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PROTOTYPE OVERLAND FLOW TEST DATA: JUNE 1977-MAY 1978,(U)
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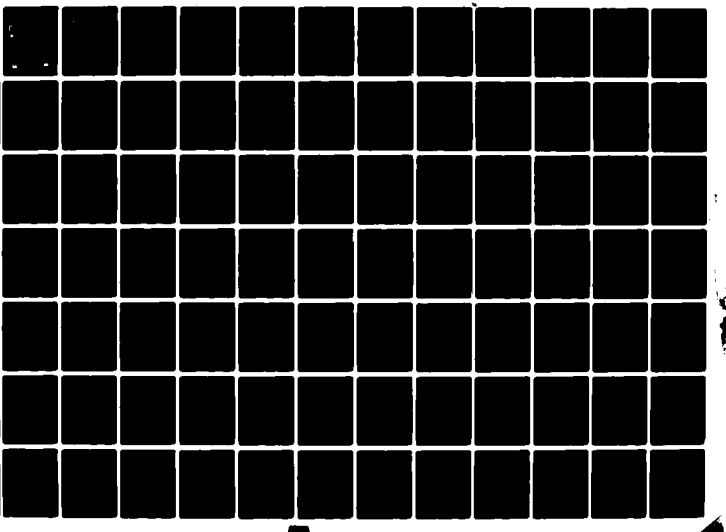

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UNITED STATES ARMY
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A prototype overland flow land treatment system was operated at Hanover, New Hampshire, over a one-year cycle from June 1977 to May 1978. The individual data points collected over this period for water quantity and quality are presented as well as plant yields and nutrient uptake. The soil chemical and physical parameters measured are also presented along with a table of initial site characteristics. The meteorological measurements obtained in support of this effort are included to complete the data base.

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PREFACE

This report was prepared by T.F. Jenkins, Jr., Research Chemist, H.E. Hare, Physical Sciences Technician, Dr. H.L. McKim, Research Soil Scientist, A.J. Palazzo, Research Agronomist, R.E. Bates, Meteorologist, C.J. Martel, Sanitary Engineer, I.K. Iskandar, Research Soil Chemist, D.J. Fisk, Mechanical Engineering Technician, D.A. Gaskin, Research Geologist, P.W. Schumacher, Physical Sciences Technician, J.J. Bayer, Sanitary Engineering Technician, S.T. Quarry, Physical Sciences Technician, J.E. Ingersoll, Civil Engineering Technician, L.D. Jones, Physical Sciences Technician, and J.M. Graham, Biological Technician, of the U.S. Army Cold Regions Research and Engineering Laboratory.

This study was conducted as part of the U.S. Army Corps of Engineers Civil Works Research Work Unit CWIS 31297, Optimization of Management Techniques for Wastewater Renovation.

This report was technically reviewed by J. Bouzoun and C.J. Merry of CRREL. The comments and suggestions from both of these individuals made a valuable contribution to the preparation of this manuscript.

The authors would like to acknowledge the outstanding technical assistance provided by Lee Henrickson and Marty Leamon in the water chemistry laboratory. Susan Rindge provided exceptional assistance in operating the experiment and collecting water samples during several periods when other personnel were not available. The participation of Donald Keller in crop harvesting operations and providing other assistance throughout the study is acknowledged, as is the work of Bryan Harrington and Richard Guyer in calibrating the thermocouple/data logger system used for collection of soil temperatures. The Hanover Detachment of the Maynard, Massachusetts, Metereorological Team, U.S. Army Atmospheric Sciences Laboratory, is acknowledged for collection and tabulation of meteorological data. Eleanor Huke is acknowledged for her assistance in preparation of the illustrations used in this manuscript. The authors would like to credit the CRREL Word Processing Center with a special acknowledgement for the extra effort required to format and accurately reproduce the large number of tables presented in this document.

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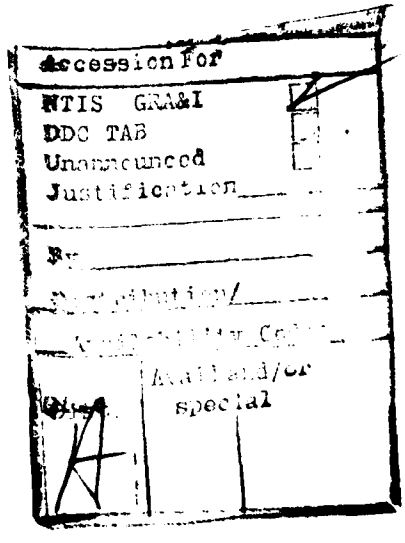

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PROTOTYPE OVERLAND FLOW TEST DATA: JUNE 1977-MAY 1978

by

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INTRODUCTION

It has been well-established that overland flow land treatment is a cost-effective method of removing nitrogen, oxygen-demanding substances, and suspended matter in warm areas of the United States and in Australia (EPA 1977). However, the effectiveness of this type of system in a region of seasonal cold has never been documented. In addition, the degree of preapplication treatment and disinfection, if any, necessary before wastewater is applied to the soil in this mode of land treatment is unclear.

This study was conducted to provide criteria to enable assessment of overland flow land treatment for use in colder areas of the United States. The specific goals were as follows:

1. To obtain criteria to predict nitrogen, BOD, and suspended solids treatment as a function of ambient temperature.
2. To determine whether preapplication treatment beyond primary treatment was effective in improving product water quality.
3. To document the degree of phosphorus treatment achievable by overland flow.

During the course of this study, wastewater containing a very high concentration of ammonium (>200 mg/liter) was inadvertently applied to the treatment sites in October 1977. We took advantage of this circumstance so that an additional objective of the study became the determination of the nitrification rate under these conditions. To do so, soil samples were collected at various locations on the site on a number of sequential days, and analyzed for exchangeable ammonium and soluble nitrate. These results will be used in nitrogen modeling studies currently underway at CRREL.

The major results of this study have been presented elsewhere (Jenkins and Martel 1978, Jenkins et al. 1978, Martel et al. 1979). This data report is being provided to enable members of the CRREL group and others to analyze these data in an alternative fashion. It will hopefully be useful for validation of mathematical models for prediction of runoff water quality. These models are currently in preparation at CRREL and elsewhere.

DESCRIPTION OF EXPERIMENT

A pilot scale overland flow system (Fig. 1) was constructed at CRREL in Hanover, New Hampshire, in 1976. The Hartland silt loam used in constructing the system was compacted to ensure that permeability would be < 0.1 in./hr. The initial characteristics of the pilot scale system are summarized in Table 1. A more detailed description is available in Jenkins et al. (1978), Jenkins and Martel (1978), and Martel et al. (1979).

The 8.8-m-wide slope was divided into three equal test sections. From 17 May 1977 through 26 May 1978, primary and secondary wastewaters (Iskandar et al. 1976) were applied individually to two of these sections. Tapwater was applied to the third section from 17 May 1977 through 6 January 1978 to act as a control. The wastewater was applied from perforated pipe at a rate of 1.25 cm/day (0.25 cm/hr) four or five days per week.

The amount of water applied (in gallons) and the various parameters of the primary wastewater measured on a daily basis (individual analyses) are presented in Table 2*. All values listed are given in milligrams/liter except as follows: pH - pH units, COND - μmhos/cm, and CF(F) - number of fecal coliforms per 100 ml. The following non-standard abbreviations are used: N(K) - Kjeldahl nitrogen, TSS - total suspended solids, VSS - volatile suspended solids, and COND - specific conductance.

The quantity and quality of runoff from the primary test section are presented on a daily basis in Table 3. The units for these parameters are identical to those used for the applied wastewater in Table 2. Table 4 presents the quantity and quality of wastewater passing through the 15-cm soil profile for the primary section, and collected separately as system percolate.

In a similar manner, Tables 5, 6 and 7 present individual results for wastewater applied, runoff and percolate, respectively, for the secondary wastewater section**. The units are identical to those for the primary section. Tables 8, 9 and 10 likewise present the quantity and quality of tapwater, runoff and percolate from the control section.

Surface water samples were collected periodically from three points on the slope: 3, 15 and 28 m downslope from the application point. Analysis of these samples is presented in Tables 11, 12, and 13 for the primary, secondary and control sections, respectively.

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* A value of "-1.0" in Tables 2-10 indicates that no analysis was per- for that parameter.

** At the end of the study, several small leaks were located at the base of the primary and secondary test sections. Therefore, the runoff water volumes shown in Tables 2-10 are lower than actual. Since the leaks were mainly at the base of each section, the concentration measurements should be representative.

Measurement of these water quality parameters was obtained by procedures reported in detail elsewhere (Martel et al. 1979, Jenkins et al. in prep. and Iskandar et al. 1976). A summary of the methods used is presented in Table 14 and a diagram of the sample handling procedures is presented in Figure 2. The precision and accuracy of these test procedures is described in detail in Jenkins et al. (in prep.).

Tabulations of the meteorological data collected in conjunction with this project are presented on a monthly basis in Table 15a-l (June 1977-May 1978). This data set includes air temperature, relative humidity, wind speed and direction, precipitation, pan evaporation, and daily mean soil temperature. Measurements of evaporation were not made during winter months and were assumed to be small compared to summer pan evaporation.

Plant yields produced over this period on the three test sections are presented in Table 16. These data are presented for each of the three harvests, July 1977, September 1977, and June 1978. Plant tissue analyses were obtained commercially and are presented in Table 17. Plant uptake of nitrogen and phosphorus for each harvest was obtained by multiplying the dry weight of plant material produced (Table 16) by the percentage of that element in the crop (Table 17). These uptake values and a yearly total are presented in Table 18.

Soil samples were collected (Fig. 3) on three dates in October 1977, once during November and December 1977 and again in April 1978. The soils were analyzed for moisture content, certain soluble and exchangeable cations, and soluble nitrate. The data are presented in Tables 19, 20 and 21 for the primary, secondary and tapwater section, respectively. The methods used for analysis are presented below.

SOIL PHYSICAL AND CHEMICAL ANALYSIS METHODS

Soil Moisture

The soil moisture content was determined gravimetrically (g/g) by obtaining the weight loss of a known weight of wet soil after drying at 105°C for 24 hours.

Soil pH

Soil pH was determined by the following method: 5 g of dry soil and 25 ml of deionized water were placed in a centrifuge tube, shaken for one hour, centrifuged for 15 minutes and measured to the nearest 0.1 pH unit with a Markson 1808 combined electrode.

Soluble and Exchangeable NH_4^+ and Soluble NO_3^-

Soluble and exchangeable ammonium and soluble nitrate were obtained as follows. Five grams of sieved (2 mm) dry soil and 25 ml of deionized

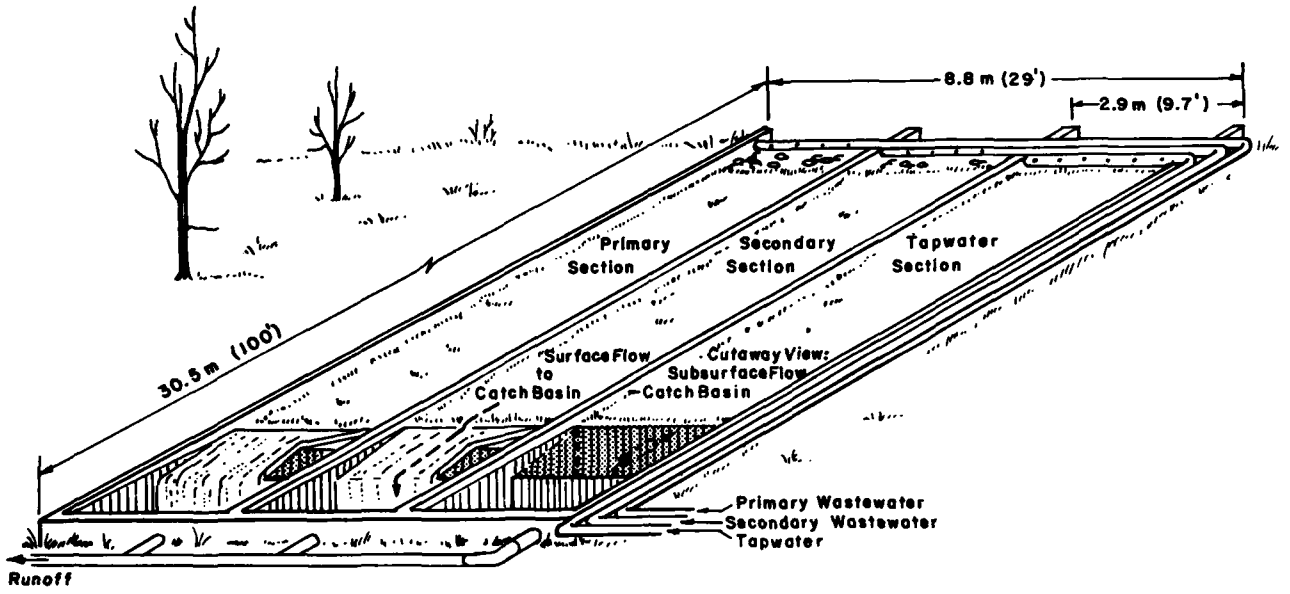


Figure 1. Schematic of prototype overland flow test site.

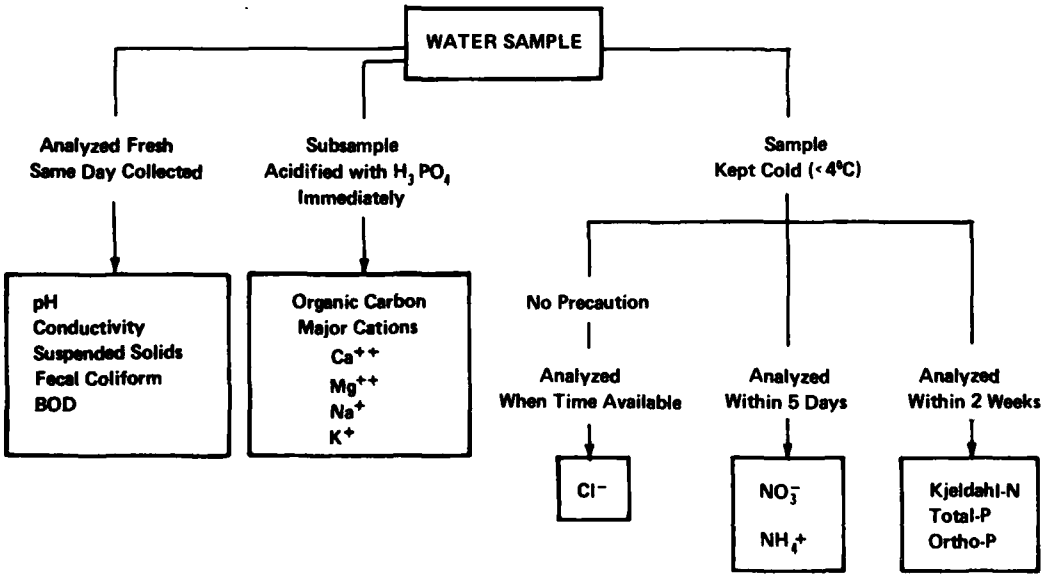


Figure 2. Sample handling procedures.

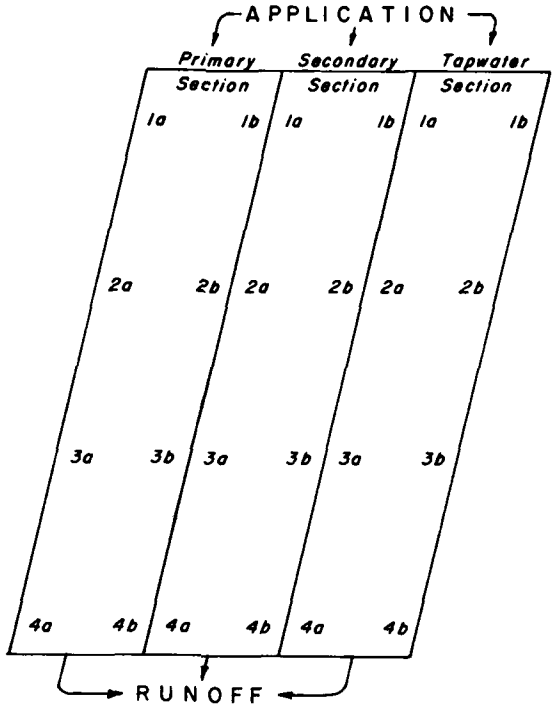


Figure 3. Location of sites for soil chemical sampling

water were added to centrifuge tubes. The tubes were shaken for one hour, centrifuged for 15 minutes and the supernatant decanted carefully. This solution was analyzed for soluble ammonium and nitrate using a Technicon Auto Analyzer II (Jenkins et al. in prep.). The soil was then washed with two additional portions of deionized water, shaken for an hour, centrifuged and these supernatants discarded. Since the soil retained 2.5 ml of water after decanting, 22.5 ml of 1 N (1 normal) KCl was then added to each tube (to obtain a total volume of 25 ml) and the tubes shaken for two hours. The tubes were then centrifuged for 15 minutes and the resulting supernatant poured off and analyzed for exchangeable ammonium as above.

Cation Exchange Capacity

The soil cation exchange capacity was determined as follows. Five grams of sieved dry soil and 25 ml of 1 N ammonium acetate solution were added to a centrifuge tube. The tube was shaken for two hours and centrifuged for 30 minutes. The supernatant was poured off and the soil was washed with several portions of deionized water. The tubes were shaken and centrifuged between washings and the supernatants discarded. As described above, 22.5 ml of 1 N KCl was then added to the centrifuge tubes and the tubes were shaken for two hours. The tubes were then centrifuged for 30 minutes and the resulting supernatant poured off and analyzed for ammonium as above. The milliequivalents of ammonium obtained represent the cation exchange capacity of the soil.

Soluble and Exchangeable Ca^{++}, Mg^{++}, Na^{+} and K^{+}

The soluble and exchangeable Ca^{++}, Mg^{++}, Na^{+}, and K^{+} were analyzed in a manner similar to the method used for soluble and exchangeable ammonium reported earlier. A 1 N ammonium acetate solution was substituted for the 1 N KCl used for ammonium determination and the analysis was obtained on a Perkin Elmer 303 Atomic Absorption Spectrophotometer as described in Iskandar et al. (1979).

Bulk Density

The bulk density (γd) of the soil was measured through three sections from samples collected at locations indicated in Figure 4 using standard sampling techniques. A cylinder 5.3 cm in diameter X 3.0 cm in depth was inserted into the soil. The sample plus core was first weighed when wet and then after oven drying. The dry weight was divided by the known volume which gave the oven dry bulk density. The samples were taken at two depths, 0-7.5 cm and 7.5-15 cm, and downslope at distances of 3, 12 and 21 m (Fig. 4). The data are shown in Table 22 on a dry weight basis.

The volumetric moisture content was also obtained for each sample using the following equation: $V_w = \gamma d \cdot$ % water by weight. The results are shown in Table 22. The average bulk density of the test area was 1.4 g/cm^3.

Texture

The locations of samples used for particle size analysis are shown in Figure 4, and the particle size distributions are shown in Figures 5, 6 and 7. The particle size analyses, determined according to standard method ASTM D422, for the sand, silt and clay separate sizes are reported in Table 23.

Moisture Characterization Curves

Moisture characteristic curves for the soils were determined on remolded (Fig. 8) and undisturbed (Fig. 9) samples of the Hartland silt using volume pressure plate extractors and Tempe Cells, respectively. The data on volumetric moisture content vs tension on remolded soil samples from the primary, secondary and tapwater sections are shown in Figure 8. As expected, the drying and wetting curves are not the same. The remolded samples showed a pronounced hysteresis effect.

The method employed using Tempe Cells is described by Ingersoll (1976) and the volumetric pressure plate method by Miller and Elrick (1958). Only the drying curve can be obtained using the Tempe Cell. Two determinations were made on each of the three test sections (Fig. 9. The locations where the samples were taken are shown in Figure 4. Included on each graph is the bulk density (γd), specific gravity (G_s) and porosity (n) for soil sample.

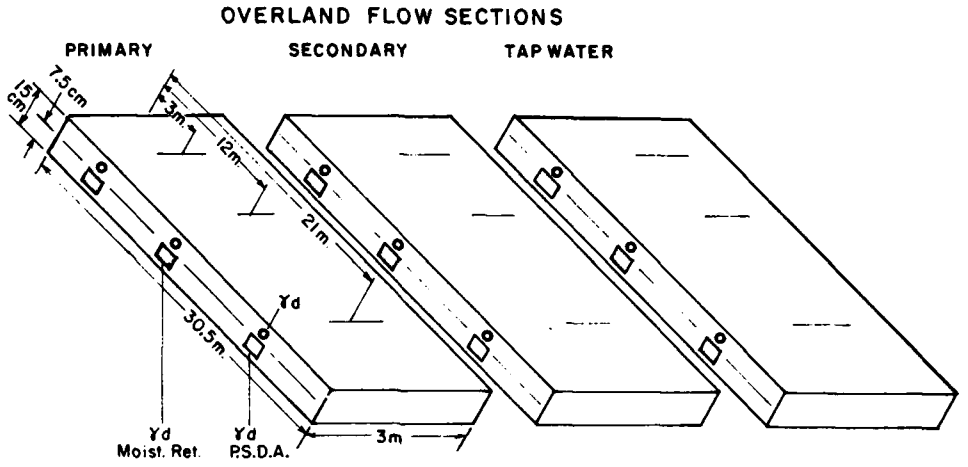


Figure 4. Location of soil samples collected for moisture retention, bulk density and particle size distribution.

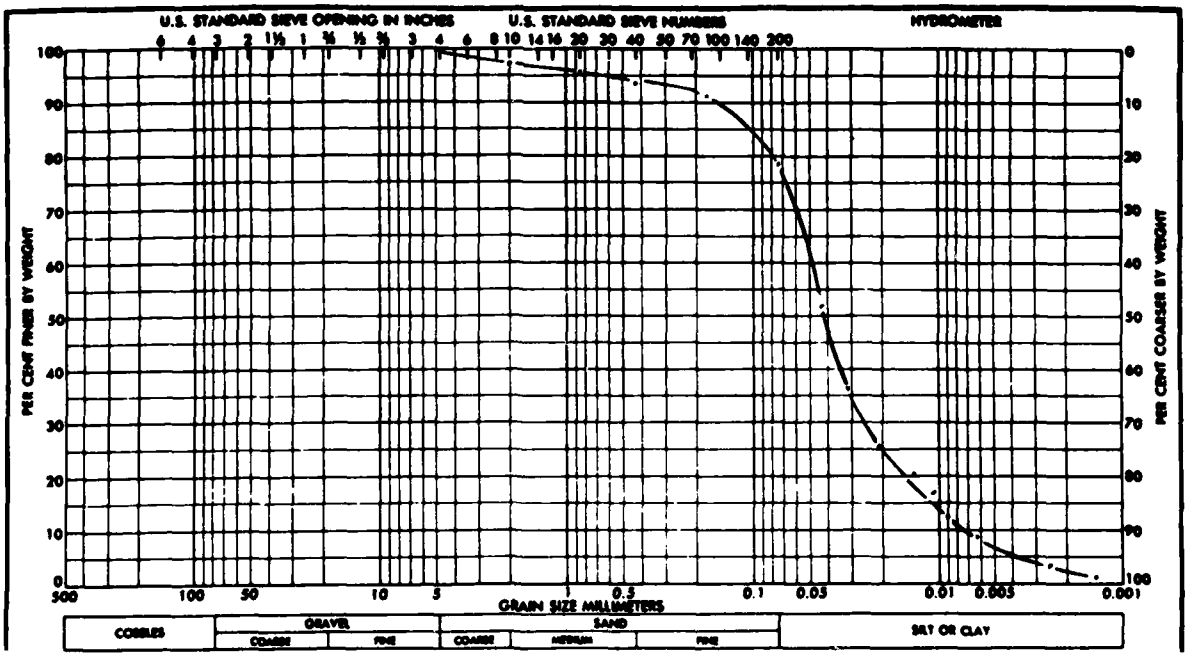


Figure 5. Particle size distribution for primary section.

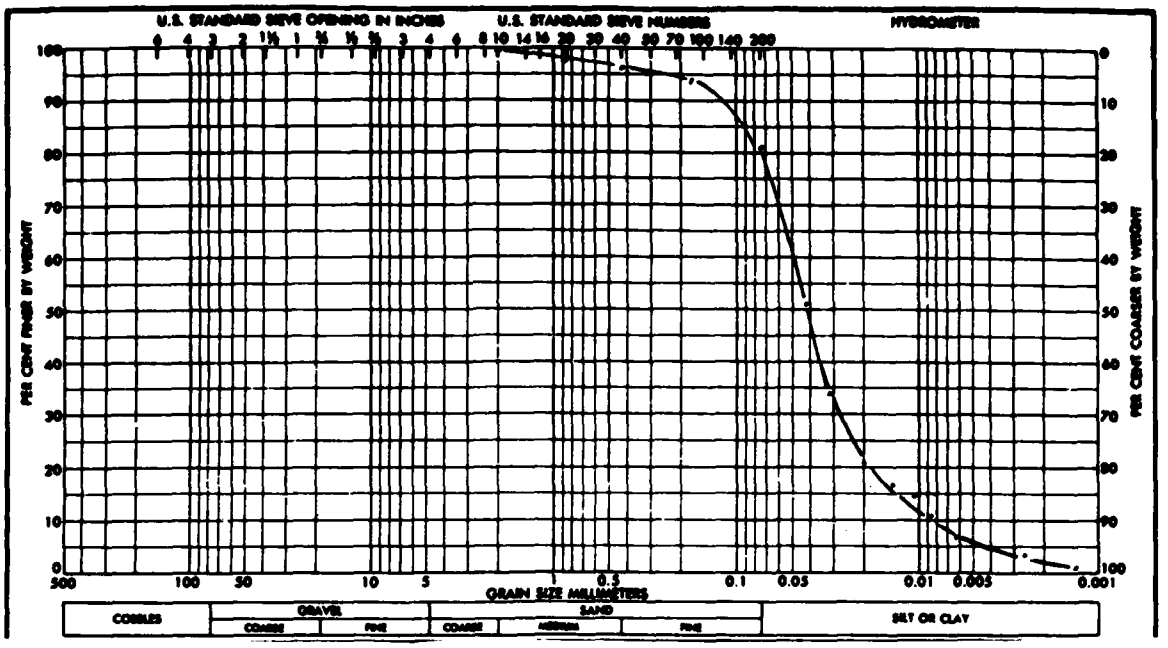


Figure 6. Particle size distribution for secondary section.

