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**A WATER QUALITY STUDY  
OF THE FLATHEAD RIVER BASIN  
IN BRITISH COLUMBIA  
PRIOR TO PROPOSED COAL MINING**

**( DATA REPORT )**

**S.W.Sheehan , G.L.Ennis , R.L.Hallam ,  
A.L.Smith , T.M.Tuominen**

**March , 1985**

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**Inland Waters Directorate  
Pacific and Yukon Region  
Vancouver, B.C.**



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A WATER QUALITY STUDY OF THE FLATHEAD RIVER BASIN  
IN BRITISH COLUMBIA PRIOR TO PROPOSED COAL MINING

(DATA REPORT)

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1985

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ABSTRACT

In 1972 Rio Algom mines began exploring coal deposits in the Flathead River Valley. A mine was proposed on Cabin Creek, a tributary to Howell Creek which enters the Flathead River about 10 km north of the International Boundary. Because of the potential adverse effects to transboundary waters, the Water Quality Branch, Inland Waters Directorate examined the water quality of the Canadian portion of the Flathead River Basin.

In 1975 and 1976 chemical parameters were measured in water, sediment and biota. Algae and invertebrates were also collected to provide information on existing communities. On two subsequent trips in August, 1980 and July, 1982, chemical parameters were measured in the water. In addition, algae were collected for analysis of species composition and abundance.

This report presents the chemical and biological data from these collections and measurements.

## RESUME

En 1972, la compagnie minière Rio Algom a entrepris l'exploration des gisements de charbon situés dans la vallée de la rivière Flathead. L'exploitation d'une mine a été proposée près du ruisseau Cabin, un tributaire du ruisseau Howell qui se jette dans la rivière Flathead à environ 10 kilomètres au nord de la frontière internationale. Comme ces activités pouvaient avoir des effets néfastes sur la qualité des eaux transfrontalières, la Direction de la qualité de l'eau de la Direction générale des eaux intérieures a entrepris une étude de la qualité des eaux de la partie canadienne du bassin de la rivière Flathead.

En 1975 et en 1976, les paramètres chimiques ont été mesurés dans l'eau, les sédiments et le biote. On a aussi recueilli des algues et des invertébrés afin d'étudier les communautés existantes. Lors de deux voyages ultérieurs, en août 1980 et en juillet 1982, on a mesuré à nouveau les paramètres chimiques de l'eau; en outre, des algues ont été recueillies afin de déterminer la composition en espèces et leur abondance.

Le présent rapport renferme les données chimiques et biologiques recueillies dans le cadre de ce projet.

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## INTRODUCTION

In 1972 Rio Algom mines began exploring coal deposits in the Flathead River Valley. A mine was proposed on Cabin Creek, a tributary to Howell Creek which enters the Flathead River about 10 km north of the International Boundary (Fig. 1). Because of the potential adverse effects to transboundary waters, the Water Quality Branch, Inland Waters Directorate examined the water quality of the Canadian portion of the Flathead River Basin.

In 1975 and 1976 nutrients, metals and other chemical parameters were measured in water, sediment and biota. Algae and invertebrates were also collected to provide information on existing communities. The results of this study have been described by Sheehan et al. (1980).

The present report is a compilation of the data summarized in Sheehan et al.'s interpretive report. In addition, this document contains water chemistry and algal species data collected on two subsequent monitoring trips to the Flathead Basin in August, 1980, and July, 1982.

### Sampling Stations

Data were collected from nine sampling stations during the 1975-76 study (Fig. 1). Station 3 on the Flathead River was sampled in 1980 and 1982. Station 2 (Howell Creek) was sampled in 1982.

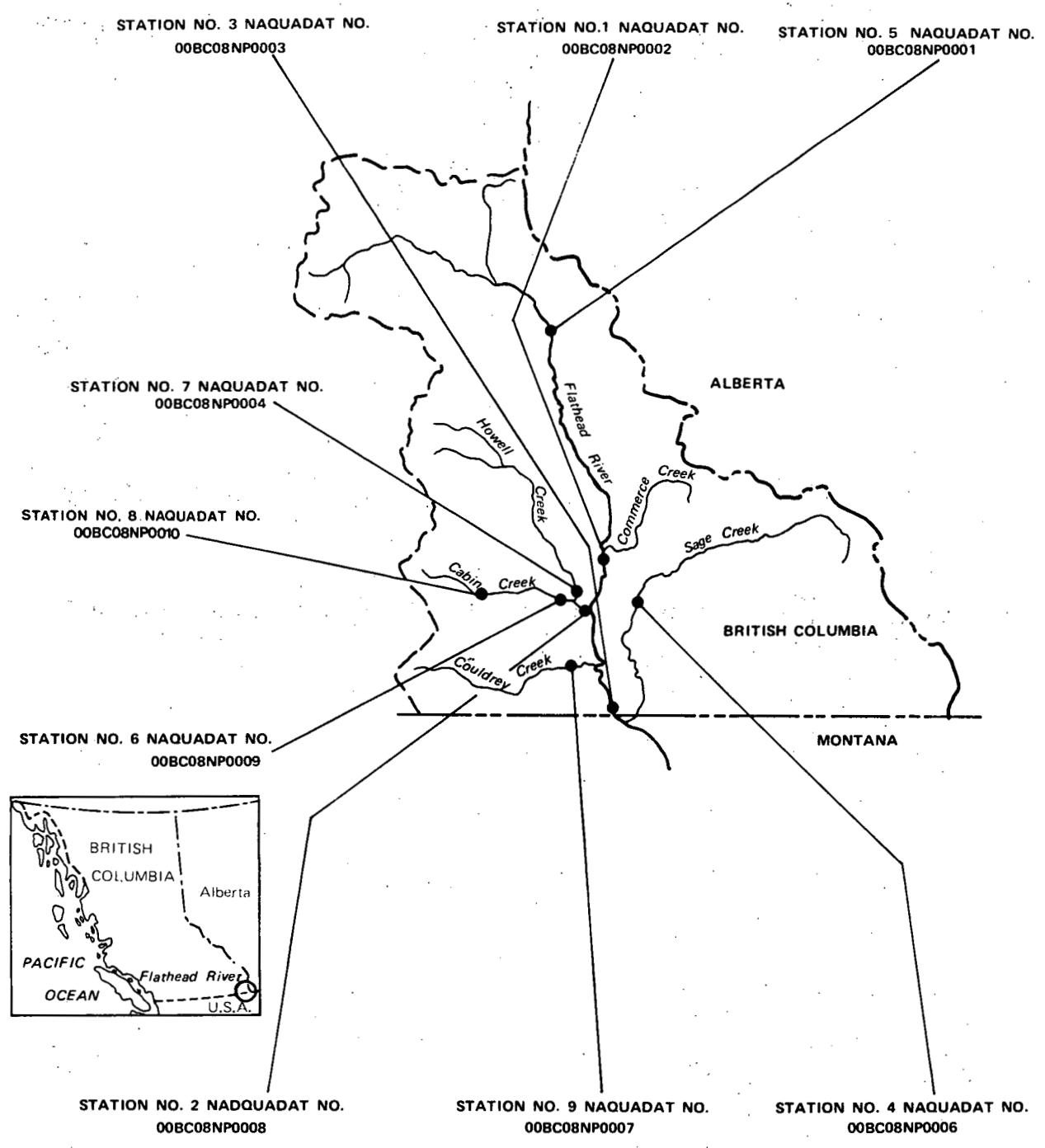


Fig. 1. STATION LOCATION AND NAQUADAT STATION NO.

## Methods

All chemical and biological methods used during the 1975-76 study have been described elsewhere (Sheehan et al. 1980). Analytical methods for chemical parameters are detailed in the NAQUADAT dictionary (Inland Waters Directorate, Water Quality Branch 1983). The method for each chemical parameter is identified by its NAQUADAT code number (Table 1). Chemical analytical methods used for the 1980 and 1982 samples are the same as those previously described, except that nitrogen samples were filtered in the field.

In 1982, the following differences in the treatment of periphyton samples occurred. Only whole rocks were sampled. The collected algae were subdivided using a plankton splitter, and only the fraction to be used for organic weight determinations was filtered. Instead of cleaning with nitric acid, laboratory preparation of the fraction for diatom analysis followed the procedures of Hasle and Fryxell (1970). This consisted of digesting the sample in a solution of sulphuric acid and potassium permanganate, followed by clearing the liquid with a solution of oxalic acid saturated with distilled water. The sample was then centrifuged and the excess liquid was decanted and discarded. The remaining oxidized frustules were rinsed with distilled water, settled and decanted several times until a pH of 6.5-7.0 was reached. A subsample of known volume was first diluted with distilled water, and then poured into an evaporation dish (Battarbee 1973) containing four circular coverslips. The liquid in the dish was allowed to evaporate. When dry, the

coverslips were removed and mounted onto microscope slides with Hyrax mounting media. Only one slide from each sample was examined.

Transects rather than random fields were counted, using a phase contrast microscope at 1000X magnification. All diatoms encountered were identified and counted until a minimum of 100 frustules of the dominant species and a total of at least 300 frustules had been counted. Because high magnification can produce errors in the counts of large diatoms, e.g. *Gomphonema geminatum*, the sample was re-examined at 200X magnification and only the large diatoms counted. Suitable conversion factors were used to transform counts to cells/cm<sup>2</sup>.

Laboratory treatment of the 1982 phytoplankton samples also differed from the previous method. Planktonic algae were enumerated using the Utermöhl technique (Utermöhl 1958). Samples were shaken and transferred to 5, 10, or 25cc settling chambers (depending on algal density). Samples were settled four hours for each centimeter of height and then enumerated using an inverted phase contrast microscope. Transects were examined at 625X magnification and all phytoplankton identified and counted until a minimum of 100 cells of the dominant species and a total of at least 300 cells had been counted. In samples of low phytoplankton abundance when it was not possible to count 300 cells, 10 transects were enumerated. Lengths of filaments were measured, and colonies of small cells were counted as individuals. Because high magnifications can produce errors in

the counts of large phytoplankton species, the samples were re-examined at 200X magnification and only large phytoplankton counted. In all cases live and dead phytoplankton were counted separately. Suitable conversion factors were used to transform counts to cells/ml.

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We are especially grateful to Dr. S. Whitlow and Ms. M. Lamb, Water Quality Branch, Ottawa for adjusting the NAQUADAT coding format to accept replicate data and for providing the chemical data tables. We are also very grateful to Ms. M.L. Haines for typing the many drafts of this report.

TABLE 1

NAQUADAT Code Numbers and Limits of Detection for Chemical Parameters Measured in the Flathead River Basin Study

<u>Parameter</u>	<u>NAQUADAT Number</u>	<u>Detection Limit</u>
Colour	02011	5.0
Specific Conductance (Lab)	02041 L	0.2 $\mu\text{sie cm}^{-1}$
Specific Conductance (Field)	02041 S	0.2 $\mu\text{sie cm}^{-1}$
Water Temperature (Lab)	02061 L	
Water Temperature (Field)	02061 S	
Turbidity	02073	0 jtu
Total Organic Carbon	06001	Variable
Total Inorganic Carbon	06051	Variable
Phenolic Material	06536	0.0005 $\text{mg l}^{-1}$
Tannin and Lignin	06552	0.02 $\text{mg l}^{-1}$
Particulate Carbon	06903	Variable
$\text{NO}_3/\text{NO}_2$ (dissolved)	07110	0.002 $\text{mg l}^{-1}$
Ammonia (dissolved)	07557	0.002 $\text{mg l}^{-1}$
Total Dissolved Nitrogen (unfiltered)	07651	0.01 $\text{mg l}^{-1}$
Total Dissolved Nitrogen (filtered)	07655	0.01 $\text{mg l}^{-1}$
Particulate Nitrogen	07903	Variable
Fluoride (dissolved)	09106	0.05 $\text{mg l}^{-1}$
Alkalinity (total)	10101	0.5 $\text{mg l}^{-1}$ $\text{CaCO}_3$
Alkalinity (phenolphthalein)	10151	0.5 <sup>1</sup> $\text{mg l}^{-1}$ $\text{CaCO}_3$
pH (Lab)	10301 L	
pH (Field)	10301 S	
Nonfilterable residue	10401	10.0 $\text{mg l}^{-1}$
Filterable residue	10451	10.0 $\text{mg l}^{-1}$
Nonfilterable residue (fixed)	10501	10.0 $\text{mg l}^{-1}$
Filterable residue (fixed)	10551	10.0 $\text{mg l}^{-1}$
Hardness (total)	10603	0.5 $\text{mg l}^{-1}$ $\text{CaCO}_3$
Sodium (dissolved)	11103	0.2 $\text{mg l}^{-1}$

<sup>1</sup> This limit of detection applies at pH 8.3.  
At lower pH phenolphthalein alkalinity = 0.

TABLE 1 (Continued)

<u>Parameter</u>	<u>NAQUADAT Number</u>	<u>Detection Limit</u>
Magnesium (dissolved)	12101	Calculated
Silica (reactive)	14105	0.2 mg l <sup>-1</sup>
Phosphorus (dissolved)	15102	0.002 mg l <sup>-1</sup>
Phosphorus (total)	15406	0.002 mg l <sup>-1</sup>
Sulphate (dissolved)	16306	0.5 mg l <sup>-1</sup>
Chloride (dissolved)	17206	0.2 mg l <sup>-1</sup>
Potassium (dissolved)	19103	0.2 mg l <sup>-1</sup>
Calcium (dissolved)	20101	0.5 mg l <sup>-1</sup>
Manganese (extractable)	25304	0.01 mg l <sup>-1</sup>
Iron (extractable)	26304	0.05 mg l <sup>-1</sup>
Iron (extractable)	26305	0.001 mg l <sup>-1</sup>
Cobalt (extractable)	27302	0.001 mg l <sup>-1</sup>
Nickel (extractable)	28302	0.001 mg l <sup>-1</sup>
Copper (extractable)	29305	0.001 mg l <sup>-1</sup>
Zinc (extractable)	30305	0.001 mg l <sup>-1</sup>
Arsenic (extractable)	33304	0.0001 mg l <sup>-1</sup>
Selenium (extractable)	34302	0.0001 mg l <sup>-1</sup>
Molybdenum (extractable)	42302	0.0005 mg l <sup>-1</sup>
Cadmium (extractable)	48302	0.0002 mg l <sup>-1</sup>
Barium (extractable)	56301	0.1 mg l <sup>-1</sup>
Barium (extractable)	56302	0.02 mg l <sup>-1</sup>
Mercury (extractable)	80311	0.05 µg l <sup>-1</sup>
Lead (extractable)	82302	0.001 mg l <sup>-1</sup>

Table 2.

NAQUADAT Detailed and Summary Report for the Flathead River Basin,  
1975-1982

Parameters are listed under their NAQUADAT code numbers as summarized in Table 1. The five-digit code number followed by an "L" or a "P" (eg. 02011L, 25304P) indicates that values are for single samples. The five digit code followed by an "R" (eg. 06001R) indicates that the values are means of replicates. Replicate means are always followed by the individual replicate values (eg. 060011 = replicate #1 - - - 060016 = replicate #6).

When the same parameter has been measured by different methods on different dates, all data are listed in one column, and the differences are indicated with back-up codes. For example, iron is measured by direct aspiration (26304) or solvent extraction (26305) depending on its concentration.

26304 P	
Iron	
Extractable	
.034 05P	(solvent extraction)
.60	(direct aspiration)
.042 05R	(solvent extraction, replicate mean)

Although the detection limit for nonfilterable residues (10401 and 10501) is  $10 \text{ mg l}^{-1}$  (Table 1), the laboratory sometimes reports lower values. Caution is advised in interpreting values below  $10 \text{ mg l}^{-1}$ .

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOBEO8NPO001  
FLATHEAD RIVER ABOVE POLLOCK CREEK.  
(INTERPRETIVE REPORT STATION 5)

ROAD BRIDGE.

LAT. 49D 19M 4S LONG. 114D 33M 38S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	02041L COLOUR APPARENT	02041L SPECIFIC CONDUCT.	02041S SPECIFIC CONDUCT.	USIE/CM	02061L TEMP. WATER	DEG.C.	02061S TEMP. WATER	DEG.C.	02073L TURBIDITY	JTU	06001R CARBON TOTAL ORGANIC C	MG/L	06001I CARBON TOTAL ORGANIC C	MG/L
75-08-20	1000	325	L5.	215.	220.	220.	220.	22.0	10.0	10.0	10.0	.3		1.2	1.6		1.6
76-04-12	1030	325	15.	130.	150.	150.	150.	22.5	1.0	1.0	1.0	3.0		2.9	2.9		2.9
76-05-28	1000	325	15.	94.	90.	90.	90.	22.8	3.5	3.5	3.5	6.5		5.0	6.1		6.1
76-06-14	0845	325	L5.	117.	110.	110.	110.	20.8	3.5	3.5	3.5	.8		4.0	4.1		4.1
76-08-04	1630	325	5.	196.	230.	230.	230.	19.6	11.0	11.0	11.0	.5		2.8	2.8		2.8
76-09-12	0845	325	L5.	204.	220.	220.	220.	21.9	7.5	7.5	7.5	.3		L1.0	L1.0		L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C	MG/L	060013 CARBON TOTAL ORGANIC C	MG/L	060014 CARBON TOTAL ORGANIC C	MG/L	060015 CARBON TOTAL ORGANIC C	MG/L	060016 CARBON TOTAL ORGANIC C	MG/L	06051R CARBON TOTAL INORGANIC C	MG/L	060511 CARBON TOTAL INORGANIC C	MG/L	060512 CARBON TOTAL INORGANIC C	MG/L
75-08-20	1000	325	1.1	L1.0	1.5	1.5	1.5	L1.0	L1.0	1.1	1.1	28.3	28.3	28.8	28.1	28.1	28.1	
76-04-12	1030	325	2.6	3.2	2.9	2.9	2.9	--	--	--	--	15.7	15.7	15.8	15.8	15.8	15.8	
76-05-28	1000	325	6.4	3.2	5.5	5.5	5.5	3.5	3.5	5.3	5.3	10.0	10.0	10.0	10.0	10.0	10.0	
76-06-14	0845	325	3.2	3.5	4.4	4.4	4.4	4.1	4.1	4.6	4.6	13.5	13.5	14.0	14.0	14.0	14.0	
76-08-04	1630	325	2.1	2.6	2.8	2.8	2.8	4.9	4.9	1.7	1.7	23.0	23.0	23.0	23.0	23.0	23.0	
76-09-12	0845	325	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	27.3	27.3	28.0	28.0	28.0	28.0	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C	MG/L	060514 CARBON TOTAL INORGANIC C	MG/L	060515 CARBON TOTAL INORGANIC C	MG/L	060516 CARBON TOTAL INORGANIC C	MG/L	06536R PHENOLIC MATERIAL	PHENOL MG/L	065361 PHENOLIC MATERIAL	PHENOL MG/L	065362 PHENOLIC MATERIAL	PHENOL MG/L	065363 PHENOLIC MATERIAL	PHENOL MG/L
75-08-20	1000	325	28.4	28.2	28.3	28.3	28.3	27.9	27.9	--	--	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	
76-04-12	1030	325	15.5	15.8	--	--	--	--	--	--	--	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	
76-05-28	1000	325	10.0	10.0	10.0	10.0	10.0	13.0	13.0	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	
76-06-14	0845	325	14.0	14.0	13.0	13.0	13.0	13.0	13.0	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	
76-08-04	1630	325	23.0	23.0	21.0	21.0	21.0	24.0	24.0	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005	
76-09-12	0845	325	27.0	27.0	27.0	27.0	27.0	27.0	27.0	--	--	--	--	--	--	--	--	

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - O08C08NPO001  
 FLATHEAD RIVER ABOVE POLLOCK CREEK.  
 (INTERPRETIVE REPORT STATION 5)

LAT. 49D 19M 4S LONG. 114D 33M 38S  
 BRITISH COLUMBIA.

ROAD BRIDGE.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	ANALYTE	UNIT	071106	071107	071108	071109	071110	071111	071112	071113	071114	071115
75-08-20	1000	325	O6552L TANNIN	MG/L	.07									
76-04-12	1030	325	O6903L CARBON	MG/L	.150									
76-05-28	1000	325	AND LIGNIN PARTICULATE	C	--									
76-06-14	0845	325	LIG.SULPH.	MG/L	--									
76-08-04	1630	325			--									
76-09-12	0845	325			--									
			O71101 NITROGEN DISSOLVED NO3 & NO2	MG/L	.017	.018	.019	.016	.014					
			O71102 NITROGEN DISSOLVED NO3 & NO2	MG/L	.067	.058	.064	.058	.099					
			O71103 NITROGEN DISSOLVED NO3 & NO2	MG/L	.012	.007	.013	.010	.012					
			O71104 NITROGEN DISSOLVED NO3 & NO2	MG/L	.008	.012	.006	.003	.020					
			O71105 NITROGEN DISSOLVED NO3 & NO2	MG/L	.006	.008	.006	.005	.007					
			O71106 NITROGEN DISSOLVED NO3 & NO2	MG/L	.009	.008	.008	.008	.008					

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	ANALYTE	UNIT	075571	075572	075573	075574	075575	075576
75-08-20	1000	325	O7557R NITROGEN DISSOLVED AMMONIA	MG/L	.071	.069	.124	.052	.057	.129
76-04-12	1030	325			.009	.008	.010	.009	.011	.008
76-05-28	1000	325			.014	.009	.009	.007	.016	.009
76-06-14	0845	325			.003	.006	.007	.001	.001	.004
76-08-04	1630	325			.006	.006	.006	.004	.009	.005
76-09-12	0845	325			.006	.007	.006	.005	.005	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	ANALYTE	UNIT	076511	076512	076513	076514	076515	076516	07903L
75-08-20	1000	325	O7651R NITROGEN DISSOLVED	MG/L	.23	.24	.28	.19	.18	.31	.022
76-04-12	1030	325			.15	.15	--	--	--	--	--
76-05-28	1000	325			.09	.10	.10	.08	.09	.09	--
76-06-14	0845	325			.07	.07	.06	.05	.09	.08	--
76-08-04	1630	325			.05	.06	.07	.05	.05	.05	--
76-09-12	0845	325			.05	.05	.06	.04	.05	--	--

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NPO001  
FLATHEAD RIVER ABOVE POLLOCK CREEK.  
(INTERPRETIVE REPORT STATION 5)

ROAD BRIDGE.

LAT. 49D 19M 4S LONG. 114D 33M 38S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED	10101L ALKALINITY TOTAL	10151L ALKALINITY PHENOL PHTHALEIN CACO3	10301L PH	10301S PH	10401L RESIDUE NONFILTR.	10451L RESIDUE FILTERABLE	10501L RESIDUE FIXED NONFILTR.
			MG/L	CACO3 MG/L	MG/L	PH UNITS	PH UNITS	MG/L	MG/L	MG/L
75-08-20	1000	325	.10	112.0	1.7	8.5	7.9	--	--	--
76-04-12	1030	325	.09	62.4	0.0	7.7	7.8	16.	76.	9.
76-05-28	1000	325	.06	45.5	0.0	7.8	7.6	22.	82.	20.
76-06-14	0845	325	.09	57.0	0.0	7.9	7.5	0.	60.	0.
76-08-04	1630	325	.08	104.0	0.0	8.2	--	1.	168.	LO.
76-09-12	0845	325	.10	107.0	0.0	8.0	8.2	2.	160.	0.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE	10603L HARDNESS TOTAL	11103L SODIUM DISSOLVED	12101L MAGNESIUM DISSOLVED (CALCD.)	14105L SILICA REACTIVE	15102R PHOSPHORUS TOTAL	151021 PHOSPHORUS DISSOLVED	151022 PHOSPHORUS TOTAL
			MG/L	CACO3 MG/L	NA MG/L	MG MG/L	SI02 MG/L	MG/L	MG/L	MG/L
75-08-20	1000	325	--	118.0	.8	8.8	3.9	--	--	--
76-04-12	1030	325	28.	67.5	.6	4.6	4.2	--	--	--
76-05-28	1000	325	48.	48.7	.5	2.5	3.7	--	--	--
76-06-14	0845	325	24.	60.6	.6	3.8	4.0	.013	.016	.013
76-08-04	1630	325	96.	105.0	.7	6.2	4.1	.011	.009	.015
76-09-12	0845	325	96.	108.0	.8	7.5	4.3	.007	.006	.008

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151023 PHOSPHORUS TOTAL	15406R PHOSPHORUS TOTAL	154061. PHOSPHORUS TOTAL	154062 PHOSPHORUS TOTAL	154063 PHOSPHORUS TOTAL	154064 PHOSPHORUS TOTAL	154065 PHOSPHORUS TOTAL	154066 PHOSPHORUS TOTAL
			MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L
75-08-20	1000	325	--	.006	.002	.005	.008	.006	.007	.006
76-04-12	1030	325	--	.051	.040	.045	.040	.091	.046	.042
76-05-28	1000	325	--	.037	.035	.037	.035	.039	.036	.040
76-06-14	0845	325	.011	.016	.016	.017	.015	.016	.016	.016
76-08-04	1630	325	.008	.016	.013	.010	.024	.011	.015	.021
76-09-12	0845	325	.007	.011	.009	.008	.010	.011	.019	.008

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO001  
FLATHEAD RIVER ABOVE POLLOCK CREEK.  
(INTERPRETIVE REPORT STATION 5)

LAT. 49D 19M 4S LONG. 114D 33M 38S  
BRITISH COLUMBIA.

ROAD BRIDGE.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED	17206L CHLORIDE DISSOLVED	19103L POTASSIUM DISSOLVED	20101L CALCIUM DISSOLVED	25304P MANGANESE EXTRBLE.	26305P IRON EXTRBLE.	27302P COBALT EXTRBLE.	28302P NICKEL EXTRBLE.
			S04 MG/L	CL MG/L	K MG/L	CA MG/L	MN MG/L	FE MG/L	CO MG/L	NI MG/L
75-08-20	1000	325	5.0	.3	.3	32.8	L.01	.011	--	--
76-04-12	1030	325	3.5	.3	.3	19.4	.02	.18	L.001	L.001
76-05-28	1000	325	2.4	.3	.3	15.4	L.01	.11	L.001	L.001
76-06-14	0845	325	2.7	.2	.3	18.0	L.01	.06	L.001	L.001
76-08-04	1630	325	4.5	.3	.3	31.8	L.01	.019	L.001	L.001
76-09-12	0845	325	4.6	.3	.3	30.9	L.01	.013	L.001	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE.	30305P ZINC EXTRBLE.	33304L ARSENIC EXTRBLE.	34302L SELENIUM EXTRBLE.	48302P CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	82302P LEAD EXTRBLE.
			CU MG/L	ZN MG/L	AS MG/L	SE MG/L	CD MG/L	BA MG/L	HG UG/L	PB MG/L
75-08-20	1000	325	.001	.001	.0001	.0002	L.0002	--	.05	.001
76-04-12	1030	325	L.001	L.001	.0003	.0002	L.0002	.17	L.05	.001
76-05-28	1000	325	L.001	L.001	.0001	.0001	L.0002	.08	L.05	.001
76-06-14	0845	325	L.001	L.001	.0002	.0001	L.0002	.08	L.05	.003
76-08-04	1630	325	L.001	L.001	.0003	.0002	L.0002	.11	L.05	L.001
76-09-12	0845	325	L.001	L.001	.0003	.0002	L.0002	.22	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT  
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION

G - GREATER THAN MEASUREMENT LIMIT  
G - PLUS GRAND QUE LA LIMITE MESURE



NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO002  
FLATHEAD RIVER, 0.8 MILES EAST OF  
(INTERPRETIVE REPORT STATION 1)

MARL LAKE

LAT. 49D 7M 14S LONG. 114D 29M 39S  
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	O2011L COLOUR APPARENT	O2041L SPECIFIC CONDUCT.	USIE/CM	O2041S SPECIFIC CONDUCT.	O2061L TEMP. WATER	DEG.C.	O2061S TEMP. WATER	DEG.C.	O2073L TURBIDITY	JTU	O6001R CARBON TOTAL ORGANIC C	MG/L	O60011 CARBON TOTAL ORGANIC C	MG/L
75-08-20	1515	325	L5		249.		275.	22.3		14.0		.2		L1.0		L1.0	
76-04-12	0930	325	5		200.		200.	22.5		1.0		2.2		2.1		3.1	
76-05-27	1000	325	5		172.		250.	22.9		5.0		5.2		3.5		4.5	
76-05-28	1600	325	7		152.		170.	22.6		8.0		45.0		6.5		5.7	
76-05-29	1245	325	7		157.		175.	22.8		5.0		18.0		3.4		3.9	
76-06-14	1200	325	L5		169.		200.	19.1		7.0		.4		2.7		3.4	
76-06-16	0930	325	L5		174.		170.	20.5		6.8		1.5		2.2		2.4	
76-08-04	1315	325	L5		229.		245.	19.7		15.0		.3		1.4		1.5	
76-08-05	1110	325	L5		227.		220.	19.7		11.0		.4		2.2		2.6	
76-09-11	1210	325	5		246.		300.	21.9		10.0		.5		L1.0		L1.0	
76-09-12	1125	325	L5		249.		290.	22.1		9.0		.3		1.0		1.2	
76-09-13	1045	325	5		252.		300.	22.0		9.0		.2		1.7		L1.0	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	O60012 CARBON TOTAL ORGANIC C	MG/L	O60013 CARBON TOTAL ORGANIC C	MG/L	O60014 CARBON TOTAL ORGANIC C	MG/L	O60015 CARBON TOTAL ORGANIC C	MG/L	O60016 CARBON TOTAL ORGANIC C	MG/L	O6051R CARBON TOTAL INORGANIC C	MG/L	O60511 CARBON TOTAL INORGANIC C	MG/L	O60512 CARBON TOTAL INORGANIC C	MG/L
75-08-20	1515	325		L1.0		L1.0		L1.0		L1.0		L1.0		36.3		36.2		36.2	
76-04-12	0930	325		1.7		1.0		2.6		--		--		26.9		27.1		27.1	
76-05-27	1000	325		2.5		3.1		2.8		3.9		3.9		21.3		20.0		22.0	
76-05-28	1600	325		7.1		6.3		5.4		7.4		7.4		18.5		19.0		18.0	
76-05-29	1245	325		4.6		2.2		3.2		3.0		3.0		20.2		20.0		19.0	
76-06-14	1200	325		1.7		3.1		2.8		1.7		1.7		20.3		20.0		21.0	
76-06-16	0930	325		2.6		2.7		2.0		L1.0		L1.0		20.7		20.0		20.0	
76-08-04	1315	325		1.3		L1.0		L1.0		L1.0		L1.0		28.3		28.0		29.0	
76-08-05	1110	325		L1.0		2.7		1.1		2.5		2.5		28.2		28.0		29.0	
76-09-11	1210	325		L1.0		L1.0		L1.0		L1.0		L1.0		34.7		34.0		35.0	
76-09-12	1125	325		L1.0		L1.0		L1.0		L1.0		L1.0		33.0		33.0		33.0	
76-09-13	1045	325		2.0		2.3		L1.0		1.6		1.6		32.3		33.0		33.0	

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO002  
FLATHEAD RIVER . O.8 MILES EAST OF  
(INTERPRETIVE REPORT STATION 1)

MARL LAKE

LAT. 49D 7M 14S LONG. 114D 29M 39S  
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-08-20	1515	325	36.6	36.7	35.9	36.3	--	--	--	--
76-04-12	0930	325	27.4	25.8	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1000	325	22.0	22.0	21.0	21.0	L.0005	L.0005	L.0005	L.0005
76-05-28	1600	325	19.0	19.0	18.0	18.0	L.0005	L.0005	L.0005	L.0005
76-05-29	1245	325	21.0	21.0	21.0	19.0	--	--	--	--
76-06-14	1200	325	20.0	20.0	20.0	21.0	L.0005	L.0005	L.0005	L.0005
76-06-16	0930	325	21.0	20.0	21.0	22.0	--	--	--	--
76-08-04	1315	325	29.0	28.0	27.0	29.0	L.0005	L.0005	L.0005	--
76-08-05	1110	325	27.0	29.0	28.0	28.0	--	--	--	--
76-09-11	1210	325	35.0	35.0	35.0	34.0	L.0005	L.0005	L.0005	L.0005
76-09-12	1125	325	33.0	33.0	33.0	33.0	--	--	--	--
76-09-13	1045	325	32.0	32.0	32.0	32.0	--	--	--	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN LIG.SULPH. MG/L	06903L CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED NO3 & NO2 N MG/L	071101 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071102 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071103 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071104 NITROGEN DISSOLVED NO3 & NO2 N MG/L	071105 NITROGEN DISSOLVED NO3 & NO2 N MG/L
75-08-20	1515	325	.04	.110	.038	.053	.117	.013	.005	.025
76-04-12	0930	325	--	--	.060	.059	.059	.064	.059	.059
76-05-27	1000	325	--	--	.012	.012	.013	.012	.012	.012
76-05-28	1600	325	--	--	.012	.011	.011	.011	.012	.013
76-05-29	1245	325	--	--	.021	.039	.013	.024	.014	.013
76-06-14	1200	325	--	--	.010	.011	.009	.018	.012	.005
76-06-16	0930	325	--	--	.005	.009	.002	.003	.003	.003
76-08-04	1315	325	--	--	.005	.002	.002	.003	.020	.003
76-08-05	1110	325	--	--	.017	.006	.006	.042	.012	.032
76-09-11	1210	325	--	--	.013	.039	.008	.008	.011	.005
76-09-12	1125	325	--	--	.025	.018	.051	.008	.009	.058
76-09-13	1045	325	--	--	.017	.018	.023	.014	.024	.014

84-04-26

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NPO002  
FLATHEAD RIVER . 0.8 MILES EAST OF  
(INTERPRETIVE REPORT STATION 1)  
MARL LAKE  
LAT. 49D 7M 14S LONG. 114D 29M 39S  
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071106 NITROGEN DISSOLVED NO3 & NO2 N	07557R NITROGEN DISSOLVED AMMONIA N	075571 NITROGEN DISSOLVED AMMONIA N	075572 NITROGEN DISSOLVED AMMONIA N	075573 NITROGEN DISSOLVED AMMONIA N	075574 NITROGEN DISSOLVED AMMONIA N	075575 NITROGEN DISSOLVED AMMONIA N	075576 NITROGEN DISSOLVED AMMONIA N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1515	325	.015	.091	.128	.220	.069	.033	.049	.048
76-04-12	0930	325	.059	.006	.006	.005	.005	.005	.006	.006
76-05-27	1000	325	.012	.012	.011	.010	.015	.011	.012	.015
76-05-28	1600	325	.011	.013	.013	.012	.013	.012	.013	.016
76-05-29	1245	325	.020	.013	.018	.010	.015	.010	.011	.012
76-06-14	1200	325	.006	.006	.003	.007	.007	.006	.006	.007
76-06-16	0930	325	.008	.005	.005	.004	.005	.004	.006	.005
76-08-04	1315	325	.002	.004	.004	.005	.003	.004	.003	.004
76-08-05	1110	325	.005	.006	.005	.009	.010	.006	.004	.004
76-09-11	1210	325	.005	.003	.005	.003	.003	.002	.002	.001
76-09-12	1125	325	.008	.011	.009	.010	.011	.008	.008	.009
76-09-13	1045	325	.010	.006	.006	.003	.004	.008	.008	.007

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07651R NITROGEN DISSOLVED N	076511 NITROGEN DISSOLVED N	076512 NITROGEN DISSOLVED N	076513 NITROGEN DISSOLVED N	076514 NITROGEN DISSOLVED N	076515 NITROGEN DISSOLVED N	076516 NITROGEN DISSOLVED N	07903L NITROGEN DISSOLVED PARTICULATE N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1515	325	.28	.32	.64	.23	.19	.17	.14	.012
76-04-12	0930	325	.11	.12	.11	--	--	--	--	--
76-05-27	1000	325	.07	.08	.08	.07	.07	.08	.07	--
76-05-28	1600	325	.08	.08	.07	.07	.08	.08	.08	--
76-05-29	1245	325	.09	.14	.08	.10	.08	.08	.08	--
76-06-14	1200	325	.05	.06	.05	.06	.05	.05	.05	--
76-06-16	0930	325	.08	.04	.06	.06	.05	.22	.06	--
76-08-04	1315	325	.04	.04	.05	.04	.05	.05	.04	--
76-08-05	1110	325	.05	.04	.05	.08	.04	.04	.04	--
76-09-11	1210	325	.04	.06	.06	.04	.04	.04	.03	--
76-09-12	1125	325	.05	.06	.06	.04	.04	.08	.04	--
76-09-13	1045	325	.04	.05	.04	.04	.05	.04	.04	--

84-04-26

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

LAT. 49D 7M 14S LONG. 114D 29M 39S  
BRITISH COLUMBIA

STATION - OOB808NPO002  
FLATHEAD RIVER . O.8 MILES EAST OF  
( INTERPRETIVE REPORT STATION 1 )

MARL LAKE

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED	10101L ALKALINITY TOTAL	10151L ALKALINITY PHENOL PHTHALEIN	10301L PH	10301S PH	10401L RESIDUE NONFILTR.	10451L RESIDUE FILTERABLE	10501L RESIDUE FIXED NONFILTR.
			F MG/L	CAC03 MG/L	CAC03 MG/L	PH UNITS	PH UNITS	MG/L	MG/L	MG/L
75-08-20	1515	325	.09	132.0	4.2	8.6	7.8	--	--	--
76-04-12	0930	325	.10	102.0	0.0	7.9	7.8	31.	118.	24.
76-05-27	1000	325	.07	85.8	0.0	8.0	8.1	31.	105.	30.
76-05-28	1600	325	.07	74.4	0.0	8.1	8.3	104.	110.	98.
76-05-29	1245	325	.07	78.0	0.0	8.1	8.1	43.	105.	41.
76-06-14	1200	325	.10	87.6	0.0	8.1	8.2	3.	128.	2.
76-06-16	0930	325	.08	89.1	0.0	8.2	8.0	10.	112.	8.
76-08-04	1315	325	.08	124.0	0.0	8.3	--	LO.	164.	LO.
76-08-05	1110	325	.08	122.0	0.0	8.3	--	1.	176.	LO.
76-09-11	1210	325	.08	131.0	0.0	8.1	8.2	1.	179.	LO.
76-09-12	1125	325	.09	132.0	0.0	8.1	8.2	1.	149.	LO.
76-09-13	1045	325	.09	130.0	0.0	8.0	8.1	2.	172.	1.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE	10603L HARDNESS TOTAL	11103L SODIUM DISSOLVED	12101L MAGNESIUM DISSOLVED (CALCD.)	14105L SILICA REACTIVE	15102R PHOSPHORUS TOTAL DISSOLVED	151021 PHOSPHORUS TOTAL DISSOLVED	151022 PHOSPHORUS TOTAL DISSOLVED
			MG/L	CAC03 MG/L	NA MG/L	MG MG/L	SI02 MG/L	MG/L	MG/L	MG/L
75-08-20	1515	325	--	138.0	.6	10.6	4.5	--	--	--
76-04-12	0930	325	49.	106.0	.6	6.6	4.4	.009	.007	.007
76-05-27	1000	325	91.	89.0	.6	6.2	4.3	.008	.008	.008
76-05-28	1600	325	98.	78.3	.5	5.7	4.0	--	--	--
76-05-29	1245	325	85.	82.9	.7	5.1	4.2	--	--	--
76-06-14	1200	325	68.	91.2	.6	4.0	4.1	.006	.007	.006
76-06-16	0930	325	68.	92.2	.7	5.5	4.4	.008	.009	.007
76-08-04	1315	325	98.	127.0	.7	7.4	4.7	.006	.006	.005
76-08-05	1110	325	90.	125.0	.7	7.9	4.7	.005	.005	.005
76-09-11	1210	325	114.	133.0	.7	8.4	4.8	.005	.005	.005
76-09-12	1125	325	112.	132.0	.7	8.0	4.8	.004	.005	.005
76-09-13	1045	325	113.	134.0	.8	8.6	4.8	--	--	--

84-04-26

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - O0BC08NPO002  
 FLATHEAD RIVER . O.8 MILES EAST OF MARL LAKE  
 (INTERPRETIVE REPORT STATION 1)  
 LAT. 49D 7M 14S LONG. 114D 29M 39S  
 BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151023 PHOSPHORUS DISSOLVED	154068 PHOSPHORUS TOTAL	154061 PHOSPHORUS TOTAL	154062 PHOSPHORUS TOTAL	154063 PHOSPHORUS TOTAL	154064 PHOSPHORUS TOTAL	154065 PHOSPHORUS TOTAL	154066 PHOSPHORUS TOTAL
			P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L
75-08-20	1515	325	--	.005	.004	.006	.003	.008	.003	.004
76-04-12	0930	325	.012	.071	.075	.068	.066	.068	.080	--
76-05-27	1000	325	.008	.040	.041	.040	.037	.041	.040	.040
76-05-28	1600	325	--	.087	.087	.083	.095	.094	.082	.081
76-05-29	1245	325	--	.046	.035	.046	.048	.045	.052	.050
76-06-14	1200	325	.006	.017	.018	.015	.015	.012	.024	.016
76-06-16	0930	325	.009	.014	.013	.014	.016	.011	.015	.012
76-08-04	1315	325	.006	.005	.005	.004	.005	.006	.006	.005
76-08-05	1110	325	.006	.007	.005	.012	.007	.008	.007	.005
76-09-11	1210	325	.004	.005	.005	.006	.006	.006	.004	.005
76-09-12	1125	325	.003	.007	.004	.004	.016	.005	.005	.005
76-09-13	1045	325	--	.005	.005	.007	.004	.005	.006	.004

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED	17206L CHLORIDE DISSOLVED	19103L POTASSIUM DISSOLVED	20101L CALCIUM DISSOLVED	25304P MANGANESE EXTRBLE.	26305P IRON EXTRBLE.	27302P COBALT EXTRBLE.	28302P NICKEL EXTRBLE.
			SO4 MG/L	CL MG/L	K MG/L	CA MG/L	MN MG/L	FE MG/L	CO MG/L	NI MG/L
75-08-20	1515	325	5.5	.3	.3	37.8	L.01	.012	--	--
76-04-12	0930	325	3.9	.3	.3	31.5	.02	.26	L.001	L.001
76-05-27	1000	325	2.9	.2	.3	25.4	L.01	.08	L.001	L.001
76-05-28	1600	325	2.3	.3	.4	21.9	.04	.25	L.001	L.001
76-05-29	1245	325	2.5	.2	.3	24.8	.01	.10	L.001	L.001
76-06-14	1200	325	2.7	.2	.3	30.0	L.01	.07	L.001	L.001
76-06-16	0930	325	3.2	L.2	.3	27.8	--	--	--	--
76-08-04	1315	325	3.9	.3	.4	38.6	L.01	.014	L.001	L.001
76-08-05	1110	325	3.9	.3	.3	37.0	L.01	.016	L.001	L.001
76-09-11	1210	325	4.3	.3	.3	39.4	L.01	.007	L.001	L.001
76-09-12	1125	325	4.2	.2	.3	39.7	L.01	.009	L.001	L.001
76-09-13	1045	325	4.2	.3	.3	39.5	L.01	.006	L.001	L.001

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808N0002  
 FLATHEAD RIVER . O.8 MILES EAST OF  
 (INTERPRETIVE REPORT STATION 1)

MARL LAKE

LAT. 49D 7M 14S LONG. 114D 29M 39S  
 BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	CU MG/L	30305P ZINC EXTRBLE.	33304L ARSENIC EXTRBLE.	34302L SELENIUM EXTRBLE.	48302P CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	82302P LEAD EXTRBLE.
75-08-20	1515	325	L.001	L.001	.0004	.0001	L.0002	--	L.05	L.001
76-04-12	0930	325	.001	.001	.0005	.0001	L.0002	.29	L.05	.001
76-05-27	1000	325	L.001	L.001	.0002	.0001	L.0002	.09	L.05	L.001
76-05-28	1600	325	L.001	.001	.0004	.0001	L.0002	.14	L.05	.001
76-05-29	1245	325	L.001	L.001	.0002	L.0001	L.0002	.16	L.05	L.001
76-06-14	1200	325	L.001	L.001	.0003	.0001	L.0002	.12	L.05	L.001
76-06-16	0930	325	--	--	.0004	.0001	--	--	--	--
76-08-04	1315	325	L.001	L.001	.0002	.0001	L.0002	.13	L.05	L.001
76-08-05	1110	325	L.001	L.001	.0003	L.0001	L.0002	.12	L.05	L.001
76-09-11	1210	325	L.001	L.001	.0004	.0001	L.0002	.22	L.05	L.001
76-09-12	1125	325	L.001	L.001	.0003	.0001	L.0002	.21	L.05	L.001
76-09-13	1045	325	L.001	.003	.0002	.0001	L.0002	.19	--	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT  
 NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION

G - GREATER THAN MEASUREMENT LIMIT  
 G - PLUS GRAND QUE LA LIMITE MESURE

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

OM 15S LONG. 114D 28M 45S  
WATER SURVEY SITE -OBNPO001,

LAT. 49D

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	02011L COLOUR APPARENT	02041L SPECIFIC CONDUCT.	USIE/CM	02061L TEMP. WATER	DEG.C.	02061S TEMP. WATER	DEG.C.	02073L TURBIDITY	JTU	06001R CARBON TOTAL ORGANIC	MG/L	06001I CARBON TOTAL ORGANIC	MG/L
75-08-20	1340	325	L5.		249.	260.	22.1	22.1	14.0	14.0	.4		L1.0	L1.0		
75-12-18	1200	325	L5.		230.	--	23.1	23.1	0.0	0.0	.8		L1.3	L1.3		
76-02-05	1200	325	L5.		288.	--	21.2	21.2	--	--	1.3		L1.4	L1.4		
76-04-10	1330	325	L5.		220.	260.	22.6	22.6	4.0	4.0	42.0		L2.4	L2.4		
76-04-12	1345	325	L5.		198.	265.	22.6	22.6	4.0	4.0	45.0		L4.1	L4.1		
76-04-13	1330	325	L2.		193.	220.	22.5	22.5	2.0	2.0	52.0		L2.7	L2.7		
76-05-27	1130	325	L5.		178.	220.	22.7	22.7	7.0	7.0	8.7		L5.5	L5.5		
76-05-28	1315	325	L5.		157.	180.	22.8	22.8	6.5	6.5	72.0		L8.2	L8.2		
76-05-29	1115	325	L7.		167.	180.	22.8	22.8	5.0	5.0	35.0		L2.8	L2.8		
76-06-14	1530	325	L5.		177.	200.	19.3	19.3	8.2	8.2	1.9		L4.3	L4.3		
76-06-15	0900	325	L5.		176.	190.	19.5	19.5	6.8	6.8	2.6		L3.7	L3.7		
76-06-16	1030	325	L5.		160.	200.	18.8	18.8	7.0	7.0	7		L2.1	L2.1		
76-08-04	1145	325	L5.		224.	245.	19.6	19.6	13.5	13.5	5		L2.7	L2.7		
76-08-05	0950	325	L5.		223.	260.	19.7	19.7	11.5	11.5	7		L2.1	L2.1		
76-09-11	0845	325	L5.		246.	270.	22.0	22.0	7.5	7.5	4		L1.0	L1.0		
76-09-12	1030	325	L5.		248.	300.	22.0	22.0	9.0	9.0	5		L1.0	L1.0		
76-09-13	0945	325	L5.		252.	300.	22.0	22.0	8.0	8.0	4		L1.2	L1.2		
80-08-26	1330	325	L5.		268.	--	21.4	21.4	--	--	4		L1.0	L1.0		
82-07-28	1309	325	L5.		223.	--	21.5	21.5	--	--	5		--	--		
	1310	325	L5.		225.	--	21.5	21.5	--	--	3		L1.7	L1.7		





84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOBEO8NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

OM 155 LONG. 114D 28M 45S  
WATER SURVEY SITE -OBNPO001.

49D LAT. 49D

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL MG/L	065361 PHENOLIC MATERIAL MG/L	065362 PHENOLIC MATERIAL MG/L	065363 PHENOLIC MATERIAL MG/L
75-08-20	1340	325	33.5	33.5	33.7	33.8	--	--	--	--
75-12-18	1200	325	26.9	27.2	26.9	27.1	--	--	--	--
76-02-05	1200	325	32.2	--	--	--	--	--	--	--
76-04-10	1330	325	26.8	27.7	--	--	L.0005	L.0005	L.0005	L.0005
76-04-12	1345	325	--	--	--	--	L.0005	L.0005	L.0005	L.0005
76-04-13	1330	325	24.6	25.9	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1130	325	21.0	22.0	21.0	21.0	L.0005	L.0005	L.0005	L.0005
76-05-28	1315	325	19.0	19.0	20.0	20.0	L.0005	L.0005	L.0005	L.0005
76-05-29	1115	325	22.0	21.0	22.0	20.0	L.0005	L.0005	L.0005	L.0005
76-06-14	1530	325	20.0	18.0	20.0	20.0	L.0005	L.0005	L.0005	L.0005
76-06-15	0900	325	20.0	22.0	21.0	22.0	--	--	--	--
76-06-16	1030	325	21.0	22.0	21.0	21.0	L.0005	L.0005	L.0005	L.0005
76-08-04	1145	325	26.0	28.0	26.0	27.0	L.0005	L.0005	L.0005	L.0005
76-08-05	0950	325	29.0	29.0	30.0	27.0	L.0005	L.0005	L.0005	L.0005
76-09-11	0845	325	35.0	35.0	35.0	35.0	L.0005	L.0005	L.0005	L.0005
76-09-12	1030	325	33.0	33.0	33.0	34.0	--	--	--	--
76-09-13	0945	325	32.0	32.0	33.0	33.0	--	--	--	--
80-08-26	1330	325	32.0	--	--	--	--	--	--	--
82-07-28	1310	325	31.0	--	--	--	--	--	--	--

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

LAT. 49D 0M 15S LONG. 114D 28M 45S  
U.S.A. - CANADA BORDER CROSSING.  
WATER SURVEY SITE -08NPO001,  
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	SUB-ID/ HEURE	SOUS-ID	O652L TANNIN AND LIGNIN	O6903L CARBON PARTICULATE	O69031 CARBON PARTICULATE	O69032 CARBON PARTICULATE	O69033 CARBON PARTICULATE	O7110R NITROGEN DISSOLVED NO3 & NO2	O71101 NITROGEN DISSOLVED NO3 & NO2	O71102 NITROGEN DISSOLVED NO3 & NO2
			MG/L	C MG/L	C MG/L	C MG/L	C MG/L	N MG/L	N MG/L	N MG/L
75-08-20	1340	325	.05	.160	--	--	--	.019	.005	.012
75-12-18	1200	325	--	--	--	--	--	.048	.061	.060
76-02-05	1200	325	--	--	--	--	--	.008	.006	.006
76-04-10	1330	325	--	--	--	--	--	.052	.050	.057
76-04-12	1345	325	--	--	--	--	--	.061	.065	.057
76-04-13	1330	325	--	--	--	--	--	.063	.063	.063
76-05-27	1130	325	--	--	--	--	--	.017	.012	.013
76-05-28	1315	325	--	--	--	--	--	.014	.016	.013
76-05-29	1115	325	--	--	--	--	--	.014	.012	.013
76-06-14	1530	325	--	--	--	--	L.002	L.002	L.002	L.002
76-06-15	0900	325	--	--	--	--	L.002	L.002	L.002	L.002
76-06-16	1030	325	--	--	--	--	.007	.007	.007	.008
76-08-04	1145	325	--	--	--	--	.002	.002	.002	.002
76-08-05	0950	325	--	--	--	--	.018	.018	.031	.016
76-09-11	0845	325	--	--	--	--	.009	.009	.015	.008
76-09-12	1030	325	--	--	--	--	.006	.006	.014	.004
76-09-13	0845	325	--	--	--	--	.026	.026	.003	.032
80-08-26	1330	325	--	.165 O3R	.101	.290	.103	.024	.006	.034
82-07-28	1310	325	--	.113 O3R	.107	.115	.117	L.002	L.002	L.002

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

LAT. 49D 0M 15S LONG. 114D 28M 45S  
WATER SURVEY SITE -OB8NPO001.

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071103 NITROGEN DISSOLVED NO3 & NO2 N	071104 NITROGEN DISSOLVED NO3 & NO2 N	071105 NITROGEN DISSOLVED NO3 & NO2 N	071106 NITROGEN DISSOLVED NO3 & NO2 N	07557R NITROGEN DISSOLVED AMMONIA N	075571 NITROGEN DISSOLVED AMMONIA N	075572 NITROGEN DISSOLVED AMMONIA N	075573 NITROGEN DISSOLVED AMMONIA N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1340	325	.006	.014	.004	.070	.118	.038	.098	.076
75-12-18	1200	325	.033	.037	.062	.037	.013	.005	.022	.007
76-02-05	1200	325	.009	.005	.011	.008	.011	.007	.012	.014
76-04-10	1330	325	.051	.051	.053	.051	.014	.012	.012	.013
76-04-12	1345	325	--	--	--	--	.016	.016	.016	--
76-04-13	1330	325	.063	.063	.063	.063	.010	.007	.007	.014
76-05-27	1130	325	.012	.012	.042	.013	.013	.010	.015	.012
76-05-28	1315	325	.013	.013	.013	.013	.014	.018	.013	.012
76-05-29	1115	325	.022	.013	.013	.012	.011	.008	.013	.011
76-06-14	1530	325	L.002	L.002	L.002	.002	.008	.005	.008	.007
76-06-15	0900	325	L.002	L.002	L.002	L.002	.010	.010	.010	.009
76-06-16	1030	325	L.002	.002	.018	.005	.007	.007	.008	.006
76-08-04	1145	325	L.002	.002	.004	--	.004	.002	.006	.004
76-08-05	0950	325	.003	.004	.003	.051	.007	.010	.006	L.001
76-09-11	0845	325	.006	.006	.005	.011	.003	.007	L.001	L.001
76-09-12	1030	325	.004	.002	.004	.005	.012	.015	.015	.007
76-09-13	0945	325	.110	.003	.003	.006	.006	.004	.014	.012
80-08-26	1330	325	.033	--	--	--	L.002	L.002	L.002	L.002
82-07-28	1310	325	L.002	--	--	--	L.002	L.002	L.002	L.002

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
 FLATHEAD RIVER, 0.3 KM ABOVE  
 BRITISH COLUMBIA.

