

1984 WATERFORD RIVER SEWER STUDY

PROPERTY OF
ENVIRONMENT CANADA

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INTRODUCTION

During the summer of 1983, the Environmental Protection Service (EPS) of Environment Canada undertook an investigation of the sewers which emptied into the lower Waterford River. The purpose of this program was to determine whether or not there were industrial inputs into the storm water system. The reasons for the initiation of this study, the methods used, and the conclusions are noted in the report which resulted from that work, therefore, they will not be repeated at this time.

One of the recommendations resulting from the 1983 study was that a similar project be undertaken on that section of the Waterford River between Bowring Park and Commonwealth Avenue in Mount Pearl. This report deals with the findings of that study which was completed during the summer of 1984.

Study Area

The section of river investigated in 1984 stretched from the eastern end of Bowring Park where the 1983 study ended, to Commonwealth Avenue in Mount Pearl, a distance of approximately 6 kilometers.

Land use along this section of river ranged from parkland, to industrial, to residential. Estimates of the area involved are not available.

Sampling Program

The sewers in this section of the Waterford River had had bacteriological analyses done on their discharges in 1983 by the Newfoundland Department of Environment (NDOE). The numbering system used by that Department has been retained in this study to provide continuity with previous work. A map with the sewer locations and a description of the outfalls is contained in Appendix I.

The sampling and analyses used in the 1983 program were maintained with the exception of analysis for total volatile solids. It was felt that the results from this test provided little useful information.

Samples could only be taken when sufficient flow permitted therefore results are only available for those events.

Sampling at many road culverts was discontinued after three weeks when enough information was available to indicate that no serious problem existed. This reduced significantly the workload of the program both in the collecting of samples and subsequent analyses.

RESULTS AND DISCUSSION

The following observations have been made following a review of results from those sewers sampled by EPS in 1984. Comments are made only on those results which appear to be outside of "normal" storm sewer discharges.

Re-sampled Sewers

As a result of several unanswered questions from the 1983 work, several sewers in the lower section of the Waterford River were sampled again during this program. The findings are as noted.

Sewer #23

Because of low flows in 1983, only two samples were obtained; one of which had a pH of 4.1. It was re-sampled in 1984 in an effort to see if any problems existed.

The results obtained for 1984, however, did not reveal any problems with this sewer and no explanation can be offered for the one low pH value.

Sewer #28

Although sampling of this sewer was discontinued after three sampling runs in 1983, NDOE had expressed concerns with sanitary sewage and a strong unidentifiable odour from the outfall.

After briefly sampling it again in 1984, our results were unable to indicate any problems. The Water Works Department of the City of St. John's has subsequently dye-traced this storm-water system and determined that ".... although there do not appear to be any main cross-connections on this system, there does appear to be a number of house cross-connections". It is not known at this time whether the City has plans for corrective action.

Sewers #32AI and 32AII

These sewers were re-sampled because of one particular episode of high results, and the actual sampling location was not ideal, as noted in the 1983 report. It was discovered that this location has, in fact, two sewers.

The 1984 results for alkalinity, specific conductance, and total solids were slightly higher than normal, and observations at the site indicated algal growth near the outfalls, and a smell of sewage in the area.

Sewer #42

A problem was noted with this sewer in 1983, however, to date, the source of the problem has not been identified.

The 1984 program provided fluctuating values of the parameters, indicative of an intermittent discharge. Particularly revealing are the pH, BOD₅, total solids, and total phosphates. The discharge consistently had a light-blue colour and smelled of sewage. Flows from this sewer were very small.

New Sewers

Sewer #43

While the reported data on this sewer are generally in line with that on other sewers, observations at the site revealed the smell of sewage, as well as indications of paper and foaming.

Dye tracing of the sewer system by the City of St. John's in July, 1984 indicated that two homes in the area have their sewer lines incorrectly connected to the storm water system.

Sewer #45

Alkalinities and total phosphates were slightly elevated in this sewer which empties into the duck pond in Bowring Park. Flows were generally very low and usually insufficient to warrant sampling. This sewer is not considered a problem.

Sewers #49, 51 and 52

These sewers carry flows which originate from the Concrete Products Limited operation on Brookfield Road.

pH's, alkalinities, specific conductances and total solids values are elevated for the three sewers, and sewer #51 also had occasions of high BOD₅. Visual observations at the site revealed that the discharges were quite often turbid.

Sewer #72

Although the parameters tested in this study did not reveal any problems with this sewer, an earlier study by NDOE showed that this sewer's discharge contains very high fecal counts. Oily discharges were noted on several occasions.

Sewers #77 and 78A

It was not possible to sample sewer #77 since it was always under water. A sample was taken from a small stream which ran into the river just behind the culvert, however. Although the results of this sampling do not indicate any problems, an abundance of green algae was evident around the area. Flows were usually turbid and an occasional strong odour was noted.

Sewer #85

Several high BOD₅ and total phosphates values were recorded. Discharge from this sewer was characterized by a turbid flow and a strong sewage smell. Evidence of sewage was also noted in the water near the sampling site.

Sewer #87

No problems were noted in the sampling results, however, sewage was observed coming from the pipe, and some sewage was noted in and around the sampling site; this condition persisted during the sampling program.