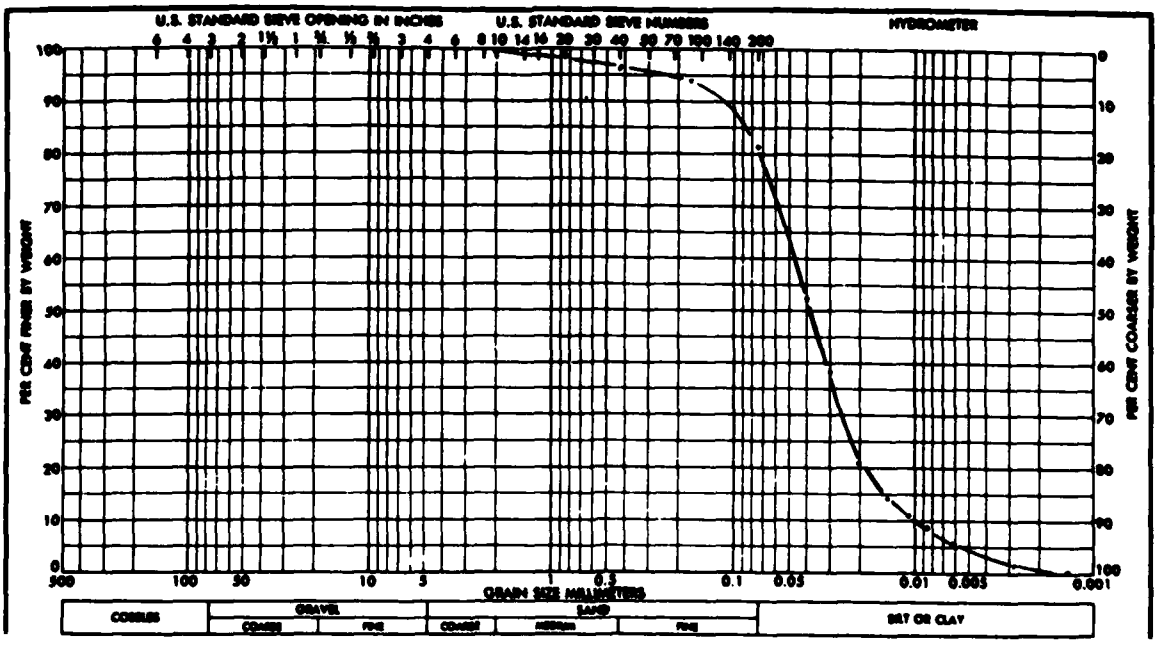
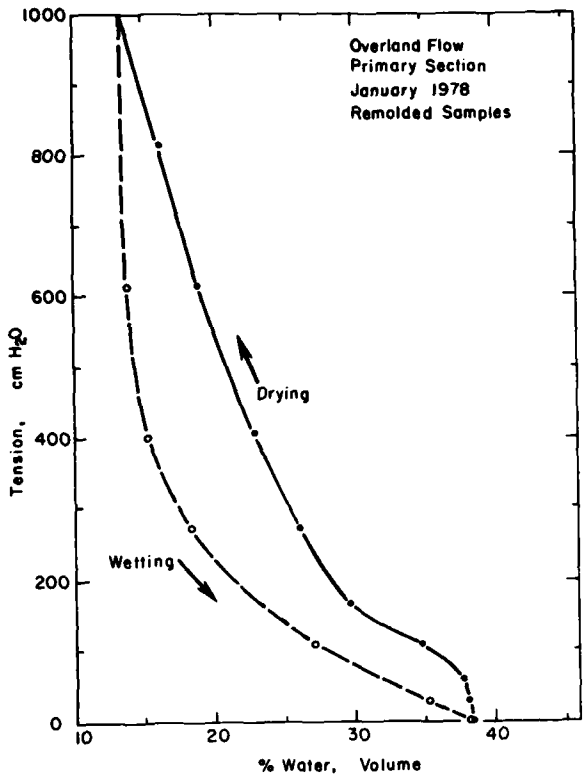
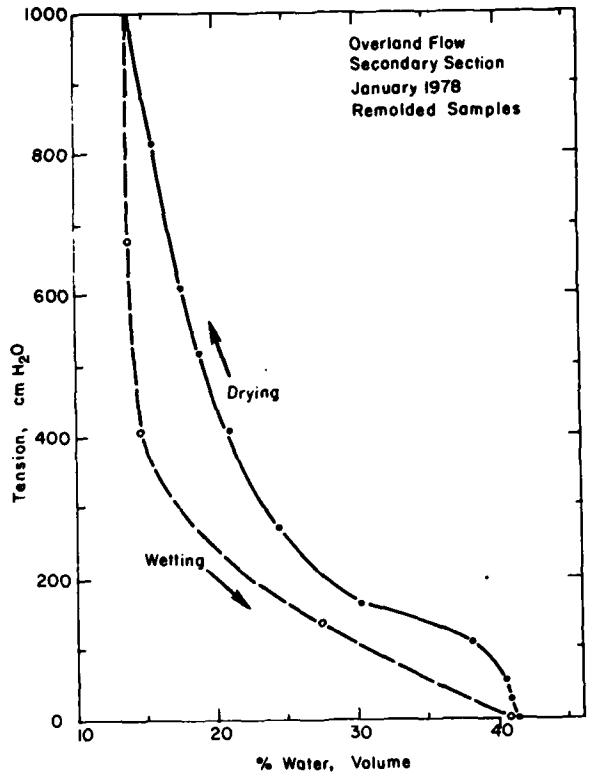


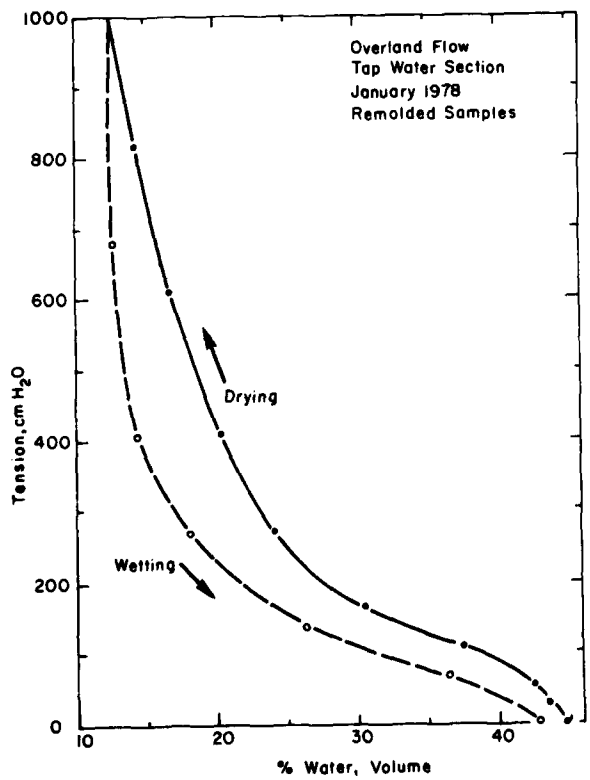
Figure 7. Particle size distribution for tapwater section.



a. Primary section

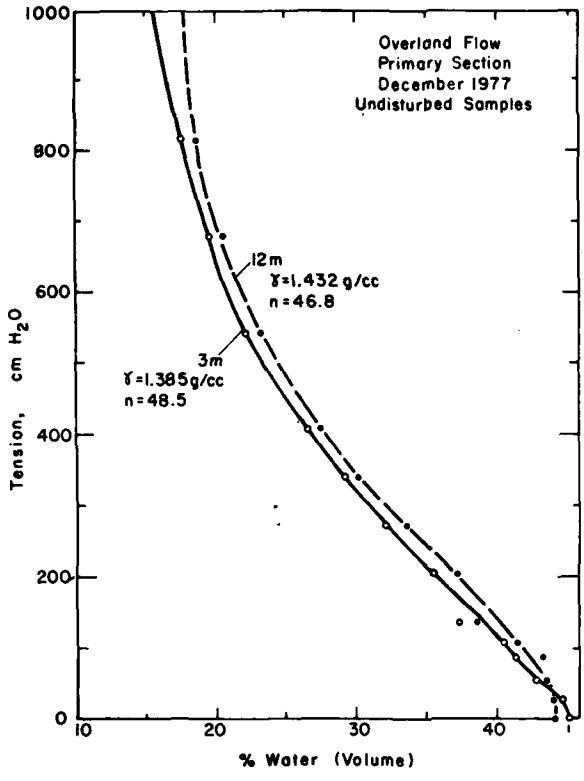


b. Secondary section

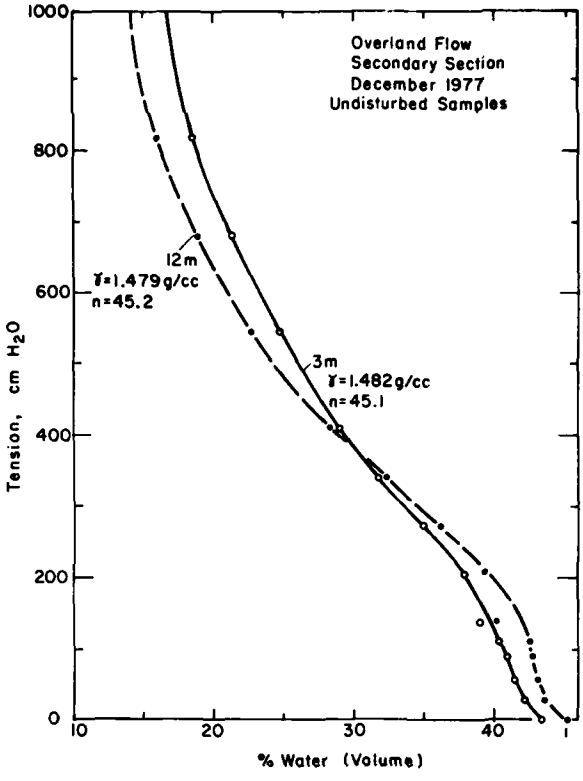


c. Tapwater section

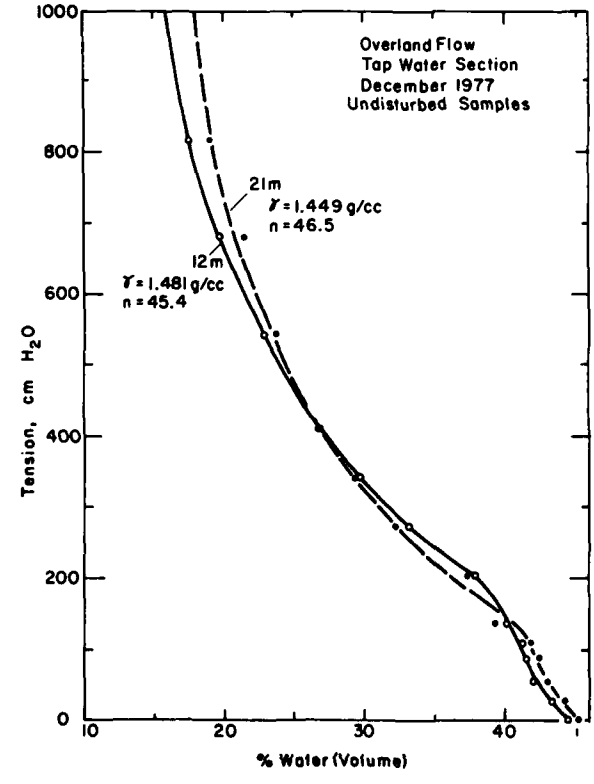
Figure 8. Moisture characterization (retention) curves for remolded samples from the primary, secondary and tapwater test sections.



a. Primary section



b. Secondary section



c. Tapwater section

Figure 9. Moisture characterization (retention) curves for undisturbed samples from the primary, secondary and tapwater test sections.

An interpretive report, discussing many of the results presented here, is in preparation (Martel et al. 1979). A summary of many of the most significant findings has been presented in Jenkins et al. (1978) and Jenkins and Martel (1978).

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Table 1

Initial Characteristics of Overland Flow Site

Location	-	Hanover, NH
Latitude	-	43°43'N
Aspect	-	South-Southwest
Prevailing winds	-	West-Northwest
Mean annual temperature	-	7°C
Mean precipitation	-	95 cm/yr
Mean snowfall	-	185 cm/yr
Slope	-	5%
Slope length	-	30.5 m
Slope width	-	8.8 m (three 2.9 m test sections)
Soil type	-	Hartland silt loam
Soil bulk density	-	1.4 g/cm^3
Soil specific gravity	-	2.7
Soil pH	-	7.1
Soil CEC	-	5 meq/100 g
Soil depth	-	15 cm (underlain by 1 mm rubber liner)
Vegetation	-	Forage grass mixture Orchard grass Tall fescue Perennial ryegrass
Application rate	-	1.25 cm/day
Retention time of water on slope	-	45 min*
Particle size distribution (USDA classification scheme)		
Sand (>50μ)	-	38%
Silt (50μ-20μ)	-	39%
Silt (20μ-2μ)	-	21%
Clay (<2μ)	-	2%

* Under steady state conditions.

TABLE 2 WASTEWATER APPLIED TO PRIMARY SECTION 17 MAY 1977 - 31 MAY 1978

DATE 1977	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	X	CA	MG	NA
17 MAY	318.00	0.05	29.94	41.61	8.78	-1.00	-1.00	-1.00	-1.00	7.09	528.00	39.65	-1.0	-1.0	-1.0	-1.0	-1.0
19	304.00	0.26	38.94	42.75	7.78	-1.00	-1.00	-1.00	-1.00	7.65	516.00	33.98	-1.0	-1.0	-1.0	-1.0	-1.0
23	314.00	0.08	32.53	36.26	8.08	-1.00	-1.00	-1.00	-1.00	6.56	437.00	33.18	-1.0	-1.0	-1.0	-1.0	-1.0
24	277.00	0.04	32.99	37.15	8.04	-1.00	-1.00	-1.00	-1.00	6.13	596.00	33.75	-1.0	-1.0	-1.0	-1.0	-1.0
25	311.00	0.20	38.33	35.87	6.55	-1.00	-1.00	-1.00	-1.00	6.57	635.00	33.49	-1.0	-1.0	-1.0	-1.0	-1.0
30	327.00	0.00	34.73	36.95	6.97	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.62	-1.0	-1.0	-1.0	-1.0	-1.0
31	331.00	0.10	33.99	36.90	7.72	-1.00	-1.00	95.60	48.80	7.20	593.00	37.43	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE 1	192.00	0.00	37.14	41.50	6.63	-1.00	-1.00	-1.00	-1.00	7.35	586.00	33.95	-1.0	-1.0	-1.0	-1.0	-1.0
2	315.00	0.00	32.63	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.30	545.00	35.19	-1.0	-1.0	-1.0	-1.0	-1.0
6	286.00	0.00	33.48	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.35	582.00	36.87	-1.0	-1.0	-1.0	-1.0	-1.0
8	293.00	0.25	31.06	36.25	6.50	-1.00	66.00	-1.00	-1.00	7.40	413.00	48.20	40000.0	-1.0	-1.0	-1.0	-1.0
13	250.00	0.04	34.75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.20	600.00	36.95	-1.0	-1.0	-1.0	-1.0	-1.0
14	295.00	0.00	32.23	-1.00	-1.00	-1.00	-1.00	81.20	78.80	-1.00	-1.00	34.85	-1.0	13.8	9.1	2.5	45.6
15	278.00	0.00	35.64	36.51	7.59	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.27	-1.0	-1.0	-1.0	-1.0	-1.0
16	316.00	0.00	34.74	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.00	-1.0	-1.0	-1.0	-1.0	-1.0
21	321.00	0.41	32.43	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.20	549.00	37.40	-1.0	-1.0	-1.0	-1.0	-1.0
22	285.00	0.00	33.25	37.90	6.75	-1.00	63.00	-1.00	-1.00	-1.00	-1.00	35.95	60000.0	-1.0	-1.0	-1.0	-1.0
23	299.00	0.00	34.73	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.66	-1.0	-1.0	-1.0	-1.0	-1.0
27	295.00	0.00	32.01	-1.00	-1.00	-1.00	-1.00	150.80	122.40	-1.00	-1.00	48.29	-1.0	-1.0	-1.0	-1.0	-1.0
28	88.00	0.00	37.47	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	48.31	-1.0	-1.0	-1.0	-1.0	-1.0
30	391.00	0.00	13.73	18.76	3.64	-1.00	-1.00	-1.00	-1.00	6.95	383.00	19.91	-1.0	-1.0	-1.0	-1.0	-1.0
JULY 5	187.00	0.05	24.20	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.45	387.00	27.94	24000.0	-1.0	-1.0	-1.0	-1.0
6	368.00	0.00	25.48	31.54	5.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.89	-1.0	-1.0	-1.0	-1.0	-1.0
11	292.00	0.03	27.64	-1.00	-1.00	-1.00	-1.00	95.60	91.20	7.20	453.00	27.25	-1.0	-1.0	-1.0	-1.0	-1.0
13	232.00	0.35	22.95	29.02	4.53	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.05	-1.0	18.1	7.6	2.5	37.4
14	313.00	0.45	23.55	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.07	-1.0	-1.0	-1.0	-1.0	-1.0
15	351.00	0.66	28.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.78	-1.0	-1.0	-1.0	-1.0	-1.0
18	361.00	0.73	24.60	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	455.00	23.86	-1.0	-1.0	-1.0	-1.0	-1.0
19	312.00	0.43	24.87	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.63	78000.0	-1.0	-1.0	-1.0	-1.0
21	389.00	1.92	22.23	-1.00	-1.00	-1.00	15.00	-1.00	-1.00	-1.00	-1.00	31.88	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 2 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
22	313.00	2.04	24.74	27.37	5.87	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.16	-1.0	-1.0	-1.0	-1.0	-1.0
26	331.00	1.40	25.60	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.37	-1.0	-1.0	-1.0	-1.0	-1.0
27	342.00	0.28	29.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.74	-1.0	-1.0	-1.0	-1.0	-1.0
28	317.00	0.18	31.59	-1.00	-1.00	-1.00	-1.00	65.14	52.29	-1.00	-1.00	29.75	-1.0	-1.0	-1.0	-1.0	-1.0
29	313.00	0.20	29.75	31.97	7.70	-1.00	-1.00	-1.00	-1.00	7.45	492.00	31.23	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 3	316.00	0.79	32.41	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.45	482.00	31.12	-1.0	-1.0	-1.0	-1.0	-1.0
5	685.30	0.76	28.38	30.00	6.62	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	30.92	-1.0	-1.0	-1.0	-1.0	-1.0
9	763.00	1.60	31.00	33.97	6.95	-1.00	-1.00	-1.00	-1.00	7.40	581.00	30.84	-1.0	13.9	9.0	1.6	41.5
11	318.00	0.81	32.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.53	-1.0	-1.0	-1.0	-1.0	-1.0
18	561.00	3.67	20.10	24.05	5.04	-1.00	18.00	-1.00	-1.00	7.45	383.00	26.72	-1.0	-1.0	-1.0	-1.0	-1.0
19	176.00	1.06	22.36	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.17	-1.0	-1.0	-1.0	-1.0	-1.0
24	536.00	0.40	23.56	-1.00	-1.00	-1.00	-1.00	64.75	54.25	7.50	418.00	27.88	-1.0	-1.0	-1.0	-1.0	-1.0
26	499.00	1.45	25.32	27.94	4.91	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.32	-1.0	-1.0	-1.0	-1.0	-1.0
30 SEPT	339.00	1.07	23.67	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.56	-1.0	-1.0	-1.0	-1.0	-1.0
1	985.00	0.79	29.42	34.71	5.93	-1.00	51.00	-1.00	-1.00	7.35	496.00	28.90	18000.0	13.0	9.1	2.2	38.5
7	595.00	0.70	30.26	34.93	5.52	-1.00	-1.00	60.60	44.00	7.50	587.00	36.74	-1.0	-1.0	-1.0	-1.0	-1.0
11	322.00	0.23	33.36	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.88	-1.0	-1.0	-1.0	-1.0	-1.0
13	554.00	0.60	24.84	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.44	628.00	28.66	-1.0	-1.0	-1.0	-1.0	-1.0
15	298.00	0.09	29.83	34.34	4.47	-1.00	36.00	-1.00	-1.00	-1.00	-1.00	30.47	66000.0	-1.0	-1.0	-1.0	-1.0
16	389.00	0.37	30.30	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	30.46	-1.0	-1.0	-1.0	-1.0	-1.0
20	381.00	0.91	30.52	34.53	5.47	-1.00	-1.00	-1.00	-1.00	7.75	618.00	30.80	-1.0	-1.0	-1.0	-1.0	-1.0
23	637.00	-1.00	30.79	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	572.00	3.11	29.78	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.65	675.00	30.83	-1.0	-1.0	-1.0	-1.0	-1.0
29	381.00	1.71	24.29	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.51	-1.0	-1.0	-1.0	-1.0	-1.0
30 OCT	294.00	1.43	22.27	24.14	4.28	-1.00	63.00	-1.00	-1.00	-1.00	-1.00	27.84	33100.0	-1.0	-1.0	-1.0	-1.0
4	598.00	1.04	23.61	25.74	4.31	-1.00	-1.00	-1.00	-1.00	7.35	383.00	30.81	-1.0	10.1	9.0	2.3	35.5
6	641.00	0.11	28.73	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.55	416.00	30.54	-1.0	-1.0	-1.0	-1.0	-1.0
12	621.00	0.54	27.66	26.78	5.02	-1.00	45.00	-1.00	-1.00	7.70	440.00	29.48	-1.0	-1.0	-1.0	-1.0	-1.0
14	165.00	3.31	74.50	-1.00	6.53	-1.00	-1.00	-1.00	-1.00	9.40	661.00	32.20	-1.0	-1.0	-1.0	-1.0	-1.0
19	318.00	2.28	277.40	-1.00	5.03	-1.00	-1.00	-1.00	-1.00	9.60	740.00	26.93	-1.0	9.5	8.6	2.1	39.7

TABLE 2 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	SF(F)	K	CA	MG	NA
26	218.00	0.00	32.35	-1.00	-1.00	-1.00	63.00	-1.00	-1.00	7.15	515.00	33.04	-1.0	-1.0	-1.0	-1.0	-1.0
27	366.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.75	-1.0	-1.0	-1.0	-1.0	-1.0
28	359.00	0.45	28.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.46	-1.0	-1.0	-1.0	-1.0	-1.0
31	245.00	0.27	30.66	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.34	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	244.00	0.39	34.52	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.52	-1.0	-1.0	-1.0	-1.0	-1.0
2	50.00	1.26	49.74	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.87	-1.0	-1.0	-1.0	-1.0	-1.0
3	266.00	0.56	15.06	-1.00	-1.00	-1.00	-1.00	98.60	85.60	7.60	537.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
7	320.00	0.40	34.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.20	585.00	33.91	-1.0	14.4	18.2	2.7	58.7
8	261.00	0.42	35.78	43.18	7.29	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	312.00	1.51	35.92	46.81	7.36	-1.00	81.00	76.00	66.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	285.00	0.06	31.86	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	289.00	1.09	38.29	48.23	5.73	-1.00	-1.00	-1.00	-1.00	8.15	528.00	33.55	-1.0	-1.0	-1.0	-1.0	-1.0
15	280.00	1.85	29.65	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	318.00	2.03	35.56	-1.00	-1.00	-1.00	168.00	69.80	65.20	-1.00	-1.00	37.55	-1.0	-1.0	-1.0	-1.0	-1.0
17	295.00	0.27	31.48	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	84000.0	-1.0	-1.0	-1.0	-1.0
18	277.00	0.47	33.48	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	46.42	-1.0	-1.0	-1.0	-1.0	-1.0
21	320.00	0.32	35.30	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	39.00	-1.0	-1.0	-1.0	-1.0	-1.0
22	123.00	0.33	39.41	48.73	8.87	-1.00	-1.00	-1.00	-1.00	7.25	629.00	39.87	-1.0	-1.0	-1.0	-1.0	-1.0
23	278.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	82.80	71.60	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
26	251.00	0.43	38.29	47.94	9.19	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.98	-1.0	-1.0	-1.0	-1.0	-1.0
28	282.00	0.55	33.23	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.37	-1.0	-1.0	-1.0	-1.0	-1.0
29	317.00	0.35	34.31	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.45	603.00	38.32	-1.0	-1.0	-1.0	-1.0	-1.0
30	335.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	72.40	67.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
DEC 1	284.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	87.00	75.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
2	326.00	0.94	33.44	36.63	5.77	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.51	-1.0	-1.0	-1.0	-1.0	-1.0
5	272.00	0.43	33.80	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.75	555.00	36.13	-1.0	-1.0	-1.0	-1.0	-1.0
6	383.00	0.51	32.34	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.16	-1.0	-1.0	-1.0	-1.0	-1.0
8	298.00	0.22	35.82	38.21	5.46	-1.00	-1.00	59.80	58.90	7.85	548.00	39.48	3188.0	-1.0	-1.0	-1.0	-1.0
9	292.00	0.21	34.92	-1.00	-1.00	-1.00	-1.00	77.10	66.70	7.45	513.00	39.84	-1.0	-1.0	-1.0	-1.0	-1.0
13	298.00	0.36	29.24	35.60	6.76	-1.00	-1.00	-1.00	-1.00	8.05	583.00	57.94	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 2 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
14	325.00	0.43	26.52	34.07	6.75	-1.00	-1.00	63.40	54.40	7.45	561.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
15	313.00	0.47	28.86	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	3800.0	-1.0	-1.0	-1.0	-1.0
16	318.00	0.46	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	58.56	-1.0	-1.0	-1.0	-1.0	-1.0
21	288.00	0.00	33.18	34.02	6.39	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	39.64	-1.0	-1.0	-1.0	-1.0	-1.0
22	323.00	0.01	31.27	-1.00	-1.00	-1.00	95.00	-1.00	-1.00	6.60	292.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	225.00	0.06	27.52	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	282.00	0.33	42.13	39.15	6.23	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
32	261.00	0.25	33.10	35.17	6.24	-1.00	-1.00	49.80	43.20	7.70	473.00	29.17	-1.0	-1.0	-1.0	-1.0	-1.0
JAN 1978																	
3	270.00	0.09	34.00	39.15	7.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	47.94	-1.0	-1.0	-1.0	-1.0	-1.0
4	300.00	0.39	34.49	41.19	7.01	-1.00	109.50	114.50	93.00	7.20	557.00	41.53	-1.0	-1.0	-1.0	-1.0	-1.0
5	325.00	0.26	33.72	-1.00	-1.00	-1.00	84.00	-1.00	-1.00	7.00	560.00	45.28	120000.2	-1.0	-1.0	-1.0	-1.0
6	242.00	0.29	28.37	-1.00	-1.00	-1.00	110.00	-1.00	-1.00	-1.00	-1.00	41.26	-1.0	-1.0	-1.0	-1.0	-1.0
10	312.00	0.02	22.88	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.88	-1.0	-1.0	-1.0	-1.0	-1.0
11	273.00	1.26	29.23	-1.00	-1.00	-1.00	96.70	49.00	34.20	7.10	423.00	37.92	-1.0	-1.0	-1.0	-1.0	-1.0
12	338.00	0.05	29.10	33.00	4.58	-1.00	136.50	-1.00	-1.00	6.90	515.00	70.86	237000.2	-1.0	-1.0	-1.0	-1.0
13	243.00	0.16	29.10	-1.00	-1.00	-1.00	103.50	-1.00	-1.00	7.10	598.00	72.04	-1.0	-1.0	-1.0	-1.0	-1.0
18	299.00	0.00	29.23	33.23	5.55	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	76.74	-1.0	-1.0	-1.0	-1.0	-1.0
17	365.00	0.20	33.19	-1.00	-1.00	-1.00	-1.00	88.20	69.80	-1.00	-1.00	82.72	34000.0	-1.0	-1.0	-1.0	-1.0
19	232.00	0.23	30.84	-1.00	-1.00	-1.00	140.10	-1.00	-1.00	7.05	684.00	66.40	-1.0	-1.0	-1.0	-1.0	-1.0
22	249.00	0.02	37.18	42.25	7.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	67.20	-1.0	-1.0	-1.0	-1.0	-1.0
23	280.00	0.01	42.04	50.23	8.35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	80.78	69000.0	-1.0	-1.0	-1.0	-1.0
24	271.00	0.00	40.19	43.65	8.38	-1.00	-1.00	68.00	52.30	-1.00	-1.00	103.32	-1.0	-1.0	-1.0	-1.0	-1.0
25	339.00	0.07	40.17	-1.00	-1.00	-1.00	180.00	-1.00	-1.00	6.95	727.00	71.12	-1.0	-1.0	-1.0	-1.0	-1.0
26	285.00	0.05	23.76	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	46.76	-1.0	-1.0	-1.0	-1.0	-1.0
27	318.00	0.18	21.40	-1.00	-1.00	-1.00	12.00	-1.00	-1.00	7.30	391.00	34.00	-1.0	-1.0	-1.0	-1.0	-1.0
30	373.00	0.49	28.74	32.76	5.37	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	41.00	-1.0	-1.0	-1.0	-1.0	-1.0
31	309.00	0.00	33.07	-1.00	-1.00	-1.00	-1.00	53.50	44.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
FEB																	
1	236.00	0.01	39.69	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	586.00	-1.00	386000.2	-1.0	-1.0	-1.0	-1.0
2	295.00	0.00	35.68	44.05	7.80	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
6	449.00	0.00	36.88	48.81	6.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	118.64	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 2 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
7	385.00	0.01	41.68	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	78.90	-1.0	-1.0	-1.0	-1.0	-1.0
8	397.00	0.00	38.83	48.33	7.70	-1.00	276.50	-1.00	-1.00	7.00	721.00	61.80	-1.0	-1.0	-1.0	-1.0	-1.0
9	242.00	0.00	40.28	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	67.34	180000.2	-1.0	-1.0	-1.0	-1.0
12	270.00	0.00	36.29	46.80	8.73	-1.00	-1.00	67.00	46.80	7.05	741.00	71.76	-1.0	-1.0	-1.0	-1.0	-1.0
13	347.00	0.21	40.87	42.02	8.49	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	102.20	-1.0	-1.0	-1.0	-1.0	-1.0
14	358.00	0.00	37.07	-1.00	-1.00	-1.00	-1.00	87.90	71.80	-1.00	-1.00	45.64	33000.0	-1.0	-1.0	-1.0	-1.0
16	385.00	0.00	35.81	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.80	637.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	381.00	0.00	33.47	42.37	7.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
22	289.00	0.00	33.42	43.22	7.49	-1.00	148.00	-1.00	-1.00	6.75	686.00	39.70	-1.0	-1.0	-1.0	-1.0	-1.0
23	311.00	0.11	29.64	-1.00	-1.00	4.60	-1.00	91.00	76.90	-1.00	-1.00	37.79	-1.0	-1.0	-1.0	-1.0	-1.0
24	313.00	0.19	35.76	-1.00	-1.00	6.16	-1.00	-1.00	-1.00	-1.00	-1.00	40.65	-1.0	-1.0	-1.0	-1.0	-1.0
27	319.00	0.03	37.44	-1.00	-1.00	6.12	-1.00	-1.00	-1.00	-1.00	-1.00	37.43	-1.0	-1.0	-1.0	-1.0	-1.0
28	314.00	0.00	38.32	-1.00	-1.00	6.40	-1.00	76.00	66.40	-1.00	-1.00	36.11	-1.0	-1.0	-1.0	-1.0	-1.0
MAR 1	131.00	0.02	35.72	-1.00	-1.00	5.80	-1.00	-1.00	-1.00	-1.00	-1.00	35.33	-1.0	-1.0	-1.0	-1.0	-1.0
6	167.00	0.40	35.57	48.52	7.33	5.09	-1.00	53.80	42.90	-1.00	-1.00	44.19	-1.0	-1.0	-1.0	-1.0	-1.0
7	339.00	0.00	36.90	-1.00	-1.00	5.54	-1.00	-1.00	-1.00	-1.00	-1.00	42.44	-1.0	-1.0	-1.0	-1.0	-1.0
8	289.00	0.00	36.97	31.43	5.06	5.80	149.00	-1.00	-1.00	7.20	689.00	40.66	-1.0	13.8	9.5	2.9	41.3
9	294.00	0.15	40.64	-1.00	-1.00	5.80	-1.00	-1.00	-1.00	-1.00	-1.00	38.20	350000.2	-1.0	-1.0	-1.0	-1.0
10	361.00	0.05	40.63	-1.00	-1.00	5.91	-1.00	-1.00	-1.00	-1.00	-1.00	36.43	-1.0	-1.0	-1.0	-1.0	-1.0
13	337.00	0.51	34.52	-1.00	-1.00	5.26	-1.00	-1.00	-1.00	-1.00	-1.00	35.92	-1.0	-1.0	-1.0	-1.0	-1.0
14	326.00	0.16	33.83	-1.00	-1.00	5.83	-1.00	-1.00	-1.00	-1.00	-1.00	36.68	-1.0	-1.0	-1.0	-1.0	-1.0
15	318.00	0.39	32.40	45.81	8.29	5.37	-1.00	-1.00	-1.00	-1.00	-1.00	36.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	311.00	0.62	33.46	46.39	7.53	5.12	87.00	38.20	24.20	7.44	551.00	37.72	5500.0	-1.0	-1.0	-1.0	-1.0
17	213.00	0.69	35.00	-1.00	-1.00	5.78	-1.00	-1.00	-1.00	-1.00	-1.00	35.41	-1.0	-1.0	-1.0	-1.0	-1.0
20	317.00	0.59	31.40	41.92	7.11	5.44	-1.00	-1.00	-1.00	-1.00	-1.00	38.47	-1.0	-1.0	-1.0	-1.0	-1.0
21	1044.00	1.14	50.16	-1.00	-1.00	5.48	-1.00	-1.00	-1.00	-1.00	-1.00	37.17	-1.0	-1.0	-1.0	-1.0	-1.0
22	349.00	1.34	35.34	50.15	7.07	4.80	-1.00	-1.00	-1.00	-1.00	-1.00	32.73	14800.0	-1.0	-1.0	-1.0	-1.0
23	374.00	0.02	29.36	31.39	4.68	4.32	62.25	-1.00	-1.00	7.65	513.00	38.84	-1.0	-1.0	-1.0	-1.0	-1.0
24	363.00	0.67	26.41	-1.00	-1.00	3.53	-1.00	-1.00	-1.00	-1.00	-1.00	38.62	-1.0	-1.0	-1.0	-1.0	-1.0
29	395.00	0.84	16.34	25.55	3.15	1.64	31.50	47.10	23.30	7.29	389.00	27.53	-1.0	-1.0	-1.0	-1.0	-1.0
30	23.00	0.00	17.80	-1.00	-1.00	2.17	-1.00	-1.00	-1.00	-1.00	-1.00	32.81	6000.0	-1.0	-1.0	-1.0	-1.0