U.S.A. - CANADA BORDER CROSSING:  
 (INTERPRETIVE REPORT STATION 3)

LAT. 49D 0M 15S LONG. 114D 28M 45S  
 WATER SURVEY SITE -OBNPO001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075574 NITROGEN DISSOLVED AMMONIA N MG/L	075575 NITROGEN DISSOLVED AMMONIA N MG/L	075576 NITROGEN DISSOLVED AMMONIA N MG/L	076510 NITROGEN DISSOLVED N MG/L	076511 NITROGEN DISSOLVED N MG/L	076512 NITROGEN DISSOLVED N MG/L	076513 NITROGEN DISSOLVED N MG/L	076514 NITROGEN DISSOLVED N MG/L
75-08-20	1340	325	.150	.043	.300	.24	.10	.22	.17	.27
75-12-18	1200	325	.027	.008	.010	.11	.12	.12	.08	.12
76-02-05	1200	325	.008	.014	.010	.05	.04	.04	.06	.04
76-04-10	1330	325	.014	.016	.016	.13	.14	.12	--	--
76-04-12	1345	325	--	--	--	.12	.12	.12	--	--
76-04-13	1330	325	.009	.009	.010	.12	.12	.12	--	--
76-05-27	1130	325	.011	.014	.013	.07	.06	.07	.06	.07
76-05-28	1315	325	.013	.012	.014	.08	.09	.08	.08	.08
76-05-29	1115	325	.011	.011	.012	.08	.07	.08	.09	.08
76-06-14	1530	325	.012	.009	.010	.05	.05	.04	.04	.05
76-06-15	0900	325	.010	.012	.011	.04	.04	.04	.04	.04
76-06-16	1030	325	.007	.007	.008	.05	.06	.05	.05	.04
76-08-04	1145	325	.004	.002	--	.07	.10	.07	.07	.05
76-08-05	0950	325	.005	.008	.005	.05	.07	.07	.04	.03
76-09-11	0845	325	L.001	L.001	.006	.04	.08	.03	.03	.03
76-09-12	1030	325	.015	.010	.010	.05	.06	.05	.04	.04
76-09-13	0945	325	.002	.002	.004	.06	.03	.08	.18	.03

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
 FLATHEAD RIVER, 0.3 KM ABOVE  
 BRITISH COLUMBIA.

U.S.A. - CANADA BORDER CROSSING...  
 (INTERPRETIVE REPORT STATION 3)

LAT. 49D 0M 15S LONG. 114D 28M 45S  
 WATER SURVEY SITE -08NPO001,

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076515		076516		076551		076552		076553		079031		079031			
			NITROGEN DISSOLVED	N MG/L	NITROGEN DISSOLVED	N MG/L	TOTAL DISSOLVED	NITROGEN DISSOLVED	TOTAL DISSOLVED	NITROGEN DISSOLVED	TOTAL DISSOLVED	NITROGEN DISSOLVED	TOTAL DISSOLVED	NITROGEN DISSOLVED	TOTAL DISSOLVED	NITROGEN DISSOLVED	TOTAL DISSOLVED	NITROGEN DISSOLVED
75-08-20	1340	325	.11	.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---
75-12-18	1200	325	.11	.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-02-05	1200	325	.06	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-05-27	1130	325	.11	.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-05-28	1315	325	.08	.09	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-05-29	1115	325	.07	.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-06-14	1530	325	.05	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-06-15	0900	325	.04	.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-06-16	1030	325	.08	.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-08-04	1145	325	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-08-05	0950	325	.03	.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-09-11	0845	325	.04	.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-09-12	1030	325	.04	.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---
76-09-13	0945	325	.03	.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---
80-08-26	1330	325	---	---	.057	.040	.065	.065	.065	.065	.065	.065	.065	.065	.065	.065	.065	.065
82-07-28	1310	325	---	---	.033	.030	.035	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033	.033

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NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - 008C08NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

LAT. 49D

OM 15S LONG. 114D 28M 45S  
WATER SURVEY SITE -08NPO001,

DATE YMD/AMJ	SUB-ID/ HEURE SOUS-ID	079032 NITROGEN PARTICULATE	079033 NITROGEN PARTICULATE	091061 FLUORIDE DISSOLVED	091062 FLUORIDE DISSOLVED	091063 FLUORIDE DISSOLVED	091064 FLUORIDE DISSOLVED	091065 FLUORIDE DISSOLVED
		N MG/L	F MG/L	F MG/L	F MG/L	F MG/L	F MG/L	F MG/L
75-08-20	1340	325	---	---	---	---	---	---
75-12-18	1200	325	---	.08	.08	.09	.07	.08
76-04-10	1330	325	---	.12	---	---	---	---
76-04-12	1345	325	---	.07	---	---	---	---
76-04-13	1330	325	---	.07	---	---	---	---
76-05-27	1130	325	---	.07	---	---	---	---
76-05-28	1315	325	---	.08	---	---	---	---
76-05-29	1115	325	---	.07	---	---	---	---
76-06-14	1530	325	---	.09	---	---	---	---
76-06-15	0900	325	---	.09	---	---	---	---
76-06-16	1030	325	---	.09	---	---	---	---
76-08-04	1145	325	---	.09	---	---	---	---
76-08-05	0950	325	---	.08	---	---	---	---
76-09-11	0845	325	---	.09	---	---	---	---
76-09-12	1030	325	---	.10	---	---	---	---
76-09-13	0945	325	---	.10	---	---	---	---
80-08-26	1330	325	.008	.08	---	---	---	---
82-07-28	1309	325	---	L.05	---	---	---	---
	1310	325	.005	L.05	---	---	---	---

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

LAT. 49D

OM 155 LONG. 114D 28M 45S  
WATER SURVEY SITE - OBNPO001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	091066 FLUORIDE DISSOLVED	F MG/L	10101L ALKALINITY TOTAL	CAC03 MG/L	10151L ALKALINITY PHENOL PHTHALEIN	CAC03 MG/L	10301L PH	PH UNITS	10301S PH	PH UNITS	10401L RESIDUE NONFILTR.	MG/L	10451L RESIDUE FILTERABLE	MG/L	10501L RESIDUE FIXED NONFILTR.	MG/L
75-08-20	1340	325	--	--	131.0		3.4		8.6		8.0		--		--		--	
75-12-18	1200	325	.08		120.0		0.0		8.3		7.5		1.	216.		0.		
76-02-05	1200	325	--		148.0		0.0		8.3		--		5.	172.		3.		
76-04-10	1330	325	--		112.0		0.0		8.2		8.3		94.	129.		82.		
76-04-12	1345	325	--		105.0		0.0		8.1		7.6		92.	140.		82.		
76-04-13	1330	325	--		101.0		0.0		8.0		8.0		121.	122.		105.		
76-05-27	1130	325	--		91.8		0.0		8.1		8.2		34.	120.		31.		
76-05-28	1315	325	--		80.4		0.0		8.1		8.1		157.	104.		149.		
76-05-29	1115	325	--		82.3		0.0		8.0		8.1		59.	62.		56.		
76-06-14	1530	325	--		89.8		0.0		8.2		8.3		10.	124.		9.		
76-06-15	0900	325	--		91.5		0.0		8.2		8.1		12.	140.		10.		
76-06-16	1030	325	--		85.0		0.0		8.2		8.0		2.	92.		2.		
76-08-04	1145	325	--		120.0		1.0		8.4		--		1.	156.		LO.		
76-08-05	0950	325	--		120.0		0.0		8.3		--		2.	188.		4.		
76-09-11	0845	325	--		130.0		0.0		8.3		8.2		1.	184.		1.		
76-09-12	1030	325	--		130.0		0.0		8.2		8.2		1.	158.		LO.		
76-09-13	0945	325	--		130.0		0.0		8.1		8.3		1.	164.		0.		
80-08-26	1330	325	--		141.0		1.2		8.4		--		2.	92.		L1.		
82-07-28	1309	325	--		121.0		0.0		8.2		--		--	--		--		
	1310	325	--		121.3		0.0		8.3		--		--	--		--		

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NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

LAT. 49D 0M 15S LONG. 114D 28M 45S  
U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)  
WATER SURVEY SITE -08NPO001,

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE	10603L HARDNESS TOTAL	11103L SODIUM DISSOLVED	12101L MAGNESIUM DISSOLVED (CALCD.)	141051L SILICA REACTIVE	141052L SILICA REACTIVE	141053L SILICA REACTIVE
			MG/L	CAC03 MG/L	NA MG/L	MG/L	SI02 MG/L	SI02 MG/L	SI02 MG/L
75-08-20	1340	325	--	136.0	.6	11.2	4.7	--	--
75-12-18	1200	325	78.	126.0	.7	8.4	4.8 O5R	4.8	4.7
76-02-05	1200	325	160.	160.0	.9	10.4	5.3 O5R	5.3	--
76-04-10	1330	325	87.	115.0	.8	7.6	4.8	--	--
76-04-12	1345	325	58.	106.0	.7	7.0	4.8	--	--
76-04-13	1330	325	30.	104.0	.7	6.8	4.8	--	--
76-05-27	1130	325	76.	95.1	.6	6.3	4.6	--	--
76-05-28	1315	325	74.	83.9	.6	5.0	4.3	--	--
76-05-29	1115	325	62.	87.0	.7	5.7	4.3	--	--
76-06-14	1530	325	76.	93.4	.7	5.8	4.3	--	--
76-06-15	0900	325	76.	94.7	.7	5.9	4.4	--	--
76-06-16	1030	325	52.	87.8	.7	5.3	4.0	--	--
76-08-04	1145	325	108.	123.0	.7	6.8	5.0	--	--
76-08-05	0950	325	124.	124.0	.7	7.1	4.9	--	--
76-09-11	0845	325	118.	133.0	.7	8.4	5.1	--	--
76-09-12	1030	325	120.	132.0	.8	8.3	5.0	--	--
76-09-13	0945	325	110.	133.0	.8	8.4	5.0	--	--
80-08-26	1330	325	79.	146.0	.3	8.9	4.8	--	--
82-07-28	1309	325	--	126.1	.7	7.9	4.5	--	--
	1310	325	--	125.9	.7	7.8	4.5	--	--



NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

LAT. 49D 0M 15S LONG. 114D 28M 45S  
WATER SURVEY SITE -08NPO0001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	141054		141055		141056		15102R		151021		151022		151023		15406R	
			SILICA REACTIVE	SI02 MG/L	SILICA REACTIVE	SI02 MG/L	SILICA REACTIVE	SI02 MG/L	PHOSPHORUS TOTAL	DISSOLVED P	PHOSPHORUS TOTAL	DISSOLVED P	PHOSPHORUS TOTAL	DISSOLVED P	PHOSPHORUS TOTAL	DISSOLVED P	PHOSPHORUS TOTAL	DISSOLVED P
75-08-20	1340	325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.005
75-12-18	1200	325	4.8	4.8	4.7	4.9	--	--	--	--	--	--	--	--	--	--	--	.008
76-02-05	1200	325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.760
76-04-10	1330	325	--	--	--	--	.011	.007	.015	.015	.007	.015	.015	.015	.015	.015	.015	.104
76-04-12	1345	325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.102
76-04-13	1330	325	--	--	--	--	.009	.007	.014	.014	.007	.014	.014	.014	.014	.014	.014	.121
76-05-27	1130	325	--	--	--	--	.008	.008	.010	.010	.008	.010	.010	.010	.010	.010	.010	.036
76-05-28	1315	325	--	--	--	--	.010	.009	.010	.010	.009	.010	.010	.010	.010	.010	.010	.130
76-05-29	1115	325	--	--	--	--	.009	.010	.009	.010	.010	.010	.010	.010	.010	.010	.010	.056
76-06-14	1530	325	--	--	--	--	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.025
76-06-15	0900	325	--	--	--	--	.013	.009	.013	.009	.009	.007	.007	.007	.007	.007	.007	.024
76-06-16	1030	325	--	--	--	--	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.008	.023
76-08-04	1145	325	--	--	--	--	.006	.006	.006	.006	.006	.005	.005	.005	.005	.005	.005	.008
76-08-05	0950	325	--	--	--	--	.006	.007	.006	.007	.007	.006	.006	.006	.006	.006	.006	.009
76-09-11	0845	325	--	--	--	--	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.007
76-09-12	1030	325	--	--	--	--	.005	.004	.005	.004	.004	.006	.006	.006	.006	.006	.006	.008
76-09-13	0945	325	--	--	--	--	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.006
80-08-26	1330	325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.002
82-07-28	1310	325	--	--	--	--	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.005



84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

LAT. 49D OM 15S LONG. 114D 28M 45S  
U.S.A. - CANADA BORDER CROSSING.  
WATER SURVEY SITE -08NPO001,  
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	154061 PHOSPHORUS TOTAL	154062 PHOSPHORUS TOTAL	154063 PHOSPHORUS TOTAL	154064 PHOSPHORUS TOTAL	154065 PHOSPHORUS TOTAL	154066 PHOSPHORUS TOTAL	16306L SULPHATE DISSOLVED	17206L CHLORIDE DISSOLVED
			P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	S04 MG/L	CL MG/L
75-08-20	1340	325	.005	.005	.004	.005	.005	.004	4.8	.4
75-12-18	1200	325	.010	.009	.008	.007	.007	.009	7.1	.5
76-02-05	1200	325	.012	.008	.023	.350	.013	4.155	6.1	.3
76-04-10	1330	325	.102	.099	.161	.104	.095	.060	5.5	.3
76-04-12	1345	325	.112	.106	.103	.092	.093	.107	4.7	.5
76-04-13	1330	325	.112	.125	.112	.117	.149	.109	4.3	.3
76-05-27	1130	325	.036	.032	.034	.037	.037	.040	3.2	.3
76-05-28	1315	325	.129	.128	.130	.140	.130	.122	2.6	.3
76-05-29	1115	325	.053	.058	.058	.052	.057	.057	3.3	.3
76-06-14	1530	325	.025	.027	.025	.024	.027	.024	3.5	.2
76-06-15	0900	325	.022	.023	.026	.023	.024	.024	3.3	.2
76-06-16	1030	325	.020	.022	.021	.021	.021	.030	2.8	.2
76-08-04	1145	325	.009	.010	.006	.010	.007	.006	4.2	.3
76-08-05	0950	325	.010	.009	.008	.008	.011	.008	4.1	.3
76-09-11	0845	325	.007	.005	.009	.006	.007	.007	4.6	.3
76-09-12	1030	325	.008	.006	.007	.006	.013	.007	4.5	.3
76-09-13	0945	325	.006	.005	.009	.005	.005	.008	5.0	.3
80-08-26	1330	325	.002	.004	.002	--	--	--	4.9	.3
82-07-28	1309	325	--	--	--	--	--	--	3.4	L.2
	1310	325	.004	.005	--	--	--	--	3.5	L.2

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

LAT. 49D OM 15S LONG. 114D 28M 45S  
WATER SURVEY SITE -08NPO001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	19103L POTASSIUM DISSOLVED	K MG/L	20101L CALCIUM DISSOLVED	CA MG/L	25304P MANGANESE EXTRBLE.	MN MG/L	253041 MANGANESE EXTRBLE.	MN MG/L	253042 MANGANESE EXTRBLE.	MN MG/L	253043 MANGANESE EXTRBLE.	MN MG/L	26305P IRON EXTRBLE.	FE MG/L	263051 IRON EXTRBLE.	FE MG/L
75-08-20	1340	325		.3	36.0		L.01											
75-12-18	1200	325		.2	36.6		L.01								.032			
76-02-05	1200	325		.3	47.0		L.01								.026			
76-04-10	1330	325		.4	33.5		.05								.07	O4P		
76-04-12	1345	325		.4	30.9		.05								.60	O4P		
76-04-13	1330	325		.3	30.5		.01								.63	O4P		
76-05-27	1130	325		.3	27.7		.01								.56	O4P		
76-05-28	1315	325		.4	25.4		.04								.18	O4P		
76-05-29	1115	325		.4	25.4		.02								.16	O4P		
76-06-14	1530	325		.3	27.8		.01								.23	O4P		
76-06-15	0900	325		.3	28.2		L.01								.19	O4P		
76-06-16	1030	325		.3	26.5		.01								.18	O4P		
76-08-04	1145	325		.3	38.0		L.01								.13	O4P		
76-08-05	0950	325		.3	38.0		L.01								.040			
76-09-11	0845	325		.3	39.4		L.01								.036			
76-09-12	1030	325		.4	39.2		L.01								.017			
76-09-13	0945	325		.4	39.4		L.01								.014			
80-08-26	1330	325		.2	43.8		L.01								.006			
82-07-28	1309	325		.2	37.5		L.01	O4R	L.01						.014	O5R		.014
	1310	325		.2	37.5		L.01	O4R	L.01						.025	O5R		.025



84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

LAT. 49D OM 15S LONG. 114D 28M 45S  
WATER SURVEY SITE -08NPO001,

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	293051 COPPER EXTRBLE.	293052 COPPER EXTRBLE.	293053 COPPER EXTRBLE.	30305P ZINC EXTRBLE.	303051 ZINC EXTRBLE.	303052 ZINC EXTRBLE.	303053 ZINC EXTRBLE.	33304L ARSENIC EXTRBLE.
			CU MG/L	CU MG/L	CU MG/L	ZN MG/L	ZN MG/L	ZN MG/L	ZN MG/L	AS MG/L
75-08-20	1340	325	--	--	--	L.001	--	--	--	.0003
75-12-18	1200	325	--	--	--	L.001	--	--	--	.0003
76-02-05	1200	325	--	--	--	.001	--	--	--	--
76-04-10	1330	325	--	--	--	.003	--	--	--	.0008
76-04-12	1345	325	--	--	--	.004	--	--	--	.0010
76-04-13	1330	325	--	--	--	.050	--	--	--	.0009
76-05-27	1130	325	--	--	--	L.001	--	--	--	.0003
76-05-28	1315	325	--	--	--	.001	--	--	--	.0005
76-05-29	1115	325	--	--	--	L.001	--	--	--	.0004
76-06-14	1530	325	--	--	--	L.001	--	--	--	.0004
76-06-15	0900	325	--	--	--	L.001	--	--	--	.0004
76-06-16	1030	325	--	--	--	L.001	--	--	--	.0003
76-08-04	1145	325	--	--	--	L.001	--	--	--	.0003
76-08-05	0950	325	--	--	--	L.001	--	--	--	.0003
76-09-11	0845	325	--	--	--	L.001	--	--	--	.0003
76-09-12	1030	325	--	--	--	L.001	--	--	--	.0003
76-09-13	0945	325	--	--	--	L.001	--	--	--	.0002
80-08-26	1330	325	L.001	L.001	.001	L.001 05R	L.001	L.001	L.001	--
82-07-28	1310	325	.002	L.001	--	L.001 05R	L.001	L.001	--	.0001

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

OM 155 LONG. 114D 28M 45S  
WATER SURVEY SITE - OBNPO001,

LAT. 49D

U.S.A. - CANADA, BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	34302L SELENIUM EXTRBLE.	42302P MOLYBDENUM EXTRBLE.	48302P CADMIUM EXTRBLE.	483021 CADMIUM EXTRBLE.	483022 CADMIUM EXTRBLE.	483023 CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	563011 BARIUM EXTRBLE.
			SE MG/L	MO MG/L	CD MG/L	CD MG/L	CD MG/L	CD MG/L	BA MG/L	BA MG/L
75-08-20	1340	325	.0001	--	L.0002	--	--	--	--	--
75-12-18	1200	325	.0002	--	.0050	--	--	--	.23	--
76-02-05	1200	325	--	L.0005	L.0002	--	--	--	1.60	--
76-04-10	1330	325	.0002	--	L.0002	--	--	--	.34	--
76-04-12	1345	325	.0002	--	L.0002	--	--	--	.31	--
76-04-13	1330	325	.0002	--	.0040	--	--	--	.30	--
76-05-27	1130	325	.0001	--	L.0002	--	--	--	.11	--
76-05-28	1315	325	.0001	--	L.0002	--	--	--	.19	--
76-05-29	1115	325	.0001	--	L.0002	--	--	--	.16	--
76-06-14	1530	325	.0001	--	L.0002	--	--	--	.13	--
76-06-15	0900	325	.0001	--	L.0002	--	--	--	.12	--
76-06-16	1030	325	L.0001	--	L.0002	--	--	--	.15	--
76-08-04	1145	325	.0001	--	L.0002	--	--	--	.14	--
76-08-05	0950	325	.0001	--	L.0002	--	--	--	.13	--
76-09-11	0845	325	.0001	--	L.0002	--	--	--	.22	--
76-09-12	1030	325	.0001	--	L.0002	--	--	--	.22	--
76-09-13	0945	325	.0001	--	L.0002	--	--	--	.19	--
80-08-26	1330	325	--	--	L.0002	--	--	--	.20	.20
82-07-28	1310	325	.0001	--	L.0005	L.0005	L.0005	L.0005	.20	.20

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO003  
FLATHEAD RIVER, 0.3 KM ABOVE  
BRITISH COLUMBIA.

U.S.A. - CANADA BORDER CROSSING.  
(INTERPRETIVE REPORT STATION 3)

LAT. 49D

OM 15S LONG. 114D 28M 45S  
WATER SURVEY SITE -08NPO001.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	563012 BARIUM EXTRBLE.	563013 BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	803111 MERCURY EXTRBLE.	803112 MERCURY EXTRBLE.	803113 MERCURY EXTRBLE.	82302P LEAD EXTRBLE.	823021 LEAD EXTRBLE.
			BA MG/L	BA MG/L	HG UG/L	HG UG/L	HG UG/L	HG UG/L	PB MG/L	PB MG/L
75-08-20	1340	325	--	--	.08	--	--	--	L.001	--
75-12-18	1200	325	--	--	L.05	--	--	--	L.001	--
76-02-05	1200	325	--	--	L.05	--	--	--	L.001	--
76-04-10	1330	325	--	--	L.05	--	--	--	L.001	--
76-04-12	1345	325	--	--	L.05	--	--	--	.002	--
76-04-13	1330	325	--	--	L.05	--	--	--	L.001	--
76-05-27	1130	325	--	--	L.05	--	--	--	.001	--
76-05-28	1315	325	--	--	L.05	--	--	--	.001	--
76-05-29	1115	325	--	--	L.05	--	--	--	.001	--
76-06-14	1530	325	--	--	L.05	--	--	--	.001	--
76-06-15	0900	325	--	--	L.05	--	--	--	L.001	--
76-06-16	1030	325	--	--	L.05	--	--	--	L.001	--
76-08-04	1145	325	--	--	L.05	--	--	--	.001	--
76-08-05	0950	325	--	--	L.05	--	--	--	L.001	--
76-09-11	0845	325	--	--	L.05	--	--	--	L.001	--
76-09-12	1030	325	--	--	L.05	--	--	--	L.001	--
76-09-13	0945	325	--	--	L.05	--	--	--	L.001	--
80-08-26	1330	325	.20	.20	L.05	L.05	L.05	L.05	L.001	L.001
82-07-28	1310	325	--	--	L.05	L.05	L.05	--	L.001	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	823022 LEAD EXTRBLE.	823023 LEAD EXTRBLE.
			PB MG/L	PB MG/L
80-08-26	1330	325	L.001	.001
82-07-28	1310	325	L.001	--

FOOTNOTE: L - LESS THAN DETECTION LIMIT  
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION

G - GREATER THAN MEASUREMENT LIMIT  
G - PLUS GRAND QUE LA LIMITE MESURE

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808N0004  
 HOWELL CREEK . 0.25 MILES ABOVE  
 BRITISH COLUMBIA.

LAT. 49D 5M 44S LONG. 114D 31M 59S  
 ROAD BRIDGE.  
 CONFLUENCE WITH CABIN CREEK.  
 (INTERPRETIVE REPORT STATION 7)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	O2041L SPECIFIC CONDUCT.	O2041S SPECIFIC CONDUCT.	O2061L TEMP. WATER	O2061S TEMP. WATER	O2073L TURBIDITY	O6001R CARBON TOTAL ORGANIC C	O60011 CARBON TOTAL ORGANIC C
				USIE/CM	USIE/CM	DEG.C.	DEG.C.	JTU	MG/L	MG/L
75-08-20	1130	325	L5.	254.	220.	22.0	10.0	.4	L1.0	L1.0
76-04-12	1200	325	L5.	238.	280.	22.5	3.0	1.5	2.9	2.6
76-05-27	1345	325	5.	225.	270.	22.7	9.0	2.6	4.8	1.8
76-06-15	1020	325	L5.	227.	260.	19.7	6.0	.5	1.3	2.2
76-08-05	1500	325	L5.	242.	--	19.8	10.0	.3	4.5	4.9
76-09-12	1510	325	5.	263.	300.	22.0	8.5	.4	L1.0	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	O60012 CARBON TOTAL ORGANIC C	O60013 CARBON TOTAL ORGANIC C	O60014 CARBON TOTAL ORGANIC C	O60015 CARBON TOTAL ORGANIC C	O60016 CARBON TOTAL ORGANIC C	O6051R CARBON TOTAL ORGANIC C	O60511 CARBON TOTAL ORGANIC C	O60512 CARBON TOTAL ORGANIC C
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1130	325	L1.0	1.0	1.0	L1.0	L1.0	33.8	33.3	33.0
76-04-12	1200	325	2.9	3.1	2.9	--	--	28.8	28.9	28.9
76-05-27	1345	325	3.5	4.9	5.9	6.8	6.0	25.8	25.0	26.0
76-06-15	1020	325	1.3	L1.0	1.0	L1.0	L1.0	27.7	27.0	28.0
76-08-05	1500	325	2.3	4.4	7.0	4.6	3.7	27.0	27.0	30.0
76-09-12	1510	325	L1.0	L1.0	L1.0	L1.0	L1.0	34.0	34.0	34.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	O60513 CARBON TOTAL INORGANIC C	O60514 CARBON TOTAL INORGANIC C	O60515 CARBON TOTAL INORGANIC C	O60516 CARBON TOTAL INORGANIC C	O6536R PHENOLIC MATERIAL	O65361 PHENOLIC MATERIAL	O65362 PHENOLIC MATERIAL	O65363 PHENOLIC MATERIAL
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1130	325	32.9	33.2	34.9	35.3	--	--	--	--
76-04-12	1200	325	28.9	28.6	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1345	325	26.0	26.0	26.0	26.0	L.0005	L.0005	L.0005	L.0005
76-06-15	1020	325	28.0	27.0	28.0	28.0	L.0005	L.0005	L.0005	--
76-08-05	1500	325	27.0	25.0	25.0	28.0	L.0005 36L	--	--	--
76-09-12	1510	325	34.0	34.0	34.0	34.0	--	--	--	--



84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - O0BC08NPO004  
HOWELL CREEK . O. 25 MILES ABOVE  
BRITISH COLUMBIA.  
CONFLUENCE WITH CABIN CREEK.  
(INTERPRETIVE REPORT STATION 7)  
LAT. 49D 5M 44S LONG. 114D 31M 59S  
ROAD BRIDGE.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN	06903L CARBON PARTICULATE	07110R NITROGEN DISSOLVED N03 & N02	071101 NITROGEN DISSOLVED N03 & N02	071102 NITROGEN DISSOLVED N03 & N02	071103 NITROGEN DISSOLVED N03 & N02	071104 NITROGEN DISSOLVED N03 & N02	071105 NITROGEN DISSOLVED N03 & N02
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1130	325	.05	.220	.015	.007	.010	.016	.021	.016
76-04-12	1200	325	--	--	.053	.052	.056	.051	.052	.053
76-05-27	1345	325	--	--	.011	.008	.013	.007	.011	.007
76-06-15	1020	325	--	--	.014	.064	.002	.008	.002	.002
76-08-05	1500	325	--	--	.005	.003	L.002	.003	.013	.005
76-09-12	1510	325	--	--	.011	.010	.009	.012	.010	.010

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071106 NITROGEN DISSOLVED N03 & N02	07557R NITROGEN DISSOLVED AMMONIA	075571 NITROGEN DISSOLVED AMMONIA	075572 NITROGEN DISSOLVED AMMONIA	075573 NITROGEN DISSOLVED AMMONIA	075574 NITROGEN DISSOLVED AMMONIA	075575 NITROGEN DISSOLVED AMMONIA	075576 NITROGEN DISSOLVED AMMONIA
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1130	325	.019	.075	.053	.051	.063	.073	.141	.067
76-04-12	1200	325	.052	.010	.008	.008	.008	.010	.012	.013
76-05-27	1345	325	.019	.009	.008	.007	.008	.009	.011	.010
76-06-15	1020	325	.008	.003	.007	.002	.002	.001	.002	.003
76-08-05	1500	325	.006	.010	.005	.005	.004	.031	.004	.010
76-09-12	1510	325	.013	.004	.004	.004	.004	.004	.005	.005

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07651R NITROGEN DISSOLVED	076511 NITROGEN DISSOLVED	076512 NITROGEN DISSOLVED	076513 NITROGEN DISSOLVED	076514 NITROGEN DISSOLVED	076515 NITROGEN DISSOLVED	076516 NITROGEN DISSOLVED	07903L NITROGEN PARTICULATE
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1130	325	.25	.12	.13	.21	.25	.35	.47	.019
76-04-12	1200	325	.10	.10	.10	--	--	--	--	--
76-05-27	1345	325	.06	.05	.10	.05	.05	.05	.07	--
76-06-15	1020	325	.06	.12	.04	.04	.04	.07	.07	--
76-08-05	1500	325	.05	.04	.04	.04	.04	.05	.06	--
76-09-12	1510	325	.04	.04	.04	.04	.03	.04	.04	--

84-04-13

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO004  
 HOWELL CREEK . 0.25 MILES ABOVE  
 BRITISH COLUMBIA.

CONFLUENCE WITH CABIN CREEK.  
 (INTERPRETIVE REPORT STATION 7)

LAT. 49D 5M 44S LONG. 114D 31M 59S  
 ROAD BRIDGE.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED	10101L ALKALINITY TOTAL	10151L ALKALINITY PHENOL PTHALEIN CAC03	10301L PH	PH UNITS	10401L RESIDUE NONFILTR.	MG/L	10451L RESIDUE FIXED NONFILTR.	MG/L
75-08-20	1130	325	.12	135.0	3.5	8.6	7.2	--	--	--	--
76-04-12	1200	325	.11	122.0	0.0	8.0	8.0	20.	258.	12.	12.
76-05-27	1345	325	.09	116.0	0.0	8.2	8.4	14.	144.	12.	12.
76-06-15	1020	325	.10	115.0	0.0	8.3	8.3	2.	152.	L1.	L1.
76-08-05	1500	325	.09	130.0	1.0	8.4	--	0.	228.	LO.	LO.
76-09-12	1510	325	.11	135.0	0.0	8.1	8.3	1.	183.	LO.	LO.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE	10603L HARDNESS TOTAL	11103L SODIUM DISSOLVED	12101L MAGNESIUM DISSOLVED (CALCD.)	14105L SILICA REACTIVE	15102R PHOSPHORUS TOTAL	MG/L	151021 PHOSPHORUS DISSOLVED	MG/L	151022 PHOSPHORUS TOTAL	MG/L
75-08-20	1130	325	--	140.0	.6	10.7	4.6	--	--	--	--	--	--
76-04-12	1200	325	80.	128.0	.5	8.2	4.8	--	--	--	--	--	--
76-05-27	1345	325	94.	121.0	.6	7.7	4.8	.006	.007	.007	.005	.005	.005
76-06-15	1020	325	100.	122.0	.6	6.6	4.5	.010	.011	.011	.009	.009	.009
76-08-05	1500	325	120.	132.0	.6	7.6	4.9	.007	.007	.007	.007	.007	.007
76-09-12	1510	325	120.	141.0	.6	8.4	5.0	.008	.007	.007	.009	.009	.009

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151023 PHOSPHORUS TOTAL	15406R PHOSPHORUS TOTAL	154061 PHOSPHORUS TOTAL	154062 PHOSPHORUS TOTAL	154063 PHOSPHORUS TOTAL	154064 PHOSPHORUS TOTAL	154065 PHOSPHORUS TOTAL	154066 PHOSPHORUS TOTAL
75-08-20	1130	325	--	.009	.008	.012	.008	.008	.008	.008
76-04-12	1200	325	--	.044	.042	.044	.042	.045	.044	.042
76-05-27	1345	325	.006	.016	.018	.011	.028	.013	.012	.013
76-06-15	1020	325	.009	.004	.002	.002	.004	.005	.005	.007
76-08-05	1500	325	.007	.009	.014	.008	.008	.009	.008	.009
76-09-12	1510	325	.007	.008	.011	.008	.008	.004	.010	.008

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - O08C08NPO004  
HOWELL CREEK . O.25 MILES ABOVE  
BRITISH COLUMBIA.

CONFLUENCE WITH CABIN CREEK.  
(INTERPRETIVE REPORT STATION 7)

LAT. 49D 5M 44S LONG. 114D 31M 59S  
ROAD BRIDGE.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED	17206L CHLORIDE DISSOLVED	19103L POTASSIUM DISSOLVED	20101L CALCIUM DISSOLVED	25304P MANGANESE EXTRBLE.	26305P IRON EXTRBLE.	27302P COBALT EXTRBLE.	28302P NICKEL EXTRBLE.
			S04 MG/L	CL MG/L	K MG/L	CA MG/L	MN MG/L	FE MG/L	CO MG/L	NI MG/L
75-08-20	1130	325	4.2	.4	.3	38.4	L.01	.023	--	--
76-04-12	1200	325	5.5	.4	.4	37.7	.02	.17	L.001	L.001
76-05-27	1345	325	4.4	.3	.3	35.8	L.01	.06	L.001	L.001
76-06-15	1020	325	4.3	.2	.3	37.6	L.01	.021	L.001	L.001
76-08-05	1500	325	4.2	.3	.3	40.4	L.01	.026	L.001	L.001
76-09-12	1510	325	4.7	.3	.4	42.6	L.01	.013	L.001	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE.	30305P ZINC EXTRBLE.	33304L ARSENIC EXTRBLE.	34302L SELENIUM EXTRBLE.	48302P CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	82302P LEAD EXTRBLE.
			CU MG/L	ZN MG/L	AS MG/L	SE MG/L	CD MG/L	BA MG/L	HG UG/L	PB MG/L
75-08-20	1130	325	.004	.001	.0007	.0003	L.0002	--	L.05	.001
76-04-12	1200	325	L.001	.005	.0010	.0002	L.0002	.33	L.05	.001
76-05-27	1345	325	L.001	L.001	.0003	.0001	L.0002	.14	L.05	.001
76-06-15	1020	325	L.001	L.001	.0004	.0001	L.0002	.12	L.05	L.001
76-08-05	1500	325	L.001	L.001	.0005	.0001	L.0002	.12	L.05	L.001
76-09-12	1510	325	L.001	L.001	.0003	.0002	L.0002	.18	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT  
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION

G - GREATER THAN MEASUREMENT LIMIT  
G - PLUS GRAND QUE LA LIMITE MESURE

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08N0006  
SAGE CREEK, 0.5 MILES NORTH OF  
(INTERPRETIVE REPORT STATION 4)

PROCTOR LAKE ROAD BRIDGE.

LAT. 49D 4M 13S LONG. 114D 27M 55S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	02041L SPECIFIC CONDUCT.	USIE/CM	02041S SPECIFIC CONDUCT.	USIE/CM	02061L TEMP. WATER	DEG.C.	02061S TEMP. WATER	DEG.C.	02073L TURBIDITY	JTU	06001R CARBON TOTAL ORGANIC C	MG/L	060011 CARBON TOTAL ORGANIC C	MG/L
75-08-20	1430	325	L5.	134.	150.	22.1	15.0	15.0	2	1.1	1.5	3.6	2.9	1.1	1.1	1.5	2.9
76-04-12	1445	325	5.	117.	120.	22.7	4.0	4.0	3.6	2.6	2.9	8.0	2.5	1.7	1.7	2.5	2.5
76-05-29	1015	325	10.	73.	65.	22.8	3.5	3.5	8.0	1.7	2.5	4	2.0	2.7	2.7	2.0	2.0
76-06-14	1400	325	L5.	82.	85.	19.5	7.0	7.0	2	2.9	2.0	2	2.0	2.9	2.9	2.0	2.0
76-08-04	1000	325	5.	107.	115.	19.8	12.0	12.0	2	1.0	1.0	3	1.0	1.0	1.0	1.0	1.0
76-09-11	1100	325	L5.	140.	160.	21.9	9.0	9.0	3	1.0	1.0	3	1.0	1.0	1.0	1.0	1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060012 CARBON TOTAL ORGANIC C	MG/L	060014 CARBON TOTAL ORGANIC C	MG/L	060015 CARBON TOTAL ORGANIC C	MG/L	060016 CARBON TOTAL ORGANIC C	MG/L	06051R CARBON TOTAL INORGANIC C	MG/L	060511 CARBON TOTAL INORGANIC C	MG/L	060512 CARBON TOTAL INORGANIC C	MG/L
75-08-20	1430	325	L1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	15.7	15.4	15.4	15.6	15.6	
76-04-12	1445	325	2.3	--	--	--	--	--	--	--	12.6	12.4	12.4	12.7	12.7	
76-05-29	1015	325	2.0	1.1	1.1	1.4	1.4	1.4	1.4	1.4	8.1	8.0	8.0	8.0	8.0	
76-06-14	1400	325	2.3	2.3	2.3	3.7	2.9	2.9	2.9	2.9	8.2	8.3	8.3	8.6	8.6	
76-08-04	1000	325	3.0	3.5	3.5	3.0	3.0	3.0	3.0	3.0	9.1	10.0	10.0	9.0	9.0	
76-09-11	1100	325	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	L1.0	17.0	17.0	17.0	17.0	17.0	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C	MG/L	060514 CARBON TOTAL INORGANIC C	MG/L	060515 CARBON TOTAL INORGANIC C	MG/L	060516 CARBON TOTAL INORGANIC C	MG/L	065361 PHENOLIC MATERIAL	PHENOL MG/L	065362 PHENOLIC MATERIAL	PHENOL MG/L	065363 PHENOLIC MATERIAL	PHENOL MG/L
75-08-20	1430	325	15.7	15.3	15.3	15.6	16.5	16.5	16.5	16.5	--	--	--	--	--	--
76-04-12	1445	325	--	--	--	--	--	--	--	--	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005
76-05-29	1015	325	8.0	8.0	8.0	8.4	8.1	8.1	8.1	8.1	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005
76-06-14	1400	325	7.7	8.3	8.3	8.0	8.0	8.0	8.0	8.0	--	--	--	--	--	--
76-08-04	1000	325	9.0	8.5	8.5	9.0	9.0	9.0	9.0	9.0	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005
76-09-11	1100	325	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	L.0005	L.0005	L.0005	L.0005	L.0005	L.0005

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - O0BC08NPO006  
SAGE CREEK, 0.5 MILES NORTH OF  
( INTERPRETIVE REPORT STATION 4 )  
PROCTOR LAKE ROAD BRIDGE.  
LAT. 49D 4M 13S LONG. 114D 27M 55S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06552L TANNIN AND LIGNIN	06903L CARBON PARTICULATE	07110R NITROGEN DISSOLVED NO3 & NO2	071101 NITROGEN DISSOLVED NO3 & NO2	071102 NITROGEN DISSOLVED NO3 & NO2	071103 NITROGEN DISSOLVED NO3 & NO2	071104 NITROGEN DISSOLVED NO3 & NO2	071105 NITROGEN DISSOLVED NO3 & NO2
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1430	325	.07	.082	.017	.019	.019	.015	.019	.011
76-04-12	1445	325	--	--	.130	.159	.100	--	--	--
76-05-29	1015	325	--	--	.036	.032	.032	.031	.052	.035
76-06-14	1400	325	--	--	.044	.074	.040	.038	.039	.027
76-08-04	1000	325	--	--	.016	.012	.013	.010	.012	.032
76-09-11	1100	325	--	--	.051	.047	.048	.048	.048	.053

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071106 NITROGEN DISSOLVED NO3 & NO2	07557R NITROGEN DISSOLVED AMMONIA	075571 NITROGEN DISSOLVED AMMONIA	075572 NITROGEN DISSOLVED AMMONIA	075573 NITROGEN DISSOLVED AMMONIA	075574 NITROGEN DISSOLVED AMMONIA	075575 NITROGEN DISSOLVED AMMONIA	075576 NITROGEN DISSOLVED AMMONIA
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1430	325	.019	.088	.078	.079	.079	.123	.098	.071
76-04-12	1445	325	--	.013	.011	.014	--	--	--	--
76-05-29	1015	325	.033	.012	.017	.009	.009	.015	.011	.010
76-06-14	1400	325	.048	.008	.008	.009	.006	.006	.008	.011
76-08-04	1000	325	.014	.003	.002	.004	.002	.004	.001	.003
76-09-11	1100	325	.061	.004	.001	.001	.002	.004	.005	.008

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	07651R NITROGEN DISSOLVED	076511 NITROGEN DISSOLVED	076512 NITROGEN DISSOLVED	076513 NITROGEN DISSOLVED	076514 NITROGEN DISSOLVED	076515 NITROGEN DISSOLVED	076516 NITROGEN DISSOLVED	07903L NITROGEN PARTICULATE
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1430	325	.21	.19	.20	.19	.27	.21	.23	.010
76-04-12	1445	325	.22	.22	.22	--	--	--	--	--
76-05-29	1015	325	.11	.11	.11	.10	.15	.11	.11	--
76-06-14	1400	325	.08	.11	.07	.08	.07	.07	.09	--
76-08-04	1000	325	.07	.05	.05	.05	.08	.10	.10	--
76-09-11	1100	325	.09	.08	.07	.08	.07	.14	.11	--

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO006  
SAGE CREEK, 0.5 MILES NORTH OF  
(INTERPRETIVE REPORT STATION 4)

PROCTOR LAKE ROAD BRIDGE

LAT. 49D 4M 13S LONG. 114D 27M 55S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	09106L FLUORIDE DISSOLVED	10101L ALKALINITY TOTAL	10151L ALKALINITY PHENOL PHTHALEIN CAC03	10301L PH	PH UNITS	10301S PH	PH UNITS	10401L RESIDUE NONFILTR.	MG/L	10451L RESIDUE FILTERABLE	MG/L	10501L RESIDUE FIXED NONFILTR.	MG/L
75-08-20	1430	325	.04	57.3	0.0	8.3	7.1	7.1	7.1	--	--	--	--	--	--
76-04-12	1445	325	.05	50.5	0.0	7.7	7.2	7.2	7.2	23.	90.	56.	90.	18.	18.
76-05-29	1015	325	.04	32.0	0.0	7.7	7.4	7.4	7.4	25.	24.	80.	24.	24.	24.
76-06-14	1400	325	.07	36.4	0.0	7.7	7.4	7.4	7.4	0.	0.	74.	80.	L1.	L1.
76-08-04	1000	325	.04	45.9	0.0	7.8	7.8	--	--	LO.	LO.	104.	74.	LO.	LO.
76-09-11	1100	325	.05	58.3	0.0	7.9	8.1	8.1	8.1	0.	0.	104.	104.	0.	0.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10551L RESIDUE FIXED FILTERABLE	10603L HARDNESS TOTAL	11103L SODIUM DISSOLVED	12101L MAGNESIUM DISSOLVED (CALCD.)	14105L SILICA REACTIVE	15102R PHOSPHORUS DISSOLVED P	MG/L	151021 PHOSPHORUS DISSOLVED P	MG/L	151022 PHOSPHORUS TOTAL	MG/L	151022 PHOSPHORUS DISSOLVED P	MG/L
75-08-20	1430	325	--	66.0	1.4	5.9	5.0	--	--	--	--	--	--	--	--
76-04-12	1445	325	18.	57.3	1.2	4.0	5.2	--	--	--	--	--	--	--	--
76-05-29	1015	325	56.	35.8	.8	2.2	4.4	--	--	--	--	--	--	--	--
76-06-14	1400	325	44.	40.9	.9	2.8	4.5	.005	.004	.005	.009	.009	.009	.009	.009
76-08-04	1000	325	58.	51.8	1.2	3.2	4.7	.005	.008	.005	.004	.004	.004	.004	.004
76-09-11	1100	325	64.	67.0	1.5	5.1	5.5	.004	.005	.004	.005	.005	.005	.005	.005

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151023 PHOSPHORUS TOTAL DISSOLVED	15406R PHOSPHORUS TOTAL	154061 PHOSPHORUS TOTAL	154062 PHOSPHORUS TOTAL	154063 PHOSPHORUS TOTAL	154064 PHOSPHORUS TOTAL	154065 PHOSPHORUS TOTAL	154066 PHOSPHORUS TOTAL	MG/L	154066 PHOSPHORUS TOTAL	MG/L
75-08-20	1430	325	--	L.002	L.002	L.002	.002	L.002	L.002	L.002	.002	.002	.002
76-04-12	1445	325	--	.031	.031	.031	--	--	--	--	--	--	--
76-05-29	1015	325	--	.019	.021	.018	.017	.019	.018	.018	.021	.021	.021
76-06-14	1400	325	.003	.015	.019	.020	.005	.022	.008	.008	.008	.008	.013
76-08-04	1000	325	.004	.014	.007	.004	.005	.047	.010	.010	.010	.010	.009
76-09-11	1100	325	.003	.004	.004	.003	.004	.004	.003	.004	.003	.003	.003

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NP0006  
SAGE CREEK, 0.5 MILES NORTH OF  
(INTERPRETIVE REPORT STATION 4)

PROCTOR LAKE ROAD BRIDGE.

LAT. 49D 4M 13S LONG. 114D 27M 55S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L SULPHATE DISSOLVED	17206L CHLORIDE DISSOLVED	19103L POTASSIUM DISSOLVED	20101L CALCIUM DISSOLVED	25304P MANGANESE EXTRBLE.	26305P IRON EXTRBLE.	27302P COBALT EXTRBLE.	28302P NICKEL EXTRBLE.
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1430	325	10.3	.7	.4	16.8	L.01	.011	--	--
76-04-12	1445	325	7.1	.4	.5	16.4	.02	.12	L.001	.001
76-05-29	1015	325	3.1	.2	.5	10.8	.01	.05	L.001	L.001
76-06-14	1400	325	4.1	.2	.4	11.8	L.01	.017	L.001	L.001
76-08-04	1000	325	6.9	.4	.5	15.5	L.01	.019	L.001	L.001
76-09-11	1100	325	9.6	.5	.5	18.5	L.01	.008	L.001	L.001

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	29305P COPPER EXTRBLE.	30305P ZINC EXTRBLE.	33304L ARSENIC EXTRBLE.	34302L SELENIUM EXTRBLE.	48302P CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	82302P LEAD EXTRBLE.
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UG/L	MG/L
75-08-20	1430	325	.002	L.001	.0003	L.0001	L.0002	--	.07	.001
76-04-12	1445	325	L.001	L.001	.0006	L.0001	L.0002	.25	L.05	.001
76-05-29	1015	325	L.001	L.001	.0004	L.0001	L.0002	.14	L.05	L.001
76-06-14	1400	325	.001	L.001	.0003	.0001	L.0002	.14	L.05	L.001
76-08-04	1000	325	.001	L.001	.0006	L.0001	L.0002	.20	L.05	L.001
76-09-11	1100	325	L.001	L.001	.0003	L.0001	L.0002	.25	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT  
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION

G - GREATER THAN MEASUREMENT LIMIT  
G - PLUS GRAND QUE LA LIMITE MESURE

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB808NPO007  
COULDREY CREEK. ROAD BRIDGE 200 METRES ABOVE CONFLUENCE WITH BURNHAM CREEK. BRITISH COLUMBIA  
( INTERPRETIVE REPORT STATION 9 )  
LAT. 49D 2M 21S LONG. 114D 32M 3S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	O2011L COLOUR APPARENT	O2041L SPECIFIC CONDUCT.	O2041S SPECIFIC CONDUCT.	O2061L TEMP. WATER	O2073L TURBIDITY	O6001R CARBON TOTAL ORGANIC	O60011 CARBON TOTAL ORGANIC
			REL. UNITS	USIE/CM	USIE/CM	DEG.C.	JTU	MG/L	MG/L
75-12-18	1000	325	--	--	--	--	--	.6	.6
76-05-28	1445	325	7.	125.	125.	7.0	4.2	1.4	1.7
76-06-15	1310	325	L5.	130.	20.3	7.0	.4	2.4	2.6
76-08-05	1640	325	L5.	180.	19.7	10.0	.5	4.0	4.6
76-09-12	1250	325	5.	164.	22.0	8.5	.2	L1.0	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	O60012 CARBON TOTAL ORGANIC	O60013 CARBON TOTAL ORGANIC	O60014 CARBON TOTAL ORGANIC	O60015 CARBON TOTAL ORGANIC	O60016 CARBON TOTAL ORGANIC	O6051R CARBON TOTAL ORGANIC	O60511 CARBON TOTAL ORGANIC	O60512 CARBON TOTAL ORGANIC
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1000	325	.9	.9	.3	.1	.9	18.0	18.0	17.3
76-05-28	1445	325	1.1	L1.0	2.3	L1.0	L1.0	14.3	15.0	14.0
76-06-15	1310	325	2.6	2.3	2.6	2.0	2.0	14.3	15.0	14.0
76-08-05	1640	325	4.2	3.1	5.4	2.8	3.9	14.3	14.0	14.0
76-09-12	1250	325	L1.0	L1.0	L1.0	L1.0	L1.0	21.3	22.0	21.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	O60513 CARBON TOTAL INORGANIC	O60514 CARBON TOTAL INORGANIC	O60515 CARBON TOTAL INORGANIC	O60516 CARBON TOTAL INORGANIC	O6536R PHENOLIC MATERIAL	O65361 PHENOLIC MATERIAL	O65362 PHENOLIC MATERIAL	O65363 PHENOLIC MATERIAL
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1000	325	17.5	18.7	18.5	17.7	--	--	--	--
76-05-28	1445	325	14.0	14.0	14.0	15.0	L.0005	L.0005	L.0005	L.0005
76-06-15	1310	325	14.0	14.0	14.0	15.0	L.0005	L.0005	L.0005	--
76-08-05	1640	325	15.0	13.0	16.0	14.0	--	--	--	--
76-09-12	1250	325	21.0	21.0	22.0	21.0	--	--	--	--



84-04-24

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO007  
COULDREY CREEK, ROAD BRIDGE 200 METRES  
(INTERPRETIVE REPORT STATION 9)

ABOVE CONFLUENCE WITH BURNHAM CREEK.

