14	214	90	..	..	..	..	0	+	..	+	+
" 16		420	280	..	0	..	+	..	+	..	..
" 17		3900	300	..	0	0	+	..	+	..	..
" 18		64	70	..	0	+	0	..	+	..	..
" 14	215	520	70	..	..	..	+	+	..	+	+
" 16		900	1300	..	0	..	0	..	0	..	..
" 17		7000	5000	..	0	0	+	..	+	..	..
" 18		360	70	..	0	+	+	..	+	..	..
" 14	216	204	120	..	..	..	+	+	..	+	+
" 16		1100	240	..	0	..	+	..	0	..	..
" 17		840	1500	..	0	0	+	..	+	..	..
" 18		540	380	..	+	+	+	..	+	..	..
" 14	217	212	30	..	..	..	+	+	..	+	+
" 16		1000	44	..	0	..	+	..	0	..	..
" 17		600	3000	..	0	+	+	..	+	..	..
" 18		840	810	..	0	0	+	..	+	..	..
Averages		**1275**	**1788.4**	**65**	**0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 14	218	216	190	..	..	..	+	0	..	+	+
" 16		110	810	..	..	..	0	+	..	+	+
" 17		650	400	..	..	..	0	+	..	+	+
" 18		252	360	..	..	..	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 14	219	44	70	..	..	..	+	0	..	0	+
" 16		280	628	..	..	..	+	0	..	+	+
" 17		500	350	..	..	..	0	+	..	+	+
" 18		640	708	..	0	0	+	..	+	..	..
" 14	220	120	120	..	..	..	0	0	..	+	+
" 16		260	184	..	..	..	0	0	..	+	+
" 17		600	2000	..	..	..	0	+	..	+	+
" 18		..	800	..	0	0	+	..	+	..	..
" 14	221	3000	2000	..	..	..	+	+	..	+	+
" 16		3000	5000	..	0	+	0	..	+	..	..
" 17		3000	3000	..	0	0	0	..	+	..	..
" 18		560	1080	..	0	0	0	..	+	..	..
" 14	222	5000	1500	..	..	..	+	+	..	+	+
" 16		2600	..	..	+	+	+	..	+	..	..
" 17		1800	2500	..	0	0	+	..	+	..	..
" 18		860	268	..	0	0	+	..	+	..	..
" 14	223	3000	2500	..	..	..	+	+	..	0	+
" 16		1100	..	..	0	+	0	..	+	..	..
" 17		1000	350	..	0	+	+	..	+	..	..
" 18		1660	308	..	0	+	+	..	+	..	..
" 14	224	312	16	..	..	..	0	+	..	+	+
" 16		350	..	..	..	..	+	0	..	+	+
" 17		5000	12000	..	0	+	+	..	+	+	..
" 18		..	..	..	..	..	..	..	..	..	..
Averages		**1358.4**	**1894.8**	**55**	**8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 14	225	304	68	..	..	..	0	+	..	+	+
" 16		420	..	..	..	..	0	0	..	+	+
" 17		900	400	..	..	..	0	0	..	+	+
" 18		800	..	..	..	..	+	+	..	+	+
" 14	226	268	24	..	..	..	0	0	..	+	+
" 16		800	..	..	..	..	0	+	..	+	+
" 17		600	spreader	..	..	..	0	+	..	0	0
" 18		1500	720	..	..	..	+	+	..	+	+
" 14	227	228	26	..	..	..	+	+	..	+	+
" 16		650	..	..	..	..	0	0	..	+	+
" 17		1500	50	..	..	..	0	0	..	+	+
" 18		452	250	..	..	..	+	+	..	+	+
" 14	228	218	spreader	..	..	..	0	+	..	+	+
" 16		220	..	..	..	..	0	+	..	+	+
" 17		700	260	..	..	..	0	0	..	+	+
" 18		708	356	..	..	..	+	+	..	+	+
" 14	229	112	30	..	..	..	0	0	..	+	+
" 16		200	1000	..	..	..	0	+	..	+	+
" 17		1200	300	..	..	..	0	0	..	+	+
" 18		..	..	..	..	..	..	..	..	..	..
Averages		**620**	**262.2**	**3**	**3**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Buffalo, N.Y. Waters of Lake Erie and Niagara River.
Tap Water at Buffalo, N.Y.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 31.....		..	1	..	..	0	0	..	0	..	..
June 2.....		..	9	..	..	..	..	..	0	..	..
" 3.....		..	2	..	..	..	0	..	0	..	..
" 4.....		..	9	..	..	..	0	..	0	..	..
" 5.....		..	13	..	..	..	0	..	+	..	..
" 6.....		..	5	..	..	..	0	..	0	..	..
" 7.....		..	2	..	..	..	0	..	0	..	..
" 9.....		..	5	..	..	..	0	..	+	..	..
" 10.....		..	4	..	..	..	..	..	0	..	..
" 11.....		..	2	..	..	..	..	..	0	..	..
June 12.....		..	3	..	..	..	0	..	+	..	..
" 13.....		..	1	..	..	..	0	..	+	..	..
" 14.....		..	2	..	..	..	..	..	0	..	..
" 16.....		..	3	..	..	..	0	..	0	..	..
" 17.....		..	3	..	..	..	..	..	+	..	..
" 18.....		..	25	..	..	..	+	..	+	..	..
" 19.....		..	8	..	..	..	0	..	+	..	..
" 20.....		..	21	..	..	..	+	..	+	..	..
Averages.....			6	14	.	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Water Supplies, Lower Niagara River. Water chlorinated at Niagara-on-the-Lake, but filtered without chlorination at Youngstown, N.Y.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Laboratory	**Tap,**	**Niagara-on-the-Lake**										
June 26...	9.15	..	..	..	..	..	..	0	0	..	0	+
" 26...	9.30	..	..	..	..	..	..	0	0	..	0	0
" 26...	9.45	..	..	..	..	..	..	0	0	..	0	0
" 26...	10.60	..	..	..	..	..	..	0	0	..	+	0
" 26...	10.15	..	..	..	..	..	..	0	0	..	0	0
" 26...	10.30	..	..	..	..	..	..	0	+	..	0	+
" 26...	10.45	..	..	..	..	..	..	+	+	..	0	+
" 26...	11.00	..	..	..	..	..	..	0	+	..	0	+
" 26...	11.15	..	..	..	..	..	..	0	+	..	0	+
" 26...	11.30	..	..	..	..	..	..	0	+	..	+	+
" 26...	11.45	..	..	..	..	..	..	0	0	..	+	0
" 26...	..	12.15	..	..	..	..	..	0	0	..	0	+
" 26...	..	12.30	..	..	..	..	..	0	0	..	0	0
" 26...	..	12.45	..	..	..	..	..	0	0	..	0	+
" 26...	..	1.45	..	..	..	..	..	0	0	..	0	+
" 26...	..	2.00	..	..	..	..	..	+	+	..	0	+
" 26...	..	2.15	..	..	..	..	..	0	0	..	0	+
" 26...	..	2.30	..	..	..	..	..	+	0	..	0	+
" 26...	..	2.45	..	..	..	..	..	0	0	..	0	+
" 26...	..	3.00	..	..	..	..	..	0	0	..	+	+
" 26...	..	3.15	..	..	..	..	..	0	0	..	0	+
" 26...	..	3.30	..	..	..	..	..	0	+	..	0	+
" 26...	..	3.45	..	..	..	..	..	0	+	..	+	+
" 26...	..	4.00	..	..	..	..	..	0	0	..	0	+
" 26...	..	4.15	..	..	..	..	..	0	0	..	0	0
" 26...	..	4.45	..	..	..	..	..	0	0	..	0	0
" 26...	..	5.00	..	..	..	..	..	0	0	..	0	0
" 26...	..	5.15	..	..	..	..	..	0	0	..	0	0
" 26...	..	5.30	..	..	..	..	..	0	0	..	0	0
Niagara-on-the-Lake Tap*												
June 18...	9.00	..	2	10	..	..	..	0	0	..	0	0
" 18...	9.15	..	1	6	..	..	..	0	0	..	0	0
" 18...	9.30	..	4	4	..	..	..	0	0	..	0	0
" 19...	9.45	..	3	6	..	..	..	0	0	..	0	0
" 19...	10.00	..	12	10	..	..	..	0	0	..	0	0
" 19...	10.15	..	0	2	..	..	..	0	0	..	0	0
" 19...	10.30	..	2	6	..	..	..	0	0	..	0	0
" 19...	10.45	..	6	3	..	..	..	0	0	..	0	0
" 19...	11.00	..	10	6	..	..	..	0	0	..	0	0
" 19...	11.15	..	3	4	..	..	..	0	0	..	0	0
" 19...	11.30	..	3	5	..	..	..	0	0	..	0	0
" 19...	11.45	..	1	3	..	..	..	0	0	..	0	0
" 19...	12.00	..	2	9	..	..	..	0	0	..	0	0
" 19...	..	1.00	6	4	..	..	..	0	0	..	0	0
" 19...	..	1.15	1	5	..	..	..	0	0	..	0	0
" 19...	..	1.30	0	3	..	..	..	0	0	..	0	0
" 19...	..	1.45	0	3	..	..	..	0	0	..	0	0
" 19...	..	2.00	0	5	..	..	..	0	0	..	0	0
" 19...	..	2.15	1	5	..	..	..	0	0	..	0	0
June 19...	..	2.30	0	4	..	..	..	0	+	..	0	0
" 19...	..	2.45	2	3	..	..	..	0	0	..	0	+
" 19...	..	3.00	2	3	..	..	..	0	0	..	0	0
" 19...	..	3.15	5	5	..	..	..	0	0	..	0	0
" 19...	..	3.30	2	0	..	..	..	0	0	..	0	0
" 19...	..	3.45	0	2	..	..	..	0	0	..	0	0
" 19...	..	4.00	0	10	..	..	..	0	0	..	0	0
" 19...	..	4.15	2	5	..	..	..	0	0	..	0	0
" 19...	..	4.30	0	3	..	..	..	0	0	..	0	0
" 19...	..	4.45	1	3	..	..	..	0	0	..	0	0
" 19...	..	5.00	..	0	..	..	..	0	0	..	0	0
Youngstown	**Tap†**											
June 20...	..		200	100	..	0	0	+	+	..	..	..
" 20...	..		500	400	..	0	0	0	+	..	..	..
" 20...	..		800	250	..	0	0	0	+	..	..	..
" 20...	..		300	200	..	0	0	0	+	..	..	..
" 20...	..		250	300	..	0	+	0	0	..	..	..
" 20...	..		300	200	..	+	0	0	+	..	..	..
" 20...	..		400	250	..	0	0	0	+	..	..	..
" 20...	..		400	300	..	0	+	0	0	..	..	..
" 20...	..		300	2	..	0	0	0	+	..	..	..
" 20...	..		200	200	..	0	0	0	+	..	..	..
" 20...	..		300	180	..	0	0	+	+	..	..	..
" 20...	..		400	100	..	0	0	+	+	..	..	..
" 20...	..		200	200	..	0	0	+	+	..	..	..
" 20...	..		200	150	..	0	0	+	+	..	..	..
" 20...	..		400	150	..	0	0	+	+	..	..	..
" 20...	..		200	200	..	0	0	+	+	..	..	..
" 20...	..		400	100	..	0	+	+	+	..	..	..
" 20...	..		300	300	..	+	+	+	+	..	..	..
" 20...	..		500	100	..	0	+	+	+	..	..	..
" 20...	..		400	300	..	0	+	+	+	..	..	..
" 20...	..		300	200	..	0	+	+	+	..	..	..
" 20...	..		300	250	..	0	+	+	+	..	..	..
" 20...	..		200	300	..	0	+	+	+	..	..	..
" 20...	..		200	400	..	0	+	+	+	..	..	..
" 20...	..		300	300	..	0	+	+	+	..	..	..
" 20...	..		400	300	..	0	+	+	+	..	..	..
" 20...	..		500	200	..	+	+	+	+	..	..	..
" 20...	..		300	300	..	0	+	+	+	..	..	..
" 20..	..		400	280	..	0	+	+	+	..	..	..
" 18...	..	2.00	200	18	..	+	+	+	+	..	+	..
" 18...	..	2.06	400	28	..	0	+	+	+	..	+	..
" 18...	..	2.12	1000	20	..	+	0	+	+	..	0	..
" 18...	..	2.18	1200	60	..	0	+	+	-	..	+	..
" 18...	..	2.24	1500	20	..	0	+	+	+	..	+	..
" 18...	..	2.30	1500	33	..	0	+	+	+	..	+	..
" 18...	..	2.36	1200	38	..	0	+	+	+	..	—	..

Samples collected at 6-minute intervals.

* Dosage of bleaching powder correctly administered. Military camp in occupation. † Filter most carelessly neglected. No chemicals being used.

NOTE.—Raw water, see results for sampling points 1-6 and 160-162, plate 18.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Water Supplies, Lower Niagara River.
Tap Water after chlorination at Youngstown, N.Y.

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 18...	..	2.42	1000	27	..	+	+	+	+	..	+	..
" 18...	..	2.48	1000	25	..	+	+	+	+	..	+	..
" 18...	..	2.54	1000	40	..	+	+	+	+	..	+	..
" 18...	..	3.00	1000	32	..	+	+	+	+	..	0	..
" 18...	..	3.06	900	28	..	0	+	+	+	..	0	..
" 18...	..	3.12	1000	40	..	0	0	+	+	..	0	..
" 18...	..	3.18	1000	38	..	0	0	+	+	..	0	..
" 18...	..	3.24	900	70	..	+	+	+	+	..	0	..
" 18...	..	3.30	1000	180	..	+	+	+	+	..	0	..
" 18...	..	3.36	1000	680	..	0	0	+	+	..	0	..
" 18...	..	3.42	1000	360	..	0	+	+	+	..	0	..
" 18...	..	3.48	1000	320	..	0	0	+	+	..	0	..

DATE 1913	Hour Plated A.M.	Hour Plated P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 18...	..	3.54	1000	300	..	0	+	+	+	..	+	..
" 18...	..	4.00	..	200	..	0	+	+	+	..	0	..
" 18...	..	4.06	1000	200	..	0	+	+	+	..	0	..
" 18...	..	4.12	1100	200	..	0	+	+	+	..	0	..
" 18...	..	4.18	1200	250	..	0	+	+	+	..	0	..
" 18...	..	4.24	1200	250	..	+	+	+	+	..	0	..
" 18...	..	4.30	1200	150	..	0	+	+	+	..	0	..
" 18...	..	4.36	1200	150	..	0	+	+	+	..	0	..
" 18...	..	4.42	1200	100	..	0	+	+	+	..	0	..
" 18...	..	4.48	1200	100	..	0	+	+	+	..	0	..
" 18...	..	4.54	1200	100	..	0	+	+	+	..	0	..
" 18...	..	5.11	1000	100	..	+	+	+	+	..	0	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Waters of the Western End of Lake Ontario and the Niagara River

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 27	1	500	230	..	..	..	+	+	..	+	+
" 28		..	..	..	..	+	+	+	..	+	..
" 29		90	24	..	..	0	+	+	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		170	600	..	..	0	0	+	..	+	..
June 2		210	110	..	..	+	+	+	..	+	..
" 3		180	30	..	0	+	+	+	..	..	..
" 4		350	120	..	0	+	+	+	..	..	..
" 5		450	40	..	+	+	+	+	..	..	..
" 7		400	750	..	0	0	+	+	..	..	..
" 8		220	60	..	0	+	+	+	..	..	..
" 9		430	50	..	0	+	+	+	..	..	..
" 10		..	120	..	0	+	+	+	..	..	..
" 11		450	90	..	0	+	+	+	..	..	..
" 12		290	0	..	+	0	+	+	..	..	..
Averages		**311.6**	**171.07**	**12**	**93**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
May 27	2	500	100	..	..	..	+	+	..	+	+
" 28		..	..	..	..	0	+	+	..	+	..
" 29		40	70	..	..	+	+	+	..	+	..
" 30		..	..	..	..	+	+	+	..	..	..
" 31		210	..	..	..	0	+	+	..	+	..
June 2		150	300	..	..	+	+	+	..	+	..
" 3		160	50	..	0	+	0	+	..	..	..
" 4		800	2000	..	0	+	+	+	..	..	..
" 5		460	50	..	+	+	+	+	..	..	..
" 7		2000	1300	..	+	0	+	+	..	..	..
" 8		540	50	..	0	+	+	+	..	..	..
" 9		40	0	..	0	+	+	+	..	..	..
" 10		..	130	..	0	+	+	+	..	..	..
" 11		800	120	..	0	+	+	+	..	..	..
" 12		900	60	..	0	+	+	+	..	..	..
Averages		**550**	**352.5**	**14**	**13**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
May 27	3	480	130	..	..	..	+	+	..	+	+
" 28		..	..	..	..	+	+	+	..	+	..
" 29		440	60	..	..	0	+	+	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		140	600	..	..	0	+	+	..	+	..
June 2		210	360	..	..	+	+	+	..	+	..
" 3		150	30	..	+	+	+	+	..	+	..
" 4		180	100	..	+	+	+	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 5	3	500	150	..	0	+	+	+	..	..	..
" 7		350	1300	..	0	0	+	+	..	..	..
" 8		650	260	..	0	+	+	+	..	..	..
" 9		250	10	..	0	+	+	+	..	..	..
" 10		..	50	..	0	+	+	+	..	..	..
" 11		460	50	..	0	+	+	+	..	..	..
" 12		1000	90	..	+	+	+	+	..	..	..
Averages		**400.8**	**245.3**	**24**	**93**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
May 27	4	500	80	..	..	..	+	+	..	+	+
" 28		..	..	..	..	0	+	+	..	+	.
" 29		1000	spreader	..	..	+	+	+	..	+	.
" 30		..	..	..	..	0	+	+	..	+	..
" 31		100	650	..	..	0	+	+	..	+	..
June 2		400	550	..	..	+	+	+	..	+	..
" 3		150	70	..	+	+	+	+	..	..	..
" 4		1500	1500	..	+	+	+	+	..	..	..
" 5		300	80	..	+	+	+	+	..	..	..
" 7		180	190	..	+	0	+	+	..	..	..
" 8		180	130	..	0	+	+	+	..	..	..
" 9		30	0	..	0	+	+	+	..	..	..
" 10		..	30	..	0	+	+	+	..	..	..
" 11		60	130	..	0	+	+	+	..	..	..
" 12		280	40	..	0	+	+	+	..	..	..
Averages		**390**	**184.6**	**25**	**0**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
May 27	5	550	93	..	..	..	+	+	..	+	+
" 28		..	..	..	..	0	+	0	..	+	..
" 29		1200	120	..	..	0	+	+	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		430	..	..	..	0	+	+	..	+	..
June 2		430	560	..	..	+	+	+	..	+	..
" 3		210	30	..	0	+	+	+	..	..	..
" 4		180	890	..	+	+	+	+	..	..	..
" 5		280	210	..	0	+	+	+	..	..	..
" 7		210	290	..	+	+	+	+	..	..	..
" 8		850	320	..	0	+	+	+	..	..	..
" 9		150	0	..	0	0	+	+	..	..	..
" 10		..	40	..	+	+	+	+	..	..	..
" 11		280	180	..	0	+	+	+	..	..	..
" 12		360	0	..	0	0	+	+	..	..	..
Averages		**563.5**	**246.8**	**23**	**80**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Waters of the Western End of Lake Ontario and the Niagara River

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 120–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 27	6	500	80	..	..	..	+	+	..	+	+
" 28		..	..	..	..	0	+	+	..	+	..
" 29		80	200	..	..	+	+	+	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		520	850	..	..	0	+	+	..	+	..
June 2		330	130	..	..	+	+	+	..	+	..
" 3		210	30	..	0	+	+	+	..	..	..
" 4		1200	900	..	+	+	+	+	..	..	..
" 5		150	30	..	0	+	+	+	..	..	..
" 7		140	190	..	0	+	+	+	..	..	..
" 8		450	100	..	0	+	+	+	..	..	..
" 9		160	20	..	0	+	+	+	..	..	..
" 10		..	210	..	0	+	+	+	..	..	..
" 11		260	80	..	+	+	+	+	..	..	..
" 12		380	80	..	0	+	+	+	..	..	..
Averages		**365**	**223.07**	**19**	**60**	**B.**	**C.**	**pe**	**r**	**1**	**00cc**
May 27	7	550	16	..	..	..	+	+	..	+	+
" 28		..	..	..	..	0	+	+	..	+	..
" 29		spreader	45	..	..	0	0	+	..	+	..
" 30		..	..	..	..	0	+	+	..	0	..
" 31		20	250	..	..	0	+	+	..	+	..
June 2		0	40	..	..	0	0	0	..	+	..
" 3		30	30	..	0	0	+	0	..	..	..
" 4		2000	380	..	0	0	+	+	..	..	..
" 5		10	10	..	0	+	+	+	..	..	..
" 9		150	0	..	0	+	+	+	..	..	..
" 10		..	0	..	0	0	0	0	..	..	..
" 11		18	33	..	0	0	+	+	..	..	..
" 12		..	10	..	0	0	0	+	..	..	..
" 13		22	0	..	0	0	0	+	..	..	..
" 14		40	4	..	0	0	0	+	..	..	..
" 16		20	100	..	0	0	0	0	..	..	..
Averages		**260**	**58.7**	**1**	**85**	**B.**	**C.**	**pe**	**r**	**1**	**00cc**
May 28	8	..	..	..	..	0	+	0	..	+	..
" 29		40	20	..	..	0	0	+	..	+	..
" 30		..	..	..	..	0	+	+	..	0	..
" 31		40	480	..	..	0	0	+	..	0	..
June 2		0	50	..	..	0	+	+	..	+	..
" 3		0	0	..	0	0	0	0	..	..	..
" 4		3000	1300	..	+	0	+	+	..	..	..
" 5		10	20	..	0	0	+	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 120–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 9	8	120	10	..	0	0	+	+	..	..	..
" 10		..	0	..	0	0	0	+	..	..	..
" 11		10	8	..	0	0	0	0	..	..	..
" 12		10	0	..	0	0	0	0	..	..	..
" 13		16	2	..	0	0	0	+	..	..	..
" 14		30	13	..	0	0	+	+	..	..	..
" 16		20	3	..	0	0	0	0	..	..	..
Averages		**275.5**	**146.6**	**1**	**06**	**B.**	**C.**	**pe**	**r**	**1**	**00cc**
May 28	9	..	..	..	..	0	+	+	..	+	..
" 29		10	10	..	..	0	0	+	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		120	1200	..	..	0	0	+	..	+	..
June 2		20	20	..	..	0	0	0	..	0	..
" 3		10	10	..	0	0	0	0	..	..	..
" 4		30	30	..	0	+	+	+	..	..	..
" 5		20	20	..	0	+	0	+	..	..	..
" 9		10	10	..	+	+	+	+	..	..	..
" 10		0	0	..	0	0	+	0	..	..	..
" 11		14	14	..	0	0	+	0	..	..	..
" 12		30	30	..	0	0	0	0	..	..	..
" 13		5	5	..	0	0	0	+	..	..	..
" 14		28	28	..	0	+	0	+	..	..	..
" 16		32	32	..	0	0	+	+	..	..	..
Averages		**396.3**	**108.3**	**77**	**3.**	**B.**	**C.**	**pe**	**r**	**1**	**00cc**
May 28	10	..	..	..	..	0	+	+	..	+	..
" 29		80	80	..	..	+	0	+	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		30	30	..	..	0	+	+	..	+	..
June 2		30	30	..	..	0	+	0	..	+	..
" 3		10	10	..	0	0	0	0	..	..	..
" 4		500	500	..	+	+	+	+	..	..	..
" 5		20	20	..	0	0	0	+	..	..	..
" 9		40	40	..	0	+	+	+	..	..	..
" 10		0	0	..	0	0	+	+	..	..	..
" 11		15	15	..	0	0	+	0	..	..	..
" 12		0	0	..	0	0	0	0	..	..	..
" 13		3	3	..	0	0	0	+	..	..	..
" 14		80	80	..	0	+	+	+	..	..	..
" 16		32	32	..	0	+	+	+	..	..	..
Averages		**742.7**	**84.6**	**9**	**06**	**B.**	**C.**	**pe**	**r**	**1**	**00cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Waters of the Western End of Lake Ontario.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 28	11	..	..	..	..	+	+	+	..	+	..
" 29		120	14	..	..	0	0	+	..	..	..
" 30		..	..	..	..	+	+	+	..	+	..
" 31		1530	30	..	..	0	+	+	..	+	..
June 2		170	20	..	..	+	+	+	..	+	..
" 3		20	10	..	0	0	+	+	..	+	..
" 4		300	1200	..	..	+	+	+	..	..	..
" 5		110	10	..	0	+	+	+	..	..	..
" 9		230	0	..	0	0	0	0	..	..	..
" 10		480	90	..	0	+	+	+	..	..	..
" 11		75	17	..	0	0	+	+	..	..	..
" 12		spreader	3	..	+	0	+	+	..	..	..
" 13		50	8	..	0	0	+	+	..	..	..
" 14		400	150	..	0	+	+	+	..	..	..
" 16		600	24	..	0	+	+	+	..	..	..
Averages		**567.08**	**121.2**	**62**	**B.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	12	..	..	..	..	+	+	+	..	+	..
" 29		spreader	900	..	..	+	0	+	..	..	..
" 30		..	..	..	..	+	+	+	..	+	..
" 31		4000	30	..	..	+	+	+	..	+	..
June 2		150	250	..	..	+	+	+	..	+	..
" 3		150	20	..	0	0	+	+	..	+	..
" 4		180	260	..	..	+	+	+	..	..	..
" 5		1000	0	..	0	+	+	+	..	..	..
" 9		700	30	..	0	0	0	0	..	..	..
" 10		310	120	..	0	+	+	+	..	..	..
" 11		500	70	..	0	0	+	+	..	..	..
" 12		300	21	..	0	0	+	+	..	..	..
" 13		300	16	..	0	0	+	+	..	..	..
" 14		380	60	..	0	+	+	+	..	..	..
" 16		150	25	..	0	+	+	+	..	..	..
Averages		**678.3**	**138.6**	**6**	**20**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	13	..	..	..	..	+	+	+	..	+	..
" 29		70	280	..	..	+	0	+	..	..	..
" 30		..	..	..	..	+	+	+	..	+	..
" 31		700	20	..	..	+	+	+	..	+	..
June 2		230	440	..	..	+	+	+	..	+	..
" 3		80	80	..	0	+	+	+	..	+	..
" 4		400	100	..	..	+	+	..	..	..	..
" 5		210	0	..	0	+	0	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 9	13	130	0	..	0	0	0	0	..	..	..
" 10		20	160	..	+	+	+	+	..	..	..
" 11		500	100	..	0	+	+	+	..	..	..
" 12		spreader	6	..	0	0	+	+	..	..	..
" 13		400	36	..	0	0	+	+	..	..	..
" 14		180	32	..	0	0	+	0	..	..	..
" 16		220	50	..	0	+	+	+	..	..	..
Averages		**303.3**	**85.30**	**11**	**74**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	14	..	..	..	..	+	+	+	..	0	..
" 29		spreader	310	..	..	+	0	+	..	..	..
" 30		..	..	..	..	+	+	+	..	+	..
" 31		3000	30	..	..	+	+	+	..	+	..
June 2		1000	420	..	..	+	+	+	..	+	..
" 3		100	50	..	0	+	+	+	..	+	..
" 4		600	230	..	..	0	+	+	..	..	..
" 5		100	10	..	0	0	+	+	..	..	..
" 9		50	0	..	0	+	0	0	..	..	..
" 10		1200	13	..	0	+	+	+	..	..	..
" 11		400	120	..	0	0	+	+	..	..	..
" 12		200	32	..	0	+	+	+	..	..	..
" 13		250	40	..	0	0	0	+	..	..	..
" 14		60	28	..	0	+	+	+	..	..	..
" 16		500	40	..	0	+	+	+	..	..	..
Averages		**623.3**	**92.5**	**6**	**29**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	15	..	..	..	..	0	+	+	..	+	..
" 29		280	spreader	..	..	+	0	+	..	..	..
" 30		..	..	..	..	+	0	+	..	+	..
" 31		2000	60	..	..	+	+	+	..	+	..
June 2		120	150	..	..	0	+	+	..	+	..
" 3		140	0	..	0	+	+	+	..	+	..
" 4		180	260	..	..	0	+	+	..	..	..
" 5		320	10	..	0	0	0	+	..	..	..
" 9		50	0	..	0	0	0	0	..	..	..
" 10		1200	120	..	0	+	+	+	..	..	..
" 11		600	60	..	0	+	+	+	..	..	..
" 12		300	21	..	0	+	+	+	..	..	..
" 13		300	36	..	0	0	+	+	..	..	..
" 14		50	8	..	0	+	+	+	..	..	..
" 16		400	33	..	0	0	+	+	..	..	..
Averages		**456.9**	**71.3**	**4**	**49**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Waters of the Western End of Lake Ontario.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 28	16	..	..	..	..	+	+	+	..	+	..
" 29		120	75	..	..	0	0	+	..	..	..
" 30		..	..	..	..	0	0	0	..	+	..
" 31		..	30	..	..	+	+	+	..	+	..
June 2		70	50	..	..	0	+	+	..	+	..
" 3		140	50	..	+	+	+	+	..	+	..
" 4		150	20	..	..	0	+	0	..	..	..
" 5		280	30	..	0	+	0	+	..	..	..
" 9		50	0	..	0	0	0	0	..	..	..
" 10		260	40	..	0	+	+	+	..	..	..
" 11		400	40	..	0	+	+	+	..	..	..
" 12		400	46	..	0	+	+	+	..	..	..
" 13		400	60	..	0	0	+	+	..	..	..
" 14		40	6	..	0	0	+	+	..	..	..
" 16		50	7	..	0	0	+	+	..	..	..
Averages		**196.6**	**34.9**	**10**	**36**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 28	17	..	..	..	..	+	0	+	..	+	..
" 29		spreader	40	..	..	0	0	+	..	..	..
" 30		..	..	..	..	+	0	+	..	+	..
" 31		5000	140	..	..	0	+	+	..	+	..
June 2		150	70	..	..	0	+	+	..	+	..
" 3		90	20	..	0	+	+	+	..	+	..
" 4		450	0	..	..	0	0	0	..	..	..
" 5		30	20	..	0	0	0	+	..	..	..
" 9		0	0	..	0	0	0	0	..	..	..
" 10		380	120	..	+	0	+	+	..	..	..
" 11		300	40	..	0	+	+	+	..	..	..
" 12		500	17	..	0	+	+	+	..	..	..
" 13		200	28	..	+	+	+	+	..	..	..
" 14		40	23	..	0	0	+	+	..	+	..
" 16		210	30	..	0	+	+	+	..	..	..
Averages		**612.5**	**42.1**	**10**	**36**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 28	18	..	..	..	..	+	+	+	..	+	..
" 29		40	10	..	..	+	0	+	..	..	..
" 30		..	..	..	..	0	+	0	..	+	..
" 31		1700	2	..	..	0	+	+	..	+	..
June 2		150	120	..	..	0	+	+	..	+	..
" 3		90	30	..	0	+	0	+	..	+	..
" 4		70	20	..	..	0	0	0	..	..	..
" 5		0	30	..	0	0	0	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	1cc	1cc	5cc	10cc	25cc	50cc
June 9	18	20	30	..	0	0	0	0	..	..	..
" 10		150	50	..	0	0	+	+	..	..	..
" 11		250	34	..	0	+	+	+	..	..	..
" 12		200	28	..	..	0	0	+	..	+	..
" 13		90	3	..	..	+	+	+	..	+	..
" 14		100	30	..	..	0	+	+	..	+	..
" 16		200	21	..	..	+	+	+	..	+	..
Averages		**235.3**	**31.3**	**3**	**05**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 28	19	..	..	..	..	0	0	+	..	+	..
" 29		spreader	42	..	..	+	0	+	..	..	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		500	30	..	..	+	+	+	..	+	..
June 2		0	200	..	..	0	+	+	..	+	..
" 3		60	30	..	0	+	+	+	..	+	..
" 4		20	180	..	..	0	0	0	..	..	..
" 5		30	50	..	0	0	0	0	..	..	..
" 9		0	0	..	0	0	0	0	..	..	..
" 10		0	20	..	0	+	+	+	..	..	..
" 11		120	20	..	0	0	+	+	..	..	..
" 12		17	0	..	..	+	+	+	..	+	..
" 13		35	9	..	..	0	+	+	..	+	..
" 14		150	10	..	..	0	+	+	..	+	..
" 16		300	19	..	..	0	+	+	..	+	..
Averages		**102.6**	**46.9**	**3**	**14**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 28	20	..	..	..	..	0	0	+	..	+	..
" 29		spreader	80	..	..	0	0	+	..	..	..
" 30		..	..	..	..	0	0	0	..	+	..
" 31		650	20	..	..	0	+	+	..	+	..
June 2		0	140	..	..	0	0	0	..	0	..
" 3		140	40	..	0	+	+	+	..	+	..
" 4		220	600	..	..	0	0	0	..	..	..
" 5		20	40	..	0	0	0	0	..	..	..
" 9		20	20	..	0	0	0	0	..	..	..
" 10		80	0	..	0	0	+	+	..	..	..
" 11		26	8	..	0	0	0	+	..	..	..
" 12		12	0	..	..	0	0	+	..	0	..
" 13		30	14	..	..	0	0	+	..	+	..
" 14		120	30	..	..	0	+	+	..	+	..
" 16		250	15	..	..	+	+	+	..	+	..
Averages		**130.6**	**77.4**	**1**	**60**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**

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May 28	21	..	..	..	..	+	+	+	..	+	..
" 29		90	42	..	..	0	+	+	..	+	..
" 30		..	..	..	..	0	0	+	..	+	..
" 31		0	0	..	..	0	0	+	..	+	..
June 2		30	300	..	..	0	0	+	..	+	..
" 3		20	0	..	..	0	+	+	..	..	..
" 4		20	10	..	..	0	0	0	..	..	..
" 5		0	0	..	0	0	0	+	..	..	..
" 9		0	20	..	0	0	0	0	..	..	..
" 10		20	0	..	0	0	0	+	..	..	..
" 11		8	11	..	0	0	0	0	..	..	..
" 12		25	3	..	..	0	+	+	..	+	..
" 13		26	40	..	..	0	+	+	..	+	..
" 14		90	26	..	..	+	+	+	..	+	..
" 16		200	15	..	..	+	+	+	..	+	..
Averages		**43.6**	**35.9**	**2**	**33**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	22	..	..	..	..	0	+	+	..	+	..
" 29		spreader	..	..	..	0	0	0	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		20	10	..	..	0	0	0	..	+	..
June 2		70	30	..	..	0		+	..	+	..
" 3		0	10	..	..	0		0	..	..	..
" 4		10	0	..	..	0	0	+	..	..	..
" 5		0	0	..	0	0	0	+	..	..	..
" 9		0	0	..	0	0	0	0	..	..	..
" 10		0	0	..	0	0	0	0	..	..	..
" 11		9	2	..	0	0	+	+	..	..	..
" 12		33	7	..	..	0	+	+	..	+	.
" 13		40	14	..	..	0	+	+	..	+	.
" 14		32	6	..	..	0	0	+	..	0	.
" 16		200	26	..	..	0	+	+	..	..	..
Averages		**34.5**	**8.7**		**52**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	23	..	..	..	..	0	0	+	..	+	..
" 29		32	spreader	..	..	0	0	+	..	+	..
" 30		..	..	..	..	0	0	+	..	+	..
" 31		0	20	..	..	0	+	+	..	+	..
June 2		0	20	..	..	0	0	+	..	0	..
" 3		10	10	..	..	0	0	0	..	..	..
" 4		0	0	..	..	0	0	+	..	..	..
" 5		10	0	..	0	0	0	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 9	23	0	0	..	0	0	0	0	..	..	..
" 10		30	10	..	0	0	0	+	..	..	..
" 11		9	6	..	0	0	0	0	..	..	..
" 12		23	3	..	..	0	+	+	..	+	..
" 13		50	14	..	..	+	+	+	..	+	..
" 14		12	spreader	..	..	0	+	+	..	+	..
" 16		200	16	..	..	0	+	+	..	+	..
Averages		**28.9**	**74.7**	**1**	**02**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	24	..	..	..	..	+	+	+	..	+	..
" 29		24	spreader	..	..	+	0	+	..	+	..
" 30		..	..	..	..	0	0	+	..	+	..
" 31		0	40	..	..	0	0	0	..	+	..
June 2		40	40	..	..	0	0	+	..	+	..
" 3		10	20	..	..	+	0	+	..	..	..
" 4		20	20	..	..	0	0	..	..	..	..
" 5		0	0	..	0	0	0	+	..	..	..
" 9		40	0	..	0	0	0	0	..	..	.
" 10		30	220	..	0	0	0	0	..	..	..
" 11		..	5	..	0	0	+	+	..	..	..
" 12		9	1	..	..	0	+	0	..	+	..
" 13		18	3	..	..	+	0	+	..	+	..
" 14		30	18	..	..	0	+	+	..	+	..
" 16		250	28	..	..	+	+	+	..	+	..
Averages		**29.2**	**145.7**	**1**	**84**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 28	25	..	1500	..	..	+	+	+	..	+	..
" 29		52	spreader	..	..	0	+	+	..	+	..
" 30		..	..	..	..	0	+	0	..	0	..
" 31		50	30	..	..	+	0	+	..	+	..
June 2		40	50	..	..	0	0	0	..	0	..
" 3		0	20	..	..	0	+	0	..	..	..
" 4		0	20	..	..	0	0	+	..	..	..
" 5		0	10	..	0	+	0	+	..	..	..
" 9		10	0	..	0	0	0	+	..	..	..
" 10		0	0	..	0	0	0	+	..	..	..
" 11		5	2	..	0	0	+	0	..	..	..
" 12		1	2	..	..	0	+	0	..	0	..
" 13		10	6	..	..	0	0	+	..	+	..
" 14		4	spreader	..	..	0	0	+	..	+	..
" 16		400	40	..	..	+	+	+	..	+	..
Aver...		**44**	**140**	**18**	**3.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 28	26	..	..	..	..	+	+	+	..	+	..
" 29		150	spreader	..	..	0	0	+	..	+	..
" 30		..	..	..	..	0	+	+	..	+	..
" 31		20	10	..	..	0	0	+	..	+	..
June 2		50	20	..	..	0	0	0	..	0	..
" 3		10	0	..	..	0	0	0	..	..	..
" 4		150	1200	..	..	0	0	0	..	..	..
" 5		0	0	..	0	+	+	+	..	..	..
" 9		10	50	..	0	+	0	0	..	..	..
" 10		0	0	..	0	0	0	0	..	..	..
" 11		10	5	..	0	0	0	+	..	..	..
" 12		4	0	..	..	0	0	0	..	+	..
" 13		15	12	..	..	0	0	0	..	+	..
" 14		9	0	..	..	0	0	+	..	0	..
" 16		14	3	..	..	0	+	0	..	+	..
Averages		**31.6**	**231**	**14**	**7**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 30	27	240	40	..	..	..	+	+	..	+	+
" 31		50	0	..	..	0	0	+	..	+	..
June 2		23	27	..	..	..	0	+	..	0	0
" 3		19	3	..	..	..	0	0	..	+	0
" 4		15	2	..	..	..	0	+	..	+	+
" 5		4	3	..	..	..	0	0	..	+	+
" 9		80	8	..	..	..	+	+	..	+	+
" 10		14	13	..	..	..	0	+	..	+	+
" 11		21	9	..	..	..	0	+	..	+	+
" 12		5	8	..	..	..	0	0	..	+	+
" 13		26	9	..	..	..	+	+	..	+	+
" 14		100	spreader	..	..	..	0	+	..	0	+
" 16		1	1	..	..	..	0	+	..	+	+
" 17		17	6	..	..	..	0	+	..	0	0
" 18		38	11	..	..	..	0	+	..	+	0
Averages		**43.5**	**10**		**28**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 30	28	200	40	..	..	..	+	+	..	+	+
" 31		230	40	..	..	0	+	+	..	+	+
June 2		36	54	..	..	..	+	+	..	+	+
" 3		98	18	..	..	..	+	+	..	+	+
" 4		42	10	..	..	..	+	+	..	+	+
" 5		21	spreader	..	..	..	0	0	..	+	+
" 9		100	7	..	..	..	+	+	..	+	+
" 10		7	10	..	..	..	0	0	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 11	28	120	26	..	..	..	0	+	..	+	+
" 12		100	10	..	..	..	+	+	..	+	+
" 13		200	21	..	..	..	+	+	..	+	+
" 14		120	3	..	..	..	+	+	..	+	+
" 16		8	3	..	..	..	0	0	..	+	+
" 17		36	2	..	..	..	0	0	..	0	0
" 18		58	2	..	..	..	+	0	..	+	+
Averages		**91.6**	**17.5**		**63**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 30	29	spreader	50	..	..	..	0	0	..	0	0
" 31		180	40	..	..	0	0	0	..	+	..
June 2		47	100	..	..	..	0	+	..	+	0
" 3		21	5	..	..	..	0	0	..	0	+
" 4		38	15	..	..	..	+	+	..	+	+
" 5		54	5	..	..	..	+	+	..	+	+
" 9		100	12	..	..	..	+	0	..	+	+
" 10		6	3	..	..	..	0	+	..	+	+
" 11		6	5	..	..	..	0	0	..	0	+
" 12		50	24	..	..	..	0	+	..	+	+
" 13		200	48	..	..	..	+	+	..	+	+
" 14		200	10	..	..	..	+	+	..	0	+
" 16		20	5	..	..	..	0	+	..	+	+
" 17		150	2	..	..	..	0	+	..	0	+
18		120	20	..	..	..	0	0	..	+	+
Averages		**85.1**	**22.9**	**3**	**4.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 30	30	85	20	..	..	..	0	0	..	0	0
" 31		0	30	..	..	0	0	+	..	+	+
June 2		68	110	..	..	..	+	+	..	+	+
" 3		48	7	..	..	..	0	0	..	+	+
" 4		28	8	..	..	..	+	0	..	+	+
" 5		160	14	..	..	..	+	+	..	+	+
" 9		80	32	..	..	..	+	0	..	+	+
" 10		3	1	..	..	..	+	0	..	+	+
" 11		3	1	..	..	..	0	0	..	0	0
" 12		50	32	..	..	..	0	+	..	+	+
" 13		76	9	..	..	..	+	+	..	+	+
" 14		150	23	..	..	..	+	+	..	0	+
" 16		5	1	..	..	..	0	+	..	+	+
" 17		13	2	..	..	..	+	0	..	0	+
" 18		140	12	..	..	..	0	+	..	+	+
Averages		**60.6**	**20.1**		**36**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 30	31	60	40	..	..	..	0	0	..	0	0
" 31		120	0	..	..	0	0	0	..	+	0
June 2		17	10	..	..	..	0	0	..	0	0
" 3		8	2	..	..	..	+	0	..	0	0
" 4		2	2	..	..	..	0	0	..	0	0
" 5		2	spreader	..	..	..	0	0	..	+	0
" 9		70	13	..	..	..	+	0	..	+	+
" 10		0	1	..	..	..	0	0	..	+	+
" 11		2	1	..	..	..	0	0	..	0	0
" 12		15	3	..	..	..	0	+	..	+	+
" 13		6	1	..	..	..	0	0	..	+	0
" 14		11	spreader	..	..	..	0	0	..	0	+
" 16		28	7	..	..	..	+	+	..	+	+
" 17		26	spreader	..	..	..	0	0	..	0	+
" 18		14	6	..	..	..	0	+	..	+	0
Averages		**25.4**	**7.**		**10**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	32	200	20	..	..	..	0	0	..	0	0
" 31		0	0	..	..	0	0	+	..	+	0
June 2		16	2	..	..	..	+	+	..	+	+
" 3		1	5	..	..	..	0	0	..	0	0
" 4		6	2	..	..	..	0	+	..	0	0
" 5		0	0	..	..	..	+	0	..	0	0
" 9		70	5	..	..	..	0	+	..	0	+
" 10		4	7	..	..	..	+	+	..	0	0
" 11		3	3	..	..	..	0	0	..	0	0
" 12		6	4	..	..	..	0	+	..	0	+
" 13		..	4	..	..	..	0	0	..	+	0
" 14		9	4	..	..	..	0	0	..	0	+
" 16		35	6	..	..	..	0	+	..	+	+
" 17		8	3	..	..	..	0	0	..	0	0
" 18		50	7	..	..	..	0	+	..	+	0
Averages		**29.5**	**4.**		**11**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	33	spreader	70	..	..	..	0	0	..	0	0
" 31		10	0	..	..	..	0	0	..	0	..
June 2		3	5	..	..	..	0	+	..	0	+
" 3		1	3	..	..	..	0	0	..	0	0
" 4		8	10	..	..	..	0	0	..	0	0
" 5		12	1	..	..	..	0	0	..	+	+
" 9		32	1	..	..	..	0	+	..	+	+
" 10		0	0	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 11	33	50	14	..	..	..	0	+	..	+	+
" 12		23	12	..	..	..	0	+	..	+	+
" 13		1	3	..	..	..	0	0	..	0	0
" 14		50	10	..	..	..	0	+	..	+	+
" 16		36	10	..	..	..	0	+	..	+	+
" 17		13	1	..	..	..	0	0	..	0	0
" 18		16	0	..	..	..	0	+	..	+	0
Averages		**18.2**	**9.**		**8.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	34	180	100	..	..	..	0	0	..	0	0
" 31		10	0	..	..	0	0	0	..	0	..
June 2		3	4	..	..	..	0	0	..	0	0
" 3		1	2	..	..	..	0	0	..	0	0
" 4		18	2	..	..	..	0	+	..	+	+
" 5		4	1	..	..	..	0	0	..	0	—
" 9		28	3	..	..	..	0	+	..	0	+
" 10		0	0	..	..	..	0	0	..	0	0
" 11		300	10	..	..	..	+	+	..	+	+
" 12		12	5	..	..	..	0	+	..	+	+
" 13		7	12	..	..	..	+	+	..	+	+
" 14		300	23	..	..	..	+	+	..	+	+
" 16		100	8	..	..	..	0	+	..	+	+
" 17		0	2	..	..	..	0	0	..	0	0
" 18		120	26	..	..	..	+	+	..	+	+
Averages		**72.2**	**13.2**	**3**	**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	35	56	130	..	..	..	+	+	..	+	+
" 31		0	0	..	..	0	+	+	..	0	..
June 2		0	5	..	..	..	0	0	..	0	+
" 3		200	5	..	..	..	0	0	..	+	+
" 4		28	8	..	..	..	0	+	..	+	+
" 5		2	0	..	..	..	0	0	..	0	+
" 9		..	..	..	..	..	..	..	..	..	..
" 10		0	9	..	..	..	0	0	..	+	+
" 11		80	40	..	..	..	+	+	..	+	+
" 12		13	7	..	..	..	0	0	..	0	+
" 13		60	16	..	..	..	+	+	..	+	+
" 14		28	10	..	..	..	0	+	..	+	+
" 16		120	16	..	..	..	0	+	..	+	+
" 17		0	1	..	..	..	0	0	..	0	0
" 18		140	21	..	..	..	+	+	..	+	..
Averages		**51.8**	**19.1**	**3**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 30	36	10	40	..	..	..	0	+	..	+	+
" 31		0	60	..	..	0	0	+	..	0	+
June 2		0	15	..	..	..	0	0	..	0	0
" 3		90	5	..	..	..	0	0	..	0	0
" 4		1	3	..	..	..	0	0	..	0	0
" 5		26	21	..	..	..	0	+	..	+	+
" 9		0	1	..	..	..	0	0	..	0	+
" 10		16	4	..	..	..	0	+	..	+	+
" 11		160	26	..	..	..	+	+	..	+	+
" 12		6	8	..	..	..	0	+	..	0	+
" 13		80	15	..	..	..	+	+	..	+	+
" 14		2	0	..	..	..	0	0	..	0	0
" 16		6	20	..	..	..	0	+	..	+	+
" 17		0	1	..	..	..	0	0	..	0	0
Averages		**28.2**	**15.6**		**20**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 30	37	..	..	..	..	..	0	+	..	+	+
" 31		10	600	..	..	0	0	0	..	0	..
June 2		40	1	..	..	..	0	0	..	0	0
" 3		44	4	..	..	..	0	0	..	0	0
" 4		15	40	..	..	..	0	0	..	0	0
" 5		120	56	..	..	..	+	+	..	+	+
" 9		1	0	..	..	..	0	0	..	0	0
" 10		80	0	..	..	..	0	+	..	+	+
" 11		120	23	..	..	..	+	+	..	+	+
" 12		14	1	..	..	..	+	0	..	+	+
" 13		250	60	..	..	..	+	+	..	+	+
" 14		10	0	..	..	..	0	+	..	0	0
" 16		170	4	..	..	..	0	+	..	..	..
" 17		0	0	..	..	..	0	0	..	0	+
Averages		**64.4**	**60.6**		**26**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 30	38	..	..	..	..	..	0	0	..	+	+
" 31		0	720	..	..	0	0	0	..	0	+
June 2		0	3	..	..	..	0	0	..	0	0
" 3		25	8	..	..	..	0	0	..	0	0
" 4		15	10	..	..	..	0	0	..	0	0
" 5		300	42	..	..	..	+	+	..	+	+
" 9		0	0	..	..	..	0	0	..	0	0
" 10		55	17	..	..	..	0	+	..	+	+
" 11		65	6	..	..	..	+	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 12	38	14	5	..	..	..	0	0	..	+	+
" 13		300	32	..	..	..	+	+	..	+	+
" 14		10	spreader	..	..	..	0	0	..	0	+
" 16		200	9	..	..	..	+	+	..	..	..
" 17		0	0	..	..	..	0	0	..	0	0
Averages		**75.6**	**71**		**30**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 30	39	..	..	..	..	..	+	+	..	+	+
" 31		0	30	..	..	0	0	0	..	0	..
June 2		4	0	..	..	..	0	0	..	0	0
" 3		1	6	..	..	..	0	0	..	0	0
" 4		..	18	..	..	..	..	..	..	..	..
" 5		21	..	..	..	..	..	..	..	..	..
" 9		0	0	..	..	..	0	0	..	0	0
" 10		80	33	..	..	..	+	+	..	+	+
" 11		40	9	..	..	..	+	+	..	+	+
" 12		3	0	..	..	..	0	0	..	0	0
" 13		5	3	..	..	..	0	0	..	+	+
" 14		0	1	..	..	..	0	0	..	0	0
" 16		40	7	..	..	..	0	+	..	..	..
" 17		0	0	..	..	..	0	0	..	0	+
Averages		**17**	**8.**		**22**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 30	40	..	..	..	..	..	0	0	..	0	+
" 31		0	20	..	..	0	0	0	..	0	..
June 2		5	5	..	..	..	0	0	..	0	0
" 3		4	2	..	..	..	0	0	..	0	0
" 4		12	0	..	..	..	0	0	..	0	0
" 5		5	26	..	..	..	0	0	..	+	+
" 9		60	8	..	..	..	0	+	..	+	+
" 10		100	17	..	..	..	+	+	..	+	+
" 11		100	10	..	..	..	+	+	..	+	+
" 12		1	2	..	..	..	0	0	..	0	0
" 13		0	3	..	..	..	0	0	..	+	+
" 14		0	0	..	..	..	0	0	..	0	0
" 16		0	0	..	..	..	0	0	..	..	..
" 17		0	0	..	..	..	0	0	..	0	0
Averages		**22.07**	**7.**		**16**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

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May 30	41	..	..	..	..	..	+	0	..	0	+
" 31		0	0	..	..	0	0	0	..	0	..
June 2		32	10	..	..	..	0	+	..	0	0
" 3		2	3	..	..	..	0	0	..	0	0
" 4		8	1	..	..	..	0	0	..	0	0
" 5		1	4	..	..	..	0	0	..	0	0
" 9		100	35	..	..	..	0	0	..	+	+
" 10		60	4	..	..	..	+	+	..	+	+
" 11		1	0	..	..	..	0	0	..	0	0
" 12		..	0	..	..	..	0	0	..	0	0
" 13		2	0	..	..	..	..	..	..	..	..
" 13		0	0	..	..	..	0	0	..	0	0
" 14		0	0	..	..	..	0	0	..	0	0
" 16		0	1	..	..	..	0	0	..	..	..
" 17		0	0	..	..	..	0	0	..	0	0
Averages		**15.8**	**3.**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	42	..	..	..	..	..	0	0	..	0	0
" 31		60	180	..	..	0	0	0	..	0	..
June 2		1	4	..	..	..	0	0	..	0	0
" 3		2	4	..	..	..	0	0	..	0	0
" 4		1	42	..	..	..	0	0	..	0	0
" 5		0	1	..	..	..	0	0	..	0	0
" 9		..	..	..	..	..	0	+	..	+	+
" 10		32	3	..	..	..	+	+	..	+	+
" 11		2	0	..	..	..	0	0	..	0	0
" 12		0	0	..	..	..	0	0	..	0	0
" 13		spreader	0	..	..	..	0	0	..	..	0
" 14		0	0	..	..	..	0	0	..	0	0
" 16		0	0	..	..	..	+	0	..	..	..
" 17		0	0	..	..	..	0	0	..	0	0
Averages		**8**	**19.5**		**8.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	43	..	..	..	..	..	0	0	..	0	+
" 31		20	10	..	..	0	0	0	..	0	..
June 2		1	50	..	..	..	0	0	..	0	0
" 3		10	4	..	..	..	0	0	..	0	0
" 4		0	20	..	..	..	0	0	..	0	0
" 5		1	4	..	..	..	0	0	..	0	0
" 9		150	64	..	..	..	0	+	..	+	+
" 10		6	7	..	..	..	0	+	..	+	+
" 11		1	0	..	..	..	0	0	..	0	0

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June 12	43	3	1	..	..	..	0	0	..	0	0
" 13		1	0	..	..	..	0	0	..	0	0
" 14		1	1	..	..	..	0	0	..	0	0
" 16		0	0	..	..	..	0	0	..	..	..
" 17		1	2	..	..	..	0	0	..	0	0
Averages		**15.**	**.11**		**3.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	44	..	..	..	..	..	0	0	..	0	0
" 31		0	20	..	..	0	0	0	..	0	..
June 2		2	2	..	..	..	0	0	..	0	0
" 3		3	3	..	..	..	0	0	..	0	0
" 4		2	6	..	..	..	0	0	..	0	0
" 5		0	21	..	..	..	0	0	..	0	0
" 9		100	12	..	..	..	+	+	..	+	+
" 10		22	8	..	..	..	0	+	..	+	+
" 11		1	0	..	..	..	0	0	..	0	0
" 12		8	1	..	..	..	0	0	..	0	0
" 13		0	5	..	..	..	0	0	..	0	0
" 14		0	0	..	..	..	0	0	..	0	0
" 16		0	3	..	..	..	0	0	..	..	..
" 17		3	0	..	..	..	0	0	..	0	0
Averages		**10.8**	**6**		**8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	45	..	..	..	..	..	0	0	..	0	0
" 31		40	30	..	..	0	0	0	..	0	..
June 2		0	5	..	..	..	0	0	..	0	0
" 3		8	6	..	..	..	0	0	..	0	0
" 4		0	22	..	..	..	0	0	..	0	0
" 5		0	10	..	..	..	0	0	..	0	0
" 9		150	10	..	..	..	+	+	..	+	+
" 10		5	1	..	..	..	0	0	..	0	0
" 11		1	1	..	..	..	0	0	..	0	0
" 12		13	0	..	..	..	0	0	..	0	0
" 13		0	1	..	..	..	0	0	..	0	0
" 14		0	6	..	..	..	0	0	..	0	0
" 16		0	3	..	..	..	0	0	..	..	..
" 17		0	0	..	..	..	0	0	..	0	0
Averages		**16.6**	**7.**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 30	46	..	..	..	..	..	0	0	..	0	0
" 31		0	0	..	..	0	0	0	..	0	0
June 2		1	0	..	..	..	0	0	..	0	0
" 3		40	4	..	..	..	0	0	..	0	0
" 4		20	5	..	..	..	0	0	..	0	0
" 5		0	12	..	..	..	0	0	..	0	0
" 9		2000	10	..	..	..	+	+	..	+	+
" 10		50	0	..	..	..	0	0	..	0	0
" 11		10	0	..	..	..	0	0	..	+	0
" 12		50	0	..	..	..	0	0	..	0	0
" 13		0	0	..	..	..	0	0	..	0	0
" 14		10	0	..	..	..	0	0	0	0	0
" 16		0	1	..	..	..	0	0	..	..	..
" 17		10	1	..	..	..	0	0	..	0	0
Averages		**16.9**	**2.**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	47	0	30	..	..	..	0	0	..	0	0
" 31		10	..	..	..	0	0	0	..	0	0
June 2		0	0	..	..	..	0	0	..	0	0
" 3		1	1	..	..	..	0	0	..	0	0
" 4		21	8	..	..	..	0	0	..	0	0
" 5		7	8	..	..	..	0	0	..	0	0
" 9		100	21	..	..	..	+	+	..	+	+
" 10		0	0	..	..	..	0	0	..	0	0
" 11		..	1	..	..	..	+	0	..	0	0
" 12		spreader	0	..	..	..	0	0	..	0	0
" 13		2	0	..	..	..	0	0	..	0	0
" 14		2	0	..	..	..	0	0	..	0	0
" 16		1	0	..	..	..	0	0	..	0	0
" 17		2	0	..	..	..	0	0	..	0	+
Averages		**12.1**	**5**		**7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	48	1	30	..	..	..	0	+	..	0	0
" 31		10	*650	..	..	0	0	0	..	0	..
June 2		0	6	..	..	..	0	0	..	0	0
" 3		1	5	..	..	..	0	0	..	0	0
" 4		0	spreader	..	..	..	0	0	..	0	0
" 5		0	0	..	..	..	0	0	..	0	0
" 9		50	12	..	..	..	+	+	..	+	+
" 10		2	1	..	..	..	0	0	..	0	0
" 11		..	0	..	..	..	0	0	..	0	+
" 12		7	2	..	..	..	0	0	..	0	0
" 13		2	3	..	..	..	0	0	..	0	0
" 14		1	spreader	..	..	..	0	0	..	0	0
" 16		0	1	..	..	..	0	0	..	0	0
" 17		0	0	..	..	..	0	0	..	0	0
Averages		**6**	**6.0**		**7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	49	3	*150	..	..	..	0	0	..	0	0
" 31		10	*750	..	..	0	0	0	..	0	..
June 2		0	0	..	..	..	0	0	..	0	0
" 3		0	3	..	..	..	0	0	..	0	0
" 4		15	20	..	..	..	0	0	..	0	0
" 5		1	1	..	..	..	0	0	..	0	0
" 9		80	5	..	..	..	+	+	..	+	+
" 10		0	1	..	..	..	0	0	..	0	0
" 11		..	4	..	..	..	0	0	..	0	+
" 12		2	0	..	..	..	0	0	..	0	0
" 13		5	0	..	..	..	0	0	..	0	0
" 14		1	0	..	..	..	0	0	..	0	+
" 16		2	2	..	..	..	0	0	..	0	0
" 17		1	0	..	..	..	0	0	..	0	0
Averages		**9.**	**3.0**		**7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	50	1	30	..	..	..	0	0	..	0	0
" 31		40	*360	..	..	0	0	0	..	0	..
June 2		0	10	..	..	..	0	0	..	0	0
" 3		2	3	..	..	..	0	0	..	0	0
" 4		4	40	..	..	..	0	0	..	0	0
" 5		6	0	..	..	..	0	0	..	0	0
" 9		80	8	..	..	..	+	+	..	+	+
" 10		0	1	..	..	..	0	0	..	+	+
" 11		..	4	..	..	..	0	0	..	0	+
" 12		1	0	..	..	..	0	0	..	0	0
" 13		1	1	..	..	..	0	0	..	0	0
" 14		1	2	..	..	..	0	0	..	0	0
" 16		2	0	..	..	..	0	0	..	0	0
" 17		2	2	..	..	..	0	0	..	0	0
Averages		**10.7**	**7.**		**9.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

* Omitted from Averages.

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May 30	51	2	30	..	..	..	0	0	..	0	0
" 31		20	*630	..	..	0	0	+	..	0	..
June 2		0	0	..	..	..	0	0	..	0	0
" 3		0	1	..	..	..	0	0	..	0	0
" 4		5	8	..	..	..	0	0	..	0	0
" 5		16	0	..	..	..	0	0	..	0	0
" 9		20	3	..	..	..	+	+	..	+	+
" 10		3	1	..	..	..	+	0	..	+	+
" 11		..	23	..	..	..	0	0	..	0	0
" 12		5	2	..	..	..	0	0	..	0	0
" 13		4	0	..	..	..	0	0	..	0	0
" 14		0	0	..	..	..	0	0	..	0	0
" 16		2	1	..	..	..	0	0	..	+	+
" 17		0	2	..	..	..	0	0	..	0	0
Averages		**9**	**7.0**		**9.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	52	4	spreader	..	..	..	0	0	..	0	0
" 31		160	*520	..	..	0	0	+	..	+	..
June 2		8	0	..	..	..	0	0	..	0	0
" 3		3	2	..	..	..	0	+	..	0	+
" 4		3	6	..	..	..	0	0	..	0	0
" 5		spreader	3	..	..	..	0	+	..	+	+
" 9		48	0	..	..	..	+	+	..	+	+
" 10		2	1	..	..	..	0	0	..	+	+
" 11		..	3	..	..	..	0	0	..	+	+
" 12		3	3	..	..	..	0	0	..	+	+
" 13		18	1	..	..	..	0	0	..	+	+
" 14		2	0	..	..	..	0	0	..	0	0
" 16		12	0	..	..	..	0	0	..	0	0
" 17		1	4	..	..	..	0	0	..	0	+
Averages		**22**	**2.**	**1**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	53	2	*90	..	..	..	0	0	..	0	0
" 31		100	*500	..	..	0	0	+	..	+	..
June 2		2	3	..	..	..	0	0	..	0	0
" 3		14	3	..	..	..	0	+	..	+	+
" 4		4	9	..	..	..	0	+	..	+	+
" 5		3	0	..	..	..	0	0	..	+	+
" 9		60	5	..	..	..	+	+	..	+	+
" 10		3	1	..	..	..	0	+	..	0	+
" 11		..	4	..	..	..	0	0	..	+	+
" 12		4	7	..	..	..	0	0	..	+	+
" 13		12	3	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
June 14	53	6	4	..	..	..	+	0	..	+	+
" 16		6	0	..	..	..	0	0	..	+	+
" 17		0	1	..	..	..	+	0	..	0	0
Averages		**10.4**	**3.3**	**1**	**3.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 30	54	9	20	..	..	..	0	0	..	0	0
" 31		70	*700	..	..	0	+	+	..	+	..
June 2		5	5	..	..	..	0	0	..	0	0
" 3		12	8	..	..	..	0	+	..	+	+
" 4		9	10	..	..	..	+	0	..	+	+
" 5		3	3	..	..	..	0	+	..	0	0
" 9		100	21	..	..	..	+	+	..	+	+
" 10		9	4	..	..	..	0	0	..	+	+
" 11		..	0	..	..	..	0	+	..	+	+
" 12		7	3	..	..	..	+	0	..	+	+
" 13		30	4	..	..	..	+	+	..	+	0
" 14		10	10	..	..	..	0	+	..	+	+
" 16		4	1	..	..	..	0	0	..	+	+
" 17		4	0	..	..	..	0	0	..	0	0
Averages		**20.9**	**6.8**	**2**	**9.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 5	55	850	30	..	..	0	+	+	..	..	..
" 7		160	1600	..	0	0	+	+	..	..	..
" 9		480	260	..	0	0	+	+	..	..	..
" 10		100	40	..	0	+	+	+	..	..	..
" 11		600	50	..	0	+	+	+	..	..	..
" 12		1000	80	..	0	0	+	+	..	..	..
" 13		220	90	..	0	0	+	0	..	..	..
" 14		600	180	..	0	+	+	0	..	..	..
Averages		**502.5**	**291.2**	**3**	**15**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 5	56	3000	120	..	..	0	+	+	..	..	..
" 7		260	300	..	0	0	+	+	..	..	..
" 9		700	10	..	+	0	+	+	..	..	..
" 10		70	50	..	0	+	+	+	..	..	..
" 11		2000	50	..	+	+	+	+	..	..	..
" 12		460	120	..	0	+	+	+	..	..	..
" 13		400	10	..	+	+	+	+	..	..	..
" 14		290	70	..	0	+	+	+	..	..	..
Averages		**896.2**	**912**	**30**	**25**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

* Omitted from averages.

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June 5.....	57	1280	200	..	..	+	+	+	..	..	..
" 7.....		480	300	..	0	0	+	+	..	..	..
" 9.....		330	60	..	0	+	+	+	..	..	..
" 10.....		70	40	..	0	+	+	+	..	..	..
" 11.....		280	80	..	+	+	+	+	..	..	..
" 12.....		320	120	..	0	+	+	+	..	..	..
" 13.....		500	40	..	0	0	+	+	..	..	..
" 14.....		600	160	..	+	+	+	+	..	..	..
Averages.....		**482.5**	**125**	**30**	**25**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 5.....	58	2260	350	..	..	+	+	+	..	..	..
" 7.....		220	260	..	+	+	+	+	..	..	..
" 9.....		420	170	..	+	0	+	+	..	..	..
" 10.....		600	260	..	0	+	0	+	..	..	..
" 11.....		3000	70	..	+	+	+	+	..	..	..