This sewer was dye-traced by the City of St. John's, in June 1984 and preliminary indications are that there are "a number of house service cross-connections on the system".

Sewer #91

Occasional high values of BOD₅ and total phosphates were noted and higher than normal total solids and specific conductances. On-site observations included frequent turbidity and a smell of sewage.

Sewer #98

Specific conductances and total solids results were consistently higher than normal, and on occasion, the total phosphates were high. Discharges were frequently noted to be turbid and contain a light-brown substance which was not identified.

"Greenwood Motel"

This site was not originally identified in the preliminary survey of the river, however, a small stream running over an orange-coloured deposit was noted. While the levels of the parameters which were normally tested for were acceptable, separate tests were run and it was found that the outlet from the stream contained approximately 20 mg/l of iron. The source of the iron has not been determined.

CONCLUSIONS AND RECOMMENDATIONS

Although as of this date no remedial action has been initiated with respect to the problems noted in this report, the work can be considered successful in that numerous problems have been identified on this section of the Waterford River. It is now up to the respective agencies to ensure that an effort is made to cure these problems.

A high level of consciousness now exists regarding the value and preservation of the rivers flowing through the greater St. John's area. On the Waterford River alone - in addition to the two summers' work by EPS - several other groups have focused attention toward the river:

- NDOE has sampled outfalls into the river for three summers in an effort to determine levels of bacteriological contamination;
- the City of St. John's has an active and on-going program of dye-tracing sewer systems with outfalls in the river. The sources of numerous problems have been identified;
- during the summer of 1984, the Town of Mount Pearl conducted sewer tracing studies and it was determined that domestic sewage was reaching the Waterford River at several locations. Bacteriological analysis, in the form of fecal coliform counts, generally support the results of the dye testing;
- the Salmon Association of Eastern Newfoundland (SAEN) undertook a general ecological study of the river in 1983. Partial funding was supplied by a Summer Canada grant;
- there is a Federal/Provincial Waterford River Basin Urban Hydrology study nearing completion;

- the Waterford Valley Rotary Club, with \$75,000 funding from the federal Fisheries Related Employment Development program, began a cleanup of the Waterford River.

Recommendations which result from this study are:

1. Initiate discussions with major polluters of the river; this would involve Concrete Products Limited for their process water and waste handling practices, and the City of St. John's and Town of Mount Pearl for respective sewage discharges.
2. A similar study on the remainder of the Waterford River west of Commonwealth River should be undertaken. Since NDOE has not completed this section of river in their program, a possibility exists for a joint study.
3. Support dialogue on the value of the rivers to the area in an effort to keep the interest in restoring and preserving the rivers alive. An excellent mechanism for this now exists with the Waterways Conservation Committee.

APPENDIX I

Sampling Site Descriptions

Site 23 - A 45 cm corrugated metal culvert just downstream from England's Store on Southside Road.

Site 32AI - The most western of two 61 cm corrugated metal culverts across from Nottingham Drive on Waterford Bridge Road.

Site 32AII - The most eastern of two 61 cm corrugated metal culverts across from Nottingham Drive on Waterford Bridge Road.

Site 42 - A 61 cm corrugated metal culvert about 7 meters upstream from the concrete wall on the north side of the river behind the CN bus station.

Site 28 - A 92 cm corrugated metal culvert on the north side of the Waterford River, across from the Waterford Hospital.

Site 43 - A 61 cm concrete culvert on the south side of the Waterford River behind Mackey Place, Kilbride.

Site 44 - Sample taken from South Brook just upstream from where the brook enters the south side of the Waterford River.

Site 45 - A 7.5 cm metal pipe on the south side of the duck pond in Bowring Park.

Site 46 - A partially submerged concrete culvert upstream from the Duck House in Bowring Park.

- Site 47 - A 92 cm corrugated metal culvert on the south side of the Waterford River behind the Kinsmen's Partica Park.
- Site 48 - A 92 cm corrugated metal culvert just west of Brookfield Road on the south side of the river.
- Site 49 - A 30 cm concrete culvert on the hill behind the gravel elevator of Concrete Products, on the south side of the Waterford River.
- Site 51 - A 92 cm concrete culvert on the hill behind the chute to the gravel elevator of Concrete Products.
- Site 52 - Small stream with a white runoff originating from the settling pond behind Concrete Products on the south side of the river.
- Site 53 - Small tributary behind Legrows Transport which enters the Waterford River on the south side.
- Site 54 - Sample taken from Waterford River just upstream from site 53.
- Site 55 - Sample taken from the Waterford River behind Chateau Park Motel just down stream from where the small tributary enters the river.
- Site 56 - Small tributary behind Chateau Park Motel which flows into the south side of the Waterford River.
- Site 57 - A 92 cm corrugated metal culvert on the south side of the Waterford River just up stream from 23 Dunn's Road.

Site 59 - Sample taken from the Waterford River just above the falls and down stream from the R.C. School.

Site 63 - Sample taken from the Waterford River next to the metal support of the Canadian National Railway tracks.

Site 64 - A 61 cm corrugated metal culvert in a concrete head wall on the south side of the river at the bottom of Birch Lane.

Site 65 - A 61 cm corrugated metal culvert in a concrete head wall on the south side of the river at the bottom of Birch Lane.

