

PRELIMINARY REPORT NO. 30

(SUBJECT TO REVISION)

Stream Quality Study

**PREPARED FOR THE
OKANAGAN STUDY COMMITTEE**

CANADA - BRITISH COLUMBIA OKANAGAN BASIN AGREEMENT

TASK 131

Stream Quality Study

by

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Department of the Environment

Calgary, Alberta

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Appendix I Supplied

by

B.C. Pollution Control Branch

Water Resources Service

Province of British Columbia

NOTICE

This report was prepared for the Okanagan Study Committee under the terms of the Canada-British Columbia Okanagan Basin Agreement. The information contained in this report is preliminary and subject to revision. The Study Committee does not necessarily concur with opinions expressed in the report.

Office of the Study Director
Box 458, Penticton, B.C.

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ABSTRACT

This report outlines the procedures and methods used to measure the existing water quality condition of major streams within the Okanagan Basin. Samples taken over a two year period at 41 locations were analysed for physical, inorganic and organic constituents.

All analytical results were summarized as to the number of samples taken and the maximum, minimum, mean and range of each parameter measured.

ADDENDUM TO REPORT

Task 131 - Stream Quality Study

The sampling and analysis of stream water samples as outlined in this report were carried out for the Canada - British Columbia Okanagan Basin Study under the direction of the Pollution Control Branch, Water Resources Service, Province of British Columbia, the agency responsible for stream quality studies.

All analytical results were forwarded to the Pollution Control Branch for compilation of loading rates under Task 105, "Estimate of Present Loadings for Nutrients and Other Parameters to the Okanagan Lake System." A statistical summary of the analytical results are included in Appendix I of this report.

Provision has been made to store the analytical results on both Provincial and Federal Water quality data banks.

Don Corrigan, P. Eng. Pollution
Control Branch

September 26, 1972

PREFACE

In anticipation of the signing of the Canada-British Columbia Okanagan Basin Agreement an ad hoc committee of Federal and Provincial Agencies interested in the Okanagan lakes system was formed in April, 1969.

The committee met on April 15, 1969 and generally accepted that the task before them was to review in a very general way the existing programs being carried out in the Okanagan, to discuss the resources of the various agencies that may participate in an overall study, and to make recommendations.

In view of the great number of involvements by both Federal and Provincial agencies in the Okanagan on work presently being undertaken and on work that may be undertaken in the future, the committee felt it was prudent at this time to recommend that:

1. Three sub-committees be established immediately as follows:

Sub-committee No. 1 - to concern itself with positive discharges and quality and quantity of waters contributory to the lakes system.

Sub-committee No. 2 - to concern itself with the land and agricultural aspects as they may affect the Okanagan Lake System.

Sub-committee No. 3 - to concern itself with the lakes system exclusive of the land and contributory aspects.

2. The sub-committees firm up their recommendations by May 30, 1969,
3. This ad hoc committee having met and made recommendations be disbanded.

The sub-committee (No. 1) concerned with positive discharges and quality and quantity of waters contributory to the lakes system met at Oliver, B.C. on June 3, 1969, to establish a water quality sampling and hydrometric program on the Okanagan River and tributary streams flowing into the Okanagan Lakes and River system and water quality sampling of positive discharges.

Thirty-four sampling stations were selected on the Okanagan River and tributary streams flowing into the Okanagan Lakes and River for water quality and hydrometric measurements.

The agencies made responsible for establishing and operating the program were:

Water quality - Water Quality Division, EMR.

Water quantity - Water Survey of Canada, EMR.

Direct discharges - B.C. Pollution Control Branch.

The Canada-British Columbia Okanagan Basin Agreement was signed on October 29, 1969.

ACKNOWLEDGEMENTS

Special acknowledgement is given for the laboratory assistance provided by the Public Health Engineering Division, Pacific Region, during the first month of the Water Quality stream program and for providing a summer student for the field sampling program during the 1969 summer months.

Special thanks are due to Mr. E. Lawrence and Mr. Caesar Turri of the City of Kelowna, Engineering Department, for their assistance and interest in establishing the laboratory at the Kelowna Pollution Control Centre.

INTRODUCTION

Sampling of the Okanagan River at Oliver, B.C. for water quality has been carried out on a monthly basis since early in 1967 under the International Hydro logical Decade Program.

Sampling of the Okanagan River and tributary streams contributing to the Okanagan Lakes and River for water quality began in early June, 1969 under an ad hoc arrangement and continued under this arrangement until the signing of the Canada-B.C. Okanagan Agreement in late 1969. Sampling continued under the agreement until October 31, 1971.

In order to carry out this program effectively the Water Quality Division established a field laboratory in Kelowna at the Kelowna Pollution Center in 1969 staffed with a chemist and a chemical technician to collect samples and conduct on-site and laboratory field analysis.

During the sampling period the frequency of sampling and the number of sampling locations were varied to best fit the requirements for the study. The sampling locations with frequency of sampling are outlined in the report.

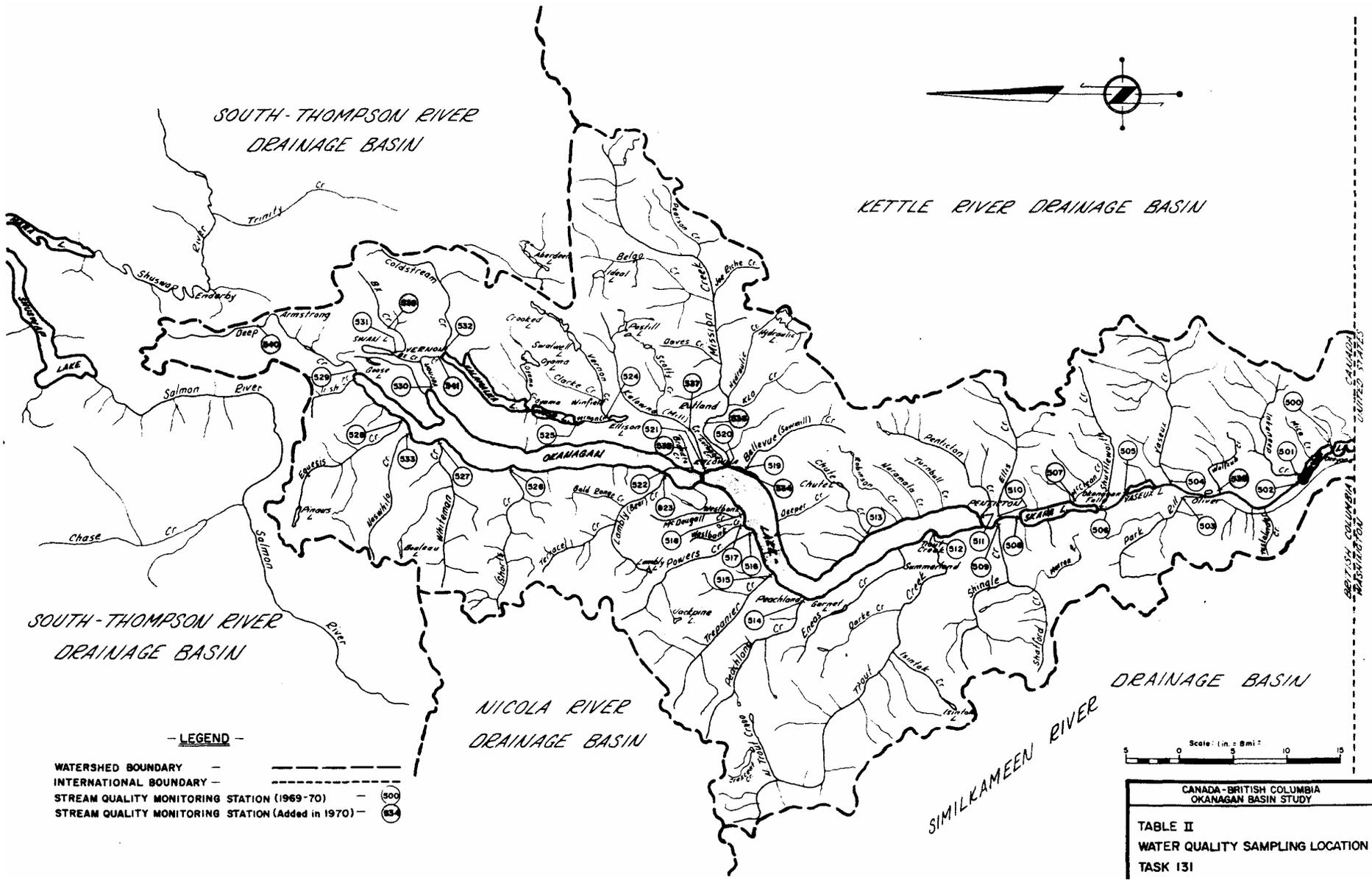
The analyses of the samples were conducted at the Kelowna Field Laboratory and at the Water Quality Division's Western Region Laboratory in Calgary. The results of all analyses were submitted to the Study Director's Office in Penticton, B.C. to be computerized.

This report details the sampling program including sampling locations and frequency of sampling, field activities, field laboratory activities, methods of analysis, and distribution of data.

SAMPLING LOCATIONS AND PROGRAMS

The descriptions of locations, their Universal Transverse Mercator (U.T.M.) co-ordinates and the frequency of sampling for various types of analyses are contained in Table I.

Sampling stations are illustrated as to graphical locations in Table II.



SOUTH-THOMPSON RIVER
DRAINAGE BASIN

KETTLE RIVER DRAINAGE BASIN

SOUTH-THOMPSON RIVER
DRAINAGE BASIN

NICOLA RIVER
DRAINAGE BASIN

DRAINAGE BASIN

SIMILKAMEEN RIVER

LEGEND

- WATERSHED BOUNDARY - - - - -
- INTERNATIONAL BOUNDARY - - - - -
- STREAM QUALITY MONITORING STATION (1969-70) - (500)
- STREAM QUALITY MONITORING STATION (Added in 1970) - (534)

Scale: 1 in. = 8 mi. 0 5 10 15

CANADA-BRITISH COLUMBIA
OKANAGAN BASIN STUDY

TABLE II
WATER QUALITY SAMPLING LOCATION
TASK 131

DESCRIPTION OF FIELD ACTIVITIES

(a) On Site

(i) Methods of sampling:

A metal sampler and bottle was used to collect the samples wherever applicable.

This method of sampling is widely recognized as the best available for obtaining an integrated sample of water.

The sample was taken by dropping the opened bottle, affixed to the metal sampler, into the water and as it filled it was allowed to sink to the bottom of the stream, lake, etc. When the bottom was reached the sampler was pulled to the surface. If the bottle was not filled the procedure was repeated until sufficient sample was collected. This procedure assures that portions of water at all depths were obtained.

It should also be noted that sampling bottles, as received by the sampling crew, were pre-cleaned in the Calgary laboratory and ready for field use.

Because the elements to be analysed are present in minute quantities in water, extreme care was taken not to contaminate the neck of the bottle and cap while sampling. The bottles and caps were rinsed three times before filling with the sample. The cap with a polyethylene seal was then secured tightly to prevent leakage during shipping. Also, the bottle was filled to the neck only, leaving room for expansion.

When smaller samples were required, the smaller bottles were filled from the sample bottle in the metal sampler immediately upon collection of the sample.

Sampling from shore or by wading and sampling directly into the sampling bottle was practiced only where necessary.

Sampling from shore is not altogether satisfactory because of shore contamination, still water, etc. However, due to the small size of certain streams in this program this technique was unavoidable.

When using this method, after rinsing as described in the previous method, the bottle was held below the surface until filled. It was then drained to within two inches of the top and capped. In addition, it was deemed preferable to remove the plastic cap under the water to prevent surface scum, dirt, or dust from entering the bottle.

Samples in all cases were obtained from the fastest flowing portion of the stream.

(ii) Identification of sample:

The identification of the samples was most important. The information required for each sample follows:

- (1) Location or source: identifies sample site and station number.
- (2) Date: time, day, month, and year sample taken.
- (3) Bottle number: correlate sample to rest of identification.

Bottle numbers are placed on the bottles with water-proof ink. Use of tags or writing on bottles was avoided because of possible loss, smudging of ink, etc.

- (4) Water temperature: at time of sampling.
- (5) Water level: gauge reading was done at each station excepting those having continuous gauges.

Wherever gauges (Water Survey of Canada's) were not available a rough estimate of flow was made.

- (6) Collector: signature of collector.

(iii) On site analyses:

At each location the following analyses were performed immediately upon taking the sample:

- (a) Temperature.
- (b) pH - battery operated meter.
- (c) Conductance - battery operated meter.
- (d) Dissolved oxygen - the sample for D.O. determination was prepared at time of sampling by carefully pouring a portion of sample into a standard size 300 ml B.O.D. bottle ensuring that no air bubbles were introduced.

The regular procedure for the addition of manganese sulfate and alkali-azide mixture was followed. The sample was then left in this condition and the test completed for dissolved oxygen in the Kelowna Laboratory.

(b) Kelowna Laboratory

(i) General information:

The Kelowna laboratory began operation in early May, 1969, housed in a well equipped but rather small 14 foot trailer.

Space for the trailer laboratory was provided by the City of Kelowna in an area immediately east of the present Kelowna Pollution Control Centre.

Because of the efficient and generous assistance given by City of Kelowna personnel the laboratory was put into operation within one day of arriving in Kelowna.

Testing was carried out in the trailer until February, 1970 at which time the laboratory was moved into the new Pollution Control Centre.

(ii) Type of analyses:

On returning to the laboratory in Kelowna after the sampling run, the following analyses were performed: pH, temperature, conductivity, turbidity, completion of the dissolved oxygen test, and biochemical oxygen demand. The methods of analyses used are identical to those employed in the Calgary laboratory which are explained later in this report.

(iii) Preparation of samples for the Calgary laboratory:

In addition to the above tests a portion of the sample was prepared (when full analysis were required) for heavy metal analysis. Approximately 1000 milliliters of sample was passed through a nitric acid pre-washed 0.45 micron cellulose acetate filter. The sample was then acidified by adding 2 mls of concentrated nitric acid per litre of sample. This sample, then, was forwarded to Calgary for analysis.

(iv) Shipment of samples:

Sampling schedules were arranged so that samples could be delivered to the Calgary laboratory within 24 hours of sampling. Kelowna was the distribution centre and Greyhound Bus Lines were used exclusively. Daily service leaving at 8:00 p.m. was available with the samples arriving at the Calgary Terminal at 6:00 a.m. the next morning. Messenger service than delivered the samples at 8:00 a.m. to the Calgary laboratory.

Containers used were one liter polyethylene bottles. These bottles had hard plastic tops containing a specially designed polyethylene liner. Using this type of bottle and top ensured negligible contamination.

The samples, immediately after being taken, were placed into Coleman-type coolers holding 8 separate bottles. Each morning, before beginning the day's sampling run, two frozen ice packs were placed between the bottles in the cooler. Upon returning to the Kelowna laboratory, the ice packs in the coolers were replaced with fresh frozen ice packs prior to shipping to Calgary. In this way the samples were kept cool all day and during shipment to Calgary. Experience showed that the ice packs never completely thawed before reaching the Kelowna laboratory or the Calgary laboratory.

In addition to the spring handles used for sealing the coolers, a nylon strap was used to ensure the lid stayed firmly on the cooler during shipment.

METHODS OF ANALYSES

CALGARY WEST WATER QUALITY LABORATORY

Table III describes the methods of analyses used in this program.

The methods employed in the field, Kelowna laboratory, and in the Calgary laboratory were identical.

Table IV describes the minimum detectable concentration for each parameter and the limits of accuracy in each case.

DISTRIBUTION OF DATA

A weekly summary of generated data was forwarded to the following:

Study Director,
Canada-B.C. Okanagan Basin Agreement,
P. O. Box 458,
Penticton, B. C.

Director,
B.C. Pollution Control Branch,
Parliament Buildings,
Victoria, B. C.

Water Quality Division,
Inland Waters Branch,
No. 8 Temporary Building,
Ottawa, Ontario.

Chief Chemist,
Chemistry Laboratory,
Water Resources Service, 3650
Westbrook Crescent,
Vancouver 8, B. C.

Water Quality Field Laboratory,
P. O. Box 352,
Kelowna, B. C.

TASK 131 - OKANAGAN STREAM SAMPLING PROGRAM

TABLE I

Stn. No. BC 4-	Station Name	Station Location	U. T. M. Co-ordinates	1969-70 Program (May 1969 - July 1970)		1970-71 Program (July 1970 - July 1/71)		1971-72 Program (July 1/71 - Oct. 31/71)	
				Pollution Analyses	Total Analyses	Pollution Analyses	Total Analyses	Pollution Analyses	Total Analyses
500	Okanagan River	Causeway at Osoyoos	IIU LE 20253330	1 per week	1 per month	2 per month	4 per year*	2 per month	4 per year
501	Inkaneep Creek	3200' above mouth	IIU LE 17403893	1 per week	1 per month	-	4 per year	-	4 per year
502	Okanagan River	1.2 miles above inlet to Osoyoos Lake	IIU LE 15004025	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
503	Park Rill Creek	At highway culvert	IIU LE 14305585	1 per week	1 per month	2 per month	4 per year	completed	
504	Vaseaux Creek	At highway bridge	IIU LE 16355762	1 per week	1 per month	2 per month	4 per year	completed	
505	Okanagan River	Dam & footbridge 2 1/2 KM above Vaseaux Lake	IIU LE 13406648	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
506	Shuttleworth Creek	At highway bridge	IIU LE 13286842	1 per week	1 per month	-	4 per year	completed	
507	McLean Creek	Exit from culvert crossing Skaha Estates road	IIU LE 14007270	1 per week	1 per month	-	4 per year	completed	
508	Okanagan River	Highway bridge at entrance to Skaha Lake	IIU LE 11828087	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
509	Shingle Creek	At C.P. Railway bridge	IIU LE 11338387	1 per week	1 per month	1 per month	4 per year	completed	
510	Ellis Creek	At mouth	IIU LE 12368376	1 per week	1 per month	2 per month	4 per year	completed	
511	Penticton Creek	175 meters south of mouth	IIU LE 12508624	1 per week	1 per month	1 per month	4 per year	1 per month	4 per year
512	Trout Creek	At Water Survey of Canada gavage at experimental farm	IIU LE 10019363	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
513	Chute Creek	At mouth	IIU LF 10420303	1 per week	1 per month	-	4 per year	completed	
514	Peachland Creek	150 meters from mouth	IIU LF 00911340	1 per week	1 per month	2 per month	4 per year	completed	

Stn. No. BC 4-	Station Name	Station Location	U. T. M. Co-ordinates	1969-70 Program		1970-71 Program		1971-72 Program	
				Pollution Analyses	Total Analyses	Pollution Analyses	Total Analyses	Pollution Analyses	Total Analyses
515	Trepanier Creek	At mouth	IIU LF 04781780	1 per week	1 per month	1 per month	4 per year	completed	
516	Powers Creek	500 meters from mouth at Water Survey of Canada gauge	IIU LF 10832110	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
517	Smith Creek (or Westbank Creek)	At mouth	IIU LF 11762209	1 per week	1 per month	2 per month	4 per year	completed	
518	McDougall Creek	Bridge crossing main road 650 meters from mouth	IIU LF 13552250	1 per week	1 per month	2 per month	4 per year	completed	
519	Bellevue Creek	Bridge on Lakeshore road 700 meters from mouth	IIU LF 20652113	1 per week	1 per month	1 per month	4 per year	completed	
520	Mission Creek	Bridge on Lakeshore Rd.	IIU LF 21182394	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
521	Kelowna Creek	Bridge on Abbot Street	IIU LF 20502840	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
522	Brandt Creek	On Guy Street, Kelowna, near mouth	IIU LF 20652977	1 per week	1 per month	1 per week	4 per year	4 per month	4 per year
523	Lambly Creek	Bridge on West Side Rd.	IIU LF 19783340	1 per week	1 per month	2 per month	4 per year	completed	
524	Vernon Creek	500 meters upstream from mouth near Hiram Walker's cooling water discharge	IIU LF 29004185	1 per week	1 per month	2 per month	4 per year	2 per year	4 per year
525	Vernon Creek	South side of culvert at P. Peter's residence on main road at Water Survey of Canada's gauge	IIU LF 27814668	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
526	Shorts Creek	200' upstream from mouth	IIU LF 21235657	1 per week	1 per month	-	4 per year	completed	
527	Whiteman Creek	Bridge on west side Rd.	IIU LF 25116700	1 per week	1 per month	2 per month	4 per year	completed	

Str. No.	Station Name	Station Location	U. T. M. Co-ordinates	1969-70 Program		1970-71 Program		1971-72 Program	
				Pollution Analyses	Total Analyses	Pollution Analyses	Total Analyses	Pollution Analyses	Total Analyses
528	Equesis Creek	Bridge on west side Rd	IIU LF 28177328	1 per week	1 per month	-	4 per year	completed	
529	Deep Creek	Road bridge on Indian Reserve off west side Rd	IIU LF 36767954	1 per week	1 per month	1 per week	4 per year	4 per month	4 per year
530	Vernon Creek	At inlet to Okanagan Lake	IIU LF 32986831	1 per week	1 per month	1 per week	4 per year	4 per month	4 per year
531	Bx Creek	Bridge at highway 97	IIU LF 39556580	1 per week	1 per month	2 per month	4 per year	2 per month	4 per year
533	Nashito Creek	Bridge on west side Rd	IIU LF 26857250	1 per week	1 per month	-	4 per year	completed	
534	Garbage Creek	At Okanagan Lake	IIU LF 21232445	not sampled		2 per month	4 per year	completed	
535	Unknown Creek	Bridge east of Oliver	IIU LE 14685000	not sampled		2 per month	4 per year	2 per month	4 per year
536	Mission Creek	At Water Survey of Canada gauging station	IIU LF 27002743	not sampled		1 per month	4 per year	1 per month	4 per year
537	Kelowna Creek	At highway 97 bridge	IIU LF 28753292	not sampled		1 per month	4 per year	1 per month	4 per year
538	Brandt Creek	At Golfview Road	IIU LF 24253050	not sampled		2 per month	4 per year	2 per month	4 per year
539	Bx Creek	Upstream on Silver Star Road	IIU LF 42117310	not sampled		1 per month	4 per year	1 per month	4 per year
540	Deep Creek	At Young Road	IIU LF 45429208	not sampled		2 per month	4 per year	2 per month	4 per year
541	Vernon Creek	Exit from Kalamalka Lake	IIU LF 38476745	not sampled		2 per month	4 per year	2 per month	4 per year

**The 4 times per year sampling for Total Analyses took place in the following four quarters of the year:*

1st Quarter - 1st - 2nd week in February.

2nd Quarter - May or June, depending on when spring run-off is peaking.

3rd Quarter - 1st - 2nd week in August.

4th Quarter - 1st - 2nd week in November (after leaf fall has occurred).

Pollution Analyses consisted of: Nitrates, Ortho-Phosphates, Total Phosphates, Total Organic and Inorganic Carbon, Total Kjeldahl nitrogen.

Total Analyses consisted of: pH, Temperature, Alkalinity, Conductivity, Color, Turbidity, Suspended Matter, Calcium, Magnesium, Total Hardness, Sodium, Potassium, Silica, Chlorides, Iron, Manganese, Sulphates, Fluorides, Nitrates, Ortho-Phosphates, Total Phosphates, Copper, Lead, Zinc, Mercury, Total Organic and Inorganic Carbon, Total Kjeldahl Nitrogen.

TABLE III

*Methods of Analyses for Okanagan Stream Sampling Program,
Task 131, as used in the
Water Quality Laboratory at Calgary, Alberta*

NOTE: All values expressed as mg/l unless otherwise stated.

<i>Conductivity</i>	- Measurement made using a platinum electrode type conductivity meter. Values corrected to 25° centigrade and expressed as $\mu\text{mho/cm}$. (1)*
<i>Turbidity</i>	- Measurement made with Hach model 2100 turbidimeter. Measurements are based on the amount of light reflected by particles. Results are expressed in Jackson turbidity units. (2)
<i>Temperature</i>	- Measurements made with mercury-filled thermometer (-10 to 50° centigrade range - 300 mm length thermometer). Results expressed in degrees centigrade. (1)
<i>pH</i>	- Electrometric method using pH meter equipped with glass and saturated calomel electrodes. Results expressed in pH units. (1)
<i>Alkalinity (Total)</i>	- Potentiometric titration with standard acid solution. Alkalinity expressed as CaCO_3 . (1)
<i>Calcium (Dissolved)</i>	- Titration with ethylenediamine-tetraacetic acid (E.D.T.A.) and eriochrome blue as indicator. (2) (Treatment of sample for dissolved analysis follows these descriptions).
<i>Magnesium (Dissolved)</i>	- Calculated from the values of Total Hardness and dissolved calcium. $\text{mg} = (\text{Total Hardness}) \times 0.01998 - \text{Calcium} \times 0.0499) \times 12.16$ (2)
<i>Hardness (Total)</i>	- Titration with E.D.T.A. using eriochrome Black T as indicator. Values expressed as CaCO_3 . (1)
<i>Sodium (Dissolved)</i>	- Flame photometry by internal-standard measurement on auto analyser. (2)

*Numbers -in parenthesis refer to references as indicated.