TABLE 2 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
31	315.00	1.08	16.83	-1.00	-1.00	2.50	55.00	-1.00	-1.00	7.45	394.00	31.16	-1.0	-1.0	-1.0	-1.0	-1.0
APR 4	260.00	0.83	19.63	-1.00	-1.00	2.86	-1.00	-1.00	-1.00	-1.00	-1.00	36.46	20000.0	-1.0	-1.0	-1.0	-1.0
5	296.00	0.64	19.50	30.80	5.85	3.11	-1.00	57.60	36.30	7.19	438.00	35.98	-1.0	-1.0	-1.0	-1.0	-1.0
6	305.00	1.24	18.03	-1.00	-1.00	2.83	-1.00	-1.00	-1.00	-1.00	-1.00	34.20	-1.0	-1.0	-1.0	-1.0	-1.0
7	273.00	0.00	16.62	-1.00	-1.00	2.57	90.00	-1.00	-1.00	7.45	456.00	38.57	-1.0	-1.0	-1.0	-1.0	-1.0
10	291.00	0.81	22.09	36.56	6.33	3.58	-1.00	-1.00	-1.00	-1.00	-1.00	39.15	-1.0	-1.0	-1.0	-1.0	-1.0
12	265.00	1.19	18.82	-1.00	-1.00	3.40	-1.00	34.20	16.70	7.66	413.00	33.80	4250.0	7.3	15.0	2.6	30.7
14	0.00	1.08	21.73	-1.00	-1.00	3.33	29.80	-1.00	-1.00	7.43	450.00	38.65	-1.0	-1.0	-1.0	-1.0	-1.0
17	295.00	0.00	28.27	-1.00	-1.00	5.69	-1.00	78.30	67.30	-1.00	-1.00	41.52	75500.0	-1.0	-1.0	-1.0	-1.0
18	216.00	0.05	28.77	-1.00	-1.00	5.35	-1.00	-1.00	-1.00	-1.00	-1.00	40.10	-1.0	-1.0	-1.0	-1.0	-1.0
19	297.00	0.43	30.50	-1.00	-1.00	4.36	83.30	-1.00	-1.00	7.49	529.90	38.39	-1.0	-1.0	-1.0	-1.0	-1.0
21	308.00	1.02	23.35	-1.00	-1.00	3.57	60.00	-1.00	-1.00	7.52	490.90	40.95	-1.0	-1.0	-1.0	-1.0	-1.0
24	299.00	0.17	24.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.03	900.0	-1.0	-1.0	-1.0	-1.0
25	311.00	0.18	26.83	-1.00	-1.00	-1.00	-1.00	32.40	19.60	-1.00	-1.00	36.64	-1.0	-1.0	-1.0	-1.0	-1.0
26	312.00	0.19	31.63	-1.00	-1.00	-1.00	69.00	-1.00	-1.00	7.27	531.50	36.56	-1.0	-1.0	-1.0	-1.0	-1.0
27	355.00	0.02	31.49	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.07	-1.0	-1.0	-1.0	-1.0	-1.0
28	297.00	0.20	30.18	-1.00	-1.00	-1.00	65.00	-1.00	-1.00	7.39	528.60	34.55	-1.0	-1.0	-1.0	-1.0	-1.0
MAY 1	535.00	0.06	33.29	41.65	4.20	-1.00	-1.00	52.80	52.20	-1.00	-1.00	31.95	13450.0	-1.0	-1.0	-1.0	-1.0
2	396.00	0.11	33.84	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.84	-1.0	-1.0	-1.0	-1.0	-1.0
3	247.00	0.00	30.69	-1.00	-1.00	-1.00	100.00	-1.00	-1.00	7.28	521.00	32.73	-1.0	-1.0	-1.0	-1.0	-1.0
8	300.00	0.02	37.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	300.00	0.00	25.34	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	23000.0	-1.0	-1.0	-1.0	-1.0
10	326.00	0.20	27.36	32.66	4.04	-1.00	60.00	56.40	51.40	7.55	516.30	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
12	612.00	0.55	32.44	-1.00	-1.00	-1.00	45.00	-1.00	-1.00	7.19	556.90	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	315.00	0.00	39.64	49.43	7.29	-1.00	105.00	-1.00	-1.00	7.33	524.10	38.39	-1.0	14.2	9.6	2.7	33.4
19	331.00	-1.00	-1.00	-1.00	-1.00	-1.00	62.00	-1.00	-1.00	7.55	435.50	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
22	336.00	14.12	31.28	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	350.00	0.35	34.40	40.06	8.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.35	-1.0	-1.0	-1.0	-1.0	-1.0
24	355.00	0.23	31.80	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.45	516.40	29.47	-1.0	-1.0	-1.0	-1.0	-1.0
25	298.00	0.00	37.86	-1.00	-1.00	-1.00	103.00	-1.00	-1.00	7.38	560.50	27.96	-1.0	-1.0	-1.0	-1.0	-1.0
26	384.00	0.00	37.40	-1.00	-1.00	-1.00	90.00	-1.00	-1.00	7.55	607.00	32.21	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 3 RUNOFF FROM PRIMARY SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4+	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY																	
19	68.00	0.20	1.00	2.74	0.44	-1.00	-1.00	-1.00	-1.00	7.15	332.00	40.46	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE																	
5	128.00	0.49	3.91	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.50	294.00	28.00	-1.0	-1.0	-1.0	-1.0	-1.0
7	258.00	0.04	0.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.60	358.00	49.12	-1.0	-1.0	-1.0	-1.0	-1.0
9	126.00	0.20	10.12	13.50	2.50	-1.00	21.00	-1.00	-1.00	7.90	549.00	48.64	-1.0	-1.0	-1.0	-1.0	-1.0
15	154.00	0.98	6.29	9.22	2.17	-1.00	-1.00	8.60	4.60	7.55	465.00	39.82	-1.0	15.3	31.5	5.4	37.0
16	81.00	0.10	11.15	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.83	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	1.02	11.46	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.30	490.00	38.24	-1.0	-1.0	-1.0	-1.0	-1.0
23	65.00	0.87	6.59	18.34	3.57	-1.00	6.20	-1.00	-1.00	-1.00	-1.00	42.74	0.0	-1.0	-1.0	-1.0	-1.0
28	421.00	0.95	14.50	-1.00	3.42	-1.00	-1.00	6.47	2.40	-1.00	-1.00	40.67	-1.0	-1.0	-1.0	-1.0	-1.0
JULY																	
1	274.00	0.37	3.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.50	316.00	18.77	-1.0	-1.0	-1.0	-1.0	-1.0
6	0.00	0.18	3.66	4.94	1.69	-1.00	-1.00	-1.00	-1.00	7.70	327.00	21.64	0.0	-1.0	-1.0	-1.0	-1.0
7	0.00	0.33	3.07	-1.00	-1.00	-1.00	2.80	-1.00	-1.00	-1.00	-1.00	22.81	-1.0	-1.0	-1.0	-1.0	-1.0
11	0.00	1.21	1.79	-1.00	-1.00	-1.00	-1.00	7.36	2.72	7.55	324.00	22.51	-1.0	-1.0	-1.0	-1.0	-1.0
13	0.00	2.37	1.42	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	22.61	-1.0	-1.0	-1.0	-1.0	-1.0
14	0.00	1.57	0.12	1.63	1.44	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	23.70	-1.0	10.9	28.1	4.1	31.1
15	0.00	1.17	0.46	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.87	-1.0	-1.0	-1.0	-1.0	-1.0
18	58.00	0.38	2.96	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.0	-1.0	-1.0	-1.0	-1.0
19	0.00	0.46	2.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.50	387.00	27.56	-1.0	-1.0	-1.0	-1.0	-1.0
20	0.00	0.51	2.96	5.55	2.41	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.72	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	6.45	3.36	-1.00	-1.00	-1.00	9.19	-1.00	-1.00	-1.00	-1.00	27.83	-1.0	-1.0	-1.0	-1.0	-1.0
22	68.00	0.11	5.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	95.96	-1.0	-1.0	-1.0	-1.0	-1.0
26	0.00	4.78	6.97	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	60.12	-1.0	-1.0	-1.0	-1.0	-1.0
27	20.00	4.29	7.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	527.00	48.36	-1.0	-1.0	-1.0	-1.0	-1.0
28	180.00	5.36	7.30	-1.00	-1.00	-1.00	-1.00	5.53	4.47	-1.00	-1.00	38.89	-1.0	-1.0	-1.0	-1.0	-1.0
29	58.00	6.42	7.12	9.01	4.68	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.45	-1.0	-1.0	-1.0	-1.0	-1.0
AUG																	
5	127.00	6.04	3.44	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.60	417.00	34.86	115.0	-1.0	-1.0	-1.0	-1.0
9	193.00	9.23	7.95	10.65	4.69	-1.00	-1.00	-1.00	-1.00	7.45	450.00	31.97	-1.0	11.6	22.2	4.5	43.7
12	484.00	3.06	0.78	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	88.50	-1.0	-1.0	-1.0	-1.0	-1.0
18	95.00	6.25	1.01	-1.00	-1.00	-1.00	10.90	-1.00	-1.00	7.45	340.00	25.34	-1.0	-1.0	-1.0	-1.0	-1.0
19	15.00	0.89	0.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	23.95	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 3 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
24	123.00	0.52	0.93	2.03	2.26	-1.00	-1.00	9.40	8.20	7.55	334.00	26.58	-1.0	-1.0	-1.0	-1.0	-1.0
26	129.00	0.55	1.06	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.84	-1.0	-1.0	-1.0	-1.0	-1.0
30	62.00	0.95	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	22.80	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 1	128.00	1.12	1.78	-1.00	-1.00	-1.00	13.90	-1.00	-1.00	7.75	376.00	26.23	800.0	5.3	24.4	4.5	47.3
7	12.00	5.03	1.28	4.54	2.72	-1.00	-1.00	14.33	6.13	7.65	375.00	30.41	-1.0	-1.0	-1.0	-1.0	-1.0
9	58.00	1.87	5.63	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.32	-1.0	-1.0	-1.0	-1.0	-1.0
13	255.00	2.96	3.74	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.97	483.00	44.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	447.00	0.54	0.25	1.13	1.03	-1.00	-1.00	-1.00	-1.00	7.45	487.00	68.50	-1.0	-1.0	-1.0	-1.0	-1.0
15	78.00	2.44	2.05	-1.00	-1.00	-1.00	6.20	-1.00	-1.00	-1.00	-1.00	33.38	2660.0	-1.0	-1.0	-1.0	-1.0
16	130.00	3.33	0.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.61	-1.0	-1.0	-1.0	-1.0	-1.0
20	485.00	0.04	0.00	0.77	0.37	-1.00	-1.00	7.40	7.40	7.80	386.00	33.89	-1.0	-1.0	-1.0	-1.0	-1.0
22	238.00	0.98	3.79	-1.00	-1.00	-1.00	-1.00	3.70	-1.00	-1.00	-1.00	36.36	-1.0	-1.0	-1.0	-1.0	-1.0
27	179.00	0.23	0.06	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.90	265.00	28.12	-1.0	-1.0	-1.0	-1.0	-1.0
28	284.00	2.35	3.29	5.00	2.76	-1.00	-1.00	-1.00	-1.00	7.75	467.00	27.96	-1.0	-1.0	-1.0	-1.0	-1.0
29	154.00	1.16	0.65	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	23.54	-1.0	-1.0	-1.0	-1.0	-1.0
30	181.00	1.50	0.26	-1.00	-1.00	-1.00	2.70	-1.00	-1.00	-1.00	-1.00	23.85	270.0	-1.0	-1.0	-1.0	-1.0
OCT 3	615.00	0.20	0.05	0.26	0.49	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.64	-1.0	0.5	15.0	2.2	13.7
4	214.00	1.22	2.63	4.24	2.28	-1.00	-1.00	-1.00	-1.00	-1.00	7.60	328.00	28.56	-1.0	-1.0	-1.0	-1.0
6	244.00	0.82	2.78	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.65	315.00	27.79	-1.0	-1.0	-1.0	-1.0	-1.0
11	479.00	0.23	0.12	0.46	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.74	-1.0	0.5	17.8	2.4	15.9
12	214.00	2.50	2.72	-1.00	-1.00	-1.00	1.80	-1.00	-1.00	7.75	323.00	21.11	-1.0	-1.0	-1.0	-1.0	-1.0
18	844.00	0.09	0.20	2.51	0.63	-1.00	-1.00	-1.00	-1.00	7.60	147.00	4.69	-1.0	-1.0	-1.0	-1.0	-1.0
19	114.00	4.54	94.35	-1.00	4.39	-1.00	-1.00	-1.00	-1.00	8.80	886.60	24.27	-1.0	18.6	17.4	2.4	28.5
26	0.00	4.05	4.85	-1.00	-1.00	-1.00	17.13	-1.00	-1.00	6.95	244.00	9.80	-1.0	-1.0	-1.0	-1.0	-1.0
27	135.00	1.80	6.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.89	-1.0	-1.0	-1.0	-1.0	-1.0
28	185.00	2.10	7.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.34	-1.0	-1.0	-1.0	-1.0	-1.0
31	34.00	2.82	5.82	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.24	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	33.00	3.20	7.18	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.44	-1.0	-1.0	-1.0	-1.0	-1.0
3	165.00	3.04	6.76	-1.00	-1.00	-1.00	-1.00	10.20	11.50	7.60	420.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
7	101.00	3.05	7.97	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.95	460.00	29.83	-1.0	9.4	28.6	4.8	45.2

TABLE 3 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
8	184.00	1.76	10.55	13.61	4.17	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	172.00	3.33	8.89	-1.00	-1.00	-1.00	17.20	12.00	11.30	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	185.00	1.85	7.93	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	256.00	2.44	5.10	7.11	2.21	-1.00	-1.00	-1.00	-1.00	7.75	316.00	20.68	-1.0	-1.0	-1.0	-1.0	-1.0
15	339.00	4.14	14.19	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	112.00	5.68	13.82	-1.00	-1.00	-1.00	17.20	6.80	6.60	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	188.00	5.61	4.67	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	10900.0	-1.0	-1.0	-1.0	-1.0
18	125.00	2.19	9.57	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	41.34	-1.0	-1.0	-1.0	-1.0	-1.0
21	196.00	2.78	15.42	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.16	-1.0	-1.0	-1.0	-1.0	-1.0
22	14.00	5.14	6.81	10.73	4.34	-1.00	-1.00	-1.00	-1.00	7.65	469.00	37.81	-1.0	-1.0	-1.0	-1.0	-1.0
23	111.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.40	18.40	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	474.00	1.96	13.30	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.14	-1.0	-1.0	-1.0	-1.0	-1.0
29	191.00	2.43	18.52	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.85	504.00	36.85	-1.0	-1.0	-1.0	-1.0	-1.0
30	172.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	15.00	13.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
DEC 1	211.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	13.00	13.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
1	277.00	1.32	0.60	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.65	186.00	14.16	-1.0	-1.0	-1.0	-1.0	-1.0
2	148.00	3.66	15.40	18.98	4.42	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.04	-1.0	-1.0	-1.0	-1.0	-1.0
5	184.00	3.16	22.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.90	513.00	38.18	-1.0	-1.0	-1.0	-1.0	-1.0
6	149.00	2.99	21.15	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.61	-1.0	-1.0	-1.0	-1.0	-1.0
8	123.00	4.80	16.47	18.16	3.86	-1.00	-1.00	16.70	14.90	7.50	484.00	38.37	500.0	-1.0	-1.0	-1.0	-1.0
9	134.00	3.34	20.17	-1.00	-1.00	-1.00	-1.00	19.30	18.50	7.65	492.00	38.21	-1.0	-1.0	-1.0	-1.0	-1.0
13	187.00	3.66	18.96	21.60	5.29	-1.00	-1.00	-1.00	-1.00	7.90	532.00	51.81	-1.0	-1.0	-1.0	-1.0	-1.0
14	186.00	4.63	16.89	20.32	5.30	-1.00	-1.00	18.60	18.60	7.90	520.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
15	267.00	3.33	14.55	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	3600.0	-1.0	-1.0	-1.0	-1.0
16	148.00	3.30	18.78	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	44.82	-1.0	-1.0	-1.0	-1.0	-1.0
21	137.00	4.34	19.00	19.15	4.90	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.85	-1.0	-1.0	-1.0	-1.0	-1.0
22	149.00	4.78	14.85	-1.00	-1.00	-1.00	27.00	-1.00	-1.00	6.70	424.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	83.00	4.75	14.29	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	172.00	5.94	14.59	16.11	4.46	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	13.46	-1.0	-1.0	-1.0	-1.0	-1.0
30	95.00	3.62	23.81	24.88	5.61	-1.00	-1.00	4.80	4.20	7.65	485.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 3 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
JAN 1978																	
3	189.00	3.82	27.77	31.81	6.68	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	48.86	-1.0	-1.0	-1.0	-1.0	-1.0
4	177.00	3.81	28.90	32.81	5.75	-1.00	38.25	9.30	8.60	7.15	372.00	41.31	-1.0	-1.0	-1.0	-1.0	-1.0
5	199.00	3.16	27.50	-1.00	-1.00	-1.00	27.00	-1.00	-1.00	7.05	556.00	44.52	54000.0	-1.0	-1.0	-1.0	-1.0
6	164.00	3.86	23.25	-1.00	-1.00	-1.00	29.25	-1.00	-1.00	-1.00	-1.00	48.68	-1.0	-1.0	-1.0	-1.0	-1.0
9	1500.00	1.27	0.55	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.20	3340.0	-1.0	-1.0	-1.0	-1.0
10	145.00	2.58	18.76	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.86	-1.0	-1.0	-1.0	-1.0	-1.0
11	188.00	4.03	24.74	-1.00	-1.00	-1.00	58.80	19.20	13.50	7.20	460.00	33.72	-1.0	-1.0	-1.0	-1.0	-1.0
12	227.00	1.51	26.17	30.19	4.47	-1.00	57.60	-1.00	-1.00	6.95	626.00	70.58	366000.2	-1.0	-1.0	-1.0	-1.0
13	136.00	2.52	25.51	-1.00	-1.00	-1.00	56.25	-1.00	-1.00	7.30	616.00	71.18	-1.0	-1.0	-1.0	-1.0	-1.0
16	160.00	2.76	24.44	28.29	5.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	71.78	-1.0	-1.0	-1.0	-1.0	-1.0
17	313.00	2.33	28.39	-1.00	-1.00	-1.00	-1.00	13.60	11.50	-1.00	-1.00	78.28	46000.0	-1.0	-1.0	-1.0	-1.0
18	141.00	3.75	26.14	-1.00	-1.00	-1.00	39.00	-1.00	-1.00	7.00	660.00	64.52	-1.0	-1.0	-1.0	-1.0	-1.0
20	129.00	3.35	29.02	32.11	5.40	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	62.80	-1.0	-1.0	-1.0	-1.0	-1.0
23	150.00	6.65	27.90	32.18	5.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	62.36	38000.0	-1.0	-1.0	-1.0	-1.0
24	148.00	4.03	29.99	31.10	5.43	-1.00	-1.00	12.60	11.40	-1.00	-1.00	97.38	-1.0	-1.0	-1.0	-1.0	-1.0
25	283.00	2.26	31.02	-1.00	-1.00	-1.00	75.00	-1.00	-1.00	6.85	710.00	67.58	-1.0	-1.0	-1.0	-1.0	-1.0
26	485.00	0.75	2.98	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	9.28	-1.0	-1.0	-1.0	-1.0	-1.0
26	614.00	0.69	6.73	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	14.32	-1.0	-1.0	-1.0	-1.0	-1.0
27	187.00	1.71	15.61	-1.00	-1.00	-1.00	51.00	-1.00	-1.00	7.10	386.00	33.88	-1.0	-1.0	-1.0	-1.0	-1.0
30	196.00	2.84	22.89	25.34	4.41	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	42.60	-1.0	-1.0	-1.0	-1.0	-1.0
31	186.00	2.85	26.90	-1.00	-1.00	-1.00	-1.00	9.20	8.50	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
FEB 1	125.00	1.58	32.74	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.80	681.00	-1.00	280000.2	-1.0	-1.0	-1.0	-1.0
2	128.00	0.62	34.96	38.41	6.60	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
6	230.00	0.79	41.13	43.85	6.43	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	114.32	-1.0	-1.0	-1.0	-1.0	-1.0
7	281.00	0.51	46.62	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	84.38	-1.0	-1.0	-1.0	-1.0	-1.0
8	303.00	1.46	37.74	42.74	6.97	-1.00	199.50	-1.00	-1.00	7.10	663.00	66.88	-1.0	-1.0	-1.0	-1.0	-1.0
9	198.00	1.18	36.72	43.16	6.20	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	73.12	96000.0	-1.0	-1.0	-1.0	-1.0
10	174.00	1.59	33.78	40.94	6.89	-1.00	-1.00	12.40	9.20	7.10	754.00	72.68	-1.0	-1.0	-1.0	-1.0	-1.0
13	280.00	1.57	37.29	44.13	7.19	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	101.48	-1.0	-1.0	-1.0	-1.0	-1.0
14	272.00	0.99	34.35	-1.00	-1.00	-1.00	-1.00	19.30	16.10	-1.00	-1.00	45.17	76000.0	-1.0	-1.0	-1.0	-1.0