Site 66 - A 61 cm corrugated metal culvert in a concrete head wall on the south side of the river at the bottom of Birch Lane.

Site 67 - A 92 cm corrugated metal culvert on the south side of the river at the bottom of Birch Lane.

Site 68 - A 45 cm corrugated metal culvert behind the blue warehouse on the south side of the river up stream from Birch Lane.

Site 69 - A 92 cm corrugated metal culvert in a concrete head wall behind Noseworthy's Automotive Repairs on the south side of the river.

Site 70 - A 61 cm metal culvert 20 meters up stream from the red and green marker 502 on the railway track on the south side of the river.

- Site 71 - A 61 cm corrugated metal culvert on the south side of the river near the point where the river and the railway tracks bend.
- Site 72 - A 65 cm concrete culvert on the south side of the river just down stream from Dominion Supermarket.
- Site 73 - A 75 cm metal culvert on the southside of the river just down stream from the bridge at Commonwealth Avenue.
- Site 74 - A 20 cm corrugated metal culvert next to site 73.
- Site 75 - Sample taken from the Waterford River just down stream from the bridge at Commonwealth Avenue.
- Site 76 - A 75 cm corrugated metal culvert on the north side of the Waterford River just down stream from the bridge at Commonwealth Avenue.
- Site 77 - A 30 cm concrete pipe on the north side of the river across from the laundromat on Topsail Road.
- Site 78 - A 45 cm corrugated metal pipe on the north side of the river next to site 77.
- Site 78A - A small stream which flows on the north side of the river behind site 78 and comes from a culvert at Topsail Road.
- Site 80 - A 45 cm metal corrugated metal culvert on the north side of the Waterford River next to 23 Dunn's Road.
- Site 81 - Small tributary entering the Waterford River just below the property of 23 Dunn's Road.

Site 82A - Small tributary on north side of the river across the river from site 52.

Site 83 - Runoff from the bank behind 211 Doyle Street.

Site 84 - A 31 cm corrugated metal culvert with a concrete headwall on the north side of the river just downstream from site 83.

Site 85 - A 60 cm culvert in a concrete head wall on the north side of the river across the river from the building where Concrete Products repairs its cement trucks.

Site 86 - A 60 cm corrugated metal pipe on the north side of the river next to the bridge on Brookfield Road.

Site 86A - Sample taken from the Waterford River about 10 meters upstream from site 86.

Site 87 - A submerged concrete pipe in a concrete wall on the north side of the river next to the bridge on Brookfield Road.

Site 88 - A 61 cm corrugated metal culvert on the north side of the river under the bridge on Brookfield Road.

Site 89 - A 92 cm corrugated metal culvert in a concrete head wall on the north side of the river behind 38 Reid Street.

Site 90 - A 25 cm metal pipe on the north side of the river just before the river crosses Waterford Bridge Road.

Site 91 - A 20 cm clay pipe on the north side of the river just down stream from the wooden bridge down from Cowan Avenue.

Site 92 - A 15 cm metal pipe in the rock wall on the north side of the river by the Administration house in Bowring Park.

Site 93 - A 15 cm metal pipe in the rock floodwall on the north side of the river next to site 92.

Site 94 - A 20 cm plastic green pipe by the Administration house in Bowring Park.

Site 95 - A 45 cm concrete pipe on the north side of the duck pond in Bowring Park.

Site 96 - A 45 cm concrete pipe on the north side of the duck pond next to site 95.

Site 97 - A 45 cm corrugated metal culvert in the concrete flood wall just down stream from the overpass.

Site 98 - A 91 cm corrugated metal culvert in the concrete floodwall just downstream from site 97.

Site 99 - A 25 cm hole in the concrete floodwall down stream from site 98.

Site 100 - A 30 cm hole in the concrete floodwall across from Marie's Bakery.

Site 101 - A 46 cm concrete culvert in the concrete floodwall across from St. Brides College.

Greenwood - A small stream which flows over the bank on the north side of the Waterford River behind Greenwood Motel and down stream from the falls.

APPENDIX II

WATERFORD RIVER
SEWER # 23

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
14/06/84	6.8	13.6	133	0.2	82	<1
21/06/84	6.6	14.0	143	0.7	70	<0.5
26/06/84	7.0	10.4	136	<0.1	96	<0.5
04/07/84	6.6	8.4	108	0.1	<1	<0.5
11/07/84	6.6	7.3	87	0.1	124	<0.5
19/07/84	6.5	6.3	77	0.7	92	0.7
26/07/84	6.7	6.1	69	0.4	50	<0.5
01/08/84	6.3	5.2	62	0.6	64	1.1
07/08/84	6.6	5.8	58	<0.1	60	0.5
15/08/84	6.6	4.8	61	0.3	46	0.6
20/08/84	6.3	11.3	122	0.3	50	0.7

WATERFORD RIVER
SEWER # 28

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.0	20.4	405	2.0	298	8
30/05/84	7.0	24.4	397	1.0	260	5.4
06/06/84	7.1	23.6	402	0.9	244	3.2