LAT. 49D 2M 21S LONG. 114D 32M 3S  
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071101 NITROGEN DISSOLVED NO3 & NO2 N	071102 NITROGEN DISSOLVED NO3 & NO2 N	071103 NITROGEN DISSOLVED NO3 & NO2 N	071104 NITROGEN DISSOLVED NO3 & NO2 N	071105 NITROGEN DISSOLVED NO3 & NO2 N	071106 NITROGEN DISSOLVED NO3 & NO2 N	07557R NITROGEN DISSOLVED AMMONIA N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1000	325	.035	.033	.033	.032	.036	.034	.008
76-05-28	1445	325	.006	.005	.005	.004	.005	.004	.013
76-06-15	1310	325	.008	.002	.017	.002	.009	.009	.008
76-08-05	1640	325	.008	.013	.015	.004	L.002	.003	.006
76-09-12	1250	325	.016	.012	.020	.020	.012	--	.002

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075571 NITROGEN DISSOLVED AMMONIA N	075572 NITROGEN DISSOLVED AMMONIA N	075573 NITROGEN DISSOLVED AMMONIA N	075574 NITROGEN DISSOLVED AMMONIA N	075575 NITROGEN DISSOLVED AMMONIA N	075576 NITROGEN DISSOLVED AMMONIA N	07651R NITROGEN DISSOLVED AMMONIA N	076511 NITROGEN DISSOLVED AMMONIA N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1000	325	.003	.009	.005	.009	.010	.013	.08	.09
76-05-28	1445	325	.014	.013	.011	.013	.011	.014	.05	.07
76-06-15	1310	325	.004	.003	.005	.003	.016	.016	.05	.05
76-08-05	1640	325	.005	.007	.010	.004	.003	.005	.04	.05
76-09-12	1250	325	.004	.002	.002	.001	.002	--	.03	.03

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076512 NITROGEN DISSOLVED N	076513 NITROGEN DISSOLVED N	076514 NITROGEN DISSOLVED N	076515 NITROGEN DISSOLVED N	076516 NITROGEN DISSOLVED N	09106L FLUORIDE DISSOLVED F	091061 FLUORIDE DISSOLVED F	091062 FLUORIDE DISSOLVED F
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1000	325	.08	.07	.07	.09	.07	.05	.05	.05
76-05-28	1445	325	.05	.05	.05	.05	.05	.04	--	--
76-06-15	1310	325	.04	.06	.04	.06	.07	.07	--	--
76-08-05	1640	325	.05	.05	.03	.03	.03	.06	--	--
76-09-12	1250	325	.03	.03	.03	.03	--	.07	--	--

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO007  
COULDREY CREEK, ROAD BRIDGE 200 METRES  
(INTERPRETIVE REPORT STATION 9)

ABOVE CONFLUENCE WITH BURNHAM CREEK.  
LAT. 49D 2M 21S LONG. 114D 32M 3S  
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	091063 FLUORIDE DISSOLVED	F MG/L	091064 FLUORIDE DISSOLVED	F MG/L	091065 FLUORIDE DISSOLVED	F MG/L	091066 FLUORIDE DISSOLVED	101011L ALKALINITY TOTAL	CACO3 MG/L	10151L ALKALINITY PHENOL PTHALEIN CACO3	MG/L	10301L PH	PH UNITS	10301S PH
75-12-18	1000	325	.05	.05	.05	.05	.05	.05	.05	--	--	--	--	--	--	--
76-05-28	1445	325	--	--	--	--	--	--	--	54.9	0.0	0.0	0.0	7.9	7.8	7.8
76-06-15	1310	325	--	--	--	--	--	--	--	59.0	0.0	0.0	0.0	8.0	7.6	7.6
76-08-05	1640	325	--	--	--	--	--	--	--	75.0	0.0	0.0	0.0	8.1	--	--
76-09-12	1250	325	--	--	--	--	--	--	--	82.2	0.0	0.0	0.0	7.9	8.0	8.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10401L RESIDUE NONFILTR.	MG/L	10451L RESIDUE FILTERABLE	MG/L	10501L RESIDUE FIXED NONFILTR.	MG/L	10551L RESIDUE FIXED FILTERABLE	MG/L	10603L HARDNESS TOTAL	CACO3 MG/L	11103L SODIUM DISSOLVED	NA MG/L	12101L MAGNESIUM DISSOLVED (CALCD.)	MG MG/L	14105L SILICA REACTIVE
75-12-18	1000	325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.8 05R
76-05-28	1445	325	21.	88.	19.	76.	40.	102.	76.	57.6	61.4	77.7	86.2	0.	0.	3.7	5.3
76-06-15	1310	325	2.	100.	1.	102.	76.	0.	0.	61.4	77.7	86.2	0.	0.	4.0	5.3	
76-08-05	1640	325	1.	140.	1.	102.	76.	0.	0.	61.4	77.7	86.2	0.	0.	4.7	5.5	
76-09-12	1250	325	1.	92.	0.	76.	0.	0.	0.	86.2	0.	0.	0.	0.	6.7	5.8	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	141051 SILICA REACTIVE	SI02 MG/L	141052 SILICA REACTIVE	SI02 MG/L	141053 SILICA REACTIVE	SI02 MG/L	141054 SILICA REACTIVE	SI02 MG/L	141055 SILICA REACTIVE	SI02 MG/L	141056 SILICA REACTIVE	SI02 MG/L	15102R PHOSPHORUS TOTAL DISSOLVED	MG/L	151021 PHOSPHORUS TOTAL DISSOLVED
75-12-18	1000	325	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	--	--	--	
76-06-15	1310	325	--	--	--	--	--	--	--	--	--	--	--	0.08	0.011	0.010	
76-08-05	1640	325	--	--	--	--	--	--	--	--	--	--	--	0.009	0.008	0.010	
76-09-12	1250	325	--	--	--	--	--	--	--	--	--	--	--	0.007	0.007	0.009	

MAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO007  
COULDREY CREEK, ROAD BRIDGE 200 METRES  
(INTERPRETIVE REPORT STATION 9)

ABOVE CONFLUENCE WITH BURNHAM CREEK.  
LAT. 49D 2M 21S LONG. 114D 32M 3S  
BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	151022		15406R		154061		154062		154063		154064		154065	
			PHOSPHORUS TOTAL	DISSOLVED	PHOSPHORUS TOTAL	P MG/L	PHOSPHORUS TOTAL	P MG/L	PHOSPHORUS TOTAL	P MG/L	PHOSPHORUS TOTAL	P MG/L	PHOSPHORUS TOTAL	P MG/L	PHOSPHORUS TOTAL	P MG/L
75-12-18	1000	325	--	--	.011	.014	.010	.007	.014	.008	.014	.008	.014	.008	.014	.008
76-05-28	1445	325	--	--	.036	.045	.039	.027	.047	.024	.027	.024	.047	.024	.047	.024
76-06-15	1310	325	.006	.006	.013	.012	.013	.014	.014	.014	.014	.014	.014	.014	.014	.014
76-08-05	1640	325	.009	.009	.009	.006	.007	.008	.008	.008	.008	.008	.009	.008	.009	.008
76-09-12	1250	325	.006	.007	.007	.007	.006	.009	.006	.007	.009	.007	.006	.007	.006	.007

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	16306L		17206L		19103L		20101L		25304P		26305P		27302P	
			PHOSPHORUS TOTAL	SULPHATE DISSOLVED	CHLORIDE DISSOLVED	CL MG/L	POTASSIUM DISSOLVED	K MG/L	CALCIUM DISSOLVED	CA MG/L	MANGANESE EXTRBLE.	MN MG/L	IRON EXTRBLE.	FE MG/L	COBALT EXTRBLE.	CO MG/L
75-12-18	1000	325	.014	--	--	--	--	--	--	L.01	.003	.003	.003	L.001	L.001	
76-02-05	1000	325	--	--	--	--	--	--	--	L.01	.003	.003	.003	L.001	L.001	
76-05-28	1445	325	.032	2.3	.2	.3	16.9	18.0	18.0	L.01	.18	.18	.18	L.001	L.001	
76-06-15	1310	325	.010	2.7	L.2	.3	18.0	23.3	23.3	L.01	.022	.022	.022	L.001	L.001	
76-08-05	1640	325	.013	3.4	.2	.3	23.3	23.5	23.5	L.01	.016	.016	.016	L.001	L.001	
76-09-12	1250	325	.008	4.3	.2	.3	23.5	23.5	23.5	L.01	.006	.006	.006	L.001	L.001	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	28302P		29305P		30305P		33304L		34302L		42302P		48302P		56302P	
			NICKEL EXTRBLE.	NI MG/L	COPPER EXTRBLE.	CU MG/L	ZINC EXTRBLE.	ZN MG/L	ARSENIC EXTRBLE.	AS MG/L	SELENIUM EXTRBLE.	SE MG/L	MOLYBDENUM EXTRBLE.	MO MG/L	CADMIUM EXTRBLE.	CD MG/L	BARIUM EXTRBLE.	BA MG/L
75-12-18	1000	325	L.001	L.001	L.001	L.001	L.001	--	--	--	--	--	.0100	.0100	.24	.24		
76-02-05	1000	325	L.001	L.001	L.001	L.001	L.001	--	--	--	--	.0006	L.0002	L.0002	.54	.54		
76-05-28	1445	325	L.001	L.001	L.001	L.001	.0003	L.0001	L.0001	L.0001	L.0001	--	L.0002	L.0002	.17	.17		
76-06-15	1310	325	L.001	L.001	L.001	L.001	.0003	L.0001	L.0001	L.0001	--	--	L.0002	L.0002	.16	.16		
76-08-05	1640	325	L.001	L.001	L.001	L.001	.0005	L.0001	L.0001	L.0001	--	--	L.0002	L.0002	.17	.17		
76-09-12	1250	325	L.001	L.001	L.001	L.001	.0003	L.0001	L.0001	L.0001	--	--	L.0002	L.0002	.21	.21		

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO007  
 COULDREY CREEK ROAD BRIDGE 200 METRES ABOVE CONFLUENCE WITH BURNHAM CREEK  
 (INTERPRETIVE REPORT STATION 9)

LAT. 49D 2M 21S LONG. 114D 32M 3S  
 BRITISH COLUMBIA

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	80311P MERCURY EXTRBLE.	82302P LEAD EXTRBLE.	HG UG/L	PB MG/L
75-12-18	1000	325	--	--	L.05	L.001
76-02-05	1000	325	L.05	L.001	L.05	L.001
76-05-28	1445	325	L.05	L.001	L.05	L.001
76-06-15	1310	325	L.05	L.002	L.05	L.001
76-08-05	1640	325	L.05	L.001	L.05	L.001
76-09-12	1250	325	L.05	L.001	L.05	L.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT  
 NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION

G - GREATER THAN MEASUREMENT LIMIT  
 G - PLUS GRAND QUE LA LIMITE MESURE

84-04-06

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO008 HOWELL CREEK, ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER, BRITISH COLUMBIA.  
(INTERPRETIVE REPORT STATION 2) LAT. 49D 5M 8S LONG. 114D 31M 32S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	02011L COLOUR APPARENT	02041L SPECIFIC CONDUCT.	USIE/CM	02061L TEMP. WATER	DEG. C.	02073L TURBIDITY	JTU	06001R CARBON TOTAL ORGANIC C	MG/L	06001I CARBON TOTAL ORGANIC C	MG/L
75-12-18	1400	325	L5.	259.	--	23.0	5	1.2	1.6	2.1	2.1	1.6	2.1	
76-02-05	1445	325	L5.	290.	--	21.1	--	.5	5.1	4.8	4.8	5.1	4.8	
76-04-12	1130	325	10.	215.	280.	22.5	2.0	3.8	1.4	1.6	1.6	1.4	1.6	
76-05-27	1530	325	7.	199.	240.	22.7	9.5	5.6	7.0	6.7	6.7	7.0	6.7	
76-05-28	1145	325	15.	183.	200.	22.8	6.0	20.0	7.0	4.9	4.9	7.0	4.9	
76-05-29	1345	325	7.	193.	180.	22.8	6.0	6.0	3.1	4.4	4.4	3.1	4.4	
76-06-14	1045	325	L5.	208.	230.	19.8	5.0	.6	2.6	3.1	3.1	2.6	3.1	
76-06-16	1230	325	L5.	195.	240.	17.6	6.8	1.1	2.2	4.1	4.1	2.2	4.1	
76-08-04	1430	325	L5.	241.	240.	19.5	11.5	.3	2.5	1.0	1.0	2.5	1.0	
76-08-05	1720	325	5.	240.	240.	19.8	11.0	.4	5.0	3.4	3.4	5.0	3.4	
76-09-11	1530	325	5.	261.	310.	21.8	9.0	.3	L1.0	L1.0	L1.0	L1.0	L1.0	
76-09-12	1425	325	5.	262.	300.	22.1	9.0	.3	L1.0	L1.0	L1.0	L1.0	L1.0	
76-09-13	1235	325	5.	264.	310.	22.2	9.0	.3	2.1	3.1	3.1	2.1	3.1	
82-07-28	1540	325	L5.	235.	--	21.5	--	.8	--	--	--	--	--	
	1541	325	L5.	234.	--	21.4	--	.7	L1.8	L1.8	L1.8	L1.8	L1.8	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	060012 CARBON TOTAL ORGANIC C	MG/L	060013 CARBON TOTAL ORGANIC C	MG/L	060014 CARBON TOTAL ORGANIC C	MG/L	060015 CARBON TOTAL ORGANIC C	MG/L	060016 CARBON TOTAL ORGANIC C	MG/L	06051R CARBON TOTAL ORGANIC C	MG/L	06051I CARBON TOTAL ORGANIC C	MG/L	060512 CARBON TOTAL ORGANIC C	MG/L
75-12-18	1400	325	L5.	.4	1.9	.7	2.3	2.1	31.2	30.6	32.2	31.2	31.2	32.2	31.2	31.9	32.2	31.9	
76-02-05	1445	325	L5.	5.1	5.3	--	--	--	31.2	32.2	31.9	--	27.5	27.4	27.4	27.7	27.7	27.7	
76-04-12	1130	325	10.	1.3	6.4	1.3	6.7	5.4	22.3	23.0	22.0	5.4	23.0	23.0	23.0	22.0	22.0	22.0	
76-05-27	1530	325	7.	9.5	8.1	6.9	6.6	7.2	21.5	24.0	20.0	7.2	24.0	24.0	24.0	20.0	20.0	20.0	
76-05-28	1145	325	15.	8.3	L1.0	3.2	2.8	3.4	24.7	24.0	24.0	3.4	24.0	24.0	24.0	24.0	24.0	24.0	
76-05-29	1345	325	7.	3.6	3.6	1.1	2.8	1.9	21.5	24.0	24.0	2.8	24.0	24.0	24.0	24.0	24.0	24.0	
76-06-14	1045	325	L5.	L1.0	1.7	1.7	2.0	3.9	23.8	23.8	24.0	1.9	23.8	23.8	23.8	24.0	24.0	24.0	
76-06-16	1230	325	L5.	L1.0	3.5	L1.0	4.4	4.2	28.3	28.3	29.0	3.9	28.3	28.3	29.0	29.0	29.0	29.0	
76-08-04	1430	325	L5.	9.5	3.1	5.5	4.4	4.2	26.7	26.7	28.0	4.2	26.7	26.7	28.0	28.0	28.0	28.0	
76-08-05	1720	325	L5.	L1.0	L1.0	L1.0	L1.0	L1.0	35.0	35.0	35.0	L1.0	35.0	35.0	35.0	35.0	35.0	35.0	
76-09-11	1530	325	L5.	L1.0	L1.0	L1.0	L1.0	L1.0	34.0	34.0	34.0	L1.0	34.0	34.0	34.0	34.0	34.0	34.0	
76-09-12	1425	325	L5.	2.6	2.3	1.4	1.9	1.4	33.5	33.0	33.0	1.4	33.5	33.0	33.0	33.0	33.0	33.0	
76-09-13	1235	325	L5.	L1.8	L1.8	--	--	--	33.0	33.0	33.0	--	33.0	33.0	33.0	33.0	33.0	33.0	
82-07-28	1541	325	L5.	L1.8	L1.8	--	--	--	33.0	33.0	33.0	--	33.0	33.0	33.0	33.0	33.0	33.0	

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOBCOBNP0008 HOWELL CREEK, ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S  
(INTERPRETIVE REPORT STATION 2) (INTERPRETIVE REPORT STATION 2) BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	060513 CARBON TOTAL INORGANIC C MG/L	060514 CARBON TOTAL INORGANIC C MG/L	060515 CARBON TOTAL INORGANIC C MG/L	060516 CARBON TOTAL INORGANIC C MG/L	06536R PHENOLIC MATERIAL PHENOL MG/L	065361 PHENOLIC MATERIAL PHENOL MG/L	065362 PHENOLIC MATERIAL PHENOL MG/L	065363 PHENOLIC MATERIAL PHENOL MG/L
75-12-18	1400	325	30.8	31.8	30.8	31.0	--	--	--	--
76-02-05	1445	325	29.4	--	--	--	--	--	--	--
76-04-12	1130	325	27.1	27.7	--	--	L.0005	L.0005	L.0005	L.0005
76-05-27	1530	325	22.0	21.0	23.0	23.0	L.0005	L.0005	L.0005	L.0005
76-05-28	1145	325	21.0	21.0	22.0	21.0	L.0005	L.0005	L.0005	L.0005
76-05-29	1345	325	26.0	24.0	25.0	25.0	--	--	--	--
76-06-14	1045	325	23.0	24.0	24.0	24.0	L.0005	L.0005	L.0005	L.0005
76-06-16	1230	325	22.0	24.0	24.0	24.0	--	--	--	--
76-08-04	1430	325	29.0	31.0	27.0	28.0	L.0005	L.0005	L.0005	L.0005
76-08-05	1720	325	29.0	26.0	28.0	27.0	--	--	--	--
76-09-11	1530	325	35.0	35.0	35.0	34.0	L.0005	L.0005	L.0005	L.0005
76-09-12	1425	325	34.0	34.0	34.0	34.0	--	--	--	--
76-09-13	1235	325	33.0	34.0	34.0	34.0	--	--	--	--
82-07-28	1541	325	33.0	--	--	--	--	--	--	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	06903L CARBON PARTICULATE C MG/L	069031 CARBON PARTICULATE C MG/L	069032 CARBON PARTICULATE C MG/L	069033 CARBON PARTICULATE C MG/L	07110R NITROGEN DISSOLVED N03 & N02 N MG/L	071101 NITROGEN DISSOLVED N03 & N02 N MG/L	071102 NITROGEN DISSOLVED N03 & N02 N MG/L	071103 NITROGEN DISSOLVED N03 & N02 N MG/L
75-12-18	1400	325	--	--	--	--	.062	.060	.057	.062
76-02-05	1445	325	--	--	--	--	.027	.022	.023	.046
76-04-12	1130	325	--	--	--	--	.082	.081	.081	.081
76-05-27	1530	325	--	--	--	--	.016	.015	.015	.016
76-05-28	1145	325	--	--	--	--	.023	.022	.022	.021
76-05-29	1345	325	--	--	--	--	.019	.020	.021	.016
76-06-14	1045	325	--	--	--	--	.010	.003	.005	.029
76-06-16	1230	325	--	--	--	--	.014	.044	.014	.013
76-08-04	1430	325	--	--	--	--	.003	L.002	L.002	L.002
76-08-05	1720	325	--	--	--	--	.037	.002	.135	.050
76-09-11	1530	325	--	--	--	--	.015	.034	.008	.020
76-09-12	1425	325	--	--	--	--	.025	.006	.030	.050
76-09-13	1235	325	--	--	--	--	.017	.037	.030	.006
82-07-28	1541	325	.184	.182	.171	.200	L.002	L.002	L.002	L.002

84-04-06

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - O0BC08NPO008 HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S  
(INTERPRETIVE REPORT STATION 2)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071104 NITROGEN DISSOLVED NO3 & NO2 N	071105 NITROGEN DISSOLVED NO3 & NO2 N	071106 NITROGEN DISSOLVED NO3 & NO2 N	07557R NITROGEN DISSOLVED AMMONIA N	075571 NITROGEN DISSOLVED AMMONIA N	075572 NITROGEN DISSOLVED AMMONIA N	075573 NITROGEN DISSOLVED AMMONIA N	075574 NITROGEN DISSOLVED AMMONIA N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1400	325	.057	.054	.084	.010	.009	.008	.010	.010
76-02-05	1445	325	.019	.030	.024	.009	.008	.009	.009	.009
76-04-12	1130	325	.082	.082	.082	.010	.007	.010	.011	.011
76-05-27	1530	325	.019	.015	.015	.012	.010	.012	.013	.015
76-05-28	1145	325	.030	.022	.021	.010	.008	.008	.010	.012
76-05-29	1345	325	.017	.023	.016	.012	.012	.011	.012	.012
76-06-14	1045	325	.007	.007	--	.008	.007	.007	.009	.009
76-06-16	1230	325	.002	.003	.005	.004	.008	.003	.003	.004
76-08-04	1430	325	L.002	.007	L.002	.009	.007	.004	.003	.004
76-08-05	1720	325	.030	.003	.002	.010	.004	.029	.008	.007
76-09-11	1530	325	.006	.007	.015	.008	.014	.003	.006	.006
76-09-12	1425	325	.009	.031	.023	.006	.003	.009	.004	.004
76-09-13	1235	325	.006	.012	.012	.006	.007	.007	.005	.007
82-07-28	1541	325	--	--	--	L.002	L.002	L.002	L.002	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075575 NITROGEN DISSOLVED AMMONIA N	075576 NITROGEN DISSOLVED AMMONIA N	07651R NITROGEN DISSOLVED N	076511 NITROGEN DISSOLVED N	076512 NITROGEN DISSOLVED N	076513 NITROGEN DISSOLVED N	076514 NITROGEN DISSOLVED N	076515 NITROGEN DISSOLVED N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1400	325	.010	.010	.12	.10	.12	.11	.10	.11
76-02-05	1445	325	.011	.008	.07	.07	.06	.07	.06	.08
76-04-12	1130	325	.011	.011	.15	.15	.15	--	--	--
76-05-27	1530	325	.011	.010	.08	.09	.07	.08	.08	.08
76-05-28	1145	325	.010	.010	.11	.10	.11	.11	.13	.11
76-05-29	1345	325	.014	.012	.10	.11	.10	.10	.09	.15
76-06-14	1045	325	.009	--	.06	.06	.05	.08	.05	.05
76-06-16	1230	325	.003	.003	.07	.10	.06	.07	.06	.06
76-08-04	1430	325	.032	.005	.06	.05	.08	.06	.05	.06
76-08-05	1720	325	.008	.005	.09	.04	.24	.10	.07	.05
76-09-11	1530	325	.008	.008	.06	.10	.04	.08	.05	.04
76-09-12	1425	325	.006	.008	.07	.05	.08	.09	.04	.08
76-09-13	1235	325	.003	.004	.05	.08	.10	.04	.04	.04

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - O08C08N0008 HOWELL CREEK, ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER, BRITISH COLUMBIA.  
 (INTERPRETIVE REPORT STATION 2)

LAT. 49D 5M 8S LONG. 114D 31M 32S

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076516		076551		076552		076553		079031		079032	
			NITROGEN DISSOLVED	N MG/L	NITROGEN TOTAL	N MG/L	NITROGEN DISSOLVED	N MG/L	NITROGEN TOTAL	N MG/L	NITROGEN DISSOLVED	N MG/L	NITROGEN TOTAL	N MG/L
75-12-18	1400	325		.16										
76-02-05	1445	325		.06										
76-05-27	1530	325		.08										
76-05-28	1145	325		.11										
76-05-29	1345	325		.09										
76-06-16	1230	325		.06										
76-08-04	1430	325		.05										
76-08-05	1720	325		.04										
76-09-11	1530	325		.06										
76-09-12	1425	325		.06										
76-09-13	1235	325		.04										
82-07-28	1541	325		--	.035	.036	.035	.034	.012	.03R	.012	.010		

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	079033		09106L		091061		091062		091063		091064		091065		091066	
			NITROGEN PARTICULATE	N MG/L	FLUORIDE DISSOLVED	F MG/L	FLUORIDE DISSOLVED	F MG/L	FLUORIDE DISSOLVED	F MG/L	FLUORIDE DISSOLVED	F MG/L	FLUORIDE DISSOLVED	F MG/L	FLUORIDE DISSOLVED	F MG/L	FLUORIDE DISSOLVED	F MG/L
75-12-18	1400	325		--		.11	.11											
76-04-12	1130	325		--	.12	.12												
76-05-27	1530	325		--	.09	.09												
76-05-28	1145	325		--	.08	.08												
76-05-29	1345	325		--	.08	.08												
76-06-14	1045	325		--	.11	.11												
76-06-16	1230	325		--	.09	.09												
76-08-04	1430	325		--	.11	.11												
76-08-05	1720	325		--	.10	.10												
76-09-11	1530	325		--	.10	.10												
76-09-12	1425	325		--	.11	.11												
76-09-13	1235	325		--	.11	.11												
82-07-28	1540	325		--	L.05	L.05												
	1541	325		--	.015	.06												



NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO008  
HOWELL CREEK, ROAD BRIDGE 750 METRES  
(INTERPRETIVE REPORT STATION 2)

ABOVE CONFLUENCE WITH FLATHEAD RIVER.

LAT. 49D 5M 8S  
LONG. 114D 31M 32S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10101L ALKALINITY TOTAL	10151L ALKALINITY PHENOL PHTHALEIN CAC03	10301L PH	PH UNITS	10401L RESIDUE NONFILTR.	10451L RESIDUE FILTERABLE	10501L RESIDUE FIXED NONFILTR.	10551L RESIDUE FIXED FILTERABLE
			MG/L	MG/L			MG/L	MG/L	MG/L	MG/L
75-12-18	1400	325	134.0	0.0	8.3	7.1	1.	204.	0.	146.
76-02-05	1445	325	147.0	0.0	8.3	--	2.	180.	1.	152.
76-04-12	1130	325	110.0	0.0	8.1	8.1	28.	122.	20.	82.
76-05-27	1530	325	100.0	0.0	8.2	8.4	21.	124.	19.	106.
76-05-28	1145	325	92.5	0.0	8.1	8.2	37.	142.	35.	80.
76-05-29	1345	325	99.0	0.0	8.2	8.3	18.	118.	16.	94.
76-06-14	1045	325	104.0	0.0	8.2	8.4	1.	148.	0.	88.
76-06-16	1230	325	103.0	0.0	8.2	8.3	2.	136.	11.	100.
76-08-04	1430	325	128.0	1.5	8.4	--	1.	172.	10.	104.
76-08-05	1720	325	127.0	0.0	8.3	--	2.	188.	11.	92.
76-09-11	1530	325	136.0	0.0	8.3	8.4	2.	223.	10.	112.
76-09-12	1425	325	135.0	0.0	8.1	8.3	2.	176.	1.	114.
76-09-13	1235	325	136.0	0.0	8.1	8.2	2.	174.	1.	122.
82-07-28	1540	325	128.7	0.0	8.2	--	--	--	--	--
82-07-28	1541	325	129.0	0.0	8.2	--	--	--	--	--

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10603L HARDNESS TOTAL	11103L SODIUM DISSOLVED	12101L MAGNESIUM DISSOLVED (CALCD.)	14105L SILICA REACTIVE	141051 SILICA REACTIVE	141052 SILICA REACTIVE	141053 SILICA REACTIVE	141054 SILICA REACTIVE
			CAC03 MG/L	NA MG/L	MG MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-12-18	1400	325	142.0	.7	8.7	5.0	5.0	5.1	5.0	5.1
76-02-05	1445	325	160.0	.8	12.2	5.4	5.4	5.4	--	--
76-04-12	1130	325	116.0	.8	6.5	4.9	--	--	--	--
76-05-27	1530	325	105.0	.6	6.6	4.7	--	--	--	--
76-05-28	1145	325	98.1	.6	6.3	4.5	--	--	--	--
76-05-29	1345	325	103.0	.8	5.9	4.6	--	--	--	--
76-06-14	1045	325	110.0	.7	6.7	4.5	--	--	--	--
76-06-16	1230	325	105.0	.7	6.7	4.4	--	--	--	--
76-08-04	1430	325	132.0	.7	7.0	4.8	--	--	--	--
76-08-05	1720	325	131.0	.7	7.0	4.9	--	--	--	--
76-09-11	1530	325	140.0	.8	9.4	5.1	--	--	--	--
76-09-12	1425	325	140.0	.8	8.7	5.1	--	--	--	--
76-09-13	1235	325	141.0	.8	9.0	5.1	--	--	--	--
82-07-28	1540	325	136.2	.6	8.7	4.6	--	--	--	--
82-07-28	1541	325	136.2	.6	8.9	4.6	--	--	--	--

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO008  
HOWELL CREEK, ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S  
(INTERPRETIVE REPORT STATION 2) BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	141055 SILICA REACTIVE	141056 SILICA REACTIVE	15102R PHOSPHORUS DISSOLVED	151021 PHOSPHORUS DISSOLVED	151022 PHOSPHORUS DISSOLVED	151023 PHOSPHORUS DISSOLVED	15406R PHOSPHORUS TOTAL	154061 PHOSPHORUS TOTAL
			SI02 MG/L	SI02 MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	P MG/L
75-12-18	1400	325	5.0	5.0	--	--	--	--	.013	.012
76-02-05	1445	325	--	--	--	--	--	--	.011	.008
76-04-12	1130	325	--	--	--	--	--	--	.062	.029
76-05-27	1530	325	--	--	.018	.023	.015	.015	.030	.048
76-05-28	1145	325	--	--	--	--	--	--	.054	.030
76-05-29	1345	325	--	--	--	--	--	--	.029	.030
76-06-14	1045	325	--	--	.011	.010	.011	.013	.017	.010
76-06-16	1230	325	--	--	.015	.013	.016	.016	.013	.013
76-08-04	1430	325	--	--	.011	.009	.015	.009	.011	.010
76-08-05	1720	325	--	--	--	--	--	--	.012	.013
76-09-11	1530	325	--	--	.010	.011	.009	.011	.009	.010
76-09-12	1425	325	--	--	.009	.008	.009	.009	.009	.008
76-09-13	1235	325	--	--	--	--	--	--	.010	.010
82-07-28	1541	325	--	--	.004	.005	.004	.004	.010	.010

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	154062 PHOSPHORUS TOTAL	154063 PHOSPHORUS TOTAL	154064 PHOSPHORUS TOTAL	154065 PHOSPHORUS TOTAL	154066 PHOSPHORUS TOTAL	16306L SULPHATE DISSOLVED	17206L CHLORIDE DISSOLVED	19103L POTASSIUM DISSOLVED
			P MG/L	P MG/L	P MG/L	P MG/L	P MG/L	SO4 MG/L	CL MG/L	K MG/L
75-12-18	1400	325	.014	.013	.012	.011	.013	8.9	.6	.2
76-02-05	1445	325	.009	.010	.010	.024	.007	8.1	.3	.3
76-04-12	1130	325	.058	.058	.068	.061	.066	5.3	.4	.4
76-05-27	1530	325	.032	.030	.030	.025	.030	4.6	.4	.4
76-05-28	1145	325	.048	.051	.054	.071	.054	3.7	.3	.4
76-05-29	1345	325	.030	.029	.027	.028	.031	4.0	.3	.4
76-06-14	1045	325	.018	.016	.016	.018	.017	4.5	.2	.4
76-06-16	1230	325	.014	.014	.010	.012	.014	4.3	.2	.4
76-08-04	1430	325	.011	.010	.010	.011	.011	5.0	.3	.5
76-08-05	1720	325	.011	.011	.012	.012	.011	5.6	.3	.4
76-09-11	1530	325	.009	.009	.009	.008	.009	5.9	.4	.4
76-09-12	1425	325	.010	.010	.010	.008	.010	5.8	.3	.4
76-09-13	1235	325	.010	.010	.010	.010	.010	5.7	.3	.4
82-07-28	1540	325	--	--	--	--	--	4.0	.2	.2
	1541	325	.009	.012	--	--	--	4.0	.2	.2

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB8BNPO008 HOWELL CREEK, ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S  
 (INTERPRETIVE REPORT STATION 2) BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	20101L CALCIUM DISSOLVED	25304P MANGANESE EXTRBLE.	253041 MANGANESE EXTRBLE.	253042 MANGANESE EXTRBLE.	26305P IRON EXTRBLE.	263051 IRON EXTRBLE.	263052 IRON EXTRBLE.	27302P COBALT EXTRBLE.
DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	CA MG/L	MN MG/L	MN MG/L	MN MG/L	FE MG/L	FE MG/L	FE MG/L	CO MG/L
75-12-18	1400	325	42.6	L.01	--	--	.028	--	--	L.001
76-02-05	1445	325	43.9	L.01	--	--	.009	--	--	L.001
76-04-12	1130	325	35.8	.02	--	--	.20	O4P	--	L.001
76-05-27	1530	325	31.2	.01	--	--	.07	O4P	--	L.001
76-05-28	1145	325	28.9	.02	--	--	.18	O4P	--	L.001
76-05-29	1345	325	31.6	L.01	--	--	.06	O4P	--	L.001
76-06-14	1045	325	33.1	L.01	--	--	.06	O4P	--	L.001
76-06-16	1230	325	31.0	--	--	--	--	--	--	--
76-08-04	1430	325	41.4	L.01	--	--	.024	--	--	L.001
76-08-05	1720	325	41.0	--	--	--	--	--	--	--
76-09-11	1530	325	40.6	L.01	--	--	.020	--	--	L.001
76-09-12	1425	325	41.7	L.01	--	--	.014	--	--	L.001
76-09-13	1235	325	41.6	L.01	--	--	.017	--	--	L.001
82-07-28	1540	325	40.2	--	--	--	--	--	--	--
82-07-28	1541	325	39.9	L.01 O4R	L.01	L.01	.042 O5R	.033	.050	--
DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	28302P NICKEL EXTRBLE.	29305P COPPER EXTRBLE.	293051 COPPER EXTRBLE.	293052 COPPER EXTRBLE.	30305P ZINC EXTRBLE.	303051 ZINC EXTRBLE.	303052 ZINC EXTRBLE.	33304L ARSENIC EXTRBLE.
DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	NI MG/L	CU MG/L	CU MG/L	CU MG/L	ZN MG/L	ZN MG/L	ZN MG/L	AS MG/L
75-12-18	1400	325	L.001	L.001	--	--	.001	--	--	.0004
76-02-05	1445	325	L.001	L.001	--	--	L.001	--	--	--
76-04-12	1130	325	L.001	.001	--	--	.001	--	--	.0010
76-05-27	1530	325	L.001	L.001	--	--	L.001	--	--	.0003
76-05-28	1145	325	L.001	L.001	--	--	.001	--	--	.0004
76-05-29	1345	325	L.001	L.001	--	--	L.001	--	--	.0003
76-06-14	1045	325	L.001	L.001	--	--	L.001	--	--	.0005
76-06-16	1230	325	--	--	--	--	--	--	--	.0004
76-08-04	1430	325	.001	.001	--	--	L.001	--	--	.0004
76-08-05	1720	325	--	--	--	--	--	--	--	.0005
76-09-11	1530	325	L.001	L.001	--	--	L.001	--	--	.0005
76-09-12	1425	325	L.001	L.001	--	--	L.001	--	--	.0005
76-09-13	1235	325	L.001	L.001	--	--	L.001	--	--	.0005
82-07-28	1541	325	--	L.001 O5R	L.001	.001	L.001 O5R	L.001	L.001	.0003

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO008 HOWELL CREEK. ROAD BRIDGE 750 METRES ABOVE CONFLUENCE WITH FLATHEAD RIVER. LAT. 49D 5M 8S LONG. 114D 31M 32S  
( INTERPRETIVE REPORT STATION 2 ) BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	SE MG/L	42302P MOLYBDENUM EXTRBLE.	48302P CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	803111 MERCURY EXTRBLE.	803112 MERCURY EXTRBLE.	82302P LEAD EXTRBLE.
75-12-18	1400	325	.0003	--	.0100	.25	L.05	--	--	L.001
76-02-05	1445	325	--	.0005	L.0002	1.50	L.05	--	--	L.001
76-04-12	1130	325	.0002	--	L.0002	.29	L.05	--	--	L.001
76-05-27	1530	325	.0001	--	L.0002	.12	L.05	--	--	L.001
76-05-28	1145	325	.0001	--	L.0002	.14	L.05	--	--	.001
76-05-29	1345	325	.0001	--	L.0002	.15	L.05	--	--	.001
76-06-14	1045	325	.0001	--	L.0002	.16	L.05	--	--	L.001
76-06-16	1230	325	.0001	--	--	--	--	--	--	--
76-08-04	1430	325	.0002	--	L.0002	.13	L.05	--	--	L.001
76-08-05	1720	325	.0002	--	--	--	--	--	--	--
76-09-11	1530	325	.0002	--	L.0002	.21	L.05	--	--	L.001
76-09-12	1425	325	.0002	--	L.0002	.19	--	--	--	L.001
76-09-13	1235	325	.0001	--	L.0002	.20	--	--	--	L.001
82-07-28	1541	325	.0001	--	--	--	L.05 11R	L.05	L.05	.001 02R

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	SE MG/L	42302P MOLYBDENUM EXTRBLE.	48302P CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	803111 MERCURY EXTRBLE.	803112 MERCURY EXTRBLE.	82302P LEAD EXTRBLE.
82-07-28	1541	325	.001	--	--	--	L.05 11R	L.05	L.05	.001

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT  
NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

84-04-13

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - O08C08NPO009 CABIN CREEK, 4.5 KILOMETRES ABOVE CONFLUENCE WITH HOWELL CREEK. LAT. 49D 6M 6S LONG. 114D 35M 48S  
(INTERPRETIVE REPORT STATION 6)

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	USIE/CM	020415 SPECIFIC CONDUCT.	020615 TEMP. WATER	02073L TURBIDITY	06001R CARBON TOTAL ORGANIC C	060011 CARBON TOTAL ORGANIC C
75-08-20	1215	325	--	--	--	--	--	1.5	1.7
76-04-12	1245	325	25	187	22.6	4.2	4.2	4.2	5.1
76-08-05	1400	325	5	228	19.9	.5	5.9	5.9	3.9
76-09-11	1350	325	5	261	21.8	.4	1.3	1.3	L1.0

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	USIE/CM	060014 CARBON TOTAL ORGANIC C	060015 CARBON TOTAL ORGANIC C	060016 CARBON TOTAL ORGANIC C	06051R CARBON TOTAL INORGANIC C	060511 CARBON TOTAL INORGANIC C	060512 CARBON TOTAL INORGANIC C
75-08-20	1215	325	1.3	1.3	1.7	1.1	32.3	32.4	32.8	
76-04-12	1245	325	3.2	--	--	--	22.9	22.4	23.4	
76-08-05	1400	325	4.9	8.2	8.3	5.9	25.0	27.0	26.0	
76-09-11	1350	325	2.4	L1.0	L1.0	1.2	35.3	35.0	35.0	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	USIE/CM	060515 CARBON TOTAL INORGANIC C	060516 CARBON TOTAL INORGANIC C	06536R PHENOLIC MATERIAL	065361 PHENOLIC MATERIAL	065362 PHENOLIC MATERIAL	065363 PHENOLIC MATERIAL
75-08-20	1215	325	32.0	32.1	32.3	--	--	--	--	
76-04-12	1245	325	--	--	--	L.0005	L.0005	L.0005	L.0005	
76-08-05	1400	325	26.0	24.0	24.0	L.0005 36L	--	--	--	
76-09-11	1350	325	36.0	35.0	35.0	L.0005	L.0005	L.0005	L.0005	

NAQUADAT  
DETAILED REPORT / RAPPORT DETAILLE

STATION - 00BC08NP0009  
CABIN CREEK. 4.5 KILOMETRES ABOVE  
( INTERPRETIVE REPORT STATION 6 )

CONFLUENCE WITH HOWELL CREEK.

LAT. 49D 6M 6S LONG. 114D 35M 48S  
BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	071101 NITROGEN DISSOLVED NO3 & NO2 N	071102 NITROGEN DISSOLVED NO3 & NO2 N	071103 NITROGEN DISSOLVED NO3 & NO2 N	071104 NITROGEN DISSOLVED NO3 & NO2 N	071105 NITROGEN DISSOLVED NO3 & NO2 N	071106 NITROGEN DISSOLVED NO3 & NO2 N	075577 NITROGEN DISSOLVED AMMONIA N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1215	325	.017	.019	.015	.013	.010	.005	.107
76-04-12	1245	325	.131	.131	--	--	--	--	.014
76-08-05	1400	325	.110	.088	.013	.010	.076	.011	.011
76-09-11	1350	325	.026	.026	.017	.015	.030	.032	.008

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	075571 NITROGEN DISSOLVED AMMONIA N	075572 NITROGEN DISSOLVED AMMONIA N	075573 NITROGEN DISSOLVED AMMONIA N	075574 NITROGEN DISSOLVED AMMONIA N	075575 NITROGEN DISSOLVED AMMONIA N	075576 NITROGEN DISSOLVED AMMONIA N	075577 NITROGEN DISSOLVED AMMONIA N	075578 NITROGEN DISSOLVED AMMONIA N
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1215	325	.135	.260	.059	.047	.103	.038	.23	.33
76-04-12	1245	325	.014	.014	--	--	--	--	.22	.22
76-08-05	1400	325	.019	.015	.007	.007	.013	.006	.12	.20
76-09-11	1350	325	.009	.008	.008	.004	.011	.009	.08	.09

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	076512 NITROGEN DISSOLVED N	076513 NITROGEN DISSOLVED N	076514 NITROGEN DISSOLVED N	076515 NITROGEN DISSOLVED N	076516 NITROGEN DISSOLVED N	09106L FLUORIDE DISSOLVED F	10101L ALKALINITY TOTAL CAC03	10151L ALKALINITY PHENOL PTHALEIN CAC03
			MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
75-08-20	1215	325	.41	.16	.17	.22	.10	--	--	--
76-04-12	1245	325	.23	--	--	--	--	.10	92.0	0.0
76-08-05	1400	325	.15	.08	.07	.13	.07	.08	119.0	1.5
76-09-11	1350	325	.07	.09	.07	.09	.09	.09	135.0	0.0

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO009  
 CABIN CREEK. 4.5 KILOMETRES ABOVE  
 (INTERPRETIVE REPORT STATION 6)

CONFLUENCE WITH HOWELL CREEK.

LAT. 49D 6M 6S LONG. 114D 35M 48S  
 BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	10301L PH	PH UNITS	10301S PH	PH UNITS	10401L RESIDUE NONFILTR.	MG/L	10451L RESIDUE FILTERABLE	MG/L	10501L RESIDUE FIXED NONFILTR.	MG/L	10551L RESIDUE FIXED FILTERABLE	MG/L	10603L HARDNESS TOTAL	MG/L	11103L SODIUM DISSOLVED	MG/L
76-04-12	1245	325	7.9	8.0	8.0	36.	116.	28.	36.	99.1	36.	36.	99.1	99.1	99.1	11103L SODIUM DISSOLVED	.8	
76-08-05	1400	325	8.4	--	--	2.	170.	LO.	100.	123.0	LO.	100.	123.0	123.0	123.0	11103L SODIUM DISSOLVED	1.2	
76-09-11	1350	325	8.2	8.4	8.4	2.	220.	LO.	114.	139.0	LO.	114.	139.0	139.0	139.0	11103L SODIUM DISSOLVED	1.4	

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	12101L MAGNESIUM DISSOLVED (CALCD.)	MG/L	14105L SILICA REACTIVE	MG/L	15102R PHOSPHORUS TOTAL DISSOLVED	MG/L	15102I PHOSPHORUS TOTAL DISSOLVED	MG/L	151022 PHOSPHORUS TOTAL DISSOLVED	MG/L	151023 PHOSPHORUS TOTAL DISSOLVED	MG/L	15406R PHOSPHORUS TOTAL	MG/L	15406I PHOSPHORUS TOTAL	MG/L
75-08-20	1215	325	--	--	--	--	--	--	--	--	--	--	--	--	.036	.036	.032	.032
76-04-12	1245	325	6.3	4.9	4.9	--	--	--	--	--	--	--	--	--	.090	.090	.093	.093
76-08-05	1400	325	7.7	4.6	4.6	.017	.020	.016	.016	.016	.016	.016	.016	.016	.029	.029	.040	.040
76-09-11	1350	325	9.0	5.1	5.1	.012	.011	.011	.011	.011	.011	.015	.015	.012	.012	.011	.011	.011

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	154062 PHOSPHORUS TOTAL	MG/L	154063 PHOSPHORUS TOTAL	MG/L	154064 PHOSPHORUS TOTAL	MG/L	154065 PHOSPHORUS TOTAL	MG/L	154066 PHOSPHORUS TOTAL	MG/L	16306L SULPHATE DISSOLVED	MG/L	17206L CHLORIDE DISSOLVED	MG/L	19103L POTASSIUM DISSOLVED	MG/L
75-08-20	1215	325	.034	.035	.035	.038	.034	.040	.034	.034	.040	--	--	--	--	--	--	--
76-04-12	1245	325	.087	--	--	--	--	--	--	--	--	5.0	5.0	.4	.4	.5	.5	.5
76-08-05	1400	325	.027	.025	.023	.023	.028	.028	.028	.028	.028	6.7	6.7	.4	.4	.5	.5	.5
76-09-11	1350	325	.011	.010	.011	.011	.011	.019	.011	.019	.019	8.0	8.0	.5	.5	.5	.5	.5

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOB08NPO009  
 -CABIN CREEK, 4.5 KILOMETRES ABOVE  
 (INTERPRETIVE REPORT STATION 6)

CONFLUENCE WITH HOWELL CREEK.

LAT. 49D 6M 6S LONG. 114D 35M 48S  
 BRITISH COLUMBIA.

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	CA MG/L	25304P MANGANESE EXTRBLE.	26305P IRON EXTRBLE.	27302P COBALT EXTRBLE.	28302P NICKEL EXTRBLE.	29305P COPPER EXTRBLE.	30305P ZINC EXTRBLE.	33304L ARSENIC EXTRBLE.
76-04-12	1245	325	29.3	.05	.29	L.001	L.001	L.001	L.001	.0005
76-08-05	1400	325	36.5	L.01	.030	L.001	L.001	L.001	L.001	.0003
76-09-11	1350	325	40.8	L.01	.016	L.001	L.001	L.001	L.001	.0002

DATE YMD/AMJ	TIME/ HEURE	SUB-ID/ SOUS-ID	SE MG/L	48302P CADMIUM EXTRBLE.	56302P BARIUM EXTRBLE.	80311P MERCURY EXTRBLE.	82302P LEAD EXTRBLE.	CU MG/L	ZN MG/L	AS MG/L
76-04-12	1245	325	.0002	L.0002	.26	L.05	L.001	L.001	L.001	.0005
76-08-05	1400	325	.0002	L.0002	.13	L.05	L.001	L.001	L.001	.0003
76-09-11	1350	325	.0002	L.0002	.22	L.05	L.001	L.001	L.001	.0002

FOOTNOTE: L - LESS THAN DETECTION LIMIT  
 NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION

G - GREATER THAN MEASUREMENT LIMIT  
 G - PLUS GRAND QUE LA LIMITE MESURE



84-04-26

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOBCOBNP0010  
 CABIN CREEK, 9 KILOMETRES ABOVE  
 (INTERPRETIVE REPORT STATION 8)

CONFLUENCE WITH HOWELL CREEK.

LAT. 49D 5M 44S LONG. 114D 39M 20S  
 BRITISH COLUMBIA.

DATE YMD/AMJ HEURE	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	02011L COLOUR APPARENT	02041L SPECIFIC CONDUCT.	02061L TEMP. WATER	02073L TURBIDITY	02061S TEMP. WATER	06001L CARBON TOTAL	06051L CARBON TOTAL
76-04-12	1530	325	25.	163.	185.	22.6	42.0	5	6.0	19.6
				USIE/CM	USIE/CM	DEG.C.	JTU	DEG.C.	MG/L	MG/L
				06536R PHENOLIC MATERIAL	065362 PHENOLIC MATERIAL	065363 PHENOLIC MATERIAL	07557R NITROGEN DISSOLVED AMMONIA	07110R NITROGEN DISSOLVED NO3 & NO2	07655R NITROGEN TOTAL DISSOLVED	09106L FLUORIDE DISSOLVED
DATE YMD/AMJ HEURE	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	06536R PHENOLIC MATERIAL	065362 PHENOLIC MATERIAL	065363 PHENOLIC MATERIAL	07557R NITROGEN DISSOLVED AMMONIA	07110R NITROGEN DISSOLVED NO3 & NO2	07655R NITROGEN TOTAL DISSOLVED	09106L FLUORIDE DISSOLVED
76-04-12	1530	325	L.0005	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
76-04-12	1530	325	L.0005	L.0005	L.0005	L.0005	010 57L	233 10L	345 55L	07
				10101L ALKALINITY TOTAL	10301L PH	10301S PH	10451L RESIDUE FILTERABLE	10401L RESIDUE NONFILTR.	10501L RESIDUE FIXED NONFILTR.	10551L RESIDUE FIXED FILTERABLE
DATE YMD/AMJ HEURE	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	10101L ALKALINITY TOTAL	10301L PH	10301S PH	10451L RESIDUE FILTERABLE	10401L RESIDUE NONFILTR.	10501L RESIDUE FIXED NONFILTR.	10551L RESIDUE FIXED FILTERABLE
76-04-12	1530	325	79.0	0.0	7.6	8.2	100.	122.	105.	62.
				CAC03 MG/L	PH UNITS	PH UNITS	MG/L	MG/L	MG/L	MG/L
				10603L HARDNESS TOTAL	12101L MAGNESIUM DISSOLVED (CALCD.)	14105L SILICA REACTIVE	154061 PHOSPHORUS TOTAL	15406R PHOSPHORUS TOTAL	154062 PHOSPHORUS TOTAL	16306L SULPHATE DISSOLVED
DATE YMD/AMJ HEURE	TIME/ HEURE	SUB-ID/ SOUS-ID	REL. UNITS	10603L HARDNESS TOTAL	12101L MAGNESIUM DISSOLVED (CALCD.)	14105L SILICA REACTIVE	154061 PHOSPHORUS TOTAL	15406R PHOSPHORUS TOTAL	154062 PHOSPHORUS TOTAL	16306L SULPHATE DISSOLVED
76-04-12	1530	325	84.7	1.1	4.0	4.2	179	215	251	5.8
				MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
				CAC03 MG/L	MG	SI02 MG/L	P	P	P	S04 MG/L
				1.1	4.0	4.2	179	215	251	5.8

NAQUADAT  
 DETAILED REPORT / RAPPORT DETAILLE

STATION - OOBEOB8NPO010  
 CABIN CREEK, 9 KILOMETRES ABOVE  
 (INTERPRETIVE REPORT STATION 8)

CONFLUENCE WITH HOWELL CREEK, LAT. 49D 5M 44S LONG. 114D 39M 20S  
 BRITISH COLUMBIA.

76-04-12 1530 325	17206L CHLORIDE DISSOLVED	CL MG/L	.4	20101L CALCIUM DISSOLVED	CA MG/L	27.4	25304P MANGANESE EXTRBLE.	MN MG/L	.06	26305P IRON EXTRBLE.	FE MG/L	.46	27302P COBALT EXTRBLE.	CO MG/L	L.001	28302P NICKEL EXTRBLE.	NI MG/L	L.001	29305P COPPER EXTRBLE.	CU MG/L	.001
	30305P ZINC EXTRBLE.	ZN MG/L	.004	34302L SELENIUM EXTRBLE.	SE MG/L	.0002	48302P CADMIUM EXTRBLE.	CD MG/L	L.0002	56302P BARIUM EXTRBLE.	BA MG/L	.29	80311P MERCURY EXTRBLE.	HG UG/L	L.05	82302P LEAD EXTRBLE.	PB MG/L	.001			
	DATE TIME/ SUB-ID/ YMD/AMJ HEURE SOUS-ID																				

FOOTNOTE: L - LESS THAN DETECTION LIMIT G - GREATER THAN MEASUREMENT LIMIT  
 NOTEZ BIEN: L - PLUS PETIT QUE LA LIMITE DE DETECTION G - PLUS GRAND QUE LA LIMITE MESURE

Table 3

Total carbon concentrations ( $\mu\text{g g}^{-1}$ ) in settled sediments of three particle sizes.

Exposure Period*	Station	Sample No.	Mesh size used to separate particle size (particle retention size in brackets)		
			G 80 (L 180 microns)	20-80 (180-850 microns)	L 20 (850-2000 microns)
April 12-August 5	1	C-100	29700	16200	17200
	1	C-101	26400	13500	17800
	1	C-102	27200	15400	18000
	1	C-103	27000	14600	20000
	1	C-104	30300	16200	13300
August 5-Sept 11	1	C-105	27700	16200	11200
	1	C-106	29900	17000	-
	1	C-107	46000	20800	16400
	1	C-108	31300	16900	9150
	1	C-109	30500	17000	12900
April 12-August 5	3	C-300	23200	21600	19400
	3	C-301	23100	24800	27300
	3	C-302	24200	25000	22700
	3	C-303	24800	24200	-
	3	C-304	24000	20000	-
August 5-Sept 11	3	C-305	23800	22500	7100
	3	C-306	23400	21400	8140
	3	C-307	24100	19600	18400
	3	C-308	24300	33600	15300
	3	C-309	24700	24300	15100
	3	C-310	19800	20700	-

\*Exposure period refers to the length of time collection jars were left in the stream bed.

Table 4

Total nitrogen concentrations ( $\mu\text{g g}^{-1}$ ) in settled sediments of three particle sizes.

Exposure Period*	Station	Sample No.	Mesh size used to separate particle size (particle retention size in brackets)		
			G 80 (L 180 microns)	20-80 (180-850 microns)	L 20 (850-2000 microns)
April 12-August 5	1	C-100	1780	1280	1970
	1	C-101	1200	1220	1080
	1	C-102	1170	1240	800
	1	C-103	1070	642	1140
	1	C-104	1550	1310	661
August 5-Sept 11	1	C-105	1260	430	564
	1	C-106	1200	552	-
	1	C-107	1630	1180	1030
	1	C-108	1470	993	746
	1	C-109	1870	1110	458
April 12-August 5	3	C-300	1520	1150	590
	3	C-301	1200	2490	1770
	3	C-302	2100	2100	1320
	3	C-303	1610	1460	-
	3	C-304	1530	1710	-
August 5-Sept 11	3	C-305	1070	2380	1370
	3	C-306	2100	1570	1170
	3	C-307	1690	1720	2520
	3	C-308	1200	2180	1170
	3	C-309	1400	1320	1160
	3	C-310	1150	2760	-

\*Exposure period refers to the length of time collection jars were left in the stream bed.

Table 5

Total phosphorus concentrations ( $\mu\text{g g}^{-1}$ ) in settled sediments of three particle sizes.  
I.S. = insufficient sample

Exposure Period*	Station	Sample No.	Mesh size used to separate particle size (particle retention size in brackets)		
			G 80 (L 180 microns)	20-80 (180-850 microns)	L 20 (850-2000 microns)
April 12-August 5	1	C-100	303	590	780
	1	C-101	751	722	740
	1	C-102	589	579	728
	1	C-103	350	710	740
	1	C-104	350	648	744
August 5-Sept 11	1	C-105	275	581	719
	1	C-106	I.S.	547	770
	1	C-107	347	698	751
	1	C-108	336	914	773
	1	C-109	422	459	759
April 12-August 5	3	C-300	374	982	713
	3	C-301	I.S.	691	709
	3	C-302	I.S.	804	721
	3	C-303	I.S.	840	715
	3	C-304	I.S.	982	723
August 5-Sept 11	3	C-305	430	550	661
	3	C-306	401	531	661
	3	C-307	518	467	689
	3	C-308	362	578	698
	3	C-309	371	515	697
	3	C-310	I.S.	493	611

\*Exposure period refers to the length of time collection jars were left in the stream bed.

Table 6

Metal levels in slimy sculpins (*Cottus cognatus*) from the Flathead River system.