TABLE 3 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
16	203.00	1.76	33.31	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.90	634.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	211.00	1.30	31.16	35.85	5.36	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
22	73.00	4.24	31.10	37.72	6.65	-1.00	47.60	-1.00	-1.00	7.00	653.00	41.87	-1.0	-1.0	-1.0	-1.0	-1.0
23	102.00	2.05	34.60	-1.00	-1.00	5.52	-1.00	15.20	13.10	-1.00	-1.00	38.48	-1.0	-1.0	-1.0	-1.0	-1.0
24	161.00	1.34	33.88	-1.00	-1.00	5.52	-1.00	-1.00	-1.00	-1.00	-1.00	40.41	-1.0	-1.0	-1.0	-1.0	-1.0
27	198.00	2.16	35.24	-1.00	-1.00	6.28	-1.00	-1.00	-1.00	-1.00	-1.00	37.78	-1.0	-1.0	-1.0	-1.0	-1.0
28	201.00	0.91	34.16	-1.00	-1.00	5.92	-1.00	15.20	12.80	-1.00	-1.00	35.56	-1.0	-1.0	-1.0	-1.0	-1.0
MAR 1	185.00	2.09	33.56	-1.00	-1.00	5.80	-1.00	-1.00	-1.00	-1.00	-1.00	36.48	-1.0	-1.0	-1.0	-1.0	-1.0
6	115.00	3.66	35.84	58.62	7.17	5.71	-1.00	24.40	20.50	-1.00	-1.00	44.87	-1.0	-1.0	-1.0	-1.0	-1.0
7	272.00	1.41	35.88	-1.00	-1.00	5.29	-1.00	-1.00	-1.00	-1.00	-1.00	41.49	-1.0	-1.0	-1.0	-1.0	-1.0
8	223.00	1.97	35.55	52.14	7.20	5.62	66.00	-1.00	-1.00	7.30	635.00	40.14	-1.0	14.5	15.1	3.2	38.9
9	197.00	1.20	38.36	-1.00	-1.00	5.83	-1.00	-1.00	-1.00	-1.00	-1.00	38.25	556000.1	-1.0	-1.0	-1.0	-1.0
10	247.00	0.84	38.97	-1.00	-1.00	5.58	-1.00	-1.00	-1.00	-1.00	-1.00	35.32	-1.0	-1.0	-1.0	-1.0	-1.0
13	320.00	1.44	31.58	-1.00	-1.00	5.16	-1.00	-1.00	-1.00	-1.00	-1.00	35.64	-1.0	-1.0	-1.0	-1.0	-1.0
14	459.00	0.96	33.38	-1.00	-1.00	5.51	-1.00	-1.00	-1.00	-1.00	-1.00	37.43	-1.0	-1.0	-1.0	-1.0	-1.0
15	379.00	0.73	26.31	-1.00	-1.00	4.57	-1.00	-1.00	-1.00	-1.00	-1.00	32.16	-1.0	-1.0	-1.0	-1.0	-1.0
16	288.00	1.33	29.19	38.32	5.97	4.62	40.00	9.40	7.20	7.41	929.00	38.24	1650.0	-1.0	-1.0	-1.0	-1.0
17	301.00	0.86	31.56	-1.00	-1.00	5.26	-1.00	-1.00	-1.00	-1.00	-1.00	36.53	-1.0	-1.0	-1.0	-1.0	-1.0
20	257.00	1.85	28.75	36.30	5.37	5.02	-1.00	-1.00	-1.00	-1.00	-1.00	39.02	-1.0	-1.0	-1.0	-1.0	-1.0
21	1379.00	0.86	42.45	-1.00	-1.00	4.49	-1.00	-1.00	-1.00	-1.00	-1.00	33.39	-1.0	-1.0	-1.0	-1.0	-1.0
22	417.00	1.43	27.54	35.21	4.27	3.53	-1.00	-1.00	-1.00	-1.00	-1.00	29.72	10000.0	-1.0	-1.0	-1.0	-1.0
23	612.00	1.18	18.44	22.61	2.86	2.66	12.20	-1.00	-1.00	7.56	355.66	21.32	-1.0	-1.0	-1.0	-1.0	-1.0
24	484.00	1.07	19.65	-1.00	-1.00	2.79	-1.00	-1.00	-1.00	-1.00	-1.00	28.26	-1.0	-1.0	-1.0	-1.0	-1.0
27	237.00	3.74	9.81	-1.00	-1.00	1.99	-1.00	-1.00	-1.00	-1.00	-1.00	18.12	-1.0	-1.0	-1.0	-1.0	-1.0
28	97.00	1.62	5.38	-1.00	-1.00	1.12	-1.00	-1.00	-1.00	-1.00	-1.00	10.08	-1.0	-1.0	-1.0	-1.0	-1.0
29	603.00	1.04	11.95	11.58	1.44	1.60	12.60	10.10	7.20	7.72	389.00	28.71	-1.0	-1.0	-1.0	-1.0	-1.0
30	699.00	1.37	7.80	-1.00	-1.00	1.49	-1.00	-1.00	-1.00	-1.00	-1.00	16.23	8867.0	-1.0	-1.0	-1.0	-1.0
31	313.00	1.68	13.54	-1.00	-1.00	2.25	16.10	-1.00	-1.00	7.72	381.00	27.71	-1.0	-1.0	-1.0	-1.0	-1.0
APR 4	443.00	3.83	15.50	-1.00	-1.00	2.48	-1.00	-1.00	-1.00	-1.00	-1.00	33.57	-1.0	-1.0	-1.0	-1.0	-1.0
5	293.00	2.66	14.50	20.77	3.11	2.56	22.20	13.80	9.30	7.51	413.00	32.57	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 3 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
6	217.00	3.18	13.34	-1.00	-1.00	2.34	-1.00	-1.00	-1.00	-1.00	-1.00	31.96	9200.0	-1.0	-1.0	-1.0	-1.0
7	251.00	2.77	14.94	-1.00	-1.00	2.52	22.90	-1.00	-1.00	7.93	474.00	35.63	-1.0	-1.0	-1.0	-1.0	-1.0
10	150.00	6.82	13.84	20.96	3.68	3.35	-1.00	-1.00	-1.00	-1.00	-1.00	39.29	-1.0	-1.0	-1.0	-1.0	-1.0
12	235.00	6.19	7.98	-1.00	-1.00	2.80	-1.00	3.60	2.50	7.69	400.00	31.94	1050.0	8.9	21.5	3.6	27.7
14	0.00	1.86	11.60	-1.00	-1.00	3.00	3.70	-1.00	-1.00	7.73	419.00	34.87	-1.0	-1.0	-1.0	-1.0	-1.0
17	58.00	7.47	15.43	-1.00	-1.00	4.58	-1.00	14.80	13.50	-1.00	-1.00	40.98	54000.0	-1.0	-1.0	-1.0	-1.0
18	80.00	11.40	9.52	-1.00	-1.00	4.00	-1.00	-1.00	-1.00	-1.00	-1.00	39.56	-1.0	-1.0	-1.0	-1.0	-1.0
19	116.00	7.37	13.51	-1.00	-1.00	3.89	24.60	-1.00	-1.00	7.62	469.00	38.93	-1.0	-1.0	-1.0	-1.0	-1.0
21	137.00	5.81	10.55	-1.00	-1.00	2.89	15.80	-1.00	-1.00	7.71	427.40	36.30	-1.0	-1.0	-1.0	-1.0	-1.0
24	36.00	7.89	9.63	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.96	300.0	-1.0	-1.0	-1.0	-1.0
25	100.00	6.30	11.38	-1.00	-1.00	-1.00	-1.00	5.70	3.30	-1.00	-1.00	36.91	-1.0	-1.0	-1.0	-1.0	-1.0
26	91.00	7.57	10.58	-1.00	-1.00	-1.00	14.40	-1.00	-1.00	7.38	445.50	37.86	-1.0	-1.0	-1.0	-1.0	-1.0
27	87.00	4.50	12.48	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.13	-1.0	-1.0	-1.0	-1.0	-1.0
28	84.00	6.02	10.89	-1.00	-1.00	-1.00	15.60	-1.00	-1.00	7.38	438.90	34.48	-1.0	-1.0	-1.0	-1.0	-1.0
MAY 1	124.00	3.86	16.64	22.05	2.54	-1.00	-1.00	9.40	10.10	-1.00	-1.00	31.22	7550.0	-1.0	-1.0	-1.0	-1.0
2	116.00	6.54	9.18	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.38	-1.0	-1.0	-1.0	-1.0	-1.0
2	37.00	3.79	9.06	-1.00	-1.00	-1.00	21.30	-1.00	-1.00	7.44	400.00	30.18	-1.0	-1.0	-1.0	-1.0	-1.0
8	100.00	5.30	2.99	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	171.00	1.27	10.70	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	17600.0	-1.0	-1.0	-1.0	-1.0
10	172.00	1.18	10.64	14.48	2.50	-1.00	21.90	11.60	10.50	7.52	412.80	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	92.00	1.62	2.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
12	219.00	2.47	39.90	-1.00	-1.00	-1.00	10.80	-1.00	-1.00	7.22	423.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	152.00	2.55	9.88	16.29	3.10	-1.00	21.40	-1.00	-1.00	7.43	381.30	22.34	-1.0	5.1	21.2	5.1	27.0
19	157.00	-1.00	-1.00	-1.00	-1.00	-1.00	18.00	-1.00	-1.00	7.52	562.30	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
22	0.00	0.22	16.82	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.61	-1.0	-1.0	-1.0	-1.0	-1.0
22	65.00	3.65	12.72	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.15	-1.0	-1.0	-1.0	-1.0	-1.0
23	111.00	2.71	13.98	16.39	4.86	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
24	173.00	2.32	15.89	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.44	426.90	31.36	-1.0	-1.0	-1.0	-1.0	-1.0
25	102.00	3.45	10.90	-1.00	-1.00	-1.00	19.50	-1.00	-1.00	7.12	389.10	22.94	-1.0	-1.0	-1.0	-1.0	-1.0
26	161.00	2.96	13.67	-1.00	-1.00	-1.00	22.50	-1.00	-1.00	7.46	453.60	26.99	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 4 PERCOLATE FROM PRIMARY SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4	N(K)	P(T)	POA	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY 19	0.00	0.71	1.88	3.90	0.60	-1.00	-1.00	-1.00	-1.00	6.90	287.00	37.52	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE 3	49.00	0.91	3.94	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.25	316.00	38.56	-1.0	-1.0	-1.0	-1.0	-1.0
7	0.00	1.27	2.25	-1.00	-1.00	0.44	-1.00	-1.00	-1.00	7.15	327.00	32.36	-1.0	-1.0	-1.0	-1.0	-1.0
8	0.00	1.45	1.80	5.75	0.25	-1.00	4.10	-1.00	-1.00	7.75	343.00	37.64	36.0	-1.0	-1.0	-1.0	-1.0
15	125.00	2.88	0.49	1.75	0.51	-1.00	-1.00	3.10	2.70	7.35	378.00	32.25	-1.0	-1.0	-1.0	-1.0	-1.0
16	0.00	2.22	1.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.91	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	1.93	0.06	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.30	443.00	35.22	-1.0	-1.0	-1.0	-1.0	-1.0
23	0.00	1.82	0.37	1.15	0.49	-1.00	1.20	-1.00	-1.00	-1.00	-1.00	33.22	0.0	-1.0	-1.0	-1.0	-1.0
28	0.00	1.26	0.38	-1.00	0.37	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.86	-1.0	-1.0	-1.0	-1.0	-1.0
JULY 1	25.00	0.67	2.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.25	328.00	23.42	-1.0	-1.0	-1.0	-1.0	-1.0
6	0.00	0.66	0.00	1.34	0.96	-1.00	-1.00	-1.00	-1.00	7.75	325.00	24.50	0.0	-1.0	-1.0	-1.0	-1.0
7	0.00	0.63	0.04	-1.00	-1.00	-1.00	1.60	-1.00	-1.00	-1.00	-1.00	24.62	-1.0	-1.0	-1.0	-1.0	-1.0
11	0.00	0.55	0.00	-1.00	-1.00	-1.00	-1.00	4.00	1.00	7.65	328.00	24.71	-1.0	-1.0	-1.0	-1.0	-1.0
13	0.00	0.50	0.37	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.55	-1.0	-1.0	-1.0	-1.0	-1.0
14	0.00	0.48	0.00	0.90	0.36	0.46	-1.00	-1.00	-1.00	-1.00	-1.00	24.57	-1.0	-1.0	-1.0	-1.0	-1.0
15	0.00	0.48	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.55	-1.0	-1.0	-1.0	-1.0	-1.0
18	0.00	0.46	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.05	0.0	-1.0	-1.0	-1.0	-1.0
19	0.00	0.44	0.25	-1.00	-1.00	0.54	-1.00	-1.00	-1.00	7.55	345.00	25.31	-1.0	-1.0	-1.0	-1.0	-1.0
20	0.00	0.41	0.12	0.78	0.36	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.33	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	0.45	0.00	-1.00	-1.00	-1.00	0.79	-1.00	-1.00	-1.00	-1.00	25.41	-1.0	-1.0	-1.0	-1.0	-1.0
22	0.00	0.41	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.52	-1.0	-1.0	-1.0	-1.0	-1.0
26	0.00	0.63	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.29	-1.0	-1.0	-1.0	-1.0	-1.0
27	0.00	0.67	0.00	-1.00	-1.00	0.85	-1.00	-1.00	-1.00	7.45	410.00	31.36	-1.0	-1.0	-1.0	-1.0	-1.0
28	0.00	0.71	0.00	-1.00	-1.00	-1.00	-1.00	3.40	2.10	-1.00	-1.00	24.48	-1.0	-1.0	-1.0	-1.0	-1.0
29	0.00	1.02	0.12	0.74	0.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.76	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 9	0.00	0.94	0.17	1.30	0.67	-1.00	-1.00	-1.00	-1.00	7.75	642.00	34.87	-1.0	-1.0	-1.0	-1.0	-1.0
12	54.00	0.74	0.30	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.81	-1.0	-1.0	-1.0	-1.0	-1.0
18	6.00	0.36	0.00	-1.00	-1.00	-1.00	3.10	-1.00	-1.00	7.55	423.00	34.41	-1.0	-1.0	-1.0	-1.0	-1.0
19	13.00	0.37	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.55	-1.0	-1.0	-1.0	-1.0	-1.0
24	0.00	0.00	0.22	0.39	0.25	-1.00	-1.00	0.53	0.40	7.45	647.00	23.23	-1.0	-1.0	-1.0	-1.0	-1.0
26	17.00	0.21	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.83	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 4 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
30	8.00	0.32	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.03	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 1	17.00	0.18	0.25	-1.00	-1.00	0.16	1.30	-1.00	-1.00	7.80	570.00	22.21	0.0	-1.0	-1.0	-1.0	-1.0
7	1.00	3.05	0.13	1.25	0.45	-1.00	-1.00	29.47	3.00	8.40	557.00	25.45	-1.0	-1.0	-1.0	-1.0	-1.0
9	5.00	3.00	0.19	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.68	-1.0	-1.0	-1.0	-1.0	-1.0
13	13.00	2.04	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.99	532.00	36.27	-1.0	-1.0	-1.0	-1.0	-1.0
14	25.00	1.11	0.00	1.13	0.13	-1.00	-1.00	-1.00	-1.00	7.60	493.00	40.83	-1.0	-1.0	-1.0	-1.0	-1.0
15	6.00	1.46	0.26	-1.00	-1.00	-1.00	3.80	-1.00	-1.00	-1.00	-1.00	39.18	2860.0	-1.0	-1.0	-1.0	-1.0
16	18.00	-1.00	0.50	1.54	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.86	-1.0	-1.0	-1.0	-1.0	-1.0
20	19.00	0.36	0.00	0.77	0.00	-1.00	-1.00	8.60	8.60	8.00	544.00	28.18	-1.0	-1.0	-1.0	-1.0	-1.0
22	13.00	0.32	3.79	-1.00	-1.00	-1.00	-1.00	4.50	-1.00	-1.00	-1.00	25.97	-1.0	-1.0	-1.0	-1.0	-1.0
27	6.00	0.47	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.90	532.00	28.19	-1.0	-1.0	-1.0	-1.0	-1.0
28	14.00	0.53	0.22	0.72	0.37	-1.00	-1.00	-1.00	-1.00	7.90	453.00	17.16	-1.0	-1.0	-1.0	-1.0	-1.0
29	10.00	0.50	0.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	22.49	-1.0	-1.0	-1.0	-1.0	-1.0
30	6.00	0.45	0.00	-1.00	-1.00	-1.00	1.74	-1.00	-1.00	-1.00	-1.00	28.56	0.0	-1.0	-1.0	-1.0	-1.0
OCT 3	20.00	0.00	0.00	0.63	0.24	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	11.72	-1.0	-1.0	-1.0	-1.0	-1.0
4	14.00	0.36	0.38	1.64	0.17	-1.00	-1.00	-1.00	-1.00	7.95	265.00	10.84	-1.0	-1.0	-1.0	-1.0	-1.0
6	12.00	0.52	0.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.20	343.00	20.49	-1.0	-1.0	-1.0	-1.0	-1.0
11	8.00	0.20	0.12	0.29	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	12.52	-1.0	-1.0	-1.0	-1.0	-1.0
12	10.00	0.36	0.37	-1.00	-1.00	-1.00	0.48	-1.00	-1.00	7.95	315.00	10.12	-1.0	-1.0	-1.0	-1.0	-1.0
18	26.00	0.09	0.05	2.01	0.63	-1.00	-1.00	-1.00	-1.00	8.05	264.00	5.68	-1.0	-1.0	-1.0	-1.0	-1.0
19	-1.00	0.54	3.37	6.38	0.38	-1.00	-1.00	-1.00	-1.00	7.55	332.00	6.11	-1.0	-1.0	-1.0	-1.0	-1.0
26	0.00	3.89	0.13	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.10	367.00	9.57	-1.0	-1.0	-1.0	-1.0	-1.0
27	4.00	4.11	0.99	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	16.35	-1.0	-1.0	-1.0	-1.0	-1.0
28	10.00	2.44	2.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.62	-1.0	-1.0	-1.0	-1.0	-1.0
31	3.00	2.35	1.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	30.61	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	3.00	2.69	2.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.44	-1.0	-1.0	-1.0	-1.0	-1.0
3	6.00	2.90	1.00	-1.00	-1.00	-1.00	-1.00	4.20	6.00	8.05	427.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
7	3.00	3.45	0.20	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.30	417.00	27.82	-1.0	-1.0	-1.0	-1.0	-1.0
8	1.00	3.90	0.30	1.11	0.66	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	2.00	2.86	0.73	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	7.00	2.95	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 5 WASTEWATER APPLIED TO SECONDARY SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY 17	319.00	0.10	27.11	33.70	8.20	-1.00	-1.00	-1.00	-1.00	7.22	549.00	45.35	-1.0	-1.0	-1.0	-1.0	-1.0
18	335.00	0.51	30.20	37.54	8.94	-1.00	-1.00	-1.00	-1.00	7.75	542.00	37.15	-1.0	-1.0	-1.0	-1.0	-1.0
23	312.00	0.00	30.87	35.00	8.28	-1.00	-1.00	-1.00	-1.00	6.47	627.00	34.57	-1.0	-1.0	-1.0	-1.0	-1.0
24	283.00	0.12	29.82	33.29	7.67	-1.00	-1.00	-1.00	-1.00	6.25	628.00	33.75	-1.0	-1.0	-1.0	-1.0	-1.0
25	161.00	0.33	-1.00	30.18	7.57	-1.00	-1.00	-1.00	-1.00	6.60	604.00	31.86	-1.0	-1.0	-1.0	-1.0	-1.0
30	122.00	0.19	31.11	31.68	7.32	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.13	-1.0	-1.0	-1.0	-1.0	-1.0
31	326.00	0.10	35.07	36.69	8.05	-1.00	-1.00	93.60	55.60	7.35	655.00	39.35	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE 1	237.00	0.10	31.92	33.84	6.60	-1.00	-1.00	-1.00	-1.00	7.55	604.00	36.36	-1.0	-1.0	-1.0	-1.0	-1.0
2	297.00	0.10	30.76	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.35	529.00	34.02	-1.0	-1.0	-1.0	-1.0	-1.0
6	263.00	0.44	32.93	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.50	584.00	35.95	-1.0	-1.0	-1.0	-1.0	-1.0
8	279.00	1.02	31.54	-1.00	7.12	-1.00	77.00	-1.00	-1.00	7.55	389.00	35.35	22000.0	-1.0	-1.0	-1.0	-1.0
13	256.00	0.14	36.47	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.25	593.00	39.82	-1.0	-1.0	-1.0	-1.0	-1.0
14	268.00	0.14	30.61	-1.00	-1.00	-1.00	-1.00	132.80	110.80	-1.00	-1.00	37.85	-1.0	13.3	16.6	2.7	45.8
15	239.00	0.26	28.60	28.53	6.34	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.51	-1.0	-1.0	-1.0	-1.0	-1.0
16	327.00	0.66	27.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.24	-1.0	-1.0	-1.0	-1.0	-1.0
21	323.00	1.35	31.83	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	554.00	37.45	-1.0	-1.0	-1.0	-1.0	-1.0
22	302.00	0.22	34.49	33.20	6.14	-1.00	62.00	-1.00	-1.00	-1.00	-1.00	36.19	27000.0	-1.0	-1.0	-1.0	-1.0
23	291.00	0.00	32.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.78	-1.0	-1.0	-1.0	-1.0	-1.0
27	309.00	0.10	27.77	-1.00	-1.00	-1.00	-1.00	76.00	71.20	-1.00	-1.00	42.18	-1.0	-1.0	-1.0	-1.0	-1.0
28	199.00	3.91	28.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	42.09	-1.0	-1.0	-1.0	-1.0	-1.0
30	489.00	0.41	19.45	23.67	5.11	-1.00	-1.00	-1.00	-1.00	7.55	448.00	27.86	-1.0	-1.0	-1.0	-1.0	-1.0
JULY 5	231.00	0.00	25.32	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	414.00	27.16	350000.2	-1.0	-1.0	-1.0	-1.0
6	362.00	0.00	21.92	25.36	4.39	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.61	-1.0	-1.0	-1.0	-1.0	-1.0
7	368.00	0.15	22.79	-1.00	-1.00	-1.00	29.00	-1.00	-1.00	-1.00	-1.00	26.96	42000.0	-1.0	-1.0	-1.0	-1.0
11	272.00	0.25	23.65	-1.00	-1.00	-1.00	-1.00	36.22	24.44	7.45	463.00	26.15	-1.0	-1.0	-1.0	-1.0	-1.0
13	256.00	1.51	18.14	21.55	5.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.68	-1.0	11.1	7.9	1.8	45.2
14	332.00	1.56	18.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.89	-1.0	-1.0	-1.0	-1.0	-1.0
15	345.00	1.37	16.48	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.93	-1.0	-1.0	-1.0	-1.0	-1.0
18	333.00	2.56	23.78	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.80	482.00	23.47	-1.0	-1.0	-1.0	-1.0	-1.0
19	327.00	1.97	24.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.45	7000.0	-1.0	-1.0	-1.0	-1.0