Discontinued

WATERFORD RIVER /
SEWER # 32AI

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
14/06/84	7.0	46.0	845	2.8	540	<1
21/06/84	6.5	35.4	607	0.4	370	<0.5
26/06/84	7.6	28.2	856	<0.1	480	1.0
04/07/84	6.6	27.2	905	<0.1	450	<0.5
11/07/84	6.4	26.1	801	4.1	566	3.2
19/07/84	6.4	31.1	933	4.3	610	2.6
26/07/84	6.8	31.3	966	1.0	608	<0.5
01/08/84	6.6	30.7	1210	0.6	772	3.0
07/08/84	7.0	32.8	1090	-	668	0.5
15/08/84	7.3	34.9	1000	0.3	556	1.4
20/08/84	6.8	44.5	685	1.0	364	1.9

WATERFORD RIVER
SEWER # 32AII

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
14/06/84	7.4	31.8	737	2.5	420	<1
21/06/84	6.7	22.2	395	3.4	330	2.2
26/06/84	7.6	20.7	685	1.4	370	-
04/07/84	7.2	27.0	673	1.6	322	1.3
11/07/84	7.4	23.0	726	1.1	464	2.1
19/07/84	7.3	26.3	710	1.8	412	3.5
26/07/84	7.2	35.9	626	4.3	380	6.5
01/08/84	7.4	29.4	682	1.0	404	4.0
07/08/84	7.4	25.5	670	1.2	384	3.7
15/08/84	7.4	25.1	593	1.4	330	3.5
20/08/84	7.1	28.0	478	1.0	264	<0.5

WATERFORD RIVER
SEWER # 42

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
14/06/84	9.3	36.4	348	70	570	240
21/06/84	7.0	23.0	60	40	66	<10
26/06/84	7.7	115.7	378	84	488	200
04/07/84	7.5	138.1	705	270	564	288
11/07/84	7.2	77.5	307	0.9	292	97
19/07/84	5.5	78.4	893	>80	916	280
26/07/84	7.0	44.1	178	40	190	4.0
01/08/84	7.6	115.1	513	330	576	340
07/08/84	7.5	185.3	551	20	374	59
15/08/84	8.6	252.8	845	860	1016	444
20/08/84	6.6	137.9	913	780	830	206

WATERFORD RIVER
SEWER # 43

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	5.8	2.0	68	1.7	52	<4
30/05/84	6.6	5.8	85	0.6	62	4.0
06/06/84	6.2	3.6	75	1.0	78	<1
14/06/84	6.5	4.6	65	0.5	76	<1
21/06/84	7.3	70.8	112	>5.1	82	8.8
26/06/84	6.6	2.5	64	0.3	40	<0.5
04/07/84	6.8	4.2	75	<0.1	64	<0.5
19/07/84	6.9	7.5	105	0.7	80	0.9
26/07/84	6.3	8.8	112	2.3	92	2.3
01/08/84	7.1	26.3	164	>3.7	86	11
07/08/84	7.1	11.9	135	2.3	90	1.2
15/08/84	6.8	10.4	112	2.1	66	2.1
20/08/84	6.6	4.0	73	0.1	46	<0.5

WATERFORD RIVER
SEWER # 44

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.7	8.2	99	1.4	70	<4
30/05/84	7.0	11.2	110	0.6	94	4.8
06/06/84	7.0	13.4	100	1.0	84	<1
14/06/84	7.3	15.6	98	0.2	56	<1
21/06/84	7.2	20.6	101	3.6	122	<0.5
26/06/84	7.4	15.1	196	1.4	124	<1.0
04/07/84	7.3	14.4	123	0.1	62	<0.5
19/07/84	7.6	15.0	137	0.8	82	0.7
26/07/84	7.4	16.3	147	0.4	106	0.8
01/08/84	7.4	17.5	159	0.6	100	1.1
07/08/84	7.6	20.1	173	<0.1	116	<0.5
15/08/84	7.5	17.5	142	0.7	86	0.6
20/08/84	7.0	10.2	105	1.1	86	0.7

WATERFORD RIVER
SEWER # 45

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
04/07/84	7.0	23.6	113	1.7	48	8.7
26/07/84	6.9	29.5	120	3.7	68	9.8
01/08/84	6.6	28.0	116	3.2	60	14.2
07/08/84	7.0	21.7	98	2.7	56	13
15/08/84	6.6	13.8	68	1.3	40	3.1

WATERFORD RIVER
SEWER # 46

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
30/05/84	7.2	18.2	201	0.3	124	4.0
06/06/84	7.1	16.6	180	0.8	122	<1
Discontinued						

WATERFORD RIVER
SEWER # 48

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.9	13.6	546	0.6	306	6
30/05/84	6.9	13.2	470	0.7	284	4.2
06/06/84	7.0	1.4	501	0.5	304	<1
14/06/84	7.4	19.6	462	0.3	294	<1
21/06/84	7.2	23.0	340	0.7	18	<0.5
26/06/84	7.2	9.0	450	0.6	264	<0.5
04/07/84	6.9	10.9	480	0.2	276	0.5
19/07/84	7.1	11.7	505	0.9	282	0.7
26/07/84	7.1	9.8	492	0.3	310	<0.5
01/08/84	7.0	9.2	490	0.6	300	1.1
07/08/84	7.0	12.1	515	<0.1	290	<0.5
15/08/84	7.3	11.5	513	0.4	320	0.8
20/08/84	7.2	19.2	390	1.7	206	<0.5