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins Homogenate	Total Length (cm)	Weight (gm)	Hg (ug g <sup>-1</sup> ) (wet wt.)	Cu (ug g <sup>-1</sup> ) (wet wt.)	Fe (ug g <sup>-1</sup> ) (wet wt.)	Pb (ug g <sup>-1</sup> ) (wet wt.)	Zn (ug g <sup>-1</sup> ) (wet wt.)
1	1	Sept. 13, 1976	5	4.5	.933					
				8.4	6.734					
				8.7	8.180	.03	1.3	49.	2.3	22.
1	2	Sept. 13, 1976	5	7.6	5.057					
				8.1	5.200					
				8.0	5.293					
1	4	Sept. 13, 1976	5	8.2	5.525					
				7.1	3.518	.03	1.2	38.	2.1	19.
				8.9	7.630					
1	5	Sept. 13, 1976	5	7.4	4.046					
				7.4	3.958					
				8.0	4.677	.03	1.1	37.	2.0	17.
1	5	Sept. 13, 1976	5	6.7	3.340					
				7.3	3.939					
				6.3	2.588					
1	5	Sept. 13, 1976	5	4.9	1.046					
				7.9	5.088					
				6.7	2.911	.03	1.2	30.	2.2	21.
1	6	Sept. 13, 1976	5	8.4	6.432					
				7.2	3.836					
				8.3	6.225					
1	7	Sept. 13, 1976	5	7.9	5.132					
				8.1	5.722	.03	1.3	43.	2.3	22.
				8.5	6.268					
1	7	Sept. 13, 1976	5	7.8	5.037					
				9.8	10.053					
				8.7	8.468					
1	7	Sept. 13, 1976	5	9.0	7.509	.04	1.3	51.	2.3	22.
				7.9	5.173					
				8.1	5.061					

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg (ug g <sup>-1</sup> (wet wt.))	Cu (ug g <sup>-1</sup> (wet wt.))	Fe (ug g <sup>-1</sup> (wet wt.))	Pb (ug g <sup>-1</sup> (wet wt.))	Zn (ug g <sup>-1</sup> (wet wt.))
3	1	Sept. 14, 1976	5	7.6	4.704					
				8.3	5.705					
				7.9	4.951	.03	1.1	48.	2.6	22.
				8.0	5.908					
				5.4	2.209					
3	2	Sept. 14, 1976	5	9.5	9.087					
				8.8	6.360					
				8.2	5.364	.04	1.1	120.	2.1	21.
				8.0	5.412					
				7.9	4.591					
3	3	Sept. 14, 1976	5	7.6	4.500					
				9.0	9.250					
				7.5	4.415	.03	1.2	61.	2.6	25.
				7.9	4.900					
				6.8	2.957					
3	4	Sept. 14, 1976	5	8.2	5.246					
				9.6	9.940					
				8.4	5.935	.04	1.3	48.	2.8	22.
				8.5	5.396					
				7.2	3.787					
3	5	Sept. 14, 1976	5	8.6	6.829					
				8.9	7.526					
				9.0	7.007	.04	1.1	70.	2.7	23.
				7.5	3.805					
				7.4	3.895					

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg $\mu\text{g g}^{-1}$ (wet wt.)	Cu $\mu\text{g g}^{-1}$ (wet wt.)	Fe $\mu\text{g g}^{-1}$ (wet wt.)	Pb $\mu\text{g g}^{-1}$ (wet wt.)	Zn $\mu\text{g g}^{-1}$ (wet wt.)
3	6	Sept. 14, 1976	5	8.3	5.241					
				7.5	4.216					
				8.0	5.258	.03	1.1	29.	2.2	16.
				7.8	4.648					
				5.0	0.960					
3	7	Sept. 14, 1976	6	8.6	6.488					
				6.6	2.828					
				7.4	3.916	.03	1.3	60.	2.3	24.
				6.6	2.935					
				6.9	2.939					
7.2	3.360									
6	1	Sept. 13-14, 1976	5	12.4	22.078					
				10.2	13.062					
				7.0	3.756	.04	1.4	43.	2.1	26.
				7.1	3.762					
				4.5	0.805					
6	2	Sept. 13-14, 1976	5	10.9	17.388					
				9.1	10.555					
				8.0	5.606	.03	1.2	26.	2.0	23.
				6.8	3.230					
				5.4	1.643					
6	3	Sept. 13-14, 1976	5	11.5	17.262					
				10.6	18.031					
				8.7	6.530	.02	1.2	41.	2.1	21.
				8.3	6.394					
				6.9	3.200					



Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg (ug g <sup>-1</sup> (wet wt.))	Cu (ug g <sup>-1</sup> (wet wt.))	Fe (ug g <sup>-1</sup> (wet wt.))	Pb (ug g <sup>-1</sup> (wet wt.))	Zn (ug g <sup>-1</sup> (wet wt.))
6	4	Sept. 13-14, 1976	5	10.2	12.910					
				9.5	11.410					
				8.0	5.533	.04	1.3	45.	2.1	20.
				7.1	3.647					
				5.2	1.030					
6	5	Sept. 13-14, 1976	9	9.9	13.274					
				10.0	13.225					
				9.3	8.700					
				6.1	2.278					
				5.2	1.276	.03	1.6	53.	2.2	25.
				4.6	1.012					
				4.5	0.848					
				5.3	1.413					
				5.1	1.183					
6	6	Sept. 13-14, 1976	6	7.8	4.920					
				10.4	14.476					
				9.0	8.895	.04	1.6	43.	2.5	23.
				9.5	10.808					
				8.9	8.507					
				6.6	2.947					
7	1	Sept. 14, 1976	5	10.8	16.794					
				10.5	12.800					
				9.9	10.454	.04	1.2	38.	2.5	19.
				9.2	8.213					
				8.9	6.663					

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg $\mu\text{g g}^{-1}$ (wet wt.)	Cu $\mu\text{g g}^{-1}$ (wet wt.)	Fe $\mu\text{g g}^{-1}$ (wet wt.)	Pb $\mu\text{g g}^{-1}$ (wet wt.)	Zn $\mu\text{g g}^{-1}$ (wet wt.)
7	2	Sept. 14, 1976	5	10.5	12.647					
				7.1	3.949					
				7.3	3.039	.03	1.0	51.	2.0	20.
				6.4	2.200					
				6.1	1.999					
7	3	Sept. 14, 1976	5	9.3	8.051					
				10.6	12.146					
				9.0	8.264	.05	1.2	58.	2.5	20.
				7.8	5.753					
				6.6	2.930					
7	4	Sept. 14, 1976	7	9.8	11.530					
				7.6	4.186					
				7.3	3.209					
				6.6	2.838	.03	1.5	34.	2.1	22.
				5.1	1.115					
				5.2	1.231					
				4.6	0.855					
7	5	Sept. 14, 1976	5	11.3	16.373					
				10.8	16.063					
				9.9	10.217	.04	1.3	75.	2.5	26.
				8.4	5.928					
				7.6	4.547					

Table 6 (Continued)

Station No.	Sample No.	Collection Date	No. of Slimy Sculpins in Homogenate	Total Length (cm)	Weight (gm)	Hg (ug g <sup>-1</sup> (wet wt.))	Cu (ug g <sup>-1</sup> (wet wt.))	Fe (ug g <sup>-1</sup> (wet wt.))	Pb (ug g <sup>-1</sup> (wet wt.))	Zn (ug g <sup>-1</sup> (wet wt.))
				11.0	15.883					
				9.0	7.809					
				8.5	6.310					
7	6	Sept. 14, 1976	8	8.3	6.384	.04	1.4	100.	2.5	23.
				6.7	3.732					
				5.2	1.242					
				5.9	0.950					
				4.9	0.909					
Food and Drug Directorate Standards for edible fish flesh										
						.5	100.		10.	100.



Table 8a.

Chlorophyll  $\alpha$  ( $\text{mg m}^{-2}$ ) from rock subsamples collected  
April - September, 1976.

Station	April, 1976		June, 1976		August, 1976		September, 1976	
	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll
1	102	11.	005	13.	R5	L2.1	R104	L2.8
	103	L4.2	006	190.	R6	L2.1	R105	4.9
2	106	8.	003	110.	R7	4.2	R108	31.
	107	32.	004	32.	R8	22.	R109	30.
3	108	L4.2	110	L11.	R3	3.2	R100	39.
	109	L4.2	111	L11.	R4	2.1	R101	22.
4	112	L4.2	008	L11.	R1	L2.1	R102	L2.8
	113	4.2	009	42.	R2	L2.1	R103	L2.8
5	114	13.	001	L11.	R9	19.	R110	20.
	115	L4.2	002	35.	R10	-	R111	L2.8
6	116	6.3	NOT SAMPLED		R11	2.1	R106	23.
	117	L4.2			R12	17.	R107	18.
7	118	23.	020	21.	R13	31.	R114	44.
	119	66.	021	L11.	R14	21.	R115	42.
9	NOT SAMPLED		022	L11.	R15	13.	R112	39.
			023	49.	R16	7.4	R113	L2.8

Table 8b.

Chlorophyll  $\alpha$  ( $\text{mg m}^{-2}$ ) from whole rocks collected  
April 1976 - August, 1980.

Station	April, 1976		August, 1976		September, 1976		August, 1980	
	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll	Sample No.	Chlorophyll
1	104	0.18	W5	0.13	W104	0.59	NOT SAMPLED	
	105	0.15	W6	0.17	W105	0.76		
2	NOT SAMPLED		W7	8.5	W108	-	NOT SAMPLED	
			W8	1.2	W109	L0.15		
3	110	0.14	W3	0.90	W100	L0.12	F1	5.1
	111	0.14	W4	0.56	W101	1.0	F2	5.1
4	NOT SAMPLED		W1	0.64	W102	2.2	NOT SAMPLED	
			W2	0.37	W103	0.21		
5	NOT SAMPLED		W9	19.	W110	1.6	NOT SAMPLED	
			W10	1.8	W111	L0.11		
6	NOT SAMPLED		NOT SAMPLED		W106	L0.15	NOT SAMPLED	
					W107	0.88		
7	NOT SAMPLED		W11	1.8	W114	1.05	NOT SAMPLED	
			W12	1.8	W115	0.71		
9	NOT SAMPLED		W13	1.4	W112	1.2	NOT SAMPLED	
			W14	1.4	W113	0.42		

Table 8c.

Chlorophyll  $a$  ( $mg\ m^{-2}$ ) from plexiglass plates collected  
August - September, 1976.

Station	August, 1976		September, 1976	
	Sample No.	Chlorophyll	Sample No.	Chlorophyll
1	P3	0.089	P104	0.89
	P4	0.12	P105	1.1
2	P5	0.036	P108	0.14
	P6	0.044	P109	0.14
3	NOT SAMPLED		P100	0.14
			P101	0.21
4	P1	0.061	P102	0.14
	P2	0.065	P103	0.18
5	NOT SAMPLED		P110	0.89
			P111	0.68
6	NOT SAMPLED		NOT SAMPLED	
7	P7	0.14	P114	0.75
	P8	1.8	P115	1.0
9	P9	0.69	P112	1.0
	P10	2.1	P113	0.32

Table 9a.

Organic biomass ( $\text{mg cm}^{-2}$  as ash-free dry weight) of periphytic algae  
from rock subsamples collected April - September, 1976.

Station	April, 1976		June, 1976		August, 1976		September, 1976	
	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight
1	102	0.1316	005	0.7368	R5	0.4474	R104	0.3509
	103	0.1579	006	7.5000	R6	0.2632	R105	0.3860
2	106	0.4474	003	51.1842	R7	12.5789	R108	1.5439
	107	1.4211	004	2.2368	R8	6.4211	R109	1.4737
3	108	0.2105	110	0.8158	R3	0.2632	R100	2.8772
	109	0.2105	111	0.2895	R4	0.8421	R101	1.3333
4	112	0.1579	008	0.7632	R1	0.3684	R102	0.0702
	113	0	009	1.4737	R2	0.4211	R103	0.2456
5	114	0.1579	001	0.1053	R9	2.8684	R110	2.8772
	115	0.1579	002	1.5789	R10	8.1579	R111	0.5614
6	116	0.3684	NOT SAMPLED		R11	13.7895	R106	0.4912
	117	0.1053			R12	1.4211	R107	0.4912
7	118	0.8421	020	4.0263	R13	1.1842	R114	1.2632
	119	1.6842	021	1.3158	R14	3.6842	R115	3.6842
9	NOT SAMPLED		022	2.0526	R15	0.9474	R112	0.5263
			023	2.7895	R16	0.2368	R133	0.2456



Table 9b.

Organic biomass ( $\text{mg cm}^{-2}$  as ash-free dry weight) of periphytic algae  
from whole rocks collected April 1976 - July, 1982.

Station	April, 1976		June, 1976		August, 1976		September, 1976		July, 1982	
	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight	Sample No.	Weight
1	104	0.0044	NOT SAMPLED		W5	0.0040	W104	0.0397	NOT SAMPLED	
	105	0.0064			W6	0.0547	W105	0.0594		
2	NOT SAMPLED		NOT SAMPLED		W7	1.0497	W108	0.4312	4A	0.891
					W8	0.2941	W109	3.7575	4B	0.248
									4C	0.332
3	110	0.0043	W1	0.1786	W3	0.0692	W100	0.3460	3A	0.100
	110	0.0069	W2	0.6341	W4	0.0331	W101	0.5181	3B	0.219
			W3	0.1911						
4	NOT SAMPLED		NOT SAMPLED		W1	0.1154	W102	0.0133	NOT SAMPLED	
					W2	0.3474	W103	0.0284		
5	NOT SAMPLED		NOT SAMPLED		W9	1.3858	W110	0.6975	NOT SAMPLED	
					W10	0.9168	W111	0.2202		
6	NOT SAMPLED		NOT SAMPLED		NOT SAMPLED		W106	0.3783	NOT SAMPLED	
							W107	0.0636		
7	NOT SAMPLED		NOT SAMPLED		W11	2.9099	W114	0.6541	NOT SAMPLED	
					W12	1.4168	W115	0.6795		
9	NOT SAMPLED		NOT SAMPLED		W13	0.1309	W112	0.0694	NOT SAMPLED	
					W14	0.1181	W113	0.0779		

Table 9c.

Organic biomass ( $\text{mg cm}^{-2}$  as ash-free dry weight) of periphytic algae from plexiglass plates collected August - September, 1976.

	August, 1976		September, 1976	
	Sample No.	Weight	Sample No.	Weight
<u>Station</u>				
1	P3	0.0187	P104	0.0693
	P4	0.0273	P105	0.0444
2	P5	0.0018	P108	0.0071
	P6	0.0020	P109	0.0178
3	NOT SAMPLED		P100	0.0249
			P101	0.0213
4	P1	0.0140	P102	0.0231
	P2	0.0133	P103	0.0196
5	NOT SAMPLED		P110	0.0693
			P111	0.0444
6	NOT SAMPLED		NOT SAMPLED	
7	P7	0.0280	P114	0.0427
	P8	0.3327	P115	0.0551
9	P9	0.0671	P112	0.0907
	P10	0.0947	P113	0.0284

Table 10

Total carbon, nitrogen, and phosphorus content of periphytic algal samples collected in the Flathead River Basin, September, 1976.

Station	Sample No.	Dominant Phyla or Class	Dominant alga(e) and Percent Abundance	Total C <sup>1</sup>	Total N <sup>2</sup>	Total P <sup>3</sup>	C:N:P Ratio
1	C-500	Bacillariophyceae Chlorophyta	<i>Cocconeis pediculus</i> 99% <i>Closterium</i> sp. 1%	201	29	1.6	127: 18:1
2	C-501	Cyanophyta Chlorophyta	<i>Nostoc verrucosum</i> 99% <i>Stigeoclonium</i> 1%	335	42	1.5	227: 28:1
2	C-502	Chlorophyta	<i>Stigeoclonium</i> sp. 100% <i>Closterium</i> sp. trace	390	26	1.1	349: 23:1
3	C-503	Chlorophyta Bacillariophyceae	<i>Mougeotia</i> sp. 65% <i>Cocconeis pediculus</i> 35%	343	24	0.4	940: 66:1
3	C-504	Chlorophyta	<i>Ulothrix zonata</i> 100%	386	20	0.8	480: 24:1
5	C-505	Chlorophyta	<i>Ulothrix zonata</i> 100%	395	27	1.1	362: 25:1
6	C-506	Chlorophyta Bacillariophyceae	<i>Marstonia</i> sp. 98% <i>Cocconeis pediculus</i> 2%	420	42	3.8	112: 11:1
7	C-507	Cyanophyta	<i>Nostoc verrucosum</i> 100%	354	34	1.4	248: 24:1
7	C-508	Chlorophyta	<i>Ulothrix zonata</i> 100%	193	17	1.6	119: 10:1
9	C-509	Chlorophyta	<i>Marstonia</i> sp. 100%	418	32	1.9	217: 17:1

1 ug C mg<sup>-1</sup> dry wt. algae  
2 ug N mg<sup>-1</sup> dry wt. algae  
3 ug P mg<sup>-1</sup> dry wt. algae

Table 11

A list of all algal species collected from the Flathead River Basin, 1976-1982, indicating whether each species was found in the periphyton or the phytoplankton.

	Periphyton	Phytoplankton
<b>Chrysophyta</b>		
<b>Bacillariophyceae</b>		
<b>Coscinodiscales:</b>		
<i>Cyclotella glomerata</i> Bachmann	+	
<i>Cyclotella</i> sp. A	+	
<i>Melosira varians</i> Agardh		+
<i>Stephanodiscus astraëa</i> var. <i>minutula</i> (Kützing) Grunow		+
<b>Eunotiales:</b>		
<i>Eunotia pectinalis</i> (O.F. Müller) Rabenhorst		+
<i>Eunotia</i> sp.	+	
<b>Fragilariales:</b>		
<i>Asterionella formosa</i> Hassall	+	
<i>Diatoma elongatum</i> Lyngbye	+	+
<i>Diatoma hiemale</i> (Lyngbye) Heiberg	+	+
1 <i>Diatoma hiemale</i> var. <i>mesodon</i> (Ehrenberg) Grunow	+	+
1 <i>Diatoma tenue</i> Agardh		+
<i>Diatoma vulgare</i> Bory	+	+
<i>Fragilaria capucina</i> Desmazieres	+	+
<i>Fragilaria construens</i> (Ehrenberg) Grunow	+	+
<i>Fragilaria construens</i> var. <i>binodis</i> (Ehrenberg) Grunow	+	+
<i>Fragilaria construens</i> var. <i>venter</i> (Ehrenberg) Grunow	+	+
<i>Fragilaria crotonensis</i> Kitton	+	+
<i>Fragilaria heidenii</i> Ostrup	+	
<i>Fragilaria leptostauron</i> (Ehrenberg) Hustedt	+	+
<i>Fragilaria pinnata</i> Ehrenberg	+	
1 <i>Fragilaria producta</i> (Langerstedt) Grunow	+	
<i>Fragilaria vaucheriae</i> (Kützing) Petersen	+	+
1 <i>Hannaea arcus</i> (Ehrenberg) Patrick	+	+
1 <i>Hannaea arcus</i> var. <i>amphioxys</i> (Rabenhorst) Patrick	+	+
<i>Meridion circulare</i> (Greville) Agardh	+	+
<i>Synedra acus</i> var. <i>radians</i> (Kützing) Hustedt	+	+
<i>Synedra ulna</i> (Nitzsch) Ehrenberg	+	+
<i>Synedra ulna</i> var. <i>impressa</i> Hustedt	+	
<i>Synedra ulna</i> var. <i>oxyrhynchus</i> (Kützing) Van Heurck	+	+
<i>Synedra ulna</i> var. <i>oxyrhynchus</i> f. <i>contracta</i> Hustedt	+	
<i>Tabellaria flocculosa</i> Roth (Kützing)	+	

Table 11 (Continued)

	Periphyton	Phytoplankton
<b>Achnanthes:</b>		
<i>Achnanthes flexella</i> (Kützing) Brun	+	
<i>Achnanthes lanceolata</i> (Brébisson) Grunow	+	+
<i>Achnanthes lemmermanni</i> Hustedt	+	
<i>Achnanthes minutissima</i> Kützing	+	+
<i>Achnanthes</i> sp. A	+	+
<i>Achnanthes</i> sp. B	+	+
<i>Achnanthes</i> sp. C	+	
<i>Cocconeis pediculus</i> Ehrenberg	+	+
<i>Cocconeis placentula</i> Ehrenberg	+	+
<i>Rhoicosphenia curvata</i> (Kützing) Grunow	+	+
<b>Naviculales:</b>		
<i>Amphipleura pellucida</i> (Kützing) Kützing	+	+
<i>Amphora ovalis</i> (Kützing) Kützing	+	+
<i>Anomoeneis exilis</i> (Kützing) Cleve	+	+
<i>Cymbella affinis</i> Kützing	+	
<i>Cymbella caespitosa</i> (Kützing) Brun	+	+
<i>Cymbella cistula</i> (Hemprich) Kirchner	+	
<i>Cymbella cymbiformis</i> Agardh	+	
<i>Cymbella gracilis</i> (Rabenhorst) Cleve	+	
<i>Cymbella prostrata</i> (Berkeley) Cleve	+	
<i>Cymbella sinuata</i> Gregory	+	+
<i>Cymbella turgida</i> Gregory	+	+
<i>Cymbella ventricosa</i> (Kützing) Kützing	+	+
<i>Cymbella</i> sp. A	+	
<i>Diploneis decipiens</i> Cleve-Euler		+
<i>Diploneis ovalis</i> (Hilse) Cleve	+	
<i>Frustulia rhomboides</i> (Ehrenberg) De Toni	+	+
<i>Frustulia rhomboides</i> var. <i>viridula</i> (Brébisson) Cleve	+	
<i>Gomphonema geminatum</i> (Lyngbye) Agardh	+	+
2 <i>Gomphonema herbridenses</i> (Gregory) Heribaud	+	
<i>Gomphonema herculeanum</i> Ehrenberg	+	+
<i>Gomphonema intricatum</i> Kützing	+	+
<i>Gomphonema lanceolatum</i> Ehrenberg	+	+
<i>Gomphonema olivaceoides</i> Hustedt	+	
<i>Gomphonema olivaceum</i> (Lyngbye) Kützing	+	+
<i>Gomphonema parvulum</i> (Kützing) Kützing	+	+
1 <i>Gomphonema parvulum</i> var. <i>genuinum</i> Mayer	+	+
<i>Gomphonema</i> sp. A	+	
<i>Gyrosigma kützingii</i> (Grunow) Cleve		+
<i>Gyrosigma spencerii</i> (Wm. Smith) Griffith & Henfrey	+	
<i>Navicula arvensis</i> Hustedt	+	+
<i>Navicula bergii</i> Cleve-Euler		+
<i>Navicula bicephala</i> Hustedt	+	+
<i>Navicula capitata</i> var. <i>hungarica</i> (Grunow) Ross	+	
<i>Navicula cryptocephala</i> Kützing	+	+

	Periphyton	Phytoplankton
<i>Navicula cuspidata</i> (Kützing) Kützing	+	
<i>Navicula festiva</i> Krasske	+	
<i>Navicula gottlandica</i> Grunow	+	
<i>Navicula minima</i> Grunow	+	
<i>Navicula muralis</i> Grunow	+	+
<i>Navicula pelliculosa</i> Hilse	+	
<i>Navicula pupula</i> Kützing	+	+
<i>Navicula radiosa</i> Kützing	+	+
<i>Navicula reinhardii</i> (Grunow) Grunow	+	
<i>Navicula salinarum</i> var. <i>intermedia</i> (Grunow) Cleve	+	+
<i>Navicula tripunctata</i> (O.F. Müller) Bory	+	+
<i>Navicula viridula</i> (Kützing) Ehrenberg	+	
<i>Navicula</i> sp. A	+	+
<i>Navicula</i> sp. B	+	+
<i>Navicula</i> sp. C	+	+
<i>Navicula</i> sp. X		+
<i>Neidium affine</i> (Ehrenberg) Pfitzer		+
<i>Neidium binode</i> (Ehrenberg) Hustedt	+	
<i>Neidium dubium</i> (Ehrenberg) Cleve	+	
<i>Neidium incurvum</i> (Gregory) Ostrup		+
<i>Neidium</i> sp.	+	
<i>Pinnularia subrostrata</i> (A. Cleve) Cleve-Euler		+
<i>Stauroneis anceps</i> Ehrenberg	+	
<i>Stauroneis phoenicenteron</i> (Nitzsch) Ehrenberg	+	
Surirellines:		
<i>Cymatopleura solea</i> (Brébisson) Wm. Smith	+	+
<i>Denticula elegans</i> Kützing	+	
<i>Epithemia sorex</i> Kützing	+	+
<i>Epithemia turgida</i> (Ehrenberg) Kützing	+	+
<i>Nitzschia acicularis</i> Wm. Smith	+	+
<i>Nitzschia actinastroides</i> (Lemmermann) van Goor	+	
<i>Nitzschia amphibia</i> Grunow	+	
<i>Nitzschia angustata</i> (Wm. Smith) Grunow	+	
<i>Nitzschia dissipata</i> (Kützing) Grunow	+	+
<i>Nitzschia frustulum</i> (Kützing) Grunow	+	+
<i>Nitzschia linearis</i> Wm. Smith	+	+
<i>Nitzschia palea</i> (Kützing) Wm. Smith	+	+
<i>Rhopalodia gibba</i> (Ehrenberg) O.F. Müller	+	
<i>Surirella angustata</i> Kützing	+	+
<i>Surirella biseriata</i> Brébisson	+	
<i>Surirella ovata</i> Kützing	+	

	Periphyton	Phytoplankton
<b>Chrysophyceae</b>		
<i>Hydrurus foetidus</i> (Villars) Trevisan	+	
Chrysosaccales-like		+
<b>Xanthophyta</b>		
<i>Tribonema</i> sp.	+	
Unidentified Vaucheriales		+
<b>Chlorophyta</b>		
cf. <i>Chlamydomonas</i> sp.		+
<i>Closterium</i> sp.	+	
<i>Microspora</i> sp.	+	
<i>Monostroma</i> sp.	+	
<i>Mougeotia</i> sp.	+	+
<i>Spirogyra</i> sp.	+	
<i>Stigeoclonium</i> sp.	+	
<i>Tetraspora</i> sp.	+	
<i>Ulothrix zonata</i> (Ugger & Mohr) Kützing	+	+
<i>Ulothrix</i> sp. A		+
<i>Ulothrix</i> sp. B		+
<i>Ulothrix</i> sp.	+	
Unidentified filamentous	+	
<b>Cyanophyta</b>		
<i>Lyngbya</i> sp.	+	
<i>Microcystis</i> sp.	+	
<i>Nostoc verrucosum</i> Vaucher	+	
<i>Nostoc</i> sp.		+
<i>Oscillatoria</i> sp.	+	+
<i>Raphidiopsis</i> -like	+	
<i>Rivularia</i> sp.	+	
<i>Tolypothrix</i> sp.	+	
Unidentified species	+	
Unidentified Chroococcales species	+	
<b>Cryptophyta</b>		
<i>Cryptomonas</i> sp.		+

Table 11 (Continued)

- 1 Although Sheehan et al. (1980) state that they have used the classification system of Van Landingham (1967-1971) for diatoms of genera beginning with A-M, some exceptions were made. These species names and the equivalents suggested by Van Landingham are:

*Diatoma hiemale* var. *mesodon* = *Diatoma hiemale* var. *quadratum*  
(Kützing) Ross

*Diatoma tenue* = *Diatoma elongatum* var. *tenuis* (Agardh) Van Heurck

*Fragilaria producta* = *Fragilaria virescens* Ralfs

*Hannaea arcus* = *Ceratoneis arcus* (Ehrenberg) Kützing

*Hannaea arcus* var. *amphioxys* = *Ceratoneis arcus* var. *amphioxys*  
(Rabenhorst) Brun

*Cymbella gracilis* = *Cymbella rabenhorstii* Ross

*Gomphonema parvulum* var. *genuinum* (spelled *genuina* by  
Van Landingham) = *Gomphonema parvulum* (Kützing) Kützing

- 2 Van Landingham does not consider *Gomphonema herbridenses* (which he spells *hebridense*) a valid species, but he gives no distinct equivalent.



Table 12a.  
Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on April 10-12, 1976.

Station 1	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Rock Number	102 103	106 107	108 109	112 113	114 115	116 117	118 119
Species							
Chrysophyta							
Bacillariophyceae	100	100	100	100	100	100	100
Chrysophyceae							
<i>Hydrurus foetidus</i>	0	0	0	0	0	0	0
Xanthophyta							
<i>Tribonema</i> sp.	0	0	0	0	0	0	0
Chlorophyta							
<i>Closterium</i> sp.	0	0	0	0	0	0	0
<i>Microspora</i> sp.	0	0	0	0	0	0	0
<i>Morostroma</i> sp.	0	0	0	0	0	0	0
<i>Mougeotia</i> sp.	0	0	0	0	0	0	0
<i>Spirogyra</i> sp.	0	0	0	0	0	0	0
<i>Stigeoclonium</i> sp.	0	0	0	0	0	0	0
<i>Tetraspora</i> sp.	0	0	0	0	0	0	0
<i>Ulothrix</i> sp.	0	0	0	0	0	0	0
<i>Ulothrix zonata</i>	0	0	0	0	0	0	5
Unidentified species	0	0.1	0	0	0	0	0
Cyanophyta							
<i>Lyngbya</i> sp.	0	0	0	0	0	0	0
<i>Microcystis</i> sp.	0	0	0	0	0	0	0
<i>Nostoc verrucosum</i>	0	99	0	0	0	0	85
<i>Oscillatoria</i> sp.	0	0	0	0	0	0	0
Raphidiopsis-like	0	0	0	0	0	0	0
<i>Rivularia</i> sp.	0	0	0	0	0	0	0
<i>Tolypothrix</i> sp.	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0
Unidentified Chroococcales species	0	0	0	0	0	0	0

Table 12b.

Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on June 14-15, 1976.

Station 1	Station 1 005 006	Station 2 003 004	Station 3 110 111	Station 4 008 009	Station 5 001 002	Station 7 020 021	Station 9 022 023											
Rock Number	5	10	20	29	70	75	85	95	98	99	00	01	02	03	04	05	06	
Species																		
Chrysophyta																		
Bacillariophyceae																		
Chrysophyceae																		
<i>Hydrurus foetidus</i>																		
Xanthophyta																		
<i>Tribonema</i> sp.																		
Chlorophyta																		
<i>Chlosterium</i> sp.																		
<i>Microspora</i> sp.																		
<i>Morpstroma</i> sp.																		
<i>Mougeotia</i> sp.																		
<i>Spirogyra</i> sp.																		
<i>Stigeoclonium</i> sp.																		
<i>Tetraspora</i> sp.																		
<i>Ulothrix</i> sp.																		
<i>Ulothrix zonata</i>																		
Unidentified species																		
Cyanophyta																		
<i>Lyngbya</i> sp.																		
<i>Microcystis</i> sp.																		
<i>Nostoc verrucosum</i>																		
<i>Oscillatoria</i> sp.																		
<i>Raphidiopsis</i> -like																		
<i>Rivularia</i> sp.																		
<i>Tolypothrix</i> sp.																		
Unidentified species																		
Unidentified Chroococcales species																		

Table 12c.

Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on August 4-5, 1976.

Station 1	Station 1 R5 R6	Station 2 R7 R8	Station 3 R3 R4	Station 4 R1 R2	Station 5 R9 R10	Station 6 R11 R12	Station 7 R13 R14	Station 9 R15 R16
Rock Number	40 25	40 20	25 10	10 5	27 3	0.5 trace	10 54	95 30
Chrysophyta								
Bacillariophyceae	40	25	40	20	0	0	0	0
Chrysophyceae	0	0	0	0	0	0	0	0
<i>Hydrurus foetidus</i>	0	0	0	0	0	0	0	0
Xanthophyta	0	0	0	0	0	0	0	0
<i>Tribonema sp.</i>	0	0	0	0	0	0	0	0
Chlorophyta			75		70			trace
<i>Glosterium sp.</i>	0	0	0	0	0	0	0	0
<i>Microspora sp.</i>	0	0	0	0	0	0	0	0
<i>Morostroma sp.</i>	0	0	0	0	0	99	0	0
<i>Mougeotia sp.</i>	0	0	0	0	0	0	0	0
<i>Spirogyra sp.</i>	0	0	0	0	0	0	0	0
<i>Stigeoclonium sp.</i>	0	7.5	#2*	0.8	#1*	0.9	#2*	0
<i>Tetraspora sp.</i>	0	0	0	0	0	0	0	0
<i>Ulothrix sp.</i>	0	0	0	0	0	0	0	0
<i>Ulothrix zonata</i>	60	67.5	57	79.2	#2*	89.1	91.2	0
Unidentified species	0	0	0	0	0	0	0	0
Cyanophyta								
<i>Lyngbya sp.</i>	0	0	0	0	0	0	0	0
<i>Microcystis sp.</i>	0	0	0	0	0	0	0	0
<i>Nostoc verrucosum</i>	0	0	0	0	0	0	0	0
<i>Oscillatoria sp.</i>	0	0	0	0	0	99	0	0
<i>Raphidiopsis</i> -like	0	0	0	0	0	0.5	2	0
<i>Rivularia sp.</i>	0	0	0	0	0	0	0	0
<i>Tolythrix sp.</i>	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0
Unidentified Chroococcales species	0	0	0	0	0	0	0	0

+ species present

\* abundance rank

Table 12d.

Percent composition (by volume) of non-diatom periphyton from rock subsamples collected on September 11-12, 1976.

Species	Station 1 R104 R105	Station 2 R108 R109	Station 3 R100 R101	Station 4 R102 R103	Station 5 R110 R111	Station 6 R106 R107	Station 7 R114 R115	Station 9 R112 R113
Rock Number	5 30	5 1	5 10	30 15	20 15	5 10	25 20	70 35
Chrysophyta								
Bacillariophyceae	18	0	0	0	0	0	0	0
Chrysophyceae	0	0	0	0	0	0	0	0
<i>Hydrurus foetidus</i>	0	0	0	0	0	0	0	0
Xanthophyta								
<i>Tribonema</i> sp.	0	0	0	0	0	0	0	0
Chlorophyta					85	80		
<i>Glosterium</i> sp.	0	0.7	0	0	0	0	0	0
<i>Microspora</i> sp.	0	0	0	0	0	0	0	0
<i>Morstruma</i> sp.	0	0	0	0	0	0	0	0
<i>Mougeotia</i> sp.	0	0	0	0	0	0	0	0
<i>Spirogyra</i> sp.	0	0	0	0	0	0	0	0
<i>Stigeoclonium</i> sp.	75	69.3	0	0	0	0	5	40
<i>Tetraspora</i> sp.	0	0	0	0	0	0	0	0
<i>Ulothrix</i> sp.	0	0	0	0	0	0	0	0
<i>Ulothrix zonata</i>	5	0	93	88.6	70	85	0	40
Unidentified species	0	0	0	0	0	0	0	0
Cyanophyta								
<i>Lyngbya</i> sp.	0	0	0	0	0	0	0	0
<i>Microcystis</i> sp.	0	0	0	0	0	0	0	0
<i>Nostoc verrucosum</i>	0	95	40	0	0	95	69.3	30
<i>Oscillatoria</i> sp.	2	0	0	0	0	0	0	0
<i>Raphidiopsis</i> -like	0	0	0	0	0	0	0	0
<i>Rivularia</i> sp.	0	0	0	0	0	0	0	0
<i>Tolypothrix</i> sp.	0	0	1	0	0	0	0.7	0
Unidentified species	0	0	0	0	0	0	0	0
Unidentified Chroococcales species	0	0	0	0	0	0	0	0

+ species present

Table 13a.  
Percent composition (by volume) of non-diatom periphyton  
from whole rocks collected on April 11-12, 1976.

Species	Station 1 Rock Number	Station 1 R104 R105	Station 3 R110 R111
Chrysophyta			
Bacillariophyceae	100	100	100
Chrysophyceae			
<i>Hydrurus foetidus</i>	0	0	0
Xanthophyta			
<i>Tribonema sp.</i>	0	0	0
Chlorophyta			
<i>Closterium sp.</i>	0	0	0
<i>Microspora sp.</i>	0	0	0
<i>Monostroma sp.</i>	0	0	0
<i>Mougeotia sp.</i>	0	0	0
<i>Spirogyra sp.</i>	0	0	0
<i>Stigeoclonium sp.</i>	0	0	0
<i>Tetraspora sp.</i>	0	0	0
<i>Ulothrix sp.</i>	0	0	0
<i>Ulothrix zonata</i>	0	0	0
Unidentified species	0	0	0
Cyanophyta			
<i>Lyngbya sp.</i>	0	0	0
<i>Microcystis sp.</i>	0	0	0
<i>Nostoc verrucosum</i>	0	0	0
<i>Oscillatoria sp.</i>	0	0	0
Raphidiopsis-like	0	0	0
<i>Rivularia sp.</i>	0	0	0
<i>Tolythrix sp.</i>	0	0	0
Unidentified species	0	0	0
Unidentified Chroococcales species	0	0	0

Table 13b.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on August 4-5, 1976.

Species	Station 1 W5	Station 1 W6	Station 2 W7	Station 2 W8	Station 3 W3	Station 3 W4	Station 4 W1	Station 4 W2	Station 5 W9	Station 5 W10	Station 7 W11	Station 7 W12	Station 9 W13	Station 9 W14
Rock Number	90	15	40	35	25	25	10	40	10	19	20	9	75	15
Chrysophyta														
Bacillariophyceae	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophyceae														
<i>Hydrurus foetidus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta														
<i>Tribarena</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta														
<i>Closterium</i> sp.	0	0	6	+	0	0	0	+	0	+	5	0	0	0
<i>Microspora</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Morostroma</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Mougeotia</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Spirogyra</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Stigeoclonium</i> sp.	0.1	42.5	27	58.5	0.7	66.5	40	+	0.9	+	+	15	5	5
<i>Tetraspora</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Ulothrix</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Ulothrix zonata</i>	4.9	42.5	27	+	69.3	3.5	0	28.5	89.1	56	0	75	15	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta														
<i>Lyngbya</i> sp.	0	0	0	0	0	0	0	0	0	1	0	0	0	0
<i>Microcystis</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Nostoc verrucosum</i>	0	0	0	0	0	5	0	0	0	0	74.2	0	5	80
<i>Oscillatoria</i> sp.	0	0	0	0	5	0	50	30	0	0	0	1	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Rivularia</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Tolypothrix</i> sp.	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified Chroococcales species	5	0	0	0	0	0	0	0	0	0	0	0	0	0

+ species present

Table 13c.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on September 11-12, 1976.

Species	Station 1 W104	Station 1 W105	Station 2 W108	Station 2 W109	Station 3 W100	Station 3 W101	Station 4 W102	Station 4 W103	Station 5 W110	Station 5 W111	Station 6 W106	Station 6 W107	Station 7 W114	Station 7 W115	Station 9 W112	Station 9 W113
	15	30	20	20	5	5	10	98	30	20	20	30	4.5	10	20	30
Rock Number																
<b>Chrysophyta</b>																
Bacillariophyceae																
Chrysophyceae																
<i>Hydrurus foetidus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Xanthophyta</b>																
<i>Tribonema</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Chlorophyta</b>																
<i>Closterium</i> sp.	70	+	+	1.6	+	0	0	0	21	+	0	0	0.25	3	0	0
<i>Microspora</i> sp.	trace	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Morostroma</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Mougeotia</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Spirogyra</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Stigeoclonium</i> sp.	80	+	57	0	+	4.2	0	0	0	+	60	0	0.25	21	5	10
<i>Tetraspora</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Ulothrix</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Ulothrix zonata</i>	5	0	+	77.4	4	80.8	85	2	49	40	0	30	54	36	5	20
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Cyanophyta</b>																
<i>Lyngbya</i> sp.	0	0	20	0	0	0	0	0	0	30	20	40	0	0	0	40
<i>Microcystis</i> sp.	0	0	0	0	0	0	5	0	0	0	+	+	0	0	0	0
<i>Nostoc verrucosum</i>	0	0	+	0	0	0	0	0	0	+	+	+	41	30	63	+
<i>Oscillatoria</i> sp.	0	0	0	0	0	0	0	0	0	+	+	+	0	0	+	+
<i>Raphidiopsis</i> -like	0	0	+	1	0	0	0	0	0	+	0	0	0	0	+	0
<i>Rivularia</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Tolythrix</i> sp.	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified Chroococcales species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

+ species present

Table 13d.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on August 26, 1980.

Species	Station 1	Rock Number	Station 3 F1 F2
Chrysophyta			
Bacillariophyceae		70	40
Chrysohyceae			
<i>Hydrurus foetidus</i>		0	0
Xanthophyta			
<i>Triborena</i> sp.		0	0
Chlorophyta			
<i>Closterium</i> sp.		10	0
<i>Microspora</i> sp.		+	50
<i>Monostroma</i> sp.		0	0
<i>Mougeotia</i> sp.		0	0
<i>Spirogyra</i> sp.		0	0
<i>Stigeoclonium</i> sp.		+	0
<i>Tetraspora</i> sp.		0	0
<i>Ulothrix</i> sp.		0	0
<i>Ulothrix zonata</i>		0	0
Unidentified species		0	0
Cyanophyta			
<i>Lyngbya</i> sp.		0	0
<i>Microcystis</i> sp.		0	0
<i>Nostoc verrucosum</i>		20	10
<i>Oscillatoria</i> sp.		0	0
<i>Raphidiopsis</i> -like		0	0
<i>Rivularia</i> sp.		0	0
<i>Tolythrix</i> sp.		0	0
Unidentified species		0	0
Unidentified Chroococcales species		0	0

+ species present



Table 13e.

Percent composition (by volume) of non-diatom periphyton from whole rocks collected on July 28, 1982.

Species	Station 1		Station 2		Station 3				
	Rock Number	4A	4B	4C	4D <sup>1</sup>	3A	3B	3C	3D <sup>1</sup>
Chrysophyta									
Bacillariophyceae		35.1	25.5	8.3	8.3	62	54	43.5	47.3
Chrysophyceae		0	0	0	0	0	0	0	0
<i>Hydrurus foetidus</i>									
Xanthophyta		0	0	0	0	0	0	0	0
<i>Tribarema sp.</i>									
Chlorophyta		0	0	0	0	0	0	0	0
<i>Closterium sp.</i>									
<i>Microspora sp.</i>									
<i>Monostroma sp.</i>									
<i>Mougeotia sp.</i>									
<i>Spirogyra sp.</i>									
<i>Stigeoclonium sp.</i>								6	0
<i>Tetraspora sp.</i>								0	0
<i>Ulothrix sp.</i>		24	24.5	30	0.7	31	46	50	12.7
<i>Ulothrix zonata</i>		40	50	60	0	0	0	0	40
Unidentified species		0	0	0	0	0	0	0	0
Cyanophyta									
<i>Lyngbya sp.</i>		0	0	0	0	0	0	0	0
<i>Microcystis sp.</i>		0	0	0	0	0	0	0	0
<i>Nostoc verrucosum</i>		0	0	0	90	0	0	0.5	0
<i>Oscillatoria sp.</i>		0.9	trace	1.7	1	7	0	0	0
<i>Raphidiopsis</i> -like		0	0	0	0	0	0	0	0
<i>Rivularia sp.</i>		0	0	0	0	0	0	0	0
<i>Tolypothrix sp.</i>		0	0	0	0	0	0	0	0
Unidentified species		0	0	0	0	0	0	0	0
Unidentified Chroococcales species		0	0	0	0	0	0	0	0

<sup>1</sup> qualitative sample only.

Table 14a.

Percent composition (by volume) of non-diatom periphyton from plexiglass plates collected on August 4-5, 1976.

Species	Station 1 P3	Station 1 P4	Station 2 P5	Station 2 P6	Station 4 P1	Station 4 P2	Station 7 P7	Station 7 P8	Station 9 P9	Station 9 P10
Rock Number	74	84	73	89	89	90	60	5	85	78
Chrysophyta										
Bacillariophyceae										
Chrysophyceae										
<i>Hydrurus foetidus</i>	0	0	0	0	0	0	0	0	10	20
Xanthophyta										
<i>Tribarema</i> sp.	0	0	0	0	0	0	0	0	0	0
Chlorophyta										
<i>Closterium</i> sp.	25		25	10	10	9	40	95	5	0
<i>Microspora</i> sp.	0	0	0	0	+	+	0	0	0	0
<i>Morostrota</i> sp.	0	0	0	0	+	0	0	0	0	0
<i>Mougeotia</i> sp.	0	0	0	0	0	0	0	0	0	0
<i>Spirogyra</i> sp.	0	0	0	0	0	0	+	0	0	0
<i>Stigeoclonium</i> sp.	+	15	#2*	+	0	0	+	+	+	0
<i>Tetraspora</i> sp.	0	0	0	0	0	0	0	0	+	0
<i>Ulothrix</i> sp.	+	0	0	0	0	0	0	+	0	0
<i>Ulothrix zonata</i>	0	0	#1*	+	0	+	+	+	0	2
Unidentified species	0	0	0	0	0	0	0	0	0	0
Cyanophyta										
<i>Lyngbya</i> sp.	1			1						
<i>Microcystis</i> sp.	0	0	0	0	0	0	0	0	0	0
<i>Nostoc verrucosum</i>	0	0	0	0	0	0	0	0	0	0
<i>Oscillatoria</i> sp.	0	1	2	0	1	1	0	0	0	0
Raphidiopsis-like	0	0	0	0	0	0	0	0	0	0
<i>Rivularia</i> sp.	0	0	0	0	0	0	0	0	0	0
<i>Tolythrix</i> sp.	0	0	0	0	0	0	0	0	0	0
Unidentified species	0	0	0	0	0	0	0	0	0	0
Unidentified Chroococcales species	0	0	0	0	0	0	0	0	0	0

+ species present

\* abundance rank

Table 14b.

Percent composition (by volume) of non-diatom periphyton from plexiglass plates collected on September 11-12, 1976.

Station 1	Station 1 P104 P105	Station 2 P108 P109	Station 3 P100 P101	Station 4 P102 P103	Station 5 P110 P111	Station 7 P114 P115	Station 9 P112 P113
Rock Number	85 92	60 85	96 95	96 95	60 95	85 75	70 95
Species							
Chrysophyta							
Bacillariophyceae	85	60	96	96	60	85	70
Chrysophyceae	0	0	0	0	0	0	0
<i>Hydrurus foetidus</i>						5	10
Xanthophyta							
<i>Tribonema</i> sp.	0	0	0	0	10	0	0
Chlorophyta	15	10			20	15	3
<i>Chlosterium</i> sp.	+	+	0	0	+	+	+
<i>Microspora</i> sp.	0	0	0	0	0	0	+
<i>Morostrota</i> sp.	0	0	0	0	0	0	0
<i>Mougeotia</i> sp.	0	0	0	0	0	0	0
<i>Spirogyra</i> sp.	0	+	0	0	0	+	0
<i>Stigeoclonium</i> sp.	+	+	3	5	+	+	+
<i>Tetraspora</i> sp.	0	0	0	0	0	0	0
<i>Ulothrix</i> sp.	0	0	0	0	0	0	0
<i>Ulothrix zonata</i>	+	0	0	0	+	+	0
Unidentified species	0	+	0	0	0	0	0
Cyanophyta							
<i>Lyngbya</i> sp.	0	5	0	0	10	5	0
<i>Microcystis</i> sp.	0	0	0	0	0	0	0
<i>Nostoc verrucosum</i>	0	+	1	0	0	0	0
<i>Oscillatoria</i> sp.	0	0	0	0	0	0	2
Raphidiopsis-like	0	0	0	0	0	+	0
<i>Rivularia</i> sp.	0	0	0	0	0	0	0
<i>Tolypothrix</i> sp.	0	0	0	0	0	0	0
Unidentified species	0	+	0	0	0	+	0
Unidentified Chroococcales species	0	0	0	0	0	0	0

+ species present

Table 15a.

Periphytic diatom densities (cells cm<sup>-2</sup>) from replicate rock subsamples collected from seven sites on April 10-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R102	R103	R106	R107	R108	R109	R112	R113	R114	R115	R116	R117	R118	R119
Bacillariophyceae Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coccolodiscales:														
<i>Cyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariiales:														
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	0	23,958	0	0	0	0	0	0	23,958	0	0	0	71,873
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>binodis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>verter</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	23,958	23,958
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	0	0	0	0	0	0	0	0	23,958	0	0	0	0	0
<i>Hantzschia arcus</i>	0	0	155,726	0	0	0	0	0	71,873	47,916	23,958	0	167,705	47,916
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	71,873	0	0	0	0	0	0	0	0	0	0	0
<i>Meridion circulare</i>	0	0	0	0	0	0	0	0	0	23,958	0	0	215,620	143,747
<i>Synedra ulna</i>	0	0	0	0	0	0	0	11,979	0	0	0	0	59,894	0
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	119,789	0	0	0	0	0
Achnanthes:														
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. lanceolata</i>	0	0	23,958	0	0	0	0	0	119,789	23,958	0	0	11,979	23,958
<i>A. lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R 102	R 103	R 106	R 107	R 108	R 109	R 112	R 113	R 114	R 115	R 116	R 117	R 118	R 119
<i>A. minutissima</i>	215,620	23,958	59,894	0	0	0	0	0	107,810	35,937	23,958	0	287,494	83,852
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. placenticula</i>	0	0	0	0	11,979	0	0	0	0	11,979	47,916	0	23,958	95,831
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
<i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	0	23,958	0
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cymbella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. caespitosa</i>	0	0	47,916	0	0	23,958	0	0	191,662	0	23,958	0	191,662	742,692
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	71,873	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. ventricosa</i>	0	0	0	0	59,894	0	0	0	71,873	23,958	23,958	0	95,832	47,916
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15a. (Cont. Inued)

Species	Station 1			Station 2			Station 3			Station 4			Station 5			Station 6			Station 7		
	R 102	R 103	R 106	R 107	R 108	R 109	R 112	R 113	R 114	R 115	R 116	R 117	R 118	R 119	R 116	R 117	R 118	R 119			
<i>G. herbridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>G. herculeanum</i>	0	0	0	0	0	0	0	0	119,789	0	0	0	0	0	0	0	47,916	23,958	0		
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>G. lanceolatum</i>	23,958	0	0	0	0	0	0	0	0	0	143,747	0	0	0	0	0	0	0	0		
<i>G. olivaceum</i>	299,472	0	251,557	23,958	143,747	47,916	47,916	47,916	155,726	143,747	515,093	35,937	431,240	155,726	0	0	0	0	0		
<i>G. parvulum</i>	0	0	0	0	0	0	0	0	0	0	71,873	0	0	191,662	0	0	0	0	0		
<i>G. parvulum</i> var. <i>genulinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>Comptonema</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>Gyrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>Navicula bicephala</i>	0	0	0	0	0	0	47,916	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. cryptocephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,958		
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. muralis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. reinhardtii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. salinarum</i> var. <i>intemedia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>N. truncata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,958	0	0		
<i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<i>Navicula</i> sp. B	11,979	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		



Table 15b.

Periphytic diatom concentrations (cells cm<sup>-2</sup>) from replicate rock subsamples collected from seven sites on June 14-15, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
Bacillariophyceae Species	0	0	0	0	0	0	0	0	0	47,916	0	0	39,930	0
Coscinodiscales:														
<i>Cyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	47,916	0	0	0	0
Fragilariales:														
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	47,916	0	0	0	0
<i>Diatoma hiemale</i>	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0
<i>D. hiemale</i> var. <i>mesocoon</i>	0	0	0	0	0	0	0	0	0	0	0	0	199,648	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	29,947	39,930	0	0	39,930
<i>Fragilaria capucina</i>	0	239,578	0	0	0	0	0	0	0	191,662	598,944	0	878,451	559,014
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>binodis</i>	0	0	718,733	0	0	0	0	0	0	95,831	0	0	0	0
<i>F. construens</i> var. <i>vetter</i>	0	0	479,156	0	0	0	0	0	0	0	0	59,894	0	0
<i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	0	0	0	0	0	0	0	0	0	143,747	0	0	0	0
<i>Hantzschia arcus</i>	342,254	1,078,101	479,156	431,240	581,832	0	766,650	359,367	311,451	646,861	1,197,888	1,317,677	6,428,666	4,831,482
<i>H. arcus</i> var. <i>amphioxys</i>	205,352	1,078,101	4,312,400	0	290,916	35,937	143,747	0	0	1,078,101	1,167,941	379,331	1,078,099	479,155
<i>Meridion circulare</i>	0	239,578	1,437,467	383,325	0	0	0	0	0	0	149,736	79,859	0	0
<i>Synedra ulna</i>	0	119,789	239,578	47,916	0	11,979	0	0	0	95,831	119,789	0	0	159,718
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes:														
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. lanceolata</i>	0	0	0	0	0	23,958	0	0	0	0	0	19,965	39,930	0
<i>A. lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Table 15b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
<i>A. minutissima</i>	0	119,789	0	431,240	68,451	0	263,536	3,174,408	0	0	239,578	0	79,859	39,930
<i>Achnanthes</i> sp. A	0	0	239,578	71,873	0	0	0	0	0	0	29,947	0	0	39,930
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. placentula</i>	0	0	0	0	0	11,979	23,958	0	0	71,873	0	0	0	0
<i>Rhizosolenia curvata</i>	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0
Naviculales:														
<i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Oymbella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. caespitosa</i>	0	119,789	718,733	47,916	47,916	47,916	47,916	359,367	0	0	239,578	79,859	239,578	159,718
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	215,620	0	0	0	0	0	0	0	0	0	0
<i>C. ventricosa</i>	0	119,789	2,036,411	479,156	0	0	47,916	0	23,958	0	0	39,930	0	0
<i>Oymbella</i> sp. A	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	39,930	0	0

Table 15b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
<i>G. herbricienses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. lanceolatum</i>	0	0	0	0	68,451	0	598,945	2,216,096	0	0	0	259,542	0	159,718
<i>G. olivaceum</i>	34,225	1,377,574	3,473,878	1,437,468	650,283	35,937	3,857,206	6,588,395	59,894	694,776	449,208	99,824	319,437	519,085
<i>G. parvulum</i>	0	0	1,796,834	622,903	17,113	0	71,873	179,684	491,135	0	0	0	0	0
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	239,578	0	0	0	0
<i>Comptonera</i> sp. A	0	119,789	0	0	0	0	0	0	0	95,831	0	0	0	0
<i>Gyrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	23,958	0	0	0	0	0	0	59,894	0	0	0
<i>N. cryptocephala</i>	0	119,789	0	119,789	0	0	0	0	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	419,262	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	598,944	191,662	0	0	0	0	0	0	0	0	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. reinhardii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	0	119,789	0	0	47,916	0	0	0	0	0	0	0	0
<i>N. tripunctata</i>	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. B	0	0	0	0	102,676	0	47,916	0	0	0	0	0	39,930	0



Table 15c.

Periphytic diatom concentrations (cells cm<sup>-2</sup>) from replicate rock subsamples collected from seven sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
Bacillariophyceae Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coccolodisciales:																
<i>Cyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariiales:																
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	0	718,734	479,156	0	0	0	0	359,366	79,859	0	0	0	239,578	0	23,958
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	23,958	0	0	79,859	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>biridis</i>	0	0	0	359,367	0	0	0	0	0	239,578	0	0	0	0	0	0
<i>F. construens</i> var. <i>vetter</i>	0	23,958	0	119,789	0	0	0	0	0	0	0	0	0	239,578	0	0
<i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	159,718	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	0	0	0	718,734	0	0	0	23,958	79,859	319,437	23,958	0	0	79,859	0	0
<i>Hantzaea arcus</i>	11,979	23,958	2,994,725	2,695,252	0	35,937	11,979	0	519,085	918,381	47,916	23,958	0	1,477,395	311,451	407,283
<i>H. arcus</i> var. <i>anghiowys</i>	0	0	239,578	0	0	0	0	0	0	0	0	0	0	79,859	0	0
<i>Meridion circulare</i>	0	0	59,894	299,472	0	0	0	0	39,930	0	0	0	0	79,859	11,979	0
<i>Synedra ulna</i>	0	23,958	2,455,674	3,294,198	0	0	0	0	119,789	279,507	11,979	0	47,916	798,592	23,958	0
<i>S. ulna</i> var. <i>impresca</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	159,718	0	0	0	0	0	0	0
Achnanthes:																
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	79,859	0	0
<i>A. lanceolata</i>	0	0	119,789	59,894	0	0	0	0	1,237,818	1,517,325	0	23,958	0	159,718	0	0
<i>A. lemmeermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
<i>A. minutissima</i>	0	0	539,050	778,628	59,894	0	47,916	23,958	1,157,958	1,996,480	47,916	0	0	479,155	0	0
<i>Acinanthos</i> sp. A	0	0	239,578	0	0	0	0	0	0	79,859	0	0	0	0	0	0
<i>Acinanthos</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Acinanthos</i> sp. C	0	0	0	0	0	0	0	0	0	79,859	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	79,859	0	0	0	0	0	0	0
<i>C. placentula</i>	0	11,979	479,156	359,367	0	11,979	0	0	359,366	1,018,206	47,916	11,979	159,718	23,958	0	0
<i>Rhoicosphenia curvata</i>	0	0	0	239,578	0	0	0	0	79,859	0	0	0	0	0	0	0
Naviculales:																
<i>Amphipleura pellucida</i>	0	0	179,684	0	0	11,979	0	0	39,930	0	0	0	0	0	0	0
<i>Amphora ovalis</i>	0	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cymbella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23,958	0
<i>C. caespitosa</i>	11,979	47,916	1,078,101	1,137,996	0	179,684	0	0	519,085	1,078,099	0	0	23,958	758,662	23,958	23,958
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	119,789	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	79,859	79,859	0	0	0	0	0	0
<i>C. ventricosa</i>	0	0	359,367	1,018,206	0	47,916	0	0	159,718	399,296	167,705	47,916	0	559,014	23,958	0
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	79,859	0	0
<i>Frustulia rhomboidea</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Comphonema geminatum</i>	0	0	0	0	0	0	0	11,979	119,789	239,578	0	0	0	0	0	35,937

Table 15c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
<i>G. herbridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	0	0	0	0	0	0	159,718	159,718	0	0	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. olivaceum</i>	35,937	71,873	539,050	0	0	119,789	0	11,979	159,718	878,451	83,852	0	0	159,718	0	0
<i>G. parvulum</i>	0	0	1,018,206	1,617,152	23,958	47,916	23,958	0	1,716,973	2,315,917	0	0	23,958	958,310	143,747	23,958
<i>G. parvulum</i> var. <i>genubium</i>	0	0	0	239,578	0	0	0	0	0	0	0	0	0	0	0	0
<i>Comphrenema</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cyrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula biocephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. cryptocephala</i>	0	0	119,789	0	0	0	0	0	0	0	11,979	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. gottlarica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	59,894	0	0	0	0	0	79,859	119,789	0	0	0	39,930	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. reinhardii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	0	179,684	239,578	0	0	0	0	439,226	79,859	0	0	0	159,718	0	0
<i>N. tripunctata</i>	0	0	0	119,789	0	0	0	0	0	0	47,916	0	0	0	23,958	0
<i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	199,648	0	0	0	0	39,930	0	0



Table 15d.

