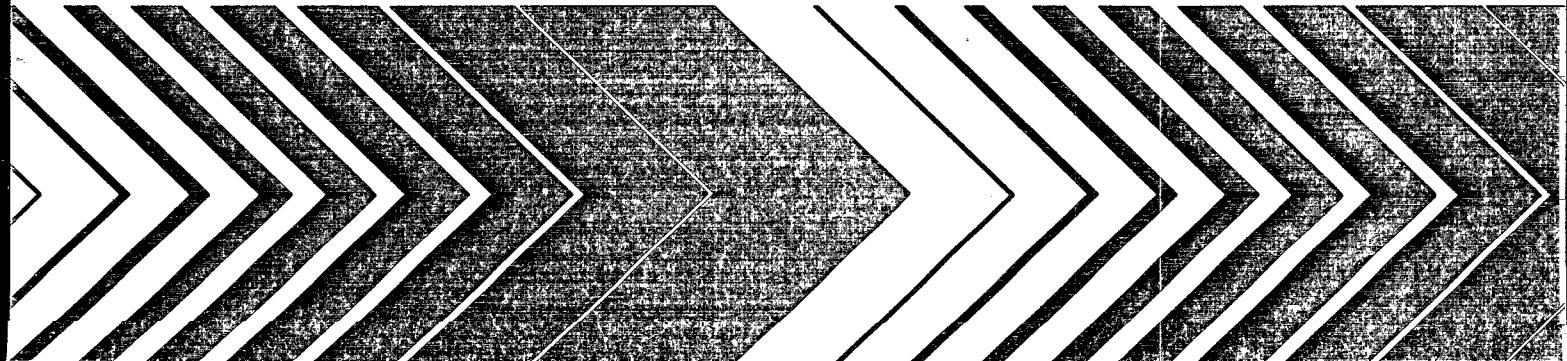

Research and Development



Control Strategies for the Activated Sludge Process



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CONTROL STRATEGIES
FOR THE
ACTIVATED SLUDGE PROCESS

by

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FOREWORD

The Environmental Protection Agency was created because of increasing public and government concern about the dangers of pollution to the health and welfare of the American people. Noxious air, foul water, and spoiled land are tragic testimony to the deterioration of our natural environment. The complexity of that environment and the interplay between its components require a concentrated and integrated attack on the problem.

Research and development is that necessary first step in problem solution and it involves defining the problem, measuring its impact, and searching for solutions. The Municipal Environmental Research Laboratory develops new and improved technology and systems for the prevention, treatment, and management of wastewater and solid and hazardous waste pollutant discharges from municipal and community sources, for the preservation and treatment of public drinking water supplies, and to minimize the adverse economic, social, health, and aesthetic effects of pollution. This publication is one of the products of that research; a most vital communications link between the researcher and the user community.

The automation of wastewater treatment plants has been considered for many years. Yet the state of the art in this area is today still in its infancy. Only very rudimentary control strategies have been implemented in wastewater treatment plants to date. The research reported herein focused on evaluating the performance benefits that can be achieved through the implementation of a process-level control strategy for the activated sludge process.

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ABSTRACT

Strategies that are proposed for control of the activated sludge process usually are designed to control either the mean solids retention time (MSRT) or the food-to-microorganism ratio (F/M), or both. The focus of this research centers on the last of the three alternatives. Therein, MSRT is used to control the solids wasting and F/M is used to control the solids inventory distribution to match the organic loading to the aerator so as to maintain a constant F/M level throughout the diurnal cycle.

Generally, three solids inventory control modes are possible. These include: (1) simple control of the recycle flow rate; (2) control of the recycle flow rate when provision has been made for a constant volume storage chamber; and (3) control of the recycle flow rate when provision has been made for a variable volume storage chamber. The first strategy is not suitable means for controlling the large diurnal flow variations experienced in most treatment plants. The last two strategies were simulated using a structured model. The second strategy was also evaluated through a pilot study conducted at the Blue Plains Pilot Waste Treatment Facility.

The pilot plant investigation was conducted in two phases. The first was an uncontrolled study to establish base-line conditions. The second phase was the actual application of the control strategy. Extensive data collection allowed comparison of the two studies and evaluation of the utility of the control strategy.

Based on the results of the computer simulations and pilot plant studies, the following general conclusions can be made:

- (1) Suspended solids that pass over the weirs of secondary clarifiers accounted for a major portion of the total carbonaceous material present in the effluent of the activated sludge process.
- (2) Reductions in soluble organic material that were obtained by solids inventory control tended to be offset by increases in suspended solids passing over the weirs of the clarifier.
- (3) F/M control had no overall net benefits for the range of process operational conditions studied.

This report was submitted in fulfillment of grant #R864357-01-0 by Clemson University under partial sponsorship of the U.S. Environmental Protection Agency. This report covers an experimental period from October 1975 to June 1977.

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SECTION 1

INTRODUCTION

The activated sludge process has become one of the most widely used methods of wastewater treatment. Automation of this process may provide benefits in the form of enhanced treatment performance. This facet, of course, has particular relevance considering the performance constraints that have been imposed through PL 92-500. If, for example, the performance of an existing treatment plant could be upgraded and made more reliable through the implementation of process control strategies, to the extent that future performance constraints can be met without installing additional treatment capacity, then rather dramatic monetary savings would be realized. It is specifically this concept that is the focus of the research reported herein.

Most control strategies that have been proposed for the activated sludge process can be grouped under the general category of controlling the food-to-microorganism ratio dynamically through biosolids inventory control while maintaining the mean cell residence time relatively constant. To control the F/M ratio one must be able to obtain information on the process status that is timely and sufficiently specific to permit the initiation of automatic control. Information required includes an index of the concentration of organics present in the influent stream and an indicator of the concentration of microorganisms. The COD, TOC, and TOD analytical procedures have been used as indexes for the former while primarily only the volatile suspended solids test has been used to provide an estimate of the latter, although ATP, DNA and dehydrogenase activity have been proposed as surrogates. Andrews and coworkers (1, 2) have proposed an interesting alternative control approach wherein the specific oxygen utilization rate is calculated on-line and used as an indicator of sludge activity in the initiation of automatic control.

This study was initiated to establish the performance benefits that can be attained through the implementation of various PLI control strategies. The study was two-fold in scope: (1) to mathematically simulate the performance of an activated sludge wastewater treatment plant controlled by various PLI control strategies; and (2) to experimentally evaluate one such PLI control strategy on a pilot-scale.

SECTION 2

CONCLUSIONS

Based on the results of two pilot-scale studies the following general conclusions can be made:

- (1) Suspended solids that pass over the weirs of secondary clarifiers account for the majority of carbonaceous material (as indexed by BOD) present in the effluent of the activated sludge treatment system.
- (2) Suspended solids that pass over the weirs of secondary clarifiers vary in direct proportion to the organic loading to the aerator.
- (3) Because PLI control imposes hydraulic transients on the activated sludge system, control itself serves to slightly degrade the effluent with respect to particulates even though slight benefits are obtained with respect to soluble organic materials.
- (4) PLI control appears to have no net benefits for the range of process operational conditions investigated.

Moreover, the following additional conclusions can be made on the basis of the mathematical simulations conducted as part of this research:

- (1) The extent of PLI control that can be achieved in an activated sludge system that does not have provision for external storage of biological solids is negligible. Meaningful PLI control can be achieved only when provision is made for the external storage of biological solids.
- (2) When a constant volume chamber is provided for external storage of biological solids an optimum size of storage chamber exists. If the storage chamber is too small, the extent of PLI control is constrained by the lower limitation on recycle pumping rate. Conversely, if the storage chamber is too large, then the extent of control is constrained by the upper limitation on recycle pumping rate.
- (3) For the case in which a variable volume storage chamber is employed for external storage of biological solids a minimum threshold storage volume exists. All volume supplied in excess of the threshold value has no net control capability benefits.

- (4) With respect to system performance the mathematical simulations showed that, although the variability of effluent quality decreased as the PLI was controlled more precisely at the set point level, virtually no net benefits were noted relative to the total mass of organics discharged from the treatment system.
- (5) In general, the mathematical simulations compared favorably with the experimental results obtained.

SECTION 3

RECOMMENDATIONS

Considering the foregoing conclusions, the objectives of controlling an activated sludge facility treating municipal wastewaters should be: (1) to minimize the mass of suspended solids transported over the weir of the secondary clarifier and into the effluent, and (2) to produce a biomass that thickens well such that solids inventory control options can be implemented. To meet these objectives all control strategies should be designed to control those biological and/or physical factors that influence clarification and thickening. Only then can one expect to observe improved system performance and stability as a result of implementing control strategies.

Before meaningful control strategies can be designed, however, it is necessary first to define the causal relationships between the various biological and physical parameters and their effect on clarification and thickening. Only then can the master control variables be defined such that effective control strategies can be properly designed for new plants or implemented at existing plants for the purpose of upgrading performance.

Studies should be initiated, therefore, to establish the functional effects of the following parameters on clarification and thickening: (1) mean cell residence time, (2) hydraulic residence time, (3) aerator dissolved oxygen tension, (4) aerator dissolved oxygen profiles, (5) aerator hydraulic regime, (6) contacting patterns, (7) dynamical characteristics of the influent, (8) clarifier overflow rates, (9) aerator shear intensity, (10) clarifier turbulence (bulk circulation). In addition to the usual measured response variables, the following parameters should be measured to establish the system performance causal relationships: (1) biomass ecology including predatory-prey and species competition relationships, (2) settling flux, (3) particle size distribution, and (4) extracellular polymers.

SECTION 4

CONTROL STRATEGIES

Biological solids inventory control is the objective of F/M control. Generally, three solids inventory control modes are possible. These include: (1) simple control of the recycle flow from the secondary clarifier to the aerator, Figure 1; (2) control of the recycle flow from the clarifier to the aerator when provision has been made in the system for a constant volume biological solids storage chamber, Figure 2; and (3) control of the recycle flow from the clarifier to the aerator when provision has been made in the system for a variable volume biological solids storage chamber, Figure 3. In the descriptive discussion of the three control strategies that follows, it has been assumed that both the aerator and storage basin have completely mixed hydraulic regimes. This, of course, is not a requisite assumption.

In the first of the three solids inventory control strategies, the clarifier is employed for the storage of biological solids. During periods of low diurnal organic loading, the recycle pump is controlled to decrease the return flow to the extent that the clarifier is forced into a temporarily overloaded condition. This results in a net transfer of biological solids from the aerator to the clarifier which is manifested in a decreasing MLSS concentration in the aerator and a rising "solids blanket" in the clarifier. Conversely, during periods of high organic loading, the control algorithm calls for an increased recycle pumping rate which results in a drawdown of the solids blanket in the clarifier and transfer of the solids to the aerator.

The extent of F/M control available through application of this control strategy is relatively small. This is due to the fact that there are certain physical and biological limitations (e.g. denitrification and sludge settleability) on the mass of biological solids that can be stored in and withdrawn from the clarifier. It is important to recognize, furthermore, that it is impossible to achieve any degree of F/M control if the clarifier is continuously underloaded. Control can be achieved only when the clarifier is transiently overloaded and underloaded through recycle rate control.

When provision is made for separate storage of biological solids, F/M control can be achieved to a much greater extent than for the case when the clarifier alone is employed for solids storage. If the solids storage basin is of a constant volume, Figure 2, then F/M control is achieved through control of the return flow, F_R , using the control algorithm:

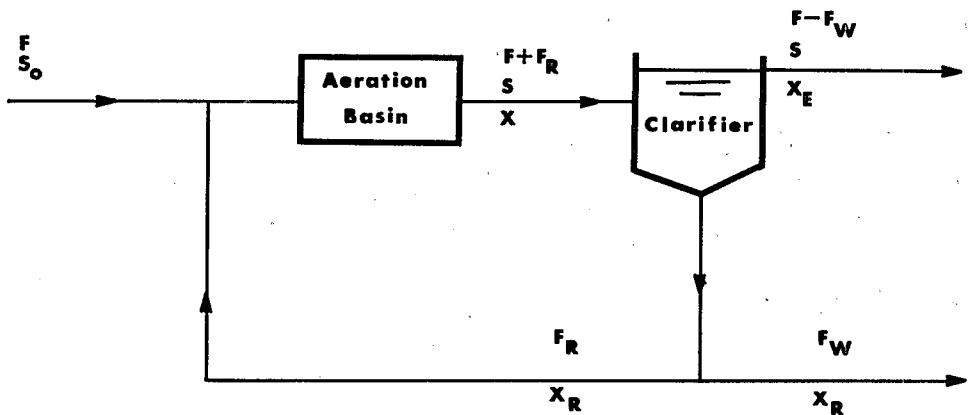


Figure 1. Schematic diagram of the conventional activated sludge process.

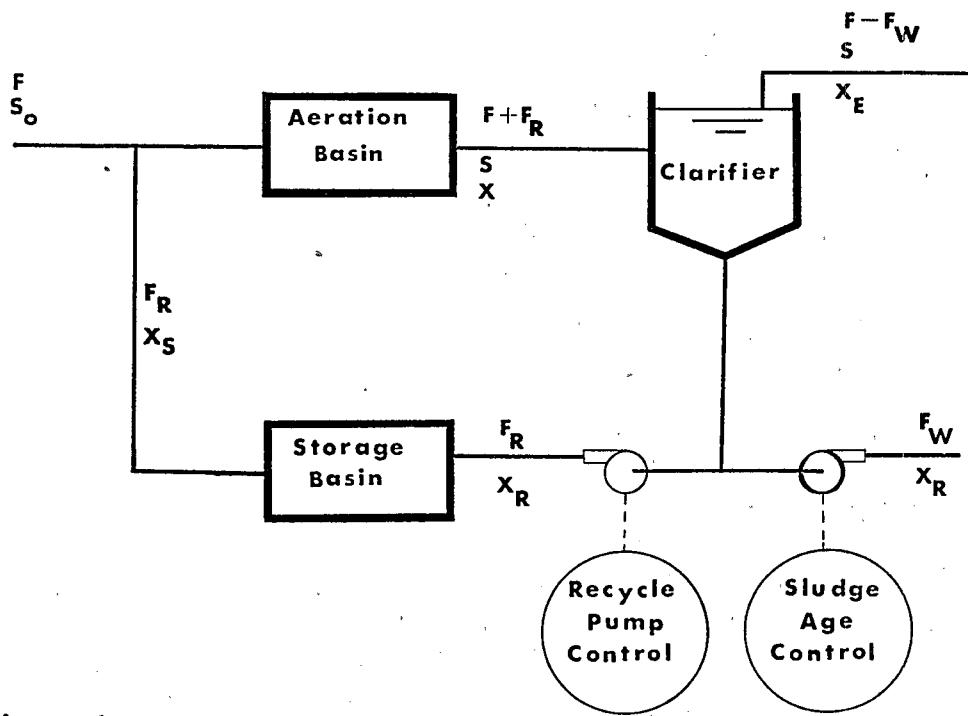


Figure 2. Schematic diagram for an F/M controlled activated sludge process with a constant.