WATERFORD RIVER
SEWER # 49

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.0	37.8	600	1.6	312	<4
30/05/84	9.7	10.2	613	0.7	594	4.4
06/06/84	7.1	35.4	562	0.8	344	<1
14/06/84	6.7	32.6	550	<0.1	318	<1
21/06/84	6.8	76.0	599	0.3	360	<0.5
26/06/84	7.9	32.6	537	0.8	292	<0.5
04/07/84	8.8	37.8	525	<0.1	406	<0.5
19/07/84	7.2	21.1	601	0.5	326	0.7
26/07/84	9.7	39.7	595	0.2	366	<0.5
01/08/84	9.8	38.4	585	-	358	<0.5
07/08/84	10.4	87.9	593	0.5	402	<0.5
15/08/84	11.6	311	1470	2.3	794	1.0
20/08/84	7.2	47.2	403	0.9	250	<0.5

WATERFORD RIVER
SEWER # 51

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	11.3	206.8	800	61	2624	11
30/05/84	11.2	98.0	252	62	180	3.6
06/06/84	11.0	88.6	217	11	280	<1
14/06/84	11.5	156.8	423	11	352	2.0
21/06/84	11.3	231.6	354	9.5	1490	19
26/06/84	10.8	178.8	8900	10	4890	1.4
04/07/84	11.5	116.8	537	0.7	266	0.5
19/07/84	10.3	26.7	143	10	106	<1.0
26/07/84	11.8	200.5	733	2.0	1210	3.0
01/08/84	10.5	32.4	125	<1	96	0.6
07/08/84	12.4	11600.0	6690	3	15610	1.0
15/08/84	10.7	61.4	232	<1	150	0.6
20/08/84	10.8	787.9	332	11	2630	-

WATERFORD RIVER
SEWER # 52

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	11.7	171.2	625	1.2	268	<4
30/05/84	12.0	382	965	0.5	434	3.6
06/06/84	11.7	555	845	0.7	688	<1

WATERFORD RIVER
SEWER # 53

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	8.3	13.2	170	1.0	122	<4
30/05/84	7.8	22.6	196	2.7	138	4.0
06/06/84	7.1	19.6	160	0.8	108	<1
14/06/84	7.3	14.2	142	0.3	88	<1
21/06/84	7.8	22.2	128	1.4	92	<0.5
26/06/84	7.9	13.4	160	0.6	108	-
04/07/84	7.1	14.8	169	0.1	110	0.5
19/07/84	7.6	18.8	170	0.9	100	<0.5
26/07/84	7.9	19.8	169	0.2	116	-
01/08/84	7.9	22.8	179	0.3	114	<0.5
07/08/84	7.7	19.8	176	0.3	108	<0.5
15/08/84	7.7	19.6	167	0.9	114	<0.5
20/08/84	7.4	11.7	117	1.2	86	<0.5

WATERFORD RIVER
SEWER # 54

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.7	7.4	494	0.3	100	<4
30/05/84	7.5	13.2	157	0.3	120	3.4
06/06/84	6.9	12.6	152	0.8	110	<1
14/06/84	7.7	20.4	161	0.3	98	<1
21/06/84	8.0	22.0	133	1.5	102	<0.5
26/06/84	7.5	9.8	149	0.7	102	<0.5
04/07/84	7.3	11.9	161	0.6	100	<0.5
19/07/84	7.5	14.4	179	1.0	100	<0.5
26/07/84	7.5	13.8	174	0.5	114	-
01/08/84	7.4	13.8	174	<0.1	122	<0.5
07/08/84	7.5	14.2	176	<0.1	104	0.5
15/08/84	7.4	12.7	171	0.4	122	<0.5
20/08/84	7.0	7.3	119	0.6	86	<0.5

WATERFORD RIVER
SEWER # 55

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.5	8.8	153	0.7	106	<4
30/05/84	7.3	14.2	156	0.6	122	2.4
06/06/84	7.0	13.8	154	0.9	132	-
14/06/84	7.4	14.0	148	-	124	<1
21/06/84	7.4	15.0	120	1.5	128	<0.5
26/06/84	7.5	13.0	155	0.8	110	-
11/07/84	7.3	12.7	147	0.4	164	0.5
19/07/84	7.5	13.0	175	0.8	92	<0.5
26/07/84	7.4	14.2	174	0.4	120	<0.5
01/08/84	7.3	13.6	173	0.2	120	<0.5
07/08/84	7.4	13.8	172	<0.1	118	<0.5
15/08/84	7.4	12.0	172	0.2	118	<0.5
20/08/84	7.0	8.1	120	0.7	90	<0.5

WATERFORD RIVER
SEWER # 56

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.5	17.0	190	0.3	128	4
30/05/84	7.3	21.2	162	0.2	130	3.4
06/06/84	7.1	22.2	160	0.8	90	-

Discontinued

WATERFORD RIVER
SEWER # 57

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.2	11.0	228	0.8	134	<4
30/05/84	7.0	10.4	188	0.1	116	<2
06/06/84	6.9	12.2	590	0.8	88	-