TABLE 5 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
21	348.00	10.95	25.62	-1.00	-1.00	-1.00	23.00	-1.00	-1.00	-1.00	-1.00	30.88	-1.0	-1.0	-1.0	-1.0	-1.0
22	319.00	12.12	24.01	26.35	5.74	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.62	-1.0	-1.0	-1.0	-1.0	-1.0
26	328.00	5.40	22.72	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.50	-1.0	-1.0	-1.0	-1.0	-1.0
27	318.00	3.88	23.32	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.48	-1.0	-1.0	-1.0	-1.0	-1.0
28	319.00	5.73	24.75	-1.00	-1.00	-1.00	-1.00	14.00	13.20	-1.00	-1.00	28.61	-1.0	-1.0	-1.0	-1.0	-1.0
29	312.00	4.89	26.37	27.53	7.00	-1.00	-1.00	-1.00	-1.00	7.65	487.00	31.59	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 3	322.00	16.54	21.97	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.35	511.00	28.44	-1.0	-1.0	-1.0	-1.0	-1.0
5	628.00	19.25	26.09	27.69	7.86	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.55	-1.0	-1.0	-1.0	-1.0	-1.0
9	634.00	21.56	25.16	27.11	6.70	-1.00	-1.00	-1.00	-1.00	7.55	494.00	30.60	-1.0	12.4	7.9	2.4	45.2
11	293.00	-1.00	17.96	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	29.65	-1.0	-1.0	-1.0	-1.0	-1.0
18	603.00	22.40	8.90	11.90	5.29	-1.00	45.00	-1.00	-1.00	7.30	361.00	28.45	-1.0	-1.0	-1.0	-1.0	-1.0
19	785.00	9.19	12.66	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.63	-1.0	-1.0	-1.0	-1.0	-1.0
24	1026.00	13.21	11.81	-1.00	-1.00	-1.00	-1.00	14.93	8.00	7.25	394.00	25.71	-1.0	-1.0	-1.0	-1.0	-1.0
26	766.00	11.23	14.29	13.98	4.53	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.83	-1.0	-1.0	-1.0	-1.0	-1.0
30	615.00	13.62	8.94	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.94	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 1	612.00	9.32	8.94	11.12	5.31	-1.00	44.00	-1.00	-1.00	7.20	373.00	25.83	30.0	10.7	8.3	2.0	37.8
7	633.00	25.36	9.86	10.69	5.02	-1.00	-1.00	-1.00	7.40	6.95	487.00	34.70	-1.0	-1.0	-1.0	-1.0	-1.0
11	341.00	7.21	17.77	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.23	-1.0	-1.0	-1.0	-1.0	-1.0
13	567.00	8.33	19.62	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.09	451.00	30.91	-1.0	-1.0	-1.0	-1.0	-1.0
15	299.00	10.03	8.43	10.54	4.10	-1.00	25.00	-1.00	-1.00	-1.00	-1.00	29.07	0.0	-1.0	-1.0	-1.0	-1.0
16	312.00	11.08	11.18	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	29.43	-1.0	-1.0	-1.0	-1.0	-1.0
22	383.00	25.70	6.21	7.59	5.09	-1.00	-1.00	-1.00	-1.00	7.65	517.00	29.48	-1.0	-1.0	-1.0	-1.0	-1.0
23	638.00	21.04	4.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.28	-1.0	-1.0	-1.0	-1.0	-1.0
28	591.00	17.12	3.27	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.45	518.00	30.34	-1.0	-1.0	-1.0	-1.0	-1.0
29	309.00	6.74	11.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	28.87	-1.0	-1.0	-1.0	-1.0	-1.0
30	314.00	5.38	14.21	17.50	5.14	-1.00	54.00	-1.00	-1.00	-1.00	-1.00	28.18	110.0	-1.0	-1.0	-1.0	-1.0
OCT 4	688.00	5.12	15.31	18.18	4.80	-1.00	-1.00	-1.00	-1.00	7.50	388.00	29.56	-1.0	12.0	8.5	2.2	33.7
6	638.00	3.33	22.57	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.85	414.00	31.10	-1.0	-1.0	-1.0	-1.0	-1.0
12	656.00	8.69	13.42	16.06	5.37	-1.00	72.00	-1.00	-1.00	7.65	416.00	29.43	-1.0	-1.0	-1.0	-1.0	-1.0
14	173.00	-1.00	15.75	18.52	4.50	-1.00	-1.00	-1.00	-1.00	6.80	455.00	29.81	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 5 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
19	330.00	2.31	255.95	-1.00	5.25	-1.00	-1.00	-1.00	-1.00	8.00	756.00	28.66	-1.0	-1.0	8.5	3.5	32.6
26	227.00	2.30	28.70	-1.00	-1.00	-1.00	32.00	-1.00	-1.00	7.65	531.00	33.97	-1.0	-1.0	-1.0	-1.0	-1.0
27	374.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.61	-1.0	-1.0	-1.0	-1.0	-1.0
28	360.00	1.80	29.95	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.62	-1.0	-1.0	-1.0	-1.0	-1.0
31	212.00	7.18	27.54	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.51	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	212.00	14.16	28.98	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.82	-1.0	-1.0	-1.0	-1.0	-1.0
2	155.00	8.16	29.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.66	-1.0	-1.0	-1.0	-1.0	-1.0
3	290.00	5.32	15.48	-1.00	-1.00	-1.00	-1.00	16.40	14.70	8.05	554.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
7	304.00	6.20	30.35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.65	566.00	33.43	-1.0	12.9	9.6	2.4	45.9
8	250.00	6.15	30.85	27.32	5.86	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	320.00	25.80	31.52	15.52	5.53	-1.00	69.00	9.20	7.20	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	301.00	5.04	33.32	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	214.00	20.51	13.74	11.76	5.23	-1.00	-1.00	-1.00	-1.00	7.55	473.00	34.00	-1.0	-1.0	-1.0	-1.0	-1.0
15	297.00	20.79	13.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	314.00	11.72	29.92	-1.00	-1.00	-1.00	73.00	9.00	8.10	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	273.00	4.73	28.13	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	47.0	-1.0	-1.0	-1.0	-1.0
18	309.00	5.16	28.11	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.97	-1.0	-1.0	-1.0	-1.0	-1.0
21	318.00	4.87	33.55	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	40.92	-1.0	-1.0	-1.0	-1.0	-1.0
22	131.00	2.85	35.77	40.95	8.49	-1.00	-1.00	-1.00	-1.00	7.90	643.00	40.95	-1.0	-1.0	-1.0	-1.0	-1.0
23	278.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.50	5.90	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
26	123.00	3.46	32.28	34.65	7.69	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.56	-1.0	-1.0	-1.0	-1.0	-1.0
28	239.00	2.36	29.11	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.88	-1.0	-1.0	-1.0	-1.0	-1.0
29	310.00	2.65	27.82	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.80	563.00	37.88	-1.0	-1.0	-1.0	-1.0	-1.0
30	336.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.20	5.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
DEC 1	309.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.00	4.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
2	330.00	2.17	30.64	35.15	7.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.13	-1.0	-1.0	-1.0	-1.0	-1.0
5	315.00	3.16	28.76	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.45	583.00	36.61	-1.0	-1.0	-1.0	-1.0	-1.0
6	311.00	3.09	32.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.69	-1.0	-1.0	-1.0	-1.0	-1.0
8	285.00	4.76	27.62	30.17	3.36	-1.00	-1.00	16.50	13.90	7.15	567.00	43.68	370.0	-1.0	-1.0	-1.0	-1.0
9	305.00	2.42	28.36	-1.00	-1.00	-1.00	-1.00	17.40	14.10	7.75	542.00	41.47	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 5 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
13	315.00	0.96	28.62	31.87	5.44	-1.00	-1.00	-1.00	-1.00	8.15	592.00	38.38	-1.0	-1.0	-1.0	-1.0	-1.0
14	340.00	2.10	25.52	34.10	5.98	-1.00	-1.00	50.60	38.70	7.85	554.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
15	317.00	2.39	22.40	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	79.48	24000.0	-1.0	-1.0	-1.0	-1.0
16	321.00	1.99	20.76	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	57.94	-1.0	-1.0	-1.0	-1.0	-1.0
21	265.00	2.89	23.86	24.98	4.82	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.92	-1.0	-1.0	-1.0	-1.0	-1.0
22	306.00	1.07	26.68	-1.00	-1.00	-1.00	47.00	-1.00	-1.00	7.15	520.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	191.00	1.29	29.33	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	211.00	4.19	27.79	26.23	6.84	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
30	269.00	3.76	31.25	28.45	6.62	-1.00	-1.00	49.20	38.00	7.75	498.00	33.37	-1.0	-1.0	-1.0	-1.0	-1.0
JAN 1978																	
3	259.00	0.77	36.51	40.78	9.39	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	41.47	-1.0	-1.0	-1.0	-1.0	-1.0
4	272.00	0.65	38.11	45.50	9.88	-1.00	132.00	175.00	136.00	7.35	615.00	42.64	-1.0	-1.0	-1.0	-1.0	-1.0
5	321.00	0.69	37.48	-1.00	-1.00	-1.00	91.50	-1.00	-1.00	7.20	681.00	42.87	6400.0	-1.0	-1.0	-1.0	-1.0
6	295.00	0.87	37.75	-1.00	-1.00	-1.00	127.00	-1.00	-1.00	-1.00	-1.00	42.68	-1.0	-1.0	-1.0	-1.0	-1.0
11	387.00	0.45	21.67	-1.00	-1.00	-1.00	-1.00	18.80	8.20	7.50	416.00	32.94	-1.0	-1.0	-1.0	-1.0	-1.0
12	329.00	0.47	24.33	26.72	3.80	-1.00	17.25	-1.00	-1.00	7.30	482.00	48.33	100.0	-1.0	-1.0	-1.0	-1.0
13	161.00	0.43	25.77	-1.00	-1.00	-1.00	27.00	-1.00	-1.00	7.20	633.00	68.84	-1.0	-1.0	-1.0	-1.0	-1.0
16	336.00	0.56	31.22	33.05	6.80	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	75.28	-1.0	-1.0	-1.0	-1.0	-1.0
17	431.00	0.44	31.21	-1.00	-1.00	-1.00	-1.00	43.20	35.50	-1.00	-1.00	82.96	5100.0	-1.0	-1.0	-1.0	-1.0
18	337.00	0.32	32.62	-1.00	-1.00	-1.00	51.00	-1.00	-1.00	7.30	789.00	73.34	-1.0	-1.0	-1.0	-1.0	-1.0
22	248.00	0.31	36.49	39.77	7.78	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	66.66	-1.0	-1.0	-1.0	-1.0	-1.0
23	284.00	0.35	37.81	41.87	8.24	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	65.80	2200.0	-1.0	-1.0	-1.0	-1.0
24	381.00	0.30	38.41	39.85	7.50	-1.00	-1.00	25.00	21.00	-1.00	-1.00	121.00	-1.0	-1.0	-1.0	-1.0	-1.0
25	348.00	0.24	37.31	-1.00	-1.00	-1.00	57.00	-1.00	-1.00	7.20	822.00	87.76	-1.0	-1.0	-1.0	-1.0	-1.0
26	368.00	0.18	14.47	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.80	-1.0	-1.0	-1.0	-1.0	-1.0
27	314.00	0.13	14.49	-1.00	-1.00	-1.00	52.80	-1.00	-1.00	7.30	344.00	78.60	-1.0	-1.0	-1.0	-1.0	-1.0
30	383.00	0.36	20.91	21.64	3.58	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	41.64	-1.0	-1.0	-1.0	-1.0	-1.0
31	485.00	0.18	23.15	-1.00	-1.00	-1.00	-1.00	18.90	8.90	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
FEB																	
2	312.00	0.36	31.04	31.39	5.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
3	234.00	0.29	35.63	36.80	5.55	-1.00	57.75	-1.00	-1.00	-1.00	-1.00	39.43	-1.0	-1.0	-1.0	-1.0	-1.0
6	508.00	0.57	34.86	36.16	4.53	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	151.68	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 5 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	X	CA	MG	NA
7	239.00	0.59	33.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	144.88	-1.0	-1.0	-1.0	-1.0	-1.0
8	440.00	0.75	31.63	35.85	4.72	-1.00	156.00	-1.00	-1.00	7.60	839.00	123.64	-1.0	-1.0	-1.0	-1.0	-1.0
9	242.00	0.79	31.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	189.24	20.0	-1.0	-1.0	-1.0	-1.0
10	283.00	0.75	31.48	35.55	4.85	-1.00	-1.00	14.10	7.70	7.15	773.00	92.18	-1.0	-1.0	-1.0	-1.0	-1.0
13	348.00	0.48	32.66	36.44	5.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	79.58	-1.0	-1.0	-1.0	-1.0	-1.0
14	328.00	0.50	33.46	-1.00	-1.00	-1.00	-1.00	9.60	7.40	-1.00	-1.00	69.22	0.0	-1.0	-1.0	-1.0	-1.0
16	301.00	0.76	33.61	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.20	645.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	306.00	0.45	34.30	38.06	5.61	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
20	285.00	0.68	33.18	37.15	6.16	-1.00	22.60	-1.00	-1.00	7.10	667.00	40.35	-1.0	-1.0	-1.0	-1.0	-1.0
[illegible]	312.00	0.73	35.88	-1.00	-1.00	6.08	-1.00	9.30	7.60	-1.00	-1.00	38.61	-1.0	-1.0	-1.0	-1.0	-1.0
24	304.00	0.72	38.04	-1.00	-1.00	6.08	-1.00	-1.00	-1.00	-1.00	-1.00	37.91	-1.0	-1.0	-1.0	-1.0	-1.0
27	319.00	0.71	39.64	-1.00	-1.00	7.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.85	-1.0	-1.0	-1.0	-1.0	-1.0
28	350.00	0.35	40.00	-1.00	-1.00	7.12	-1.00	13.50	10.30	-1.00	-1.00	36.98	-1.0	-1.0	-1.0	-1.0	-1.0
MAR 1	156.00	0.57	36.84	-1.00	-1.00	6.96	-1.00	-1.00	-1.00	-1.00	-1.00	36.39	-1.0	-1.0	-1.0	-1.0	-1.0
6	188.00	0.72	36.10	39.11	5.98	5.58	-1.00	12.60	9.00	-1.00	-1.00	44.33	-1.0	-1.0	-1.0	-1.0	-1.0
7	353.00	0.60	36.73	-1.00	-1.00	5.78	-1.00	-1.00	-1.00	-1.00	-1.00	43.29	-1.0	-1.0	-1.0	-1.0	-1.0
8	321.00	0.60	36.37	49.14	6.49	6.03	28.00	-1.00	-1.00	7.93	625.00	42.56	-1.0	13.6	9.1	2.6	43.9
9	325.00	0.60	37.35	-1.00	-1.00	6.01	-1.00	-1.00	-1.00	-1.00	-1.00	41.20	17.0	-1.0	-1.0	-1.0	-1.0
10	327.00	0.74	38.02	-1.00	-1.00	6.02	-1.00	-1.00	-1.00	-1.00	-1.00	38.98	-1.0	-1.0	-1.0	-1.0	-1.0
13	317.00	3.45	37.46	-1.00	-1.00	6.02	-1.00	-1.00	-1.00	-1.00	-1.00	37.21	-1.0	-1.0	-1.0	-1.0	-1.0
14	313.00	2.27	40.35	-1.00	-1.00	6.33	-1.00	-1.00	-1.00	-1.00	-1.00	36.41	-1.0	-1.0	-1.0	-1.0	-1.0
15	306.00	1.68	37.82	41.18	6.87	6.12	-1.00	-1.00	-1.00	-1.00	-1.00	33.21	-1.0	-1.0	-1.0	-1.0	-1.0
16	302.00	1.45	36.29	43.26	7.13	6.07	14.00	3.10	1.90	7.89	581.00	31.22	0.0	-1.0	-1.0	-1.0	-1.0
17	300.00	1.53	39.53	-1.00	-1.00	6.89	-1.00	-1.00	-1.00	-1.00	-1.00	33.17	-1.0	-1.0	-1.0	-1.0	-1.0
20	300.00	3.74	42.79	44.85	7.18	7.43	-1.00	-1.00	-1.00	-1.00	-1.00	34.31	-1.0	-1.0	-1.0	-1.0	-1.0
21	334.00	1.48	51.24	-1.00	-1.00	7.57	-1.00	-1.00	-1.00	-1.00	-1.00	35.47	-1.0	-1.0	-1.0	-1.0	-1.0
22	360.00	0.67	48.16	48.47	6.51	6.95	-1.00	-1.00	-1.00	-1.00	-1.00	31.84	95.0	-1.0	-1.0	-1.0	-1.0
23	368.00	0.54	37.56	34.46	4.36	5.06	9.00	-1.00	-1.00	7.91	583.00	28.67	-1.0	-1.0	-1.0	-1.0	-1.0
24	365.00	0.51	24.39	-1.00	-1.00	3.67	-1.00	-1.00	-1.00	-1.00	-1.00	25.78	-1.0	-1.0	-1.0	-1.0	-1.0
29	372.00	0.53	24.39	26.32	2.18	2.63	4.40	22.50	3.30	8.03	440.00	25.07	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 5 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	Y	CA	MG	NA
30	353.00	0.46	20.98	-1.00	-1.00	3.29	-1.00	-1.00	-1.00	-1.00	-1.00	27.25	0.0	-1.0	-1.0	-1.0	-1.0
31	290.00	0.61	18.78	-1.00	-1.00	2.85	7.20	-1.00	-1.00	8.00	433.00	29.81	-1.0	-1.0	-1.0	-1.0	-1.0
APR 4	416.00	1.61	19.00	-1.00	-1.00	3.69	-1.00	-1.00	-1.00	-1.00	-1.00	35.37	470.0	-1.0	-1.0	-1.0	-1.0
5	421.00	0.70	19.00	25.66	4.02	3.34	10.90	9.10	4.60	7.73	423.00	33.02	-1.0	-1.0	-1.0	-1.0	-1.0
6	426.00	0.86	19.00	-1.00	-1.00	3.34	-1.00	-1.00	-1.00	-1.00	-1.00	33.26	-1.0	-1.0	-1.0	-1.0	-1.0
7	442.00	0.58	21.50	-1.00	-1.00	3.66	12.40	-1.00	-1.00	8.06	518.00	36.86	-1.0	-1.0	-1.0	-1.0	-1.0
10	375.00	0.74	23.44	29.00	4.46	4.02	-1.00	-1.00	-1.00	-1.00	-1.00	38.25	-1.0	-1.0	-1.0	-1.0	-1.0
12	290.00	1.84	22.00	-1.00	-1.00	4.16	-1.00	4.90	2.50	7.99	490.00	35.51	965.0	9.5	14.2	2.5	31.2
14	66.00	1.65	25.93	-1.00	-1.00	4.00	18.20	-1.00	-1.00	7.87	497.00	37.10	-1.0	-1.0	-1.0	-1.0	-1.0
17	384.00	0.69	29.38	-1.00	-1.00	5.27	-1.00	7.10	-1.00	-1.00	-1.00	38.93	14.0	-1.0	-1.0	-1.0	-1.0
18	328.00	1.09	29.51	-1.00	-1.00	5.67	-1.00	-1.00	-1.00	-1.00	-1.00	38.10	-1.0	-1.0	-1.0	-1.0	-1.0
19	286.00	3.88	29.35	-1.00	-1.00	5.26	14.90	-1.00	-1.00	7.95	544.70	37.18	-1.0	-1.0	-1.0	-1.0	-1.0
21	296.00	1.49	29.15	-1.00	-1.00	4.38	11.60	-1.00	-1.00	7.99	522.40	38.12	-1.0	-1.0	-1.0	-1.0	-1.0
24	265.00	5.03	24.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.74	11.0	-1.0	-1.0	-1.0	-1.0
25	334.00	1.76	28.97	-1.00	-1.00	-1.00	-1.00	12.70	6.60	-1.00	-1.00	37.54	-1.0	-1.0	-1.0	-1.0	-1.0
26	314.00	1.25	31.30	-1.00	-1.00	-1.00	17.90	-1.00	-1.00	7.66	541.70	37.10	-1.0	-1.0	-1.0	-1.0	-1.0
27	383.00	1.91	32.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.35	-1.0	-1.0	-1.0	-1.0	-1.0
28	295.00	1.53	31.84	-1.00	-1.00	-1.00	12.00	-1.00	-1.00	7.96	541.60	35.19	-1.0	-1.0	-1.0	-1.0	-1.0
MAY 1	416.00	1.76	34.01	34.51	3.15	-1.00	-1.00	4.10	5.90	-1.00	-1.00	31.56	6.0	-1.0	-1.0	-1.0	-1.0
2	694.00	1.00	33.20	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	30.83	-1.0	-1.0	-1.0	-1.0	-1.0
3	293.00	1.29	32.95	-1.00	-1.00	-1.00	17.00	-1.00	-1.00	8.03	424.00	30.66	-1.0	-1.0	-1.0	-1.0	-1.0
8	300.00	1.91	36.68	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	300.00	1.74	31.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.0	-1.0	-1.0	-1.0	-1.0
10	307.00	4.23	28.78	31.62	6.85	-1.00	30.00	12.00	8.60	7.79	534.30	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	273.00	8.56	34.96	35.48	6.97	-1.00	60.00	-1.00	-1.00	7.74	615.20	31.66	-1.0	13.5	12.8	3.3	36.4
22	297.00	8.24	48.24	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.76	-1.0	-1.0	-1.0	-1.0	-1.0
23	365.00	9.79	32.68	38.43	6.91	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.68	-1.0	-1.0	-1.0	-1.0	-1.0
24	352.00	5.86	33.60	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.72	546.80	29.82	-1.0	-1.0	-1.0	-1.0	-1.0
25	314.00	4.32	32.60	-1.00	-1.00	-1.00	16.00	-1.00	-1.00	7.71	536.90	27.22	-1.0	-1.0	-1.0	-1.0	-1.0
26	339.00	2.59	36.66	-1.00	-1.00	-1.00	20.00	-1.00	-1.00	7.77	628.80	38.12	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 6 RUNOFF FROM SECONDARY SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY 19	241.00	0.10	0.00	2.48	0.69	-1.00	-1.00	-1.00	-1.00	7.20	349.00	37.97	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE 3	276.00	0.00	1.54	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.50	319.00	45.86	-1.0	-1.0	-1.0	-1.0	-1.0
7	382.00	0.03	0.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.60	385.00	31.72	-1.0	-1.0	-1.0	-1.0	-1.0
8	93.00	2.00	2.19	5.75	0.62	-1.00	4.70	-1.00	-1.00	7.35	328.00	32.42	26.0	-1.0	-1.0	-1.0	-1.0
15	174.00	2.04	1.36	3.05	1.28	-1.00	-1.00	5.10	3.30	7.50	439.00	43.72	-1.0	14.3	31.6	5.7	18.4
16	69.00	2.23	0.51	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	36.29	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	1.36	6.34	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.15	486.00	48.16	-1.0	-1.0	-1.0	-1.0	-1.0
23	123.00	1.00	7.67	16.87	4.06	-1.00	7.20	-1.00	-1.00	-1.00	-1.00	42.56	-1.0	-1.0	-1.0	-1.0	-1.0
28	445.00	0.72	14.57	-1.00	4.39	-1.00	-1.00	5.13	4.00	-1.00	-1.00	41.73	-1.0	-1.0	-1.0	-1.0	-1.0
JULY 1	328.00	1.27	5.84	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	387.00	26.51	-1.0	-1.0	-1.0	-1.0	-1.0
6	25.00	0.71	3.03	5.98	3.02	-1.00	-1.00	-1.00	-1.00	7.80	362.00	28.85	4.0	-1.0	-1.0	-1.0	-1.0
7	112.00	0.76	5.92	-1.00	-1.00	-1.00	12.80	-1.00	-1.00	-1.00	-1.00	26.37	-1.0	-1.0	-1.0	-1.0	-1.0
11	112.00	0.15	5.79	-1.00	-1.00	-1.00	-1.00	1.16	0.68	7.50	358.00	28.15	-1.0	-1.0	-1.0	-1.0	-1.0
13	0.00	0.66	4.90	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.49	-1.0	-1.0	-1.0	-1.0	-1.0
14	30.00	1.07	3.37	7.55	2.99	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.31	-1.0	12.3	18.4	4.4	47.5
15	52.00	1.47	2.21	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.21	-1.0	-1.0	-1.0	-1.0	-1.0
18	77.00	0.95	3.34	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.48	0.0	-1.0	-1.0	-1.0	-1.0
19	78.00	1.51	4.83	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	388.00	26.12	-1.0	-1.0	-1.0	-1.0	-1.0
20	80.00	1.43	4.80	7.24	4.35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.95	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	5.14	5.21	-1.00	-1.00	-1.00	2.39	-1.00	-1.00	-1.00	-1.00	25.31	-1.0	-1.0	-1.0	-1.0	-1.0
22	165.00	1.39	8.19	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	100.32	-1.0	-1.0	-1.0	-1.0	-1.0
26	0.00	8.32	10.59	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	49.71	-1.0	-1.0	-1.0	-1.0	-1.0
27	90.00	5.57	8.53	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.35	502.00	38.35	-1.0	-1.0	-1.0	-1.0	-1.0
28	188.00	7.49	7.42	-1.00	-1.00	-1.00	-1.00	2.80	1.20	-1.00	-1.00	31.48	-1.0	-1.0	-1.0	-1.0	-1.0
29	121.00	8.82	6.87	8.82	4.72	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.92	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 3	123.00	19.65	6.16	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.35	456.00	31.25	-1.0	-1.0	-1.0	-1.0	-1.0
5	18.00	23.68	6.69	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.11	400.0	-1.0	-1.0	-1.0	-1.0
9	297.00	14.14	8.06	18.50	5.19	-1.00	-1.00	-1.00	-1.00	7.40	370.00	29.21	-1.0	10.5	16.2	4.5	20.7
12	236.00	1.06	0.57	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	48.73	-1.0	-1.0	-1.0	-1.0	-1.0
18	272.00	25.50	0.25	-1.00	-1.00	-1.00	4.30	-1.00	-1.00	7.40	317.00	38.19	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 6 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	DF(F)	K	CA	MG	
19	134.00	6.90	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.62	-1.0	-1.0	-1.0	-1.0	-1.0
24	352.00	9.39	0.95	0.06	2.77	-1.00	-1.00	0.80	-1.00	7.30	337.00	26.83	-1.0	-1.0	-1.0	-1.0	-1.0
26	285.00	9.25	1.82	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.84	-1.0	-1.0	-1.0	-1.0	-1.0
22	473.00	7.13	2.52	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.55	-1.0	-1.0	-1.0	-1.0	-1.0
30	185.00	8.14	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.38	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 1	328.00	12.36	0.51	-1.00	-1.00	-1.00	3.10	-1.00	-1.00	7.35	314.00	25.16	4.0	3.9	13.5	3.8	38.9
7	147.00	15.62	0.13	1.52	3.64	-1.00	-1.00	7.33	2.53	7.25	346.00	35.36	-1.0	-1.0	-1.0	-1.0	-1.0
9	123.00	6.83	5.39	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.52	-1.0	-1.0	-1.0	-1.0	-1.0
13	387.00	6.58	4.23	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.29	287.00	45.49	-1.0	-1.0	-1.0	-1.0	-1.0
14	549.00	0.77	0.00	1.01	1.17	-1.00	-1.00	-1.00	-1.00	7.60	264.00	22.54	-1.0	-1.0	-1.0	-1.0	-1.0
15	141.00	8.92	0.00	-1.00	-1.00	-1.00	1.40	-1.00	-1.00	-1.00	-1.00	29.20	33.0	-1.0	-1.0	-1.0	-1.0
16	214.00	9.70	0.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.82	-1.0	-1.0	-1.0	-1.0	-1.0
20	499.00	0.04	0.13	0.77	0.48	-1.00	-1.00	3.60	3.60	8.00	213.00	8.11	-1.0	-1.0	-1.0	-1.0	-1.0
22	442.00	10.30	0.25	-1.00	-1.00	-1.00	-1.00	4.50	-1.00	-1.00	-1.00	37.00	-1.0	-1.0	-1.0	-1.0	-1.0
27	252.00	0.13	0.00	1.39	0.75	-1.00	-1.00	-1.00	-1.00	7.95	232.00	7.12	-1.0	-1.0	-1.0	-1.0	-1.0
28	397.00	9.36	0.06	1.11	2.76	-1.00	-1.00	-1.00	-1.00	7.70	451.00	28.97	-1.0	-1.0	-1.0	-1.0	-1.0
29	385.00	4.87	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	25.16	-1.0	-1.0	-1.0	-1.0	-1.0
30	200.00	3.92	0.32	-1.00	-1.00	-1.00	3.74	-1.00	-1.00	-1.00	-1.00	25.43	3.0	-1.0	-1.0	-1.0	-1.0
OCT 3	814.00	0.22	0.00	0.42	0.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	3.55	-1.0	1.0	13.5	2.3	13.1
4	388.00	2.68	2.88	4.68	3.45	-1.00	-1.00	-1.00	-1.00	7.55	348.00	26.28	-1.0	-1.0	-1.0	-1.0	-1.0
6	485.00	2.40	4.67	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.85	278.00	28.66	-1.0	-1.0	-1.0	-1.0	-1.0
11	622.00	0.13	0.13	0.55	0.19	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.11	-1.0	2.1	16.4	3.2	25.9
12	423.00	5.45	1.61	-1.00	-1.00	-1.00	5.00	-1.00	-1.00	7.80	339.00	23.50	-1.0	-1.0	-1.0	-1.0	-1.0
18	1866.00	0.05	0.16	1.20	0.37	-1.00	-1.00	-1.00	-1.00	8.10	153.00	2.60	-1.0	-1.0	-1.0	-1.0	-1.0
19	226.00	6.38	52.25	-1.00	3.37	-1.00	-1.00	-1.00	-1.00	7.95	782.00	24.44	-1.0	16.5	17.9	3.5	46.7
26	59.00	2.00	0.20	-1.00	-1.00	-1.00	3.20	-1.00	-1.00	7.25	145.00	7.80	-1.0	-1.0	-1.0	-1.0	-1.0
27	387.00	2.95	11.20	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.88	-1.0	-1.0	-1.0	-1.0	-1.0
28	225.00	3.70	12.45	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.82	-1.0	-1.0	-1.0	-1.0	-1.0
31	76.00	7.14	9.29	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.87	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	76.00	9.54	6.73	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.61	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 6 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
3	391.00	6.82	13.76	-1.00	-1.00	-1.00	-1.00	2.70	5.00	7.90	443.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
7	284.00	8.50	13.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.00	469.00	31.62	-1.0	18.5	16.9	4.2	32.9
8	181.00	7.90	14.55	14.23	4.47	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	332.00	26.88	13.23	-1.00	-1.00	-1.00	9.20	5.50	2.50	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	225.00	7.68	15.76	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	379.00	17.95	4.96	6.60	3.51	-1.00	-1.00	-1.00	-1.00	7.45	419.00	29.87	-1.0	-1.0	-1.0	-1.0	-1.0
15	524.00	22.17	7.47	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	231.00	18.20	14.24	-1.00	-1.00	-1.00	11.50	2.60	3.10	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	93.00	9.46	6.36	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	18.0	-1.0	-1.0	-1.0	-1.0
18	277.00	8.18	14.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.77	-1.0	-1.0	-1.0	-1.0	-1.0
21	221.00	7.32	18.91	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	48.82	-1.0	-1.0	-1.0	-1.0	-1.0
22	65.00	8.75	11.10	13.79	5.30	-1.00	-1.00	-1.00	-1.00	7.70	513.00	39.57	-1.0	-1.0	-1.0	-1.0	-1.0
23	232.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	9.80	8.70	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	626.00	3.81	15.83	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	32.83	-1.0	-1.0	-1.0	-1.0	-1.0
29	266.00	5.14	15.81	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.90	475.00	35.67	-1.0	-1.0	-1.0	-1.0	-1.0
30	253.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.10	3.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
DEC 1	286.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1.00	1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
1	367.00	2.19	8.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.65	200.00	13.39	-1.0	-1.0	-1.0	-1.0	-1.0
2	232.00	6.64	16.85	18.37	5.65	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	34.66	-1.0	-1.0	-1.0	-1.0	-1.0
5	196.00	5.21	21.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.05	521.00	35.61	-1.0	-1.0	-1.0	-1.0	-1.0
6	259.00	6.27	20.35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.59	-1.0	-1.0	-1.0	-1.0	-1.0
8	219.00	5.00	15.90	16.62	2.74	-1.00	-1.00	2.40	2.40	7.60	502.00	41.36	312.0	-1.0	-1.0	-1.0	-1.0
9	247.00	5.00	16.00	-1.00	-1.00	-1.00	-1.00	2.80	2.80	7.70	480.00	39.36	-1.0	-1.0	-1.0	-1.0	-1.0
13	192.00	4.00	18.86	20.27	4.63	-1.00	-1.00	-1.00	-1.00	8.05	552.00	57.10	-1.0	-1.0	-1.0	-1.0	-1.0
14	305.00	6.36	14.97	15.73	3.80	-1.00	-1.00	2.50	2.50	7.95	510.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
15	453.00	5.58	11.44	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	44.82	5900.0	-1.0	-1.0	-1.0	-1.0
16	267.00	5.27	11.39	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	58.62	-1.0	-1.0	-1.0	-1.0	-1.0
21	257.00	5.53	14.34	14.65	3.79	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.15	-1.0	-1.0	-1.0	-1.0	-1.0
22	280.00	4.61	13.44	-1.00	-1.00	-1.00	9.00	-1.00	-1.00	7.10	447.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	169.00	5.91	14.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 6 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
28	278.00	6.00	12.94	13.72	4.65	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	10.59	-1.0	-1.0	-1.0	-1.0	-1.0
30	118.00	5.80	22.57	23.05	5.73	-1.00	-1.00	-1.00	2.70	7.65	504.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
JAN 1978																	
3	125.00	3.95	29.63	30.26	8.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	44.98	-1.0	-1.0	-1.0	-1.0	-1.0
4	196.00	3.40	31.00	31.22	7.89	-1.00	9.60	3.90	3.10	7.45	591.00	42.50	-1.0	-1.0	-1.0	-1.0	-1.0
5	232.00	3.14	30.61	-1.00	-1.00	-1.00	12.00	-1.00	-1.00	7.20	521.00	41.91	4600.0	-1.0	-1.0	-1.0	-1.0
6	217.00	3.87	26.75	-1.00	-1.00	-1.00	10.02	-1.00	-1.00	-1.00	-1.00	42.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	1362.00	1.45	0.40	0.84	0.75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.39	310.0	-1.0	-1.0	-1.0	-1.0
11	201.00	2.82	17.56	-1.00	-1.00	-1.00	12.00	5.00	3.90	7.50	449.00	30.74	-1.0	-1.0	-1.0	-1.0	-1.0
12	237.00	2.21	21.21	23.35	3.74	-1.00	11.40	-1.00	-1.00	7.10	497.00	42.45	590.0	-1.0	-1.0	-1.0	-1.0
13	117.00	3.59	21.41	-1.00	-1.00	-1.00	19.50	-1.00	-1.00	7.30	610.00	64.52	-1.0	-1.0	-1.0	-1.0	-1.0
16	248.00	3.12	25.74	27.77	6.33	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	71.88	-1.0	-1.0	-1.0	-1.0	-1.0
17	227.00	2.95	26.41	-1.00	-1.00	-1.00	-1.00	5.50	5.00	-1.00	-1.00	77.56	4700.0	-1.0	-1.0	-1.0	-1.0
18	387.00	3.71	25.44	-1.00	-1.00	-1.00	17.80	-1.00	-1.00	7.20	666.00	71.02	-1.0	-1.0	-1.0	-1.0	-1.0
22	186.00	5.12	28.53	29.89	6.92	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	64.78	-1.0	-1.0	-1.0	-1.0	-1.0
23	208.00	9.91	24.00	24.65	6.53	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	99.68	1750.0	-1.0	-1.0	-1.0	-1.0
24	243.00	4.35	29.94	29.75	6.40	-1.00	-1.00	3.70	3.30	-1.00	-1.00	98.44	-1.0	-1.0	-1.0	-1.0	-1.0
25	292.00	2.94	29.75	-1.00	-1.00	-1.00	20.60	-1.00	-1.00	7.20	761.00	83.20	-1.0	-1.0	-1.0	-1.0	-1.0
26	572.00	1.22	1.67	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.00	-1.0	-1.0	-1.0	-1.0	-1.0
26	752.00	0.85	4.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	10.00	-1.0	-1.0	-1.0	-1.0	-1.0
27	330.00	1.65	10.36	-1.00	-1.00	-1.00	16.00	-1.00	-1.00	7.15	340.00	30.20	-1.0	-1.0	-1.0	-1.0	-1.0
30	231.00	2.74	16.69	17.56	3.44	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	43.60	-1.0	-1.0	-1.0	-1.0	-1.0
31	274.00	2.40	18.20	-1.00	-1.00	-1.00	-1.00	5.00	2.80	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
FEB 2	199.00	2.96	12.83	25.93	4.99	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
3	134.00	4.42	28.92	29.36	5.49	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	42.17	-1.0	-1.0	-1.0	-1.0	-1.0
6	238.00	1.92	35.26	36.03	5.18	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	127.52	-1.0	-1.0	-1.0	-1.0	-1.0
7	186.00	2.44	33.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
8	354.00	3.94	31.26	34.90	5.02	-1.00	-1.00	-1.00	-1.00	7.30	875.00	125.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	195.00	4.20	29.94	34.00	4.81	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	117.00	4020.0	-1.0	-1.0	-1.0	-1.0
10	183.00	5.32	28.47	31.41	4.98	-1.00	-1.00	4.70	3.60	6.90	864.00	98.00	-1.0	-1.0	-1.0	-1.0	-1.0
13	294.00	5.42	28.66	31.56	5.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	88.30	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 6 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
14	254.00	5.36	27.83	-1.00	-1.00	-1.00	-1.00	5.00	4.10	-1.00	-1.00	69.84	17000.0	-1.0	-1.0	-1.0	-1.0
16	211.00	5.31	27.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.95	639.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	221.00	1.88	27.50	30.90	5.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
22	133.00	11.32	22.51	25.77	5.56	-1.00	14.20	-1.00	-1.00	6.80	627.00	44.78	-1.0	-1.0	-1.0	-1.0	-1.0
23	281.00	4.15	38.56	-1.00	-1.00	5.70	-1.00	5.30	4.60	-1.00	-1.00	48.32	-1.0	-1.0	-1.0	-1.0	-1.0
24	286.00	2.89	32.32	-1.00	-1.00	5.92	-1.00	-1.00	-1.00	-1.00	-1.00	38.95	-1.0	-1.0	-1.0	-1.0	-1.0
27	239.00	6.84	34.72	-1.00	-1.00	7.32	-1.00	-1.00	-1.00	-1.00	-1.00	39.65	-1.0	-1.0	-1.0	-1.0	-1.0
28	265.00	2.92	36.28	-1.00	-1.00	6.96	-1.00	4.70	4.30	-1.00	-1.00	38.82	-1.0	-1.0	-1.0	-1.0	-1.0
MAR 1	139.00	6.86	29.28	-1.00	-1.00	6.44	-1.00	-1.00	-1.00	-1.00	-1.00	38.83	-1.0	-1.0	-1.0	-1.0	-1.0
6	134.00	7.99	29.05	35.56	5.91	5.88	-1.00	5.90	4.60	-1.00	-1.00	45.51	-1.0	-1.0	-1.0	-1.0	-1.0
7	277.00	3.83	36.73	-1.00	-1.00	5.62	-1.00	-1.00	-1.00	-1.00	-1.00	43.78	-1.0	-1.0	-1.0	-1.0	-1.0
8	262.00	5.53	38.18	41.29	6.10	5.78	16.50	-1.00	-1.00	7.29	637.00	43.31	-1.0	15.2	14.8	3.6	43.0
9	287.00	3.48	43.16	-1.00	-1.00	5.76	-1.00	-1.00	-1.00	-1.00	-1.00	41.62	19000.0	-1.0	-1.0	-1.0	-1.0
10	270.00	3.31	33.10	-1.00	-1.00	5.52	-1.00	-1.00	-1.00	-1.00	-1.00	38.98	-1.0	-1.0	-1.0	-1.0	-1.0
13	337.00	5.80	28.74	-1.00	-1.00	5.31	-1.00	-1.00	-1.00	-1.00	-1.00	37.06	-1.0	-1.0	-1.0	-1.0	-1.0
14	469.00	4.98	32.23	-1.00	-1.00	5.83	-1.00	-1.00	-1.00	-1.00	-1.00	38.34	-1.0	-1.0	-1.0	-1.0	-1.0
15	361.00	2.92	26.17	28.63	4.96	4.81	-1.00	-1.00	-1.00	-1.00	-1.00	29.54	-1.0	-1.0	-1.0	-1.0	-1.0
16	268.00	4.54	28.00	32.81	5.84	5.86	10.00	1.60	1.30	7.32	949.00	34.78	0.0	-1.0	-1.0	-1.0	-1.0
17	280.00	4.05	30.91	-1.00	-1.00	5.72	-1.00	-1.00	-1.00	-1.00	-1.00	35.89	-1.0	-1.0	-1.0	-1.0	-1.0
20	272.00	6.76	32.39	36.54	6.29	6.33	-1.00	-1.00	-1.00	-1.00	-1.00	34.25	-1.0	-1.0	-1.0	-1.0	-1.0
21	706.00	3.07	29.22	-1.00	-1.00	4.76	-1.00	-1.00	-1.00	-1.00	-1.00	27.02	-1.0	-1.0	-1.0	-1.0	-1.0
22	467.00	3.08	28.49	35.49	4.61	4.87	-1.00	-1.00	-1.00	-1.00	-1.00	27.23	12.0	-1.0	-1.0	-1.0	-1.0
23	670.00	2.35	17.06	19.20	2.36	2.32	3.75	-1.00	-1.00	7.75	340.00	18.15	-1.0	-1.0	-1.0	-1.0	-1.0
24	565.00	2.14	17.03	-1.00	-1.00	2.68	-1.00	-1.00	-1.00	-1.00	-1.00	23.18	-1.0	-1.0	-1.0	-1.0	-1.0
27	265.00	9.58	3.23	-1.00	-1.00	1.32	-1.00	-1.00	-1.00	-1.00	-1.00	16.95	-1.0	-1.0	-1.0	-1.0	-1.0
28	130.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
29	666.00	1.90	12.12	15.73	1.47	1.52	1.80	2.90	1.90	7.83	296.00	17.04	-1.0	-1.0	-1.0	-1.0	-1.0
30	981.00	1.76	7.65	-1.00	-1.00	1.16	-1.00	-1.00	-1.00	-1.00	-1.00	15.60	1.0	-1.0	-1.0	-1.0	-1.0
31	440.00	3.40	18.85	-1.00	-1.00	2.00	5.40	-1.00	-1.00	8.05	353.00	25.42	-1.0	-1.0	-1.0	-1.0	-1.0
APP 4	725.00	4.27	13.37	-1.00	-1.00	2.37	-1.00	-1.00	-1.00	-1.00	-1.00	33.13	140.0	-1.0	-1.0	-1.0	-1.0