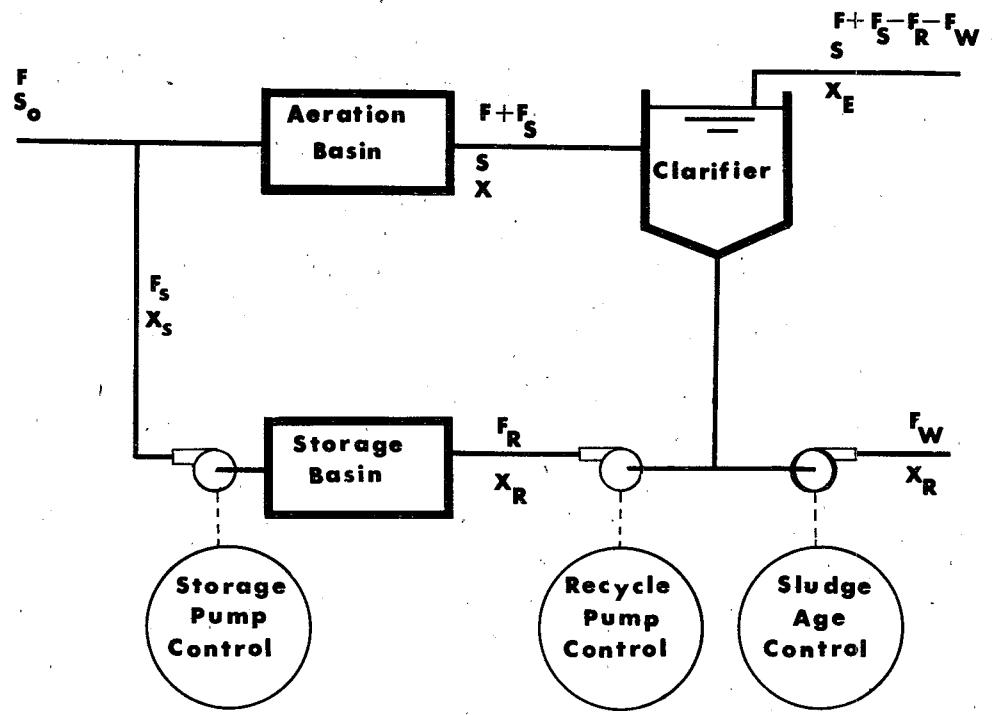


Figure 3. Schematic diagram for an F/M controlled activated sludge process with a variable volume storage basin.

$$F_R = \frac{F \cdot X_D + V \frac{dX_D}{dt}}{X_S - X_D} \quad (1)$$

where,

$$X_D = \frac{F \cdot (S_0 - S)}{V \cdot (\text{Setpoint F/M})} \quad (2)$$

and:

F = influent flowrate

F_R = recycle flowrate

X_D = desired MLVSS

X_S = storage VSS

V = aerator volume

t = time

S_0 = influent concentration of organics

S = effluent soluble concentration of organics

For this control strategy the minimum allowable F_R would be constrained such that the clarifier would always be in an underloaded condition. The maximum F_R obtainable would be limited, of course, to the maximum available pumping capacity. In this case, the total mass of biological solids in the storage chamber would decrease through dilution as the solids concentration in the aerator increases and vice versa.

Even more precise F/M control can be achieved when a variable volume storage basin is employed in lieu of a constant volume basin, Figure 3. For this control strategy F_R is set constant at a level sufficiently high to ensure that the clarifier is continuously in an underloaded condition, while F_S is controlled using the algorithm given by Equation 1 with F_S substituted for F_R . Because F_R and F_S are not equal, the volume of the basin used for storage of biological solids varies throughout the diurnal cycle; increasing during periods of low organic loading to the aerator and decreasing during high organic loading periods. The concentration of biological solids in the storage basin also varies; increasing during periods of high organic loading and inversely. The magnitude of the variation in concentration, however, is significantly less than for the case in which F/M control is achieved through the storage of biological solids in a constant volume chamber.

Either of the two control strategies that make use of independent storage of biological solids can be approximated by use of the step-feed modification of the activated sludge process. In this case solids are stored near the inlet end of the aeration basin and control is achieved by shifting the influent feed point along the length of the aeration chamber in response to organic loading.

Because the control algorithm given by Equations 1 and 2 was found to be unstable, Equation 2 was modified to

$$X_D = \frac{F \cdot S_0}{V \cdot (\text{setpoint PLI})} \quad (3)$$

such that control is predicated on the basis of Process Loading Intensity (PLI). All mathematical simulations and pilot-plant control procedures were conducted using Equation 3.

SECTION 5

DYNAMIC MATHEMATICAL MODEL

The basic dynamic mathematical model of the activated sludge process that was employed for the current simulations was developed originally by Bryant (3) and subsequently modified in succession by Busby (4), Stenstrom (5), and Cashion (6). Since a complete and comprehensive description of the model is given elsewhere (5), only a brief overview will be provided herein. A complete listing of the computer program is given in Appendix A.

Generally, the model is structured such that any hydraulic and/or dispersion regime can be accommodated; from a completely mixed system to the classic plug flow case. In addition, the dynamic model was formulated such that any modification of the activated sludge process could be simulated. For example, the conventional, step feed, or biosorption modifications of the activated sludge process can be simulated by making only minor changes to the basic model.

Aqueous-phase as well as organism mass balances were written for both the aerator and the storage chamber, when applicable. Balances for the aqueous phase were struck for carbonaceous material expressed as ultimate biochemical oxygen demand (BOD_u), ammonia, nitrate, nitrite, and dissolved oxygen. Similarly, organism mass balances were written for the heterotrophic population and the nitrifier organisms including *Nitrosomonas* and *Nitrobacter*. It is important to note, furthermore, that the model was structured to include four different solids fractions as shown in Figure 4. These include stored mass (which accounts for both the internal and external storage products), active mass, inert volatile mass, and inert inorganic mass.

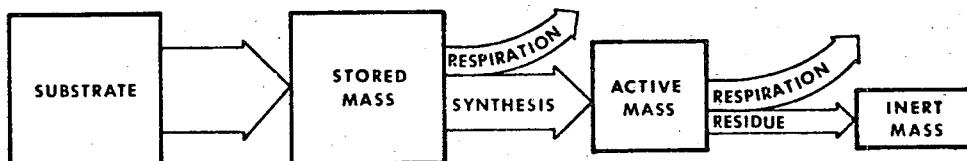


Figure 4. Schematic of the structured dynamic model.

All bio-kinetic growth expressions were fashioned after the developments of Monod (7). The endogenous respiration phase of bacterial growth was modeled according to a first-order decay relationship.

Mass balances written for the solids contained within the clarifier considered the thickening and clarification functions of the clarifier. Both the gravitational sedimentation and bulk transport velocity components were considered with respect to the thickening function. Since no suitable mathematical development describing the clarification function is available, a stochastic regression developed by Pflanz (8) was employed. This relationship, based on data obtained at a single treatment plant, is of the form:

$$SS_{(out)} = 4.5 + 7.5 (MLSS * OR)/10^6$$

where,

$SS_{(out)}$ = concentration of suspended solids in the effluent (overflow), mg/l

MLSS = concentration of suspended solids in the aerator, mg/l

OR = clarifier overflow rate, l/hr⁻¹ m⁻²

All performance predictions relative to particulate BOD_5 can be made only within the constraints of the empirical Pflanz relationship

It should be noted, moreover, that the dynamic model is limited to the extent that it does not account for changes in thickening and clarification characteristics that can be attributed to changes in certain biological and physical parameters.

SECTION 6

MODEL SIMULATIONS

Using the dynamic model described above, simulations were conducted for the two solids inventory control strategies that make use of independent storage of biological solids. No simulations were conducted for the case of simple control of the recycle flow from the clarifier to the aerator where biological solids are stored in the clarifier. System interactions between the aerator and clarifier for this case have been described by Keinath, et al. (9). As noted above, the extent of PLI control that can be achieved through application of this control strategy is relatively small unless the clarifier is extremely overdesigned from a clarification viewpoint.

All simulations were conducted for the physical pilot-scale system that was employed in the experimental phase of this study. The system consisted of a 10992 liter (2904 gallon) completely mixed aerator coupled to a 5.48 square meter (59 square foot) circular clarifier which had a water depth of 3.35 meters (eleven feet). The flow to the system was assumed to be constant at a rate of 75.7 liters per minute (20 gallons per minute). This was selected since the pilot-scale studies were conducted at a flow rate which was maintained constant at 75.7 lpm (20 gpm) to eliminate hydraulic transients as a system variable. The concentration of organics (as indexed by TOC) in the influent to the system was assumed to vary as shown in Figure 5. Sludge recycle pumping constraints were imposed at 10 and 200 percent of the influent flowrate. It was assumed, furthermore, that the mean cell residence time was maintained constant at 8 days based on the total mass of biosolids in the system and that the PLI control set point was 1.0 mg TOC/mg MLVSS/day based on the mass of solids in the aeration basin alone. The total or maximum volume of the biological solids storage chamber was changed for various simulations to establish the effect of storage volume on control capability. The storage chamber was also assumed to be completely mixed.

CONTROL CASE A (Constant Volume Storage Chamber)

The output for simulations conducted for control case "A" is given in Figures 6-20 for the situations in which the biological solids storage chamber was considered to have a total volume equal to either 10 percent (1099 liters, 290.4 gallons), 50 percent (5496 liters, 1452 gallons), or 100 percent (10,992 liters, 2904 gallons) of the volume of the aerator.

Figures 6, 7, and 8 give the time dependent traces for (a) the volatile mixed liquor suspended solids that should be maintained in the aerator if perfect PLI control is to be achieved and (b) for the actual value of

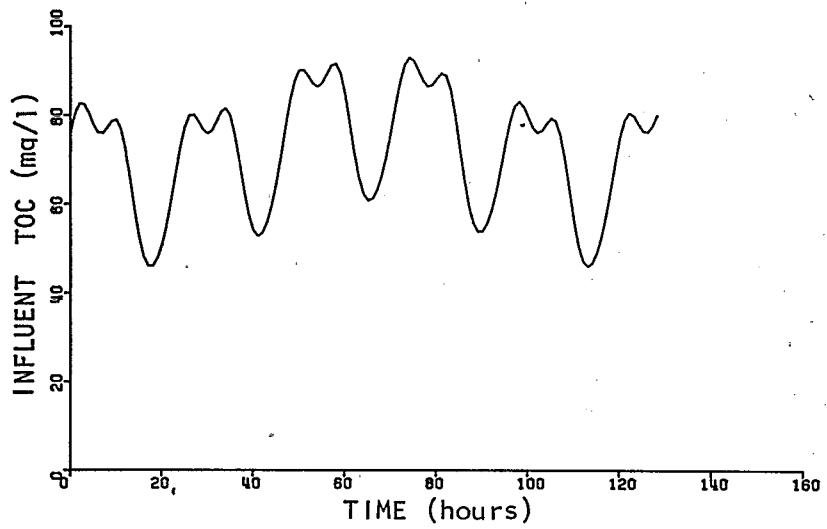


Figure 5. Influent total organic carbon vs. time (profile) used for simulations.

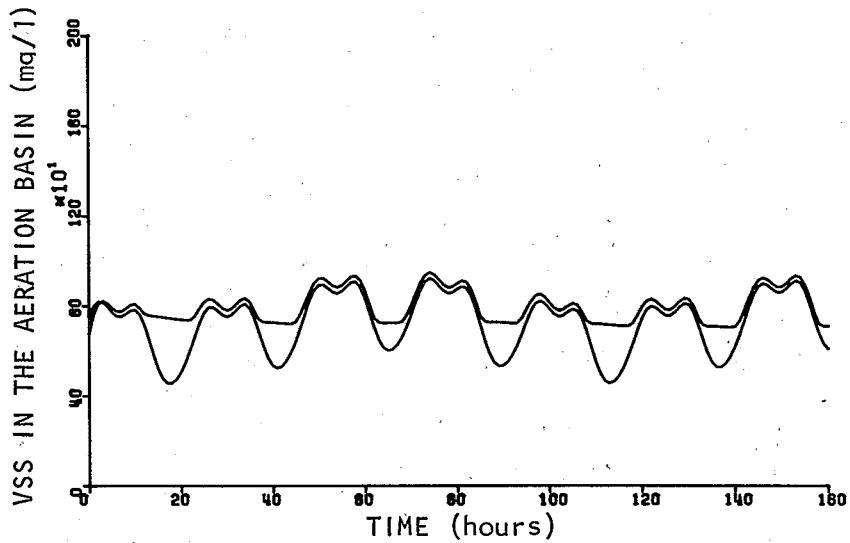


Figure 6. Simulated actual MLVSS and desired MLVSS vs. time; storage volume = 10% of the aeration volume.

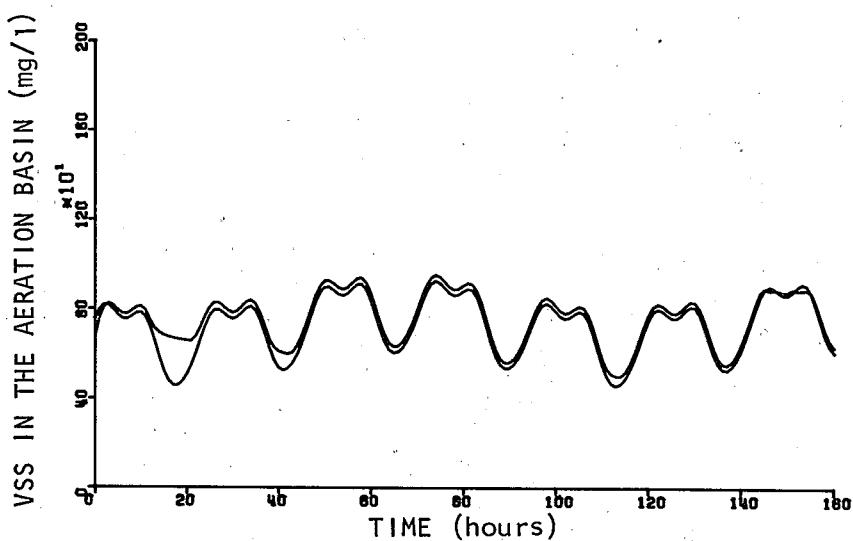


Figure 7. Simulated actual MLVSS and desired MLVSS vs. time; storage volume = 50% of aerator volume.

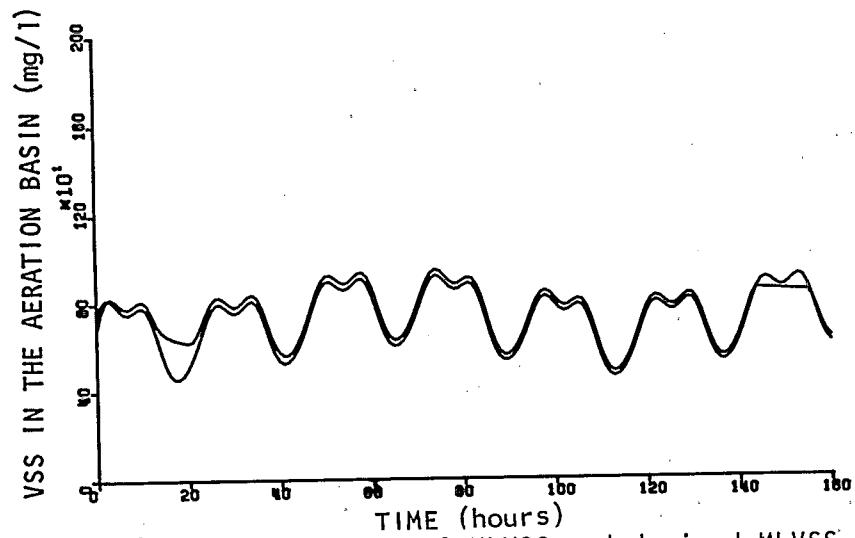


Figure 8. Simulated actual MLVSS and desired MLVSS vs. time; storage volume = aerator volume.