Discontinued

WATERFORD RIVER
SEWER # 59

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.1	7.8	155	1.0	104	<4
30/05/84	7.1	12.6	162	0.7	92	3.4
06/06/84	7.2	11.8	157	1.2	92	-
14/06/84	7.0	14.0	154	0.6	126	<1
21/06/84	7.0	14.8	130	1.1	116	<0.5
26/06/84	7.3	9.6	147	0.3	102	0.6
11/07/84	7.2	13.8	174	<0.1	332	<0.5
19/07/84	7.3	12.5	174	1.0	82	<0.5
26/07/84	7.2	11.7	169	0.5	112	<0.5
01/08/84	7.1	12.3	171	0.3	108	<0.5
07/08/84	7.3	13.0	167	<0.1	86	<0.5
15/08/84	7.3	11.1	164	0.4	120	<0.5
20/08/84	6.6	6.7	122	0.7	64	<0.5

WATERFORD RIVER
SEWER # 63

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.1	6.4	148	0.3	88	5
30/05/84	7.1	10.0	160	0.2	102	<2
06/06/84	7.0	11.0	154	1.0	104	-
14/06/84	7.0	12.2	147	0.3	92	<0.5
21/06/84	6.9	12.4	119	1.5	114	<0.5
26/06/84	7.2	8.4	177	0.6	96	-
11/07/84	7.3	11.7	166	0.5	130	<0.5
19/07/84	7.1	12.7	173	1.0	70	<0.5
26/07/84	7.2	11.7	169	0.4	110	<0.5
01/08/84	7.0	11.5	169	0.6	112	<0.5
07/08/84	7.3	10.9	166	-	104	<0.5
15/08/84	7.3	10.7	166	0.7	110	<0.5
20/08/84	6.7	7.1	119	0.4	54	<0.5

WATERFORD RIVER
SEWER # 64

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.9	8.6	146	0.1	92	<4
30/05/84	6.9	11.4	149	0.3	94	3.4
06/06/84	6.8	10.2	132	0.8	64	-

Discontinued

WATERFORD RIVER
SEWER # 65

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.9	8.6	152	0.7	82	6
30/05/84	6.7	9.2	121	0.7	84	<2
06/06/84	6.6	9.8	102	0.7	50	-

Discontinued

WATERFORD RIVER
SEWER # 66

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.9	7.8	150	1.5	82	7
30/05/84	7.5	21.2	161	0.5	106	3.2
06/06/84	6.9	11.8	154	0.6	78	-

Discontinued

WATERFORD RIVER
SEWER # 67

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.6	23.4	350	0.7	196	5
21/06/84	6.6	9.8	36	1.4	80	1.3
26/06/84	7.3	27.4	233	0.8	148	<0.5

WATERFORD RIVER
SEWER # 68

	<u>Parameter</u>					
<u>Sampling Date</u>	<u>pH</u>	<u>Alkalinity (CaCO₃) mg/l</u>	<u>Specific Conductance umho/cm</u>	<u>BOD₅ mg/l</u>	<u>Total Solids mg/l</u>	<u>Total Phosphates mg/l</u>
21/06/84	8.1	74.2	224	2.9	202	1.8

WATERFORD RIVER
SEWER # 69

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.9	14.0	220	0.4	322	<4
30/05/84	7.0	13.8	163	0.4	114	<2
06/06/84	6.9	14.0	165	0.6	76	-
14/06/84	6.8	14.6	144	0.3	76	<0.5
21/06/84	6.8	21.4	136	1.3	84	<0.5
26/06/84	7.3	9.8	159	0.6	84	-
11/07/84	6.9	9.4	122	0.3	104	<0.5
19/07/84	7.0	9.4	401	0.7	46	<0.5
26/07/84	7.1	10.2	108	<0.1	50	<0.5
01/08/84	6.8	9.8	111	0.2	58	<0.5
07/08/84	7.2	10.4	112	0.5	66	<0.5
15/08/84	7.1	9.8	114	<0.1	68	<0.5
20/08/84	6.7	11.9	151	1.4	94	<0.5

WATERFORD RIVER
SEWER # 72

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.8	11.4	451	0.9	262	<4
30/05/84	6.9	15.8	258	0.6	174	3.2
06/06/84	6.8	19.4	362	0.6	202	-
14/06/84	6.6	23.0	430	-	256	<1
21/06/84	6.8	14.8	532	1.2	114	<0.5
26/06/84	7.4	18.0	365	0.8	224	<0.5
11/07/84	6.7	15.9	384	0.1	250	<0.5
19/07/84	6.9	17.8	118	4.5	196	2.0
26/07/84	6.7	14.4	315	0.1	184	<0.5
01/08/84	6.5	21.7	609	1.2	354	<0.5
07/08/84	7.0	16.1	391	0.1	224	<0.5
15/08/84	6.8	17.3	365	4.4	234	<0.5
20/08/84	6.6	15.5	265	0.5	170	<0.5

WATERFORD RIVER
SEWER # 73

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.0	12.0	170	1.3	102	<4
30/05/84	7.0	13.6	123	0.3	94	<2
06/06/84	7.0	14.8	122	0.8	62	-