- Potassium (Dissolved)* - Flame photometry by internal standard measurement on auto analyser. (2)
- Iron (Total)* - Colourimetric on auto analyser with tripyridyl-s-triazine. (2)
(Treatment of sample for total analysis follows these descriptions).
- Iron (Dissolved)* - Colourimetric on auto analyser with tripyridyl-s-triazine. (2)
- Manganese (Total)* - Atomic absorption determination by direct aspiration. (2)
- Manganese (Dissolved)* - Atomic absorption determination by direct aspiration. (2)
- Copper (Dissolved)* - Determination by atomic absorption after solvent extraction. (2)
- Silica* - Colorimetric heteropoly blue method on auto analyser with ammonium molybdate and aminonaphtholsulfonic acid. (2)
Results expressed as SiO₂.
- Nitrate - Nitrogen (Dissolved)* - Colourimetric on auto analyser. Nitrate is reduced by cadmium and the resulting nitrite is determined by diazotizing with sulphanilamide and naphthylamine dihydrochloride. Thus both nitrate and nitrite are determined. (2)
- Total Kjeldahl Nitrogen* - Organic nitrogen is converted to an ammonium salt by digestion with sulphuric acid. Ammonia is then distilled from an alkaline medium and absorbed in boric acid. The ammonia is determined by titration with standard acid. This test includes the organically bound nitrogen and ammonia sample. The test is performed on a shaken sample. (1)
- Chloride (Dissolved)* - Colourimetric on auto analyser with ferric ammonium sulphate and mercuric thiocyanate. (2)
- Phosphate (Ortho (Dissolved))* - Colourimetric on autoanalyser with ammonium molybdate and stannous chloride. (2)
- Sulphate (Dissolved)* - Sample is passed through a strong cation exchange resin (Amberlite IR-120 or equivalent). Sulphate is titrated in an alcoholic solution under controlled acid conditions with a standard barium chloride solution using thorin as the indicator. (2)

- Phosphate (Total)* - Colourimetric on auto analyser with ammonium molybdate and stannous chloride after 30 minutes in an autoclave with sulfuric acid and potassium persulphate. Determination is done on a shaken sample. (2)
- Fluoride (Dissolved)* - Determined with fluoride electrode and total ionic strength adjustment buffer. (2)
- Total Organic Carbon* - Organic material in a blended sample is oxidized and the resulting carbon dioxide is measured by infrared analysis. (2)
- Total Inorganic Carbon* - Sample is passed through a column of quartz chips wetted with 85% H_3PO_4 . Temperature is held at 150°C. A release of carbon dioxide from the inorganic carbonates is measured by infrared analyses. (2)
- Lead (Dissolved)* - Determination by solvent extraction after solvent extraction. (2)
- Zinc (Dissolved)* - Determination by solvent extraction after solvent extraction. (2)
- Mercury (Total)* - Cold flame atomic absorption (automated). Determination done on a shaken sample. (2)
- Mercury (Dissolved)* - Cold flame atomic absorption (automated). (2)
- Residue (Nonfilterable) (105°C)* - Sample is passed through a weighed gooch crucible with a glass fibre filter. The crucible with its contents is oven dried at 103 - 105°C. The increase in weight over that of the gooch crucible and filter represents the nonfilterable residue (suspended matter). (2)
- Residue (Fixed) Non-filterable* - The gooch crucible and glass fibre filter with its retained residue after completion of the test for residue non filterable (105°C) is ignited at 550°C for 1/2 hour. The increase in weight over that of the gooch crucible and filter represents residue fixed non filterable. (2)

Definition of terms-used in methods:

Dissolved - (a) Heavy Metal Analysis.

The sample was filtered the same day as sampling in the Kelowna field laboratory through a 0.45 micron cellulose acetate filter. This filter was prewashed with dilute HNO_3 2 mls concentrated HNO_3 per liter of sample was then added as a preservative.

(b) General Dissolved Analysis (Cl, SO₄, F, etc.).

No field pretreatment. Sample was filtered through a 0.45 micron filter in the Calgary laboratory.

Total - For this program, total analysis was that analysis performed on a shaken sample.

Solvent Extraction- MIBK - APDC extraction as outlined in reference 2, page 54 - 55.

Methods of analyses for Okanagan stream sampling program,

Task 131, as used in the Kelowna field laboratory in Kelowna, B. C.

pH - As described in the Calgary laboratory.

Conductance - As described in the Calgary laboratory.

Temperature - As described in the Calgary laboratory.

Turbidity - As described in the Calgary laboratory.

Dissolved Oxygen - Standard Winkler method with the azide modification. (1)

Biochemical Oxygen - 5 day incubation using the standard Winkler Demand method with the azide modification. (1)

References:

- 1. American Public Health Association, 1965. Standard Methods for the Examination of Water and Wastewater, Twelfth Edition, New York.*
- 2. Water Quality Division, Inland Waters Branch, Department of Fisheries and Forestry, 1971. Methods for Chemical Analysis of Waters and Wastewaters, Ottawa.*

TABLE IV

Minimum detection limits and limits of accuracy of methods used by
the Water Quality Laboratory at Calgary, Alberta for Task 131.

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Limits of Accuracy (coefficient of variation)</u>
Conductivity	0.2 umhos/cm	± 0.5% at 520 umhos/cm
Turbidity	0.1 J.T.U.	± 9.22% at 1 JTU ± 3.96% at 10 JTU ± 1.68% at 40 JTU ± 0.45% at 100 JTU
Temperature	-	± 0.1° C in Calgary Laboratory ± 0.25°C in field
pH	-	0% at pH of 8.8 0% at pH of 4.0
Alkalinity (Total)	0.5 mg/l CaCO ₃	± 1.48% at 33.3 mg/l CaCO ₃
Calcium (Dissolved)	0.05 mg/l Ca	± 2.9% at 13 mg/l Ca ± 0.5% at 45 mg/l Ca
Magnesium (Dissolved)	as above as mg	as above
Hardness (Total)	as above as CaCO ₃	± 0.65% at 52.0 mg/l CaCO ₃
Sodium (Dissolved)	0.1 mg/l Na	± 0.67% at 12 mg/l Na ± 1.29% at 67 mg/l Na
Potassium	0.1 mg/l Fe	± 1.09% at 6.4 mg/l K ± 1.79% at 36 mg/l K
Iron (Total)	0.01 mg/l Fe	± 0.7% at 50 mg/l Fe
Iron (Dissolved)	as above	as above
Manganese (Total)	0.01 mg/l Mn	± 0.01 mg/l at detection limit; unknown at higher quantities
Manganese (Dissolved)	0.01 mg/l Mn	as above
Copper (Dissolved)	0.001 mg/l	± 1.6% at 0.010 mg/l Cu
Silica	0.005 mg/l	± 0.7% at 0.200 mg/l SiO ₂
Nitrate-Nitrogen (Dissolved)	0.01 mg/l as N	± 1.6% at 0.05 mg/l N

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Limits of Accuracy</u>
Total Kjeldahl Nitrogen	0.01 mg/l as N	± 4.58% at 25 mg/l N
Chloride (Dissolved)	0.1 mg/l as Cl	± 0.5% at 20 mg/l Cl
Phosphate (Ortho Dissolved)	0.010 mg/l as PO ₄	± 4.65% at 0.010 mg/l PO ₄ ± 3.98% at 0.025 mg/l PO ₄
Sulphate (Dissolved)	0.2 mg/l as SO ₄	± 3.0% at 25 mg/l SO ₄
Phosphate (Total)	0.010 mg/l as PO ₄	± 7.30% at 0.020 mg/l PO ₄ ± 4.11% at 0.050 mg/l PO ₄
Fluoride (Dissolved)	0.01 mg/l as F	± 0.79% at 0.20 mg/l F ± 0.93% at 1.0 mg/l F
Total Organic Carbon	2 mg/l as C	± 3.08% at 20 mg/l C ± 0.02% at 30 mg/l C
Total Inorganic Carbon	as above	similar to the above
Lead (Dissolved)	0.001 mg/l as Pb	± 2.2% at 0.020 mg/l Pb
Zinc (Dissolved)	0.001 mg/l as Zn	± 1.4% at 0.010 mg/l Zn
Mercury (Total)	0.05 ug/l as Hg	± 5.5% at 0.3 ug/l Hg ± 4.9% at 2.0 ug/l Hg ± 3.3% at 8.0 ug/l Hg
Mercury (Dissolved)	as above	similar to above
Residue (Non-Filterable- 105°C)	1 mg/l	No data available
Residue (Fixed)	1 mg/l	as above
Dissolved Oxygen	0.1 mg/l as D.O.	± 1.8% at 4.1 ug/l D.O.
B.O.D.	0.5 mg/l as oxygen (Not based on actual analyses rather a "rule of thumb")	No data available

NOTE: Coefficient of variation is the ratio of the standard deviation to the arithmetic mean expressed as a percentage.

APPENDIX I

STATISTICAL SUMMARY OF ANALYTICAL RESULTS

ABBREVIATIONS

ALK TOT	-	Alkalinity (Total)
DISS O2	-	Dissolved Oxygen
D.O. SAT	-	Dissolved Oxygen (Saturated)
FX SUS M	-	Fixed Suspended Matter
HARD TOT	-	Hardness (Total)
MAGNES	-	Magnesium (Dissolved)
MANGAN	-	Manganese (Dissolved)
MAX CONC	-	Maximum Concentration
MG/L	-	Milligrams per liter
MIN CONC	-	Minimum Concentration
NO. VAL	-	No. of Values (Samples)
ORTHO P	-	Phosphate (Ortho Dissolved), as P
TOTAL P	-	Phosphate (Total), as P
POTASS	-	Potassium
TEMP	-	Temperature
TIC	-	Total Inorganic Carbon
TOTAL N	-	Total Nitrogen
TOC	-	Total Organic Carbon
TO SUS M	-	Total Suspended Matter
TURBID	-	Turbidity

TASK 131
STREAM WATER QUALITY

STATION: 9500 CK. RIVER: CAUSEWAY AT OSOYOGS

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	10	15.0	5.00	10.0	9.10	8	7.00	0.0	7.00	4.62	4	15.0	5.00	10.0	7.50
TURBID	28	3.50	0.800	2.70	1.78	38	6.20	0.800	5.40	1.75	20	8.50	0.300	8.20	1.45
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
DISS O2	29	11.0	7.90	3.10	9.23	39	14.0	3.20	10.8	10.9	20	13.6	8.10	5.50	10.6
D.O. SAT	29	106.	17.0	89.0	90.4	41	117.	85.0	32.0	102.	20	106.	80.0	26.0	95.7
TEMP	7	24.0	4.40	19.6	15.3	8	31.0	2.40	28.6	17.0	4	24.9	7.80	17.1	17.4
INORGANIC PARAMETERS															
ALK TOT	29	125.	88.3	36.7	106.	41	127.	100.	27.0	117.	20	129.	99.0	30.0	114.
CALCIUM	7	36.2	29.4	6.80	33.2	8	41.2	34.5	6.70	36.8	4	38.2	30.6	7.60	34.4
CHLORIDE	7	1.40	1.10	0.300	1.27	8	1.80	1.20	0.600	1.39	4	1.70	0.700	1.00	1.30
COPPER	7	0.003	0.001	0.002	0.002	8	0.003	0.001	0.002	0.001	4	0.007	0.001	0.006	0.003
FLUORIDE	7	0.250	0.180	0.070	0.214	8	0.230	0.210	0.020	0.222	4	0.230	0.190	0.040	0.202
HARD TOT	7	125.	102.	23.0	116.	8	131.	119.	12.0	125.	4	135.	107.	28.0	124.
IRON	6	0.020	0.010	0.010	0.013	8	0.030	0.010	0.020	0.016	4	0.010	0.010	0.0	0.010
LEAD	7	0.010	0.005	0.005	0.009	8	0.034	0.005	0.029	0.012	4	0.010	0.005	0.005	0.007
MAGNES	7	8.90	6.60	2.30	7.91	8	10.0	3.90	6.10	8.11	1	9.60	9.60	0.0	9.60
MANGAN	7	0.001	0.001	0.0	0.001	8	0.010	0.002	0.008	0.003	4	0.014	0.010	0.004	0.011
NITRATE	29	0.190	0.010	0.180	0.049	41	0.180	0.010	0.170	0.044	20	0.190	0.010	0.180	0.047
TOTAL N	29	0.540	0.170	0.370	0.321	40	0.930	0.130	0.800	0.332	20	1.26	0.010	1.25	0.364
PH	29	8.70	7.00	1.70	7.99	41	9.00	7.60	1.40	8.40	20	8.80	7.80	1.00	8.22
ORTHO P	29	0.033	0.003	0.030	0.008	41	0.023	0.003	0.020	0.007	20	0.023	0.003	0.020	0.007
TOTAL P	29	0.052	0.003	0.049	0.016	41	0.052	0.003	0.049	0.020	20	0.055	0.010	0.045	0.021
POTASS	7	2.40	2.00	0.400	2.21	8	2.60	2.00	0.600	2.22	4	2.50	2.00	0.500	2.30
SILICA	7	5.90	4.30	1.60	4.97	8	6.00	0.010	5.99	2.72	4	10.3	1.20	9.10	5.42
SODIUM	7	10.2	8.20	2.00	9.27	8	10.5	8.70	1.80	9.70	4	10.8	8.90	1.90	9.95
SULPHATE	7	29.1	24.1	5.00	27.0	8	35.9	26.8	9.10	29.3	4	31.6	26.2	5.40	29.2
TIC	0	0.0	0.0	0.0	0.0	16	28.0	20.0	8.00	24.4	16	30.0	7.00	23.0	21.3
ZINC	7	0.006	0.001	0.005	0.002	8	0.010	0.001	0.009	0.004	4	0.029	0.002	0.027	0.009
ORGANIC PARAMETERS															
TOC	29	9.00	2.00	7.00	5.41	41	13.0	2.00	11.0	6.29	19	21.0	4.00	17.0	8.16

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B501 INKANEPP CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	9	60.0	5.00	55.0	26.1	8	55.0	10.0	45.0	20.6	3	75.0	15.0	60.0	35.0
TURBID	28	165.	3.00	162.	52.5	34	61.0	1.80	59.2	8.19	3	92.0	2.30	89.7	34.2
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	5	309.	4.80	304.	86.1	6	21.6	2.00	19.6	12.1	2	197.	29.2	168.	113.
DISS O2	29	13.2	8.00	5.20	10.3	35	14.1	9.00	5.10	11.3	3	12.7	9.30	3.40	10.9
D.O. SAT	29	101.	85.0	16.0	94.7	37	111.	85.0	26.0	99.3	3	95.0	93.0	2.00	94.0
TEMP	7	19.3	1.60	17.7	11.2	8	25.1	0.0	25.1	13.0	3	24.9	7.70	17.2	16.0
INORGANIC PARAMETERS															
ALK TOT	29	382.	98.0	284.	119.	36	126.	29.8	96.2	93.5	3	104.	18.0	86.0	71.0
CALCIUM	7	31.1	26.0	5.10	27.9	8	30.2	11.5	18.7	24.1	3	26.7	5.10	21.6	18.0
CHLORIDE	7	2.80	0.700	2.10	1.30	8	1.50	0.700	0.800	0.912	3	1.20	0.500	0.700	0.833
COPPER	7	0.002	0.0010	0.001	0.002	8	0.005	0.0010	0.004	0.002	3	0.006	0.001	0.005	0.003
FLUORIDE	7	0.440	0.370	0.070	0.406	8	0.490	0.240	0.250	0.369	3	0.370	0.150	0.220	0.287
HARD TOT	7	99.8	89.2	10.6	94.2	8	98.3	37.3	61.0	81.0	3	93.0	19.0	74.0	64.3
IRON	7	0.270	0.060	0.210	0.114	8	0.170	0.070	0.100	0.130	3	0.170	0.060	0.110	0.100
LEAD	7	0.010	0.0050	0.005	0.009	8	0.010	0.0050	0.005	0.009	3	0.010	0.0060	0.004	0.007
MAGNES	7	7.10	5.00	2.10	5.96	8	6.90	2.10	4.80	5.06	1	6.30	5.30	0.0	6.30
MANGAN	7	0.044	0.0010	0.043	0.022	8	0.022	0.007	0.015	0.015	3	0.035	0.010	0.025	0.018
NITRATE	29	0.630	0.010	0.620	0.034	37	0.090	0.010	0.080	0.014	3	0.480	0.010	0.470	0.173
TOTAL N	29	0.940	0.040	0.900	0.270	36	1.00	0.010	0.990	0.245	3	0.480	0.060	0.420	0.320
PH	29	8.50	6.90	1.60	7.93	37	9.00	7.30	1.70	8.08	3	8.10	6.80	1.30	7.63
ORTHO P	29	0.072	0.003	0.069	0.028	37	0.055	0.007	0.048	0.031	3	0.055	0.020	0.035	0.034
TOTAL P	29	0.359	0.007	0.352	0.103	37	0.245	0.020	0.225	0.059	3	0.295	0.036	0.259	0.129
POTASS	7	3.10	2.30	0.800	2.67	8	2.60	1.40	1.20	2.21	3	2.50	1.10	1.40	2.00
SILICA	7	31.0	17.5	13.5	25.7	8	28.6	20.2	8.40	25.2	3	29.4	24.7	4.70	27.2
SODIUM	7	10.5	8.20	2.30	9.34	8	9.90	5.40	4.50	8.61	3	9.20	3.40	5.80	7.27
SULPHATE	7	7.70	4.30	3.40	6.49	8	7.90	3.30	4.60	6.12	3	7.90	0.800	7.10	5.30
TIC	0	0.0	0.0	0.0	0.0	11	31.0	18.0	13.0	24.6	0	0.0	0.0	0.0	0.0
ZINC	7	0.005	0.0010	0.004	0.003	8	0.008	0.0010	0.007	0.003	3	0.002	0.0010	0.001	0.001
ORGANIC PARAMETERS															
TOC	29	11.0	2.00	9.00	5.41	37	12.0	2.00	10.0	6.81	3	15.0	5.00	10.0	9.67

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B502 CK. RIVER: 1.2 MILES UPSTREAM OSOYDUS LK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	10	10.0	5.00	5.00	6.00	8	5.00	0.0	5.00	4.37	4	35.0	0.0	35.0	12.2
TURBID	23	5.90	1.00	4.90	2.50	38	5.40	0.800	4.60	2.29	20	9.40	0.600	8.80	2.00
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TG SUS M	2	3.40	1.00	2.40	2.20	3	8.00	0.800	7.20	5.33	1	14.8	14.8	0.0	14.8
DISS O2	29	13.1	8.40	4.70	10.3	39	14.3	8.70	5.60	11.3	20	13.0	8.20	4.80	10.6
D.O. SAT	29	107.	93.0	14.0	100.	41	111.	89.0	22.0	103.	19	101.	78.0	23.0	93.6
TEMP	7	21.7	2.70	19.0	13.9	8	31.5	1.60	29.9	17.2	4	25.0	7.20	17.8	16.3
INORGANIC PARAMETERS															
ALK TOT	29	129.	87.0	42.0	110.	41	317.	63.7	253.	122.	20	147.	74.0	73.0	116.
CALCIUM	7	37.5	32.6	4.90	35.0	8	40.8	35.2	5.60	37.6	4	45.8	29.2	16.6	36.0
CHLORIDE	7	1.40	1.10	0.300	1.30	8	1.80	1.20	0.600	1.40	4	2.20	1.20	1.00	1.62
COPPER	7	0.003	0.001	0.002	0.002	8	0.002	0.001	0.001	0.001	4	0.009	0.001	0.008	0.004
FLUORIDE	7	0.240	0.200	0.040	0.217	8	0.280	0.200	0.080	0.237	4	0.270	0.160	0.110	0.212
HARD TOT	7	130.	114.	16.0	121.	8	143.	118.	25.0	128.	4	166.	91.0	75.0	126.
IRON	7	0.110	0.010	0.100	0.034	8	0.030	0.010	0.020	0.021	4	0.090	0.010	0.080	0.045
LEAD	7	0.010	0.005	0.005	0.009	8	0.027	0.005	0.022	0.011	4	0.010	0.005	0.005	0.007
MAGNES	7	8.80	7.00	1.80	8.17	7	10.0	7.60	2.40	8.60	1	12.6	12.6	0.0	12.6
MANGAN	7	0.006	0.001	0.005	0.004	8	0.044	0.003	0.041	0.014	4	0.050	0.010	0.040	0.022
NITRATE	29	0.120	0.010	0.110	0.040	41	0.190	0.010	0.180	0.065	20	1.15	0.010	1.14	0.151
TOTAL N	29	0.430	0.070	0.360	0.275	40	2.38	0.030	2.35	0.391	20	1.40	0.040	1.36	0.442
PH	29	8.50	7.20	1.30	8.03	41	8.40	7.80	0.600	8.20	20	8.30	7.70	0.600	8.07
ORTHO P	29	0.016	0.003	0.013	0.005	41	0.052	0.003	0.049	0.009	20	0.030	0.003	0.027	0.007
TOTAL P	29	0.390	0.003	0.387	0.030	41	0.157	0.007	0.150	0.029	20	0.130	0.013	0.117	0.030
POTASS	7	2.50	2.00	0.500	2.27	8	2.90	2.00	0.900	2.32	4	2.80	1.70	1.10	2.32
SILICA	7	4.90	4.10	0.800	4.54	8	6.10	1.10	5.00	3.94	4	9.50	4.80	4.70	6.90
SODIUM	7	10.6	8.20	2.40	9.57	8	10.9	9.40	1.50	9.89	4	11.9	7.20	4.70	9.75
SULPHATE	7	31.3	26.3	5.00	29.0	8	35.9	27.1	8.80	31.1	4	43.1	21.9	21.2	31.5
TIC	0	0.0	0.0	0.0	0.0	16	30.0	18.0	12.0	25.4	16	32.0	15.0	17.0	22.9
ZINC	7	0.003	0.001	0.002	0.002	8	0.007	0.001	0.006	0.002	4	0.004	0.001	0.003	0.003
ORGANIC PARAMETERS															
TOC	29	30.0	2.00	28.0	6.10	41	49.0	2.00	47.0	6.78	19	10.0	2.00	8.00	7.00

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B503 PARK RILL CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	2	7.00	5.00	2.00	6.00	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TURBID	5	4.50	1.00	3.50	2.68	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	1	2.40	2.40	0.0	2.40	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
DISS O2	5	8.80	0.05	8.80	6.48	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
D.O. SAT	5	92.0	9.009	83.0	72.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TEMP	1	16.5	16.5	0.0	16.5	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
INORGANIC PARAMETERS															
ALK TOT	5	101.	97.0	4.00	99.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
CALCIUM	1	31.6	31.6	0.0	31.6	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
CHLORIDE	1	1.40	1.40	0.0	1.40	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
COPPER	1	0.001L	0.001L	0.0	0.001	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
FLUORIDE	1	0.230	0.230	0.0	0.230	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
HARD TOT	1	111.	111.	0.0	111.	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
IRON	1	0.020	0.020	0.0	0.020	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
LEAD	1	0.010L	0.010L	0.0	0.010	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
MAGNES	1	7.80	7.80	0.0	7.80	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
MANGAN	1	0.002	0.002	0.0	0.002	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
NITRATE	5	0.010	0.010L	0.0	0.010	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TOTAL N	5	0.400	0.210	0.190	0.310	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
PH	5	8.50	7.60	0.900	8.14	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
ORTHO P	5	0.046	0.0L	0.046	0.011	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TOTAL P	5	0.046	0.007	0.039	0.026	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
POTASS	1	2.10	2.10	0.0	2.10	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
SILICA	1	1.60	1.60	0.0	1.60	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
SODIUM	1	9.20	9.20	0.0	9.20	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
SULPHATE	1	28.2	28.2	0.0	28.2	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TIC	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
ZINC	1	0.003	0.003	0.0	0.003	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
ORGANIC PARAMETERS															
TOC	5	6.00	0.00	6.00	4.20	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B504 VASFAUX CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	7	40.0	10.0	30.0	25.0	3	40.0	5.00	35.0	25.0	2	65.0	25.0	40.0	45.0
TURBID	13	5.50	0.400	5.10	2.35	10	11.0	0.200	10.8	2.99	7	8.70	0.400	8.30	2.73
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	1	0.500L	0.500L	0.0	0.500	1	2.40	2.40	0.0	2.40	1	17.2	17.2	0.0	17.2
DISS O2	14	13.7	8.10	5.60	11.0	9	14.0	9.80	4.20	11.8	7	11.7	9.30	2.40	10.7
D.O. SAT	14	114.	87.0	27.0	98.4	10	101.	96.0	5.00	97.4	7	111.	95.0	16.0	98.9
TEMP	4	21.5	3.30	18.2	12.0	3	25.1	0.0	25.1	8.37	2	17.8	6.00	11.8	11.9
INORGANIC PARAMETERS															
ALK TOT	14	74.0	15.7	58.3	45.3	10	89.0	13.6	75.4	39.2	7	46.0	12.0	34.0	23.6
CALCIUM	4	17.2	6.60	10.6	11.9	3	19.0	7.30	11.7	11.6	2	9.80	4.40	5.40	7.10
CHLORIDE	4	0.600	0.300	0.300	0.400	3	0.600	0.400	0.200	0.467	2	0.600	0.400	0.200	0.500
COPPER	4	0.002L	0.001L	0.001	0.001	3	0.001	0.001	0.0	0.001	2	0.006	0.002	0.004	0.004
FLUORIDE	4	0.350	0.150	0.200	0.252	3	0.340	0.210	0.130	0.257	2	0.200	0.130	0.070	0.155
HARD TOT	4	61.3	21.7	39.6	43.6	3	68.8	22.4	46.4	39.7	2	35.0	16.0	19.0	25.5
IRON	4	0.050	0.020	0.030	0.032	3	0.070	0.010	0.060	0.043	2	0.130	0.030	0.100	0.080
LEAD	4	0.010L	0.005L	0.005	0.007	3	0.010L	0.005L	0.005	0.008	2	0.006L	0.006L	0.0	0.006
MAGNES	4	4.50	1.30	3.20	3.40	3	5.20	1.00	4.20	2.60	0	0.0	0.0	0.0	0.0
MANGAN	4	0.001	0.001L	0.0	0.001	3	0.004	0.002	0.002	0.003	2	0.010L	0.010L	0.0	0.010
NITRATE	14	0.040	0.010L	0.030	0.013	10	0.020	0.010L	0.010	0.011	7	0.010	0.010L	0.0	0.010
TOTAL N	13	0.340	0.040	0.300	0.147	10	0.320	0.050	0.270	0.149	7	1.06	0.010L	1.05	0.317
PH	14	8.20	7.40	0.800	7.75	10	8.20	7.30	0.900	7.68	7	7.80	6.60	1.20	7.29
ORTHO P	14	0.007	0.003L	0.004	0.003	10	0.010	0.003L	0.007	0.006	7	0.010	0.003	0.007	0.005
TOTAL P	14	0.029	0.003L	0.026	0.009	10	0.039	0.007	0.032	0.016	7	0.039	0.007	0.032	0.019
POTASS	4	1.20	0.800	0.400	0.950	3	1.10	0.800	0.300	0.933	2	0.900	0.600	0.300	0.750
SILICA	4	17.5	14.5	3.00	15.9	3	18.1	15.3	2.80	16.7	2	18.7	17.5	1.20	18.1
SODIUM	4	4.80	2.30	2.50	3.65	3	5.50	2.50	3.00	3.67	2	3.20	1.80	1.40	2.50
SULPHATE	4	6.70	1.10	5.60	4.20	3	8.20	2.40	5.80	4.80	2	4.50	2.60	1.90	3.55
TIC	0	0.0	0.0	0.0	0.0	2	19.0	5.00	14.0	12.0	5	6.00	2.00	4.00	3.60
ZINC	4	0.008	0.001	0.007	0.003	3	0.008	0.001L	0.007	0.003	2	0.002	0.001	0.001	0.001
ORGANIC PARAMETERS															
TOC	14	19.0	2.00	17.0	7.36	10	13.0	3.00	10.0	8.00	7	14.0	8.00	6.00	10.6