TABLE 6 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	SF(F)	K	CA	MG	NA
5	444.00	4.34	11.00	15.05	2.61	2.57	4.40	2.60	1.90	7.62	363.00	28.82	-1.0	-1.0	-1.0	-1.0	-1.0
6	338.00	5.77	11.06	-1.00	-1.00	2.31	-1.00	-1.00	-1.00	-1.00	-1.00	31.32	-1.0	-1.0	-1.0	-1.0	-1.0
7	431.00	3.81	14.29	-1.00	-1.00	3.00	5.40	-1.00	-1.00	8.04	451.00	33.22	-1.0	-1.0	-1.0	-1.0	-1.0
10	256.00	9.65	12.74	18.20	3.42	3.70	-1.00	-1.00	-1.00	-1.00	-1.00	39.64	-1.0	-1.0	-1.0	-1.0	-1.0
12	350.00	9.99	9.92	-1.00	-1.00	3.44	-1.00	2.10	1.70	7.58	435.00	33.59	234.0	8.9	16.4	3.6	29.2
14	0.00	12.55	6.42	-1.00	-1.00	2.86	2.80	-1.00	-1.00	7.54	436.00	42.42	-1.0	-1.0	-1.0	-1.0	-1.0
17	151.00	9.42	15.93	-1.00	-1.00	4.70	-1.00	4.50	3.90	-1.00	-1.00	39.65	11.0	-1.0	-1.0	-1.0	-1.0
18	150.00	12.10	11.75	-1.00	-1.00	4.61	-1.00	-1.00	-1.00	-1.00	-1.00	38.26	-1.0	-1.0	-1.0	-1.0	-1.0
19	172.00	10.56	14.25	-1.00	-1.00	4.89	7.20	-1.00	-1.00	7.79	468.90	37.92	-1.0	-1.0	-1.0	-1.0	-1.0
21	198.00	8.14	14.16	-1.00	-1.00	4.00	6.30	-1.00	-1.00	7.91	440.30	36.29	-1.0	-1.0	-1.0	-1.0	-1.0
24	80.00	14.02	8.82	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.27	6.0	-1.0	-1.0	-1.0	-1.0
25	195.00	8.26	14.05	-1.00	-1.00	-1.00	-1.00	2.70	1.90	-1.00	-1.00	36.86	-1.0	-1.0	-1.0	-1.0	-1.0
26	163.00	11.19	10.79	-1.00	-1.00	-1.00	4.40	-1.00	-1.00	7.14	436.90	37.81	-1.0	-1.0	-1.0	-1.0	-1.0
27	164.00	11.81	5.18	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	35.93	-1.0	-1.0	-1.0	-1.0	-1.0
28 MAY	115.00	11.47	2.04	-1.00	-1.00	-1.00	3.20	-1.00	-1.00	7.92	-1.00	35.21	-1.0	-1.0	-1.0	-1.0	-1.0
1	127.00	11.34	9.89	13.10	2.22	-1.00	-1.00	3.20	3.20	-1.00	-1.00	31.18	2.0	-1.0	-1.0	-1.0	-1.0
2	490.00	9.57	9.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.93	-1.0	-1.0	-1.0	-1.0	-1.0
3	88.00	9.53	8.52	-1.00	-1.00	-1.00	6.30	-1.00	-1.00	7.83	413.00	38.68	-1.0	-1.0	-1.0	-1.0	-1.0
8	131.00	2.38	0.13	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	218.00	4.67	10.49	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	40.0	-1.0	-1.0	-1.0	-1.0
10	192.00	6.29	11.90	11.66	4.58	-1.00	5.10	3.20	2.90	7.29	489.40	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	136.00	2.89	0.15	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	81.00	10.86	4.04	6.67	3.22	-1.00	5.10	-1.00	-1.00	7.20	378.70	24.69	-1.0	5.9	18.9	4.7	38.7
22	1.00	8.75	6.08	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.82	-1.0	-1.0	-1.0	-1.0	-1.0
22	29.00	16.05	6.55	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.94	-1.0	-1.0	-1.0	-1.0	-1.0
23	86.00	12.04	10.77	10.72	5.16	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
24	168.00	8.51	15.24	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.72	434.30	32.08	-1.0	-1.0	-1.0	-1.0	-1.0
25	111.00	7.79	8.00	-1.00	-1.00	-1.00	6.80	-1.00	-1.00	7.33	382.50	25.22	-1.0	-1.0	-1.0	-1.0	-1.0
26	126.00	8.00	8.46	-1.00	-1.00	-1.00	7.40	-1.00	-1.00	7.89	394.50	26.81	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 7 PERCOLATE FROM SECONDARY SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY 19	0.00	0.71	2.63	5.41	1.00	-1.00	-1.00	-1.00	-1.00	7.00	264.00	26.15	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE 3	67.00	0.96	4.18	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.35	322.30	28.75	-1.0	-1.0	-1.0	-1.0	-1.0
7	0.00	1.55	2.49	-1.00	-1.00	0.66	-1.00	-1.00	-1.00	7.20	288.00	29.08	-1.0	-1.0	-1.0	-1.0	-1.0
8	0.00	0.42	2.54	3.88	0.07	-1.00	4.10	-1.00	-1.00	8.05	450.00	41.80	54.0	-1.0	-1.0	-1.0	-1.0
15	0.00	4.06	0.00	0.96	0.77	-1.00	-1.00	1.70	1.10	7.45	315.00	32.15	-1.0	-1.0	-1.0	-1.0	-1.0
16	0.00	1.57	3.92	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	39.31	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	2.29	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.10	351.00	34.99	-1.0	-1.0	-1.0	-1.0	-1.0
23	0.00	2.33	0.25	1.04	0.74	-1.00	2.40	-1.00	-1.00	-1.00	-1.00	33.66	6.0	-1.0	-1.0	-1.0	-1.0
28	0.00	2.07	0.00	-1.00	0.85	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.70	-1.0	-1.0	-1.0	-1.0	-1.0
JULY 1	17.00	0.91	3.59	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.05	173.00	16.15	-1.0	-1.0	-1.0	-1.0	-1.0
6	0.00	1.03	0.09	1.35	1.00	-1.00	-1.00	-1.00	-1.00	7.30	177.00	16.17	2.0	-1.0	-1.0	-1.0	-1.0
7	0.00	1.00	0.02	-1.00	-1.00	-1.00	2.40	-1.00	-1.00	-1.00	-1.00	16.04	-1.0	-1.0	-1.0	-1.0	-1.0
11	0.00	1.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.12	7.25	177.00	16.38	-1.0	-1.0	-1.0	-1.0	-1.0
13	0.00	1.01	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	16.39	-1.0	-1.0	-1.0	-1.0	-1.0
14	0.00	1.27	0.00	0.90	0.96	1.05	-1.00	-1.00	-1.00	-1.00	-1.00	18.14	-1.0	-1.0	-1.0	-1.0	-1.0
15	38.00	1.68	1.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	23.98	-1.0	-1.0	-1.0	-1.0	-1.0
18	0.00	2.35	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	23.94	0.0	-1.0	-1.0	-1.0	-1.0
19	0.00	2.37	0.00	-1.00	-1.00	1.61	-1.00	-1.00	-1.00	7.40	311.00	24.02	-1.0	-1.0	-1.0	-1.0	-1.0
20	0.00	2.53	0.12	1.30	2.31	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	24.44	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	2.49	0.00	-1.00	-1.00	-1.00	2.19	-1.00	-1.00	-1.00	-1.00	24.81	-1.0	-1.0	-1.0	-1.0	-1.0
22	0.00	2.16	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	26.81	-1.0	-1.0	-1.0	-1.0	-1.0
26	0.00	5.59	6.35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	47.90	-1.0	-1.0	-1.0	-1.0	-1.0
27	0.00	4.30	7.43	-1.00	-1.00	1.82	-1.00	-1.00	-1.00	7.35	537.00	44.96	-1.0	-1.0	-1.0	-1.0	-1.0
28	0.00	3.53	3.39	-1.00	-1.00	-1.00	-1.00	4.10	1.65	-1.00	-1.00	33.82	-1.0	-1.0	-1.0	-1.0	-1.0
29	0.00	4.57	2.00	2.96	3.35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	33.33	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 9	0.00	1.83	0.16	1.29	2.92	-1.00	-1.00	-1.00	-1.00	7.85	392.00	40.69	-1.0	-1.0	-1.0	-1.0	-1.0
12	14.00	5.59	0.54	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	59.52	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 7 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
18	3.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
19	8.00	7.31	0.13	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	65.18	-1.0	-1.0	-1.0	-1.0	-1.0
24	8.00	6.46	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.95	585.00	49.19	-1.0	-1.0	-1.0	-1.0	-1.0
26	8.00	7.85	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	50.93	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 7	1.00	8.67	0.36	1.77	1.73	-1.00	-1.00	-1.00	-1.00	7.85	526.00	45.75	-1.0	-1.0	-1.0	-1.0	-1.0
9	1.00	9.98	0.46	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	47.67	-1.0	-1.0	-1.0	-1.0	-1.0
13	3.00	10.22	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.81	381.00	43.96	-1.0	-1.0	-1.0	-1.0	-1.0
14	1.00	9.73	0.00	1.38	1.55	-1.00	-1.00	-1.00	-1.00	7.55	487.00	46.21	-1.0	-1.0	-1.0	-1.0	-1.0
15	0.00	9.14	0.21	-1.00	-1.00	-1.00	2.60	-1.00	-1.00	-1.00	-1.00	58.50	0.0	-1.0	-1.0	-1.0	-1.0
16	0.00	7.55	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	85.03	-1.0	-1.0	-1.0	-1.0	-1.0
27	0.00	8.76	0.00	1.26	1.05	-1.00	-1.00	-1.00	-1.00	7.85	810.00	52.66	-1.0	-1.0	-1.0	-1.0	-1.0
29	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
OCT 26	0.00	3.87	0.13	-1.00	-1.00	-1.00	2.20	-1.00	-1.00	7.97	534.00	41.49	-1.0	-1.0	-1.0	-1.0	-1.0
27	5.00	4.89	0.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	41.28	-1.0	-1.0	-1.0	-1.0	-1.0
28	11.00	3.92	0.14	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.66	-1.0	-1.0	-1.0	-1.0	-1.0
31	0.00	3.56	0.54	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	41.55	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	0.00	3.98	0.40	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	40.51	-1.0	-1.0	-1.0	-1.0	-1.0
3	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	1.00	5.25	0.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	0.00	6.20	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 8 TAPWATER APPLIED TO CONTROL SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY																	
17	318.00	0.00	0.00	0.51	0.62	-1.00	-1.00	-1.00	-1.00	6.79	79.00	5.77	-1.0	-1.0	-1.0	-1.0	-1.0
18	313.00	0.00	0.15	0.25	0.25	-1.00	-1.00	-1.00	-1.00	7.70	141.00	5.44	-1.0	-1.0	-1.0	-1.0	-1.0
23	268.00	0.00	0.00	0.54	0.50	-1.00	-1.00	-1.00	-1.00	6.36	79.00	5.76	-1.0	-1.0	-1.0	-1.0	-1.0
24	331.00	0.00	0.00	0.61	0.50	-1.00	-1.00	-1.00	-1.00	6.03	89.00	5.02	-1.0	-1.0	-1.0	-1.0	-1.0
25	268.00	0.00	-1.00	0.31	0.50	-1.00	-1.00	-1.00	-1.00	6.55	86.00	4.97	-1.0	-1.0	-1.0	-1.0	-1.0
30	314.0	0.00	0.00	0.33	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.98	-1.0	-1.0	-1.0	-1.0	-1.0
31	318.00	0.00	0.00	0.37	0.25	-1.00	-1.00	2.20	0.00	6.95	79.00	6.04	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE																	
1	226.00	0.00	0.00	0.29	0.24	-1.00	-1.00	-1.00	-1.00	6.95	76.00	6.97	-1.0	-1.0	-1.0	-1.0	-1.0
2	294.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.05	77.00	5.77	-1.0	-1.0	-1.0	-1.0	-1.0
6	243.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.00	75.00	5.69	-1.0	-1.0	-1.0	-1.0	-1.0
8	229.00	0.00	0.25	0.00	0.50	-1.00	1.00	-1.00	-1.00	7.00	78.00	6.11	0.0	-1.0	-1.0	-1.0	-1.0
13	253.00	0.00	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.70	78.00	5.47	-1.0	-1.0	-1.0	-1.0	-1.0
14	232.00	0.00	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	1.20	-1.00	-1.00	6.42	-1.0	1.3	3.7	1.2	6.1
15	249.00	0.01	0.03	0.68	0.88	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.75	-1.0	-1.0	-1.0	-1.0	-1.0
16	329.00	0.01	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.23	-1.0	-1.0	-1.0	-1.0	-1.0
21	281.00	0.02	0.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.60	77.00	5.79	-1.0	-1.0	-1.0	-1.0	-1.0
22	324.00	0.00	-1.00	0.54	0.37	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	278.00	0.00	0.00	-1.00	-1.00	-1.00	0.20	-1.00	-1.00	-1.00	-1.00	6.81	0.0	-1.0	-1.0	-1.0	-1.0
27	389.00	-1.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.37	-1.0	-1.0	-1.0	-1.0	-1.0
28	196.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.43	-1.0	-1.0	-1.0	-1.0	-1.0
30	343.00	0.00	0.74	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.20	78.00	5.20	-1.0	-1.0	-1.0	-1.0	-1.0
JULY																	
6	400.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.66	-1.0	-1.0	-1.0	-1.0	-1.0
7	399.00	0.00	0.07	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.00	5.83	0.0	-1.0	-1.0	-1.0	-1.0
11	265.00	0.00	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	1.04	6.65	81.00	6.13	-1.0	-1.0	-1.0	-1.0	-1.0
13	225.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.25	-1.0	-1.0	-1.0	-1.0	-1.0
14	318.00	0.00	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.48	-1.0	-1.0	-1.0	-1.0	-1.0
15	344.00	0.00	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.47	-1.0	-1.0	-1.0	-1.0	-1.0
18	382.00	0.03	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.00	81.00	5.47	-1.0	-1.0	-1.0	-1.0	-1.0
19	299.00	0.01	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.59	0.0	-1.0	-1.0	-1.0	-1.0
21	316.00	0.00	0.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.00	5.49	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 8 CONT. -

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	SF(F)	K	CA	MG	NA
22	245.00	0.49	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.56	-1.0	-1.0	-1.0	-1.0	-1.0
26	342.00	0.06	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.18	-1.0	-1.0	-1.0	-1.0	-1.0
27	333.00	0.02	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.28	-1.0	-1.0	-1.0	-1.0	-1.0
28	325.00	0.09	0.00	-1.00	-1.00	-1.00	-1.00	1.60	1.45	-1.00	-1.00	6.48	-1.0	-1.0	-1.0	-1.0	-1.0
29	286.00	0.03	0.00	0.12	0.25	-1.00	-1.00	-1.00	-1.00	7.15	77.20	6.15	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 3	314.00	0.01	0.18	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.25	83.00	6.48	-1.0	-1.0	-1.0	-1.0	-1.0
5	647.00	0.04	0.06	0.20	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.33	-1.0	-1.0	-1.0	-1.0	-1.0
9	598.00	0.17	0.47	0.59	0.46	-1.00	-1.00	-1.00	-1.00	7.50	85.00	8.37	-1.0	-1.0	-1.0	-1.0	-1.0
11	349.00	0.08	0.21	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.24	-1.0	-1.0	-1.0	-1.0	-1.0
18	687.00	0.00	0.13	0.50	0.49	-1.00	0.70	-1.00	-1.00	7.55	88.00	9.57	-1.0	-1.0	-1.0	-1.0	-1.0
19	294.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.47	-1.0	-1.0	-1.0	-1.0	-1.0
24	618.00	0.00	0.04	-1.00	-1.00	-1.00	-1.00	0.92	0.42	7.30	85.00	6.34	-1.0	-1.0	-1.0	-1.0	-1.0
25	565.00	0.00	0.04	0.00	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.71	-1.0	-1.0	-1.0	-1.0	-1.0
30	652.00	0.05	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.36	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 1	649.00	0.00	0.00	0.33	0.49	-1.00	1.00	-1.00	-1.00	7.20	84.00	6.48	-1.0	1.5	3.3	1.3	8.8
7	611.00	0.00	0.00	0.28	0.28	-1.00	-1.00	4.18	1.12	7.00	83.00	7.27	-1.0	-1.0	-1.0	-1.0	-1.0
11	322.00	0.04	0.17	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.39	-1.0	-1.0	-1.0	-1.0	-1.0
13	591.00	0.01	0.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.09	233.00	7.84	-1.0	-1.0	-1.0	-1.0	-1.0
15	299.00	0.02	0.00	0.00	0.00	-1.00	0.40	-1.00	-1.00	-1.00	-1.00	4.34	0.0	-1.0	-1.0	-1.0	-1.0
16	342.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.39	-1.0	-1.0	-1.0	-1.0	-1.0
22	319.00	0.00	0.00	0.00	0.07	-1.00	-1.00	-1.00	-1.00	7.25	164.00	6.57	-1.0	-1.0	-1.0	-1.0	-1.0
23	677.00	0.00	0.13	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.95	-1.0	-1.0	-1.0	-1.0	-1.0
28	517.00	0.03	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.01	89.00	7.80	-1.0	-1.0	-1.0	-1.0	-1.0
29	237.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.39	-1.0	-1.0	-1.0	-1.0	-1.0
30	348.00	0.00	0.05	0.00	0.25	-1.00	0.00	-1.00	-1.00	-1.00	-1.00	7.39	0.0	-1.0	-1.0	-1.0	-1.0
OCT 4	663.00	0.10	0.25	0.35	0.27	-1.00	-1.00	-1.00	-1.00	7.10	78.00	8.97	-1.0	-1.0	-1.0	-1.0	-1.0
6	655.00	0.01	0.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	78.00	7.86	-1.0	-1.0	-1.0	-1.0	-1.0
12	651.00	0.02	0.50	0.31	0.25	-1.00	-1.00	-1.00	-1.00	6.95	87.00	7.65	-1.0	-1.0	-1.0	-1.0	-1.0
14	175.00	0.04	0.38	0.32	0.37	-1.00	-1.00	-1.00	-1.00	7.05	85.00	8.56	-1.0	-1.0	-1.0	-1.0	-1.0
19	324.00	0.02	0.86	0.21	0.37	-1.00	-1.00	-1.00	-1.00	6.40	85.00	6.92	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 8 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	X	CA	MG	NA
26	262.00	0.04	0.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	7.40	83.00	6.85	-1.0	-1.0	-1.0	-1.0	-1.0
27	295.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	14.59	-1.0	-1.0	-1.0	-1.0	-1.0
28	388.00	0.03	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.64	-1.0	-1.0	-1.0	-1.0	-1.0
31	259.00	0.09	0.43	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.45	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	256.00	0.04	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.13	-1.0	-1.0	-1.0	-1.0	-1.0
2	245.00	0.06	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.81	-1.0	-1.0	-1.0	-1.0	-1.0
3	255.00	0.04	0.00	-1.00	-1.00	-1.00	-1.00	0.00	0.00	7.00	84.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
7	318.00	0.04	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.00	86.00	7.47	-1.0	1.5	3.7	1.2	10.3
8	251.00	0.03	0.00	0.29	0.42	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	325.00	0.00	0.01	0.40	0.42	-1.00	0.00	0.60	0.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	329.00	0.03	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	213.00	0.63	0.00	0.48	0.56	-1.00	-1.00	-1.00	-1.00	7.15	83.00	8.57	-1.0	-1.0	-1.0	-1.0	-1.0
15	314.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	308.00	0.03	0.00	-1.00	-1.00	-1.00	0.50	0.00	0.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	267.00	0.00	0.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.0	-1.0	-1.0	-1.0	-1.0
18	273.00	0.00	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.48	-1.0	-1.0	-1.0	-1.0	-1.0
21	273.00	0.07	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.81	-1.0	-1.0	-1.0	-1.0	-1.0
22	119.00	0.02	0.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	7.25	82.00	6.10	-1.0	-1.0	-1.0	-1.0	-1.0
23	278.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.30	0.30	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
26	178.00	0.00	0.00	0.00	0.46	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.85	-1.0	-1.0	-1.0	-1.0	-1.0
28	458.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.09	-1.0	-1.0	-1.0	-1.0	-1.0
29	318.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.20	69.00	6.28	-1.0	-1.0	-1.0	-1.0	-1.0
30	360.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.60	0.50	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
DEC 1	240.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.60	0.60	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
2	310.00	0.03	0.00	0.32	0.58	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.44	-1.0	-1.0	-1.0	-1.0	-1.0
5	133.00	0.04	0.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.15	82.00	7.42	-1.0	-1.0	-1.0	-1.0	-1.0
6	445.00	0.06	0.03	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.29	-1.0	-1.0	-1.0	-1.0	-1.0
8	281.00	0.04	0.06	0.03	0.31	-1.00	-1.00	-1.00	-1.00	6.40	83.00	5.65	0.0	-1.0	-1.0	-1.0	-1.0
9	337.00	0.05	0.00	-1.00	7.09	-1.00	-1.00	-1.00	-1.00	6.75	83.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	351.00	0.07	0.19	0.00	0.51	-1.00	-1.00	-1.00	-1.00	6.50	84.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 8 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CR(F)	K	CA	MG	NA
15	312.00	0.00	0.01	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.72	0.0	-1.0	-1.0	-1.0	-1.0
16	328.00	0.02	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.33	-1.0	-1.0	-1.0	-1.0	-1.0
21	322.00	0.10	0.00	0.00	0.77	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.15	-1.0	-1.0	-1.0	-1.0	-1.0
22	223.00	0.06	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.96	85.60	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	133.00	0.16	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	135.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
JAN 1978 6	213.00	0.05	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.81	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 9 RUNOFF FROM CONTROL SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY 19	114.00	0.30	1.00	1.20	0.18	-1.00	-1.00	-1.00	-1.00	6.95	264.00	41.16	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE 3	290.00	0.11	0.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.45	346.00	38.21	-1.0	-1.0	-1.0	-1.0	-1.0
7	-1.00	0.00	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.40	296.00	36.22	-1.0	-1.0	-1.0	-1.0	-1.0
8	-1.00	0.00	0.20	0.37	0.00	-1.00	2.40	-1.00	-1.00	7.75	266.00	24.92	1.0	-1.0	-1.0	-1.0	-1.0
15	221.00	0.00	0.00	0.98	0.26	-1.00	-1.00	12.60	3.70	7.65	255.00	22.34	-1.0	7.9	30.8	4.8	6.5
16	429.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.20	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	0.31	0.21	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.20	198.00	11.33	-1.0	-1.0	-1.0	-1.0	-1.0
25	230.00	0.18	0.11	1.03	0.25	-1.00	2.00	-1.00	-1.00	-1.00	-1.00	14.21	7.0	-1.0	-1.0	-1.0	-1.0
28	785.00	0.30	0.00	-1.00	0.24	-1.00	-1.00	1.73	1.07	-1.00	-1.00	10.37	-1.0	-1.0	-1.0	-1.0	-1.0
JULY 1	534.00	0.46	1.49	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.60	194.00	8.95	-1.0	-1.0	-1.0	-1.0	-1.0
6	0.00	1.01	0.05	0.81	0.24	-1.00	-1.00	-1.00	-1.00	7.85	209.00	9.08	4.0	-1.0	-1.0	-1.0	-1.0
7	99.00	0.10	0.10	-1.00	-1.00	-1.00	2.50	-1.00	-1.00	-1.00	-1.00	7.67	-1.0	-1.0	-1.0	-1.0	-1.0
11	121.00	0.35	0.00	-1.00	-1.00	-1.00	-1.00	1.00	0.48	7.40	252.00	22.66	-1.0	-1.0	-1.0	-1.0	-1.0
13	28.00	0.46	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	21.58	-1.0	-1.0	-1.0	-1.0	-1.0
14	93.00	0.05	0.00	1.13	0.24	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	15.79	-1.0	-1.0	-1.0	-1.0	-1.0
15	181.00	0.81	0.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	56.20	-1.0	-1.0	-1.0	-1.0	-1.0
18	181.00	0.24	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.96	60.0	-1.0	-1.0	-1.0	-1.0
19	56.00	0.15	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.65	188.00	10.52	-1.0	-1.0	-1.0	-1.0	-1.0
20	156.00	0.05	0.25	0.65	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.20	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	0.26	0.00	-1.00	-1.00	-1.00	0.79	-1.00	-1.00	-1.00	-1.00	8.80	-1.0	-1.0	-1.0	-1.0	-1.0
22	210.00	0.06	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	68.10	-1.0	-1.0	-1.0	-1.0	-1.0
26	137.00	0.46	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	17.62	-1.0	-1.0	-1.0	-1.0	-1.0
27	120.00	0.46	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.50	212.00	13.39	-1.0	-1.0	-1.0	-1.0	-1.0
28	151.00	0.15	0.00	-1.00	-1.00	-1.00	-1.00	2.05	1.70	-1.00	-1.00	10.75	-1.0	-1.0	-1.0	-1.0	-1.0
29	185.00	0.15	0.00	0.49	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	10.75	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 3	187.00	0.10	0.36	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.05	191.00	12.14	-1.0	-1.0	-1.0	-1.0	-1.0
5	213.00	0.12	0.21	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	9.97	400.0	-1.0	-1.0	-1.0	-1.0
9	408.00	0.17	0.05	0.81	0.18	-1.00	-1.00	-1.00	-1.00	7.65	221.00	12.17	-1.0	-1.0	-1.0	-1.0	-1.0
12	771.00	0.16	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	23.94	-1.0	-1.0	-1.0	-1.0	-1.0
19	387.00	0.05	0.00	-1.00	-1.00	-1.00	1.50	-1.00	-1.00	8.20	180.00	11.43	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 9 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
19	161.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	9.98	-1.0	-1.0	-1.0	-1.0	-1.0
24	424.00	0.00	0.21	0.31	0.25	-1.00	-1.00	0.40	-1.00	7.70	199.00	11.00	-1.0	-1.0	-1.0	-1.0	-1.0
26	388.00	0.00	0.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.70	-1.0	-1.0	-1.0	-1.0	-1.0
30	382.00	0.02	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.49	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 1	423.00	0.04	0.13	-1.00	-1.00	-1.00	1.60	-1.00	-1.00	7.90	172.00	7.45	25.0	1.1	17.1	3.6	42.2
7	285.00	0.03	0.00	0.63	0.37	-1.00	-1.00	6.40	0.00	8.15	148.00	8.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	371.00	0.00	0.15	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	10.07	-1.0	-1.0	-1.0	-1.0	-1.0
13	489.00	0.01	0.19	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.15	300.00	19.47	-1.0	-1.0	-1.0	-1.0	-1.0
14	624.00	0.02	0.00	0.76	0.39	-1.00	-1.00	-1.00	-1.00	7.75	238.00	28.34	-1.0	-1.0	-1.0	-1.0	-1.0
15	184.00	0.00	0.03	-1.00	-1.00	-1.00	1.40	-1.00	-1.00	-1.00	-1.00	8.38	2.0	-1.0	-1.0	-1.0	-1.0
18	282.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.54	-1.0	-1.0	-1.0	-1.0	-1.0
20	900.00	0.00	0.00	0.50	0.00	-1.00	-1.00	-1.00	-1.00	8.10	235.00	12.70	-1.0	-1.0	-1.0	-1.0	-1.0
22	550.00	0.02	0.25	-1.00	-1.00	-1.00	-1.00	1.60	-1.00	-1.00	-1.00	8.56	-1.0	-1.0	-1.0	-1.0	-1.0
27	265.00	0.03	0.00	0.56	0.00	-1.00	-1.00	-1.00	-1.00	7.90	265.00	9.86	-1.0	-1.0	-1.0	-1.0	-1.0
28	378.00	0.00	0.03	0.56	0.25	-1.00	-1.00	-1.00	-1.00	7.80	193.00	10.59	-1.0	-1.0	-1.0	-1.0	-1.0
29	296.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	17.21	-1.0	-1.0	-1.0	-1.0	-1.0
30	266.00	0.00	0.04	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.00	9.31	0.0	-1.0	-1.0	-1.0	-1.0
OCT 3	875.00	0.05	0.00	0.14	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.54	-1.0	-1.0	-1.0	-1.0	-1.0
4	975.00	0.06	0.38	0.61	0.00	-1.00	-1.00	-1.00	-1.00	8.10	159.00	9.14	-1.0	-1.0	-1.0	-1.0	-1.0
6	482.00	0.01	0.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.05	137.00	9.35	-1.0	-1.0	-1.0	-1.0	-1.0
11	699.00	0.00	0.13	0.70	0.04	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	4.71	-1.0	-1.0	-1.0	-1.0	-1.0
12	476.00	0.03	0.25	-1.00	-1.00	-1.00	0.20	-1.00	-1.00	8.10	185.00	9.07	-1.0	-1.0	-1.0	-1.0	-1.0
18	1164.00	0.03	0.15	0.46	0.25	-1.00	-1.00	-1.00	-1.00	8.15	159.00	5.21	-1.0	-1.0	-1.0	-1.0	-1.0
19	214.00	0.02	0.18	0.31	0.12	-1.00	-1.00	-1.00	-1.00	7.40	141.00	7.12	-1.0	-1.0	-1.0	-1.0	-1.0
26	77.00	0.58	0.25	-1.00	-1.00	-1.00	1.00	-1.00	-1.00	7.65	153.00	7.71	-1.0	-1.0	-1.0	-1.0	-1.0
27	245.00	0.02	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	9.06	-1.0	-1.0	-1.0	-1.0	-1.0
28	286.00	0.00	0.06	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.62	-1.0	-1.0	-1.0	-1.0	-1.0
31	89.00	0.01	0.17	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	9.83	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	89.00	0.01	0.16	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	13.47	-1.0	-1.0	-1.0	-1.0	-1.0
3	578.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	1.10	1.30	8.25	158.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 9 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
7	226.00	0.01	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.00	183.00	11.53	-1.0	2.3	18.6	3.4	10.8
8	289.00	0.00	0.00	0.32	0.23	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
9	381.00	0.00	0.50	-1.00	-1.00	-1.00	0.30	0.80	1.80	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	273.00	0.02	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	379.00	0.63	0.00	0.39	0.16	-1.00	-1.00	-1.00	-1.00	7.80	126.00	13.25	-1.0	-1.0	-1.0	-1.0	-1.0
15	569.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	239.00	0.01	0.02	-1.00	-1.00	-1.00	1.70	1.20	0.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	260.00	0.00	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.0	-1.0	-1.0	-1.0	-1.0
18	284.00	0.00	0.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	10.03	-1.0	-1.0	-1.0	-1.0	-1.0
21	192.00	0.04	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.18	-1.0	-1.0	-1.0	-1.0	-1.0
22	278.00	0.02	0.00	0.00	0.06	-1.00	-1.00	-1.00	-1.00	7.95	165.00	9.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	17.20	2.10	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	80[illegible].00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.64	-1.0	-1.0	-1.0	-1.0	-1.0
29	307.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.60	115.00	7.00	-1.0	-1.0	-1.0	-1.0	-1.0
30	307.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1.00	2.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
DEC 1	299.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1.00	2.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
1	375.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.75	102.00	4.15	-1.0	-1.0	-1.0	-1.0	-1.0
2	234.00	0.00	0.00	0.36	0.13	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.46	-1.0	-1.0	-1.0	-1.0	-1.0
5	35.00	0.07	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.95	132.00	8.84	-1.0	-1.0	-1.0	-1.0	-1.0
6	411.00	0.05	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.27	-1.0	-1.0	-1.0	-1.0	-1.0
8	234.00	0.01	0.00	0.29	0.00	-1.00	-1.00	-1.00	-1.00	7.45	139.00	7.11	0.0	-1.0	-1.0	-1.0	-1.0
9	287.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.50	120.00	5.85	-1.0	-1.0	-1.0	-1.0	-1.0
14	242.00	0.02	0.06	0.00	0.03	-1.00	-1.00	-1.00	-1.00	7.15	130.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
15	476.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.99	0.0	-1.0	-1.0	-1.0	-1.0
16	296.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.94	-1.0	-1.0	-1.0	-1.0	-1.0
21	331.00	0.02	0.00	0.28	0.35	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.18	-1.0	-1.0	-1.0	-1.0	-1.0
22	228.00	0.01	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.75	141.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	87.00	0.01	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	-1.00	0.19	0.00	0.17	-1.00	-1.00	-1.00	-1.30	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
JAN 9	1468.00	0.20	0.00	0.00	0.20	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1.18	0.0	-1.0	-1.0	-1.0	-1.0