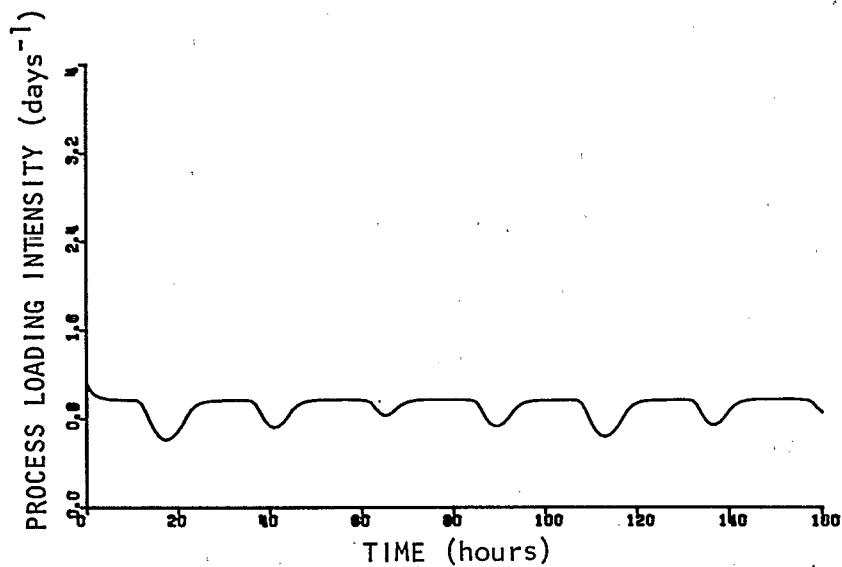


Figure 9. Simulated process loading intensity vs. time; storage volume = 10% of the aerator volume.

volatile mixed liquor suspended solids that can be maintained when the control algorithm is implemented for the specific physical system considered. Figures 9, 10, and 11 give the corresponding actual PLI values that are attained. Of course, the intent of the control algorithm is to maintain this value constant throughout time. Performance indexes for the simulations are given in Figures 12, 13, and 14; 15, 16, and 17; and 18, 19, and 20 for total BOD_u , soluble BOD_u and the concentration of suspended solids discharged with the effluent, respectively.

Analysis of the output of the simulations for the three storage volume capacities shows the following:

- (1) For the system in which the biological solids storage chamber had a volume of the aeration basin (Figure 6) the control system could respond appropriately only when the algorithm called for an increased mass (concentration) of biological solids in the aeration basin. The control system failed to provide adequate control during periods of low organic loading when biological solids should have been transferred from the aeration basin to the storage chamber. This is due to the fact that the sludge recycle pump reached its lower physical constraint (10 percent of the influent flowrate) thereby limiting the extent to which solids could be transferred from the aerator to the storage chamber. This is manifested in the form of a lower-bound plateau on the curve which gives the time dependent trace of the actual volatile mixed liquor suspended solids that can be achieved.
- (2) Figure 9 shows the corresponding PLI values for the case described above. One can observe, as expected, that the PLI was maintained relatively constant at 1.0 mg TOC/mg MLVSS/day during periods of high organic loading, but that the value decreased during periods of low organic loading due to the sludge recycle pumping limitation which constrained the transport of biological solids from the aeration basin to the storage chamber. Since more solids than desired remained in the aeration basin during these periods, the PLI correspondingly decreased.
- (3) If the volume of the biological solids storage chamber were increased to 50 percent of the volume of the aeration basin (Figure 7), then the system can properly respond to the control algorithm to maintain the desired mass of biological organisms in the aerator to, in turn, maintain a relatively constant PLI (Figure 10).
- (4) If the volume of the storage chamber were increased even further, to 100 percent of the volume of the aerator (Figure 8), then the control system encounters the upper physical constraint of the sludge recycle pumping rate. That is, during periods of high organic loading to the aerator when the control algorithm calls for the transfer of biological solids from the storage chamber to the aerator as encountered during the last day of the simulation (136 to 160 hours), it is apparent that only a portion of the biological solids that should have been transferred were transferred on account of the recycle pumping limitation. This is manifested in the form of an upper-bound plateau on the curve giving the time dependent profile of the actual volatile mixed liquor suspended

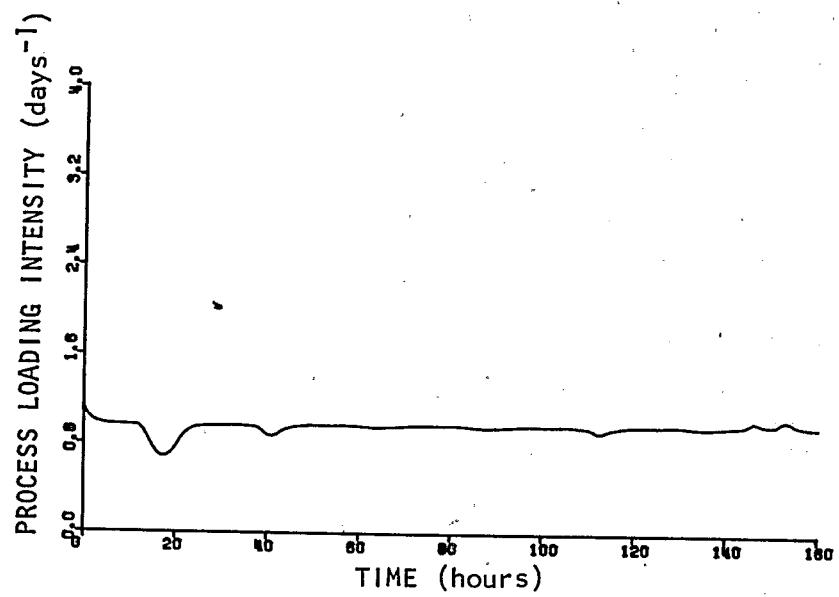


Figure 10. Simulated process loading intensity vs. time;
storage volume = 50% of aerator volume.

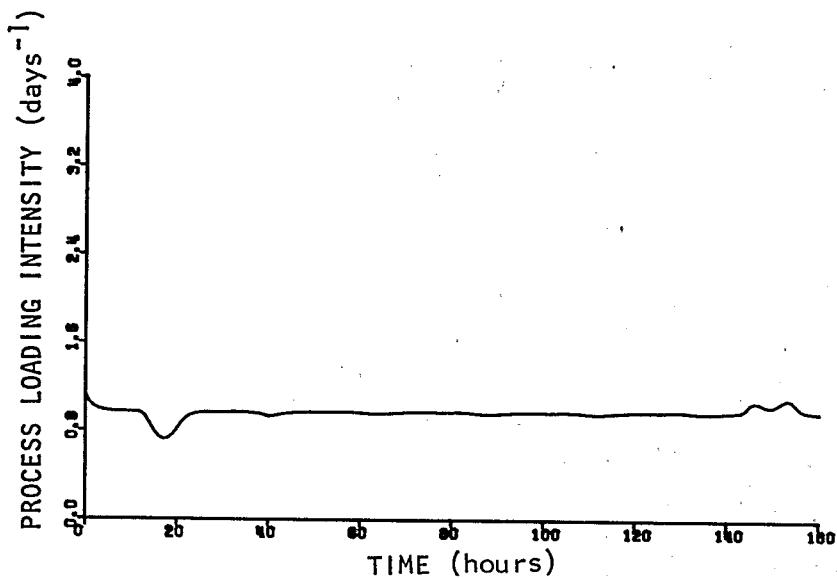


Figure 11. Simulated process loading intensity vs. time;
storage volume = aerator volume.

solids that can be achieved. The corresponding PLI trace (Figure 11) is seen to increase during the period when the recycle pumping rate was constrained by the upper limit.

- (5) With respect to system performance, it is apparent that although the variability of effluent quality, as indexed by total BOD_5 , decreased as the PLI was controlled more precisely at the set point level, virtually no benefits were noted relative to the total mass of organics discharged from the treatment system (refer to Figures 12, 13, and 14). This, rather surprising observation can be explained through an analysis of the soluble and particulate components of the total effluent BOD_5 . Implementation of PLI control serves to decrease the variability in and total discharge of soluble carbonaceous material in the effluent (Figures 15, 16, and 17) while increasing the variability in and total discharge of particulate (suspended solids) carbonaceous material in the effluent (Figures 18, 19, and 20). The two effects counteract one another. The net result is that the effluent quality does not change materially as a function of the precision of PLI control even though the overall variability of effluent quality is decreased.

Considering the results of the simulations for the control system described above, it is apparent that an optimum size for the storage chamber exists. If the biological solids storage chamber is small, then the solids stored therein are relatively concentrated since the total mass of biological solids that must be stored in the chamber is relatively independent of its volume. This condition, of course, can only be achieved when the secondary clarifier/thickener is operated at small recycle flow rates. When the control algorithm is implemented, consequently, control often is constrained by the lower limitation on the pumping rate.

Conversely, if the constant volume storage chamber is large, then the biological solids stored therein are relatively dilute. This condition is achieved when the recycle pumping rate is relatively large. Accordingly, when the control algorithm is implemented, control is often constrained by the upper limitation on the pumping rate.

CONTROL CASE B (Variable Volume Storage Chamber)

Simulations were conducted for control case "B" for three different maximum storage volumes — 10, 40, and 100 percent of the volume of the aeration basin. Since the storage chamber is of variable volume in the dynamic sense, it is important to recognize that these volumes represent only the maximum possible volume of the storage chamber. For these simulations the sludge recycle pumping rate from the clarifier to the biological solids storage chamber was maintained constant at 15.14 liters per minute (4 gallons per minute, 20 percent of the influent flowrate). Of course, the recycle pumping rate from the solids storage chamber to the aeration basin was manipulated so as to maintain a constant PLI.

The output for these simulations is given in Figures 21-35 for the cases in which the biological solids storage chamber was considered to have a maxi-

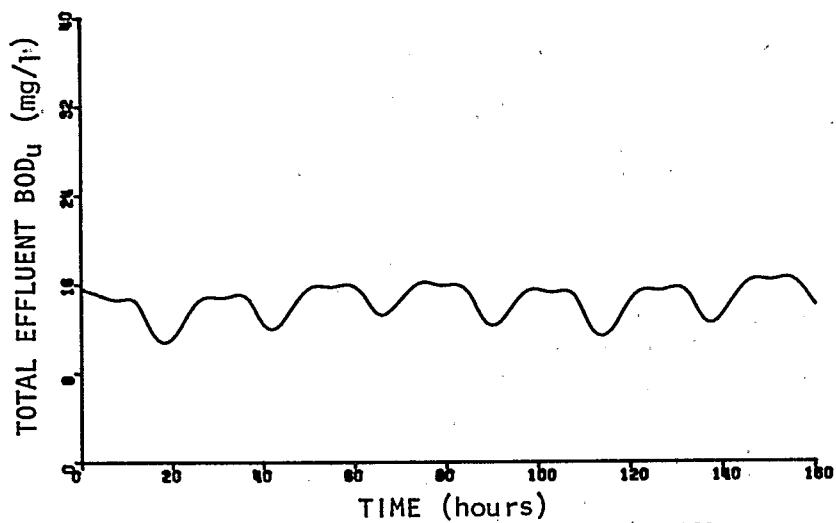


Figure 12. Simulated total BOD_U in the effluent vs. time;
storage volume = 10% of aerator volume.

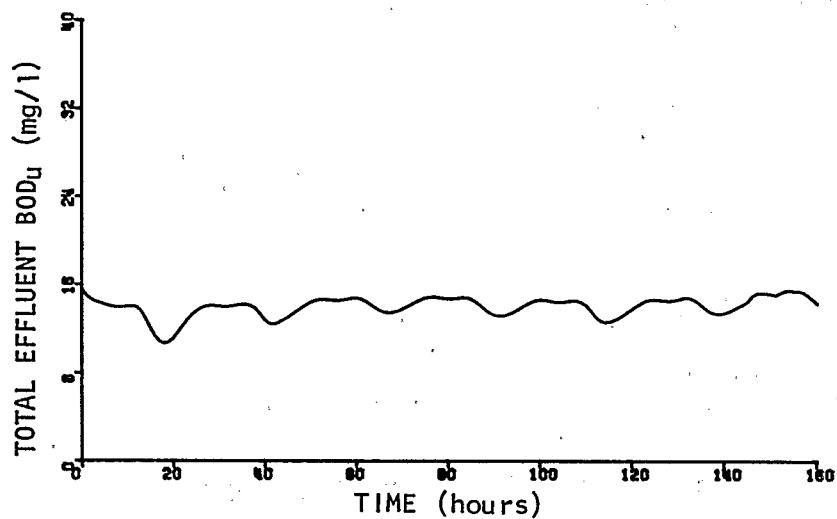


Figure 13. Simulated total BOD_U in the effluent vs. time;
storage volume = 50% of aerator volume.

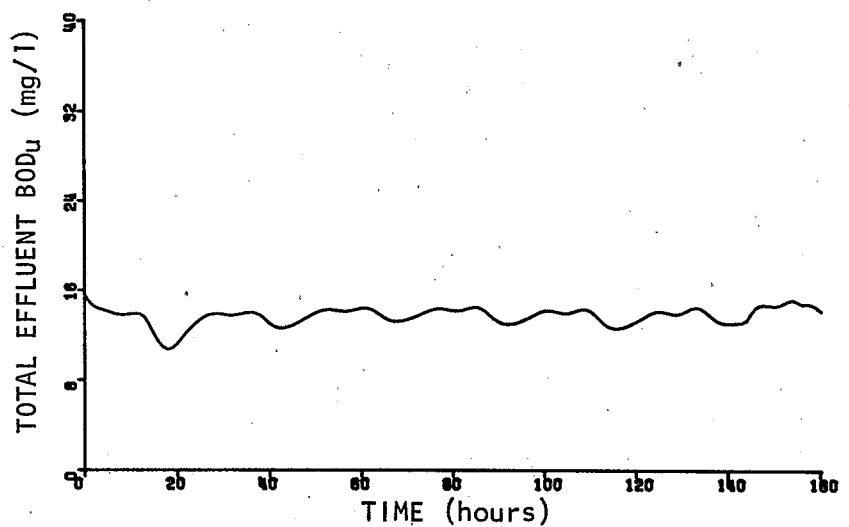


Figure 14. Simulated total BOD_U in the effluent vs. time;
storage volume = aerator volume.

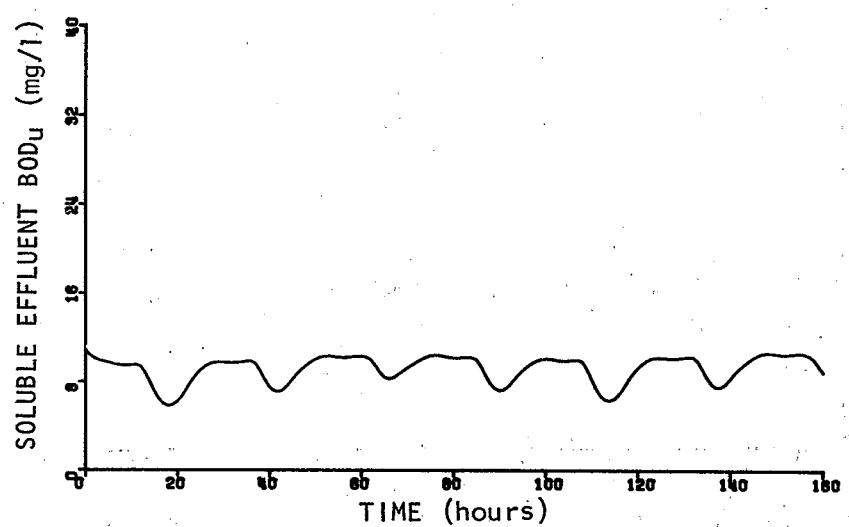


Figure 15. Simulated soluble BOD_U in the effluent vs. time;
storage volume = 10% of aerator volume.