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B505 CK. RIVER 1.5 MILES UPSTREAM VASEAUX LK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	10	10.0	5.00	5.00	7.20	8	5.00	0.0	5.00	3.12	4	7.00	0.0	7.00	4.25
TURBID	28	25.0	0.800	24.2	2.87	38	19.0	0.300	18.7	2.13	20	4.80	0.300	4.50	1.67
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	1	12.0	12.0	0.0	12.0	2	9.60	5.60	4.00	7.60	2	8.80	2.00	6.80	5.40
DISS O2	29	12.9	9.00	3.90	10.7	39	14.9	8.90	6.00	12.2	20	13.9	8.50	5.40	11.3
D.O. SAT	29	125.	95.0	30.0	107.	41	137.	99.0	38.0	112.	20	112.	85.0	27.0	98.9
TEMP	7	22.7	2.70	20.0	14.7	8	25.1	0.0	25.1	13.0	4	25.0	6.00	19.0	16.1
INORGANIC PARAMETERS															
ALK TOT	29	128.	93.5	34.5	105.	41	119.	35.5	83.5	109.	20	118.	101.	17.0	108.
CALCIUM	7	34.7	28.1	6.60	32.5	8	34.9	33.8	1.10	34.3	4	34.2	30.6	3.60	32.5
CHLORIDE	7	1.30	1.00	0.300	1.16	8	1.60	1.10	0.500	1.29	4	1.60	0.700	0.900	1.22
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.006	0.001L	0.005	0.002	4	0.003	0.001L	0.002	0.002
FLUORIDE	7	0.220	0.170	0.050	0.196	8	0.240	0.190	0.050	0.207	4	0.210	0.170	0.040	0.182
HARD TOT	7	118.	110.	8.00	115.	8	122.	115.	7.00	118.	4	122.	110.	12.0	117.
IRON	7	0.060	0.010L	0.050	0.021	8	0.030	0.010	0.020	0.016	4	0.020	0.010L	0.010	0.012
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.010L	0.005L	0.005	0.007
MAGNES	7	10.6	7.10	3.50	8.11	8	9.00	7.30	1.70	7.92	1	8.90	8.90	0.0	8.90
MANGAN	7	0.002	0.001L	0.001	0.002	8	0.010L	0.002	0.008	0.005	4	0.028	0.010L	0.018	0.015
NITRATE	29	0.140	0.010L	0.130	0.032	41	0.560	0.010L	0.550	0.045	20	0.090	0.010L	0.080	0.021
TOTAL N	28	1.15	0.130	1.02	0.354	39	0.640	0.003L	0.637	0.293	20	1.48	0.010L	1.47	0.361
PH	29	9.00	7.50	1.50	8.34	41	8.90	5.50	3.40	8.52	20	8.80	8.00	0.800	8.39
ORTHO P	29	0.029	0.003L	0.026	0.006	41	0.026	0.003L	0.023	0.007	20	0.020	0.003L	0.017	0.007
TOTAL P	29	0.104	0.003	0.101	0.020	41	0.059	0.007	0.052	0.022	20	0.130	0.010	0.120	0.031
POTASS	7	2.20	1.90	0.300	2.10	8	2.30	1.70	0.600	2.05	4	2.30	2.00	0.300	2.12
SILICA	7	9.20	2.80	6.40	4.13	8	4.00	0.100	3.90	1.89	4	5.20	0.800	4.40	2.35
SODIUM	7	10.0	8.60	1.40	9.16	8	9.70	8.40	1.30	9.27	4	10.0	9.40	0.600	9.65
SULPHATE	7	27.6	25.4	2.20	26.6	8	28.4	27.3	1.10	27.7	4	27.8	27.0	0.800	27.4
TIC	0	0.0	0.0	0.0	0.0	16	38.0	18.0	20.0	23.9	16	26.0	18.0	8.00	21.1
ZINC	7	0.004	0.001L	0.003	0.002	8	0.003	0.001	0.002	0.002	4	0.002	0.001L	0.001	0.001
ORGANIC PARAMETERS															
TOC	28	9.00	2.00	7.00	5.32	41	11.0	2.00L	9.00	5.59	20	10.0	2.00	8.00	6.95

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B506 SHUTTLEWORTH CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	10	65.0	0.0	65.0	20.0	8	40.0	0.0	40.0	6.25	3	75.0	10.0	65.0	33.3
TURBID	28	17.0	0.200	16.8	2.95	33	140.	0.200	140.	9.92	3	46.0	1.70	44.3	18.4
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	2	23.0	1.20	21.8	12.1	1	25.2	25.2	0.0	25.2	2	144.	2.40	142.	73.2
DISS O2	28	8.90	4.20	4.70	5.79	34	16.4	4.20	12.2	6.91	3	13.1	10.1	3.00	11.3
D.O. SAT	28	96.0	40.0	56.0	55.8	36	105.	40.0	65.0	62.9	3	109.	93.0	16.0	98.7
TEMP	7	22.7	5.50	17.2	13.0	8	31.5	8.50	23.0	18.8	3	25.0	8.50	16.5	18.0
INORGANIC PARAMETERS															
ALK TOT	29	208.	34.3	174.	166.	36	220.	9.60	210.	172.	3	238.	13.0	225.	108.
CALCIUM	7	66.7	17.0	49.7	50.9	8	68.1	12.7	55.4	57.4	3	79.1	5.20	73.9	35.7
CHLORIDE	7	2.60	0.500	2.10	1.79	8	2.90	0.700	2.20	2.07	3	11.5	0.700	10.8	4.37
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.006	0.001L	0.005	0.002	3	0.003	0.002	0.001	0.002
FLUORIDE	7	0.280	0.220	0.060	0.247	8	0.250	0.200	0.050	0.230	3	0.340	0.120	0.220	0.247
HARD TOT	7	201.	57.6	143.	156.	8	204.	40.5	163.	174.	3	262.	17.0	245.	120.
IRON	7	0.060	0.010	0.050	0.030	8	0.100	0.010L	0.090	0.034	3	0.280	0.060	0.220	0.173
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.009
MAGNES	7	9.10	3.00	6.10	6.90	8	9.00	2.10	6.90	7.36	1	5.50	5.50	0.0	5.50
MANGAN	7	0.010	0.001L	0.009	0.003	8	0.021	0.001L	0.020	0.007	3	0.100	0.010L	0.090	0.040
NITRATE	29	0.840	0.010L	0.830	0.484	36	0.810	0.010L	0.800	0.549	3	1.20	0.010L	1.19	0.453
TOTAL N	28	1.25	0.150	1.10	0.612	35	1.25	0.110	1.14	0.712	3	1.56	0.230	1.33	0.733
PH	29	8.20	7.20	1.00	7.61	35	8.00	7.50	0.500	7.72	3	8.30	6.70	1.60	7.57
ORTHO P	29	0.026	0.003L	0.023	0.004	36	0.036	0.003L	0.033	0.006	3	0.036	0.013	0.023	0.022
TOTAL P	29	0.068	0.003L	0.065	0.012	36	0.424	0.003	0.421	0.037	3	0.254	0.036	0.218	0.114
POTASS	7	2.90	2.00	0.900	2.46	8	2.90	1.40	1.50	2.44	3	5.90	0.900	5.00	2.97
SILICA	7	18.0	15.6	2.40	17.1	8	19.1	16.4	2.70	18.0	3	20.8	15.9	4.90	18.7
SODIUM	7	15.1	4.80	10.3	11.6	8	15.0	3.70	11.3	12.6	3	22.4	2.10	20.3	10.2
SULPHATE	7	34.9	8.50	26.4	26.4	8	35.4	8.10	27.3	29.3	3	54.8	2.90	51.9	25.1
TIC	0	0.0	0.0	0.0	0.0	11	48.0	22.0	26.0	37.8	0	0.0	0.0	0.0	0.0
ZINC	7	0.004	0.001L	0.003	0.002	8	0.005	0.001L	0.004	0.002	3	0.005	0.001L	0.004	0.002
ORGANIC PARAMETERS															
TOC	29	12.0	2.00L	10.0	3.21	36	14.0	2.00L	12.0	5.61	3	16.0	5.00	11.0	10.0

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B507 MC LEAN CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	9	30.0	5.00	25.0	12.7	7	10.0	5.00	5.00	7.14	3	35.0	5.00	30.0	16.7
TURBID	19	17.0	0.400	16.6	3.32	30	9.00	0.500	8.50	2.03	3	3.20	0.900	2.30	1.87
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	2	2.40	1.60	0.800	2.00	1	8.80	8.80	0.0	8.80	1	43.2	43.2	0.0	43.2
DISS O2	20	12.7	7.00	5.70	9.70	28	13.8	8.30	5.50	11.7	3	12.3	9.30	3.00	10.9
D.O. SAT	20	95.0	75.0	20.0	87.2	30	110.	10.05	100.	95.1	3	95.0	90.0	5.00	93.3
TEMP	6	16.7	1.10	15.6	11.7	8	24.4	0.0	24.4	12.5	3	25.0	7.10	17.9	15.8
INORGANIC PARAMETERS															
ALK TOT	20	178.	53.0	125.	126.	30	160.	31.8	128.	136.	3	137.	29.0	108.	99.3
CALCIUM	6	48.6	32.6	16.0	40.7	8	54.9	31.2	23.7	48.3	3	46.9	10.4	36.5	33.7
CHLORIDE	6	1.30	1.10	0.200	1.20	8	1.80	0.700	1.10	1.20	3	1.90	0.800	1.10	1.23
COPPER	6	0.007	0.001L	0.006	0.002	8	0.004	0.001L	0.003	0.002	3	0.002	0.001L	0.001	0.001
FLUORIDE	6	0.230	0.150	0.080	0.205	8	0.260	0.180	0.080	0.219	3	0.210	0.090	0.120	0.170
HARD TOT	6	150.	104.	46.0	136.	8	166.	94.7	71.3	149.	3	154.	31.0	123.	108.
IRON	6	0.090	0.030	0.060	0.065	8	0.060	0.010L	0.050	0.035	3	0.060	0.030	0.030	0.043
LEAD	6	0.010L	0.005L	0.005	0.008	8	0.010L	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.007
MAGNES	6	12.4	5.50	6.90	8.28	8	8.50	4.10	4.40	6.89	1	9.00	9.00	0.0	9.00
MANGAN	6	0.017	0.0	0.017	0.006	8	0.014	0.002	0.012	0.008	3	0.013	0.010L	0.003	0.011
NITRATE	20	0.450	0.010	0.440	0.165	30	0.450	0.010L	0.440	0.180	3	0.680	0.010L	0.670	0.277
TOTAL N	19	0.850	0.130	0.720	0.347	30	1.14	0.010	1.13	0.365	3	0.940	0.270	0.670	0.500
PH	20	8.30	7.50	0.800	7.90	30	8.60	7.00	1.60	8.09	3	8.20	7.30	0.900	7.83
CRTHO P	20	0.029	0.003L	0.026	0.010	30	0.062	0.003L	0.059	0.023	3	0.065	0.016	0.049	0.032
TOTAL P	20	0.088	0.003	0.085	0.027	30	0.091	0.013	0.078	0.039	3	0.075	0.029	0.046	0.049
POTASS	6	2.10	1.60	0.500	1.88	8	2.30	1.10	1.20	1.77	3	3.00	0.700	2.30	1.80
SILICA	6	19.7	17.9	1.80	18.9	8	20.5	17.7	2.80	19.5	3	22.5	18.4	4.10	19.9
SODIUM	6	9.40	6.50	2.90	7.90	8	8.50	5.30	3.20	7.86	3	8.80	2.30	6.50	6.27
SULPHATE	6	25.3	16.7	8.60	23.1	8	27.0	16.9	10.1	24.5	3	30.2	5.80	24.4	18.9
TIC	0	0.0	0.0	0.0	0.0	5	35.0	28.0	7.00	32.2	0	0.0	0.0	0.0	0.0
ZINC	6	0.005	0.001L	0.004	0.002	8	0.005	0.001L	0.004	0.002	3	0.007	0.002	0.005	0.004
ORGANIC PARAMETERS															
TOC	20	39.0	2.00L	37.0	7.10	30	14.0	0.0L	14.0	5.27	3	9.00	5.00	4.00	6.67

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B508 CK. RIVER AT ENTRANCE TO SKAHA LAKE

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
CLOUR	10	15.0	5.00	10.0	7.00	8	5.00	0.0	5.00	2.50	4	25.0	0.0	25.0	8.75
TURBID	30	4.60	0.400	4.20	1.67	39	7.40	0.700	6.70	2.51	20	15.6	0.300	15.3	2.78
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TD SUS M	1	0.500L	0.500L	0.0	0.500	2	10.4	5.60	4.80	8.00	2	16.0	1.80	14.2	8.90
DISS O2	30	12.2	7.90	4.30	10.0	40	12.9	8.40	4.50	11.1	20	12.8	8.30	4.50	10.6
D.O. SAT	30	117.	87.0	30.0	99.6	42	118.	68.0	50.0	98.9	20	105.	81.0	24.0	93.6
TEMP	7	22.0	4.40	17.6	14.3	8	26.0	2.70	23.3	16.9	4	25.0	5.60	19.4	16.1
INORGANIC PARAMETERS															
ALK TOT	30	144.	93.0	51.0	106.	42	190.	74.7	115.	112.	20	117.	72.0	45.0	104.
CALCIUM	7	34.2	31.0	3.20	33.2	8	37.5	34.1	3.40	35.1	4	34.2	28.4	5.80	31.9
CHLORIDE	6	1.30	1.10	0.200	1.22	8	1.70	1.00	0.700	1.30	4	3.40	0.800	2.60	1.70
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.004	0.001L	0.003	0.001	4	0.004	0.001	0.003	0.003
FLUORIDE	7	0.200	0.160	0.040	0.183	8	0.200	0.170	0.030	0.186	4	0.200	0.160	0.040	0.172
HARD TOT	7	119.	112.	7.00	116.	8	120.	114.	6.00	118.	4	121.	96.0	25.0	112.
IRON	7	0.320	0.010	0.310	0.061	8	0.050	0.010	0.040	0.031	4	0.070	0.020	0.050	0.050
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.010L	0.005L	0.005	0.007
MAGNES	7	8.40	7.70	0.700	8.00	8	8.20	5.70	2.50	7.35	1	8.70	8.70	0.0	8.70
MANGAN	7	0.00400	0.001L	0.003	0.002	8	0.013	0.003	0.010	0.008	4	0.047	0.010L	0.037	0.020
NITRATE	30	0.250	0.010L	0.240	0.045	42	0.360	0.010L	0.350	0.053	20	0.140	0.010L	0.130	0.046
TOTAL N	28	1.82	0.090	1.73	0.368	42	1.31	0.050	1.26	0.373	20	2.52	0.050	2.47	0.603
PH	30	8.50	7.30	1.20	8.05	42	8.50	7.70	0.800	8.16	20	8.50	7.70	0.800	8.05
ORTHO P	30	0.039	0.003L	0.036	0.016	42	0.160	0.003	0.157	0.035	20	0.160	0.003	0.157	0.051
TOTAL P	30	0.085	0.007	0.078	0.034	40	0.241	0.023	0.218	0.056	20	0.232	0.016	0.216	0.082
POTASS	6	2.30	1.90	0.400	2.12	8	2.40	2.00	0.400	2.14	4	2.40	1.70	0.700	2.10
SILICA	6	7.70	5.20	2.50	5.80	8	6.20	5.30	0.900	5.84	4	8.50	5.10	3.40	6.57
SODIUM	6	10.3	8.50	1.80	9.40	8	10.0	8.10	1.90	9.20	4	11.1	8.00	3.10	9.45
SULPHATE	7	28.0	25.4	2.60	26.8	8	28.8	25.5	3.30	27.2	4	33.3	23.0	10.3	27.4
TIC	0	0.0	0.0	0.0	0.0	16	26.0	19.0	7.00	23.1	16	26.0	15.0	11.0	20.5
ZINC	7	0.005	0.001L	0.004	0.002	8	0.004	0.001L	0.003	0.002	4	0.009	0.001L	0.008	0.003
ORGANIC PARAMETERS															
TOC	29	14.0	2.00	12.0	5.97	42	10.0	2.00L	8.00	5.31	20	10.0	2.00L	8.00	6.85

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: R509 SHINGLE CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	10	40.0	10.0	30.0	17.0	7	37.0	2.90	34.1	12.4	2	13.0	5.00	8.00	9.00
TURBID	30	7.00	0.300	6.70	1.93	27	32.0	0.600	31.4	4.83	6	9.00	1.10	7.90	4.88
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	2	6.00	C.500L	5.50	3.25	0	0.0	0.0	0.0	0.0	1	40.0	40.0	0.0	40.0
DISS O2	30	13.3	7.80	5.50	10.7	27	15.1	3.10	12.0	11.1	6	12.7	10.1	2.60	11.5
D.O. SAT	30	124.	83.0	41.0	100.	28	108.	22.0	86.0	90.2	6	92.0	81.0	11.0	87.8
TEMP	7	20.3	1.60	18.7	11.0	7	25.0	0.0	25.0	14.5	2	25.1	7.10	18.0	16.1
INORGANIC PARAMETERS															
ALK TOT	30	166.	42.2	124.	133.	28	186.	30.7	155.	139.	6	170.	30.0	140.	120.
CALCIUM	7	39.6	12.9	26.7	31.7	7	45.2	22.4	22.8	39.1	2	39.0	14.4	24.6	26.7
CHLORIDE	6	5.70	0.700	5.00	2.00	7	2.50	0.700	1.80	1.44	2	1.70	C.800	C.900	1.25
COPPER	7	0.003	0.001L	0.002	0.002	7	0.005	0.001L	0.004	0.002	2	0.002	0.001	0.001	0.001
FLUORIDE	7	0.340	0.130	0.210	0.256	7	0.340	0.160	0.180	0.283	2	0.290	C.130	0.160	0.210
HARD TOT	7	137.	42.8	94.2	106.	7	150.	68.1	81.9	130.	2	140.	47.0	93.0	93.5
IRON	7	0.180	0.040	0.140	0.066	7	0.090	0.020	0.070	0.051	2	0.110	0.040	0.070	0.075
LEAD	7	0.010L	0.005L	0.005	0.009	7	0.010L	0.005L	0.005	0.009	2	0.010L	0.006L	0.004	0.008
MAGNES	7	9.30	1.80	7.50	6.46	7	9.40	3.00	6.40	7.91	1	10.4	10.4	0.0	10.4
MANGAN	7	0.035	0.001L	0.034	0.009	7	0.360	0.002	0.358	0.055	2	0.010L	0.006L	0.004	0.008
NITRATE	30	0.200	0.010L	0.190	0.028	28	0.110	0.010L	0.100	0.034	6	0.150	0.010	0.140	0.055
TOTAL N	28	1.18	0.010	1.17	0.215	28	0.980	0.010L	0.970	0.237	6	1.20	0.090	1.11	0.502
PH	30	8.50	7.60	0.900	8.13	28	8.60	6.80	1.80	8.02	6	8.00	7.30	0.700	7.77
ORTHO P	30	0.023	0.003L	0.020	0.005	28	0.023	0.001L	0.022	0.005	6	0.016	0.003	0.013	0.007
TOTAL P	30	0.111	0.003	0.108	0.020	27	0.189	0.007	0.182	0.033	6	0.091	0.007	0.084	0.036
POTASS	6	2.40	1.00	1.40	1.88	7	2.70	1.70	1.00	2.23	2	2.20	1.20	1.00	1.70
SILICA	6	17.9	12.0	5.90	15.6	7	19.8	3.00	16.8	14.9	2	20.8	16.6	4.20	18.7
SODIUM	6	30.9	7.80	23.1	15.6	7	16.5	7.10	9.40	14.7	2	16.4	5.40	11.0	10.9
SULPHATE	7	15.4	7.10	8.30	11.1	7	19.7	12.7	7.00	15.2	2	17.4	6.50	10.9	11.9
TIC	0	0.0	0.0	0.0	0.0	4	44.0	17.0	27.0	28.5	4	38.0	6.00	32.0	27.7
ZINC	7	0.010L	0.001L	0.009	0.003	7	0.002	0.001L	0.001	0.001	2	0.001	0.001L	0.0	0.001
ORGANIC PARAMETERS															
TOC	29	16.0	2.00	14.0	4.93	28	13.0	2.00L	11.0	5.36	6	13.0	2.00L	11.0	6.83

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B510 ELLIS CREEK

	1969					1970					1971				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	10	70.0	5.00	65.0	46.0	8	55.0	10.0	45.0	29.4	3	85.0	15.0	70.0	40.0
TURBID	29	62.0	1.60	60.4	10.7	37	62.0	2.20	59.8	11.7	14	260.	0.900	259.	25.6
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	5	16.6	4.20	12.4	8.08	7	52.5	2.80	49.7	12.5	2	253.	31.2	222.	142.
DISS O2	29	13.2	2.80	10.4	8.26	38	13.9	6.30	7.60	10.1	14	12.8	4.90	7.90	10.3
D.O. SAT	29	103.	31.0	72.0	78.0	40	121.	63.0	58.0	90.0	13	94.0	48.0	46.0	81.2
TEMP	7	19.8	1.10	18.7	11.8	8	26.0	1.10	24.9	16.7	3	22.8	6.00	16.8	14.1
INORGANIC PARAMETERS															
ALK TOT	29	154.	10.6	143.	48.0	40	197.	10.7	186.	48.5	14	52.0	7.00	45.0	32.1
CALCIUM	7	391.	3.40	388.	67.8	8	17.0	7.80	9.20	13.4	3	12.2	3.00	9.20	9.00
CHLORIDE	6	8.20	1.30	6.90	3.75	8	10.2	1.10	9.10	5.10	3	3.70	0.600	3.10	2.20
COPPER	7	0.002	0.001L	0.001	0.001	8	0.011	0.001L	0.010	0.003	3	0.015	0.001	0.014	0.007
FLUORIDE	7	0.290	0.070	0.220	0.181	8	0.230	0.150	0.080	0.189	3	0.210	0.120	0.090	0.160
HARD TOT	7	138.	12.8	125.	60.8	8	58.0	27.1	30.9	44.5	3	41.0	11.0	30.0	30.3
IRON	7	0.650	0.020	0.630	0.336	8	0.480	0.210	0.270	0.279	3	0.220	0.190	0.030	0.210
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.017	0.005L	0.012	0.010	3	0.010L	0.006L	0.004	0.007
MAGNES	7	9.80	1.00	8.80	4.10	8	4.20	1.40	2.80	2.66	1	2.40	2.40	0.0	2.40
MANGAN	7	0.750	0.001	0.749	0.157	8	0.100	0.028	0.072	0.062	3	0.120	0.010L	0.110	0.052
NITRATE	28	2.12	0.010L	2.11	0.173	40	0.200	0.010L	0.190	0.034	14	0.890	0.010L	0.880	0.109
TOTAL N	28	2.68	0.110	2.57	0.571	39	0.760	0.041	0.719	0.376	14	2.67	0.030	2.64	0.471
PH	29	8.10	6.50	1.60	7.09	40	8.10	6.90	1.20	7.20	14	7.80	6.60	1.20	7.06
ORTHO P	29	0.107	0.003L	0.104	0.025	40	0.117	0.003	0.114	0.036	14	0.033	0.007	0.026	0.013
TOTAL P	29	0.241	0.007	0.234	0.099	39	0.457	0.020	0.437	0.126	14	0.424	0.016	0.408	0.076
POTASS	6	2.40	1.30	1.10	1.68	8	1.70	0.800	0.900	1.19	3	1.30	0.400	0.900	0.967
SILICA	6	19.4	15.8	3.60	17.4	8	19.2	15.5	3.70	17.5	3	22.5	16.3	6.20	19.7
SODIUM	6	15.7	6.70	9.00	8.73	8	11.7	4.20	7.50	7.97	3	7.70	1.90	5.80	5.20
SULPHATE	7	18.1	1.40	16.7	11.6	8	17.8	4.90	12.9	10.1	3	9.70	1.60	8.10	6.40
TIC	0	0.0	0.0	0.0	0.0	15	15.0	7.00	8.00	10.7	11	12.0	2.00L	10.0	6.73
ZINC	7	0.008	0.001L	0.007	0.002	8	0.011	0.002L	0.009	0.005	3	0.008	0.001L	0.007	0.005
ORGANIC PARAMETERS															
TOC	29	16.0	5.00	11.0	8.59	40	14.0	2.00L	12.0	7.80	14	19.0	2.00	17.0	10.1