Discontinued

WATERFORD RIVER
SEWER # 75

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.9	6.6	142	0.2	84	<4
30/05/84	7.0	10.4	146	0.4	110	3.4
06/06/84	7.0	10.2	136	0.6	68	-
14/06/84	7.1	11.8	134	0.5	70	<1
21/06/84	6.8	14.8	131	1.5	104	<0.5
26/06/84	7.2	8.8	143	0.1	143	<0.5
11/07/84	7.1	13.0	163	0.5	118	0.5
19/07/84	7.2	12.5	171	1.1	64	0.6
26/07/84	7.2	12.5	169	0.6	100	-
01/08/84	7.2	12.5	169	0.4	116	0.5
07/08/84	7.4	11.3	166	0.2	98	<0.5
15/08/84	7.4	11.1	172	0.4	112	0.6
20/08/84	6.6	6.7	84	0.7	84	<0.5

WATERFORD RIVER
SEWER # 76

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.8	4.8	162	0.1	94	<4
30/05/84	6.8	8.0	195	0.8	132	<2
06/06/84	6.7	7.4	172	0.5	84	-

Discontinued

WATERFORD RIVER
SEWER # 77

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
30/05/84	6.8	11.0	160	0.7	112	3.2
06/06/84	6.8	11.2	160	0.6	72	-

Discontinued

WATERFORD RIVER
SEWER # 78

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.8	15.0	384	1.2	224	6
30/05/84	6.5	16.4	341	1.3	224	<2
06/06/84	7.2	39.2	386	3.3	212	-
14/06/84	6.5	18.8	339	3.3	192	0.6
21/06/84	6.7	12.8	106	6.4	98	<0.5
26/06/84	7.3	11.1	325	0.9	182	-
11/07/84	6.6	17.1	319	3.1	218	2.1
19/07/84	6.6	14.0	336	6.0	164	1.6
26/07/84	6.9	17.8	321	1.3	194	-
01/08/84	6.6	25.1	349	>4.8	222	0.5
07/08/84	6.9	20.9	301	7.9	196	3.8
15/08/84	6.9	15.5	299	2.2	196	<0.5
20/08/84	6.5	13.0	305	0.4	190	<0.5

WATERFORD RIVER
78A (Stream sample near 78)

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.9	12.4	365	3.2	216	5
30/05/84	7.0	13.2	343	1.2	248	3.4
06/06/84	7.0	12.4	341	1.8	190	-
14/06/84	7.0	16.2	330	4.9	202	<1
21/06/84	6.6	12.0	186	5.2	288	8.8
26/06/84	7.3	12.5	343	6.1	212	0.9
11/07/84	7.1	16.9	317	1.9	246	<0.5
19/07/84	7.1	17.1	430	3.8	230	0.9
26/07/84	7.2	21.1	472	1.4	302	-
01/08/84	7.1	17.1	446	0.2	270	<0.5
07/08/84	7.3	25.5	410	4.5	258	<0.5
15/08/84	7.3	17.5	358	3.1	244	0.7
20/08/84	7.0	13.8	320	0.6	202	<0.5

WATERFORD RIVER
Sewer #79

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.8	5.2	99	0.1	66	<4
30/05/84	7.0	10.0	111	0.7	84	<2
06/06/84	6.9	9.2	118	0.8	66	-

Discontinued

WATERFORD RIVER
Sewer #81

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.7	5.6	96	0.9	60	<4
30/05/84	6.8	9.0	110	-	90	4.2
06/06/84	6.9	8.0	118	0.9	60	-

Discontinued

WATERFORD RIVER
Sewer #82A

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.6	7.6	149	0.6	84	6
30/05/84	6.6	12.8	173	0.7	124	2.4
06/06/84	6.6	10.2	161	0.6	82	-

Discontinued

WATERFORD RIVER
Sewer #83

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.4	16.0	129	0.2	76	<4
30/05/84	6.2	21.0	131	0.3	106	4.6
06/06/84	6.4	20.4	149	0.2	82	-

Discontinued

WATERFORD RIVER
Sewer #84

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.5	19.4	235	1.6	140	<4
30/05/84	6.3	22.0	223	0.2	146	<2
06/06/84	6.4	21.6	232	0.4	132	-

Discontinued

WATERFORD RIVER
Sewer #85

Sampling Date	Parameter	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l	
09/05/84	pH	6.8	18.8	388	0.6	228	5
30/05/84		6.8	17.8	317	0.9	204	3.8
06/06/84		7.1	22.0	369	4.2	198	-
14/06/84		6.9	22.8	344	3.2	206	1.1
21/06/84		6.6	14.2	144	8.7	102	0.6
26/06/84		7.3	13.6	310	12	186	2.2
11/07/84		7.0	15.0	286	4.0	198	1.5
19/07/84		6.8	17.0	324	12	154	1.4
26/07/84		6.9	21.1	323	14	202	4.6
01/08/84		6.6	26.1	343	29	210	4.0
07/08/84		7.0	35.3	383	38	290	13.7
15/08/84		7.1	25.3	332	5.9	224	4.8
20/08/84		7.0	20.7	298	2.9	166	<0.5

WATERFORD RIVER
Sewer #86

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.6	11.4	189	0.6	122	5
30/05/84	6.8	14.8	162	2.2	136	<2
06/06/84	6.7	10.0	165	1.1	80	-