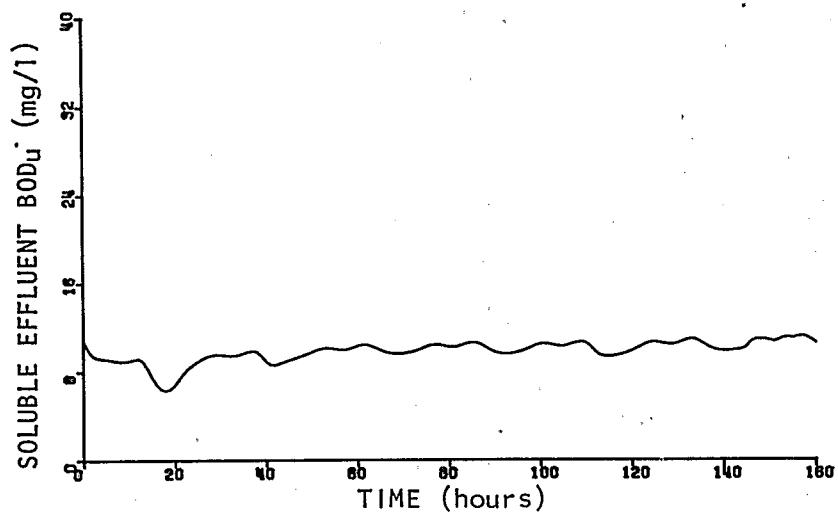


Figure 16. Simulated soluble BOD_u in the effluent vs. time;
storage volume = 50% of aerator volume.

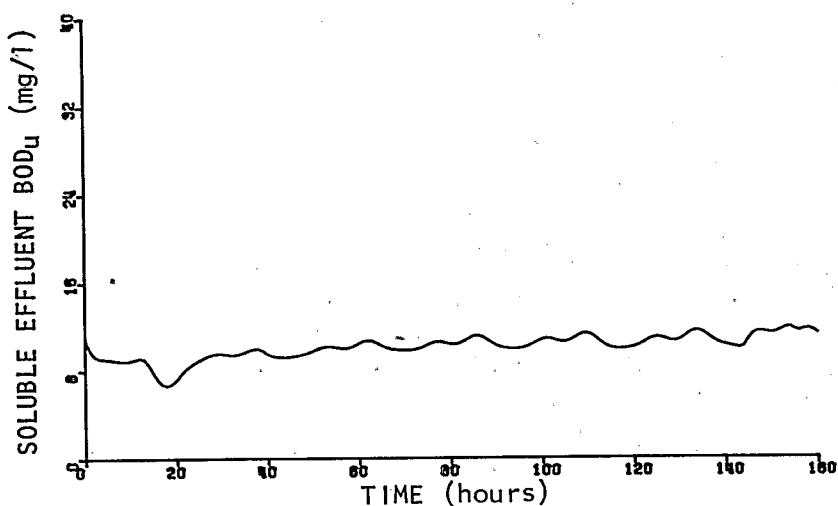


Figure 17. Simulated soluble BOD_u in the effluent vs. time;
storage volume = aerator volume.

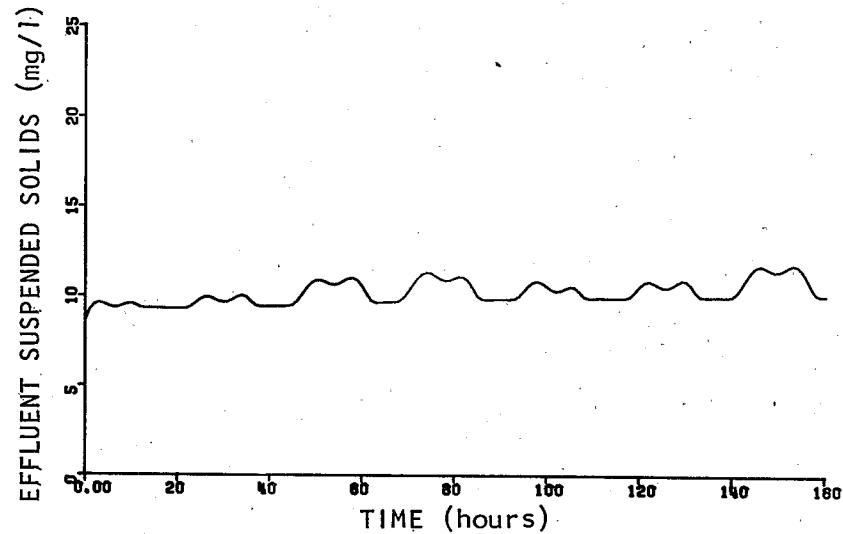


Figure 18. Simulated suspended solids in the effluent vs. time; storage volume = 10% of aerator volume.

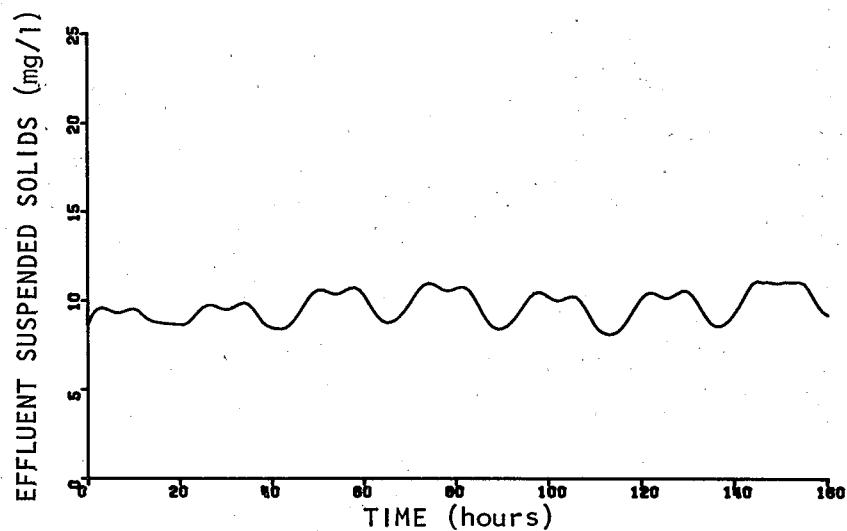


Figure 19. Simulated suspended solids in the effluent vs. time; storage volume = 50% of aerator volume.

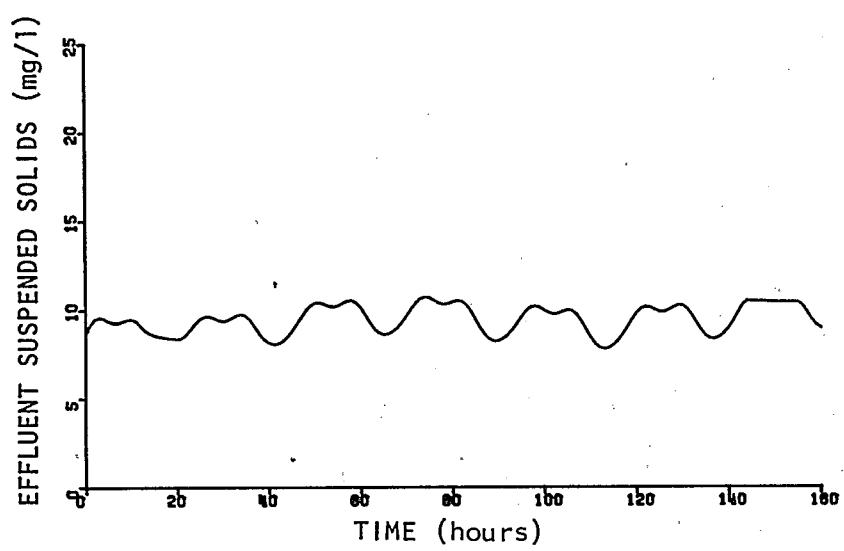


Figure 20. Simulated suspended solids in the effluent vs. time; storage volume = aerator volume.

mum volume of either 10, 40, or 100 percent of the volume of the aeration basin. The time-dependent output variables plotted are identical to those plotted for Control Case A.

Analysis of the output of the simulations for the three cases shows the following:

- (1) For the case in which the storage volume was assumed equal to 10 percent of the aeration basin volume, the simulations showed that the control system responded appropriately only when the control algorithm called for an increased mass (concentration) of biological solids in the aerator (Figure 21). This is identical to the response observed for the case of a constant volume storage chamber of identical volume. In this case, however, control was constrained by the maximum volume of the storage chamber instead of the lower limit on the recycle pumping rate. That is, during periods of low organic loading to the aerator the control algorithm calls for the transfer of biological solids from the aeration basin to the storage chamber. This is accomplished by decreasing the recycle pumping rate (storage chamber to aeration basin) such that the storage chamber fills. When the storage chamber is completely filled, the recycle pumping rate from the storage chamber to the aerator then must equal the recycle pumping rate from the clarifier to the storage chamber. No further transfer of biological solids can then be accommodated within the biological solids storage chamber. As before, this results in a lower-bound plateau on the curve which gives the time dependent trace of the actual volatile mixed liquor suspended solids that can be achieved. The corresponding PLI curve (Figure 24) shows that the PLI was maintained relatively constant except for periods of low organic loading.
- (2) When the maximum storage volume is assumed to be 40 percent of the volume of the aeration basin (Figure 22), then sufficient volume is available such that the system can respond to the control algorithm to maintain the desired mass of biological organisms in the aeration basin to, in turn, maintain a realtively constant PLI (Figure 25).
- (3) For the case in which the maximum storage volume is assumed to be equal to 100 percent of the volume of the aerator (Figure 23), then no additional control capability benefits are obtained as compared to the 40 percent case. This is due to the fact that only a portion of the maximum storage volume available is utilized for control. All excess storage capacity provides no benefits in control capability and, therefore, is unnecessary. One can conclude, consequently, that a threshold limit for storage volume exists for the control case wherein a variable volume storage chamber is employed. All volume supplied in excess of the threshold value has no net control capability benefits.
- (4) All observations made and conclusions drawn with respect to system performance for Control Case A (Constant Volume Storage Chamber) apply directly for this control algorithm as well. Performance indexes have been plotted in Figures 27-35.

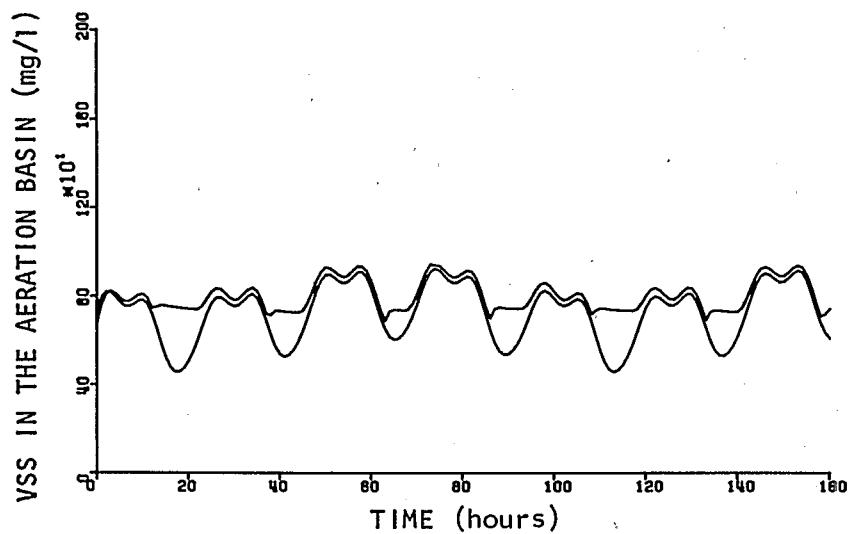


Figure 21. Simulated actual MLVSS and desired MLVSS vs. time; storage volume = 10% of aerator volume.

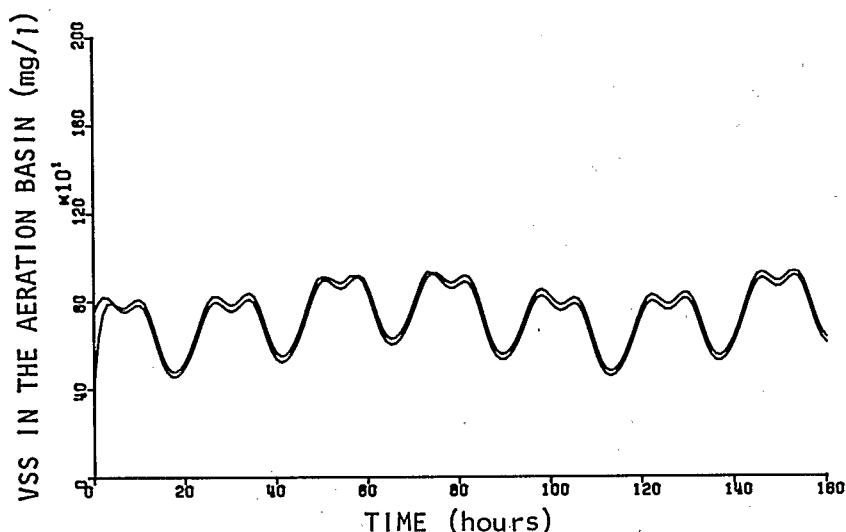


Figure 22. Simulated actual MLVSS and desired MLVSS vs. time; storage volume = 40% of aerator volume.

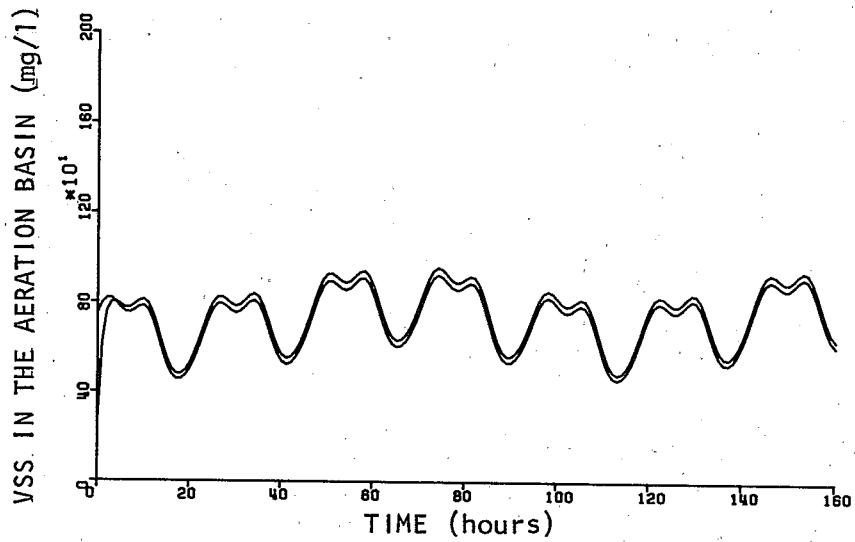


Figure 23. Simulated actual MLVSS and desired MLVSS vs. time; storage volume = aerator volume.