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B511 PENTICTON CREEK

	1969					1970					1971				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
CLOUR	10	70.0	30.0	40.0	50.0	7	60.0	10.0	50.0	33.6	4	45.0	15.0	30.0	30.0
TURBID	30	29.0	0.900	28.1	4.70	26	62.0	0.800	61.2	6.11	15	8.80	0.700	8.10	3.23
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	3	33.2	0.500L	32.7	14.7	1	2.40	2.40	0.0	2.40	2	30.4	2.40	28.0	16.4
DISS O2	30	13.8	8.20	5.60	10.4	26	14.5	8.80	5.70	12.0	15	13.7	8.00	5.70	10.9
D.O. SAT	30	104.	90.0	14.0	96.4	27	111.	60.0	51.0	97.6	14	105.	90.0	15.0	96.3
TEMP	7	20.6	1.60	19.0	11.4	7	24.6	0.200	24.4	14.9	4	22.8	6.60	16.2	14.4
INORGANIC PARAMETERS															
ALK TOT	30	45.5	10.0	35.5	22.9	27	229.	7.80	221.	40.9	15	46.0	7.00	39.0	21.3
CALCIUM	7	11.4	4.10	7.30	6.27	7	17.2	5.30	11.9	9.51	4	11.6	3.20	8.40	7.67
CHLORIDE	6	8.70	0.400	8.30	1.98	7	1.70	0.500	1.20	0.814	4	1.50	0.600	0.900	0.875
COPPER	7	0.006	0.001L	0.005	0.002	7	0.004	0.001L	0.003	0.003	4	0.008	0.002	0.006	0.005
FLUORIDE	6	0.100	0.060	0.040	0.075	7	0.150	0.070	0.080	0.100	4	0.100	0.050	0.050	0.080
HARD TOT	7	33.2	14.2	19.0	20.7	7	57.7	17.8	39.9	32.5	4	40.0	11.0	29.0	26.7
IRON	7	0.680	0.090	0.590	0.383	7	0.640	0.090	0.550	0.441	4	0.360	0.210	0.150	0.280
LEAD	7	0.019	0.005L	0.014	0.010	7	0.010L	0.005	0.005	0.009	4	0.010L	0.005L	0.005	0.007
MAGNES	7	1.40	1.00	0.400	1.23	7	3.90	1.10	2.80	2.14	1	2.30	2.30	0.0	2.30
MANGAN	7	0.090	0.001L	0.089	0.017	7	0.022	0.005	0.017	0.011	4	0.020	0.010L	0.010	0.015
NITRATE	30	0.220	0.010L	0.210	0.028	27	0.120	0.010L	0.110	0.036	15	0.200	0.010L	0.190	0.057
TOTAL N	30	0.870	0.080	0.790	0.260	27	9.27	0.010	9.26	0.627	15	2.20	0.080	2.12	0.567
PH	30	8.10	6.80	1.30	7.47	27	8.80	6.80	2.00	7.64	15	7.90	6.60	1.30	7.20
ORTHO P	30	0.013	0.003L	0.010	0.004	27	0.029	0.003L	0.026	0.005	15	0.020	0.003L	0.017	0.007
TOTAL P	30	0.065	0.003	0.062	0.019	26	0.359	0.010	0.349	0.036	15	0.065	0.007	0.058	0.026
POTASS	6	1.00	0.600	0.400	0.817	7	1.30	0.600	0.700	0.871	4	1.30	0.400	0.900	0.850
SILICA	6	13.6	11.4	2.20	12.4	7	18.5	10.9	7.60	14.5	4	18.4	12.6	5.80	14.3
SODIUM	6	16.5	1.90	14.6	5.43	7	5.00	2.20	2.80	3.40	4	3.80	1.60	2.20	2.82
SULPHATE	7	3.00	0.300	2.70	2.09	7	10.8	1.60	9.20	5.41	4	9.80	3.70	6.10	7.05
TIC	0	0.0	0.0	0.0	0.0	3	19.0	3.00	16.0	8.67	11	9.00	2.00L	7.00	3.55
ZINC	7	0.018	0.001L	0.017	0.004	7	0.080	0.001	0.079	0.014	4	0.036	0.002	0.034	0.011
ORGANIC PARAMETERS															
TOC	29	19.0	3.00	16.0	8.69	27	15.0	2.00L	13.0	6.93	15	15.0	6.00	9.00	10.9

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B512 TROUT CREEK

	1969					1970					1971				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
CLOUR	5	40.0	0.0	40.0	19.0	7	30.0	0.0	30.0	15.0	4	40.0	10.0	30.0	23.0
TURBID	31	150.	0.600	149.	33.1	36	165.	0.200	165.	55.3	18	210.	0.300	210.	28.0
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TD SUS M	5	182.	4.00	178.	75.2	6	581.1	5.20	576.	268.	2	1744.	164.	1580.	954.
DISS O2	31	14.2	7.60	6.60	10.7	37	15.3	8.70	6.60	11.3	18	13.6	2.10	5.50	11.0
D.O. SAT	31	118.	80.0	38.0	101.	39	116.	91.0	25.0	101.	18	120.	87.0	33.0	98.7
TEMP	7	26.2	1.10	25.1	13.6	7	25.0	1.60	23.4	18.2	4	22.8	5.60	17.2	14.0
INORGANIC PARAMETERS															
ALK TOT	31	170.	37.2	133.	105.	39	203.	36.8	166.	124.	18	156.	24.0	132.	84.6
CALCIUM	7	33.3	25.4	7.90	28.8	7	68.0	23.7	44.3	37.0	4	28.0	10.0	18.0	22.8
CHLORIDE	6	1.60	0.900	0.700	1.17	7	4.40	1.00	3.40	2.01	4	1.90	0.800	1.10	1.22
COPPER	7	0.006	0.001L	0.005	0.003	7	0.015	0.001L	0.014	0.006	4	0.009	0.001	0.008	0.004
FLUORIDE	7	0.240	0.150	0.090	0.190	7	0.240	0.180	0.060	0.214	4	0.230	0.090	0.140	0.162
HARD TOT	7	135.	77.2	57.8	107.	7	203.	81.8	121.	132.	4	119.	32.0	87.0	86.7
IRON	7	0.080	0.020	0.060	0.047	7	0.070	0.020	0.050	0.037	4	0.120	0.010L	0.110	0.055
LEAD	7	0.010L	0.005L	0.005	0.009	7	0.029	0.005L	0.024	0.012	4	0.010L	0.005L	0.005	0.007
MAGNES	7	13.3	3.30	10.0	8.46	7	13.2	5.50	7.70	9.66	1	11.9	11.9	0.0	11.9
MANGAN	7	0.014	0.001L	0.013	0.005	7	0.019	0.003	0.016	0.011	4	0.060	0.010L	0.050	0.025
NITRATE	31	0.680	0.010L	0.670	0.152	39	0.610	0.010L	0.600	0.251	18	0.710	0.010L	0.700	0.201
TOTAL N	30	1.05	0.190	0.860	0.395	39	1.32	0.180	1.14	0.551	18	2.86	0.060	2.80	0.602
PH	31	8.80	6.60	2.20	8.21	39	9.40	7.40	2.00	8.40	18	9.20	7.30	1.90	8.11
ORTHOP	31	0.010	0.003L	0.007	0.005	39	0.033	0.003L	0.030	0.007	18	0.016	0.003L	0.013	0.006
TOTAL P	31	0.323	0.003L	0.320	0.051	38	0.684	0.020	0.664	0.184	18	1.27	0.016	1.25	0.236
POTASS	6	2.50	1.60	0.900	1.98	7	2.90	1.50	1.40	2.06	4	2.20	1.00	1.20	1.72
SILICA	6	17.3	5.40	11.9	14.6	7	17.9	14.5	3.40	15.9	4	21.8	13.3	8.50	16.9
SODIUM	6	16.8	5.40	11.4	10.5	7	19.2	9.00	10.2	15.4	4	14.8	2.40	12.4	9.37
SULPHATE	7	41.2	16.9	24.3	27.1	7	54.9	22.2	32.7	39.4	4	40.3	5.70	34.6	23.8
TIC	0	0.0	0.0	0.0	0.0	14	51.0	16.0	35.0	29.3	14	29.0	3.00	26.0	15.2
ZINC	7	0.013	0.001L	0.012	0.004	7	0.014	0.001	0.013	0.006	4	0.029	0.001	0.028	0.009
ORGANIC PARAMETERS															
TOC	30	22.0	3.00	19.0	6.60	39	15.0	2.00	13.0	7.51	18	23.0	4.00	19.0	11.4

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B513 CHUTE CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	5	70.0	25.0	45.0	38.0	8	60.0	15.0	45.0	35.6	3	55.0	45.0	10.0	48.3
TURBID	25	18.0	0.600	17.4	2.51	28	13.0	0.700	12.3	2.94	3	3.50	0.600	2.90	2.20
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TD SUS M	2	0.500L	0.500L	0.0	0.500	1	2.40	2.40	0.0	2.40	1	1.60	1.60	0.0	1.60
DISS O2	25	13.2	8.60	4.60	10.4	27	14.1	10.0	4.10	12.1	3	12.6	8.20	4.40	10.5
D.O. SAT	25	100.	87.0	13.0	94.4	29	110.	93.0	17.0	99.5	3	94.0	86.0	8.00	90.0
TEMP	6	15.1	1.10	14.0	9.02	8	25.0	0.0	25.0	15.6	3	22.8	9.30	13.5	16.3
INORGANIC PARAMETERS															
ALK TOT	25	54.0	17.0	37.0	32.2	29	42.7	16.6	26.1	30.4	3	28.0	16.0	12.0	23.7
CALCIUM	6	13.8	6.30	7.50	10.0	8	13.5	6.10	7.40	10.1	3	9.60	6.00	3.60	8.03
CHLORIDE	5	1.20	0.500	0.700	0.720	8	0.900	0.400	0.500	0.625	3	0.800	0.600	0.200	0.700
COPPER	6	0.002	0.001L	0.001	0.001	8	0.004	0.001L	0.003	0.001	3	0.005	0.001	0.004	0.003
FLUORIDE	5	0.120	0.080	0.040	0.098	8	0.130	0.090	0.040	0.110	3	0.100	0.080	0.020	0.090
HARD TOT	6	38.6	21.4	17.2	31.1	8	41.2	20.2	21.0	31.7	3	31.0	21.0	10.0	27.3
IRON	6	0.330	0.100	0.230	0.153	8	0.340	0.090	0.250	0.192	3	0.360	0.210	0.150	0.273
LEAD	6	0.010L	0.005L	0.005	0.008	8	0.010L	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.007
MAGNES	6	2.20	0.300	1.90	1.50	8	2.00	0.800	1.20	1.59	1	2.40	2.40	0.0	2.40
MANGAN	6	0.005	0.001	0.004	0.003	8	0.010L	0.002	0.008	0.005	3	0.010L	0.010L	0.0	0.010
NITRATE	25	0.080	0.010L	0.070	0.022	29	0.450	0.010L	0.440	0.047	3	0.120	0.010L	0.110	0.073
TOTAL N	25	0.430	0.100	0.330	0.302	28	0.550	0.040	0.510	0.323	3	2.36	0.340	2.02	1.05
PH	25	8.00	7.10	0.900	7.67	29	8.40	7.00	1.40	7.68	3	7.60	7.10	0.500	7.30
ORTHO P	25	0.010	0.003L	0.007	0.005	29	0.013	0.003L	0.010	0.005	3	0.007	0.007	0.0	0.007
TOTAL P	25	0.020	0.007	0.013	0.012	28	0.029	0.007	0.022	0.015	3	0.023	0.016	0.007	0.020
POTASS	5	1.30	0.800	0.500	1.10	8	1.80	0.400	1.40	1.00	3	1.20	0.700	0.500	0.967
SILICA	5	18.0	15.0	3.00	16.6	8	19.2	14.2	5.00	16.3	3	18.2	13.5	4.70	16.4
SODIUM	5	4.50	2.50	2.00	3.52	8	4.80	2.60	2.20	3.85	3	3.40	2.00	1.40	2.87
SULPHATE	6	22.5	2.70	19.8	9.18	8	10.9	4.40	6.50	7.10	3	8.40	5.80	2.60	7.13
TIC	0	0.0	0.0	0.0	0.0	5	6.00	5.00	1.00	5.60	0	0.0	0.0	0.0	0.0
ZINC	6	0.005	0.001L	0.004	0.002	8	0.004	0.001L	0.003	0.002	3	0.005	0.001	0.004	0.003
ORGANIC PARAMETERS															
TOC	24	27.0	8.00	19.0	11.1	29	17.0	5.00	12.0	10.8	3	14.0	11.0	3.00	12.7

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B514 PEACHLAND CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	25.0	5.00	20.0	14.2	8	20.0	0.0	20.0	8.37	3	65.0	5.00	60.0	26.7
TURBID	30	23.0	0.800	22.2	6.47	38	40.0	0.200	39.8	6.58	14	57.0	0.300	56.7	13.2
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	5	15.4	4.00	11.4	8.28	4	35.6	8.00	27.6	17.9	2	113.	56.8	56.2	84.9
DISS O2	30	13.2	8.60	4.60	10.6	39	13.7	9.60	4.10	11.5	14	13.2	8.90	4.30	11.5
D.O. SAT	30	104.	88.0	16.0	96.0	42	112.	89.0	23.0	98.9	14	100.	90.0	10.0	95.6
TEMP	7	16.8	2.7C	14.1	10.6	8	25.1	1.60	23.5	15.8	3	22.8	8.80	14.0	15.6
INORGANIC PARAMETERS															
ALK TOT	30	191.	101.	90.0	145.	41	203.	69.3	134.	141.	14	192.	58.0	134.	142.
CALCIUM	7	64.2	34.8	29.4	49.6	8	72.7	25.6	47.1	49.2	3	59.1	34.4	24.7	48.8
CHLORIDE	6	1.30	0.0	1.30	0.900	8	1.30	0.800	0.500	1.06	3	1.30	0.600	0.700	1.03
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.011	0.001L	0.010	0.002	3	0.003	0.001	0.002	0.002
FLUORIDE	7	0.640	0.250	0.390	0.390	8	0.660	0.130	0.530	0.365	3	0.520	0.160	0.360	0.353
HARD TOT	7	198.	110.	88.0	150.	8	215.	73.8	141.	148.	3	189.	101.	88.0	152.
IRON	7	0.090	0.010	0.080	0.034	8	0.180	0.010	0.170	0.041	3	0.040	0.010L	0.030	0.023
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.007
MAGNES	7	9.10	4.20	4.90	6.36	8	8.50	2.40	6.10	6.15	1	7.90	7.90	0.0	7.90
MANGAN	7	0.006	0.001L	0.005	0.003	8	0.010L	0.002	0.008	0.005	3	0.010	0.010L	0.0	0.010
NITRATE	30	0.750	0.010	0.740	0.400	42	1.69	0.040	1.65	0.569	14	0.780	0.190	0.590	0.496
TOTAL N	30	0.890	0.180	0.710	0.629	42	2.06	0.040	2.02	0.843	14	2.79	0.350	2.44	0.881
PH	30	8.50	7.40	1.10	8.17	42	8.60	7.50	1.10	8.25	14	8.40	7.70	0.700	8.15
ORTHO P	30	0.030	0.003L	0.027	0.012	42	0.062	0.003L	0.059	0.017	14	0.029	0.003	0.026	0.015
TOTAL P	30	0.117	0.003L	0.114	0.032	41	0.134	0.007	0.127	0.039	14	0.245	0.016	0.229	0.065
POTASS	6	3.00	1.90	1.10	2.42	8	2.90	1.80	1.10	2.21	3	2.80	1.70	1.10	2.37
SILICA	6	19.3	15.7	3.60	17.5	8	19.5	14.0	5.50	16.9	3	23.0	15.0	8.00	18.1
SODIUM	6	10.0	5.40	4.60	7.05	8	10.8	3.80	7.00	6.71	3	9.30	3.40	5.90	6.67
SULPHATE	7	22.1	12.9	9.20	17.3	8	26.0	8.80	17.2	18.3	3	26.8	15.1	11.7	21.5
TIC	0	0.0	0.0	0.0	0.0	17	47.0	22.0	25.0	34.7	11	43.0	7.00	36.0	26.2
ZINC	7	0.004	0.001L	0.003	0.002	8	0.004	0.001L	0.003	0.002	3	0.004	0.001	0.003	0.002
ORGANIC PARAMETERS															
TOC	30	10.0	2.00	8.00	4.93	42	12.0	2.00L	10.0	5.64	14	24.0	2.00L	22.0	8.00

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: 8515 TREPANIER CREEK

	1969					1970					1971				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	20.0	5.00	15.0	9.33	8	30.0	0.0	30.0	9.00	3	55.0	7.00	48.0	24.0
TURBID	30	7.50	0.200	7.30	2.13	32	26.0	0.100	25.9	3.17	7	5.30	0.400	4.90	1.54
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	2	1.60	0.600	1.00	1.10	1	2.00	2.00	0.0	2.00	1	34.0	34.0	0.0	34.0
DISS O2	30	13.8	3.00	10.8	10.6	32	14.2	9.10	5.10	11.9	7	14.0	8.80	5.20	12.0
D.O. SAT	30	114.	13.0	101.	95.6	34	109.	94.0	15.0	99.3	7	99.0	92.0	7.00	95.1
TEMP	7	18.3	0.500	17.8	10.4	8	25.1	0.0	25.1	15.7	3	22.6	6.60	16.0	15.2
INORGANIC PARAMETERS															
ALK TOT	30	107.	52.0	55.0	84.5	34	102.	25.6	76.4	83.3	7	102.	27.0	75.0	74.7
CALCIUM	7	29.0	3.80	25.2	22.9	8	28.1	13.6	14.5	25.1	3	25.7	8.90	16.8	20.0
CHLORIDE	6	0.500	0.080	0.420	0.347	8	0.400	0.200	0.200	0.337	3	0.800	0.400	0.400	0.600
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.003	0.001L	0.002	0.001	3	0.004	0.001	0.003	0.002
FLUORIDE	7	0.080	0.060	0.020	0.071	8	0.110	0.050	0.060	0.080	3	0.090	0.050L	0.040	0.070
HARD TOT	7	85.7	61.6	24.1	79.8	8	87.3	42.2	45.1	76.2	3	82.0	28.0	54.0	63.3
IRON	6	0.060	0.010	0.050	0.022	8	0.060	0.010L	0.050	0.021	3	0.060	0.020	0.040	0.033
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.007
MAGNES	7	4.60	0.0	4.60	2.94	8	4.30	1.80	2.50	3.32	1	4.50	4.50	0.0	4.50
MANGAN	7	0.003	0.001L	0.002	0.002	7	0.010	0.001	0.009	0.003	3	0.010L	0.010L	0.0	0.010
NITRATE	30	0.410	0.003	0.407	0.029	33	0.120	0.010L	0.110	0.021	7	0.090	0.010L	0.080	0.031
TOTAL N	30	0.890	0.010	0.880	0.166	33	0.490	0.010L	0.480	0.149	7	0.390	0.030	0.360	0.184
PH	30	8.50	7.30	1.20	8.07	34	8.60	7.40	1.20	8.09	7	8.20	7.20	1.00	7.86
ORTHO P	30	0.060	0.003L	0.057	0.007	34	0.026	0.003L	0.023	0.005	7	0.010	0.003	0.007	0.007
TOTAL P	30	0.062	0.003L	0.059	0.012	33	0.173	0.0	0.173	0.018	7	0.042	0.007	0.035	0.015
POTASS	6	1.90	0.0	1.90	1.37	8	1.80	1.10	0.700	1.46	3	1.60	0.800	0.800	1.33
SILICA	6	16.3	14.4	1.90	15.1	8	16.4	15.2	1.20	15.7	3	19.0	14.2	4.80	16.4
SODIUM	6	4.80	1.30	3.50	3.48	8	4.40	2.50	1.90	3.91	3	4.20	1.60	2.60	3.17
SULPHATE	6	4.80	3.50	1.30	4.15	8	6.20	1.90	4.30	3.57	3	5.50	1.00	4.50	3.93
TIC	0	0.0	0.0	0.0	0.0	9	22.0	14.0	8.00	17.9	4	22.0	7.00	15.0	17.0
ZINC	7	0.004	0.001L	0.003	0.002	8	0.002	0.001L	0.001	0.001	3	0.003	0.002	0.001	0.003
ORGANIC PARAMETERS															
TOC	30	17.0	0.0	17.0	3.93	34	25.0	2.00	23.0	6.06	7	13.0	2.00L	11.0	6.29

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B516 POWERS CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	30.0	7.00	23.0	17.0	8	50.0	5.00	45.0	22.5	4	65.0	0.0	65.0	25.0
TURBID	29	9.10	0.600	8.50	1.90	38	60.0	0.600	59.4	4.45	20	36.0	0.300	35.7	3.56
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	1	11.2	11.2	0.0	11.2	1	28.8	28.8	0.0	28.8	2	108.	11.6	96.8	60.0
DISS O2	29	13.6	8.60	5.00	10.9	40	13.9	9.20	4.70	11.7	20	13.4	8.50	4.90	11.3
D.O. SAT	29	105.	86.0	19.0	95.8	42	113.	78.0	35.0	96.5	20	131.	89.0	42.0	97.4
TEMP	7	16.3	2.40	13.9	10.1	8	24.2	1.10	23.1	14.3	4	22.6	5.70	16.9	12.9
INORGANIC PARAMETERS															
ALK TOT	29	221.	66.3	155.	135.	42	231.	31.6	199.	125.	20	200.	24.0	176.	104.
CALCIUM	7	59.4	25.5	33.9	38.5	8	47.0	13.0	34.0	34.1	4	48.0	8.80	39.2	29.7
CHLORIDE	6	2.80	0.900	1.90	1.85	8	2.40	0.600	1.80	1.46	4	2.80	0.600	2.20	1.62
COPPER	7	0.007	0.001L	0.006	0.002	8	0.008	0.001L	0.007	0.003	4	0.003	0.001L	0.002	0.002
FLUORIDE	7	0.390	0.140	0.250	0.230	8	0.290	0.070	0.220	0.189	4	0.240	0.020	0.220	0.157
HARD TOT	7	232.	84.2	148.	143.	8	173.	37.9	135.	120.	4	202.	28.0	174.	117.
IRON	7	0.050	0.010	0.040	0.027	8	0.250	0.010L	0.240	0.065	4	0.080	0.020	0.060	0.047
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.010L	0.005L	0.005	0.007
MAGNES	7	20.3	5.00	15.3	11.5	8	13.8	1.30	12.5	8.57	1	11.8	11.8	0.0	11.8
MANGAN	7	0.012	0.001L	0.011	0.004	8	0.010L	0.002	0.008	0.005	4	0.030	0.010L	0.020	0.016
NITRATE	29	1.09	0.090	1.00	0.534	42	2.08	0.010	2.07	0.675	20	1.27	0.010	1.26	0.543
TOTAL N	28	1.40	0.360	1.04	0.760	41	2.17	0.140	2.03	0.978	20	2.13	0.330	1.80	0.842
PH	29	8.20	7.30	0.900	7.92	42	8.40	7.50	0.900	8.09	20	8.30	7.10	1.20	7.91
ORTHO P	29	0.028	0.003L	0.025	0.016	42	0.039	0.007	0.032	0.023	20	0.049	0.007	0.042	0.025
TOTAL P	29	0.088	0.007	0.081	0.030	41	0.330	0.010	0.320	0.045	20	0.173	0.016	0.157	0.044
POTASS	6	2.60	1.50	1.10	1.95	8	3.50	0.900	2.60	1.85	4	2.60	0.800	1.80	1.72
SILICA	6	19.0	5.40	13.6	15.1	8	19.8	15.8	4.00	17.6	4	22.4	16.2	6.20	18.0
SODIUM	6	22.0	8.40	13.6	14.3	8	17.2	3.40	13.8	11.0	4	19.0	1.80	17.2	10.8
SULPHATE	7	71.8	17.3	54.5	39.1	8	51.2	6.50	44.7	32.2	4	67.2	2.90	64.3	33.9
TIC	0	0.0	0.0	0.0	0.0	16	51.0	17.0	34.0	31.9	16	40.0	5.00	35.0	20.7
ZINC	7	0.004	0.001L	0.003	0.002	8	0.006	0.001L	0.005	0.002	4	0.003	0.001	0.002	0.002
ORGANIC PARAMETERS															
TOC	28	15.0	2.00	13.0	5.96	42	15.0	2.00L	13.0	8.57	20	16.0	4.00	12.0	9.15