TABLE 10 PERCOLATE FROM CONTROL SECTION 17 MAY 1977 - 31 MAY 1978

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
MAY 19	0.00	0.51	0.13	0.35	0.20	-1.00	-1.00	-1.00	-1.00	6.65	209.00	20.74	-1.0	-1.0	-1.0	-1.0	-1.0
JUNE 1	66.00	0.33	0.44	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.25	199.00	21.73	-1.0	-1.0	-1.0	-1.0	-1.0
7	-1.00	0.00	0.25	-1.00	-1.00	0.13	-1.00	-1.00	-1.00	7.40	312.00	48.47	-1.0	-1.0	-1.0	-1.0	-1.0
8	-1.00	0.00	0.05	0.62	0.00	-1.00	4.10	-1.00	-1.00	7.85	287.00	25.22	32.0	-1.0	-1.0	-1.0	-1.0
15	41.00	0.20	0.00	0.96	0.20	-1.00	-1.00	1.92	1.30	7.75	271.00	25.64	-1.0	-1.0	-1.0	-1.0	-1.0
16	0.00	0.23	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	31.29	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	0.30	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.25	272.00	25.65	-1.0	-1.0	-1.0	-1.0	-1.0
23	0.00	0.42	0.00	1.02	0.00	-1.00	0.82	-1.00	-1.00	-1.00	-1.00	28.70	3.0	-1.0	-1.0	-1.0	-1.0
28	0.00	0.49	0.00	-1.00	0.24	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.85	-1.0	-1.0	-1.0	-1.0	-1.0
JULY 1	0.00	0.56	1.11	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.65	294.00	28.39	-1.0	-1.0	-1.0	-1.0	-1.0
6	0.00	0.76	0.10	0.71	0.06	-1.00	-1.00	-1.00	-1.00	7.95	301.00	30.47	170.0	-1.0	-1.0	-1.0	-1.0
7	0.00	3.05	0.12	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	-1.00	-1.00	28.98	-1.0	-1.0	-1.0	-1.0	-1.0
11	0.00	1.59	0.00	-1.00	-1.00	-1.00	-1.00	1.32	0.64	7.60	400.00	35.97	-1.0	-1.0	-1.0	-1.0	-1.0
13	25.00	1.37	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.90	-1.0	-1.0	-1.0	-1.0	-1.0
14	0.00	1.87	0.00	0.64	0.00	0.14	-1.00	-1.00	-1.00	-1.00	-1.00	54.82	-1.0	-1.0	-1.0	-1.0	-1.0
15	29.00	0.79	0.17	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	57.32	-1.0	-1.0	-1.0	-1.0	-1.0
18	0.00	0.62	0.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	48.78	0.0	-1.0	-1.0	-1.0	-1.0
19	0.00	0.69	0.37	-1.00	-1.00	0.12	-1.00	-1.00	-1.00	7.70	571.00	42.49	-1.0	-1.0	-1.0	-1.0	-1.0
20	0.00	0.62	0.49	0.65	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	42.26	-1.0	-1.0	-1.0	-1.0	-1.0
21	0.00	0.60	0.00	-1.00	-1.00	-1.00	0.99	-1.00	-1.00	-1.00	-1.00	39.12	-1.0	-1.0	-1.0	-1.0	-1.0
22	0.00	0.57	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	37.11	-1.0	-1.0	-1.0	-1.0	-1.0
26	0.00	0.59	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	48.18	-1.0	-1.0	-1.0	-1.0	-1.0
27	22.00	0.67	0.00	-1.00	-1.00	0.14	-1.00	-1.00	-1.00	7.75	608.00	39.52	-1.0	-1.0	-1.0	-1.0	-1.0
28	0.00	0.71	0.00	-1.00	-1.00	-1.00	-1.00	0.85	0.40	-1.00	-1.00	38.92	-1.0	-1.0	-1.0	-1.0	-1.0
29	47.00	0.63	0.00	0.74	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	39.67	-1.0	-1.0	-1.0	-1.0	-1.0
AUG 3	0.00	0.78	0.21	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.35	643.00	41.46	-1.0	-1.0	-1.0	-1.0	-1.0
5	0.00	0.66	0.10	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	38.19	1.0	-1.0	-1.0	-1.0	-1.0
9	43.00	0.39	0.28	1.15	0.28	-1.00	-1.00	-1.00	-1.00	8.10	775.00	49.57	-1.0	-1.0	-1.0	-1.0	-1.0
12	51.00	0.26	0.15	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	49.34	-1.0	-1.0	-1.0	-1.0	-1.0
18	28.00	0.32	0.00	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	7.75	903.00	63.02	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 10 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
19	8.00	0.15	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	44.26	-1.0	-1.0	-1.0	-1.0	-1.0
24	18.00	0.33	0.10	0.31	0.25	-1.00	-1.00	-1.00	0.13	7.35	773.00	34.64	-1.0	-1.0	-1.0	-1.0	-1.0
26	22.00	0.04	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	39.50	-1.0	-1.0	-1.0	-1.0	-1.0
30	12.00	0.47	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	27.56	-1.0	-1.0	-1.0	-1.0	-1.0
SEPT 1	22.00	0.15	0.25	-1.00	-1.00	0.11	1.30	-1.00	-1.00	7.85	698.00	27.82	3.0	-1.0	-1.0	-1.0	-1.0
7	10.00	3.72	0.00	1.14	0.25	-1.00	-1.00	13.80	1.07	7.95	704.00	31.25	-1.0	-1.0	-1.0	-1.0	-1.0
9	8.00	2.25	0.28	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	16.76	-1.0	-1.0	-1.0	-1.0	-1.0
13	13.00	0.03	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.99	817.00	20.22	-1.0	-1.0	-1.0	-1.0	-1.0
14	31.00	0.07	0.00	0.50	0.00	-1.00	-1.00	-1.00	-1.00	7.65	721.00	50.47	-1.0	-1.0	-1.0	-1.0	-1.0
15	6.00	0.14	0.00	-1.00	-1.00	-1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.0	-1.0	-1.0	-1.0	-1.0
16	18.00	0.07	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	50.22	-1.0	-1.0	-1.0	-1.0	-1.0
22	101.00	0.02	0.00	0.50	0.00	-1.00	-1.00	3.40	3.40	7.75	646.00	37.23	-1.0	-1.0	-1.0	-1.0	-1.0
23	41.00	0.03	0.13	-1.00	-1.00	-1.00	-1.00	3.80	-1.00	-1.00	-1.00	38.28	-1.0	-1.0	-1.0	-1.0	-1.0
27	60.00	0.12	0.00	0.56	0.00	-1.00	-1.00	-1.00	-1.00	7.70	64.00	27.54	-1.0	-1.0	-1.0	-1.0	-1.0
28	25.00	0.10	0.04	0.56	0.00	-1.00	-1.00	-1.00	-1.00	7.60	585.00	26.00	-1.0	-1.0	-1.0	-1.0	-1.0
29	38.00	0.02	0.07	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	22.28	-1.0	-1.0	-1.0	-1.0	-1.0
30	16.00	0.02	0.05	-1.00	-1.00	-1.00	0.14	-1.00	-1.00	-1.00	-1.00	22.69	0.0	-1.0	-1.0	-1.0	-1.0
OCT 3	86.00	0.03	0.00	0.28	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	16.00	-1.0	-1.0	-1.0	-1.0	-1.0
4	46.00	0.09	0.25	0.57	0.07	-1.00	-1.00	-1.00	-1.00	7.60	515.00	17.86	-1.0	-1.0	-1.0	-1.0	-1.0
6	23.00	0.00	0.38	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.05	440.00	17.03	-1.0	-1.0	-1.0	-1.0	-1.0
11	65.00	0.03	0.13	0.93	0.15	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	14.44	-1.0	-1.0	-1.0	-1.0	-1.0
12	27.00	0.05	0.25	-1.00	-1.00	-1.00	0.00	-1.00	-1.00	7.95	486.00	15.11	-1.0	-1.0	-1.0	-1.0	-1.0
18	134.00	0.03	0.13	0.35	0.00	-1.00	-1.00	-1.00	-1.00	7.90	397.00	10.31	-1.0	-1.0	-1.0	-1.0	-1.0
19	-1.00	0.02	0.04	0.38	0.12	-1.00	-1.00	-1.00	-1.00	7.25	408.00	9.38	-1.0	-1.0	-1.0	-1.0	-1.0
26	0.00	0.10	0.00	-1.00	-1.00	-1.00	2.20	-1.00	-1.00	8.30	398.00	5.64	-1.0	-1.0	-1.0	-1.0	-1.0
27	7.00	0.10	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	13.48	-1.0	-1.0	-1.0	-1.0	-1.0
28	15.00	0.02	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	13.06	-1.0	-1.0	-1.0	-1.0	-1.0
31	14.00	0.06	0.11	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	14.39	-1.0	-1.0	-1.0	-1.0	-1.0
NOV 1	13.00	0.04	0.05	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	14.75	-1.0	-1.0	-1.0	-1.0	-1.0
3	39.00	0.04	0.00	-1.00	-1.00	-1.00	-1.00	0.50	0.00	8.30	490.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0

TABLE 10 CONT.

DATE	WATER	NO3	NH4	N(K)	P(T)	PO4	BOD	TSS	VSS	PH	COND	CL	CF(F)	K	CA	MG	NA
7	52.00	0.05	0.12	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.40	522.00	16.30	-1.0	-1.0	-1.0	-1.0	-1.0
8	21.00	0.01	0.00	0.23	0.17	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
9	45.00	0.00	0.00	-1.00	-1.00	-1.00	0.90	0.50	1.30	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
10	30.00	0.01	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
14	26.00	0.47	0.00	0.16	0.00	-1.00	-1.00	-1.00	-1.00	7.80	407.00	13.74	-1.0	-1.0	-1.0	-1.0	-1.0
15	40.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
16	14.00	0.01	0.01	-1.00	-1.00	-1.00	2.20	6.40	1.90	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
17	47.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.0	-1.0	-1.0	-1.0	-1.0
18	22.00	0.00	0.09	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	12.15	-1.0	-1.0	-1.0	-1.0	-1.0
21	18.00	0.04	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	13.33	-1.0	-1.0	-1.0	-1.0	-1.0
22	37.00	0.02	0.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	8.05	412.00	12.51	-1.0	-1.0	-1.0	-1.0	-1.0
23	32.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	94.70	12.70	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	36.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	9.45	-1.0	-1.0	-1.0	-1.0	-1.0
29	26.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.90	330.00	8.45	-1.0	-1.0	-1.0	-1.0	-1.0
30	18.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	3.10	2.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
DEC 1	35.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.50	1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
1	32.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.95	321.00	9.02	-1.0	-1.0	-1.0	-1.0	-1.0
2	8.00	0.01	0.00	0.60	0.26	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5.40	-1.0	-1.0	-1.0	-1.0	-1.0
5	30.00	0.09	0.41	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	8.30	278.00	7.76	-1.0	-1.0	-1.0	-1.0	-1.0
6	18.00	0.05	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.53	-1.0	-1.0	-1.0	-1.0	-1.0
8	37.00	0.03	0.00	0.03	0.00	-1.00	-1.00	-1.00	-1.00	7.40	330.00	7.11	0.0	-1.0	-1.0	-1.0	-1.0
9	46.00	0.04	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	7.85	309.00	7.06	-1.0	-1.0	-1.0	-1.0	-1.0
14	-1.00	0.06	0.19	0.00	0.00	-1.00	-1.00	-1.00	-1.00	7.45	317.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
15	49.00	0.00	0.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.76	0.0	-1.0	-1.0	-1.0	-1.0
16	39.00	0.02	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.44	-1.0	-1.0	-1.0	-1.0	-1.0
21	122.00	0.05	0.00	0.04	0.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.14	-1.0	-1.0	-1.0	-1.0	-1.0
22	58.00	0.01	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	6.90	292.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
23	9.00	0.11	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
28	-1.00	0.09	0.05	0.73	0.65	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.0	-1.0	-1.0	-1.0	-1.0
JAN 1978 9	54.00	0.11	0.00	0.00	0.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	10.45	1.0	-1.0	-1.0	-1.0	-1.0

Table 11a

Analysis of Surface Water Samples from the Primary Test Section

Date	Nitrate Distance Downslope 3m.	15m.	28m.	Ammonium Distance Downslope 3m.	15m.	28m.	Total Kjeldahl Nitrogen Distance Downslope 3m.	15m.	28m.
1977									
30 August	0.3	1.1	0.3	22.3	15.6	1.0			
15 Sept	0.4	2.3	2.6	29.2	18.4	5.6	33.8	22.3	8.6
29 Sept	2.1	0.7	6.6	23.5	15.7	1.2	24.7	16.7	2.2
5 Oct	0.6	1.1	0.8	25.6	18.8	5.5	29.0	21.3	7.7
13 Oct	0.1	>10	6.4	92.2	60.7	3.4	>50	>50	4.3
21 Oct am	4.7	8.6	13.4	1.4	0.1	0			
21 Oct pm	2.2	4.6	6.2	0.5	0.2	0			
27 Oct	1.0	2.1	2.9	25.8	23.3	7.6			
3 Nov	1.2	3.1	2.6	27.4	19.2	3.2			
7 Nov	0.6	0.8	1.9	32.8	26.2	7.2			
9 Nov	1.6	3.1	2.9	32.9	27.2	11.9			
16 Nov	2.3	3.3	3.9	35.4	32.0	18.3			
18 Nov	0.8	2.0	2.2	32 3	25.8	13.7			
21 Nov	0.5	1.8	2.2	34.2	28.8	17.2			
28 Nov	0.9	1.9	2.2	31.5	22.7	13.6			
1978									
27 April	0.8	0.9	2.1	27.2	29.9	23.1			
3 May	0.4	0.5	2.1	27.7	27.2	19.0			
12 May	0.9	0.9	1.8	32.2	27.0	21.3			
19 May	0.4	0.9	1.8	32.0	20.6	21.8			
26 May	0.1	0.9	1.3	36.0	22.7	25.3			

Table 11b
Analysis of Surface Water Samples
from the Primary Test Section

Date	Total Phosphorus Distance Downslope			Chloride Distance Downslope			Nitrite Distance Downslope		
1977	3m.	15m.	28m.	3m.	15m.	28m.	3m.	15m.	28m.
15 Sept	4.5	3.7	2.6	29.1	29.3	32.6			
29 Sept	4.3	3.6	1.9	27.1	26.1	24.4			
5 Oct	4.8	4.2	2.9	33.8	29.6	27.9			
13 Oct	6.8	5.1	1.8	29.8	28.9	22.5			
27 Oct				34.1	33.5	31.4	0.1	0.2	0.2
3 Nov									
7 Nov	8.4	7.1	4.5	33.3	32.8	29.9			
9 Nov	7.3	5.7	4.2						
16 Nov	6.1	4.8	4.2						
18 Nov	6.7	5.5	4.1	48.9	44.4	41.9	0.1	0.1	0.0
21 Nov	8.3	6.7	5.6	39.9	38.7	38.1	0.0	0.0	0.0
28 Nov				37.2	33.2	32.1	0.1	0.0	0.0
1978									
27 April				34.2	33.4	33.0			
3 May				32.9	32.7	32.4			
19 May				31.8	28.1	28.4			
26 May				33.4	29.4	31.0			

Table 12a
Analysis of Surface Water Samples
From the Secondary Test Section

Date 1977	Nitrate Distance Downslope 3m.	15m.	28m.	Ammonium Distance Downslope 3m.	15m.	28m.	Total Kjeldahl Nitrogen Distance Downslope 3m.	15m.	28m.
30 Aug	10.5	10.8	4.1	6.3	3.0	0.0			
15 Sept	8.7	11.0	1.0	10.0	2.1	0.0	12.0	3.6	1.5
29 Sept	7.5	6.1	0.0	8.8	5.6	0.6	10.4	6.7	1.5
5 Oct	3.3	3.8	3.9	19.5	12.2	5.5	21.3	13.7	6.9
13 Oct	23.6	20.4	12.2	11.0	3.8	1.6	12.9	5.9	3.1
21 Oct am	0.8	1.1	0.9	0.4	0.0	0.0			
21 Oct pm	0.5	0.4	0.3	0.2	0.0	0.0			
27 Oct	3.2	3.3	3.9	23.8	23.2	14.4			
2 Nov	11.3	13.8	13.7	26.0	16.7	6.5			
7 Nov	6.4	8.5	9.1	29.2	23.2	16.4			
9 Nov	23.6	24.4	22.3	31.0	23.6	8.2			
16 Nov	12.3	15.8	17.7	28.4	18.7	14.1			
18 Nov	5.2	7.6	7.6	28.1	22.1	12.3			
21 Nov	4.3	6.6	6.6	31.9	26.6	16.1			
28 Nov	3.1	4.2	3.0	26.9	22.4	8.9			
1978									
27 April	2.2	1.3	10.8	30.4	10.3	12.3			
3 May	4.2	6.2	9.0	26.0	22.6	12.6			
26 May	2.7	5.3	6.8	36.0	25.5	18.9			

Table 12b
Analysis of Surface Water Samples
from the Secondary Test Section

Date	Total Phosphorus Distance Downslope			Chloride Distance Downslope			Nitrite Distance Downslope		
1977	3m.	15m	28m.	3m.	15m.	28m.	3m.	15m.	28m.
15 Sept	4.5	3.7	2.6	29.4	29.4	35.3			
29 Sept	4.3	3.6	1.9	27.6	25.3	27.0			
5 Oct	4.8	4.2	2.9	30.8	29.3	29.0			
13 Oct	6.8	5.1	1.8	29.7	29.0	27.8			
27 Oct				34.4	34.7	33.3	0.5	0.5	0.6
2 Nov				33.8	33.7	32.5	0.9	0.7	0.7
7 Nov	6.1	5.7	4.8	33.3	32.5	31.8			
9 Nov	5.8	5.4	4.1						
16 Nov	5.9	5.0	1.4						
18 Nov	6.0	5.5	4.4	39.3	38.9	37.6	0.2	0.2	0.4
21 Nov	7.2	6.9	4.9	41.4	41.2	40.1	0.0	0.0	0.2
28 Nov				35.6	36.1	33.3	0.2	0.1	0.0
1978									
27 April				33.5	33.6	33.4			
3 May				31.8	32.1	31.6			
26 May				30.7	29.7	29.4			

Table 13a
Analysis of Surface Water Samples
from the Control Test Section

Date	Nitrate Distance Downslope			Ammonium Distance Downslope			Total Kjeldahl Nitrogen Distance Downslope		
1977	3m.	15m.	28m.	3m.	15m.	28m.	3m.	15m.	28m.
30 Aug	0.0	0.0	0.0	0.0	0.0	0.0			
15 Sept	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.3	0.5
29 Sept	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
5 Oct	0.0	0.0	0.0	0.2	0.2	0.1	0.6	0.4	0.8
13 Oct	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.4	0.4
21 Oct am									
21 Oct pm									
27 Oct	0.0	0.0	0.0	0.1	0.2	0.2			
2 Nov	0.0	0.0	0.0	0.1	0.0	0.0			
7 Nov	0.0	0.0	0.0	0.0	0.1	0.0			
9 Nov	0.0	0.0	0.0	0.1	0.1	0.1			
16 Nov	0.0	0.0	0.0	0.0	0.0	0.0			
18 Nov	0.0	0.0	0.0	0.0	0.0	0.2			
21 Nov	0.0	0.0	0.0	0.1	0.0	0.0			
28 Nov	0.0	0.0	0.0	0.0	0.0	0.0			

Table 13b
Analysis of Surface Water Samples
from the Control Test Section

Date 1977	Total Phosphorus Distance Downslope			Chloride Distance Downslope			Nitrite Distance Downslope		
	3m.	15m.	28m.	3m.	15m.	28m.	3m.	15m.	28m.
15 Sept	0.1	0.1	0.3	4.8	4.5	5.6			
29 Sept	0.3	0.1	0.0	7.3	7.5	7.9			
5 Oct	0.3	0.2	0.1	7.1	7.3	8.3			
13 Oct	0.5	0.3	0.1	7.6	7.8	9.3			
27 Oct				7.1	8.0	10.9	0.0	0.0	0.0
2 Nov				6.2	7.0	7.5	0.0	0.0	0.0
7 Nov	0.5	0.3	0.4	7.1	8.7	9.8			
9 Nov	0.3	0.4	0.3						
16 Nov	0.6	0.4	1.7						
18 Nov	0.3	0.5	0.5	7.0	7.9	9.9	0.0	0.0	0.0
21 Nov	0.0	0.2	0.5	6.7	7.2	7.8	0.1	0.1	0.1
28 Nov				6.1	6.1	7.6	0.1	0.1	0.1

Table 14. Summary of Water Quality Methods

Parameter	Method	Range	Standard Deviation	Instrument	Reference
Nitrate	Automated cadmium reduction	0-50 ppm	0.6	Technicon AA II	Technicon Industrial Method No. 271-73W (1973)
Ammonium	Automated	0-25 ppm	0.3	Technicon AA II	Technicon Industrial Method No. 98-70W (1973)
Kjeldahl-Nitrogen	Technicon Continuous Digestion (May 1977 - Feb 1978)	0-50 ppm	1.4	Technicon AA II	Tech. Indus. Method #146-71A (1972)
	Technicon Block Digestion (Feb-May 1978)		0.8	Technicon AA II	Tech. Indus Method # 329-74W/B (1977)
Total Phosphorus	Technicon Continuous Digestion (May 1977 - Feb 1978)	0-10 ppm	0.2	Technicon AA II	Tech. Indus. Method #116-71W (1972)
	Technicon Block Digestion (Feb.-May 1978)		0.1	Technicon AA II	Tech. Indus. Method #329-74 W/B (1977)
Ortho-Phosphorus	Manual Molybedenum Blue	0-0.11 ppm	0.002	Coleman Jr.	Hach
BOD	DO, Winkler method with Azide Modification	0-200 ppm	1.5	Manual titration	Standard Methods, 13th Ed. p. 477
Total Suspended Solids	Millipore	0-200 ppm	3.4	———	Standard Methods 13th Ed., pp. 537-538
Fecal Coliform	Membrane filter	10^0-10^6/100 ml		———	Standard Methods 13th Ed., p. 684
Chloride	Technicon Thiocynate	0-35 ppm	4.0	Technicon AA II	Tech. Indus. Method #99-70W (1973)
pH			0.1		
Specific conductance		100-1000 µmhos/cm	2.0		
Ca^{++}	Atomic Absorption			Perkin Elmer 303,703	Methods for Chemical Analysis of water and wastes (1974) p. 143.
Mg^{++}	Atomic Absorption			Perkin Elmer 303,703	Methods for Chemical Analysis of water and wastes (1974) p. 143.
Na^{+}	Atomic Absorption			Perkin Elmer 303,703	Methods for Chemical Analysis of water and wastes (1974) p. 143.
K^{+}	Atomic Absorption			Perkin Elmer 303,703	Methods for Chemical Analysis of water and wastes (1974) p. 143.

Table 15a

Monthly Meteorlogical Summary

June 1977

Date	Temperature °C			Rel. Hum. %	Wind		Precipitation	Pan Evap.	Soil Temp.
	Max	Min	Avg	Mean	Speed (MPH)	Dir.	Amt. (mm)	(mm)	°C
1	19	9	14	92	4	240	5.3	6.0	16.5
2	27	13	20	95	2	240	20.6	0.5	16.9
3	14	7	11	72	7	360		7.1	18.1
4	24	6	14	64	5	010		6.0	16.2
5	20	11	16	83	5	360		4.8	16.8
6	21	7	13	85	3	030	25.4	2.3	15.6
7	14	8	11	97	2	040	17.8	2.9	15.3
8	12	6	9	86	4	230	0.8	0.7	14.1
9	18	3	11	83	3	VAR		3.4	13.7
10	17	9	13	91	6	030	5.3	0.8	14.7
11	15	11	13	91	5	020	0.8	1.0	15.5
12	19	12	16	92	3	030		0	15.3
13	26	12	19	80	2	020		3.6	16.1
14	26	11	18	87	1	VAR	5.6	1.5	16.4
15	24	7	16	71	4	360		1.5	17.6
16	27	4	16	75	2	VAR		6.3	16.0
17	21	8	14	85	3	230	0.3	5.0	15.7
18	27	14	21	90	3	210	2.3	0.9	16.8
19	27	13	20	91	4	M	1.3	3.1	17.9
20	28	11	19	74	4	270	1.5	4.7	18.0
21	23	10	17	85	3	VAR	1.5	5.8	18.0
22	18	7	12	83	4	020		3.5	17.0
23	22	8	16	81	2	070		4.6	17.4
24	27	8	18	74	3	230		5.6	18.6
25	22	16	19	87	4	250	17.3	2.8	19.0
26	22	14	18	97	2	VAR	8.9	1.3	20.0
27	31	15	23	84	2	270	0.5	1.5	21.0
28	31	15	23	80	5	230		4.0	22.3
29	24	17	21	89	5	230	24.6	7.2	21.1
30	27	15	21	59	6	VAR		6.4	21.0
AVG	22	10	16	83	4	170	139.8 TOTAL	104.8 TOTAL	

Table 15b

Monthly Meteorological Summary

JULY 1977

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Pan Evap (mm)	Soil Temp. °C
1	30	14	22	77	4	250	.50	6.7	20.9
2	23	10	16	70	3	VAR		4.4	19.6
3	26	8	17	74	3	240	.55	5.6	18.8
4	29	13	21	89	3	VAR	.60	4.7	19.3
5	29	13	21	70	5	340		4.5	20.1
6	22	7	14	74	3	VAR		7.2	18.5
7	26	6	16	75	2	VAR		3.7	17.8
8	16	12	14	100	2	VAR	7.35	2.0	18.4
9	29	14	22	83	4	320		2.4	18.8
10	26	10	18	71	3	050		6.0	18.9
11	26	8	17	78	3	230		2.4	17.7
12	19	14	17	98	1	250	2.77	5.2	18.6
13	31	19	25	84	4	220	.25	0	19.8
14	27	15	21	72	4	360		4.9	20.7
15	31	14	23	69	3	230		5.2	19.5
16	32	18	25	78	2	VAR		5.8	20.8
17	30	21	25	87	3	VAR	T	2.2	21.2
18	30	17	23	73	3	360	1.5	3.5	21.4
19	33	15	24	76	3	240		6.5	20.8
20	35	20	27	70	4	230		4.0	23.6
21	35	18	26	84	3	240	8.2	3.6	24.1
22	19	9	14	62	7	360		10.0	21.7
23	25	8	16	62	5	360		6.5	19.4
24	29	13	21	66	5	240		8.0	21.0
25	23	13	18	90	4	M	3.0	2.1	20.2
26	20	8	14	64	3	M		3.9	18.9
27	23	6	14	65	4	350		7.1	18.0
28	26	7	16	65	3	220		4.9	19.2
29	26	11	18	66	5	210		4.6	18.4
30	24	16	20	88	3	240		5.4	—
31									—
AVG	29/26	13/12	21/19	73/76	3	VAR/260	24.72 TOTAL	1.9/144.7 TOTAL	

Table 15c

Monthly Meteorological Summary

AUGUST 1977

Date	Temperature °C Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Dir.	Precipitation Amt.	Pan Evap mm	Soil Temp °C
1	24	15	20	94	3	240	4.75	2.0	20.9
2	29	16	22	73	3	250		1.1	22.3
3	28	14	21	79	3	220		4.1	22.1
4	31	16	23	76	4	230		3.8	23.0
5	30	18	24	84	4	230	1.50	3.4	23.3
6	26	18	22	94	2	240	2.50	—	23.2
7	27	19	23	89	1	VAR	.25	1.3	23.4
8	28	18	23	90	2	240		2.2	23.3
9	26	11	18	60	5	340		0.5	23.2
10	20	9	15	93	2	VAR	16.15	7.0	19.9
11	30	18	24	81	2	VAR		0	21.9
12	25	15	20	92	2	VAR	3.97	1.4	23.0
13	26	14	20	79	5	220		2.0	22.2
14	27	16	22	90	4	220	7.11	3.0	22.4
15	26	12	19	71	2	VAR		2.5	21.2
16	24	12	18	83	2	VAR	6.85	2.1	19.7
17	26	13	19	82	5	240	.25T	3.6	21.1
18	22	9	16	69	5	M		2.7	20.7
19	23	8	15	73	3	VAR		3.5	19.6
20	20	7	14	75	5	VAR		3.8	18.9
21	24	6	15	73	3	VAR		4.2	17.7
22	23	10	17	89	5	M	2.28	1.5	17.6
23	24	7	16	79	4	M		1.5	17.7
24	17	10	13	98	4	050	1.78	2.6	18.9
25	19	7	13	74	5	VAR		0.1	17.7
26	23	6	15	74	3	220		4.6	17.6
27	27	9	18	82	4	240		2.4	18.0
28	33	17	25	79	3	250		1.2	20.4
29	33	20	22	76	4	230		1.2	21.6
30	25	13	19	83	4	070		5.5	22.0
31	22	12	17	81	3	VAR		3.9	20.2
AVG	25	13	19	81	3	VAR/220	47.39 TOTAL	78.7	TOTAL

Table 15d

Monthly Meteorological Summary

SEPTEMBER 1977

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Pan Evap mm	Soil Temp. °C
					M	M		2.7	20.8
1	29	19	24	80	4	220		3.6	22.2
2	29	19	24	80	3	VAR	0.25	2.6	22.2
3	26	12	19	78	3	VAR		2.7	19.2
4	25	10	18	73	3	230	0.25	2.5	18.1
5	22	12	17	91	4	VAR		3.5	19.0
6	21	11	16	75	3	VAR		4.1	18.6
7	21	8	15	68	3	VAR		6.3	17.8
8	22	7	15	71	5	200		1.9	17.9
9	22	7	15	72	3	230	0.81	2.5	18.3
10	24	13	19	74	6	360		3.7	17.3
11	18	6	12	66	3	VAR	0.25	1.7	16.1
12	21	4	13	75	2	VAR	11.25	1.3	17.4
13	15	11	13	99	6	240	26.00	0.2	18.1
14	22	11	16	79	4	050		0.5	17.7
15	20	6	13	76	2	240	4.25	2.3	16.7
16	17	7	12	94	1	VAR	3.50	1.4	16.5
17	16	12	14	98	1	VAR		0.5	18.7
18	25	18	20	90	3	050	2.25	0.2	20.4
19	24	13	19	90	4	080	27.25	2.2	16.8
20	14	5	10	90	3	050	3.25	2.4	13.7
21	11	6	9	95	2	050		2.3	14.6
22	13	6	9	88	2	050		0.5	15.0
23	16	6	11	89	3	190	2.00	1.0	14.5
24	11	8	10	90	6	170		1.3	13.8
25	11	6	8	74	5	230	14.60	1.5	14.1
26	17	9	13	97	4	230	0.25	1.3	15.5
27	19	9	14	82	2	VAR	2.00	2.1	15.0
28	19	7	13	92	6	020	4.75	0.6	15.2
29	15	5	10	78	4	210	4.00	3.1	13.4
30	13	3	8	94	3	VAR	106.61 TOTAL	62.5 TOTAL	
AVG	19	9	14	83					

Table 15e

Monthly Meteorological Summary

OCTOBER 1977

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Dir.	Precipitation Amt. (mm)	Pan Evap mm	Soil Temp. (°C)
1	16	10	13	98	3	VAR	43.35	1.9	13.9
2	16	10	13	91	4	030	0.75	1.3	14.5
3	10	6	8	78	6	360		3.7	13.9
4	14	2	8	74	4	340		2.6	12.9
5	20	1	11	77	4	230		2.0	12.2
6	17	2	9	76	4	230	0.50	1.2	13.2
7	10	-2	4	72	5	020		1.7	11.1
8	9	-5	2	77	4	200	3.55	3.0	9.1
9	16	6	11	91	5	240	36.40	0.5	11.2
10	11	5	8	81	3	270	0.25	0.7	11.9
11	16	2	9	78	4	VAR		1.0	12.4
12	13	4	9	79	3	VAR		0.5	12.5
13	9	-1	5	79	4	VAR		1.1	10.6
14	5	-2	2	94	5	050	4.30	1.4	8.8
15	7	0	4	93	4	360	5.56	0.8	8.7
16	14	-1	7	89	4	VAR	1.25	1.1	8.5
17	11	4	7	90	6	300	45.25	1.2	10.2
18	14	3	8	70	3	240		1.9	10.1
19	10	5	7	91	3	060		0.7	10.1
20	10	7	8	79	7	030		0	11.2
21	17	1	9	74	3	250		2.3	11.3
22	14	2	8	79	4	VAR	0.70	0.7	10.0
23	9	-5	2	60	5	360		0.9	8.6
24	14	-6	4	78	2	VAR		ICE	6.7
25	20	-3	9	80	1	VAR		3.9	7.3
26	21	6	7	76	4	220		1.0	10.3
27	23	5	14	84	2	VAR		0.4	12.2
28	16	1	8	81	3	010		1.1	11.4
29	M	-3	M	M	2	VAR		2.6	9.2
30	M	M	M	M	3	070		ICE	8.7
31	14	-6	4	M	1	VAR		1.4	9.3
AVG	13	1	7	81	4	VAR	141.86 TOTAL	42.6 TOTAL	

Table 15f

Monthly Meteorological Summary

NOVEMBER 1977

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Soil Temp. (°C)
1	19	- 7	6	87	2	240		7.4
2	18	- 2	8	90	1	VAR		6.8
3	16	1	8	83	2	230		9.8
4	12	8	10	77	2	240	1.00	10.0
5	12	7	9	91	3	040	0.25	10.5
6	M	M	M	M	3	230	0.75	11.0
7	10	M	M	M	5	100	2.80	11.5
8	9	4	6	91	5	070	4.10	10.9
9	13	8	10	99	2	VAR	0.30	11.2
10	16	10	13	99	3	190	7.20	11.7
11	17	1	9	70	7	230	19.20	11.5
12	7	- 3	2	76	2	210		8.4
13	2	- 1	1	80	7	360		7.3
14	- 1	- 8	- 4	58	5	330		6.7
15	1	-10	- 4	88	1	VAR		6.0
16	16	- 2	7	82	3	VAR		7.6
17	16	6	11	93	2	VAR	6.40	8.6
18	9	2	5	79	6	220	1.35	8.5
19	7	- 1	3	59	6	320		6.6
20	6	- 3	2	71	3	010		5.2
21	8	1	4	80	3	VAR		6.7
22	7	- 1	3	64	3	VAR		7.8
23	5	- 3	1	78	4	210	3.90	6.9
24	8	3	5	92	3	240	3.70	6.2
25	7	- 2	3	79	3	VAR		5.2
26	7	- 2	2	93	6	VAR	15.50	6.2
27	- 3	- 9	- 6	53	6	290		3.8
28	0	- 7	- 3	91	2	VAR	2.20	3.1
29	3	- 6	- 2	85	2	VAR		4.9
30	1	- 7	- 3	93	2	VAR	4.50	4.7
AVG	8	-0.3	4	81	4	VAR	73.15 TOTAL	