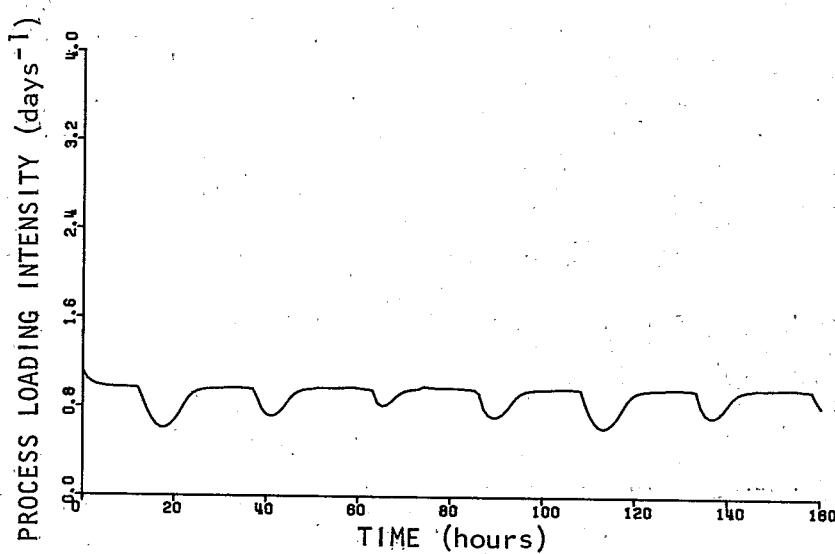


Figure 24. Simulated process loading intensity vs. time; storage volume = 10% of aerator volume.

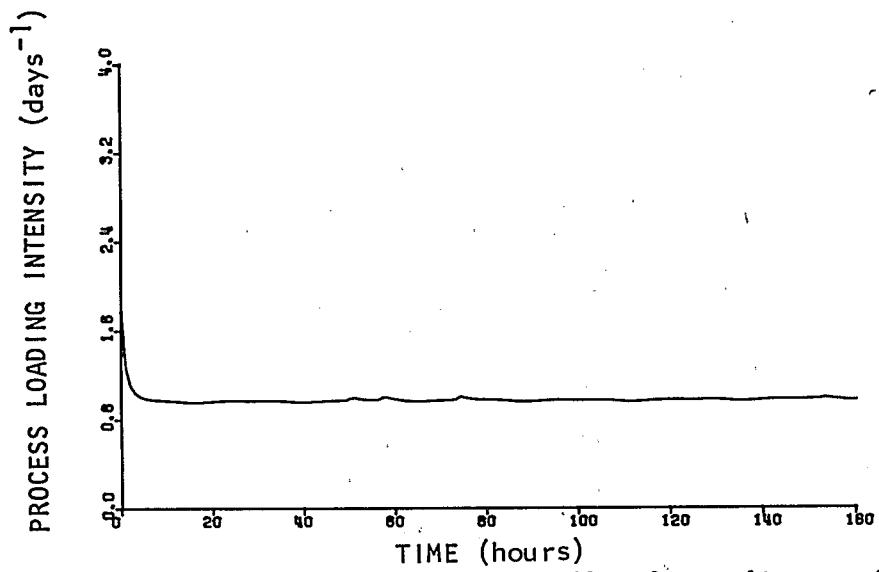


Figure 25. Simulated process loading intensity vs. time;
storage volume = 40% of aerator volume.

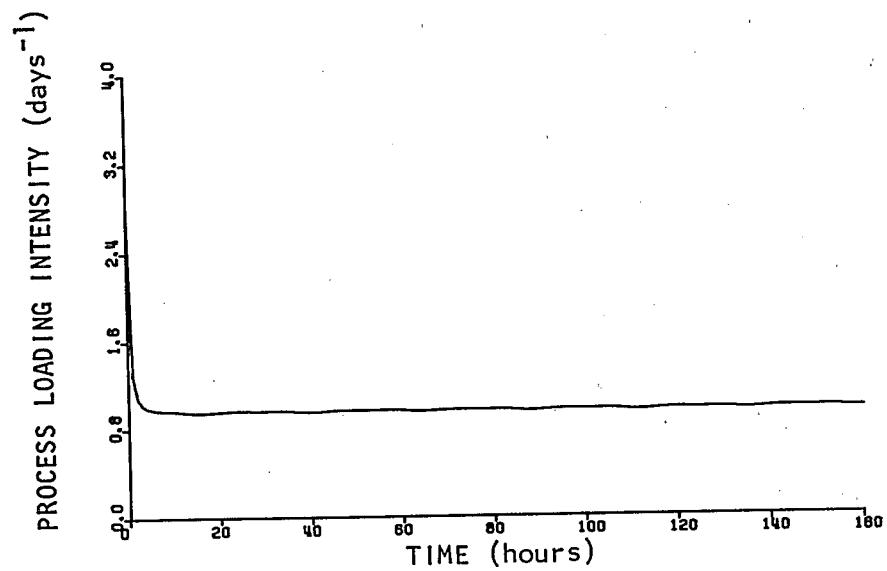


Figure 26. Simulated process loading intensity vs. time;
storage volume = aerator volume.

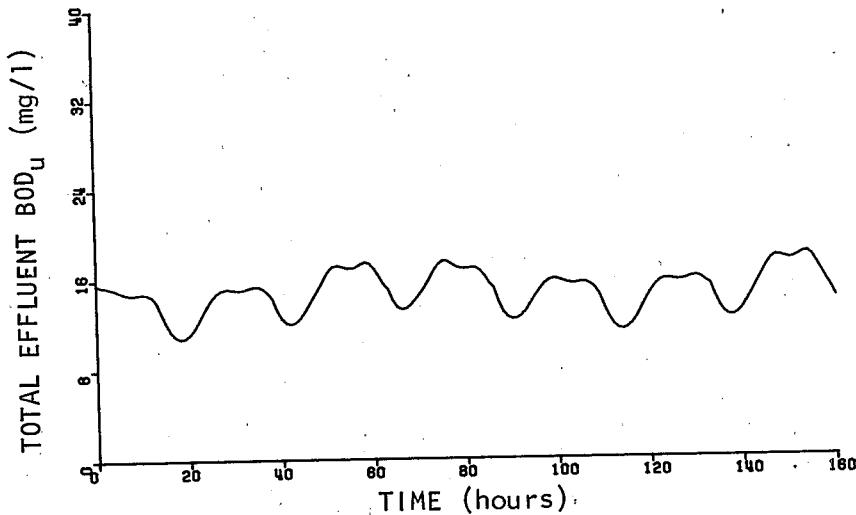


Figure 27. Simulated total BOD_U in the effluent vs. time;
storage volume = 10% of aerator volume.

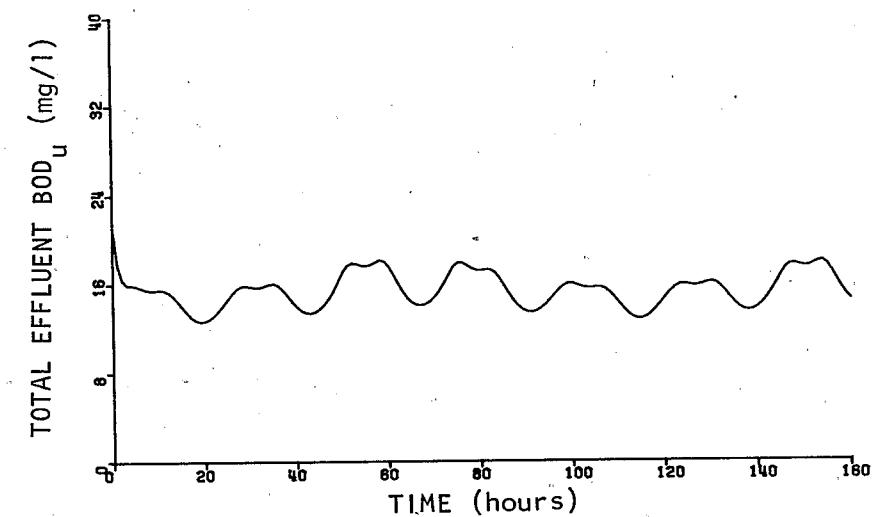


Figure 28. Simulated total BOD_U in the effluent vs. time;
storage volume = 40% of aerator volume.

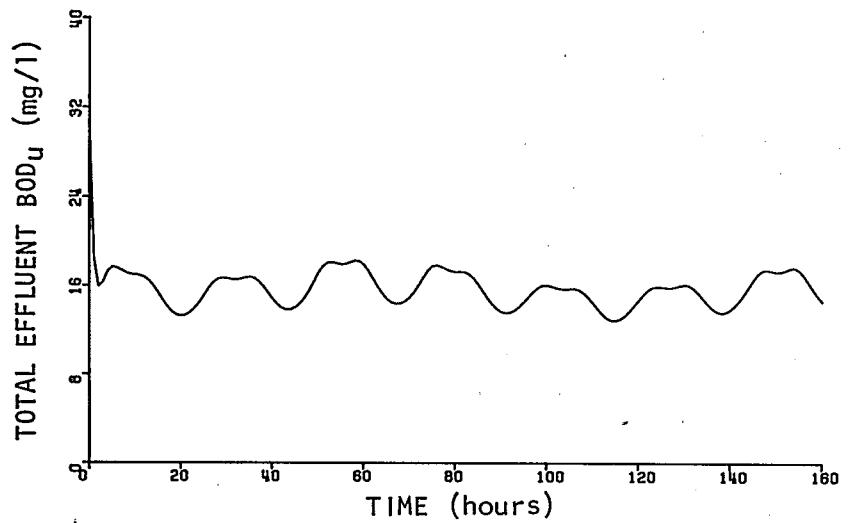


Figure 29. Simulated total BOD_U in the effluent vs. time; storage volume = aerator volume.

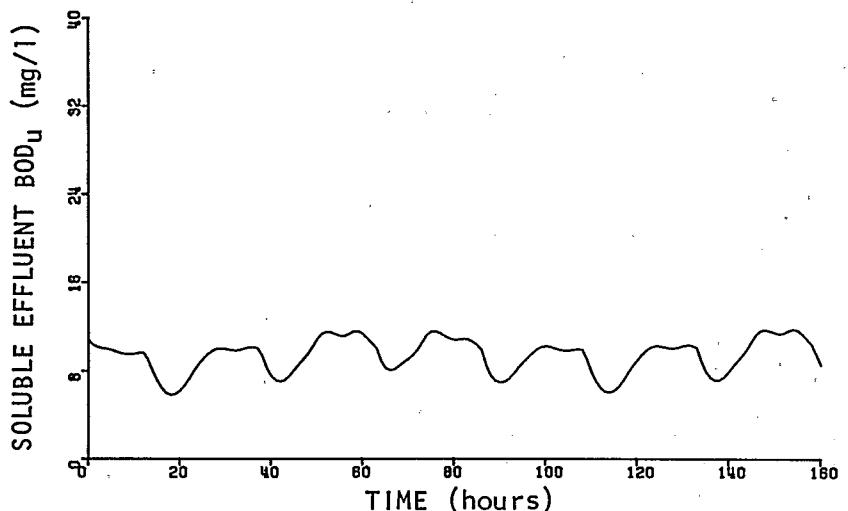


Figure 30. Simulated soluble BOD_U in the effluent vs. time; storage volume = 10% of aerator volume.

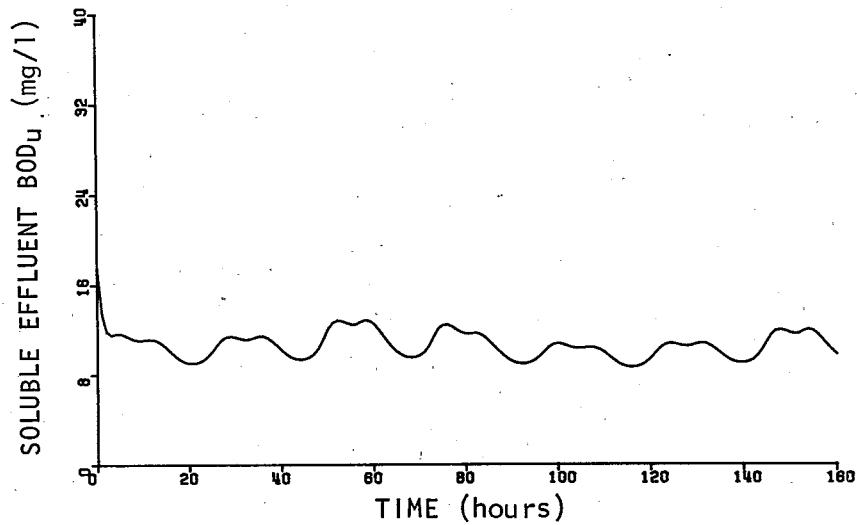


Figure 31. Simulated soluble BOD_U in the effluent vs. time;
storage volume = 40% of aerator volume.

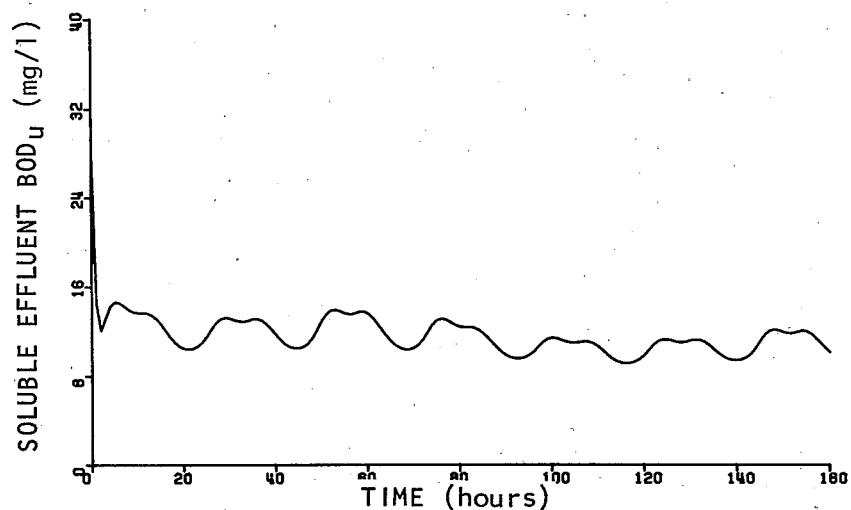


Figure 32. Simulated soluble BOD_U in the effluent vs. time;
storage volume = aerator volume.

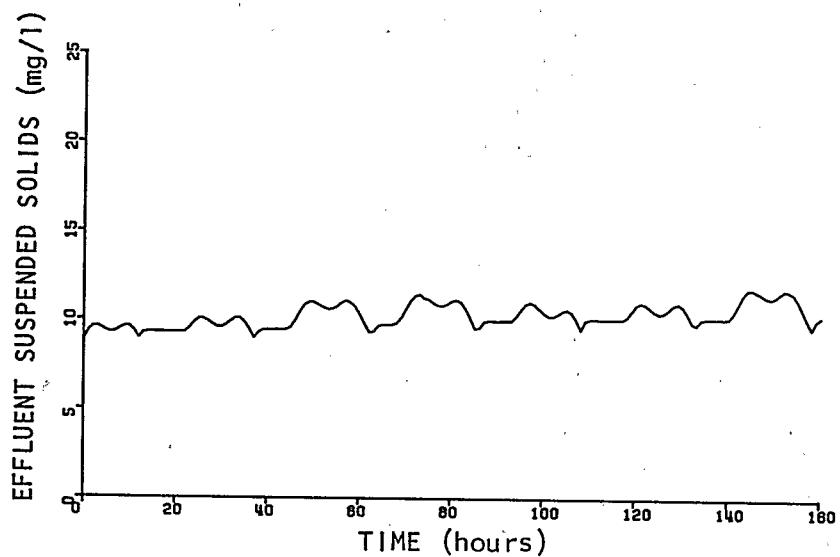


Figure 33. Simulated suspended solids in the effluent vs. time;
storage volume = 10% of aerator volume.