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June 12.....	58	220	200	..	0	0	+	+	..	..	..
" 13.....		750	90	..	0	0	+	+	..	..	..
" 14.....		2000	320	..	0	+	+	+	..	..	..
Averages.....		**1183.7**	**215**	**28**	**12**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
June 5.....	59	460	190	..	..	+	+	+	..	..	..
" 7.....		280	300	..	0	+	+	+	..	..	..
" 9.....		140	90	..	0	+	+	+	..	..	..
" 10.....		600	150	..	0	+	0	+	..	..	..
" 11.....		200	70	..	+	0	+	+	..	..	..
" 12.....		280	320	..	0	0	+	+	..	..	..
" 13.....		800	50	..	0	+	+	+	..	..	..
" 14.....		1500	300	..	0	+	+	+	..	..	..
Averages.....		**532.5**	**183.7**	**7**	**87**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Aug. 1.....	154	..	3650	..	0	+	+	..	..	..	..
" 2.....		..	4540	0	0	+	..	..	..	..	..
" 4.....		..	4050	0	0	+	..	..	..	..	..
" 5.....		..	3410	0	+	+	..	..	..	..	..
" 6.....		..	5170	0	+	+	..	..	..	..	..
" 8.....		..	3100	0	+	+	..	..	..	..	..
" 9.....		..	4300	0	+	+	..	..	..	..	..
Averages.....		..	**4030**	**61**	**42**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	155	..	2940	..	0	+	+	..	..	..	..
" 2.....		..	3960	0	+	+	..	..	..	..	..
" 4.....		..	4150	0	0	+	..	..	..	..	..
" 5.....		..	2630	0	+	+	..	..	..	..	..
" 6.....		..	2800	0	+	+	..	..	..	..	..
" 8.....		..	3100	0	0	+	..	..	..	..	..
" 9.....		..	2600	0	+	+	..	..	..	..	..
Averages.....		..	**3160**	**61**	**42**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	156	..	2730	..	0	+	+	..	..	..	..
" 2.....		..	4070	0	0	+	..	..	..	..	..
" 4.....		..	3560	0	0	+	..	..	..	..	..
" 5.....		..	5700	0	+	+	..	..	..	..	..
" 6.....		..	3080	0	+	+	..	..	..	..	..
" 8.....		..	2350	0	0	+	..	..	..	..	..
" 9.....		..	....	..	..	+	+	..	..	..	..
Averages.....		..	**3580**	**35**	**71**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	157	..	3650	..	0	+	+	..	..	..	..
" 2.....		..	3710	0	0	+	..	..	..	..	..
" 4.....		..	2020	0	+	+	..	..	..	..	..
" 5.....		..	5960	0	+	+	..	..	..	..	..
" 6.....		..	3600	0	0	+	..	..	..	..	..
" 8.....		..	2940	0	+	+	..	..	..	..	..
" 9.....		..	....	0	+	+	..	..	..	..	..
Averages.....		..	**3640**	**61**	**42**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	158	..	2220	..	+	+	+	..	..	..	..
" 2.....		..	3010	0	0	+	..	..	..	..	..
" 4.....		..	4210	0	0	+	..	..	..	..	..
Aug. 5.....	158	..	3360	0	+	+	..	..	..	..	..
" 6.....		..	4300	0	+	+	..	..	..	..	..
" 8.....		..	2060	0	+	+	..	..	..	..	..
" 9.....		..	2940	0	+	+	..	..	..	..	..
Averages.....		..	**3150**	**74**	**28**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	159	..	2800	..	+	+	+	..	..	..	..
" 2.....		..	3150	0	0	+	..	..	..	..	..
" 4.....		..	2900	0	0	+	..	..	..	..	..
" 5.....		..	4170	0	0	+	..	..	..	..	..
" 6.....		..	2890	0	0	+	..	..	..	..	..
" 8.....		..	1800	0	+	+	..	..	..	..	..
" 9.....		..	1930	0	+	+	..	..	..	..	..
Averages.....		..	**2800**	**48**	**57**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	160	..	4510	..	+	+	+	..	..	..	..
" 2.....		..	5840	0	0	+	..	..	..	..	..
" 4.....		..	3900	0	0	+	..	..	..	..	..
" 5.....		..	4920	0	+	+	..	..	..	..	..
" 6.....		..	3610	+	+	+	..	..	..	..	..
" 8.....		..	2520	0	+	+	..	..	..	..	..
Averages.....		..	**4210 1**	**88**	**57**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	161	..	3600	..	0	+	+	..	..	..	..
" 2.....		..	4690	..	0	+	..	..	..	..	..
" 4.....		..	3950	..	0	+	..	..	..	..	..
" 5.....		..	5820	..	+	+	..	..	..	..	..
" 6.....		..	4100	+	+	+	..	..	..	..	..
" 8.....		..	4900	0	+	+	..	..	..	..	..
" 9.....		..	....	..	0	+	+	..	..	..	..
Averages.....		..	**4510 1**	**77**	**14**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	162	..	4500	..	0	+	+	..	..	..	..
" 2.....		..	3600	0	0	+	..	..	..	..	..
" 4.....		..	4800	0	+	+	..	..	..	..	..
" 5.....		..	4520	0	+	+	..	..	..	..	..
" 6.....		..	3200	0	+	+	..	..	..	..	..
" 8.....		..	4100	0	0	+	..	..	..	..	..
" 9.....		..	2070	0	+	+	..	..	..	..	..
Averages.....		..	**3820**	**61**	**42**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Aug. 1	163	..	1600	..	0	0	60	..	..	..	..
" 2		..	2110	0	..	0	..	..	..	..	..
" 4		..	1900	..	..	+	+	..	+	..	..
" 5		..	2140	0	+	+	..	..	+	..	..
" 6		..	1310	..	+	+	..	..	..	..	..
" 7		..	....	0	0	+	..	..	..	..	..
" 8		..	1460	..	+	+	..	..	..	..	..
" 9		..	1280	0	0	+	..	..	..	..	..
" 12		..	1830	0	0	+	..	..	..	..	..
" 13		..	1600	0	+	+	..	..	..	..	..
14		..	1910	0	+	+	..	..	..	..	..
Averages		..	1710	48	27	B.	C.	pe	r 1	00	cc
Aug. 1	164	..	3720	..	0	+	+	..	..	..	..
" 2		..	5810	0	0	+	..	..	..	..	..
" 4		..	4200	+	+	+	..	..	..	..	..
" 5		..	5150	0	0	+	..	..	..	..	..
" 6		..	3320	+	+	+	..	..	..	..	..
" 7		..	1110	0	+	+	..	..	..	..	..
" 8		..	1810	0	+	+	..	..	..	..	..
" 9		..	1010	0	+	+	..	..	..	..	..
" 12		..	1200	0	0	+	..	..	..	..	..
" 13		..	2500	0	+	+	..	..	..	..	..
" 14		..	1800	..	+	+	..	..	..	..	..
Averages		..	2870	240	00	B.	C.	pe	r 1	00	cc
Aug. 1	165	..	3470	..	0	0	+	..	..	..	..
" 2		..	4100	0	0	+	+	..	..	..	..
" 4		..	3900	0	0	+	..	..	..	..	..
" 5		..	3640	+	+	+	..	..	..	..	..
" 6		..	2170	0	+	+	..	..	..	..	..
" 7		..	1750	0	+	+	..	..	..	..	..
" 8		..	2090	0	+	+	..	..	..	..	..
" 9		..	2940	0	0	+	..	..	..	..	..
" 12		..	1970	0	0	+	..	..	..	..	..
" 13		..	2760	0	+	+	..	..	..	..	..
" 14		..	2030	0	0	+	..	..	..	..	..
Averages		..	2800	131	90	B.	C.	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 4	166	..	2020	..	..	+	+	..	+	..	..
" 5		..	2210	..	0	+	+	..	..	..	..
" 6		..	....	..	+	+	+	..	..	..	..
" 7		..	1660	..	+	+	+	..	..	..	..
" 8		..	1440	..	+	+	+	..	..	..	..
" 9		..	1810	0	+	+	..	..	..	..	..
" 11		..	1460	+	+	+	..	..	..	..	..
" 12		..	1800	0	+	+	..	..	..	..	..
" 13		..	2620	0	+	+	..	..	..	..	..
" 14		..	1880	0	0	+	..	..	..	..	..
Averages		..	1870	157	27	B.	C.	pe	r 1	00	cc
Aug. 4	167	..	1230	..	..	+	+	..	+	..	..
" 5		..	3020	..	..	+	+	..	+	..	..
" 6		..	1970	..	+	+	+	..	..	..	..
" 7		..	1430	..	+	+	..	..	..	..	..
" 8		..	1630	..	+	+	+	..	..	..	..
" 9		..	2010	0	+	+	..	..	..	..	..
" 11		..	960	0	0	+	..	..	..	..	..
" 12		..	1400	0	0	0	..	..	..	..	..
" 13		..	1880	0	+	+	..	..	..	..	..
" 14		..	2930	+	+	+	..	..	..	..	..
" 15		..	1910	0	0	0	..	..	..	..	..
" 16		..	1220	0	0	+	+	..	..	..	..
" 18		..	1660	0	0	+	+	..	..	..	..
" 21		..	40	..	0	0	0	..	..	..	..
Averages		..	1660	110	71	B.	C.	pe	r 1	00	cc
Aug. 4	168	..	1900	..	..	+	+	..	+	..	..
" 5		..	2180	..	..	+	+	..	+	..	..
" 6		..	1920	..	+	+	+	..	..	..	..
" 7		..	1880	..	+	+	+	..	..	..	..
" 8		..	1020	..	+	+	+	..	..	..	..
" 9		..	2050	0	0	+	..	..	..	..	..
" 11		..	1350	0	0	+	..	..	..	..	..
" 12		..	1150	..	+	+	+	..	..	..	..
" 13		..	3490	0	+	+	..	..	..	..	..
" 14		..	2030	0	+	+	..	..	..	..	..
Averages		..	1890	64	00	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Youngstown, N.Y. Waters of the Western End of Lake Ontario.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 4	169	..	....	..	..	+	..	..	+	..	..
" 5		..	1730	..	..	+	+	..	+	..	..
" 6		..	1960	..	+	+	+	..	..	..	..
" 7		..	1580	..	0	+	+	..	..	..	..
" 8		..	910	..	0	+	+	..	..	..	..
" 9		..	1050	0	0	0	+	..	..	..	..
" 11		..	920	..	..	+	..	..	..	..	..
" 12		..	1130	..	+	+	+	..	..	..	..
" 13		..	2280	+	+	+	..	..	..	..	..
" 14		..	1810	0	0	+	..	..	..	..	..
" 15		..	1470	0	0	+	..	..	..	..	..
" 16		..	1820	0	0	+	..	..	..	..	..
" 18		..	650	0	0	+	..	..	..	..	..
" 21		..	30	0	0	0	..	..	..	..	..
Averages		..	**1330**	**92**	**28**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 11	200	..	2050	..	..	0	+	..	+	..	..
" 12		..	..	..	..	0	+	..	+	..	..
" 13		..	..	..	..	+	+	..	+	..	..
" 14		..	3970	..	0	0	+	..	..	..	..
" 15		..	150	..	0	0	0	..	..	..	..
" 16		..	1180	0	0	+	..	..	..	..	..
" 18		..	2530	..	0	+	+	..	+	..	..
" 21		..	3460	..	+	+	+	..	..	..	..
Averages			**2220**	**16**	**50**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 11	216	..	3790	..	..	0	+	..	+	..	..
" 12		..	..	..	..	..	+	..	+	..	..
" 13		..	..	..	..	+	+	..	+	..	..
" 14		..	830	..	0	0	+	..	0	..	..
" 15		..	200	..	0	0	0	..	0	..	..
" 16		..	1720	..	0	+	+	..	0	..	..
" 18		..	50	..	0	0	0	..	+	..	..
" 21		..	..	..	..	+	+	..	+	..	..
" 21		..	100	0	0	0	0	..	..	..	..
Averages			**1110**	**3**	**56**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 15	226	..	11	..	..	0	0	..	0	..	..
" 16		..	5	..	..	0	0	..	0	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 21		..	21	..	..	0	0	..	+	..	..
" 21		..	5	..	..	0	0	..	0	..	..
Averages			**9**		**2.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 15	236	..	12	..	..	0	0	..	0	..	..
" 16		..	8	..	..	0	0	..	0	..	..
" 18		..	2	..	..	0	0	..	0	..	..
Averages			**7**		**0.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 4	170	..	3400	..	+	+	+	..	..	..	..
" 5		..	3200	0	+	+	..	..	..	..	..
" 6		..	2650	..	+	+	+	..	..	..	..
" 7		..	..	..	0	+	+	..	..	..	..
" 8		..	3030	..	+	+	+	..	..	..	..
" 9		..	2100	0	+	+	..	..	..	..	..
" 11		..	1330	0	0	+	..	..	..	..	..
" 12		..	1390	0	0	+	..	..	..	..	..
" 13		..	1630	0	+	+	..	..	..	..	..
" 14		..	1310	0	0	+	..	..	..	..	..
" 15		..	1390	0	0	+	..	..	..	..	..
" 16		..	1920	0	+	+	..	..	..	..	..
" 18		..	920	0	0	+	..	..	..	..	..
" 21		..	..	0	+	+	..	..	..	..	..
" 21		..	2080	0	+	+	..	..	..	..	..
Averages			**2020**	**64**	**00**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 4	171	..	2400	..	..	+	+	..	+	..	..
" 5		..	3040	0	0	+	..	..	..	..	..
" 7		..	2280	0	0	+	..	..	..	..	..
" 8		..	3710	0	+	+	..	..	..	..	..
" 9		..	2150	+	+	+	..	..	..	..	..
" 12		..	1160	0	0	+	..	..	..	..	..
" 13		..	1750	0	0	+	..	..	..	..	..
" 14		..	2080	0	+	+	..	..	..	..	..
Averages			**2190**	**156**	**22**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 4	172	..	420	..	..	0	+	..	+	..	..
" 5		..	770	0	0	+	..	..	..	..	..
" 6		..	1030	0	+	+	+	..	..	..	..
" 7		..	980	..	0	+	+	..	+	..	..
" 8		..	830	0	0	+	..	..	..	..	..
" 12		..	1280	0	0	+	..	..	..	..	..
" 13		..	1870	0	0	+	..	..	..	..	..
" 14		..	410	0	0	0	..	..	..	..	..
" 15		..	200	0	0	0	..	..	..	..	..
" 16		..	780	0	0	0	+	..	..	..	..
" 18		..	260	..	0	+	+	..	+	..	..
" 21		..	60	..	0	0	0	..	..	..	..
Averages			**740**	**13**	**50**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 4	173	..	260	..	..	0	+	..	+	..	..
" 5		..	350	..	+	+	..	..	..	..	..
" 6		..	310	..	..	+	+	..	..	..	..
" 7		..	290	..	0	+	+	..	..	..	..
" 8		..	..	..	..	+	+	..	..	..	..
" 12		..	910	0	0	+	..	..	..	..	..
" 13		..	50	0	0	0	..	..	..	..	..
" 14		..	290	0	0	0	..	..	..	..	..
Averages			**350**	**17**	**62**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 4	174	..	1690	..	..	+	..	..	+	..	..
" 6		..	170	0	0	0	..	..	..	..	..
" 7		..	210	..	..	0	0	..	..	..	..
" 8		..	150	0	0	0	..	..	..	..	..
" 12		..	1380	..	0	+	+	..	..	..	..
" 13		..	130	..	..	0	+	..	+	..	..
" 14		..	110	..	..	0	0	..	..	..	..
" 15		..	230	..	0	0	0	..	..	..	..
" 16		..	80	..	0	0	0	..	..	..	..
" 18		..	380	..	0	0	+	..	+	..	..
" 21		..	180	0	0	0	0	..	+	..	..
Averages			**420**	**2**	**01**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 15	207	..	340	..	..	0	+	..	+	..	..
" 16		..	240	..	..	0	0	..	+	..	..
" 18		..	50	..	..	0	0	..	+	..	..
" 21		..	100	..	..	0	+	..	+	..	..
Averages			**210**		**55**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 18	217	..	..	..	..	0	0	..	+	..	..
" 21		..	..	..	..	0	+	..	+	..	..
" 21		..	130	..	..	0	0	..	+	..	..
Averages			**130**		**40**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 5	175	..	80	0	0	0	..	..	..	..	..
" 6		..	170	..	0	+	+	..	..	..	..
" 7		..	1900	..	0	+	+	..	..	..	..
" 8		..	..	..	0	+	+	..	+	..	..
" 12		..	1610	..	0	0	0	..	..	..	..
" 13		..	170	0	0	+	..	..	..	..	..
" 14		..	1960	..	0	0	+	..	..	..	..
Averages			**980**	**5**	**85**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 5	176	..	130	0	0	0	..	..	..	..	..
" 6		..	760	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7	176	..	1010	..	..	0	+	..	+	..	..
" 8		..	250	..	..	0	+	..	+	..	..
" 12		..	1780	..	0	0	+	..	..	..	..
" 13		..	1920	..	..	0	+	..	+	..	..
" 14		..	340	..	0	0	+	..	..	..	..
" 15		..	890	..	0	0	0	..	..	..	..
" 16		..	1380	..	0	+	+	..	..	..	..
" 18		..	250	..	0	0	0	..	..	..	..
" 21		..	..	..	0	+	+	..	+	..	..
Averages			**870**	**2**	**36**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 5	177	..	30	0	0	0	..	..	..	..	..
" 6		..	450	..	..	0	+	..	+	..	..
" 7		..	1380	..	..	+	+	..	+	..	..
" 8		..	230	..	..	0	0	..	+	..	..
" 12		..	2470	..	0	+	+	..	..	..	..
" 13		..	280	..	..	+	+	..	+	..	..
" 14		..	1914	..	0	+	+	..	..	..	..
" 15		..	800	..	0	0	+	..	..	..	..
" 16		..	130	..	0	0	0	..	..	..	..
" 18		..	150	..	0	0	0	..	+	..	..
Averages			**780**	**4**	**20**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 5	178	..	120	0	0	0	0	..	0	..	..
" 7		..	1160	..	..	0	+	..	+	..	..
" 8		..	1100	..	..	0	+	..	+	..	..
" 12		..	1660	..	0	0	+	..	0	..	..
" 13		..	1460	..	0	+	+	..	0	..	..
" 14		..	3780	..	0	0	+	..	0	..	..
" 15		..	410	..	0	0	0	..	0	..	..
" 16		..	70	..	0	0	0	..	0	..	..
" 18		..	40	..	0	0	0	..	0	..	..
" 21		..	..	..	0	+	+	..	+	..	..
Averages			**1080**	**24**	**1**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 5	179	..	20	0	0	0	..	..	..	..	..
" 7		..	100	..	..	0	0	..	+	..	..
" 8		..	200	..	..	0	+	..	+	..	..
" 12		..	150	..	0	0	0	..	..	..	..
" 13		..	410	..	0	0	+	..	..	..	..
" 14		..	1960	..	..	0	0	..	+	..	..
" 15		..	190	0	0	0	0	..	..	..	..
" 16		..	50	..	0	0	+	..	..	..	..
" 18		..	80	..	0	0	0	..	+	..	..
Averages		..	**350**		**33**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Aug. 15	209	..	220	..	..	0	+	..	+	..	..
" 16		..	30	..	..	0	0	..	0	..	..
" 18		..	60	..	..	0	+	..	+	..	..
" 21		..	250	..	..	0	0	..	+	..	..
Averages		..	**140**		**52**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 21	219	..	210	..	..	0	0	..	+	..	..
Averages		..	**210**		**10**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 5	180	..	200	..	..	+	+	..	+	..	..
" 6		..	1470	0	0	+	..	..	..	..	..
" 7		..	340	..	0	+	+	..	..	..	..
" 8		..	750	0	+	+	+	..	..	..	..
" 9		..	1600	..	+	+	+	..	..	..	..
" 12		..	1960	..	0	0	+	..	..	..	..
" 13		..	1280	0	0	+	..	..	..	..	..
" 14		..	....	..	+	+	+	..	..	..	..
Averages		..	**1080**	**42**	**50**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 5	181	..	30	..	..	0	0	..	+	..	..
" 6		..	780	..	..	0	+	..	+	..	..
" 7		..	1110	..	..	0	+	..	+	..	..
" 8		..	460	0	0	0	+	..	+	..	..
" 9		..	1200	..	0	+	+	..	..	..	..
" 12		..	810	..	..	0	+	..	+	..	..
" 13		..	..	..	..	+	+	..	+	..	..
" 14		..	450	..	0	0	+	..	..	..	..
" 15		..	220	0	0	0	..	..	..	..	..
" 16		..	5470	..	0	+	+	..	..	..	..
" 18		..	120	..	0	0	0	..	..	..	..
" 21		..	..	..	0	+	+	..	+	..	..
Averages		..	**1060**	**3**	**80**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 5	182	..	610	..	..	0	0	..	+	..	..
" 6		..	530	..	0	0	+	..	..	..	..
" 7		..	840	..	..	0	+	..	+	..	..
" 8		..	470	..	..	0	+	..	+	..	..
" 9		..	510	..	..	0	+	..	+	..	..
" 12		..	780	..	..	0	+	..	+	..	..
" 13		..	..	..	0	+	+	..	..	..	..
" 14		..	..	..	0	+	+	..	..	..	..
Averages		..	**620**	**3**	**10**	**B.**	**C.**	**per**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 5	183	..	640	..	..	0	+	..	+	..	..
" 7		..	320	..	0	0	+	..	..	..	..
" 8		..	210	..	..	0	+	..	+	..	..
" 9		..	100	..	0	0	+	..	..	..	..
" 12		..	..	..	..	0	+	..	+	..	..
" 13		..	80	..	0	+	+	..	..	..	..
" 14		..	..	..	0	0	+	..	..	..	..
" 15		..	830	..	0	0	+	..	..	..	..
" 16		..	150	0	0	0	+	..	..	..	..
" 18		..	40	..	0	0	0	..	..	..	..
" 21		..	..	..	0	+	+	..	+	..	..
Averages		..	**380**	**2**	**50**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 5	184	..	120	..	0	0	..	..	+	..	..
" 7		..	190	..	0	0	..	..	+	..	..
" 8		..	80	..	0	0	..	..	+	..	..
" 9		..	140	..	..	..	..	..	+	..	..
" 12		..	350	..	0	0	..	..	+	..	..
" 13		..	230	..	0	0	..	..	+	..	..
" 14		..	..	..	..	..	+	..	+	..	..
Averages		..	**180**	**2**	**27**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 12	208	..	530	..	..	..	0	..	+	..	..
" 13		..	170	..	..	0	0	..	+	..	..
" 14		..	..	..	..	+	+	..	+	..	..
" 15		..	4600	..	..	+	+	..	+	..	..
" 16		..	1110	..	..	0	+	..	+	..	..
" 18		..	20	..	0	0	0	..	0	..	..
" 21		..	..	..	..	+	+	..	+	..	..
Averages		..	**1280**	**4**	**45**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 15	218	..	....	..	..	+	+	..	+	..	..
" 16		..	1530	..	..	0	+	..	+	..	..
" 18		..	50	..	0	0	0	..	+	..	..
" 21		..	30	..	0	0	0	..	0	..	..
Averages		..	**530**	**2**	**17**	**B.**	**C.**	**per**	**1**	**00**	**cc**
Aug. 21	228	..	20	..	..	0	0	..	0	..	..
" 21		..	120	..	..	0	0	..	+	..	..
Averages		..	**70**		**5**	**B.**	**C.**	**per**	**1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Drift of Pollution from Niagara River.

DATE 1913	Sampling Point No.	Time Collected. A.M.	Time Collected. P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc	Temp. of Duplicate Sample at Source
June 17...	80	11.36	..	1	0	..	..	..	0	0	..	0	0	
" 17...	81	11.46	..	1	0	..	..	..	0	0	..	0	0	
" 17...	82	11.58	..	0	0	..	..	..	0	0	..	0	0	
" 17...	83	..	12.10	0	1	..	..	..	0	0	..	0	0	
" 17...	84	..	12.23	0	0	..	..	..	0	0	..	0	0	
" 17...	85	..	12.34	0	0	..	..	..	0	0	..	0	0	
" 17...	86	..	12.46	0	2	..	..	..	0	0	..	0	0	
" 17...	87	..	12.58	0	1	..	..	..	0	0	..	0	0	
" 17...	88	..	1.03	100	75	..	..	..	+	+	..	+	+	
" 17...	89	..	1.06	300	40	..	..	..	+	+	..	+	+	
" 17...	90	..	1.11	400	200	..	..	..	+	+	..	+	+	
" 17...	91	..	1.13	500	300	..	..	..	+	+	..	+	+	
" 19...	169	9.05	..	15	..	..	..	..	+	+	..	0	+	14½
" 19...	170	9.10	..	4	10	..	..	..	0	+	..	0	+	14
" 19...	171	9.15	..	0	0	..	..	..	0	0	..	0	0	13
" 19...	172	9.25	..	3	spreader	..	..	..	0	+	..	0	+	13¼
" 19...	173	9.32	..	12	2	..	..	..	+	+	..	0	+	14
" 19...	174	9.45	..	2	12	..	..	..	0	+	..	+	+	14½
" 19...	175	9.50	..	120	300	..	..	..	0	+	..	+	+	15
" 19...	176	9.55	..	300	1000	..	..	..	+	+	..	0	+	15
" 19...	177	10.00	..	200	160	..	..	..	0	+	..	+	+	16
" 19...	178	10.10	..	80	120	..	..	..	+	+	..	0	+	16
" 19...	179	10.17	..	18	6	..	..	..	0	+	..	+	0	16
" 19...	180	10.45	..	20	35	..	..	..	0	0	..	+	+	15½
" 19...	181	10.54	..	4	31	..	..	..	+	+	..	+	+	15
" 19...	182	11.00	..	8	8	..	..	..	0	+	..	+	+	14½
" 19...	183	11.05	..	0	1	..	..	..	0	+	..	+	+	12
" 19...	184	11.10	..	0	..	..	..	..	0	0	..	+	+	12
" 19...	185	11.15	..	0	3	..	..	..	0	0	..	+	+	13
" 19...	186	11.20	..	0	4	..	..	..	0	0	..	+	+	13¾
" 19...	187	11.25	..	1	3	..	..	..	0	0	..	0	+	14¼
" 19...	188	11.32	..	2	3	..	..	..	0	0	..	+	+	14½
" 19...	189	11.37	..	3	6	..	..	..	+	+	..	+	+	15
" 19...	190	11.43	..	9	32	..	..	..	+	+	..	+	+	15½
" 19...	191	11.48	..	10	14	..	..	..	+	+	..	+	+	15½
" 19...	192	11.53	..	12	..	..	..	..	+	+	..	+	+	15
" 19...	193	..	12.00	12	16	..	..	..	+	+	..	+	+	15
" 19...	194	..	12.10	3	3	..	..	..	0	+	..	+	+	14½
" 19...	195	..	12.18	2	9	..	..	..	0	0	..	+	+	14
" 19...	196	..	12.30	3	20	..	..	..	+	+	..	+	+	16
" 19...	197	..	12.45	9	38	..	..	..	0	+	..	+	+	16¼
" 19...	198	..	1.00	10	18	..	..	..	+	+	..	+	+	16
" 19...	199	..	1.15	7	1	..	..	..	0	+	..	0	+	15½
" 20...	200	10.20	..	50	10	..	+	0	0	+	+	..	..	..
" 20...	201	10.35	..	40	50	..	0	0	0	0	+	..	..	..
" 20...	202	10.42	..	10	80	..	0	0	+	+	+	..	..	..
" 20...	203	10.46	..	40	30	..	0	+	+	+	+	..	..	..

DATE 1913	Sampling Point No.	Time Collected. A.M.	Time Collected. P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc	Temp. of Duplicate Sample at Source
June 20...	204	11.00	..	40	10	..	0	0	+	0	+	..	..	..
" 20...	205	..	12.40	0	0	..	0	0	0	0	0	..	..	..
" 20...	206	..	1.18	0	20	..	0	0	+	+	+	..	..	..
" 20...	207	..	1.30	0	20	..	0	0	0	0	+	..	..	..
" 20...	208	..	3.08	70	30	..	+	+	0	0	+	..	..	17
" 20...	209	..	3.13	80	40	..	0	+	0	0	+	..	..	15½
" 20...	210	..	3.18	30	10	..	0	0	+	0	0	..	..	14½
" 20...	211	..	3.23	0	0	..	0	0	0	+	0	0	..	14¾
" 20...	212	..	3.30	50	20	..	..	0	+	0	..	+	..	16½
" 20...	213	..	3.40	0	20	..	..	0	+	0	..	+	..	16½
" 20...	214	..	3.45	10	10	..	..	0	0	+	..	+	..	16¼
" 20...	215	..	3.50	110	0	..	..	0	+	+	..	+	..	16¼
" 20...	216	..	3.55	40	80	..	..	+	+	+	..	+	..	16¼
" 20...	217	..	4.00	20	0	..	..	+	0	+	..	+	..	16¼
" 20...	218	..	4.07	100	60	..	..	+	+	+	..	+	..	16¼
" 20...	219	..	4.15	20	20	..	..	0	+	+	..	+	..	15½
" 20...	220	..	4.20	220	100	..	..	+	+	+	..	+	..	15¾
" 20...	221	..	4.25	600	..	..	..	+	+	+	..	+	..	15½
" 20...	222	..	4.30	1000	..	..	..	+	+	+	..	+	..	15½
" 20...	223	..	4.35	400	..	..	..	+	+	+	..	+	..	15½
" 21...	224	8.00	..	120	70	..	0	+	+	+	..	+	..	16
" 21...	225	8.05	..	10	0	..	0	0	0	0	..	0	..	16
" 21...	226	8.10	..	30	50	..	0	+	+	+	..	+	..	16
" 21...	227	8.15	..	120	30	..	+	+	+	+	..	+	..	16
" 21...	228	8.20	..	40	30	..	0	+	+	+	..	+	..	16
" 21...	229	8.25	..	100	0	..	+	+	+	+	..	..	..	16
" 21...	230	8.30	..	150	10	..	+	+	+	+	..	+	..	16
" 21...	231	8.35	..	90	50	..	0	+	+	+	..	+	..	16
" 21...	232	8.40	..	0	0	..	0	+	+	+	..	+	..	15¾
" 21...	233	8.45	..	0	0	..	+	+	+	+	..	+	..	15½
" 21...	234	8.50	..	0	10	..	..	+	0	+	..	+	..	15½
" 21...	235	8.55	..	0	30	..	..	0	+	+	..	+	..	15¼
" 21...	236	9.00	..	0	50	..	..	0	0	+	..	+	..	15
" 21...	237	9.05	..	0	20	..	..	0	0	0	..	+	..	15
" 21...	238	9.10	..	0	10	..	..	0	0	0	..	+	..	14½
" 21...	239	9.18	..	0	10	..	..	0	0	0	..	0	..	13¾
" 21...	240	9021	..	0	10	..	..	0	0	0	..	0	..	11
" 21...	241	9.25	..	0	0	..	..	0	0	0	..	0	..	10¾
" 21...	242	9.32	..	0	0	..	..	0	0	0	..	0	..	12
" 21...	243	9.43	..	10	0	..	..	0	0	0	..	0	..	13½
" 21...	244	9.53	..	0	30	..	..	0	0	+	..	0	..	14½
" 21...	245	10.00	..	0	0	..	..	0	0	+	..	0	..	15½
" 21...	246	10.07	..	0	0	..	..	0	+	+	..	+	..	16
" 21...	247	10.15	..	50	40	..	..	+	+	+	..	+	..	16
" 21...	248	10.20	..	600	100	..	..	+	+	+	..	+	..	16
" 21...	249	10.25	..	10	90	..	..	+	+	+	..	0	..	16
" 21...	250	10.32	..	400	130	..	..	+	+	+	..	+	..	16

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Drift of Pollution from Niagara River.

DATE 1913	Sampling Point No.	Time Collected. A.M.	Time Collected. P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation. Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation. Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc	Temp. of Duplicate Sample at Source
June 21...	251	10.40	..	300	120	..	..	0	+	+	..	0	..	16½
" 21...	252	10.49	..	1000	220	..	..	0	+	+	..	+	..	16
" 21...	253	11.00	..	170	90	..	..	0	+	+	..	+	..	16¼
" 21...	254	11.07	..	150	0	..	..	0	+	+	..	+	..	16½
" 21...	255	11.20	..	180	60	..	..	+	+	+	..	+	..	16
" 21...	256	11.35	..	30	50	..	..	+	+	+	..	+	..	16
" 21...	257	11.50	..	20	0	..	..	0	0	+	..	+	..	16
" 23...	259	10.40	..	9	12	..	0	+	0	+	..	+	..	17½
" 23...	260	10.50	..	15	12	..	0	+	0	+	0	..	..	17¼
" 23...	261	11.00	..	3	5	..	0	+	0	+	0	..	..	17¾
" 23...	262	11.10	..	5	12	..	0	0	0	+	0	..	..	17¾
" 23...	263	11.20	..	12	13	..	0	+	0	+	0	..	..	17¾
" 23...	264	11.30	..	5	18	..	0	0	0	+	0	..	..	18
" 23...	265	11.40	..	4	12	..	0	+	0	+	0	..	..	17¾
" 23...	266	11.50	..	3	0	..	0	0	0	0	0	..	..	14
" 23...	267	..	12.00	15	6	..	0	0	0	0	0	..	..	14
" 23...	268	..	12.10	1	6	..	0	0	0	0	0	..	..	13½
" 23...	269	..	12.20	7	50	..	..	0	+	+	..	0	..	13½
" 23...	270	..	12.30	5	100	..	..	0	+	+	..	+	..	17
" 23...	271	..	12.40	6	40	..	..	0	+	+	..	0	..	16¾
" 23...	272	..	12.50	3	0	..	..	0	0	0	..	0	..	17¼
" 23...	273	..	1.00	0	40	..	..	0	0	+	..	0	..	17¼
" 23...	274	..	1.10	4	50	..	..	0	+	0	..	0	..	17¾
" 23...	275	..	1.20	0	160	..	..	0	0	0	..	0	..	17
" 23...	276	..	1.30	1	60	..	..	0	0	0	..	0	..	16
" 23...	277	..	1.50	0	120	..	..	0	0	0	..	0	..	14
" 23...	278	..	2.00	6	30	..	..	0	0	0	..	0	..	13
" 23...	279	..	2.10	2	1	..	..	0	0	..	..	0	0	13¾
" 23...	280	..	2.20	2	1	..	..	0	0	..	..	0	0	14¾
" 23...	281	..	2.30	3	1	..	..	0	+	..	..	0	0	17
" 23...	282	..	2.40	0	8	..	..	+	+	..	..	+	0	17¼
" 23...	283	..	2.50	0	1	..	..	0	0	..	..	+	0	17½
" 23...	284	..	3.00	3	1	..	..	0	0	..	..	0	0	18
" 23...	285	..	3.15	1	1	..	..	0	0	..	..	0	0	18
" 23...	286	..	3.30	0	1	..	..	0	+	..	..	+	+	18
" 23...	287	..	3.45	1	20	..	..	+	+	..	..	+	+	16½
" 23...	288	..	4.00	0	1	..	..	0	0	..	..	+	+	17½
" 23...	289	..	4.15	0	6	..	..	+	+	..	..	+	+	17¼
" 24...	290	9.07	..	0	0	..	0	0	0	0	..	+	..	17¾
" 24...	291	9.09	..	20	60	..	0	+	+	+	..	+	..	18½
" 24...	292	9.11	..	30	0	..	0	0	0	+	..	+	..	18
" 24...	293	9.15	..	0	10	..	0	0	+	+	..	+	..	17½
" 24...	294	9.19	..	0	10	..	0	0	0	0	..	+	..	17½
" 24...	295	9.29	..	10	50	..	0	0	0	0	..	..	0	17¼
" 24...	296	9.31	..	0	10	..	0	0	0	0	..	+	..	18
" 24...	297	9.35	..	70	0	..	0	0	0	0	..	+	..	18
" 24...	298	9.40	..	10	0	..	0	0	0	0	..	+	..	17½
" 24...	299	9.45	..	0	0	..	0	0	0	0	..	0	..	17½
June 18...	307	..	2.20	0	1	..	..	..	0	0	..	0	0	..
" 18...	308	..	2.25	0	1	..	..	..	0	0	..	0	0	..
" 18...	309	..	2.29	0	0	..	..	..	0	0	..	0	0	..
" 18...	310	..	2.36	0	0	..	..	..	0	0	..	0	0	..
" 18...	311	..	2.45	0	0	..	..	..	0	0	..	0	0	..
" 18...	312	..	2.54	0	1	..	..	..	0	0	..	0	0	..
" 18...	313	..	3.03	0	0	..	..	..	0	0	..	0	0	..
" 18...	314	..	3.12	0	0	..	..	..	0	0	..	0	0	..
" 18...	315	..	3.21	200	40	..	..	+	+	+	..	+	0	..
" 18...	316	..	3.27	..	..	..	..	..	..	..	..	..	..	..
" 18...	317	..	3.36	23	14	..	..	0	+	+	..	+	+	..
" 18...	318	..	3.45	100	26	..	..	0	+	0	..	+	+	..
" 18...	319	..	3.50	35	14	..	..	+	0	0	..	+	+	..
" 18...	320	..	3.55	100	32	..	..	+	+	+	..	0	+	..
" 19...	321	8.40	..	400	380	..	0	+	+	+	..	..	..	15.
" 19...	322	8.46	..	350	300	..	0	+	+	+	..	..	..	15.5
" 19...	323	8.51	..	300	340	..	+	+	+	+	..	..	..	15.2
" 19...	324	8.57	..	15	13	..	0	0	0	+	..	..	..	15
" 19...	325	8.59	..	..	..	..	0	..	..	..	..	..	..	14.9
" 19...	326	9.02	..	21	60	..	0	+	0	+	..	..	..	15
" 19...	327	9.04	..	200	220	..	..	0	+	+	..	..	..	15.5
" 19...	328	9.08	..	200	370	..	..	+	+	+	..	..	..	15.5
" 19...	329	9.10	..	150	310	..	..	+	+	+	..	..	..	14.5
" 19...	330	9.13	..	100	70	..	..	0	+	+	..	..	..	14.5
" 19...	331	9.14	..	75	60	..	..	+	+	+	..	..	..	14.
" 19...	332	9.15	..	125	332	..	..	..	..	..	..	0	0	14.2
" 19...	333	9.20	..	40	62	..	..	..	..	..	..	+	0	13.2
" 19...	334	9.21	..	4	8	..	..	..	..	..	..	0	0	13.
" 19...	335	9.24	..	4	7	..	..	..	..	..	..	0	+	12.5
" 19...	336	9.28	..	0	2	..	..	..	..	..	..	+	0	11.5
" 19...	337	9.31	..	0	1	..	..	..	..	..	..	0	0	10
" 19...	338	9.38	..	0	0	..	..	..	..	..	..	0	0	10.2
" 19...	339	9.50	..	0	0	..	..	..	..	..	..	0	0	10
" 19...	340	10.05	..	0	0	..	..	..	..	..	..	0	0	10.5
" 19...	341	10.14	..	7	0	..	..	..	..	..	..	0	0	10.7
" 19...	342	10.18	..	0	0	..	..	0	0	+	..	0	..	10.8
" 19...	343	10.23	..	2	0	..	..	0	0	+	..	0	..	11.
" 19...	344	10.25	..	0	0	..	..	0	0	+	..	0	..	11
" 19...	345	10.26	..	40	156	..	..	0	0	+	..	+	0	..
" 19...	346	10.28	..	1	0	..	..	0	0	0	..	0	0	10.5
" 20...	354	9.00	..	500	30	..	+	+	+	+	..	..	..	15.5
" 20...	355	9.08	..	210	100	..	+	+	+	+	..	..	..	15.5
" 20...	356	9.14	..	700	200	..	+	+	+	+	..	..	..	..
" 20...	357	9.16	..	30	100	..	0	+	+	+	..	..	..	15.8
" 20...	358	9.24	..	150	70	..	+	+	+	+	..	..	..	16.0
" 20...	359	9.26	..	210	60	..	+	+	+	+	..	..	..	15.9
" 20...	360	9.28	..	170	80	..	+	0	+	+	..	..	..	15.9
" 20...	361	9.28½	..	300	130	..	+	+	+	+	..	..	..	15.5

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June 20...	362	9.31	..	500	100	..	0	+	+	+	..	..	..	15.5
" 20...	363	9.33	..	180	170	..	0	+	+	+	..	..	..	15.9
" 20...	364	9.34	..	150	30	..	..	+	+	+	..	..	..	15.6
" 20...	365	9.36	..	120	30	..	..	+	+	+	..	..	..	15.8
" 20...	366	9.38	..	70	0	..	..	0	+	+	..	..	..	15.5
" 20...	367	9.40	..	80	30	..	..	0	+	+	..	..	..	15.0
" 20...	368	9.42	..	20	20	..	..	0	0	+	..	..	..	14.5
" 20...	369	..	..	..	..	..	..	..	..	..	..	..	..	..
" 20...	370	9.44	..	20	0	..	..	0	0	0	..	..	..	14.2
" 20...	371	9.46	..	0	0	..	..	0	0	0	..	..	..	13.2
" 20...	372	..	..	..	..	..	..	..	..	..	..	..	..	..
" 20...	373	..	..	..	..	..	..	..	..	..	..	..	..	..
" 20...	374	10.03	..	1	0	..	..	..	0	..	..	0	0	11.8
" 20...	375	10.05	..	0	10	..	..	..	0	..	..	0	0	11.8
" 20...	376	10.07	..	1	0	..	..	..	0	..	..	0	0	11.8
" 20...	377	10.10	..	0	0	..	..	..	0	0	..	0	0	11.8
" 20...	378	10.12	..	0	0	..	..	..	0	0	..	0	0	11.8
	Sample Ship's Tap water consumed by passengers													
" 20...	379	..	..	300	500	..	..	..	0	+	..	+	+	..
" 20...	380	10.15	..	3	0	..	..	..	0	0	..	0	0	11.6
" 20...	381	10.17	..	0	0	..	..	..	0	0	..	0	0	11.0
" 20...	382	10.19	..	0	0	..	..	..	0	0	..	0	0	11.0
" 20...	383	10.22	..	0	0	..	..	..	0	0	..	0	0	11.0
" 20...	384	10.34	..	0	0	..	..	..	0	0	..	0	0	..
" 20...	385	10.26	..	0	100	..	..	..	0	0	..	0	0	11·6
" 20...	386	10.28	..	0	0	..	..	..	0	0	..	0	0	11.9
" 20...	387	..	..	..	..	..	..	..	..	..	..	..	..	..
" 20...	388	10.30	..	0	0	..	..	..	0	0	..	0	0	12.05
" 20...	389	10.32	..	0	0	..	..	..	0	0	..	0	0	12.
" 20...	390	10.34	..	0	0	..	..	..	0	0	..	0	0	12
" 20...	391	10.36	..	0	30	..	..	..	0	0	..	0	0	12
" 20...	392	10.38	..	2	10	..	..	..	0	0	..	0	0	12
" 20...	393	10.46	..	1	10	..	..	..	0	0	..	0	0	12
" 20...	394	10.49	..	50	300	..	..	..	0	0	..	+	+	11.5
	Ship's Tap after leaving Toronto at 2 p.m. on return trip													
" 20...	395	..	..	200	30	..	..	..	+	+	..	+	+	..
" 21...	396	8.36	..	300	80	..	..	+	+	+	..	0	..	15.5
" 21...	397	8.44	..	210	320	..	..	+	+	+	..	+	..	15.7
" 21...	398	8.52	..	350	180	..	..	+	+	+	..	0	..	15.8
" 21...	399	8.57	..	120	300	..	..	+	+	+	..	+	..	15.7
" 21...	400	9.00	..	300	100	..	..	+	+	+	..	0	..	15.8
" 21...	401	9.04	..	200	160	..	..	+	+	+	..	0	..	15.9
" 21...	402	9.06	..	240	10	..	..	+	+	+	..	+	..	*
" 21...	403	9.07	..	300	150	..	..	+	+	+	..	+	..	16.0

DATE 1913	Sampling Point No.	Time Collected. A.M.	Time Collected. P.M.	Bacterial Counts Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc	Temp. of Duplicate Sample at Source
June 21...	404	9.10	..	400	100	..	..	+	+	+	..	+	..	15.9
" 21...	405	9.13	..	150	20	..	..	+	+	+	..	+	..	15.9
" 21...	406	9.16	..	90	20	..	..	0	+	+	..	0	..	16.2
" 21...	408	9.19	..	8	30	..	..	0	0	0	..	0	..	15.5
" 21...	409	9.23	..	1	0	..	..	0	0	0	..	0	..	14.0
" 21...	410	9.26	..	1	4	..	..	0	0	0	..	0	..	13.9
" 21...	411	9.29	..	7.	26	..	..	0	0	0	..	0	..	..
" 21...	412	9.29½	..	1	1	..	..	0	0	0	..	0	..	13.7
" 21...	413	4.33	..	3	0	..	..	0	0	0	..	0	..	13.0
" 21...	414	9.36	..	2	0	..	..	0	0	0	..	0	..	13.1
" 21...	415	9.39	..	2	0	..	..	0	0	0	..	0	..	13.0
" 21...	416	9.43	..	1	0	..	..	0	0	0	..	0	..	13-2
" 21...	418	9.47	..	4	0	..	..	0	0	0	..	0	..	13.9
" 21...	419	9.53	..	0	0	..	..	0	0	0	..	0	..	12.7
" 21...	420	9.56	..	0	0	..	..	0	0	0	..	0	..	13.
" 21...	421	10.02	..	2	0	..	..	0	0	0	..	0	..	13.2
" 21...	422	10.10	..	0	0	..	..	0	0	0	..	0	..	13.0
" 21...	423	10.12	..	1	2	..	..	0	0	0	..	0	..	13.0
" 21...	424	10.15	..	1	0	..	..	0	0	0	..	0	..	12.5
" 21...	425	10.18	..	70	0	..	..	0	0	0	..	0	..	11.7
" 21...	426	10.19	..	50	0	..	..	0	0	0	..	0	..	11.2
" 21...	427	10.21	..	0	0	..	..	0	0	0	..	0	..	10.7
" 21...	428	10.23	..	0	0	..	..	0	0	0	..	0	..	10.5
" 21...	429	10.25	..	0	0	..	..	0	0	+	..	+	..	10.9
" 21...	430	10.27	..	4000	..	..	..	+	+	+	..	+	..	11.5
	Ship's Tap at 1.22 p.m., before leaving T or onto													
" 21...	431	..	1.22	600	9	..	..	0	0	0	..	0	..	..
" 23...	432	11.27	..	80	3	..	..	..	0	0	..	+	+	1+8
" 23...	433	11.31	..	40	8	..	..	..	0	+	..	0	+	12.2
" 23...	434	11.39	..	spreader	1	..	..	..	0	0	..	0	0	13.
" 23...	435	11.42	..	12	0	..	..	..	0	0	..	0	0	13.5
" 23...	436	11.45	..	5	0	..	..	..	0	0	..	0	0	13.8
" 23...	437	11.48	..	2	0	..	..	..	0	0	..	0	0	14.0
" 23...	438	11.52	..	3	0	..	..	..	0	0	..	0	0	14.2
" 23...	439	11.55	..	2	0	..	..	..	0	0	..	0	0	14.5
" 23...	440	11.58	..	2	0	..	..	..	0	0	..	0	0	14.5
" 23...	441	..	12.02	7	1	..	..	..	0	0	..	0	0	14.3
" 23...	442	..	12.07	5	0	..	0	0	0	0	..	0	0	14.4
" 23...	443	..	12.10	2	0	..	0	0	0	0	..	0	0	14.5
" 23...	444	..	12.13	5	0	..	0	0	0	0	..	0	0	14.8
" 23...	445	..	12.15	1	1	..	0	0	0	0	..	0	0	15.0
" 23...	446	..	12.18	3	0	..	0	0	0	0	..	0	0	15.1
" 23...	447	..	12.21	2	1	..	0	0	0	0	..	0	0	14.7
	Sample from Ship's Tap, boat at middle of lake													
" 23...	448	..	12.24	18	2	..	0	0	0	+	..	0	+	..

* "Corona" Tap empty leaving Niagara.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Drift of Pollution from Niagara River.

DATE 1913	Sampling Point No.	Time Collected. A.M.	Time Collected. P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation. Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation. Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc	Temp. of Duplicate Sample at Source
June 23...	449	..	12.26	2	0	..	0	0	0	0	..	0	0	15.2
" 23...	450	..	12.29	8	0	..	0	0	0	0	..	0	0	15.8
" 23...	451	..	12.30	18	4	..	0	0	0	0	..	0	0	16
	Ship's Tap Water													
" 23...	542	..	12.35	19	20	..	0	0	0	0	..	+	0	..
" 23...	453	..	12.36	3	30	..	0	0	0	0	..	0	..	17
" 23...	454	..	12.39	7	20	..	0	0	+	+	..	+	..	17
" 23...	455	..	12.42	3	10	..	0	0	0	0	..	+	..	16.9
" 23...	456	..	12.45	4	3	..	0	+	0	+	..	0	..	17.4
" 23...	457	..	12.48	3	20	..	0	0	+	+	..	+	..	17.7
" 23...	458	..	12.53	0	8	..	0	+	0	+	..	+	..	17.8
" 23...	459	..	12.55	4	30	..	0	0	0	+	..	+	..	17.6
" 23...	460	..	12.58	3	20	..	0	0	0	0	..	0	..	17.8
" 23...	461	..	1.02	4	40	..	0	0	0	+	..	0	..	17.7
" 23...	462	..	1.10	15	26	..	0	0	0	+	..	0	..	..
" 23...	463	..	1.05	200	21	..	0	+	+	+	..	+	..	16.8
" 23...	464	..	1.08	250	43	..	0	+	+	+	..	+	..	16.4
" 24...	800	9.50	..	10	0	..	0	0	0	0	..	0	..	17½
" 24...	801	9.55	..	180	0	..	0	0	0	0	..	0	..	17½
" 24...	802	10.00	..	0	0	..	..	..	0	0	..	+	0	17½
" 24...	803	10.05	..	20	0	..	..	..	0	0	..	0	0	17½
" 24...	804	10.10	..	10	0	..	..	..	0	0	..	0	0	17½
" 24...	805	10.15	..	0	0	..	..	..	0	0	..	0	0	17½
" 24...	806	9.25	..	0	0	..	..	..	0	0	..	0	0	18
" 24...	807	10.35	..	0	10	..	..	..	0	0	..	0	0	18¾
" 24...	808	10.45	..	0	10	..	..	..	0	0	..	0	0	18
" 24...	809	11.25	..	20	0	..	..	..	0	0	..	+	+	18
" 24...	810	11.35	..	20	0	..	..	..	0	0	..	+	+	18
" 24...	811	11.45	..	0	0	..	..	..	0	0	..	+	+	18
" 24...	812	11.55	..	0	0	..	..	..	0	0	..	+	+	18
" 24...	813	..	12.05	10	0	..	..	..	0	0	..	0	+	18¼
" 24...	814	..	12.15	20	0	..	..	..	0	0	..	0	+	18¼
" 24...	815	..	12.25	30	0	..	..	..	0	0	..	0	+	18
" 24...	816	..	12.35	10	0	..	..	..	0	0	..	0	+	18¼
" 24...	817	..	12.45	20	0	..	..	..	0	0	..	0	0	18¼
" 24...	818	..	12.55	0	0	..	..	..	0	0	..	0	0	18
" 24...	819	..	1.05	0	0	..	..	..	0	0	..	0	+	18
" 24...	820	..	1.15	0	0	..	..	..	0	0	..	+	0	19
" 24...	821	..	1.25	0	0	..	..	..	0	0	..	+	0	18½
" 24...	822	..	1.35	0	0	..	..	..	0	0	..	0	+	18½
" 24...	823	..	1.45	0	10	..	..	..	0	0	..	0	+	18½
" 24...	824	..	2.00	0	0	..	..	..	0	0	..	+	+	18¾
" 25...	825	10.30	..	0	0	..	..	..	+	+	..	0	+	18¾
" 25...	826	10.35	..	3	1	..	..	..	+	+	..	+	+	18½
" 25...	827	10.40	..	40	3	..	..	..	+	+	..	+	+	18
" 25...	828	10.47	..	7	0	..	..	..	0	+	..	0	+	18¾
June 25...	829	10.55	..	4	0	..	..	..	0	0	..	+	+	18½
" 25...	830	11.00	..	0	0	..	..	..	0	0	..	0	+	18½
" 25...	831	11.07	..	0	0	..	..	..	0	0	..	0	0	18½
" 25...	832	11.15	..	0	2	..	..	..	0	0	..	0	0	18½
" 25...	833	11.22	..	0	0	..	..	..	0	0	..	0	0	18¾
" 25...	834	11.30	..	2	0	..	..	..	0	0	..	0	0	18½
" 25...	855	11.37	..	1	0	..	..	..	0	0	..	0	0	18½
" 25...	836	10.45	..	0	0	..	..	..	0	0	..	0	0	18¾
" 25...	837	10.52	..	0	1	..	..	..	0	0	..	0	+	18½
" 25...	838	12.00	..	2	0	..	..	..	0	0	..	0	0	18¾
" 25...	839	..	12.07	0	0	..	..	..	0	0	..	0	0	18¾
" 25...	840	..	12.15	0	0	..	..	..	0	0	..	0	0	18¾
" 25...	841	..	12.22	0	0	..	..	..	0	0	..	+	0	18¾
" 25...	842	..	12.30	0	0	..	..	..	0	0	..	0	+	18¾
" 25...	843	..	12.40	0	0	..	..	..	0	0	..	0	+	18¾
" 25...	844	..	12.50	0	0	..	..	..	0	0	..	+	+	18¾
" 25...	845	..	1.00	1	0	..	..	..	0	+	..	0	+	18½
" 25...	846	..	1.07	0	0	..	..	..	0	0	..	+	0	18½
" 25...	847	..	1.15	0	0	..	..	..	0	+	..	0	+	18½
" 25...	848	..	1.30	0	0	..	..	..	0	0	..	+	+	19
" 25...	849	..	1.40	0	0	..	..	..	0	+	..	0	+	19
" 25...	850	..	1.50	1	0	..	..	..	+	+	..	+	+	19
" 25...	851	..	2.00	1	5	..	..	..	+	+	..	+	+	19
" 25...	952	..	2.10	0	0	..	..	..	+	+	..	0	+	19
" 25...	853	..	2.20	0	4	..	..	..	0	0	..	0	0	19
" 25...	854	..	2.30	0	2	..	..	..	0	0	..	0	0	19
" 25...	855	..	2.40	0	0	..	..	..	0	0	..	0	0	19
" 25...	856	..	2.50	0	0	..	..	..	0	0	..	0	0	19
" 25...	857	..	3.00	0	0	..	..	..	0	0	..	0	0	19
" 26...	858	8.50	..	..	..	..	..	..	0	+	..	+	+	17.2
" 26...	859	..	9.00	..	..	..	..	..	+	+	..	+	+	17.5
" 26...	860	..	9.10	..	..	..	..	..	0	+	..	+	+	18.0
" 26...	861	..	9.20	..	..	..	..	..	0	+	..	+	+	18.4
" 26...	862	9.30	..	..	..	..	..	..	+	+	..	+	+	18.2
" 26...	863	9.40	..	..	..	..	..	..	+	+	..	+	+	18.2
" 26...	864	9.50	..	..	..	..	..	..	0	+	..	+	+	18.0
" 26...	865	10.00	..	..	..	..	..	..	0	0	..	+	+	17.8
" 26...	866	10.10	..	..	..	..	..	..	0	+	..	+	+	17.5
" 26...	867	10.20	..	..	..	..	..	..	0	0	..	+	0	16.8
" 26...	868	10.30	..	..	..	..	..	..	0	0	..	+	+	17.5
" 26...	869	10.40	..	..	..	..	..	..	0	0	..	0	0	17.8
" 26...	870	10.50	..	..	..	..	..	..	0	0	..	+	+	17.8
" 26...	871	11.00	..	..	..	..	..	..	+	+	..	+	+	18.3
" 26...	872	11.10	..	..	..	..	..	..	0	+	..	+	+	18.2
" 26...	873	11.20	..	..	..	..	..	..	+	+	..	+	+	18.0
" 26...	874	11.30	..	..	..	..	..	..	+	+	..	+	+	18.3
" 26...	875	11.40	..	..	..	..	..	..	+	+	..	+	+	18.2
" 26...	876	11.50	..	..	..	..	..	..	+	+	..	+	+	18.2

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Niagara-on-the-Lake, Ont. Drift of Pollution from Niagara River.

DATE 1913	Sampling Point No.	Time Collected. A.M.	Time Collected. P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation. Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation. Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc	Temp. of Duplicate Sample at Source
June 26...	877	..	12.00	..	..	..	..	..	0	0	..	+	+	18.0
" 26...	878	..	12.10	..	..	..	..	..	0	+	..	0	+	18.0
" 26...	879	..	12.20	..	..	..	..	..	+	+	..	+	+	18.0
" 26...	880	..	12.30	..	..	..	..	..	+	+	..	0	+	19.0
" 26...	881	..	12.40	..	..	..	..	..	+	+	..	+	+	19.2
" 26...	882	..	12.50	..	..	..	..	..	0	0	..	+	+	19.5
" 26...	883	..	1.00	..	..	..	..	..	+	0	..	0	+	19.5
" 26...	884	..	1.10	..	..	..	..	..	0	0	..	0	0	19.8
" 26...	885	..	1.20	..	..	..	..	..	0	0	..	0	0	21.8
" 26...	886	..	1.30	..	..	..	..	..	0	0	..	0	0	21.1
" 26...	887	..	1.40	..	..	..	..	..	0	0	..	0	0	21.8
" 26...	888	..	1.50	..	..	..	..	..	+	0	..	0	+	21.6
" 26...	889	..	2.00	..	..	..	..	..	+	0	..	+	+	22.0
" 26...	890	..	2.10	..	..	..	..	..	0	0	..	0	+	22.0
" 26...	891	..	2.20	..	..	..	..	..	+	+	..	+	+	18.8
" 26...	892	..	2.30	..	..	..	..	..	+	0	..	+	+	17.8
" 28...	901	7.30	..	..	..	..	..	..	+	+	..	+	+	17.5
" 28...	902	7.39	..	..	..	..	..	..	+	+	..	+	+	17.6
" 28...	903	7.46	..	..	..	..	..	..	+	+	..	+	+	18.7
" 28...	904	7.53	..	..	..	..	..	..	+	+	..	+	+	19.2
" 28...	905	8.00	..	..	..	..	..	..	+	+	..	+	+	19.3

DATE 1913	Sampling Point No.	Time Collected. A.M.	Time Collected. P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation. Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation. Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc	Temp. of Duplicate Sample at Source
June 28...	906	8.07	..	..	..	..	..	..	+	+	..	+	+	19.0
" 28...	907	8.14	..	..	..	..	..	..	+	+	..	+	+	18.9
" 28...	908	8.21	..	..	..	..	..	..	0	0	..	0	0	18.8
" 28...	909	8.28	..	..	..	..	..	..	0	0	..	0	+	18.4
" 28...	910	8.35	..	..	..	..	..	..	0	0	..	0	0	17.5
" 28...	911	8.42	..	..	..	..	..	..	0	0	..	0	+	16.8
" 28...	912	8.49	..	..	..	..	..	..	0	0	..	0	0	16.2
" 28...	913	8.56	..	..	..	..	..	..	0	0	..	0	0	16.2
" 28...	914	9.03	..	..	..	..	..	..	0	0	..	0	0	16.2
" 28...	915	9.19	..	..	..	..	..	..	0	0	..	0	0	16.2
" 28...	916	9.17	..	..	..	..	..	..	0	0	..	0	0	16.8
" 28...	917	9.24	..	..	..	..	..	..	0	0	..	0	0	17.7
" 28...	918	9.31	..	..	..	..	..	..	0	0	..	0	0	18.6
" 28...	919	9.38	..	..	..	..	..	..	0	0	..	0	0	17.4
" 28...	920	9.45	..	..	..	..	..	..	0	0	..	0	0	17.3
" 28...	921	9.52	..	..	..	..	..	..	0	0	..	0	0	17.3
" 28...	922	9.59	..	..	..	..	..	..	0	0	..	0	0	17.0
" 28...	923	10.06	..	..	..	..	..	..	0	0	..	0	0	17.0
" 28...	924	10.13	..	..	..	..	..	..	0	0	..	0	0	17.1
" 28...	925	10.20	..	..	..	..	..	..	0	0	..	0	0	17.5
" 28...	926	10.25	..	..	..	..	..	..	0	0	..	0	0	17.0

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Clayton, N.Y. Waters of the Eastern End of Lake Ontario.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9	74	..	52	..	..	0	0	..	0	..	..
" 10		..	58	..	..	0	0	..	0	..	..
" 11		..	42	..	..	0	0	..	0	..	..
" 14		..	43	..	..	0	0	..	0	..	..
" 17		..	5	..	..	0	0	..	0	..	..
" 20		..	5	..	..	0	0	..	+	..	..
" 25		..	3	..	..	0	+	..	0	..	..
" 27		..	1	..	..	0	0	..	0	..	..
" 28		..	1	..	..	0	0	..	0	..	..
" 31		..	45	..	..	0	0	..	0	..	..
Sept. 1		..	1	..	..	0	0	..	0	..	..
" 2		..	9	..	..	0	0	..	0	..	..
" 3		..	1	..	..	0	0	..	0	..	..
Averages		..	**20**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 9	75	..	41	..	..	0	0	..	0	..	..
" 10		..	48	..	..	0	0	..	0	..	..
" 11		..	32	..	..	0	0	..	0	..	..
" 14		..	29	..	..	0	0	..	0	..	..
" 17		..	5	..	..	0	0	..	0	..	..
" 20		..	1	..	..	0	0	..	0	..	..
" 25		..	2	..	..	0	+	..	0	..	..
" 27		..	2	..	..	0	+	..	0	..	..
" 28		..	3	..	..	0	0	..	0	..	..
" 31		..	8	..	..	0	0	..	0	..	..
Sept. 1		..	2	..	..	0	0	..	0	..	..
" 2		..	4	..	..	0	0	..	0	..	..
" 3		..	2	..	..	0	0	..	0	..	..
Averages		..	**13**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 9	76	..	78	..	..	0	0	..	0	..	..
" 10		..	98	..	..	0	0	..	0	..	..
" 11		..	41	..	..	0	0	..	0	..	..
" 14		..	58	..	..	0	0	..	0	..	..
" 17		..	3	..	..	0	0	..	0	..	..
" 20		..	2	..	..	0	0	..	0	..	..
" 25		..	1	..	..	0	0	..	0	..	..
" 27		..	5	..	..	0	+	..	0	..	..
" 28		..	4	..	..	0	0	..	0	..	..
" 31		..	32	..	..	0	0	..	0	..	..
Sept. 1		..	2	..	..	0	0	..	0	..	..
" 2		..	6	..	..	0	0	..	0	..	..
" 3		..	6	..	..	0	0	..	0	..	..
Averages		..	**25**	**.0**	**.7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9	77	..	51	..	..	0	0	..	0	..	..
" 10		..	77	..	..	0	0	..	0	..	..
" 11		..	29	..	..	0	0	..	0	..	..
" 14		..	39	..	..	0	0	..	0	..	..
" 17		..	2	..	..	0	0	..	0	..	..
" 20		..	1	..	..	0	0	..	0	..	..
" 25		..	2	..	..	0	0	..	+	..	..
" 27		..	4	..	..	0	+	..	+	..	..
" 28		..	1	..	..	0	0	..	0	..	..
" 31		..	3	..	..	0	0	..	0	..	..
Sept. 1		..	6	..	..	0	0	..	0	..	..
" 2		..	2	..	..	0	0	..	0	..	..
" 3		..	4	..	..	0	0	..	0	..	..
Averages		..	**16**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 9	78	..	52	..	..	0	0	..	0	..	..
" 10		..	71	..	..	0	0	..	0	..	..
" 11		..	22	..	..	0	0	..	0	..	..
" 14		..	45	..	..	0	0	..	0	..	..
" 17		..	2	..	..	0	0	..	0	..	..
" 20		..	0	..	..	0	0	..	0	..	..
" 25		..	0	..	..	0	0	..	0	..	..
" 27		..	1	..	..	0	+	..	+	..	..
" 28		..	2	..	..	0	0	..	0	..	..
" 31		..	43	..	..	0	0	..	0	..	..
Sept. 1		..	10	..	..	0	0	..	0	..	..
" 2		..	1	..	..	0	0	..	0	..	..
" 3		..	0	..	..	0	0	..	0	..	..
Averages		..	**19**	**.0**	**.7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 9	79	..	78	..	..	0	0	..	0	..	..
" 10		..	93	..	..	0	0	..	0	..	..
" 11		..	17	..	..		0	..	0	..	..
" 14		..	25	..	..	0	0	..	0	..	..
" 17		..	2	..	..	0	0	..	0	..	..
" 20		..	1	..	..	0	0	..	0	..	..
" 25		..	4	..	..	0	0	..	0	..	..
" 27		..	0	..	..	0	+	..	+	..	..
" 28		..	10	..	..	0	+	..	0	..	..
" 31		..	4	..	..	0	0	..	0	..	..
Sept. 1		..	17	..	..	0	0	..	0	..	..
" 2		..	1	..	..	0	0	..	0	..	..
" 3		..	5	..	..	0	0	..	0	..	..
Averages		..	**19**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Clayton, N.Y. Waters of the Eastern End of Lake Ontario.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9	80	..	60	..	..	0	0	..	0	..	..
" 10		..	71	..	..	0	0	..	0	..	..
" 11		..	24	..	..	0	0	..	0	..	..
" 14		..	31	..	..	0	0	..	+	..	..
" 17		..	3	..	..	0	0	..	0	..	..
" 20		..	1	..	..	0	0	..	0	..	..
" 25		..	1	..	..	0	0	..	0	..	..
" 27		..	4	..	..	0	+	..	+	..	..
" 28		..	7	..	..	0	0	..	+	..	..
" 31		..	5	..	..	0	0	..	0	..	..
Sept. 1		..	15	..	..	0	0	..	0	..	..
" 2		..	2	..	..	0	0	..	0	..	..
" 3		..	2	..	..	0	0	..	0	..	..
Averages		..	17		2.	B.	C.	pe	r 1	00	cc
Aug. 9	81	..	30	..	..	0	0	..	0	..	..
" 10		..	39	..	..	0	0	..	0	..	..
" 11		..	38	..	..	0	0	..	0	..	..
" 14		..	25	..	..	0	0	..	0	..	..
" 17		..	1	..	..	0	0	..	0	..	..
" 20		..	5	..	..	0	0	..	0	..	..
" 25		..	1	..	..	0	0	..	+	..	..
" 27		..	1	..	..	0	0	..	+	..	..
" 28		..	3	..	..	0	0	..	0	..	..
" 31		..	3	..	..	0	0	..	0	..	..
Sept. 1		..	9	..	..	0	0	..	0	..	..
" 2		..	1	..	..	0	0	..	0	..	..
" 3		..	2	..	..	0	0	..	0	..	..
Averages		..	12		1.	B.	C.	pe	r 1	00	cc
Aug. 9	82	..	41	..	..	0	0	..	0	..	..
" 10		..	37	..	..	0	0	..	0	..	..
" 11		..	31	..	..	0	0	..	0	..	..
" 14		..	54	..	..	0	0	..	0	..	..
" 17		..	1	..	..	0	0	..	0	..	..
" 20		..	0	..	..	0	0	..	0	..	..
" 25		..	4	..	..	0	0	..	0	..	..
" 27		..	4	..	..	0	0	..	+	..	..
" 28		..	1	..	..	0	0	..	+	..	..
" 31		..	5	..	..	0	0	..	0	..	..
Sept. 1		..	1	..	..	0	0	..	0	..	..
" 2		..	1	..	..	0	0	..	0	..	..
" 2		..	11	..	..	0	0	..	0	..	..
Ave ages		..	14		1.	B.	C.	pe	r 1	00	cc

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 9	83	..	54	..	..	0	0	..	0	..	..
" 10		..	76	..	..	0	0	..	+	..	..
" 11		..	25	..	..	0	0	..	+	..	..
" 14		..	64	..	..	0	0	..	0	..	..
" 17		..	17	..	..	0	0	..	0	..	..
" 20		..	3	..	..	0	0	..	0	..	..
" 25		..	2	..	..	0	+	..	0	..	..
" 27		..	7	..	..	0	0	..	+	..	..
" 28		..	0	..	..	0	0	..	0	..	..
" 31		..	7	..	..	0	0	..	0	..	..
Sept. 1		..	6	..	..	0	0	..	0	..	..
" 2		..	2	..	..	0	0	..	0	..	..
" 3		..	14	..	..	0	0	..	0	..	..
Averages		..	21		3.	B.	C.	pe	r 1	00	cc
Aug. 9	84	..	31	..	..	0	0	..	0	..	..
" 10		..	33	..	..	0	0	..	0	..	..
" 11		..	36	..	..	0	0	..	0	..	..
" 14		..	104	..	..	0	0	..	0	..	..
" 17		..	6	..	..	0	0	..	0	..	..
" 20		..	4	..	..	0	0	..	0	..	..
" 25		..	1	..	..	0	+	..	+	..	..
" 27		..	8	..	..	0	0	..	+	..	..
" 28		..	1	..	..	0	0	..	0	..	..
" 31		..	5	..	..	0	0	..	0	..	..
Sept. 1		..	40	..	..	0	0	..	0	..	..
" 2		..	0	..	..	0	0	..	0	..	..
" 3		..	1	..	..	0	0	..	0	..	..
Averages		..	20		1.	B.	C.	pe	r 1	00	cc
Aug. 9	85	..	8	..	..	0	0	..	0	..	..
" 10		..	11	..	..	0	0	..	0	..	..
" 11		..	16	..	..	0	0	..	0	..	..
" 14		..	92	..	..	0	0	..	+	..	..
" 17		..	1	..	..	0	0	..	0	..	..
" 20		..	0	..	..	0	0	..	0	..	..
" 25		..	7	..	..	+	+	..	0	..	..
" 27		..	2	..	..	0	0	..	+	..	..
" 28		..	2	..	..	0	0	..	0	..	..
" 31		..	1	..	..	0	0	..	0	..	..
Sept. 1		..	2	..	..	0	0	..	0	..	..
" 2		..	2	..	..	0	0	..	0	..	..
" 3		..	2	..	..	0	0	..	0	..	..
Averages		..	11		2	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Clayton, N.Y. Waters of the St. Lawrence River.

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Aug. 9	86	..	62	..	..	0	0	..	+	..	..
" 11		..	19	..	..	0	0	..	+	..	..
" 13		..	32	..	..	0	+	..	+	..	..
" 15		..	299	..	..	0	+	..	+	..	..
" 16		..	212	..	..	0	0	..	+	..	..
" 18		..	2	..	..	0	0	..	0	..	..
" 19		..	6	..	..	0	0	..	+	..	..
" 21		..	3	..	..	0	0	..	0	..	..
" 22		..	6	..	..	0	+	..	+	..	..
" 23		..	6	..	..	0	0	..	+	..	..
" 25		..	1	..	..	0	0	..	0	..	..
" 26		..	6	..	..	0	0	..	0	..	..
" 29		..	6	..	..	0	0	..	0	..	..
" 30		..	4	..	..	0	+	..	0	..	..
" 31		..	2	..	..	0	0	..	0	..	..
Sept. 1		..	1	..	..	0	0	..	0	..	..
" 2		..	1	..	..	0	0	..	0	..	..
Averages		..	**39**		**20**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 9	87	..	124	..	..	0	0	..	0	..	..
" 11		..	77	..	..	0	0	..	0	..	..
" 13		..	60	..	..	0	0	..	0	..	..
" 15		..	528	..	..	0	0	..	+	..	..
" 16		..	172	..	..	0	0	..	+	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	5	..	..	0	0	..	0	..	..
" 21		..	3	..	..	0	0	..	0	..	..
" 22		..	5	..	..	0	0	..	+	..	..
" 23		..	5	..	..	0	+	..	+	..	..
" 25		..	4	..	..	0	0	..	0	..	..
" 26		..	17	..	..	+	+	..	+	..	..
" 29		..	4	..	..	0	0	..	0	..	..
" 30		..	8	..	..	0	0	..	0	..	..
" 30		..	9	..	..	0	0	..	0	..	..
Sept. 1		..	2	..	..	0	0	..	0	..	..
" 2		..	0	..	..	0	0	..	0	..	..
Averages		..	**60**		**66**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 9	88	..	22	..	..	0	0	..	0	..	..
" 11		..	57	..	..	0	0	..	0	..	..
" 13		..	46	..	..	0	0	..	0	..	..
" 15		..	132	..	..	0	0	..	0	..	..
" 16		..	392	..	..	0	0	..	+	..	..
" 18		..	3	..	..	0	0	..	+	..	..
" 19		..	4	..	..	0	0	..	0	..	..
" 21		..	2	..	..	0	0	..	+	..	..
" 22		..	8	..	..	0	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 23	88	..	4	..	..	0	0	..	0	..	..
" 25		..	2	..	..	0	0	..	0	..	..
" 26		..	4	..	..	0	0	..	+	..	..
" 29		..	8	..	..	0	0	..	+	..	..
" 30		..	12	..	..	0	0	..	0	..	..
" 31		..	2	..	..	0	0	..	+	..	..
Sept. 1		..	2	..	..	0	0	..	0	..	..
" 2		..	14	..	..	0	0	..	0	..	..
Averages		..	**42**		**3**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 9	89	..	41	..	..	0	0	..	+	..	..
" 11		..	62	..	..	0	0	..	+	..	..
" 13		..	15	..	..	0	+	..	0	..	..
" 15		..	212	..	..	+	+	..	0	..	..
" 16		..	192	..	..	0	0	..	+	..	..
" 18		..	3	..	..	0	0	..	+	..	..
" 19		..	4	..	..	0	0	..	+	..	..
" 21		..	7	..	..	0	0	..	+	..	..
" 22		..	8	..	..	0	0	..	0	..	..
" 23		..	5	..	..	0	0	..	+	..	..
" 25		..	2	..	..	0	0	..	0	..	..
" 26		..	14	..	..	0	0	..	+	..	..
" 29		..	37	..	..	0	0	..	0	..	..
" 30		..	10	..	..	0	0	..	0	..	..
" 31		..	5	..	..	0	0	..	0	..	..
Sept. 1		..	4	..	..	0	0	..	0	..	..
" 2		..	2	..	..	0	0	..	0	..	..
Averages		..	**36**		**4.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
Aug. 9	90	..	116	..	..	0	+	..	0	..	..
" 11		..	62	..	..	0	0	..	+	..	..
" 13		..	49	..	..	0	0	..	0	..	..
" 15		..	88	..	..	0	0	..	0	..	..
" 16		..	272	..	..	0	+	..	+	..	..
" 18		..	4	..	..	0	0	..	0	..	..
" 19		..	4	..	..	0	0	..	+	..	..
" 21		..	10	..	..	0	0	..	0	..	..
" 22		..	17	..	..	0	0	..	+	..	..
" 23		..	5	..	..	0	0	..	+	..	..
" 25		..	4	..	..	0	0	..	0	..	..
" 26		..	7	..	..	0	0	..	0	..	..
" 28		..	3	..	..	0	0	..	0	..	..
" 30		..	9	..	..	0	0	..	0	..	..
" 31		..	2	..	..	0	0	..	0	..	..
Sept. 1		..	2	..	..	0	0	..	0	..	..
" 2		..	6	..	..	0	0	..	+	..	..
Averages		..	**38**		**3.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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Aug. 9	91	..	29	..	..	0	0	..	0	..	..
" 11		..	34	..	..	0	0	..	0	..	..
" 13		..	31	..	..	0	0	..	0	..	..
" 15		..	228	..	..	0	+	..	+	..	..
" 16		..	84	..	..	0	0	..	+	..	..
" 18		..	38	..	..	0	0	..	+	..	..
" 19		..	5	..	..	0	0	..	0	..	..
" 21		..	4	..	..	0	0	..	0	..	..
" 22		..	18	..	..	0	0	..	+	..	..
" 23		..	14	..	..	0	0	..	+	..	..
" 25		..	7	..	..	0	+	..	0	..	..
" 26		..	15	..	..	0	0	..	0	..	..
" 29		..	3	..	..	0	0	..	0	..	..
" 30		..	5	..	..	0	0	..	+	..	..
" 31		..	3	..	..	0	0	..	0	..	..
Sept. 1		..	3	..	..	0	0	..	+	..	..
" 2		..	6	..	..	0	0	..	+	..	..
Averages		..	**31**		**10**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 9	92	..	7	..	..	0	0	..	0	..	..
" 11		..	50	..	..	0	0	..	+	..	..
" 13		..	37	..	..	0	0	..	+	..	..
" 15		..	302	..	..	0	+	..	+	..	..
" 16		..	118	..	..	0	+	..	+	..	..
" 18		..	5	..	..	0	0	..	0	..	..
" 19		..	4	..	..	0	0	..	0	..	..
" 21		..	3	..	..	0	0	..	0	..	..
" 22		..	37	..	..	0	0	..	+	..	..
" 23		..	57	..	..	0	0	..	+	..	..
" 25		..	1	..	..	0	0	..	0	..	..
" 26		..	10	..	..	0	0	..	0	..	..
" 29		..	18	..	..	0	0	..	0	..	..
" 30		..	9	..	..	0	0	..	0	..	..
" 31		..	2	..	..	0	0	..	0	..	..
Sept. 1		..	12	..	..	0	0	..	0	..	..
" 2		..	1	..	..	0	0	..	0	..	..
Averages		..	**39**		**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 9	93	..	3	..	..	0	0	..	0	..	..
" 11		..	49	..	..	0	0	..	0	..	..
" 13		..	43	..	..	0	0	..	+	..	..
" 15		..	248	..	..	0	+	..	+	..	..
" 16		..	126	..	..	0	+	..	+	..	..
" 18		..	12	..	..	0	0	..	0	..	..
" 19		..	3	..	..	0	0	..	0	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 21	93	..	2	..	..	0	0	..	0	..	..
" 22		..	25	..	..	0	0	..	0	..	..
" 23		..	12	..	..	0	0	..	0	..	..
" 25		..	2	..	..	0	0	..	0	..	..
" 26		..	5	..	..	0	0	..	0	..	..
" 29		..	14	..	..	0	0	..	0	..	..
" 30		..	5	..	..	0	0	..	0	..	..
" 31		..	3	..	..	0	0	..	0	..	..
Sept. 1		..	3	..	..	0	0	..	0	..	..
" 2		..	4	..	..	0	0	..	0	..	..
Averages		..	**32**		**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	94	..	198	..	..	0	0	..	+	..	..
" 8		..	265	..	..	0	+	..	+	..	..
" 11		..	44	..	..	0	0	..	0	..	..
" 13		..	64	..	..	0	+	..	0	..	..
" 15		..	118	..	..	0	+	..	+	..	..
" 16		..	385	..	..	0	+	..	+	..	..
" 18		..	2	..	..	0	+	..	+	..	..
" 19		..	5	..	..	0	0	..	0	..	..
" 21		..	4	..	..	0	+	..	+	..	..
" 22		..	4	..	..	0	0	..	+	..	..
" 23		..	11	..	..	0	+	..	+	..	..
" 24		..	26	..	..	0	0	..	+	..	..
" 26		..	6	..	..	0	0	..	+	..	..
" 29		..	10	..	..	0	0	..	+	..	..
" 30		..	6	..	..	0	0	..	0	..	..
Averages		..	**76**	**4**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	95	..	84	..	..	0	0	..	+	..	..
" 8		..	98	..	..	0	0	..	0	..	..
" 11		..	72	..	..	0	+	..	+	..	..
" 13		..	36	..	..	0	0	..	+	..	..
" 15		..	315	..	..	+	+	..	+	..	..
" 16		..	392	..	..	0	+	..	+	..	..
" 18		..	2	..	..	0	+	..	0	..	..
" 19		..	4	..	..	0	0	..	0	..	..
" 21		..	5	..	..	0	0	..	0	..	..
" 22		..	3	..	..	0	0	..	0	..	..
" 23		..	7	..	..	0	0	..	+	..	..
" 24		..	9	..	..	0	0	..	0	..	..
" 26		..	14	..	..	+	+	..	0	..	..
" 29		..	15	..	..	0	0	..	+	..	..
" 30		..	3	..	..	0	0	..	+	..	..
Averages		..	**70**	**2**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Clayton, N.Y. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7	96	..	101	..	..	0	0	..	+	..	..
" 8		..	104	..	..	0	0	..	+	..	..
" 11		..	70	..	..	0	0	..	+	..	..
" 13		..	113	..	..	0	0	..	+	..	..
" 15		..	272	..	..	0	+	..	+	..	..
" 16		..	260	..	..	0	+	..	+	..	..
" 18		..	2	..	..	0	0	..	+	..	..
" 19		..	8	..	..	0	0	..	+	..	..
" 21		..	2	..	..	0	0	..	+	..	..
" 22		..	3	..	..	0	0	..	+	..	..
" 23		..	3	..	..	0	0	..	+	..	..
" 24		..	8	..	..	0	0	..	+	..	..
" 26		..	14	..	..	0	0	..	0	..	..
" 29		..	12	..	..	0	0	..	0	..	..
" 30		..	8	..	..	0	0	..	+	..	..
Averages		..	**65**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	97	..	102	..	..	0	0	..	+	..	..
" 8		..	99	..	..	0	+	..	+	..	..
" 11		..	153	..	..	0	0	..	+	..	..
" 13		..	48	..	..	0	0	..	+	..	..
" 15		..	240	..	..	0	+	..	+	..	..
" 16		..	321	..	..	0	+	..	+	..	..
" 18		..	16	..	..	0	0	..	0	..	..
" 19		..	7	..	..	0	0	..	0	..	..
" 21		..	3	..	..	0	+	..	+	..	..
" 22		..	3	..	..	0	0	..	+	..	..
" 23		.	2	..	..	0	+	..	+	..	..
" 24		..	12	..	..	0	0	..	+	..	..
" 26		..	8	..	..	0	0	..	+	..	..
" 29		..	12	..	..	0	0	..	+	..	..
" 30		..	4	..	..	0	0	..	+	..	..
Averages		..	**68**	**2**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	98	..	42	..	..	0	0	..	+	..	..
" 8		..	33	..	..	0	0	..	+	..	..
" 11		..	62	..	..	0	0	..	+	..	..
" 13		..	49	..	..	0	0	..	+	..	..
" 15		..	282	..	..	0	+	..	+	..	..
" 16		..	271	..	..	0	+	..	+	..	..
" 18		..	2	..	..	0	0	..	0	..	..
" 19		..	3	..	..	0	0	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 21	98	..	2	..	..	0	0	..	0	..	..
" 22		..	8	..	..	0	0	..	+	..	..
" 23		..	8	..	..	0	0	..	+	..	..
" 24		..	12	..	..	0	0	..	+	..	..
" 26		..	22	..	..	0	0	..	+	..	..
" 29		..	11	..	..	0	0	..	+	..	..
" 30		..	18	..	..	0	0	..	+	..	..
Averages		..	**55**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	99	..	60	..	..	0	0	..	+	..	..
" 8		..	58	..	..	0	0	..	+	..	..
" 11		..	78	..	..	0	0	..	+	..	..
" 13		..	45	..	..	0	0	..	+	..	..
" 15		..	172	..	..	0	+	..	+	..	..
" 16		..	258	..	..	0	+	..	+	..	..
" 18		..	1	..	..	0	0	..	0	..	..
" 19		..	5	..	..	0	0	..	+	..	..
" 21		..	1	..	..	0	0	..	0	..	..
" 22		..	6	..	..	0	0	..	0	..	..
" 23		..	7	..	..	0	0	..	+	..	..
" 24		..	17	..	..	0	0	..	0	..	..
" 26		..	40	..	..	0	0	..	+	..	..
" 29		..	68	..	..	0	0	..	+	..	..
" 30		..	25	..	..	0	0	..	+	..	..
Averages		..	**56**	**1**	**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	100	..	92	..	..	0	0	..	+	..	..
" 8		..	104	..	..	0	0	..	+	..	..
" 11		..	27	..	..	0	+	..	+	..	..
" 13		..	37	..	..	0	0	..	+	..	..
" 15		..	202	..	..	0	+	..	+	..	..
" 16		..	58	..	..	0	+	..	+	..	..
" 18		..	11	..	..	0	0	..	0	..	..
" 19		..	6	..	..	0	0	..	+	..	..
" 21		..	5	..	..	0	0	..	0	..	..
" 22		..	6	..	..	0	0	..	+	..	..
" 23		..	2	..	..	0	+	..	+	..	..
" 24		..	10	..	..	0	0	..	0	..	..
" 26		..	11	..	..	0	0	..	0	..	..
" 29		..	196	..	..	0	0	..	+	..	..
" 30		..	3	..	..	0	0	..	+	..	..
Averages		..	**51**	**2**	**9.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Clayton, N.Y. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 7	101	..	89	..	..	0	0	..	0	..	..
" 8		..	93	..	..	0	0	..	+	..	..
" 11		..	53	..	..	0	0	..	0	..	..
" 13		..	26	..	..	0	0	..	0	..	..
" 15		..	211	..	..	0	+	..	+	..	..
" 16		..	142	..	..	0	0	..	+	..	..
" 18		..	2	..	..	0	0	..	0	..	..
" 19		..	1	..	..	0	0	..	0	..	..
" 21		..	1	..	..	0	+	..	0	..	..
" 22		..	4	..	..	0	0	..	+	..	..
" 23		..	5	..	..	0	0	..	+	..	..
" 24		..	9	..	..	0	0	..	+	..	..
" 26		..	13	..	..	0	0	..	+	..	..
" 29		..	4	..	..	0	0	..	0	..	..
" 30		..	6	..	..	0	0	..	0	..	..
Averages		..	**43**	**1**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	102	..	90	..	..	0	0	..	+	..	..
" 8		..	98	..	..	0	0	..	+	..	..
" 11		..	63	..	..	0	0	..	+	..	..
" 13		..	55	..	..	0	+	..	+	..	..
" 15		..	178	..	..	0	+	..	+	..	..
" 16		..	210	..	..	0	0	..	+	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	3	..	..	0	0	..	+	..	..
" 21		..	5	..	..	0	0	..	0	..	..
" 22		..	1	..	..	0	0	..	+	..	..
" 23		..	3	..	..	0	0	..	+	..	..
" 24		..	7	..	..	0	0	..	+	..	..
" 26		..	14	..	..	0	0	..	0	..	..
" 29		..	5	..	..	0	0	..	+	..	..
" 30		..	7	..	..	0	0	..	0	..	..
Averages		..	**49**	**1**	**9.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	103	..	72	..	..	0	0	..	+	..	..
" 8		..	80	..	..	0	+	..	+	..	..
" 11		..	54	..	..	0	0	..	0	..	..
" 13		..	56	..	..	0	0	..	+	..	..
" 15		..	97	..	..	0	+	..	+	..	..
" 16		..	161	..	..	0	0	..	+	..	..
" 18		..	1	..	..	0	0	..	+	..	..
" 19		..	3	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 21	103	..	1	..	..	0	+	..	+	..	..
" 22		..	5	..	..	0	0	..	+	..	..
" 23		..	2	..	..	0	0	..	0	..	..
" 24		..	24	..	..	0	0	..	0	..	..
" 26		..	5	..	..	0	0	..	0	..	..
" 29		..	14	..	..	0	0	..	0	..	..
" 30		..	5	..	..	0	0	..	+	..	..
Averages		..	**38**	**3**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	104	..	92	..	..	0	0	..	+	..	..
" 8		..	89	..	..	0	0	..	+	..	..
" 11		..	38	..	..	0	0	..	+	..	..
" 13		..	22	..	..	0	0	..	+	..	..
" 15		..	69	..	..	0	+	..	+	..	..
" 16		..	140	..	..	0	+	..	+	..	..
" 18		..	3	..	..	0	0	..	0	..	..
" 19		..	5	..	..	0	0	..	+	..	..
" 21		..	3	..	..	0	0	..	0	..	..
" 22		..	9	..	..	0	+	..	+	..	..
" 23		..	2	..	..	+	+	..	+	..	..
" 24		..	36	..	..	0	0	..	+	..	..
" 26		..	5	..	..	0	0	..	0	..	..
" 29		..	2	..	..	0	0	..	+	..	..
" 30		..	9	..	..	0	+	..	+	..	..
Averages		..	**34**	**9**	**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 7	105	..	52	..	..	0	0	..	+	..	..
" 8		..	46	..	..	0	0	..	+	..	..
" 11		..	56	..	..	0	0	..	+	..	..
" 13		..	12	..	..	0	+	..	+	..	..
" 15		..	62	..	..	0	+	..	+	..	..
" 16		..	13	..	..	0	0	..	0	..	..
" 18		..	1	..	..	0	0	..	+	..	..
" 19		..	3	..	..	0	0	..	+	..	..
" 20		..	3	..	..	0	0	..	+	..	..
" 22		..	1	..	..	0	0	..	+	..	..
" 23		..	1	..	..	0	+	..	+	..	..
" 24		..	18	..	..	+	+	..	+	..	..
" 26		..	5	..	..	0	0	..	+	..	..
" 29		..	11	..	..	0	0	..	+	..	..
" 30		..	2	..	..	0	0	..	+	..	..
Averages		..	**19**	**8**	**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Eastern End of Lake Ontario.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 15	195	19	10	..	..	..	0	0	..	0	+
" 17		10	3	..	..	..	0	0	..	+	..
" 25		6	14	..	..	..	0	0	..	0	0
" 30		16	spreader	..	..	..	0	0	..	0	0
May 1		42	78	..	..	..	0	0	..	+	0
" 2		*800	90	..	..	..	0	0	..	0	+
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		12	spreader	..	..	..	0	0	..	0	0
" 6		22	8	..	..	..	0	0	..	0	0
" 7		13	spreader	..	..	..	0	0	..	0	0
" 8		*480	*120	..	..	..	0	0	..	0	0
" 9		20	27	..	..	..	0	0	..	0	+
" 10		..	5	..	..	..	0	0	..	0	+
" 14		8	11	..	..	..	0	0	..	0	0
" 15		8	24	..	..	..	0	0	..	0	0
Averages		**16.**	**27**		**.7**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
Apr. 15	196	6	3	..	..	..	0	0	..	0	00
" 17		spreader	spreader	..	..	..	0	0	..	0	..
" 25		0	15	..	..	..	0	0	..	0	0
" 30		6	0	..	..	..	0	0	..	0	0
May 1		17	34	..	..	..	0	0	..	0	0
" 2		10	8	..	..	..	0	0	..	0	+
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		2	6	..	..	..	0	0	..	0	0
" 6		12	11	..	..	..	0	0	..	0	0
" 7		13	9	..	..	..	0	0	..	0	0
" 8		110	*150	..	..	..	0	0	..	0	0
" 9		10	4	..	..	..	0	0	..	0	0
" 10		..	15	..	..	..	0	0	..	0	0
" 14		6	7	..	..	..	0	0	..	0	0
" 15		3	0	..	..	..	0	0	..	0	0
Averages		**16.3**	**9.3**		**0**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
Apr. 15	197	12	2	..	..	..	0	0	..	0	00
" 17		4	3	..	..	..	0	0	..	00	..
" 25		1	30	..	..	..	0	0	..	0	0
" 30		4	5	..	..	..	0	0	..	0	0
May 1		15	180	..	..	..	0	0	..	0	0
" 2		28	10	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	+	0	..	0	0
" 5		5	28	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 6	197	2	1	..	..	..	0	0	..	0	0
" 7		10	90	..	..	..	0	0	..	0	0
" 8		*440	20	..	..	..	0	0	..	0	0
" 9		4	14	..	..	..	0	0	..	0	0
" 10		..	7	..	..	..	0	0	..	0	0
" 14		5	4	..	..	..	0	0	..	0	0
" 15		2	3	..	..	..	0	0	..	0	0
Averages		**7.**	**28.3**		**0**	**B.**	**C.**	**pe**	**r**	**1**	**00 c c**
Apr. 15	198	19	4	..	..	..	0	0	..	0	00
" 17		0	spreader	..	..	..	0	0	..	00	..
" 30		5	7	..	..	..	0	0	..	0	0
May 1		16	10	..	..	..	0	0	..	0	0
" 2		27	7	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		5	*100	..	..	..	0	0	..	0	0
" 6		3	7	..	..	..	0	0	..	0	0
" 7		14	spreader	..	..	..	0	0	..	0	0
" 8		10	0	..	..	..	0	0	..	0	0
" 9		0	36	..	..	..	0	0	..	0	0
" 10		..	7	..	..	..	0	0	..	0	0
" 14		8	2	..	..	..	0	0	..	0	0
" 15		2	2	..	..	..	0	0	..	0	0
Averages		**9.08**	**18.2**		**0**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
Apr. 15	199	8	1	..	..	..	0	0	..	0	+
" 17		7	spreader	..	..	..	0	0	..	00	..
" 30		6	10	..	..	..	0	0	..	0	0
May 2		25	14	..	..	..	0	0	..	0	+
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		2	*130	..	..	..	0	..	..	0	0
" 6		5	3	..	..	..	0	0	..	0	0
" 7		12	spreader	..	..	..	0	0	..	0	0
" 8		24	0	..	..	..	0	0	..	0	0
" 9		0	*280	..	..	..	0	0	..	0	0
" 10		..	7	..	..	..	0	0	..	0	0
" 14		2	3	..	..	..	0	0	..	0	0
" 15		1	12	..	..	..	0	0	..	0	0
" 17		2	0	..	..	..	0	0	..	0	0
Averages		**7.**	**5.5**		**.0**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**

* Omitted from averages.