Periphytic diatom concentrations (cells cm<sup>-2</sup>) from replicate rock subsamples collected from seven sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113
Bacillariophyceae Species	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Coscinodiscales:																
<i>Ocyropsella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariiales:																
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Liatona hiemale</i>	0	23,958	15,972	47,916	0	31,944	0	0	31,944	0	0	0	19,965	0	0	0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	7,986	0	0	0	0	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	63,888	0	0	0	0	0	0	79,859	425,915	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>binodis</i>	0	0	0	0	0	31,944	0	0	31,944	0	0	0	0	53,239	0	0
<i>F. construens</i> var. <i>vertex</i>	0	55,901	0	0	0	0	0	0	0	0	0	0	359,366	0	0	0
<i>F. leptostauron</i>	0	0	0	31,944	0	0	0	0	0	0	0	0	39,930	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	15,972	0	0	31,944	0	31,944	0	63,888	0	0	0	0	39,930	53,239	0	0
<i>Hamaea arcus</i>	15,972	31,944	0	303,466	15,972	63,888	0	0	95,831	0	0	15,972	139,754	346,056	55,901	0
<i>H. arcus</i> var. <i>amblyoxys</i>	0	0	0	0	0	0	0	0	0	63,887	0	0	0	159,718	0	0
<i>Meridion circulare</i>	0	0	0	0	0	0	0	0	63,888	0	0	0	119,789	53,239	0	0
<i>Synedra ulna</i>	15,972	79,859	15,972	463,185	0	31,944	0	0	303,466	231,591	0	0	0	53,239	31,944	0
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	7,966	0	0	0	0	0	39,930	106,479	0	0
Achnanthes:																
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. lanceolata</i>	47,915	0	15,972	143,747	31,944	0	0	0	319,438	15,972	15,972	15,972	0	266,197	0	0
<i>A. Lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Table 15d. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113
<i>A. minutissima</i>	0	15,972	15,972	255,550	0	223,607	31,944	0	351,382	15,972	0	0	6,788,032	1,224,506	63,887	15,972
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	15,972	0	0	0	0	0	0	143,747	0	0	0	0	319,436	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	31,944	399,295	287,494	0	0	0	0	0	0	0	0	0	0
<i>C. placantula</i>	95,831	15,972	31,944	207,635	47,915	351,382	0	23,958	862,483	55,901	15,972	23,958	179,683	612,253	127,774	39,930
<i>Rhicosphenia curvata</i>	0	0	0	0	0	0	0	0	31,944	0	0	0	39,930	0	0	0
Naviculales:																
<i>Amphipleura pellucida</i>	0	15,972	0	0	23,958	127,775	0	0	0	0	0	7,986	0	0	0	0
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	119,789	106,479	0	0
<i>Cymbella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. caespitosa</i>	15,972	0	15,972	95,831	0	95,831	0	0	31,944	0	0	0	239,578	372,676	175,690	0
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	15,972	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. ventricosa</i>	0	47,915	0	255,550	23,958	31,944	0	0	319,438	15,972	0	47,915	598,944	372,676	15,972	0
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	31,944	0	0	0	0	0	0	0	0	0	106,479	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15,972

Table 15d. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113
<i>G. herbioides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	31,944	0	47,916	15,972	95,831	0	0	175,691	0	0	0	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. olivaceum</i>	55,901	135,760	31,944	191,663	0	415,269	15,972	0	622,904	15,972	0	0	499,120	452,535	79,859	0
<i>G. parvulum</i>	15,972	31,944	0	0	31,944	287,494	0	0	95,831	0	0	0	0	239,577	0	47,915
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gomphonema</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gyrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. cryptocephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	53,239	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	47,916	0	0	0	0	0	0	359,366	612,253	0	0
<i>N. reinhardtii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	0	7,986	239,578	0	0	0	0	95,831	31,944	0	0	39,930	26,620	0	0
<i>N. tripunctata</i>	0	0	0	0	0	31,944	0	0	0	0	0	0	0	0	15,972	0
<i>Navicula</i> sp. A	0	0	0	0	15,972	0	0	0	0	0	0	0	39,930	106,479	0	0
<i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 15d. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6			Station 7			Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113		
<i>Neidium birode</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. dubium</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Stauroneis aniceps</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. phoenicenteron</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Surirellines:																		
<i>Omatopleura solea</i>	0	15,972	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Epithemia sorex</i>	0	0	0	0	0	31,944	0	0	0	0	0	0	0	0	0	0	0	0
<i>E. turgida</i>	0	0	15,972	0	0	95,831	0	0	79,860	0	0	7,986	0	0	0	0	0	0
<i>Nitzschia acicularis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. amphibia</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. angustata</i>	0	0	0	31,944	0	0	0	0	0	0	0	0	658,838	0	0	0	0	0
<i>N. dissipata</i>	0	47,915	0	255,550	0	255,550	0	0	111,803	15,972	0	0	359,366	266,197	31,944	0	0	0
<i>N. frustulum</i>	15,972	0	0	31,944	0	95,831	0	0	0	0	0	0	798,592	106,479	0	0	0	0
<i>N. linearis</i>	0	15,972	0	15,972	0	0	0	0	15,972	0	0	0	39,930	212,958	0	0	0	0
<i>N. palea</i>	0	0	15,972	622,904	47,915	223,607	31,944	0	127,775	0	0	0	718,733	1,118,027	47,915	0	0	0
<i>Rhopalodia gibba</i>	0	0	0	0	0	0	0	0	0	0	0	0	59,894	0	0	0	0	0
<i>Surirella angustata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	53,239	0	0	0	0
<i>S. biseriata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ovata</i>	0	0	0	31,944	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 16a.  
Periphytic diatom densities (cells cm<sup>-2</sup>) on replicate whole rocks  
collected from two sites on April 10-12, 1976.

Species	Station 1		Station 3	
	W104	W105	W110	W111
Bacillariophyceae Species				
Coccinodiscales:				
<i>Cyclotella</i> sp. A	0	0	0	0
Fragilariales:				
<i>Asterionella formosa</i>	0	0	0	0
<i>Diatoma hiemale</i>	0	0	0	0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0
<i>D. vulgare</i>	0	2,891	3,900	0
<i>Fragilaria capucina</i>	0	0	0	0
<i>F. construens</i>	0	0	0	0
<i>F. construens</i> var. <i>binodis</i>	0	0	0	0
<i>F. construens</i> var. <i>vertér</i>	0	0	0	0
<i>F. leptostauron</i>	0	0	0	0
<i>F. producta</i>	0	0	0	0
<i>F. vaucheriae</i>	0	0	0	0
<i>Hantzsea arcus</i>	0	0	0	0
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	1,560
<i>Meridion circulare</i>	0	0	0	0
<i>Synedra ulna</i>	0	826	390	390
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0
Achnanthes:				
<i>Achnanthes flexella</i>	0	0	0	0
<i>A. lanceolata</i>	0	0	780	1,560
<i>A. lemmermanni</i>	0	0	0	0

Table 16a. (Continued)

Species	Station 1				Station 3		
	W104	W105	W110	W111	W110	W111	W111
<i>A. minutissima</i>	3,025	0	0	0	0	0	390
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	0	0	0
<i>C. placertula</i>	0	0	0	0	0	0	0
<i>Rhizosolenia curvata</i>	0	0	1,560	0	0	0	0
Naviculales:							
<i>Amphipleura pellucida</i>	0	0	0	0	0	0	0
<i>Amphora ovalis</i>	0	0	780	0	0	0	0
<i>Gybellia affinis</i>	0	0	0	0	0	0	0
<i>C. caespitosa</i>	0	0	780	0	0	0	0
<i>C. cistula</i>	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0
<i>C. verticosa</i>	0	0	1,560	0	0	0	0
<i>Gybellia</i> sp. A	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0
<i>Gomphonema geminatum</i>	0	0	0	0	0	0	0

Table 16a. (Continued)

Species	Station 1			Station 3		
	W104	W105	W110	W111	W111	W111
<i>G. hebridenses</i>	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0
<i>G. larosolatum</i>	0	0	0	0	0	0
<i>G. olivaceum</i>	0	413	780	1,170		
<i>G. parvulum</i>	0	0	0	0	0	0
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0
<i>Complanata</i> sp. A	0	0	0	0	0	0
<i>Gyrosigma spercerii</i>	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	0	0	0
<i>N. cryptoccephala</i>	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0
<i>N. muralis</i>	0	0	0	0	0	0
<i>N. pupula</i>	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0
<i>N. reinhardii</i>	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	826	0	0	0	0
<i>N. tripunctata</i>	0	0	1,560	0	0	0
<i>Navicula</i> sp. A	0	0	0	0	0	0
<i>Navicula</i> sp. B	0	0	0	0	0	0

Table 16a. (Continued)

Species	Station 1			Station 3		
	W104	W105	W110	W111		
<i>Neidium birode</i>	0	0	0	0	0	0
<i>N. dubium</i>	0	0	0	0	0	0
<i>Stauroneis anceps</i>	0	0	0	0	0	0
<i>S. phoenicenteron</i>	0	0	0	0	0	0
Surirellines:						
<i>Cymatopleura solea</i>	0	0	0	0	0	0
<i>Epithemia sorex</i>	0	0	0	0	0	0
<i>E. turgida</i>	0	0	0	0	0	0
<i>Nitzschia acicularis</i>	0	0	0	0	0	0
<i>N. amphibia</i>	0	0	0	0	0	0
<i>N. angustata</i>	0	0	0	0	0	0
<i>N. dissipata</i>	0	0	0	0	0	0
<i>N. frustulum</i>	0	0	0	0	0	0
<i>N. linearis</i>	0	0	0	0	0	0
<i>N. palea</i>	0	0	780	0	0	0
<i>Rhopalodia gibba</i>	0	0	0	0	0	0
<i>Surirella angustata</i>	0	0	0	0	0	0
<i>S. biseriata</i>	0	0	0	0	0	0
<i>S. ovata</i>	0	0	0	0	0	0

Table 16b.

Periphytic diatom densities (cells cm<sup>-2</sup>) on replicate whole rocks collected from seven sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
Bacillariophyceae Species														
Coccolodiscales:														
<i>Cyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	3,890	19,965	41,194	0	0	0	5,104	13,507	7,283	12,551	25,900	19,019	0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fragilaria capucina</i>	0	0	0	20,597	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	21,849	0	0	0	0
<i>F. construens</i> var. <i>birnoids</i>	0	0	0	0	0	1,068	656	0	0	0	8,368	0	0	32,905
<i>F. construens</i> var. <i>vertei</i>	0	0	73,204	30,895	0	0	1,312	0	0	0	158,984	32,375	0	0
<i>F. leptostauron</i>	0	0	0	0	708	1,068	0	0	0	7,283	0	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	0	4,669	0	20,597	0	2,137	0	10,209	40,522	0	8,368	0	0	0
<i>Hantzaea arcus</i>	0	0	166,372	190,520	14,158	8,013	1,969	33,179	121,565	29,132	92,044	48,562	110,946	63,068
<i>H. arcus</i> var. <i>amphioxys</i>	0	15,562	0	0	0	0	0	0	0	0	0	0	6,340	0
<i>Meridion circulare</i>	0	0	0	10,298	0	1,068	0	0	40,522	7,283	16,735	6,475	0	0
<i>Synedra ulna</i>	0	3,890	346,055	375,892	8,849	8,547	0	12,761	81,043	29,132	41,838	32,375	3,170	0
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	1,068	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	3,186	5,876	0	0	0	0	0	0	0	0
Achnanthes:														
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. lanosolata</i>	0	7,781	26,620	41,194	354	3,739	0	7,657	40,522	10,924	8,368	12,950	15,850	19,195
<i>A. lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Table 16b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
<i>A. mirantissima</i>	0	1,556	46,584	102,984	1,062	6,410	0	182,482	101,304	61,906	380,726	42,088	60,228	213,884
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	1,556	0	0	0	0	0	0	13,507	0	58,573	6,475	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	708	0	0	0	0	0	0	0	0	0
<i>C. placentula</i>	1,809	5,447	26,620	41,194	2,832	9,081	984	5,104	121,565	50,981	4,184	0	12,680	13,710
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	14,566	0	0	0	0
Naviculales:														
<i>Amphipleura pellicuda</i>	0	1,556	0	5,149	0	0	0	0	0	0	0	12,950	0	0
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	13,507	0	0	0	0	0
<i>Cymbella affinis</i>	0	0	0	10,298	0	0	0	17,865	0	0	0	0	0	0
<i>C. caespitosa</i>	1,206	10,893	179,682	92,686	9,911	16,026	1,312	195,243	128,318	80,113	280,315	119,788	50,718	71,295
<i>C. cistula</i>	0	0	0	0	0	0	0	10,209	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	14,566	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. ventricosa</i>	0	1,556	26,620	113,282	0	1,068	0	12,761	67,536	14,566	50,206	12,950	0	27,421
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gomphonema geminatum</i>	0	0	0	10,298	0	0	984	20,418	20,261	7,283	8,368	0	0	5,484

Table 16b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
<i>G. hebridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	26,620	0	0	0	0	0	40,522	7,283	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. lanceolatum</i>	0	1,556	0	0	0	0	0	0	0	0	25,103	0	0	0
<i>G. olivaceum</i>	0	14,006	146,408	97,835	8,849	38,997	0	20,418	222,869	203,924	125,514	12,950	69,738	87,747
<i>G. parvulum</i>	3,014	0	0	5,149	0	0	656	10,209	27,014	40,056	167,352	74,462	41,209	120,652
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gomphonema</i> sp. A.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gyrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. cryptocephala</i>	0	0	0	0	0	2,137	0	0	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	0	0	0	0	0	0	13,507	0	25,103	0	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radices</i>	0	0	19,965	56,641	354	1,068	0	0	47,275	21,849	50,206	12,950	0	5,484
<i>N. reinhardii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	0	0	20,597	0	4,274	0	0	0	0	4,184	0	12,680	10,968
<i>N. tripunctata</i>	0	0	0	0	0	0	0	0	0	0	0	0	12,680	0
<i>Navicula</i> sp. A.	0	0	0	0	0	0	0	10,209	0	21,849	0	0	0	5,484
<i>Navicula</i> sp. B.	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Table 16c.

Periphytic diatom densities (cells cm<sup>-2</sup>) on replicate whole rocks collected from eight sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
Bacillariophyceae Species																
Coscinodiscales:																
<i>Cyclotella</i> sp. A	1,904	19,103	0	34,225	0	8,582	0	0	0	0	0	0	11,408	0	2,178	0
Fragillariales:																
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	1,904	0	13,920	17,112	0	0	0	0	0	0	4,870	1,608	0	0	0	2,163
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>birrodii</i>	0	0	0	0	0	0	0	5,931	19,126	0	0	0	28,521	0	0	0
<i>F. construens</i> var. <i>vertier</i>	0	0	18,561	17,112	0	0	0	0	19,126	0	4,870	0	0	4,863	0	0
<i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	5,704	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	9,726	0	0
<i>F. vaucheriae</i>	3,809	0	4,640	0	0	3,433	0	0	31,876	12,931	1,218	0	5,704	14,589	0	0
<i>Hantzschia arcus</i>	1,904	8,187	32,481	85,562	1,151	0	0	0	44,626	3,233	7,914	0	54,190	19,453	4,356	0
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	0	0	0	0	2,155	0	804	0	26,748	0	16,226
<i>Meridion circulare</i>	0	0	0	34,225	0	0	0	0	0	0	3,044	0	0	0	0	0
<i>Synedra ulna</i>	9,522	15,010	39,441	89,840	6,907	17,164	0	0	19,126	25,862	4,262	2,413	54,190	38,906	0	2,163
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes:																
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. lanceolata</i>	952	5,458	30,161	34,225	8,058	3,433	0	5,931	54,189	3,233	2,435	804	17,113	12,158	22,867	23,797
<i>A. lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	2,852	0	0	0

Table 16c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4			Station 5			Station 6			Station 7			Station 9		
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113					
<i>A. minutissima</i>	36,184	16,374	116,004	94,118	4,605	24,030	2,268	136,408	66,940	16,164	21,917	10,455	88,415	148,328	26,134	29,206					
<i>Achnanthes</i> sp. A	0	4,094	6,960	0	0	0	0	0	0	1,078	3,044	804	8,556	0	0	0					
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	2,155	0	0	5,704	7,295	0	2,163					
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Cocconeis pediculus</i>	0	0	0	0	8,058	58,358	0	0	0	0	3,653	0	0	0	0	0					
<i>C. placertula</i>	20,948	9,552	88,163	81,284	36,263	68,556	4,915	1,483	127,504	39,871	32,266	2,011	31,373	65,653	22,867	14,062					
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,163					
Naviculales:																					
<i>Amphipleura pellucida</i>	1,904	0	6,960	4,278	1,151	3,433	0	0	6,375	1,078	0	0	11,408	7,295	0	0					
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	6,375	0	0	0	0	0	0	0					
<i>Gymbella affinis</i>	1,904	0	4,640	0	0	0	0	0	0	0	1,218	0	0	0	0	2,163					
<i>C. caespitosa</i>	19,044	21,832	53,362	47,059	4,605	10,298	1,512	44,481	19,126	15,086	0	0	82,711	53,495	26,134	15,144					
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	5,704	4,863	0	0					
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. ventricosa</i>	1,904	13,645	37,121	59,893	0	0	756	23,723	70,127	8,621	19,482	4,825	11,408	19,453	8,711	2,163					
<i>Gymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Frustulia rhomboides</i>	0	0	9,280	0	0	0	0	0	0	0	0	0	0	0	0	2,178					
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,163					
<i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	69,687	0	2,155	0	0	0	0	0	4,356					

Table 16c. (Continued)

Species	Station 1			Station 2			Station 3			Station 4			Station 5			Station 6			Station 7			Station 9		
	W104	W105	W108	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113							
<i>G. hebridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	11,408	0	0	0							
<i>G. herculeanum</i>	1,904	0	13,920	8,556	0	0	0	0	0	6,375	8,621	0	0	48,486	24,316	2,178	0							
<i>G. intricatum</i>	0	0	0	0	0	3433	0	0	0	0	0	0	0	0	0	0	0							
<i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>G. olivaceum</i>	42,849	94,150	48,721	145,455	17,268	41,194	1,512	2,965	149,817	34,483	9,132	0	94,119	53,495	37,023	35,696								
<i>G. parvulum</i>	0	4,094	0	17,112	0	0	0	0	12,750	0	2,435	0	91,267	17,021	14,156	25,961								
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<i>Gomphonema</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<i>Gyrosigma spercerii</i>	0	0	0	8,556	0	0	0	0	0	0	0	0	0	0	0	0								
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	13,344	6,375	0	2,435	0	0	0	0	0								
<i>N. cryptocephala</i>	0	0	46,401	42,781	1,151	0	0	0	31,876	0	4,262	1,206	0	19,453	4,356	0								
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
<i>N. gottlandica</i>	0	0	0	0	2,302	0	0	0	0	0	0	0	0	0	0	0								
<i>N. minima</i>	0	0	20,881	0	0	0	0	0	0	0	1,218	804	0	0	0	0								
<i>N. muralis</i>	0	2,729	0	4,278	576	3,433	0	0	6,375	0	0	0	0	11,408	4,863	0								
<i>N. pupula</i>	0	2,729	0	0	1,151	0	0	0	0	0	0	0	0	0	0	0								
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	6,375	0	0	0	0	0	0	0								
<i>N. reinhardii</i>	0	0	4,640	0	0	0	0	0	0	0	0	0	0	0	4,863	2,178								
<i>N. salinarum</i> var. <i>intermedia</i>	4,761	4,094	0	0	0	6,866	0	1,483	0	0	0	0	0	22,817	0	4,356								
<i>N. tripunctata</i>	0	0	9,280	0	0	6,866	0	0	0	0	6,088	1,608	0	0	0	2,163								
<i>Navicula</i> sp. A	0	0	0	8,556	0	0	0	0	0	0	0	0	0	0	0	0								
<i>Navicula</i> sp. B	0	0	4,640	0	0	0	0	0	0	0	0	0	0	0	0	0								



Table 16d.

Periphytic diatom densities (cells  $\text{cm}^{-2}$ ) on replicate whole rocks collected from the Flathead River on August 26, 1980.

Species	Station 3	
	Rock F1	Rock F2
Coscinodiscales:		
<i>Cyclotella glomerata</i>	184	0
Eunotiales		
<i>Eunotia</i> sp.	0	79
Fragilariales:		
<i>Asterionella formosa</i>	0	0
<i>Diatoma elongatum</i>	0	0
<i>D. hiemale</i>	92	0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0
<i>D. vulgare</i>	0	0
<i>Fragilaria capucina</i>	0	0
<i>F. construens</i>	0	0
<i>F. construens</i> var. <i>binodis</i>	0	0
<i>F. construens</i> var. <i>venter</i>	0	79
<i>F. crotonensis</i>	0	0
<i>F. heidenii</i>	0	0
<i>F. leptostauron</i>	92	0
<i>E. pinnata</i>	0	0
<i>F. producta</i>	0	0
<i>F. vaucheriae</i>	276	629
<i>Harmaea arcus</i>	0	79
<i>H. arcus</i> var. <i>amphioxys</i>	0	0



Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>Meridion circulare</i>	0	0
<i>Synedra acus</i> var. <i>radians</i>	0	0
<i>S. ulna</i>	92	0
<i>S. ulna</i> var. <i>impressa</i>	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	184	236
<i>S. ulna</i> var. <i>oxyrhynchus</i> f. <i>contracta</i>	0	0
<i>Tabellaria flocculosa</i>	138	0
Achnanthales:		
<i>Achnanthes flexella</i>	0	0
<i>A. lanceolata</i>	92	157
<i>A. lemmermanni</i>	0	0
<i>A. minutissima</i>	1334	2987
<i>Achnanthes</i> sp.	276	393
<i>Cocconeis pediculus</i>	460	707
<i>C. placentula</i>	5704	3930
<i>Rhoicosphenia curvata</i>	92	0
Naviculales:		
<i>Amphipleura pellucida</i>	92	0
<i>Amphora ovalis</i>	0	0
<i>Anomoeneis exilis</i>	0	79
<i>Oymbella affinis</i>	0	0
<i>C. caespitosa</i>	138	354
<i>C. cistula</i>	0	0
<i>C. cymbiformis</i>	0	0
<i>C. gracilis</i>	0	0

Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>C. prostrata</i>	0	0
<i>C. sinuata</i>	92	236
<i>C. turgida</i>	0	0
<i>C. ventricosa</i>	276	157
<i>Oymbella</i> sp. A	0	0
<i>Diploneis ovalis</i>	0	0
<i>Frustulia rhomboides</i>	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0
<i>Gomphonema geminatum</i>	0	0
<i>G. hebridenses</i>	0	0
<i>G. herculeanum</i>	0	0
<i>G. intricatum</i>	0	0
<i>G. lanceolatum</i>	0	0
<i>G. olivaceoides</i>	0	0
<i>G. olivaceum</i>	2162	1415
<i>G. parvulum</i>	0	0
<i>G. parvulum</i> var. <i>genuinum</i>	0	0
<i>Gomphonema</i> sp. A	0	0
<i>Gyrosigma spencerii</i>	0	0
<i>Navicula arvensis</i>	0	0
<i>N. bicephala</i>	0	0
<i>N. capitata</i> var. <i>hungarica</i>	0	0
<i>N. cryptocephala</i>	0	0
<i>N. cuspidata</i>	0	0

Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>N. festiva</i>	0	0
<i>N. gottlandica</i>	0	0
<i>N. minima</i>	0	0
<i>N. muralis</i>	0	0
<i>N. pelliculosa</i>	0	0
<i>N. pupula</i>	0	0
<i>N. radiosa</i>	276	0
<i>N. reinhardii</i>	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	157
<i>N. tripunctata</i>	0	0
<i>N. viridula</i>	0	0
<i>Navicula</i> sp.	782	472
<i>Neidium birode</i>	0	0
<i>N. dubium</i>	0	0
<i>Neidium</i> sp.	0	79
<i>Stauroneis anceps</i>	0	0
<i>S. phoenicenteron</i>	0	0
Surirellines:		
<i>Cymatopleura solea</i>	0	0
<i>Denticula elegans</i>	92	0
<i>Epithemia sorex</i>	276	236
<i>E. turgida</i>	782	236
<i>Nitzschia acicularis</i>	92	0
<i>N. actinastroides</i>	0	0
<i>N. amphibia</i>	0	0

Table 16d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>N. angustata</i>	0	0
<i>N. dissipata</i>	92	550
<i>N. frustulum</i>	92	157
<i>N. linearis</i>	0	0
<i>N. palea</i>	276	472
<i>Rhopalodia gibba</i>	92	79
<i>Surirella angustata</i>	0	0
<i>S. biseriata</i>	0	0
<i>S. ovata</i>	0	0
Total Count	14628	13952

Table 16e.

Periphytic diatom densities (cells  $\text{cm}^{-2}$ ) on  
replicate whole rocks collected from two sites  
on July 28, 1982.

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
Coscinodiscales:						
<i>Cyclotella glomerata</i>	0	0	0	0	0	0
Eunotiales						
<i>Eunotia</i> sp.	0	0	0	0	0	0
Fragilariales:						
<i>Asterionella formosa</i>	0	0	0	0	0	0
<i>Diatoma elongatum</i>	0	0	106	0	156	144
<i>D. hiemale</i>	0	0	318	0	0	0
<i>D. hiemale</i> var. <i>mesodon</i>	730	172	318	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0
<i>F. construens</i> var. <i>binodis</i>	0	0	0	0	0	0
<i>F. construens</i> var. <i>venter</i>	0	0	0	0	0	0
<i>F. crotonensis</i>	0	0	0	15	0	0
<i>F. heidenii</i>	0	29	0	0	0	0
<i>F. leptostauron</i>	0	57	53	0	0	0
<i>F. pinnata</i>	0	0	53	0	0	0
<i>F. producta</i>	0	0	0	0	0	0
<i>F. vaucheriae</i>	292	29	106	0	0	0
<i>Hannaea arcus</i>	876	431	636	76	0	0
<i>H. arcus</i> var. <i>amphioxys</i>	146	57	159	0	0	0

Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>Meridion circulare</i>	584	144	159	91	0	0
<i>Synedra acus</i> var. <i>radians</i>	0	0	106	0	52	0
<i>S. ulna</i>	5112	1753	2438	91	208	397
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	460	530	0	0	72
<i>S. ulna</i> var. <i>oxyrhynchus</i> f. <i>contracta</i>	0	0	0	0	0	0
<i>Tabellaria flocculosa</i>	0	0	0	0	0	0
Achnanthes:						
<i>Achnanthes flexella</i>	0	0	0	0	0	0
<i>A. lanceolata</i>	1607	201	318	30	208	180
<i>A. lemmermanni</i>	0	0	0	0	0	0
<i>A. minutissima</i>	2629	632	742	530	6071	1443
<i>Achnanthes</i> sp.	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	0	0
<i>C. placentula</i>	584	29	106	606	259	1479
<i>Rhoicosphenia curvata</i>	292	57	0	0	0	0
Naviculales:						
<i>Amphipleura pellucida</i>	0	0	0	0	0	0
<i>Amphora ovalis</i>	292	0	0	0	0	0
<i>Anomoeoneis exilis</i>	0	0	0	0	0	0
<i>Cymbella affinis</i>	8033	1092	3285	30	0	36
<i>C. caespitosa</i>	0	0	0	0	0	0
<i>C. cistula</i>	146	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0

Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>C. prostrata</i>	0	0	0	0	0	0
<i>C. sinuata</i>	2337	919	742	818	1868	1984
<i>C. turgida</i>	0	0	0	0	0	216
<i>C. ventricosa</i>	876	144	742	45	52	216
<i>Cymbella</i> sp. A	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0
<i>Gomphonema geminatum</i>	0	0	0	0	0	0
<i>G. hebridenses</i>	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	53	0	0	0
<i>G. intricatum</i>	4089	517	1113	0	0	0
<i>G. lanceolatum</i>	0	0	0	0	0	0
<i>G. olivaceoides</i>	0	86	106	0	0	0
<i>G. olivaceum</i>	14605	2873	5405	1848	6746	4510
<i>G. parvulum</i>	146	57	0	0	0	0
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0
<i>Gomphonema</i> sp. A	0	0	0	0	0	0
<i>Gyrosigma spencerii</i>	0	0	0	0	0	0
<i>Navicula arvensis</i>	0	0	0	45	104	72
<i>N. bicephala</i>	0	29	0	0	52	0
<i>N. capitata</i> var. <i>hungarica</i>	0	0	0	0	52	36
<i>N. cryptocephala</i>	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0

Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>N. festiva</i>	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0
<i>N. muralis</i>	0	0	0	0	0	0
<i>N. pelliculosa</i>	0	0	0	30	415	108
<i>N. pupula</i>	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0
<i>N. reinhardii</i>	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	1753	259	265	121	363	361
<i>N. tripunctata</i>	0	0	53	0	0	0
<i>N. viridula</i>	0	0	0	0	52	0
<i>Navicula</i> sp.	1022	0	53	30	52	180
<i>Neidium binode</i>	0	0	0	0	0	0
<i>N. dubium</i>	0	0	0	0	0	0
<i>Neidium</i> sp.	0	0	0	0	0	0
<i>Stauroneis anceps</i>	0	0	0	0	0	0
<i>S. phoenicenteron</i>	0	0	0	0	0	0
Surirellinees:						
<i>Cymatopleura solea</i>	0	0	0	0	0	0
<i>Denticula elegans</i>	92	0	0	0	0	0
<i>Epithemia sorex</i>	0	0	0	15	0	0
<i>E. turgida</i>	0	0	0	0	0	72
<i>Nitzschia acicularis</i>	0	0	0	15	0	36
<i>N. actinastroides</i>	0	0	0	0	0	144
<i>N. amphibia</i>	0	0	0	0	0	0



Table 16e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>N. angustata</i>	0	0	0	0	0	0
<i>N. dissipata</i>	438	259	795	106	104	289
<i>N. frustulum</i>	0	0	0	0	0	0
<i>N. linearis</i>	0	0	0	0	0	0
<i>N. palea</i>	2775	287	371	152	156	180
<i>Rhopalodia gibba</i>	0	0	0	0	0	0
<i>Surirella angustata</i>	0	0	53	30	0	0
<i>S. biseriata</i>	0	0	0	0	0	0
<i>S. ovata</i>	0	29	106	30	0	0
Total Count	49365	10601	19288	4757	16968	12159

Table 17a.

Periphytic diatom densities (cells cm<sup>-2</sup>) on replicate plexiglass plates collected from five sites on August 4-5, 1976.

Species	Station 1			Station 2			Station 4			Station 7			Station 9		
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10					
Bacillariophyceae Species															
Coccolidiales:															
<i>Oocytella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:															
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	0	202	497	248	0	3,973	2,483	4,046	7,283					
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>birodus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>verter</i>	0	0	0	0	0	0	1,986	0	0	0	2,428				
<i>F. leptostauron</i>	0	0	0	497	0	0	0	0	0	0	0	0	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	0	0	0	0	1,242	993	993	0	0	0	10,924				
<i>Hantzschia arcus</i>	708	2980	910	2,438	9,435	6,704	23,837	64,563	112,074	503,727					
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Meridion circulare</i>	0	0	0	497	0	0	993	9,933	0	0	0	0	0	0	0
<i>Synedra ulna</i>	202	0	3,842	4,966	0	248	11,918	40,973	33,177	29,131					
<i>S. ulna</i> var. <i>impresa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes:															
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. larocolata</i>	0	3,973	0	0	497	0	0	0	0	2,428	14,566				
<i>A. lemmebrani</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 17a. (Continued)

Species	Station 1			Station 2			Station 4			Station 7			Station 9		
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10					
<i>A. minutissima</i>	708	5,959	0	745	7,697	4,966	27,313	37,248	23,062	100,745					
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0					
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0					
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0					
<i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	0	0					
<i>C. placertula</i>	6,167	10,925	0	0	993	248	2,483	3,725	2,428	9,710					
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0					
Naviculales:															
<i>Amphipleura pellicuda</i>	0	0	0	0	0	0	0	0	0	0					
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0					
<i>Oymbella affinis</i>	0	0	0	0	0	0	0	0	0	0					
<i>C. caespitosa</i>	404	993	0	497	3,476	1,490	9,932	48,422	809	12,138					
<i>C. cistula</i>	0	0	0	0	0	0	0	2,483	0	0					
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0					
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0					
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0					
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0					
<i>C. turgida</i>	0	0	0	497	993	0	1,986	0	0	0					
<i>C. ventricosa</i>	202	0	0	993	4,221	3,476	4,966	4,966	4,855	4,855					
<i>Oymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0					
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0					
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0					
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0					
<i>Gomphonema geminatum</i>	0	0	0	0	0	497	1,490	0	0	0					







Table 17b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4			Station 5			Station 7			Station 9		
	P104	P105	P108	P109	P100	P101	P102	P103	P110	P111	P114	P115	P112	P113	P115	P112	P113	
<i>A. minutissima</i>	38,842	0	0	405	2,023	0	0	9,306	809	4,451	809	41,674	266,227	0				
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>Achnanthes</i> sp. B	3,237	0	0	0	0	0	0	0	809	0	0	809	0	0				
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>Cocconeis pediculus</i>	0	0	0	0	4,046	809	0	0	0	0	0	0	0	0				
<i>C. placorbula</i>	223,339	78,492	0	1,618	37,223	65,141	1,214	8,497	25,490	91,844	103,173	4,451	77,683	122,189				
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Naviculales:																		
<i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>Ombella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>C. caespitosa</i>	4,046	0	0	0	809	0	0	4,046	809	809	809	3,237	4,046	0				
<i>C. cistula</i>	809	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>C. verticosa</i>	0	0	0	0	0	0	0	2,428	0	0	809	0	4,855	1,618				
<i>Ombella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
<i>Comptosia geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0				







Percent numeric composition of periphytic diatoms in replicate rock subsamples collected from seven sites on April 10-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5			Station 6		Station 7	
	R 102	R 103	R 106	R 107	R 108	R 109	R 112	R 113	R 114	R 115	R 116	R 117	R 118	R 119	
Bacillariophyceae Species															
Coscinodisciales:															
<i>Cyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fragilariiales:															
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Diatoma hienale</i>	0	0	3.6	0	0	0	0	0	0	7.1	0	0	0	4.1	
<i>D. hienale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>F. constricta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>F. constricta</i> var. <i>birrodii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>F. constricta</i> var. <i>venter</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	1.3	1.4	
<i>F. produrta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>F. vaucheriae</i>	0	0	0	0	0	0	0	0	2.0	0	0	0	0	0	
<i>Hannaea arcus</i>	0	0	23.6	0	0	0	0	0	5.9	14.3	2.7	0	8.9	2.7	
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	10.9	0	0	0	0	0	0	0	0	0	0	0	
<i>Meridion circulare</i>	0	0	0	0	0	0	0	0	0	7.1	0	0	11.5	8.1	
<i>Synedra ulna</i>	0	0	0	0	0	0	20.0	0	0	0	0	0	3.2	0	
<i>S. ulna</i> var. <i>impresca</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	9.8	0	0	0	0	0	0	
Achnanthes:															
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>A. larceolata</i>	0	0	3.6	0	0	0	0	0	9.8	7.1	0	0	0.6	1.4	
<i>A. lemmermansi</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



Table 18a. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	R 102	R 103	R 106	R 107	R 108	R 109	R 112	R 113	R 114	R 115	R 116	R 117	R 118	R 119
<i>G. hebridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	0	0	0	0	0	0	9.8	0	0	0	2.5	1.4
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. lanceolatum</i>	3.9	0	0	0	0	0	0	0	0	0	16.4	0	0	0
<i>G. olivaceum</i>	48.1	0	38.2	100.0	66.7	66.7	50.0	80.0	12.7	42.9	58.9	100.0	22.9	8.8
<i>G. parvulum</i>	0	0	0	0	0	0	0	0	0	0	8.2	0	0	10.8
<i>G. parvulum</i> var. <i>germanum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gomphonema</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gyrosigma spencerii</i>	0	0	0	0	0	0	50.0	0	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4
<i>N. cryptocephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. reinhardii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>irfemedtia</i>	0	0	0	0	0	0	0	0	0	0	0	0	1.2	0
<i>N. tripunctata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. B	1.9	0	0	0	0	0	0	0	0	0	0	0	0	0





Table 18b. (Continued)

Species	Station 1		Station 2		Station 3			Station 4			Station 5			Station 7			Station 9		
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023					
<i>A. minutissima</i>	0	2.3	0	7.2	3.8	0	4.5	23.5	0	0	5.2	0	0.8	0.6					
<i>Achnanthes</i> sp. A	0	0	1.2	1.2	0	0	0	0	0	0	0.6	0	0	0.6					
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. placertula</i>	0	0	0	0	0	5.6	0.4	0	0	2.1	0	0	0	0					
<i>Rhoicosphenia curvata</i>	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0					
Naviculales:																			
<i>Amphipleura pellicida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Amphra ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Ombella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. caespitosa</i>	0	2.3	3.7	0.8	0	22.2	0.8	2.7	0	0	5.2	3.1	2.4	2.3					
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. sinuata</i>	0	2.3	0	0	0	0	0	0	0	0	0	0	0	0					
<i>C. turgida</i>	0	0	0	3.6	0	0	0	0	0	0	1.3	0	0	0					
<i>C. verticosa</i>	0	2.3	10.4	8.0	0	0	0.8	0	2.7	0	0	1.6	0	0					
<i>Ombella</i> sp. A	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0					
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
<i>Comphonema geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	1.6	0	0					

Table 18b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	R005	R006	R003	R004	R110	R111	R008	R009	R001	R002	R020	R021	R022	R023
<i>G. hebridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. larcolatum</i>	0	0	0	0	3.8	0	10.2	16.4	0	0	0	10.2	0	2.3
<i>G. olivaceum</i>	5.3	26.4	17.7	24.1	35.9	16.7	65.7	48.7	6.8	20.0	9.7	3.9	3.2	7.4
<i>G. parvulum</i>	0	0	9.2	10.4	0.9	0	1.2	1.3	55.4	0	0	0	0	0
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	6.9	0	0	0	0
<i>Gomphonema</i> sp. A	0	2.3	0	0	0	0	0	0	0	2.8	0	0	0	0
<i>Gyrosigma spercerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula biocephala</i>	0	0	0	0.4	0	0	0	0	0	0	1.3	0	0	0
<i>N. cryptocephala</i>	0	2.3	0	2.0	0	0	0	0	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	3.1	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	3.1	3.2	0	0	0	0	0	0	0	0	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. reinhardtii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>irtemedia</i>	0	0	0.6	0	0	22.2	0	0	0	0	0	0	0	0
<i>N. tripunctata</i>	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. B	0	0	0	0	5.7	0	0.8	0	0	0	0	0	0.4	0





Table 18c.

Percent numeric composition of periphytic diatoms in replicate rock subsamples collected from eight sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
Bacillariophyceae Species																
Coccolodisciales:																
<i>Cyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragillariales:																
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	0	4.8	3.0	0	0	0	0	3.6	0.6	0	0	0	2.7	0	4.3
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	1.5	0	0	0.9	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. constans</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. constans</i> var. <i>birodii</i>	0	0	0	2.2	0	0	0	0	0	1.9	0	0	0	0	0	0
<i>F. constans</i> var. <i>verster</i>	0	9.5	0	0.7	0	0	0	0	0	0	0	0	0	2.7	0	0
<i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	1.8	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	0	0	0	4.5	0	0	0	16.7	0.8	2.5	1.5	0	0	0.9	0	0
<i>Hantzschia arcus</i>	20.0	9.5	19.8	16.7	0	6.8	14.3	0	5.2	7.1	3.0	16.7	0	16.5	41.9	72.3
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	1.6	0	0	0	0	0	0	0	0	0	0	0.9	0	0
<i>Meridion circulare</i>	0	0	0.4	1.9	0	0	0	0	0.4	0	0	0	0	0.9	1.6	0
<i>Synedra ulna</i>	0	9.5	16.3	20.5	0	0	0	0	1.2	2.2	0.8	0	44.4	9.0	3.2	0
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxytrichus</i>	0	0	0	0	0	0	0	0	1.6	0	0	0	0	0	0	0
Achnanthes:																
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0
<i>A. lanceolata</i>	0	0	0.8	0.4	0	0	0	0	12.5	11.7	0	16.7	0	1.8	0	0
<i>A. lemeizumi</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
<i>A. minutissima</i>	0	0	3.6	4.8	71.4	0	57.1	16.7	11.7	15.4	3.0	0	0	5.4	0	0
<i>Achnanthes</i> sp. A	0	0	1.6	0	0	0	0	0	0	0.6	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0.6	0	0	0	0	0	0
<i>Oocoreis pediculus</i>	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0
<i>C. placentalis</i>	0	4.8	3.2	2.2	0	2.3	0	0	3.6	2.8	63.9	33.3	11.1	1.8	3.2	0
<i>Rhoicosphenia curvata</i>	0	0	0	1.5	0	0	0	0	0.8	0	0	0	0	0	0	0
Naviculales:																
<i>Amphipleura pellucida</i>	0	0	1.2	0	0	2.3	0	0	0.4	0	0	0	0	0	0	0
<i>Amphora ovalis</i>	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Ombella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.2	0
<i>C. caespitosa</i>	20.0	19.1	7.1	7.1	0	34.1	0	0	5.2	8.3	0	0	22.2	8.5	3.2	4.3
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0.8	0.6	0	0	0	0	0	0
<i>C. ventricosa</i>	0	0	2.4	6.3	0	9.1	0	0	1.6	3.1	10.5	33.3	0	6.3	3.2	0
<i>Ombella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Comptonema geminatum</i>	0	0	0	0	0	0	0	8.3	1.2	1.9	0	0	0	0	4.8	0

Table 18c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R5	R6	R7	R8	R3	R4	R1	R2	R9	R10	R11	R12	R13	R14	R15	R16
<i>G. hebridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	0	0	0	0	0	0	1.6	1.2	0	0	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. lapceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. olivaceum</i>	60.0	28.6	3.6	0	0	22.7	0	8.3	1.6	6.8	5.3	0	0	1.8	0	0
<i>G. parvulum</i>	0	0	6.8	10.0	28.6	9.1	28.6	0	17.3	17.9	0	0	22.2	10.7	19.4	4.3
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0
<i>Complanata</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cyrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. cryptocephala</i>	0	0	0.8	0	0	0	0	0	0	0	0.8	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	0.4	0	0	0	0	0	0.8	0.9	0	0	0	0.5	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. reinhardii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	0	1.2	1.5	0	0	0	0	4.4	0.6	0	0	0	1.8	0	0
<i>N. tripunctata</i>	0	0	0	0.7	0	0	0	0	0	0	3.0	0	0	0	3.2	0
<i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	2.0	0	0	0	0	0.5	0	0



Table 18d.

Percent numeric composition of periphytic diatoms in replicate rock subsamples collected from eight sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113
Bacillariophyceae Species																
Coscinodiscales:																
<i>Oyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:																
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	4.0	8.7	1.4	0	1.1	0	0	0.8	0	0	0	0.2	0	0	0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	1.7	0	0	0	0	0	0
<i>Fragilaria capitata</i>	0	0	0	0	0	2.2	0	0	0	0	0	0	0.6	5.4	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>birodalis</i>	0	0	0	0	0	1.1	0	0	0.8	0	0	0	0	0.7	0	0
<i>F. construens</i> var. <i>versteri</i>	0	9.3	0	0	0	0	0	0	0	0	0	0	2.9	0	0	0
<i>F. leptostauron</i>	0	0	0	1.0	0	0	0	0	0	0	0	0	0.3	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vaucheriae</i>	5.4	0	0	1.0	0	1.1	0	0	1.6	0	0	0	0.3	0.7	0	0
<i>Hamaea acuta</i>	5.4	5.3	0	9.0	2.4	2.2	0	0	2.4	0	13.3	0	1.1	4.4	8.4	0
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	0	0	0	0	13.6	0	0	0	2.0	0	0
<i>Meridion circulare</i>	0	0	0	0	0	0	0	0	1.6	0	0	0	1.0	0.7	0	0
<i>Syredra ulna</i>	5.4	13.3	8.7	13.7	0	1.1	0	0	7.6	49.2	0	0	0	0.7	4.8	0
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	9.1	0	0	0	0	0	0.3	1.4	0	0
Achnanthes:																
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. lanceolata</i>	16.2	0	8.7	4.3	4.9	0	0	0	8.0	3.4	50.0	13.3	0	3.4	0	0
<i>A. lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 18d. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	R 104	R 105	R 108	R 109	R 100	R 101	R 102	R 103	R 110	R 111	R 106	R 107	R 114	R 115	R 112	R 113
<i>A. minutissima</i>	0	2.7	8.7	7.6	0	7.6	36.4	0	8.8	3.4	0	0	54.8	15.5	9.6	15.4
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	2.7	0	0	0	0	0	0	3.6	0	0	0	0	4.0	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	1.0	61.0	9.7	0	0	0	0	0	0	0	0	0	0
<i>C. placenta</i>	32.4	2.7	17.4	6.2	7.3	11.9	0	100.0	21.7	11.9	50.0	20.0	1.5	7.7	19.3	38.5
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0.8	0	0	0	0.3	0	0	0
Naviculales:																
<i>Amphipleura pellicida</i>	0	2.7	0	0	3.7	4.3	0	0	0	0	0	6.7	0	0	0	0
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	1.0	1.4	0	0
<i>Cymbella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. caespitosa</i>	5.4	0	8.7	2.8	0	3.2	0	0	0.8	0	0	0	1.9	4.7	26.5	0
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	2.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. ventricosa</i>	0	8.0	0	7.6	3.7	1.1	0	0	8.0	3.4	0	40.0	4.8	4.7	2.4	0
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Frustulia rhomboidea</i>	0	0	0	1.0	0	0	0	0	0	0	0	0	0	1.4	0	0
<i>F. rhomboidea</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Complanarena geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	0

Table 18d. (Continued)

Species	Station 1			Station 2			Station 3			Station 4			Station 5			Station 6			Station 7			Station 9		
	R104	R105	R108	R108	R109	R100	R101	R102	R103	R110	R111	R106	R107	R114	R115	R112	R113							
<i>G. hebridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>G. hecuculearum</i>	0	5.3	0	1.4	2.4	3.2	0	0	0	4.4	0	0	0	0	0	0	0							
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>G. olivaceum</i>	18.9	22.7	17.4	5.7	0	14.1	18.2	0	0	15.7	3.4	0	0	4.0	5.7	12.0	0							
<i>G. parvulum</i>	5.4	5.3	0	0	4.9	9.7	0	0	0	2.4	0	0	0	0	3.0	0	46.2							
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>Complanata</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>Gyrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. cryptoccephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0							
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. muralis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. radiosa</i>	0	0	0	0	0	1.6	0	0	0	0	0	0	0	2.9	7.8	0	0							
<i>N. reirhardii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
<i>N. salinarum</i> var. <i>intermedia</i>	0	0	4.4	7.1	0	0	0	0	0	2.4	6.8	0	0	0.3	0.3	0	0							
<i>N. tripunctata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	0							
<i>Navicula</i> sp. A	0	0	0	0	2.4	0	0	0	0	0	0	0	0	0.3	1.4	0	0							
<i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							





Table 19a.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from two sites on April 10-12, 1976.

Species	Station 1			Station 3		
	W104	W105	W110	W110	W111	W111
Bacillariophyceae Species						
Coccolidisciales:						
<i>Cyclotella</i> sp. A	0	0	0	0	0	0
Fragillariales:						
<i>Asterionella formosa</i>	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	0	0	0	0	0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0
<i>D. vulgare</i>	0	58.3	30.3	0	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0
<i>F. construens</i> var. <i>birrodii</i>	0	0	0	0	0	0
<i>F. construens</i> var. <i>vetter</i>	0	0	0	0	0	0
<i>F. leptostauron</i>	0	0	0	0	0	0
<i>F. producta</i>	0	0	0	0	0	0
<i>F. vaucheriae</i>	0	0	0	0	0	0
<i>Hamaea arcus</i>	0	0	0	0	0	0
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	30.8
<i>Meridion circulare</i>	0	0	0	0	0	0
<i>Synedra ulna</i>	0	16.7	3.1	0	0	7.7
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxurhynchus</i>	0	0	0	0	0	0
Achnanthes:						
<i>Achnanthes flexella</i>	0	0	0	0	0	0
<i>A. lanceolata</i>	0	0	6.1	0	0	30.8
<i>A. lemmermanni</i>	0	0	0	0	0	0

Table 19a. (Continued)

Species	Station 1			Station 3		
	W104	W105	W110	W110	W111	W111
<i>A. minutissima</i>	100.0	0	0	0	0	7.7
<i>Achnanthes</i> sp. A	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	0	0	0	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	0	0
<i>C. placentalis</i>	0	0	0	0	0	0
<i>Rhoicosphenia curvata</i>	0	0	0	12.1	0	0
Naviculales:						
<i>Amphipleura pellucida</i>	0	0	0	0	0	0
<i>Amphora ovalis</i>	0	0	0	6.1	0	0
<i>Cymbella affinis</i>	0	0	0	0	0	0
<i>C. caespitosa</i>	0	0	0	6.1	0	0
<i>C. cistula</i>	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0
<i>C. ventricosa</i>	0	0	0	12.1	0	0
<i>Cymbella</i> sp. A	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0
<i>Gomphonema geminatum</i>	0	0	0	0	0	0

Table 19a. (Continued)

Species	Station 1				Station 3		
	W104	W105	W110	W111			
<i>G. hebridenses</i>	0	0	0	0	0	0	
<i>G. hercyniense</i>	0	0	0	0	0	0	
<i>G. intricatum</i>	0	0	0	0	0	0	
<i>G. lanceolatum</i>	0	0	0	0	0	0	
<i>G. oliveum</i>	0	8.3	6.1	23.1	0	0	
<i>G. parvulum</i>	0	0	0	0	0	0	
<i>G. parvulum</i> var. <i>germanum</i>	0	0	0	0	0	0	
<i>Gomphonema</i> sp. A	0	0	0	0	0	0	
<i>Gyrosigma spercerii</i>	0	0	0	0	0	0	
<i>Navicula bicephala</i>	0	0	0	0	0	0	
<i>N. cryptoccephala</i>	0	0	0	0	0	0	
<i>N. cuspidata</i>	0	0	0	0	0	0	
<i>N. festiva</i>	0	0	0	0	0	0	
<i>N. gottlandica</i>	0	0	0	0	0	0	
<i>N. minima</i>	0	0	0	0	0	0	
<i>N. muralis</i>	0	0	0	0	0	0	
<i>N. pupula</i>	0	0	0	0	0	0	
<i>N. radiosa</i>	0	0	0	0	0	0	
<i>N. reinhardtii</i>	0	0	0	0	0	0	
<i>N. salinarum</i> var. <i>intermedia</i>	0	16.7	0	0	0	0	
<i>N. tripunctata</i>	0	0	12.1	0	0	0	
<i>Navicula</i> sp. A	0	0	0	0	0	0	
<i>Navicula</i> sp. B	0	0	0	0	0	0	

Table 19a. (Continued)

Species	Station 1			Station 3		
	W104	W105	W110	W110	W111	W111
<i>Neidium birxide</i>	0	0	0	0	0	0
<i>N. dubium</i>	0	0	0	0	0	0
<i>Stauroneis anceps</i>	0	0	0	0	0	0
<i>S. phoenicenteron</i>	0	0	0	0	0	0
Surirellines:						
<i>Omatopora solea</i>	0	0	0	0	0	0
<i>Epithemia sorex</i>	0	0	0	0	0	0
<i>E. turgida</i>	0	0	0	0	0	0
<i>Nitzschia acicularis</i>	0	0	0	0	0	0
<i>N. amphibia</i>	0	0	0	0	0	0
<i>N. angustata</i>	0	0	0	0	0	0
<i>N. dissipata</i>	0	0	0	0	0	0
<i>N. frustulum</i>	0	0	0	0	0	0
<i>N. linearis</i>	0	0	0	0	0	0
<i>N. palea</i>	0	0	0	6.1	0	0
<i>Rhopalodia gibba</i>	0	0	0	0	0	0
<i>Surirella angustata</i>	0	0	0	0	0	0
<i>S. biseriata</i>	0	0	0	0	0	0
<i>S. ovata</i>	0	0	0	0	0	0

Table 19b.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from seven sites on August 4-5, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
Bacillariophyceae Species														
Coscinodiscales:														
<i>Cyclotella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fragilariales:														
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	0	5.0	1.4	2.8	0	0	0	0.9	0.9	0.9	0.7	4.9	3.4	0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fragilaria capricina</i>	0	0	0	1.4	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	2.8	0	0	0	0
<i>F. construens</i> var. <i>birrodii</i>	0	0	0	0	0	0.8	8.3	0	0	0	0.4	0	0	3.7
<i>F. construens</i> var. <i>veitii</i>	0	0	5.3	2.1	0	0	16.7	0	0	0	8.3	6.2	0	0
<i>F. leptostauron</i>	0	0	0	0	1.2	0.8	0	0	0	0.9	0	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. vauxeriae</i>	0	5.9	0	1.4	0	1.6	0	1.8	2.8	0	0.4	0	0	0
<i>Hantzschia arcus</i>	0	0	12.0	12.8	23.8	6.1	25.0	5.9	8.5	3.7	4.8	9.2	20.0	7.2
<i>H. arcus</i> var. <i>amphioxys</i>	0	19.8	0	0	0	0	0	0	0	0	0	0	1.1	0
<i>Meridion circulare</i>	0	0	0	0.7	0	0.8	0	0	2.8	0.9	0.9	1.2	0	0
<i>Synedra ulna</i>	0	5.0	25.0	25.3	14.9	6.5	0	2.3	5.6	3.7	2.2	6.2	0.6	0
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxytrichus</i>	0	0	0	0	5.4	4.5	0	0	0	0	0	0	0	0
Achnanthes:														
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. larceolata</i>	0	9.9	1.9	2.8	0.6	2.8	0	1.4	2.8	1.4	0.4	2.5	2.9	2.2
<i>A. Lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 19b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
<i>A. minutissima</i>	0	2.0	3.4	6.9	1.8	4.9	0	32.4	7.0	7.9	20.0	8.0	10.9	24.3
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achnanthes</i> sp. B	0	2.0	0	0	0	0	0	0	0.9	0	3.1	1.2	0	0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	1.2	0	0	0	0	0	0	0	0	0
<i>C. placartula</i>	30.0	6.9	1.9	2.8	4.8	6.9	12.5	0.9	8.5	6.5	0.2	0	2.3	1.6
<i>Rhoicosiphonia curvata</i>	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0
Naviculales:														
<i>Amphipleura pellicida</i>	0	2.0	0	0.3	0	0	0	0	0	0	0	2.5	0	0
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0.9	0	0	0	0	0
<i>Cymbella affinis</i>	0	0	0	0.7	0	0	0	3.2	0	0	0	0	0	0
<i>C. caespitosa</i>	20.0	13.8	13.0	6.2	16.7	12.2	16.7	34.6	8.9	10.2	14.7	22.8	9.1	8.1
<i>C. cistula</i>	0	0	0	0	0	0	0	1.8	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. verrucosa</i>	0	2.0	1.9	7.6	0	0.8	0	2.3	4.7	1.9	2.6	2.5	0	3.1
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. rhomboides</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Comptonema geminatum</i>	0	0	0	0.7	0	0	12.5	3.6	1.4	0.9	0.4	0	0	0.6

Table 19b. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	W5	W6	W7	W8	W3	W4	W1	W2	W9	W10	W11	W12	W13	W14
<i>G. hybridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. herculeanum</i>	0	0	1.9	0	0	0	0	0	2.8	0.9	0	0	0	0
<i>G. intricatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. lanceolatum</i>	0	2.0	0	0	0	0	0	0	0	0	1.3	0	0	0
<i>G. olivaceum</i>	0	17.8	10.6	6.6	14.9	29.7	0	3.6	15.5	26.1	6.6	2.5	12.6	10.0
<i>G. parvulum</i>	50.0	0	0	0.3	0	0	8.3	1.8	1.9	5.1	8.8	14.2	7.4	13.7
<i>G. parvulum</i> var. <i>gerulinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Comphonema</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gjrosigma spencerii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. cryptocephala</i>	0	0	0	0	0	1.6	0	0	0	0	0	0	0	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. muralis</i>	0	0	0	0	0	0	0	0	0.9	0	1.3	0	0	0
<i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	1.4	3.8	0.6	0.8	0	0	3.3	2.8	2.6	2.5	0	0.6
<i>N. reinhardtii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. salinarum</i> var. <i>intermedia</i>	0	0	0	1.4	0	3.3	0	0	0	0	0.2	0	2.3	1.2
<i>N. tripunctata</i>	0	0	0	0	0	0	0	0	0	0	0	0	2.3	0
<i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6
<i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	0	2.8	0	0	0	0





Table 19c.