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B517 SMITH CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	30.0	10.0	20.0	16.7	8	20.0	5.00	15.0	11.9	3	45.0	10.0	35.0	23.3
TURBID	28	225.	7.30	218.	28.3	38	110.	11.0	99.0	27.0	14	230.	4.00	226.	29.8
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	6	56.0	15.6	40.4	34.5	7	225.	12.4	213.	83.0	2	96.0	74.0	22.0	85.0
DISS O2	29	12.9	8.60	4.30	10.6	40	13.5	9.20	4.30	11.3	14	13.0	8.80	4.20	11.0
D.O. SAT	29	101.	89.0	12.0	95.3	42	109.	88.0	21.0	96.6	14	97.0	86.0	11.0	93.1
TEMP	7	16.3	4.40	11.9	10.7	8	24.2	3.00	21.2	14.9	3	22.7	12.6	10.1	16.8
INORGANIC PARAMETERS															
ALK TOT	29	356.	3.00	353.	308.	42	386.	241.	145.	324.	14	373.	202.	171.	316.
CALCIUM	7	101.	83.3	17.7	91.6	8	427.	74.8	352.	132.	3	125.	58.1	66.9	91.0
CHLORIDE	6	9.00	6.10	2.90	7.35	8	8.60	5.60	3.00	7.25	3	11.0	5.00	6.00	8.87
COPPER	7	0.002	0.001L	0.001	0.002	8	0.005	0.001L	0.004	0.003	3	0.007	0.002	0.005	0.004
FLUORIDE	7	0.500	0.420	0.080	0.463	8	0.440	0.360	0.080	0.414	3	0.420	0.290	0.130	0.367
HARD TOT	7	491.	336.	155.	387.	8	511.	306.	205.	382.	3	602.	250.	352.	406.
IRON	7	0.100	0.010	0.090	0.033	8	0.030	0.010L	0.020	0.017	3	0.020	0.010L	0.010	0.017
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.007
MAGNES	7	58.0	31.1	26.9	38.5	8	55.0	28.8	26.2	40.5	1	34.2	34.2	0.0	34.2
MANGAN	7	0.005	0.001L	0.004	0.002	8	0.014	0.001	0.013	0.006	3	0.018	0.010L	0.008	0.013
NITRATE	29	0.900	0.320	0.580	0.528	42	1.54	0.320	1.22	0.769	14	1.11	0.130	0.980	0.669
TOTAL N	28	2.13	0.590	1.54	1.14	41	3.14	0.630	2.51	1.55	14	4.66	0.640	4.02	2.17
PH	29	8.80	7.90	0.900	8.34	42	8.50	8.00	0.500	8.39	14	8.50	7.80	0.700	8.32
ORTHO P	29	0.554	0.030	0.524	0.210	42	0.978	0.023	0.955	0.235	14	1.17	0.042	1.13	0.404
TOTAL P	29	0.848	0.078	0.770	0.333	41	1.08	0.039	1.04	0.349	14	1.27	0.088	1.18	0.527
POTASS	6	5.70	3.90	1.80	4.57	8	5.50	3.30	2.20	4.55	3	6.30	2.70	3.60	4.83
SILICA	6	28.3	22.7	5.60	25.8	8	26.2	24.3	1.90	25.3	3	34.7	23.5	11.2	27.9
SODIUM	6	248.	49.0	199.	89.0	8	73.0	46.0	27.0	55.4	3	98.0	34.4	63.6	61.1
SULPHATE	7	310.	134.	176.	180.	8	311.	112.	199.	189.	3	413.	113.	300.	225.
TIC	0	0.0	0.0	0.0	0.0	16	78.0	11.0	67.0	64.1	11	75.0	29.0	46.0	63.2
ZINC	7	0.005	0.001L	0.004	0.002	8	0.018	0.001	0.017	0.005	3	0.013	0.001L	0.012	0.005
ORGANIC PARAMETERS															
TOC	29	16.0	2.00L	14.0	6.79	41	23.0	2.00L	21.0	10.5	14	28.0	5.00	23.0	10.1

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B518 MC DOUGALL CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	1	10.0	10.0	0.0	10.0	4	50.0	0.0	50.0	15.0	3	55.0	0.0	55.0	20.0
TURBID	4	5.90	0.900	5.00	3.20	17	24.0	0.200	23.8	4.28	14	16.0	0.100	15.9	3.14
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	1	31.6	31.6	0.0	31.6	1	62.0	62.0	0.0	62.0
DISS O2	5	10.3	9.00	1.30	9.56	18	12.3	9.60	2.70	11.2	14	11.6	9.20	2.40	10.7
D.O. SAT	5	96.0	90.0	6.00	93.4	18	101.	81.0	20.0	91.7	14	103.	83.0	20.0	90.5
TEMP	2	14.8	14.1	0.700	14.4	4	24.2	4.10	20.1	18.6	3	22.7	7.70	15.0	15.0
INORGANIC PARAMETERS															
ALK TOT	5	218.	206.	12.0	211.	18	244.	48.3	196.	172.	14	212.	36.0	176.	163.
CALCIUM	2	61.2	51.1	0.100	61.1	4	64.5	15.7	48.8	47.9	3	60.6	11.6	49.0	42.8
CHLORIDE	1	2.20	2.20	0.0	2.20	4	2.30	0.900	1.90	2.00	3	2.80	0.700	2.10	2.07
COPPER	2	0.002L	0.002L	0.0	0.002	4	0.006	0.001L	0.005	0.003	3	0.004	0.001L	0.003	0.002
FLUORIDE	2	0.350	0.330	0.020	0.340	4	0.330	0.120	0.210	0.270	3	0.330	0.100	0.230	0.247
HARD TOT	2	205.	201.	4.00	203.	4	209.	47.9	161.	159.	3	206.	37.0	169.	146.
IRON	2	0.010	0.010	0.0	0.010	4	0.110	0.010L	0.100	0.040	3	0.070	0.010L	0.060	0.030
LEAD	2	0.005L	0.005L	0.0	0.005	4	0.010L	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.007
MAGNES	2	12.7	11.8	0.900	12.2	4	13.2	2.10	11.1	9.62	1	13.0	13.0	0.0	13.0
MANGAN	2	0.001L	0.001L	0.0	0.001	4	0.022	0.001L	0.021	0.009	3	0.010L	0.010L	0.0	0.010
NITRATE	5	0.110	0.010L	0.100	0.040	18	0.190	0.010L	0.180	0.043	14	0.360	0.010	0.350	0.145
TOTAL N	5	0.280	0.130	0.150	0.218	16	0.550	0.030	0.520	0.285	14	0.780	0.220	0.560	0.454
PH	5	8.40	8.20	0.200	8.32	18	8.20	7.30	0.900	7.97	14	8.10	7.30	0.800	7.86
ORTHO P	5	0.078	0.036	0.042	0.057	18	0.092	0.039	0.053	0.065	14	0.108	0.068	0.040	0.083
TOTAL P	5	0.122	0.036	0.086	0.075	17	0.179	0.068	0.111	0.088	14	0.170	0.072	0.098	0.103
POTASS	1	2.00	2.00	0.0	2.00	4	2.20	1.00	1.20	1.72	3	2.10	0.800	1.30	1.63
SILICA	1	26.0	26.0	0.0	26.0	4	26.3	22.0	4.30	24.5	3	35.6	23.2	12.4	27.8
SODIUM	1	20.3	20.3	0.0	20.3	4	20.4	4.70	15.7	14.7	3	19.4	3.30	16.1	14.0
SULPHATE	2	20.7	20.1	0.600	20.4	4	22.6	3.50	19.1	15.9	3	32.3	3.20	29.1	20.5
TIC	0	0.0	0.0	0.0	0.0	2	46.0	44.0	2.00	45.0	11	51.0	14.0	37.0	34.5
ZINC	2	0.001	0.001L	0.0	0.001	4	0.006	0.002L	0.004	0.003	3	0.003	0.002	0.001	0.002
ORGANIC PARAMETERS															
TOC	5	4.00	2.00L	2.00	3.20	18	16.0	2.00L	14.0	8.28	14	15.0	2.00L	13.0	8.00

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B519 BELLEVUE CREEK

	1969					1970					1971				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	15.0	5.00	10.0	6.67	8	30.0	0.0	30.0	5.62	3	60.0	0.0	60.0	21.0
TURBID	29	11.0	0.300	10.7	1.76	35	6.30	0.300	6.00	2.33	7	35.0	0.200	34.8	5.71
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	1	13.6	13.6	0.0	13.6	1	199.	199.	0.0	199.
DISS O2	30	12.3	1.40	10.9	10.3	37	13.3	8.70	4.60	11.4	7	12.7	8.70	4.00	11.4
D.O. SAT	29	118.	87.0	31.0	98.0	39	133.	10.0	123.	98.6	6	98.0	85.0	13.0	91.5
TEMP	6	15.6	5.50	10.1	10.4	8	24.2	3.30	20.9	15.3	3	21.6	4.40	17.2	14.2
INORGANIC PARAMETERS															
ALK TOT	30	112.	1.00	111.	88.8	39	218.	10.8	207.	105.	7	118.	6.00	112.	82.0
CALCIUM	7	34.5	22.1	12.4	29.0	8	34.8	18.3	16.5	31.8	3	33.3	2.80	30.5	22.8
CHLORIDE	5	2.70	1.50	1.20	2.10	8	2.80	1.00	1.80	2.21	3	3.30	0.700	2.60	2.23
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.008	0.001	0.007	0.003	3	0.007	0.001L	0.006	0.003
FLUORIDE	7	0.150	0.090	0.060	0.127	8	0.140	0.100	0.040	0.120	3	0.110	0.050	0.060	0.087
HARD TOT	7	110.	72.0	38.0	97.2	8	118.	58.2	59.8	108.	3	120.	10.0	110.	82.3
IRON	7	0.040	0.010	0.030	0.021	8	0.060	0.010	0.050	0.025	3	0.120	0.010L	0.110	0.050
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.012L	0.004L	0.008	0.009
MAGNES	7	7.70	4.00	3.70	6.03	8	8.40	3.00	5.40	6.96	1	9.60	9.60	0.0	9.60
MANGAN	7	0.008	0.001L	0.007	0.004	8	0.011	0.002	0.009	0.007	3	0.050	0.010L	0.040	0.023
NITRATE	29	1.06	0.010L	1.05	0.560	39	1.36	0.010L	1.35	0.727	7	1.10	0.010	1.09	0.471
TOTAL N	30	1.40	0.170	1.23	0.711	38	1.98	0.060	1.92	1.01	7	1.11	0.220	0.890	0.744
PH	30	8.40	7.30	1.10	7.86	39	8.60	7.10	1.50	8.07	7	8.30	6.30	2.00	7.60
ORTHO P	30	0.023	0.003L	0.020	0.007	39	0.946	0.003	0.943	0.033	7	0.030	0.003	0.027	0.011
TOTAL P	30	0.033	0.003	0.030	0.015	38	1.24	0.010	1.23	0.055	7	0.870	0.010	0.860	0.136
POTASS	6	1.80	1.50	0.300	1.60	8	1.90	1.00	0.900	1.60	3	1.90	0.500	1.40	1.33
SILICA	6	24.1	15.0	9.10	21.3	8	27.9	16.5	11.4	22.9	3	23.3	14.8	8.50	19.4
SODIUM	6	9.20	5.50	3.70	7.48	8	8.50	2.70	5.80	6.90	3	8.70	1.20	7.50	6.00
SULPHATE	7	17.3	11.6	5.70	15.5	8	23.0	10.2	12.8	18.4	3	20.8	1.90	18.9	14.3
TIC	0	0.0	0.0	0.0	0.0	13	49.0	19.0	30.0	26.6	4	26.0	2.00L	24.0	18.0
ZINC	7	0.005	0.001L	0.004	0.002	8	0.041	0.002L	0.039	0.007	3	0.003	0.002	0.001	0.003
ORGANIC PARAMETERS															
TOC	29	11.0	2.00L	9.00	3.72	39	15.0	0.0L	15.0	5.33	7	15.0	2.00	13.0	7.14

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B520 MISSION CREEK: BRIDGE ON LAKESHORE ROAD

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	40.0	10.0	30.0	20.0	8	30.0	5.00	25.0	12.2	4	50.0	5.00	45.0	21.2
TURBID	28	27.0	0.600	26.4	4.25	38	43.0	0.800	42.2	6.29	20	37.0	0.500	36.5	7.82
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	1	56.0	56.0	0.0	56.0	1	32.4	32.4	0.0	32.4	2	228.	8.80	219.	118.
DISS O2	29	14.0	7.90	6.10	11.5	40	15.0	9.40	5.60	12.4	20	13.8	8.50	5.30	11.6
D.O. SAT	28	123.	80.0	43.0	103.	42	143.	82.0	61.0	107.	20	120.	86.0	34.0	98.5
TEMP	6	15.8	2.40	13.4	9.67	8	24.2	1.60	22.6	14.7	4	21.6	5.50	16.1	13.4
INORGANIC PARAMETERS															
ALK TOT	29	227.	22.3	205.	105.	42	230.	17.7	212.	137.	20	182.	18.0	164.	100.
CALCIUM	7	63.0	12.3	50.7	26.2	8	65.8	12.7	53.1	39.7	4	48.6	6.80	41.8	24.3
CHLORIDE	6	1.90	0.300	1.60	0.867	8	1.90	0.400	1.50	1.19	4	1.70	0.600	1.10	1.12
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.011L	0.001L	0.010	0.003	4	0.005	0.001L	0.004	0.002
FLUORIDE	7	0.170	0.050	0.120	0.091	8	0.170	0.060	0.110	0.126	4	0.140	0.050	0.090	0.097
HARD TOT	7	270.	41.1	229.	101.	8	274.	41.3	233.	163.	4	208.	22.0	186.	121.
IRON	7	0.090	0.040	0.090	0.060	8	0.100	0.010	0.090	0.069	4	0.090	0.030	0.060	0.057
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.012L	0.005L	0.007	0.008
MAGNES	7	27.0	2.40	24.6	8.70	8	26.7	2.10	24.6	15.5	1	21.1	21.1	0.0	21.1
MANGAN	7	0.013	0.001L	0.012	0.008	8	0.038	0.006	0.032	0.020	4	0.056	0.010L	0.046	0.028
NITRATE	29	0.410	0.010L	0.400	0.110	42	0.970	0.010L	0.960	0.278	20	0.700	0.020	0.680	0.230
TOTAL N	29	2.08	0.090	1.99	0.376	41	1.39	0.031	1.36	0.515	20	1.00	0.130	0.870	0.499
PH	28	8.40	7.50	0.900	7.89	42	8.70	6.80	1.90	8.10	20	8.80	7.00	1.80	7.81
GRTHO P	29	0.030	0.003L	0.027	0.008	42	0.157	0.003L	0.154	0.015	20	0.039	0.003	0.036	0.014
TOTAL P	29	0.065	0.003	0.062	0.018	41	0.196	0.010	0.186	0.042	20	0.783	0.013	0.770	0.112
POTASS	6	2.70	0.800	1.90	1.35	8	3.40	0.900	2.50	1.90	4	2.30	0.500	1.80	1.57
SILICA	5	18.3	13.4	4.90	15.1	8	19.4	12.2	7.20	16.2	4	17.2	13.4	3.80	14.7
SODIUM	6	20.0	2.90	17.1	8.18	8	21.7	3.50	18.2	12.4	4	16.0	1.70	14.3	9.57
SULPHATE	7	93.2	8.70	84.5	30.5	8	121.	8.70	112.	57.7	4	76.9	5.00	71.9	39.8
TIC	0	0.0	0.0	0.0	0.0	16	44.0	8.00	36.0	30.2	16	43.0	2.00	41.0	19.7
ZINC	7	0.034	0.001L	0.033	0.006	8	0.010	0.001	0.009	0.004	4	0.013	0.001	0.012	0.004
ORGANIC PARAMETERS															
TOC	29	9.00	2.00L	7.00	5.00	42	15.0	2.00L	13.0	6.40	20	21.0	3.00	18.0	9.30

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B521 KELCUNA CREEK: BRIDGE ON ABBOT STREET

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	30.0	15.0	15.0	20.0	8	30.0	10.0	20.0	15.0	4	55.0	5.00	60.0	33.7
TURBID	28	47.0	1.80	45.2	6.30	38	46.0	2.00	44.0	6.53	20	47.0	1.30	45.7	10.2
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TD SUS M	4	3.00	1.40	1.60	1.95	5	55.6	1.20	54.4	15.6	3	114.	0.800	113.	44.3
DISS O2	29	12.2	7.60	4.60	9.67	40	14.1	7.10	7.00	10.9	20	14.6	6.90	7.70	10.2
D.O. SAT	28	102.	78.0	24.0	88.5	42	127.	74.0	53.0	93.3	20	125.	75.0	50.0	89.4
TEMP	6	16.6	3.80	12.8	10.6	8	24.2	1.60	22.6	15.0	4	21.9	8.30	13.6	15.2
INORGANIC PARAMETERS															
ALK TOT	29	228.	157.	71.0	197.	42	244.	112.	132.	208.	20	241.	59.0	182.	186.
CALCIUM	7	61.1	45.2	15.9	55.0	8	66.3	33.6	32.7	56.0	4	61.4	31.7	29.7	46.5
CHLORIDE	6	13.4	5.00	8.40	7.22	8	7.70	3.50	4.20	5.64	4	8.90	3.10	5.80	6.82
COPPER	7	0.002	0.0010	0.001	0.001	8	0.007	0.001	0.006	0.002	4	0.005	0.001	0.004	0.003
FLUORIDE	7	0.260	0.200	0.060	0.243	8	0.270	0.160	0.110	0.227	4	0.250	0.130	0.120	0.210
HARD TOT	7	220.	171.	49.0	203.	8	244.	121.	123.	202.	4	245.	110.	135.	195.
IRON	7	0.080	0.010	0.070	0.056	8	0.180	0.020	0.160	0.092	4	0.210	0.040	0.170	0.127
LEAD	6	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.012L	0.004L	0.008	0.008
MAGNES	7	17.7	14.1	3.60	16.0	8	19.1	9.00	10.1	15.2	1	22.3	22.3	0.0	22.3
MANGAN	7	0.100	0.001L	0.099	0.041	8	0.230	0.072	0.158	0.134	4	0.230	0.068	0.162	0.127
NITRATE	29	1.18	0.010L	1.17	0.696	42	1.15	0.150	1.00	0.695	20	1.60	0.110	1.49	0.893
TOTAL N	28	1.70	0.640	1.06	1.04	42	3.83	0.310	3.52	1.13	20	4.09	0.770	3.32	1.71
PH	28	8.30	7.00	1.30	7.92	42	8.40	7.50	0.900	8.10	20	8.50	7.60	0.900	7.98
ORTHO P	29	0.556	0.013	0.543	0.087	42	0.088	0.007	0.081	0.040	20	0.173	0.020	0.153	0.054
TOTAL P	29	0.750	0.029	0.721	0.142	41	0.192	0.020	0.172	0.085	20	0.424	0.055	0.369	0.140
POTASS	6	4.50	2.90	1.60	3.50	8	5.40	2.20	3.20	3.35	4	7.20	0.200L	7.00	3.20
SILICA	5	21.4	17.1	4.30	18.4	8	20.6	15.7	4.90	17.9	4	22.1	18.0	4.10	20.5
SODIUM	6	28.9	22.3	6.60	24.5	8	29.0	14.4	14.6	23.3	4	33.5	11.6	21.9	24.6
SULPHATE	7	99.0	29.4	69.6	50.7	8	65.2	26.4	38.8	46.0	4	78.7	26.0	52.7	49.4
TIC	0	0.0	0.0	0.0	0.0	16	51.0	27.0	24.0	41.2	16	55.0	12.0	43.0	37.7
ZINC	7	0.007	0.002	0.005	0.004	8	0.015	0.001L	0.014	0.006	4	0.010	0.001	0.009	0.004
ORGANIC PARAMETERS															
TOC	29	14.0	2.00L	12.0	5.52	42	18.0	2.00L	16.0	6.67	20	19.0	2.00L	17.0	10.6

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B522 BRANDT CREEK: ON GUY STREET

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	4	70.0	10.0	60.0	30.0	6	60.0	10.0	50.0	26.7	4	20.0	15.0	5.00	18.7
TURBID	26	48.0	4.50	43.5	23.4	46	115.	3.40	112.	18.8	40	50.0	2.40	47.6	12.6
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	4	68.0	16.4	51.6	30.0	7	80.4	4.40	76.0	23.3	3	74.8	16.4	58.4	38.4
DISS O2	28	9.60	0.0	9.60	3.34	47	10.1	0.0	10.1	4.38	40	13.8	0.0	13.8	6.65
D.O. SAT	28	72.0	0.0	72.0	30.1	49	85.0	0.0	85.0	38.1	39	147.	0.0	147.	62.2
TEMP	4	13.4	6.60	6.80	10.6	7	24.3	5.20	19.1	18.6	4	21.9	10.3	11.6	17.4
INORGANIC PARAMETERS															
ALK TOT	28	445.	159.	286.	341.	50	980.	218.	762.	340.	40	605.	134.	471.	338.
CALCIUM	4	82.6	66.1	16.5	74.7	7	112.	55.0	57.0	75.6	4	172.	83.2	88.8	115.
CHLORIDE	4	30.0	14.5	15.5	22.9	7	41.5	11.6	29.9	23.5	4	29.0	16.0	13.0	23.0
COPPER	4	0.008	0.002	0.006	0.005	7	0.011	0.005	0.006	0.007	4	0.009	0.001	0.008	0.005
FLUORIDE	4	0.720	0.380	0.340	0.547	7	0.990	0.390	0.600	0.710	4	0.690	0.370	0.320	0.515
HARD TOT	4	488.	337.	151.	404.	7	781.	330.	451.	436.	4	649.	456.	193.	515.
IRON	4	0.520	0.110	0.410	0.305	7	0.340	0.030	0.310	0.121	4	0.380	0.030	0.350	0.160
LEAD	4	0.010L	0.010L	0.0	0.010	7	0.010L	0.005L	0.005	0.009	4	0.012L	0.005L	0.007	0.008
MAGNES	4	68.9	41.8	27.1	52.8	7	122.	43.2	78.8	60.1	1	97.4	97.4	0.0	97.4
MANGAN	4	0.610	0.230	0.380	0.345	7	0.390	0.011	0.379	0.198	4	0.450	0.140	0.310	0.340
NITRATE	28	0.950	0.010L	0.940	0.239	50	1.09	0.010L	1.08	0.259	40	1.60	0.010L	1.59	0.351
TOTAL N	27	5.66	0.540	5.12	2.04	50	7.69	0.190	7.50	1.50	40	4.51	0.490	4.02	1.52
PH	28	8.60	6.30	2.30	7.63	50	8.90	6.70	2.20	7.85	40	8.70	7.00	1.70	8.01
ORTHO P	28	2.13	0.049	2.08	0.392	50	0.750	0.023	0.727	0.325	40	1.37	0.036	1.33	0.309
TOTAL P	28	2.70	0.270	2.43	0.708	49	1.66	0.075	1.58	0.605	40	1.43	0.058	1.37	0.565
POTASS	4	10.4	6.60	3.80	7.92	7	9.40	5.10	4.30	6.90	4	13.5	0.600	12.9	7.22
SILICA	4	22.7	11.3	11.4	16.6	7	18.5	8.20	10.3	13.2	4	18.5	7.30	11.2	14.3
SODIUM	4	212.	125.	87.0	155.	7	296.	123.	173.	171.	4	256.	170.	86.0	201.
SULPHATE	4	464.	278.	186.	348.	7	931.	263.	668.	430.	4	769.	224.	545.	472.
TIC	0	0.0	0.0	0.0	0.0	24	106.	23.0	83.0	67.0	36	105.	43.0	62.0	70.9
ZINC	4	0.013	0.004	0.009	0.008	7	0.023	0.007	0.016	0.016	4	0.017	0.007	0.010	0.010
ORGANIC PARAMETERS															
TOC	28	108.	2.00L	106.	20.5	50	246.	6.00	240.	66.2	40	226.	2.00L	224.	60.6

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: 8523 LAMBLY CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	30.0	7.00	23.0	18.7	8	60.0	0.0	60.0	14.5	3	75.0	8.00	67.0	31.0
TURBID	23	5.20	0.100	5.10	1.43	30	16.0	0.100	15.9	3.42	13	12.0	0.200	11.8	2.62
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	1	2.20	2.20	0.0	2.20	2	3.20	1.20	2.00	2.20	1	39.2	39.2	0.0	39.2
DISS O2	24	14.1	4.70	9.40	11.0	30	14.1	8.90	5.20	12.1	13	13.7	7.90	5.80	11.9
D.O. SAT	24	99.0	45.0	54.0	91.4	32	104.	85.0	19.0	96.8	13	99.0	86.0	13.0	95.0
TEMP	7	15.8	0.800	15.0	8.80	8	24.3	0.0	24.3	14.1	3	22.7	6.60	16.1	16.0
INORGANIC PARAMETERS															
ALK TOT	24	98.5	55.0	43.5	82.6	32	127.	26.7	100.	93.9	13	125.	27.0	98.0	81.1
CALCIUM	7	32.8	23.9	8.90	27.3	8	38.0	12.0	26.0	28.6	3	32.9	10.1	22.8	25.1
CHLORIDE	6	1.00	0.400	0.600	0.633	8	0.600	0.400	0.200	0.500	3	0.600	0.600	0.0	0.600
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.004	0.001L	0.003	0.002	3	0.003	0.001L	0.002	0.002
FLUORIDE	7	0.110	0.070	0.040	0.090	8	0.130	0.070	0.060	0.100	3	0.120	0.060	0.060	0.093
HARD TOT	7	99.9	68.9	31.0	81.5	8	119.	39.1	79.9	92.1	3	107.	31.0	76.0	79.0
IRON	7	0.050	0.010	0.040	0.030	8	0.180	0.010	0.170	0.054	3	0.090	0.010L	0.080	0.053
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.010L	0.006L	0.004	0.007
MAGNES	7	4.70	2.20	2.50	3.21	8	7.90	2.20	5.70	5.02	1	6.00	6.00	0.0	6.00
MANGAN	7	0.015	0.001L	0.014	0.004	8	0.015	0.001	0.014	0.004	3	0.011	0.010L	0.001	0.010
NITRATE	24	0.050	0.010L	0.040	0.014	32	0.950	0.010L	0.940	0.044	13	0.200	0.010L	0.190	0.035
TOTAL N	23	0.270	0.020	0.250	0.136	31	6.55	0.010L	6.54	0.695	13	0.690	0.010L	0.680	0.262
PH	24	8.20	6.90	1.30	7.84	32	8.40	7.40	1.00	8.04	13	8.20	7.30	0.900	7.90
ORTHO P	24	0.020	0.003	0.017	0.008	32	0.554	0.003	0.551	0.026	13	0.046	0.007	0.039	0.014
TOTAL P	24	0.028	0.007	0.021	0.013	31	1.79	0.007	1.78	0.075	13	0.121	0.010	0.111	0.029
POTASS	6	1.60	1.00	0.600	1.27	8	1.80	0.900	0.900	1.31	3	1.80	0.800	1.00	1.37
SILICA	6	18.9	16.2	2.70	17.4	8	20.6	16.5	4.10	18.0	3	21.4	16.8	4.60	19.2
SODIUM	6	6.40	3.70	2.70	4.75	8	6.30	3.20	3.10	5.42	3	5.80	1.90	3.90	4.43
SULPHATE	7	11.8	6.30	5.50	9.21	8	14.2	3.40	10.8	10.9	3	15.0	2.90	12.1	9.67
TIC	0	0.0	0.0	0.0	0.0	8	27.0	16.0	11.0	22.7	10	26.0	3.00	23.0	16.4
ZINC	7	0.003	0.001L	0.002	0.001	8	0.005	0.001L	0.004	0.002	3	0.006	0.002	0.004	0.003
ORGANIC PARAMETERS															
TOC	24	10.0	3.00	7.00	6.29	32	285.	2.00L	283.	15.5	13	18.0	2.00	16.0	9.46