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Apr. 15	200	2	2	..	..	..	0	0	..	0	00
" 17		5	2	..	..	..	0	0	..	00	..
" 30		4	0	..	..	..	0	0	..	0	0
May 2		21	7	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		2	9	..	..	..	0	0	..	0	0
" 6		13	4	..	..	..	0	0	..	0	0
" 7		2	*100	..	..	..	0	0	..	0	0
" 8		8	1	..	..	..	0	0	..	0	0
" 9		2	spreader	..	..	..	0	0	..	0	0
" 10		..	2	..	..	..	0	0	..	0	0
" 14		2	0	..	..	..	0	0	..	0	0
" 15		1	3	..	..	..	0	0	..	0	0
" 17		8	4	..	..	..	0	0	..	0	0
Averages		**5**	**3.**	**0**	**B.**	**C.**	**per**	**1**	**00**	**cc**	
Apr. 15	201	3	1	..	..	..	0	0	..	0	00
" 17		spreader	2	..	..	..	0	0	..	00	..
" 30		8	spreader	..	..	..	0	0	..	+	0
May 2		7	10	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		2	5	..	..	..	0	0	..	0	0
" 6		2	3	..	..	..	0	0	..	0	0
" 7		5	spreader	..	..	..	0	0	..	0	0
" 8		18	1	..	..	..	0	0	..	0	0
" 9		0	40	..	..	..	0	0	..	0	0
" 10		..	2	..	..	..	0	0	..	0	0
" 14		2	2	..	..	..	0	0	..	0	0
" 15		3	8	..	..	..	0	0	..	0	0
" 17		1	2	..	..	..	0	0	..	0	0
Averages		**4.**	**6.**	**0.**	**B.**	**C.**	**per**	**1**	**00**	**cc**	
Apr. 15	202	3	3	..	..	..	0	0	..	00	0
" 17		6	spreader	..	..	..	0	0	..	+	..
" 30		10	5	..	..	..	0	0	..	0	0
May 2		5	3	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		0	6	..	..	..	0	0	..	0	0
" 6		5	4	..	..	..	0	0	..	0	0
" 7		4	8	..	..	..	0	0	..	0	0
May 8	202	7	14	..	..	..	0	0	..	0	0
" 9		0	65	..	..	..	0	0	..	0	0
" 10		..	4	..	..	..	0	0	..	0	0
" 14		8	12	..	..	..	0	0	..	0	0
" 15		3	1	..	..	..	0	0	..	0	0
" 17		1	8	..	..	..	0	0	..	0	0
Averages *		**4.**	**11.08**	**0**	**B.**	**C.**	**per**	**1**	**00**	**cc**	
Apr. 15	203	4	4	..	..	..	0	0	..	00	..
" 17		3	..	..	..	..	0	0	..	00	..
" 30		24	10	..	..	..	0	0	..	0	+
May 2		*320	10	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		3	spreader	..	..	..	0	0	..	0	0
" 6		10	4	..	..	..	0	0	..	0	0
" 7		2	5	..	..	..	0	0	..	0	0
" 8		1	1	..	..	..	0	0	..	0	0
" 9		2	spreader	..	..	..	0	0	..	0	0
" 10		..	2	..	..	..	0	0	..	0	0
" 14		3	45	..	..	..	0	0	..	0	0
" 15		5	8	..	..	..	0	0	..	0	0
" 17		1	2	..	..	..	0	0	..	0	0
Averages		**5.**	**9.**	**0.**	**B.**	**C.**	**per**	**1**	**00**	**cc**	
Apr. 15	204	1	2	..	..	..	0	0	..	00	..
" 17		6	spreader	..	..	..	0	0	..	00	..
" 30		6	7	..	..	..	0	0	..	0	0
May 2		26	7	..	..	..	0	0	..	0	+
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		0	24	..	..	..	0	0	..	0	0
" 6		18	3	..	..	..	0	0	..	0	0
" 7		17	60	..	..	..	0	0	..	0	0
" 8		6	52	..	..	..	0	0	..	0	0
" 9		2	12	..	..	..	0	0	..	0	0
" 10		..	2	..	..	..	0	0	..	0	0
" 14		3	2	..	..	..	0	0	..	0	0
" 15		4	7	..	..	..	0	0	..	0	0
" 17		..	1	..	..	..	0	0	..	0	0
Averages		**7**	**14.9**	**0.**	**B.**	**C.**	**per**	**1**	**00**	**cc**	

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Apr. 15	205	21	3	..	..	..	+	0	..	00	..
" 17		11	2	..	..	..	0	0	..	00	..
" 30		0	7	..	..	..	0	0	..	0	0
May 2		60	34	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		0	spreader	..	..	..	0	0	..	0	+
" 6		7	spreader	..	..	..	0	0	..	0	0
" 7		4	2	..	..	..	0	0	..	0	0
" 8		*400	40	..	..	..	0	0	..	0	0
" 9		0	4	..	..	..	0	0	..	0	0
" 10		..	3	..	..	..	0	0	..	0	0
" 14		6	0	..	..	..	0	0	..	0	0
" 15		3	8	..	..	..	0	0	..	0	+
" 17		0	0	..	..	..	0	0	..	0	0
Averages		**10.2**	**9**		**0**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
Apr. 15	206	15	20	..	..	..	0	0	..	00	..
" 17		9	2	..	..	..	0	0	..	00	..
" 30		8	10	..	..	..	0	0	..	0	0
May 2		30	24	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		13	*230	..	..	..	0	0	..	0	0
" 6		0	2	..	..	..	0	0	..	0	0
" 7		2	19	..	..	..	0	0	..	0	0
" 8		155	16	..	..	..	0	0	..	0	0
" 9		0	21	..	..	..	0	0	..	0	0
" 10		..	3	..	..	..	0	0	..	0	+
" 14		3	7	..	..	..	0	0	..	0	0
" 15		3	1	..	..	..	0	0	..	0	0
" 17		0	1	..	..	..	0	0	..	0	0
Averages		**19.8**	**10.**		**0**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
Apr. 15	207	13	10	..	..	..	0	0	..	00	..
" 17		3	4	..	..	..	0	0	..	00	..
" 30		14	spreader	..	..	..	0	0	..	0	0
May 2		26	8	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	+
" 5		5	3	..	..	..	0	0	..	0	0
" 6		4	spreader	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 7	207	..	spreader	..	..	..	0	0	..	0	0
" 8		50	spreader	..	..	..	0	0	..	0	0
" 9		0	sprerder	..	..	..	0	0	..	0	0
" 10		..	4	..	..	..	0	0	..	0	0
" 14		14	3	..	..	..	0	0	..	0	0
" 15		7	2	..	..	..	0	0	..	0	+
" 17		2	1	..	..	..	0	0	..	0	0
Averages		**12.5**	**4.**	**0**	**.2**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
Apr. 15	208	6	4	..	..	..	0	0	..	00	..
" 17		8	3	..	..	..	0	0	..	+	..
" 30		4	5	..	..	..	0	0	..	0	0
May 2		6	38	..	..	..	0	0	..	0	+
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		4	0	..	..	..	0	0	..	0	0
" 6		15	spreader	..	..	..	0	0	..	0	0
" 7		4	spreader	..	..	..	0	0	..	0	0
" 8		76	40	..	..	..	0	0	..	0	+
" 9		2	spreader	..	..	..	0	0	..	0	0
" 10		..	0	..	..	..	0	+	..	0	+
" 14		13	2	..	..	..	0	0	..	0	+
" 15		3	5	..	..	..	0	0	..	0	+
" 17		7	2	..	..	..	0	0	..	0	0
Averages		**12.3**	**9.**		**1.**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
Apr. 15	209	8	3	..	..	..	0	0	..	0	..
" 30		8	5	..	..	..	0	0	..	0	0
May 2		13	*190	..	..	..	0	0	..	0	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
" 5		5	0	..	..	..	0	0	..	0	0
" 6		3	spreader	..	..	..	0	0	..	0	+
" 7		4	spreader	..	..	..	0	0	..	0	0
" 8		130	10	..	..	..	0	0	..	0	0
" 9		0	spreader	..	..	..	0	0	..	0	0
" 10		..	1	..	..	..	0	0	..	0	0
" 14		10	2	..	..	..	0	0	..	0	0
" 15		2	5	..	..	..	0	0	..	0	+
" 17		1	3	..	..	..	0	0	..	0	0
Averages		**16.7**	**3.6**	**0**	**.2**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

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Apr. 15	210	8	3	..	..	..	0	0	..	06	..
" 17		9	3	..	..	..	0	0	..	00	..
" 30		6	spreader	..	..	..	0	0	..	0	0
May 2		42	18	..	..	..	0	0	..	0	0
" 2		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	+
" 5		0	1	..	..	..	0	0	..	0	0
" 6		2	10	..	..	..	0	0	..	0	0
" 7		7	3	..	..	..	0	0	..	0	0
" 8		spreader	spreader	..	..	..	0	0	..	+	0
" 9		3	spreader	..	..	..	0	0	..	0	0
" 10		..	0	..	..	..	0	0	..	0	0
" 14		10	2	..	..	..	0	0	..	0	0
" 15		3	2	..	..	..	0	0	..	0	0
" 17		2	2	..	..	..	0	0	..	0	0
Averages		**8.**	**8.**	**0**	**.2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 16	211	73	10	..	..	..	0	0	..	+	..
" 17		32	6	..	..	..	0	0	..	+	..
" 19		48	2	..	..	..	0	+	..	+	+
" 21		47	3	..	..	..	0	0	..	+	0
" 22		36	8	..	..	..	0	0	..	+	+
" 24		40	6	..	..	..	0	+	..	+	+
" 25		25	30	..	..	..	0	0	..	+	+
" 26		20	10	..	..	..	0	0	..	0	+
" 28		30	spreader	..	..	..	0	0	..	0	0
" 29		13	5	..	..	..	0	0	..	+	+
" 30		12	4	..	..	..	0	0	..	0	+
May 1		34	34	..	..	..	0	0	..	+	+
" 2		26	..	..	..	..	0	0	..	+	+
" 3		50	..	..	..	..	0	0	..	0	+
" 4		..	..	..	..	..	0	0	..	0	+
Averages		**34.7**	**11.5**	**4**	**.2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 16	212	56	10	..	..	..	0	0	..	+	..
" 17		31	1	..	..	..	0	0	..	+	..
" 19		42	10	..	..	..	0	+	..	+	+
" 21		58	20	..	..	..	0	0	..	0	+
" 22		30	15	..	..	..	0	0	..	+	+
" 24		20	4	..	..	..	0	0	..	0	0
" 25		24	90	..	..	..	0	0	..	0	0
" 26		14	9	..	..	..	0	+	..	0	+
" 28		28	spreader	..	..	..	0	0	..	0	+
" 29		34	5	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 30	212	6	3	..	..	..	0	0	..	0	+
May 1		26	140	..	..	..	0	+	..	0	+
" 2		40	50	..	..	..	0	+	..	0	+
" 3		30	..	..	..	..	0	+	..	0	+
" 4		..	..	..	..	..	0	+	..	+	0
Averages		**31.3**	**29**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**	
Apr. 15	213	15	10	..	..	..	0	0	..	+	..
" 16		64	10	..	..	..	0	0	..	+	..
" 17		10	6	..	..	..	0	0	..	+	..
" 19		26	6	..	..	..	0	+	..	+	+
" 21		29	2	..	..	..	0	0	..	+	0
" 22		38	40	..	..	..	0	+	..	+	0
" 24		18	9	..	..	..	0	0	..	+	0
" 25		18	10	..	..	..	+	0	..	0	0
" 26		14	13	..	..	..	0	0	..	0	0
" 28		27	30	..	..	..	0	0	..	0	+
" 29		9	14	..	..	..	0	0	..	+	+
" 30		120	20	..	..	..	0	0	..	0	+
May 1		44	60	..	..	..	0	+	..	+	+
" 2		55	74	..	..	..	0	+	..	+	0
" 3		..	..	..	..	..	0	0	..	+	+
" 4		33	..	..	..	..	0	0	..	0	0
Averages		**34.6**	**21.7**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**	
Apr. 15	214	56	7	..	..	..	0	0	..	+	..
" 16		8	8	..	..	..	0	0	..	+	..
" 17		4	1	..	..	..	0	0	..	+	..
" 19		19	spreader	..	..	..	0	+	..	0	+
" 21		33	3	..	..	..	0	0	..	0	+
" 22		15	14	..	..	..	+	0	..	+	+
" 24		8	6	..	..	..	0	0	..	0	0
" 25		3	10	..	..	..	0	0	..	0	0
" 26		6	9	..	..	..	0	0	..	0	0
" 28		13	6	..	..	..	0	0	..	0	+
" 29		12	18	..	..	..	0	0	..	+	+
" 30		0	4	..	..	..	0	0	..	0	0
May 1		32	50	..	..	..	0	0	..	+	+
" 2		220	22	..	..	..	0	0	..	0	+
" 3		35	..	..	..	..	0	+	..	0	+
" 4		..	..	..	..	..	+	0	..	0	+
Averages		**32.7**	**12.1**	**3.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**	

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Lake Ontario and the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 15	215	37	10	..	..	..	0	0	..	+	..
" 16		23	3	..	..	..	0	0	..	+	..
" 17		24	13	..	..	..	0	0	..	+	..
" 19		25	10	..	..	..	0	+	..	0	00
" 21		28	4	..	..	..	0	0	..	+	+
" 22		23	13	..	..	..	0	0	..	0	+
" 24		15	4	..	..	..	0	0	..	0	0
" 25		6	5	..	..	..	0	0	..	0	+
" 26		2	7	..	..	..	0	0	..	0	+
" 28		4	3	..	..	..	0	0	..	+	+
" 30		4	spreader	..	..	..	0	0	..	+	+
May 1		19	46	..	..	..	0	0	..	0	+
" 2		250	130	..	..	..	0	0	..	+	0
" 3		..	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
Averages		**35.3**	**20.6**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 15	216	29	11	..	..	..	0	+	..	+	..
" 16		35	20	..	..	..	0	0	..	00	..
" 17		4	10	..	..	..	0	0	..	+	..
" 19		10	spreader	..	..	..	0	0	..	+	00
" 21		56	20	..	..	..	0	0	..	0	0
" 22		20	8	..	..	..	0	0	..	+	+
" 24		6	5	..	..	..	0	0	..	0	0
" 25		9	7	..	..	..	0	0	..	0	0
" 26		6	7	..	..	..	0	0	..	0	+
" 28		5	spreader	..	..	..	0	0	..	0	0
" 30		58	spreader	..	..	..	0	0	..	0	0
May 1		36	36	..	..	..	0	0	..	+	0
" 2		10	20	..	..	..	0	0	..	0	+
" 3		30	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	+
Averages		**22.8**	**14.4**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 15	216a	35	10	..	..	..	0	+	..	+	..
" 16		46	10	..	..	..	0	0	..	+	..
" 17		10	20	..	..	..	0	0	..	+	..
" 19		36	spreader	..	..	..	0	+	..	+	+
" 21		29	15	..	..	..	0	0	..	0	+
" 22		16	9	..	..	..	0	0	..	+	0
" 24		11	5	..	..	..	0	0	..	+	0
" 25		6	90	..	..	..	0	0	..	0	0
" 26		1	spreader	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 28	216a	19	spreader	..	..	..	0	0	..	0	+
" 30		..	20	..	..	..	0	+	..	0	+
May 1		19	160	..	..	..	0	0	..	0	0
" 2		47	12	..	..	..	0	0	..	0	0
" 3		15	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	+
Averages		**22.3**	**35.1**		**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 15	217	11	10	..	..	..	0	0	..	+	..
" 16		7	10	..	..	..	0	0	..	+	..
" 17		8	6	..	..	..	0	0	..	+	..
" 19		11	2	..	..	..	0	+	..	0	00
" 21		11	3	..	..	..	0	0	..	0	0
" 22		11	4	..	..	..	0	0	..	0	0
" 24		5	3	..	..	..	0	0	..	0	0
" 25		7	20	..	..	..	0	0	..	0	+
" 26		5	1	..	..	..	0	0	..	0	0
" 28		5	spreader	..	..	..	0	0	..	0	0
" 30		8	spreader	..	..	..	0	0	..	0	0
May 1		4	140	..	..	..	0	0	..	0	+
" 2		15	16	..	..	..	0	0	..	0	+
" 3		5	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
Averages		**8.07**	**19.5**	**0**	**.9**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 15	218	7	7	..	..	..	0	0	..	00	..
" 16		11	2	..	..	..	0	0	..	00	..
" 17		0	7	..	..	..	0	0	..	+	..
" 19		9	3	..	..	..	0	+	..	0	+
" 21		11	4	..	..	..	0	0	..	+	0
" 22		6	11	..	..	..	0	+	..	0	0
" 24		1	4	..	..	..	0	0	..	0	0
" 25		5	20	..	..	..	0	0	..	0	0
" 26		2	3	..	..	..	0	0	..	0	0
" 28		29	8	..	..	..	0	0	..	0	0
" 30		0	spreader	..	..	..	0	0	..	0	0
May 1		6	110	..	..	..	0	0	..	0	0
" 2		15	spreader	..	..	..	0	0	..	0	0
" 3		10	..	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	0	..	0	0
Averages		**9.**	**16.2**	**0**	**.6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Lake Ontario and the St. Lawrence River.

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Apl. 19	219	22	0	..	..	..	0	+	..	+	..
" 20		10	6	..	..	..	0	0	..	-	+
" 21		0	7	..	..	..	0	0	..	0	0
" 22		102	14	..	..	..	0	-	..	+	-
" 23		62	8	..	..	..	+	+	..	+	+
" 24		56	11	..	..	..	0	+	..	+	-
" 25		65	50	..	..	..	0	0	..	+	+
" 26		83	10	..	..	..	0	+	..	+	+
" 27		52	10	..	..	..	0	0	..	+	-
" 29		28	28	..	..	..	0	0	..	-	+
" 30		8	3	..	..	..	0	+	..	-	+
May 1		43	6	..	..	..	0	+	..	+	+
" 2		36	30	..	..	..	0	+	..	-	+
" 3		20	18	..	..	..	+	+	..	-	+
" 4		..	..	..	..	..	0	+	..	0	0
Averages		**45.1**	**14.3**		**23**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apl. 19	420	28	0	..	..	..	0	-	..	+	..
" 20		11	6	..	..	..	0	+	..	+	+
" 21		0	4	..	..	..	0	0	..	0	0
" 22		78	3	..	..	..	0	+	..	+	+
" 23		50	16	..	..	..	0	+	..	+	+
" 24		48	6	..	..	..	0	+	..	-	+
" 25		75	8	..	..	..	0	0	..	+	0
" 26		3	spreader	..	..	..	0	+	..	-	+
" 27		84	spreader	..	..	..	+	-	..	+	+
" 28		40	spreader	..	..	..	0	0	..	0	0
" 29		32	16	..	..	..	0	0	..	-	+
" 30		21	3	..	..	..	0	0	..	-	+
May 1		50	spreader	..	..	..	0	+	..	+	+
" 2		22	spreader	..	..	..	0	+	..	0	+
" 3		60	20	..	..	..	0	0	..	0	+
" 4		..	..	..	..	..	0	+	..	+	+
Averages		**42**	**8.**		**17**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apl. 19	221	36	7	..	..	..	0	0	..	+	..
" 20		8	4	..	..	..	0	+	..	+	+
" 21		52	6	..	..	..	0	0	..	0	0
" 22		67	11	..	..	..	0	0	..	0	0
" 23		42	8	..	..	..	0	0	..	0	+
" 24		46	10	..	..	..	0	+	..	+	+
" 25		68	12	..	..	..	0	0	..	+	0
" 26		23	spreader	..	..	..	0	+	..	0	+
" 27		106	spreader	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 28	221	41	10	..	..	..	0	+	..	0	+
" 29		48	4	..	..	..	0	0	..	+	+
" 30		42	spreader	..	..	..	0	0	..	+	+
May 1		16	14	..	..	..	0	0	..	0	0
" 2		14	200	..	..	..	0	0	..	+	+
" 3		35	100	..	..	..	0	0	..	+	+
" 4		..	..	..	..	..	0	+	..	+	0
Averages		**42.9**	**32.1**		**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apl. 19	222	24	9	..	..	..	0	+	..	+	..
" 20		9	7	..	..	..	0	0	..	+	+
" 21		47	8	..	..	..	0	0	..	0	0
" 22		24	12	..	..	..	0	0	..	0	+
" 23		26	2	..	..	..	0	0	..	0	+
" 24		32	5	..	..	..	0	+	..	0	+
" 25		35	9	..	..	..	0	0	..	+	0
" 26		41	7	..	..	..	0	+	..	0	+
" 27		48	7	..	..	..	+	+	..	+	+
" 28		22	20	..	..	..	0	0	..	0	+
" 29		40	20	..	..	..	0	0	..	0	0
" 30		22	spreader	..	..	..	0	0	..	0	+
May 1		14	10	..	..	..	0	0	..	+	+
" 2		10	28	..	..	..	0	0	..	0	+
" 3		75	30	..	..	..	0	+	..	+	+
" 4		..	..	..	..	..	0	+	..	+	+
Averages		**31.2**	**13.1**		**10**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apl. 19	223	14	2	..	..	..	+	+	..	+	..
" 20		15	9	..	..	..	0	0	..	0	+
" 21		53	3	..	..	..	0	0	..	0	0
" 22		36	6	..	..	..	0	0	..	+	+
" 23		28	4	..	..	..	0	00	..	00	+
" 24		24	5	..	..	..	0	+	..	+	0
" 25		39	5	..	..	..	0	0	..	+	+
" 26		24	spreader	..	..	..	0	0	..	0	0
" 27		37	4	..	..	..	0	0	..	0	0
" 29		38	6	..	..	..	0	0	..	0	0
" 30		10	4	..	..	..	0	0	..	0	+
May 1		12	10	..	..	..	0	0	..	+	+
" 2		12	700	..	..	..	0	+	..	+	+
" 3		180	300	..	..	..	0	0	..	0	+
" 4		..	..	..	..	..	0	0	..	0	0
Averages		**37.2**	**81.3**	**4**	**.0**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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Apl. 19.....	224	32	0	..	..	..	+	+	..	+	..
" 20.....		22	9	..	..	..	0	+	..	0	0
" 21.....		76	2	..	..	..	0	0	..	0	0
" 22.....		44	8	..	..	..	0	0	..	0	+
" 23.....		6–5	3	..	..	..	00	00	..	00	+
" 24.....		26	8	..	..	..	0	+	..	+	+
" 25.....		17	spreader	..	..	..	0	0	..	0	0
" 26.....		28	10	..	..	..	0	0	..	0	+
" 27.....		26	6	..	..	..	0	0	..	0	0
" 29.....		24	spreader	..	..	..	0	0	..	+	+
" 30.....		8	3	..	..	..	0	0	..	0	+
May 1.....		30	6	..	..	..	0	0	..	0	+
" 2.....		4	540	..	..	..	0	0	..	+	+
" 3.....		40	40	..	..	..	0	0	..	0	0
" 4.....		..	..	..	..	..	0	0	..	0	0
Averages.....		**26**	**45.5**		**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apl. 19.....	225	17	0	..	..	..	0	0	..	+	..
" 20.....		17	7	..	..	..	0	0	..	0	0
" 21.....		45	0	..	..	..	0	0	..	0	0
" 22.....		24	5	..	..	..	0	0	..	0	0
" 23.....		19	10	..	..	..	0	0	..	0	0
" 24.....		32	10	..	..	..	0	0	..	0	0
" 25.....		33	9	..	..	..	0	0	..	0	0
" 26.....		22	8	..	..	..	0	0	..	0	+
" 27.....		18	6	..	..	..	0	0	..	0	+
" 29.....		33	5	..	..	..	0	0	..	+	+
" 30.....		22	spreader	..	..	..	0	0	..	+	0
May 1.....		18	3	..	..	..	0	0	..	+	+
" 2.....		12	27	..	..	..	0	0	..	0	+
" 3.....		spreader	450	..	..	..	0	+	..	+	0
" 4.....		..	..	..	..	..	0	0	..	0	0
Averages.....		**24**	**41.5**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apl. 19.....	226	22	1	..	..	..	0	+	..	+	..
" 20.....		35	5	..	..	..	0	0	..	+	+
" 21.....		35	7	..	..	..	0	0	..	0	0
" 22.....		31	4	..	..	..	0	0	..	0	0
" 23.....		10	5	..	..	..	0	0	..	0	0
" 24.....		11	7	..	..	..	0	+	..	0	0
" 25.....		12	8	..	..	..	0	0	..	0	0
" 26.....		6	5	..	..	..	0	0	..	0	0
" 27.....		24	5	..	..	..	0	0	..	0	0

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Apr. 29.....	226	48	14	..	..	..	0	0	..	0	0
" 30.....		16	spreader	..	..	..	0	0	..	0	+
May 1.....		25	7	..	..	..	0	0	..	0	0
" 2.....		5	300	..	..	..	0	0	..	0	0
" 3.....		75	22	..	..	..	0	0	..	0	0
" 4.....		..	..	..	..	..	0	0	..	0	0
Averages.....		**25.3**	**30**		**.8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apl. 19.....	227	19	0	..	..	..	0	0	..	00	..
" 20.....		15	2	..	..	..	0	0	..	0	0
" 21.....		16	3	..	..	..	0	0	..	0	0
" 22.....		8	8	..	..	..	0	0	..	0	0
" 23.....		9	10	..	..	..	0	0	..	0	0
" 24.....		10	5	..	..	..	0	+	..	0	0
" 25.....		9	7	..	..	..	0	0	..	0	0
" 26.....		12	2	..	..	..	0	0	..	0	0
" 27.....		17	7	..	..	..	0	0	..	0	0
" 29.....		24	spreader	..	..	..	0	0	..	+	0
" 30.....		16	10	..	..	..	0	0	..	0	+
May 1.....		5	3	..	..	..	0	0	..	0	0
" 2.....		8	150	..	..	..	0	0	..	+	0
" 3.....		70	180	..	..	..	0	0	..	0	0
" 4.....		..	..	..	..	..	0	0	..	0	0
Averages.....		**17**	**4.**	**0**	**.5**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 16.....	228	5	0	..	..	..	0	0	..	+	..
" 19.....		10	1	..	..	..	0	0	..	00	..
" 20.....		3	80	..	..	..	0	0	..	0	0
" 21.....		11	6	..	..	..	0	0	..	0	..
" 22.....		8	4	..	..	..	0	0	..	0	0
" 23.....		6	3	..	..	..	0	0	..	0	0
" 24.....		4	7	..	..	..	0	0	..	0	0
" 25.....		9	12	..	..	..	0	0	..	0	0
" 26.....		13	8	..	..	..	0	+	..	0	0
" 27.....		2	100	..	..	..	0	0	..	0	0
" 29.....		6	4	..	..	..	0	0	..	0	0
" 30.....		5	spreader	..	..	..	0	0	..	0	0
May 1.....		4	28	..	..	..	0	0	..	+	0
" 2.....		25	14	..	..	..	0	0	..	0	+
" 3.....		150	10	..	..	..	0	0	..	0	0
" 4.....		..	..	..	..	..	0	0	..	0	0
Averages.....		**17.4**	**18.7**	**0**	**.5**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Apr. 16.....	229	15	2	..	..	..	0	0	..	+	..
" 20.....		5	3	..	..	..	0	0	..	+	0
" 21.....		11	2	..	..	..	0	0	..	0	..
" 24.....		4	4	..	..	..	0	0	..	+	+
" 25.....		74	6	..	..	..	0	0	..	0	0
" 26.....		9	90	..	..	..	0	0	..	0	0
" 27.....		2	40	..	..	..	0	0	..	0	0
" 29.....		14	2	..	..	..	0	0	..	+	+
" 30.....		6	1	..	..	..	0	0	..	0	0
May 1.....		3	*200	..	..	..	0	0	..	0	0
" 2.....		7	70	..	..	..	0	0	..	+	0
" 3.....		110	40	..	..	..	0	+	..	0	0
" 4.....		..	..	..	..	..	0	0	..	0	0
Averages.....		**21.6**	**23.6**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 16.....	230	5	2	..	..	..	0	0	..	00	..
" 19.....		8	1	..	..	..	0	0	..	00	..
" 20.....		8	6	..	..	..	0	0	..	+	+
" 21.....		12	0	..	..	..	0	0	..	0	..
" 23.....		4	9	..	..	..	0	0	..	+	..
" 24.....		4	5	..	..	..	0	0	..	+	+
" 25.....		22	10	..	..	..	0	0	..	0	+
" 26.....		6	4	..	..	..	+	+	..	+	+
" 27.....		11	20	..	..	..	0	+	..	+	+
" 29.....		14	10	..	..	..	0	+	..	+	+
" 30.....		10	120	..	..	..	0	0	..	+	+
May 1.....		2	40	..	..	..	0	+	..	+	+
" 2.....		12	10	..	..	..	0	0	..	+	+
" 3.....		26	0	..	..	..	0	0	..	+	0
" 4.....		..	..	..	..	..	0	+	..	0	0
Averages.....		**10.2**	**52.8**		**11**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 15.....	231	15	10	..	..	..	0	0	..	00	..
" 16.....		59	20	..	..	..	+	+	..	+	..
" 17.....		66	18	..	..	..	+	+	..	+	..
" 19.....		50	5	..	..	..	+	0	..	+	+
" 21.....		18	5	..	..	..	..	0	..	00	..
" 22.....		30	10	..	..	..	0	0	..	+	+
" 24.....		43	6	..	..	..	+	+	..	+	+
" 25.....		6	35	..	..	..	0	0	..	+	+
" 26.....		30	20	..	..	..	0	+	..	+	+
" 28.....		37	6	..	..	..	0	0	..	+	+
" 29.....		24	9	..	..	..	0	+	..	+	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 30.....	231	32	spreader	..	..	..	0	+	..	+	+
May 1.....		8	66	..	..	..	+	+	..	+	+
" 2.....		33	500	..	..	..	0	+	..	+	+
" 3.....		20	..	..	..	..	+	0	..	+	+
" 4.....		..	..	..	..	..	+	+	..	+	+
Averages.....		**31.4**	**54.6**	**3**	**9.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 15.....	232	48	9	..	..	..	0	0	..	+	..
" 16.....		38	10	..	..	..	0	0	..	+	..
" 17.....		71	1	..	..	..	0	+	..	+	..
" 19.....		45	5	..	..	..	0	0	..	0	+
" 21.....		9	5	..	..	..	0	0	..	00	..
" 22.....		19	11	..	..	..	0	0	..	0	+
" 24.....		34	7	..	..	..	+	+	..	+	+
" 25.....		52	15	..	..	..	+	+	..	+	+
" 26.....		12	10	..	..	..	0	0	..	+	0
" 28.....		30	5	..	..	..	0	0	..	+	+
" 29.....		18	4	..	..	..	+	+	..	+	+
" 30.....		36	sqreader	..	..	..	+	+	..	+	+
May 1.....		24	44	..	..	..	+	+	..	+	+
" 2.....		40	28	..	..	..	0	+	..	+	+
" 3.....		44	..	..	..	..	0	+	..	+	+
" 4.....		..	..	..	..	..	0	0	..	0	+
Averages.....		**34.6**	**11.8**	**3**	**4.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 15.....	233	13	20	..	..	..	0	0	..	00	..
" 16.....		40	8	..	..	..	0	0	..	00	..
" 17.....		12	18	..	..	..	0	0	..	+	..
" 18.....		11	3	..	..	..	0	0	..	+	+
" 21.....		4	9	..	..	..	0	0	..	+	..
" 22.....		6	6	..	..	..	0	0	..	0	0
" 24.....		26	6	..	..	..	0	+	..	+	+
" 25.....		36	10	..	..	..	0	0	..	0	+
" 26.....		22	10	..	..	..	0	0	..	0	0
" 28.....		21	spreader	..	..	..	0	0	..	0	0
" 29.....		14	5	..	..	..	0	0	..	+	+
" 30.....		16	spreader	..	..	..	0	0	..	+	+
May 1.....		0	28	..	..	..	0	+	..	+	+
" 2.....		45	200	..	..	..	+	+	..	+	+
" 3.....		85	..	..	..	..	0	0	..	0	+
" 4.....		..	..	..	..	..	0	+	..	+	+
Averages.....		**25.07**	**26.9**	**1**	**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 15	234	13	3	..	..	..	0	0	..	00	..
" 16		37	9	..	..	..	0	0	..	00	..
" 17		28	9	..	..	..	0	0	..	00	..
" 19		41	4	..	..	..	0	0	..	00	..
" 21		12	2	..	..	..	0	0	..	+	..
" 22		14	8	..	..	..	0	0	..	0	..
" 24		30	8	..	..	..	0	0	..	+	+
" 25		7	51	..	..	..	0	0	..	0	0
" 26		4	spreader	..	..	..	0	0	..	0	0
" 28		2	6	..	..	..	0	0	..	0	0
" 29		44	18	..	..	..	0	+	..	0	0
" 30		18	100	..	..	..	0	0	..	0	+
May 1		14	240	..	..	..	0	0	..	0	+
" 2		14	460	..	..	..	0	+	..	+	+
" 3		..	..	..	..	..	+	+	..	+	+
" 4		..	..	..	..	..	0	+	..	+	+
Averages		**19.8**	**70.6**		**9.**	**8.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 16	235	20	4	..	..	..	0	0	..	+	..
" 19		27	2	..	..	..	0	0	..	+	..
" 20		16	2	..	..	..	0	0	..	0	+
" 21		20	0	..	..	..	0	0	..	0	0
" 23		8	20	..	..	..	0	0	..	0	0
" 24		12	6	..	..	..	0	0	..	0	0
" 25		35	0	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 26	235	7	8	..	..	..	0	0	..	0	+
" 27		28	5	..	..	..	0	+	..	0	+
" 30		10	100	..	..	..	0	0	..	+	+
May 1		7	60	..	..	..	0	0	..	0	+
" 2		20	100	..	..	..	0	0	..	0	+
" 3		33	spreader	..	..	..	0	+	..	0	0
" 4		..	..	..	..	..	+	0	..	0	0
Averages		**18.6**	**25.5**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 16	236	4	0	..	..	..	0	0	..	00	..
" 20		8	28	..	..	..	0	0	..	+	0
" 21		21	2	..	..	..	0	0	..	0	..
" 23		13	7	..	..	..	0	0	..	0	0
" 24		4	14	..	..	..	0	0	..	0	0
" 25		13	46	..	..	..	0	0	..	0	0
" 26		19	25	..	..	..	0	0	..	0	0
" 27		21	9	..	..	..	0	0	..	0	+
" 30		8	20	..	..	..	0	0	..	0	0
May 1		16	120	..	..	..	0	0	..	0	0
" 2		19	28	..	..	..	0	+	..	0	0
" 3		35	0	..	..	..	0	0	..	0	0
" 4		..	..	..	..	..	0	+	..	0	0
Averages		**15.08**	**24.8**	**0**	**.6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Kingston Tap Water.*

DATE 1913	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 24...	9.00	..	13	3	..	..	..	0	0	..	0	0
" 24...	9.00	..	16	spreader	..	..	..	0	0	..	+	0
" 24...	10.00	..	12	2	..	..	..	0	0	..	0	0
" 24...	10.00	..	9	3	..	..	..	0	0	..	0	0
" 24...	11.00	..	11	spreader	..	..	..	0	0	..	0	0
" 24...	11.00	..	10	spreader	..	..	..	0	0	..	0	0
" 24...	..	2.00	10	2	..	..	..	0	0	..	+	0
" 24...	..	2.00	6	1	..	..	..	0	0	..	+	0
" 24...	..	3.00	5	spreader	..	..	..	0	0	..	0	0
" 24...	..	3.00	8	spreader	..	..	..	0	0	..	0	0
" 25...	9.00	..	..	86	..	..	..	0	0	..	0	0
" 25...	9.00	..	43	33	..	..	..	0	0	..	0	0
" 25...	10.00	..	17	8	..	..	..	0	0	..	0	0
" 25...	10.00	..	30	10	..	..	..	0	0	..	0	0
" 25...	11.00	..	16	2	..	..	..	0	0	..	+	+
" 25...	11.00	..	14	2	..	..	..	0	0	..	+	+
" 25...	..	2.00	21	4	..	..	..	0	0	..	0	+
" 25...	..	2.00	22	4	..	..	..	0	0	..	0	+
" 25...	..	3.00	28	6	..	..	..	0	0	..	0	0
" 25...	..	3.00	..	6	..	..	..	0	0	..	0	0
" 26...	9.00	..	36	spreader	..	..	..	+	..	..	0	0
" 26...	10.00	..	7	spreader	..	..	..	0	0	..	0	0
" 26...	11.00	..	18	spreader	..	..	..	0	0	..	0	0
" 26...	12.00	..	21	6	..	..	..	0	+	..	0	+
" 26...	..	2.00	9	spreader	..	..	..	0	0	..	0	0
" 26...	..	3.00	5	spreader	..	..	..	0	0	..	+	+
" 28...	9.00	..	29	20	..	..	..	+	0	..	+	..
" 28...	10.00	..	15	16	..	..	..	+	0	..	+	+
" 28...	11.00	..	23	14	..	..	..	0	0	..	0	+
" 28...	12.00	..	22	spreader	..	..	..	0	0	..	0	+
" 28...	..	2.00	9	12	..	..	..	0	0	..	0	0
" 28...	..	3.00	6	12	..	..	..	0	0	..	+	+
" 29...	9.00	..	44	3	..	..	..	0	0	..	0	+
" 29...	10.00	..	30	5	..	..	..	0	+	..	0	+
" 29...	11.00	..	18	4	..	..	..	0	0	..	0	+
" 29...	..	2.00	14	14	..	..	..	0	0	..	0	0
" 29...	..	4.00	26	6	..	..	..	0	0	..	0	0
" 30...	9.00	..	26	spreader	..	..	..	0	0	..	0	0
" 30...	10.00	..	28	spreader	..	..	..	0	0	..	0	+
" 30...	..	4.00	20	spreader	..	..	..	0	0	..	0	0
May 1...	9.00	..	58	spreader	..	..	..	0	0	..	0	+
May 1...	10.00	..	44	spreader	..	..	..	0	0	..	0	0
" 1...	..	2.00	23	11	..	..	..	+	+	..	+	+
" 1...	..	3.00	35	15	..	..	..	0	0	..	+	0
" 1...	..	4.00	28	7	..	..	..	0	0	..	+	0
" 2...	9.00	..	45	10	..	..	..	0	0	..	0	0
" 2...	10.00	..	45	spreader	..	..	..	0	0	..	0	0
" 2...	11.00	..	28	15	..	..	..	0	0	..	0	0
" 2...	12.00	..	100	spreader	..	..	..	0	0	..	0	0
" 2...	..	3.00	30	25	..	..	..	0	0	..	0	0
" 3...	9.00	..	19	15	..	..	..	0	0	..	0	0
" 3...	10.00	..	20	55	..	..	..	0	0	..	0	0
" 3...	11.00	..	17	spreader	..	..	..	0	0	..	0	0
" 3...	..	3.00	100	spreader	..	..	..	0	0	..	0	+
" 5...	9.00	..	18	4	..	..	..	0	0	..	0	0
" 5...	10.00	..	3	4	..	..	..	0	0	..	0	0
" 5...	..	4.00	5	1	..	..	..	0	0	..	0	0
" 6...	9.00	..	45	160	..	..	..	0	+	..	+	+
" 6...	10.00	..	spreader	13	..	..	..	0	+	..	+	+
" 6...	11.00	..	5	6	..	..	..	0	0	..	0	+
" 6...	..	2.00	8	4	..	..	..	0	0	..	0	0
" 7...	9.00	..	30	spreader	..	..	..	0	0	..	0	0
" 7...	10.00	..	7	spreader	..	..	..	0	0	..	0	0
" 7...	11.00	..	20	spreader	..	..	..	0	0	..	0	0
" 7...	..	4.00	6	spreader	..	..	..	0	+	..	0	+
" 8...	9.00	..	7	spreader	..	..	..	0	0	..	0	0
" 8...	11.00	..	16	spreader	..	..	..	0	0	..	+	+
" 8...	..	2.00	21	spreader	..	..	..	0	+	..	+	+
" 8...	..	3.00	10	7	..	..	..	0	0	..	+	+
" 9...	9.00	..	18	spreader	..	..	..	0	0	..	0	0
" 9...	11.00	..	9	spreader	..	..	..	+	0	..	0	0
" 9...	..	2.00	58	19	..	..	..	+	+	..	+	+
" 10...	11.00	..	32	17	..	..	..	0	0	..	0	0
" 10...	12.00	..	28	spreader	..	..	..	0	0	..	0	0
" 12...	12.00	..	spreader	spreader	..	..	..	0	0	..	0	0
" 13...	9.00	..	16	40	..	..	..	0	0	..	0	+
" 13...	10.00	..	14	4	..	..	..	+	0	..	+	+
" 13...	11.00	..	10	spreader	..	..	..	0	0	..	+	+
" 14...	10.00	..	6	2	..	..	..	0	0	..	0	0
" 16...	10.00	..	42	8	..	..	..	0	0	..	0	+
" 16...	11.00	..	14	6	..	..	..	0	0	..	0	0
" 17...	..	4.00	4	7	..	..	..	0	0	..	0	0

* This water is treated with hypo-chlorite.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Kingston Harbour.

DATE 1913	Sampling Point No.	Hour collected. Plated immediately. A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 13...	1	11.30	..	150	spreader	..	..	..	+	+	..	+	+
" 13...	2	11.30	..	173	spreader	..	..	..	+	+	..	+	+
" 13...	3	11.30	..	64	spreader	..	..	..	0	+	..	0	+
" 13...	4	11.30	..	69	spreader	..	..	..	0	0	..	0	+
" 13...	5	11.30	..	67	2	..	..	..	0	0	..	0	+
" 13...	6	11.30	..	25	spreader	..	..	..	0	0	..	0	+
" 13...	7	11.30	..	19	0	..	..	..	0	0	..	0	+
" 13...	8	11.30	..	18	spreader	..	..	..	0	0	..	0	+
" 13...	9	11.30	..	41	spreader	..	..	..	+	0	..	+	+
" 13...	10	11.30	..	59	spreader	..	..	..	0	0	..	0	+
" 13...	11	12.30	..	spreader	spreader	..	..	..	0	0	..	0	+
" 13...	12	12.30	..	spreader	8	..	..	..	0	0	..	0	00
" 13...	13	12.30	..	14	spreader	..	..	..	0	0	..	0	+
" 13...	14	12.30	..	63	spreader	..	..	..	0	0	..	0	+
" 13...	15	12.30	..	25	4	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Hour collected. Plated immediately A.M.	P.M.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 13...	16	12.30	..	8	0	..	..	..	0	0	..	0	00
" 13...	17	12.30	..	11	spreader	..	..	..	0	0	..	0	00
" 13...	18	12.30	..	9	2	..	..	..	0	0	..	0	00
" 13...	19	12.30	..	45	4	..	..	..	0	0	..	0	+
" 13...	20	12.30	..	12	spreader	..	..	..	0	0	..	0	00
" 13...	21	..	3.30	31	0	..	..	..	0	0	..	0	00
" 13...	22	..	3.30	47	spreader	..	..	..	0	0	..	+	+
" 13...	23	..	3.30	103	spreader	..	..	..	0	+	..	+	+
" 13...	24	..	3.30	130	4	..	..	..	+	+	..	+	+
" 13...	25	..	3.30	129	spreader	..	..	..	+	+	..	+	+
" 13...	26	..	3.30	40	1	..	..	..	0	0	..	0	+
" 13...	27	..	3.30	37	4	..	..	..	0	0	..	0	+
" 13...	28	..	3.30	32	spreader	..	..	..	0	0	..	0	+
" 13...	29	..	3.30	45	9	..	..	..	0	0	..	0	+
" 13...	30	..	3.30	23	spreader	..	..	..	0	0	..	0	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters oi Kingston and Cape Vincent Harbours.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 13.....	31	9	4	..	..	..	0	0	..	0	00
" 13.....	32	24	5	..	..	..	0	0	..	0	+
" 13.....	33	24	spreader	..	..	..	0	0	..	0	+
" 13.....	34	28	3	..	..	..	0	0	..	0	+
" 13.....	35	20	3	..	..	..	0	0	..	0	+
" 13.....	36	30	0	..	..	..	0	0	..	+	00
" 13.....	37	45	2	..	..	..	0	0	..	0	00
" 13.....	38	38	1	..	..	..	0	0	..	0	00
" 13.....	39	36	spreader	..	..	..	0	0	..	0	00
" 13.....	40	24	1	..	..	..	0	0	..	0	+
" 13.....	41	30	3	..	..	..	0	0	..	0	00
" 13.....	42	27	2	..	..	..	0	0	..	0	00
" 13.....	43	44	spreader	..	..	..	+	0	..	0	+
" 13.....	44	40	spreader	..	..	..	0	0	..	0	00
" 13.....	45	17	2	..	..	..	0	0	..	0	00
" 13.....	46	22	3	..	..	..	0	0	..	0	+
" 13.....	47	30	4	..	..	..	0	0	..	0	00
" 13.....	48	49	6	..	..	..	0	0	..	0	00
" 15.....	51	35	13	..	..	..	0	+	..	+	+
" 15.....	52	182	100	..	..	..	+	+	..	+	+
" 15.....	53	300	40	..	..	..	+	+	..	+	+
" 18.....	66	340	220	..	+	0	+	+	..	..	..
" 18.....	67	250	20	..	0	+	+	+	..	..	..
" 18.....	68	1560	100	..	0	+	+	+	..	..	..
" 18.....	69	1540	60	..	+	+	+	+	..	..	..
" 18.....	70	280	50	..	0	+	+	+	..	..	..
" 18.....	71	390	40	..	0	+	+	+	..	..	..
" 18.....	72	210	60	..	+	+	+	+	..	..	..
" 18.....	73	10	0	..	0	0	+	+	..	..	..
" 18.....	74	60	10	..	0	0	0	+	..	..	..
" 18.....	75	64	spreader	..	..	0	0	0	..	+	+
" 18.....	76	77	0	..	..	0	+	0	..	+	+
" 18.....	77	40	30	..	0	0	0	+	..	..	..
" 18.....	78	70	160	..	0	+	0	+	..	..	..
" 18.....	79	50	0	..	0	+	+	+	..	..	..
" 18.....	80	150	20	..	0	+	0	+	..	..	..
" 18.....	81	80	30	..	0	0	+	+	..	..	..
" 18.....	82	150	spreader	..	0	0	+	+	..	..	..
" 18.....	83	330	30	..	0	+	+	+	..	..	..
" 18.....	84	94	0	..	..	0	0	0	..	0	00
" 18.....	85	90	spreader	..	..	0	0	0	..	0	+
" 18.....	86	108	20	..	..	0	0	0	..	+	+
" 18.....	87	60	spreader	..	0	0	+	+	..	..	..
" 18.....	88	340	40	..	0	+	+	+	..	..	..
" 18.....	89	1240	110	..	0	+	+	+	..	..	..
" 18.....	90	1060	90	..	+	+	+	+	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Apr. 19.....	91	15	4	..	..	..	0	+	..	+	+
" 19.....	92	17	0	..	..	..	0	0	..	+	00
" 29.....	115	380	spreader	..	..	+	+	+	..	+	+
" 29.....	116	87	11	..	..	0	0	+	..	+	+
" 29.....	117	100	160	..	..	0	0	+	..	+	+
" 29.....	118	26	12	..	..	0	0	0	..	0	+
" 29.....	119	29	12	..	..	0	0	0	..	0	0
" 29.....	120	32	10	..	..	0	0	0	..	0	+
" 29.....	121	28	8	..	..	0	0	0	..	0	0
" 29.....	122	35	7	..	..	0	0	0	..	0	0
" 29.....	125	105	11	..	..	0	0	+	..	+	+
" 29.....	126	22	spreader	..	..	0	0	0	..	0	0
" 29.....	127	340	40	..	..	..	+	+	..	+	+
" 29.....	128	285	33	..	..	..	+	+	..	+	+
" 29.....	129	140	23	..	..	..	+	+	..	+	+
" 29.....	130	140	21	..	..	..	+	+	..	+	+
" 29.....	131	67	10	..	..	..	0	+	..	+	+
" 29.....	132	38	11	..	..	..	0	+	..	+	+
" 29.....	133	90	14	..	..	..	+	+	..	+	+
" 29.....	134	50	12	..	..	..	0	+	..	+	+
" 29.....	135	70	12	..	..	..	0	+	..	+	+
" 29.....	136	60	6	..	..	..	0	0	..	+	+
" 29.....	137	78	23	..	..	..	0	0	..	+	0
" 29.....	138	70	14	..	..	..	0	+	..	+	+
" 29.....	139	62	5	..	..	..	0	+	..	+	+
" 29.....	140	50	5	..	..	..	0	0	..	0	+
" 29.....	141	76	17	..	..	..	0	0	..	0	+
" 29.....	142	11	4	..	..	..	0	0	..	0	0
" 29.....	143	15	spreader	..	..	..	0	0	..	0	0
" 29.....	144	24	15	..	..	..	0	0	..	0	0
" 29.....	145	6	8	..	..	..	0	0	..	0	0
May 3.....	150	..	..	..	..	..	0	+	..	0	0
Cape Vincent											
May 5.....	152	7	50	..	..	..	0	0	..	0	0
" 5.....	153	4	..	..	..	..	0	0	..	0	0
" 5.....	154	3	10	..	..	..	0	0	..	+	0
" 5.....	155	5	spreader	..	..	..	0	0	..	0	0
" 5.....	156	30	spreader	..	..	..	0	0	..	+	0
" 5.....	157	7	spreader	..	..	..	0	0	..	0	0
" 5.....	158	4	spreader	..	..	..	0	0	..	0	0
" 5.....	159	14	spreader	..	..	..	0	0	..	0	+
" 5.....	160	2	8	..	..	..	0	0	..	0	+
" 5.....	161	12	4	..	..	..	0	0	..	0	+
" 5.....	162	10	4	..	..	..	0	0	..	0	+
" 5.....	163	6	6	..	..	..	0	0	..	0	+
" 5.....	164	4	29	..	..	..	0	0	..	0	+
" 5.....	165	..	spreader	..	..	..	0	0	..	0	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Cape Vincent Harbour.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 5.....	166	11	spreader	..	..	..	0	+	..	0	+
" 5.....	167	4	3	..	..	..	0	0	..	0	+
" 5.....	168	6	3	..	..	..	0	0	..	0	0
" 5.....	169	6	2	..	..	..	0	0	..	0	0
" 5.....	170	3	2	..	..	..	0	+	..	0	0
" 5.....	171	10	1	..	..	..	0	+	..	0	0
" 5.....	172	40	4	..	..	..	0	+	..	0	0
" 5.....	173	3	8	..	..	..	0	0	..	0	0
" 5.....	174	14	40	..	..	..	0	+	..	0	0
" 5.....	175	11	0	..	..	..	0	+	..	0	+
" 5.....	176	5	5	..	..	..	0	+	..	0	+
" 5.....	177	5	1	..	..	..	0	0	..	0	+
" 5.....	178	5	5	..	..	..	0	+	..	0	+
" 5.....	179	8	2	..	..	..	0	+	..	0	+
" 5.....	180	6	2	..	..	..	0	0	..	0	0
" 5.....	181	5	0	..	..	..	0	0	..	0	0
" 5.....	182	3	1	..	..	..	0	0	..	0	0
" 6.....	183	5	0	..	..	..	0	0	..	0	0
" 6.....	184	5	3	..	..	..	0	0	..	0	0
" 6.....	185	11	1	..	..	..	0	0	..	0	+
" 6.....	186	35	4	..	..	..	0	+	..	+	+
" 6.....	187	20	5	..	..	..	0	0	..	+	0
" 6.....	188	20	spreader	..	..	..	0	0	..	+	+
" 6.....	189	spreader	11	..	..	..	0	0	..	0	0
" 6.....	190	spreader	110	..	..	..	0	+	..	0	+
" 6.....	191	16	50	..	..	..	0	0	..	+	+
" 6.....	192	2	spreader	..	..	..	0	0	..	0	0
" 6.....	193	35	80	..	..	..	0	0	..	+	+
" 6.....	194	2	..	..	..	..	0	0	..	0	0
" 7.....		19	spreader	..	..	..	0	0	..	+	0
" 8.....		35	spreader	..	..	..	0	0	..	0	0
" 9.....		0	..	..	..	..	0	0	..	+	0
" 10.....		..	0	..	..	..	0	0	..	0	0
" 14.....		1	10	..	..	..	0	0	..	0	0
" 15.....		3	2	..	..	..	0	0	..	0	0
" 17.....		2	4	..	..	..	0	0	..	0	0
Averages..... Point 194 only.		**8.8**	**4.**	**0.**	**5B**	**.C**	**oli**	**pe**	**r 1**	**00**	**cc**
Village of Cape Vincent Tap Water											
Apr. 30.....		24	40	..	..	..	0	0	..	+	+
May 1.....		42	150	..	..	..	..	..	..	..	..
" 2.....		2	..	..	..	..	0	0	..	0	0
" 3.....		..	..	..	..	..	0	0	..	0	0
" 4.....		..	..	..	..	..	0	0	..	0	0
" 5.....		..	..	..	..	..	0	0	..	0	0
" 6.....		1	..	..	..	..	0	0	..	0	0

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 7.....		60	spreader	..	..	..	0	0	..	0	0
" 8.....		33	48	..	..	..	0	0	..	0	+
" 9.....		5	spreader	..	..	..	0	0	..	0	+
" 10.....		..	2	..	..	..	0	0	..	0	0
" 14.....		10	1	..	..	..	0	0	..	+	0
" 15.....		10	3	..	..	..	0	0	..	0	+
" 17.....		2	7	..	..	..	0	0	..	0	0
Cape Vincent Harbour Water											
" 8.....	301	0	8	..	..	..	0	0	..	0	0
" 8.....	302	12	2	..	..	..	0	0	..	0	0
" 8.....	303	0	5	..	..	..	0	0	..	0	0
" 8.....	304	1	6	..	..	..	0	0	..	0	0
" 8.....	305	6	15	..	..	..	..	..	..	0	0
" 8.....	306	6	10	..	..	..	..	..	..	0	0
" 8.....	307	4	75	..	..	..	..	..	..	0	0
" 8.....	308	9	16	..	..	..	..	..	..	0	0
" 8.....	309	190	spreader	..	..	..	0	0	..	0	0
" 8.....	310	57	spreader	..	..	..	+	+	..	+	+
" 8.....	311	25	50	..	..	..	0	0	..	0	+
" 8.....	312	31	190	..	..	..	0	0	..	0	+
" 8.....	313	185	17	..	..	..	+	+	..	0	+
" 8.....	314	33	70	..	..	..	0	0	..	0	0
" 8.....	321	2	3	..	..	..	+	+	..	+	+
" 8.....	322	15	2	..	..	..	0	0	..	0	+
" 8.....	323	15	4	..	..	..	0	0	..	0	+
" 8.....	328	165	12	..	..	..	+	+	..	+	+
" 9.....	333	3	150	..	..	..	+	+	..	+	+
" 9.....	334	1	3	..	..	..	0	0	..	0	0
" 9.....	335	3	spreader	..	..	..	0	0	..	0	0
" 9.....	336	0	spreader	..	..	..	0	0	..	0	0
" 9.....	337	0	spreader	..	..	..	0	0	..	+	0
" 9.....	338	0	spreader	..	..	..	0	0	..	0	0
" 9.....	339	0	29	..	..	..	0	0	..	0	0
" 9.....	340	0	3	..	..	..	0	0	..	0	+
" 9.....	341	1	1	..	..	..	0	0	..	0	0
" 9.....	342	600	7	..	..	..	0	0	..	+	0
" 9.....	343	1	7	..	..	..	0	+	..	+	+
" 9.....	344	12	2	..	..	..	0	0	..	+	+
" 9.....	345	0	20	..	..	..	0	0	..	0	+
" 9.....	346	0	spreader	..	..	..	0	0	..	0	0
" 9.....	347	0	spreader	..	..	..	0	0	..	0	0
" 9.....	348	0	22	..	..	..	0	0	..	0	0
" 9.....	349	0	19	..	..	..	0	0	..	0	0
" 9.....	350	1	0	..	..	..	0	0	..	0	0
" 9.....	351	2	10	..	..	..	0	0	..	0	0
" 9.....	352	0	spreader	..	..	..	0	0	..	0	0
" 9.....	353	0	6	..	..	..	0	0	..	0	0
" 9.....	354	1	spreader	..	..	..	0	0	..	0	0