Table 15g

Monthly Meteorological Summary

DECEMBER 1977

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Snow Depth (cm)	Soil Temp. (°C)
1	7	2	4	94	5	220	14.6	2	5.3
2	11	0	6	64	6	230			5.7
3	8	2	5	57	7	230			4.2
4	5	- 3	1	66	5	270			3.4
5	- 2	- 7	- 4	89	4	040			3.3
6	- 1	- 4	- 2	100	M	M	8.75	25	4.8
7	- 3	-18	-11	M	M	M	1.25	31	4.8
8	- 5	-16	-10	M	2	VAR		33	4.7
9	- 1	-13	- 7	M	5	230	6.50	25	4.7
10	- 5	-16	-11	55	7	330		28	3.5
11	-22	-28	-25	M	4	VAR		25	2.6
12	-15	-29	-22	M	3	VAR	0.75	22	2.4
13	- 6	-16	-11	M	4	VAR	0.50	20	2.9
14	3	- 7	- 2	99	5	240	17.75	27.5	4.2
15	5	2	4	88	5	010	4.75	30	4.5
16	5	2	3	69	6	360		26	5.1
17	2	- 9	- 4	70	6	040		22.5	4.4
18	4	-14	- 5	85	3	VAR		22	3.6
19	4	- 2	1	74	6	060		20	3.6
20	0	- 4	- 2	81	4	060		19	3.7
21	4	- 3	1	90	4	330	5.25	22	4.5
22	4	- 2	1	77	4	230		26	5.4
23	5	- 3	1	69	5	220		25	5.5
24	8	- 9	1	86	1	VAR		24	4.6
25	6	- 4	1	88	3	VAR	8.00	21	3.7
26	8	-11	2	M	5	300		19	3.1
27	- 5	-22	-13	M	1	VAR		19	2.0
28	- 6	-22	-14	M	C	CALM		17	1.7
29	- 5	-21	-13	M	2	VAR		17	1.7
30	- 4	-18	-11	M	1	VAR		17	1.4
31	1	-15	- 8	M	5	050		17	1.8
AVG	0	- 9	- 5	M	4	VAR	68.10	TOTAL	

Table 15h Monthly Meteorological Summary

JANUARY 1978

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Snow cm	Soil Temp. (°C)
1	- 1	-20	-10	M	1	180		17	1.5
2	- 5	-21	-13	M	2	270		20	1.2
3	- 6	-23	-14	M	5	240		21	1.4
4	- 6	-21	-14	M	CALM	VAR		21	1.7
5	1	-13	- 6	90	1	250		17	1.7
6	- 2	- 7	- 5	82	7	050		17	1.9
7	- 4	- 8	- 6	94	6	140		18	2.0
8	4	- 7	- 2	100	5	240	13.75	19	2.0
9	5	-13	- 5	84	9	250	22.30	13	2.0
10	-13	-19	-16	83	9	270	0.30	14	1.9
11	- 6	-19	-12	80	7	230		15	1.8
12	- 6	-18	-12	84	5	060		16	1.9
13	- 9	-18	-13	99	5	040	0.30	15	1.8
14	- 4	- 9	- 6	100	5	050	13.40	37	1.5
15	- 6	-16	-11	95	3	010	0.20	37	1.2
16	- 5	-15	-10	81	4	240		36	1.0
17	- 9	-17	-13	97	4	060	0.80	36	1.2
18	- 6	-13	- 9	95	6	010	8.30	42	1.0
19	- 6	-15	-10	93	2	070		43	1.0
20	-11	-12	-11	96	6	040	9.30	41	1.0
21	- 8	-12	-10	97	3	340	8.70	53	0.8
22	0	-21	-10	93	CALM	VAR	0.70	62	0.8
23	1	-20	-10	91	2	VAR		59	0.9
24	2	-23	-11	92	1	VAR		57	0.9
25	1	- 6	- 3	99	1	VAR	12.00	56	1.0
26	12	- 3	5	77	10	210	19.70	65	1.2
27	- 3	- 8	- 5	77	9	220		35	1.1
28	- 5	-12	- 9	71	5	270		31	1.0
29	- 9	-20	-14	84	3	VAR		31	1.0
30	- 8	-17	-13	92	3	030		31	1.5
31	- 4	-19	-12	82	3	VAR		37	1.6
AVG	- 4	-15	- 9	89	4	147	109.75	TOTAL	

Table 15i

Monthly Meteorological Summary

FEBRUARY 1978

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Precipitation Snow (cm)	Soil Temp. (°C)
1	- 5	-22	-13	85	3	VAR		37	1.1
2	- 6	-22	-14	88	1	VAR		36	--------
3	-12	-25	-19	77	4	030		34	0.8
4	-12	-29	-20	76	4	030		33	1.0
5	-10	-29	-19	78	1	VAR		38	1.4
6	- 6	-16	-11	77	7	050	2.5	38	1.1
7	- 4	- 7	- 6	100	9	030	16.75	M	1.5
8	- 3	-21	-12	87	5	030		75	1.7
9	2	-28	-13	84	1	VAR		68	1.8
10	- 4	-26	-15	87	1	CALM		66	1.8
11	- 2	-29	-15	87	1	M		56	1.5
12	0	-21	-10	87	1	M		55	1.1
13	- 2	-15	- 8	82	3	VAR		54	1.3
14	- 2	-17	- 9	86	2	VAR		54	1.5
15	- 3	-22	-12	85	1	VAR		54	1.2
16	- 1	-22	-11	82	CALM	VAR		54	1.4
17	2	-11	- 6	86	2	VAR		52	1.7
18	1	-16	- 8	92	2	VAR		52	1.4
19	- 3	-19	-11	75	3	VAR	.37	51	1.1
20	1	-25	-12	87	1	VAR		51	1.1
21	- 1	-18	- 9	82	2	VAR		50	1.1
22	- 3	-24	-13	84	4	030		50	1.3
23	4	-17	- 6	67	4	320		50	1.5
24	2	-10	- 4	80	3	VAR		53	1.6
25	5	-15	- 5	73	3	VAR		53	1.2
26	4	-15	- 5	79	3	VAR		53	1.1
27	0	-13	- 6	77	6	010		53	1.5
28	- 2	-20	-11	78	3	VAR		53	2.0
AVG	- 2	-20	-11	82	3	VAR	19.62	45	

Table 15j

Monthly Meteorological Summary

MARCH 1978

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Snow Depth (cm)	Soil Temp. (°C)
1	- 3	-22	-12	74	M	M		53	1.8
2	- 5	-24	-14	76	M	M		53	1.5
3	- 3	-22	-12	90	CALM	VAR	1.50	55	1.1
4	- 3	-12	- 8	82	5	330	1.90	56	1.2
5	- 6	-18	-12	66	6	330		55	1.9
6	1	-19	- 9	57	6	330		55	2.2
7	- 1	-13	- 7	58	7	360		51	2.8
8	6	-21	- 8	77	CALM	VAR		53	3.0
9	8	-18	- 5	69	1	220		50	2.8
10	7	-12	- 3	77	2	060		49	2.7
11	11	-11	0	74	2	220		47	2.1
12	10	- 3	4	85	2	250		44	1.7
13	10	- 7	2	70	M	M		40	2.2
14	2	- 5	- 2	92	M	M	13.0	40	2.3
15	5	- 5	1	85	4	270		37	2.1
16	0	- 8	- 4	68	4	060		35	2.2
17	0	-13	- 7	63	2	330		34	2.4
18	2	-17	- 8	66	4	240		35	1.5
19	7	- 5	1	76	8	240		30	1.1
20	2	- 9	- 4	46	2	VAR		33	1.7
21	12	- 9	2	87	3	230		33	2.4
22	4	- 3	1	79	3	270		28	3.4
23	9	- 4	3	79	2	VAR	4.00	30	3.7
24	3	- 8	- 3	56	6	350		24	3.3
25	3	-12	- 5	55	2	VAR		25	1.5
26	1	- 3	- 1	85	3	VAR	2.60	24	1.2
27	4	- 1	2	100	2	220	7.30	29	1.2
28	8	1	4	79	3	250		23	2.4
29	8	0	4	68	4	260		18	4.2
30	5	- 5	0	73	4	030		15	4.0
31	7	- 6	1	79	2	360		5	3.8
AVG	4	-10	- 3	74	3	VAR	30.3 TOTAL		3.3

Table 15k

Monthly Meteorological Summary

APRIL 1978

Date	Temperature (°C) Max	Min	Avg	Rel. Hum. % Mean	Wind Speed (MPH)	Wind Dir.	Precipitation Amt. (mm)	Snow Depth (cm)	Soil Temp. (°C)
1	7	- 3	2	91	2	VAR	11.80		2.9
2	4	- 5	0	54	9	350			2.7
3	6	- 8	- 2	49	2	VAR			2.2
4	2	0	1	89	4	220	2.50		3.3
5	6	1	3	78	3	VAR	7.10		3.3
6	8	- 4	2	60	5	010			6.4
7	2	- 4	- 1	98	0	VAR	2.90		3.4
8	4	- 3	1	78	5	010	0.80		3.3
9	5	- 5	0	66	5	020			2.6
10	12	0	6	M	2	VAR			3.7
11	5	- 1	2	M	M	M	11.50		5.1
12	12	0	6	71	M	M	0.20		5.1
13	19	- 1	9	61	2	VAR			8.6
14	7	1	4	61	6	300			7.8
15	6	- 1	3	73	5	330			6.6
16	8	- 2	3	74	2	VAR			6.3
17	10	- 2	4	78	2	VAR			7.6
18	15	- 3	6	70	1	VAR			9.3
19	10	- 2	4	84	4	160	11.60		8.1
20	8	4	6	100	1	VAR	3.90		7.4
21	7	4	6	89	2	240	0.70		7.6
22	12	- 2	5	61	5	330			8.1
23	13	- 4	5	53	5	350			8.0
24	15	- 3	6	72	4	360			8.5
25	11	- 1	5	72	5	020			9.5
26	17	- 3	7	56	3	020			9.6
27	18	- 1	9	65	3	050			10.2
28	16	- 1	8	60	4	040			9.8
29	18	- 2	8	57	2	350			9.8
30	5	- 2	2	54	3	330			8.9
AVG	10	- 2	4	71	3	VAR	53.00	TOTAL	

Table 151

Monthly Meterological Summary

May 1978

Date	Temperature °C			Rel. Hum. %	Speed (MPH)	Wind Dir.	Precipitation (cm)		Soil Temp.
	Max	Min	Avg	Mean			Amt (mm)	Snow Depth	°C
1	7	-2	2	71	3	NW			8.9
2	8	1	4	72	3	VAR			9.0
3	12	-2	5	73	3	NNE			9.4
4	16	-4	6	58	1	VAR			9.1
5	14	2	8	64	1				11.3
6	19	-2	8	64	1				11.2
7	22	5	13	62	1	VAR			12.3
8	24	1	12	60	3	SW			12.8
9	20	8	14	92	3	SW	17.90		14.5
10	17	6	12	77	2	VAR			13.8
11	24	4	14	64	2	VAR			13.8
12	24	2	13	62	2	VAR			13.2
13	24	12	18	64	2	S			14.3
14	22	10	16	69	4	SE			14.7
15	13	10	12	97	2	ESE	8.00		13.1
16	19	12	16	91	2	VAR	5.20		13.3
17	20	12	16	90	2	VAR			14.0
18	16	12	14	100		Calm	2.30		13.9
19	30	12	21	70	1	VAR			14.5
20	30	12	21	72	1	VAR			15.4
21	20	6	12	77	3	N	1.70		16.2
22	22	2	12	66	2	N			14.4
23	26	3	14	73	1	VAR			15.3
24	23	6	14	77	1				16.0
25	26	12	20	78	2				16.7
26	30	9	17	77	1				17.3
27	30	14	22	74	1				18.0
28	33	12	22	74	1				18.2
29	31	14	22	79	1				18.2
30	30	14	22	86	1				18.0
31	28	15	22	87	2	VAR	7.70		18.0
Avg	21	7	14	75	2	VAR	42.8	TOTAL	

Table 16
Yields of Plant Material From
Individual Harvests
(June 1977-June 1978)

Test Area	Harvest Date			
	July 1977	September 1977	June 1978	Total
	----------kg/ha----------			
Primary Section	1763	1983	3612	7358
Secondary Section	1596	1855	2947	6398
Control Section	547	580	259	1386

Table 17
Percent N and P in Individual Harvests

Test Area	Harvest Date: July 1977	September 1977	June 1978
		%N	
Primary Section	2.60	3.07	3.26
Secondary Section	3.14	2.25	2.86
Control Section	2.53	2.39	3.07
		%P	
Primary Section	0.41	0.42	0.52
Secondary Section	0.45	0.43	0.50
Control Section	0.37	0.35	0.41

Table 18
Nitrogen and Phosphorus Uptake by Vegetation

Test Area	Harvest Date: July 1977	September 1977	June 1978	Total
	----------Nitrogen (kg/ha)----------			
Primary Section	46	61	117	224
Secondary Section	50	42	84	176
Control Section	14	14	8	36
	----------Phosphorus (kg/ha)----------			
Primary Section	7.2	8.3	18.8	34.3
Secondary Section	7.2	8.0	14.7	29.9
Control Section	2.0	2.0	1.1	5.1

Table 19a
Soils Analysis from Primary Section (Oct. 20, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble cations (meq/100g)					Exchangeable cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+N	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	39.3		0.121					0.019						0.180
1a	5-15	30.4		0.036					0.103						0.009
1b	0-5	36.8		0.120					0.114						0.122
1b	5-15	27.8		0.050					0.017						0.005
2a	0-5	33.3		0.096					0.076						0.094
2a	5-15	28.6		0.072					0.018						0.018
2b	0-5	31.4		0.050					0.030						0.003
2b	5-15	28.8		0.015					0.012						0.002
3a	0-5	32.6		0.105					0.033						0.016
3a	5-15	28.1		0.049					0.013						0.001
3b	0-5	32.8		0.074					0.029						0.001
3b	5-15	30.3		0.044					0.014						0.007
4a	0-5	35.7		0.171					0.035						0.010
4a	5-15	30.6		0.080					0.017						0.027
4b	0-5	33.2		0.080					0.028						0.001
4b	5-15	29.6		0.112					0.016						0.004

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 19b
Soil Analysis from Primary Section (Oct. 22, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100q)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	42.5		0.124					0.123						0.154
1a	5-15	31.8		0.053					0.039						0.043
1b	0-5	41.6		0.147					0.110						0.200
1b	5-15	28.3		0.081					0.049						0.012
2a	0-5	47.1		0.097					0.110						0.058
2a	5-15	29.5		0.058					0.026						0.008
2b	0-5	38.3		0.056					0.054						0.007
2b	5-15	34.2		0.041					0.026						0.002
3a	0-5	35.4		0.050					0.056						0.048
3a	5-15	32.1		0.022					0.023						0.005
3b	0-5	33.1		0.041					0.032						0.001
3b	5-15	30.0		0.056					0.017						0.001
4a	0-5	38.1		0.060					0.054						0.012
4a	5-15	28.8		0.041					0.021						0.003
4b	0-5	37.6		0.068					0.045						0.003
4b	5-15	31.4		0.042					0.026						0.002

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 19c
Soil Analysis from Primary Section(Oct. 25, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	37.0	6.4	0.066					0.083	0.34	0.09	2.61	0.39		0.132
1a	5-15	27.5	6.8	0.071					0.023	0.54	0.12	1.50	0.17		0.205
1b	0-5	30.5		0.060					0.062						0.064
1b	5-15	27.3		0.042					0.019						0.004
2a	0-5	38.9		0.065					0.086						0.116
2a	5-15	30.7		0.036					0.029						0.006
2b	0-5	31.3		0.043					0.045						0.001
2b	5-15	28.2		0.046					0.034						0.013
3a	0-5	34.6	6.6	0.059	0.14	0.02	0.07	0.10	0.065	0.34	0.09	1.97	0.20		0.004
3a	5-15	29.0	6.7	0.047	0.13	0.02	0.05	0.06	0.041	0.32	0.09	1.62	0.10		0.001
3b	0-5	33.3		0.048					0.034						0.003
3b	5-15	30.1		0.042					0.025						0.001
4a	0-5	33.3		0.052					0.062						0.021
4a	5-15	22.7		0.052					0.043						0.003
4b	0-5	40.5		0.115					0.049						0.116
4b	5-15	30.2		0.074					0.034						0.002

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 19d
Soils Analysis from Primary Section (Nov. 8, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5														
1a	5-15														
1b	0-5	41.3	6.7	0.054	0.14	0.03	0.06	0.10	0.045	0.31	0.14	2.29	0.42		0.018
1b	5-15	32.0	6.7	0.047	0.13	0.03	0.03	0.07	0.025	0.39	0.13	1.22	0.010		0.006
2a	0-5														
2a	5-15														
2b	0-5	34.0		0.049					0.029						0.002
2b	5-15	32.5		0.040					0.023						0.002
3a	0-5														
3a	5-15														
3b	0-5	37.8	7.2	0.054	0.23	0.03	0.09	0.08	0.025	0.33	0.13	2.33	0.20		0.000
3b	5-15	32.6	7.4	0.054	0.17	0.02	0.04	0.08	0.015	0.66	0.08	1.78	0.11		0.000
4a	0-5														
4a	5-15														
4b	0-5	41.1		0.061					0.033						0.001
4b	5-15	37.6		0.065					0.018						0.000

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 19e
Soils Analysis from Primary Section (Dec. 5, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1b	0-5	40.3	6.7	0.050	0.17	0.06	0.14	0.08	0.063	0.39	0.21	2.18	0.22		0.100
1a	5-15	28.7	7.2	0.045	0.12	0.02	0.05	0.05	0.023	0.41	0.11	2.00	0.09		0.013
1b	0-5														
1b	5-15														
2a	0-5	39.5		0.031					0.051						0.078
2a	5-15	32.0		0.022					0.059						0.007
2b	0-5														
2b	5-15														
3a	0-5	36.3	7.0	0.040	0.15	0.03	0.08	0.07	0.000	0.32	0.11	1.83	0.22		0.042
3a	5-15	31.0	6.9	0.028	0.28	0.04	0.06	0.05	0.032	0.30	0.08	1.48	0.08		0.003
3b	0-5														
3b	5-15														
4a	0-5	37.7		0.037					0.050						0.028
4a	5-15	28.0		0.034					0.032						0.002
4b	0-5														
4b	5-15														

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 19f
Soils Analysis from Primary Section (April 3, 1978)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	56.2							0.15					5.33	
1a	5-15	33.2							0.11					4.75	
1b	0-5	52.7							0.14					3.35	
1b	5-15	33.4							0.06					4.17	
2a	0-5														
2a	5-15														
2b	0-5														
2b	5-15														
3a	0-5								0.17					5.20	
3a	5-15								0.17					3.12	
3b	0-5	73.7							0.10					5.88	
3b	5-15	31.4							0.05					4.12	
4a	0-5														
4a	5-15														
4b	0-5														
4b	5-15														

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 20a
Soils Analysis from Secondary Section (Oct. 20, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	28.1		0.084					0.048						0.075
1a	5-15	28.0		0.057					0.018						0.003
1b	0-5	36.2		0.090					0.048						0.032
1b	5-15	28.3		0.044					0.015						0.003
2a	0-5	33.0		0.059					0.054						0.012
2a	5-15	28.6		0.039					0.033						0.001
2b	0-5	31.8		0.074					0.046						0.044
2b	5-15	26.3		0.041					0.014						0.003
3a	0-5	30.6		0.056					0.032						0.001
3a	5-15	26.3		0.052					0.017						0.000
3b	0-5	33.2		0.058					0.039						0.028
3b	5-15	27.1		0.045					0.016						0.002
4a	0-5	32.5		0.052					0.025						0.000
4a	5-15	29.0		0.043					0.014						0.000
4b	0-5	33.5		0.067					0.025						0.014
4b	5-15	30.3		0.046					0.011						0.001

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 20b
Soils Analysis from Secondary Section (Oct. 22, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	31.5		0.055					0.056						0.057
1a	5-15	27.8		0.034					0.032						0.007
1b	0-5	34.9		0.091					0.060						0.053
1b	5-15	28.8		0.030					0.020						0.044
2a	0-5	37.9		0.054					0.039						0.005
2a	5-15	29.4		0.033					0.028						0.003
2b	0-5	32.6		0.047					0.041						0.027
2b	5-15	26.9		0.039					0.021						0.004
3a	0-5	31.8		0.055					0.039						0.002
3a	5-15	26.6		0.047					0.021						0.002
3b	0-5	33.4		0.063					0.040						0.021
3b	5-15	25.3		0.053					0.025						0.004
4a	0-5	33.6		0.038					0.034						0.001
4a	5-15	28.5		0.039					0.015						0.001
4a	0-5	38.6		0.071					0.053						0.014
4b	5-15	31.1		0.024					0.013						0.002

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 20c
Soils Analysis from Secondary Section (Oct. 25, 1978)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	28.6		0.064					0.063						0.325
1a	5-15	26.1		0.037					0.052						0.043
1b	0-5	30.3	6.3	0.068	0.13	0.01	0.06	0.06	0.050	0.34	0.08	1.41	0.28		0.479
1b	5-15	27.9	7.2	0.046	0.13	0.01	0.04	0.08	0.024	0.39	0.05	1.52	0.11		0.175
2a	0-5	31.8		0.054					0.054						0.050
2a	5-15	26.3		0.074					0.045						0.234
2b	0-5	32.7		0.051					0.060						0.079
2b	5-15	26.4		0.055					0.026						0.086
3a	0-5	31.9		0.040					0.040						0.079
3a	5-15	26.8		0.059					0.027						0.001
3b	0-5	32.0	6.5	0.045	0.17	0.02	0.08	0.08	0.049	0.27	0.08	2.00	0.28		0.018
3b	5-15	27.0	7.3	0.043	0.13	0.02	0.04	0.06	0.020	0.29	0.08	1.75	0.10		0.002
4a	0-5	31.2		0.033					0.029						0.001
4a	5-15	28.7		0.028					0.024						0.001
4b	0-5	37.5		0.047					0.047						0.006
4b	5-15	29.9		0.039					0.026						0.044

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 20d
Soils Analysis from Secondary Section (Nov. 8, 1978)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5														
1a	5-15														
1b	0-5	35.2	6.9	0.083	0.15	0.03	0.05	0.16	0.047	0.27	0.12	1.64	0.29		0.009
1b	5-15	31.2	7.4	0.044	0.13	0.02	0.02	0.10	0.029	0.32	0.07	1.45	0.09		0.005
2a	0-5	34.7		0.055					0.038						0.003
2a	5-15	35.5		0.060					0.025						0.000
2b	0-5														
2b	5-15														
3a	0-5	44.1	7.2	0.092	0.17	0.04	0.08	0.09	0.033	0.30	0.13	2.72	0.22		0.000
3a	5-15	27.4	7.7	0.058	0.17	0.02	0.05	0.07	0.016	0.35	0.09	1.74	0.11		0.001
3b	0-5														
3b	5-15														
4a	0-5	36.6		0.056					0.022						0.001
4a	5-15	34.5		0.037					0.011						0.001
4b	0-5														
4b	5-15														

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 20e
Soils Analysis from Secondary Section (Dec. 5, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5														
1a	5-15														
1b	0-5	46.2	6.6	0.076	0.27	0.03	0.14	0.15	0.086	0.36	0.10	1.94	0.24		0.086
1b	5-15	28.4	7.3	0.027	0.13	0.01	0.05	0.05	0.025	0.42	0.06	1.70	0.05		0.005
2a	0-5														
2a	5-15														
2b	0-5	42.6		0.040					0.050						0.038
2b	5-15	29.4		0.027					0.023						0.002
3a	0-5														
3a	5-15														
3b	0-5	37.2	6.8	0.040	0.20	0.08	0.09	0.07	0.050	0.39	0.07	1.62	0.19		0.085
3b	5-15	28.2	7.5	0.031	0.14	0.03	0.04	0.10	0.023	0.38	0.01	1.77	0.08		0.015
4a	0-5														
4a	5-15														
4b	0-5	37.5		0.040					0.038						0.032
4b	5-15	34.4		0.027					0.018						0.001

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 20f
Soils Analysis from Secondary Section (April 3, 1978)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	55.4							0.13					6.20	
1a	5-15	31.9												3.42	
1b	0-5	53.3							0.09					3.04	
1b	5-15	29.2							0.04					2.36	
2a	0-5														
2a	5-15														
2b	0-5														
2b	5-15														
3a	0-5	70.4							0.08					3.71	
3a	5-15	31.6							0.02					2.16	
3b	0-5	57.1							0.07					2.92	
3b	5-15	30.4							0.04					2.04	
4a	0-5														
4a	5-15														
4b	0-5														
4b	5-15														

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 21a
Soils Analysis from Tap Water Section (Oct. 20, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	29.7		0.061					0.039						0.002
1a	5-15	29.4		0.051					0.032						0.047
1b	0-5	33.6		0.084					0.036						0.001
1b	5-15	28.4		0.053					0.020						0.001
2a	0-5	34.9		0.060					0.027						0.000
2a	5-15	30.0		0.042					0.016						0.001
2b	0-5	37.8		0.075					0.031						0.001
2b	5-15	32.6		0.049					0.014						0.078
3a	0-5	31.8		0.076					0.032						0.000
3a	5-15	29.0		0.055					0.014						0.001
3b	0-5	35.9		0.061					0.045						0.001
3b	5-15	29.5		0.043					0.024						0.001
4a	0-5	35.6		0.058					0.042						0.001
4a	5-15	26.6		0.027					0.023						0.001
4b	0-5	36.7		0.089					0.021						0.003
4b	5-15	28.8		0.021					0.021						0.001

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 21b
Soils Analysis from Tap Water Section (Oct. 22, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	29.2		0.047					0.048						0.006
1a	5-15	28.6		0.040					0.042						0.001
1b	0-5														
1b	5-15														
2a	0-5	34.7		0.071					0.044						0.001
2a	5-15	29.3		0.023					0.025						0.001
2b	0-5														
2b	5-15														
3a	0-5	33.0		0.055					0.047						0.001
3a	5-15	28.9		0.041					0.019						0.000
3b	0-5														
3b	5-15														
4a	0-5	32.9		0.049					0.040						0.001
4a	5-15	27.5		0.017					0.025						0.001
4b	0-5														
4b	5-15														

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 21c
Soils Analysis from Tap Water Section (Oct. 25, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	31.6		0.083					0.034						0.116
1a	5-15	28.3		0.074					0.035						0.218
1b	0-5														
1b	5-15														
2a	0-5	43.6		0.084					0.050						0.001
2a	5-15	30.4		0.038					0.026						0.001
2b	0-5														
2b	5-15														
3a	0-5	28.6		0.066					0.028						0.059
3a	5-15	27.5		0.086					0.024						0.001
3b	0-5														
3b	5-15														
4a	0-5	30.4		0.041					0.036						0.001
4a	5-15	29.9		0.030					0.028						0.001
4b	0-5														
4b	5-15														

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 21d
Soils Analysis from Tap Water Section (Nov. 8, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5	39.3		0.062					0.033						0.003
1a	5-15	36.3		0.066					0.027						0.001
1b	0-5														
1b	5-15														
2a	0-5														
2a	5-15														
2b	0-5														
2b	5-15														
3a	0-5	38.5		0.048					0.036						0.001
3a	5-15	32.8		0.031					0.014						0.000
3b	0-5														
3b	5-15														
4a	0-5														
4a	5-15														
4b	0-5														
4b	5-15														

* See Figure 3
** Total Exchangeable Cations
\+ By weight

AD-A078 743 COLD REGIONS RESEARCH AND ENGINEERING LAB HANOVER NH F/G 13/2
PROTOTYPE OVERLAND FLOW TEST DATA: JUNE 1977-MAY 1978.(U)
NOV 79 T F JENKINS , H E HARE , A J PALAZZO
UNCLASSIFIED CRREL-SR-79-35 NL

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Table 21e
Soils Analysis from Tap Water Section (Dec 5, 1977)

Location*	Depth (cm)	Moisture Content (%)+	Soil pH	Soluble Cations (meq/100g)					Exchangeable Cations (meq/100g)					TEC** (meq/100g)	Soluble NO_3^- (meq/100g)
				NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}	NH_4^+	Na^+	K^+	Ca^{++}	Mg^{++}		
1a	0-5														
1a	5-15														
1b	0-5	34.5		0.040					0.041						0.000
1b	5-15	28.8		0.031					0.021						0.000
2a	0-5	43.5		0.027					0.037						0.000
2a	5-15	36.2		0.020					0.028						0.000
2b	0-5														
2b	5-15														
3a	0-5	42.3		0.031					0.034						0.004
3a	5-15	36.6		0.027					0.019						0.001
3b	0-5														
3b	5-15														
4a	0-5														
4a	5-15														
4b	0-5	40.1		0.049					0.041						0.002
4b	5-15	31.4		0.023					0.033						0.002

* See Figure 3
** Total Exchangeable Cations
\+ By weight

Table 22

Bulk Density and Volumetric Moisture Content

Section	Depth (cm)	Bulk Density (γd) g/cc Distance Downslope (m) 3	12	21	Volumetric Moisture Content (%) Distance Downslope (m) 3	12	21
Primary	0-7.5	1.37	1.38	1.38	46.6	45.6	47.3
	7.5-15	1.37	1.43	1.36	45.2	45.6	47.3
2	0-7.5	1.38	1.27	1.37	46.5	49.8	46.1
	7.5-15	1.46	1.46	1.44	42.9	44.6	43.4
3	0-7.5	1.38	1.41	1.20	45.5	45.9	50.0
	7.5-15	1.38	1.50	1.42	42.9	42.2	45.0

Table 23

Particle size analysis for the Three Prototypes

Section #	Particle Size Distribution Analysis (USDA Classification) % Sand >50μ	Silt 50 μ-20μ	20μ-2μ	Clay <2μ
Primary	36	38	24	2
Secondary	40	38	20	2
Tapwater	37	42	20	1