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: 8524 VERNON CREEK AT INLET TO ELLISON LAKE

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	1	40.0	40.0	0.0	40.0	5	70.0	10.0	60.0	29.0	4	110.	0.0	110.	35.5
TURBID	7	85.0	0.700	84.3	15.8	22	1000.L	0.500	999.	79.4	19	31.0	0.200	30.8	4.31
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	4	1397.	30.8	1366.	598.	1	228.	228.	0.0	228.
DISS O2	8	9.40	6.90	2.50	8.30	23	13.1	9.30	3.80	11.4	19	14.5	8.30	6.20	10.8
D.O. SAT	8	100.	81.0	19.0	90.7	23	107.	81.0	26.0	95.6	18	115.	80.0	35.0	95.3
TEMP	2	25.2	21.7	3.50	23.4	5	24.3	2.70	21.6	15.8	4	22.1	11.0	11.1	15.9
INORGANIC PARAMETERS															
ALK TOT	8	62.5	31.5	31.0	46.3	23	110.	38.1	71.9	72.7	19	108.	28.0	80.0	66.3
CALCIUM	2	12.0	9.00	3.00	10.5	5	21.0	12.1	8.90	16.4	4	19.5	14.5	5.00	16.9
CHLORIDE	1	0.400	0.400	0.0	0.400	5	1.10	0.400	0.700	0.640	4	1.70	0.700	1.00	1.12
COPPER	2	0.002L	0.002L	0.0	0.002	5	0.013	0.001L	0.012	0.007	4	0.007	0.001	0.006	0.004
FLUORIDE	2	0.070	0.060	0.010	0.065	5	0.120	0.080	0.040	0.100	4	0.150	0.090	0.060	0.115
HARD TOT	2	42.8	34.7	8.10	38.7	5	85.8	41.9	43.9	63.5	4	100.	46.0	54.0	69.5
IRON	2	0.070	0.050	0.020	0.060	5	0.160	0.010	0.150	0.068	4	0.160	0.020	0.140	0.065
LEAD	2	0.005L	0.005L	0.0	0.005	5	0.010L	0.005L	0.005	0.009	4	0.010L	0.004L	0.006	0.007
MAGNES	2	3.10	3.00	0.100	3.05	5	8.10	2.80	5.30	5.50	1	6.20	6.20	0.0	6.20
MANGAN	2	0.007	0.001L	0.006	0.004	5	0.130	0.009	0.121	0.043	4	0.095	0.010L	0.085	0.036
NITRATE	8	0.030	0.010L	0.020	0.014	23	0.090	0.010L	0.080	0.039	19	0.230	0.010L	0.220	0.053
TOTAL N	8	0.630	0.120	0.510	0.304	22	3.61	0.020	3.59	0.541	18	0.840	0.010L	0.830	0.372
PH	8	7.70	7.30	0.400	7.50	23	8.70	7.20	1.50	8.03	19	9.50	7.30	2.20	8.15
ORTHO P	8	0.039	0.010	0.029	0.017	23	0.108	0.003L	0.105	0.020	19	0.110	0.003	0.107	0.018
TOTAL P	8	0.075	0.020	0.055	0.034	22	6.69	0.007	6.68	0.471	19	1.20	0.010	1.19	0.098
POTASS	1	1.20	1.20	0.0	1.20	5	1.60	1.20	0.400	1.38	4	2.00	1.10	0.900	1.55
SILICA	1	12.7	12.7	0.0	12.7	5	23.1	10.5	12.6	14.0	4	35.0	6.00	29.0	14.4
SODIUM	1	3.70	3.70	0.0	3.70	5	9.40	4.60	4.80	6.30	4	8.00	4.20	3.80	6.05
SULPHATE	2	4.50	3.00	1.50	3.75	5	12.3	3.00	9.30	8.08	4	22.2	2.40	19.8	12.8
TIC	0	0.0	0.0	0.0	0.0	3	22.0	12.0	10.0	18.3	15	25.0	7.00	18.0	13.4
ZINC	2	0.001	0.001L	0.0	0.001	5	0.020	0.002	0.018	0.007	4	0.034	0.004	0.030	0.017
ORGANIC PARAMETERS															
TOC	8	11.0	7.00	4.00	9.00	22	47.0	2.00	45.0	10.6	19	38.0	5.00	33.0	15.0

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B525 VERNON CREEK AT INLET TO WOOD LAKE

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	70.0	10.0	60.0	27.5	8	40.0	10.0	30.0	20.6	3	15.0	10.0	5.00	11.7
TURBID	28	28.0	1.70	26.3	6.54	36	36.0	1.30	34.7	7.67	20	23.0	0.900	22.1	7.06
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	3	24.8	0.500L	24.3	10.4	7	9.60	2.80	6.80	5.54	4	41.2	0.400	40.8	17.3
DISS O2	29	12.4	6.70	5.70	9.94	38	13.0	7.80	5.20	11.0	20	14.3	6.70	7.60	10.1
D.O. SAT	29	103.	70.0	33.0	90.9	40	112.	81.0	31.0	94.5	20	126.	54.0	72.0	87.8
TEMP	7	24.2	3.30	20.9	13.3	8	24.3	2.20	22.1	15.0	4	22.1	7.20	14.9	15.6
INORGANIC PARAMETERS															
ALK TOT	29	191.	37.0	154.	138.	40	189.	109.	80.0	155.	20	208.	69.0	139.	135.
CALCIUM	7	44.6	16.5	28.1	33.2	8	47.2	29.7	17.5	37.5	4	47.9	18.1	29.8	29.0
CHLORIDE	6	2.90	0.800	2.10	2.28	8	3.30	1.60	1.70	2.40	4	4.00	0.900	3.10	2.37
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.010	0.001L	0.009	0.003	4	0.004	0.001	0.003	0.002
FLUORIDE	7	0.280	0.100	0.180	0.210	8	0.230	0.170	0.060	0.199	4	0.260	0.130	0.130	0.182
HARD TOT	7	180.	56.6	123.	134.	8	184.	120.	64.0	153.	4	213.	79.0	134.	137.
IRON	7	0.160	0.060	0.100	0.101	8	0.230	0.010	0.220	0.089	4	0.130	0.060	0.070	0.092
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.012L	0.004L	0.008	0.008
MAGNES	7	16.9	3.70	13.2	12.4	7	16.1	11.1	5.00	13.8	1	22.7	22.7	0.0	22.7
MANGAN	7	0.060	0.001L	0.059	0.019	8	0.130	0.020	0.110	0.069	4	0.250	0.021	0.229	0.087
NITRATE	29	1.49	0.180	1.31	0.981	40	1.38	0.010L	1.37	0.855	20	1.50	0.200	1.30	0.752
TOTAL N	28	1.73	0.950	0.780	1.38	39	25.0	0.670	24.3	1.85	19	1.82	0.590	1.23	1.32
PH	29	8.50	7.20	1.30	7.80	40	8.50	7.50	1.00	8.08	20	8.50	7.40	1.10	7.88
ORTHO P	29	0.042	0.003	0.039	0.019	40	0.055	0.010	0.045	0.028	20	0.075	0.007	0.068	0.031
TOTAL P	29	0.082	0.013	0.069	0.045	39	0.157	0.029	0.128	0.068	20	0.251	0.029	0.222	0.111
POTASS	6	3.50	1.10	2.40	2.60	8	3.20	1.90	1.30	2.42	4	4.40	2.00	2.40	3.15
SILICA	6	21.1	14.1	7.00	18.2	8	22.5	2.06	20.4	18.2	4	25.2	12.8	12.4	18.2
SODIUM	6	15.1	5.10	10.0	12.4	8	14.7	0.900	13.8	10.6	4	19.0	6.70	12.3	13.3
SULPHATE	7	32.8	7.10	25.7	19.7	8	24.4	16.4	8.00	19.7	4	36.4	9.90	26.5	24.3
TIC	0	0.0	0.0	0.0	0.0	14	42.0	26.0	16.0	35.5	16	49.0	14.0	35.0	27.4
ZINC	7	0.006	0.001	0.005	0.002	8	0.010	0.001L	0.009	0.005	4	0.005	0.002	0.003	0.003
ORGANIC PARAMETERS															
TOC	28	18.0	3.00	15.0	7.18	40	16.0	3.00	13.0	7.15	20	17.0	3.00	14.0	11.4

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B526 SHORTS CREEK

	1969					1970					1971				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	5	20.0	5.00	15.0	10.0	8	50.0	0.0	50.0	10.0	3	100.	5.00	95.0	36.7
TURBID	22	12.0	0.300	11.7	2.24	30	17.0	0.200	16.8	2.62	3	150.	0.900	149.	50.8
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TC SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	1	1370.	1370.	0.0	1370.
DISS O2	23	13.8	8.30	5.50	11.4	31	14.1	6.50	7.60	11.9	3	13.4	8.60	4.80	11.0
D.O. SAT	23	115.	86.0	29.0	97.7	33	116.	71.0	45.0	100.	2	93.0	90.0	3.00	91.5
TEMP	6	15.8	1.10	14.7	8.53	8	24.2	0.500	23.7	14.8	3	22.8	4.60	18.2	14.6
INORGANIC PARAMETERS															
ALK TOT	23	144.	79.0	65.0	118.	33	213.	38.3	175.	130.	3	131.	42.0	89.0	100.
CALCIUM	6	40.0	28.1	11.9	34.4	8	42.0	17.4	24.6	36.6	3	38.4	14.9	23.5	30.0
CHLORIDE	5	0.500	0.300	0.200	0.380	8	0.600	0.300	0.300	0.412	3	0.900	0.200	0.700	0.567
COPPER	6	0.002	0.001L	0.001	0.001	7	0.006	0.001L	0.005	0.002	3	0.005	0.001	0.004	0.003
FLUORIDE	6	0.280	0.110	0.170	0.168	8	0.180	0.020	0.160	0.147	3	0.150	0.090	0.060	0.130
HARD TOT	6	132.	84.1	47.9	111.	8	138.	56.1	81.9	118.	3	126.	45.0	81.0	98.7
IRON	6	0.050	0.010	0.040	0.023	7	0.070	0.0	0.070	0.021	3	0.130	0.010L	0.120	0.053
LEAD	6	0.010L	0.005L	0.005	0.008	7	0.010L	0.010L	0.0	0.010	3	0.012L	0.005L	0.007	0.009
MAGNES	6	8.70	3.40	5.30	6.08	8	8.50	3.10	5.40	6.40	1	8.20	8.20	0.0	8.20
MANGAN	6	0.004	0.001L	0.003	0.002	7	0.010L	0.001	0.009	0.003	3	0.010L	0.010L	0.0	0.010
NITRATE	23	0.060	0.010L	0.050	0.019	33	0.080	0.010L	0.070	0.018	3	0.050	0.010L	0.040	0.023
TOTAL N	23	0.620	0.020	0.600	0.160	30	1.03	0.010L	1.02	0.162	3	4.50	0.070	4.43	1.69
PH	23	8.60	7.30	1.30	7.97	33	8.60	7.50	1.10	8.20	3	8.10	7.00	1.10	7.57
GRTHO P	23	0.013	0.003L	0.010	0.008	32	0.016	0.003L	0.013	0.007	3	0.160	0.013	0.147	0.062
TOTAL P	23	0.111	0.007	0.104	0.018	33	0.238	0.007	0.231	0.034	3	3.40	0.020	3.38	1.15
POTASS	5	1.10	0.800	0.300	0.960	8	1.60	0.800	0.800	1.02	3	1.40	1.20	0.200	1.27
SILICA	5	17.2	15.6	1.60	16.4	8	18.7	15.9	2.80	16.9	3	20.3	14.2	6.10	17.5
SODIUM	5	6.20	5.30	0.900	5.74	8	6.50	3.40	3.10	5.66	3	6.50	2.20	4.30	5.00
SULPHATE	6	8.30	4.50	3.80	6.95	8	9.20	3.70	5.50	7.74	3	10.2	1.80	8.40	6.83
TIC	0	0.0	0.0	0.0	0.0	10	33.0	24.0	9.00	29.0	0	0.0	0.0	0.0	0.0
ZINC	6	0.009	0.001L	0.008	0.003	7	0.002	0.001	0.001	0.002	3	0.007	0.001L	0.006	0.003
ORGANIC PARAMETERS															
TOC	23	20.0	2.00L	18.0	5.52	33	16.0	2.00L	14.0	5.33	3	125.	3.00	122.	44.7

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B527 WHITEMAN CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	20.0	5.00	15.0	9.17	8	40.0	0.0	40.0	10.0	3	7.00	5.00	2.00	6.33
TURBID	29	4.80	0.300	4.50	1.54	35	9.00	0.200	8.80	2.01	13	110.	0.300	110.	11.2
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	1	2.40	2.40	0.0	2.40	1	770.	770.	0.0	770.
DISS O2	30	13.5	9.00	4.50	11.4	36	14.2	1.10	13.1	11.9	13	14.0	9.10	4.90	11.8
D.O. SAT	30	105.	85.0	20.0	98.3	38	112.	92.0	20.0	100.	12	100.	91.0	9.00	95.1
TEMP	7	13.8	2.20	11.6	8.94	8	24.5	1.10	23.4	14.9	3	22.8	4.90	17.9	14.2
INORGANIC PARAMETERS															
ALK TOT	30	135.	55.5	79.5	104.	38	146.	37.8	108.	109.	13	120.	34.0	86.0	81.6
CALCIUM	7	41.2	24.6	16.6	34.9	8	47.3	19.4	27.9	37.1	3	41.7	12.4	29.3	28.8
CHLORIDE	6	19.4	0.400	19.0	3.67	8	1.20	0.200	1.00	0.500	3	0.700	0.600	0.100	0.633
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.005	0.001L	0.004	0.002	3	0.005	0.002	0.003	0.003
FLUORIDE	7	0.290	0.130	0.160	0.223	8	0.330	0.170	0.160	0.264	3	0.290	0.130	0.160	0.210
HARD TOT	7	130.	68.4	61.6	111.	8	153.	60.8	92.2	119.	3	139.	37.0	102.	93.7
IRON	7	0.050	0.010	0.040	0.023	8	0.060	0.010L	0.050	0.025	3	0.110	0.010L	0.100	0.053
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.012L	0.005L	0.007	0.009
MAGNES	7	7.70	1.60	6.10	5.76	8	8.50	3.00	5.50	6.35	1	8.50	8.50	0.0	8.50
MANGAN	7	0.004	-0.003	0.007	0.001	8	0.012	0.001	0.011	0.005	3	0.010L	0.010L	0.0	0.010
NITRATE	30	0.110	0.010L	0.100	0.045	38	0.150	0.010L	0.140	0.063	13	0.140	0.010L	0.130	0.062
TOTAL N	30	0.530	0.080	0.450	0.196	37	0.460	0.030	0.430	0.204	13	3.34	0.110	3.23	0.748
PH	30	8.60	7.40	1.20	8.06	38	8.40	7.50	0.900	8.16	13	8.20	6.90	1.30	7.82
ORTHO P	30	0.039	0.016	0.023	0.027	38	0.046	0.003	0.043	0.028	13	0.140	0.023	0.117	0.037
TOTAL P	29	0.101	0.023	0.078	0.040	38	0.052	0.020	0.032	0.037	13	1.20	0.029	1.17	0.136
POTASS	6	1.50	1.00	0.500	1.20	8	1.50	0.800	0.700	1.14	3	1.40	1.20	0.200	1.30
SILICA	5	20.2	0.400	19.8	15.4	8	20.0	18.8	1.20	19.6	3	22.4	18.2	4.20	19.9
SODIUM	6	7.50	4.80	2.70	6.05	8	7.20	2.90	4.30	5.75	3	6.50	2.30	4.20	4.80
SULPHATE	7	31.6	13.3	18.3	25.0	8	46.1	11.0	35.1	29.8	3	45.5	4.90	40.6	23.2
TIC	0	0.0	0.0	0.0	0.0	15	30.0	18.0	12.0	25.4	10	25.0	6.00	19.0	17.1
ZINC	7	0.006	0.001L	0.005	0.002	8	0.002	0.001L	0.001	0.001	3	0.011	0.001L	0.010	0.005
ORGANIC PARAMETERS															
TOC	29	9.00	2.00L	7.00	5.31	38	12.0	2.00L	10.0	5.34	12	87.0	3.00	84.0	14.2

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B528 EQUESIS CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	10.0	0.0	10.0	5.00	8	20.0	0.0	20.0	6.25	3	45.0	0.0	45.0	16.7
TURBID	28	4.70	0.500	4.20	1.68	30	22.0	0.700	21.3	3.11	3	160.	1.60	158.	56.0
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	2	12.4	5.20	7.20	8.80	1	1860.	1860.	0.0	1860.
DISS O2	29	12.9	9.80	3.10	11.3	31	13.7	10.0	3.70	12.0	3	12.2	9.60	2.60	10.5
D.O. SAT	29	112.	85.0	27.0	97.6	33	108.	89.0	19.0	98.5	3	90.0	80.0	10.0	86.7
TEMP	7	13.3	3.30	10.0	8.27	8	24.9	0.0	24.9	14.9	3	23.3	5.70	17.6	13.6
INORGANIC PARAMETERS															
ALK TGT	29	212.	62.0	150.	183.	33	220.	86.7	133.	190.	3	211.	64.0	147.	155.
CALCIUM	7	59.8	46.8	13.0	55.0	8	65.3	1.00	64.3	51.0	3	62.8	21.2	41.6	45.7
CHLORIDE	6	0.600	0.400	0.200	0.450	8	0.500	0.200	0.300	0.400	3	0.800	0.500	0.300	0.633
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.006	0.001L	0.005	0.002	3	0.003	0.001	0.002	0.002
FLUORIDE	7	0.290	0.220	0.070	0.251	8	0.260	0.180	0.080	0.220	3	0.230	0.120	0.110	0.187
HARD TOT	7	226.	181.	45.0	207.	8	237.	116.	121.	206.	3	243.	71.0	172.	174.
IRON	7	0.100	0.010	0.090	0.027	8	0.040	0.010L	0.030	0.024	3	0.090	0.010L	0.080	0.037
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.012L	0.005L	0.007	0.009
MAGNES	7	19.3	13.4	5.90	17.0	8	20.0	9.40	10.6	16.8	1	20.9	20.9	0.0	20.9
MANGAN	7	0.002	0.001L	0.001	0.001	8	0.010L	0.001L	0.009	0.003	3	0.047	0.010L	0.037	0.022
NITRATE	29	0.170	0.010L	0.160	0.077	33	0.140	0.010L	0.130	0.080	3	0.160	0.080	0.080	0.123
TOTAL N	29	1.11	0.020	1.09	0.239	32	0.490	0.040	0.450	0.204	3	7.15	0.300	6.85	2.61
PH	29	8.90	6.90	2.00	8.24	33	8.60	8.00	0.600	8.38	3	8.50	7.50	1.00	8.03
ORTHO P	29	0.055	0.007	0.048	0.017	33	0.160	0.003	0.157	0.025	3	0.029	0.023	0.006	0.025
TOTAL P	28	0.095	0.009	0.086	0.033	32	0.114	0.016	0.098	0.036	3	1.21	0.039	1.17	0.446
POTASS	6	3.10	2.60	0.500	2.75	8	3.20	2.00	1.20	2.67	3	3.20	1.90	1.30	2.73
SILICA	6	25.5	19.3	6.20	22.1	8	26.3	21.8	4.50	23.1	3	32.4	21.2	11.2	25.7
SODIUM	6	9.80	8.30	1.50	8.93	8	10.1	5.50	4.60	8.21	3	9.00	2.90	6.10	6.97
SULPHATE	7	38.1	29.1	9.00	33.6	8	43.2	18.0	25.2	35.2	3	50.3	11.6	38.7	35.7
TIC	0	0.0	0.0	0.0	0.0	10	48.0	30.0	18.0	40.1	0	0.0	0.0	0.0	0.0
ZINC	7	0.001	0.001L	0.0	0.001	8	0.003	0.001L	0.002	0.001	3	0.004	0.001L	0.003	0.002
ORGANIC PARAMETERS															
TOC	28	20.0	2.00L	18.0	4.36	33	11.0	2.00L	9.00	4.85	3	336.	4.00	332.	116.