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Kingston Harbour.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Kingston Harbour Water											
May 11.....	355	260	spreader	..	..	0	+	+	..	+	+
" 11.....	356	250	48	..	..	+	+	+	..	+	+
" 11.....	357	340	64	..	..	0	+	+	..	+	+
" 11.....	358	240	50	..	..	+	+	+	..	+	+
" 11.....	359	220	54	..	..	+	+	+	..	+	+
" 11.....	360	200	46	..	..	+	+	+	..	+	+
" 11.....	361	185	58	..	..	0	+	+	..	+	+
" 11.....	362	400	140	..	..	+	+	+	..	+	+
" 11.....	363	360	50	..	..	+	+	+	..	+	+
" 11.....	364	42	11	..	..	0	+	+	..	+	+
" 11.....	365	80	42	..	..	+	+	+	..	+	+
" 11.....	366	84	64	..	..	0	+	+	..	+	+
" 11.....	367	76	34	..	..	+	+	+	..	+	+
" 11.....	368	88	46	..	..	+	+	+	..	+	+
" 11.....	369	70	34	..	..	..	+	+	..	+	+
" 11.....	370	54	100	..	..	..	+	+	..	+	+
" 11.....	371	18	60	..	..	..	+	+	..	+	+
" 11.....	372	105	100	..	..	..	+	+	..	+	+
" 11.....	373	24	24	..	..	..	+	+	..	+	+
" 11.....	374	12	18	..	..	..	0	+	..	+	+
" 11.....	375	24	100	..	..	..	+	+	..	+	+
" 11.....	376	8	220	..	..	..	0	+	..	+	+
" 11.....	377	12	18	..	..	..	0	+	..	+	+
" 11.....	378	10	20	..	..	..	0	0	..	+	0
" 11.....	379	14	16	..	..	..	0	0	..	+	+
" 11.....	380	12	90	..	..	..	0	+	..	+	+
" 11.....	381	16	40	..	..	..	0	+	..	+	+
" 11.....	382	16	40	..	..	..	+	+	..	+	+
" 11.....	383	12	22	..	..	..	0	+	..	+	+
" 11.....	384	12	22	..	..	..	+	+	..	+	+
" 11.....	385	14	18	..	..	..	0	+	..	+	+
" 11.....	386	16	14	..	..	..	0	+	..	+	+
" 11.....	387	12	14	..	..	..	0	0	..	0	0
" 12.....	388	24	spreader	..	..	..	0	0	..	+	+
" 12.....	389	30	300	..	..	..	0	0	..	+	+
" 12.....	390	28	220	..	..	..	+	+	..	+	+
" 12.....	391	38	34	..	..	..	+	+	..	+	+
" 12.....	392	42	120	..	..	..	+	+	..	+	+
" 12.....	393	28	spreader	..	..	..	+	+	..	+	+
" 12.....	394	spreader	spreader	..	..	..	0	+	..	+	+
" 12.....	395	30	spreader	..	..	..	0	0	..	0	+
" 12.....	396	24	30	..	..	..	0	0	..	0	0
" 12.....	397	26	26	..	..	..	0	0	..	0	+
" 12.....	398	14	46	..	..	..	0	+	..	0	+
" 12.....	399	24	10	..	..	..	+	+	..	0	+
" 12.....	400	24	26	..	..	..	0	+	..	0	+
" 12.....	401	14	16	..	..	..	+	+	..	0	+
" 12.....	402	32	14	..	..	..	0	+	..	0	+
May 12.....	403	spreader	spreader	..	..	..	0	+	..	0	+
" 12.....	404	spreader	20	..	..	..	+	+	..	0	+
" 12.....	405	26	14	..	..	..	+	+	..	0	+
" 12.....	406	26	14	..	..	..	0	+	..	0	+
" 12.....	407	20	10	..	..	..	0	0	..	0	+
" 12.....	408	spreader	16	..	..	..	0	0	..	0	0
" 12.....	409	spreader	14	..	..	..	0	0	..	0	0
" 12.....	410	spreader	14	..	..	..	0	0	..	0	0
" 12.....	411	36	28	..	..	..	0	0	..	0	0
" 12.....	412	spreader	30	..	..	..	0	+	..	0	+
" 12.....	413	spreader	16	..	..	..	0	+	..	0	0
" 12.....	414	spreader	26	..	..	..	0	0	..	0	+
" 12.....	415	26	spreader	..	..	..	0	0	..	0	0
" 12.....	416	24	16	..	..	..	0	0	..	0	0
" 12.....	417	spreader	34	..	..	..	0	0	..	0	+
" 12.....	418	14	3	..	..	..	0	0	..	0	0
" 12.....	419	26	4	..	..	..	+	0	..	+	0
" 12.....	420	42	34	..	..	..	+	+	..	+	0
" 12.....	421	36	20	..	..	..	+	+	..	+	+
" 12.....	422	16	16	..	..	..	+	+	..	0	+
" 12.....	423	8	10	..	..	..	+	+	..	+	0
" 12.....	424	36	14	..	..	..	+	+	..	+	+
" 12.....	425	16	spreader	..	..	..	0	+	..	0	0
" 12.....	426	14	30	..	..	..	0	0	..	0	0
" 12.....	427	8	20	..	..	..	0	0	..	0	+
" 12.....	428	10	spreader	..	..	..	0	+	..	0	0
" 12.....	429	12	10	..	..	..	0	0	..	0	+
" 12.....	430	6	6	..	..	..	0	0	..	0	0
" 12.....	431	4	10	..	..	..	+	+	..	0	0
" 12.....	432	4	8	..	..	..	0	0	..	0	0
" 12.....	433	8	10	..	..	..	0	0	..	0	0
" 12.....	434	8	8	..	..	..	0	0	..	0	0
" 12.....	435	6	12	..	..	..	0	0	..	0	0
" 12.....	436	24	16	..	..	..	0	+	..	+	0
" 12.....	437	18	10	..	..	..	0	0	..	+	0
" 12.....	438	16	8	..	..	..	0	+	..	+	0
" 12.....	439	6	8	..	..	..	0	+	..	+	+
" 12.....	440	14	10	..	..	..	0	+	..	+	+
" 12.....	441	18	20	..	..	..	+	+	..	+	+
" 12.....	442	12	16	..	..	..	+	+	..	+	+
" 12.....	443	12	8	..	..	..	+	+	..	+	+
" 12.....	444	26	20	..	..	..	0	+	..	+	+
" 12.....	445	12	24	..	..	..	0	+	..	+	+
" 12.....	446	18	12	..	..	..	+	+	..	+	+
" 12.....	447	16	14	..	..	..	+	+	..	+	+
" 12.....	448	10	6	..	..	..	+	0	..	+	+
" 12.....	449	14	16	..	..	..	0	0	..	+	+
" 12.....	450	12	20	..	..	..	0	0	..	+	+
" 12.....	451	7	3	..	..	..	0	0	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Clayton and Cape Vincent Harbours.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Clayton											
May 13.....	452	4	23	..	..	..	0	0	..	+	+
" 13.....	453	8	0	..	..	..	0	0	..	+	0
" 13.....	454	4	6	..	..	..	0	0	..	0	0
" 13.....	455	2	1	..	..	..	0	0	..	0	0
" 13.....	456	0	1	..	..	..	0	0	..	0	0
" 13.....	457	2	3	..	..	..	0	0	..	0	0
" 13.....	458	2	7	..	..	..	0	0	..	0	0
" 13.....	459	0	3	..	..	..	0	0	..	0	0
" 13.....	460	0	3	..	..	..	0	0	..	0	0
" 13.....	461	6	1	..	..	..	0	0	..	0	0
" 13.....	462	3	2	..	..	..	0	0	..	0	0
" 13.....	463	8	1	..	..	..	0	0	..	0	+
" 13.....	464	6	4	..	..	..	0	0	..	0	0
" 13.....	465	6	0	..	..	..	0	0	..	0	0
" 13.....	466	3	4	..	..	..	0	0	..	0	0
" 13.....	467	2	1	..	..	..	0	0	..	0	0
" 13.....	468	2	3	..	..	..	0	0	..	0	0
" 13.....	469	0	3	..	..	..	0	0	..	0	0
" 13.....	470	0	1	..	..	..	0	0	..	0	0
" 13.....	471	0	4	..	..	..	0	0	..	0	0
" 13.....	472	3	2	..	..	..	0	0	..	0	0
" 13.....	473	0	5	..	..	..	0	0	..	0	0
" 13.....	474	3	2	..	..	..	0	0	..	+	0
" 13.....	475	4	3	..	..	..	0	0	..	0	0
" 13.....	476	4	7	..	..	..	0	0	..	0	0
" 13.....	477	3	6	..	..	..	0	0	..	0	0
" 13.....	478	4	2	..	..	..	0	0	..	0	0
" 13.....	479	0	2	..	..	..	0	0	..	0	0
" 13.....	480	8	3	..	..	..	0	0	..	0	0
" 13.....	481	3	3	..	..	..	0	0	..	0	0
Cape Vincent											
" 14.....	482	440	34	..	..	..	+	+	..	+	+
" 14.....	483	380	16	..	..	..	0	0	..	+	+
" 14.....	484	400	5	..	..	..	0	0	..	+	+
" 14.....	485	360	14	..	..	..	0	+	..	+	+
" 14.....	486	360	2	..	..	..	0	0	..	+	+
" 14.....	487	300	2	..	..	..	0	+	..	+	+
" 14.....	488	280	2	..	..	..	0	0	..	+	+
" 14.....	489	180	3	..	..	..	0	0	..	+	+
" 14.....	490	20	12	..	..	..	0	0	..	0	0
" 14.....	491	18	1	..	..	..	0	0	..	0	0
" 14.....	492	14	1	..	..	..	0	0	..	0	0
" 14.....	493	22	4	..	..	..	0	+	..	+	+
" 14.....	494	500	30	..	..	..	+	+	..	+	+
" 14.....	495	260	20	..	..	..	+	+	..	+	+
Clayton											
" 14.....	496	3	2	..	..	..	0	0	..	0	0
" 14.....	497	2	5	..	..	..	0	0	..	0	0
" 14.....	498	4	0	..	..	..	0	0	..	0	0
May 14.....	499	6	6	..	..	..	0	0	..	0	0
" 14.....	500	4	3	..	..	..	0	0	..	0	0
" 14.....	501	0	7	..	..	..	0	0	..	0	0
" 14.....	502	0	22	..	..	..	0	0	..	0	+
" 14.....	503	0	1	..	..	..	0	0	..	0	0
" 14.....	504	5	2	..	..	..	0	0	..	0	0
" 14.....	505	3	0	..	..	..	0	0	..	0	0
" 14.....	506	1	2	..	..	..	0	0	..	0	0
" 14.....	507	24	0	..	..	..	+	+	..	+	+
" 14.....	508	16	7	..	..	..	+	+	..	+	+
" 14.....	509	2	4	..	..	..	0	0	..	0	0
" 14.....	510	4	4	..	..	..	+	0	..	0	+
" 14.....	511	4	4	..	..	..	0	0	..	0	0
" 14.....	512	2	5	..	..	..	0	+	..	0	0
" 15.....	513	3	0	..	..	..	0	0	..	0	0
" 15.....	514	3	5	..	..	..	0	0	..	0	0
" 15.....	515	6	0	..	..	..	0	0	..	0	0
" 15.....	516	1	1	..	..	..	0	0	..	0	0
" 15.....	517	5	1	..	..	..	0	0	..	0	0
" 16.....	518	10	7	..	..	..	0	0	..	0	+
" 16.....	519	10	5	..	..	..	0	0	..	+	+
" 16.....	520	16	7	..	..	..	0	0	..	+	+
" 16.....	521	2	6	..	..	..	0	0	..	+	+
" 16.....	522	21	4	..	..	..	0	0	..	+	+
" 16.....	523	6	0	..	..	..	0	0	..	0	+
" 16.....	524	9	8	..	..	..	+	0	..	+	+
" 16.....	525	3	2	..	..	..	0	0	..	0	0
" 16.....	526	50	8	..	..	..	+	+	..	+	+
" 16.....	527	66	23	..	..	..	+	+	..	+	+
" 16.....	528	37	42	..	..	..	0	+	..	+	+
" 16.....	533	21	4	..	..	..	0	0	..	0	+
" 16.....	534	4	2	..	..	..	0	+	..	+	+
" 16.....	535	5	2	..	..	..	0	+	..	+	+
" 16.....	536	7	0	..	..	..	0	+	..	0	+
" 16.....	537	2	0	..	..	..	0	0	..	+	+
" 16.....	538	3	4	..	..	..	0	0	..	+	+
" 16.....	539	8	4	..	..	..	0	0	..	0	+
" 16.....	540	3	2	..	..	..	0	0	..	+	+
" 16.....	541	4	24	..	..	..	0	+	..	+	0
" 16.....	542	8	2	..	..	..	+	+	..	+	+
" 16.....	543	16	2	..	..	..	0	0	..	+	+
" 16.....	544	2	3	..	..	..	0	0	..	0	0
" 16.....	545	4	2	..	..	..	0	0	..	0	+
" 16.....	546	5	2	..	..	..	0	0	..	0	0
" 16.....	547	2	4	..	..	..	0	0	..	0	0
" 16.....	548	0	2	..	..	..	0	0	..	0	+
" 16.....	549	4	4	..	..	..	0	0	..	0	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Kingston Harbour.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Clayton											
May 16.....	550	12	0	..	..	..	0	0	..	+	+
" 16.....	551	2	0	..	..	..	0	0	..	+	+
" 16.....	552	3	3	..	..	..	0	+	..	0	0
" 16.....	553	5	7	..	..	..	0	0	..	0	0
" 16.....	554	1	17	..	..	..	0	0	..	0	0
" 16.....	555	3	40	..	..	..	0	0	..	0	0
" 16.....	556	0	0	..	..	..	0	0	..	0	0
" 16.....	557	4	8	..	..	..	0	0	..	0	+
" 16.....	558	5	8	..	..	..	0	+	..	+	+
Kingston											
" 18.....	559	34	6	..	..	..	+	+	..	+	+
" 18.....	560	44	5	..	..	..	0	+	..	+	0
" 18.....	561	50	7	..	..	..	+	+	..	+	+
" 18.....	562	32	6	..	..	..	+	+	..	+	+
" 18.....	563	28	7	..	..	..	+	+	..	+	+
" 18.....	564	42	14	..	..	..	+	+	..	+	+
" 18.....	565	18	4	..	..	..	0	+	..	+	+
" 18.....	566	15	6	..	..	..	+	+	..	+	+
" 18.....	567	19	10	..	..	..	0	+	..	+	+
" 18.....	568	31	7	..	..	..	+	+	..	+	+
" 18.....	569	25	12	..	..	..	+	+	..	+	+
" 18.....	570	21	5	..	..	..	+	0	..	+	+
" 18.....	571	24	7	..	..	..	+	+	..	+	+
" 18.....	572	21	12	..	..	..	+	+	..	+	+
" 18.....	573	17	6	..	..	..	+	0	..	+	+
" 18.....	574	16	5	..	..	..	+	0	..	0	+
" 18.....	575	7	7	..	..	..	+	0	..	+	+
" 18.....	576	14	7	..	..	..	+	0	..	+	+
" 18.....	577	8	4	..	..	..	0	0	..	0	0
" 18.....	578	10	5	..	..	..	0	0	..	0	0
" 18.....	579	9	4	..	..	..	0	0	..	0	0
" 18.....	580	10	7	..	..	..	0	0	..	0	0
" 18.....	581	8	5	..	..	..	0	0	..	0	+
" 18.....	582	7	3	..	..	..	0	0	..	0	0
" 18.....	583	16	2	..	..	..	0	0	..	0	0
" 18.....	584	17	5	..	..	..	0	0	..	0	0
" 18.....	585	11	4	..	..	..	0	0	..	0	0
" 18.....	586	15	3	..	..	..	0	0	..	0	0
" 18.....	587	15	9	..	..	..	0	0	..	0	0
" 18.....	588	6	5	..	..	..	0	0	..	0	0
" 18.....	589	24	6	..	..	..	0	0	..	0	0
" 18.....	590	7	9	..	..	..	0	0	..	+	0
" 18.....	591	9	4	..	..	..	0	0	..	0	+
" 18.....	592	11	6	..	..	..	0	0	..	+	+
" 18.....	593	15	21	..	..	..	0	+	..	+	+
" 18.....	594	40	25	..	..	..	0	+	..	+	+
" 18.....	595	26	7	..	..	..	+	+	..	+	+
" 18.....	596	40	10	..	..	..	0	+	..	+	+
" 18.....	597	15	14	..	..	..	0	+	..	+	+
May 18.....	598	28	15	..	..	..	0	+	..	+	+
" 18.....	599	48	5	..	..	..	0	+	..	+	+
" 18.....	600	36	11	..	..	..	0	+	..	+	+
" 18.....	601	26	8	..	..	..	0	+	..	+	+
" 18.....	602	25	7	..	..	..	0	+	..	+	+
" 18.....	603	15	9	..	..	..	0	+	..	+	+
" 18.....	604	10	3	..	..	..	0	+	..	+	+
" 18.....	605	14	6	..	..	..	0	+	..	+	+
" 18.....	606	10	12	..	..	..	+	+	..	+	..
" 18.....	607	7	11	..	..	..	+	+	..	+	+
" 18.....	608	10	6	..	..	..	0	0	..	0	+
Clayton											
" 18.....	609	8	0	..	..	..	0	0	..	0	0
" 18.....	610	2	5	..	..	..	0	0	..	0	0
" 18.....	611	2	3	..	..	..	0	0	..	0	0
" 18.....	612	4	3	..	..	..	0	0	..	0	0
" 18.....	613	1	5	..	..	..	0	0	..	0	0
" 18.....	614	4	0	..	..	..	0	0	..	0	0
" 18.....	615	7	1	..	..	..	0	0	..	0	0
" 18.....	616	8	4	..	..	..	0	0	..	0	0
" 18.....	617	5	1	..	..	..	0	0	..	0	0
" 18.....	618	9	3	..	..	..	0	+	..	0	0
" 18.....	619	6	2	..	..	..	0	0	..	0	0
" 18.....	620	10	4	..	..	..	+	+	..	0	+
" 18.....	621	10	6	..	..	..	0	+	..	0	0
" 18.....	622	8	5	..	..	..	0	0	..	+	0
" 18.....	623	7	7	..	..	..	+	0	..	0	0
" 18.....	624	26	7	..	..	..	+	0	..	0	0
" 18.....	625	28	7	..	..	..	0	0	..	0	0
" 18.....	626	31	7	..	..	..	0	0	..	0	0
" 18.....	627	16	8	..	..	..	0	0	..	+	0
" 18.....	628	10	1	..	..	..	0	+	..	0	0
" 18.....	629	1	5	..	..	..	0	0	..	+	+
" 18.....	630	..	17	..	..	..	0	0	..	+	+
" 18.....	631	..	6	..	..	..	+	0	..	0	+
" 18.....	632	..	3	..	..	..	0	0	..	+	+
" 18.....	633	..	10	..	..	..	0	+	..	0	+
" 18.....	634	26	12	..	..	..	0	0	..	+	0
" 18.....	635	42	8	..	..	..	0	+	..	0	+
" 18.....	636	32	6	..	..	..	0	0	..	+	0
" 18.....	637	38	7	..	..	..	0	0	..	+	+
Gananoque											
" 19.....	638	15	5	..	..	..	0	0	..	0	0
" 19.....	639	46	5	..	..	..	+	0	..	0	0
" 19.....	640	36	3	..	..	..	0	0	..	0	0
" 19.....	641	28	2	..	..	..	0	0	..	+	0
" 19.....	642	17	7	..	..	..	+	+	..	+	+
" 19.....	643	42	4	..	..	..	+	+	..	+	+
" 19.....	644	25	2	..	..	..	0	+	..	+	+
" 19.....	645	32	7	..	..	..	+	+	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Kingston and Gananoque Harbours.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Gananoque											
May 19.....	646	25	6	..	..	..	+	+	..	+	+
" 19.....	647	13	5	..	..	..	0	+	..	+	+
" 19.....	648	13	0	..	..	..	+	+	..	+	+
" 19.....	649	15	5	..	..	..	+	+	..	+	+
" 19.....	650	8	5	..	..	..	0	+	..	+	+
" 19.....	651	9	6	..	..	..	0	+	..	+	+
" 19.....	652	14	9	..	..	..	+	+	..	+	+
" 19.....	653	17	7	..	..	..	+	+	..	+	+
" 19.....	654	11	5	..	..	..	+	+	..	+	+
" 19.....	655	6	5	..	..	..	+	+	..	+	+
" 19.....	656	4	4	..	..	..	+	+	..	+	+
" 19.....	657	31	7	..	..	..	+	+	..	+	+
" 19.....	658	28	3	..	..	..	+	+	..	+	+
" 19.....	659	34	9	..	..	..	+	+	..	+	+
" 19.....	660	31	6	..	..	..	+	+	..	+	+
" 19.....	661	22	11	..	..	..	+	+	..	+	+
" 19.....	662	..	6	..	..	..	+	+	..	+	+
" 19.....	663	15	7	..	..	..	+	+	..	+	+
" 19.....	664	48	13	..	..	..	+	+	..	+	+
" 19.....	665	23	24	..	..	..	+	+	..	+	+
" 19.....	666	42	22	..	..	..	+	+	..	+	+
" 19.....	667	24	10	..	..	..	+	+	..	+	+
" 19.....	668	13	13	..	..	..	+	+	..	+	+
" 19.....	669	36	14	..	..	..	+	+	..	+	+
" 19.....	670	24	8	..	..	..	+	+	..	+	+
" 19.....	671	26	20	..	..	..	+	+	..	+	+
" 19.....	672	18	12	..	..	..	+	+	..	+	+
" 19.....	673	36	8	..	..	..	+	+	..	+	+
" 19.....	674	41	30	..	..	..	+	+	..	+	+
" 19.....	675	71	13	..	..	..	+	+	..	+	+
" 19.....	676	28	12	..	..	..	+	+	..	+	+
" 19.....	677	41	12	..	..	..	+	+	..	+	+
" 19.....	678	23	12	..	..	..	+	+	..	+	+
" 19.....	679	21	6	..	..	..	+	+	..	+	+
" 19.....	680	15	6	..	..	..	+	+	..	+	+
" 19.....	681	30	8	..	..	..	+	+	..	+	+
" 19.....	682	40	7	..	..	..	+	+	..	+	+
" 19.....	683	7	20	..	..	..	+	+	..	+	+
" 19.....	684	15	7	..	..	..	+	+	..	+	+
" 19.....	685	28	12	..	..	..	+	+	..	+	+
" 19.....	686	6	6	..	..	..	+	+	..	0	+
" 19.....	687	9	2	..	..	..	0	0	..	0	+
" 19.....	688	10	4	..	..	..	0	+	..	0	+
" 19.....	689	7	4	..	..	..	0	0	..	0	0
" 19.....	690	4	4	..	..	..	0	0	..	+	+
" 19.....	691	10	4	..	..	..	0	0	..	+	0
" 19.....	692	10	5	..	..	..	0	0	..	0	+
" 19.....	693	6	4	..	..	..	0	0	..	0	+

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 19.....	694	7	4	..	..	..	0	0	..	+	0
" 19.....	695	12	1	..	..	..	0	+	..	0	+
" 19.....	696	7	12	..	..	..	0	0	..	0	0
" 19.....	697	8	3	..	..	..	0	0	..	+	0
" 19.....	698	2	2	..	..	..	0	0	..	0	+
" 19.....	699	23	7	..	..	..	0	+	..	0	+
Kingston											
" 20.....	700	10	9	..	..	..	0	0	..	0	0
" 20.....	701	4	2	..	..	..	0	0	..	0	0
" 20.....	702	9	6	..	..	..	0	0	..	0	0
" 20.....	703	8	3	..	..	..	0	0	..	0	0
" 20.....	704	9	3	..	..	..	0	0	..	0	0
" 20.....	705	4	4	..	..	..	0	0	..	0	0
" 20.....	706	6	5	..	..	..	0	0	..	0	0
" 20.....	707	5	5	..	..	..	0	0	..	0	0
" 20.....	708	9	6	..	..	..	0	0	..	0	0
" 20.....	709	3	6	..	..	..	0	0	..	0	0
" 20.....	710	8	3	..	..	..	0	0	..	+	0
" 20.....	711	3	3	..	..	..	0	0	..	0	0
" 20.....	712	4	4	..	..	..	0	0	..	+	0
" 20.....	713	5	5	..	..	..	0	0	..	0	0
" 20.....	714	2	5	..	..	..	0	0	..	0	0
" 20.....	715	5	1	..	..	..	0	0	..	+	0
" 20.....	716	3	0	..	..	..	0	0	..	0	0
" 20.....	717	3	3	..	..	..	0	0	..	0	0
" 20.....	718	1	4	..	..	..	0	0	..	0	0
" 20.....	719	1	4	..	..	..	0	0	..	0	+
" 20.....	720	15	6	..	..	..	0	0	..	0	+
" 20.....	721	6	2	..	..	..	0	0	..	0	+
" 20.....	722	5	3	..	..	..	0	0	..	0	0
" 20.....	723	6	spreader	..	..	..	0	0	..	0	+
" 20.....	724	8	3	..	..	..	0	0	..	0	+
" 20.....	725	5	2	..	..	..	0	0	..	+	+
" 20.....	726	6	1	..	..	..	0	0	..	0	+
" 20.....	727	9	2	..	..	..	0	0	..	0	+
" 20.....	728	9	4	..	..	..	0	0	..	0	+
" 20.....	729	3	2	..	..	..	0	0	..	0	+
" 20.....	730	10	6	..	..	..	0	0	..	+	0
" 20.....	731	1	3	..	..	..	0	0	..	+	+
" 20.....	732	5	2	..	..	..	0	0	..	+	+
" 20.....	733	0	5	..	..	..	0	0	..	+	+
" 20.....	734	7	8	..	..	..	0	0	..	+	+
" 20.....	735	3	7	..	..	..	0	0	..	+	+
" 20.....	736	4	3	..	..	..	0	0	..	0	+
" 20.....	737	4	3	..	..	..	0	0	..	0	0
" 20.....	738	3	24	..	..	..	0	0	..	0	+
" 20.....	739	5	10	..	..	..	0	0	..	0	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of Gananoque Harbour.

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Gananoque											
May 20.....	800	9	0	..	..	..	0	0	..	0	+
" 20.....	801	18	3	..	..	..	0	0	..	+	0
" 20.....	802	21	5	..	..	..	0	+	..	0	0
" 20.....	803	18	3	..	..	..	0	0	..	+	0
" 20.....	804	40	4	..	..	..	0	0	..	+	0
" 20.....	805	12	1	..	..	..	0	0	..	+	0
" 20.....	806	15	4	..	..	..	0	0	..	0	0
" 20.....	807	28	6	..	..	..	0	0	..	0	0
" 20.....	808	8	12	..	..	..	0	+	..	0	0
" 20.....	809	9	13	..	..	..	0	0	..	+	0
" 20.....	810	8	9	..	..	..	0	+	..	0	+
" 20.....	811	7	6	..	..	..	0	0	..	0	0
" 20.....	812	6	7	..	..	..	0	0	..	+	0
" 20.....	813	6	6	..	..	..	0	0	..	0	0
" 20.....	814	4	6	..	..	..	0	0	..	0	0
" 20.....	815	2	1	..	..	..	0	0	..	0	0
" 20.....	816	7	4	..	..	..	0	0	..	0	0
" 20.....	817	6	4	..	..	..	0	0	..	+	0
" 20.....	818	5	7	..	..	..	0	0	..	00	..
" 20.....	819	12	9	..	..	..	0	0	..	00	..
" 20.....	820	2	5	..	..	..	0	0	..	+	..
" 20.....	821	8	5	..	..	..	0	0	..	+	..
" 20.....	822	5	7	..	..	..	0	0	..	00	..
" 20.....	823	5	3	..	..	..	0	0	..	+	..
" 20.....	824	4	7	..	..	..	0	+	..	00	..
" 20.....	825	4	7	..	..	..	0	0	..	00	..
" 20.....	826	7	3	..	..	..	0	0	..	00	..
" 20.....	827	24	3	..	..	..	0	0	..	+	..
" 20.....	828	2	7	..	..	..	0	0	..	00	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of the St. Lawrence River.

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Near Brockville											
May 5	1	40	30	..	..	..	+	+	..	0	+
" 6		7	10	..	..	..	0	+	..	+	+
" 7		34	40	..	..	..	+	+	..	+	+
" 8		28	..	..	..	..	0	+	..	+	0
Averages		**27.2**	**26.6**	**3**	**B.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	2	12	60	..	..	..	0	0	..	0	+
" 6		3	spreader	..	..	..	0	+	..	+	+
" 7		20	40	..	..	..	0	0	..	0	+
" 8		9	50	..	..	..	0	0	..	+	0
Averages		**11.0**	**50.0**		**6.**	**B.**	**C.**	**pe**	**r l**	**00**	**lc**
May 5	3	42	20	..	..	..	0	0	..	0	0
" 6		11	spreader	..	..	..	0	0	..	0	0
" 7		14	spreader	..	..	..	+	0	..	+	+
" 8		14	spreader	..	..	..	0	+	..	0	+
Averages		**20.2**	**20**		**6.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	4	3	40	..	..	..	+	0	..	0	+
" 6		7	spreader	..	..	..	0	0	..	0	0
" 7		24	10	..	..	..	0	0	..	+	0
" 8		12	80	..	..	..	0	0	..	0	0
Averages		**11.5**	**43.3**		**1.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	5	12	84	..	..	..	0	0	..	0	0
" 6		21	10	..	..	..	0	0	..	0	+
" 7		40	370	..	..	..	0	0	..	0	0
" 8		8	0	..	..	..	0	0	..	0	0
Averages		**20.2**	**153.6**	**0**	**.5**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	6	16	40	..	..	..	0	0	..	0	+
" 6		15	6	..	..	..	0	0	..	+	0
" 7		22	90	..	..	..	0	0	..	0	+
" 8		15	30	..	..	..	+	0	..	0	0
Averages		**17**	**41.5**		**2.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	7	25	10	..	..	..	0	0	..	0	+
" 6		3	1	..	..	..	0	0	..	0	+
" 7		10	spreader	..	..	..	0	0	..	0	+
" 8		23	8	..	..	..	0	0	..	0	0
Averages		**25.2**	**6.3**		**1.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 5	8	12	40	..	..	..	0	0	..	0	0
" 6		12	spreader	..	..	..	0	0	..	0	0
" 7		10	40	..	..	..	0	0	..	+	0
" 8		13	4	..	..	..	0	0	..	0	0
Averages		**11.7**	**28**	**0**	**.5**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 6	9	25	10	..	..	..	0	0	..	0	0
" 7		7	4	..	..	..	0	0	..	0	+
" 8		16	7	..	..	..	0	0	..	0	0
Averages		**16**	**7**	**0**	**.6**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	10	20	10	..	..	..	0	0	..	0	0
" 6		19	10	..	..	..	0	0	..	..	..
" 7		12	10	..	..	..	0	0	..	0	0
" 8		11	spreader	..	..	..	0	0	..	0	0
Averages		**15.5**	**10**	**0**	**.0**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 6	11	36	6	..	..	..	0	0	..	0	0
" 7		20	spreader	..	..	..	+	0	..	0	+
" 8		40	4	..	..	..	0	0	..	0	+
Averages		**32**	**5**		**2.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	12	25	10	..	..	..	0	0	..	0	+
" 6		3	1	..	..	..	0	0	..	0	+
" 7		10	450	..	..	..	0	0	..	0	+
" 8		34	8	..	..	..	0	0	..	0	+
Averages		**18**	**6.3**		**2.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
" 6	13	14	spreader	..	..	..	0	0	..	0	+
" 7		11	..	..	..	..	0	0	..	0	+
" 8		20	9	..	..	..	0	0	..	0	+
Averages		**15.**	**102.2**		**2.**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**
May 5	14	10	18	..	..	..	0	0	..	0	+
" 6		20	6	..	..	..	0	0	..	0	0
" 7		25	spreader	..	..	..	+	+	..	+	+
" 8		32	7	..	..	..	0	0	..	+	+
Averages		**21.7**	**10.3**		**26**	**B.**	**C.**	**pe**	**r l**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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May 5.....	16	25	30	..	..	..	0	0	..	0	+
" 6.....		spreader	spreader	..	..	..	0	0	..	0	0
" 7.....		12	spreader	..	..	..	0	0	..	+	+
" 8.....		45	spreader	..	..	..	0	0	..	0	0
Averages.....		**27.3**	**30**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 5.....	17	33	5	..	..	..	0	0	..	0	+
" 6.....		3	spreader	..	..	..	0	0	..	+	0
" 7.....		8	1	..	..	..	0	0	..	+	+
" 8.....		20	14	..	..	..	0	0	..	0	0
Averages.....		**16.**	**6.**		**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 5.....	18	28	7	..	..	..	0	+	..	0	+
" 6.....		2	20	..	..	..	0	0	..	0	0
" 7.....		16	50	..	..	..	0	0	..	0	0
" 8.....		12	*117	..	..	..	0	0	..	0	0
Averages.....		**14.5**	**25.6**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 5.....	19	20	9	..	..	..	0	0	..	0	+
" 6.....		10	30	..	..	..	0	0	..	0	0
" 7.....		12	4	..	..	..	0	0	..	0	+
" 8.....		10	*120	..	..	..	0	0	..	0	0
Averages.....		**13.**	**14**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Brockville	**Tap**	**Water**									
May 5.....		9	15	..	..	..	0	0	..	0	0
" 6.....		13	50	..	..	..	0	+	..	+	0
" 7.....		60	11	..	..	..	0	+	..	+	+
" 8.....		80	6	..	..	..	0	0	..	0	0
Averages.....		**40.5**	**20.5**		**6.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 5.....	20	3	5	..	..	..	0	0	..	0	+
" 6.....		spreader	10	..	..	..	0	0	..	0	0
" 7.....		12	4	..	..	..	0	0	..	0	0
" 8.....		100	spreader	..	..	..	0	0	..	0	0
Averages.....		**36.3**	**6.**	**0**	**.5**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6.....	21	70	spreader	..	..	..	0	0	..	0	0
" 7.....		31	3	..	..	..	0	0	..	0	0
" 8.....		16	8	..	..	..	0	0	..	0	+
Averages.....		**39.**	**5**	**0**	**.6**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 5.....	22	12	8	..	..	..	0	0	..	0	0
" 6.....		spreader	spreader	..	..	..	0	+	..	0	0
" 7.....		10	12	..	..	..	0	0	..	0	0
" 8.....		12	*130	..	..	..	0	0	..	0	0
Averages.....		**11.3**	**10**	**0.**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Apr. 6.....	23	26	spreader	..	..	..	0	0	..	0	0
" 7.....		16	spreader	..	..	..	0	0	..	0	0
" 8.....		20	spreader	..	..	..	0	0	..	0	+
Averages.....		**20.6**		**0.**	**6.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 5.....	24	17	5	..	..	..	0	+	..	0	+
" 6.....		12	spreader	..	..	..	0	0	..	0	0
" 7.....		16	5	..	..	..	0	0	..	+	+
" 8.....		17	120	..	..	..	0	0	..	0	+
Averages.....		**13**	**43.3**		**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 6.....	25	23	spreader	..	..	..	0	0	..	0	0
" 7.....		17	4	..	..	..	0	0	..	+	+
" 8.....		34	5	..	..	..	0	0	..	0	0
Averages.....		**24.6**	**4.5**		**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 5.....	26	48	25	..	..	..	+	+	..	0	+
" 6.....		43	6	..	..	..	+	+	..	+	0
" 7.....		16	5	..	..	..	0	0	..	0	0
" 8.....		32	40	..	..	..	+	+	..	+	+
Averages.....		**34.7**	**19**	**5**	**5.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Prescott											
May 9.....	27	28	23	..	..	..	+	+	..	+	+
" 11.....		7	0	..	..	..	0	+	..	+	+
" 14.....		28	spreader	..	..	..	0	+	..	+	+
" 16.....		8	22	..	..	..	0	+	..	0	+
Averages.....		**17.7**	**15**	**3**	**6.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	28	10	26	..	..	..	0	+	..	+	+
" 11.....		14	26	..	..	..	0	+	..	+	+
" 14.....		32	20	..	..	..	0	+	..	+	+
" 16.....		10	40	..	..	..	0	0	..	+	+
Averages.....		**16.5**	**28**	**1**	**6.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Near Prescott											
May 9.....	29	12	23	..	..	..	0	0	..	+	+
" 11.....		6	16	..	..	..	0	0	..	+	+
" 14.....		18	1	..	..	..	0	+	..	+	+
" 16.....		8	spreader	..	..	..	0	0	..	+	+
Averages.....		**11**	**13**		**8**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	30	16	10	..	..	..	0	+	..	+	+
" 11.....		4	8	..	..	..	0	0	..	0	+
" 14.....		14	4	..	..	..	0	0	..	+	+
" 16.....		15	5	..	..	..	0	+	..	0	+
Averages.....		**12.2**	**6.**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	31	9	62	..	..	..	0	0	..	+	0
" 11.....		6	0	..	..	..	0	0	..	0	0
" 14.....		12	3	..	..	..	0	0	..	+	+
" 16.....		8	8	..	..	..	+	0	..	0	+
Averages.....		**8.**	**18.2**		**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	32	13	27	..	..	..	0	0	..	0	+
" 11.....		8	4	..	..	..	0	0	..	+	0
" 14.....		38	12	..	..	..	0	0	..	0	+
" 16.....		[illegible]	30	..	..	..	0	0	..	0	+
Averages.....		**17**	**18.2**		**2**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	33	1200	150	..	..	..	+	+	..	+	+
" 10.....		14	3	..	..	..	0	+	..	+	+
" 11.....		5	12	..	..	..	+	0	..	+	+
" 14.....		14	10	..	..	..	0	0	..	+	+
" 15.....		18	22	..	..	..	0	0	..	+	+
Averages.....		**250**	**39.4**		**29**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	34	35	120	..	..	..	0	+	..	+	+
" 10.....		30	8	..	..	..	0	+	..	+	+
" 11.....		12	8	..	..	..	0	+	..	+	+
" 14.....		32	7	..	..	..	0	+	..	+	0
" 15.....		16	10	..	..	..	+	+	..	+	+
Averages.....		**25**	**30.6**		**35**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	35	35	300	..	..	..	0	+	..	+	+
" 11.....		14	78	..	..	..	0	+	..	+	+
" 14.....		24	9	..	..	..	0	+	..	0	0
" 15.....		10	5	..	..	..	+	+	..	+	+
Averages.....		**20.7**	**83**		**35**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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May 9.....	36	18	280	..	..	..	0	0	..	+	+
" 11.....		11	4	..	..	..	0	+	..	+	+
" 14.....		26	1	..	..	..	0	+	..	+	0
" 15.....		30	7	..	..	..	0	0	..	0	+
Averages.....		**21.2**	**73**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	37	15	20	..	..	..	0	+	..	+	+
" 11.....		8	16	..	..	..	0	0	..	+	0
" 14.....		24	4	..	..	..	0	+	..	+	+
" 15.....		8	9	..	..	..	0	0	..	0	0
Averages.....		**13.5**	**14.2**		**1**	**0.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	38	16	40	..	..	..	+	0	..	+	+
" 11.....		11	spreader	..	..	..	0	0	..	+	0
" 14.....		24	18	..	..	..	0	+	..	+	0
" 15.....		8	12	..	..	..	0	0	..	+	0
Averages.....		**14.7**	**23.3**		**7.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	39	4	25	..	..	..	0	0	..	+	+
" 11.....		10	6	..	..	..	0	+	..	+	0
" 14.....		30	7	..	..	..	0	+	..	+	0
" 15.....		17	5	..	..	..	0	+	..	0	0
Averages.....		**15.2**	**10.7**		**3.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	40	16	20	..	..	..	0	0	..	0	0
" 11.....		12	12	..	..	..	0	0	..	+	0
" 14.....		30	3	..	..	..	0	0	..	+	0
" 15.....		8	9	..	..	..	0	0	..	+	+
Averages.....		**16.5**	**11**		**2.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	41	13	130	..	..	..	0	+	..	+	+
" 11.....		8	120	..	..	..	+	0	..	+	0
" 14.....		44	5	..	..	..	0	0	..	+	+
" 15.....		16	21	..	..	..	0	0	..	+	+
Averages.....		**20.2**	**69**		**7**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
May 9.....	42	20	160	..	..	..	0	+	..	+	+
" 11.....		10	9	..	..	..	+	0	..	+	+
" 14.....		22	4	..	..	..	0	0	..	0	0
" 15.....		15	5	..	..	..	0	0	..	+	+
Averages.....		**16.7**	**44.5**		**1**	**1.**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**

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Near Prescott											
May 9.....	43	14	280	..	..	..	0	0	..	+	+
" 11.....		10	18	..	..	..	0	0	..	0	+
" 14.....		20	3	..	..	..	0	0	..	0	+
" 15.....		32	15	..	..	..	0	0	..	+	+
Averages.....		**19**	**76.5**		**3.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	44	22	75	..	..	..	0	0	..	0	+
" 11.....		4	60	..	..	..	0	0	..	0	0
" 14.....		20	70	..	..	..	0	+	..	0	+
" 15.....		17	11	..	..	..	0	0	..	+	+
Averages.....		**15.7**	**54**		**2.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	45	6	105	..	..	..	0	0	..	+	0
" 11.....		4	34	..	..	..	0	0	..	0	+
" 14.....		16	10	..	..	..	0	0	..	+	+
" 15.....		17	16	..	..	..	0	0	..	+	+
Averages.....		**10.7**	**41.2**		**3.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	46	20	180	..	..	..	0	+	..	+	+
" 11.....		6	10	..	..	..	+	0	..	+	0
" 14.....		24	4	..	..	..	0	0	..	+	+
" 15.....		9	14	..	..	..	0	0	..	0	+
Averages.....		**14.7**	**52**		**7.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	47	660	360	..	..	..	+	+	..	+	+
" 10.....		160	11	..	..	..	+	+	..	+	+
" 13.....		220	31	..	..	..	+	+	..	+	+
" 14.....		130	90	..	..	..	+	0	..	+	+
Averages.....		**292.4**	**123**	**8**	**0.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	48	440	150	..	..	..	+	+	..	+	+
" 10.....		140	24	..	..	..	+	+	..	+	+
" 11.....		82	30	..	..	..	+	+	..	+	+
" 13.....		180	34	..	..	..	+	+	..	+	+
" 14.....		240	55	..	..	..	0	0	..	+	+
Averages.....		**216.4**	**58.6**	**8**	**0.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	49	13	7	..	..	..	+	+	..	0	+
" 10.....		16	6	..	..	..	0	0	..	+	+
" 11.....		44	28	..	..	..	+	+	..	+	+
" 13.....		26	5	..	..	..	0	0	..	0	0
" 14.....		52	10	..	..	..	0	0	..	0	+
Averages.....		**30.2**	**11.2**	**2**	**5.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 9.....	50	15	5	..	..	..	0	0	..	+	+
" 10.....		18	10	..	..	..	0	0	..	+	+
" 11.....		10	4	..	..	..	0	0	..	+	+
" 13.....		8	4	..	..	..	0	0	..	0	0
" 14.....		38	4	..	..	..	0	0	..	0	+
Averages.....		**17.8**	**5.**		**2.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	51	17	5	..	..	..	0	+	..	0	+
" 10.....		6	12	..	..	..	0	0	..	+	+
" 11.....		8	0	..	..	..	0	0	..	0	+
" 13.....		8	7	..	..	..	0	0	..	0	0
" 14.....		54	6	..	..	..	0	0	..	0	+
Averages.....		**18.6**	**6.**		**2.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	52	17	8	..	..	..	0	0	..	+	0
" 10.....		6	18	..	..	..	0	0	..	+	+
" 11.....		7	120	..	..	..	0	0	..	+	+
" 13.....		8	6	..	..	..	0	0	..	0	+
" 14.....		48	2	..	..	..	0	0	..	+	+
Averages.....		**19.2**	**30.8**		**3.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	53	30	5	..	..	..	0	+	..	0	+
" 10.....		22	8	..	..	..	0	0	..	+	+
" 11.....		10	16	..	..	..	0	0	..	0	0
" 13.....		6	60	..	..	..	0	+	..	+	+
" 14.....		29	3	..	..	..	0	0	..	+	+
Averages.....		**19.4**	**18.4**		**6.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	54	8	4	..	..	..	0	0	..	+	0
" 10.....		12	13	..	..	..	0	0	..	+	+
" 11.....		10	230	..	..	..	0	0	..	+	+
" 13.....		16	7	..	..	..	0	+	..	+	+
" 14.....		38	30	..	..	..	0	0	..	+	+
Averages.....		**16.8**	**56.8**		**6.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 9.....	55	20	11	..	..	..	+	+	..	+	+
" 10.....		6	10	..	..	..	0	0	..	+	+
" 11.....		6	8	..	..	..	0	+	..	+	+
" 13.....		10	7	..	..	..	0	+	..	+	+
" 14.....		40	30	..	..	..	0	0	..	+	+
Averages.....		**16.4**	**13.3**	**2**	**9.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Kingston, Ont. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Near Prescott											
May 9.....	56	20	15	..	..	..	0	+	..	+	+
" 10.....		6	18	..	..	..	0	0	..	+	+
" 11.....		8	2	..	..	..	0	+	..	+	+
" 13.....		56	20	..	..	..	+	+	..	+	+
" 14.....		84	10	..	..	..	+	0	..	+	+
Averages.....		**34.8**	**1.3**	**3**	**2.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	57	6	5	..	..	..	0	0	..	+	+
" 13.....		44	9	..	..	..	+	+	..	+	+
" 15.....		7	34	..	..	..	0	+	..	+	+
" 16.....		30	7	..	..	..	0	+	..	+	+
Averages.....		**21.7**	**13.7**	**3**	**6.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	58	14	20	..	..	..	+	+	..	+	+
" 13.....		42	35	..	..	..	0	+	..	+	+
" 15.....		13	34	..	..	..	0	+	..	+	+
" 16.....		11	14	..	..	..	+	+	..	+	+
Averages.....		**20.**	**25.7**		**60**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	59	8	11	..	..	..	+	0	..	+	+
" 13.....		74	6	..	..	..	+	+	..	+	+
" 15.....		13	7	..	..	..	+	+	..	+	+
" 16.....		32	4	..	..	..	+	+	..	+	+
Averages.....		**31.7**	**7**		**80**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	60	16	spreader	..	..	..	0	+	..	+	+
" 13.....		48	10	..	..	..	+	+	..	+	+
" 15.....		25	11	..	..	..	+	+	..	+	+
" 16.....		4	42	..	..	..	0	0	..	+	+
Averages.....		**23.2**	**21**	**5**	**6.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	61	9	10	..	..	..	0	+	..	+	+
" 13.....		16	10	..	..	..	0	+	..	+	+
" 15.....		5	9	..	..	..	+	+	..	+	+
" 16.....		13	8	..	..	..	0	0	..	+	+
Averages.....		**10.7**	**9.**	**3**	**6.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	62	3	7	..	..	..	0	0	..	+	+
" 13.....		12	8	..	..	..	+	+	..	0	+
" 15.....		10	10	..	..	..	+	+	..	+	+
" 16.....		11	5	..	..	..	0	0	..	0	+
Averages.....		**9**	**7.**	**3**	**1.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 10.....	63	11	3	..	..	..	0	0	..	+	+
" 13.....		11	8	..	..	..	0	+	..	0	+
" 15.....		10	6	..	..	..	0	0	..	0	+
" 16.....		9	5	..	..	..	0	0	..	0	+
Averages.....		**10.2**	**5**		**3.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	64	8	14	..	..	..	0	0	..	+	+
" 13.....		8	spreader	..	..	..	0	0	..	+	+
" 15.....		15	34	..	..	..	0	0	..	0	0
" 16.....		8	3	..	..	..	0	+	..	0	+
Averages.....		**9**	**15.3**		**3.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	65	42	90	..	..	..	0	0	..	0	0
" 13.....		8	3	..	..	..	0	0	..	+	+
" 15.....		11	9	..	..	..	0	0	..	0	+
" 16.....		22	0	..	..	..	0	0	..	0	+
Averages.....		**20.7**	**25.5**		**2.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	66	24	14	..	..	..	0	0	..	0	0
" 18.....		5	6	..	..	..	0	0	..	+	+
" 15.....		7	20	..	..	..	0	+	..	+	..
" 16.....		14	4	..	..	..	0	0	..	0	+
Averages.....		**12.5**	**11**		**2**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	67	14	24	..	..	..	0	0	..	0	0
" 13.....		6	3	..	..	..	+	0	..	0	+
" 15.....		14	24	..	..	..	0	0	..	+	+
" 16.....		10	6	..	..	..	0	0	..	0	0
Averages.....		**11**	**14.2**		**2.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	68	68	40	..	..	..	0	0	..	0	0
" 13.....		6	10	..	..	..	0	0	..	0	+
" 15.....		12	16	..	..	..	0	0	..	0	+
" 16.....		7	14	..	..	..	0	0	..	0	0
Averages.....		**23.2**	**14**		**1.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**
May 10.....	69	114	60	..	..	..	0	0	..	0	+
" 13.....		4	2	..	..	..	0	+	..	+	+
" 15.....		13	13	..	..	..	0	0	..	0	0
" 16.....		10	10	..	..	..	0	0	..	0	0
Averages.....		**35.2**	**21.2**		**5.**	**B.**	**C.**	**pe**	**r1**	**00**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Near Prescott											
May 10.....	70	120	20	..	..	..	0	0	..	0	+
" 13.....		94	41	..	..	..	+	+	..	+	+
" 15.....		12	7	..	..	..	0	0	..	0	+
" 16.....		34	12	..	..	..	+	0	..	0	0
Averages.....		**65**	**20**		**26**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 10.....	71	130	21	..	..	..	0	0	..	0	+
" 13.....		120	51	..	..	..	+	+	..	+	+
" 15.....		15	37	..	..	..	+	+	..	+	+
" 16.....		62	15	..	..	..	+	0	..	0	+
Averages.....		**81.7**	**31.2**		**51**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 10.....	72	130	27	..	..	..	0	+	..	0	+
" 13.....		110	100	..	..	..	+	+	..	+	+
" 15.....		160	200	..	..	..	+	+	..	+	+
" 16.....		130	100	..	..	..	+	0	..	0	0
Averages.....		**142.5**	**106.7**		**51**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
May 10.....	73	78	14	..	..	..	0	0	..	0	+
" 13.....		48	45	..	..	..	+	+	..	+	+
" 15.....		150	130	..	..	..	+	+	..	+	+
" 16.....		60	35	..	..	..	+	+	..	0	0
Averages.....		**84.**	**56**		**51**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 10.....	P.T.	10	14	..	..	..	0	0	..	0	+
" 13.....		6	5	..	..	..	0	0	..	0	+
" 16.....		15	2	..	..	..	0	0	..	0	0
" 16.....		24	4	..	..	..	0	0	..	0	0
Averages.....		**13.7**	**6**		**1**	**B.**	**C.**	**pe**	**r**	**1**	**00**	**cc**
May 13.....	O.T.	0	3	..	..	..	0	0	..	0	0
" 13.....	P.I.	20	2	..	..	..	0	+	..	0	+
" 15.....	74	130	240	..	..	..	+	+	..	+	+
" 15.....	75	90	180	..	..	..	+	+	..	+	+

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

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Aug. 1	266	..	240	..	..	0	0	..	+	..	..
" 1		..	..	..	..	0	+	..	+	..	..
" 1		..	..	..	..	0	0	..	..	..	..
" 1		..	..	..	..	..	0	..	..	..	..
" 3		..	70	..	..	0	+	..	+	..	..
" 3		..	..	..	..	0	0	..	+	..	..
" 3		..	..	..	..	0	0	..	..	..	..
" 3		..	..	..	..	..	0	..	..	..	..
" 5		..	300	..	..	0	+	..	+	..	..
" 5		..	..	..	..	0	+	..	+	..	..
" 5		..	..	..	..	0	0	..	..	..	..
" 5		..	..	..	..	..	0	..	..	..	..
" 6		..	2300	..	..	+	+	..	+	..	..
" 6		..	..	..	..	0	+	..	+	..	..
" 6		..	..	..	..	0	+	..	..	..	..
" 6		..	..	..	..	..	+	..	..	..	..
" 7		..	275	..	..	0	+	..	+	..	..
" 7		..	..	..	..	0	0	..	+	..	..
" 7		..	..	..	..	0	0	..	..	..	..
" 7		..	..	..	..	..	0	..	..	..	..
" 8		..	150	..	..	+	+	..	+	..	..
" 8		..	..	..	..	0	+	..	+	..	..
" 8		..	..	..	..	0	0	..	..	..	..
" 8		..	..	..	..	..	0	..	..	..	..
" 9		..	140	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	..	..	..
" 9		..	..	..	..	..	0	..	..	..	..
" 10		..	55	..	..	0	+	..	+	..	..
" 10		..	..	..	..	0	0	..	+	..	..
" 10		..	..	..	..	0	0	..	..	..	..
" 10		..	..	..	..	..	0	..	..	..	..
" 19		..	275	..	..	0	+	+	+	..	..
" 19		..	..	..	..	0	+	+	+	..	..
" 19		..	..	..	..	0	+	..	..	..	..
" 19		..	..	..	..	..	0	..	..	..	..
" 21		..	160	..	..	+	0	..	+	..	..
" 21		..	..	..	..	0	0	..	+	..	..
" 21		..	..	..	..	0	0	..	..	..	..
" 21		..	..	..	..	..	0	..	..	..	..
" 22		..	46	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	0	..	..	..	..
" 22		..	..	..	..	..	0	..	..	..	..
" 23		..	250	..	..	+	+	..	+	..	..
" 23		..	..	..	..	0	+	..	+	..	..
" 23		..	..	..	..	0	+	..	..	..	..
" 23		..	..	..	..	..	0	..	..	..	..
Aug. 25	266	..	70	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	0	..	..	..	..
" 25		..	..	..	..	..	0	..	..	..	..
" 26		..	85	..	..	0	+	..	+	..	..
" 26		..	..	..	..	0	+	..	+	..	..
" 26		..	..	..	..	0	+	..	..	..	..
" 26		..	..	..	..	..	0	..	..	..	..
" 27		..	375	..	..	0	+	..	+	..	..
" 27		..	..	..	..	0	0	..	+	..	..
" 27		..	..	..	..	0	0	..	..	..	..
" 27		..	..	..	..	..	0	..	..	..	..
Averages			**319**	**64**	**B.**	**Co**	**li**	**pe**	**r**	**100**	**cc**
Aug. 1	267	..	150	..	..	0	+	..	+	..	..
" 1		..	..	..	..	0	0	..	0	..	..
" 1		..	..	..	..	0	0	..	..	..	..
" 1		..	..	..	..	..	0	..	..	..	..
" 3		..	70	..	..	0	+	..	+	..	..
" 3		..	..	..	..	0	0	..	+	..	..
" 3		..	..	..	..	0	0	..	..	..	..
" 3		..	..	..	..	..	0	..	..	..	..
" 5		..	120	..	..	0	+	..		..	..
" 5		..	..	..	..	0	+	..		..	..
" 5		..	..	..	..	0	+	..	..	..	..
" 5		..	..	..	..	..	0	..	..	..	..
" 6		..	75	..	..	0	+	..		..	..
" 6		..	..	..	..	0	+	..		..	..
" 6		..	..	..	..	0	0	..	..	..	..
" 6		..	..	..	..	..	0	..	..	..	..
" 7		..	150	..	..	0	+	..		..	..
" 7		..	..	..	..	0	+	..		..	..
" 7		..	..	..	..	0	0	..	..	..	..
" 7		..	..	..	..	..	0	..	..	..	..
" 8		..	70	..	..	+	+	..		..	..
" 8		..	..	..	..	0	+	..		..	..
" 8		..	..	..	..	0	+	..	..	..	..
" 8		..	..	..	..	..	+	..	..	..	..
" 9		..	180	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	..	..	..
" 9		..	..	..	..	..	+	..	..	..	..
" 10		..	150	..	..	0	+	..	+	..	..
" 10		..	..	..	..	0	+	..	+	..	..
" 10		..	..	..	..	0	0	..	..	..	..

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Aug. 10	267	..	..	..	..	..	0	..	..	..	..
" 19		..	120	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	0	..	..	..	..
" 19		..	..	..	..	..	0	..	..	..	..
" 21		..	110	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	+	..	..	..	..
" 21		..	..	..	..	..	+	..	..	..	..
" 22		..	160	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	+	..	..	..	..
" 22		..	..	..	..	..	0	..	..	..	..
" 23		..	60	..	..	+	+	..	+	..	..
" 23		..	..	..	..	+	+	..	+	..	..
" 23		..	..	..	..	0	+	..	..	..	..
" 23		..	..	..	..	..	+	..	..	..	..
" 25		..	95	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	+	..	..	..	..
" 25		..	..	..	..	..	0	..	..	..	..
" 26		..	130	..	..	0	+	..	+	..	..
" 26		..	..	..	..	0	0	..	+	..	..
" 26		..	..	..	..	0	0	..	..	..	..
" 26		..	..	..	..	..	0	..	..	..	..
" 27		..	230	..	..	0	0	..	+	..	..
" 27		..	..	..	..	0	0	..	+	..	..
" 27		..	..	..	..	0	0	..	..	..	..
" 27		..	..	..	..	..	0	..	..	..	..
Averages			**129**	**1**	**05**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**
Aug. 1	268	..	85	..	..	+	+	..	+	..	..
" 1		..	..	..	..	+	+	..	+	..	..
" 1		..	..	..	..	0	+	..	..	..	..
" 1		..	..	..	..	..	0	..	..	..	..
" 3		..	190	..	..	+	+	..	+	..	..
" 3		..	..	..	..	0	+	..	+	..	..
" 3		..	..	..	..	0	+	..	..	..	..
" 3		..	..	..	..	..	0	..	..	..	..
" 5		..	600	..	..	0	+	..	+	..	..
" 5		..	..	..	..	0	0	..	+	..	..
" 5		..	..	..	..	0	0	..	..	..	..
" 5		..	..	..	..	..	0	..	..	..	..
" 6		..	120	..	..	0	+	..	+	..	..
" 6		..	..	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 6	268	..	..	..	..	0	0	..	..	..	..
" 6		..	..	..	..	..	0	..	..	..	..
" 6		..	160	..	..	0	+	..	+	..	..
" 7		..	..	..	..	0	0	..	+	..	..
" 7		..	..	..	..	0	0	..	..	..	..
" 7		..	..	..	..	..	0	..	..	..	..
" 7		..	100	..	..	0	+	..	+	..	..
" 8		..	..	..	..	0	+	..	+	..	..
" 8		..	..	..	..	0	0	..	..	..	..
" 8		..	..	..	..	..	0	..	..	..	..
" 8		..	260	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	..	..	..
" 9		..	..	..	..	..	0	..	..	..	..
" 9		..	140	..	..	0	+	..	+	..	..
" 10		..	..	..	..	0	+	..	+	..	..
" 10		..	..	..	..	0	+	..	..	..	..
" 10		..	..	..	..	..	0	..	..	..	..
" 19		..	120	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	0	..	+	..	..
" 19		..	..	..	..	0	0	..	..	..	..
" 19		..	..	..	..	..	0	..	..	..	..
" 21		..	120	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	0	..	..	..	..
" 21		..	..	..	..	..	0	..	..	..	..
" 22		..	130	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	0	..	..	..	..
" 22		..	..	..	..	..	0	..	..	..	..
" 23		..	110	..	..	+	+	..	+	..	..
" 23		..	..	..	..	+	+	..	+	..	..
" 23		..	..	..	..	0	+	..	..	..	..
" 23		..	..	..	..	..	0	..	..	..	..
" 25		..	85	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	0	..	+	..	..
" 25		..	..	..	..	0	0	..	..	..	..
" 25		..	..	..	..	..	0	..	..	..	..
" 26		..	70	..	..	+	+	..	+	..	..
" 26		..	..	..	..	0	+	..	+	..	..
" 26		..	..	..	..	0	0	..	..	..	..
" 26		..	..	..	..	..	0	..	..	..	..
" 27		..	120	..	..	+	+	..	+	..	..
" 27		..	..	..	..	0	0	..	+	..	..
" 27		..	..	..	..	0	0	..	..	..	..
" 27		..	..	..	..	..	0	..	..	..	..
Averages			**160**	**1**	**37**	**B.**	**C.**	**pe**	**r**	**1**	**00 cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Montreal, Que. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 1.....	269	..	950	..	..	+	+	..	+	..	..
" 1.....		..	..	..	..	0	+	..	+	..	..
" 1.....		..	..	..	..	0	+	..	..	..	..
" 1.....		..	..	..	..	..	0	..	..	..	..
" 3.....		..	2000	..	..	0	0	..	+	..	..
" 3.....		..	..	..	..	0	0	..	+	..	..
" 3.....		..	..	..	..	0	0	..	..	..	..
" 3.....		..	..	..	..	..	0	..	..	..	..
" 5.....		..	6600	..	..	+	+	..	+	..	..
" 5.....		..	..	..	..	0	+	..	+	..	..
" 5.....		..	..	..	..	0	0	..	..	..	..
" 5.....		..	..	..	..	..	0	..	..	..	..
" 6.....		..	2200	..	..	0	+	..	+	..	..
" 6.....		..	..	..	..	0	+	..	+	..	..
" 6.....		..	..	..	..	0	0	..	..	..	..
" 6.....		..	..	..	..	..	0	..	..	..	..
" 7.....		..	1100	..	..	0	+	..	+	..	..
" 7.....		..	..	..	..	0	+	..	+	..	..
" 7.....		..	..	..	..	0	+	..	..	..	..
" 7.....		..	..	..	..	..	+	..	..	..	..
" 8.....		..	700	..	..	+	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	..	..	..
" 8.....		..	..	..	..	..	0	..	..	..	..
" 9.....		..	1900	..	..	0	+	..	+	..	..
" 9.....		..	..	..	..	0	+	..	+	..	..
" 9.....		..	..	..	..	0	0	..	..	..	..
" 9.....		..	..	..	..	..	0	..	..	..	..
" 10.....		..	2100	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	..	..	..
" 10.....		..	..	..	..	..	+	..	..	..	..
" 19.....		..	3400	..	..	0	+	..	+	..	..
" 19.....		..	..	..	..	0	+	..	+	..	..
" 19.....		..	..	..	..	0	+	..	..	..	..
" 19.....		..	..	..	..	..	0	..	..	..	..
" 21.....		..	2800	..	..	0	+	..	+	..	..
" 21.....		..	..	..	..	0	+	..	+	..	..
" 21.....		..	..	..	..	0	+	..	..	..	..
" 21.....		..	..	..	..	..	0	..	..	..	..
" 22.....		..	3200	..	..	+	+	..	+	..	..
" 22.....		..	..	..	..	0	+	..	+	..	..
" 22.....		..	..	..	..	0	0	..	..	..	..
" 22.....		..	..	..	..	..	0	..	..	..	..
" 23.....		..	38500	..	..	0	+	..	+	..	..
" 23.....		..	..	..	..	0	+	..	+	..	..
" 23.....		..	..	..	..	0	0	..	..	..	..
" 23.....		..	..	..	..	..	0	..	..	..	..
Aug. 25.....	269	..	130	..	..	0	+	..	+	..	..
" 25.....		..	..	..	..	0	0	..	+	..	..
" 25.....		..	..	..	..	0	0	..	..	..	..
" 25.....		..	..	..	..	..	0	..	..	..	..
" 26.....		..	80	..	..	+	+	..	+	..	..
" 26.....		..	..	..	..	0	+	..	+	..	..
" 26.....		..	..	..	..	0	0	..	..	..	..
" 26.....		..	..	..	..	..	0	..	..	..	..
" 27.....		..	190	..	..	0	+	..	+	..	..
" 27.....		..	..	..	..	0	0	..	+	..	..
" 27.....		..	..	..	..	0	0	..	..	..	..
" 27.....		..	..	..	..	..	0	..	..	..	..
**Averages.....			**4390**	**1**	**32**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	270	..	190	..	..	0	+	..	+	..	..
" 1.....		..	..	..	..	0	+	..	+	..	..
" 1.....		..	..	..	..	0	0	..	..	..	..
" 1.....		..	..	..	..	..	0	..	..	..	..
" 3.....		..	2600	..	..	+	+	..	+	..	..
" 3.....		..	..	..	..	+	0	..	+	..	..
" 3.....		..	..	..	..	0	0	..	..	..	..
" 3.....		..	..	..	..	..	0	..	..	..	..
" 5.....		..	4600	..	..	0	+	..	+	..	..
" 5.....		..	..	..	..	0	+	..	+	..	..
" 5.....		..	..	..	..	0	0	..	..	..	..
" 5.....		..	..	..	..	..	0	..	..	..	..
" 6.....		..	2500	..	..	0	+	..	+	..	..
" 6.....		..	..	..	..	0	+	..	+	..	..
" 6.....		..	..	..	..	0	0	..	..	..	..
" 6.....		..	..	..	..	..	0	..	..	..	..
" 7.....		..	1300	..	..	0	+	..	+	..	..
" 7.....		..	..	..	..	0	+	..	+	..	..
" 7.....		..	..	..	..	0	0	..	..	..	..
" 7.....		..	..	..	..	..	0	..	..	..	..
" 8.....		..	1400	..	..	0	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	..	..	..
" 8.....		..	..	..	..	..	+	..	..	..	..
" 9.....		..	7400	..	..	+	+	..	+	..	..
" 9.....		..	..	..	..	+	+	..	+	..	..
" 9.....		..	..	..	..	+	+	..	..	..	..
" 9.....		..	..	..	..	..	+	..	..	..	..
" 10.....		..	1400	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	..	..	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Montreal, Que. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 10	270	..	..	..	..	..	+	..	..	..	..
" 19		..	2000	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	+	..	..	..	..
" 19		..	..	..	..	..	+	..	..	..	..
" 21		..	2800	..	..	+	+	..	+	..	..
" 21		..	..	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	0	..	..	..	..
" 21		..	..	..	..	..	0	..	..	..	..
" 22		..	1800	..	..	+	+	..	+	..	..
" 22		..	..	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	+	..	..	..	..
" 22		..	..	..	..	..	0	..	..	..	..
" 23		..	600	..	..	0	+	..	+	..	..
" 23		..	..	..	..	0	+	..	+	..	..
" 23		..	..	..	..	0	+	..	..	..	..
" 23		..	..	..	..	..	+	..	..	..	..
" 25		..	375	..	..	0	0	..	+	..	..
" 25		..	..	..	..	0	0	..	+	..	..
" 25		..	..	..	..	0	0	..	..	..	..
" 25		..	..	..	..	..	0	..	..	..	..
" 26		..	250	..	..	+	+	..	+	..	..
" 26		..	..	..	..	0	+	..	+	..	..
" 26		..	..	..	..	0	0	..	..	..	..
" 26		..	..	..	..	..	0	..	..	..	..
" 27		..	300	..	..	+	+	..	+	..	..
" 27		..	..	..	+	0	0	..	+	..	..
" 27		..	..	..	..	0	0	..	..	..	..
" 27		..	..	..	..	..	0	..	..	..	..
Averages			**1967**	**1**	**83**	**B.**	**C.**	**pe**	**r**	**100**	**cc**
Aug. 1	271	..	475	..	..	0	+	..	+	..	..
" 1		..	..	..	..	0	0	..	+	..	..
" 1		..	..	..	..	0	0	..	..	..	..
" 1		..	..	..	..	..	0	..	..	..	..
" 3		..	3500	..	..	0	+	..	+	..	..
" 3		..	..	..	..	0	+	..	+	..	..
" 3		..	..	..	..	0	+	..	..	..	..
" 3		..	..	..	..	..	0	..	..	..	..
" 5		..	3400	..	..	0	0	..	+	..	..
" 5		..	..	..	..	0	0	..	+	..	..
" 5		..	..	..	..	0	0	..	..	..	..
" 5		..	..	..	..	..	0	..	..	..	..
" 6		..	2800	..	..	+	+	..	+	..	..
" 6		..	..	..	..	0	+	..	+	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 6	271	..	..	..	..	0	+	..	..	..	..
" 6		..	..	..	..	..	0	..	..	..	..
" 7		..	1100	..	..	0	+	..	+	..	..
" 7		..	..	..	..	0	+	..	+	..	..
" 7		..	..	..	..	0	0	..	..	..	..
" 7		..	..	..	..	..	0	..	..	..	..
" 8		..	1600	..	..	+	+	..	+	..	..
" 8		..	..	..	..	+	+	..	+	..	..
" 8		..	..	..	..	+	+	..	..	..	..
" 8		..	..	..	..	..	+	..	..	..	..
" 9		..	3600	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	+	..	..
" 9		..	..	..	..	0	+	..	..	..	..
" 9		..	..	..	..	..	+	..	..	..	..
" 10		..	1800	..	..	0	+	..	+	..	..
" 10		..	..	..	..	0	+	..	+	..	..
" 10		..	..	..	..	0	+	..	..	..	..
" 10		..	..	..	..	..	+	..	..	..	..
" 19		..	4000	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	0	..	..	..	..
" 19		..	..	..	..	..	0	..	..	..	..
" 21		..	2300	..	..	+	+	..	+	..	..
" 21		..	..	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	+	..	..	..	..
" 21		..	..	..	..	..	0	..	..	..	..
" 22		..	2000	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	+	..	+	..	..
" 22		..	..	..	..	0	+	..	..	..	..
" 22		..	..	..	..	..	+	..	..	..	..
" 23		..	850	..	..	0	+	..	+	..	..
" 23		..	..	..	..	0	+	..	+	..	..
" 23		..	..	..	..	0	+	..	..	..	..
" 23		..	..	..	..	..	0	..	..	..	..
" 25		..	220	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	+	..	..	..	..
" 25		..	..	..	..	..	+	..	..	..	..
" 26		..	200	..	..	0	+	..	+	..	..
" 26		..	..	..	..	0	0	..	+	..	..
" 26		..	..	..	..	0	0	..	..	..	..
" 26		..	..	..	..	..	0	..	..	..	..
" 27		..	375	..	..	0	+	..	+	..	..
" 27		..	..	..	..	0	0	..	+	..	..
" 27		..	..	..	..	0	0	..	0	..	..
" 27		..	..	..	..	..	0	..	0	..	..
Averages			**1881**	**1**	**40**	**B.**	**C.**	**pe**	**r**	**100**	**cc**

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Montreal, Que. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 1.....	272	..	550	..	..	0	+	..	+	..	..
" 1.....		..	..	..	..	0	0	..	+	..	..
" 1.....		..	..	..	..	0	0	..	..	..	..
" 1.....		..	..	..	..	..	0	..	..	..	..
" 3.....		..	2700	..	..	+	+	..	+	..	..
" 3.....		..	..	..	..	0	+	..	+	..	..
" 3.....		..	..	..	..	0	0	..	..	..	..
" 3.....		..	..	..	..	..	0	..	..	..	..
" 5.....		..	2900	..	..	0	+	..	+	..	..
" 5.....		..	..	..	..	0	+	..	+	..	..
" 5.....		..	..	..	..	0	0	..	..	..	..
" 5.....		..	..	..	..	..	0	..	..	..	..
" 6.....		..	2600	..	..	+	+	..	+	..	..
" 6.....		..	..	..	..	0	+	..	+	..	..
" 6.....		..	..	..	..	0	+	..	..	..	..
" 6.....		..	..	..	..	..	0	..	..	..	..
" 7.....		..	1400	..	..	+	+	..	+	..	..
" 7.....		..	..	..	..	0	+	..	+	..	..
" 7.....		..	..	..	..	0	+	..	..	..	..
" 7.....		..	..	..	..	..	0	..	..	..	..
" 8.....		..	2500	..	..	0	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	..	..	..
" 8.....		..	..	..	..	..	+	..	..	..	..
" 9.....		..	1200	..	..	+	+	..	+	..	..
" 9.....		..	..	..	..	0	+	..	+	..	..
" 9.....		..	..	..	..	0	+	..	..	..	..
" 9.....		..	..	..	..	..	+	..	..	..	..
" 10.....		..	2200	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	..	..	..
" 10.....		..	..	..	..	..	+	..	..	..	..
" 19.....		..	2500	..	..	0	+	..	+	..	..
" 19.....		..	..	..	..	0	+	..	+	..	..
" 19.....		..	..	..	..	0	+	..	..	..	..
" 19.....		..	..	..	..	..	0	..	..	..	..
" 21.....		..	2600	..	..	+	+	..	+	..	..
" 21.....		..	..	..	..	0	+	..	+	..	..
" 21.....		..	..	..	..	0	+	..	..	..	..
" 21.....		..	..	..	..	..	+	..	..	..	..
" 22.....		..	2200	..	..	+	+	..	+	..	..
" 22.....		..	..	..	..	0	+	..	+	..	..
" 22.....		..	..	..	..	0	0	..	..	..	..
" 22.....		..	..	..	..	..	0	..	..	..	..
" 23.....		..	59000	..	..	0	+	..	+	..	..
" 23.....		..	..	..	..	0	+	..	+	..	..
" 23.....		..	..	..	..	0	+	..	..	..	..
" 23.....		..	..	..	..	..	+	..	..	..	..

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 25.....	272	..	250	..	..	0	+	..	+	..	..
" 25.....		..	..	..	..	0	0	..	+	..	..
" 25.....		..	..	..	..	0	0	..	..	..	..
" 25.....		..	..	..	..	..	0	..	..	..	..
" 26.....		..	140	..	..	0	0	..	+	..	..
" 26.....		..	..	..	..	0	0	..	+	..	..
" 26.....		..	..	..	..	0	0	..	..	..	..
" 26.....		..	..	..	..	..	0	..	..	..	..
" 27.....		..	450	..	..	0	+	..	+	..	..
" 27.....		..	..	..	..	0	+	..	+	..	..
" 27.....		..	..	..	..	0	0	..	..	..	..
" 27.....		..	..	..	..	0	0	..	..	..	..
Averages.....			**5546**	**1**	**55**	**B.**	**C.**	**pe**	**r 1**	**00**	**cc**
Aug. 1.....	273	..	350	..	..	0	+	..	+	..	..
" 1.....		..	..	..	..	0	+	..	+	..	..
" 1.....		..	..	..	..	0	+	..	..	..	..
" 1.....		..	..	..	..	..	0	..	..	..	..
" 3.....		..	1500	..	..	0	+	..	+	..	..
" 3.....		..	..	..	..	0	+	..	+	..	..
" 3.....		..	..	..	..	0	+	..	..	..	..
" 3.....		..	..	..	..	..	+	..	..	..	..
" 5.....		..	1800	..	..	0	+	..	+	..	..
" 5.....		..	..	..	..	0	+	..	+	..	..
" 5.....		..	..	..	..	0	0	..	..	..	..
" 5.....		..	..	..	..	..	0	..	..	..	..
" 6.....		..	1700	..	..	0	+	..	+	..	..
" 6.....		..	..	..	..	0	0	..	0	..	..
" 6.....		..	..	..	..	0	0	..	..	..	..
" 6.....		..	..	..	..	..	0	..	..	..	..
" 7.....		..	1000	..	..	+	+	..	+	..	..
" 7.....		..	..	..	..	0	+	..	+	..	..
" 7.....		..	..	..	..	0	+	..	..	..	..
" 7.....		..	..	..	..	..	+	..	..	..	..
" 8.....		..	1100	..	..	0	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	+	..	..
" 8.....		..	..	..	..	0	+	..	..	..	..
" 8.....		..	..	..	..	..	+	..	..	..	..
" 9.....		..	950	..	..	0	+	..	+	..	..
" 9.....		..	..	..	..	0	+	..	+	..	..
" 9.....		..	..	..	..	..	+	..	..	..	..
" 9.....		..	..	..	..	..	+	..	..	..	..
" 10.....		..	1600	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	+	..	..
" 10.....		..	..	..	..	0	+	..	..	..	..