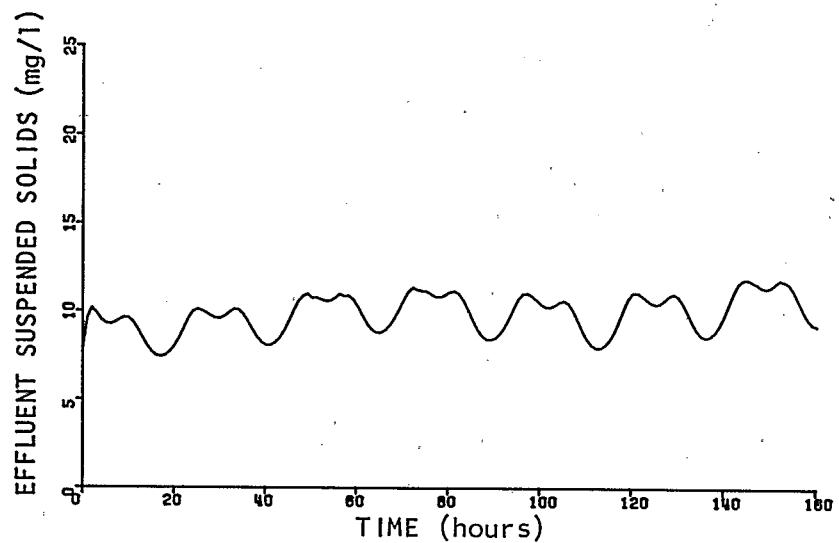


Figure 34. Simulated suspended solids in the effluent vs. time;
storage volume = 40% of aerator volume.

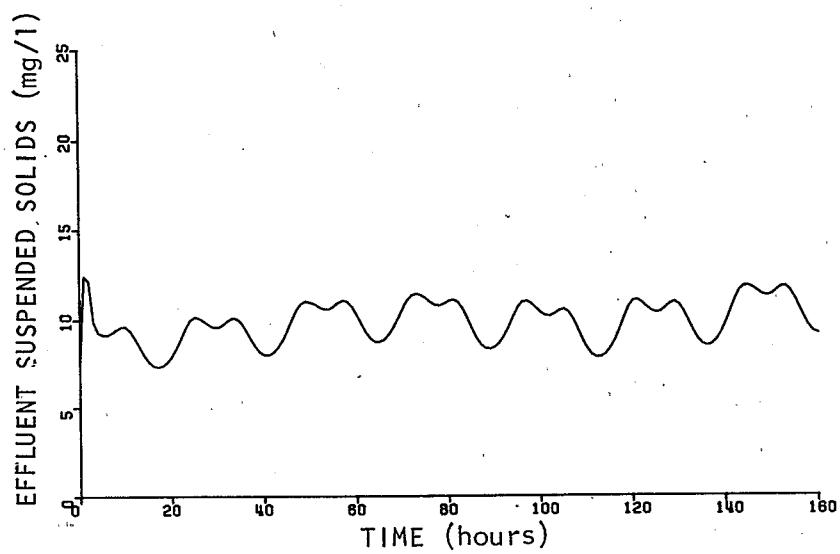


Figure 35. Simulated suspended solids in the effluent vs. time;
storage volume = aerator volume.

SECTION 7

PILOT-SCALE STUDIES

To evaluate one of the PLI control strategies proposed above, two intensive pilot-scale studies were conducted during 1976 at the EPA Pilot-Plant in Washington, DC using primary effluent obtained from the Blue Plains Treatment facility. One of the studies served as a base case for comparison purposes. No solids inventory control actions whatsoever were implemented during this study. The second, four-day study was conducted to evaluate the PLI control strategy wherein a constant volume chamber was employed for storage of biological solids, Figure 2. Salient process design and operational parameters for these two studies have been detailed in Table 1. Raw data as collected by EPA personnel for these two studies has been tabulated in Appendices B and C, respectively.

TABLE 1. DESIGN AND OPERATIONAL PARAMETERS FOR PILOT STUDIES

Parameter	No Control Case	Controlled Case
SRT, total mass minus clarifier mass (days)	2.3	3.0
SRT, aerator mass (days)	1.2	1.2
PLI (lbs TOC/lb MLVSS/day)	0.98 (avg.)	0.71
Aeration Basin Volume (gallons)	2904	2904
Storage Chamber Volume (gallons)	1000	1000
Influent Flow Rate, F (gpm)	20	20
Recycle Flow Rate, F _R (gpm)	10	Variable
Clarifier Surface Area (ft ²)	59	59

A third experimental pilot-plant study was conducted by EPA personnel. This study was similar to the base-case study in which no solids inventory control actions were implemented. In this study, however, the influent hydraulic flow-rate was controlled such that the organic loading to the aeration basin was maintained constant. Since this study did not bear directly on the scope of this project, it will not be considered further herein. Nonetheless, the data gathered during the study has been included in Appendix D both in tabular and graphical format for future use and reference.

Construction of the pilot-scale experimental system was begun in December 1975 and completed in January 1976. During the February to mid-April 1976 period the system was seeded and operated under a specific set of conditions until steady-state operation was attained as confirmed by analyses performed on composite samples. Operation was continued for at least three solids residence times before the base case high-intensity study was initiated in late April 1976. Following the end of each individual one-week, high-intensity study the system was operated under the previous set of operational conditions for one week until the data obtained during the high intensity run was validated. Subsequently, the operational state of the system was changed to the new set of operational conditions and allowed to attain steady-state as described above. This procedure was followed throughout the experimental program that was terminated in August 1976.

BASE CASE STUDY (no PLI Control)

Before the sampling and analysis program for this pilot study was initiated, the system was operated at the conditions listed in Table 1 for a period in excess of three solids residence times as indicated above. The SRT was controlled by wasting directly from the aerator on a continuous basis. Dissolved oxygen was controlled in both the aerator and the storage chamber at approximately 2.5 mg/l. After the study was initiated total organic carbon, suspended solids, dissolved oxygen, air flow rates, temperature, hydraulic flow rates, and turbidity were measured continuously at various locations throughout the system using on-line instrumentation. All other analytical measurements were done on an intermittent, grab-sample basis. These included soluble and total COD, soluble and total BOD₅, soluble TOC, total phosphorus, volatile suspended solids, and pH. In addition, sludge interface settling velocities and clarifier solids profiles were determined periodically to establish dynamic changes in sludge settleability. Furthermore, analytical determinations of total TOC, suspended solids, dissolved oxygen, and temperature were performed periodically on grab-samples in the laboratory. These served as a check for the on-line process instrumentation.

Selected results for this study are shown in Figures 36-42 in which total influent TOC, total effluent TOC, effluent turbidity, effluent suspended solids and laboratory values for total and soluble effluent TOC have been plotted as a function of elapsed time.

Because no PLI control was implemented in this study and because the influent hydraulic flow rate was maintained constant to eliminate hydraulic transients as a process variable, the reactor suspended solids concentration

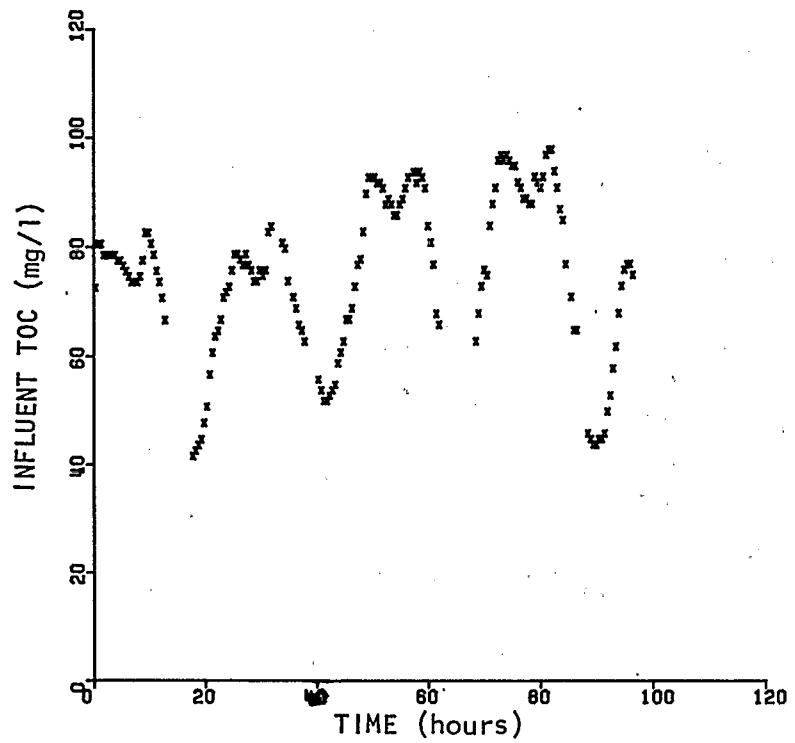


Figure 36. Influent TOC vs. time for base-case pilot study with no PLI control.

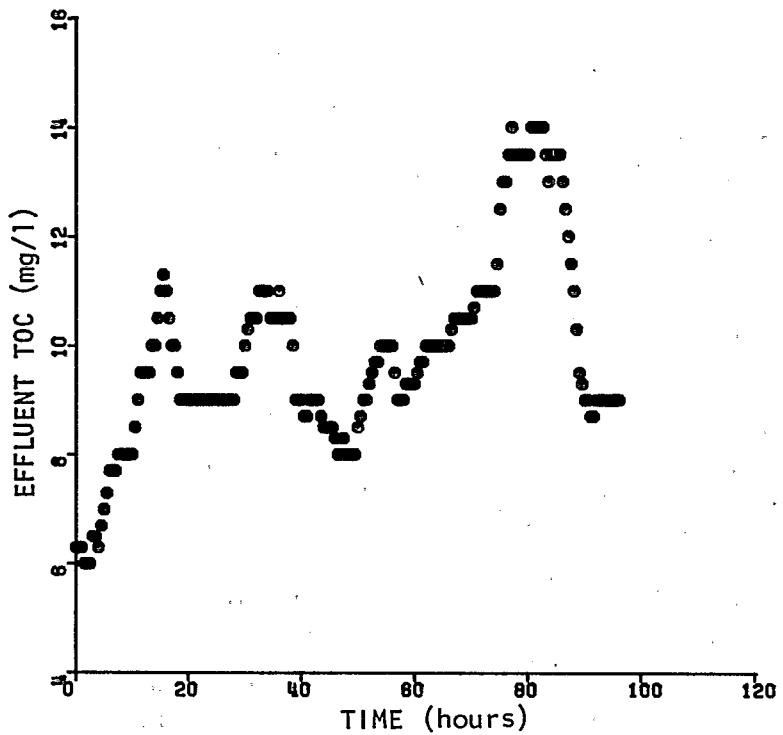


Figure 37. Effluent TOC vs. time for base-case pilot study with no PLI control.

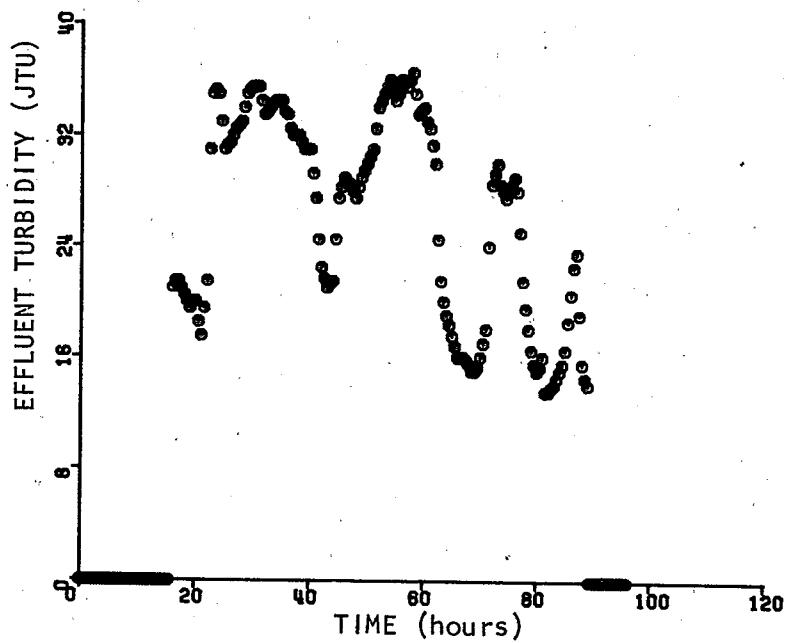


Figure 38. Effluent turbidity vs. time for base-case pilot study with no PLI control (zero values signify missing data).

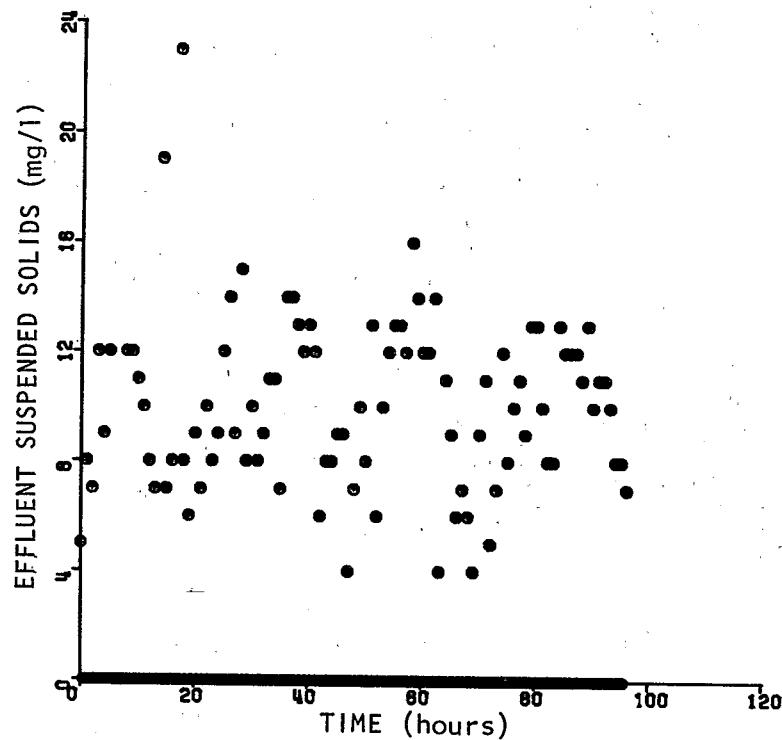


Figure 39. Effluent suspended solids vs. time for base-case pilot study with no PLI control (zero values signify missing data).