Percent numeric composition of periphytic diatoms on replicate whole rocks collected from eight sites on September 11-12, 1976.

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
Bacillariophyceae Species																
Coccolodisciales:																
<i>Cyclotella</i> sp. A.	1.2	7.6	0	3.1	0	2.3	0	0	0	0	0	0	1.4	0	0.9	0
Fragilariales:																
<i>Asterionella formosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diatoma hiemale</i>	1.2	0	1.8	1.5	0	0	0	0	0	0	3.1	5.1	0	0	0	1.0
<i>D. hiemale</i> var. <i>mesodon</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>F. construens</i> var. <i>biridis</i>	0	0	0	0	0	0	0	1.9	2.3	0	0	0	3.4	0	0	0
<i>F. construens</i> var. <i>verter</i>	0	0	2.4	1.5	0	0	0	0	2.3	0	3.1	0	0	0.7	0	0
<i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0
<i>F. producta</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0	0
<i>F. vaucheriae</i>	2.4	0	0.6	0	0	0.9	0	0	3.8	5.6	0.8	0	0.7	2.1	0	0
<i>Hantzsea arcus</i>	1.2	3.2	4.2	7.7	1.1	0	0	0	5.3	1.4	5.1	0	6.4	2.8	1.8	0
<i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	0	0	0	0	0.9	0	2.6	0	3.8	0	7.7
<i>Meridion circulare</i>	0	0	0	3.1	0	0	0	0	0	0	2.0	0	2.0	0	0	0
<i>Synedra ulna</i>	6.0	6.0	5.0	8.1	6.4	4.6	0	0	2.3	11.2	2.7	7.7	6.4	5.5	0	1.0
<i>S. ulna</i> var. <i>impressa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Achnanthes:																
<i>Achnanthes flexella</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>A. larcolata</i>	0.6	2.2	3.9	3.1	7.5	0.9	0	1.9	6.4	1.4	1.6	2.6	2.0	1.7	9.7	11.2
<i>A. lemmermanni</i>	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0

Table 19c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
<i>A. minutissima</i>	22.8	6.5	14.8	8.4	4.3	6.4	20.7	44.2	8.0	7.0	14.1	33.3	10.5	21.0	11.1	13.8
<i>Achnanthes</i> sp. A	0	1.6	0.9	0	0	0	0	0	0	0.5	2.0	2.6	1.0	0	0	0
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0.9	0	0	0.7	1.0	0	1.0
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Cocconeis pediculus</i>	0	0	0	0	7.5	15.5	0	0	0	0	2.3	0	0	0	0	0
<i>C. placentula</i>	13.2	3.8	11.3	7.3	33.7	18.3	44.8	0.5	15.2	17.3	20.7	6.4	3.7	9.3	9.7	6.6
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0
Naviculales:																
<i>Amphipleura pellucida</i>	1.2	0	0.9	0.4	1.1	0.9	0	0	0.8	0.5	0	0	1.4	1.0	0	0
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0
<i>Cymbella affinis</i>	1.2	0	0.6	0	0	0	0	0	0	0	0.8	0	0	0	0	1.0
<i>C. caespitosa</i>	12.0	8.6	6.8	4.2	4.3	2.7	13.8	14.4	2.3	6.5	0	0	9.8	7.6	11.1	7.1
<i>C. cistula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0.7	0	0
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>C. ventricosa</i>	1.2	5.4	4.7	5.4	0	0	6.9	7.7	8.3	3.7	12.5	15.4	1.4	2.8	3.7	1.0
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Frustulia rhomboidea</i>	0	0	1.2	0	0	0	0	0	0	0	0	0	0	0	0.9	0
<i>F. rhomboidea</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0
<i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	22.6	0	0.9	0	0	0	0	1.8	0

Table 19c. (Continued)

Species	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	W104	W105	W108	W109	W100	W101	W102	W103	W110	W111	W106	W107	W114	W115	W112	W113
<i>G. hebridenses</i>	0	0	0	0	0	0	0	0	0	0	0	0	1.4	0	0	0
<i>G. herculeanum</i>	1.2	0	1.8	0.8	0	0	0	0	0.8	3.7	0	0	5.8	3.5	0.9	0
<i>G. intricatum</i>	0	0	0	0	0	0.9	0	0	0	0	0	0	0	0	0	0
<i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>G. olivaceum</i>	27.0	37.3	6.2	13.0	16.0	11.0	13.8	1.0	17.8	15.0	5.9	0	11.2	7.6	15.7	16.8
<i>G. parvulum</i>	0	1.6	0	1.5	0	0	0	0	1.5	0	1.6	0	10.9	2.4	6.0	12.3
<i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Comptonera</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gyrosigma spencerii</i>	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula bicephala</i>	0	0	0	0	0	0	0	4.3	0.8	0	1.6	0	0	0	0	0
<i>N. cryptocephala</i>	0	0	6.0	3.8	1.1	0	0	0	3.8	0	2.7	3.9	0	2.8	1.8	0
<i>N. cuspidata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. festiva</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>N. gottlandica</i>	0	0	0	0	2.1	0	0	0	0	0	0	0	0	0	0	0
<i>N. minima</i>	0	0	2.7	0	0	0	0	0	0	0	0.8	2.6	0	0	0	0
<i>N. muralis</i>	0	1.1	0	0.4	0.5	0.9	0	0	0.8	0	0	0	1.4	0.7	0	0
<i>N. pupula</i>	0	1.1	0	0	1.1	0	0	0	0	0	0	0	0	0	0	0
<i>N. radiosa</i>	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0
<i>N. reinhardii</i>	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0.7	0.9	0
<i>N. salinarum</i> var. <i>intermedia</i>	3.0	1.6	0	0	0	1.8	0	0.5	0	0	0	0	2.7	0	1.8	1.0
<i>N. tripunctata</i>	0	0	1.2	0	0	1.8	0	0	0	0	3.9	5.1	0	0	0	1.0
<i>Navicula</i> sp. A	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0
<i>Navicula</i> sp. B	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0



Table 19d.

Percent numeric composition of periphytic diatoms  
on replicate whole rocks collected from the Flathead River  
on August 26, 1980.

Species	Station 3	
	Rock F1	Rock F2
Coscinodiscales:		
<i>Oyclotella glomerata</i>	1.26	.00
Eunotiales		
<i>Eunotia</i> sp.	.00	.56
Fragilariales:		
<i>Asterionella formosa</i>	.00	.00
<i>Diatoma elongatum</i>	.00	.00
<i>D. hiemale</i>	.63	.00
<i>D. hiemale</i> var. <i>mesodon</i>	.00	.00
<i>D. vulgare</i>	.00	.00
<i>Fragilaria capucina</i>	.00	.00
<i>F. construens</i>	.00	.00
<i>F. construens</i> var. <i>hindis</i>	.00	.00
<i>F. construens</i> var. <i>venter</i>	.00	.56
<i>F. crotonensis</i>	.00	.00
<i>F. heidenii</i>	.00	.00
<i>F. leptostauron</i>	.63	.00
<i>F. pinnata</i>	.00	.00
<i>F. producta</i>	.00	.00
<i>F. vaucheriae</i>	1.89	4.51
<i>Hannaea arcus</i>	.00	.56
<i>H. arcus</i> var. <i>amphioxys</i>	.00	.00

Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>Meridion circulare</i>	.00	.00
<i>Synedra acus</i> var. <i>radians</i>	.00	.00
<i>S. ulna</i>	.63	.00
<i>S. ulna</i> var. <i>impressa</i>	.00	.00
<i>S. ulna</i> var. <i>oxyrhynchus</i>	1.26	1.69
<i>S. ulna</i> var. <i>oxyrhynchus</i> f. <i>contracta</i>	.00	.00
<i>Tabellaria flocculosa</i>	.94	.00
Achnanthes:		
<i>Achnanthes flexella</i>	.00	.00
<i>A. lanceolata</i>	.63	1.13
<i>A. lemmermanni</i>	.00	.00
<i>A. minutissima</i>	9.12	21.41
<i>Achnanthes</i> sp.	1.89	2.82
<i>Cocconeis pediculus</i>	3.14	5.07
<i>C. placentula</i>	38.99	28.17
<i>Rhoicosphenia curvata</i>	.63	.00
Naviculales:		
<i>Amphipleura pellucida</i>	.63	.00
<i>Amphora ovalis</i>	.00	.00
<i>Anomoeneis exilis</i>	.00	.56
<i>Cymbella affinis</i>	.00	.00
<i>C. caespitosa</i>	.94	2.54
<i>C. cistula</i>	.00	.00
<i>C. cymbiformis</i>	.00	.00
<i>C. gracilis</i>	.00	.00

Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>C. prostrata</i>	.00	.00
<i>C. sinuata</i>	.63	1.69
<i>C. turgida</i>	.00	.00
<i>C. ventricosa</i>	1.89	1.13
<i>Cymbella</i> sp. A	.00	.00
<i>Diploneis ovalis</i>	.00	.00
<i>Frustulia rhomboides</i>	.00	.00
<i>F. rhomboides</i> var. <i>viridula</i>	.00	.00
<i>Gomphonema geminatum</i>	.00	.00
<i>G. hebridenses</i>	.00	.00
<i>G. herculeanum</i>	.00	.00
<i>G. intricatum</i>	.00	.00
<i>G. lanceolatum</i>	.00	.00
<i>G. olivaceoides</i>	.00	.00
<i>G. olivaceum</i>	14.78	10.14
<i>G. parvulum</i>	.00	.00
<i>G. parvulum</i> var. <i>genuinum</i>	.00	.00
<i>Gomphonema</i> sp. A	.00	.00
<i>Gyrosigma spencerii</i>	.00	.00
<i>Navicula arvensis</i>	.00	.00
<i>N. bicephala</i>	.00	.00
<i>N. capitata</i> var. <i>hungarica</i>	.00	.00
<i>N. cryptocephala</i>	.00	.00
<i>N. cuspidata</i>	.00	.00



Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>N. festiva</i>	.00	.00
<i>N. gottlandica</i>	.00	.00
<i>N. minima</i>	.00	.00
<i>N. muralis</i>	.00	.00
<i>N. pelliculosa</i>	.00	.00
<i>N. pupula</i>	.00	.00
<i>N. radiosa</i>	1.89	.00
<i>N. reinhardii</i>	.00	.00
<i>N. salinarum</i> var. <i>intermedia</i>	.00	1.13
<i>N. tripunctata</i>	.00	.00
<i>N. viridula</i>	.00	.00
<i>Navicula</i> sp.	5.35	3.38
<i>Neidium binode</i>	.00	.00
<i>N. dubium</i>	.00	.00
<i>Neidium</i> sp.	.00	.56
<i>Stauroneis anceps</i>	.00	.00
<i>S. phoenicenteron</i>	.00	.00
Surirellines:		
<i>Cymatopleura solea</i>	.00	.00
<i>Denticula elegans</i>	.63	.00
<i>Epithemia sorex</i>	1.89	1.69
<i>E. turgida</i>	5.35	1.69
<i>Nitzschia acicularis</i>	.63	.00
<i>N. actinastroides</i>	.00	.00
<i>N. amphibia</i>	.00	.00

Table 19d. (Continued)

Species	Station 3	
	Rock F1	Rock F2
<i>N. angustata</i>	.00	.00
<i>N. dissipata</i>	.63	3.94
<i>N. frustulum</i>	.63	1.13
<i>N. linearis</i>	.00	.00
<i>N. palea</i>	1.89	3.38
<i>Rhopalodia gibba</i>	.63	.56
<i>Surirella angustata</i>	.00	.00
<i>S. biseriata</i>	.00	.00
<i>S. ovata</i>	.00	.00
Number of Species	28	24
Shannon-Wiener Index	3.35	3.48

Table 19e.

Percent numeric composition of periphytic diatoms on  
replicate whole rocks collected from two sites  
on July 28, 1982.

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
Coscinodiscales:						
<i>Cyclotella glomerata</i>	.00	.00	.00	.00	.00	.00
Eunotiales						
<i>Eunotia</i> sp.	.00	.00	.00	.00	.00	.00
Fragilariales:						
<i>Asterionella formosa</i>	.00	.00	.00	.00	.00	.00
<i>Diatoma elongatum</i>	.00	.00	.55	.00	.92	1.19
<i>D. hiemale</i>	.00	.00	1.65	.00	.00	.00
<i>D. hiemale</i> var. <i>mesodon</i>	1.48	1.63	1.65	.00	.00	.00
<i>D. vulgare</i>	.00	.00	.00	.00	.00	.00
<i>Fragilaria capucina</i>	.00	.00	.00	.00	.00	.00
<i>F. construens</i>	.00	.00	.00	.00	.00	.00
<i>F. construens</i> var. <i>hindis</i>	.00	.00	.00	.00	.00	.00
<i>F. construens</i> var. <i>venter</i>	.00	.00	.00	.00	.00	.00
<i>F. crotonensis</i>	.00	.00	.00	.32	.00	.00
<i>F. heidenii</i>	.00	.27	.00	.00	.00	.00
<i>F. leptostauron</i>	.00	.54	.27	.00	.00	.00
<i>F. pinnata</i>	.00	.00	.27	.00	.00	.00
<i>F. producta</i>	.00	.00	.00	.00	.00	.00
<i>F. vaucheriae</i>	.59	.27	.55	.00	.00	.00
<i>Hamaea arcus</i>	1.78	4.07	3.30	1.59	.00	.00
<i>H. arcus</i> var. <i>amphioxys</i>	.30	.54	.82	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>Meridion circulare</i>	1.18	1.36	.82	1.91	.00	.00
<i>Synedra acus</i> var. <i>radians</i>	.00	.00	.55	.00	.31	.00
<i>S. ulna</i>	10.36	16.53	12.64	1.91	1.22	3.26
<i>S. ulna</i> var. <i>impressa</i>	.00	.00	.00	.00	.00	.00
<i>S. ulna</i> var. <i>oxyrhynchus</i>	.00	4.34	2.75	.00	.00	.59
<i>S. ulna</i> var. <i>oxyrhynchus</i> f. <i>contracta</i>	.00	.00	.00	.00	.00	.00
<i>Tabellaria flocculosa</i>	.00	.00	.00	.00	.00	.00
Achnanthes:						
<i>Achnanthes flexella</i>	.00	.00	.00	.00	.00	.00
<i>A. lanceolata</i>	3.25	1.90	1.65	.64	1.22	1.48
<i>A. lemmermanni</i>	.00	.00	.00	.00	.00	.00
<i>A. minutissima</i>	5.33	5.96	3.85	11.15	35.78	11.87
<i>Achnanthes</i> sp.	.00	.00	.00	.00	.00	.00
<i>Cocconeis pediculus</i>	.00	.00	.00	.00	.00	.00
<i>C. placentula</i>	1.18	.27	.55	12.74	1.53	12.17
<i>Rhoicosphenia curvata</i>	.59	.54	.00	.00	.00	.00
Naviculales:						
<i>Amphipleura pellucida</i>	.00	.00	.00	.00	.00	.00
<i>Amphora ovalis</i>	.59	.00	.00	.00	.00	.00
<i>Anomoeneis exilis</i>	.00	.00	.00	.00	.00	.00
<i>Cymbella affinis</i>	16.27	10.30	17.03	.64	.00	.30
<i>C. caespitosa</i>	.00	.00	.00	.00	.00	.00
<i>C. cistula</i>	.30	.00	.00	.00	.00	.00
<i>C. cymbiformis</i>	.00	.00	.00	.00	.00	.00
<i>C. gracilis</i>	.00	.00	.00	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>C. prostrata</i>	.00	.00	.00	.00	.00	.00
<i>C. sinuata</i>	4.73	8.67	3.85	17.20	11.01	16.32
<i>C. turgida</i>	.00	.00	.00	.00	.00	1.78
<i>C. ventricosa</i>	1.78	1.36	3.85	.96	.31	1.78
<i>Cymbella</i> sp. A	.00	.00	.00	.00	.00	.00
<i>Diploneis ovalis</i>	.00	.00	.00	.00	.00	.00
<i>Frustulia rhomboides</i>	.00	.00	.00	.00	.00	.00
<i>F. rhomboides</i> var. <i>viridula</i>	.00	.00	.00	.00	.00	.00
<i>Gomphonema geminatum</i>	.00	.00	.00	.00	.00	.00
<i>G. hebridenses</i>	.00	.00	.00	.00	.00	.00
<i>G. herculeanum</i>	.00	.00	.27	.00	.00	.00
<i>G. intricatum</i>	8.28	4.88	5.77	.00	.00	.00
<i>G. lanceolatum</i>	.00	.00	.00	.00	.00	.00
<i>G. olivaceoides</i>	.00	.81	.55	.00	.00	.00
<i>G. olivaceum</i>	29.59	27.10	28.02	38.85	39.76	37.09
<i>G. parvulum</i>	.30	.54	.00	.00	.00	.00
<i>G. parvulum</i> var. <i>genuinum</i>	.00	.00	.00	.00	.00	.00
<i>Gomphonema</i> sp. A	.00	.00	.00	.00	.00	.00
<i>Gyrosigma spencerii</i>	.00	.00	.00	.00	.00	.00
<i>Navicula arvensis</i>	.00	.00	.00	.96	.61	.59
<i>N. bicephala</i>	.00	.27	.00	.00	.31	.00
<i>N. capitata</i> var. <i>hungarica</i>	.00	.00	.00	.00	.31	.30
<i>N. cryptocephala</i>	.00	.00	.00	.00	.00	.00
<i>N. cuspidata</i>	.00	.00	.00	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>N. festiva</i>	.00	.00	.00	.00	.00	.00
<i>N. gottlandica</i>	.00	.00	.00	.00	.00	.00
<i>N. minima</i>	.00	.00	.00	.00	.00	.00
<i>N. muralis</i>	.00	.00	.00	.00	.00	.00
<i>N. pelliculosa</i>	.00	.00	.00	.64	2.45	.89
<i>N. pupula</i>	.00	.00	.00	.00	.00	.00
<i>N. radiosa</i>	.00	.00	.00	.00	.00	.00
<i>N. reinhardii</i>	.00	.00	.00	.00	.00	.00
<i>N. salinarum</i> var. <i>intermedia</i>	3.55	2.44	1.37	2.55	2.14	2.97
<i>N. tripunctata</i>	.00	.00	.27	.00	.00	.00
<i>N. viridula</i>	.00	.00	.00	.00	.31	.00
<i>Navicula</i> sp.	2.07	.00	.27	.64	.31	1.48
<i>Neidium binode</i>	.00	.00	.00	.00	.00	.00
<i>N. dubium</i>	.00	.00	.00	.00	.00	.00
<i>Neidium</i> sp.	.00	.00	.00	.00	.00	.00
<i>Stauroneis anceps</i>	.00	.00	.00	.00	.00	.00
<i>S. phoenicenteron</i>	.00	.00	.00	.00	.00	.00
Surirellines:						
<i>Oymatopleura solea</i>	.00	.00	.00	.00	.00	.00
<i>Denticula elegans</i>	.00	.00	.00	.00	.00	.00
<i>Epithemia sorex</i>	.00	.00	.00	.32	.00	.00
<i>E. turgida</i>	.00	.00	.00	.00	.00	.59
<i>Nitzschia acicularis</i>	.00	.00	.00	.32	.00	.30
<i>N. actinastroides</i>	.00	.00	.00	.00	.00	1.19
<i>N. amphibia</i>	.00	.00	.00	.00	.00	.00

Table 19e. (Continued)

Species	Station 2			Station 3		
	Rock 4A	Rock 4B	Rock 4C	Rock 3A	Rock 3B	Rock 3C
<i>N. angustata</i>	.00	.00	.00	.00	.00	.00
<i>N. dissipata</i>	.89	2.44	4.12	2.23	.61	2.37
<i>N. frustulum</i>	.00	.00	.00	.00	.00	.00
<i>N. linearis</i>	.00	.00	.00	.00	.00	.00
<i>N. palea</i>	5.62	2.71	1.92	3.18	.92	1.48
<i>Rhopalodia gibba</i>	.00	.00	.00	.00	.00	.00
<i>Surirella angustata</i>	.00	.00	.27	.64	.00	.00
<i>S. biseriata</i>	.00	.00	.00	.00	.00	.00
<i>S. ovata</i>	.00	.27	.55	.64	.00	.00
Number of Species	22	25	29	21	18	21
Shannon-Wiener Index	3.41	3.53	3.59	2.91	2.27	3.03

Table 19f.

Percent numeric composition of periphytic diatoms  
from qualitative samples collected from the Flathead River  
on July 28, 1982.

Species	Station 2	Station 3
	Rock 4D	Rock 3D
Coscinodiscales:		
<i>Cyclotella glomerata</i>	.00	.00
Eunotiales		
<i>Eunotia</i> sp.	.00	.00
Fragilariales:		
<i>Asterionella formosa</i>	.00	.00
<i>Diatoma elongatum</i>	.00	4.14
<i>D. hiemale</i>	.00	.49
<i>D. hiemale</i> var. <i>mesodon</i>	.43	.49
<i>D. vulgare</i>	.00	.49
<i>Fragilaria capucina</i>	.00	.00
<i>F. construens</i>	.00	.00
<i>F. construens</i> var. <i>binodis</i>	.00	.00
<i>F. construens</i> var. <i>venter</i>	.00	.00
<i>F. crotonensis</i>	.00	.00
<i>F. heidenii</i>	.21	.24
<i>F. leptostauron</i>	.21	.00
<i>F. pinnata</i>	.00	.00
<i>F. producta</i>	.00	.00
<i>F. vaucheriae</i>	1.93	.00
<i>Hannaea arcus</i>	8.80	3.16
<i>H. arcus</i> var. <i>amphioxys</i>	1.50	.97



Table 19f. (Continued)

Species	Station 2	Station 3
	Rock 4D	Rock 3D
<i>Meridion circulare</i>	.00	.00
<i>Synedra acus</i> var. <i>radians</i>	.00	3.65
<i>S. ulna</i>	21.46	27.98
<i>S. ulna</i> var. <i>impressa</i>	.00	.00
<i>S. ulna</i> var. <i>oxyrhynchus</i>	.21	1.22
<i>S. ulna</i> var. <i>oxyrhynchus</i> f. <i>contracta</i>	.21	1.22
<i>Tabellaria flocculosa</i>	.00	.00
Achnanthes:		
<i>Achnanthes flexella</i>	.00	.00
<i>A. lanceolata</i>	1.07	.00
<i>A. lemmermanni</i>	.00	.00
<i>A. minutissima</i>	2.36	11.68
<i>Achnanthes</i> sp.	.00	.00
<i>Cocconeis pediculus</i>	.00	.00
<i>C. placentula</i>	.43	.97
<i>Rhoicosphenia curvata</i>	.00	.00
Naviculales:		
<i>Amphipleura pellucida</i>	.00	.00
<i>Amphora ovalis</i>	.00	.00
<i>Anomoeoneis exilis</i>	.00	.00
<i>Cymbella affinis</i>	20.60	21.17
<i>C. caespitosa</i>	.00	.00
<i>C. cistula</i>	.21	.00
<i>C. cymbiformis</i>	.00	.00
<i>C. gracilis</i>	.00	.00

Table 19f. (Continued)

Species	Station 2	Station 3
	Rock 4D	Rock 3D
<i>C. prostrata</i>	.00	.00
<i>C. sinuata</i>	3.65	2.19
<i>C. turgida</i>	.00	.00
<i>C. ventricosa</i>	1.50	3.16
<i>Cymbella</i> sp. A	.00	.00
<i>Diploneis ovalis</i>	.00	.00
<i>Frustulia rhomboides</i>	.00	.00
<i>F. rhomboides</i> var. <i>viridula</i>	.00	.00
<i>Gomphonema geminatum</i>	.00	.00
<i>G. hebridenses</i>	.00	.00
<i>G. herculeanum</i>	.00	.00
<i>G. intricatum</i>	.00	.00
<i>G. lanceolatum</i>	.00	.00
<i>G. olivaceoides</i>	.00	.00
<i>G. olivaceum</i>	11.16	5.84
<i>G. parvulum</i>	.43	.00
<i>G. parvulum</i> var. <i>genuirum</i>	.00	.00
<i>Gomphonema</i> sp. A	.00	.00
<i>Gyrosigma spencerii</i>	.00	.00
<i>Navicula arvensis</i>	.00	.00
<i>N. bicephala</i>	.00	.00
<i>N. capitata</i> var. <i>hungarica</i>	.00	.24
<i>N. cryptocephala</i>	.00	.00
<i>N. cuspidata</i>	.00	.00

Table 19f. (Continued)

Species	Station 2	Station 3
	Rock 4D	Rock 3D
<i>N. festiva</i>	.00	.00
<i>N. gottlandica</i>	.00	.00
<i>N. minima</i>	.00	.00
<i>N. muralis</i>	.00	.00
<i>N. pelliculosa</i>	.00	.00
<i>N. pupula</i>	.00	.00
<i>N. radiosa</i>	.00	.00
<i>N. reinhardii</i>	.00	.00
<i>N. salinarum</i> var. <i>intermedia</i>	4.51	1.22
<i>N. tripunctata</i>	.43	.00
<i>N. viridula</i>	.00	.00
<i>Navicula</i> sp.	.86	.00
<i>Neidium binode</i>	.00	.00
<i>N. dubium</i>	.00	.00
<i>Neidium</i> sp.	.00	.00
<i>Stauroneis anceps</i>	.00	.00
<i>S. phoenicenteron</i>	.00	.00
Surirellines: <i>Cymatopleura solea</i>	.00	.00
<i>Denticula elegans</i>	.00	.00
<i>Epithemia sorex</i>	.00	.00
<i>E. turgida</i>	.00	.00
<i>Nitzschia acicularis</i>	.21	.00
<i>N. actinastroides</i>	.00	.00
<i>N. amphibia</i>	.00	.00

Table 19f. (Continued)

Species	Station 2	Station 3
	Rock 4D	Rock 3D
<i>N. angustata</i>	.00	.00
<i>N. dissipata</i>	10.30	5.35
<i>N. frustulum</i>	.00	.00
<i>N. linearis</i>	.00	.00
<i>N. palea</i>	7.30	4.14
<i>Rhopalodia gibba</i>	.00	.00
<i>Surirella angustata</i>	.00	.00
<i>S. biseriata</i>	.00	.00
<i>S. ovata</i>	.00	.00



Table 20a. (Continued)

Species	Station 1			Station 2			Station 4			Station 7			Station 9		
	P3	P4	P5	P6	P1	P2	P7	P8	P9	P10					
<i>A. minutissima</i>	4.5	12.4	0	4.7	18.1	15.6	20.3	10.3	9.5	11.4	0	0	0	0	
<i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Achnanthes</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>C. placertula</i>	39.1	22.7	0	0	2.3	0.8	1.9	1.0	1.0	1.1	0	0	0	0	
<i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Naviculales:															
<i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Oymbella affinis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>C. caespitosa</i>	2.5	2.1	0	3.1	8.2	4.7	7.4	13.4	0.3	1.4	0	0	0	0	
<i>C. cistula</i>	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	
<i>C. cymbiformis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>C. gracilis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>C. prostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>C. turgida</i>	0	0	0	3.1	2.3	0	1.5	0	0	0	0	0	0	0	
<i>C. verrucosa</i>	1.3	0	0	6.3	9.9	10.9	3.7	1.4	2.0	0.6	0	0	0	0	
<i>Cymbella</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Diploneis ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Frustulia rhomboidea</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>F. rhomboidea</i> var. <i>viridula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Gomphonema geminatum</i>	0	0	0	0	0	1.6	1.1	0	0	0	0	0	0	0	















Table 21a.

Shannon-Wiener diversities ( $H'$ ) of periphytic diatoms on rock subsamples collected from eight sites in the Flathead River Basin, April-September, 1976.

Station Number	April 10-12		June 14-15		August 4-5		September 11-12	
	Sample Number	$H'$	Sample Number	$H'$	Sample Number	$H'$	Sample Number	$H'$
1	R102	1.688	R005	1.683	R5	1.371	R104	2.772
	R103	1.000	R006	3.108	R6	2.606	R105	3.614
2	R106	2.482	R003	3.410	R7	3.820	R108	3.219
	R107	0	R004	3.357	R8	3.736	R109	3.754
3	R108	1.135	R110	2.243	R3	0.863	R100	2.152
	R109	0.198	R111	2.644	R4	2.674	R101	3.954
4	R112	1.000	R008	1.724	R1	1.379	R102	1.823
	R113	0.722	R009	2.060	R2	2.418	R103	0
5	R114	3.435	R001	1.406	R9	3.903	R110	3.692
	R115	2.530	R002	2.898	R10	3.663	R111	2.450
6	R116	1.973	NOT SAMPLED		R11	2.068	R106	1.000
	R117	0			R12	1.918	R107	2.289
7	R118	3.370	R020	3.023	R13	1.837	R114	2.716
	R119	2.987	R021	2.405	R14	3.871	R115	4.144
9	NOT SAMPLED		R022	1.868	R15	2.737	R112	3.039
			R023	1.705	R16	1.534	R113	1.460

Table 21b.

Shannon-Wiener diversities ( $H'$ ) of periphytic diatoms on whole rocks collected from eight sites in the Flathead River Basin, April-September, 1976.

Station Number	April 10-12		August 4-5		September 11-12	
	Sample Number	$H'$	Sample Number	$H'$	Sample Number	$H'$
1	W104	0	W5	1.485	W104	3.064
	W105	1.614	W6	3.433	W105	3.312
2	NOT SAMPLED		W7	3.546	W108	4.078
			W8	3.764	W109	4.056
3	W110	3.007	W3	3.137	W100	3.223
	W111	2.104	W4	3.530	W101	3.668
4	NOT SAMPLED		W1	2.709	W102	2.044
			W2	2.794	W103	2.315
5	NOT SAMPLED		W9	3.949	W110	3.942
			W10	3.768	W111	3.672
6	NOT SAMPLED		NOT SAMPLED		W106	3.790
					W107	3.201
7	NOT SAMPLED		W11	3.711	W114	4.098
			W12	3.550	W115	3.917
9	NOT SAMPLED		W13	3.390	W112	3.684
			W14	3.303	W113	3.623

Table 2lc.

Shannon-Wiener diversities (H') of periphytic diatoms on plexiglass plates collected from seven sites in the Flathead River Basin, August-September, 1976.

Station Number	August 4-5		September 11-12	
	Sample Number	H'	Sample Number	H'
1	P3	2.220	P104	2.193
	P4	2.270	P105	0.320
2	P5	1.317	P108	0
	P6	3.038	P109	2.308
3	NOT SAMPLED		P100	1.538
			P101	0.500
4	P1	2.795	P102	0.785
	P2	2.430	P103	2.854
5	NOT SAMPLED		P110	2.599
			P111	1.810
6	NOT SAMPLED		NOT SAMPLED	
7	P7	3.614	P114	0.953
	P8	3.120	P115	2.942
9	P9	2.440	P112	2.498
	P10	2.117	P113	0.693

Table 22a.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml<sup>-1</sup>) from seven sites sampled April 10-12, 1976. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (+).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
Diatoms:														
* <i>Achnanthes lanceolata</i>	0	287	0	0	0	72	0	108	0	323	0	72	0	143
* <i>A. minutissima</i>	0	753	11	126	0	538	0	1506	0	860	0	466	72	681
* <i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Amphora ovalis</i>	0	72	0	11	0	0	0	0	0	0	0	0	0	0
* <i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>C. placentula</i>	0	143	0	57	0	215	0	72	143	323	0	143	0	359
* <i>Cymatopleura solea</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Cymbella caespitosa</i>	72	287	11	46	0	430	0	251	0	0	0	0	0	359
* <i>C. sinuata</i>	0	0	0	34	0	0	0	0	0	0	0	0	0	0
* <i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>C. ventricosa</i>	72	72	11	57	0	287	0	72	0	179	72	36	0	72
+ <i>Diatona hiemale</i>	143	502	160	46	0	0	0	36	0	287	72	143	430	538
* <i>D. tenue</i>	0	0	0	0	0	574	0	0	0	0	0	0	0	0
* <i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	72	0	0	0	72
* <i>Epithemia sorex</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0	0	0	0	143	0	36	0	0
* <i>Emotia pectinalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>binodis</i>	0	0	0	23	0	72	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>venter</i>	0	574	0	0	0	0	0	215	0	0	0	0	359	72





Table 22a. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>N. incurvum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Nitzschia acicularis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. dissipata</i>	0	143	11	11	0	0	0	0	0	72	0	143	0	108
* <i>N. frustulum</i>	0	72	0	0	0	72	0	0	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	143
* <i>N. palea</i>	0	430	0	275	0	789	0	215	0	609	0	717	0	430
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	72	0	0	0	143	0	0	143	179	72	0	0	0
o <i>Stephanodiscus astraëa</i> var. <i>minutula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Surirella angustata</i>	0	0	0	0	0	72	0	0	0	0	72	143	0	72
* <i>Syedra ulna</i>	0	143	11	69	0	287	0	143	0	179	0	251	0	574
* <i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta:														
o cf. <i>Chlamydomonas</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Mougeotia</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:														
* <i>Nostoc</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Oscillatoria</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysochyta:														
* Order Chrysoosaccales-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta:														
* Order Vaucheriales	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	8	21	9	18	1	18	1	14	4	18	5	19	7	22
% of total cells with chloroplasts:	10.5		18.0		1.2		1.7		10.2		9.9		29.8	

Table 22b.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml<sup>-1</sup>) from seven sites sampled June 14-15, 1976. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (+).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
Diatoms:														
* <i>Achnanthes lanceolata</i>	0	0	0	0	0	23	0	0	0	34	0	0	0	0
* <i>A. minutissima</i>	143	287	72	287	34	29	11	194	0	57	0	160	0	17
* <i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* <i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>C. placentula</i>	0	72	0	0	0	0	0	0	0	11	0	17	0	11
* <i>Cymatopleura solea</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Cymbella caespitosa</i>	72	108	72	215	0	0	0	0	0	0	0	23	11	11
* <i>C. sinuata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>C. turgida</i>	0	0	0	0	0	11	0	0	0	0	0	0	0	0
* <i>C. ventricosa</i>	0	0	143	215	0	0	0	11	0	11	34	0	0	0
+ <i>Diatoma hienale</i>	0	0	215	215	0	29	0	46	0	34	11	11	0	23
* <i>D. tenue</i>	0	0	0	0	0	0	0	0	0	0	0	17	0	0
* <i>D. vulgare</i>	0	0	143	0	0	0	0	0	0	0	0	0	11	0
* <i>Epithemia sorex</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Emotia pectinalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	34
* <i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>binodis</i>	0	0	0	0	0	0	0	23	0	0	0	11	0	0
* <i>F. construens</i> var. <i>venter</i>	287	143	0	0	0	0	92	23	0	0	0	0	0	0

Table 22b. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. vaucheriae</i>	0	0	0	0	11	0	0	0	0	23	0	23	0	0
* <i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>G. herculeanum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>G. olivaceum</i>	0	215	143	143	46	57	0	46	11	51	0	34	0	23
* <i>G. parvulum</i>	287	359	287	609	23	103	34	166	23	194	0	137	46	114
* <i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0	0	0	0	34	0	0
* <i>Gyrosigma kützingii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Hamaea arcus</i>	215	359	287	1219	11	263	23	80	46	109	23	360	11	297
* <i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	29	11	0	0	46	0	80	0	17
* <i>Melosira varians</i>	0	0	0	0	0	0	0	23	0	0	0	0	0	0
* <i>Meridion circulare</i>	0	251	0	72	23	34	0	0	46	69	0	57	11	23
* <i>Navicula bergii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. bicephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. cryptocephala</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. muralis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. pupula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	0	0	0	36	0	11	0	0	0	0	0	23	0	0
* <i>N. tripunctata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	0	0	0	0	0	0	11	0	0	0	0
* <i>Neidium affine</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 22b. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>N. incurvum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Nitzschia acicularis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. dissipata</i>	0	0	0	143	0	0	0	0	0	0	0	23	0	11
* <i>N. frustulum</i>	0	0	0	0	0	0	0	0	0	11	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	11	0	0	0	0	11	0	0	0	0
* <i>N. palea</i>	0	143	0	0	0	23	0	23	0	46	0	57	0	23
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0	0	11	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o <i>Stephanodiscus astræa</i> var. <i>minutula</i>	0	0	0	72	0	0	0	0	0	0	0	0	0	23
* <i>Surirella argustata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Synedra ulna</i>	0	0	0	0	23	0	0	0	0	11	0	0	0	0
* <i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorophyta:														
o cf. <i>Chlamydomonas</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Mougeotia</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:														
* <i>Nostoc</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Oscillatoria</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysoophyta:														
* Order Chrysoosacale-like	0	0	0	0	0	0	0	0	446	0	0	0	0	0
Xanthophyta:														
* Order Vaucheriales	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	5	9	8	11	8	11	5	11	5	16	3	17	5	13
% of total cells with chloroplasts:	34.1		29.7		23.0		21.0		43.9		6.0		12.7	

Table 22c.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml<sup>-1</sup>) from eight sites sampled August 4-5, 1976. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (+).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9		
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	
Diatoms:																	
* <i>Achnanthes lanceolata</i>	0	46	0	11	0	0	0	0	0	29	0	23	0	0	0	0	34
* <i>A. minutissima</i>	0	46	11	69	11	46	0	469	0	223	29	63	11	46	0	120	
* <i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
* <i>Cocconeis pediculus</i>	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0
* <i>C. placentula</i>	0	23	0	40	23	126	11	69	11	92	11	103	0	57	0	23	
* <i>Cymatopleura solea</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Cymbella caespitosa</i>	0	29	11	74	0	29	0	57	23	34	11	11	11	17	0	80	
* <i>C. sinuata</i>	0	0	0	0	0	23	0	51	0	23	0	0	0	0	0	0	0
* <i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	11	11	0	0	0	0	0
* <i>C. ventricosa</i>	0	11	0	57	0	11	23	17	0	34	0	57	0	11	11	11	
+ <i>Diatoma hiemale</i>	0	0	0	11	0	0	11	11	0	11	0	11	0	11	0	34	
* <i>D. tenue</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Epithemia sorex</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
* <i>Eunotia pectinalis</i>	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>binodis</i>	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>verter</i>	0	0	0	34	0	57	0	0	0	0	0	0	0	0	34	0	0
* <i>F. leptostauron</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11

Table 22c. (Cont inued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>F. vaucheriae</i>	0	23	0	0	0	0	0	0	0	23	0	0	0	0	0	0
* <i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Gomphonema geminatum</i>	0	0	0	11	0	0	0	0	0	11	0	0	0	0	0	11
* <i>G. herculeanum</i>	0	0	0	0	0	0	0	0	11	11	0	0	0	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* <i>G. olivaceum</i>	132	0	0	57	0	0	0	97	0	149	0	69	11	92	0	69
* <i>G. parvulum</i>	0	80	11	126	0	240	11	80	0	114	11	114	23	97	11	92
* <i>G. parvulum</i> var. <i>germinum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Gyrosigma kützingii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Hamaea arcus</i>	0	23	11	194	34	92	46	149	23	23	0	229	46	378	0	263
* <i>H. arcus</i> var. <i>amphioxys</i>	0	29	0	11	0	0	0	34	0	0	0	34	0	0	0	0
* <i>Melosira varians</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Meridion circulare</i>	0	0	0	0	0	11	0	0	0	0	0	11	0	34	0	0
* <i>Navicula bergii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. bicephala</i>	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. cryptocephala</i>	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
* <i>N. muralis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
* <i>N. pupula</i>	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	11
* <i>N. radiosa</i>	0	0	0	0	0	0	0	0	11	11	0	0	0	23	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	0	0	0	0	0	11	0	0	0	0	0	34	11	0	0	0
* <i>N. tripunctata</i>	0	0	0	0	0	0	0	0	0	0	11	11	0	0	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
* <i>Navicula</i> sp. C	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Neidium affine</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. incurvum</i>	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 22c. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>Nitzschia acicularis</i>	0	11	0	0	0	23	0	0	0	11	0	0	0	0	0	0
* <i>N. dissipata</i>	0	11	0	23	0	0	0	0	0	11	11	57	0	0	0	23
* <i>N. frustulum</i>	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0
* <i>N. palea</i>	0	69	23	46	23	80	0	34	0	114	34	92	0	11	11	92
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
o <i>Stephanodiscus astraea</i> var. <i>minutula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* <i>Surirellia angustata</i>	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0
* <i>Synedra ulna</i>	0	0	57	92	0	69	0	0	0	0	11	23	0	0	11	17
* <i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Chlorophyta:																
o cf. <i>Chlamydomonas</i>	34	0	63	0	11	0	6	0	6	0	0	0	0	0	0	126
* <i>Mougeotia</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:																
* <i>Nostoc</i> sp.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Oscillatoria</i> sp.	0	0	6 <sup>a</sup>	0	0	0	0	0	0	0	11 <sup>c</sup>	0	0	0	0	0
Chrysophyta:																
* Order Chrysoosaccales-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta:																
* Order Vaucheriales	0	0	6 <sup>b</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	1	17	9	17	6	18	6	11	7	18	11	17	6	14	6	19
% of total cells with chloroplasts:	5.5	18.2	18.2	11.5	11.5	9.2	9.2	9.2	9.2	14.8	12.3	17.9	12.3	17.9	17.9	17.9

a filament length = 13  $\mu$ mb filament length = 450  $\mu$ mc filament length = 60  $\mu$ m



Table 22d.

Live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml<sup>-1</sup>) from eight sites sampled September 11-12, 1976. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (+).

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>Achnanthes lanosolata</i>	0	34	0	23	0	0	0	0	0	0	0	34	0	0	0	0
* <i>A. minutissima</i>	0	80	34	109	0	34	11	492	0	114	0	206	11	275	11	137
* <i>Achnanthes</i> sp. A	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Amphora ovalis</i>	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0
* <i>Cocconeis pediculus</i>	0	0	0	0	11	23	0	0	11	0	0	0	0	0	0	11
* <i>C. placertula</i>	69	46	34	97	69	183	0	69	11	229	69	143	11	80	57	126
* <i>Omatopleura solea</i>	0	0	0	0	11	0	0	0	0	0	11	0	0	0	0	0
* <i>Oymbella caespitosa</i>	0	23	11	29	0	0	11	23	11	34	0	11	0	57	0	11
* <i>C. sinuata</i>	0	0	0	0	0	23	0	0	0	23	0	11	0	0	0	34
* <i>C. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>C. ventricosa</i>	0	11	23	17	0	57	0	34	11	11	0	23	23	11	11	0
+ <i>Diatoma hiemale</i>	0	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0
* <i>D. tenue</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>D. vulgare</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Epithemia sorex</i>	0	23	0	23	0	23	0	11	0	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	11
* <i>Bunotia pectinalis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i>	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>binodis</i>	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>verter</i>	0	0	0	23	0	11	0	0	0	0	0	0	0	0	0	0
* <i>F. leptostauron</i>	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0

Table 22d. (Cont inued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>F. vaucheriae</i>	0	0	0	0	0	11	11	11	0	23	11	0	0	0	0	0
* <i>Frustulia rhomboides</i>	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0
* <i>G. herculeanum</i>	0	0	0	11	0	23	0	0	0	0	0	0	0	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>G. olivaceum</i>	0	69	0	69	0	0	46	103	0	103	11	80	11	34	0	34
* <i>G. parvulum</i>	0	0	0	80	0	57	46	103	11	34	0	34	0	69	0	57
* <i>G. parvulum</i> var. <i>geminum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Gyrosigma kützingerii</i>	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Harnaëa arcus</i>	0	80	0	92	0	46	0	34	0	23	23	34	0	69	0	40
* <i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	0	0	0	0	0	11	17	0	23	0	0
* <i>Melosira varians</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Meridion circulare</i>	0	46	0	23	0	11	0	0	0	0	0	11	0	23	0	0
* <i>Navicula bergii</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. bicephala</i>	0	0	0	6	0	0	0	0	0	0	11	0	0	0	0	0
* <i>N. cryptocephala</i>	0	0	11	0	0	0	0	0	0	0	0	0	0	23	0	0
* <i>N. muralis</i>	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. pupula</i>	0	23	0	0	0	11	0	0	0	0	0	0	0	0	0	0
* <i>N. radiosa</i>	0	0	0	0	0	0	0	0	0	0	0	69	0	0	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	11	11	0	80	0	23	0	0	0	46	0	11	0	57	23	0
* <i>N. tripunctata</i>	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Neidium affine</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. incurvum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 22d. (Continued)

	Station 1		Station 2		Station 3		Station 4		Station 5		Station 6		Station 7		Station 9	
	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead	Live	Dead
* <i>Nitzschia acicularis</i>	11	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0
* <i>N. dissipata</i>	11	0	0	23	0	11	0	0	0	11	0	0	0	23	0	0
* <i>N. frustulum</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
* <i>N. palea</i>	0	34	23	160	11	34	11	23	0	69	0	11	0	46	11	11
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	0	11	0	0	0	0	0	0	0	11	0	0	0	0	0
o <i>Stephanodiscus astraera</i> var. <i>minitula</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Surirella argustata</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
* <i>Synedra ulna</i>	11	11	34	11	34	0	0	0	0	92	23	11	0	34	23	0
* <i>S. ulna</i> var. <i>oxytychus</i>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0
Chlorophyta:																
o cf. <i>Chlamydomonas</i>	0	0	51	29	6	0	0	0	0	0	0	0	0	0	0	0
* <i>Mougeotia</i> sp. A	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0
Cyanophyta:																
* <i>Nostoc</i> sp.	0	0	0	0	6 <sup>b</sup>	0	0	0	0	6 <sup>c</sup>	0	0	0	0	0	0
* <i>Oscillatoria</i> sp.	0	0	11 <sup>a</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0
Chrysophyta:																
* Order Chrysoales-like	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xanthophyta:																
* Order Vaucheriales	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of taxa:	5	16	11	20	10	17	6	12	5	15	8	16	4	17	11	10
% of total cells with chloroplasts:	18.0		21.2		23.0		10.3		5.8		19.2		6.0		30.2	

a filament length = 10  $\mu$ m and 66  $\mu$ mb filament length = 120  $\mu$ mc filament length = 20  $\mu$ m

Table 22e.

live (with chloroplasts) and dead (without chloroplasts) phytoplankton concentrations (cells ml<sup>-1</sup>) from two sites sampled July 28, 1982. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus ( $\pm$ ).