Discontinued

WATERFORD RIVER
Sewer #86A

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
14/06/84	7.5	17.0	156	0.6	94	<1
21/06/84	6.8	19.0	132	1.4	82	<0.5
26/06/84	7.4	11.7	208	0.7	158	-
04/07/84	7.2	15.0	184	0.3	134	<0.5
19/07/84	7.2	16.5	192	1.3	86	<0.5
26/07/84	7.4	18.6	189	0.4	116	<0.5
01/08/84	7.4	18.4	192	0.7	110	0.5
07/08/84	7.5	19.2	187	0.5	106	<0.5
15/08/84	7.4	16.1	183	0.6	116	<0.5
20/08/84	7.0	8.8	119	0.7	86	<0.5

WATERFORD RIVER
Sewer #87

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.7	8.6	189	5.0	114	5
30/05/84	6.6	8.0	176	1.1	134	3.6
06/06/84	6.6	8.0	168	1.4	80	-
14/06/84	6.5	10.0	163	3.1	92	1.6
21/06/84	6.7	17.4	242	4.9	152	2.2
26/06/84	7.0	9.2	310	2.0	182	1.8
04/07/84	6.5	10.4	292	4.3	218	2.3
19/07/84	6.5	19.6	579	4.7	296	13.4
26/07/84	6.7	21.1	552	2.4	330	1.2
01/08/84	6.6	24.9	587	3.6	338	7.5
07/08/84	7.1	21.1	603	-	340	2.8
15/08/84	6.8	24.0	545	3.6	330	4.3
20/08/84	6.5	19.6	469	4.2	256	0.7

WATERFORD RIVER
Sewer #88

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.8	14.4	388	0.2	214	6
30/05/84	6.7	12.4	317	0.7	202	<2
06/06/84	6.8	15.8	356	1.5	182	-

Discontinued

WATERFORD RIVER
Sewer #91

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.8	19.2	611	0.1	346	14
30/05/84	6.7	17.4	542	2.6	296	4.4
06/06/84	6.9	29.0	564	4.2	282	-
14/06/84	6.5	24.8	512	4.9	294	7.9
21/06/84	6.7	25.6	336	7.1	202	3.5
26/06/84	7.0	16.5	510	7.3	274	-
04/07/84	6.8	25.9	590	<0.1	366	3.1
19/07/84	6.8	15.7	515	3.6	274	6.4
26/07/84	6.9	17.5	488	4.7	286	7.8
01/08/84	6.7	17.5	435	2.6	234	3.8
07/08/84	7.0	20.5	485	7.2	266	8.8
15/08/84	7.3	46.8	555	0.9	316	15.6
20/08/84	6.7	54.5	386	>77	820	<0.5

WATERFORD RIVER
Sewer #97

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.2	24.2	219	0.5	142	5
30/05/84	7.4	35.8	251	0.6	170	<2
06/06/84	7.5	34.8	248	0.8	136	-

Discontinued

WATERFORD RIVER
Sewer #98

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.0	28.2	561	-	448	7
30/05/84	7.1	40.4	560	1.4	720	2.2
06/06/84	7.2	30.2	522	1.2	1300	-
14/06/84	7.8	61.4	511	0.7	876	22.2
21/06/84	7.0	26.0	330	1.3	360	5.0
26/06/84	7.7	22.4	516	0.8	296	<1.0
04/07/84	6.9	19.0	281	6.6	200	<0.5
19/07/84	7.1	27.2	622	0.4	356	14
26/07/84	7.2	28.0	603	<0.1	382	2.6
01/08/84	6.8	29.0	630	0.1	394	<1.0
07/08/84	7.2	29.7	624	0.3	382	<0.5
15/08/84	7.1	29.9	646	-	448	<0.5
20/08/84	7.1	26.9	343	0.8	230	0.9

WATERFORD RIVER
Sewer #101

Parameter						
Sampling Date	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	7.5	42.6	224	-	96	<4
30/05/84	7.8	43.0	194	0.4	122	<2
06/06/84	8.0	51.2	225	1.6	108	-

Discontinued

WATERFORD RIVER
Greenwood Motel

Sampling Date	Parameter					
	pH	Alkalinity (CaCO ₃) mg/l	Specific Conductance umho/cm	BOD ₅ mg/l	Total Solids mg/l	Total Phosphates mg/l
09/05/84	6.6	65.0	158	-	104	<4
30/05/84	6.8	64.4	155	4.0	124	4.2
06/06/84	7.3	66.6	174	6.7	118	-
14/06/84	6.6	71.8	183	11	132	<1
21/06/84	6.7	73.0	178	0.3	152	<0.5
26/06/84	7.7	43.8	196	0.7	186	<0.5
11/07/84	6.7	53.3	208	<0.1	158	<0.5
19/07/84	6.6	54.5	225	3.7	136	<0.5
26/07/84	6.8	65.0	255	9.9	190	<0.5
01/08/84	6.4	63.5	264	3.8	178	<0.5
07/08/84	6.7	63.3	292	1.9	94	<0.5
15/08/84	7.0	65.2	278	3.4	208	<0.5
20/08/84	6.6	69.8	278	3.2	200	<0.5