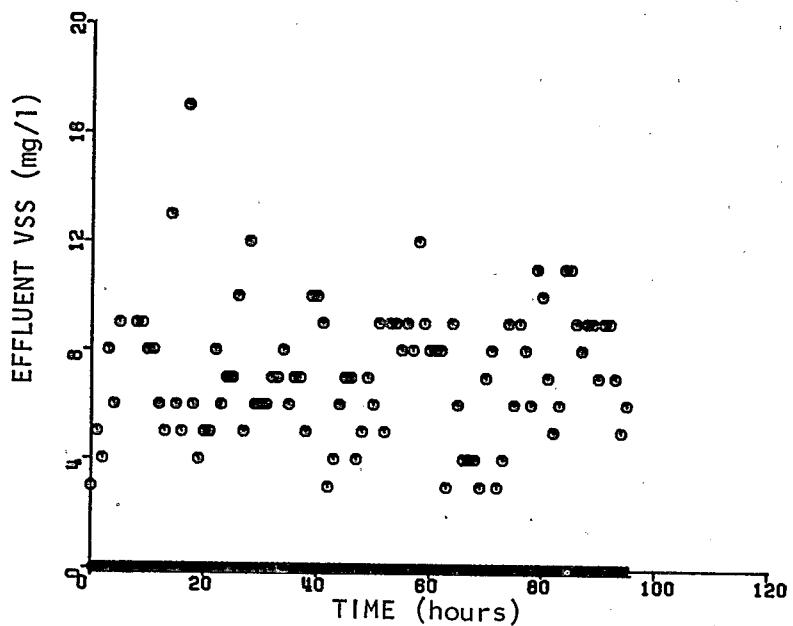


Figure 40. Effluent volatile suspended solids vs. time for base-case pilot study with no PLI control (zero values signify missing data).

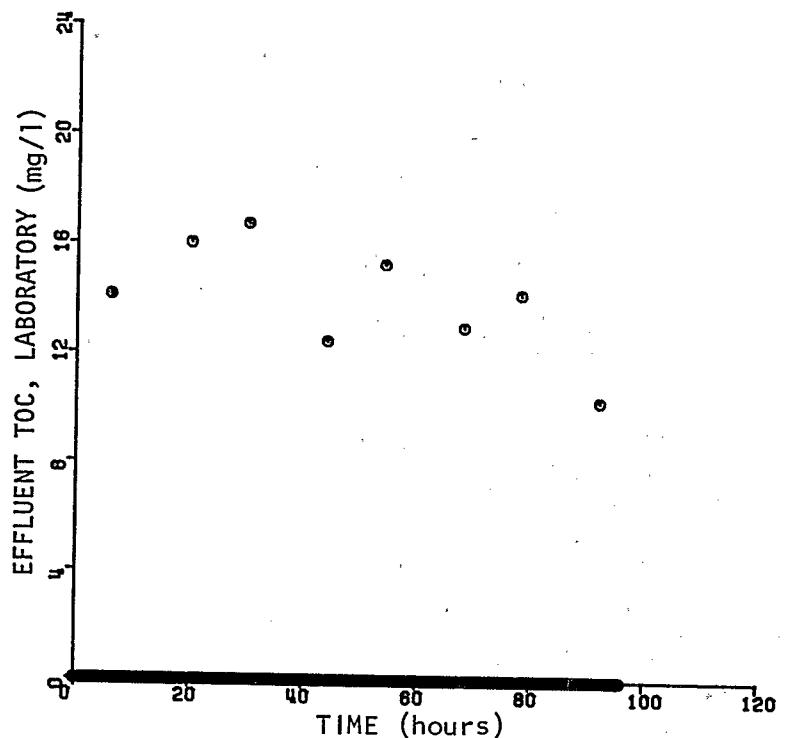


Figure 41. Laboratory measured effluent TOC vs. time for base-case pilot study with no PLI control (zero values signify missing data).

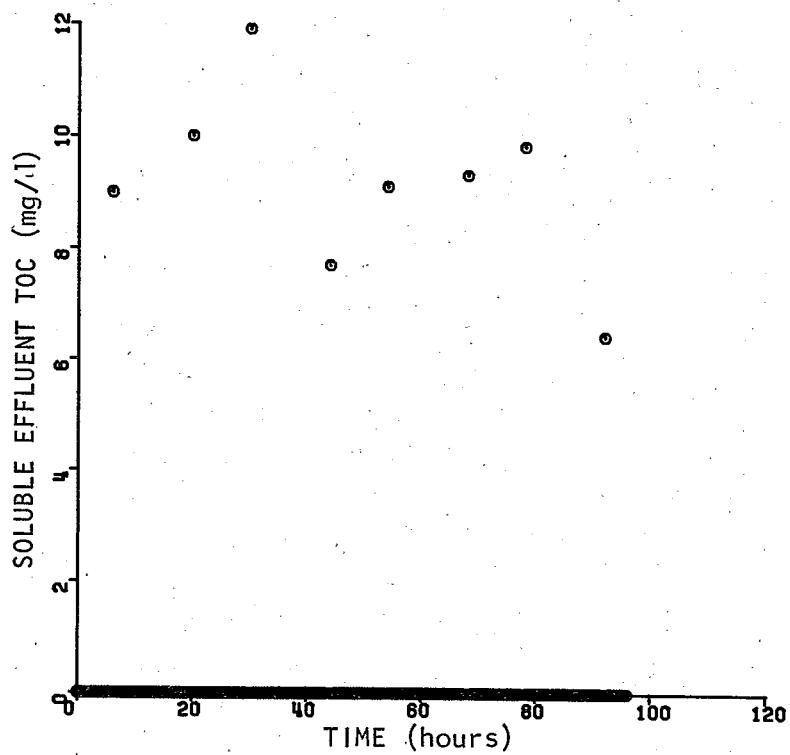


Figure 42. Laboratory measured effluent soluble TOC vs. time for base-case pilot study with no PLI control (zero values signify missing data).

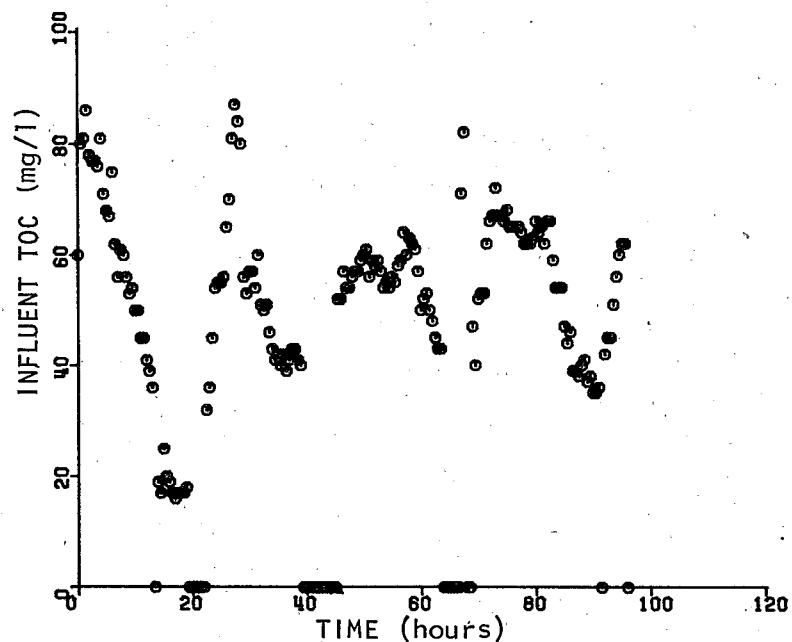


Figure 43. Influent TOC vs. time for PLI controlled pilot study (zero values signify missing data).

should have remained relatively constant throughout the study. Within the limitation of the on-line process suspended solids meter that was employed for this study one can generally conclude that the suspended solids level in the aerator remained relatively constant. Consequently, the PLI varied approximately in direct proportion to the organic loading, shown in Figure 36.

Total effluent TOC measurements taken continuously using an automatic analyzer, showed a total variability ranging from 6 to 14.5 mg/l. Comparable laboratory TOC measurements confirmed the results obtained using the continuous, on-line process instrumentation. Eight laboratory BOD₅ measurements performed on aliquots taken from the effluent process stream averaged 19.0 and 4.6 for total and soluble BOD₅, respectively. Although the effluent can be judged to be of a very high quality regardless of the performance index chosen, it is clear that the vast majority of the carbonaceous material present in the effluent is present in the particulate form. Continuous effluent turbidity measurements, Figure 38, showed a diurnal variability which was generally in-phase with the organic loading to the aerator. This correspondence may be observed by comparing Figures 36 and 38.

PLI CONTROL STUDY

As for the base-case study the system was operated for a period in excess of three SRT's to ensure proper equilibration. Upon initiating the study, the recycle flow rate, F_R , was controlled as designated by the algorithm given previously. The differential term, $V(dX_D/dt)$, was neglected for this particular study, however. The MLSS, of course, varied throughout the run in response to the control algorithm. All process operational and performance analyses were identical to those employed during the base-case study with the exception of continuous, on-line effluent TOC which malfunctioned during a major portion of this study.

Results for this pilot study are graphically displayed in Figures 43-49 in which total influent TOC, total effluent TOC, effluent turbidity, effluent suspended solids, effluent volatile suspended solids and laboratory values for total and soluble effluent TOC have been plotted as a function of elapsed time.

Eight laboratory total TOC measurements taken on effluent samples averaged 11.3 mg/l and ranged from 8 to 15 mg/l. Measurements of total and soluble BOD₅ on the same samples of process effluent quality appears to be slightly better than that for the base-case study as indexed by BOD, no conclusions can be drawn because of the relative magnitude of the values obtained and the very limited number of BOD values obtained.

The results of this study also showed that suspended solids account for the majority of the carbonaceous material present in the effluent. Comparing Figures 43 and 45, it is readily apparent that (1) the diurnal cycle in effluent turbidity is in-phase with the organic loading cycle to the aerator and (2) the magnitude of the diurnal excursions in turbidity is proportional to the magnitude of variation in organic loading to the aerator. These observations are identical to those made for the base-case study.

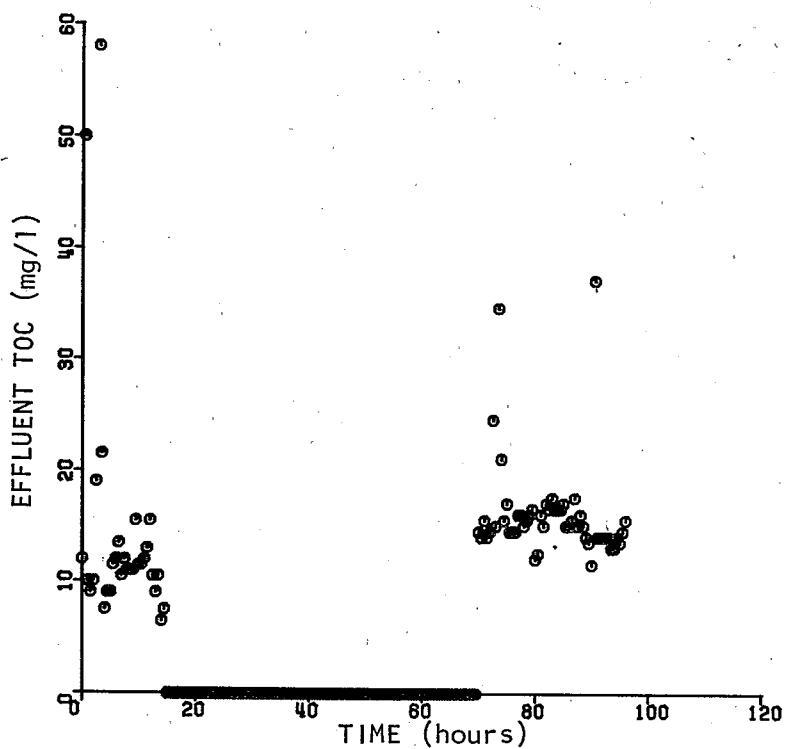


Figure 44. Effluent TOC vs. time for PLI controlled pilot study (zero values signify missing data).

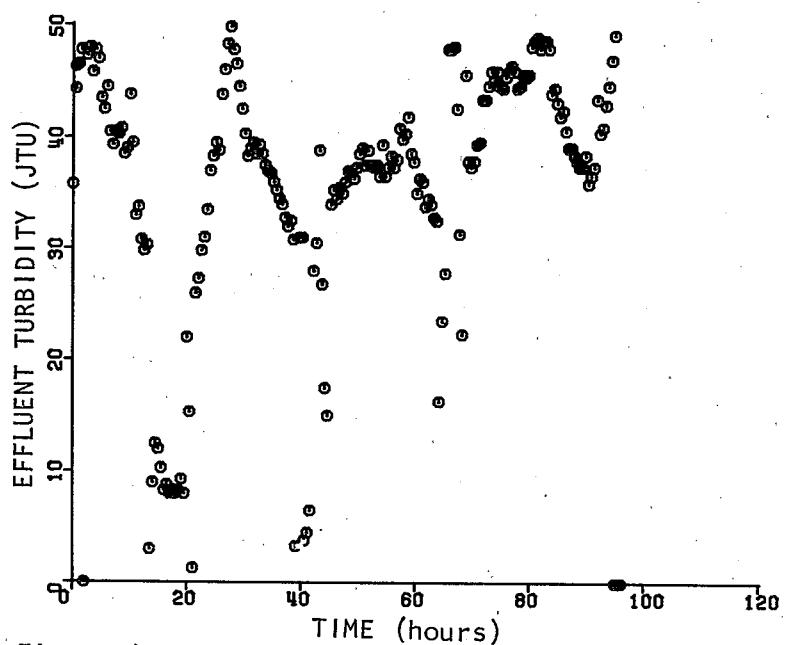


Figure 45. Effluent turbidity vs. time for PLI controlled pilot study (zero values signify missing data).

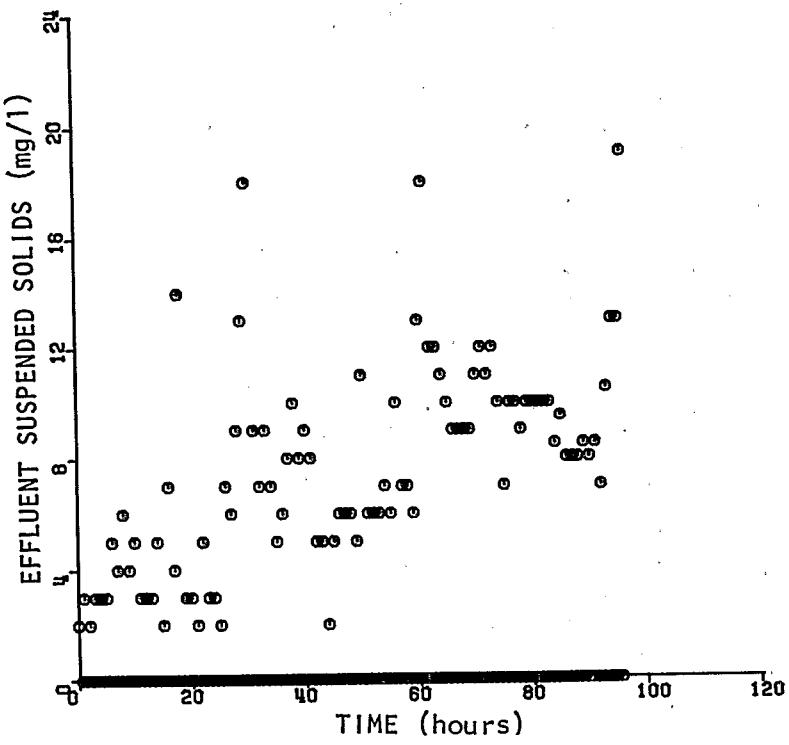


Figure 46. Effluent suspended solids vs. time for PLI controlled pilot study (zero values signify missing data).