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B529 DEEP CREEK OFF WEST SIDE ROAD

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
CLOUR	6	100.	20.0	80.0	37.5	8	30.0	10.0	20.0	23.7	4	55.0	20.0	35.0	32.5
TURBID	28	31.0	1.30	29.7	8.59	43	70.0	1.90	68.1	12.2	40	22.0	0.500	21.5	5.95
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	5	12.4	6.80	5.60	8.08	5	56.8	6.00	50.8	30.6	2	26.4	8.00	18.4	17.2
DISS O2	29	11.1	5.20	5.90	7.37	44	13.5	5.30	8.20	8.21	40	12.4	3.80	8.60	6.66
D.O. SAT	29	128.	45.0	83.0	69.6	46	113.	55.0	58.0	72.8	40	107.	31.0	76.0	58.8
TEMP	7	22.5	4.40	18.1	13.2	8	24.2	2.70	21.5	15.2	4	23.3	4.70	18.6	15.6
INORGANIC PARAMETERS															
ALK TOT	29	357.	166.	191.	233.	46	281.	162.	119.	252.	40	377.	101.	276.	229.
CALCIUM	7	87.5	56.4	31.1	76.9	8	112.	84.1	27.9	92.2	4	111.	60.2	50.8	84.5
CHLORIDE	6	3.10	2.20	0.900	2.67	8	43.0	2.40	40.6	8.67	4	3.90	2.50	1.40	3.05
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.007	0.001L	0.006	0.003	4	0.003	0.001L	0.002	0.002
FLUORIDE	7	0.300	0.240	0.060	0.273	8	0.310	0.260	0.050	0.277	4	0.290	0.160	0.130	0.247
HARD TOT	7	370.	236.	134.	317.	8	390.	299.	91.0	353.	4	414.	194.	220.	327.
IRON	7	0.220	0.010	0.210	0.089	8	0.110	0.030	0.080	0.060	4	0.140	0.030	0.110	0.095
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.012L	0.006L	0.006	0.009
MAGNES	7	40.9	23.1	17.8	30.4	8	37.4	21.6	15.8	29.8	1	33.2	33.2	0.0	33.2
MANGAN	7	0.270	0.001L	0.269	0.174	8	0.340	0.001	0.339	0.197	4	0.290	0.110	0.180	0.185
NITRATE	29	1.71	0.010	1.70	0.320	46	0.970	0.010L	0.960	0.135	40	0.970	0.010L	0.960	0.249
TOTAL N	29	3.75	0.340	3.41	1.45	45	2.44	0.220	2.22	1.44	40	3.12	0.510	2.61	1.74
PH	29	9.20	7.20	2.00	7.97	46	8.60	7.40	1.20	8.07	40	8.30	7.40	0.900	7.84
ORTHO P	29	0.235	0.003	0.232	0.105	46	0.391	0.023	0.368	0.207	40	0.554	0.023	0.531	0.283
TOTAL P	28	0.587	0.052	0.535	0.234	45	0.587	0.228.	0.359	0.366	40	0.717	0.173	0.544	0.415
POTASS	6	8.40	7.10	1.30	7.58	8	7.80	0.0	7.80	6.29	4	10.0	4.50	5.50	7.45
SILICA	6	30.8	25.0	5.80	27.4	8	31.2	10.0	21.2	24.2	4	27.7	14.9	12.8	23.6
SODIUM	6	30.4	21.0	9.40	23.2	8	24.9	16.9	8.00	21.9	4	30.5	9.70	20.8	21.9
SULPHATE	7	162.	111.	51.0	137.	8	199.	136.	63.0	159.	4	203.	106.	97.3	149.
TIC	0	0.0	0.0	0.0	0.0	23	62.0	34.0	28.0	55.9	36	67.0	20.0	47.0	48.2
ZINC	7	0.004	0.001L	0.003	0.002	8	0.010	0.001L	0.009	0.003	4	0.005	0.001L	0.004	0.002
ORGANIC PARAMETERS															
TOC	28	25.0	2.00	23.0	7.43	46	20.0	2.00	18.0	11.3	39	27.0	6.00	21.0	14.7

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B530 VERNON CREEK AT INLET TO OKANAGAN LAKE

	1969					1970					1971				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	15.0	5.00	10.0	10.3	8	20.0	5.00	15.0	11.5	4	20.0	7.00	13.0	13.0
TURBID	28	61.0	3.00	58.0	12.3	43	37.0	1.90	35.1	13.0	40	37.0	1.80	35.2	10.8
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	5	31.6	9.00	22.6	20.1	7	80.4	6.00	74.4	40.1	3	128.	9.20	119.	62.7
DISS O2	29	12.2	7.50	4.70	9.53	44	12.3	7.50	4.80	10.2	40	12.3	6.20	6.10	9.35
D.O. SAT	29	123.	80.0	43.0	91.3	46	118.	73.0	45.0	92.0	40	99.0	64.0	35.0	81.8
TEMP	7	24.2	3.80	20.4	13.8	8	24.8	3.30	21.5	16.1	4	20.6	5.30	15.3	14.2
INORGANIC PARAMETERS															
ALK TOT	29	193.	145.	48.0	169.	46	211.	145.	66.0	183.	40	244.	107.	137.	183.
CALCIUM	7	68.3	47.0	21.3	57.2	8	69.4	47.9	21.5	59.4	4	87.9	36.9	51.0	62.5
CHLORIDE	6	35.1	1.60	33.5	9.03	8	16.4	3.50	12.9	7.22	4	17.0	3.60	13.4	10.6
COPPER	7	0.003	0.001L	0.002	0.002	8	0.009	0.001	0.008	0.004	4	0.008	0.003	0.005	0.005
FLUORIDE	7	0.310	0.230	0.080	0.280	8	0.290	0.240	0.050	0.264	4	0.260	0.150	0.110	0.225
HARD TOT	7	240.	181.	59.0	217.	8	297.	181.	116.	232.	4	372.	143.	229.	249.
IRON	7	0.180	0.010	0.170	0.056	8	0.040	0.010	0.030	0.030	4	0.050	0.010L	0.040	0.035
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.012L	0.005L	0.007	0.008
MAGNES	7	19.8	15.2	4.60	18.0	8	30.1	14.9	15.2	20.4	1	40.7	40.7	0.0	40.7
MANGAN	7	0.056	0.001L	0.055	0.018	8	0.330	0.010	0.320	0.059	4	0.065	0.018	0.047	0.043
NITRATE	29	2.08	0.220	1.86	0.818	46	2.60	0.270	2.33	1.12	40	2.50	0.140	2.36	0.982
TOTAL N	28	2.84	0.690	2.15	1.42	46	12.0	0.710	11.3	2.18	40	5.21	0.190	5.02	2.37
PH	29	8.60	7.20	1.40	7.99	46	8.30	7.60	0.700	7.99	40	8.90	7.50	1.40	7.93
ORTHO P	29	0.946	0.013	0.933	0.438	46	1.50	0.023	1.48	0.589	40	1.50	0.055	1.44	0.547
TOTAL P	28	1.17	0.062	1.11	0.552	45	1.66	0.039	1.62	0.712	40	1.86	0.095	1.76	0.675
POTASS	6	6.10	4.80	1.30	5.28	8	6.10	4.60	1.50	5.45	4	9.90	4.00	5.90	6.30
SILICA	6	15.4	8.80	6.60	12.7	8	15.0	11.3	3.70	13.3	4	16.2	10.2	6.00	13.3
SODIUM	6	42.2	18.2	24.0	24.1	8	29.4	16.8	12.6	24.1	4	41.0	13.6	27.4	25.7
SULPHATE	7	91.5	58.6	32.9	79.6	8	153.	61.4	91.6	95.6	4	224.	53.7	170.	112.
TIC	0	0.0	0.0	0.0	0.0	23	48.0	24.0	24.0	39.7	35	51.0	20.0	31.0	38.5
ZINC	7	0.007	0.003	0.004	0.005	8	0.009	0.003	0.006	0.006	4	0.013	0.003	0.010	0.007
ORGANIC PARAMETERS															
TOC	28	21.0	2.00L	19.0	5.89	46	18.0	2.00L	16.0	7.59	38	25.0	4.00	21.0	10.3

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B531 BX CREEK: BRIDGE AT HIGHWAY 97

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	45.0	5.00	40.0	25.0	8	90.0	10.0	80.0	26.2	5	60.0	0.0	60.0	25.0
TURBID	28	80.0	4.50	75.5	28.3	36	48.0	1.00	47.0	13.1	20	150.	0.800	149.	12.0
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	6	120.	5.80	114.	56.1	6	47.6	4.80	42.8	27.2	3	1160.	4.40	1156.	392.
DISS O2	29	13.4	3.70	9.70	9.42	36	14.2	9.60	4.60	11.6	20	13.8	3.30	10.5	10.5
D.O. SAT	29	146.	40.0	106.	87.9	38	184.	75.0	109.	104.	20	129.	36.0	93.0	90.7
TEMP	7	24.0	3.30	20.7	12.5	8	24.8	2.20	22.6	16.1	4	19.5	4.20	15.3	12.4
INORGANIC PARAMETERS															
ALK TOT	29	337.	105.	232.	237.	38	324.	70.6	253.	238.	20	310.	56.0	254.	223.
CALCIUM	7	87.9	42.1	45.8	73.5	8	92.4	31.0	61.4	75.0	4	91.9	22.7	69.2	68.7
CHLORIDE	6	8.40	4.40	4.00	5.62	8	13.3	0.700	12.6	6.75	4	15.2	0.700	14.5	7.42
COPPER	7	0.003	0.002L	0.001	0.002	8	0.006	0.001L	0.005	0.002	4	0.004	0.001L	0.003	0.002
FLUORIDE	7	0.260	0.100	0.160	0.197	8	0.260	0.100	0.160	0.197	4	0.260	0.070	0.190	0.190
HARD TOT	7	328.	126.	202.	266.	8	367.	92.5	274.	278.	4	392.	68.0	324.	275.
IRON	7	0.300	0.010	0.290	0.091	8	0.190	0.020	0.170	0.060	4	0.150	0.030	0.120	0.067
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.039	0.005L	0.034	0.013	4	0.012L	0.005L	0.007	0.008
MAGNES	7	26.4	5.10	21.3	20.1	8	36.0	3.70	32.3	22.1	1	39.5	39.5	0.0	39.5
MANGAN	7	0.160	0.001L	0.159	0.064	8	0.170	0.008	0.162	0.065	4	0.130	0.010	0.120	0.052
NITRATE	29	2.25	0.040	2.21	1.14	38	3.30	0.140	3.16	1.53	20	5.00	0.080	4.92	1.93
TOTAL N	29	9.55	0.520	9.03	3.01	38	6.65	0.360	6.29	2.28	20	6.11	0.160	5.95	2.76
PH	29	8.80	7.20	1.60	8.04	38	8.70	7.70	1.00	8.23	20	8.40	7.40	1.00	8.04
ORTHO P	29	1.89	0.003	1.89	0.355	38	0.848	0.010	0.838	0.225	20	0.717	0.007	0.710	0.211
TOTAL P	29	2.54	0.007	2.53	0.558	37	1.30	0.033	1.27	0.321	20	0.978	0.026	0.952	0.324
POTASS	6	8.60	5.00	3.60	6.32	8	18.5	1.60	16.9	6.79	4	16.5	2.10	14.4	8.02
SILICA	6	19.6	16.0	3.60	17.6	8	19.7	12.3	7.40	16.1	4	19.0	13.3	5.70	16.8
SODIUM	6	44.3	18.5	25.8	28.9	8	46.0	3.30	42.7	28.1	4	44.0	1.90	42.1	30.7
SULPHATE	7	105.	25.4	79.6	78.4	8	128.	19.9	108.	91.9	4	162.	15.0	147.	97.9
TIC	0	0.0	0.0	0.0	0.0	15	71.0	36.0	35.0	55.9	16	71.0	10.0	61.0	46.8
ZINC	7	0.010	0.001	0.009	0.006	8	0.019	0.001	0.018	0.005	4	0.005	0.001	0.004	0.002
ORGANIC PARAMETERS															
TOC	28	16.0	3.00	13.0	8.18	38	22.0	4.00	18.0	7.82	19	54.0	4.00	50.0	12.6

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B532 COLDSTREAM CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	10.0	5.00	5.00	6.67	8	45.0	0.0	45.0	10.6	4	35.0	0.0	35.0	12.5
TURBID	27	46.0	1.50	44.5	5.67	42	51.0	1.10	49.9	5.29	39	44.0	0.400	43.6	8.12
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	3	15.6	6.60	9.00	11.6	4	64.4	6.40	58.0	23.7	2	224.	4.40	220.	114.
DISS O2	29	13.4	7.30	6.10	10.7	43	14.1	9.00	5.10	11.6	40	13.9	7.10	6.80	11.2
D.O. SAT	29	105.	85.0	20.0	96.8	45	124.	75.0	49.0	99.7	40	117.	67.0	50.0	94.7
TEMP	7	16.8	3.80	13.0	10.6	8	24.7	3.30	21.4	16.2	4	23.2	4.50	18.7	12.7
INORGANIC PARAMETERS															
ALK TOT	29	258.	180.	78.0	211.	45	261.	112.	149.	222.	40	274.	100.	174.	208.
CALCIUM	7	79.1	31.4	47.7	66.4	8	82.5	39.6	42.9	70.4	4	80.3	35.6	44.7	65.1
CHLORIDE	7	2.70	1.70	1.00	2.19	8	3.90	0.900	3.00	2.61	4	5.00	1.40	3.60	3.07
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.007	0.001L	0.006	0.003	4	0.012	0.001L	0.011	0.004
FLUORIDE	7	0.380	0.260	0.120	0.320	8	0.360	0.170	0.190	0.311	4	0.340	0.130	0.210	0.247
HARD TOT	7	287.	242.	45.0	259.	8	320.	130.	190.	256.	4	306.	117.	189.	235.
IRON	7	0.080	0.010L	0.070	0.030	8	0.050	0.010L	0.040	0.025	4	0.060	0.010L	0.050	0.030
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	4	0.012L	0.005L	0.007	0.008
MAGNES	7	39.7	18.1	21.6	22.6	8	27.7	7.60	20.1	19.4	1	26.5	26.5	0.0	26.5
MANCAN	7	0.005	0.001L	0.004	0.003	8	0.022	0.004	0.018	0.010	4	0.060	0.010L	0.050	0.026
NITRATE	29	1.67	0.170	1.50	1.21	45	1.94	0.320	1.62	1.31	40	2.20	0.010L	2.19	1.27
TOTAL N	27	2.06	0.620	1.44	1.50	44	3.92	0.790	3.13	1.64	40	3.11	0.140	2.97	1.76
PH	29	8.70	7.50	1.20	8.23	45	8.70	7.80	0.900	8.34	40	11.4	7.80	3.60	8.33
ORTHO P	29	0.135	0.003	0.132	0.018	45	0.359	0.007	0.352	0.030	40	0.088	0.003	0.085	0.028
TOTAL P	28	0.210	0.016	0.194	0.043	44	0.522	0.020	0.502	0.063	40	0.750	0.023	0.727	0.099
POTASS	7	6.80	4.00	2.80	5.00	8	6.60	2.20	4.40	5.04	4	9.10	2.60	6.50	5.40
SILICA	7	19.3	17.4	1.90	18.2	8	20.0	16.5	3.50	18.2	4	18.8	18.0	0.800	18.4
SODIUM	7	18.2	12.0	6.20	14.8	8	22.7	6.20	16.5	15.9	4	25.3	5.00	20.3	15.4
SULPHATE	7	77.6	54.7	22.9	63.3	8	104.	27.1	76.9	68.3	4	106.	21.9	84.1	62.7
TIC	0	0.0	0.0	0.0	0.0	22	53.0	27.0	26.0	45.0	36	58.0	12.0	46.0	41.3
ZINC	7	0.004	0.001	0.003	0.002	8	0.014	0.002L	0.012	0.004	4	0.084	0.001L	0.083	0.022
ORGANIC PARAMETERS															
TOC	28	9.00	2.00L	7.00	3.50	44	26.0	2.00L	24.0	6.14	39	45.0	2.00L	43.0	8.41

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B533 NASWHITO CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	6	30.0	7.00	23.0	14.5	8	50.0	0.0	50.0	13.7	3	70.0	5.00	65.0	28.3
TURBID	28	5.50	0.400	5.10	1.75	29	12.0	0.400	11.6	2.59	3	87.0	0.800	86.2	29.8
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	2	6.00	2.00	4.00	4.00	1	585.	585.	0.0	585.
DISS O2	29	13.8	1.30	12.5	11.0	30	14.0	9.80	4.20	12.1	3	13.2	8.70	4.50	11.1
D.O. SAT	29	105.	9.008	96.0	93.7	32	104.	89.0	15.0	98.0	3	93.0	89.0	4.00	90.7
TEMP	7	13.8	0.500	13.3	8.20	8	24.7	0.0	24.7	14.7	3	23.3	4.40	18.9	14.4
INORGANIC PARAMETERS															
ALK TOT	29	175.	48.0	127.	100.	32	154.	24.8	129.	110.	3	109.	34.0	75.0	77.3
CALCIUM	7	29.6	15.8	13.8	24.1	8	38.7	15.1	23.6	28.5	3	27.9	10.9	17.0	20.8
CHLORIDE	6	0.700	0.400	0.300	0.500	8	0.800	0.400	0.400	0.525	3	0.700	0.400	0.300	0.533
COPPER	7	0.002L	0.001L	0.001	0.001	8	0.005	0.001L	0.004	0.002	3	0.003	0.001	0.002	0.002
FLUORIDE	7	0.260	0.090	0.170	0.146	8	0.200	0.080	0.120	0.150	3	0.160	0.080	0.080	0.120
HARD TOT	7	103.	48.4	54.6	82.2	8	142.	49.8	92.2	99.6	3	104.	35.0	69.0	74.3
IRON	7	0.050	0.010	0.040	0.024	8	0.080	0.010L	0.070	0.029	3	0.090	0.010L	0.080	0.040
LEAD	7	0.010L	0.005L	0.005	0.009	8	0.010L	0.005L	0.005	0.009	3	0.012L	0.005L	0.007	0.009
MAGNES	7	7.30	2.20	5.10	5.34	8	11.0	2.90	8.10	6.89	1	8.30	8.30	0.0	8.30
MANGAN	7	0.003	0.001L	0.002	0.001	8	0.010L	0.001L	0.009	0.003	3	0.010L	0.010L	0.0	0.010
NITRATE	29	0.110	0.010L	0.100	0.017	32	0.110	0.010L	0.100	0.019	3	0.030	0.010L	0.020	0.020
TOTAL N	29	0.380	0.020	0.360	0.147	30	0.970	0.0	0.970	0.178	3	1.49	0.080	1.41	0.557
PH	29	8.50	7.50	1.00	8.04	32	8.40	7.60	0.800	8.11	3	8.00	7.10	0.900	7.67
ORTHO P	29	0.520	0.0	0.520	0.068	32	0.104	0.020	0.084	0.060	3	0.065	0.059	0.006	0.063
TOTAL P	28	9.95	0.020	9.93	0.434	31	0.130	0.023	0.107	0.067	3	0.750	0.065	0.685	0.296
POTASS	6	2.40	1.50	0.900	1.83	8	2.30	1.70	0.600	2.00	3	2.40	1.20	1.20	1.83
SILICA	6	31.0	25.6	5.40	28.6	8	31.0	26.9	4.10	28.9	3	28.8	27.0	1.80	27.7
SODIUM	6	7.80	5.10	2.70	6.55	8	10.0	4.20	5.80	7.54	3	8.20	2.50	5.70	5.73
SULPHATE	7	13.0	5.30	7.70	9.30	8	16.3	4.90	11.4	11.5	3	12.9	10.5	2.40	11.4
TIC	0	0.0	0.0	0.0	0.0	9	28.0	13.0	15.0	22.0	0	0.0	0.0	0.0	0.0
ZINC	7	0.002	0.001L	0.001	0.001	8	0.003	0.001L	0.002	0.001	3	0.002	0.001L	0.001	0.001
ORGANIC PARAMETERS															
TOC	29	8.00	0.02	8.00	4.75	32	12.0	2.00L	10.0	6.06	3	36.0	5.00	31.0	16.7

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B534 GARBAGE CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	0	0.0	0.0	0.0	0.0	2	50.0	10.0	40.0	30.0	2	70.0	10.0	60.0	40.0
TURBID	0	0.0	0.0	0.0	0.0	9	25.0	3.90	21.1	9.40	12	29.0	4.00	25.0	9.38
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	1	3.60	3.60	0.0	3.60	3	11.6	0.200L	11.4	6.07
DISS O2	0	0.0	0.0	0.0	0.0	10	9.70	2.60	7.10	6.40	12	10.3	1.70	8.60	5.84
D.O. SAT	0	0.0	0.0	0.0	0.0	10	85.0	20.0	65.0	56.9	11	82.0	14.0	68.0	50.5
TEMP	0	0.0	0.0	0.0	0.0	2	23.7	20.6	3.10	22.1	3	24.2	13.2	11.0	19.8
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	10	231.	152.	79.0	191.	12	240.	129.	111.	185.
CALCIUM	0	0.0	0.0	0.0	0.0	2	36.6	34.0	2.60	35.3	3	57.1	32.2	24.9	43.0
CHLORIDE	0	0.0	0.0	0.0	0.0	2	2.50	2.40	0.100	2.45	3	5.50	2.10	3.40	3.27
COPPER	0	0.0	0.0	0.0	0.0	2	0.003	0.001L	0.002	0.002	3	0.007	0.001L	0.006	0.004
FLUORIDE	0	0.0	0.0	0.0	0.0	2	0.260	0.240	0.020	0.250	3	0.380	0.170	0.210	0.270
HARD TOT	0	0.0	0.0	0.0	0.0	2	140.	114.	26.0	127.	3	258.	130.	128.	182.
IRON	0	0.0	0.0	0.0	0.0	2	0.120	0.100	0.020	0.110	3	0.580	0.040	0.540	0.250
LEAD	0	0.0	0.0	0.0	0.0	2	0.010L	0.005L	0.005	0.007	3	0.012L	0.004L	0.008	0.009
MAGNES	0	0.0	0.0	0.0	0.0	2	13.4	12.8	0.600	13.1	1	28.0	28.0	0.0	28.0
MANGAN	0	0.0	0.0	0.0	0.0	2	0.450	0.290	0.160	0.370	3	0.390	0.026	0.364	0.239
NITRATE	0	0.0	0.0	0.0	0.0	10	0.100	0.030	0.070	0.058	12	0.860	0.020	0.840	0.123
TOTAL N	0	0.0	0.0	0.0	0.0	10	1.11	0.270	0.840	0.760	12	3.03	0.570	2.46	1.08
PH	0	0.0	0.0	0.0	0.0	10	8.10	7.40	0.700	7.70	12	8.40	7.40	1.00	7.61
ORTHO P	0	0.0	0.0	0.0	0.0	10	0.026	0.007	0.019	0.016	12	0.150	0.013	0.137	0.051
TOTAL P	0	0.0	0.0	0.0	0.0	10	0.280	0.014	0.266	0.170	12	0.850	0.137	0.713	0.293
POTASS	0	0.0	0.0	0.0	0.0	2	3.60	2.40	1.20	3.00	3	9.00	2.00	7.00	4.50
SILICA	0	0.0	0.0	0.0	0.0	2	26.2	23.6	2.60	24.9	2	27.3	25.3	2.00	26.3
SODIUM	0	0.0	0.0	0.0	0.0	2	19.5	17.7	1.80	18.6	3	38.0	15.0	23.0	24.3
SULPHATE	0	0.0	0.0	0.0	0.0	2	7.80	6.90	0.900	7.35	3	88.4	10.0	78.4	36.7
TIC	0	0.0	0.0	0.0	0.0	5	55.0	39.0	16.0	44.8	9	51.0	29.0	22.0	40.1
ZINC	0	0.0	0.0	0.0	0.0	2	0.002L	0.001	0.001	0.001	3	0.022	0.002	0.020	0.010
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	10	10.0	2.00L	8.00	6.30	12	22.0	2.00L	20.0	10.5

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B535 WOLFCUB CREEK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	0	0.0	0.0	0.0	0.0	1	5.00	5.00	0.0	5.00	4	5.00	0.0	5.00	1.25
TURBID	0	0.0	0.0	0.0	0.0	5	11.5	0.400	11.1	4.98	20	6.70	0.100	6.60	1.65
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	1	1.80	1.80	0.0	1.80
DISS O2	0	0.0	0.0	0.0	0.0	5	9.00	4.50	4.50	6.20	20	11.1	3.00	8.10	6.73
D.O. SAT	0	0.0	0.0	0.0	0.0	5	85.0	44.0	41.0	56.4	20	105.	29.0	76.0	62.6
TEMP	0	0.0	0.0	0.0	0.0	1	24.4	24.4	0.0	24.4	4	25.1	11.1	14.0	16.4
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	5	214.	197.	17.0	207.	20	219.	204.	15.0	212.
CALCIUM	0	0.0	0.0	0.0	0.0	1	68.9	68.9	0.0	68.9	4	69.8	66.9	2.90	68.6
CHLORIDE	0	0.0	0.0	0.0	0.0	1	4.60	4.60	0.0	4.60	4	5.00	4.20	0.800	4.52
COPPER	0	0.0	0.0	0.0	0.0	1	0.002	0.002	0.0	0.002	4	0.002	0.001	0.001	0.001
FLUORIDE	0	0.0	0.0	0.0	0.0	1	0.400	0.400	0.0	0.400	4	0.360	0.310	0.050	0.332
HARD TOT	0	0.0	0.0	0.0	0.0	1	239.	239.	0.0	239.	4	249.	244.	5.00	246.
IRON	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.020	0.010L	0.010	0.012
LEAD	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.010L	0.006L	0.004	0.007
MAGNES	0	0.0	0.0	0.0	0.0	1	16.3	16.3	0.0	16.3	1	18.0	18.0	0.0	18.0
MANGAN	0	0.0	0.0	0.0	0.0	1	0.010	0.010	0.0	0.010	4	0.010L	0.010L	0.0	0.010
NITRATE	0	0.0	0.0	0.0	0.0	5	2.20	1.76	0.440	1.96	20	2.60	0.970	1.63	2.12
TOTAL N	0	0.0	0.0	0.0	0.0	5	3.32	1.95	1.37	2.57	20	2.79	1.38	1.41	2.37
PH	0	0.0	0.0	0.0	0.0	5	7.90	7.60	0.300	7.78	20	8.10	7.40	0.700	7.74
ORTHO P	0	0.0	0.0	0.0	0.0	5	0.075	0.042	0.033	0.058	20	0.652	0.003	0.649	0.076
TOTAL P	0	0.0	0.0	0.0	0.0	5	0.153	0.052	0.101	0.096	20	0.684	0.016	0.668	0.093
POTASS	0	0.0	0.0	0.0	0.0	1	4.90	4.90	0.0	4.90	4	4.80	3.80	1.00	4.27
SILICA	0	0.0	0.0	0.0	0.0	1	17.1	17.1	0.0	17.1	4	17.0	14.3	2.70	15.6
SODIUM	0	0.0	0.0	0.0	0.0	1	10.3	10.3	0.0	10.3	4	14.5	13.1	1.40	13.8
SULPHATE	0	0.0	0.0	0.0	0.0	1	51.8	51.8	0.0	51.8	4	54.8	52.7	2.10	53.4
TIC	0	0.0	0.0	0.0	0.0	4	49.0	33.0	16.0	42.5	16	52.0	27.0	25.0	43.0
ZINC	0	0.0	0.0	0.0	0.0	1	0.003	0.003	0.0	0.003	4	0.009	0.001	0.008	0.006
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	5	8.00	2.00	6.00	5.20	20	21.0	2.00L	19.0	6.10

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B536 MISSION CREEK AT GAUGING STATION