	Station 1		Station 2		Station 3	
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead
Diatoms:						
* <i>Achnanthes lanceolata</i>	0	0	1	0	L1	0
* <i>A. minutissima</i>	8	1	12	0	3	0
* <i>Achnanthes</i> sp. A	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0
* <i>Amphora ovalis</i>	1	0	2	0	L1	0
* <i>Aronoensis exilis</i>	0	0	0	0	1	0
* <i>Cocconeis pediculus</i>	0	0	0	0	0	0
* <i>C. placéntula</i>	L1	0	0	0	1	L1
* <i>Gymatopleura solea</i>	0	0	0	0	0	0
* <i>Gymbella caespitosa</i>	0	0	0	0	0	0
* <i>C. sinuata</i>	1	0	L1	L1	0	0
* <i>C. turgida</i>	L1	0	0	0	0	0
* <i>C. ventricosa</i>	5	L1	6	L1	3	L1
+ <i>Diatoma elongatum</i>	L1	0	0	0	9	2
+ <i>Diatoma hiemale</i>	0	0	0	0	0	0
* <i>Diatoma hiemale</i> var. <i>mesodon</i>	0	0	0	0	L1	0
* <i>D. tenue</i>	0	0	0	0	0	0
* <i>D. vulgare</i>	0	0	0	0	0	L1
* <i>Diploneis decipiens</i>	0	0	0	0	0	L1
* <i>Epithemia sorex</i>	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0
* <i>Emotia pectinalis</i>	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0
* <i>F. construens</i>	0	0	0	0	0	0

Table 22e. (Continued)

	Station 1		Station 2		Station 3	
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead
* <i>F. construens</i> var. <i>hibidis</i>	1	0	0	0	0	0
* <i>F. Construens</i> var. <i>venter</i>	0	0	0	0	0	0
* <i>F. crotonensis</i>	L1	L1	2	0	2	L1
* <i>F. leptostauron</i>	0	0	1	0	0	0
* <i>F. vaucheriae</i>	0	0	1	0	0	0
* <i>Frustulia rhomboides</i>	0	0	0	0	0	0
* <i>Gomphonema geminatum</i>	0	0	0	0	0	0
* <i>G. herculeanum</i>	0	0	0	0	L1	0
* <i>G. intricatum</i>	0	0	2	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0
* <i>G. olivaceum</i>	14	3	14	5	3	1
* <i>G. parvulum</i>	0	0	0	0	0	0
* <i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0
* <i>Gyrosigma kitzingii</i>	0	0	0	0	0	0
* <i>Hamaea arcus</i>	5	2	8	3	3	1
* <i>H. arcus</i> var. <i>amphioxys</i>	1	0	2	0	0	0
* <i>Melosira varians</i>	0	0	L1	0	0	0
* <i>Meridion circulare</i>	1	0	1	0	L1	0
* <i>Navicula arvensis</i>	0	0	4	0	0	0
* <i>N. bergii</i>	0	0	0	0	0	0
* <i>N. bicephala</i>	0	0	1	0	0	0
* <i>N. cryptocephala</i>	0	0	0	0	0	0
* <i>N. muralis</i>	0	0	0	0	0	0
* <i>N. pupula</i>	0	0	0	0	0	0
* <i>N. radiosa</i>	0	0	1	0	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	3	0	3	0	1	L1

Table 22e. (Cont inued)

	Station 1		Station 2		Station 3	
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead
* <i>N. tripunctata</i>	0	0	0	0	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0
* <i>Navicula</i> sp. C	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	0	0	0
* <i>Neidium affine</i>	0	0	0	0	0	0
* <i>N. incurvum</i>	0	0	0	0	0	0
* <i>Nitzschia acicularis</i>	0	0	0	0	0	0
* <i>N. dissipata</i>	2	L1	3	L1	1	2
* <i>N. frustulum</i>	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	0	0
* <i>N. palea</i>	7	0	6	1	1	3
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	L1	0	0	0	0	0
0 <i>Stephanodiscus astræa</i> var. <i>minutula</i>	0	0	0	0	0	0
* <i>Surirella angustata</i>	0	0	0	0	0	0
0 <i>Synedra acus</i> var. <i>radians</i>	0	0	L1	0	1	0
* <i>S. ulna</i>	8	2	8	3	4	1
* <i>S. ulna</i> var. <i>oxyrhynchus</i>	6	L1	0	0	1	0
Chlorophyta:						
0 cf. <i>Chlamydomonas</i> sp. <sup>1</sup>	36	0	46	0	0	0
* <i>Mougeotia</i> sp. A	0	0	0	0	0	0
* <i>Ulothrix zonata</i>	L1 <sup>2</sup>	0	0	0	0	0
* <i>Ulothrix</i> sp. A	1 <sup>3</sup>	0	0	0	0	L1 <sup>4</sup>
* <i>Ulothrix</i> sp. B	0	0	0	0	L1 <sup>5</sup>	0

1 may be biflagellate zoospores of *Ulothrix*  
4 filament length = 0.75 mm

2 filament length = 0.37 mm

3 filament length = 0.37 mm  
5 filament length = 0.01 mm

Table 22e. (Continued)

	Station 1		Station 2		Station 3	
	Sample 1 Live	Sample 1 Dead	Sample 2 Live	Sample 2 Dead	Sample 1 Live	Sample 1 Dead
Cyanophyta:						
* <i>Nostoc</i> sp.	0	0	0	0	L1 <sup>6</sup>	0
* <i>Oscillatoria</i> sp.	0	0	0	0	0	L1 <sup>7</sup>
Chrysoophyta:						
* Order Chrysoosaccales-like	0	0	0	0	0	0
Xanthophyta:						
* Order Vaucheriales	0	0	0	0	0	0
Cryptophyta:						
0 <i>Cryptomonas</i> sp.	1	0	0	0	L1	0
Total Count	104	8	123	13	36	8
Percent Live Cells	92.9		90.4		81.8	

6 filament length = 0.45 mm  
 7 filament length = 0.10 mm

Table 23a.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from seven sites April 10-12, 1976. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus sign (+).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
Diatoms:							
* <i>Achnanthes lanceolata</i>	0	0	0	0	0	0	0
* <i>A. minutissima</i>	0	3.3	0	0	0	0	2.9
* <i>Achnanthes</i> sp. A	0	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0
* <i>Amphora ovalis</i>	0	0	0	0	0	0	0
* <i>Cocconeis pediculus</i>	0	0	0	0	0	0	0
* <i>C. placentula</i>	0	0	0	0	22.2	0	0
* <i>Gymatopleura solea</i>	0	0	0	0	0	0	0
* <i>Gymbella caespitosa</i>	10.0	3.3	0	0	0	0	0
* <i>C. sinuata</i>	0	0	0	0	0	0	0
* <i>C. turgida</i>	0	0	0	0	0	0	0
* <i>C. ventricosa</i>	10.0	3.3	0	0	0	20.0	0
+ <i>Diatoma hienale</i>	20.0	46.7	0	0	0	20.0	17.1
* <i>D. tenue</i>	0	0	0	0	0	0	0
* <i>D. vulgare</i>	0	0	0	0	0	0	0
* <i>Epithemia sorex</i>	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0	0
* <i>Eurotia pectinalis</i>	0	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0	0
* <i>F. construens</i>	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>birodii</i>	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>venter</i>	0	0	0	0	0	0	14.2



Table 23a. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
* <i>F. leptostauron</i>	0	0	0	0	0	0	2.9
* <i>F. vaucheriae</i>	10.0	0	0	0	0	0	0
* <i>Frustulia rhomboides</i>	0	0	0	0	0	0	25.7
* <i>Gomphonema geminatum</i>	0	0	0	0	0	0	0
* <i>G. herculeanum</i>	0	0	0	0	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0	0
* <i>G. olivaceum</i>	10.0	0	0	0	22.2	0	0
* <i>G. parvulum</i>	20.0	3.3	100.0	0	33.3	0	0
* <i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0
* <i>Gyrosigma kitzingii</i>	0	0	0	0	0	0	0
* <i>Harnaia arcus</i>	10.0	30.0	0	0	0	0	14.2
* <i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	0	0
* <i>Melosira varians</i>	0	0	0	0	0	0	0
* <i>Meridion circulare</i>	10.0	0	0	0	0	0	22.9
* <i>Navicula bergii</i>	0	0	0	0	0	0	0
* <i>N. biocephala</i>	0	0	0	0	0	0	0
* <i>N. cryptocephala</i>	0	0	0	0	0	0	0
* <i>N. muralis</i>	0	0	0	0	0	0	0
* <i>N. pupula</i>	0	0	0	100.0	0	0	0
* <i>N. radiosa</i>	0	0	0	0	0	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	0	3.3	0	0	0	20.0	0
* <i>N. tripunctata</i>	0	0	0	0	0	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0	0
* <i>Navicula</i> sp. C	0	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	0	0	0	0

Table 23a. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7
* <i>Neidium affine</i>	0	0	0	0	0	0	0
* <i>N. incurvum</i>	0	0	0	0	0	0	0
* <i>Nitzschia acicularis</i>	0	0	0	0	0	0	0
* <i>N. diissipata</i>	0	3.3	0	0	0	0	0
* <i>N. frustulum</i>	0	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	0	0	0
* <i>N. palea</i>	0	0	0	0	0	0	0
* <i>Pimmlaria subrostrata</i>	0	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	0	0	0	22.2	20.0	0
o <i>Stephanodiscus astraea</i> var. <i>minutula</i>	0	0	0	0	0	0	0
* <i>Surirella angustata</i>	0	0	0	0	0	20.0	0
* <i>Synedra ulna</i>	0	3.3	0	0	0	0	0
* <i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0
Chlorophyta:							
o cf. <i>Chlamydomonas</i>	0	0	0	0	0	0	0
* <i>Mougeotia</i> sp. A	0	0	0	0	0	0	0
Cyanophyta:							
* <i>Nostoc</i> sp.	0	0	0	0	0	0	0
* <i>Oscillatoria</i> sp.	0	0	0	0	0	0	0
Chrysoophyta:							
* Order Chrysoosaccales-like	0	0	0	0	0	0	0
Xanthophyta:							
* Order Vaucheriales	0	0	0	0	0	0	0
Number of species:	8	9	1	1	4	5	7

Table 23b.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from seven sites June 14-15, 1976. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus sign (+).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 7	Station 9
Diatoms:							
* <i>Achnanthes lanceolata</i>	0	0	0	0	0	0	0
* <i>A. minutissima</i>	14.2	5.3	18.8	6.7	0	0	0
* <i>Achnanthes</i> sp. A	0	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0
* <i>Amphora ovalis</i>	0	0	0	0	0	0	0
* <i>Cocconeis pediculus</i>	0	0	0	0	0	0	0
* <i>C. placentula</i>	0	0	0	0	0	0	0
* <i>Omatopleura solea</i>	0	0	0	0	0	0	0
* <i>Oymbella caespitosa</i>	7.1	5.3	0	0	0	0	12.5
* <i>C. sinuata</i>	0	0	0	0	0	0	0
* <i>C. turgida</i>	0	0	0	0	0	0	0
* <i>C. ventricosa</i>	0	10.5	0	0	0	50.0	0
+ <i>Diatoma hiemale</i>	0	15.8	0	0	0	16.7	0
* <i>D. tenue</i>	0	0	0	0	0	0	0
* <i>D. vulgare</i>	0	10.5	0	0	0	0	12.5
* <i>Epithemia sorex</i>	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0	0
* <i>Eunotia pectinalis</i>	0	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0	0
* <i>F. constuens</i>	0	0	0	0	0	0	0
* <i>F. constuens</i> var. <i>binodis</i>	0	0	0	0	0	0	0
* <i>F. constuens</i> var. <i>venter</i>	28.6	0	0	53.3	0	0	0

Table 23b. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 7	Station 9
* <i>F. leptostauron</i>	0	0	0	0	0	0	0
* <i>F. vaucheriae</i>	0	0	6.2	0	0	0	0
* <i>Frustulia rhomboides</i>	0	0	0	0	0	0	0
* <i>Gomphonema geminatum</i>	0	0	0	0	0	0	0
* <i>G. herculeanum</i>	0	0	0	0	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0	0
* <i>G. olivaceum</i>	0	10.5	25.0	0	2.0	0	0
* <i>G. parvulum</i>	28.6	21.0	12.5	20.0	4.0	0	50.0
* <i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0
* <i>Gyrosigma kützingii</i>	0	0	0	0	0	0	0
* <i>Hamaea arcus</i>	21.4	21.0	6.2	13.3	8.0	33.3	12.5
* <i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	6.7	0	0	0
* <i>Melosira varians</i>	0	0	0	0	0	0	0
* <i>Meridion circulare</i>	0	0	12.5	0	8.0	0	12.5
* <i>Navicula bergii</i>	0	0	0	0	0	0	0
* <i>N. bicephala</i>	0	0	0	0	0	0	0
* <i>N. cryptocephala</i>	0	0	0	0	0	0	0
* <i>N. muralis</i>	0	0	0	0	0	0	0
* <i>N. pupula</i>	0	0	0	0	0	0	0
* <i>N. radiosa</i>	0	0	0	0	0	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	0	0	0	0	0	0	0
* <i>N. tripunctata</i>	0	0	0	0	0	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0	0
* <i>Navicula</i> sp. C	0	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	0	0	0	0

Table 23b. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 7	Station 9
* <i>Neidium affine</i>	0	0	0	0	0	0	0
* <i>N. incurvum</i>	0	0	0	0	0	0	0
* <i>Nitzschia acicularis</i>	0	0	0	0	0	0	0
* <i>N. dissipata</i>	0	0	0	0	0	0	0
* <i>N. frustulum</i>	0	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	6.2	0	0	0	0
* <i>N. palea</i>	0	0	0	0	0	0	0
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0
o <i>Stephanodiscus astraes</i> var. <i>minutula</i>	0	0	0	0	0	0	0
* <i>Surirella angustata</i>	0	0	0	0	0	0	0
* <i>Synedra ulna</i>	0	0	12.5	0	0	0	0
* <i>S. ulna</i> var. <i>oxytrypichus</i>	0	0	0	0	0	0	0
Chlorophyta:							
o cf. <i>Chlamydomonas</i>	0	0	0	0	0	0	0
* <i>Mougeotia</i> sp. A	0	0	0	0	0	0	0
Cyanophyta:							
* <i>Nostoc</i> sp.	0	0	0	0	0	0	0
* <i>Oscillatoria</i> sp.	0	0	0	0	0	0	0
Chrysoophyta:							
* Order Chrysoosocales-like	0	0	0	0	78.0	0	0
Xanthophyta:							
* Order Vaucheriales	0	0	0	0	0	0	0
Number of species:	5	8	8	5	5	3	5

Table 23c.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from eight sites August 4-5, 1976. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus sign (+).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
Diatoms:								
* <i>Achnanthes larceolata</i>	0	0	0	0	0	0	0	0
* <i>A. minutissima</i>	0	5.7	10.0	0	0	17.2	10.0	0
* <i>Achnanthes</i> sp. A	0	0	0	0	0	0	0	0
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0
* <i>Amphora ovalis</i>	0	0	0	0	0	0	0	0
* <i>Cocconeis pediculus</i>	0	0	10.0	0	0	0	0	0
* <i>C. placentula</i>	0	0	20.0	10.5	11.8	6.9	0	0
* <i>Omatopleura solea</i>	0	0	0	0	0	0	0	0
* <i>Oymbella caespitosa</i>	0	5.7	0	0	23.5	6.9	10.0	0
* <i>C. sinuata</i>	0	0	0	0	0	0	0	0
* <i>C. turgida</i>	0	0	0	0	0	6.9	0	0
* <i>C. ventriosa</i>	0	0	0	21.0	0	0	0	5.6
+ <i>Diatama hiemale</i>	0	0	0	10.5	0	0	0	0
* <i>D. tenue</i>	0	0	0	0	0	0	0	0
* <i>D. vulgare</i>	0	0	0	0	0	0	0	0
* <i>Epithemia sorex</i>	0	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	11.8	0	0	0
* <i>Emotia pectinalis</i>	0	0	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0	0	0
* <i>F. construens</i>	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>binodis</i>	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>verter</i>	0	0	0	0	0	0	0	16.7

Table 23c. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* <i>F. leptostauron</i>	0	0	0	0	0	0	0	0
* <i>F. vaucheriae</i>	0	0	0	0	0	0	0	0
* <i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0
* <i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	0
* <i>G. herculeanum</i>	0	0	0	0	11.8	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0	0	0
* <i>G. olivaceum</i>	0	0	0	0	0	0	10.0	0
* <i>G. parvulum</i>	0	5.7	0	10.5	0	6.9	20.0	5.6
* <i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0
* <i>Gyrosigma kitzingii</i>	0	0	0	0	0	0	0	0
* <i>Hannaea arcus</i>	0	5.7	30.0	42.1	23.5	0	40.0	0
* <i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	0	0	0
* <i>Melosira varians</i>	0	0	0	0	0	0	0	0
* <i>Meridion circulare</i>	0	0	0	0	0	0	0	0
* <i>Navicula bergii</i>	0	0	0	0	0	0	0	0
* <i>N. bicephala</i>	0	0	0	0	0	0	0	0
* <i>N. cryptocephala</i>	0	0	0	0	0	0	0	0
* <i>N. muralis</i>	0	0	0	0	0	0	0	0
* <i>N. pupula</i>	0	0	0	0	0	0	0	0
* <i>N. radiosa</i>	0	0	0	0	11.8	0	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	0	0	0	0	0	0	10.0	0
* <i>N. tripunctata</i>	0	0	0	0	0	6.9	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. C	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	0	0	0	0	0

Table 23c. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* <i>Neidium affine</i>	0	0	0	0	0	0	0	0
* <i>N. incurvum</i>	0	0	0	0	0	0	0	0
* <i>Nitzschia acicularis</i>	0	0	0	0	0	0	0	0
* <i>N. dissipata</i>	0	0	0	0	0	6.9	0	0
* <i>N. frustulum</i>	0	0	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	0	0	0	0
* <i>N. palea</i>	0	11.4	20.0	0	0	20.7	0	5.6
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	0	0	0	0	0	0	0
* <i>Stephanodiscus astraea</i> var. <i>minutula</i>	0	0	0	0	0	0	0	0
* <i>Surirella angustata</i>	0	0	0	0	0	6.9	0	0
* <i>Synedra ulna</i>	0	28.6	0	0	0	6.9	0	5.6
* <i>S. ulna</i> var. <i>oxyrhynchus</i>	0	0	0	0	0	0	0	0
Chlorophyta:								
o cf. <i>Chlamydomonas</i>	100.0	31.4	10.0	5.3	5.9	0	0	61.1
* <i>Mougeotia</i> sp. A	0	0	0	0	0	0	0	0
Cyanophyta:								
* <i>Nostoc</i> sp.	0	0	0	0	0	0	0	0
* <i>Oscillatoria</i> sp.	0	2.9	0	0	0	6.9	0	0
Chrysophyta:								
* Order Chrysoosaccales-like	0	0	0	0	0	0	0	0
Xanthophyta:								
* Order Vaucheriales	0	2.9	0	0	0	0	0	0
Number of species:	1	9	6	6	7	11	6	6



Table 23d.  
 Percent numeric composition of live (with chloroplasts) phytoplankton species collected from eight sites September 11-12, 1976.  
 Species that are typically periphytic are indicated with a asterisk (\*), those typically planktonic with a circle (o), and those  
 equally important in both habitats with a plus-minus sign (+).

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
Diatoms:								
* <i>Achnanthes lanceolata</i>	0	0	0	0	0	0	0	0
* <i>A. minutissima</i>	0	13.3	0	11.1	0	0	0	0
* <i>Achnanthes</i> sp. A	0	0	0	0	0	20.0	0	5.6
* <i>Achnanthes</i> sp. B	0	0	0	0	0	0	0	0
* <i>Amphipleura pellucida</i>	0	0	0	0	0	0	0	0
* <i>Amphora ovalis</i>	0	0	0	0	0	0	0	0
* <i>Cocconeis pediculus</i>	0	0	0	0	0	0	0	0
* <i>C. placentula</i>	60.0	0	6.4	0	0	0	0	0
* <i>Cymatopleura solea</i>	0	13.3	38.7	0	22.2	40.0	20.0	5.6
* <i>Cymbella caespitosa</i>	0	0	6.4	0	0	6.7	0	27.8
* <i>C. sinuata</i>	0	4.4	0	11.1	22.2	0	0	0
* <i>C. turgida</i>	0	0	0	0	0	0	0	0
* <i>C. ventricosa</i>	0	0	0	0	0	0	0	0
+ <i>Diatoma hiemale</i>	0	8.9	0	0	22.2	0	40.0	0
* <i>D. tenue</i>	0	0	0	11.1	0	0	0	5.6
* <i>D. vulgare</i>	0	0	0	0	0	0	0	0
* <i>Epithemia sorex</i>	0	0	0	0	0	0	0	0
* <i>E. turgida</i>	0	0	0	0	0	0	0	0
* <i>Eunotia pectinalis</i>	0	0	0	0	0	0	0	0
* <i>Fragilaria capucina</i>	0	0	0	0	0	0	0	11.1
* <i>F. construens</i>	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>binodis</i>	0	0	0	0	0	0	0	0
* <i>F. construens</i> var. <i>verter</i>	0	0	0	0	0	0	0	0

Table 23d. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* <i>F. leptostauron</i>	0	0	6.4	0	0	0	0	0
* <i>F. vaucheriae</i>	0	0	0	11.1	0	6.7	0	0
* <i>Frustulia rhomboides</i>	0	0	0	0	0	0	0	0
* <i>Gomphonema geminatum</i>	0	0	0	0	0	0	0	0
* <i>G. herculeanum</i>	0	0	0	0	0	0	0	0
* <i>G. lanceolatum</i>	0	0	0	0	0	0	0	0
* <i>G. olivaceum</i>	0	0	0	0	0	6.7	20.0	0
* <i>G. parvulum</i>	0	0	0	44.4	22.2	0	0	0
* <i>G. parvulum</i> var. <i>genuinum</i>	0	0	0	0	0	0	0	0
* <i>Gyrosigma kützingii</i>	0	0	0	0	0	0	0	0
* <i>Hamaea arcus</i>	0	0	0	0	0	13.3	0	0
* <i>H. arcus</i> var. <i>amphioxys</i>	0	0	0	0	0	6.7	0	0
* <i>Melosira varians</i>	0	0	0	0	0	0	0	0
* <i>Meridiania circulare</i>	0	0	0	0	0	0	0	0
* <i>Navicula bergii</i>	0	0	0	0	0	0	0	0
* <i>N. biocephala</i>	0	0	0	0	0	6.7	0	0
* <i>N. cryptocephala</i>	0	4.4	0	0	0	0	0	0
* <i>N. muralis</i>	0	0	0	0	0	0	0	0
* <i>N. pupilla</i>	0	0	0	0	0	0	0	0
* <i>N. radiosa</i>	0	0	0	0	0	0	0	0
* <i>N. salinarum</i> var. <i>intermedia</i>	10.0	0	0	0	0	0	0	11.1
* <i>N. tripunctata</i>	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. A	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. B	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. C	0	0	0	0	0	0	0	0
* <i>Navicula</i> sp. X	0	0	0	0	0	0	0	0

Table 23d. (Continued)

	Station 1	Station 2	Station 3	Station 4	Station 5	Station 6	Station 7	Station 9
* <i>Neidium affine</i>	0	0	0	0	0	0	0	0
* <i>N. incurvum</i>	0	0	0	0	0	0	0	0
* <i>Nitzschia acicularis</i>	10.0	4.4	6.4	0	0	0	0	5.6
* <i>N. dissipata</i>	10.0	0	0	0	0	0	0	0
* <i>N. frustulum</i>	0	0	0	0	0	0	0	0
* <i>N. linearis</i>	0	0	0	0	0	0	0	5.6
* <i>N. palea</i>	0	8.9	6.4	11.1	0	0	0	5.6
* <i>Pinnularia subrostrata</i>	0	0	0	0	0	0	0	0
* <i>Rhoicosphenia curvata</i>	0	4.4	0	0	0	0	0	0
o <i>Stephanodiscus astraea</i> var. <i>minutula</i>	0	0	0	0	0	0	0	0
* <i>Surirella angustata</i>	0	0	0	0	0	0	0	0
* <i>Synedra ulna</i>	10.0	13.3	19.4	0	0	13.3	0	11.1
* <i>S. ulna</i> var. <i>oxytyndus</i>	0	0	0	0	0	0	0	5.6
Chlorophyta:								
o cf. <i>Chlamydomonas</i>	0	20.0	3.2	0	0	0	0	0
* <i>Mougeotia</i> sp. A	0	0	3.2	0	0	0	0	0
Cyanophyta:								
* <i>Nostoc</i> sp.	0	0	3.2	0	11.1	0	0	0
* <i>Oscillatoria</i> sp.	0	4.4	0	0	0	0	0	0
Chrysophyta:								
* Order Chrysosaccales-like	0	0	0	0	0	0	0	0
Xanthophyta:								
* Order Vaucheriales	0	0	0	0	0	0	0	0
Number of species:	5	11	10	6	5	8	4	11

Table 23e.

Percent numeric composition of live (with chloroplasts) phytoplankton species collected from two sites sampled July 28, 1982. Species that are typically periphytic are indicated with an asterisk (\*), those typically planktonic with a circle (o), and those equally important in both habitats with a plus-minus (+).

Diatoms:	Station 2		Station 3	
	Sample 1	Sample 2	Sample 1	Sample 2
* <i>Achnanthes lanceolata</i>	.00	1.03	.60	.00
* <i>A. minutissima</i>	8.13	9.62	8.33	7.87
* <i>Achnanthes</i> sp. A	.00	.00	.00	.00
* <i>Achnanthes</i> sp. B	.00	.00	.00	.00
* <i>Amphipleura pellucida</i>	.00	.00	.00	.46
* <i>Amphora ovalis</i>	1.22	1.72	1.19	.00
* <i>Anomoeis exilis</i>	.00	.00	2.38	.93
* <i>Cocconeis pediculus</i>	.00	.00	.00	.00
* <i>C. plaentula</i>	.41	.00	2.98	3.70
* <i>Cymatopleura solea</i>	.00	.00	.00	.00
* <i>Cymbella caespitosa</i>	.00	.00	.00	.00
* <i>C. sinuata</i>	.81	.34	.00	.00
* <i>C. turgida</i>	.41	.00	.00	.00
* <i>C. ventricosa</i>	4.88	4.47	7.74	3.70
+ <i>Diatoma elongatum</i>	.41	.00	26.19	12.50
+ <i>D. hiemale</i>	.00	.00	.00	.00
* <i>D. hiemale</i> var. <i>mesodon</i>	.00	.00	1.19	2.31
* <i>D. tenue</i>	.00	.00	.00	.00
* <i>D. vulgare</i>	.00	.00	.00	.46
* <i>Diploneis decipiens</i>	.00	.00	.00	.93
* <i>Epithemia sorex</i>	.00	.00	.00	.00
* <i>E. turgida</i>	.00	.00	.00	.00
* <i>Eurotia pectinalis</i>	.00	.00	.00	.00
* <i>Fragilaria capucina</i>	.00	.00	.00	.00

Table 23e. (Continued)

	Station 2		Station 3	
	Sample 1	Sample 2	Sample 1	Sample 2
* <i>F. construens</i>	.00	.00	.00	.00
* <i>F. construens</i> var. <i>binodis</i>	.81	.00	.00	.00
* <i>F. construens</i> var. <i>vertei</i>	.00	.00	.00	.00
* <i>F. crotonensis</i>	.41	1.37	5.36	5.09
* <i>F. leptostauron</i>	.00	.69	.00	.00
* <i>F. vaucheriae</i>	.00	1.03	.00	.00
* <i>Frustulia rhomboides</i>	.00	.00	.00	.00
* <i>Gomphonema geminatum</i>	.00	.00	.00	.00
* <i>G. herculeanum</i>	.00	.00	.60	.00
* <i>G. intricatum</i>	.00	1.37	.00	.00
* <i>G. lanceolatum</i>	.00	.00	.00	.00
* <i>G. olivaceum</i>	13.01	11.00	8.33	16.67
* <i>G. parvulum</i>	.00	.00	.00	.00
* <i>G. parvulum</i> var. <i>genuinum</i>	.00	.00	.00	.00
* <i>Gyrosigma kitzingii</i>	.00	.00	.00	.00
* <i>Hannaea arcus</i>	4.88	6.87	7.74	9.26
* <i>H. arcus</i> var. <i>amphioxys</i>	.81	1.37	.00	2.31
* <i>Melosira varians</i>	.00	.34	.00	.00
* <i>Meridion circulare</i>	.81	.69	.60	1.85
* <i>Navicula arvensis</i>	.00	3.09	.00	.00
* <i>N. bergii</i>	.00	.00	.00	.00
* <i>N. bicephala</i>	.00	.69	.00	2.78
* <i>N. cryptocephala</i>	.00	.00	.00	.00
* <i>N. muralis</i>	.00	.00	.00	.00
* <i>N. pupula</i>	.00	.00	.00	.00
* <i>N. radiosa</i>	.00	.69	.00	.00
* <i>N. salinarum</i> var. <i>intermedia</i>	3.25	2.41	3.57	.93

Table 23e. (Continued)

	Station 2		Station 3	
	Sample 1	Sample 2	Sample 1	Sample 2
* <i>N. tripunctata</i>	.00	.00	.00	.00
* <i>Navicula</i> sp. A	.00	.00	.00	.00
* <i>Navicula</i> sp. B	.00	.00	.00	.00
* <i>Navicula</i> sp. C	.00	.00	.00	.00
* <i>Navicula</i> sp. X	.00	.00	.00	.00
* <i>Neidium affine</i>	.00	.00	.00	.00
* <i>N. incurvum</i>	.00	.00	.00	.00
* <i>Nitzschia acicularis</i>	.00	.00	.00	.00
* <i>N. dissipata</i>	2.03	2.06	1.79	3.70
* <i>N. frustulum</i>	.00	.00	.00	.00
* <i>N. linearis</i>	.00	.00	.00	.00
* <i>N. palea</i>	6.91	5.15	3.57	6.02
* <i>Pinnularia subrostrata</i>	.00	.00	.00	.00
* <i>Rhoicosphenia curvata</i>	.41	.00	.00	.00
o <i>Stephanodiscus astraea</i> var. <i>minutula</i>	.00	.00	.00	.00
* <i>Surirella angustata</i>	.00	.00	.00	.00
o <i>Synedra acus</i>	.00	.34	2.98	2.31
* <i>S. ulna</i>	8.13	6.19	10.12	9.72
* <i>S. ulna</i> var. <i>oxydyndus</i>	6.10	.00	2.38	5.56
Chlorophyta:				
o cf. <i>Chlamydomonas</i> sp. <sup>1</sup>	34.15	37.46	.00	.00
* <i>Mougeotia</i> sp. A	.00	.00	.00	.00
* <i>Ulothrix zonata</i>	.41	.00	.00	.00
* <i>Ulothrix</i> sp. A	.81	.00	.00	.46
* <i>Ulothrix</i> sp. B	.00	.00	.60	.00

<sup>1</sup> may be biflagellate zoospores of *Ulothrix*

Table 23e. (Continued)

	Station 2		Station 3	
	Sample 1	Sample 2	Sample 1	Sample 2
* Cyanophyta:				
* <i>Nostoc</i> sp.	.00	.00	.60	.46
* <i>Oscillatoria</i> sp.	.00	.00	.00	.00
Chrysophyta:				
* Order Chrysothales-like	.00	.00	.00	.00
Xanthophyta:				
* Order Vaucheriales	.00	.00	.00	.00
Cryptophyta:				
o <i>Cryptomonas</i> sp.	.81	.00	1.19	.00
Number of Species	23	23	22	23
Shannon-Wiener Index	3.32	3.31	3.69	3.92

Table 24

Diversity (Shannon-Wiener function  $H'$ ) of live phytoplankton collected from eight sites on the Flathead River Basin, April-September, 1976. In calculating the diversity indices, each Chlorophyte, Xanthophyte and Cyanophyte filament was treated as one cell.

	April, 1976	June, 1976	August, 1976	September, 1976
Station 1	2.922	2.182	0	1.771
Station 2	2.179	2.840	2.636	3.246
Station 3	0	2.828	2.446	2.744
Station 4	0	1.857	2.248	2.281
Station 5	1.975	1.161	2.676	2.281
Station 6	2.322	Not Sampled	3.302	2.606
Station 7	2.522	1.459	2.322	1.922
Station 9	Not Sampled	2.000	1.792	3.192



TABLE 25

Counts of macroinvertebrates collected on natural substrates in  
the Flathead River Basin, April - September, 1976.

Insects are listed under the lowest taxonomic  
category to which each individual could be  
identified.

(Note: Some Arcynopteryx may have been recorded as Isogenus,  
and some Agapetus may have been recorded as unidentified  
Glossosomatidae)

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	1	1
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>						
0	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	1	0	0	0	1
<b>Nematocera</b> (unidentified)	1	0	0	0	0	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	1	0	0	1	2
Tanyderidae	2	0	0	0	0	2
Tendipididae	8	4	8	7	14	41
Tipulidae	0	0	0	1	0	1
<b>Emphemeroptera</b> (unidentified)						
0	0	0	1	0	1	1
Baetidae	4	5	4	1	2	16
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. dodsii</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	2	2	1	2	4	11
<i>Rhithrogena</i> spp.	2	1	1	1	0	5
Lepthophlebiidae	1	0	0	1	1	3
Siphonuridae	0	1	1	0	0	2
<b>Plecoptera</b> (unidentified)						
0	1	0	1	0	2	2
<b>Holognatha</b> (unidentified)						
0	0	0	0	0	0	0
<b>Nemouridae</b> (unidentified)						
0	0	0	0	0	0	0
<i>Nemoura</i> spp.	14	3	8	2	6	33
<i>N.</i> subgenus <i>Zapada</i>	0	0	1	0	0	1
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)						
0	0	0	0	0	0	0
<b>Chloroperlidae</b> (unidentified)						
0	0	2	0	1	3	3
<i>Alloperla</i> spp.	0	1	0	0	0	1
<b>Perlodidae</b> (unidentified)						
0	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
<b>Tricoptera</b> (unidentified)						
0	0	0	0	0	0	0
<b>Brachycentridae</b> - <i>Micrasema</i> spp.						
0	0	0	0	0	0	0
<b>Glossosomatidae</b> (unidentified)						
0	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
<b>Hydropsychidae</b> (unidentified)						
0	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
<b>Lepidostomatidae</b>						
0	0	0	0	0	0	0
<b>Limnephilidae</b> (unidentified)						
0	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
<b>Psychomyiidae</b>						
0	0	0	0	0	0	0
<b>Rhyacophilidae</b> (unidentified)						
0	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>						
0	0	1	0	0	1	1
<b>ACARI</b>						
0	0	0	0	0	0	0
<b>OLIGOCHAETA</b>						
0	0	0	0	1	1	1
<b>TURBELLARIA</b>						
0	0	0	0	0	0	0
<b>NEMATODA</b>						
0	0	0	0	0	0	0
<b>PELECYPODA</b>						
0	0	0	0	0	0	0
<b>Total Number of Organisms</b>						
	34	20	27	17	31	129

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	2	0	2
Elmidae (larva)	0	1	1	1	0	3
<b>Collembola</b>						
0	0	0	0	0	0	0
<b>Diptera</b>						
Cyclorrhapha	3	2	2	1	0	8
Nematocera (unidentified)	0	0	1	0	1	2
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	14	2	14	3	2	35
Tanyderidae	0	0	0	0	0	0
Tendipididae	6	6	2	4	3	21
Tipulidae	3	1	0	2	1	7
<b>Ephemeroptera (unidentified)</b>						
Baetidae	0	2	1	3	0	6
Baetidae	3	0	0	8	1	12
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterge</i>	3	0	2	6	5	16
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. dodsii</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	2	1	1	3	2	9
<i>Rhithrogena</i> spp.	0	0	0	0	1	1
Leptophlebiidae	0	1	0	1	0	2
Siphonuridae	1	0	0	24	3	28
<b>Plecoptera (unidentified)</b>						
2	1	0	2	0	5	
<b>Holognatha (unidentified)</b>						
0	1	0	0	0	1	
<b>Nemouridae (unidentified)</b>						
0	0	0	0	0	0	
<i>Nemoura</i> spp.	19	25	2	81	11	138
<i>N.</i> subgenus <i>Zapada</i>	0	2	0	0	2	4
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha (unidentified)</b>						
0	0	0	0	0	0	
<b>Chloroperlidae (unidentified)</b>						
2	1	1	2	0	6	
<i>Alloperla</i> spp.	0	0	0	0	0	
Perlodidae (unidentified)	0	0	0	1	1	
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	
<i>Isogenus</i> spp.	0	0	0	0	0	
<i>Isoperla</i> spp.	0	0	0	0	0	
Type red	0	0	0	0	0	
<b>Tricoptera (unidentified)</b>						
0	0	0	0	0	0	
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	
Glossosomatidae (unidentified)	0	0	0	0	0	
<i>Glossosoma</i> spp.	0	0	0	0	0	
<i>Agapetus</i> spp.	0	0	0	0	0	
Hydropsychidae (unidentified)	0	0	0	0	0	
<i>Hydropsyche</i> spp.	0	0	0	0	0	
<i>Parapsyche</i> spp.	0	0	0	0	0	
Lepidostomatidae	0	0	0	1	1	
Limnephilidae (unidentified)	0	0	0	0	0	
<i>Platycentropus</i> spp.	0	0	0	0	0	
<i>Oligophlebodes</i> spp.	0	0	0	0	0	
Psychomyiidae	0	0	1	0	1	
Rhyacophilidae (unidentified)	0	0	1	1	2	
<i>Ryacophila</i> spp.	0	0	0	0	0	
<b>OSTRACODA</b>						
0	3	3	5	0	11	
<b>ACARI</b>						
1	0	0	0	0	1	
<b>OLIGOCHAETA</b>						
0	0	7	0	2	9	
<b>TURBELLARIA</b>						
0	0	0	0	0	0	
<b>NEMATODA</b>						
0	0	3	0	0	3	
<b>PELECYPODA</b>						
0	0	0	0	0	0	
<b>Total Number of Organisms</b>						
	59	49	42	151	34	335

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	1	0	0	1
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	1	0	0	0	0	1
<b>Nematocera</b> (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	1	1	0	2	4
Tanyderidae	0	0	0	0	0	0
Tendipedidae	0	2	3	0	0	5
Tipulidae	1	0	2	0	1	4
<b>Ephemeroptera</b> (unidentified)	0	0	0	0	0	0
Baetidae	5	7	16	0	2	30
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterge</i>	0	0	1	0	0	1
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. dodsii</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	5	7	18	0	2	32
<i>Rhithrogena</i> spp.	0	0	0	0	0	0
Leptophlebiidae	0	0	0	1	0	1
Siphonuridae	0	1	0	0	0	1
<b>Plecoptera</b> (unidentified)	0	0	0	2	0	2
<b>Holognatha</b> (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	2	1	3	0	3	9
<i>N.</i> subgenus <i>Zapada</i>	1	0	0	0	0	1
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	2	0	0	2
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopterygidae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	1	2	0	0	3
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
<b>Tricoptera</b> (unidentified)	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	0	0	0	0	0	0
<b>OLIGOCHAETA</b>	0	0	0	0	0	0
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	0	0	0	0	0	0
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>15</b>	<b>20</b>	<b>49</b>	<b>3</b>	<b>10</b>	<b>97</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	0	2	2
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	0	0	0
Nematocera (unidentified)	1	2	3	3	0	9
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	1	14	2	21	0	38
Tanyderidae	0	2	0	2	0	4
Tendipididae	17	48	21	48	3	137
Tipulidae	2	1	0	2	6	11
<b>Emphemeroptera (unidentified)</b>	1	8	3	0	2	14
Baetidae	6	22	22	20	24	94
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	1	9	1	0	1	12
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	7	53	35	22	10	127
<i>Rhithrogena</i> spp.	0	0	0	0	0	0
Leptophlebiidae	0	0	0	0	0	0
Siphonuridae	2	1	0	1	0	4
<b>Plecoptera (unidentified)</b>	2	5	9	3	2	21
<b>Holognatha (unidentified)</b>	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	27	87	67	40	2	223
<i>N.</i> subgenus <i>Zapada</i>	2	0	1	2	0	5
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	1	0	0	0	1
Capniinae (unidentified)	5	5	7	11	2	30
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	1	0	1	0	2
<b>Systemlognatha (unidentified)</b>	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	3	1	3	0	7
<i>Alloperla</i> spp.	3	9	6	12	2	32
Perlodidae (unidentified)	0	2	0	2	1	5
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	0	2	0	0	0	2
<b>Tricoptera (unidentified)</b>	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	1	0	0	0	0	1
<i>Ryacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	0	0	0	0	0	0
<b>OLIGOCHAETA</b>	0	0	0	0	3	3
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	0	1	2	1	0	4
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>78</b>	<b>276</b>	<b>180</b>	<b>194</b>	<b>60</b>	<b>788</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	4	7	3	1	1	16
<b>Collembola</b>						
	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	0	1	1
<b>Nematocera (unidentified)</b>	4	3	1	2	3	13
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	8	14	15	12	18	67
Tanyderidae	0	0	0	0	0	0
Tendipedidae	35	58	49	37	44	223
Tipulidae	1	1	1	0	1	4
<b>Empheeroptera (unidentified)</b>						
Baetidae	2	13	2	1	2	20
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	6	5	3	7	14	35
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	0	0	0	3	1	4
<i>E. spinifera</i> group	0	0	0	0	1	1
<i>E. serrata</i> group	2	1	0	0	0	3
Heptageniidae	40	68	19	56	81	264
<i>Rhithrogena</i> spp.	1	0	0	3	0	4
Lepthophlebiidae	3	4	0	2	0	9
Siphonuridae	3	2	7	3	4	19
<b>Plecoptera (unidentified)</b>						
	3	6	3	4	6	22
<b>Holognatha (unidentified)</b>						
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	22	43	6	7	10	88
<i>N.</i> subgenus <i>Zapada</i>	0	3	1	0	0	4
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	2	1	0	3	7	13
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha (unidentified)</b>						
Chloroperlidae (unidentified)	8	3	6	11	9	37
<i>Alloperla</i> spp.	0	2	0	0	0	2
Perlodidae (unidentified)	2	0	0	0	0	2
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	2	0	1	1	0	4
Type red	1	2	2	1	2	8
<b>Tricoptera (unidentified)</b>						
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	1	0	1	2
<b>OSTRACODA</b>	12	18	19	26	18	93
<b>ACARI</b>	0	3	2	0	3	8
<b>OLIGOCHAETA</b>	1	0	0	0	0	1
<b>TURBELLARIA</b>	0	1	0	0	1	2
<b>NEMATODA</b>	0	0	0	0	1	1
<b>PELECYPODA</b>	1	0	0	0	0	1
<b>Total Number of Organisms</b>	<b>163</b>	<b>258</b>	<b>141</b>	<b>181</b>	<b>229</b>	<b>972</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	1	0	0	1
<b>Collembola</b>						
0	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>						
Nematocera (unidentified)	0	1	0	0	0	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	1	0	0	0	0	1
Tendipididae	3	6	5	11	6	31
Tipulidae	1	0	0	0	0	1
<b>Ephemeroptera (unidentified)</b>						
Baetidae	0	2	2	0	0	4
Ephemerellidae (unidentified)	7	13	5	9	8	42
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	0	1	0	2	3
<i>E. coloradensis</i>	0	0	0	0	1	1
<i>E. doddsii</i>	1	1	0	0	1	3
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	14	31	25	12	24	106
<i>Rhithrogena</i> spp.	4	5	3	1	2	15
Leptophlebiidae	3	0	0	0	0	3
Siphonuridae	0	1	0	0	0	1
<b>Plecoptera (unidentified)</b>						
Holognatha (unidentified)	2	0	3	2	2	9
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha (unidentified)</b>						
Chloroperlidae (unidentified)	0	0	0	0	0	0
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	2	0	0	0	1	3
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	0	0	0	1	0	1
<b>Tricoptera (unidentified)</b>						
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	1	0	0	0	0	1
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	1	1
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	0	0	1	1
<b>OSTRACODA</b>						
ACARI	0	0	0	0	0	0
OLIGOCHAETA	1	0	0	0	0	1
TURBELLARIA	0	0	0	0	0	0
NEMATODA	0	0	0	1	0	1
PELECYPODA	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>40</b>	<b>60</b>	<b>45</b>	<b>37</b>	<b>49</b>	<b>231</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	2	2
Elmidae (larva)	1	42	23	1	21	88
<b>Collembola</b>						
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	1	0	0	1	2
<b>Nematocera</b> (unidentified)	2	0	2	0	0	4
Ceratopogoniidae	1	0	0	0	0	1
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	0	0	0	0	0	0
Tendipididae	149	124	115	59	137	584
Tipulidae	2	7	6	2	3	20
<b>Ephemeroptera</b> (unidentified)						
Baetidae	3	0	0	0	2	5
Baetidae	14	5	25	4	9	57
Ephemerellidae (unidentified)	0	0	0	0	1	1
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	2	0	0	0	1	3
<i>E. coloradensis</i>	2	1	3	4	1	11
<i>E. doddsii</i>	1	0	0	0	0	1
<i>E. spinifera</i> group	0	0	2	0	0	2
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	10	5	4	8	27	54
<i>Rhithrogena</i> spp.	1	0	3	2	4	10
Lepthopplebiidae	0	0	0	1	0	1
Siphonuridae	0	0	0	0	0	0
<b>Plecoptera</b> (unidentified)						
Holognatha (unidentified)	2	2	4	1	4	13
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	1	3	3	2	0	9
<i>N.</i> subgenus <i>Zapada</i>	1	1	1	0	1	4
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)						
Chloroperlidae (unidentified)	0	0	0	0	4	4
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	7	7
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	6	1	1	6	7	21
<b>Tricoptera</b> (unidentified)						
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	2	1	1	4
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	1	0	1	1	0	3
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	2	0	0	2
<i>Ryacophila</i> spp.	1	14	9	7	0	31
<b>OSTRACODA</b>						
ACARI	0	1	0	0	3	4
OLIGOCHAETA	1	0	4	2	2	9
TURBELLARIA	0	0	0	0	3	3
NEMATODA	1	4	3	0	6	14
PELECYPODA	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>202</b>	<b>211</b>	<b>213</b>	<b>101</b>	<b>247</b>	<b>974</b>



Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	2	1	3	6
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogonidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	1	0	0	0	0	1
Tanyderidae	0	0	2	1	3	6
Tendipididae	4	3	11	11	4	33
Tipulidae	0	0	0	0	0	0
<b>Empheroptera (unidentified)</b>	5	4	3	0	3	15
Baetidae	30	11	23	27	51	142
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	1	2	2	5	10
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. dodsii</i>	0	3	0	1	2	6
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	42	14	27	52	45	180
<i>Rhithrogena</i> spp.	8	17	5	3	9	42
Leptophlebiidae	1	2	0	0	1	4
Siphonuridae	0	0	0	0	0	0
<b>Plecoptera (unidentified)</b>	3	0	0	0	2	5
<b>Holognatha (unidentified)</b>	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha (unidentified)</b>	0	0	0	2	0	2
Chloroperlidae (unidentified)	5	1	1	9	4	20
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
<b>Tricoptera (unidentified)</b>	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	1	0	0	1
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Rhyacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	0	0	0	0	0	0
<b>OLIGOCHAETA</b>	0	0	1	0	0	1
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	0	0	0	0	0	0
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>99</b>	<b>56</b>	<b>78</b>	<b>109</b>	<b>132</b>	<b>474</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	1	0	0	1
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	1	0	0	0	0	1
<b>Nematocera</b> (unidentified)	2	1	0	0	0	3
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	0	0	1	0	0	1
Tendipididae	8	7	31	17	7	70
Tipulidae	5	0	0	0	2	7
<b>Ephemeroptera</b> (unidentified)	0	1	2	1	1	5
Baetidae	16	13	2	9	0	40
Ephemerellidae (unidentified)	0	1	0	0	0	1
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	4	0	1	0	1	6
<i>E. dodsii</i>	0	0	4	0	0	4
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	36	34	16	14	19	119
<i>Rhithrogena</i> spp.	15	5	9	2	5	36
Leptophlebiidae	0	0	0	0	0	0
Siphonuridae	1	1	0	0	0	2
<b>Plecoptera</b> (unidentified)	0	2	3	0	0	5
<b>Holognatha</b> (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	2	1	1	0	0	4
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	8	2	5	1	1	17
<i>Alloperla</i> spp.	0	0	0	1	0	1
Perlodidae (unidentified)	4	4	0	0	0	8
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	0	4	0	0	0	4
<b>Tricoptera</b> (unidentified)	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	1	0	0	1
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	0	0	0	0	0	0
<b>OLIGOCHAETA</b>	0	0	1	0	0	1
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	0	0	0	0	3	3
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>102</b>	<b>76</b>	<b>78</b>	<b>45</b>	<b>39</b>	<b>340</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	1	0	0	0	0	1
<b>Collembola</b>	1	0	0	0	0	1
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	1	0	1
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	1	0	0	0	0	1
Tendipididae	2	14	32	18	8	74
Tipulidae	6	4	5	8	7	30
<b>Emphemeroptera (unidentified)</b>	0	0	0	1	2	3
Baetidae	14	24	31	23	21	113
Ephemereididae (unidentified)	0	0	0	0	0	0
<i>Ephemereilla</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	2	1	0	0	0	3
<i>E. coloradensis</i>	0	1	3	3	6	13
<i>E. doddsii</i>	0	0	0	1	0	1
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	24	38	53	60	43	218
<i>Rhithrogena</i> spp.	2	8	5	0	5	20
Lepthophlebiidae	0	1	0	0	0	1
Siphonuridae	0	0	0	1	0	1
<b>Plecoptera (unidentified)</b>	3	3	3	2	0	11
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	1	0	1	1	2	5
<i>N.</i> subgenus <i>Zapada</i>	1	0	2	1	1	5
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha (unidentified)</b>	0	2	0	0	9	11
Chloroperlidae (unidentified)	2	6	2	1	5	16
<i>Alloperla</i> spp.	0	1	1	0	0	2
Perlodidae (unidentified)	0	1	0	0	0	1
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	1	1	4	1	3	10
<b>Tricoptera (unidentified)</b>	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	2	1	5	3	11
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	0	0	1	0	0	1
<b>OLIGOCHAETA</b>	3	2	1	0	0	6
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	2	0	1	1	0	4
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>66</b>	<b>109</b>	<b>146</b>	<b>128</b>	<b>115</b>	<b>564</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	1	1	1	0	3
<b>Collembola</b>	0	0	2	0	0	2
<b>Diptera</b>						
Cyclorrhapha	2	3	2	1	0	8
Nematocera (unidentified)	1	0	0	0	0	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	2	3	1	0	0	6
Tanyderidae	0	1	0	0	2	3
Tendipedidae	17	8	4	6	6	41
Tipulidae	4	2	2	0	1	9
<b>Emphemeroptera (unidentified)</b>	0	0	0	0	1	1
Baetidae	6	7	8	37	26	84
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	1	0	0	0	1
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	8	12	2	18	14	54
<i>Rhithrogena</i> spp.	0	0	0	2	0	2
Leptophlebiidae	0	0	2	0	0	2
Siphonuridae	0	0	0	0	0	0
<b>Plecoptera (unidentified)</b>	2	0	0	3	1	6
<b>Holognatha (unidentified)</b>	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	41	13	14	30	23	121
<i>N.</i> subgenus <i>Zapada</i>	0	3	0	0	0	3
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	3	1	0	2	6
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	1	1	2	6	8	18
<b>Systellognatha (unidentified)</b>	0	2	0	4	2	8
Chloroperlidae (unidentified)	2	1	3	3	1	10
<i>Alloperla</i> spp.	0	1	0	1	0	2
Perlodidae (unidentified)	0	0	0	1	0	1
<i>Arcynopteryx</i> subgenus <i>Megarxys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	2	1	0	2	0	5
<b>Tricoptera (unidentified)</b>	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	1	0	0	0	1	2
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	7	0	2	4	7	20
Psychomyiidae	2	0	0	1	1	4
Rhyacophilidae (unidentified)	0	1	2	2	0	5
<i>Ryacophila</i> spp.	4	0	0	2	1	7
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	0	0	0	0	2	2
<b>OLIGOCHAETA</b>	1	3	1	2	0	7
<b>TURBELLARIA</b>	1	4	0	0	2	7
<b>NEMATODA</b>	0	0	0	0	0	0
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>104</b>	<b>71</b>	<b>49</b>	<b>126</b>	<b>101</b>	<b>451</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	7	10	6	2	19	44
<b>Collembola</b>						
	0	0	1	0	0	1
<b>Diptera</b>						
<b>Cyclorrhapha</b>						
Nematocera (unidentified)	2	0	0	0	0	2
Ceratopogoniidae	3	3	3	2	3	14
Psychodidae - <i>Pericoma</i> spp.	0	1	0	0	0	1
Tanyderidae	0	0	0	1	0	1
Tendipididae	0	1	1	2	0	4
Tipulidae	28	187	72	19	79	385
	3	5	1	3	1	13
<b>Ephemeroptera (unidentified)</b>						
Baetidae	0	0	0	2	0	2
Ephemereillidae (unidentified)	18	20	5	41	18	102
<i>Ephemereilla</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	13	21	3	28	11	76
<i>E. doddsi</i>	3	0	1	3	2	9
<i>E. spinifera</i> group	0	2	2	0	0	4
<i>E. serrata</i> group	1	1	0	1	1	4
Heptageniidae	3	2	1	3	2	11
<i>Rhithrogena</i> spp.	26	18	2	46	3	95
Lepthophlebiidae	5	5	3	2	2	17
Siphonuridae	0	0	0	0	0	0
<b>Plecoptera (unidentified)</b>						
Holognatha (unidentified)	2	0	0	2	3	7
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	1	0	1
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha (unidentified)</b>						
Chloroperlidae (unidentified)	0	0	1	2	0	3
<i>Alloperla</i> spp.	3	11	7	11	8	40
Perlodidae (unidentified)	0	0	0	1	0	1
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	1	4	2	2	0	9
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	1	5	0	0	0	6
	2	13	5	3	4	27
<b>Tricoptera (unidentified)</b>						
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	1	7	0	1	0	9
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	1	0	0	1
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	1	0	0	0	1
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	4	5	8	8	25
<b>OSTRACODA</b>						
	4	2	1	1	0	8
<b>ACARI</b>						
	0	0	0	0	0	0
<b>OLIGOCHAETA</b>						
	0	1	7	3	1	12
<b>TURBELLARIA</b>						
	2	3	4	2	4	15
<b>NEMATODA</b>						
	0	0	0	0	0	0
<b>PELECYPODA</b>						
	0	1	0	0	0	1
<b>Total Number of Organisms</b>						
	128	328	134	192	169	951

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>			Total (0.2 m <sup>-2</sup> )
	Sample Number			
	1	2		
<b>INSECTA</b>				
<b>Coleoptera</b>				
Elmidae (adult)	0	0		0
Elmidae (larva)	0	0		0
<b>Collembola</b>	0	0		0
<b>Diptera</b>				
<b>Cyclorrhapha</b>	0	0		0
Nematocera (unidentified)	0	0		0
Ceratopogoniidae	1	0		1
Psychodidae - <i>Pericoma</i> spp.	0	0		0
Tanyderidae	0	0		0
Tendipedidae	7	2		9
Tipulidae	0	1		1
<b>Emphemeroptera (unidentified)</b>	7	3		10
Baetidae	7	6		13
Ephemerellidae (unidentified)	0	0		0
<i>Ephemerella</i> spp.	0	0		0
cf. <i>E. euterpe</i>	0	0		0
<i>E. coloradensis</i>	0	5		5
<i>E. doddsii</i>	0	0		0
<i>E. spinifera</i> group	0	0		0
<i>E. serrata</i> group	0	0		0
Heptageniidae	63	17		80
<i>Rhythrogena</i> spp.	18	11		29
Leptophlebiidae	2	2		4
Siphonuridae	0	0		0
<b>Plecoptera (unidentified)</b>	5	2		7
<b>Holognatha (unidentified)</b>	0	0		0
Nemouridae (unidentified)	0	0		0
<i>Nemoura</i> spp.	0	0		0
<i>N.</i> subgenus <i>Zapada</i>	0	0		0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0		0
Capniinae (unidentified)	0	0		0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0		0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0		0
<b>Systellognatha (unidentified)</b>	0	0		0
Chloroperlidae (unidentified)	21	0		21
<i>Alloperla</i> spp.	0	0		0
Perlodidae (unidentified)	0	0		0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0		0
<i>Isogenus</i> spp.	0	0		0
<i>Isoperla</i> spp.	0	0		0
Type red	0	0		0
<b>Tricoptera (unidentified)</b>	0	0		0
Brachycentridae - <i>Micrasema</i> spp.	0	0		0
Glossosomatidae (unidentified)	0	0		0
<i>Glossosoma</i> spp.	0	0		0
<i>Agapetus</i> spp.	0	0		0
Hydropsychidae (unidentified)	0	0		0
<i>Hydropsyche</i> spp.	0	0		0
<i>Parapsyche</i> spp.	0	0		0
Lepidostomatidae	0	0		0
Limnephilidae (unidentified)	0	0		0
<i>Platycentropus</i> spp.	0	0		0
<i>Oligophlebodes</i> spp.	0	0		0
Psychomyiidae	1	0		1
Rhyacophilidae (unidentified)	1	0		1
<i>Rhyacophila</i> spp.	2	0		2
<b>OSTRACODA</b>	0	0		0
<b>ACARI</b>	0	0		0
<b>OLIGOCHAETA</b>	0	0		0
<b>TURBELLARIA</b>	0	0		0
<b>NEMATODA</b>	0	1		1
<b>PELECYPODA</b>	0	0		0
<b>Total Number of Organisms</b>	<b>135</b>	<b>50</b>	<b>0</b>	<b>0</b>
			<b>0</b>	<b>185</b>