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Montreal, Que. Waters of the St. Lawrence River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .001cc	.01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Aug. 10	273	..	..	..	..	..	0	..	..	..	..
" 19		..	1700	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	+	..	+	..	..
" 19		..	..	..	..	0	+	..	..	..	..
" 19		..	..	..	..	..	+	..	..	..	..
" 21		..	1900	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	+	..	+	..	..
" 21		..	..	..	..	0	+	..	..	..	..
" 21		..	..	..	..	..	0	..	..	..	..
" 22		..	1900	..	..	+	+	..	+	..	..
" 22		..	..	..	..	+	+	..	+	..	..
" 22		..	..	..	..	0	+	..	..	..	..
" 22		..	..	..	..	..	+	..	..	..	..
" 23		..	350	..	..	+	+	..	+	..	..
" 23		..	..	..	..	0	+	..	+	..	..
" 23		..	..	..	..	0	+	..	..	..	..
Aug. 23	273	..	..	..	..	..	+	..	..	..	..
" 25		..	240	..	..	+	+	..	+	..	..
" 25		..	..	..	..	0	+	..	+	..	..
" 25		..	..	..	..	0	+	..	..	..	..
" 25		..	..	..	..	..	+	..	..	..	..
" 26		..	190	..	..	+	+	..	+	..	..
" 26		..	..	..	..	0	+	..	+	..	..
" 26		..	..	..	..	0	+	..	..	..	..
" 26		..	..	..	..	..	0	..	..	..	..
" 27		..	375	..	..	+	+	..	+	..	..
" 27		..	..	..	..	0	+	..	+	..	..
" 27		..	..	..	..	..	+	..	..	..	..
" 27		..	..	..	..	..	+	..	..	..	..
Averages			1110	1	90	B.	C.	pe	r 1	00	cc

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Van Buren, Maine. Waters of the St. Johns River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	1	..	297	..	..	0	+	..	+	..	..
" 9		..	195	0	..	0	0	..	+	..	..
" 10		..	383	0	..	0	+	..	+	..	..
" 11		..	668	0	..	+	+	..	+	..	..
" 12		..	1080	0	..	+	+	..	+	..	..
" 14		..	350	..	..	+	+	..	+	..	..
" 15		..	896	..	..	+	+	..	+	..	..
" 16		..	257	..	..	0	0	..	+	..	..
" 18		..	60	..	..	+	+	..	+	..	..
" 22		..	281	+	..	+	+	..	+	..	..
" 23		..	182	+	..	0	+	..	+	..	..
" 24		..	122	..	..	0	+	..	+	..	..
" 25		..	140	0	0	0	+	..	..	..	..
" 27		..	183	0	..	0	+	..	+	..	..
" 28		..	37	0	..	+	+	..	+	..	..
" 29		..	99	0	..	0	+	..	+	..	..
" 30		..	58	0	0	+	+	..	..	..	..
" 31		..	206	0	..	+	+	..	+	..	..
Nov. 1		..	157	+	..	0	+	..	+	..	..
" 3		..	111	..	..	0	0	..	..	..	..
" 4		..	17	..	..	0	0	..	..	..	..
Averages			**275**	**65**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**
Oct. 7	2	..	383	..	..	+	+	..	+	..	..
" 9		..	245	+	..	0	+	..	+	..	..
" 10		..	416	0	..	0	+	..	+	..	..
" 11		..	974	0	..	+	+	..	+	..	..
" 12		..	267	0	..	+	+	..	+	..	..
" 14		..	806	..	..	+	+	..	+	..	..
" 15		..	998	0	..	+	+	..	+	..	..
" 16		..	286	..	..	0	+	..	+	..	..
" 18		..	40	..	..	+	+	..	+	..	..
" 22		..	207	+	..	0	+	..	+	..	..
" 23		..	141	0	..	+	+	..	+	..	..
" 24		..	310	+	..	+	+	..	+	..	..
" 25		..	30	+	0	+	+	..	..	..	..
" 27		..	85	0	..	0	+	..	+	..	..
" 28		..	81	+	..	+	+	..	+	..	..
" 29		..	102	0	..	0	+	..	+	..	..
" 30		..	110	0	0	+	+	..	..	..	..
" 31		..	261	0	..	+	+	..	+	..	..
Nov. 1		..	142	0	..	+	+	..	+	..	..
" 3		..	76	..	..	0	0	..	..	..	..
" 4		..	26	..	..	0	0	..	..	..	..
Averages			**285**	**160**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	3	..	346	..	..	+	+	..	+	..	..
" 9		..	214	0	..	0	+	..	+	..	..
" 10		..	290	0	..	0	+	..	+	..	..
" 11		..	578	0	..	+	+	..	+	..	..
" 12		..	874	0	..	+	+	..	+	..	..
" 14		..	184	..	..	+	+	..	+	..	..
" 15		..	362	0	..	+	+	..	+	..	..
" 16		..	210	..	..	0	+	..	+	..	..
" 18		..	134	..	..	+	+	..	+	..	..
" 22		..	290	+	..	+	+	..	+	..	..
" 23		..	146	0	..	+	+	..	+	..	..
" 24		..	370	0	..	+	+	..	+	..	..
" 25		..	150	+	0	0	+	..	..	..	..
" 27		..	75	0	..	+	+	..	+	..	..
" 28		..	31	0	..	0	+	..	+	..	..
" 29		..	96	0	..	0	+	..	+	..	..
" 30		..	169	0	0	0	+	..	..	..	..
" 31		..	248	+	..	0	+	..	+	..	..
Nov. 1		..	109	0	..	+	+	..	+	..	..
" 3		..	68	..	..	0	0	..	..	..	..
" 4		..	36	+	..	0	+	..	..	..	..
Averages			**237**	**70**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**
Oct. 7	4	..	327	..	..	+	+	..	+	..	..
" 9		..	328	+	..	+	+	..	+	..	..
" 10		..	..	0	..	0	+	..	+	..	..
" 11		..	168	0	..	+	+	..	+	..	..
" 12		..	201	0	..	+	+	..	+	..	..
" 14		..	233	..	..	+	+	..	+	..	..
" 15		..	244	+	..	+	+	..	+	..	..
" 16		..	214	..	..	0	+	..	+	..	..
" 18		..	64	..	..	0	+	..	+	..	..
" 22		..	196	+	..	0	+	..	+	..	..
" 23		..	148	0	..	0	+	..	+	..	..
" 24		..	160	0	..	+	+	..	+	..	..
" 25		..	..	..	..	..	..	..	..	..	..
" 27		..	142	+	..	0	0	..	+	..	..
" 28		..	66	+	..	+	+	..	+	..	..
" 29		..	82	+	..	0	+	..	+	..	..
" 30		..	92	0	0	0	+	..	..	..	..
" 31		..	142	0	..	0	+	..	+	..	..
Nov. 1		..	118	0	..	+	+	..	+	..	..
" 3		..	53	0	..	0	+	..	..	..	..
" 4		..	34	..	..	0	0	..	..	..	..
Averages			**153**	**167**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00 cc**

* In computing B. Coli averages for this sheet, Endo "0" rejected Least+Quantity.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Van Buren, Maine. Waters of the St. Johns River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	5	..	..	..	..	..	..	..	..	..	..
" 9		..	166	0	..	0	+	..	+	..	..
" 10		..	406	0	..	0	+	..	+	..	..
" 11		..	70	0	..	+	+	..	+	..	..
" 12		..	101	0	..	0	+	..	+	..	..
" 14		..	128	..	..	+	+	..	+	..	..
" 15		..	748	+	..	+	+	..	+	..	..
" 16		..	129	..	..	0	+	..	+	..	..
" 18		..	58	..	..	0	0	..	+	..	..
" 22		..	322	0	..	+	+	..	+	..	..
" 23		..	212	+	..	0	+	..	+	..	..
" 24		..	350	+	..	+	+	..	+	..	..
" 25		..	70	0	0	+	+	..	..	..	..
" 27		..	..	+	..	0	+	..	+	..	..
" 28		..	spreader	+	..	+	+	..	+	..	..
" 29		..	110	0	..	0	+	..	+	..	..
" 30		..	63	0	+	+	+	..	..	..	..
" 31		..	160	0	..	+	+	..	+	..	..
Nov. 1		..	128	0	..	+	+	..	+	..	..
" 3		..	55	..	..	0	0	..	..	..	..
" 4		..	26	..	..	0	0	..	..	..	..
Averages			**183**	**160**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 7	6		126	..	..	+	+	..	+	..	..
" 9			54	0	..	+	+	..	+	..	..
" 10		..	..	+	..	+	+	..	+	..	..
" 11		..	122	0	..	+	+	..	+	..	..
" 12		..	136	0	..	0	+	..	+	..	..
" 14		..	127	..	..	+	+	..	+	..	..
" 15		..	318	0	..	+	+	..	+	..	..
" 16		..	160	..	..	0	+	..	+	..	..
" 18		..	36	..	..	0	0	..	+	..	..
" 22		..	250	0	..	+	+	..	+	..	..
" 23		..	290	+	..	0	+	..	+	..	..
" 24		..	770	0	..	+	+	..	+	..	..
" 25		..	330	0	0	+	+	..	..	..	..
" 27		..	..	+	..	0	+	..	+	..	..
" 28		..	54	0	..	+	+	..	+	..	..
" 29		..	182	0	..	+	+	..	+	..	..
" 30		..	112	0	0	+	+	..	..	..	..
" 31		..	220	0	..	0	+	..	+	..	..
Nov. 1		..	205	+	..	+	+	..	+	..	..
" 3		..	28	..	..	0	0	..	..	..	..
" 4		..	37	..	..	0	0	..	..	..	..
Averages			**182**	**112**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	7	..	116	..	..	+	+	..	+	..	..
" 9		..	17	0	..	0	+	..	+	..	..
" 10		..	7	0	..	0	0	..	+	..	..
" 11		..	94	0	..	0	0	..	+	..	..
" 12		..	87	0	..	+	+	..	+	..	..
" 14		..	174	..	..	+	+	..	+	..	..
" 15		..	282	0	..	0	+	..	+	..	..
" 16		..	110	..	..	0	+	..	+	..	..
" 18		..	36	..	..	0	+	..	+	..	..
" 22		..	297	+	..	+	+	..	+	..	..
" 23		..	100	+	..	+	+	..	+	..	..
" 24		..	210	+	..	+	+	..	+	..	..
" 25		..	130	0	0	0	+	..	+	..	..
" 27		..	183	+	..	0	+	..	+	..	..
" 28		..	49	0	..	+	+	..	+	..	..
" 29		..	154	0	..	0	+	..	+	..	..
" 30		..	105	0	0	+	+	..	..	..	..
" 31		..	65	0	..	0	+	..	+	..	..
Nov. 1		..	151	0	..	+	+	..	+	..	..
" 3		..	39	+	..	+	0	..	..	..	..
" 4		..	24	..	..	0	+	..	..	..	..
Averages			**110**	**155**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 7	8	..	650	..	..	+	+	..	+	..	..
" 9		..	33	0	..	0	0	..	+	..	..
" 10		..	236	0	..	0	+	..	+	..	..
" 11		..	1420	+	..	+	+	..	+	..	..
" 12		..	158	0	..	+	+	..	+	..	..
" 14		..	216	..	..	+	+	..	+	..	..
" 15		..	1025	0	..	+	+	..	+	..	..
" 16		..	..	..	..	+	+	..	+	..	..
" 18		..	259	..	..	+	+	..	+	..	..
" 22		..	254	+	..	+	+	..	+	..	..
" 23		..	234	+	..	+	+	..	+	..	..
" 24		..	370	..	..	0	+	..	+	..	..
" 25		..	50	+	0	+	+	..	..	..	..
" 27		..	227	+	..	+	+	..	+	..	..
" 28		..	63	+	..	0	+	..	+	..	..
" 29		..	159	0	..	+	+	..	+	..	..
" 30		..	113	0	0	+	+	..	..	..	..
" 31		..	124	0	..	+	+	..	+	..	..
Nov. 1		..	228	0	..	+	+	..	+	..	..
" 3		..	15	..	..	0	0	..	..	..	..
" 4		..	5	..	..	0	0	..	..	..	..
Averages			**291**	**250**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* In compnting B. Coli averages for this sheet, Endo "0" rejected Least+Quantity.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Van Buren, Maine. Waters of the St. Johns River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	9	..	86	..	..	0	+	..	+	..	..
" 9		..	9	0	..	0	+	..	+	..	..
" 10		..	37	0	..	0	+	..	+	..	..
" 11		..	1138	0	..	+	+	..	+	..	..
" 12		..	72	0	..	+	+	..	+	..	..
" 14		..	108	..	..	0	+	..	+	..	..
" 15		..	222	0	..	+	+	..	+	..	..
" 16		..	75	..	..	+	+	..	+	..	..
" 18		..	46	..	..	0	+	..	+	..	..
" 22		..	256	0	..	+	+	..	+	..	..
" 23		..	85	0	..	0	+	..	+	..	..
" 24		..	370	0	..	0	+	..	+	..	..
" 25		..	50	+	0	0	+	..	..	..	..
" 27		..	146	0	..	0	+	..	+	..	..
" 28		..	93	+	..	0	+	..	+	..	..
" 29		..	166	0	..	+	+	..	+	..	..
" 30		..	147	0	0	+	+	..	..	..	..
" 31		..	216	0	..	0	+	..	+	..	..
Nov. 1		..	165	0	..	+	+	..	+	..	..
" 3		..	36	..	..	0	0	..	..	..	..
" 4		..	7	..	..	0	0	..	..	..	..
Averages			**168**	**18**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Oct. 7	10	..	326	..	..	0	+	..	+	..	..
" 9		..	515	0	..	0	+	..	+	..	..
" 10		..	584	0	..	0	+	..	+	..	..
" 11		..	392	0	..	0	+	..	+	..	..
" 12		..	104	0	..	0	+	..	+	..	..
" 14		..	395	..	..	+	+	..	+	..	..
" 15		..	908	0	..	+	+	..	+	..	..
" 16		..	468	..	..	0	+	..	+	..	..
" 18		..	386	..	..	+	+	..	+	..	..
" 22		..	227	+	..	+	+	..	+	..	..
" 23		..	348	0	..	+	+	..	+	..	..
" 24		..	520	+	..	+	+	..	+	..	..
" 25		..	80	+	0	0	+	..	..	..	..
" 27		..	214	0	..	+	+	..	+	..	..
" 28		..	64	0	..	0	+	..	+	..	..
" 29		..	165	+	..	0	+	..	+	..	..
" 30		..	135	0	0	0	+	..	..	..	..
" 31		..	133	0	..	0	+	..	+	..	..
Nov. 1		..	97	0	..	+	+	..	+	..	..
" 3		..	54	..	..	0	0	..	..	..	..
" 4		..	39	..	..	0	0	..	..	..	..
Averages			**293**	**112**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	11	..	243	..	..	0	+	..	+	..	..
" 9		..	76	0	..	0	+	..	+	..	..
" 10		..	73	0	..	0	+	..	+	..	..
" 11		..	50	0	..	+	+	..	+	..	..
" 12		..	78	0	..	+	+	..	+	..	..
" 14		..	158	..	..	+	+	..	+	..	..
" 15		..	340	0	..	+	+	..	+	..	..
" 16		..	420	..	..	+	+	..	+	..	..
" 18		..	568	..	..	+	+	..	+	..	..
" 22		..	232	+	..	+	+	..	+	..	..
" 23		..	128	0	..	+	+	..	+	..	..
" 24		..	330	..	..	0	+	..	+	..	..
" 25		..	110	0	0	0	+	..	..	..	..
" 27		..	174	0	..	0	+	..	+	..	..
" 28		..	51	0	..	0	+	..	+	..	..
" 29		..	117	0	..	0	+	..	+	..	..
" 30		..	111	0	0	+	+	..	..	..	..
" 31		..	125	0	..	0	+	..	+	..	..
Nov. 1		..	132	0	..	+	+	..	+	..	..
" 3		..	54	..	..	0	0	..	0	..	..
" 4		..	24	..	..	0	0	..	..	..	..
Averages			**171**	**57**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Oct. 7	12	..	75	..	..	0	+	..	+	..	..
" 9		..	148	0	..	0	0	..	+	..	..
" 10		..	37	0	..	0	+	..	+	..	..
" 11		..	108	+	..	0	+	..	+	..	..
" 12		..	101	0	..	+	+	..	+	..	..
" 14		..	340	..	..	+	+	..	+	..	..
" 15		..	334	0	..	+	+	..	+	..	..
" 16		..	174	..	..	+	+	..	+	..	..
" 18		..	299	..	..	+	+	..	+	..	..
" 22		..	532	+	..	+	+	..	+	..	..
" 23		..	70	0	..	+	+	..	+	..	..
" 24		..	630	..	..	0	+	..	+	..	..
" 25		..	160	0	0	0	+	..	..	..	..
" 27		..	145	0	..	+	+	..	+	..	..
" 28		..	79	0	..	+	+	..	+	..	..
" 29		..	214	0	..	+	+	..	+	..	..
" 30		..	176	0	0	+	+	..	..	..	..
" 31		..	578	0	..	0	+	..	+	..	..
Nov. 1		..	70	0	..	+	+	..	+	..	..
" 3		..	64	..	..	0	0	..	..	..	..
" 4		..	34	..	..	0	0	..	..	..	..
Averages			**208**	**61**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

* In computing B. Coli averages for this sheet. Endo "0" rejected Least+Quantity.

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Field Laboratory Reports. Laboratory at Van Buren, Maine. Waters of the St. Johns River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	13	..	99	..	..	0	+	..	+	..	..
" 9		..	46	+	..	0	+	..	+	..	..
" 10		..	40	+	..	0	+	..	+	..	..
" 11		..	194	0	..	+	+	..	+	..	..
" 12		..	147	0	..	+	+	..	+	..	..
" 14		..	143	..	..	+	+	..	+	..	..
" 15		..	294	0	..	+	+	..	+	..	..
" 16		..	152	..	..	+	+	..	+	..	..
" 18		..	234	..	..	0	+	..	+	..	..
" 22		..	282	0	..	+	+	..	+	..	..
" 23		..	238	+	..	+	+	..	+	..	..
" 24		..	310	0	..	+	+	..	+	..	..
" 25		..	140	+	0	0	+	..	..	..	..
" 27		..	127	0	..	0	+	..	+	..	..
" 28		..	129	0	..	0	+	..	+	..	..
" 29		..	160	0	..	+	+	..	+	..	..
" 30		..	138	0	0	+	+	..	..	..	..
" 31		..	94	0	..	0	+	..	+	..	..
Nov. 1		..	218	+	..	0	+	..	+	..	..
" 3		..	33	..	..	0	0	..	..	..	..
" 4		..	73	..	..	0	0	..	..	..	..
Averages			**156**	**74**	**B.**	**Co**	**li**	**pe**	**r**	**100**	**cc**
Oct. 7	14	..	149	..	..	0	+	..	+	..	..
" 9		..	145	0	..	0	+	..	+	..	..
" 10		..	168	0	..	0	+	..	+	..	..
" 11		..	118	0	..	+	+	..	+	..	..
" 12		..	127	0	..	+	+	..	+	..	..
" 14		..	506	..	..	+	+	..	+	..	..
" 15		..	264	+	..	+	+	..	+	..	..
" 16		..	198	..	..	+	+	..	+	..	..
" 18		..	234	..	..	0	+	..	+	..	..
" 22		..	230	+	..	0	+	..	+	..	..
" 23		..	242	+	..	+	+	..	+	..	..
" 24		..	160	..	..	0	+	..	+	..	..
" 25		..	60	0	..	+	+	..	..	..	..
" 27		..	218	0	..	+	+	..	+	..	..
" 28		..	61	0	..	0	+	..	+	..	..
" 29		..	159	0	..	+	+	..	+	..	..
" 30		..	69	0	..	0	+	..	..	..	..
" 31		..	243	0	..	+	+	..	+	..	..
Nov. 1		..	104	0	..	+	+	..	+	..	..
" 3		..	51	..	..	0	0	..	..	..	..
" 4		..	18	..	..	0	0	..	..	..	..
Averages			**167**	**103**	**B.**	**Co**	**li**	**pe**	**r**	**100**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation — Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation — Count Per CC	Reaction on Endo Last+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	15	..	128	..	..	0	+	..	+	..	..
" 9		..	88	+	..	0	+	..	+	..	..
" 10		..	213	0	..	0	+	..	+	..	..
" 11		..	88	+	..	0	+	..	+	..	..
" 12		..	240	0	..	+	+	..	+	..	..
" 14		..	332	..	..	+	+	..	+	..	..
" 15		..	386	0	..	+	+	..	+	..	..
" 16		..	182	..	..	0	+	..	+	..	..
" 18		..	317	..	..	+	+	..	+	..	..
" 22		..	205	+	..	+	+	..	+	..	..
" 23		..	210	0	..	+	+	..	+	..	..
" 24		..	180	..	..	0	+	..	+	..	..
" 25		..	140	+	0	+	+	..	+	..	..
" 27		..	224	0	..	+	+	..	+	..	..
" 28		..	15	+	..	+	+	..	+	..	..
" 29		..	153	+	..	0	+	..	+	..	..
" 30		..	46	0	0	+	+	..	..	..	..
" 31		..	183	0	..	0	+	..	+	..	..
Nov. 1		..	85	0	..	+	+	..	+	..	..
" 3		..	53	0	..	0	+	..	..	..	..
" 4		..	46	..	..	0	0	..	..	..	..
Averages			**167**	**164**	**B.**	**Co**	**li**	**pe**	**r**	**100**	**cc**
Oct. 7	16	..	85	..	..	+	+	..	+	..	..
" 9		..	105	0	..	0	+	..	+	..	..
" 10		..	208	0	..	+	+	..	+	..	..
" 11		..	26	+	..	+	+	..	+	..	..
" 12		..	249	0	..	+	+	..	+	..	..
" 14		..	578	..	..	+	+	..	+	..	..
" 15		..	526	+	..	+	+	..	+	..	..
" 16		..	184	..	..	+	+	..	+	..	..
" 18		..	298	..	..	+	+	..	+	..	..
" 22		..	212	0	..	+	+	..	+	..	..
" 23		..	169	+	..	+	+	..	+	..	..
" 24		..	130	..	..	0	+	..	+	..	..
" 25		..	120	0	0	0	+	..	..	..	..
" 27		..	89	0	..	0	+	..	+	..	..
" 28		..	99	0	..	0	+	..	+	..	..
" 29		..	186	+	..	0	+	..	+	..	..
" 30		..	131	0	0	+	+	..	..	..	..
" 31		..	61	0	..	+	+	..	+	..	..
Nov. 1		..	155	0	..	0	+	..	+	..	..
" 3		..	15	..	..	0	0	..	..	..	..
" 4		..	42	..	..	0	0	..	..	..	..
Averages			**174**	**175**	**B.**	**Co**	**li**	**pe**	**r**	**100**	**cc**

* In computing B. Coli averages for this sheet, Endo "0" rejected Least+Quantity.

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DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 7	17	..	138	..	..	+	+	..	+	..	..
" 9		..	94	0	..	0	+	..	+	..	..
" 10		..	96	0	..	+	+	..	+	..	..
" 11		..	51	0	..	0	+	..	+	..	..
" 12		..	205	0	..	+	+	..	+	..	..
" 14		..	363	..	..	+	+	..	+	..	..
" 15		..	564	0	..	+	+	..	+	..	..
" 16		..	240	..	..	0	+	..	+	..	..
" 18		..	217	..	..	+	+	..	+	..	..
" 22		..	315	+	..	0	+	..	+	..	..
" 23		..	215	0	..	+	+	..	+	..	..
" 24		..	270	..	..	0	+	..	+	..	..
" 25		..	30	+	0	+	0	..	..	..	..
" 27		..	180	+	..	0	+	..	+	..	..
" 28		..	76	0	..	0	+	..	+	..	..
" 29		..	201	+	..	0	+	..	+	..	..
" 30		..	97	0	0	+	+	..	..	..	..
" 31		..	172	0	..	0	+	..	+	..	..
Nov. 1		..	106	+	..	0	+	..	+	..	..
" 3		..	5	..	..	0	0	..	..	..	..
" 4		..	77	..	..	0	0	..	..	..	..
Averages			**176**	**31**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 7	18	..	160	..	..	+	+	..	+	..	..
" 9		..	179	0	..	0	+	..	+	..	..
" 10		..	292	0	..	0	+	..	+	..	..
" 11		..	166	0	..	0	+	..	+	..	..
" 12		..	228	0	..	+	+	..	+	..	..
" 14		..	752	..	..	+	+	..	+	..	..
" 15		..	604	+	..	+	+	..	+	..	..
" 16		..	248	..	..	0	+	..	+	..	..
" 18		..	343	..	..	0	+	..	+	..	..
" 22		..	212	+	..	+	+	..	+	..	..
" 23		..	254	0	..	0	+	..	+	..	..
" 24		..	..	0	..	+	+	..	+	..	..
" 25		..	60	+	..	0	+	..	..	..	..
" 27		..	180	+	..	0	+	..	+	..	..
" 28		..	74	0	..	0	+	..	+	..	..
" 29		..	89	+	..	0	+	..	+	..	..
" 31		..	71	0	..	+	+	..	..	..	..
Nov. 1		..	136	0	..	+	+	..	+	..	..
" 3		..	23	..	..	0	0	..	..	..	..
" 4		..	98	0	..	0	+	..	..	..	..
Averages			**214**	**117**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 2	19	..	50	..	..	0	0	..	+	..	..
" 3		..	69	..	..	0	0	..	+	..	..
" 4		..	23	..	..	+	+	..	+	..	..
" 8		..	224	..	..	0	+	..	+	..	..
" 9		..	43	+	..	0	+	..	+	..	..
" 10		..	248	0	..	+	+	..	+	..	..
" 11		..	236	0	..	+	+	..	+	..	..
" 13		..	32	0	..	+	+	..	+	..	..
" 14		..	227	..	..	+	+	..	+	..	..
" 15		..	904	+	..	+	+	..	+	..	..
" 16		..	206	..	..	0	+	..	+	..	..
" 17		..	101	..	..	+	+	..	+	..	..
" 22		..	342	+	..	0	+	..	+	..	..
" 25		..	360	+	..	+	+	..	+	..	..
" 24		..	220	..	..	0	+	..	+	..	..
" 27		..	1670	+	0	0	+	..	..	..	..
" 28		..	80	0	0	0	+	..	..	..	..
" 29		..	120	0	0	0	+	..	..	..	..
" 31		..	60	0	0	+	+	..	..	..	..
Nov. 3		..	80	..	0	0	0	..	..	..	..
" 4		..	21	..	..	0	0	..	..	..	..
Averages			**253**	**117**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 2	20	..	33	..	..	0	+	..	..	..	..
" 3		..	45	..	..	0	+	..	+	..	..
" 4		..	15	..	..	+	+	..	+	..	..
" 8		..	550	..	..	+	+	..	+	..	..
" 9		..	174	+	..	+	+	..	+	..	..
" 10		..	744	0	..	0	+	..	+	..	..
" 11		..	204	+	..	+	+	..	+	..	..
" 13		..	258	0	..	+	+	..	+	..	..
" 14		..	236	..	..	+	+	..	+	..	..
" 15		..	924	0	..	+	0	..	+	..	..
" 16		..	252	..	..	+	+	..	+	..	..
" 17		..	596	..	..	+	+	..	+	..	..
" 22		..	268	+	..	+	+	..	+	..	..
" 23		..	390	0	..	+	+	..	+	..	..
" 24		..	530	..	..	0	+	..	+	..	..
" 27		..	230	+	0	0	+	..	..	..	..
" 28		..	100	0	0	0	+	..	..	..	..
" 29		..	280	+	0	0	0	..	+	..	..
" 31		..	590	0	0	+	+	..	..	..	..
Nov. 3		..	60	..	0	0	0	..	..	..	..
" 4		..	109	..	..	0	0	..	..	..	..
Averages			**318**	**155**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* In computing B. Coli averages for this sheet, Endo "0" rejected Least+Quantity.

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Oct. 2	21	..	23	..	..	+	0	..	+	..	..
" 3		..	73	..	..	0	+	..	+	..	..
" 4		..	43	..	..	0	+	..	+	..	..
" 8		..	540	..	..	0	+	..	+	..	..
" 9		..	18	0	..	0	+	..	+	..	..
" 10		..	321	0	..	0	+	..	+	..	..
" 11		..	614	0	..	+	+	..	+	..	..
" 13		..	244	0	..	+	+	..	+	..	..
" 14		..	2248	..	..	+	+	..	+	..	..
" 15		..	1090	+	..	+	+	..	+	..	..
" 16		..	625	..	..	+	+	..	+	..	..
" 17		..	736	..	..	+	+	..	+	..	..
" 22		..	310	+	..	+	+	..	+	..	..
" 23		..	890	0	..	+	+	..	+	..	..
" 24		..	330	..	..	0	+	..	+	..	..
" 27		..	300	+	0	0	+	..	0	..	..
" 28		..	310	0	0	0	+	..	0	..	..
" 29		..	566	0	0	0	0	..	0	..	..
" 31		..	410	0	0	+	+	..	0	..	..
Nov. 3		..	20	..	0	0	0	..	0	..	..
" 4		..	102	0	..	0	+	..	0	..	..
Averages			**467**	**103**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Oct. 2	22	..	22	..	..	0	+	..	+	..	..
" 3		..	52	..	..	0	+	..	+	..	..
" 4		..	80	..	..	+	+	..	+	..	..
" 8		..	392	..	..	0	+	..	+	..	..
" 9		..	652	0	..	0	+	..	+	..	..
" 10		..	155	0	..	+	+	..	+	..	..
" 11		..	428	0	..	0	+	..	+	..	..
" 13		..	265	0	..	+	+	..	+	..	..
" 14		..	1452	..	..	+	+	..	+	..	..
" 15		..	738	+	..	+	+	..	+	..	..
" 16		..	688	..	..	+	+	..	+	..	..
" 17		..	678	..	..	+	+	..	+	..	..
" 22		..	532	+	..	+	+	..	+	..	..
" 23		..	680	0	..	+	+	..	+	..	..
" 24		..	610	0	..	+	+	..	+	..	..
" 27		..	270	+	0	0	+	..	0	..	..
" 28		..	100	0	0	0	+	..	0	..	..
" 29		..	360	+	0	0	+	..	0	..	..
" 31		..	370	0	0	+	+	..	0	..	..
Nov. 3		..	30	..	0	0	0	..	0	..	..
" 4		..	518	0	..	0	+	..	0	..	..
Averages			**432**	**112**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 2	23	..	38	..	..	0	+	..	+	..	..
" 3		..	56	..	..	0	+	..	+	..	..
" 4		..	19	..	..	0	+	..	+	..	..
" 8		..	193	..	..	0	+	..	+	..	..
" 9		..	159	0	..	0	+	..	+	..	..
" 10		..	370	0	..	+	+	..	+	..	..
" 11		..	268	0	..	+	+	..	+	..	..
" 13		..	404	0	..	+	+	..	+	..	..
" 14		..	1252	..	..	+	+	..	+	..	..
" 15		..	792	+	..	+	+	..	+	..	..
" 16		..	1030	..	..	0	+	..	+	..	..
" 17		..	194	..	..	+	0	..	+	..	..
" 22		..	954	+	..	+	+	..	+	..	..
" 23		..	750	+	..	+	+	..	+	..	..
" 24		..	830	+	..	+	+	..	+	..	..
" 27		..	480	+	0	0	+	..	0	..	..
" 28		..	560	+	+	+	+	..	0	..	..
" 29		..	1080	0	0	+	+	..	0	..	..
" 31		..	1320	0	0	+	+	..	0	..	..
Nov. 3		..	160	..	0	0	0	..	0	..	..
" 4		..	133	0	..	0	+	..	0	..	..
Averages			**525**	**725**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**
Oct. 2	24	..	39	..	..	0	+	..	+	..	..
" 3		..	39	..	..	0	+	..	+	..	..
" 4		..	72	..	..	0	+	..	+	..	..
" 8		..	159	..	..	+	+	..	+	..	..
" 9		..	323	0	..	0	+	..	+	..	..
" 10		..	51	0	..	+	+	..	+	..	..
" 11		..	47	0	..	+	+	..	+	..	..
" 13		..	318	0	..	+	+	..	+	..	..
" 14		..	524	..	..	+	+	..	+	..	..
" 15		..	492	+	..	0	0	..	+	..	..
" 16		..	546	0	..	+	+	..	+	..	..
" 17		..	194	0	..	0	+	..	+	..	..
" 22		..	600	+	..	+	+	..	+	..	..
" 23		..	800	+	..	+	+	..	+	..	..
" 24		..	930	+	..	+	+	..	+	..	..
" 27		..	1540	0	0	+	+	..	..	..	..
" 28		..	310	+	0	0	+	..	..	..	..
" 29		..	1350	+	0	+	+	..	..	..	..
" 31		..	650	0	0	+	+	..	..	..	..
Nov. 3		..	180	0	0	+	+	..	..	..	..
" 4		..	310	0	..	+	+	..	..	..	..
Averages			**456**	**202**	**B.**	**Co**	**li**	**pe**	**r**	**1**	**00**	**cc**

* In computing B. Coli averages for this sheet, Endo "0" rejected Least+Quantity.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Van Buren, Maine. Waters of the St. Johns River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 2.....	25	..	66	..	..	0	+	..	+	..	..
" 3.....		..	44	..	..	+	+	..	+	..	..
" 4.....		..	24	..	..	0	+	..	+	..	..
" 8.....		..	120	..	..	0	+	..	+	..	..
" 9.....		..	76	+	..	0	+	..	+	..	..
" 10.....		..	282	0	..	+	+	..	+	..	..
" 11.....		..	44	0	..	0	+	..	+	..	..
" 13.....		..	225	0	..	+	+	..	+	..	..
" 14.....		..	579	..	..	+	+	..	+	..	..
" 15.....		..	676	0	..	+	0	..	+	..	..
" 16.....		..	578	..	..	+	+	..	+	..	..
" 17.....		..	109	..	..	+	+	..	+	..	..
" 22.....		..	316	+	..	+	+	..	+	..	..
" 23.....		..	690	+	..	0	+	..	+	..	..
" 24.....		..	500	+	..	+	+	..	+	..	..
" 27.....		..	350	0	+	+	+	..	..	..	..
" 28.....		..	200	0	0	+	+	..	..	..	..
" 29.....		..	230	0	0	+	+	..	..	..	..
" 31.....		..	390	0	0	0	+	..	..	..	..
Nov. 3.....		..	40	0	0	0	+	..	..	..	..
" 4.....		..	255	0	..	0	+	+	..	..	..
Averages.....			**274**	**112**	**B.**	**o**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 2.....	26	..	61	..	..	0	+	..	+	..	..
" 3.....		..	62	..	..	+	0	..	+	..	..
" 4.....		..	64	..	..	0	0	..	+	..	..
" 8.....		..	100	..	..	0	+	..	+	..	..
" 9.....		..	177	0	..	0	0	..	+	..	..
" 10.....		..	238	0	..	+	+	..	+	..	..
" 11.....		..	85	0	..	+	0	..	+	..	..
" 13.....		..	399	0	..	+	+	..	+	..	..
" 14.....		..	284	..	..	+	+	..	+	..	..
" 15.....		..	394	+	..	0	0	..	+	..	..
" 16.....		..	294	..	..	+	+	..	+	..	..
" 17.....		..	237	..	..	+	+	..	+	..	..
" 22.....		..	574	+	..	+	+	..	+	..	..
" 23.....		..	580	0	..	+	+	..	+	..	..
" 24.....		..	690	..	..	0	+	..	+	..	..
" 27.....		..	750	+	0	0	+	..	..	..	..
" 28.....		..	100	0	0	+	+	..	..	..	..
" 29.....		..	720	0	0	+	+	..	..	..	
" 31.....		..	450	+	0	+	+	..	..	..	..
Nov. 3.....		..	200	0	0	0	+	..	..	..	..
" 4.....		..	124	+	..		+	..	..	..	..
Averages.....			**313**	**117**	**B.**	**Col**		**pe**	**r 1**	**00**	**cc**

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 2.....	27	..	36	..	..	0	+	..	+	..	..
" 3.....		..	72	..	..	0	+	..	+	..	..
" 4.....		..	32	..	..	0	+	..	+	..	..
" 8.....		..	91	..	..	0	+	..	+	..	..
" 9.....		..	34	0	..	+	+	..	+	..	..
" 10.....		..	258	0	..	0	+	..	+	..	..
" 11.....		..	44	0	..	0	+	..	+	..	..
" 13.....		..	234	0	..	+	+	..	+	..	..
" 14.....		..	343	..	..	+	+	..	+	..	..
" 15.....		..	390	+	..	0	0	..	+	..	..
" 16.....		..	198	..	..	+	+	..	+	..	..
" 17.....		..	148	..	..	0	+	..	+	..	..
" 22.....		..	387	+	..	+	+	..	+	..	..
" 23.....		..	590	0	..	+	+	..	+	..	..
" 24.....		..	450	0	..	+	+	..	+	..	..
" 27.....		..	1160	0	0	+	+	..	..	..	..
" 28.....		..	280	0	0	0	+	..	..	..	..
" 29.....		..	360	0	0	+	+	..	..	..	..
" 31.....		..	690	0	0	+	+	..	..	..	..
Nov. 3.....		..	160	0	0	0	+	..	..	..	..
" 4.....		..	60	0	..	0	+	..	..	..	..
Averages.....			**286**	**57**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**
Oct. 2.....	28	..	20	..	..	0	+	..	+	..	..
" 3.....		..	68	..	..	+	+	..	+	..	..
" 4.....		..	14	..	..	0	+	..	+	..	..
" 8.....		..	203	..	..	0	+	..	+	..	..
" 9.....		..	122	+	..	+	+	..	+	..	..
" 11.....		..	83	0	..	0	+	..	+	..	..
" 13.....		..	374	0	..	+	+	..	+	..	..
" 14.....		..	290	..	..	+	+	..	+	..	..
" 15.....		..	532	..	+	0	0	..	+	..	..
" 16.....		..	284	+	..	+	+	..	+	..	..
" 17.....		..	172	..	..	0	+	..	+	..	..
" 22.....		..	225	+	..	+	+	..	+	..	..
" 23.....		..	540	+	..	0	+	..	+	..	..
" 24.....		..	760	+	..	+	+	..	+	..	..
" 27.....		..	540	0	0	+	+	..	..	..	..
" 28.....		..	340	+	0	+	+	..	..	..	..
" 29.....		..	410	0	0	0	+	..	..	..	..
" 31.....		..	690	+	0	+	+	..	..	..	..
Nov. 3.....		..	90	0	0	0	+	..	..	..	..
" 4.....		..	47	..	..	0	0	..	..	..	..
Averages.....			**289**	**254**	**B.**	**Co**	**li**	**pe**	**r 1**	**00**	**cc**

* In computing B. Coli averages for this sheet, Endo "0" rejected Least+Quantity.

INVESTIGATION OF POLLUTION OF BOUNDARY WATERS

Field Laboratory Reports. Laboratory at Van Buren, Maine. Waters of the St. Johns River.

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 2	29	..	88	..	..	0	+	..	+	..	..
" 3		..	66	..	..	0	+	..	+	..	..
" 4		..	24	..	..	0	+	..	+	..	..
" 8		..	260	..	..	0	+	..	+	..	..
" 9		..	160	0	..	+	+	..	+	..	..
" 10		..	155	0	..	+	+	..	+	..	..
" 11		..	93	0	..	+	+	..	+	..	..
" 13		..	226	0	..	+	+	..	+	..	..
" 14		..	200	..	..	+	+	..	+	..	..
" 15		..	492	+	..	0	+	..	+	..	..
" 16		..	204	..	..	0	+	..	+	..	..
" 17		..	177	..	..	0	+	..	+	..	..
" 22		..	600	0	..	+	+	..	+	..	..
" 23		..	760	+	..	+	+	..	+	..	..
" 24		..	340	+	..	+	+	..	+	..	..
" 27		..	270	+	+	+	+	..	..	..	..
" 28		..	640	0	0	0	+	..	..	..	..
" 29		..	230	0	0	+	+	..	..	..	..
" 31		..	460	+	0	+	+	..	..	..	..
Nov. 3		..	160	0	0	+	+	..	..	..	..
" 4		..	71	0	..	0	+	..	..	..	..
Averages			**270**	**631**	**B. Coli per 100 cc**						
Oct. 2	30	..	99	..	..	0	+	..	+	..	..
" 3		..	78	..	..	0	+	..	+	..	..
" 8		..	105	..	..	0	+	..	+	..	..
" 9		..	292	0	..	0	+	..	+	..	..
" 10		..	71	0	..	0	+	..	+	..	..
" 11		..	92	0	..	+	+	..	+	..	..
" 13		..	124	0	..	+	+	..	+	..	..
" 14		..	273	..	..	+	+	..	+	..	..
" 15		..	826	0	..	0	+	..	+	..	..
" 16		..	238	..	..	+	+	..	+	..	..
" 17		..	213	..	..	+	+	..	+	..	..
" 22		..	267	+	..	+	+	..	+	..	..
" 23		..	480	+	..	+	+	..	+	..	..
" 24		..	310	0	..	0	+	..	+	..	..
" 27		..	270	+	0	0	+	..	..	..	..
" 28		..	180	0	0	+	+	..	..	..	..
" 29		..	170	0	+	+	+	..	..	..	..
" 31		..	320	+	0	0	+	..	..	..	..
Nov. 3		..	30	..	0	0	0	..	..	..	..
" 4		..	75	0	..	0	+	..	..	..	..
Averages			**225**	**112**	**B. Coli per 100 cc**						

DATE 1913	Sampling Point No.	Bacterial Counts: Incub. temp. 18°–22°C, Plain Agar, 48 hours Incubation, Count Per CC	Bacterial Counts: Incub. temp. 37°C, Plain Agar, 24 hours Incubation, Count Per CC	Reaction on Endo Least+Quantity*	Colon Bacilli Fermentation Test 48 Hours Incubation 37°C: .01cc	.1cc	1cc	5cc	10cc	25cc	50cc
Oct. 2	31	..	40	..	..	0	+	..	+	..	..
" 3		..	50	..	..	0	+	..	+	..	..
" 4		..	55	..	..	0	+	..	+	..	..
" 8		..	304	..	..	0	+	..	+	..	..
" 9		..	219	+	..	+	+	..	+	..	..
" 10		..	228	0	..	0	+	..	+	..	..
" 11		..	69	0	..	+	+	..	+	..	..
" 13		..	406	0	..	+	+	..	+	..	..
" 14		..	330	..	..	+	+	..	+	..	..
" 15		..	900	0	..	+	+	..	+	..	..
" 16		..	570	..	..	+	+	..	+	..	..
" 17		..	458	..	..	+	+	..	+	..	..
" 22		..	340	+	..	0	+	..	+	..	..
" 23		..	550	0	..	0	+	..	+	..	..
" 24		..	450	0	..	+	+	..	+	..	..
" 27		..	460	+	0	+	+	..	..	..	..
" 28		..	190	+	0	0	+	..	..	..	..
" 29		..	680	0	+	+	+	..	..	..	..
" 31		..	270	0	0	0	+	..	..	..	..
Nov. 3		..	70	..	0	0	0	..	..	..	..
" 4		..	72	..	..	..	0	..	..	..	..
Averages			**319**	**112**	**B. Coli per 100 cc**						
Oct. 2	32	..	54	..	..	0	+	..	+	..	..
" 3		..	39	..	..	0	+	..	+	..	..
" 4		..	43	..	..	+	+	..	+	..	..
" 8		..	239	..	..	0	+	..	+	..	..
" 9		..	34	0	..	0	+	..	+	..	..
" 10		..	570	0	..	0	+	..	+	..	..
" 11		..	232	+	..	0	+	..	+	..	..
" 13		..	244	0	..	+	+	..	+	..	..
" 14		..	432	..	..	+	+	..	+	..	..
" 15		..	556	0	..	+	+	..	+	..	..
" 16		..	270	..	..	+	+	..	+	..	..
" 17		..	342	..	..	+	+	..	+	..	..
" 22		..	213	+	..	+	+	..	+	..	..
" 23		..	580	+	..	0	+	..	+	..	..
" 24		..	290	0	..	+	+	..	+	..	..
" 27		..	260	+	0	0	+	..	..	..	..
" 28		..	180	0	0	+	+	..	..	..	..
" 29		..	610	0	0	+	+	..	..	..	..
" 31		..	630	0	0	0	+	..	..	..	..
Nov. 3		..	130	0	0	0	+	..	..	..	..
" 4		..	95	0	..	0	+	..	..	..	..
Averages			**287**	**70**	**B. Coli per 100 cc**						

* In computing B. Coli averages for this sheet, Endo " 0 " rejected Least+Quantity.

METEOROLOGICAL DATA FOR PERIOD OF INVESTIGATION

INTERNATIONAL FALLS, MINN.

Date. 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
July 5		E.	1.76
6	No wind move-	E.	0
7	ment taken	W.	0
8	at this	N.	.48
9	station.	S.	0
10		S.	0
11		S.	1.50
No observations taken from 12th to 15th inclusive.			
16		N.E.	1.30
17		N.W.	0
18		N.W.	0
19		N.W.	.12
20		N.W.	0

FORT FRANCES, ONT.

July 5		N.W.	1.70
6	No wind move-	N.W., W.	0
7	ment taken	S.W., S.	0
8	at this	S.W., N.W.	.32
9	station.	Variable	0
10		S.E.	0
11		E.	0
12		Variable	0.11
13		Variable	0
14		N.E.	1.09
15		N.E.	0
16		N.E.	1.18
17		Variable	0
18		N.W.	0
19		W., N.W.	0
20		Light, variable	0

PORT ARTHUR, ONT.

Date. 1913.	Total Daily Wind Movement. Miles.	Prevailing Wind Direction.	Inches of Precipitation.
July.			
25	199	40 of which was from N. and N.E., remainder from S.W. and S.E.	0
26	113	8 of which was S.W., remainder from E., N.E., and S.E.	0
27	297	S.W., W., N.W., and N.	.10
28	176	S.E., E., N.E., and N.	0
29	220	S.E. to E. and N.E.	.02
30	365	74 from S.W., W., and N.W., remainder N.E. and E.	.04
31	350	W. and N.W.	.45
August.			
1	213	N.W. and W.	0
2	241	From all points of compass	0
3	158	40 from N.W. and W., remainder, N.E., E., and E.	0
4	95	Light winds, all points.	0
5	213	N.E., N. and E.	.36

PORT ARTHUR, ONT.—Continued.

Date. 1913. August.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
6	165	N., N.E., E., S.E., and S.	0
7	205	E. and N.E.	.02
8	261	S.W. and W.	.10
9	302	65 from E., S.E. and N.E., remainder N. and N.W.	.05
10	172	35 from N., remainder from S.E., E., and N.E.	0
11	134	59 from E. and S.E., remainder N.E.	.14
12	158	57 from S.E. and E., remainder from N.E.	0
13	59	S.E. and E.	0
14	94	S.E. and E.	0
15	151	All points	0
16	172	46 from S.E. and E., remainder from N., N.W. and W.	0
17	210	24 variable, remainder N, N.E., and N.W.	0
18	199	All points.	0
19	245	N.E. and E.	0
20	130	E.	.31
21	387	W. and N.W.	.14
22	255	25 of which from S.E. and S., remainder from N.W. and N.	0
23	288	41 from W. and S.W., remainder from N.W. and N.	.15
24	179	S.E. and S.	0
25	282	44 from S.E. and E., remainder from W. and N.W.	0
26	304	N.W. and N.	0
27	223	S.E. and E.	0
28	431	W. and N.W.	1.35
29	356	N.W. and W.	.22
30	154	48 from N.W. and N., remainder from S., S.W., and W.	0
31	204	72 from S.E. and E., remainder from N.E.	0

SAULT STE. MARIE, MICH.

Date. 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
June 20	167	W.	0
21	194	W.	0
22	143	W.	0
23	129	E.	0
24	166	E.	0
25	167	S.E.	.84
26	88	S.E., W.	Trace
27	95	W.	.91
28	170	E., S.E.	0
29	156	E.	.17
30	213	S.W.	0

SAULT STE. MARIE, MICH.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
July 1	218	W.	0
2	136	W.	0
3	188	E.	Trace
4	128	W.	.15
5	347	S.E., W.	.11
6	613	N.W.	0
7	248	W.	0
8	127	S.	Trace
9	330	N.W.	.33
10	295	N.W.	0
11	205	S.E.	0
12	267	S.W.	1.88
13	359	N.W.	.07
14	221	W.	0
15	115	W.	0
16	156	E., S.E.	.06
17	183	W.	0
18	220	W.	0
19	189	W	0
20	239	W.	0

PORT HURON, MICH.

July	1	201	W. and S.W.	.01
	3	181	N.E.	0
	3	257	S.	0
	4	228	S.	2.00
	5	191	S.W.	.17
	7	248	W.	0
	6	411	N.W.	0
	8	183	S.	0
	9	294	S.W.	.05
	10	249	N.E.	0
	11	192	S.E.	0
	12	419	W.	.06
	13	438	S.W.	0
	14	151	N.E.	0
	15	184	N.E.	0
	16	188	S.	.53
	17	180	N.	1.21
	18	140	N.E.	0
	19	133	W.	Trace
	20	261	N.	.20
	21	174	N.E.	0
	22	212	S.	0
	23	161	S.W.	.01
	24	259	N.	0
	25	179	N.	0
	26	187	S.	0
	27	221	S., S.W.	.06
	28	158	N.E.	0
	29	128	N.E., S.W.	0
	30	226	N.	0
	31	175	S.W.	Trace
Aug.	1	205	N.E.	0
	2	157	N.	0
	3	253	N.E.	.01
	4	280	N.E.	0
	5	166	S.	0
	6	142	S.	.07
	7	179	S.E.	0
	8	301	S.W.	.03
	9	278	S.	2.07
	10	316	N.	1.20
	11	293	E.	0
	12	199	N.E.	0
	13	120	N.E.	0

PORT HURON, MICH.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
Aug. 14	151	S	Trace
15	159	S.	0
16	192	S.W.	Trace
17	140	N.E.	0
18	198	N.	.01
19	229	E.	0
20	236	S.E.	0
21	253	S.	.35
22	258	N.W.	.04
23	212	N.W.	0
24	276	N.E.	0
25	200	S.W.	0
26	329	N.W.	0
27	202	N.E., N.W.	0
28	241	S.	.13
29	332	W.	.02
30	191	N.W.	0

DETROIT, MICH.

May	20	327	S.E.	0
	21	236	S.	1.19
	22	312	W.	0
	23	174	N.W.	.01
	24	163	W.	Trace
	25	262	N.E.	Trace
	26	338	E.	.53
	27	363	N.E.	.89
	28	134	S.W.	0
	29	193	E.	Trace
	30	259	E.	.08
	31	189	N. and W.	0
June	1	287	N. and S.W.	0
	2	202	S. and S.W.	0
	3	316	S.W.	0
	4	237	N.	0
	5	208	S.	0
	6	305	S.W.	Trace
	7	438	N.E.	.05
	8	428	N.E.	0
	9	357	N.E.	0
	10	187	S.E.	0
	11	309	N.W.	0
	12	320	N.W.	0
	13	377	W. and N.W.	0
	14	249	N.W.	0
	15	424	W.	0
	16	321	W.	Trace
	17	264	E. and N.E.	.01
	18	251	E.	.02
	19	225	S. and S.W.	.65
	20	216	N. W.	.55
	21	202	N.E.	.06
	22	140	E.	0
	23	202	E.	0
	24	140	S.E. and S.	0
	25	225	S. W.	Trace
	26	206	S.W.	.04
	27	282	N.W.	0
	28	220	E.	0
	29	159	E.	0
	30	138	S.W.	.04
July	1	256	W. and N. W.	.01
	2	166	E. and S. E.	0
	3	246	S.	0
	4	270	S.W.	1.79
	5	282	W.	.06

DETROIT, MICH.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
6	423	N.W.	0
7	279	N.W.	0
8	196	W.	0
9	454	W.	0
10	252	N.	0
11	261	S.E.	0
12	546	W.	.27
13	573	W.	0
14	207	E.	.35
15	209	E.	0
16	228	S.	.37
17	207	N.	.38
18	164	N.	Trace
19	250	N.	0
20	251	N.	.32
21	179	N.	0
22	206	S.	0
23	185	W. and S.W.	.04
24	245	N.	0
25	213	S.E.	0
26	197	S.	0
27	197	S.W.	.87
28	212	E.	0
29	166	S.	.01
30	227	E.	Trace
31	166	S.	.01
Aug. 1	229	N.	0
2	169	N.	0
3	266	N.E.	.26
4	317	N.E.	0
5	193	N.E.	0
6	173	E. and S.W.	Trace
7	257	S.E.	0
8	312	S.W.	.01
9	270	S.	0
10	299	N.E.	.56
11	417	E.	0
12	147	E.	0
13	187	E.	0
14	156	S.	0
15	143	S.	0
16	152	S.W.	0
17	144	N.E.	0
18	223	N.E.	0
19	404	E.	0
20	330	E.	0
21	205	S.	.94
22	374	N.W.	.03
23	197	N.W.	0
24	272	N.	0
25	168	S.	0
26	473	W.	0
27	236	N.	0
28	283	S.	.33
29	448	W.	0
30	235	N.W.	0
31	183	S.W.	0
Sept. 1	208	S.	.03
2	146	S.	0
3	286	N.E.	0
4	320	N.E.	Trace
5	210	E.	Trace
6	195	E.	0
7	195	S.	.06
8	372	N.E.	0
9	349	E.	0
10	326	E.	0
11	159	S.	Trace

DETROIT, MICH.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
12	299	N.	0
13	349	N.	0
14	228	E.	0
15	393	E.	0
16	281	S.	.11
17	312	N.S.	.15
18	213	E.	0
19	228	E.	0
20	367	S.	.65
21	414	W.	0
22	411	W.	Trace
23	225	W.	0
24	229	S.W.	0
25	232	S.W.	0
26	304	N.W.	.07
27	198	N.W.	0
28	151	S.W.	0
29	128	S.E.	.01
30	194	E.	.10
Oct. 1	203	N.	.16
2	439	N.W.	.10
3	216	N.	0
4	201	S.W.	0
5	162	S.	Trace
6	91	S.E.	0
7	144	S.	0
8	171	S.	0
9	212	S.E.	0
10	320	S.	0
11	385	W.	0
12	370	N.W.	.60
13	200	N.	0
14	210	S.	0
15	263	W.	0

TOLEDO, OHIO.

May	20	384	E.	Traces
	21	436	S.	.89
	22	327	W.	Traces
	23	147	W.	.05
	24	214	N.W.	0
	25	323	N.E.	0
	26	418	E.	2.24
	27	430	N.	1.38
	28	171	S.	0
	29	204	E.	.26
	30	268	N.	0
	31	226	E.	Trace
June	1	388	S.W.	0
	2	255	N.	0
	3	327	S.	.40
	4	260	N.	0
	5	265	S.E.	0
	6	435	S.W.	.09
	7	441	N.	.01
	8	516	N.	0
	9	419	N.	0
	10	195	N.E.	0
	11	257	N.W.	0
	12	361	N.W.	0
	13	373	W.	0
	14	329	S.W.	0
	15	473	S.W.	0
	16	366	S.W.	.68
	17	253	N.E.	.02
	18	248	E.	.05

TOLEDO, OHIO.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
19	253	S.	0
20	397	S.W.	.01
21	207	N.E and N.W.	.68
22	188	E.	0
23	216	E.	0
24	218	S.W.	.14
25	383	S.W.	.03
26	353	S.W.	Trace
27	348	W.	0
28	300	E.	0
29	202	E.	0
30	231	S.	.01
July 1	264	S.W. and N.W.	Trace
2	214	E. and S.E.	.01
3	271	S.E.	0
4	349	S.W.	.14
5	384	S.W.	.71
6	444	N.W.	0
7	226	W.	0
8	257	S.W.	0
9	433	S.W.	.03
10	251	N.W.	0
11	306	S.E.	0
12	654	S.W.	.07
13	626	S.W.	Trace
14	192	E.	.25
15	229	E.	.17
16	217	S.	.14
17	275	N.W.	.01
18	198	N.W.	0
19	313	N.W.	0
20	280	N.W.	.03
21	172	N.W.	0
22	214	S.W.	0
23	291	S.W.	Trace
24	296	N.W.	0
25	228	N.	0
26	237	S.E.	0
27	360	S.W.	.40
28	235	S.	.78
29	165	S.W.	0
30	276	N.E.	.62
31	181	E.	.02
Aug. 1	231	N.	0
2	229	N.W.	0
3	277	S.W.	0
4	340	N.	0
5	172	N.	0
6	197	W. and N.W.	.01
7	185	N. and E.	Trace
8	496	S.	.11
9	360	S.W.	0
10	332	S.W.	.34
11	519	N.E.	0
12	167	E.	.07
13	185	E.	0
14	178	E.	0
15	169	S.W.	0
16	194	S.	0
17	177	N.	0
18	210	N.	0
19	499	N.E.	0
20	303	N.E.	0
21	377	S.	.37
22	407	N.W.	.06
23	253	W.	0
24	308	N.W.	0
25	260	S.	0
26	502	S.W.	0

TOLEDO, OHIO.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
27	256	N.W.	0
28	330	S.E.	0
29	505	S.W. and W.	Trace.
30	240	W.	0
31	226	S.	0
Sept. 1	315	S.	
2	293	S.	
3	279	N.	
4	328	N.	
5	259	E.	
6	224	N.E. and E.	
7	259	S.W.	
8	400	N.	
9	488	N.E.	
10	365	E.	
11	220	S.	
12	322	N.W.	
13	305	N.W.	
14	303	E.	
15	385	E.	
16	395	S.	
17	441	S.W.	
18	304	N.	
19	205	N.	
20	457	S.W.	
21	451	S.W.	
22	454	S.W.	
23	273	S.W.	
24	432	N.W.	
25	440	N.W.	
26	348	N.W.	
27	245	N.W.	
28	264	S.	
29	144	N.	
30	215	N.E.	

PELEE ISLAND, ONT.

July 25	Light variable		
26	213	S.E.	
27	241	S.E., S.	1.14
28	129	Variable	
29	159	S.E., S.W.	
30	169	Variable	
31	193	E., N.E.	
Aug. 1	180	Variable	
2	124	S.E., S.	
3	284	Variable	
4	337	N.	
5	149	Variable	.16
6	323	Variable	.19
7	320	E.	
8	293	S.W.	
9	280	S.W.	
10	171	N.E.	
11	272	N.E., E.	
12	163	E.	
13	133	E.	
14	201	E.	
15	113	S.E.	
16	77	Variable	
17	175	Variable	
18	314	N.E.	.06
19	447	N.E., S.E.	
20	351	E.	
21	202	S.E.	.02
22	Fresh	S.W., N.W.	
23	125	N.W., W.	

PELEE ISLAND, ONT.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
24	147	W., N.	
25	237	E, S.E.	
26	186	S.W., N.W.	
27	448	N., N.E.	
28	451	S.W.	.19
29	534	S.W., W.	
30	145	Variable	
31	79	S.E.	
Sept. 1	147	S.E.	
2	449	S.	
3	434	Variable	
4	451	N.E.	
5	361	E.	Precipitation
6	205	E.	for first
7	705	S.W.	half of
8	681	N.	September
9	444	N.E.	not
10	366	E.	available.
11	256	S.E.	
12	497	N.	
13	338	N., N.E.	
14	395	S.E., E.	
15	524	E.	
16	366	S., S.E.	.12
17	369	Variable	.11
18	246	N.E.	.42
19		E.	
20		S.E., S.W.	
21	258	S.W.	
22		S.W., W.	
23	417	Variable	
24	222	S.	
25	218	S.W.	
26	201	N.W.	.19
27	388	Variable	
28	145	*S., S.W.*	
29	178	Variable	.35
30	360	E.	.19
Oct. 1	216	Variable	.06
2	714	N.W.	.26
3	198	W., S.W.	
4	157	S.E.	
5	150	S.E., S.W.	
6	114	Variable	
7		S.E.	
8	174	S.E.	
9		S.E.	
10	588	S., S.E., W.	
11	281	S.E., S.W.	
12	198	S.W., W.	.66
13		Variable	
14		S.	
15		S.W. to N.W.	

BUFFALO, NEW YORK.

May	10	433	N. and N.W.	0
	11	330	N. and N.W.	0
	12	260	S.W.	Trace
	13	496	S.W.	0
	14	306	N.E.	0
	15	451	E.	.10
	16	269	S.W.	.03
	17	271	S.W. and W.	.01
	18	395	S.W.	.11
	19	435	N.W.	0
	20	245	N.E., S., and N.W.	0
	21	362	S.	.37

BUFFALO, N.Y.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
22	408	S.W.	.53
23	238	S.W.	.53
24	292	S.W.	.01
25	241	N.W.	.03
26	320	E.	0
27	306	E.	1.24
28	281	N.	Trace
29	375	W.	0
30	177	W.	0
31	342	S.W.	0
June 1	453	S.W.	.41
2	241	S.W.	0
3	325	S.W.	.03
4	294	N.E., W.	0
5	175	W.	0
6	524	S.W.	0
7	375	N.	.20
8	373	N.E.	0
9	290	N.E.	0
10	317	S.W.	0
11	433	S.W.	0
12	315	S.W.	0
13	427	S.W.	0
14	264	S.W.	0
15	565	S.W.	.03
16	401	S.W.	.03
17	291	N.E.	0
18	292	E.	0
19	209	S.W.	.28
20	246	W.	.43
21	221	N.W.	.13
22	140	S.W.	0
23	212	S.E.	0
24	181	S.W.	0
25	312	S.	Trace
26	462	S.W.	.14
27	269	S.W.	.01
28	255	N.E.	0
29	193	S.E.	0
30	273	S.W.	0
July 1	432	S.W.	0
2	241	S.W.	.16
3	118	S.W.	0
4	350	S.	.16
5	314	*S.W.*	.01
6	645	N.W.	Trace
7	555	N.W.	0
8	408	S.W.	0
9	603	*S.W.*	.06
10	426	N.W.	Trace
11	224	W.	0
12	671	S.W.	.06
13	862	S.W.	0
14	434	W.	0
15	197	N.E.	0
16	194	W.	.30
17	193	S.E.	.03
18	429	S.W.	0
19	356	W.	0
20	248	N.W.	.14
21	312	N.W.	0
22	295	S.W.	0
23	390	S.W.	.08
24	247	S.W.	.30
25	344	N.W.	0
26	185	S.E.	0
27	288	S.W.	0
28	331	S.W.	.03
29	207	S.W.	0

PORT DALHOUSIE, ONT.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
July 25			Rain
28			.20
Aug. 4		Not available	.30
7			.04
9			.24
10			1.97

TORONTO, ONT.

Date. 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
May			
25	303	N.W., shifting to N. and N.E.	.01
26	409	23 miles of which was from N.E., remainder E.	(.08)
27	406	E., shifting to N.	.06 (.24)
28	303	W., shifting to N.W. and W	
29	317	N.W. and W.	
30	204	W., N.W., and N.	
31	193	N., N.W., and W.	
June			
1	359	W., N.W., and N.	(.06)
2	208	W. and S.	
3	267	W., shifting to N.W. and N.	
4	165	Light winds, all points of compass	Trace
5	184	W. to S.W. and S.	
6	379	S., S.W., W., and N.W.	(2.25) .52
7	413	N.W. to N.	(.20) .31
8	370	N., N.E., and N.W.	
9	205	60 miles from N.E. and E., remainder W., S.W., and N.W.	
10	243	W. and N.W.	
11	316	W. and N.W.	
12	225	W. and N.W.	
13	239	W. and N.W.	
14	236	33 miles from N. and N.E., remainder from E.	
15	229	34 miles from N.E. and E. and S.W., remainder from W.	(.03) .01
16	292	W. and N.W.	
17	198	161 miles from N., N.E., and E., remainder various directions.	
18	200	E. shifting to N.E.	
19	190	N.E. and E.	(.34) .20
20	136	N.E. shifting to N.	(.15) .28
21	240	N. and N.W.	
22	175	W. and S.W.	
23	160	S.E., shifting to E. and N.E.	
24	139	S., shifting to E. and N.E.	
25	231	Mainly E. and S.E., then shifting to S.W. and W.	(.02)
26	198	W.	Trace .01
27	261	Varying, all points of compass.	(.05) .01
28	131	73 miles of was from E., remainder from N.	
29	102	S.E.	
30	273	S.E., shifting to S., S.W. and W.	

N.B.—Figures in brackets are rainfall at Port Dalhousie.

TORONTO, ONT.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
July 25	262	W. to N.	
26	110	E.	
27	178	N.E.	
28	222	W.	
29	171	Variable.	
30	113	N.E. to S.E.	
31	182	N. to E.	
Aug. 1	249	N.W. to N.	
2	232	N.W. to S.W.	
3	221	W. to N.W.	.24
4	236	Variable.	
5	190	Variable.	
6	125	S. to E.	Rain
7	263	N.E. to E.	
8	262	E. and S.W.	Rain
9	290	W.	.46
10	304	Variable	.31
11	213	N.E. and S.E.	
12	236	E.	
13	156	Variable.	
14	150	Variable.	
15	104	E.	
16	179	Variable.	.32
17	126	W. and S.W.	.19
18	166	N.E. and E.	
19	338	E.	
20	403	E.	
21	229	S., S.E.	

KINGSTON, ONT.

Date. 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
April.			
7	243	N.E., shifting to N.	
8	294	N.W., shifting to N. and N.E.	
9	212	N.E., shifting to E.	
10	290	E., shifting to S.E.	.01
11	207	S.W.	Trace
12	161	S.W., to N.W. and S.E.	.15
13	178	21 miles of which was from S.W.; remainder N.E.	
14	322	N.E.	
15	170	N.E. and N.	
16	302	N.E.	
17	217	S.W. and W.	
18	270	S.W. to W. and N.W.	Trace
19	384	N.W.	.14
20	219	N.W.	
21	285	S.W.	
22	228	S.W.	
23	143	S.W.	.05
24	93	S.W. to W. and N.	
25	103	S.W., E. and S.E.	
26	125	S., shifting to S.E. and E.	.01
27	260	N.E.	.19
28	478	N.E.	.01
29	308	N.E.	
30	181	S.W.	
May.			
1	220	S.W. and W.	
2	210	S.W., W. and S.	
3	165	S.W.	
4	172	S.W.	
5	156	S.W.	
6	295	S.W. to N.W. and N.	

KINGSTON, ONT.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
7	230	77 from N., N.W., W. and S.W.; remainder from N.E.	
8	137	From all points.	
9	282	N.W.	.01
10	296	N.W.	
11	183	N.W. and N.	
12	270	S.W., S. and S.E.	
13	245	S.W. to W., N.W., N. and N.E.	.02
14	191	From all points.	
15	285	N.E.	
16	114	35 from N., remainder from S.W., S. and S.E.	.60
17	290	E. to S.E. and S.W.	.01
18	274	S.W. to W. and N.W.	.21
19	246	78 of this from S.W.; remainder from N.W.	
20	173	S.W. to S., S.E. and E.	
21	311	E. to S.E. and S.K.	.04
22	162	S.W. and W.	.32
23	134	66 from S.W.; remainder from N.E. and N.	.01

KINGSTON, ONT.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
Aug. 4	179	N.E.	.01
5	171	S.W.	
6	97..	S., S.W.	Rain
7	207	N.E.	
8	234	S.W.	
9	407	S.W.	Rain.
10	216	Variable.	
11	185	N., N.E.	
12	129	Variable.	
13	267	S.W.	
14	105	S.W., W.	
15	96	S.W.	
16	151	S.W.	
17	118	S.W.	Trace
18	197	N.E.	
19	283	N.E.	

KINGSTON, ONT.—Continued.

Date, 1913.	Total Daily Wind Movement.	Prevailing Wind Direction.	Inches of Precipitation.
20	187	N.E., E.	
21	265	Variable.	
22	501	S.W.	1.0
Aug. 1		S.W.W.	
23	269	S.W.	.02
24	248	Variable.	
25	180	N., S.W.	
26	395	S.W.	.67
27	165	N.W.	.03
28	142	Variable.	.27
29	409	S.W.	
30	314	S.W.	
31	128	S.W.	
Sept. 1		S.E.	
2		S.S.W.	
3		Variable.	.09

CORNWALL, ONT.

2		W.	
3		Variable.	.47
4		N.E.	
5	Light.	W., S.W.	
6	Light.	W.	
7		N.E.	
8		S.W.	
9		S.W.	.09
10		W., N.W.	
11		Variable.	
12	Light.	Variable.	
13	Light.	Variable.	.02
14		E.S.	
15		S.W.	
16		S.W.	
17		Variable.	
18		N.E.	
19		N.E.	
20		N.E., E.	
21		S.	
22		S.	.80
23		W.	.06
24		W.N.	.43
25		Variable.	
26		S.W.	.33
27		S.W. to N.W.	.02

APPENDIX

SANITARY CONDITIONS IN CITIES AND TOWNS SITUATED ON THE UNITED STATES SIDE OF THE BOUNDARY WATERS. SPECIAL REFERENCE TO TYPHOID FEVER

BY

ALLAN J. McLAUGHLIN,

Surgeon, United States Public Health Service.

The writer was directed in December, 1910, by the Surgeon-General of the United States Public Health Service to investigate the sewage pollution of interstate and international waters, with special reference to the spread of typhoid fever. During 1911 he completed a sanitary survey of the entire watershed of the Great Lakes on the United States side of the international boundary. The results of this work appear in Hygienic Laboratory Bulletins 77 and 83. The investigation disclosed the following conditions:

"There is an undue prevalence of typhoid fever in many cities and towns in the drainage basin of the Great Lakes.

Table XXIV.

TYPHOID FEVER—Death rate per 100,000.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Alpena, Mich.	..	..	..	..	..	..	56.0	23.9	71.4	63.2	39.3	94.0	54.2	..
Bay City, Mich.	43.4	25.3	36.2	54.3	43.4	24.1	47.3	39.5	45.7	35.9	24.3	41.2	69.3	..
Detroit, Mich.	28.4	20.1	23.5	20.0	17.6	20.3	20.7	25.5	19.6	20.5	23.0	15.8	17.5	..
Marquette, Minn.	79.5	19.6	57.9	28.5	37.5	27.0	36.5	72.1	44.5	52.7	95.3	94.2	109.9	..
Port Huron, Mich.	47.0	41.3	61.3	25.2	34.9	15.1	56.1	46.3	20.8	57.8	74.4	48.3	196.8	..
Saginaw, Mich.	28.3	27.6	9.0	11.0	49.3	25.4	25.0	18.5	28.4	30.0	21.7	23.4	30.6	..
Sault Ste. Marie, Mich.	132.9	92.9	172.9	115.9	52.4	68.6	59.0	16.6	73.4	56.2	23.7	54.5	22.9	..
Duluth, Minn.	109.5	74.1	53.7	64.8	54.4	44.7	45.6	41.0	55.8	51.1	75.9	23.2	22.6	..
Buffalo, N.Y.	23.5	27.1	33.7	34.6	24.2	24.4	23.2	28.5	19.9	23.8	20.4	25.0	11.8	..
Dunkirk, N.Y.	34.4	24.3	76.6	50.9	41.4	46.1	38.3	74.7	12.1	5.9	23.1	16.9	16.2	..
Lackawanna, N.Y.	..	..	..	..	..	..	..	..	..	..	6.9	6.5	5.9	..
Lockport, N.Y.	24.1	83.6	29.6	52.7	40.6	63.1	62.7	51.0	56.3	55.9	11.1	22.1	15.6	..
Niagara Falls, N.Y.	107.9	143.9	130.4	126.9	139.8	181.6	150.1	131.5	103.6	87.3	98.0	194.0	66.9	..
North Tonawanda, N.Y.	..	..	..	..	..	..	28.5	45.8	53.2	51.5	41.6	96.7	15.9	..
Ogdensburg, N.Y.	55.4	20.4	95.0	54.2	60.9	40.5	86.3	39.2	32.2	25.4	50.1	30.8	37.0	..
Oswego, N.Y.	..	..	..	..	..	..	66.4	61.4	60.9	21.5	47.0	12.7	16.9	..
Ashtabula, O.	7.7	44.5	35.8	48.4	133.9	58.3	37.7	18.3	82.9	40.3	43.6	5.3	20.6	..
Cleveland, O.	56.8	34.4	34.6	111.0	47.4	13.7	18.8	17.7	11.8	13.3	17.9	14.2	6.9	..
Elyria, O.	..	..	..	..	..	..	..	..	..	27.9	33.4	19.3	30.9	..
Lorain, O.	..	..	..	..	..	..	..	..	..	32.3	27.4	36.1	44.1	..
Sandusky, O.	..	..	..	..	..	..	..	..	..	40.1	30.0	69.9	24.9	..
Toledo, O.	41.0	32.4	35.1	30.0	38.1	47.1	46.6	37.9	42.0	41.7	37.2	23.1	31.7	..
Erie, Pa.	37.9	16.6	25.2	33.3	47.9	16.7	47.4	76.6	60.9	29.0	38.9	190.6	11.5	..
Ashland, Wis.	..	..	..	..	..	..	..	..	53.3	116.0	322.6	82.8	79.9	..
Superior, Wis.	115.8	49.7	33.1	49.5	33.8	30.1	93.6	26.2	15.4	30.2	83.9	33.9	18.8	..

This excessive prevalence of typhoid fever, especially in the winter and spring months, is due in greatest measure to sewage pollution of interstate and international waters used as a source of public water supplies.

Given the sewage pollution of the source of supply, the excessive prevalence is made possible by the use of such water unfiltered and untreated or by the faulty operation or poor efficiency of filter plants. Most of the cities with excessive prevalence of typhoid

fever use unfiltered surface water as a public supply, although disasters have occurred where inefficient filtration was being depended upon to make a polluted water safe. Some of these unfiltered lake supplies are alleged to be safe, but proper bacteriological examination is not made daily.

Some filter plants have serious structural defects. others are structurally satisfactory, but improperly or carelessly operated. Some well constructed modern plants are struggling with a bad raw water in which the bacterial content is so high that even with fair efficiency of the plant the filtered water cannot be classed as safe. In some instances there is no adequate bacteriologic control, and samples of the water are examined only once or twice a month.

In many of these cities excessive rates prevail for the group of diseases classified as enteritis or diarrhea. In most of these places a distinct winter and spring prevalence is demonstrable, coupled with a coincidently high typhoid fever rate. This enteritis to some extent seems to be water borne, and the disease sometimes called "winter cholera" is presumably entirely water borne. Some of the so-called enteritis and winter cholera may be typhoid fever or bacillary dysentery. An exhaustive investigation of the diarrhea and enteritis of children is necessary to determine accurately the real incidence of the various entities which are grouped under this heading.

The undue prevalence of typhoid fever is an interstate menace and is responsible for the spread of the disease from one State to another, when such undue prevalence is manifest in: (1) Cities of commercial or industrial importance; (2) Tourist resorts which attract visitors by their natural or artificial advantages; (3) Summer resorts.

The drainage basin of the Great Lakes contains many cities and communities in each of the three classes. Not only is typhoid infection distributed by these polluted water supplies to the thousands of visitors from other States, but railroad trains and vessels take their food and drink supplies from these infected centres and distribute such supplies en route to their interstate passengers."

The bulletins contain the necessary sanitary data and are available for the use of the Commission. Certain important changes, however, have been effected in some of the municipalities since 1911, and these should be noted for the information of the Commission.

The Committee of the International Joint Commission having charge of the investigation of pollution of boundary waters requested the writer to make another survey of sanitary conditions in the cities and towns discussed in Hygienic Laboratory Bulletins Nos. 77 and 83, and to report upon changes in sanitary necessities which had been effected since the aforesaid bulletins were published. The following report is presented which amplifies Bulletins Nos. 77 and 83 and brings them up to date.

The municipalities will be taken up beginning with Duluth and proceeding eastward to the St. Lawrence River Valley. Only cities on the United States side will be discussed, as a complete sanitary survey of the Canadian municipalities will doubtless be furnished by Canadian officials.

Lake Superior and St. Mary's River.

Duluth, Minnesota.

No changes of importance have been made in the sewerage system of Duluth, but marked improvement in water supply conditions has been effected since my previous report. (Hygienic Laboratory Bulletin No. 83, p. 46.)

Upon the recommendation of the State Board of Health an emergency hypochlorite plant was installed October 5, 1912, and a permanent plant was installed February 25, 1913. The plant is properly constructed and efficiently operated. Daily bacteriologic control is exercised by the branch laboratory of the Minnesota State Board of Health in Duluth.

Duluth is a hospital centre for a large mining and lumbering population and many deaths of non-residents are not properly chargeable against Duluth. The number of deaths of residents of Duluth from typhoid fever has averaged 20 per 100,000 from 1901 to 1910, inclusive. In 1911 and 1912 the rate was above the average, being 22.5 and 23.7 respectively. The effect of hypochlorite on the water supply is best shown by the reduction in typhoid deaths from January to June in 1913 compared with the deaths for a like period in 1911 and 1912.

Typhoid Fever. Duluth, Minn.

Period.	No. of deaths.
January to June, 1911	11
January to June, 1912	12
January to June, 1913	3

Superior, Wisconsin.

There has been no important change in the sewerage system of Superior since Hygienic Laboratory Bulletin No. 83 was published. The same excellent water supply is available and the number of users of doubtful or polluted wells is decreasing.

Ashland, Wisconsin.

Conditions in Ashland were fully described in Hygienic Laboratory Bulletin No. 83. In 1910 Ashland had the appalling death rate for typhoid fever of 322.6 per 100,000. The rates for 1911, 1912 and 1913 are also very high.

ASHLAND, WISCONSIN. TYPHOID FEVER.

Year.	Deaths per 100,000.
1910	315
1911	83
1912	75
1913 (11 months)	63

The seasonal prevalence is also peculiar. In 1911, 1912, and 1913 there were 15 deaths from January to June and only 11 deaths from June to December.

The conclusions in regard to Ashland in Hygienic Laboratory Bulletin 83 were as follows:

"The raw water at Ashland's intake is at times grossly polluted. There is a filter plant, but it has been overworked. 'Green' filters are put in service, and the rates of filtration have been excessive. There has been lack of bacteriologic control as well, and examinations, instead of being daily, were not made oftener than twice a month. Ashland needs new filter units, a storage reservoir for filtered water, a rate controller which is respected, and daily bacteriologic control of the water supply."

These conclusions are reprinted in view of the fact that grave defects still exist and the typhoid fever rates are very high.

Through the courtesy of the Wisconsin State Board of Health information in regard to Ashland was secured as follows:

Dr. A. J. McLaughlin, International Joint Commission, Washington, D.C.