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	0	0.0	0.0	0.0	0.0	1	5.00	5.00	0.0	5.00	4	50.0	5.00	45.0	21.2
TURBID	0	0.0	0.0	0.0	0.0	3	1.60	0.400	1.20	1.00	10	26.0	0.500	25.5	4.88
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	2	139.	2.80	136.	70.9
DISS O2	0	0.0	0.0	0.0	0.0	3	13.7	11.1	2.60	12.8	10	13.7	8.00	5.70	11.4
D.O. SAT	0	0.0	0.0	0.0	0.0	3	108.	96.0	12.0	103.	10	102.	88.0	14.0	94.4
TEMP	0	0.0	0.0	0.0	0.0	1	20.2	20.2	0.0	20.2	4	22.1	5.30	16.8	13.2
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	3	121.	102.	19.0	108.	10	127.	15.0	112.	73.1
CALCIUM	0	0.0	0.0	0.0	0.0	1	28.4	28.4	0.0	28.4	4	26.5	5.20	21.3	15.7
CHLORIDE	0	0.0	0.0	0.0	0.0	1	0.700	0.700	0.0	0.700	4	0.800	0.400	0.400	0.625
COPPER	0	0.0	0.0	0.0	0.0	1	0.004	0.004	0.0	0.004	4	0.002	0.001L	0.001	0.001
FLUORIDE	0	0.0	0.0	0.0	0.0	1	0.110	0.110	0.0	0.110	4	0.150	0.050	0.100	0.100
HARD TOT	0	0.0	0.0	0.0	0.0	1	105.	105.	0.0	105.	4	103.	18.0	85.0	66.7
IRON	0	0.0	0.0	0.0	0.0	1	0.050	0.050	0.0	0.050	4	0.080	0.050	0.030	0.062
LEAD	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.012L	0.004L	0.008	0.008
MAGNES	0	0.0	0.0	0.0	0.0	1	8.30	8.30	0.0	8.30	1	9.00	9.00	0.0	9.00
MANGAN	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.018	0.010L	0.008	0.013
NITRATE	0	0.0	0.0	0.0	0.0	3	0.230	0.050	0.180	0.113	10	0.310	0.010	0.300	0.092
TOTAL N	0	0.0	0.0	0.0	0.0	3	0.440	0.050	0.390	0.230	9	0.730	0.030	0.700	0.271
PH	0	0.0	0.0	0.0	0.0	3	9.60	8.10	1.50	8.63	10	8.40	7.00	1.40	7.80
ORTHG P	0	0.0	0.0	0.0	0.0	3	0.033	0.003	0.030	0.014	10	0.010	0.003L	0.007	0.006
TOTAL P	0	0.0	0.0	0.0	0.0	3	0.049	0.007	0.042	0.023	10	0.205	0.007	0.198	0.038
POTASS	0	0.0	0.0	0.0	0.0	1	1.20	1.20	0.0	1.20	4	1.30	0.600	0.700	1.07
SILICA	0	0.0	0.0	0.0	0.0	1	13.3	13.3	0.0	13.3	4	14.3	13.2	1.10	13.6
SODIUM	0	0.0	0.0	0.0	0.0	1	8.60	8.60	0.0	8.60	4	9.30	1.70	7.60	5.75
SULPHATE	0	0.0	0.0	0.0	0.0	1	17.7	17.7	0.0	17.7	4	21.3	3.10	18.2	12.5
TIC	0	0.0	0.0	0.0	0.0	2	21.0	19.0	2.00	20.0	6	29.0	5.00	24.0	15.7
ZINC	0	0.0	0.0	0.0	0.0	1	0.002L	0.002L	0.0	0.002	4	0.005	0.001L	0.004	0.003
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	3	6.00	4.00	2.00	4.67	10	13.0	2.00	11.0	7.90

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B537 KELCUNA CREEK AT HIGHWAY 97 BRIDGE

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	0	0.0	0.0	0.0	0.0	1	10.0	10.0	0.0	10.0	4	90.0	5.00	85.0	40.0
TURBID	0	0.0	0.0	0.0	0.0	3	4.40	2.50	1.90	3.40	10	44.0	1.70	42.3	10.5
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	4	47.6	1.60	46.0	17.8
DISS O2	0	0.0	0.0	0.0	0.0	3	11.0	9.50	1.50	10.3	10	11.7	7.00	4.70	9.37
D.O. SAT	0	0.0	0.0	0.0	0.0	3	88.0	84.0	4.00	86.3	10	109.	69.0	40.0	81.1
TEMP	0	0.0	0.0	0.0	0.0	1	19.7	19.7	0.0	19.7	4	23.3	7.20	16.1	14.3
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	3	198.	191.	7.00	195.	10	206.	35.0	171.	167.
CALCIUM	0	0.0	0.0	0.0	0.0	1	66.0	66.0	0.0	66.0	4	68.5	23.3	45.2	48.2
CHLORIDE	0	0.0	0.0	0.0	0.0	1	2.00	2.00	0.0	2.00	4	4.90	1.10	3.80	2.52
COPPER	0	0.0	0.0	0.0	0.0	1	0.001	0.001	0.0	0.001	4	0.010	0.001L	0.009	0.004
FLUORIDE	0	0.0	0.0	0.0	0.0	1	0.200	0.200	0.0	0.200	4	0.230	0.100	0.130	0.187
HARD TOT	0	0.0	0.0	0.0	0.0	1	217.	217.	0.0	217.	4	245.	73.0	172.	182.
IRON	0	0.0	0.0	0.0	0.0	1	0.040	0.040	0.0	0.040	4	0.190	0.040	0.150	0.102
LEAD	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.012L	0.004L	0.008	0.008
MAGNES	0	0.0	0.0	0.0	0.0	1	12.7	12.7	0.0	12.7	1	18.3	18.3	0.0	18.3
MANGAN	0	0.0	0.0	0.0	0.0	1	0.073	0.073	0.0	0.073	4	0.200	0.044	0.156	0.099
NITRATE	0	0.0	0.0	0.0	0.0	3	0.210	0.070	0.140	0.147	10	1.09	0.050	1.04	0.309
TOTAL N	0	0.0	0.0	0.0	0.0	3	0.480	0.160	0.320	0.333	9	3.30	0.080	3.22	0.962
PH	0	0.0	0.0	0.0	0.0	3	8.10	8.00	0.100	8.07	10	8.60	7.30	1.30	7.89
ORTHO P	0	0.0	0.0	0.0	0.0	3	0.062	0.055	0.007	0.059	10	0.179	0.029	0.150	0.064
TOTAL P	0	0.0	0.0	0.0	0.0	3	0.088	0.085	0.003	0.086	10	0.303	0.072	0.231	0.146
POTASS	0	0.0	0.0	0.0	0.0	1	3.60	3.60	0.0	3.60	4	6.60	1.20	5.40	3.57
SILICA	0	0.0	0.0	0.0	0.0	1	21.7	21.7	0.0	21.7	4	26.4	18.4	8.00	20.8
SODIUM	0	0.0	0.0	0.0	0.0	1	13.6	13.6	0.0	13.6	4	19.5	4.90	14.6	13.0
SULPHATE	0	0.0	0.0	0.0	0.0	1	48.1	48.1	0.0	48.1	4	77.7	15.0	62.7	45.4
TIC	0	0.0	0.0	0.0	0.0	2	44.0	27.0	17.0	35.5	6	46.0	7.00	39.0	35.5
ZINC	0	0.0	0.0	0.0	0.0	1	0.002L	0.002L	0.0	0.002	4	0.009	0.001L	0.008	0.003
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	3	6.00	5.00	1.00	5.33	10	23.0	6.00	17.0	12.9

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B538 BRANCT CREEK AT GOLFVIEW ROAD

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
COLOUR	0	0.0	0.0	0.0	0.0	1	20.0	20.0	0.0	20.0	3	60.0	7.00	53.0	35.7
TURBID	0	0.0	0.0	0.0	0.0	6	7.40	1.20	6.20	3.97	20	47.0	0.400	46.6	13.8
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	2	49.6	8.80	40.8	29.2
DISS O2	0	0.0	0.0	0.0	0.0	6	13.6	10.8	2.80	12.1	20	14.4	6.70	7.70	10.6
D.O. SAT	0	0.0	0.0	0.0	0.0	6	111.	81.0	30.0	98.8	20	112.	72.0	40.0	90.6
TEMP	0	0.0	0.0	0.0	0.0	1	24.6	24.6	0.0	24.6	3	22.1	6.10	16.0	15.3
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	6	602.	415.	187.	528.	20	598.	112.	486.	418.
CALCIUM	0	0.0	0.0	0.0	0.0	1	203.	203.	0.0	203.	3	178.	82.8	95.2	128.
CHLORIDE	0	0.0	0.0	0.0	0.0	1	36.0	36.0	0.0	36.0	3	50.8	26.0	24.8	38.6
COPPER	0	0.0	0.0	0.0	0.0	1	0.002	0.002	0.0	0.002	3	0.019	0.003	0.016	0.009
FLUORIDE	0	0.0	0.0	0.0	0.0	1	0.480	0.480	0.0	0.480	3	0.450	0.420	0.030	0.433
HARD TOT	0	0.0	0.0	0.0	0.0	1	1491.	1491.	0.0	1491.	3	1382.	814.	568.	1189.
IRON	0	0.0	0.0	0.0	0.0	1	0.020	0.020	0.0	0.020	3	0.060	0.040	0.020	0.050
LEAD	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	3	0.010L	0.004L	0.006	0.006
MAGNES	0	0.0	0.0	0.0	0.0	1	239.	239.	0.0	239.	1	225.	225.	0.0	225.
MANGAN	0	0.0	0.0	0.0	0.0	1	0.340	0.340	0.0	0.340	3	0.830	0.018	0.812	0.406
NITRATE	0	0.0	0.0	0.0	0.0	6	1.25	0.290	0.960	0.578	20	3.30	0.040	3.26	0.858
TOTAL N	0	0.0	0.0	0.0	0.0	6	2.37	0.810	1.56	1.33	19	5.21	0.790	4.42	1.94
PH	0	0.0	0.0	0.0	0.0	6	8.60	8.20	0.400	8.37	20	8.50	7.70	0.800	8.24
CRTHO P	0	0.0	0.0	0.0	0.0	6	0.359	0.192	0.167	0.299	20	0.750	0.117	0.633	0.378
TOTAL P	0	0.0	0.0	0.0	0.0	6	0.391	0.225	0.166	0.324	20	0.750	0.157	0.593	0.449
POTASS	0	0.0	0.0	0.0	0.0	1	11.6	11.6	0.0	11.6	3	14.6	10.0	4.60	11.6
SILICA	0	0.0	0.0	0.0	0.0	1	15.8	15.8	0.0	15.8	3	23.0	15.6	7.40	18.2
SODIUM	0	0.0	0.0	0.0	0.0	1	615.	615.	0.0	615.	3	578.	346.	232.	473.
SULPHATE	0	0.0	0.0	0.0	0.0	1	2117.	2117.	0.0	2117.	3	1922.	132.	11790.	1013.
TIC	0	0.0	0.0	0.0	0.0	5	120.	71.0	49.0	107.	17	117.	39.0	78.0	77.9
ZINC	0	0.0	0.0	0.0	0.0	1	0.002L	0.002L	0.0	0.002	3	0.009	0.003	0.006	0.005
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	6	35.0	8.00	27.0	18.0	20	34.0	6.00	28.0	22.9

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B539 BX CREEK UPSTREAM ON SILVER STAR ROAD

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
CLOUR	0	0.0	0.0	0.0	0.0	1	5.00	5.00	0.0	5.00	4	25.0	5.00	20.0	10.5
TURBID	0	0.0	0.0	0.0	0.0	3	3.40	0.100	3.30	1.43	10	140.	0.200	140.	16.5
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TO SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	1	965.	965.	0.0	965.
DISS O2	0	0.0	0.0	0.0	0.0	3	12.8	10.1	2.70	11.5	10	12.7	7.40	5.30	10.8
D.O. SAT	0	0.0	0.0	0.0	0.0	3	93.0	86.0	7.00	89.3	10	100.	67.0	33.0	88.0
TEMP	0	0.0	0.0	0.0	0.0	1	24.3	24.3	0.0	24.3	4	23.4	1.70	21.7	11.7
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	3	164.	130.	34.0	151.	10	184.	44.0	140.	130.
CALCIUM	0	0.0	0.0	0.0	0.0	1	50.7	50.7	0.0	50.7	4	56.2	18.8	37.4	41.9
CHLORIDE	0	0.0	0.0	0.0	0.0	1	0.900	0.900	0.0	0.900	4	1.60	0.600	1.00	1.00
COPPER	0	0.0	0.0	0.0	0.0	1	0.001L	0.001L	0.0	0.001	4	0.003	0.001	0.002	0.002
FLUORIDE	0	0.0	0.0	0.0	0.0	1	0.100	0.100	0.0	0.100	4	0.110	0.060	0.050	0.092
HARD TOT	0	0.0	0.0	0.0	0.0	1	165.	165.	0.0	165.	4	179.	54.0	125.	133.
IRON	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.060	0.010L	0.050	0.027
LEAD	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.012L	0.005L	0.007	0.008
MAGNES	0	0.0	0.0	0.0	0.0	1	9.30	9.30	0.0	9.30	1	9.80	9.80	0.0	9.80
MANGAN	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	2.73	0.010L	2.72	0.690
NITRATE	0	0.0	0.0	0.0	0.0	3	0.090	0.010L	0.080	0.060	10	3.60	0.010L	3.59	0.497
TOTAL N	0	0.0	0.0	0.0	0.0	3	0.480	0.190	0.290	0.317	10	3.60	0.070	3.53	0.857
PH	0	0.0	0.0	0.0	0.0	3	8.20	7.90	0.300	8.03	10	8.20	7.40	0.800	7.85
ORTHO P	0	0.0	0.0	0.0	0.0	3	0.003	0.003	0.0	0.003	10	0.010	0.003L	0.007	0.004
TOTAL P	0	0.0	0.0	0.0	0.0	3	0.010	0.003	0.007	0.005	10	0.913	0.003	0.910	0.103
POTASS	0	0.0	0.0	0.0	0.0	1	2.20	2.20	0.0	2.20	4	2.40	1.50	0.900	2.02
SILICA	0	0.0	0.0	0.0	0.0	1	13.4	13.4	0.0	13.4	4	16.6	10.4	6.20	13.1
SODIUM	0	0.0	0.0	0.0	0.0	1	5.20	5.20	0.0	5.20	4	5.60	1.50	4.10	3.90
SULPHATE	0	0.0	0.0	0.0	0.0	1	41.6	41.6	0.0	41.6	4	46.1	11.8	34.3	29.2
TIC	0	0.0	0.0	0.0	0.0	2	35.0	23.0	12.0	29.0	6	43.0	13.0	30.0	30.8
ZINC	0	0.0	0.0	0.0	0.0	1	0.002L	0.002L	0.0	0.002	4	0.001	0.001L	0.0	0.001
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	3	7.00	4.00	3.00	5.33	9	51.0	2.00L	49.0	12.4

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

TASK 131
STREAM WATER QUALITY

STATION: B540 DEEP CREEK AT YOUNG ROAD

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
CLOUR	0	0.0	0.0	0.0	0.0	1	5.00	5.00	0.0	5.00	4	75.0	5.00	70.0	23.7
TURBID	0	0.0	0.0	0.0	0.0	6	3.50	0.300	3.20	1.72	20	11.0	0.500	10.5	2.78
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TG SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	1	34.4	34.4	0.0	34.4
DISS O2	0	0.0	0.0	0.0	0.0	6	12.3	8.10	4.20	9.55	20	12.1	7.60	4.50	9.57
D.O. SAT	0	0.0	0.0	0.0	0.0	6	88.0	66.0	22.0	78.7	20	95.0	65.0	30.0	80.4
TEMP	0	0.0	0.0	0.0	0.0	1	24.0	24.0	0.0	24.0	4	20.8	3.90	16.9	12.4
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	6	222.	151.	71.0	203.	20	310.	70.0	240.	190.
CALCIUM	0	0.0	0.0	0.0	0.0	1	93.5	93.5	0.0	93.5	4	91.5	37.3	54.2	76.5
CHLORIDE	0	0.0	0.0	0.0	0.0	1	1.20	1.20	0.0	1.20	4	1.50	1.20	0.300	1.27
COPPER	0	0.0	0.0	0.0	0.0	1	0.001L	0.001L	0.0	0.001	4	0.005	0.001L	0.004	0.002
FLUORIDE	0	0.0	0.0	0.0	0.0	1	0.300	0.300	0.0	0.300	4	0.280	0.140	0.140	0.232
HARD TOT	0	0.0	0.0	0.0	0.0	1	289.	289.	0.0	289.	4	303.	109.	194.	249.
IRON	0	0.0	0.0	0.0	0.0	1	0.030	0.030	0.0	0.030	4	0.090	0.030	0.060	0.050
LEAD	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.012L	0.005L	0.007	0.008
MAGNES	0	0.0	0.0	0.0	0.0	1	13.5	13.5	0.0	13.5	1	20.5	20.5	0.0	20.5
MANGAN	0	0.0	0.0	0.0	0.0	1	0.027	0.027	0.0	0.027	4	0.210	0.014	0.196	0.104
NITRATE	0	0.0	0.0	0.0	0.0	6	0.840	0.010L	0.830	0.215	20	6.20	0.030	6.17	0.465
TOTAL N	0	0.0	0.0	0.0	0.0	5	1.00	0.180	0.820	0.574	20	9.06	0.080	8.98	0.941
PH	0	0.0	0.0	0.0	0.0	6	8.50	7.90	0.600	8.08	20	8.20	7.10	1.10	7.96
ORTHO P	0	0.0	0.0	0.0	0.0	6	0.039	0.023	0.016	0.031	20	0.055	0.020	0.035	0.036
TOTAL P	0	0.0	0.0	0.0	0.0	6	0.072	0.033	0.039	0.046	20	0.108	0.039	0.069	0.065
POTASS	0	0.0	0.0	0.0	0.0	1	5.30	5.30	0.0	5.30	4	5.50	2.40	3.10	4.60
SILICA	0	0.0	0.0	0.0	0.0	1	26.2	26.2	0.0	26.2	4	28.7	25.0	3.70	26.7
SODIUM	0	0.0	0.0	0.0	0.0	1	8.40	8.40	0.0	8.40	4	9.20	3.60	5.60	7.52
SULPHATE	0	0.0	0.0	0.0	0.0	1	94.7	94.7	0.0	94.7	4	107.	39.1	67.9	85.9
TIC	0	0.0	0.0	0.0	0.0	5	52.0	14.0	38.0	39.0	16	53.0	16.0	37.0	38.6
ZINC	0	0.0	0.0	0.0	0.0	1	0.002L	0.002L	0.0	0.002	4	0.001	0.001L	0.0	0.001
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	6	11.0	2.00	9.00	6.50	19	39.0	2.00L	37.0	12.7

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).

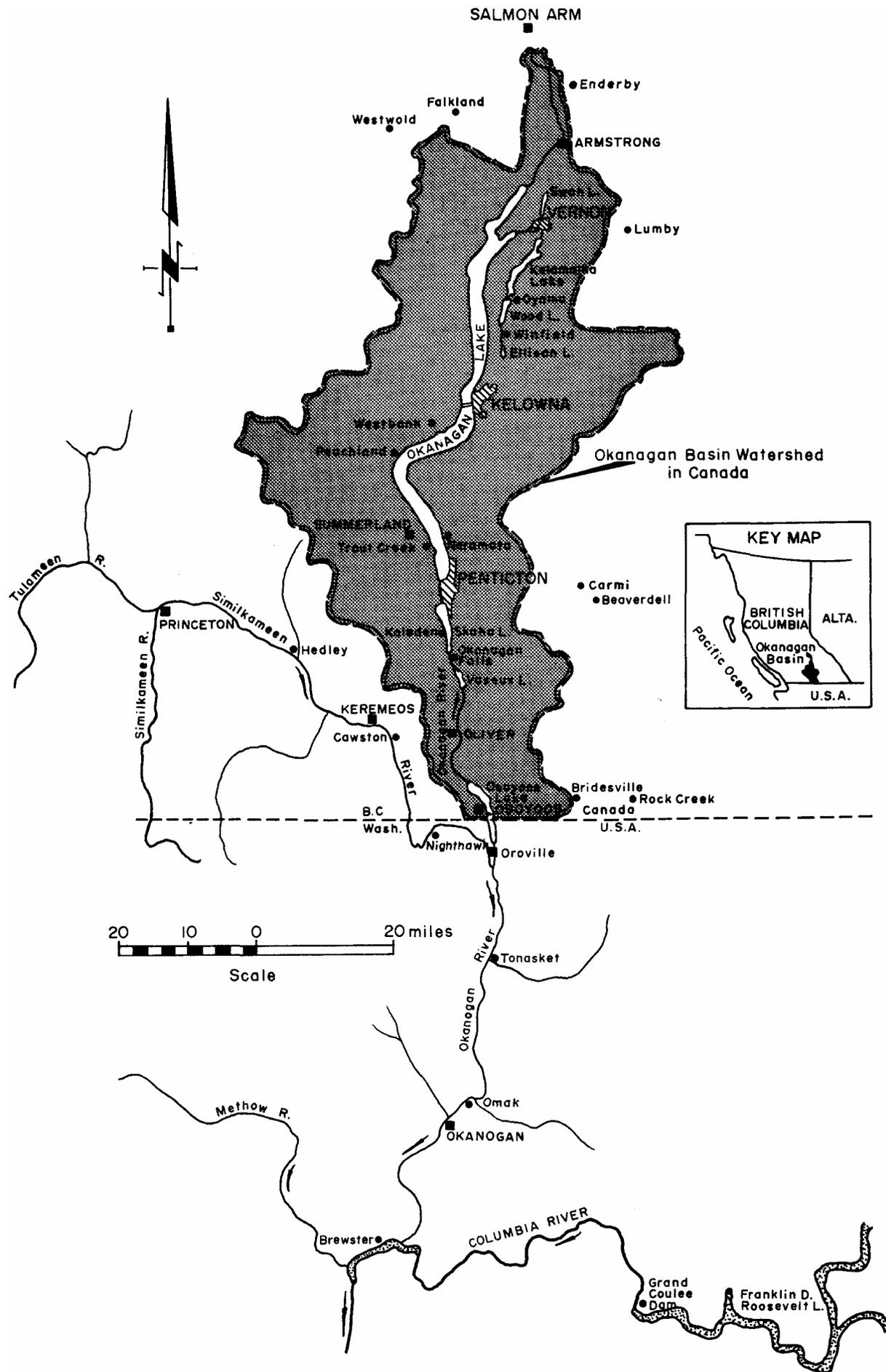
TASK 131
STREAM WATER QUALITY

STATION: B541 VERNON CREEK AT EXIT FROM KALAMALKA LAK

	-----1969-----					-----1970-----					-----1971-----				
	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN	NO. VAL	MAX CONC	MIN CONC	RANGE	MEAN
PHYSICAL PARAMETERS															
CLOUR	0	0.0	0.0	0.0	0.0	1	0.0	0.0	0.0	0.0	4	0.0	0.0	0.0	0.0
TURBID	0	0.0	0.0	0.0	0.0	6	2.80	0.500	2.30	1.42	19	8.00	0.200	7.80	1.61
FX SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
TC SUS M	0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	1	15.2	15.2	0.0	15.2
DISS O2	0	0.0	0.0	0.0	0.0	6	12.4	8.90	3.50	10.9	19	14.7	7.90	6.80	10.8
D.O. SAT	0	0.0	0.0	0.0	0.0	6	114.	87.0	27.0	97.3	19	104.	91.0	13.0	96.8
TEMP	0	0.0	0.0	0.0	0.0	1	24.0	24.0	0.0	24.0	4	21.1	4.50	16.6	14.5
INORGANIC PARAMETERS															
ALK TOT	0	0.0	0.0	0.0	0.0	6	231.	127.	104.	156.	19	159.	133.	26.0	146.
CALCIUM	0	0.0	0.0	0.0	0.0	1	38.7	38.7	0.0	38.7	4	39.5	37.3	2.20	38.0
CHLORIDE	0	0.0	0.0	0.0	0.0	1	1.20	1.20	0.0	1.20	4	1.50	1.30	0.200	1.42
COPPER	0	0.0	0.0	0.0	0.0	1	0.001L	0.001L	0.0	0.001	4	0.003	0.001L	0.002	0.002
FLUORIDE	0	0.0	0.0	0.0	0.0	1	0.300	0.300	0.0	0.300	4	0.290	0.280	0.010	0.285
HARD TOT	0	0.0	0.0	0.0	0.0	1	166.	166.	0.0	166.	4	167.	165.	2.00	166.
IRON	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.010	0.010L	0.0	0.010
LEAD	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.012L	0.005L	0.007	0.008
MAGNES	0	0.0	0.0	0.0	0.0	1	16.9	16.9	0.0	16.9	1	17.8	17.8	0.0	17.8
MANGAN	0	0.0	0.0	0.0	0.0	1	0.010L	0.010L	0.0	0.010	4	0.012L	0.010L	0.002	0.010
NITRATE	0	0.0	0.0	0.0	0.0	6	0.040	0.010L	0.030	0.020	19	0.040	0.010L	0.030	0.021
TOTAL N	0	0.0	0.0	0.0	0.0	6	1.28	0.090	1.19	0.432	19	0.550	0.010L	0.540	0.233
PH	0	0.0	0.0	0.0	0.0	6	8.60	8.20	0.400	8.43	19	8.50	7.90	0.600	8.32
ORTHO P	0	0.0	0.0	0.0	0.0	6	0.003	0.003L	0.0	0.003	19	0.029	0.003L	0.026	0.004
TOTAL P	0	0.0	0.0	0.0	0.0	6	0.013	0.007	0.006	0.008	19	0.046	0.003	0.043	0.014
POTASS	0	0.0	0.0	0.0	0.0	1	4.60	4.60	0.0	4.60	4	4.80	4.50	0.300	4.67
SILICA	0	0.0	0.0	0.0	0.0	1	10.3	10.3	0.0	10.3	4	10.7	9.90	0.800	10.3
SODIUM	0	0.0	0.0	0.0	0.0	1	15.7	15.7	0.0	15.7	4	16.5	6.40	10.1	13.9
SULPHATE	0	0.0	0.0	0.0	0.0	1	52.1	52.1	0.0	52.1	4	56.4	37.8	18.6	50.4
TIC	0	0.0	0.0	0.0	0.0	5	34.0	22.0	12.0	30.2	15	34.0	21.0	13.0	30.0
ZINC	0	0.0	0.0	0.0	0.0	1	0.002L	0.002L	0.0	0.002	4	0.004	0.001L	0.003	0.002
ORGANIC PARAMETERS															
TOC	0	0.0	0.0	0.0	0.0	6	8.00	2.00	6.00	5.00	18	15.0	2.00L	13.0	6.17

NOTES: 1. AN L OR G AFTER A CONCENTRATION INDICATES THE RESULT IS LESS THAN (OR GREATER THAN) THE VALUE SHOWN.

2. ALL CONCENTRATIONS ARE IN MG/L EXCEPT FOR COLOUR, TURBIDITY AND PH (UNITS), DISSOLVED OXYGEN (PER CENT), AND TEMPERATURE (DEGREES CENTIGRADE).



OKANAGAN DRAINAGE BASIN IN CANADA