Station No: 1  
Date: August 1976

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	2	0	2
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	1	0	0	0	0	1
<b>Nematocera</b> (unidentified)	0	0	1	0	0	1
Ceratopogoniidae	3	0	0	1	0	4
Psychodidae - <i>Pericoma</i> spp.	0	2	0	0	0	2
Tanyderidae	0	0	0	1	0	1
Tendipedidae	163	21	16	17	69	286
Tipulidae	2	0	0	2	1	5
<b>Emphemeroptera</b> (unidentified)	5	0	0	3	0	8
Baetidae	3	0	2	13	1	19
Ephemerellidae (unidentified)	0	0	0	1	0	1
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterge</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	34	6	9	15	6	70
<i>Rhithrogena</i> spp.	0	0	0	0	0	0
Leptophlebiidae	1	0	0	0	0	1
Siphonuridae	55	32	9	2	13	111
<b>Plecoptera</b> (unidentified)	6	0	2	0	0	8
<b>Holognatha</b> (unidentified)	3	2	0	4	5	14
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	8	5	0	8	15	36
<i>Alloperla</i> spp.	0	2	0	1	0	3
Perlodidae (unidentified)	0	1	3	0	3	7
<i>Arcyopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	2	0	0	0	1	3
Type red	0	1	1	0	2	4
<b>Tricoptera</b> (unidentified)	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	1	0	1
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	1	0	0	1
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	3	4	0	1	1	9
<b>OLIGOCHAETA</b>	0	0	0	0	0	0
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	1	0	0	1	2	4
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>290</b>	<b>76</b>	<b>44</b>	<b>73</b>	<b>119</b>	<b>602</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	4	9	2	1	5	21
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	3	2	0	0	5
Nematocera (unidentified)	1	2	4	2	3	12
Ceratopogoniidae	3	0	3	0	1	7
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	0	1	1	0	0	2
Tendipididae	146	133	102	46	45	472
Tipulidae	1	0	0	0	1	2
<b>Ephemeroptera</b> (unidentified)	0	0	0	0	0	0
Baetidae	3	21	21	7	24	76
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	3	3
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	3	0	0	0	0	3
<i>E. doddsii</i>	0	1	0	0	1	2
<i>E. spinifera</i> group	0	1	1	0	0	2
<i>E. serrata</i> group	0	2	14	3	4	23
Heptageniidae	3	8	24	27	21	83
<i>Rhithrogena</i> spp.	0	0	1	0	2	3
Leptophlebiidae	1	0	1	1	2	5
Siphonuridae	3	4	1	2	1	11
<b>Plecoptera</b> (unidentified)	2	2	3	1	5	13
<b>Holognatha</b> (unidentified)	2	3	7	1	0	13
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	1	1
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	3	3
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopterygidae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	8	5	13	11	3	40
<i>Alloperla</i> spp.	2	0	1	0	0	3
Perlodidae (unidentified)	0	0	2	0	0	2
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	1	0	0	0	1
Type red	2	3	6	0	2	13
<b>Tricoptera</b> (unidentified)	0	0	2	0	1	3
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	4	4
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	2	0	0	2	4
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	2	0	0	0	0	2
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	0	0	4	4
<b>OSTRACODA</b>	0	1	0	0	0	1
<b>ACARI</b>	13	17	16	12	3	61
<b>OLIGOCHAETA</b>	1	2	0	2	1	6
<b>TURBELLARIA</b>	0	1	1	0	0	2
<b>NEMATODA</b>	1	1	1	2	1	6
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>201</b>	<b>223</b>	<b>229</b>	<b>118</b>	<b>143</b>	<b>914</b>



Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	1	1	2
<b>Nematocera</b> (unidentified)	0	1	2	0	1	4
Ceratopogoniidae	1	2	2	1	0	6
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	0	0	1	0	1	2
Tendipedidae	9	18	16	21	13	77
Tipulidae	0	1	0	2	2	5
<b>Emphemeroptera</b> (unidentified)	7	0	4	0	0	11
Baetidae	16	25	32	5	20	98
Ephemerellidae (unidentified)	0	1	0	0	0	1
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsi</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	1	0	0	1
Heptageniidae	28	22	11	3	27	91
<i>Rhithrogena</i> spp.	5	2	4	1	9	21
Lepthophlebiidae	0	4	0	0	0	4
Siphonuridae	2	3	2	1	0	8
<b>Plecoptera</b> (unidentified)	6	3	0	1	0	10
<b>Holognatha</b> (unidentified)	28	59	14	2	72	175
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	22	5	23	4	16	70
<i>Alloperla</i> spp.	0	1	3	1	0	5
Perlodidae (unidentified)	0	2	5	2	0	9
<i>Arcyopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	0	0	0	0	0	0
<b>Tricoptera</b> (unidentified)	0	2	1	0	0	3
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	1	0	0	1
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	1	1	0	3	6	11
<i>Ryacophila</i> spp.	0	0	0	2	0	2
<b>OSTRACODA</b>	0	0	0	1	0	1
<b>ACARI</b>	0	1	2	0	1	4
<b>OLIGOCHAETA</b>	0	1	0	0	0	1
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	1	2	1	0	2	6
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>126</b>	<b>156</b>	<b>125</b>	<b>51</b>	<b>171</b>	<b>629</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	3	0	2	3	0	8
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	1	0	0	1
<b>Nematocera</b> (unidentified)	0	3	3	0	1	7
Ceratopogoniidae	1	0	1	2	1	5
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	1	0	1	0	1	3
Tendipididae	27	40	64	49	28	208
Tipulidae	0	1	0	0	0	1
<b>Emphemeroptera</b> (unidentified)	0	3	1	0	6	10
Baetidae	18	22	38	19	20	117
Ephemereillidae (unidentified)	0	1	1	2	1	5
<i>Ephemerella</i> spp.	0	0	0	2	0	2
cf. <i>E. euterge</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	1	0	0	0	1
<i>E. doddssi</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	0	2	1	1	0	4
<i>E. serrata</i> group	0	3	2	6	3	14
Heptageniidae	21	13	17	28	19	98
<i>Rhithrogena</i> spp.	9	5	6	4	1	25
Leptophlebiidae	2	5	2	6	0	15
Siphonuridae	0	0	0	2	2	4
<b>Plecoptera</b> (unidentified)	8	0	4	3	0	15
<b>Holognatha</b> (unidentified)	22	7	19	7	6	61
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha</b> (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	10	6	9	3	8	36
<i>Alloperla</i> spp.	1	0	1	3	0	5
Perlodidae (unidentified)	0	0	4	2	1	7
<i>Arcyopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	1	0	0	1
Type red	0	0	1	2	2	5
<b>Tricoptera</b> (unidentified)	0	0	1	0	0	1
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	5	2	2	9
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	1	1	2	0	5
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	1	0	0	1
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	0	1	1	0	0	2
<b>OLIGOCHAETA</b>	1	0	0	0	0	1
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	1	3	3	0	1	8
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>125</b>	<b>117</b>	<b>191</b>	<b>148</b>	<b>103</b>	<b>684</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	3	0	0	0	5	8
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	1	0	2	3
<b>Nematocera</b> (unidentified)	0	2	1	0	2	5
Ceratopogoniidae	1	0	1	0	1	3
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	0	0	0	0	0	0
Tendipedidae	132	92	84	107	103	518
Tipulidae	0	0	0	0	2	2
<b>Ephemeroptera</b> (unidentified)	0	0	1	1	2	4
Baetidae	1	0	1	2	0	4
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterge</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	2	0	0	0	0	2
<i>E. spinifera</i> group	1	1	1	0	3	6
<i>E. serrata</i> group	1	0	1	0	1	3
Heptageniidae	8	2	8	5	11	34
<i>Rhithrogena</i> spp.	0	1	0	0	0	1
Leptophlebiidae	1	0	0	1	2	4
Siphonuridae	1	0	1	2	0	4
<b>Plecoptera</b> (unidentified)	1	0	0	0	1	2
<b>Holognatha</b> (unidentified)	0	0	0	1	2	3
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	1	0	1
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systemlognatha</b> (unidentified)	0	0	0	0	0	0
Chloroperlidae (unidentified)	7	4	7	12	22	52
<i>Alloperla</i> spp.	2	3	1	1	9	16
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarxys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	2	1	0	1	2	6
<b>Tricoptera</b> (unidentified)	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	2	0	0	1	1	4
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Rhyacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>	3	1	2	3	4	13
<b>ACARI</b>	12	4	3	3	8	30
<b>OLIGOCHAETA</b>	0	0	0	0	0	0
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	0	0	0	1	0	1
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>180</b>	<b>111</b>	<b>113</b>	<b>142</b>	<b>183</b>	<b>729</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	21	6	2	7	9	45
<b>Collembola</b>						
	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>						
Nematocera (unidentified)	3	2	2	3	1	11
Ceratopogoniidae	6	0	2	1	2	11
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0	0
Tanyderidae	6	8	7	10	8	39
Tendipedidae	179	102	87	62	78	508
Tipulidae	2	0	0	0	0	2
<b>Empheeroptera (unidentified)</b>						
Baetidae	17	10	5	4	2	38
Ephemerellidae (unidentified)	17	27	46	33	30	153
<i>Ephemerella</i> spp.	0	0	0	2	3	5
<i>cf. E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsi</i>	0	0	1	2	1	4
<i>E. spinifera</i> group	1	0	2	0	0	3
<i>E. serrata</i> group	0	0	1	1	4	6
Heptageniidae	11	13	21	16	19	80
<i>Rhithrogena</i> spp.	0	0	0	0	0	0
Lepthophlebiidae	0	0	0	0	0	0
Siphonuridae	17	27	46	33	30	153
<b>Plecoptera (unidentified)</b>						
	3	3	2	0	5	13
<b>Holognatha (unidentified)</b>						
	22	28	18	13	18	99
<b>Nemouridae (unidentified)</b>						
	0	0	0	0	0	0
<i>Nemoura</i> spp.	3	6	5	4	0	18
<i>N. subgenus Zapada</i>	0	0	1	5	11	17
<i>N. subgenus Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systellognatha (unidentified)</b>						
	0	0	0	0	0	0
<b>Chloroperlidae (unidentified)</b>						
	15	1	1	0	0	17
<i>Alloperla</i> spp.	0	1	1	0	0	2
<b>Perlodidae (unidentified)</b>						
	3	0	0	0	0	3
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	7	13	15	2	6	43
<b>Tricoptera (unidentified)</b>						
	0	0	1	3	1	5
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	1	1
<b>Glossosomatidae (unidentified)</b>						
	1	0	3	8	2	14
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	6	11	7	24
<b>Hydropsychidae (unidentified)</b>						
	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
<b>Lepidostomatidae</b>						
	0	0	0	0	0	0
<b>Limnephilidae (unidentified)</b>						
	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
<b>Psychomyiidae</b>						
	0	0	0	0	0	0
<b>Rhyacophilidae (unidentified)</b>						
	0	0	0	0	0	0
<i>Ryacophila</i> spp.	7	0	3	8	2	20
<b>OSTRACODA</b>						
	0	0	1	2	0	3
<b>ACARI</b>						
	4	7	3	2	2	18
<b>OLIGOCHAETA</b>						
	3	5	2	0	3	13
<b>TURBELLARIA</b>						
	0	0	2	0	1	3
<b>NEMATODA</b>						
	8	17	4	3	5	37
<b>PELECYPODA</b>						
	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>358</b>	<b>277</b>	<b>292</b>	<b>235</b>	<b>251</b>	<b>1,413</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	1	0	0	0	1
Elmidae (larva)	36	28	27	5	16	112
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	3	0	0	3
Nematocera (unidentified)	1	0	2	0	1	4
Ceratopogoniidae	2	0	1	0	0	3
Psychodidae - <i>Pericoma</i> spp.	0	3	1	0	0	4
Tanyderidae	1	0	0	0	0	1
Tendipedidae	75	59	48	61	97	340
Tipulidae	1	0	1	3	0	5
<b>Emphemeroptera (unidentified)</b>	0	0	2	2	1	5
Baetidae	15	38	14	6	1	74
Ephemerellidae (unidentified)	4	1	0	0	1	6
<i>Ephemerella</i> spp.	0	2	1	2	1	6
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. dodsii</i>	2	1	1	0	1	5
<i>E. spinifera</i> group	4	1	6	0	1	12
<i>E. serrata</i> group	3	0	9	3	0	15
Heptageniidae	19	15	17	4	13	68
<i>Rhithrogena</i> spp.	1	0	0	0	0	1
Leptophlebiidae	1	0	0	0	0	1
Siphonuridae	0	2	1	1	0	4
<b>Plecoptera (unidentified)</b>	2	3	2	3	3	13
<b>Holognatha (unidentified)</b>	3	8	7	0	2	20
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0	0
<b>Systemlognatha (unidentified)</b>	0	0	0	0	0	0
Chloroperlidae (unidentified)	3	9	12	3	8	35
<i>Alloperla</i> spp.	0	0	0	0	1	1
Perlodidae (unidentified)	2	1	0	1	1	5
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	2	0	0	2	2	6
<b>Tricoptera (unidentified)</b>	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	0	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	1	0	0	0	1	2
Hydropsychidae (unidentified)	0	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>	2	0	0	6	1	9
<b>ACARI</b>	19	13	5	1	2	40
<b>OLIGOCHAETA</b>	3	5	6	1	3	18
<b>TURBELLARIA</b>	3	2	2	0	1	8
<b>NEMATODA</b>	0	1	2	0	1	4
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>205</b>	<b>193</b>	<b>170</b>	<b>104</b>	<b>159</b>	<b>831</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	1	0	2	0	3
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>						
	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	0	0	0
<b>Nematocera</b> (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	1	1	0	2
Psychodidae - <i>Pericoma</i> spp.	4	1	7	9	3	24
Tanyderidae	1	0	0	0	0	1
Tendipididae	9	17	9	5	8	48
Tipulidae	1	4	5	4	3	17
<b>Ephemeroptera</b> (unidentified)						
Baetidae	16	3	49	31	33	132
Ephemerellidae (unidentified)	0	0	0	0	0	0
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	1	0	0	0	0	1
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	0	1	2	7	2	12
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	4	4
Heptageniidae	5	35	4	19	32	95
<i>Rhithrogena</i> spp.	91	17	15	18	61	202
Leptophlebiidae	9	7	12	13	5	46
Siphonuridae	0	0	2	0	0	2
<b>Plecoptera</b> (unidentified)						
	4	0	0	1	0	5
<b>Holognatha</b> (unidentified)						
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	5	1	2	1	1	10
<i>N.</i> subgenus <i>Zapada cinctipes</i>	7	1	3	0	0	11
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	3	2	0	2	0	7
Taeniopteryginae - <i>Brachyptera</i> spp.	37	58	29	13	68	205
<b>Systemlognatha</b> (unidentified)						
Chloroperlidae (unidentified)	24	12	3	12	20	71
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcyopteryx</i> subgenus <i>Megarxys</i> spp.	3	2	0	0	4	9
<i>Isogenus</i> spp.	0	0	0	1	0	1
<i>Isoperla</i> spp.	2	0	0	0	0	2
Type red	0	0	2	0	0	2
<b>Tricoptera</b> (unidentified)						
	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	18	14	1	0	0	33
Glossosomatidae (unidentified)	28	23	7	13	4	75
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	21	6	2	3	4	36
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	2	0	0	2
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	1	3	0	0	4
<i>Ryacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>						
	0	0	0	0	0	0
<b>ACARI</b>						
	2	7	1	9	4	23
<b>OLIGOCHAETA</b>						
	0	0	0	0	0	0
<b>TURBELLARIA</b>						
	1	0	0	0	0	1
<b>NEMATODA</b>						
	0	0	0	0	3	3
<b>PELECYPODA</b>						
	0	0	0	0	0	0
Total Number of Organisms	292	213	161	164	259	1,089

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	11	10	15	13	2	51
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogoniidae	0	0	2	0	0	2
Psychodidae - <i>Pericoma</i> spp.	104	28	61	66	4	263
Tanyderidae	0	0	3	1	2	6
Tendipididae	26	79	123	36	21	285
Tipulidae	4	10	41	15	6	76
<b>Ephemeroptera (unidentified)</b>	0	0	0	0	0	0
Baetidae	9	99	67	41	58	274
Ephemerellidae (unidentified)	15	4	7	9	2	37
<i>Ephemerella</i> spp.	0	6	3	4	4	17
cf. <i>E. euterge</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddii</i>	6	13	12	7	9	47
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	2	0	0	2	4
Heptageniidae	15	49	61	39	27	191
<i>Rhithrogena</i> spp.	11	4	8	10	8	41
Leptophlebiidae	0	0	3	6	2	11
Siphonuridae	2	6	23	16	7	54
<b>Plecoptera (unidentified)</b>	0	3	13	0	0	16
<b>Holognatha (unidentified)</b>	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	4	0	0	0	4
<i>N.</i> subgenus <i>Zapada</i>	2	21	3	5	4	35
<i>N.</i> subgenus <i>Zapada cinctipes</i>	5	6	10	7	7	35
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	3	3	0	6	2	14
Taeniopterygidae - <i>Brachyptera</i> spp.	13	49	23	24	6	115
<b>Systellognatha (unidentified)</b>	0	0	0	0	0	0
Chloroperlidae (unidentified)	6	16	11	18	8	59
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcyopteryx</i> subgenus <i>Megaracys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	3	7	2	4	5	21
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	4	17	16	11	5	53
<b>Tricoptera (unidentified)</b>	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	7	0	0	1	8
Glossosomatidae (unidentified)	5	48	61	37	85	236
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	3	54	10	5	5	77
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	1	0	0	0	0	1
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	1	14	6	3	7	31
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	9	19	37	27	16	108
<b>OLIGOCHAETA</b>	0	0	0	0	0	0
<b>TURBELLARIA</b>	1	3	3	2	3	12
<b>NEMATODA</b>	0	0	3	2	2	7
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>259</b>	<b>581</b>	<b>627</b>	<b>414</b>	<b>310</b>	<b>2,191</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	0	0	0
<b>Nematocera</b> (unidentified)	0	0	0	0	1	1
Ceratopogoniidae	0	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	1	2	3	3	4	13
Tanyderidae	0	0	0	0	0	0
Tendipididae	4	4	47	17	12	84
Tipulidae	0	0	0	1	2	3
<b>Emphemeroptera</b> (unidentified)	0	0	0	0	0	0
Baetidae	28	13	68	77	71	257
Ephemereillidae (unidentified)	0	0	0	0	0	0
<i>Ephemereilla</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	3	3	5	4	4	19
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	2	1	2	5
Heptageniidae	4	11	22	14	5	56
<i>Rhithrogena</i> spp.	11	13	35	17	17	93
Leptophlebiidae	0	0	0	0	0	0
Siphonuridae	0	0	1	0	0	1
<b>Plecoptera</b> (unidentified)	0	0	0	0	0	0
<b>Holognatha</b> (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	1	1
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	1	1
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	17	24	41
<b>Systemlognatha</b> (unidentified)	0	0	1	0	1	2
Chloroperlidae (unidentified)	10	7	15	10	8	50
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarctys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	0	0	0	4	0	4
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	1	0	0	0	0	1
<b>Tricoptera</b> (unidentified)	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	3	4	3	1	4	15
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	4	19	23
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Rhyacophila</i> spp.	0	0	0	0	0	0
<b>OSTRACODA</b>	0	0	0	0	0	0
<b>ACARI</b>	22	17	18	19	8	84
<b>OLIGOCHAETA</b>	0	0	2	0	0	2
<b>TURBELLARIA</b>	0	0	0	0	0	0
<b>NEMATODA</b>	4	0	3	2	5	14
<b>PELECYPODA</b>	0	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>91</b>	<b>74</b>	<b>225</b>	<b>191</b>	<b>189</b>	<b>770</b>



Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	0	2	1	0	0	3
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>						
0	0	0	0	0	0	0
<b>Diptera</b>						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	0	0	0	0	0
Ceratopogonidae	1	1	1	0	1	4
Psychodidae - <i>Pericoma</i> spp.	16	31	17	17	13	94
Tanyderidae	0	0	0	0	0	0
Tendipididae	16	29	9	17	13	84
Tipulidae	5	8	8	13	9	43
<b>Ephemeroptera (unidentified)</b>						
Baetidae	42	60	62	86	33	283
Ephemerellidae (unidentified)	1	0	1	0	0	2
<i>Ephemerella</i> spp.	3	4	6	7	4	24
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. dodsii</i>	6	10	3	8	5	32
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	49	19	31	23	24	146
<i>Rhithrogena</i> spp.	69	57	58	56	54	294
Lepthophlebiidae	0	0	0	0	0	0
Siphonuridae	0	0	1	0	0	1
<b>Plecoptera (unidentified)</b>						
Holognatha (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada</i>	2	0	0	2	1	5
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucagnopsis</i> spp.	0	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	35	28	32	58	34	187
<b>Systellognatha (unidentified)</b>						
Chloroperlidae (unidentified)	17	19	23	20	17	96
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	0
<i>Isogenus</i> spp.	4	1	1	3	3	12
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	3	1	2	2	1	9
<b>Tricoptera (unidentified)</b>						
Brachycentridae - <i>Micrasema</i> spp.	0	1	0	0	0	1
Glossosomatidae (unidentified)	13	20	8	23	4	68
<i>Glossosoma</i> spp.	0	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	2	7	3	5	2	19
<i>Hydropsyche</i> spp.	0	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	1	1	0	0	0	2
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	5	6	7	3	0	21
<b>OSTRACODA</b>						
0	0	0	0	0	0	0
<b>ACARI</b>						
2	0	0	6	2	10	
<b>OLIGOCHAETA</b>						
1	1	0	0	5	7	
<b>TURBELLARIA</b>						
0	0	0	0	0	0	
<b>NEMATODA</b>						
2	0	3	4	3	12	
<b>PELECYPODA</b>						
0	0	0	0	0	0	
<b>Total Number of Organisms</b>						
	295	306	278	353	236	1,468

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>			Total (0.3 m <sup>-2</sup> )
	1	2	3	
<b>INSECTA</b>				
<b>Coleoptera</b>				
Elmidae (adult)	3	2	0	5
Elmidae (larva)	0	0	0	0
<b>Collembola</b>				
	0	0	0	0
<b>Diptera</b>				
<b>Cyclorrhapha</b>				
Nematocera (unidentified)	0	0	1	1
Ceratopogonidae	1	0	0	1
Psychodidae - <i>Pericoma</i> spp.	18	13	13	44
Tanyderidae	0	0	0	0
Tendipididae	42	19	32	93
Tipulidae	1	8	4	13
<b>Ephemeroptera (unidentified)</b>				
Baetidae	4	3	3	10
Ephemerellidae (unidentified)	22	17	54	93
<i>Ephemerella</i> spp.	2	1	6	9
cf. <i>E. euterpe</i>	3	0	2	5
<i>E. coloradensis</i>	0	0	0	0
<i>E. dodsii</i>	0	0	0	0
<i>E. doddsii</i>	8	13	9	30
<i>E. spinifera</i> group	0	0	0	0
<i>E. serrata</i> group	0	0	0	0
Heptageniidae	23	28	16	67
<i>Rhithrogena</i> spp.	36	12	21	69
Leptophlebiidae	12	25	16	53
Siphonuridae	2	0	0	2
<b>Plecoptera (unidentified)</b>				
	9	5	2	16
<b>Holognatha (unidentified)</b>				
Nemouridae (unidentified)	0	0	0	0
<i>Nemoura</i> spp.	2	0	0	2
N. subgenus <i>Zapada</i>	5	4	4	13
N. subgenus <i>Zapada cinctipes</i>	1	0	0	1
Capniinae (unidentified)	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0
Taeniopterygidae - <i>Brachyptera</i> spp.	33	149	116	298
<b>Systellognatha (unidentified)</b>				
Chloroperlidae (unidentified)	5	4	2	11
<i>Alloperla</i> spp.	36	33	18	87
<i>Alloperla</i> spp.	0	0	0	0
Perlodidae (unidentified)	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	4	1	5
<i>Isogenus</i> spp.	7	3	1	11
<i>Isoperla</i> spp.	0	0	0	0
Type red	3	1	6	10
<b>Tricoptera (unidentified)</b>				
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	1	0	0	1
Glossosomatidae (unidentified)	0	0	56	56
<i>Glossosoma</i> spp.	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0
Lepidostomatidae	0	0	0	0
Limnephilidae (unidentified)	2	3	2	7
<i>Platycentropus</i> spp.	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0
Psychomyiidae	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0
<i>Rhyacophila</i> spp.	5	11	7	23
<b>OSTRACODA</b>				
	2	0	0	2
<b>ACARI</b>				
	13	11	16	40
<b>OLIGOCHAETA</b>				
	0	0	0	0
<b>TURBELLARIA</b>				
	1	0	0	1
<b>NEMATODA</b>				
	0	0	3	3
<b>PELECYPODA</b>				
	0	0	0	0
<b>Total Number of Organisms</b>				
	302	369	411	1,082

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	10	7	9	5	6	37
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>						
	0	0	0	0	0	0
<b>Diptera</b>						
<b>Cyclorrhapha</b>	0	0	0	0	0	0
<b>Nematocera</b> (unidentified)	1	0	2	0	4	7
Ceratopogoniidae	0	1	0	1	3	5
Psychodidae - <i>Pericoma</i> spp.	17	5	8	8	3	41
Tanyderidae	2	3	4	2	1	12
Tendipididae	42	38	26	37	42	185
Tipulidae	11	4	3	5	4	27
<b>Ephemeroptera</b> (unidentified)						
Baetidae	2	7	0	1	0	10
	390	440	330	220	316	1,696
Ephemerellidae (unidentified)	0	0	0	0	1	1
<i>Ephemerella</i> spp.	2	7	5	1	5	20
cf. <i>E. euterpe</i>	0	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0	0
<i>E. doddsii</i>	16	18	19	17	41	111
<i>E. spinifera</i> group	0	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	48	39	41	19	42	189
<i>Rhithrogena</i> spp.	18	14	7	8	2	49
Lepthophlebiidae	0	0	0	0	0	0
Siphonuridae	0	0	0	0	0	0
<b>Plecoptera</b> (unidentified)						
	28	5	11	9	3	56
<b>Holognatha</b> (unidentified)	0	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	0	0	5	5
<i>N.</i> subgenus <i>Zapada</i>	27	24	28	25	8	112
<i>N.</i> subgenus <i>Zapada cinctipes</i>	5	4	6	4	6	25
Capniinae (unidentified)	0	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	4	5	4	5	2	20
Taeniopteryginae - <i>Brachyptera</i> spp.	208	162	128	88	62	648
<b>Systellognatha</b> (unidentified)						
	0	0	0	0	0	0
Chloroperlidae (unidentified)	0	1	3	3	4	11
<i>Alloperla</i> spp.	0	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	1	1	1	3	1	7
<i>Isogenus</i> spp.	0	1	2	3	3	9
<i>Isoperla</i> spp.	0	0	0	0	0	0
Type red	28	22	28	27	28	133
<b>Tricoptera</b> (unidentified)						
	0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0	0
Glossosomatidae (unidentified)	2	3	0	3	9	17
<i>Glossosoma</i> spp.	1	4	2	0	3	10
<i>Agapetus</i> spp.	0	0	0	0	0	0
Hydropsychidae (unidentified)	8	5	6	8	4	31
<i>Hydropsyche</i> spp.	13	12	9	13	2	49
<i>Parapsyche</i> spp.	0	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0	0
Psychomyiidae	0	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0	0
<i>Ryacophila</i> spp.	9	13	12	10	13	57
<b>OSTRACODA</b>						
	16	9	11	8	11	55
<b>ACARI</b>						
	12	7	16	19	13	67
<b>OLIGOCHAETA</b>						
	0	0	0	4	1	5
<b>TURBELLARIA</b>						
	2	7	6	1	0	16
<b>NEMATODA</b>						
	6	3	2	4	4	19
<b>PELECYPODA</b>						
	0	0	0	0	0	0
Total Number of Organisms	929	871	729	561	652	3,742

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>					Total (0.5 m <sup>-2</sup> )
	Sample Number					
	1	2	3	4	5	
<b>INSECTA</b>						
<b>Coleoptera</b>						
Elmidae (adult)	6	11	13	25	20	75
Elmidae (larva)	0	0	0	0	0	0
<b>Collembola</b>						
0	0	0	0	0	0	0
<b>Diptera</b>						
Cyclorrhapha	0	0	0	0	0	0
Nematocera (unidentified)	0	2	2	1	0	5
Ceratopogoniidae	0	1	0	1	0	2
Psychodidae - <i>Pericoma</i> spp.	9	27	13	19	16	84
Tanyderidae	0	5	5	1	0	11
Tendipididae	33	32	41	28	27	161
Tipulidae	0	2	0	5	6	13
<b>Ephemeroptera (unidentified)</b>						
Baetidae	1	0	0	0	0	1
Ephemerellidae (unidentified)	9	2	17	15	11	54
<i>Ephemerella</i> spp.	0	0	0	0	0	0
cf. <i>E. euterpe</i>	0	0	3	2	0	5
<i>E. coloradensis</i>	1	0	0	0	0	1
<i>E. doddsii</i>	0	0	0	0	0	0
<i>E. spinifera</i> group	2	3	1	0	5	11
<i>E. serrata</i> group	0	0	0	0	0	0
Heptageniidae	0	0	0	0	0	0
<i>Rhithrogena</i> spp.	23	31	27	45	32	158
Leptophlebiidae	1	0	1	1	0	3
Siphonuridae	2	0	1	0	0	3
0	0	0	0	0	0	0
<b>Plecoptera (unidentified)</b>						
3	8	3	2	4	20	
<b>Holognatha (unidentified)</b>						
0	0	0	0	0	0	
<b>Nemouridae (unidentified)</b>						
0	0	0	0	0	0	
<i>Nemoura</i> spp.	2	0	0	0	2	
<i>N.</i> subgenus <i>Zapada</i>	5	4	3	6	13	
<i>N.</i> subgenus <i>Zapada cinctipes</i>	36	27	15	0	2	
Capniinae (unidentified)	0	0	0	0	0	
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	9	9	8	10	7	
Taeniopteryginae - <i>Brachyptera</i> spp.	33	58	47	23	64	
<b>Systellognatha (unidentified)</b>						
0	0	0	0	0	0	
<b>Chloroperlidae (unidentified)</b>						
2	4	2	3	5	16	
<i>Alloperla</i> spp.	0	0	0	0	0	
<b>Perlodidae (unidentified)</b>						
0	0	0	0	0	0	
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0	
<i>Isogenus</i> spp.	2	4	2	3	5	
<i>Isoperla</i> spp.	0	0	2	0	0	
Type red	3	0	3	1	0	
<b>Tricoptera (unidentified)</b>						
0	0	0	0	0	0	
Brachycentridae - <i>Micrasema</i> spp.	0	0	1	0	0	
Glossosomatidae (unidentified)	2	8	2	1	2	
<i>Glossosoma</i> spp.	8	19	18	11	7	
<i>Agapetus</i> spp.	0	0	0	0	0	
Hydropsychidae (unidentified)	0	0	0	0	0	
<i>Hydropsyche</i> spp.	2	5	7	1	0	
<i>Parapsyche</i> spp.	0	0	0	3	9	
Lepidostomatidae	0	0	0	0	0	
Limnephilidae (unidentified)	0	0	0	0	0	
<i>Platycentropus</i> spp.	0	0	0	0	0	
<i>Oligophlebodes</i> spp.	0	0	0	0	0	
Psychomyiidae	0	0	0	0	0	
Rhyacophilidae (unidentified)	0	0	0	0	0	
<i>Ryacophila</i> spp.	18	4	2	5	9	
<b>OSTRACODA</b>						
2	1	5	3	17	28	
<b>ACARI</b>						
14	6	7	5	11	43	
<b>OLIGOCHAETA</b>						
7	4	3	2	3	19	
<b>TURBELLARIA</b>						
6	9	3	13	9	40	
<b>NEMATODA</b>						
3	0	2	4	3	12	
<b>PELECYPODA</b>						
0	0	0	0	0	0	
<b>Total Number of Organisms</b>						
	244	286	259	239	287	1,315

TABLE 26

Counts of macroinvertebrates collected on artificial substrates  
(Hester-Dendy samplers) in the Flathead River Basin, September, 1976.  
Insects are listed under the lowest taxonomic  
category to which each individual could be  
identified.

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>				Total (0.4 m <sup>-2</sup> )
	Sample Number				
	1	2	3	4	
<b>INSECTA</b>					
<b>Coleoptera</b>					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
<b>Collembola</b>	0	0	0	0	0
<b>Diptera</b>					
<b>Cyclorrhapha</b>	0	0	0	0	0
<b>Nematocera</b> (unidentified)	0	0	0	0	0
Ceratopogoniidae	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0
Tanyderidae	0	0	0	0	0
Tendipedidae	6	3	4	8	21
Tipulidae	0	0	0	0	0
<b>Ephemeroptera</b> (unidentified)	0	0	0	0	0
Baetidae	7	15	7	18	47
EphemereUidae (unidentified)	0	1	0	1	2
<i>Ephemerella</i> spp.	3	0	0	0	3
cf. <i>E. euterpe</i>	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0
<i>E. doddsii</i>	0	0	0	0	0
<i>E. spinifera</i> group	1	0	0	0	1
<i>E. serrata</i> group	5	11	1	2	19
Heptageniidae	7	19	16	37	79
<i>Rhithrogena</i> spp.	16	4	6	11	37
Lepthophlebiidae	0	0	0	0	0
Siphonuridae	5	0	0	9	14
<b>Plecoptera</b> (unidentified)	6	11	2	12	31
<b>Holognatha</b> (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
<i>Nemoura</i> spp.	1	0	0	0	1
<i>N.</i> subgenus <i>Zapada</i>	0	3	1	1	5
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	3	1	2	1	7
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	1	1
<b>Systemlognatha</b> (unidentified)	0	0	0	0	0
Chloroperlidae (unidentified)	2	0	1	2	5
<i>Alloperla</i> spp.	0	0	0	0	0
Perlodidae (unidentified)	3	0	0	1	4
<i>Arcynopteryx</i> subgenus <i>Megarxys</i> spp.	0	0	0	0	0
<i>Isogenus</i> spp.	6	4	5	4	19
<i>Isoperla</i> spp.	0	0	0	0	0
Type red	0	0	0	1	1
<b>Tricoptera</b> (unidentified)	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	1	1	0	0	2
Glossosomatidae (unidentified)	0	0	0	0	0
<i>Glossosoma</i> spp.	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	0	3	3
<b>OSTRACODA</b>	0	0	0	0	0
<b>ACARI</b>	0	0	0	0	0
<b>OLIGOCHAETA</b>	0	0	0	0	0
<b>TURBELLARIA</b>	0	0	0	0	0
<b>NEMATODA</b>	0	2	0	0	2
<b>PELECYPODA</b>	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>72</b>	<b>75</b>	<b>45</b>	<b>112</b>	<b>304</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>				Total (0.4 m <sup>-2</sup> )
	Sample Number				
	1	2	3	4	
<b>INSECTA</b>					
<b>Coleoptera</b>					
Elmidae (adult)	0	1	0	0	1
Elmidae (larva)	0	0	0	0	0
<b>Collembola</b>	0	0	0	0	0
<b>Diptera</b>					
<b>Cyclorrhapha</b>	0	0	0	0	0
Nematocera (unidentified)	1	3	2	1	7
Ceratopogonidae	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0
Tanyderidae	0	1	1	1	3
Tendipididae	2	22	9	11	44
Tipulidae	1	3	0	1	5
<b>Ephemeroptera (unidentified)</b>	0	0	0	0	0
Baetidae	3	72	59	105	239
Ephemerellidae (unidentified)	8	13	3	5	29
<i>Ephemerella</i> spp.	5	1	3	0	9
cf. <i>E. euterpe</i>	0	0	0	0	0
<i>E. coloradensis</i>	0	1	1	0	2
<i>E. dodsii</i>	0	1	1	2	4
<i>E. spinifera</i> group	0	0	0	0	0
<i>E. serrata</i> group	1	0	0	0	1
Heptageniidae	2	22	19	11	54
<i>Rhithrogena</i> spp.	3	12	19	13	47
Leptophlebiidae	2	0	0	0	2
Siphonuridae	0	0	0	0	0
<b>Plecoptera (unidentified)</b>	2	8	5	26	41
<b>Holognatha (unidentified)</b>	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
<i>Nemoura</i> spp.	2	6	1	22	31
<i>N.</i> subgenus <i>Zapada</i>	3	8	13	13	37
<i>N.</i> subgenus <i>Zapada cinctipes</i>	2	19	2	2	25
Capniinae (unidentified)	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	3	1	6	5	15
Taeniopteryginae - <i>Brachyptera</i> spp.	0	3	1	0	4
<b>Systemognatha (unidentified)</b>	0	0	0	0	0
Chloroperlidae (unidentified)	1	0	0	0	1
<i>Alloperla</i> spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	3	0	3
<i>Arcynopteryx</i> subgenus <i>Megarxys</i> spp.	0	0	6	0	6
<i>Isogenus</i> spp.	5	7	2	6	20
<i>Isoperla</i> spp.	0	0	0	0	0
Type red	0	3	1	5	9
<b>Tricoptera (unidentified)</b>	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0
Glossosomatidae (unidentified)	2	0	0	2	4
<i>Glossosoma</i> spp.	0	0	0	0	0
<i>Agapetus</i> spp.	1	12	46	1	60
Hydropsychidae (unidentified)	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	4	11	15
<i>Platycentropus</i> spp.	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
<i>Ryacophila</i> spp.	3	0	3	1	7
<b>OSTRACODA</b>	0	0	0	0	0
<b>ACARI</b>	2	23	7	8	40
<b>OLIGOCHAETA</b>	1	0	0	0	1
<b>TURBELLARIA</b>	0	1	0	1	2
<b>NEMATODA</b>	1	0	0	2	3
<b>PELECYPODA</b>	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>56</b>	<b>243</b>	<b>217</b>	<b>255</b>	<b>771</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>				Total (0.4 m <sup>-2</sup> )
	Sample Number				
	1	2	3	4	
<b>INSECTA</b>					
<b>Coleoptera</b>					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
<b>Collembola</b>					
0	0	0	0	0	0
<b>Diptera</b>					
<b>Cyclorrhapha</b>					
Nematocera (unidentified)	0	0	0	0	0
Ceratopogoniidae	0	1	2	0	3
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0
Tanyderidae	0	0	0	0	0
Tendipididae	7	0	0	3	10
Tipulidae	0	0	0	0	0
<b>Ephemeroptera (unidentified)</b>					
Baetidae	46	99	67	81	293
Ephemerellidae (unidentified)	0	0	0	0	0
<i>Ephemerella</i> spp.	2	5	3	2	12
cf. <i>E. euterge</i>	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0
<i>E. doddsii</i>	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0
Heptageniidae	4	5	2	1	12
<i>Rhithrogena</i> spp.	11	15	23	14	63
Lepthophlebiidae	0	0	0	0	0
Siphonuridae	0	0	0	0	0
<b>Plecoptera (unidentified)</b>					
0	0	0	0	0	0
<b>Holognatha (unidentified)</b>					
Nemouridae (unidentified)	0	0	0	0	0
<i>Nemoura</i> spp.	0	0	2	0	2
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	0	0	0	0	0
Capniinae (unidentified)	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	0	0	0	0	0
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	0	0	0
<b>Systellognatha (unidentified)</b>	1	1	2	1	5
Chloroperlidae (unidentified)	0	4	3	3	10
<i>Alloperla</i> spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	0	0	0	0	0
<i>Isogenus</i> spp.	3	1	1	2	7
<i>Isoperla</i> spp.	0	0	0	0	0
Type red	0	0	0	0	0
<b>Tricoptera (unidentified)</b>					
0	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	1	2	0	3
Glossosomatidae (unidentified)	0	0	0	2	2
<i>Glossosoma</i> spp.	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0
Hydropsychidae (unidentified)	3	37	40	9	89
<i>Hydropsyche</i> spp.	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
<i>Ryacophila</i> spp.	0	0	0	0	0
<b>OSTRACODA</b>					
0	0	0	0	0	0
<b>ACARI</b>					
6	2	4	4	16	
<b>OLIGOCHAETA</b>					
0	0	0	0	0	
<b>TURBELLARIA</b>					
0	0	0	0	0	
<b>NEMATODA</b>					
1	0	0	2	3	
<b>PELECYPODA</b>					
0	0	0	0	0	
<b>Total Number of Organisms</b>					
84	171	151	124	530	



Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>				Total (0.4 m <sup>-2</sup> )
	Sample Number				
	1	2	3	4	
<b>INSECTA</b>					
<b>Coleoptera</b>					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
<b>Collembola</b>	0	0	0	0	0
<b>Diptera</b>					
<b>Cyclorrhapha</b>	0	0	0	0	0
<b>Nematocera</b> (unidentified)	0	0	0	0	0
Ceratopogoniidae	0	1	9	0	10
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0
Tanyderidae	0	0	1	6	7
Tendipididae	1	2	0	4	7
Tipulidae	0	0	1	0	1
<b>Empheeroptera</b> (unidentified)	3	0	5	2	10
Baetidae	156	194	237	580	1,167
Ephemerellidae (unidentified)	3	3	7	5	18
<i>Ephemerella</i> spp.	0	1	0	1	2
cf. <i>E. euterpe</i>	0	0	0	0	0
<i>E. coloradensis</i>	0	0	0	0	0
<i>E. doddsii</i>	0	0	0	0	0
<i>E. spinifera</i> group	0	0	0	0	0
<i>E. serrata</i> group	2	0	3	3	8
Heptageniidae	8	11	14	7	40
<i>Rhithrogena</i> spp.	3	9	12	13	37
Leptophlebiidae	0	0	0	0	0
Siphonuridae	0	0	0	0	0
<b>Plecoptera</b> (unidentified)	3	8	7	16	34
<b>Holognatha</b> (unidentified)	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
<i>Nemoura</i> spp.	1	6	7	2	16
<i>N.</i> subgenus <i>Zapada</i>	0	0	0	0	0
<i>N.</i> subgenus <i>Zapada cinctipes</i>	3	5	4	7	19
Capniinae (unidentified)	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	1	4	4	3	12
Taeniopteryginae - <i>Brachyptera</i> spp.	0	0	3	0	3
<b>Systellognatha</b> (unidentified)	0	0	0	0	0
Chloroperlidae (unidentified)	0	0	0	0	0
<i>Alloperla</i> spp.	0	0	0	0	0
Perlodidae (unidentified)	5	7	0	0	12
<i>Arcynopteryx</i> subgenus <i>Megaracys</i> spp.	0	1	0	0	1
<i>Isogenus</i> spp.	2	0	1	1	4
<i>Isoperla</i> spp.	0	0	0	0	0
Type red	0	1	2	0	3
<b>Tricoptera</b> (unidentified)	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	1	0	0	0	1
Glossosomatidae (unidentified)	8	8	17	2	35
<i>Glossosoma</i> spp.	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0
Hydropsychidae (unidentified)	0	0	0	0	0
<i>Hydropsyche</i> spp.	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
<i>Ryacophila</i> spp.	13	3	7	1	24
<b>OSTRACODA</b>	0	0	0	0	0
<b>ACARI</b>	1	3	2	3	9
<b>OLIGOCHAETA</b>	0	0	0	0	0
<b>TURBELLARIA</b>	0	0	0	0	0
<b>NEMATODA</b>	0	0	0	3	3
<b>PELECYPODA</b>	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>214</b>	<b>267</b>	<b>343</b>	<b>659</b>	<b>1,483</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>				Total (0.4 m <sup>-2</sup> )
	Sample Number				
	1	2	3	4	
<b>INSECTA</b>					
<b>Coleoptera</b>					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
<b>Collembola</b>	0	0	0	0	0
<b>Diptera</b>					
<b>Cyclorrhapha</b>	0	0	0	0	0
Nematocera (unidentified)	5	0	0	0	5
Ceratopogoniidae	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	4	0	0	1	5
Tanyderidae	12	4	8	1	25
Tendipididae	4	8	14	5	31
Tipulidae	1	0	1	0	2
<b>Emphemeroptera (unidentified)</b>	0	0	0	0	0
Baetidae	337	328	734	298	1,697
Ephemerellidae (unidentified)	3	1	0	1	5
<i>Ephemerella</i> spp.	0	0	1	0	1
cf. <i>E. euterpe</i>	0	1	0	0	1
<i>E. coloradensis</i>	0	0	0	0	0
<i>E. doddsii</i>	3	2	0	0	5
<i>E. spinifera</i> group	0	0	0	0	0
<i>E. serrata</i> group	0	0	0	0	0
Heptageniidae	22	15	17	23	77
<i>Rhithrogena</i> spp.	4	3	11	5	23
Lephophlebiidae	0	0	0	0	0
Siphonuridae	0	0	0	0	0
<b>Plecoptera (unidentified)</b>	11	60	44	23	138
<b>Holognatha (unidentified)</b>	0	0	0	0	0
Nemouridae (unidentified)	0	0	0	0	0
<i>Nemoura</i> spp.	9	17	16	4	46
<i>N.</i> subgenus <i>Zapada</i>	46	18	46	63	173
<i>N.</i> subgenus <i>Zapada cinctipes</i>	14	5	3	4	26
Capniinae (unidentified)	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	4	7	1	5	17
Taeniopteryginae - <i>Brachyptera</i> spp.	2	1	0	0	3
<b>Systemognatha (unidentified)</b>	0	0	0	1	1
Chloroperlidae (unidentified)	0	0	0	0	0
<i>Alloperla</i> spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	4	5	2	0	11
<i>Isogenus</i> spp.	0	0	0	0	0
<i>Isoperla</i> spp.	0	0	0	0	0
Type red	7	6	9	4	26
<b>Tricoptera (unidentified)</b>	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	0	0	0	0	0
Glossosomatidae (unidentified)	5	14	9	2	30
<i>Glossosoma</i> spp.	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0
Hydropsychidae (unidentified)	9	5	0	0	14
<i>Hydropsyche</i> spp.	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	23	3	14	1	41
<i>Platycentropus</i> spp.	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
<i>Ryacophila</i> spp.	9	9	17	5	40
<b>OSTRACODA</b>	0	0	0	0	0
<b>ACARI</b>	8	16	13	2	39
<b>OLIGOCHAETA</b>	0	0	0	0	0
<b>TURBELLARIA</b>	0	0	0	0	0
<b>NEMATODA</b>	0	0	0	1	1
<b>PELECYPODA</b>	0	0	0	0	0
<b>Total Number of Organisms</b>	<b>546</b>	<b>528</b>	<b>960</b>	<b>449</b>	<b>2,483</b>

Invertebrate Identification List	Number of Organisms 0.1 m <sup>-2</sup>				Total (0.4 m <sup>-2</sup> )
	Sample Number				
	1	2	3	4	
<b>INSECTA</b>					
<b>Coleoptera</b>					
Elmidae (adult)	0	0	0	0	0
Elmidae (larva)	0	0	0	0	0
<b>Collembola</b>					
	0	0	0	0	0
<b>Diptera</b>					
Cyclorrhapha	0	0	0	0	0
Nematocera (unidentified)	1	1	0	0	2
Ceratopogoniidae	0	0	0	0	0
Psychodidae - <i>Pericoma</i> spp.	0	0	0	0	0
Tanyderidae	1	0	3	0	4
Tendipididae	11	31	30	23	95
Tipulidae	0	0	0	1	1
<b>Ephemeroptera (unidentified)</b>					
Baetidae	4	0	5	0	9
Baetidae	25	22	36	54	137
Ephemerellidae (unidentified)	5	5	0	9	19
<i>Ephemerella</i> spp.	1	6	0	2	9
cf. <i>E. euterpe</i>	0	2	0	0	2
<i>E. coloradensis</i>	0	0	1	1	2
<i>E. doddsi</i>	0	0	1	0	1
<i>E. spinifera</i> group	0	0	0	0	0
<i>E. serrata</i> group	0	0	2	1	3
Heptageniidae	34	28	57	60	179
<i>Rhithrogena</i> spp.	0	1	0	7	8
Leptophlebiidae	0	0	0	0	0
Siphonuridae	0	1	0	0	1
<b>Plecoptera (unidentified)</b>					
	3	4	6	8	21
<b>Holognatha (unidentified)</b>					
	0	0	0	0	0
<b>Nemouridae (unidentified)</b>					
	0	0	0	0	0
<i>Nemoura</i> spp.	2	0	3	0	5
<i>N.</i> subgenus <i>Zapada</i>	4	3	9	8	24
<i>N.</i> subgenus <i>Zapada cinctipes</i>	6	3	14	6	29
Capniinae (unidentified)	0	0	0	0	0
<i>Capnia</i> or <i>Eucapnopsis</i> spp.	2	3	2	1	8
Taeniopteryginae - <i>Brachyptera</i> spp.	2	1	0	1	4
<b>Systemlognatha (unidentified)</b>					
	0	0	0	0	0
<b>Chloroperlidae (unidentified)</b>					
	0	0	0	1	1
<i>Alloperla</i> spp.	0	0	0	0	0
Perlodidae (unidentified)	0	0	0	0	0
<i>Arcynopteryx</i> subgenus <i>Megarcys</i> spp.	1	0	0	0	1
<i>Isogenus</i> spp.	0	0	0	1	1
<i>Isoperla</i> spp.	0	0	0	0	0
Type red	1	1	0	1	3
<b>Tricoptera (unidentified)</b>					
	0	0	0	0	0
Brachycentridae - <i>Micrasema</i> spp.	1	0	0	0	1
Glossosomatidae (unidentified)	3	2	4	5	14
<i>Glossosoma</i> spp.	0	0	0	0	0
<i>Agapetus</i> spp.	0	0	0	0	0
Hydropsychidae (unidentified)	7	4	4	0	15
<i>Hydropsyche</i> spp.	0	0	0	0	0
<i>Parapsyche</i> spp.	0	0	0	0	0
Lepidostomatidae	0	0	0	0	0
Limnephilidae (unidentified)	0	0	0	0	0
<i>Platycentropus</i> spp.	0	0	0	0	0
<i>Oligophlebodes</i> spp.	0	0	0	0	0
Psychomyiidae	0	0	0	0	0
Rhyacophilidae (unidentified)	0	0	0	0	0
<i>Ryacophila</i> spp.	2	2	2	2	8
<b>OSTRACODA</b>					
	0	0	1	1	2
<b>ACARI</b>					
	4	5	16	8	33
<b>OLIGOCHAETA</b>					
	0	0	0	0	0
<b>TURBELLARIA</b>					
	0	0	1	0	1
<b>NEMATODA</b>					
	0	0	0	0	0
<b>PELECYPODA</b>					
	0	0	0	0	0
Total Number of Organisms	120	125	197	201	643

Table 27

Shannon-Wiener diversity (H') and Pielou's (1966, 1967) evenness (J) values for invertebrate samples collected from the Flathead River Basin, April - September, 1976.

Station Number	April		June		August		September		September (artificial) substrates)	
	H'	J	H'	J	H'	J	H'	J	H'	J
1	2.284	0.814	2.616	0.756	2.101	0.538	3.274	0.771	-	-
	2.866	0.904	1.711	0.610	2.282	0.761	3.136	0.752	2.974	0.860
	2.365	0.842	1.835	0.653	2.535	0.800	3.292	0.775	2.719	0.819
	2.534	0.845	2.056	0.795	3.066	0.805	3.530	0.831	2.350	0.741
	2.412	0.761	2.110	0.703	2.081	0.626	2.816	0.689	2.649	0.739
Composite	2.814	0.689	2.284	0.548	2.558	0.574	3.441	0.741	2.862	0.752
2	2.924	0.816	1.684	0.421	1.826	0.438	3.142	0.740	-	-
	2.601	0.683	2.020	0.546	2.394	0.564	3.778	0.874	3.607	0.883
	3.151	0.828	2.453	0.628	2.896	0.682	3.771	0.846	3.133	0.783
	2.570	0.605	2.327	0.611	2.680	0.704	3.872	0.881	3.053	0.782
	2.794	0.841	2.456	0.589	3.256	0.753	3.474	0.779	2.872	0.703
Composite	3.217	0.693	2.382	0.527	2.790	0.594	3.886	0.837	3.285	0.737
3	-	-	1.929	0.643	2.780	0.804	2.661	0.801	-	-
	-	-	1.979	0.705	2.867	0.688	2.560	0.853	2.114	0.667
	-	-	2.274	0.685	3.080	0.770	2.662	0.699	1.821	0.548
	-	-	2.000	0.667	2.906	0.785	2.851	0.730	2.199	0.636
	-	-	2.105	0.634	2.456	0.685	3.010	0.770	1.904	0.551
Composite	-	-	2.193	0.576	3.078	0.671	2.997	0.719	2.138	0.559
4	2.042	0.879	2.428	0.702	2.825	0.788	2.958	0.709	-	-
	2.257	0.804	2.276	0.658	2.881	0.779	3.218	0.787	1.688	0.456
	2.460	0.741	2.418	0.675	3.085	0.702	3.001	0.734	1.683	0.469
	0.918	0.918	1.847	0.795	2.952	0.775	3.138	0.803	1.916	0.490
	2.246	0.967	1.787	0.636	3.004	0.789	3.167	0.775	0.906	0.238
Composite	2.715	0.713	2.562	0.614	3.137	0.694	3.187	0.705	1.483	0.356

Table 27. (Continued)

Station Number	April		June		August		September		September (artificial substrates)	
	H'	J	H'	J	H'	J	H'	J	H'	J
5	2.851	0.749	2.854	0.750	1.676	0.440	-	-	-	-
	2.955	0.723	2.550	0.711	1.078	0.359	-	-	-	-
	2.685	0.749	2.450	0.662	1.566	0.437	3.714	0.821	-	-
	3.046	0.780	2.413	0.652	1.554	0.408	3.146	0.754	-	-
	2.902	0.784	2.707	0.783	2.347	0.574	3.379	0.782	-	-
Composite	3.110	0.702	2.731	0.622	1.818	0.414	3.586	0.763	-	-
6	-	-	3.082	0.739	2.970	0.666	2.866	0.643	-	-
	-	-	3.563	0.854	3.183	0.779	2.633	0.582	2.239	0.537
	-	-	3.450	0.863	3.337	0.738	2.891	0.648	2.144	0.549
	-	-	3.002	0.768	3.450	0.812	3.198	0.697	1.502	0.395
	-	-	3.206	0.769	3.449	0.774	2.879	0.636	1.747	0.437
Composite	-	-	3.506	0.737	3.418	0.727	2.921	0.629	1.918	0.444
7	3.311	0.794	3.191	0.817	2.996	0.705	3.800	0.852	-	-
	3.096	0.743	2.486	0.585	3.048	0.762	3.739	0.827	3.250	0.795
	3.076	0.769	2.740	0.657	3.331	0.784	3.850	0.840	3.025	0.774
	2.972	0.743	3.212	0.731	2.421	0.636	3.874	0.845	2.993	0.766
	3.096	0.716	2.702	0.710	2.237	0.547	3.884	0.884	2.744	0.702
Composite	3.239	0.706	3.087	0.649	3.070	0.661	3.990	0.839	3.093	0.694
9	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
	-	-	2.017	0.607	-	-	-	-	-	-
	-	-	2.194	0.692	-	-	-	-	-	-
Composite	-	-	2.213	0.598	-	-	-	-	-	-