DEAR SIR:

Since receiving your letter making inquiries regarding the waterworks system at Ashland, we have received the following communication from the health officer:

"Your letter wanting to know of the changes in our waterworks system is at hand. Since 1910 a new filter has been installed. This was in the winter of 1911-1912. In the winter of 1912-1913 the intake pipe was taken up and moved, and it was shortened about 900 feet. In the early winter of 1912 a chlorine plant was installed, and they have been using it ever since except when the taste and smell of the water became so noticeable, then it would be cut out for a few days until the taste and smell had disappeared. These are all the changes that have been made that I know of, and if there is anything more that I can help you with, or anything that you want to know that needs looking into, I will be very glad to do it for you."

We hope that this will be sufficient for your purposes,

Very truly yours,

L. W. HUTCHCROFT,
Statistician.

The "new filter plant" said to have been installed in the winter of 1911 and 1912 did not prevent the winter and spring outbreak, January to April, 1913. The "chlorine plant" which is said to have been in use since 1912, "except when the taste and smell became so noticeable," seems to have been equally ineffective in reducing Ashland's typhoid fever rate.

Marquette, Michigan.

There have been no important changes in sewerage conditions in Marquette. It was pointed out in Hygienic Laboratory Bulletin No. 83 that the unusual prevalence of typhoid fever in Marquette was due to the pollution of the public water supply.

The old intake was only 700 feet from shore. A new intake, 3,300 feet from shore, is now in operation. This seems to have eliminated water-borne typhoid. There has not been a single death from typhoid fever in Marquette from September, 1912, to August, 1913. It must be remembered that moving intakes farther out is a very insecure measure of protection. It affords at best only temporary relief, and sooner or later filtration or treatment will be found necessary.

Sault Ste. Marie, Michigan.

It was noted in my previous report that Sault Ste. Marie had an abnormally high rate of typhoid fever,

and that this was due to excessive prevalence in the summer and autumn. Bacteriologic examination of the water in St. Mary's River shows that while the Lake Superior water is pure, the boat pollution in summer and autumn makes the St. Mary's River a dangerous source of water supply. Probably the St. Mary's River water above the cities of Sault Ste. Marie is safe during the winter and spring months, and typhoid rates have been low in Sault Ste. Marie from December to June. With the beginning of navigation pollution begins to be apparent, and the concentration of traffic in the St. Mary's River at the height of the season results in a very dangerous degree of pollution of the river, even above the cities themselves. The moving of the intake from the old ship canal to its present location well above the city was a wise step and reduced the typhoid fever rate markedly, but the rate is still too high in summer and autumn. The results of bacteriologic examination show that treatment of the water is absolutely necessary during the navigation season.

Alpena, Michigan.

The very high rates for typhoid fever in Alpena reported in Hygienic Laboratory Bulletin No. 83 were exceeded in 1911, when the rate reached 101 deaths per 100,000. In 1912 the rate was 62.5. In the winter and spring months of 1913 a severe epidemic of typhoid occurred and was accompanied as usual by a very high death rate for enteritis of children. The rate of typhoid fever for 1913 will probably exceed 150.

DEATHS IN ALPENA BY MONTHS.
1911, 1912, 1913.

Month.	Typhoid.	Enteritis under 2 years.
January	1	1
February	3	2
March	9	7
April	5	1
May	2	1
June	1	0
July	0	2
August	1	0
September	2	5
October	2	1
November	3	4
December	2	0

The seasonal distribution of typhoid fever in Alpena since 1910 shows the same phenomenon evident from 1900 to 1910, viz., the maximum rates for typhoid fever occurring constantly in the winter and spring months. Such a seasonal distribution for a period of fourteen years is impossible without the assistance of a polluted water supply. An attempt was made after the epidemic of 1913 to disinfect the polluted water supply by treatment with hypochlorite. It is extremely doubtful if hypochlorite will be a satisfactory treatment considering the marked fluctuations and high organic content of Thunder Bay water. The State Board of Health very wisely advised the installation of a rapid sand filtration plant. Three sewer outlets which now discharge between the waterworks and the mouth of Thunder Bay River are to be cut off and the discharge turned into the river.

Saginaw and Bay City, Michigan.

According to the State Board of Health there have been no important changes in the sewerage or waterworks systems of Saginaw and Bay City.

The typhoid fever rate continues too high for a northern city of this type. The rate since 1910 for typhoid fever in Saginaw was as follows:

Year.	Deaths per 100,000.
1910	22
1911	24
1912	30
1913 (11 months only)	27

Bay City until 1913 was still using the polluted water from Saginaw Bay without treatment. The typhoid fever rate in 1910 was 24.3. In 1911 it reached 41.4, and in 1912 jumped to 66.4.

Port Huron, Michigan.

No significant change was made in either waterworks or sewerage systems in 1910 or 1911. In June, 1912, the use of hypochlorite in treating the public water supply was begun. Very high rates for typhoid fever prevailed in 1910 (78). The danger was clearly pointed out in Bulletin No. 83, but nothing was done until June, 1912. In 1911 the typhoid rate was 48.2, and in 1912 it reached the disgraceful figure of 216.5. The hypochlorite treatment was installed in June, and its effects could not be manifest until the end of July. During the period from January to July there occurred in Port Huron 33 deaths from typhoid fever. From August to December only 3 deaths were registered.

The method of administration of hypochlorite is crude and the dosage often inadequate. In spite of these faults the treatment appears to have cut short a typhoid outbreak. The State Board of Health recommended solution pumps and other improvements, with which better results may be expected.

St. Clair and Marine City, Michigan.

Hypochlorite treatment of St. Clair's water supply has been in operation since 1912. There has been no change in the waterworks system of Marine City.

Detroit, Michigan.

No important changes were made in the sewerage and waterworks systems since my report in Hygienic Laboratory Bulletin No. 83 (page 256), except an attempt to treat the municipal supply with hypochlorite of lime begun in April, 1913.

The typhoid fever rate for Detroit in 1911 was 15.8; in 1912 it was 17.5, and in 1913 the rate for 11 months reached 30 deaths per 100,000. A notable increase in typhoid in January, February and March, together with the dirty appearance of the water, caused the Board of Health to take action. On April 1, 1913, Dr. Guy L. Kiefer, Health Officer of Detroit, called the attention of the Board of Water Commissioners to the fact that the public water supply was polluted, at the same time advising the citizens through the daily press to boil the water. In response to Dr. Kiefer's request hypochlorite treatment (5 lbs. per million gallons) was begun April 2nd. The apparatus was crude and the dosage uncertain. According to the State Board of Health, work was begun in June, 1913, upon plans and estimates for a filtration plant. Water taken in the Detroit River above the intake showed B. coli in 66 per cent. of the 10 c.c. samples and in 12½ per cent. of the 1 c.c. samples. Twenty samples of top water on October 4th at five-minute intervals gave the following results:

No. of samples.	Quantity	Positive For B. coli.
20	25 c.c.	90%
20	5 c.c.	35%

The source of Detroit's water supply is polluted, and the attempt to purify is ineffectual.

Wyandotte, Michigan.

There have been no important changes in either waterworks or sewerage systems siince 1910. Deaths per 100,000 from typhoid fever were as follows:

Year.	Rate.
1889 to 1905	85.
1906	72.
1907	107.
1908	123.
1909	87.
1910	75.
1911	12.
1912	54.
1913 (11 months only)	84

Wyandotte was fortunate in 1911 to have only one death from typhoid fever registered, but in 1913 for eleven months only the typhoid rate per 100,000 was 84.

Monroe, Michigan.

There have been no important changes in Monroe in either the sewerage or waterworks systems. The typhoid fever rate continues low, with an average of 14 deaths per 100,000 for 1911, 1912 and 1913.

LAKE ERIE.

Toledo, Ohio.

The city of Toledo is making studies preparatory to the installation of intercepting sewers and proper sewage disposal. Toledo has had a very efficient water purification plant for several years. The high typhoid rate is largely due to the relatively large number of persons who do not avail themselves of the excellent municipal supply but continue to use water from polluted wells.

Sandusky, Ohio.

In my previous report (Bulletin No. 77) the defects in the Sandusky filtration plant were pointed out. The sewerage system was also described.

The city of Sandusky is now rebuilding its water purification plant at a cost of $125,000, and the State Board of Health has recently approved plans for intercepting and treating the sewage of the city.

Lorain, Ohio.

Sewerage conditions in Lorain are unchanged since my previous investigation. The water purifi-

cation plant, according to the State Health authorities, is now giving satisfactory service.

Cleveland, Ohio.

Marked sanitary improvement has been effected in Cleveland since the investigation published in Bulletin No. 77.

An experimental plant to determine the best solution of the sewage disposal problem is in operation, and a comprehensive and satisfactory system of sewage disposal will be the result within a few years. The installation of a hypochlorite plant was accompanied by a remarkable decrease in the typhoid fever rate. The year 1912, the first year in which treated water was supplied, was the first year in Cleveland's history in which the typhoid fever death rate was expressed in a single figure. The rate was less than 7 deaths per 100,000.

In Cleveland there has been an unfortunate tendency to tamper with the dosage of hypochlorite and cut it down to the minimum. In pursuing this tendency, against the strenuous protest of Professor Roger Perkins, of Western Reserve University, the dose of hypochlorite has been too low at times to be effective. During the spring freshet, when the Cuyahoga water is projected far into the lake, pollution at the intake is much greater and requires a much larger dose of hypochlorite to nullify it. As a result the typhoid rate in 1913, and especially in the spring months, is not so satisfactory as that of 1912. Hypochlorite, though an excellent temporary safeguard, is not an ideal purification method, and Cleveland's water problem will not be satisfactorily solved until a proper filter plant is installed.

Experiments are now being made to determine the most suitable type of filtration plant for Cleveland water. In all probability the temporary hypochlorite plant, which has served its purpose admirably, will be supplanted by a modern filtration plant within a comparatively short time.

Painesville, Fairport and Richmond, Ohio.

The inadequate system of water purification described in Bulletin No. 77 is to be supplanted by a new 3,000,000 gallon mechanical filtration plant to be built by the city of Painesville. The water will be supplied to the villages of Fairport and Richmond. Sewerage conditions in the three municipalities are practically unchanged.

Conneaut, Ohio.

Permission to increase the discharge of sewage into Conneaut Creek has been refused by the Ohio State Board of Health. The water purification plant has been enlarged, and, according to the State Health authorities, is now producing a satisfactory effluent.

Ashtabula, Ohio.

No changes have been made in the sewerage system since 1911. The water supply is the same as described in Bulletin No. 77.

Erie, Pennsylvania.

The massive typhoid fever epidemic in Erie during the winter of 1910-11 was followed by marked improvement in sanitary condition. A full description of this remarkable typhoid outbreak will be found in Hygienic Laboratory Bulletin No. 77. Work on the new sewerage system is going on slowly for lack of money, but the water supply received prompt attention. The hypochlorite treatment of the water has been continued, and a modern mechanical filtration plant is in course of construction adjacent to the pumping station. The improvement effected in the water supply since the epidemic is well shown by the comparison by months of the two years 1911 and 1912.

DEATHS, TYPHOID FEVER. ERIE, PA.

Month.	1911.	1912
January	24	1
February	56	0
March	22	1
April	14	0
May	8	0
June	0	0
July	1	0
August	3	0
September	3	0
October	1	2
November	2	3
December	1	0
Totals	135	7

Dunkirk, New York.

Since the survey of conditions in Dunkirk made by the writer in 1910, no improvement has been effected, and the condition described in Bulletin No. 77 is still present.

The Canadaway Creek, carrying the sewage of Fredonia, with a population of 6,000, discharges about

1½ miles from Dunkirk's waterworks intake. The entire sewage of Dunkirk itself is discharged into the shallow harbor, and the grossly polluted harbor water can readily reach the waterworks intake, given certain conditions of wind.

The settlement of the sewage disposal question in Dunkirk and Fredonia might be expected to require time, but the public health could have been safeguarded in the meanwhile by treating the water supply. This could have been accomplished safely and cheaply by a temporary hypochlorite plant. There is no valid excuse for neglecting to make this cheap temporary installation pending the permanent settlement of the question.

Dunkirk has been fortunate in 1912, having had a rate of 16. but the menace exists, and sooner or later disaster will follow unless protection is afforded.

Buffalo, New York.

Sanitary conditions in Buffalo were carefully reviewed in Hygienic Laboratory Bulletin No. 77, pages 38 to 43 and 66 to 68.

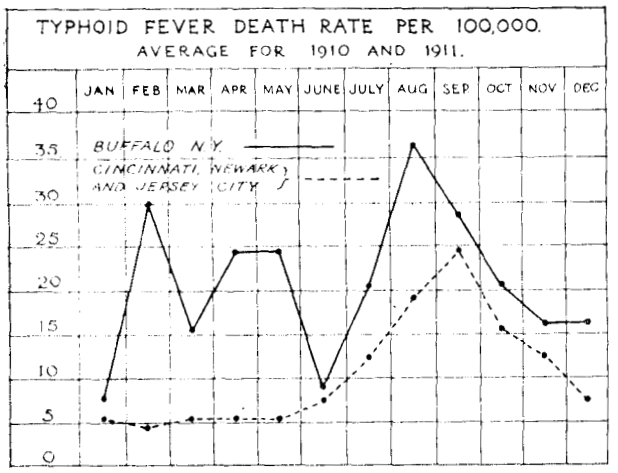


FIG 27.

Chart No. 1 (Fig. 27) shows a "curve" made from the deaths by months in Cincinnati, Jersey City and Newark which may be called a "normal" typhoid curve compared with Buffalo for the years 1910 and 1911. The abnormally high rates in Buffalo for the winter and spring months are clearly shown.

The danger of the polluted water from the old intake was pointed out. The probability of sewage pollution at the new intake at certain times was also accentuated. The diagram on page 42 (Hygienic Laboratory Bulletin 77) showed the possibility of pollution by undertow from Buffalo Harbor during and after southwest gales. As a matter of fact, since tre completion of the new intake the water has been found polluted frequently. The present supply of water is drawn partly from the old intake and partly from the new. Pollution is found in both at times, especially in the period from November to April.

The very low rate for typhoid fever in the winter months in cities with safe water supplies is a well-known phenomenon. If we take a city or a group of cities with safe water supplies for a period of years and trace the rate by months a very characteristic "curve" is obtained. This "curve" is well illustrated in cities such as Cincinnati, Jersey City or Newark, whose water supplies are above reproach.

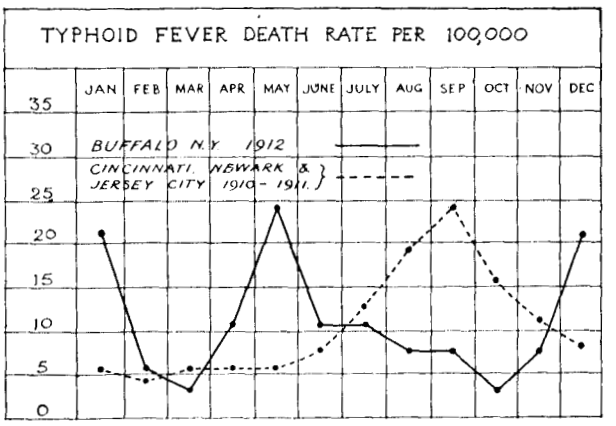


FIG 28.

Chart No. 2 (Fig. 28) shows the seasonal prevalence of typhoid during this remarkable year in Buffalo's typhoid history. The "normal" curve for Newark, Jersey City and Cincinnati (dotted line) accompanies the Buffalo curve for comparison.

In 1912 Buffalo had a remarkable improvement in the typhoid rate. The total deaths from typhoid fever were 50. This gave a rate of 11.2, the lowest rate in the history of the city. Considerable difference of opinion existed in regard to the cause of this reduction. Some without careful analysis attributed the reduction to the alleged improvement in the water supply due to the greater use of the new intake. Two facts stand out prominently: first, the very high rates in December, January and May; and, second, the abnormally low rates in August, September and October. In fact, the reduction in Buffalo's typhoid rate in 1912 was effected almost entirely in July, August, September and October, and if the winter and spring typhoid had been

eliminated, the rate for Buffalo would have been below 5.

Buffalo's water supply is polluted at times and is responsible for many cases of typhoid fever in the period from November to May. The public health could be protected at once at low cost by the installation of a temporary plant for treating the water with hypochlorite of lime. Buffalo's citizens may demand and make provision for a filtration plant later, but they should be protected immediately by the temporary plant. The very low cost and known efficiency of hypochlorite coupled with the demonstrated pollution of the public water supply leave no excuse for delay in cutting off the preventable typhoid fever cases and deaths due to water.

The Tonawandas, New York.

Conditions in Tonawanda and North Tonawanda are unchanged. These municipalities still drink sewage-polluted water, expending their energies in a fruitless effort to improve sewerage conditions in the Upper Niagara River instead of protecting themselves by treating their own water supplies. Lockport takes its supply from the same source, and, in spite of repeated warnings and advice, follows the same course as the Tonawandas. These three cities could eradicate their water-borne typhoid at once by installing a plant for treating their supplies with hypochlorite of lime. The plant could be installed in forty-eight hours at a cost of less than one thousand dollars, and the cost of treating the water would be less than 50 cents per million gallons. There is no excuse for delay in making the temporary installation. Even if it be decided to have a filtration plant later, the temporary plant is necessary to save life pending the settlement of details and erection of the permanent plant.

The rates for typhoid fever in such cities should not be above 8 per 100,000 if the water supply were safe. In 1912 the rate for the three cities was 21. In Lockport during January, February and March, 1913, there were 5 deaths from typhoid fever, and if the same ratio were maintained during the year would give a rate of 110 per 100,000, or if Lockport should be fortunate enough during the remainder of the year to have no more deaths from typhoid the rate would still be 27 for the year.

Niagara Falls, New York.

Great improvement in the water supply of Niagara Falls has been effected since my former report (Hygienic Laboratory Bulletin 77).

The municipal plant and also that of the Western New York Water Company are now furnishing safe water. The municipal supply is drawn from the Niagara River and is treated by rapid sand filtration supplemented by hypochlorite treatment. The private water company takes the water from the power canal, a grossly polluted raw water, but by rapid sand filtration, and the use of hypochlorite as an adjuvant, a safe effluent is furnished. The municipal plant was installed in February, 1912, and the Western New York Company plant was installed in June, 1912. The effect on the typhoid fever rate was immediate and pronounced. The entire city did not receive safe filtered water until June, 1912. In the twelve months immediately following (June, 1912, to May, 1913) there were 10 deaths from typhoid fever in Niagara Falls. This is an annual rate per 100,000 population of 30, the lowest rate in the history of the city. From 1898 to 1907 the lowest typhoid fever rate in Niagara Falls was 107. In 1908, 1909 and 1910 the rate fluctuated from 74 to 97. In 1911 it reached the very high rate of 187. Even more striking than the reduction in the total yearly rate is the elimination of typhoid fever in the winter and spring months. From January to April, 1913, there were only two deaths from typhoid in Niagara Falls. The following table shows how this compares with former years:

Typhoid Deaths in January, February, March and April.

Year.	Before water purification.
1908	12
1909	8
1910	11
1911	30
1912	13
	Since water purification.
1913	2

The unenviable distinction of having the highest typhoid fever rate in the United States for a long period of years has been lost by Niagara Falls, and proper water purification promises to repeat in Niagara Falls the success achieved in Pittsburgh and other cities which formerly were notorious typhoid fever centres. The present yearly rate is rather high.

LAKE ONTARIO AND THE ST. LAWRENCE RIVER.

Rochester, New York.

The sanitary conditions in Rochester are practically the same as in 1911. The extensive sewerage plans being carried out (described in Hygienic Laboratory Bulletin No. 83) do not affect the water supply, which is taken from Hemlock Lake. Attention was called in Bulletin 83 to the danger of placing implicit confidence in unfiltered surface supplies from inhabited watersheds, even if policed and controlled. It was also noted by the writer that the typhoid rates in certain months, especially January, were too high. The typhoid fever rate in Rochester remains low, but the peculiarities in seasonal prevalence are worthy of the closest study. The high

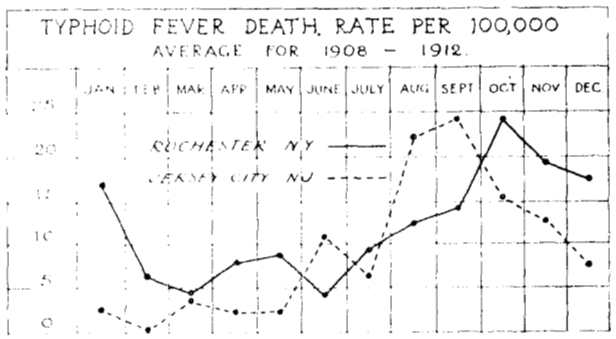


FIG 29

Chart No. 3 (Fig. 29) shows Rochester (solid line) compared with Jersey City (dotted line) in the matter of seasonal prevalence.

rate in January is striking. There seems to be a steadily high rate from October to January instead of the rather rapid decline from October to January customary in cities with safe water supplies.

Both cities use unfiltered surface supplies, but Jersey City treats its supply with hypochlorite of lime as a safeguard. Rochester depends upon the policing and control of the watershed and storage alone as a protection. Only a careful study extending over a considerable period will determine the exact cause of the peculiar seasonal prevalence of typhoid fever in Rochester.

Oswego, New York.

In 1910 the intake for the public water supply of Oswego was placed in Lake Ontario about 500 feet from the shore. In 1912 the intake was placed 7,000 feet off shore. The improvement effected by substituting lake water for the polluted river water is shown by the typhoid fever statistics. The chart on page 287 of Hygienic Laboratory Bulletin No. 83 shows the very high rates for typhoid fever in Oswego during the first five months of each year. Since the change in the intake there has not been a single death from typhoid fever in Oswego in January, February, March, April or May. This does not mean that the lake water without treatment will always be safe, but shows that the lake water was safe in 1912 and 1913 during the winter and spring months.

Watertown, New York.

Watertown has had unusually high rates for typhoid fever since 1906. The source of water supply is the Black River, and since 1904 a mechanical filter plant has been in operation. It is apparent that its operation has not been efficient. An investigation was made by the State Health Department and a marked improvement in the typhoid fever rate has resulted. From the very high rates prevalent in 1908-1911, the rate in 1912 dropped to 11. The winter and spring typhoid seems to be eliminated, as there has not been a death from typhoid fever in January, February, March or April of 1912 and 1913. The mere installation of a filter plant does not assure safe water. Intelligent and careful operation with daily bacteriologic control are necessary to secure a safe effluent, and this is particularly true where the raw water is taken from a grossly polluted river.

Ogdensburg, New York.

The source of water supply for Ogdensburg was changed in 1912 from the Oswegotchie River to the St. Lawrence. In June, 1912, the slow sand filters were completed and put in operation.

Ogdensburg has had a continuously excessive rate for typhoid fever. The average for the ten years from 1900 to 1909 was 48.5 deaths per 100,000 population. In 1911 the rate was 30.8, and in 1912, 36.7. Striking results followed the installation of the filters. Not a single death occurred during the remainder of 1912, and only one death from typhoid fever has occurred in the twelve months from June, 1912, to May, 1913, giving a typhoid rate of only 6.2 for the first year in which filtered water was furnished.

TYPHOID FEVER STATISTICS AND SOME SANITARY FACTS AFFECTING ITS UNDUE PREVALENCE IN ONTARIO

(Through the courtesy of the Provincial Board of Health of Ontario.)

In considering the question of typhoid fever in the Dominion of Canada, for the purposes of this report, the Province of Ontario from the fact of its geographical position on the International waters is the portion most vitally concerned. The Province has an immense area of over 400,000 square miles. It has a frontage on the International waters, stretching from the Lake of the Woods to Cornwall on the St. Lawrence of 1,500 miles. Along this area are its chief centres of population. The older portions of the Province, abutting on the Great Lakes, are the most thickly settled. In that portion known as New Ontario the population, except in the new and rapidly growing towns and cities on the Upper Lakes, is found chiefly on the three lines of Transcontinental railways which converge at Fort William and Port Arthur and from there stretch fanlike to the Greater West. In this newer territory the population is largely made up of the employees engaged in railway construction, in mining, and in the lumber industry. The health of the men engaged in the industries just mentioned is under close supervision by the Provincial Board of Health. The regulations of the Board define the character and location of the camps. These are not allowed close to a river, stream or lake, and the requirements respecting their construction, ventilation and sanitary conditions are strictly enforced. Each employer of labour is required to provide a physician for the care of the men employed. Monthly inspection and report upon the camps is made by the contract physician. The regulations are rigidly enforced by the District Officers of Health. In this way the Province is possessed of

Table XXV.
TYPHOID FEVER.

	FORT FRANCES Census Pop. 1901— 466 1911—1,611		RAINY RIVER Census Pop. 1901— 1911—1,578		PORT ARTHUR Census Pop. 1901— 3,212 1911—11,220		FORT WILLIAM Census Pop. 1901— 3,997 1911—16,499		SAULT STE. MARIE Census Pop. 1901— 7,169 1911—10,984		STEELTON Census Pop. 1901— 1911—3,936		SARNIA Census Pop. 1901—8,176 1911—9,947		WALKERVILLE Census Pop. 1901—1,595 1911—3,302		WINDSOR Census Pop. 1901—12,153 1911—17,829		AMHERSTBURG Census Pop. 1901—2,222 1911—2,560		SANDWICH Census Pop. 1901—1,450 1911—2,302		FORT ERIE Census Pop. 1901— 890 1911—1,146		BRIDGEBURG Census Pop. 1901—1,356 1911—1,770		NIAGARA FALLS Census Pop. 1901—5,702 1911—9,248		NIAGARA-ON-THE-LAKE Census Pop. 1901—1,258 1911—1,318	
	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths
1903.....	0	0	..	2	89	4	78	5	152	11	..	..	116	14	0	0	30	4	0	0	122	2	0	0	0	0	..	..	0	0
1904.....	0	0	0	0	243	15	182	14	26	2	..	..	34	3	47	1	59	8	0	0	182	3	108	1	0	0	14	1	78	1
1905.....	0	0	200	2	72	5	100	9	150	12	..	..	33	3	0	0	42	6	0	0	57	1	0	0	0	0	..	..	78	1
1906.....	96	1	200	2	422	34	960	98	191	16	87	2	55	5	40	1	41	6	83	2	54	1	0	0	0	0	40	3	0	0
1907.....	86	1	0	0	118	11	70	8	91	8	0	0	87	8	0	0	78	12	0	0	52	1	99	1	0	0	38	3	0	0
1908.....	79	1	0	0	152	16	141	18	68	6	69	2	112	11	0	0	60	10	0	0	100	2	0	0	0	0	73	6	0	0
1909.....	72	1	0	0	171	20	128	18	87	8	0	0	83	8	0	0	51	9	40	1	47	1	0	0	0	0	23	2	0	0
1910.....	400	6	0	0	179	23	98	15	153	14	0	0	102	10	0	0	45	8	0	0	45	1	0	0	0	0	90	5	0	0
1911.....	372	6	634	1	142	16	42	7	330	35	51	2	141	14	30	1	33	6	78	2	0	0	87	1	0	0	86	8	0	0
1912.....	0	0	0	0	161	23	35	7	83	10	20	1	134	14	57	2	55	7	115	3	125	3	0	0	0	0	41	4	0	0
Average	111	2	103	1	175	17	183	20	133	12	23	1	90	9	17	1	49	7	32	1	78	2	29	.03	0	0	40	3	16	.02

a very complete knowledge of the incidence of typhoid fever and other diseases occurring among this portion of the population. The records of deaths from the various diseases have been carefully collected for the last forty-three years and published in the Registrar-General's reports; especially in the last ten or fifteen years these records are very complete and form an accurate basis for the typhoid rates included herein. The record is not one to be proud of. It will be seen that while the typhoid rate is excessive in most parts of the Province, over a long period of time, it is higher in the communities taking their supplies from rivers and streams, and highest of all in the counties and in the cities and towns situated on the International waters. The City of Ottawa, the capital of he Dominion, has had within the last three years two very marked outbreaks of typhoid, shown after careful investigations to have been caused by the use of sewage-polluted water from the Ottawa River. It is a disgraceful fact that up to the present date no satisfactory plan for a pure supply for that city has been adopted. Sarnia, on the River St. Clair, on the other hand, has profited by its experiences with typhoid fever two years ago. Its water supply is taken from the river. This, on investigation by the Provincial Board, having been shown to be the origin of the outbreak, the town has undertaken to secure a supply by infiltration from Lake Huron at a point several miles above the town. The new works will be completed during the coming summer and will ensure a safe supply.

Many of the port towns have high typhoid rates. Doubtless a good many of their cases come from the boats during the season of navigation. Some of the typhoid in these communities, especially if the town is a hospital centre, comes from the surrounding districts. But when the rates for the counties along the boundary waters are considered, and the experiences of the physicians in rural communities adjacent to the cities and towns is heard, one is forced to the conclusion that a good deal of the rural typhoid fever has its source in these urban centres. The Counties of York, Essex, Lambton and

Table XXV.—Continued.

TYPHOID FEVER.

HAMILTON Census Pop. 1901—52,634 1911—81,969		GRIMSBY Census Pop. 1901—1,001 1911—1,669		OAKVILLE Census Pop. 1901—1,643 1911—2,372		TORONTO Census Pop. 1901—166,098 1911—327,753		WHITBY Census Pop. 1901—2,110 1911—2,248		BOWMANVILLE Census Pop. 1901—2,731 1911—2,814		PORT HOPE Census Pop. 1901—4,188 1911—5,092		COBOURG Census Pop. 1901—4,239 1911—5,074		BELLEVILLE Census Pop. 1901—9,117 1911—9,876		TRENTON Census Pop. 1901—4,217 1911—3,988		KINGSTON Census Pop. 1901—17,961 1911—18,874		GANANOQUE Census Pop. 1901—3,526 1911—3,804		PRESCOTT Census Pop. 1901—3,019 1911—2,801		BROCKVILLE Census Pop. 1901—8,940 1911—9,374		CORNWALL Census Pop. 1901—6,704 1911—6,598	
Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths	Deaths per 100,000	Total Deaths
7	4	0	0	55	1	20	38	0	0	36	1	0	0	0	0	32	3	0	0	100	18	55	2	0	0	66	6	30	2
15	9	0	0	107	2	28	56	0	0	36	1	22	1	0	0	10	1	0	0	22	4	0	0	0	0	66	6	45	3
20	13	0	0	0	0	18	41	0	0	0	0	0	0	0	0	21	2	0	0	38	7	0	0	34	1	22	2	30	2
28	19	0	0	0	0	29	70	46	2	72	2	64	3	42	2	84	8	0	0	38	7	0	0	34	1	109	10	90	6
14	7	0	0	0	0	22	58	0	0	0	0	63	3	0	0	83	8	0	0	27	5	27	1	103	3	21	2	75	5
18	13	0	0	47	1	22	60	0	0	144	4	0	0	0	0	72	7	0	0	32	6	0	0	34	1	43	4	105	7
14	11	66	1	46	1	26	77	45	1	144	4	81	4	20	1	41	4	0	0	32	6	0	0	0	0	32	3	60	4
14	11	62	1	0	0	49	151	34	1	108	3	40	2	39	2	51	5	24	1	80	15	0	0	70	2	10	1	60	4
22	18	0	0	42	1	25	82	0	0	0	0	59	3	79	4	20	2	25	1	26	5	0	0	35	1	42	4	45	3
8	7	0	0	0	0	15	54	43	1	35	1	77	4	19	1	40	4	24	1	30	6	0	0	0	0	63	6	60	4
16	11	13	.02	30	1	27	69	17	1	57	2	41	2	20	1	45	4	7	.03	43	8	8	.03	31	1	47	4	60	4

Frontenac, lying on the International waters, have had a high typhoid rate for many years.

All of the cities and towns on the International waters have had excessive rates for a long period of time. In some of them, notably Fort William, Sault Ste. Marie and Sarnia, these rates have been extraordinarily high. All of them, with the single exception of Fort William, which has had a mountain lake supply for the last half a dozen years, take their water supplies from the adjacent waters into which, without treatment, all their sewage is poured. A few, such as Port Arthur, Sault Ste. Marie, Sarnia, etc., have been required by the Provincial Board to establish emergency chlorination apparatus. The City of Toronto uses water which is treated by a slow sand filter supplemented by chlorination. The effect of treatment in this city has shown a marked reduction in the typhoid rates during the last two years.

The use of chlorine, if properly applied, has proved to be a valuable emergency measure in the treatment of water supplies in Ontario. For a number of reasons it is not completely satisfactory. Unless the dosage is small and carefully regulated it gives rise to a great deal of complaint on account of the taste, and this is frequently made an excuse for lessening the dose to an ineffective amount or dispensing with it altogether. Its value depends upon careful regulation of the dosage, the scrupulous care of a competent staff and the oversight of a bacteriological laboratory. In Toronto, where these conditions are fulfilled, there is little complaint and, as already remarked, the results here justify the exertions of the Health Department and city authorities.

The results of the investigation, included in this report, indicating the gross pollution of much of the International waters, due chiefly to the sewage of the urban communities in both countries, point plainly to the connection between this pollution and the high typhoid rates in their cities and towns and should surely stimulate public opinion to reduce the causes both by a proper disposal of the sewage and by providing such treatment of their water supplies as will safeguard the population against an easily preventable disease.

Rainy River and Fort Frances.

Both these places are situated on the Rainy River. They are the most westerly towns of importance on the International waters. Their water supplies are taken from the sewage-polluted river water and both have high typhoid rates. Some of this typhoid may be accounted for by the influx from the adjacent lumber woods and railway construction camps. But from the character of their water supplies it seems probable that the disease is largely water-borne. These towns, as well as International Falls, on the United States side, cannot hope to obtain safe river water until the sewage is properly taken care of. In the meantime these municipalities should filter and chlorinate their water supplies.

Fort William and Port Arthur.

These twin cities have during the last twelve years had an extraordinarily high typhoid rate. Both of them are hospital centres and receive the sick from the lumber, mining and construction camps of their neighbourhood. This accounts for part of their typhoid rate. Fort William is the larger of the two cities. Until 1909 Fort William took its water supply from the Kaministiquia River—a seriously polluted source. In 1906 the intake was broken close to shore and received gross pollution from a sewer entering the river above and nearby. Ten per cent. of the population developed typhoid. Three years afterwards the Loch Lomond supply was put into commission. Since then the typhoid rate has come down, until at the present time it is below thirty. During the big typhoid year Port Arthur had its highest rate. There is a good deal of communication between the two towns. The water supply of Port Arthur is obtained from a point in Thunder Bay, not very far from some sewer outlets. As the town grew the amount of sewage increased, with the result that the typhoid rate has also steadily increased, until now it is several times higher than that of Fort William, though all other sanitary conditions are better in Port Arthur than in Fort William. Throughout the greater part of the time the Port Arthur water exhibits but slight contamination, but shows intermittent serious pollution. On these days of pollution the counts are not what are generally considered high, nor is the colon content large. Contrasting this with the pure bay water it appears serious. Chlorination of the supply has been in operation in Port Arthur during the last ten months, but has been rather indifferently applied. The hoped-for reduction in typhoid has not been great.

Sault Ste. Marie.

The typhoid rate here has always been high. This also is a hospital centre for the camps of the district. This accounts for part of the typhoid. When Sault Ste. Marie, Michigan, took its water supply from just above the canal locks its typhoid rate and that of Sault Ste. Marie, Ontario, paralleled each other. The Michigan city now takes its water from a point above the sewer outlets. Its rate has fallen markedly below that of the Ontario city, which still continues to take its water from the old source above the locks and still holds its old rate. The Michigan city's typhoid is about nil in the winter. It rises strikingly during the months of navigation, but earlier than the fly season, whilst Sault Ste. Marie, Ontario, has its typhoid in the winter as well as in the summer, just as Sault Ste. Marie, Michigan, used to have prior to the installation of its present intake.

If the typhoid of these cities is correctly located as to origin, we have a good illustration of the disastrous effect of slight intermittent pollution and also of the pollution derived from the boats. Even when polluted, the count is remarkably low and the colon bacillus present in small number only.

Sarnia.

This town at the head of the River St. Clair takes its supply unfiltered from the river through an intake extending about seven hundred feet into the stream. In the latter part of 1911 there was a sharp outbreak of typhoid there, and under the direction of the Provincial Board of Health a chlorination apparatus was established. In January, 1912, the Board, acting as a Commission under the Public Health Act, made a thorough investigation under oath into the whole question of the water supply and typhoid conditions in the town.*

The evidence established:

(1) That there were in the town, during the year 1911, 151 cases of typhoid, of which 136 occurred during the months of November and December.

(2) That the contaminated water supply was, especially during these latter months, the sole cause. This was evidenced by a widespread distribution over the town, the occurrence of the large proportion of cases during the cold season, the absence of other causes, as milk, etc. Contact cases were practically eliminated, it being shown by the evidence of Dr. Bentley and others that second cases in the same house occurred at the same time. The figures in respect to milk inspection were given in the evidence of Dr. R. W. Bell. The evidence of Dr. Wilkinson respecting the prevalence of cases in a strip of territory adjacent to the St Clair River was of especial significance.

(3) That the water supply was contaminated at various times since 1903 is shown by examinations made in the State Laboratory of Hygiene, Ann Arbor, Mich., by the bacteriologist and chemist of the Imperial Oil Company of Sarnia, and repeatedly by the officers of the Laboratory of the Provincial Board of Health at Toronto.

(4) In addition, the evidence goes to show that there is danger of pollution of the water supply from the sewage of the town, which has its outlet at the foot of Cromwell Street, a couple of blocks below the intake, through the influence of currents sweeping northward into the bay, by the disturbance of bay water by these currents, by the rising and falling of the bay waters due to north and south winds, and by the ebb and flow caused by large vessels passing up and down. Besides this there is the sewage from the steamboats and from the considerable population at the mills north of the intake, and from Point Edward, a village where the lake empties into the river.

(5) That during the years 1898 onward there was a very large number of cases of typhoid. It was shown by the evidence of most of the medical practitioners of the town that for every case treated in the hospital there were at least two treated in the homes of the town. This being the case, it will be seen from the following table that there has been during the last fourteen years an almost continuous epidemic of the disease.

(6) That the death rate was abnormally large. In the years 1900 to 1911 inclusive, the records of the Registrar General's Department show an average of almost 9 yearly, or a total of 98 deaths. Taking the population at 10,000, this means 90 per 100,000. For 1911 it means 140 per 100,000. A death rate from typhoid of above 20 per 100,000 is considered by sanitarians to be an excesssive one. That of Toronto during 1911 was 20 per 100,000. Taking

* See Report of Special Investigation into the Cause of Typhoid Fever in the Town of Sarnia, 1912. Provincial Board of Health, Ontario.

the population of Toronto at 400,000, an equivalent number of cases for that city for 1911 would be 6,000, and the comparative deaths 560! The total typhoid fever death rate for adjacent towns during the last eleven years is—Chatham (12,000), 57; Windsor (18,000), 84; that of Petrolea, which takes its supply from Lake Huron, a distance of about 14 miles, is very low. Last year (1911) there was but one case and *in eleven years but one death.*

As a result of this investigation the new water supply system already referred to is under construction.

TYPHOID FEVER CASES IN THE SARNIA GENERAL HOSPITAL.

Year.	Total Cases.	Cases from Sarnia Town.
1896	2	2
1897	14	8
1898	20	10
1899	50	24
1900	80	58
1901	89	55
1902	109	73
1903	57	40
1904	25	18
1905	57	46
1906	55	41
1907	37	28
1908	60	49
1909	66	46
1910	60	35
1911	76	59

WALKERVILLE.

The typhoid rate in this town is intermittent. Some pollution enters the Detroit River chiefly from navigation above the intake of this town. At present a fairly satisfactory chlorination of the supply is being done here.

WINDSOR.

This city takes its water supply from the Detroit River in the ship channel and about half a mile below the nearest Walkerville sewer outlet. Its typhoid rate has always been high. Much difficulty has been experienced in having chlorination properly done in this city. It requires approximately 16 lbs. Hypo-chlorite per million gallons to chlorinate the water at this point. Some deaths are undoubtedly due to the infected water served for drinking purposes on the ferries plying between Windsor and Detroit.

SANDWICH.

The Typhoid rate in this town is similar to that of Windsor, as would be expected since their water supply is taken from the Windsor Water Works System.

AMHERSTBURG.

This town is at the lower end of the Detroit River. Its typhoid rate is high, though statistics do not show so high as those of Sandwich or Windsor. The raw water is much worse from the bacteriological standard than that of the towns above. This is one of the old fixed population towns. It used to be notorious as a typhoid centre for railroad men. The suggested explanation of the now comparatively low rate is that practically all the inhabitants here at one time or another have had typhoid fever. A good deal of ague at one time existed on this Detroit River littoral. Until recently malaria was blamed for much that must have been typhoid in the earlier days. The water supply of this town is now being chlorinated.

NIAGARA FALLS, ONTARIO.

The town has taken its water supply from the same source above the Falls for several years. Until 1906 it was comparatively free from typhoid. Since then the typhoid has gone on increasing. Analysis of the town water before 1906 rarely showed infection, since that time infection has been frequent. Power-development has been considerable in the last eight years. Most of the construction work has been below ground. It is possible some of the infection arose from these development works. Many of the people of this town work on the United States side of the river, and vice versa. Niagara Falls, N.Y., has been notorious for years as a typhoid centre. Chippewa Creek, a very sluggish and muddy stream, discharges into the Niagara River a couple of miles above the Niagara Falls, Ont., intake. Twelve miles above its mouth this creek receives the sewage of Welland, a town of seven or eight thousand inhabitants recently grown from small proportions. The sluggishness and mud content of this water in the twelve miles probably has much to do in minimizing the harmful effect of this pollution. Another explanation that has been suggested for the more frequent pollution of this Niagara Falls water supply is the possible diversion of water from the other

side of the river through the greater shore draw-off now going on towards the power plants. Analyses during the summer's investigation on the Niagara River above showed the possibility of Buffalo sewage being at times diverted to the Canadian channel. The behaviour of ice floes during the spring break-up illustrates this possibility very graphically. The Chippewa channel carries approximately five times the volume flowing in the Tonawanda channel. Careful purification of the city's water supply has been frequently advised and should be instituted without delay.

Niagara-on-the-Lake.

The water in the river opposite this town is always polluted, even in so small quantities as one one hundredth of a cubic centimeter. The statistics show absence of typhoid. Is it that the inhabitants have all become immune? The population here is a fixed one. The old residents get their drinking water supply chiefly from wells and springs. However, the occasional visitor is not as lucky as the regular resident. The militia of this district of Ontario camp here every summer. With them the effect of drinking this town's water was pronounced. Up to three years ago, when no precaution was taken to treat this water, the soldiers suffered much from intestinal trouble and many of them developed typhoid on returning home. During the last three years the men have been supplied with well water, or more recently with disinfected town water. The trouble with intestinal diseases and with typhoid has ceased.

Toronto.

This city has had its population trebled in the last twelve years. Its typhoid rate has never been continuously excessively high. Every material change in its water supply apparatus has resulted in a sympathetic change in the typhoid rate.

Until two years ago all of the city sewage was discharged untreated directly into Toronto Bay or along the lake front west of the Island. Eventually all of it reached the open lake. At the present time the sewage is nearly all being collected by a trunk sewer and delivered at the Morley Avenue Sewage Treatment Plant, where it receives a partial sedimentation and is disinfected with chlorine previous to being discharged into the lake some three miles east of the present water intakes.

Toronto has gone through several outbreaks of typhoid. First, when the intake was located west of the Island in Garrison Common Bay, the rate was intermittently high, reaching at times to even 100. The second period was ushered in when the site of the intake was moved to its present locality, and a wooden conduit laid across the bottom of Toronto Bay to the city. In the early years of this period the rate was low, but gradually increased until it reached 55, with exacerbations due to gross accidents to the conduit. In the third period a steel pipe was substituted for the wooden one. The rate fell to the lowest it had been for years, between 17 and 26. Accidents of various kinds happened to this pipe. It was cut by anchors three or four times. Once it rose to the surface. There were in consequence gross infections of the city water with the sewage-polluted bay water, followed by outbreaks of typhoid. Generally the pipe was tight, but the general typhoid rate increased as the population increased. There was no material change when the present tunnel was put in use. Chlorination was started, but was half-heartedly done. The rate was not materially affected. Six months later it was begun seriously with decided improvement in the rate, though the raw water for a year of the time was the worst it had been for years. Then the last period came in with the putting into commission of a slow sand filter, which is, however, of too small a capacity to filter all of the city's water; now between the filter, the after chlorination and the present treatment of the bulk of the sewage, practically sterile water is being supplied to Toronto. The typhoid rate for the last year—10.5 per 100,000—is the lowest that has been experienced in Toronto for over twenty-five years. The citizens are being well repaid for the expense involved. Money has been voted recently toward the installation of filters sufficient to filter 100,000,000 gallons per day of lake water. It is to be hoped that anxiety with reference to this water supply will soon be removed.

Kingston.

This is another city that has had intake troubles. Their water supply shows intermittent infection. During the greater part of the time the water is pure. Breaks in the inshore end of the conduit have usually resulted in typhoid outbreaks. The investigation last spring showed that Cataraqui Bay, which

is always sewage-polluted, intermittently discharged out into the current where the intake is situated. Also, it was shown that with given winds the inshore sewage-polluted water occasionally flowed over the site of the intake. This city is a hospital centre, but the typhoid of the city is out of proportion to that of the county and runs very evenly distributed throughout the year. The rate has for years been generally over 30 per 100,000. The pollution of this city's water supply is chiefly due to the short circuiting of its own sewage—some may arise from navigation.

BROCKVILLE.

The typhoid rate in this town has been high for a number of years; the average rate per 100,000 for the last ten years is 47. In 1906 the rate was as high as 109. The lowest rate was 10 per 100,000, in 1910.

The water supply is taken from the St. Lawrence River about twenty-five miles below the Thousand Islands. Considerable pollution exists in the vicinity of the waterworks intake due to local conditions and to the character of the river water at this point. The pollution is augmented during the navigation season.

From the character of the water supply and from the seasonal distribution of typhoid it is very apparent that the water supply is the major cause of their high typhoid rates. This supply should be filtered to remove gross matter in suspension due to navigation and chlorinated to protect against irregularities in filtration; the typhoid rate should be as low or lower than in 1910, namely, 10 per 100,000. The chlorination as practised here during the last two years has not been as successful as one would wish; possibly the dosage is too small.

CORNWALL.

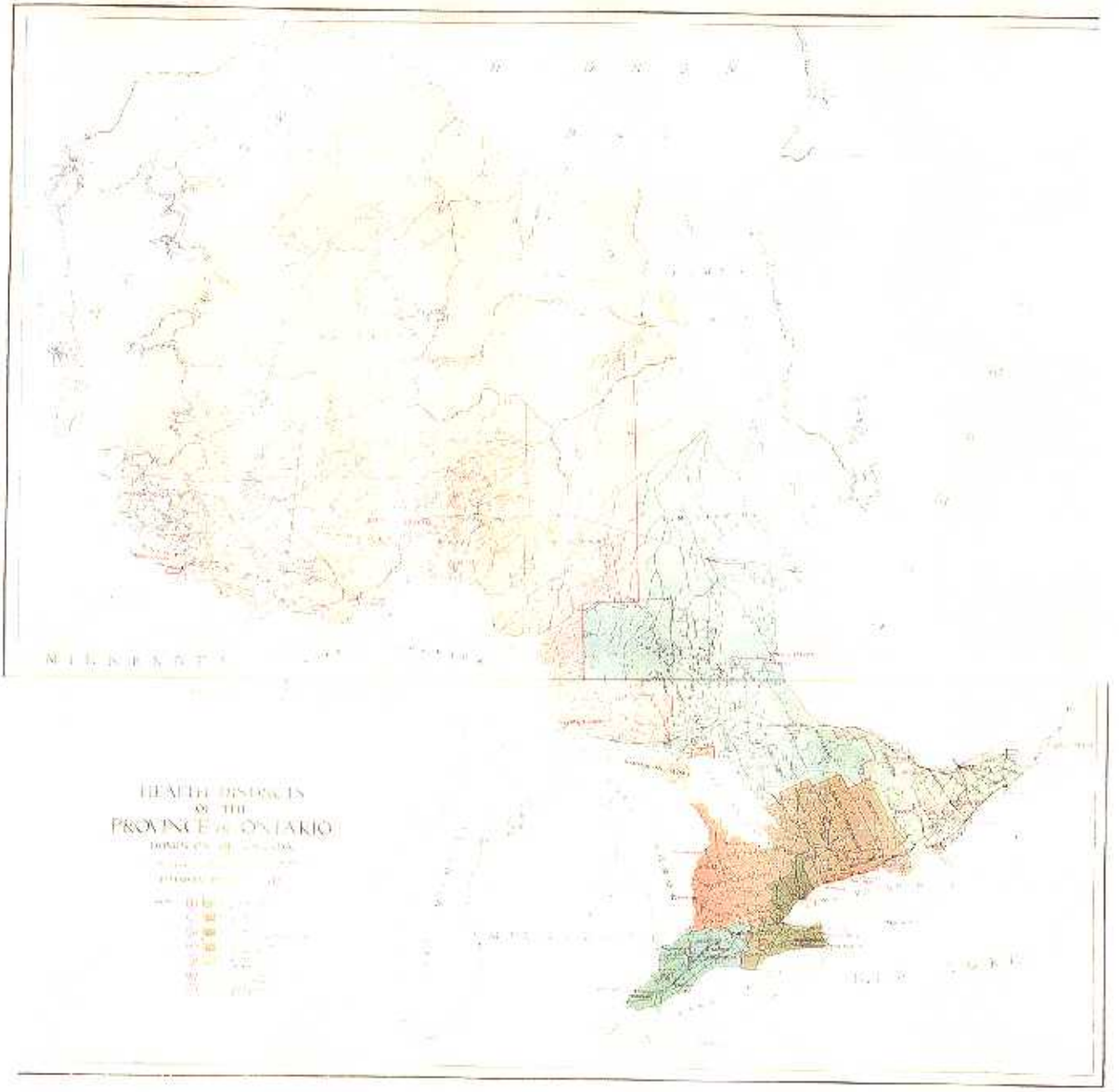
The typhoid rate in this town has also been very high for a number of years. The average rate per 100,000 for the last ten years recorded is 59—a very high average rate. In 1906 and 1908 the highest rates were obtained, namely, 85 and 105 per 100,000. The water supply is obtained from the St. Lawrence River, and while the nearest large urban centre, Ogdensburg, is forty-five miles above, pollution has been clearly shown to continue through that distance; this pollution is considerably augmented by navigation during the summer months.

It is reasonable to assume from the character of the water supply, and from the seasonal distribution of typhoid shown on the accompanying sheets, page xxx, that the water supply is the major cause of the prevalence of typhoid fever. If the cities above were compelled to sediment and disinfect their sewage, and the navigation companies were to provide for the taking care of sewage from boats, this municipality would have little or no difficulty in controlling typhoid fever. Under existing circumstances it is altogether advisable to instal filters and protect their irregularities by chlorination or other disinfecting measures. No treatment of any kind has been practised there.

JOHN W. S. MCCULLOUGH.
JOHN A. AMYOT.
F. A. DALLYN.

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

The very complete statistics conveniently arranged in tabular form by months for the Province of Ontario have been obtained from the Registrar General's Department of that Province. These statistics show how extensively typhoid fever is scattered throughout the entire province. It is an admitted fact that in any country where the water supplies are unprotected and subject to sewage pollution, and where so much travelling is indulged in, as in Canada and the United States, typhoid fever will never be eradicated except by a concerted movement for the compulsory protection of Municipal Water Supplies.


HEALTH DISTRICTS
OF THE
PROVINCE OF ONTARIO

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

DISTRICT OF ALGOMA
Not including Sault. Ste. Marie, Steelton

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	38195	2	1	1	..	..	..	..	..	2	4	1	2	13
1903		1	..	..	1	..	..	1	1	..	..	..	..	4
1904		..	..	..	1	..	..	..	..	1	2	..	..	4
1905		..	..	..	..	..	..	..	1	3	1	..	..	5
1906		1	2	..	..	..	..	..	2	..	4	3	..	12
1907		3	..	..	..	..	..	2	1	..	1	..	2	9
1908		..	1	1	..	..	..	..	3	2	2	1	2	12
1909		..	..	..	..	1	..	1	..	1	..	..	..	3
1910		1	..	..	1	1	..	..	..	3	2	1	..	9
1911	28403	..	..	..	..	..	..	..	1	2	1	4	1	9
1912		1	..	..	..	..	..	..	..	..	2	..	1	4
		9	2	4	3	2	..	4	9	14	19	10	8	84

DISTRICT OF THUNDER BAY
Not including Fort William, Port Arthur

	01													
1902	5335	..	1	..	1	..	..	..	1	..	..	..	..	3
1903		2	..	..	..	..	..	..	..	1	1	1	..	5
1904		..	1	..	1	..	..	..	2	1	..	1	1	7
1905		..	..	..	..	..	..	..	..	..	..	..	2	2
1906		..	4	..	..	..	..	1	..	..	..	..	..	5
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	..	2	1	..	..	3
1909		..	..	..	..	..	..	..	..	..	..	..	..	..
1910		..	..	..	1	..	..	..	..	..	..	..	..	1
1911	11367	..	..	..	..	..	..	..	..	..	..	..	..	..
1912		..	..	..	..	..	..	..	..	..	..	1	1	2
		2	6	..	3	..	..	1	3	4	2	3	4	28

DISTRICT OF KENORA
Not including Kenora

1902		..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	..	..	..	..	..	..	..	..
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	..	..	..	..	..	..
1909		..	..	..	..	..	..	..	..	1	..	2	..	3
1910		..	..	..	..	..	..	..	..	..	..	..	..	..
1911	11955	..	..	..	..	..	..	..	..	..	..	..	..	..
1912		..	..	..	..	..	..	..	..	..	..	..	..	..
		..	..	..	..	..	..	..	..	1	..	2	..	3

COUNTY OF RAINY RIVER
Not including Kenora to 1908

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	10839	..	..	..	..	..	..	..	..	..	1	..	3	4
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	1	1	..	..	2
1905		2	..	..	..	..	..	..	..	..	..	..	1	3
1906		1	..	..	1	..	..	..	2	1	3	..	..	8
1907		1	..	1	..	1	..	..	..	3	1	..	..	7
1908		..	..	..	..	..	..	1	..	..	1	2	..	4
1909		..	..	..	1	..	..	..	..	..	..	..	..	1
1910		..	..	..	..	..	..	..	1	..	2	2	2	7
1911	10050	1	..	..	..	1	..	..	2	1	..	1	1	7
1912		1	..	1	..	..	..	..	..	..	..	..	..	2
		6	..	2	2	2	..	1	5	6	9	5	7	45

TOWN OF SAULT STE. MARIE
County of Algoma

	01													
1902	7196	..	..	..	2	..	..	2	2	4	4	..	2	16
1903		1	1	1	..	1	..	1	1	..	1	2	2	11
1904		..	1	..	..	..	..	1	..	..	..	..	..	2
1905		..	..	..	..	..	..	2	2	2	2	2	2	12
1906		..	..	..	..	1	..	2	2	3	6	2	..	16
1907		..	1	1	..	..	..	1	1	..	2	..	2	8
1908		..	..	..	..	1	..	..	..	..	2	1	2	6
1909		1	1	..	..	..	..	1	1	2	1	1	..	8
1910		..	1	..	1	..	..	..	2	3	3	4	..	14
1911	10498	2	..	..	..	2	..	2	10	6	5	4	4	35
1912		3	..	..	..	..	..	1	..	3	2	..	..	9
		7	5	2	3	5	..	13	21	23	28	16	15	138

CITY OF PORT ARTHUR
County of Thunder Bay

	01													
1902	3214	1	..	..	..	1	..	..	1	3	..	..	..	6
1903		..	..	..	..	..	..	1	..	1	..	2	..	4
1904		3	..	1	..	2	..	..	1	1	6	..	3	17
1905		1	..	1	..	..	..	..	..	1	.	..	3	6
1906		5	2	4	1	..	1	..	2	6	8	5	1	35
1907		..	..	1	1	..	..	..	3	3	1	1	1	11
1908		..	..	1	..	2	1	1	2	1	4	3	1	16
1909		2	2	..	..	..	1	1	1	5	4	3	1	20
1910		..	..	..	..	..	2	..	4	4	4	7	2	23
1911	11220	5	..	..	..	..	1	..	2	4	2	1	1	16
1912		..	2	..	..	..	5	2	..	1	3	1	9	23
		17	6	8	2	5	11	5	16	30	32	23	22	177

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

CITY OF FORT WILLIAM
County of Thunder Bay

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	3997	..	..	..	..	..	..	3	1	..	..	2	..	6
1903		..	..	..	..	..	..	..	..	1	1	1	1	4
1904		1	..	..	..	2	1	1	..	2	3	3	..	13
1905		1	..	..	..	1	..	..	1	3	..	1	3	10
1906		14	18	35	4	2	2	..	4	6	12	2	..	99
1907		..	..	..	..	2	..	..	3	2	..	..	1	8
1908		..	..	..	..	..	..	..	2	3	5	7	1	18
1909		1	..	..	..	..	1	1	1	6	4	3	1	18
1910		..	..	..	2	1	..	..	2	2	2	5	1	15
1911	16499	..	..	..	..	2	..	..	3	1	..	..	1	7
1912		1	..	..	1	1	..	1	..	2	..	..	1	7
		18	18	35	7	11	4	6	17	28	27	24	10	205

CITY OF BRANTFORD
County of Brant

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1502	16619	..	..	..	..	..	1	..	..	2	1	1	1	6
1903		..	..	..	..	1	..	..	..	1	2	2	..	6
1904		1	1	..	..	..	..	1	3	1	..	2	..	9
1905		..	..	..	..	..	..	..	1	..	1	..	..	2
1906		..	..	..	..	..	1	..	..	2	1	5	1	10
1907		1	..	..	..	..	..	..	1	1	2	..	..	5
1908		..	..	..	2	..	..	..	..	2	3	4	..	11
1909		1	..	..	..	..	..	..	..	2	1	1	..	5
1910		..	..	..	1	..	..	..	4	5	3	1	1	15
1911	23132	1	..	1	..	..	..	1	3	4	2	4	1	17
1912		1	..	..	..	..	..	..	..	..	2	1	..	4
		5	1	1	3	1	2	2	12	20	18	21	4	90

TOWN OF KENORA
County of Rainy River

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	5202	..	..	..	..	1	1	..	..	..	1	..	1	4
1903		..	..	..	..	..	..	..	1	..	1	..	..	2
1904		1	1	..	..	..	..	..	..	1	2	2	..	7
1905		..	..	..	..	..	..	..	1	1	..	1	2	5
1906		1	..	1	1	2	2	..	2	..	7	6	5	27
1907		4	..	2	1	2	1	..	5	5	7	3	7	37
1908		..	2	1	..	1	..	1	4	9	29	13	4	64
1909		..	1	..	..	..	..	..	1	4	1	1	1	9
1910		..	..	..	..	..	..	..	1	..	1	3	..	5
1911	6158	..	..	..	..	..	..	1	..	..	..	..	..	1
1912		..	1	..	..	..	..	1	..	..	..	..	..	2
		6	5	4	2	6	4	3	15	20	49	29	20	163

COUNTY OF CARLETON
Not including Ottawa

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	36997	1	1	..	..	..	1	2	..	..	..	..	..	5
1903		..	..	..	..	..	1	..	..	..	..	..	..	1
1904		1	..	..	..	..	..	..	1	1	..	..	2	5
1905		..	..	..	..	..	..	..	1	1	..	2	..	4
1906		3	..	..	..	..	..	1	..	2	2	1	..	9
1907		1	1	..	..	..	..	..	1	..	..	..	..	3
1908		..	..	..	..	..	1	..	..	1	..	..	..	2
1909		1	1	..	..	..	1	..	..	..	..	..	..	3
1910		..	..	..	1	..	..	..	1	1	..	..	..	3
1911	14537	..	1	..	..	1	..	..	..	..	..	..	..	2
1912		..	..	..	..	..	..	..	..	2	..	1	..	3
		7	4	..	1	1	4	3	4	8	2	4	2	40

COUNTY OF BRANT
Not including Brantford

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	21512	2	..	1	..	..	1	..	..	1	..	..	..	5
1903		1	..	..	..	1	..	..	..	1	..	..	1	4
1904		1	1	..	..	..	..	..	..	..	1	..	..	3
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	..	1	..	..	1	1	..	3
1907		..	..	..	..	..	..	..	..	1	2	..	..	3
1908		..	..	1	..	..	..	..	..	..	1	1	..	3
1909		..	..	..	2	..	..	..	..	..	..	..	..	2
1910		..	..	..	..	..	..	2	2	..	..	..	..	4
1911	22744	..	..	..	..	..	1	..	..	1	..	1	1	4
1912		1	..	..	1	..	1	..	1	2	..	..	..	6
		5	1	2	3	1	3	3	3	6	5	3	2	37

CITY OF OTTAWA
County of Carleton

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	59928	1	2	1	2	..	4	1	1	4	1	2	..	19
1903		..	1	..	1	..	..	..	1	2	..	1	..	6
1904		..	..	..	1	..	..	..	1	3	4	2	2	13
1905		1	2	1	..	2	2	1	1	1	1	..	2	14
1906		1	..	2	1	1	1	1	4	2	5	4	3	25
1907		7	3	3	3	2	1	..	3	4	4	2	6	38
1908		..	..	..	..	1	1	2	1	1	7	8	4	25
1909		2	2	1	1	..	1	1	..	5	3	1	3	20
1910		1	3	2	1	..	1	1	2	3	6	3	1	24
1911	87062	8	29	23	12	2	2	1	..	2	5	2	1	87
1912		..	..	..	1	1	..	6	52	12	19	4	3	98
		21	42	33	23	9	13	14	66	39	55	29	25	369

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF DUFFERIN

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	21036	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	1	..	..	..	..	1
1904		..	..	..	..	2	..	..	..	..	..	1	..	3
1905		..	..	..	..	1	..	..	1	..	..	..	..	2
1906		1	..	7	2	..	1	1	..	..	..	..	1	13
1907		..	..	1	..	..	..	..	..	..	..	..	..	1
1908		..	..	..	..	..	..	..	.	..	..	..	..	..
1909		..	1	..	..	..	..	..	..	..	..	..	..	1
1910		..	..	..	..	..	1	..	..	1	..	..	..	2
1911	17740	..	..	..	..	..	1	..	..	..	..	..	..	1
1912		..	..	..	..	..	..	..	..	..	..	..	..	..
		1	1	8	2	3	3	1	2	1	0	1	1	24

COUNTIES OF NORTHUMBERLAND AND DURHAM

Not including Cobourg, Port Hope

	01													
1902	53588	..	..	..	1	1	..	..	1	3	1	3	..	10
1903		..	..	1	1	..	..	1	..	..	..	..	2	5
1904		2	..	..	..	1	..	..	1	..	1	1	..	6
1905		..	..	1	..	..	..	1	..	..	..	1	2	5
1906		..	1	1	..	..	..	..	..	..	..	2	3	7
1907		..	2	..	..	..	1	1	1	1	..	1	2	9
1908		..	..	..	..	..	..	..	..	3	2	2	2	9
1909		1	1	1	2	1	..	..	2	1	..	1	1	11
1910		..	..	..	2	1	..	..	1	1	6	4	2	17
1911	49164	1	1	..	..	1	1	..	..	..	2	1	1	8
1912		..	2	..	2	..	..	..	..	..	..	..	..	4
		4	7	4	8	5	2	3	6	9	12	16	15	91

TOWN OF COBOURG

County of Northumberland

	01													
1902	4239	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	1	..	..	..	..	..	..	..	1	2
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	..	..	..	..	..	..
1909		..	..	..	..	..	..	..	..	..	..	..	..	..
1910		1	..	..	..	..	..	..	..	1	..	..	..	2
1911	5047	..	..	..	..	..	..	..	..	2	1	..	1	4
1912		..	..	..	1	..	..	..	..	..	..	..	..	1
		1	..	..	2	..	..	..	..	3	1	..	2	9

TOWN OF PORT HOPE

County of Durham

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	4222	..	1	..	..	..	1	..	..	..	..	..	..	2
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	1	..	..	..	..	..	..	..	..	..	..	1
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		1	..	..	..	..	..	..	..	..	2	..	..	3
1907		1	..	..	..	..	..	..	..	..	..	..	..	1
1908		..	..	..	..	..	..	..	..	..	..	..	..	..
1909		..	..	..	..	..	1	1	..	..	1	1	..	4
1910		..	..	..	..	..	..	..	..	..	..	..	..	..
1911	5092	..	..	..	..	..	..	..	..	..	1	1	1	3
1912		..	..	2	..	..	..	..	..	1	..	1	..	4
		2	2	2	..	..	2	1	..	1	4	3	1	18

COUNTY OF ELGIN

Not including St. Thomas

	01													
1092	32101	..	..	..	..	..	..	1	1	..	..	..	2	4
1903		1	1	..	..	..	..	..	1	..	..	1	1	5
1904		..	..	..	..	..	..	..	..	1	1	..	..	2
1905		..	..	..	..	..	..	..	..	..	1	..	..	2
1906		..	..	..	..	2	1	..	1	1	1	3	..	9
1907		1	..	..	..	..	..	..	..	1	..	..	1	3
1908		..	..	..	..	..	3	..	1	..	1	1	..	6
1909		..	..	1	..	..	..	..	1	1	..	..	1	4
1910		..	..	1	..	..	..	..	1	..	..	1	..	3
1911	30528	..	..	..	..	..	..	1	..	..	..	..	..	1
1912		..	..	..	1	..	..	..	1	..	..	..	..	3
		2	2	2	1	2	4	2	8	4	4	6	5	42

CITY OF ST. THOMAS

County of Elgin

	01													
1902	11485	..	..	..	..	..	..	1	..	..	1	..	..	2
1903		..	..	..	..	..	..	..	1	..	..	..	..	1
1904		..	..	..	..	..	..	..	..	1	1	..	2	4
1905		..	..	..	..	..	1	..	..	..	..	..	..	1
1406		..	..	1	..	..	..	..	..	1	..	3	..	5
1907		1	..	..	1	..	..	..	..	1	..	..	..	3
1908		..	..	..	..	..	..	..	1	..	3	2	1	7
1909		..	..	..	1	..	..	..	1	1	1	..	1	5
1910		..	..	..	..	1	1	..	..	..	1	..	..	3
1911	14054	..	..	..	..	..	1	1	..	..	1	..	..	3
1912		..	..	..	..	..	..	..	..	..	3	..	..	3
		1	..	1	2	1	3	2	3	4	11	5	4	37

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF FRONTENAC
Not including Kingston

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	26843	..	..	1	..	..	1	1	..	1	..	..	..	4
1903		..	1	1	1	..	1	..	1	1	1	..	..	7
1904		1	..	..	1	1	..	..	1	..	..	1	..	5
1905		1	..	..	..	2	..	..	..	..	1	..	..	4
1906		..	..	..	..	..	..	..	..	2	1	2	2	7
1907		..	..	1	..	..	..	..	..	1	..	..	..	2
1908		..	..	..	..	..	..	..	..	..	..	3	..	3
1909		..	..	1	..	..	..	..	..	1	2	..	..	4
1910		..	..	..	..	1	2	..	1	1	..	1	..	6
1911	23730	..	..	1	..	..	1	..	..	..	2	..	..	4
1912		..	..	..	..	..	..	..	..	..	..	..	1	1
		2	1	5	2	4	5	1	3	7	7	7	3	47

CITY OF KINGSTON
County of Frontenac

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	17691	..	..	..	..	..	..	..	..	1	..	..	..	1
1903		2	1	10	1	..	1	1	..	..	..	..	2	18
1904		..	..	..	..	..	..	1	2	..	..	..	1	4
1905		..	1	..	1	..	2	..	1	..	1	..	2	7
1906		1	..	1	2	..	..	1	..	..	1	..	1	7
1907		..	..	..	..	..	..	1	..	2	..	1	1	5
1908		..	..	..	..	..	..	..	..	1	..	3	2	6
1909		..	..	..	..	1	1	..	..	1	..	1	2	6
1910		3	1	1	1	..	..	2	..	1	..	4	3	15
1911	18874	1	..	2	..	..	..	..	..	1	..	1	..	5
1912		..	1	1	1	..	..	1	1	1	..	..	..	6
		7	4	15	4	3	4	7	4	8	2	10	14	80

COUNTY OF ESSEX
Not including Windsor

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	46363	1	..	..	..	..	..	..	1	1	1	1	..	5
1903		1	1	..	..	1	..	1	1	1	1	2	2	11
1904		1	1	3	..	1	..	..	2	1	2	..	2	13
1905		..	..	1	..	..	1	1	1	3	..	1	2	10
1906		1	2	..	2	..	1	..	1	..	3	3	1	14
1907		2	2	..	..	1	..	..	..	2	..	..	1	8
1908		1	2	..	1	1	1	1	..	1	1	1	3	13
1909		..	2	2	3	1	2	..	3	..	..	3	..	16
1910		..	..	1	..	..	..	..	..	5	1	3	..	10
1911	49718	4	1	..	..	1	1	..	..	..	1	2	3	13
1912		1	..	..	1	..	..	..	1	5	..	6	4	18
		12	11	7	7	6	6	3	10	19	10	22	18	131

CITY OF WINDSOR
County of Essex

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	12153	..	..	1	..	1	..	..	..	1	..	..	2	5
1903		..	2	1	..	..	..	..	1	..	..	..	..	4
1904		1	1	1	1	..	..	..	2	..	..	2	..	8
1905		..	2	..	..	..	..	..	..	..	1	2	1	6
1906		1	..	1	..	..	..	1	..	..	..	1	2	6
1907		1	1	1	1	3	1	..	..	1	1	1	1	12
1908		..	..	1	1	1	..	..	..	3	1	3	..	10
1909		..	..	..	..	..	..	..	..	5	3	1	..	9
1910		..	..	..	..	..	..	3	..	2	1	1	1	8
1911	17829	1	..	..	..	..	2	..	..	2	..	1	..	6
1912		1	1	..	2	..	1	..	..	..	..	2	..	7
		5	7	6	5	5	4	4	3	14	7	14	7	81

COUNTY OF GREY
Not including Owen Sound

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	60814	..	..	1	1	..	..	..	..	..	..	..	1	3
1903		..	1	..	1	..	..	1	..	2	1	..	..	6
1904		..	..	..	..	..	1	..	1	1	1	..	1	5
1905		1	..	1	..	1	..	..	..	..	3	2	3	11
1906		..	1	..	..	2	..	..	1	1	1	..	2	8
1907		..	..	..	..	..	1	..	..	..	..	1	..	2
1908		..	..	..	..	..	..	1	2	..	2	..	..	5
1909		..	..	..	..	..	..	..	..	1	2	1	..	4
1910		..	..	..	1	1	..	..	..	..	1	..	1	4
1911	53333	..	..	..	..	..	..	..	1	..	..	1	..	2
1912		..	..	..	1	..	..	..	..	..	..	..	..	1
		1	2	2	4	4	2	2	5	5	11	5	8	51

TOWN OF OWEN SOUND
County of Grey

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	8776	..	..	..	..	..	..	1	..	1	..	..	..	2
1903		..	..	..	..	..	..	..	..	..	..	..	1	1
1904		..	..	..	..	..	..	..	..	..	1	1	1	3
1905		..	..	2	..	..	..	..	2	..	..	..	1	5
1906		..	..	..	..	..	..	..	1	1	4	1	..	7
1907		..	..	..	..	..	..	..	..	1	1	..	1	3
1908		..	..	..	..	..	..	..	1	..	1	..	..	2
1909		..	..	..	..	..	..	..	..	1	2	3	..	6
1910		..	..	..	..	..	..	..	..	..	..	2	..	2
1911	12558	..	1	1	..	..	..	..	..	..	..	..	..	2
1912		..	..	..	..	..	..	..	..	..	1	..	..	1
		..	1	3	..	..	..	1	4	4	10	7	4	34

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF HALDIMAND

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	21233	..	..	..	..	1	..	..	..	1	1	..	..	3
1903		..	..	..	..	..	..	1	1	..	..	2	..	5
1904		..	..	..	..	..	..	..	1	..	..	..	..	1
1905		..	..	..	1	1	..	..	..	..	..	1	..	3
1906		..	1	..	..	1	..	..	..	2	6	..	1	11
1907		..	..	1	..	..	..	..	..	..	..	..	..	1
1908		1	..	..	..	..	..	..	..	2	1	..	..	4
1909		1	..	1	..	..	..	..	..	..	2	..	..	4
1910		1	3	2	..	..	..	..	..	..	..	1	..	7
1911	21562	..	1	..	..	..	..	..	..	..	..	..	..	1
1912		1	..	1	..	..	..	..	..	..	1	..	..	3
		5	5	5	1	3	..	1	2	5	11	4	1	43

COUNTY OF HALIBURTON

	01													
1902	6559	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	1	1	..	..	1	..	..	..	..	..	3
1904		..	..	..	..	1	..	..	..	1	..	..	..	2
1905		..	..	..	..	..	..	..	..	..	1	..	..	1
1906		..	..	..	..	..	..	..	..	..	..	..	..	..
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	3	..	..	..	..	..	..	..	..	..	..	3
1909		..	..	..	..	..	..	..	..	..	..	..	..	..
1910		..	..	..	..	..	..	..	..	..	..	..	..	..
1911	5309	..	..	..	..	..	..	..	..	..	..	..	..	..
1912		..	..	..	..	..	..	..	..	1	..	..	..	1
		..	3	1	1	1	..	1	..	2	1	..	..	10

COUNTY OF HALTON

	01													
1902	19545	..	..	..	..	..	..	..	..	..	..	..	1	1
1903		..	..	2	..	..	..	..	..	..	..	1	..	3
1904		..	2	..	..	..	..	..	1	..	..	..	..	3
1905		..	..	..	..	..	..	..	..	..	2	1	1	4
1906		..	..	..	..	..	..	..	..	..	1	..	..	1
1907		..	..	..	..	..	..	..	..	..	..	..	1	1
1908		..	1	..	..	..	..	..	1	..	1	..	..	3
1909		..	..	1	..	..	..	..	..	1	1	..	..	3
1910		..	1	..	..	..	..	..	..	1	1	1	..	4
1911	22208	..	..	..	..	..	..	..	..	1	1	1	..	3
1912		..	1	..	1	1	1	..	..	..	..	..	..	4
		..	5	3	1	1	1	..	2	3	7	4	3	30

COUNTY OF HURON

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	61820	..	..	..	1	..	..	1	1	..	1	1	1	6
1903		..	..	2	1	2	..	..	1	1	..	2	..	9
1904		..	..	..	..	3	..	..	..	2	1	1	..	7
1905		..	..	1	..	..	..	..	..	..	..	1	..	2
1906		..	..	..	..	..	3	2	1	3	1	4	..	14
1907		2	..	2	..	..	..	..	..	1	..	2	3	10
1908		..	..	..	..	..	1	4	2	2	2	1	1	13
1909		..	1	1	..	..	..	1	..	2	5	1	1	12
1910		2	1	..	..	..	..	..	..	1	..	2	..	6
1911	52983	..	..	2	1	..	..	..	2	2	1	1	..	9
1912		..	..	..	..	..	..	..	1	1	..	..	..	2
		4	2	8	3	5	4	8	8	15	11	16	6	90

COUNTY OF HASTINGS
Not including Belleville

	01													
1902	50174	1	..	..	..	1	..	..	..	..	..	1	..	3
1903		..	..	..	..	..	..	1	..	..	1	1	..	3
1904		1	..	..	..	1	..	..	..	1	..	..	..	3
1905		..	..	..	..	1	..	..	..	..	1	1	1	4
1906		1	1	..	..	..	..	..	..	3	2	..	1	8
1907		..	..	..	3	1	..	..	..	..	..	1	1	6
1908		..	1	..	..	..	..	..	..	1	1	3	1	7
1909		1	1	2	..	..	..	..	..	..	2	2	..	8
1910		..	..	1	..	..	..	..	1	1	2	..	1	6
1911	45927	..	..	..	1	1	..	2	..	2	1	..	..	7
1912		..	1	..	1	..	..	..	..	1	..	1	..	4
		4	4	3	5	5	..	3	1	9	10	10	5	59

CITY OF BELLEVILLE
County of Hastings

	01													
1902	9117	..	1	..	..	..	..	..	..	1	1	2	..	5
1903		..	..	..	1	..	1	..	..	..	1	..	..	3
1904		..	..	..	..	1	..	..	..	..	..	..	..	1
1905		..	..	..	..	..	..	..	1	..	1	..	..	2
1906		..	..	..	..	..	..	..	..	2	2	1	3	8
1907		2	2	..	..	1	1	..	..	..	1	1	..	8
1908		..	..	..	..	..	..	1	1	..	2	2	1	7
1909		..	..	..	..	..	1	..	1	1	1	..	..	4
1910		..	..	..	..	1	..	..	..	1	1	2	..	5
1911	9876	..	..	..	..	..	..	..	..	..	..	2	..	2
1912		2	..	1	..	..	..	..	..	..	1	..	..	4
		4	3	1	1	3	3	1	3	5	11	10	4	49

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF KENT
Not including Chatham

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	48354	..	2	..	1	..	..	..	1	1	3	..	..	8
1903		..	..	1	2	..	..	..	..	1	1	1	..	6
1904		1	..	..	..	..	..	..	..	1	1	2	4	9
1905		..	..	..	1	..	2	..	..	4	1	2	..	10
1906		..	1	..	1	..	..	..	1	1	5	..	1	10
1907		1	..	..	..	..	..	..	1	1	..	..	..	3
1908		..	1	..	1	..	..	..	1	..	2	1	..	6
1909		..	1	..	..	..	1	..	..	..	1	..	..	3
1910		..	..	..	..	..	1	1	2	..	2	..	..	6
1911	45225	..	..	..	1	..	..	..	..	..	..	..	..	1
1912		..	..	..	1	1	..	..	1	..	1	..	1	5
		2	5	1	8	1	4	1	7	9	17	6	6	67

CITY OF CHATHAM
County of Kent

	01													
1902	9068	..	..	..	1	..	..	..	..	1	1	1	..	4
1903		..	..	..	..	..	1	..	..	..	..	..	1	2
1904		..	..	..	..	2	..	..	1	..	1	2	1	7
1905		..	..	1	..	..	..	..	..	..	2	..	..	3
1906		1	..	..	..	..	..	..	..	1	1	2	..	5
1907		..	..	..	..	1	1	..	1	1	1	..	..	5
1908		..	..	..	..	1	1	..	..	2	..	1	..	5
1909		1	..	..	1	..	..	2	1	..	2	..	..	7
1910		..	..	..	1	..	..	..	..	2	1	..	..	4
1911	10770	..	..	..	..	..	..	..	..	..	1	3	..	4
1912		1	1	..	1	..	..	..	..	2	..	..	..	5
		3	1	1	4	4	3	2	3	9	10	9	2	51

COUNTY OF LAMBTON
Not including Sarnia

	01													
1902	48466	..	1	1	..	1	..	..	1	1	2	2	2	11
1903		..	..	1	..	1	..	..	3	..	1	2	..	8
1904		..	..	..	1	1	1	..	2	..	1	..	1	7
1905		..	1	..	..	..	1	..	..	1	2	..	1	6
1906		..	1	1	..	..	..	..	..	2	3	3	3	13
1907		1	..	2	2	..	..	2	1	..	2	1	..	11
1908		..	2	1	1	..	1	1	1	1	..	1	2	11
1909		1	1	..	..	..	2	1	..	1	..	1	2	9
1910		..	..	..	..	..	..	..	..	1	1	..	1	3
1911	41585	..	..	2	..	..	..	..	1	1	1	1	1	7
1912		..	..	..	1	1	..	..	..	..	..	..	..	2
		2	6	8	5	4	5	4	9	8	13	11	13	88

TOWN OF SARNIA
County of Lambton

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	8176	1	..	1	1	..	..	..	..	..	2	6	2	13
1903		..	1	..	..	..	..	..	3	4	3	3	..	14
1904		..	..	..	..	..	..	..	1	..	1	1	..	3
1905		..	..	1	..	..	1	..	..	..	..	..	1	3
1906		1	..	..	..	..	..	..	1	..	3	..	..	5
1907		..	..	..	..	1	1	1	..	3	2	..	..	8
1908		1	..	..	..	1	..	..	2	3	2	..	2	11
1909		1	..	..	..	..	..	1	2	1	1	1	1	8
1910		..	1	1	..	1	1	1	3	..	2	..	..	10
1911	9947	1	1	2	..	..	1	1	2	..	1	2	3	14
1912		2	..	4	1	1	..	2	1	..	..	..	3	14
		7	3	9	2	4	4	6	15	11	17	13	12	103

COUNTY OF LEEDS AND GRENVILLE
Not including Brockville

	01													
1902	50056	..	..	1	..	2	..	..	2	.	..	..	..	5
1903		..	..	..	2	1	..	3	1	.	..	..	..	8
1904		1	..	1	..	..	1	..	2	1	..	.	..	7
1905		..	..	..	1	1	..	..	1	3	..	.	..	7
1906		1	..	..	..	..	1	1	..	..	2	1	..	6
1907		..	1	1	2	..	..	..	2	..	2	1	..	9
1908		..	..	1	3	..	..	..	..	..	1	1	..	6
1909		..	1	..	1	..	..	..	..	..	4	..	..	6
1910		..	..	..	..	..	3	1	..	..	..	1	1	6
1911	44951	1	..	..	..	..	..	..	..	..	2	..	..	3
1912		..	..	..	..	2	..	1	..	..	..	2	..	5
		3	2	4	9	6	5	6	8	5	11	8	1	68

TOWN OF BROCKVILLE
County of Leeds

	01													
1902	8940	..	..	..	..	..	1	..	..	2	..	..	1	4
2903		2	..	..	..	1	1	..	..	..	1	..	1	6
1904		..	1	2	1	1	..	..	..	1	..	..	..	6
1905		..	..	..	..	..	..	1	1	..	..	..	..	2
1906		..	..	..	..	1	..	1	3	2	3	..	..	10
1907		..	1	1	..	..	..	..	..	..	..	..	..	2
1908		..	..	..	..	..	1	..	1	..	1	..	1	4
1909		..	..	..	..	..	..	..	..	1	1	1	..	3
1910		..	..	..	..	1	..	..	..	..	..	..	..	1
1911	9347	..	..	1	1	1	..	..	..	..	..	1	..	4
1912		..	..	..	1	..	..	1	..	..	2	1	1	6
		2	2	4	3	5	3	3	5	6	8	3	4	48

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF LANARK
Not including Smith's Falls

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	32087	..	..	..	..	..	..	..	..	1	2	..	2	5
1903		..	1	1	1	..	1	..	..	1	..	1	..	6
1904		1	..	..	..	..	..	..	1	..	..	..	..	2
1905		1	..	..	..	..	1	..	..	..	..	..	..	2
1906		..	..	..	1	1	..	..	..	3	2	..	..	7
1907		2	..	..	..	..	1	..	1	..	..	..	2	6
1908		..	..	1	..	..	..	1	..	..	..	1	..	3
1909		1	..	..	2	1	2	..	2	1	1	..	3	13
1910		..	2	..	..	..	..	..	..	2	..	1	..	5
1911	18005	..	1	..	..	..	..	1	1	..	1	..	1	5
1912		..	..	..	..	..	..	..	1	2	..	..	..	3
		5	4	2	4	2	5	2	6	10	6	3	8	57

TOWN OF SMITH'S FALLS
County of Lanark

	01													
1902	5145	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	1	..	..	..	..	..	..	..	2	..	..	3
1907		1	..	..	..	..	..	..	..	..	..	..	..	1
1908		..	..	1	..	..	..	..	..	2	..	..	..	3
1909		1	..	..	..	..	..	1	..	..	..	3	..	5
1910		1	..	..	..	..	..	..	..	1	1	..	..	3
1911	6370	..	..	..	..	..	..	..	..	1	..	..	..	1
1612		..	..	1	..	1	..	..	..	1	..	..	..	3
		3	1	2	..	1	..	1	..	5	3	3	..	19

COUNTIES OF LENNOX AND ADDINGTON

	01													
1902	23346	..	..	..	..	..	..	..	..	1	..	..	..	1
1903		1	..	..	..	1	..	..	1	..	1	..	..	4
1904		..	1	..	..	..	..	..	1	..	..	..	..	2
1905		..	..	1	..	..	..	1	2	..	..	..	..	4
1906		..	..	..	..	1	..	..	..	1	3	..	..	5
1907		..	..	..	..	..	..	..	..	2	..	..	..	2
1908		1	..	..	..	..	..	..	..	..	2	4	..	7
1909		..	..	..	..	..	..	..	1	..	..	..	..	1
1910		..	..	..	1	..	..	1	..	..	1	..	..	3
1911	20386	1	1	..	..	1	..	..	..	..	..	1	..	4
1912		..	..	..	..	1	..	..	..	..	..	..	..	1
		3	2	1	1	4	0	2	4	5	7	5	..	34

COUNTY OF MANITOULIN

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1902		..	..	..	..	..	..	..	..	..	..	..	..	
1903		..	..	..	..	..	..	..	..	..	..	..	..	
1904		..	..	..	..	..	..	..	..	..	..	..	..	
1905		..	..	..	..	..	..	..	..	..	..	..	..	
1906		..	..	..	..	..	..	..	..	..	..	..	..	
1907		..	..	..	..	..	..	..	..	..	..	..	..	
1908		..	..	..	..	..	..	..	..	..	..	..	..	
1909		..	..	..	..	..	..	..	..	..	..	..	..	
1910		..	..	..	..	..	..	..	..	..	..	1	1	2
1911		3	..	..	..	..	1	..	..	..	1	..	..	5
1912		..	..	..	..	..	..	..	..	..	..	..	..	
		3	..	..	..	..	1	..	..	..	1	1	1	7

COUNTY OF LINCOLN
Not including St. Catharines

	01													
1902	20606	1	..	..	..	..	..	..	..	1	2	..	..	4
1903		2	..	2	..	..	..	..	..	..	1	..	..	5
1904		1	..	1	..	1	..	..	..	..	1	..	1	5
1905		..	1	..	..	1	1	..	..	1	..	2	2	8
1906		..	1	..	..	..	..	..	..	..	2	..	1	4
1907		..	..	..	1	..	..	1	..	..	..	..	1	3
1908		..	1	..	..	..	..	..	..	..	..	..	..	1
1909		..	..	..	..	..	..	..	..	..	1	1	..	2
1910		..	..	1	..	..	1	..	..	..	2	2	..	6
1911	22945	..	..	..	..	..	..	..	..	..	..	..	..	..
1912		..	..	..	..	..	..	..	1	..	2	..	..	3
		4	3	4	1	2	2	1	1	2	11	5	5	41

CITY OF ST. CATHARINES
County of Lincoln

	01													
1902	9946	..	1	1	..	..	..	..	..	2	1	..	..	5
1903		1	..	..	1	..	1	..	..	1	..	1	..	5
1904		1	1	1	..	1	1	1	..	..	1	..	1	8
1905		..	..	..	1	..	..	1	..	..	1	..	..	3
1906		1	..	..	..	..	..	..	1	..	..	1	..	3
1907		1	..	..	..	..	..	..	..	1	1	..	..	3
1908		..	..	..	..	..	..	..	..	..	..	..	..	0
1909		..	..	..	..	..	..	2	..	1	..	..	..	3
1910		..	..	..	..	..	..	..	1	1	1	..	..	3
1911	12484	1	2	..	1	..	1	1	..	1	..	2	..	9
1912		1	..	..	..	..	..	..	..	..	1	1	..	3
		6	4	2	3	1	3	5	2	7	6	5	1	45

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF MIDDLESEX
Not including London

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	54721	..	..	1	..	..	..	..	1	1	1	..	..	4
1903		1	..	..	..	1	..	..	..	..	..	..	1	3
1904		1	..	1	..	..	..	..	2	1	..	..	..	5
1095		1	1	..	1	..	..	..	..	2	1	1	..	7
1906		..	1	1	..	..	1	..	..	1	2	2	1	9
1907		3	1	1	..	..	..	..	..	1	1	..	..	7
1908		..	..	..	1	..	..	..	1	1	..	2	..	5
1909		..	1	2	1	..	..	..	..	1	..	..	..	5
1910		..	..	1	..	..	..	..	..	..	1	1	..	3
1911	50765	2	1	..	..	1	..	2	..	..	..	..	..	6
1912		..	..	1	..	..	..	2	..	..	..	..	..	3
		8	5	8	3	2	1	4	4	8	6	6	2	57

CITY OF LONDON
County of Middlesex

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	37981	..	..	..	..	..	..	..	..	..	..	..	..	0
1903		1	..	..	..	..	1	..	..	..	1	..	..	3
1904		1	1	..	1	..	..	..	4	6	1	1	2	17
1905		1	..	..	..	1	..	..	3	1	1	2	1	10
1906		1	..	..	..	..	..	1	2	2	5	2	2	15
1907		2	1	..	..	..	..	..	..	..	..	..	..	3
1908		..	..	..	..	..	..	..	2	2	2	..	..	6
1909		..	..	..	..	..	..	..	..	..	1	2	..	3
1910		..	..	..	..	..	..	..	..	..	..	1	1	2
1911	46300	1	..	..	..	..	..	..	2	1	2	2	..	8
1912		1	1	..	..	..	..	..	1	..	1	1	..	5
		8	3	..	1	1	1	1	14	12	14	11	6	72

COUNTY OF NIPISSING
Not including North Bay and Cobalt

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1902		1	..	1	..	2	..	..	..	2	2	..	3	11
1903		..	..	..	1	4	1	1	..	1	2	..	4	14
1904		1	..	..	..	2	4	..	..	3	7	2	2	21
1905		1	1	..	..	..	1	..	1	5	6	9	2	26
1906		2	5	4	..	3	1	3	6	13	17	11	4	69
1907		3	2	2	1	..	1	3	2	7	7	6	3	37
1908		1	..	..	..	..	2	..	2	6	4	4	4	23
1909		3	..	5	1	6	2	2	..	13	25	6	..	63
1910		6	3	..	4	1	1	..	..	8	5	1	3	32
1911	45678	..	..	1	..	2	..	..	..	5	3	1	..	12
1912		5	2	..	1	..	..	1	4	4	2	..	..	..
		23	13	13	8	20	13	10	15	67	80	40	25	327

TOWN OF COBALT
County of Nipissing

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1902		..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	..	..	..	..	..	..	..	..
1907		..	..	..	..	..	..	..	..	1	..	2	..	3
1908		..	..	..	..	..	..	..	..	..	3	2	6	
1909		3	..	..	2	1	..	2	2	14	23	14	5	66
1910		3	1	..	..	..	..	..	4	2	6	1	..	17
1911	5638	..	..	..	..	..	..	..	..	2	..	1	..	3
1912		..	..	..	..	..	..	..	..	1	1	1	..	3
		6	1	..	2	1	..	2	6	20	30	22	7	97

TOWN OF NORTH BAY
County of Nipissing

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	2530	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	2	..	..	2	
1904		..	..	..	..	1	..	1	3	1	..	1	..	7
1905		..	..	..	..	..	..	..	2	..	..	4	5	11
1906		2	..	..	..	..	1	2	1	1	4	..	2	13
1907		..	..	..	..	1	..	..	..	2	..	..	..	3
1908		1	..	..	1	..	1	..	1	..	2	..	1	7
1909		..	..	..	..	..	..	..	3	1	2	1	..	7
1910		1	..	..	..	..	..	..	2	1	..	2	1	7
1911	7737	..	..	..	..	..	..	..	1	1	3	2	..	7
1912		..	..	..	..	1	..	..	..	..	..	2	..	3
		4	..	..	1	3	2	3	13	7	13	12	9	67

COUNTY OF MUSKOKA

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	20971	1	1	1	..	..	..	1	1	2	1	..	..	8
1903		..	..	..	..	..	..	..	..	1	2	..	..	3
1904		..	..	..	..	..	..	..	1	2	..	1	..	4
1905		..	2	..	..	..	..	..	1	1	1	2	..	7
1906		..	..	..	..	..	..	..	..	..	..	1	..	1
1907		..	..	..	..	..	..	..	1	..	..	..	1	2
1908		..	..	..	..	..	..	..	..	2	..	..	..	2
1909		..	..	..	..	..	..	..	1	3	2	1	..	7
1910		..	..	..	1	..	..	..	..	1	..	1	1	4
1911	21233	..	..	..	..	..	..	..	..	1	..	1	1	3
1912		..	..	1	..	..	..	..	..	..	..	..	..	1
		1	3	2	1	..	..	1	5	13	6	7	3	42

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF ONTARIO
Not including Oshawa

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	35988	..	..	..	..	..	..	..	1	5	2	1	..	9
1903		1	1	..	..	..	..	..	1	..	..	1	..	4
1904		..	..	..	1	..	..	1	1	1	1	3	..	8
1905		..	..	..	..	..	..	..	..	..	..	2	2	4
1906		..	1	..	..	..	..	..	..	..	1	4	2	8
1907		1	1	..	..	..	..	..	..	..	1	1	..	4
1908		..	..	..	..	1	..	1	1	..	1	3	..	7
1909		1	..	1	1	..	1	..	1	..	3	1	1	10
1910		4	..	..	..	..	..	..	1	1	1	..	1	8
1911	33570	..	..	..	..	..	1	..	1	..	1	..	..	3
1912		..	..	..	..	2	..	..	2	..	1	..	..	5
		7	3	1	2	3	2	2	9	7	12	16	6	70

CITY OF WOODSTOCK
County of Oxford

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	8883	1	..	..	..	..	..	..	..	1	..	..	1	3
1903		..	..	..	..	1	..	..	..	1	..	..	1	3
1904		..	..	..	..	..	..	..	..	2	2	..	..	4
1905		..	1	..	..	..	..	..	..	..	1	1	..	3
1906		..	1	..	..	..	..	..	1	..	1	..	1	4
1907		..	..	..	..	..	..	..	..	..	2	..	..	2
1908		..	..	..	..	..	..	1	1	..	..	1	..	3
1909		..	..	..	..	..	..	..	..	1	..	1	..	2
1910		1	..	..	..	..	..	..	..	..	1	..	..	2
1911	9320	..	..	..	..	..	..	1	..	1	..	..	2	4
1912		..	..	..	1	..	..	..	..	..	1	1	..	3
		2	2	..	1	1	..	2	2	6	8	4	5	33

TOWN OF OSHAWA
County of Ontario

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	4420	1	..	..	..	..	..	..	..	1	..	..	..	2
1903		1	1	..	..	..	..	..	..	..	1	..	..	3
1904		..	..	..	..	..	..	..	..	..	1	..	..	1
1905		..	..	..	..	..	..	..	..	..	..	1	1	2
1906		..	..	..	..	..	..	..	1	..	3	1	..	5
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	..	..	..	..	..	..
1909		..	..	..	..	..	..	..	..	..	..	..	..	..
1910		..	..	..	..	..	..	..	..	1	1	3	1	6
1911	7436	..	..	..	..	..	..	..	1	1	..	..	..	2
1912		..	..	1	..	1	..	..	..	..	1	..	1	4
		2	1	1	..	1	..	..	2	3	7	5	3	25

COUNTY OF PARRY SOUND

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	24936	..	3	1	..	..	..	..	..	2	..	1	..	7
1903		..	..	..	..	..	..	..	..	1	2	..	..	3
1904		..	..	..	1	..	..	..	..	..	4	..	1	6
1905		1	..	1	2	..	2	..	1	2	3	2	1	15
1906		5	2	..	..	..	..	..	2	6	8	7	2	32
1907		2	2	3	..	2	1	1	..	..	3	..	..	14
1908		1	1	..	8	3	..	..	..	1	3	2	1	20
1909		1	..	2	..	..	..	1	3	1	2	..	2	12
1910		..	..	..	..	..	1	1	1	..	1	..	..	4
1911	26547	..	..	..	..	..	..	2	1	1	2	..	2	8
1912		1	1	1	..	2	..	2	..	1	1	..	..	9
		11	9	8	11	7	4	7	8	15	29	12	9	130

COUNTY OF OXFORD
Not including Woodstock

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	39521	1	..	..	..	..	..	..	1	1	1	1	2	7
1903		1	..	..	..	1	..	..	1	..	1	..	..	4
1904		..	..	..	..	1	..	..	..	3	2	4	..	10
1905		..	..	1	..	..	1	1	..	2	1	1	..	7
1906		..	..	..	..	..	..	..	2	5	2	3	..	12
1907		..	..	..	..	..	1	..	1	1	1	..	..	4
1908		..	..	..	..	..	..	..	..	3	3	1	..	7
1909		..	1	1	..	..	..	..	..	..	..	..	..	2
1910		..	..	..	..	..	..	..	1	1	1	1	..	4
1911	36051	..	..	1	..	..	..	1	1	..	..	2	..	5
1912		..	..	1	..	..	..	..	..	..	..	..	1	2
		2	1	4	..	2	2	2	7	16	12	13	3	64

COUNTY OF NORFOLK

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	29147	1	..	2	..	..	..	..	..	1	..	..	..	4
1903		1	..	1	..	..	..	1	..	1	..	..	..	4
1904		..	2	..	..	..	..	..	1	4	1	1	..	9
1905		..	1	..	..	..	..	1	..	2	..	..	..	4
1906		1	..	1	..	..	..	..	1	3	1	1	..	8
1907		..	..	1	..	..	..	..	..	..	..	..	..	1
1908		1	..	2	1	..	..	1	1	2	3	2	..	13
1909		1	1	..	..	..	1	..	..	2	1	..	..	6
1910		..	..	..	..	..	..	..	1	2	2	4	2	11
1911	27110	1	..	..	..	..	..	2	..	3	1	..	..	7
1912		..	..	..	..	..	..	..	2	3	2	..	..	7
		6	4	7	1	..	1	5	6	23	11	8	2	74

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTY OF BRUCE

Year.	Population 01	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1902	59020	1	..	..	..	1	..	..	1	1	..	..	1	5
1903		1	..	..	1	..	1	..	1	..	..	..	..	4
1904		..	..	..	1	1	..	3	..	3	..	1	1	10
1905		..	..	..	..	..	..	..	1	..	1	..	..	2
1906		..	..	6	..	..	1	..	2	2	2	1	1	15
1907		2	..	..	..	..	1	..	..	2	2	1	1	9
1908		..	..	..	..	2	..	1	2	1	5	2	..	13
1909		..	..	3	1	..	1	1	..	1	1	..	..	8
1910		..	1	..	..	..	..	..	4	1	..	1	2	9
1911	50032	..	..	..	..	..	..	1	..	3	2	1	..	7
1912		..	..	..	..	..	..	..	..	1	1	..	..	2
		1	1	9	3	4	4	6	11	15	14	7	6	84

CITY OF STRATFORD
County of Perth

Year.	Population 01	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1902	9959	..	..	..	..	..	..	..	..	..	..	..	..	0
1903		..	..	..	..	..	..	..	..	..	2	..	1	3
1904		1	..	..	1	..	1	..	1	1	..	..	..	5
1905		1	..	..	..	..	..	1	..	..	..	1	1	4
1906		..	..	..	..	1	..	..	..	..	..	1	1	3
1907		1	2	..	..	..	..	1	..	..	..	..	..	4
1908		..	..	..	..	..	..	..	..	..	1	1	..	2
1909		..	1	..	..	..	..	..	3	..	1	..	..	5
1910		..	..	..	1	1	2	..	..	..	..	1	..	5
1911	12946	..	..	..	..	1	..	..	..	..	..	..	1	2
1912		..	..	..	..	..	..	..	..	..	1	2	..	3
		3	3	..	1	3	3	2	4	1	5	6	4	36

COUNTY OF PEEL

	01													
1902	21475	..	..	..	..	..	..	..	..	..	1	..	..	1
1903		..	2	..	..	..	..	..	..	..	..	1	..	3
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	3	..	..	..	..	1	4
1906		..	..	..	..	..	..	..	1	..	1	..	..	2
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	1	..	..	..	..	..	1
1909		..	..	..	..	1	..	..	..	..	..	..	1	2
1910		1	..	..	1	1	..	..	1	1	..	..	1	6
1911	22102	..	..	..	1	..	..	..	..	1	..	..	..	2
1912		..	..	..	1	..	..	..	..	..	..	1	..	2
		1	2	..	3	2	..	4	2	2	2	2	3	23

COUNTY OF PETERBOROUOH
Not including Feterboro'

	01													
1902	24827	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		1	..	..	..	..	..	..	..	1	..	..	..	2
1904		..	..	..	..	..	1	..	..	..	..	..	..	1
1905		..	..	..	..	..	..	..	..	..	..	1	..	1
1906		1	..	..	..	..	..	..	..	..	..	..	..	1
1907		1	..	..	..	..	..	..	1	3	..	..	..	5
1908		..	..	..	..	..	..	..	2	..	1	..	..	3
1909		..	..	..	..	..	..	..	..	..	..	..	1	1
1910		..	..	..	..	1	..	..	1	..	4	..	..	6
1911	23290	2	1	..	..	..	..	..	..	..	2	..	..	5
1912		..	..	..	1	..	..	..	..	..	..	..	..	1
		5	1	..	1	1	1	..	4	4	7	1	1	26

COUNTY OF PERTH
Not including Stratford

	01													
1902	39912	..	2	..	1	..	..	..	..	..	..	2	..	5
1903		..	1	..	..	..	1	2	..	1	1	2	..	8
1904		..	..	..	..	..	..	..	1	..	2	..	..	3
1905		..	..	..	..	..	..	..	..	..	4	1	..	5
1906		..	..	1	..	..	..	..	1	..	..	1	..	3
1907		..	..	..	..	..	..	..	..	1	..	..	..	1
1908		1	..	..	..	..	..	..	1	..	..	2	..	4
1909		..	..	..	..	..	..	..	..	..	1	..	..	1
1910		..	..	1	..	..	..	..	1	..	1	2	1	6
1911	36236	..	..	..	1	..	..	..	2	..	..	..	..	3
1912		..	..	..	..	1	..	..	1	..	1	2	..	5
		1	3	2	2	1	1	2	7	2	10	12	1	44

CITY OF PETERBOROUGH
County of Peterborough

	01													
1902	11239	..	1	..	1	..	..	..	..	..	..	..	..	2
1903		..	..	..	..	1	..	..	1	..	1	..	..	3
1904		..	..	..	1	..	4	..	1	..	..	..	1	7
1905		1	1	..	..	..	..	..	..	3	..	1	..	6
1906		..	..	..	..	..	..	..	1	..	..	2	1	4
1907		..	..	..	..	..	..	..	4	..	..	..	..	4
1908		..	..	..	..	..	..	..	..	..	2	2	..	3
1909		..	..	..	..	..	..	..	..	1	..	..	..	1
1910		..	..	..	..	..	..	..	..	..	4	1	..	5
1911	18360	..	..	..	..	..	..	..	1	1	..	1	..	3
1912		..	1	..	..	..	..	1	..	..	..	..	..	2
		1	3	..	2	1	4	1	8	5	7	6	2	41

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTIES OF PRESCOTT AND RUSSELL
Not including Hawkesbury

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	43167	2	..	..	1	..	3	..	..	..	1	..	1	8
1903		..	..	..	..	..	..	6	2	1	4	..	..	13
1904		..	2	2	..	..	..	1	..	..	2	..	..	7
1905		1	1	1	1	..	..	1	..	..	1	..	2	8
1906		..	..	1	..	..	1	..	1	2	1	..	3	9
1907		1	1	..	1	1	..	..	3	1	..	..	4	12
1908		1	2	..	1	2	1	..	1	..	3	..	1	12
1909		1	1	..	1	..	2	2	1	2	2	..	1	13
1910		1	1	3	1	..	..	1	..	1	1	..	2	11
1911	62166	1	2	1	..	..	1	..	..	1	..	..	2	8
1912		1	..	1	..	3	..	..	..	..	1	1	..	7
		9	10	9	6	6	8	11	8	8	16	1	16	108

TOWN OF HAWKESBURY
County of Prescott

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	4150	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		1	..	..	..	..	..	..	..	..	..	..	..	1
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	1	..	..	..	..	..	..	..	1
1907		..	..	..	..	..	..	..	..	..	2	..	..	2
1908		..	..	..	..	..	..	1	..	..	1	..	..	2
1909		1	..	..	..	..	..	1	1	..	..	..	..	3
1910		2	..	..	..	..	..	..	..	..	..	..	..	2
1911	4236	..	..	..	..	..	..	..	..	..	..	..	..	..
1912		..	..	..	..	..	..	..	..	..	..	..	1	1
		4	..	..	..	1	..	2	1	..	..	3	1	12

COUNTY OF PRINCE EDWARD

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	17864	..	..	..	..	..	1	..	..	..	..	..	..	1
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	1	..	..	..	..	..	..	1	..	1	3
1905		..	..	..	..	..	..	..	..	..	1	..	..	1
1906		..	..	..	..	..	..	..	1	..	1	..	..	2
1907		..	..	1	..	..	..	..	..	..	2	..	..	3
1908		..	..	..	..	..	..	..	..	1	..	1	..	2
1909		..	..	1	..	..	..	..	..	..	..	1	..	2
1910		..	..	2	..	..	1	..	..	..	1	..	..	4
1911	17150	..	..	..	..	..	..	..	..	1	..	..	..	1
1912		..	..	..	..	..	..	..	1	..	..	..	..	1
		..	..	5	..	..	2	..	2	2	6	2	1	20

DISTRICT OF SUDBURY

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902		..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	..	..	..	..	..	..	..	..
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	..	..	..	..	..	..
1909		..	..	..	..	..	..	1	1	1	1	2	2	8
1910		1	2	1	..	..	..	1	2	4	8	3	..	22
1911	34948	..	..	1	1	..	1	..	4	9	9	7	2	34
1912		1	1	..	..	..	1	..	2	1	1	3	5	15
		2	3	2	1	..	2	2	9	15	19	15	9	79

COUNTY OF SIMCOE
Not including Barrie, Collingwood, Orillia

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	66967	..	..	..	..	..	2	..	2	1	2	..	1	8
1903		1	..	..	1	..	1	..	2	1	1	..	3	10
1904		1	..	..	..	1	..	1	1	..	2	..	1	7
1905		..	..	..	..	..	..	..	2	1	1	..	2	6
1906		3	2	1	3	3	1	..	..	1	2	..	1	17
1907		1	2	1	1	2	..	2	..	..	..	1	..	10
1908		..	..	..	..	..	..	2	6	2	..	3	..	13
1909		..	1	..	1	..	1	..	1	2	2	..	1	9
1910		..	..	1	..	1	..	..	2	3	..	..	1	8
1911	64805	1	..	..	..	..	..	2	4	1	1	1	..	10
1912		1	..	1	..	..	..	..	..	..	1	..	2	5
		8	5	4	6	7	5	7	20	12	12	5	12	103

TOWN OF BARRIE
County of Simcoe

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	5949	..	..	..	1	..	..	..	1	..	1	..	..	3
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	1	..	..	1
1905		1	2	..	..	..	..	..	1	..	2	..	..	6
1906		..	1	..	..	..	..	..	1	1	4	1	..	8
1907		1	1	..	1	..	1	1	..	..	..	..	..	5
1908		1	1	..	..	..	..	2	..	..	1	..	..	5
1909		..	..	1	..	1	..	..	..	4	1	..	..	7
1910		1	..	1	..	1	..	..	1	1	..	1	..	6
1911	6420	..	1	..	..	..	..	..	..	..	..	..	..	1
1912		..	..	..	..	..	..	1	..	..	1	1	..	3
		4	6	2	2	2	1	4	4	6	11	3	..	45

TYPHOID FEVER STATISTICS, PROVINCE] OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

TOWN OF COLLINGWOOD
County of Simcoe

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	5755	..	..	..	..	..	1	..	..	..	..	..	..	1
1903		..	..	1	..	..	..	..	1	..	..	..	..	2
1904		..	..	1	..	..	..	..	..	1	..	..	..	2
1905		..	..	..	..	..	..	..	..	..	1	..	..	1
1906		..	..	..	..	2	..	..	..	..	2	2	..	6
1907		1	..	..	..	..	..	..	..	..	1	..	..	1
1908		..	..	..	..	..	..	..	..	1	2	2	..	5
1909		1	..	..	..	..	..	2	..	..	2	..	..	5
1910		1	1	..	..	..	1	1	..	1	1	..	..	6
1911	7000	1	..	..	..	..	2	..	..	..	..	..	..	3
1912		..	..	..	..	..	..	..	..	..	..	..	1	1
		4	1	2	..	2	4	3	1	3	9	4	1	34

TOWN OF ARNPRIOR
County of Renfrew

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	4146	..	..	..	..	..	1	..	..	..	..	..	1	2
1903		..	..	1	..	..	..	..	..	..	..	..	..	1
1904		..	..	..	..	..	..	..	..	1	..	..	..	1
1905		..	1	..	..	..	..	..	..	..	..	..	..	1
1906		..	..	..	..	..	..	..	1	..	..	1	..	2
1907		..	..	..	..	..	1	1	..	..	..	1	..	3
1908		..	..	..	..	..	..	..	..	1	..	1	..	2
1909		..	..	..	..	..	..	..	..	..	..	..	..	..
1910		..	..	..	..	..	1	..	..	1	..	..	..	1
1911	4164	..	..	..	..	..	..	..	..	..	..	..	..	..
1912		..	..	..	..	..	..	..	..	..	..	..	..	..
		..	1	1	..	..	3	1	1	3	..	3	1	13

TOWN OF ORILLIA
County of Simcoe

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	3914	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	1	..	..	..	1
1905		..	..	..	1	..	..	..	..	..	..	..	..	1
1906		..	..	..	..	..	..	..	1	..	..	..	..	1
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	..	..	..	..	..	..
1909		..	..	..	..	..	..	..	..	2	..	4	1	7
1910		..	..	..	1	..	..	2	..	..	..	..	..	3
1911	6828	..	..	..	..	..	..	2	..	1	1	..	..	4
1912		..	..	..	..	..	..	..	2	..	1	..	..	3
		..	..	..	2	..	..	4	3	4	2	4	1	20

TOWN OF PEMBROKE
County of Renfrew

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	5156	2	..	..	..	1	..	..	..	..	1	..	..	4
1903		..	..	..	..	..	..	..	..	..	..	..	1	1
1904		..	..	..	..	..	1	..	..	3	..	..	..	4
1905		1	..	..	..	..	..	..	2	3	..	1	2	9
1906		5	1	..	..	..	..	..	1	2	2	4	4	19
1907		..	..	..	..	..	..	..	..	2	..	..	1	3
1908		1	..	..	..	..	..	..	..	..	2	5	8	16
1909		6	..	1	..	..	..	..	1	4	1	4	..	17
1910		..	..	..	..	1	..	..	1	1	4	..	..	7
1911	5686	1	..	1	2	..	..	..	..	..	1	1	1	7
1912		..	..	..	..	..	..	..	..	1	2	..	..	3
		16	1	2	2	2	1	..	5	16	13	15	17	90

COUNTY OF RENFREW
Not inclnding Arnprior, Pembroke

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	43410	1	..	2	..	..	..	..	1	..	1	1	..	6
1903		..	..	..	..	2	..	..	1	..	1	1	..	5
1904		..	..	..	1	1	..	..	5	..	2	..	..	9
1905		..	..	..	..	..	..	..	1	..	2	1	2	6
1906		1	2	1	1	..	..	1	..	1	2	1	3	13
1907		2	7	..	..	..	1	..	..	..	..	..	1	11
1908		1	..	..	..	..	1	..	2	..	1	..	..	5
1909		..	..	1	1	..	1	..	1	..	2	..	2	8
1010		1	1	..	..	..	..	..	..	..	1	2	..	5
1911	42036	4	1	..	..	..	1	1	1	..	..	..	..	8
1912		..	..	..	..	..	..	..	1	..	..	..	..	1
		10	11	4	3	3	4	2	13	1	12	6	8	77

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

COUNTIES OF STORMONT, DUNDAS AND GLENGARRY

Not including Cornwall

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	62226	..	1	..	..	..	..	..	..	1	..	1	..	3
1903		1	1	..	..	..	..	..	..	3	..	1	3	9
1904		..	..	1	..	1	1	3	..	..	1	1	..	8
1905		..	..	..	..	1	..	1	1	1	2	2	1	9
1906		1	..	..	..	..	1	1	..	1	1	1	1	7
1907		..	2	..	..	1	..	2	..	..	..	1	1	7
1908		..	..	3	1	2	..	1	2	6	..	2	..	17
1909		..	1	..	..	..	..	2	..	1	1	..	..	5
1910		..	..	..	..	..	..	..	1	..	..	..	..	1
1911	57601	..	1	1	1	..	..	..	..	..	2	1	..	7
1912		1	..	..	2	..	..	..	..	..	2	1	..	6
		3	6	5	4	5	2	10	5	13	9	11	6	79

TOWN OF CORNWALL

County of Stormont

	01													
1902	6704	..	2	..	..	..	..	..	1	1	..	..	..	4
1903		1	..	..	..	..	..	..	..	..	1	..	..	2
1904		..	..	..	..	..	1	..	1	1	..	..	..	3
1905		..	..	..	..	..	1	..	1	..	..	..	..	2
1906		..	..	1	..	..	1	..	..	1	..	2	1	6
1907		1	1	1	1	..	..	..	..	..	..	..	1	5
1908		2	1	1	..	..	..	..	..	..	..	3	..	7
1909		..	1	..	..	..	..	..	..	..	1	2	..	4
1910		2	..	..	1	1	..	..	..	..	..	..	..	4
1911	6598	..	..	..	..	..	1	..	..	..	1	..	1	3
1912		..	1	1	..	..	..	..	2	..	..	..	..	4
		6	6	4	2	1	4	0	5	3	3	7	3	44

COUNTY OF VICTORIA

Not including Lindsay

	01													
1902	24949	1	..	1	1	..	..	..	..	..	..	..	1	4
1903		1	..	..	..	..	..	..	..	..	1	..	..	2
1904		1	..	..	..	..	..	1	1	..	..	..	..	3
1905		..	..	..	..	..	..	..	..	2	1	..	..	3
1906		..	..	..	..	1	..	..	1	..	..	1	..	3
1907		..	..	..	..	..	1	..	1	..	..	1	..	3
1908		..	..	..	2	..	..	..	..	1	1	..	..	4
1909		..	..	..	..	..	..	..	1	..	..	1	1	3
1910		1	..	..	..	..	..	..	..	..	..	..	..	1
1911	24226	..	..	..	..	1	..	1	1	..	1	2	1	7
1912		..	..	..	..	..	..	..	..	..	..	..	..	..
		4	..	1	3	2	1	2	5	3	4	5	3	33

TOWN OF LINDSAY

County of Victoria

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	7003	..	..	..	..	..	..	..	..	2	1	..	..	3
1903		..	..	..	..	..	..	..	..	..	..	..	1	1
1904		..	..	..	..	..	..	1	..	1	1	..	..	3
1905		..	..	..	..	2	..	..	1	..	1	1	..	5
1906		..	..	..	..	..	..	1	..	..	..	1	..	2
1907		1	..	..	..	..	..	..	..	..	..	..	..	1
1908		..	..	..	..	..	..	..	1	1	..	..	1	3
1909		..	..	..	..	..	1	..	..	1	1	..	..	3
1910		..	..	1	..	..	1	..	..	..	1	2	..	5
1911	6964	..	..	..	..	..	..	..	..	..	2	..	..	2
1912		..	..	..	..	1	2	..	..	..	..	..	..	3
		1	..	1	..	3	4	2	2	5	7	5	1	31

COUNTY OF WATERLOO

Not including Berlin, Galt

	01													
1902	34796	..	..	..	..	..	..	..	1	2	..	..	..	3
1903		..	..	..	..	..	..	1	..	..	1	..	..	2
1904		..	1	1	1	1	..	..	1	..	1	1	..	7
1905		1	1	..	..	..	..	..	1	..	..	3	..	6
1906		..	..	1	2	..	2	..	2	1	3	1	..	12
1907		1	..	1	..	1	1	..	1	..	1	..	..	6
1908		..	..	..	..	..	..	1	1	..	1	2	1	6
1909		..	..	..	1	..	..	..	1	..	..	1	..	3
1910		1	..	1	..	1	..	..	1	..	..	..	..	4
1911	36112	..	..	..	..	..	1	..	1	..	1	..	..	3
1912		..	..	..	..	..	1	..	..	1	2	..	..	4
		3	2	4	4	3	5	2	10	4	10	8	1	56

CITY OF BERLIN

County of Waterloo

	01													
1902	9747	..	..	..	..	..	..	..	..	..	..	..	..	0
1903		..	..	..	..	1	..	..	..	1	..	1	..	3
1904		..	..	..	..	..	..	..	1	..	..	..	..	1
1905		..	..	..	..	..	..	..	..	..	1	1	..	2
1906		1	..	..	..	..	..	..	..	..	..	1	..	2
1907		..	..	..	..	..	..	..	..	..	..	..	..	0
1908		..	..	..	..	..	..	..	..	1	..	..	1	2
1909		..	..	..	..	..	..	..	..	1	1	..	..	2
1910		..	..	1	..	..	..	..	2	1	1	..	1	6
1911	15196	..	..	..	..	..	..	..	..	..	..	..	1	1
1912		1	..	..	..	..	..	..	..	..	..	1	1	3
		2	..	1	..	1	..	..	3	4	3	4	4	22

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

TOWN OF GALT
County of Waterloo

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	02													
1902	8051	..	..	..	..	..	..	..	..	..	1	..	..	1
1903		..	..	1	..	..	..	..	1	..	..	..	..	2
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	1	1	..	1	..	2	..	5
1907		..	..	..	..	..	..	..	1	..	..	..	..	1
1908		..	..	..	1	..	..	1	..	..	..	2	..	4
1909		1	..	..	..	..	..	..	..	..	..	..	..	1
1910		..	..	1	..	..	..	..	..	2	..	..	1	4
1911	10299	..	..	1	1	..	..	..	..	1	..	..	..	3
1912		1	..	1	..	..	..	..	..	..	..	..	..	2
		2	..	4	2	..	1	2	2	4	1	4	1	23

TOWN OF WELLAND
County of Welland

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	1863	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	..	..	..	..	..	..	..	..
1907		..	..	..	..	..	..	..	..	..	1	..	..	1
1908		..	..	..	..	..	..	..	..	..	..	..	..	..
1909		..	..	..	..	..	..	..	..	..	..	..	..	..
1910		..	1	..	..	..	1	..	..	..	1	1	..	4
1911	5318	..	..	..	..	..	..	..	..	..	1	1	1	3
1912		1	..	..	..	..	..	..	..	..	..	..	1	2
		1	1	..	..	..	1	..	..	..	3	2	2	10

CITY OF NIAGARA FALLS
County of Welland

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	5702	..	..	..	..	..	..	..	..	..	..	..	..	0
1903		..	..	..	..	..	..	..	..	..	..	..	..	0
1904		..	..	..	..	..	..	1	..	..	..	..	..	1
1905		..	..	..	..	..	..	..	..	..	..	..	..	0
1906		1	1	1	..	..	..	..	..	..	..	..	..	3
1907		1	1	..	..	..	..	..	..	..	..	..	1	3
1908		..	2	1	1	2	..	..	..	..	..	..	..	6
1909		2	..	..	..	..	..	..	..	..	..	..	..	2
1910		..	..	2	..	..	2	1	..	..	..	..	..	5
1911	9248	..	..	1	..	3	1	..	2	..	..	..	1	8
1912		1	..	..	..	..	1	1	..	1	1	..	..	4
		5	4	5	1	5	4	3	2	1	1	..	2	32

COUNTY OF WELLAND
Not including Niagara Falls, Welland

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	24023	1	..	1	1	..	..	..	..	1	..	..	1	5
1903		..	..	..	..	1	..	1	1	..	..	1	..	4
1904		1	..	..	..	..	..	1	..	..	1	..	..	3
1905		..	..	..	..	..	..	..	1	1	1	..	..	3
1906		..	1	..	..	1	..	..	..	1	2	2	..	7
1907		..	2	..	..	..	..	1	2	..	1	..	1	7
1908		2	1	..	..	..	..	1	..	..	1	1	..	6
1909		..	..	..	..	..	..	..	..	1	1	..	..	2
1910		..	..	..	..	..	..	..	..	..	1	1	..	2
1911	27597	..	..	..	1	..	..	..	..	1	..	..	..	2
1912		..	..	..	..	1	..	..	..	..	1	2	..	4
		4	4	1	2	3	..	4	4	5	9	7	2	45

COUNTY OF WELLINGTON
Not including Guelph

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	44150	1	1	1	2	1	1	1	2	1	..	1	1	13
1903		..	2	..	..	..	..	2	..	..	2	..	..	6
1904		1	..	..	..	..	..	..	2	1	1	..	1	6
1905		..	..	..	..	1	..	..	..	1	4	1	..	7
1906		..	1	..	1	..	..	..	..	2	4	1	1	10
1907		2	2	..	..	..	..	..	..	1	..	..	..	5
1908		..	..	..	..	..	..	2	1	3	2	1	1	10
1909		1	..	..	..	..	..	..	..	2	1	1	1	6
1910		..	..	..	..	1	1	..	..	2	2	1	..	7
1911	39317	..	..	1	1	..	1	..	1	3	..	..	1	8
1712		..	..	1	..	..	..	..	..	..	..	..	..	..
		5	6	3	4	3	3	5	6	16	16	6	6	79

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912, INCLUSIVE

CITY OF GUELPH
County of Wellington

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	11496	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	1	1	..	2
1904		..	..	..	..	..	..	..	..	1	..	..	..	1
1905		..	..	..	..	..	..	..	..	2	..	..	..	2
1906		..	..	..	..	..	1	..	..	..	..	..	..	1
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	1	..	1	..	1	3
1909		..	1	..	..	..	..	..	..	..	..	..	..	1
1910		..	..	..	1	..	..	..	2	..	..	..	1	4
1911	15175	..	..	..	..	..	..	..	..	..	1	1	..	2
1912		..	..	..	..	..	..	..	..	..	..	..	1	1
		..	1	..	1	..	1	..	3	4	3	1	3	17

COUNTY OF WENTWORTH
Not including Hamilton

	01													
1902	26818	..	..	..	1	..	..	..	..	..	1	1	..	3
1903		..	..	..	..	..	..	..	..	..	..	..	1	1
1904		..	..	..	1	..	..	..	3	..	..	..	..	4
1905		..	..	1	2	..	..	..	..	3	1	1	..	8
1906		2	1	..	..	..	..	..	1	..	2	1	..	7
1907		..	..	..	..	..	..	..	1	1	1	..	2	5
1908		..	..	..	..	..	..	..	..	..	1	..	..	1
1909		..	..	1	..	..	1	..	..	..	..	..	..	2
1910		..	..	1	..	..	2	..	..	..	..	1	..	4
1911	29677	..	..	..	..	..	2	..	..	1	2	..	..	5
1912		..	1	..	1	..	..	1	1	..	2	..	..	6
		2	2	3	5	..	5	1	6	5	10	4	3	46

CITY OF HAMILTON
County of Wentworth

	01													
1902	52634	..	..	..	1	..	..	1	2	1	1	1	3	10
1903		..	..	..	..	..	..	..	1	..	2	..	1	4
1904		..	1	..	2	1	..	..	..	3	1	..	1	9
1905		1	1	1	..	2	1	..	1	..	3	2	1	13
1906		..	..	1	..	1	1	2	1	2	8	3	..	19
1907		..	..	..	..	..	1	..	1	2	2	..	1	7
1908		1	1	..	..	..	..	2	1	3	4	1	..	13
1909		1	..	1	..	..	..	1	..	3	..	1	4	11
1910		..	2	..	..	..	1	2	2	1	3	..	..	11
1911	81969	1	2	1	..	..	2	3	..	2	2	5	..	18
1912		1	..	..	..	..	..	1	1	2	1	1	..	7
		5	7	4	3	4	6	12	10	19	27	14	11	122

COUNTY OF YORK
Not including Toronto, North and West Toronto

	01													
1902	63761	..	..	1	..	1	1	..	1	3	1	2	..	10
1903		..	3	1	..	..	..	2	..	4	..	1	..	11
1904		1	1	2	1	2	5	..	..	4	2	1	3	22
1905		..	..	..	..	..	..	..	4	2	1	2	3	12
1906		1	..	1	1	..	..	1	1	6	2	2	2	17
1907		..	..	..	..	..	..	..	..	2	2	3	2	9
1908		..	..	1	1	1	2	2	3	..	5	2	3	20
1909		2	..	2	2	..	2	1	2	1	4	1	2	19
1910		2	2	..	..	1	..	..	2	..	5	2	..	14
1911	62064	..	..	..	3	..	..	..	..	3	6	1	..	13
1912		..	..	..	..	..	..	..	..	..	3	2	..	5
		6	6	8	8	5	10	6	13	25	31	19	15	152

CITY OF TORONTO
County of York

	01													
1902	208040	5	3	..	2	1	..	4	..	4	2	3	6	30
1903		4	3	4	3	1	3	1	1	2	7	5	4	38
1904		4	2	3	6	3	6	1	7	7	4	7	6	56
1905		7	2	3	4	1	1	10	4	2	4	3	..	41
1906		1	5	7	3	1	..	4	14	11	5	10	9	70
1907		3	7	5	2	4	4	2	3	8	9	8	3	58
1908		7	3	3	6	4	1	10	5	6	8	5	2	60
1909		3	3	5	11	6	3	6	3	11	12	5	9	77
1910		18	18	24	10	8	5	5	14	15	17	11	6	151
1911	376538	5	4	5	2	5	4	2	14	11	15	6	9	82
1912		4	6	4	2	2	4	1	6	8	6	7	4	54
		61	56	60	50	39	31	37	77	87	87	71	61	717

TYPHOID FEVER STATISTICS, PROVINCE OF ONTARIO

DEATHS FROM TYPHOID FEVER BY YEARS AND BY MONTHS, 1902-1912 INCLUSIVE

WEST TORONTO
County of York

Year.	Population	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
	01													
1902	6091	..	..	1	..	1	..	..	..	..	..	..	..	2
1903		..	1	1	..	..	..	..	..	..	..	1	..	3
1904		1	..	..	..	..	1	..	2	..	..	..	..	4
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		1	..	1	..	..	..	1	1	1	..	..	1	6
1907		..	..	..	..	..	..	..	..	1	..	1	2	4
1908		..	..	1	..	1	2	2	1	1	2	2	..	12
		2	1	4	..	2	3	3	4	3	2	4	3	31

TOWN OF NORTH TORONTO
County of York

	01													
1902	862	..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	1	1
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	..	..	..	..	..	..	..	..
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	..	..	..	..	..	..	1	..	..	1
1909		..	..	..	..	..	1	..	..	..	..	..	..	1
1910		..	..	..	..	..	..	..	..	..	1	..	..	1
1911	5632	..	..	..	..	..	..	..	..	..	..	..	..	..
1912		..	..	..	1	1	..	1	1	3	..	..	..	7
		..	..	..	1	1	1	1	1	3	2	..	1	11

TOWN OF STEELTON
County of Algoma

1902		..	..	..	..	..	..	..	..	..	..	..	..	..
1903		..	..	..	..	..	..	..	..	..	..	..	..	..
1904		..	..	..	..	..	..	..	..	..	..	..	..	..
1905		..	..	..	..	..	..	..	..	..	..	..	..	..
1906		..	..	..	..	..	..	..	..	1	..	1	..	2
1907		..	..	..	..	..	..	..	..	..	..	..	..	..
1908		..	..	..	1	..	..	..	..	..	1	..	..	2
1909		..	..	..	..	..	..	..	..	..	..	..	..	..
1910		..	..	..	..	..	..	..	..	..	..	..	..	..
1911	3178	..	..	..	..	..	..	..	1	..	..	..	1	2
1912		..	..	..	..	..	..	1	..	..	..	..	..	1
		..	..	..	1	..	..	1	1	1	1	1	1	7

DISPOSAL OF SEWAGE ON LAKE VESSELS

(Copy.)

DEPARTMENT OF STATE, WASHINGTON,
November 3, 1913.

The Honorable James A. Tawney, Chairman, United States Section, International Joint Commission, United States and Canada, Washington, D.C.

SIR:

Referring to the letter of June 10 last from the Honorable Frank S. Streeter, then a member of the International Joint Commission, requesting that officers of the United States Public Health Service at certain ports on the Great Lakes be instructed to collect, for the use of the Commission, data in respect to the distribution of sewage from vessels engaged in international traffic, I have the honor to enclose copies of reports, received from the Secretary of the Treasury, rendered by public health officers at Buffalo and other cities in regard to the disposal of excreta on Lake vessels.

I have the honor to be, Sir,
Your obedient servant,
For the Secretary of State,
(Signed) J. B. MOORE,
Counsellor.

Enclosures:
From Treasury Department, October 23, 1913.
711.42155-238.

(Copy.)

Detroit, Mich., M.H.
TREASURY DEPARTMENT.

Office of Medical Officer in Command
United States Public Health Service,
Detroit, Mich. July 7, 1913.

To the Surgeon-General, U.S. Public Health Service, Washington D.C.

SIR:

Referring to Bureau letter of the 30th ultimo, requesting me to obtain information as to whether lake vessels carry any retaining devices for holding human excreta and whether the sewage outlet pipes discharge directly into the water, I have the honor to state that I am informed by the Superintendent of The Detroit & Cleveland line of steamers, who is familiar with the various lines of passenger vessels on the great lakes, that there is no device on any lake vessels for holding human excreta, but that the same is discharged directly through outlet pipes into the water.

Respectfully,
(Signed) H. W. AUSTIN,
Senior Surgeon.
C. A. C.

(Copy.)

Chicago, Ill., M.N.
TREASURY DEPARTMENT.

Office of Medical Officer in Command, United States Public Health and Marine-Hospital Service, Chicago, Ill. July 4, 1913.

GAM.

The Surgeon-General, U.S. Public Health Service, Washington, D.C.

SIR:

Referring to Bureau Letter (CD-AHG-SEC) of June 30, 1913, relative to reporting certain information concerning the handling of excreta aboard vessels on the Great Lakes, I have the honor to suggest that this information might better be obtained through the U. S. Steamboat Inspectors.

All lake vessels discharge excreta directly into the water. Drinking water aboard steamers is pumped into tanks through the sea cock.

All vessels comply with the regulations of the Steamboat Inspectors, and the handling of excreta is practically the same on all vessels.

Respectfully,
(Signed) J. O. COBB.
Surgeon, In Charge.

(Copy.)

TREASURY DEPARTMENT.
United States Public Health Service,
Buffalo, N.Y. September 11, 1913

The Surgeon-General, U.S. Public Health Service, Washington, D.C.

SIR:

I have the honor to report that, as directed by Bureau Letter, June 30, 1913 (AHG., JWK), I have communicated with the Collector of Customs of the Port of Buffalo, New York, and with the Owners and Operators of steam vessels on the Great Lakes at this port, and the reports are to the effect that with no exceptions, vessels are not provided with

retaining device for human excreta, and also that the sewage outlet pipes discharge directly into the water.

All correspondence is herewith enclosed.

Respectfully,

(Signed) C. H. GARDNER,
Surgeon.

8 inclosures.

(Copy.)

TREASURY DEPARTMENT.
United States Customs Service,
Port of Buffalo, N.Y.
July 11, 1913.

Mr. C. H. Gardner, Surgeon, U. S. P. H. Service, Treasury Department, Buffalo, N.Y.

SIR:

I have your letter of the 10th instant, in regard to information for the use of the International Joint Commission which is investigating the polluton of international waters, and note the paragraph quoted from the letter of the Department of State, as follows:

"The information required is whether Lake vessels carry any retaining device for holding human excreta, or whether the sewage outlet pipes of the vessels discharge directly into the water. It is desired to secure these data from as many vessels as possible during the period from July 1 to October 1."

In answer to the above quotation I beg to inform you that the sewage of all vessels on the Lakes is discharged directly into the water, and beg to give you the names of a few of the transportation companies operating from this port, viz.:

Western Transportation Company,
Lehigh Valley Transportation Company,
Mutual Transit Company,
Anchor Line Company,
Erie Railroad Company,
Detroit & Cleveland Navigation Company,
Cleveland and Buffalo Navigation Company.

Respectfully,

(Signed) FRED. C. MURRAY,
Collector of Customs.

(Copy.)

Buffalo, N.Y., July 31, 1913.

Mr. C. H. Gardner, Surgeon, U. S. Marine Hospital, Buffalo, N.Y.

DEAR SIR:

I wish to acknowledge receipt of your letter of July 22nd asking for information relative to the disposal of sewage from the vessels operated by this Company.

The sewage pipes on all the steamers owned and operated by this Company discharge directly into the water.

This season we have under charter the steamer Minnetonka, and own and operate the following vessels:

North Star,	Northern Light,
North Sea,	North Wind,
North Lake,	Wm. Castle Rhodes,
Northern King,	Huron,
Northern Queen,	Minneapolis,
Northern Wave,	St. Paul.

Yours very truly,

(Signed) W. E. LLOYD,
Superintendent,
Mutual Transit Company.

(Copy.)
File 855.

July 24, 1913.

Mr. C. H. Gardner, Surgeon in Charge, U. S. Marine Hospital, Buffalo, N.Y.

DEAR SIR:

Your letter of July 22nd is received concerning the sanitary equipment of our vessels, of which I give you a list, as follows:

George F. Brownell,	F. D. Underwood,
Owego,	Delow W. Cooke,
Tioga,	Granville A. Richardson.
Binghamton,	John J. McCullough.

All of these vessels are furnished with ordinary marine closets which discharge directly into the water. In this respect they are similar to all vessels on the lakes, without exception.

Yourst truly,

(Signed) J. S. MACLAY,
Superintendent,
Erie Railroad Lake Line.

(Copy.)

382. Detroit, July 26, 1913.

Dr. C. H. Gardner, U. S. Marine Hospital, Buffalo, N.Y.

DEAR SIR:

Your favor of July 22nd to Mr. C. L. Perkins, General Agent, at Buffalo, has been referred to this

office, and the following is a list of vessels operated on Great Lakes by this Company:

City of Detroit III,	Eastern States,
City of Cleveland III,	Western States,
City of Detroit II,	City of St. Ignace,
City of Alpena II,	City of Mackinac II,
City of the Straits,	State of New York.

To my knowledge none of our boats have retaining device for holding human excreta, and the sewer outlet pipes discharge direct into the water.

I am pleased to say, however, that our rules require all toilets to be locked and remain locked, and have no sewage discharged from the time our boats leave the mouth of Buffalo River until they are two miles beyond the intake pipe of the Buffalo Water System. This has been effective this spring upon request of the Buffalo Health Department.

Respectfully,

DETROIT AND CLEVELAND NAVIGATION CO.,
(Signed) H. A. SCHANTZ,
V. P. and G. M.

(Copy.)

Buffalo, N.Y., July 30, 1913.

Mr. C. H. Gardner, Surgeon in Charge, U. S. Marine Hospital, Buffalo, N.Y.

DEAR SIR:

I have your letter of July 22nd, asking for information as to the sanitary and hygienic equipment of our vessels. The sewage pipes on all our steamers discharge directly into the water. Our fleet is composed of the following steamers:

Boston,	Mohawk,
Buffalo,	Rochester,
Chicago,	Superior,
Duluth,	Troy,
Milwaukee.	Utica.

Yours very truly,

(Signed) EDWIN T. DOUGLASS,
General Manager,
The Western Transit Company.

(Copy.)

15727. New York, August 5, 1913.

Mr. C. H. Gardner, Surgeon in Charge, U. S. Marine Hospital, Buffalo, N.Y.

DEAR SIR:

Your letter of July 22nd, addressed to the Superintendent of the Lehigh Valley Transportation Company, Buffalo, New York, has been referred to me, the subject-matter being your request for information concerning the equipment, from a sanitary and hygienic point of view, of vessels plying on the Great Lakes.

I beg to advise that the sewage outlet pipes of this Company's equipment on the Lakes, and I understand this applies as well to the ships of all other lines on the chain of Lakes, discharge directly into the water, no retaining devices being provided.

The Lehigh Valley Transportation Company operates the following steel steamers on the Great Lakes:

Tuscarora,	Bethlehem,
Saranac,	Wilkes-Barre, and
Seneca.	Mauch Chunk.

Yours very truly,

(Signed) E. H. BOLES,
General Solicitor,
Lehigh Valley Transportation Company.

(Copy.)

Cleveland, July 29th, 1913

Dr. C. H. Gardner, U. S. Marine Hospital, Buffalo, N.Y.

DEAR SIR:

Yours of July 22nd addressed to this Company at Buffalo has been referred to me.

This Company operates the following vessels on the Great Lakes:

Steamer "Seeandbee,"
Steamer "City of Buffalo,"
Steamer "City of Erie,"
Steamer "State of Ohio."

With one exception—the steamer "State of Ohio"—these boats are all of modern type for lake service, but not any of them are provided with any device for holding human excreta. Outlet pipes discharge directly into the lake. We are careful, however, that this is not done while entering or clearing the various ports.

Yours very truly,

(Signed) T. F. NEWMAN,
General Manager,
The Cleveland and Buffalo Transit Co.

(Copy.)
File 2138.

Buffalo, N.Y., July 24, 1913.

Mr. C. H. Gardner, Surgeon in Charge, U. S. Marine Hospital, Buffalo, N.Y.

DEAR SIR:

In reply to yours of the 22nd inst, we give below a list of steamers owned by this Company:

Octorara,	Delaware,
Juniata,	Muncy,
Tionesta,	Codorus,
Allegheny,	Mahoning,
Conemaugh,	Schuylkill,
Wissahickon,	Susquehanna.

In addition to the above we have chartered the steamer Minnekahta for the season 1913.

Not one of these steamers is equipped with any retaining device for holding human excreta. The sewage outlet pipes discharge directly into the water.

Yours truly,

(Signed) J. C. EVANS,
Vice-Pres. and Gen'l Mgr.,
The Erie and Western Transportation Co.

(Copy.)

TREASURY DEPARTMENT.
United States Public Health Service.
Office of Medical Officer in Command,
Cleveland, Ohio, September 30, 1913.

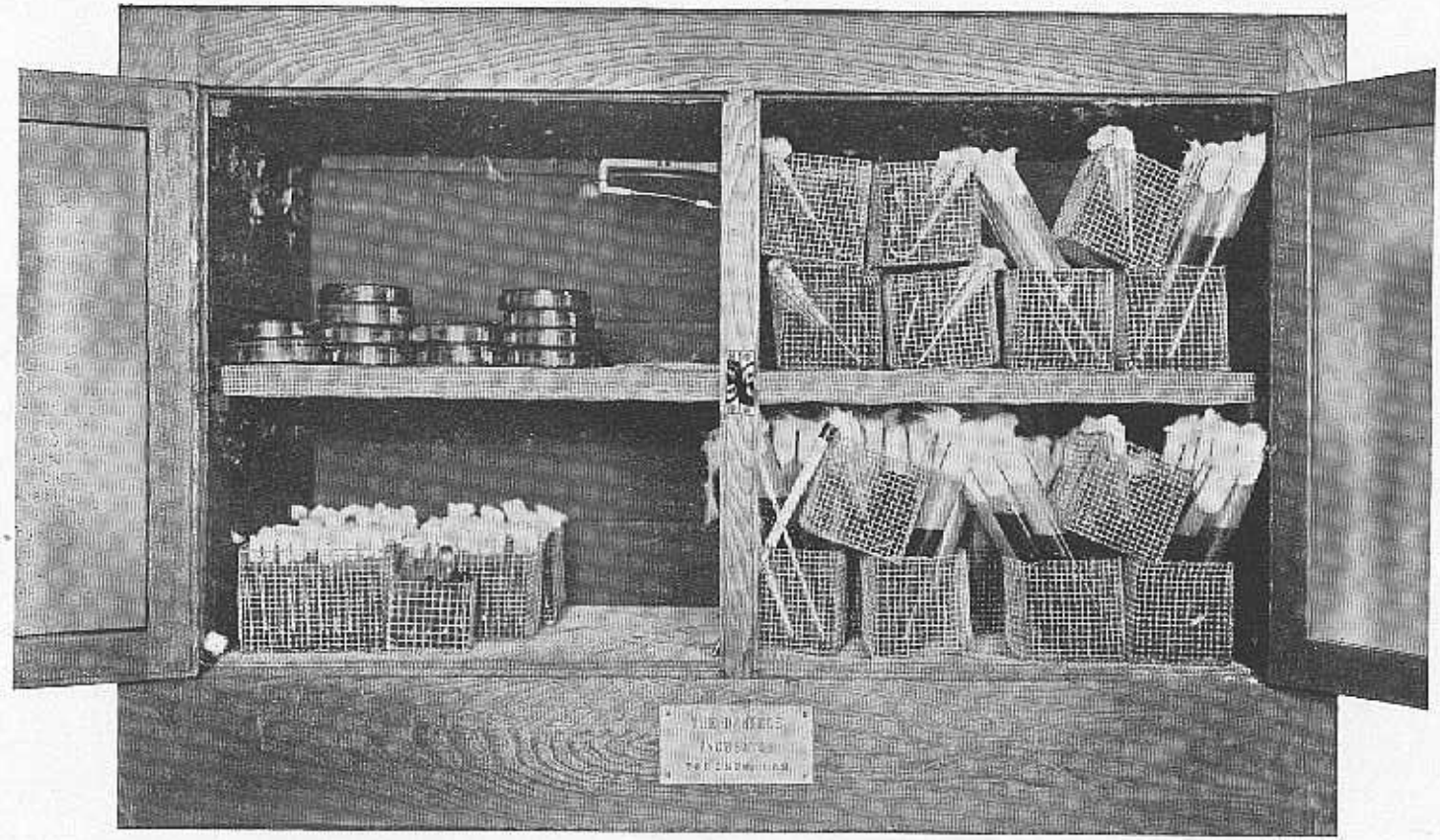
Surgeon-General, U. S. Public Health Service, Washington, D.C.

SIR:

I have the honor to report that through the Office of the Collector of Customs of this city, letters were addressed to the owners or managers of vessels of United States and Canadian registry entering the port of Cleveland, asking whether these vessels carry any retaining devices for holding human excreta, or whether the sewage outlet pipes discharge directly into the water.

The following list comprises the names of the owners and managers who have replied. They have stated the name and number of vessels in their respective fleets, and all have stated, with exceptions noted, that their vessels have no especial retaining tank for the reception of human excrement, and that the discharge pipes lead overboard.

Owners or Agents. Vessels of U. S. Registry.	No. of Vessels in Fleet.
Mathews Steamship Company	5 steamers.
Pennland Steamship Co.	1 steamship.
Vulcan Steamship Co.	1 steamship.
Cleveland Steamship and Buffalo Steamship Co.	19 steamships.
Cleveland-Buffalo Transit Co.	4 passenger steamships.
Aro Steamship Co.	2 steamships and 1 barge.
A. E. Williams	1 steamship.
Steamer Penobscot	1 steamship.
Pickand-Mather Company	39 steamships.
Lake Shore Sand and Gravel Co.	1 tug.
W. A. & H. Hawgood	8 steamships.
Brown Steamship Co.	1 steamship.
The Kinsman Transit Co.	6 steamships.
W. C. Richardson & Co.	9 steamships and 1 barge.
The Central National Bank	3 steamships. (No definite report on sanitary appliances.)
Henry Brock	1 vessel.
North American Steamship Co.	6 steamships.
Pennsylvania Ontario Trans. Co.	1 steamship.
Steamship Omega	1 steamship.
Corrigan-McKinney Co.	4 steamships.
Shenango Steamship and Transit Co.	5 steamships.
M. D. Olds	1 steamship.
Postal Steamship Company	3 steamships. (Vessels stated to be equipped with modern devices for caring for sewage.)
Wilson Transit Co.	9 steamships.
M. A. Hanna Company	17 steamships and 3 barges
Pittsburg Coal Co.	3 lighters.
Pringle Barge Line	1 steamship and 4 barges.
Valley Steamship Co.	13 steamships and 1 tug.
Geo. A. Collings	1 steamship.
Cleveland Cliffs Iron Co.	4 steamships.
American Construction Co.	— barges.
Jenkins Steamship Co.	4 steamships.
M. A. Bradley	1 steamship.
The Breakwater Co.	2 tugs.
Reger & Werner Fish Co.	2 tugs.
Ramley Fish Co.	7 small tugs.
Kinney Steamship Co.	5 steamships.
Casey Fish Co.	2 steamships.
Steamer H. D. Coffinbury, and Sc. C. B. Jones	2 vessels.
Pelee Island Sand & Gravel Co.	1 steamship.



37°C. INCUBATOR.

Owners or Agents. Vessels of Canadian Register.	No. of Vessels in Fleet.
The St. Lawrence & Chicago Steam Navigation Co., Ltd...	5 steamships.
Thomas Marks & Co.	4 steamships.
The Calvin Co., Ltd.	3 steamships and 3 barges.
The Farran Transportation Co., Ltd.	2 steamships.
W. & D. Transportation Co.	2 steamships.
Canal Towing and Wrecking Co..	1 barge.
Imperial Oil Company	4 steamships.
W. E. Chapman, Lake Transportation	1 barge.

This list comprises the majority of vessels entering the port of Cleveland. It is known, however, that several companies have not as yet replied. Any additional information from them will be forwarded as soon as received.

Respectfully,

(Signed) C. W. WILLE,
Surgeon.

ESM.

SUPPLEMENTAL REPORT ON THE DISPOSAL OF SEWAGE ON VESSELS FOR USE OF THE INTERNATIONAL JOINT COMMISSION

(Copy.)

TREASURY DEPARTMENT.
United States Public Health Service,,
Cleveland, Ohio.
Office of Medical Officer in Command,
Cleveland, Ohio, October 18, 1913.

Surgeon-General, U. S. Public Health Service, Washington, D.C.

SIR:

The following is a list of vessels of U. S. Registry received subsequently to the date of my former report. These vessels at some time or other have entered the port of Cleveland. None of them are equipped with special tanks for the collection of human excrement, and in all of them sewage pipes discharge directly overboard.

Owners or Agents. Vessels of U. S. Registry.	No. of Vessels in Fleet.
Hutchinson & Co. 12	steamships.
American Ship Building Co. ... 1	steamship.
New York Central Lines 1	steamship.
Lake Erie Transportation Co.... 1	steamship.
The Moore Steamship Co. 1	steamship.
City of Cleveland 1	steamship.

Respectfully,
(Signed) C. W. WILLE,
Surgeon.

(Copy.)

Northern Navigation Company,, Ltd.,
Sarnia, Ontario, Nov. 21st, 1913.

Dr. John W. S. McCullough, Chief Officer, Provincial Board of Health, Toronto, Ont.

DEAR SIR:

In reply to your favor of 14th inst., I beg to say none of our steamers have any tank arrangement for the collection of sewage, it going directly to the water.

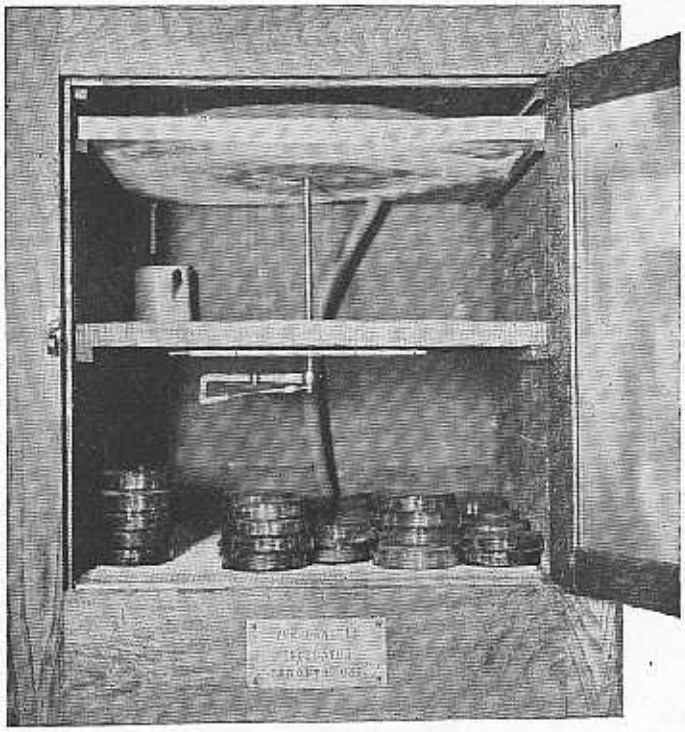
Yours truly,

P. PATON,
Manager.

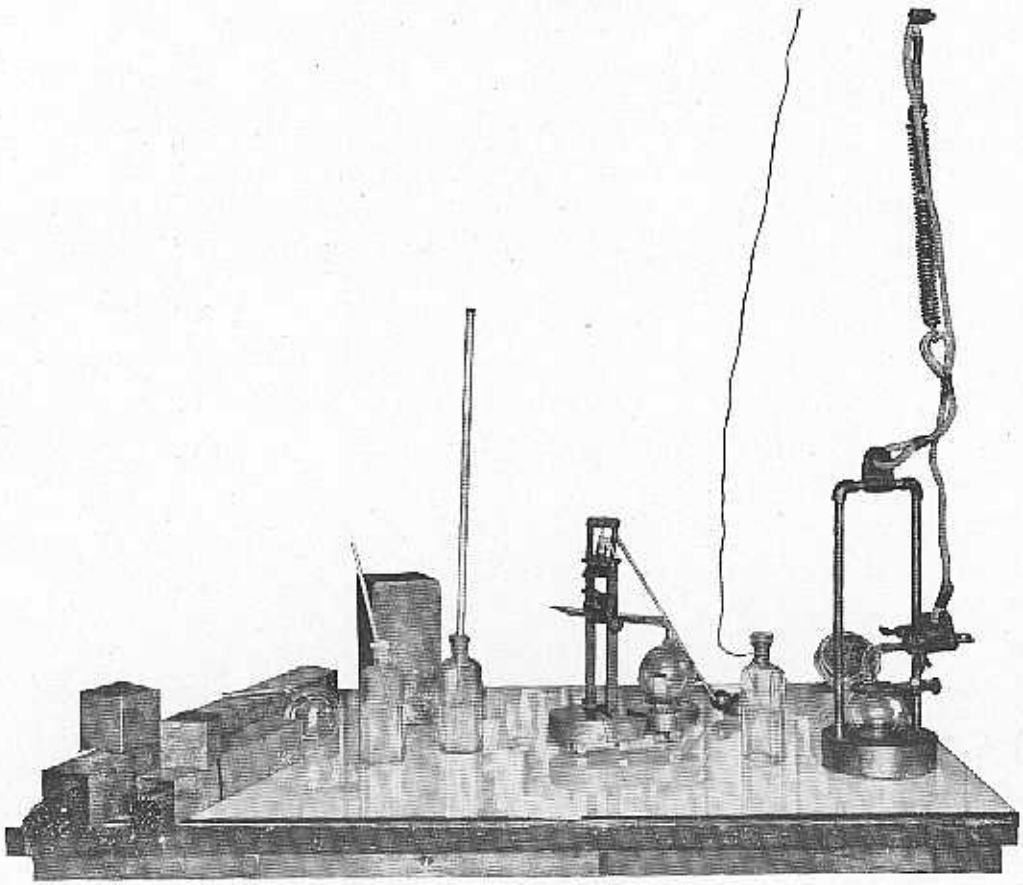
SCOPE AND TECHNIQUE OF EXAMINATION

Samples were taken in wide-mouth glass-stoppered bottles which had been wrapped in paper and sterilized by dry heat at a temperature of not less than 160° C. for one hour. Samples were immediately placed in containers and surrounded by ice. Although icing of the sample may have been unnecessary in some instances, it was deemed wise to make no exceptions and to use ice in transporting samples even when the time of transit to the laboratory was less than two hours.

At a conference in Detroit, it was agreed to use the presumptive test for B. Coli in lactose bile, and,



18°-22°. INCUBATOR.



SOME SAMPLE COLLECTION APPARATUS.

where possible, confirmation tests on Endo plates. By the use of Endo plates the American laboratories were able to show that the index of error using bile media alone is small in the Great Lakes, and that the procedure in the Ontario laboratories of recording B. Coli from gas production in lactose bile was safe and satisfactory so far as the Great Lakes water was concerned.

Experience on the St. John River,* however, shows that until something is known of the flora in the water of a given stream it is unsafe to depend upon the presumptive test alone.

In addition, it was agreed to make a count of the total bacteria on agar at 37° C., and whenever possible on agar at 22° C.

It was agreed that the B. Coli content should be estimated by making dilutions and planting in lactose bile such quantities as 50 c.c., 25 c.c., 10 c.c., 1. c.c., .1 c.c., .01 c.c., and .001 c.c., or as many of these as necessary to show both a positive and a negative result. The inoculated lactose bile fermentation tubes were incubated for 48 hours at 37° C. The bacterial count was an actual count of the entire plate, such dilutions being made as to give not more than 200 colonies per plate. The combination of gas in lactose bile and a colon-like colony on the Endo plate, for the purposes of this examination were recorded with a + sign. The media used and technique of examination was according to the standard methods of the American Public Health Association (Second Edition, 1912).

Methods and Apparatus.

In a work of such magnitude large incubators were necessary. Modified or adapted chicken incubators costing about $38.00 were used. They were satisfactory for field work, and a saving of about $200 per incubator was effected. Their weight—about 175 pounds—and bulk, however, made them somewhat unwieldy in several instances where it was necessary to take them up flights of stairs to laboratory quarters.

Control of temperature in the 22° C. incubator was managed by inserting at the top a galvanized iron tray upon which was placed a coil of ½-inch hose. Water from the tap was circulated through this to maintain the required temperature. In some instances, as at Port Arthur, where the water was cold, it was necessary to keep a light burning to maintain the proper temperature, but at other points, where the water was practically at the desired degree, the temperature was maintained without any light whatever. Usually the 22° C. incubator was of a temperature lower than that of the room. It may be said that this scheme will almost invariably work satisfactorily where water of a temperature not higher than 22° C. can be obtained. In economy of space and convenience in handling it was found that the Durham tube was much better than the Smith tube for the fermentation tests.

Several types of deep sampling apparatus were used. The American laboratories used the following: A wooden bottle holder with strong clamps for holding the sample bottle was equipped with a heavy weight and stout rope. This was sunk to the required depth by the rope. The glass stopper could be drawn out one-half inch, permitting the bottle to fill, by pulling on a smaller rope. The apparatus for raising the stopper consisted of two prongs fitting under the flange of the stopper attached to a brass rod running perpendicularly in a groove on the bottle holder. The rod was raised by a pull on the smaller rope, and a spring reseated the bottle stopper. The ground-glass stopper ordinarily seated itself one inch in the wide mouth of the bottle. A "stop" on the brass rod prevented raising the stopper more than one-half inch, so that while ample room for filling the bottle was provided, the stopper could not leave the bottle and by reason of the spring must reseat itself upon releasing the small rope.

The laboratories of the Ontario Provincial Board of Health used an apparatus that would work in connection with Dumas bulbs. These are small spherical bulbs with a neck about seven inches long running off tangentially. The apparatus was arranged so that two cuttings can be made on almost all of the necks. To re-use, the neck is drawn out and sealed again after sterilization. This saved about ten cents per sample; the bulbs cost twenty cents each, and the repair usually about $1.00 per dozen. The samples after being obtained with the apparatus in the Dumas bulbs were poured into ordinary sample bottles, sealed up with glass stoppers and rubber dam, and shipped to the laboratory where examination was made.

*See Appendix, p. 387, *re* Fermentation of Lactose Bile by an Anaerobic Organism.

PERSONNEL

Allan J. McLaughlin, Surgeon, United States Public Health Service; Chief Sanitary Expert and Director of Field Work.

John W. S. McCullough, Chief Health Officer of Ontario.

John A. Amyot, Professor of Hygiene, University of Toronto; Provincial Bacteriologist, Provincial Board of Health, Ontario.

Frederick A. Dallyn, Provincial Sanitary Engineer, Ontario.

United States Public Health Service.

Laboratories at Buffalo, N.Y.; Clayton, N.Y.; Detroit, Mich.; on U. S. Revenue Cutter "Morrill," and Van Buren, Maine.

Passed Assistant Surgeon, Paul Preble.
Assistant Surgeon, L. R. Thompson.
Warren C. Fargo, M.D.
William Wallace, B.S.
Hugh C. McDowell, M.D.
Allan Stewart, M.D.
Emory J. Theriault, B.S.
Fred. B. Loring, B.S.

Provincial Board of Health of Ontario.

Laboratories at Kingston, Niagara-on-the-Lake, Fort Erie, Port Stanley, Amherstburg, Windsor, Sarnia, Sault Ste. Marie, Port Arthur, Fort Frances.

C. R. Avery, B.A.Sc.
C. P. Brown, B.A., M.B.
R. D. Defries, B.A., M.D.
A. V. De Laporte, B.A.Sc.
W. R. Jaffray, M.B.
N. F. Parkinson, B.A.Sc.
C. S. Robertson, B.A.Sc.

State Board of Health, State of Michigan.

Laboratory at Port Huron, Michigan.

E. R. Chambers, B.S., in charge.
James W. Inches, M.D.
Charles G. Sinclair, B.S.

Department of Health, State of New York.

Laboratory at Youngstown, New York.

Wm. A. Bing, in charge.
Fred. B. Harrington, M.D.

Provincial Board of Health of Quebec.

Laboratory at Montreal

Theo. J. LaFreniere, in charge.
Arthur Bernier, M.D.

FERMENTATION OF LACTOSE BILE BY AN ANAEROBIC ORGANISM*

In the course of the work on the St. John River an interesting finding was recorded. In the first two or three days of sampling it was evident that the number of organisms producing gas in lactose bile was out of proportion considering the lack of urban pollution (sewage). Tests of tubes showing gas were made on Endo plates and 305 out of 444, or 69 per cent., failed to show colonies which bore any resemblance to the Colon Bacillus. Transplants from the lactose bile tubes showing gas always gave on agar slants an aerobic surface growth and a production of gas along the sides of the tube below the surface suggesting an anaerobe. The surface growth was sometimes a coccus, sometimes B. Subtilis, and sometimes other aerobic organisms.

If the mixed culture on an agar slant was inoculated into hot agar and B. Subtilis or other resistant organism accompanied the anaerobe, the result was a surface growth of B. Subtilis and a production of gas bubbles in the depths of the media. Pure culture of this anaerobe can be obtained from the mixed culture by making dilutions and finally drawing the hot agar up in a long glass pipette. The bubbles form at intervals, and after selecting one apparently discrete, the glass is broken under sterile precautions and inoculation made from the walls of the bubble. Morphologically it is a spore-bearing anaerobe resem-

* Special article, contributed by Dr. Allan J. McLaughlin.

bling and possibly identical with B. Welchii. It gave the typical reaction of B. Welchii in rabbits. Further work will show whether the two organisms are identical or merely related.

The question arises, Whence comes this considerable pollution with an organism resembling or B. Welchii? It has been asserted that this organism is

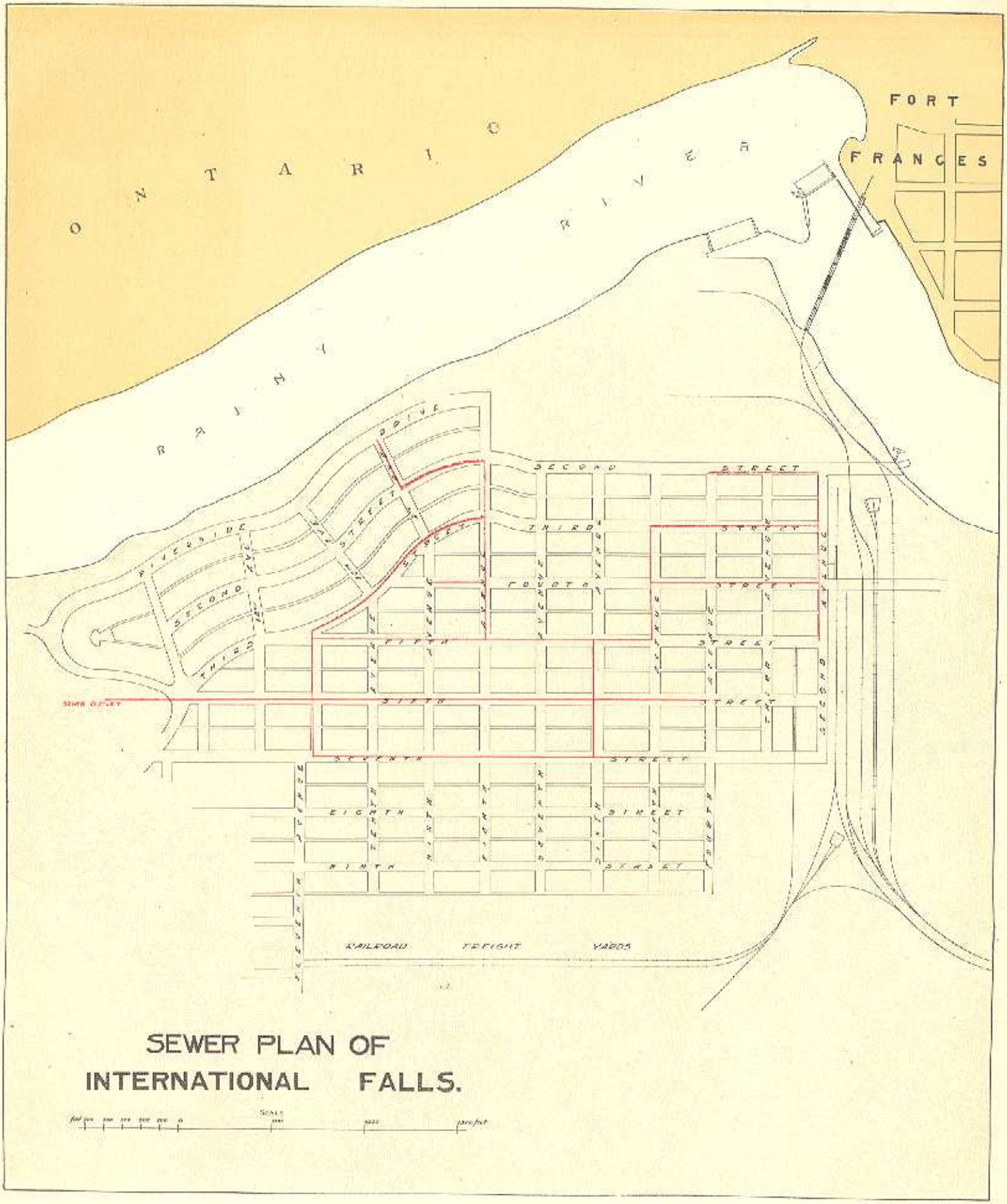
Table XXVI.
GAS PRODUCERS, ST. JOHN RIVER

Sampling Point No.	Number Samples taken.	Average per 100CC. by Phelps Method		
		Total gas producers.	Typical B. Coli	Anaerobic gas producers.
1	21	467	65	402
2	21	647	160	487
3	21	566	70	496
4	20	472	167	305
5	21	536	160	376
6	21	643	112	531
7	21	515	155	360
8	21	730	250	480
9	21	433	18	415
10	21	433	112	321
11	21	519	57	462
12	21	600	61	539
13	21	519	74	445
14	21	561	103	458
15	21	566	164	402
16	21	604	155	449
17	21	476	31	445
18	21	480	117	363
19	21	467	117	350
20	21	600	155	445
21	21	520	103	417
22	21	566	112	454
23	21	1086	725	361
24	21	695	202	493
25	21	614	112	502
26	21	601	117	484
27	21	524	57	467
28	20	540	254	286
29	21	1090	631	359
30	20	476	112	364
31	21	480	112	368
32	21	528	70	458

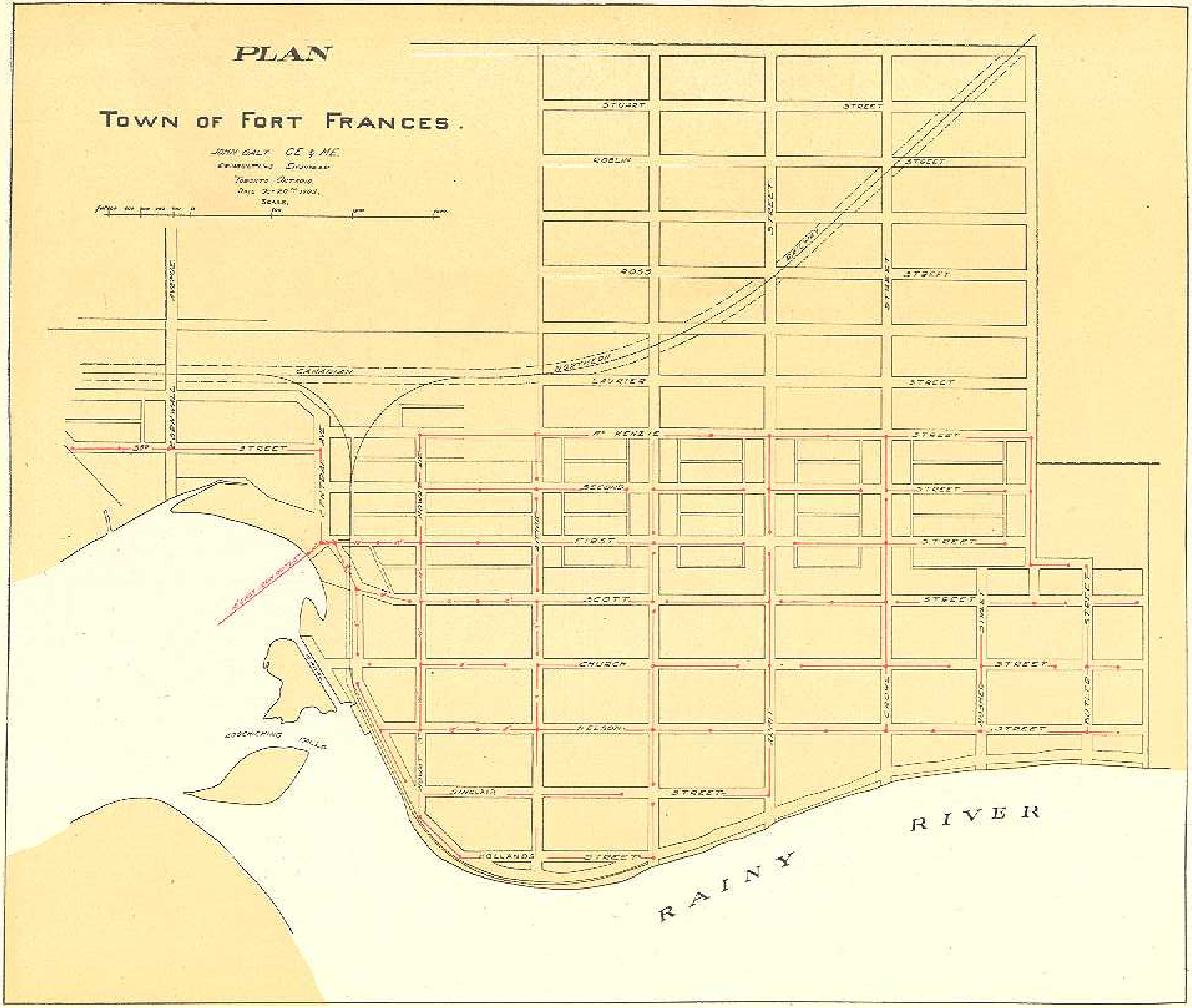
the only one outside of the colon group which ferments lactose bile, and that it is derived from the intestines of animals. We found nothing to suggest that the first statement is untrue, but the second statement in our opinion is open to question. More work will have to be done to show whether the intestine of man and animals is the habitat of B. Welchii or that their presence there is accidental. If its habitat is the soil, the question at once arises, Does it reach the soil from the manure spread over the fields?

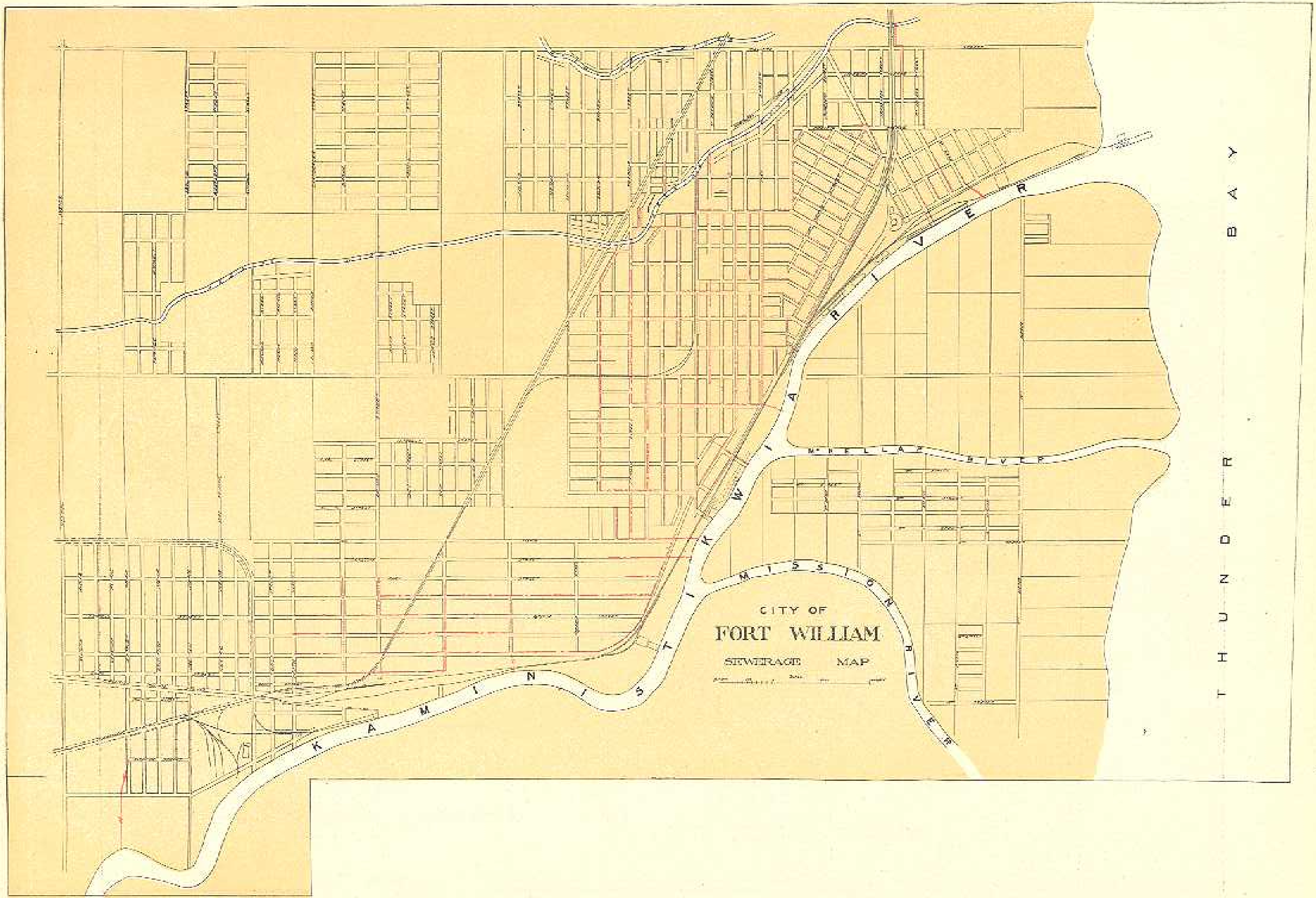
Fig. No. 26 shows the remarkable frequency of anaerobic gas producers in the St. John River water, and the very uniform distribution of these from Edmunston to Grand Falls. There is very little variation in their number per 100 c.c., computed by Phelps' method. The variation in the total gas producers is due to the variation in the number of B. Coli. The wastes from the potato starch factories suggested a possible explanation. These starch factories use the culls and diseased potatoes. A rotten potato sent from Van Buren to Washington was opened under sterile precautions and from the rotting interior cultures were made in hot agar. From these cultures an organism was isolated identical with those isolated from the lactose bile fermentation tubes and having the characteristics usually ascribed to B. Welchii. Whether the potato starch factories are responsible for the high prevalence of this organism in the water, or merely act as one agency in the prevalence is open to question. There are three potato starch factories at St. Agatha and Fort Kent above Edmunston, and four between Edmunston and Grand Falls, and as this is a resistant spore-bearing organism the distance is negligible. One fact seems to suggest that the factories do not greatly increase the numbers of this gas former in the water. The count in Table XXVI shows a remarkably uniform distribution of the anaerobic gas producers and no significant increase at the points below the starch factories. This experience clearly shows that the presumptive test (gas in lactose bile) alone for B. Coli, may be misleading and that some confirmatory test is necessary in certain waters. In this work Endo plates were used to confirm presence of B. Coli in tubes showing gas.

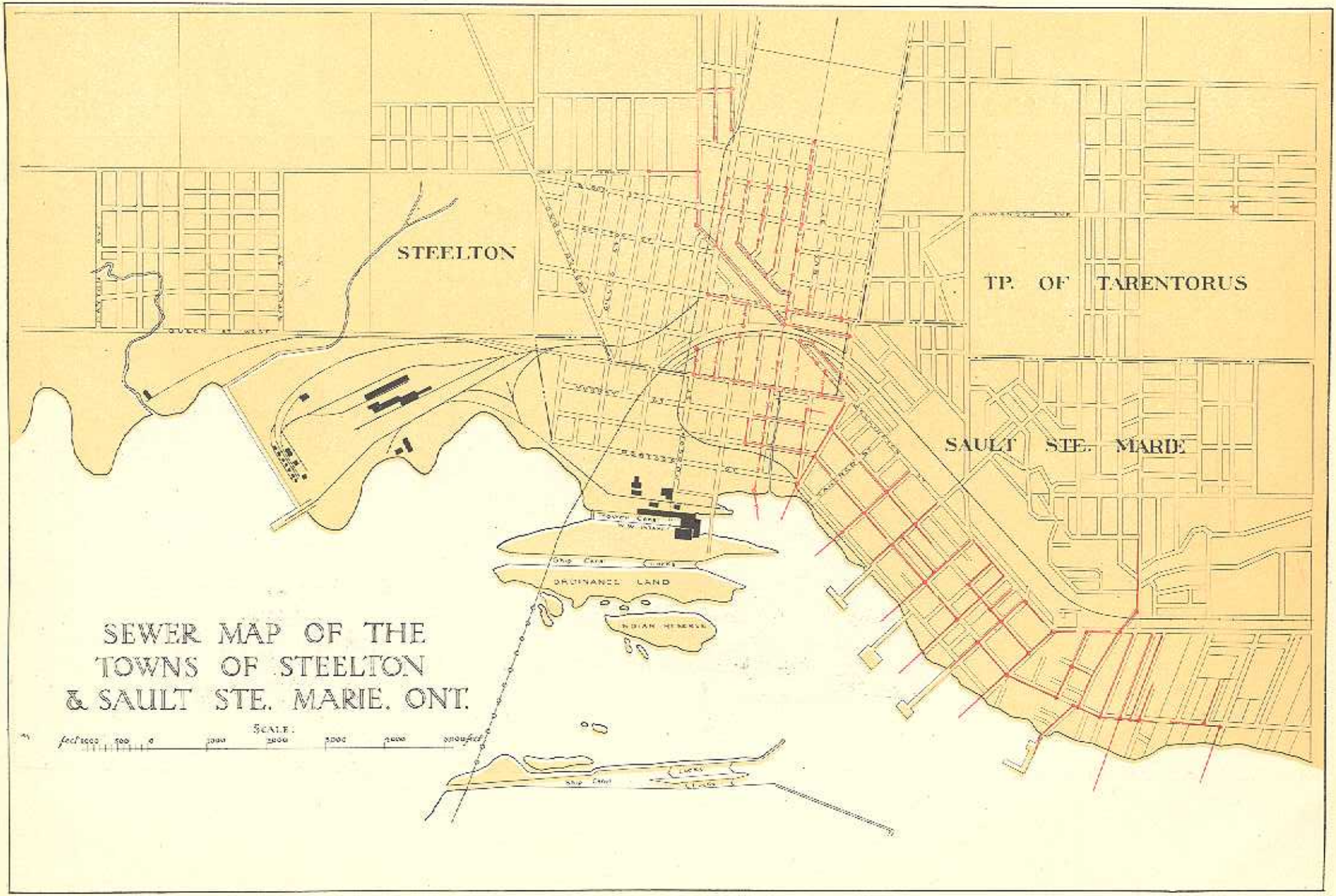
It is very probable that a group of anaerobic organisms of which B. Welchii is a type is much more widely distributed in our surface waters than is generally supposed. Where sewage pollution is gross the finding of B. Coli is conclusive and obscures the presence of other factors in the gas production. If material from the gas tubes was transplanted into hot agar it is probable that in many instances this anaerobe would be found.

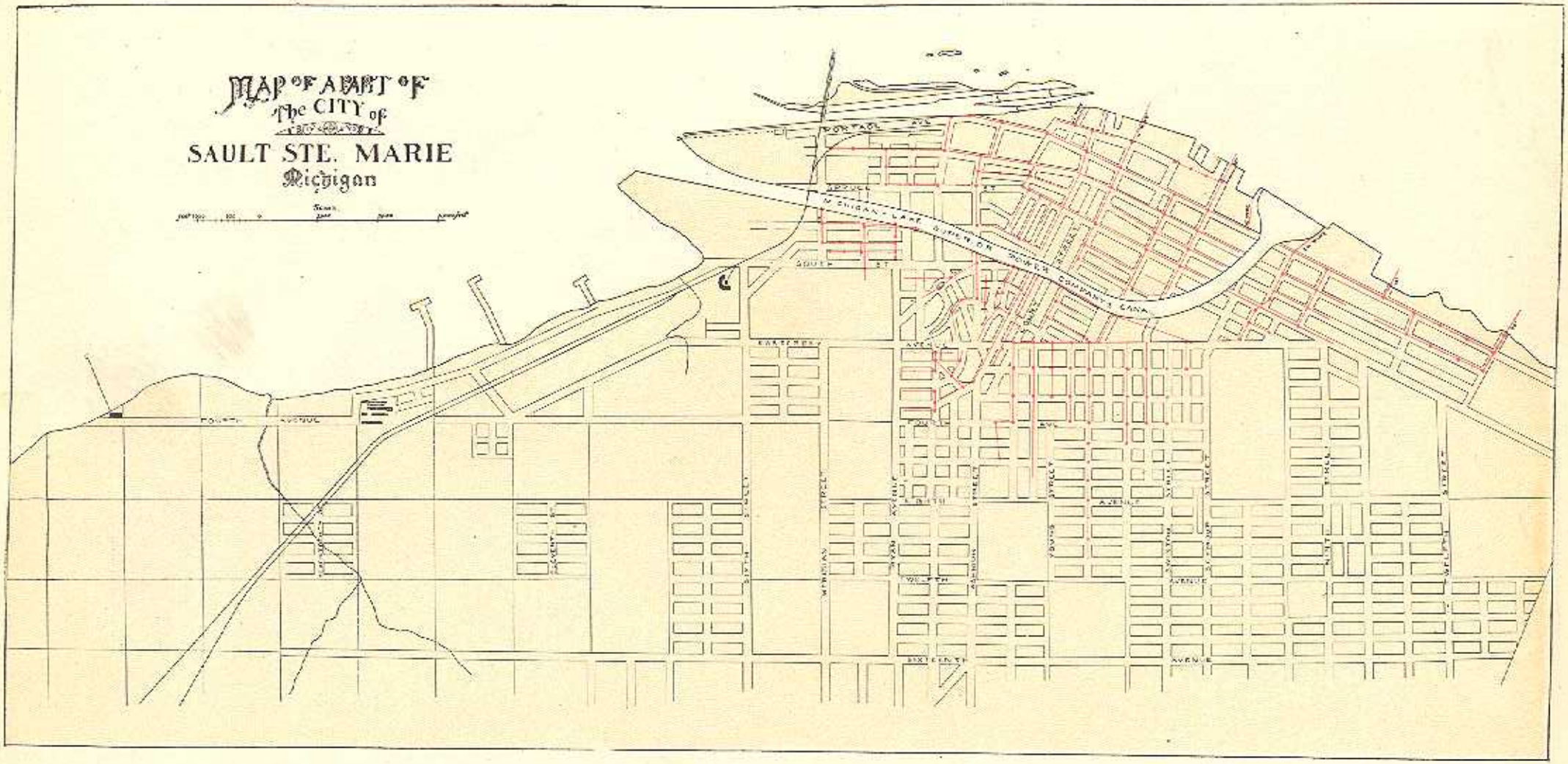


SEWER PLAN OF INTERNATIONAL FALLS.


PLAN
TOWN OF FORT FRANCES.
JOHN GALT CE & ME.
CONSULTING ENGINEER
TORONTO ONTARIO
SCALE,
STUART STREET
ROBLIN STREET
ROSS STREET
LAURIER STREET
Mc KENZIE STREET
SECOND STREET
FIRST STREET
SCOTT STREET
CHURCH STREET
NELSON STREET
SINCLAIR STREET
HOLLANDS STREET
3RD STREET
CANADIAN NORTHERN RAILWAY
CENTRAL AVE
MOWAT AVE
KOOCHICHING FALLS
RAINY RIVER


CITY OF
FORT WILLIAM
SEWERAGE MAP
KAMINISTIKWIA RIVER
MISSION RIVER
THUNDER BAY


STEELTON
TP. OF TARENTORUS
SAULT STE. MARIE
ORDNANCE LAND
INDIAN REMOVE
SEWER MAP OF THE
TOWNS OF STEELTON
& SAULT STE. MARIE. ONT.
SCALE:


MAP OF A PART OF
The CITY of
SAULT STE. MARIE
Michigan
Scale
POINT AVE
MICHIGAN LAKE SUPERIOR SHORE
CANAL COMPANY'S LAND
SOUTH ST
EASTERN AVENUE
POINT AVENUE
ALBERT STREET
ELGIN STREET
WILLOW STREET
AVENUE A
AVENUE B
AVENUE C
AVENUE D
AVENUE E
AVENUE F
AVENUE G
AVENUE H
AVENUE I
AVENUE J
AVENUE K
AVENUE L
AVENUE M
AVENUE N
AVENUE O
AVENUE P
AVENUE Q
AVENUE R
AVENUE S
AVENUE T
AVENUE U
AVENUE V
AVENUE W
AVENUE X
AVENUE Y
AVENUE Z
SIXTEENTH
SEVENTEENTH
EIGHTEENTH
NINETEENTH
TWENTIETH
TWENTY-FIRST
TWENTY-SECOND
TWENTY-THIRD
TWENTY-FOURTH
TWENTY-FIFTH
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THIRTIETH
THIRTY-FIRST
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FORTIETH
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FORTY-SECOND
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EIGHTY-SECOND
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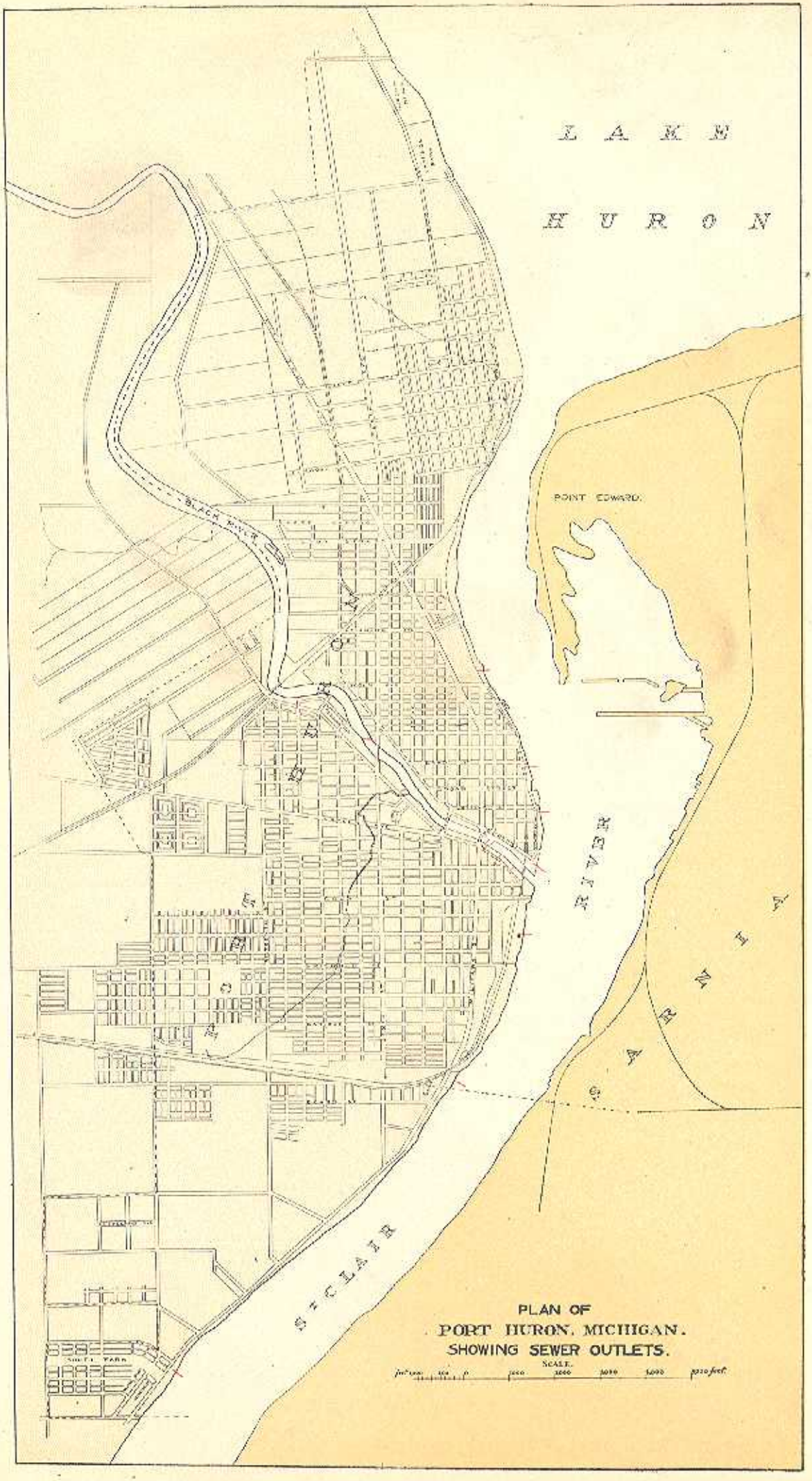
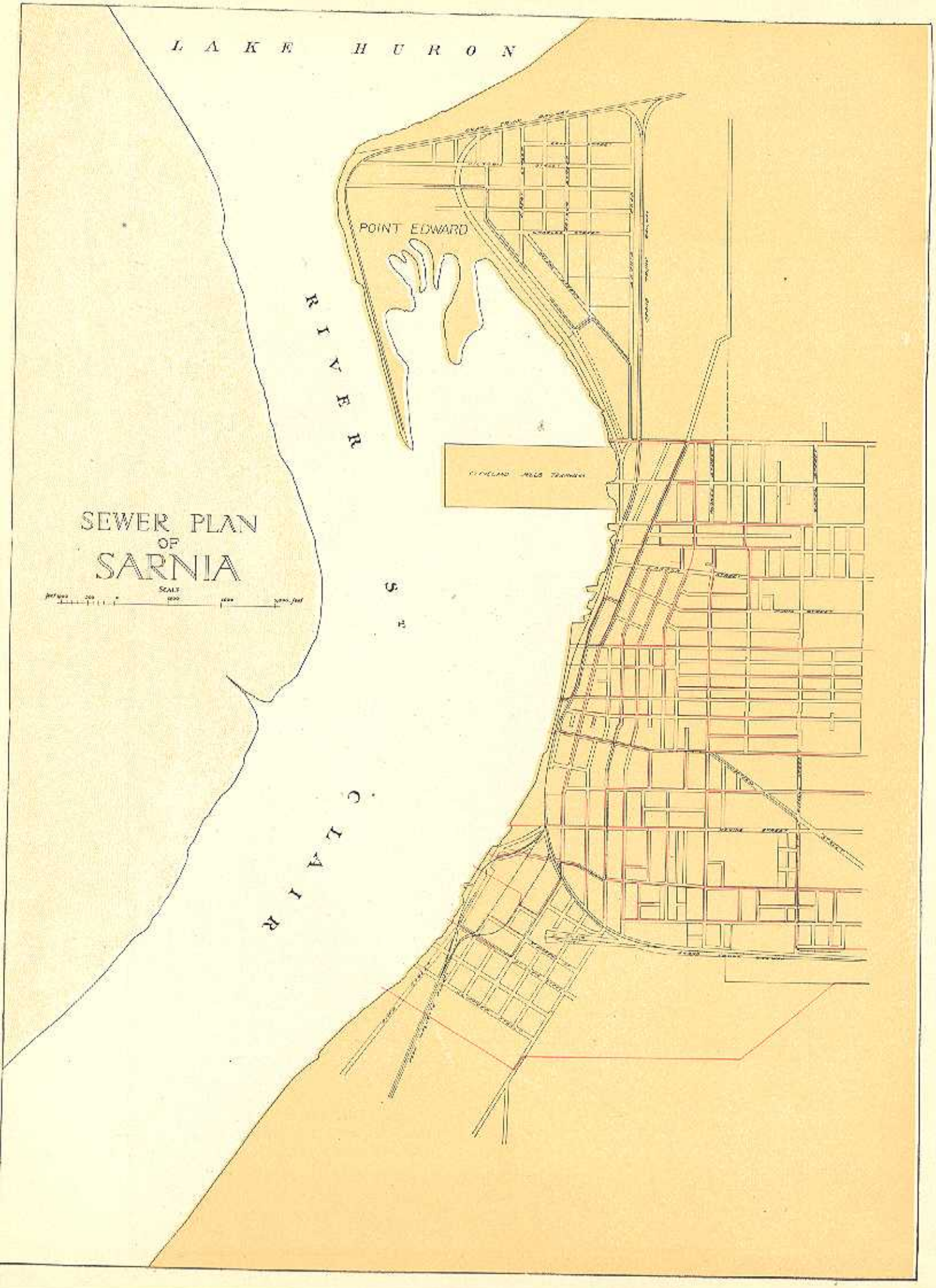
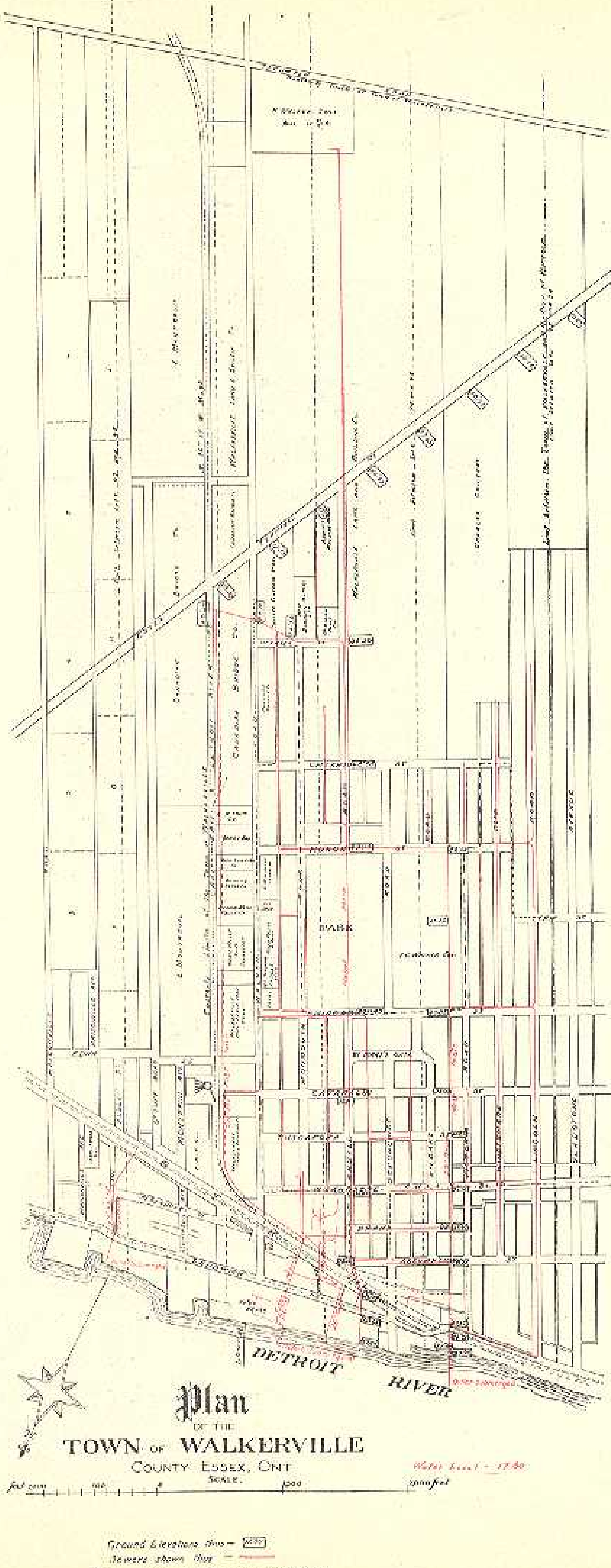
EIGHTY-EIGHTH
EIGHTY-NINTH
NINETIETH
NINETY-FIRST
NINETY-SECOND
NINETY-THIRD
NINETY-FOURTH
NINETY-FIFTH
NINETY-SIXTH
NINETY-SEVENTH
NINETY-EIGHTH
NINETY-NINTH
ONE HUNDREDTH

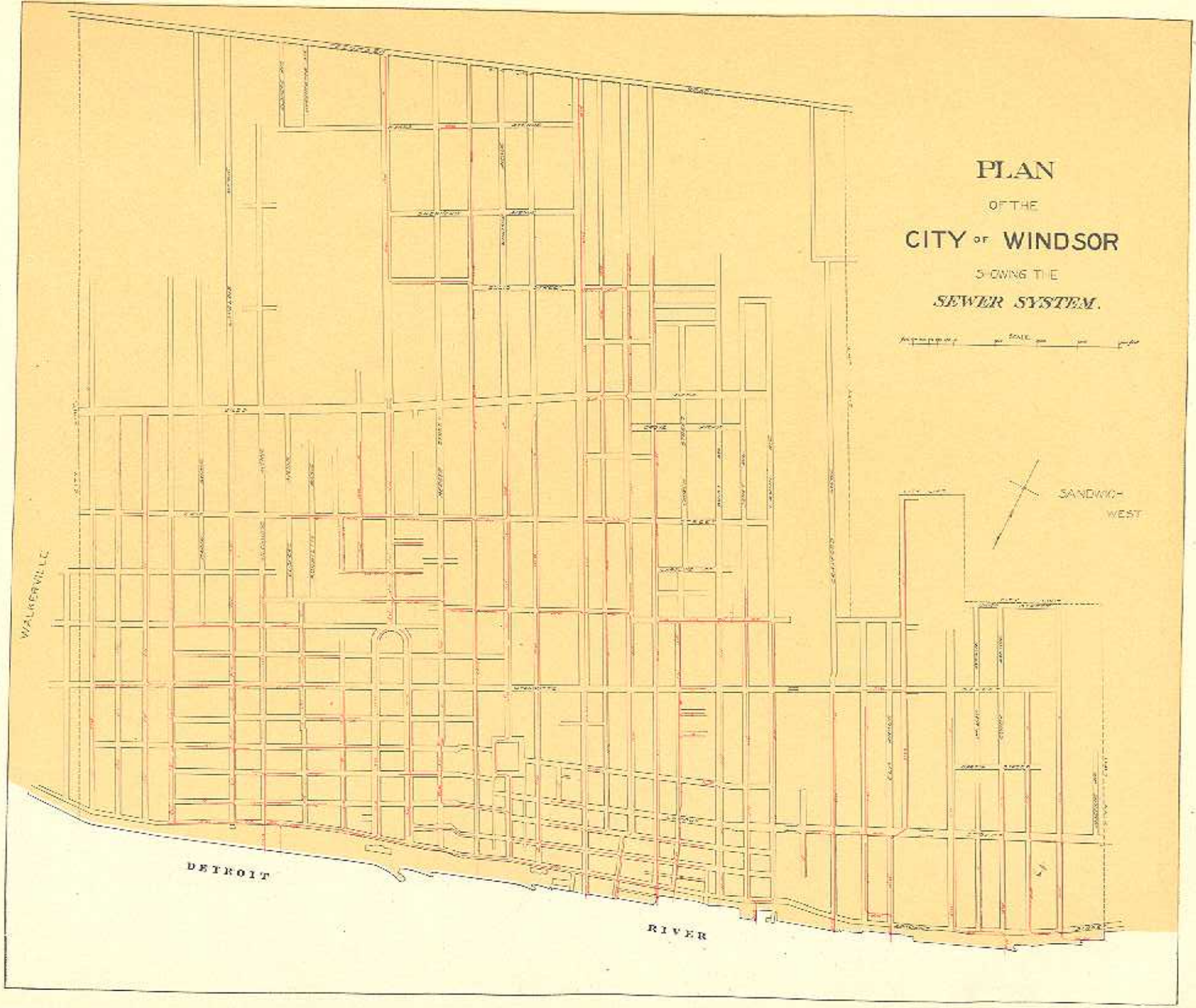

LAKE
HURON
POINT EDWARD.
BLACK RIVER
RIVER
ST CLAIR
PLAN OF
PORT HURON, MICHIGAN.
SHOWING SEWER OUTLETS.
SCALE.


LAKE HURON
POINT EDWARD
RIVER ST. CLAIR
SEWER PLAN
OF
SARNIA
SCALE


PARK
DETROIT
RIVER
Plan
of the
TOWN of WALKERVILLE
County Essex, Ont
Scale.
Ground Elevations thus —
Sewers shown thus —


MAP SHOWING
SEWERS
IN THE
CITY OF DETROIT.
1908
DETROIT RIVER

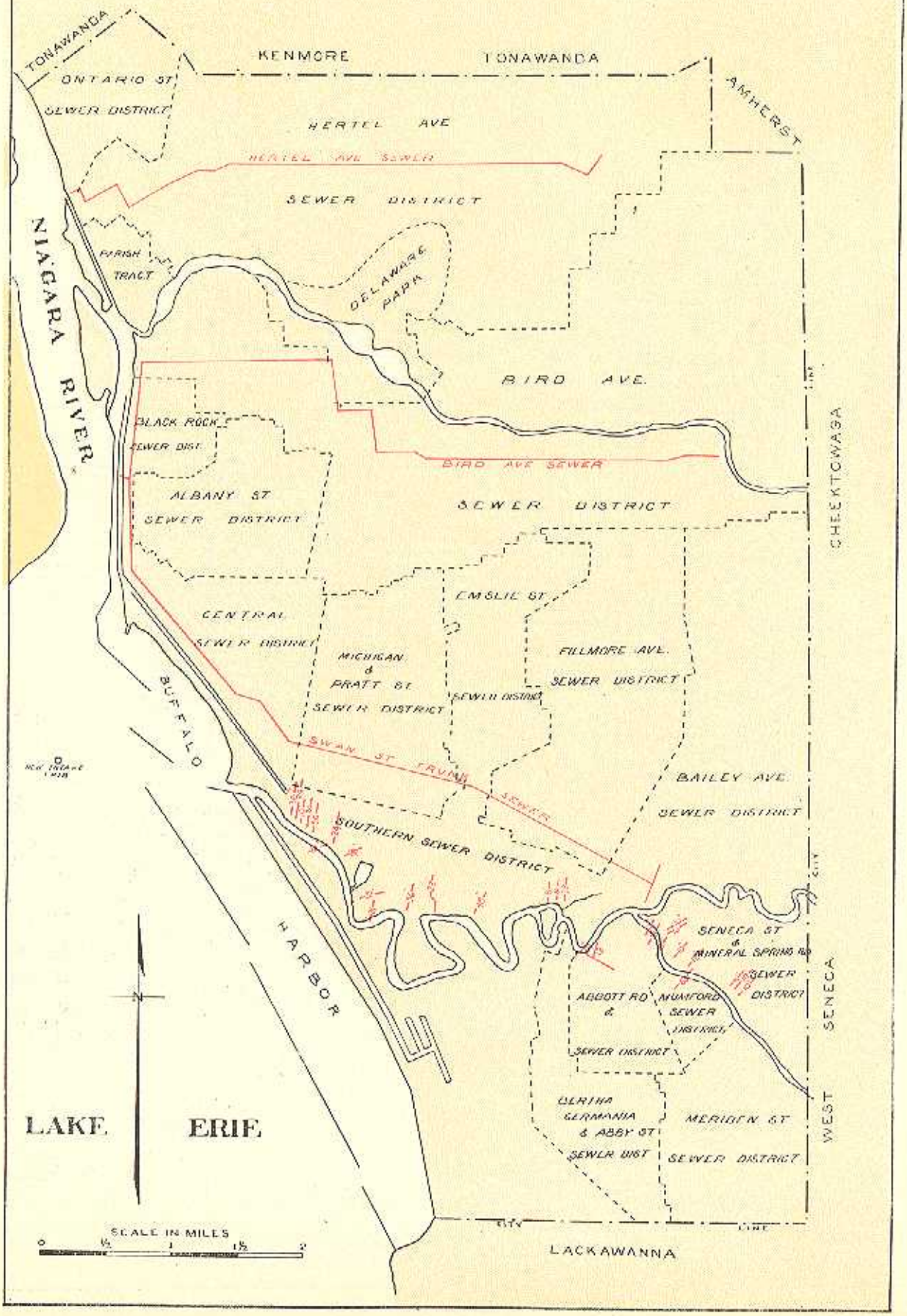
PLAN
SHEWING
SEWER SYSTEMS
IN THE
TOWN OF SANDWICH
COUNTY OF ESSEX. ONT.

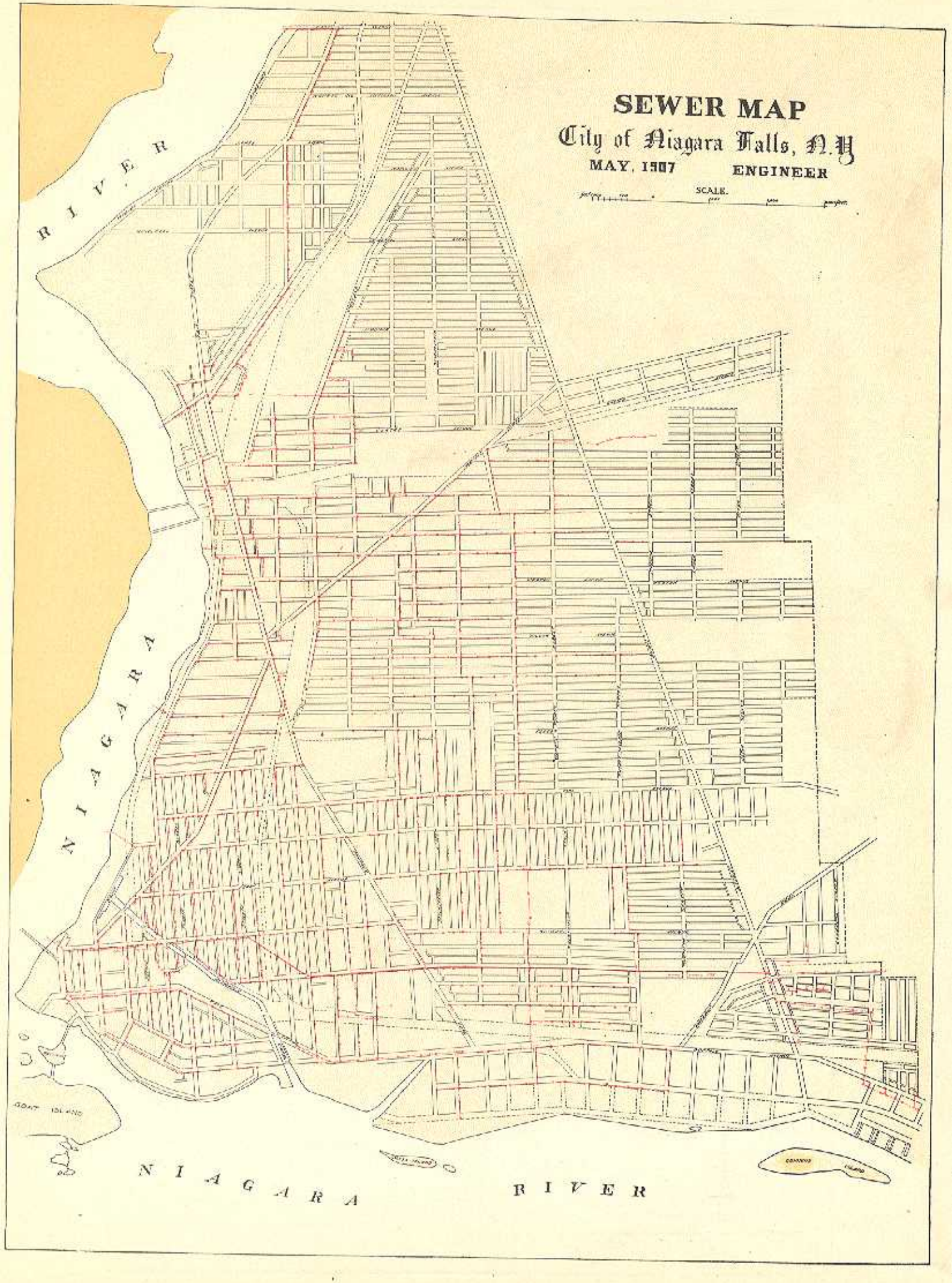

PLAN
OF THE
CITY OF WINDSOR
SHOWING THE
SEWER SYSTEM.
SANDWICH
WEST
WALKERVILLE
DETROIT
RIVER

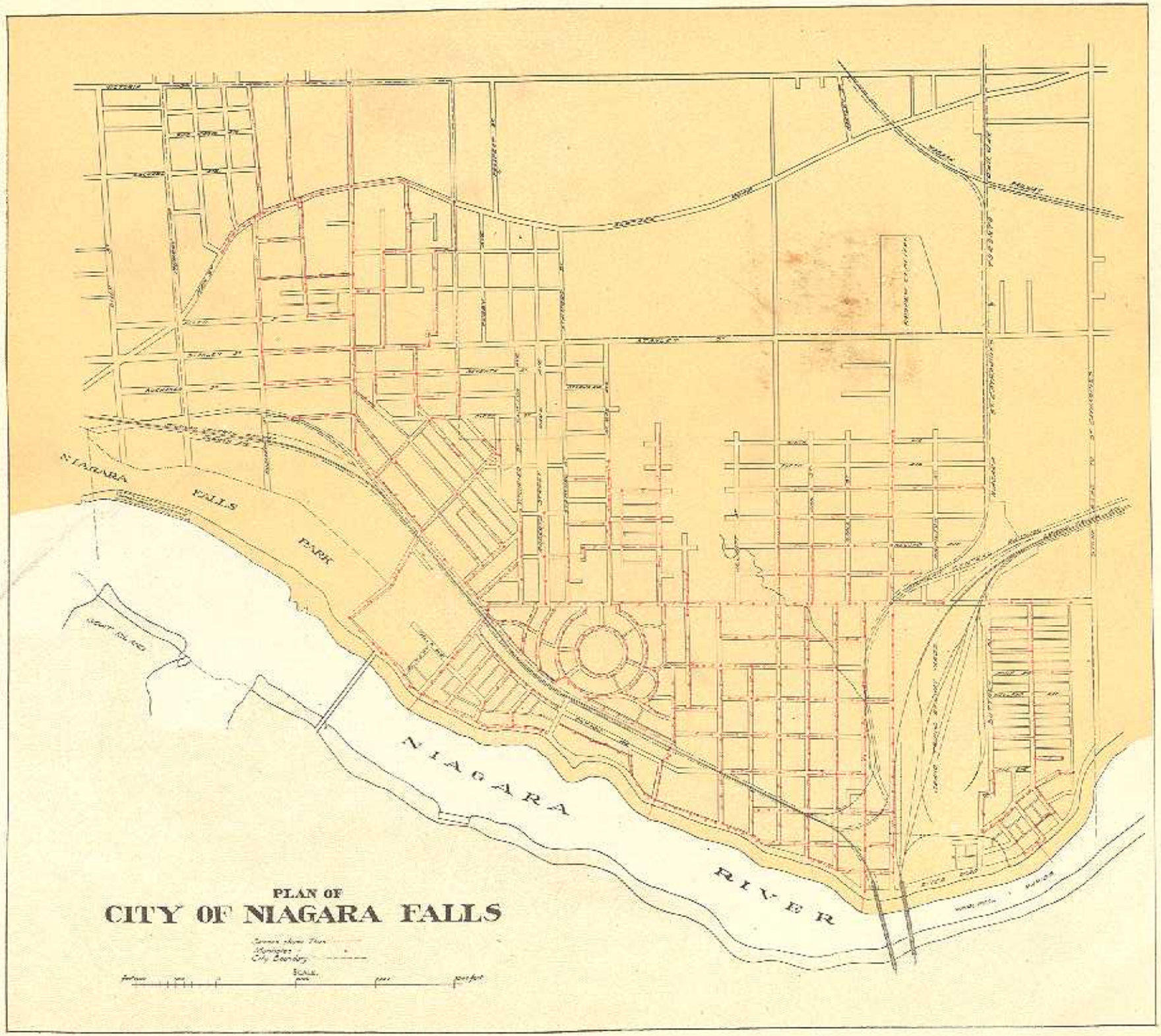
BUFFALO

SEWER DISTRICTS AND SEWER OUTLETS

1911




SEWER MAP
City of Niagara Falls, N.Y
MAY, 1907 ENGINEER
SCALE.
R I V E R
N I A G A R A
N I A G A R A R I V E R

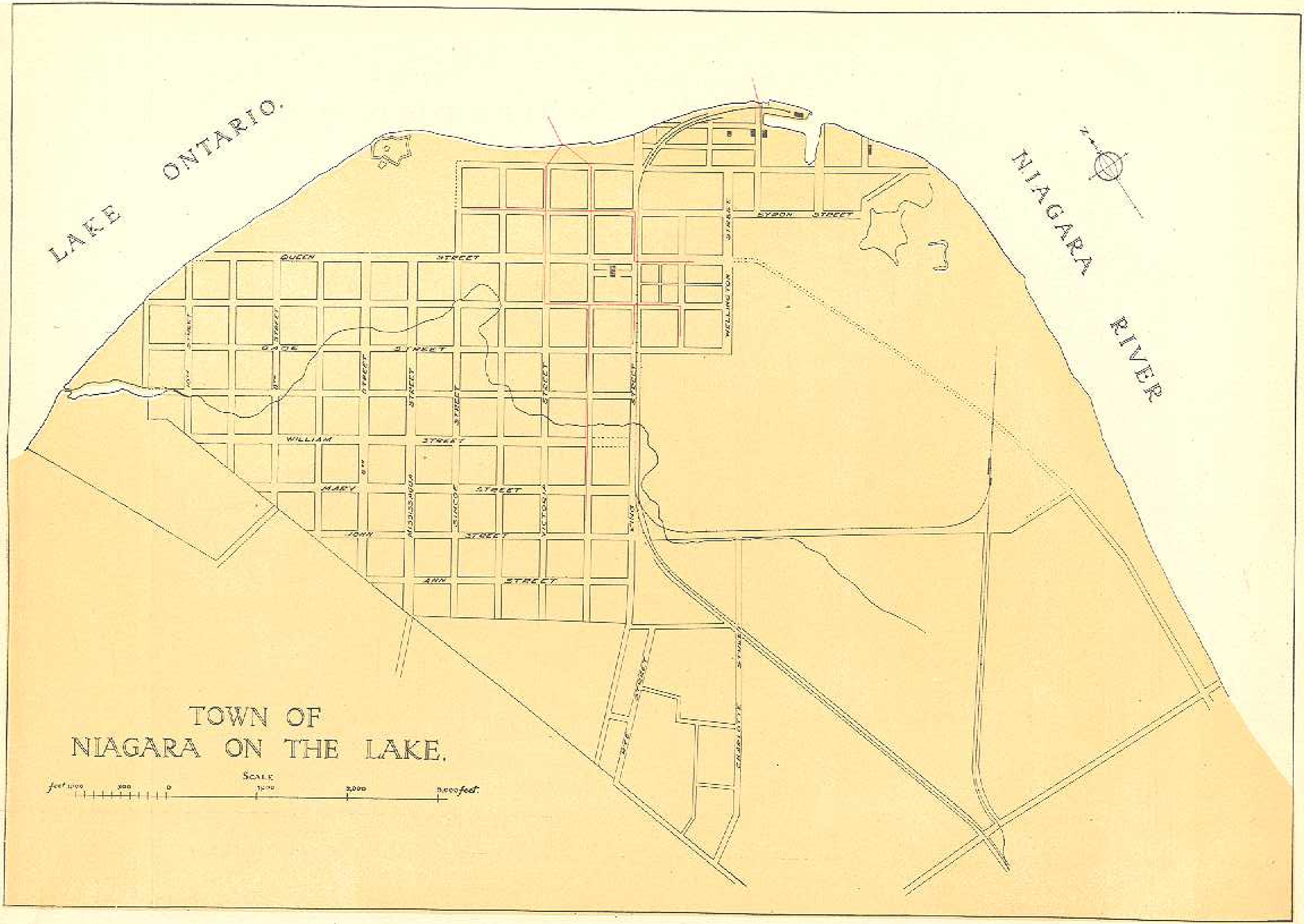


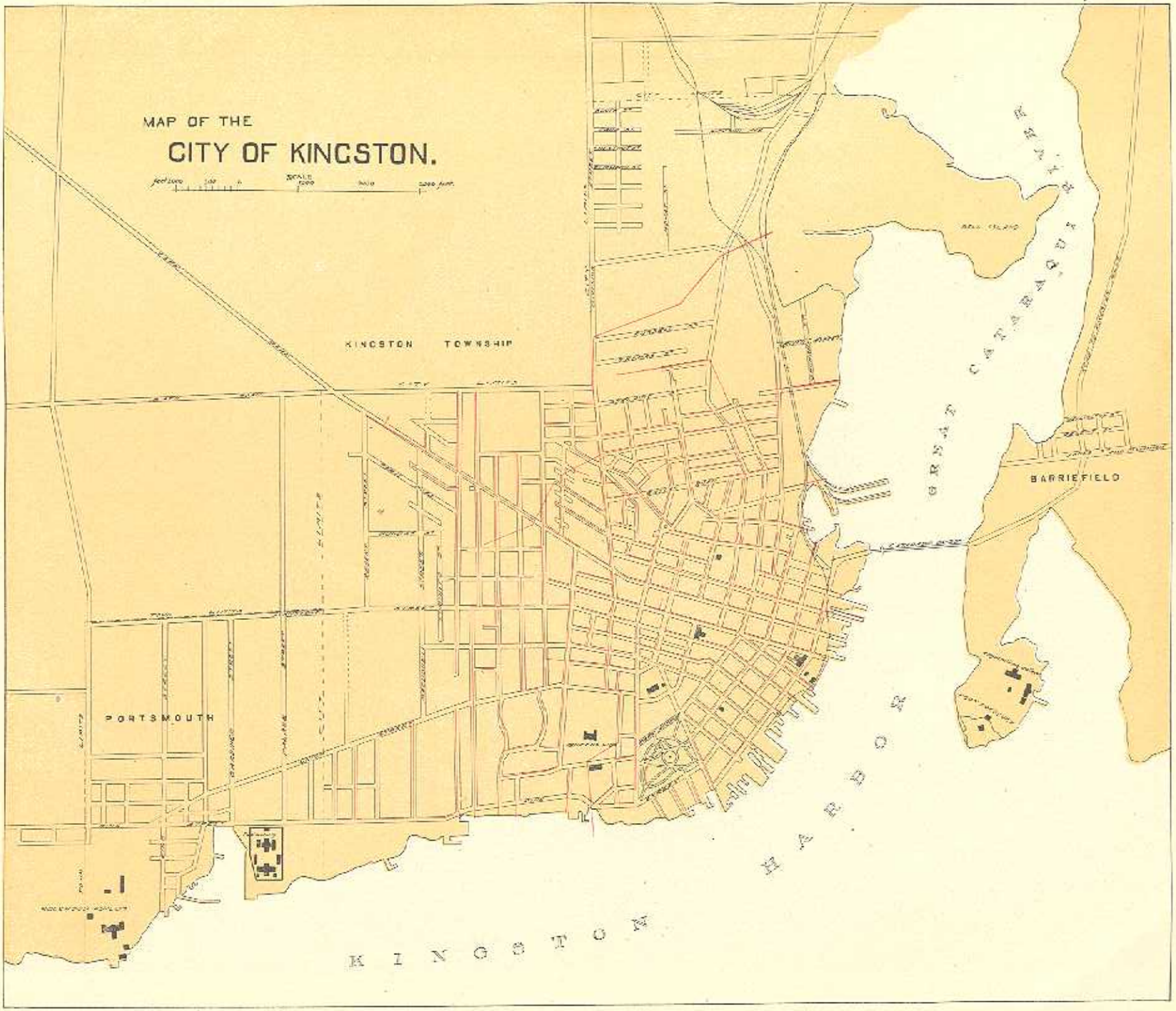
PLAN OF

CITY OF NIAGARA FALLS

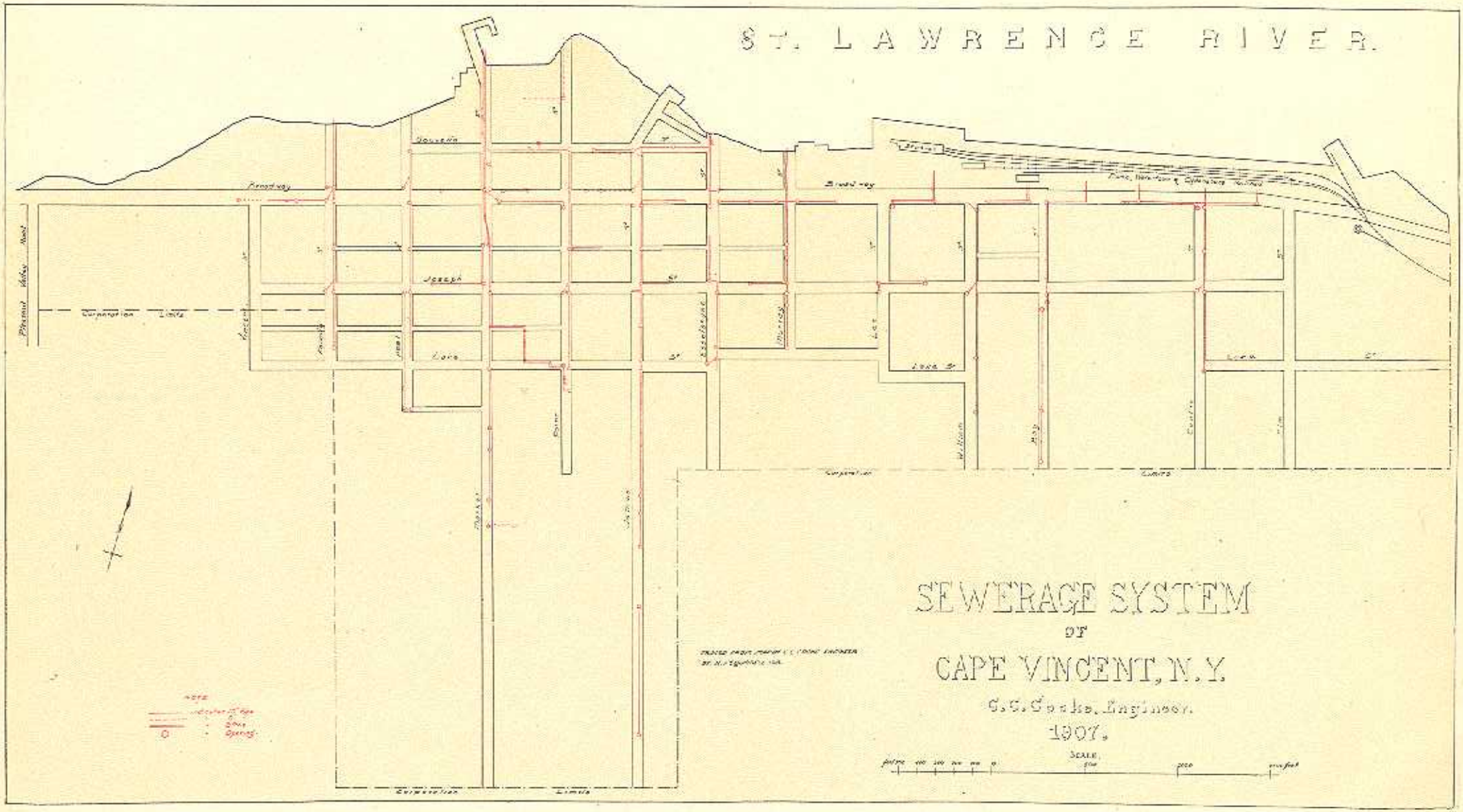
Corners shown Thus
Municipal
City Boundary

SCALE.


LAKE ONTARIO.
NIAGARA RIVER
QUEEN STREET
GAGE STREET
WILLIAM STREET
MARY STREET
JOHN STREET
ANN STREET
MISSISSAGUA STREET
SIMCOE STREET
VICTORIA STREET
KING STREET
WELLINGTON STREET
BYRON STREET
CHARLOTTE STREET
TOWN OF
NIAGARA ON THE LAKE.
SCALE
5,000 feet


MAP OF THE
CITY OF KINGSTON.
KINGSTON TOWNSHIP
PORTSMOUTH
BARRIEFIELD
KINGSTON HARBOR
GREAT CATARAQUI


BROCKVILLE
ALEXANDER


ST. LAWRENCE RIVER.
Broadway
Jefferson St.
Corporation Limits
SEWERAGE SYSTEM
OF
CAPE VINCENT, N.Y.
C.C. Cooke, Engineer.
1907.
SCALE