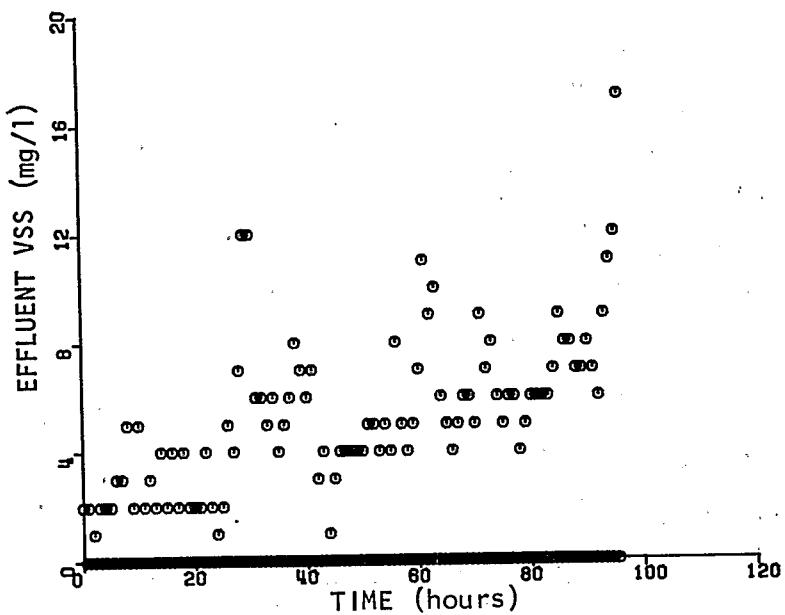


Figure 47. Effluent volatile suspended solids vs. time for PLI controlled pilot study (zero values signify missing data).

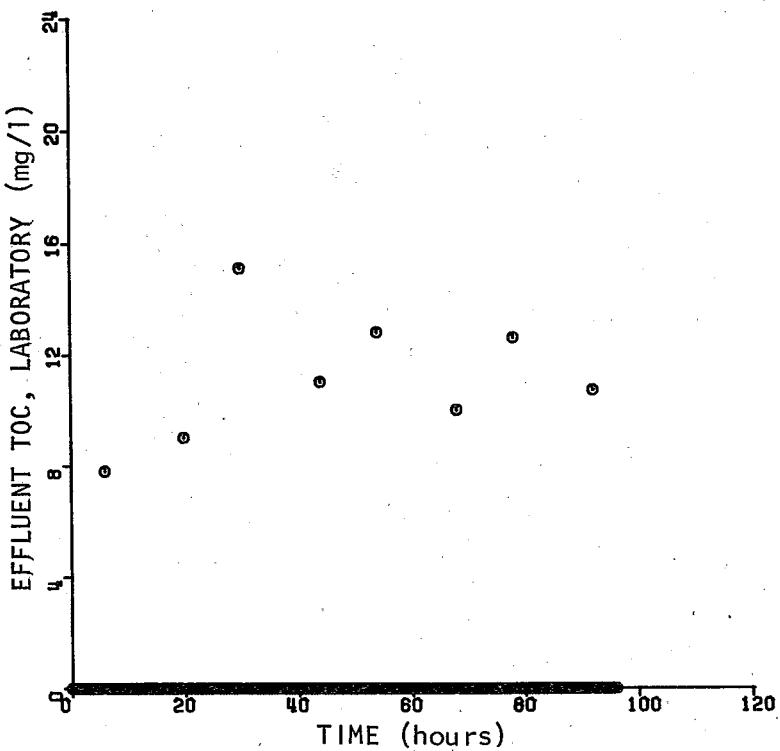


Figure 48. Laboratory measured effluent TOC vs. time for PLI controlled pilot study (zero values signify missing data).

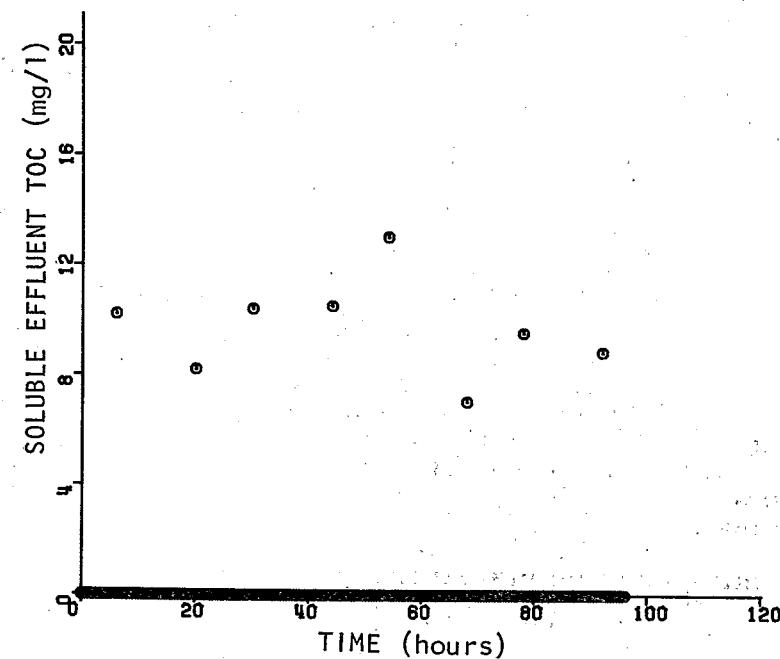


Figure 49. Laboratory measured effluent soluble TOC vs. time for PLI controlled pilot study (zero values signify missing data).

COMPARISON OF CONTROLLED AND UNCONTROLLED STUDIES

Results of the two pilot-scale studies can be compared most conveniently through the use of frequency distribution plots. Total effluent TOC data obtained using a continuous, on-line TOC analyzer has been plotted in a frequency distribution format in Figure 50. Similar plots, Figures 51 through 54, have also been developed for data obtained in the laboratory for both the controlled and uncontrolled studies for total effluent TOC, soluble effluent TOC, total effluent BOD₅, and soluble effluent BOD₅, respectively.

Figure 50 shows that the total effluent TOC for the pilot study in which the PLI was controlled was higher than it was for the base-case (uncontrolled) study. This observation is particularly interesting considering the fact that the total influent TOC was one-third higher for the base-case study as compared to the PLI controlled study. It is interesting to note, furthermore, that the slope of the frequency distribution trace for the total effluent TOC for the controlled study also was greater than that obtained for the base-case study. This implies that the variability of the effluent TOC was greater for the controlled case as well.

On the basis of the experimental continuous, on-line data obtained it would appear that PLI control has no net benefits and, indeed, might even be slightly detrimental to process performance. The corresponding laboratory measurements (Figures 51 through 54), however, do not confirm and are somewhat in conflict with the measurements made continuously using an on-line TOC analyzer. Qualitatively, the laboratory results show that: (1) the median total effluent concentration of organics expressed either as TOC or BOD₅ was lower for the controlled study than it was for the uncontrolled (base-case) study; (2) the variability in total effluent TOC or BOD₅ was greater for the controlled than for the uncontrolled study; and (3) no significant differences existed between the controlled and uncontrolled studies with respect to soluble effluent TOC or BOD₅. Based on the laboratory data it appears that the particulate solids in the effluent account for the majority of the observed difference in performance between the controlled and uncontrolled (base-case) studies as well as the relative differences in variability observed between the two process outputs. Laboratory suspended solids and volatile suspended solids data obtained for the two studies, Figures 55 and 56, respectively, confirm this observation.

Although the laboratory data, in contrast to the continuous, on-line data, supports the contention that benefits can be obtained by virtue of PLI control, no such conclusions can be made since the laboratory data was extremely limited. Only eight analyses were performed in the laboratory for each of the parameters measured. Moreover, the eight samples analyzed were collected twice daily at the same clock times (12:00 midnight and 2:00 PM) throughout the period of the study.

Since the issue of whether PLI control has a beneficial effect on process performance could not be resolved on the basis of the conflicting sets of experimental data, simulations were conducted for the two pilot-scale systems evaluated experimentally at the EPA Pilot Plant using the dynamic mathematical model employed previously in this study.

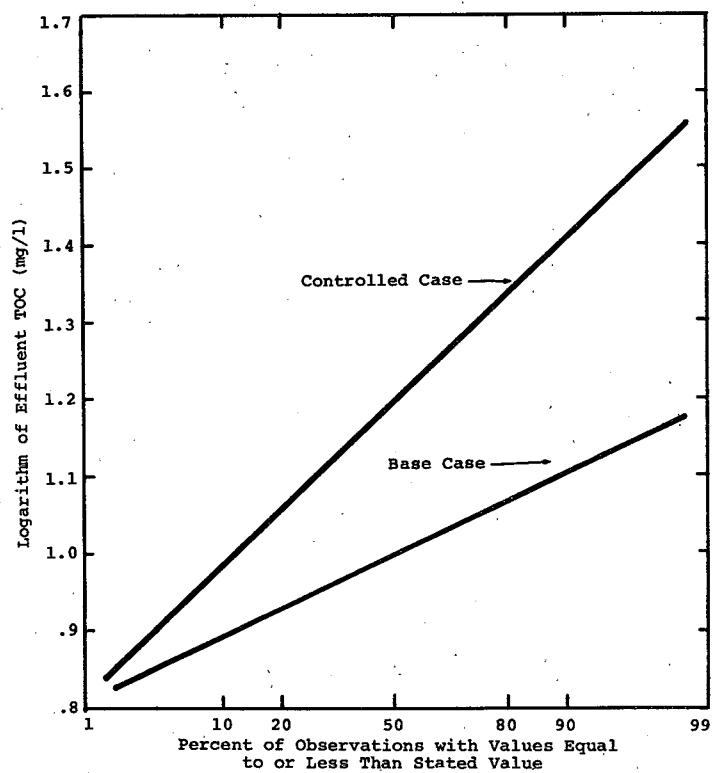


Figure 50. Logarithmic frequency distribution domain for effluent TOC for base-case and PLI controlled pilot studies.

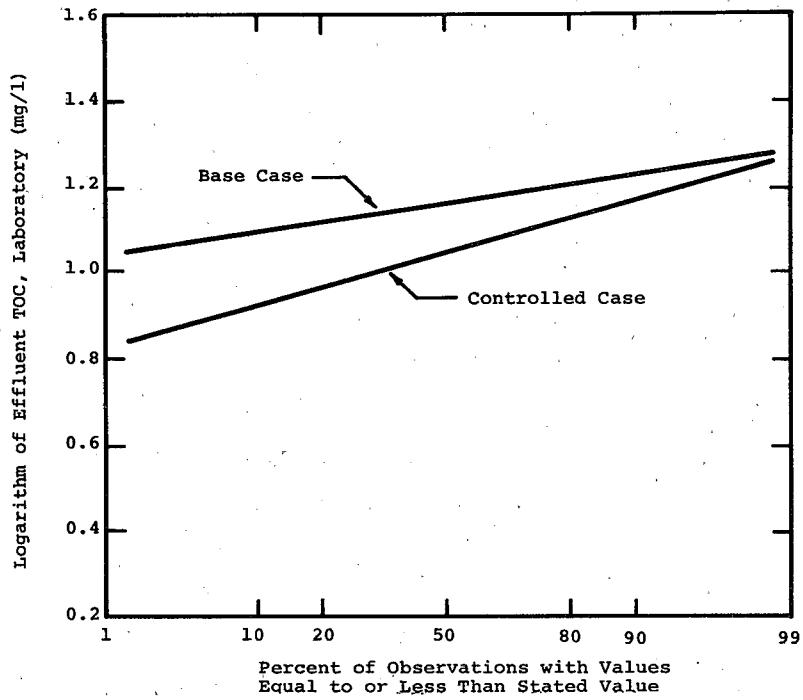


Figure 51. Logarithmic frequency distribution domain for effluent TOC (laboratory) for base-case and PLI controlled pilot studies.

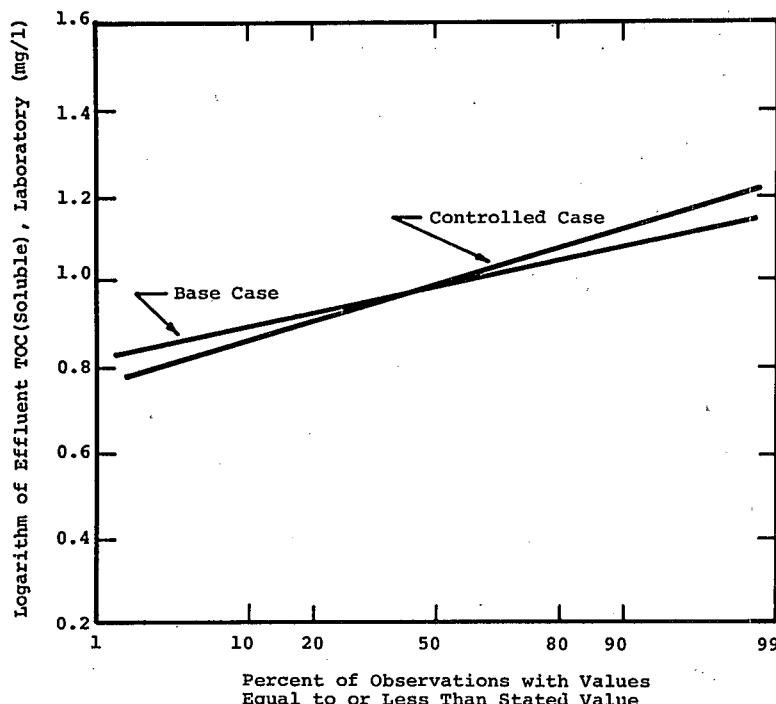


Figure 52. Logarithmic frequency distribution domain for effluent TOC (soluble, laboratory) for base-case and PLI controlled pilot studies.

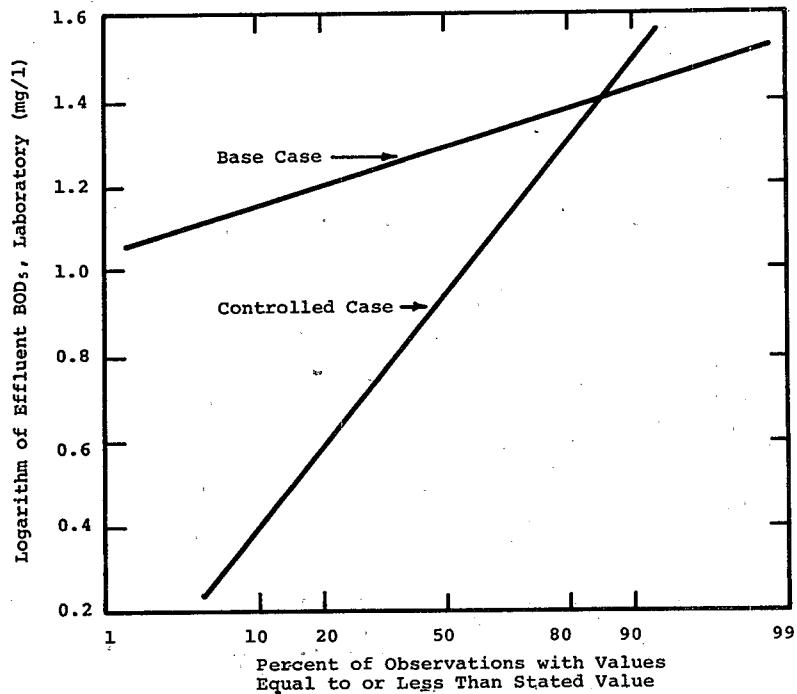


Figure 53. Logarithmic frequency distribution domain for effluent BOD₅ (laboratory) for base-case and PLI controlled pilot studies.

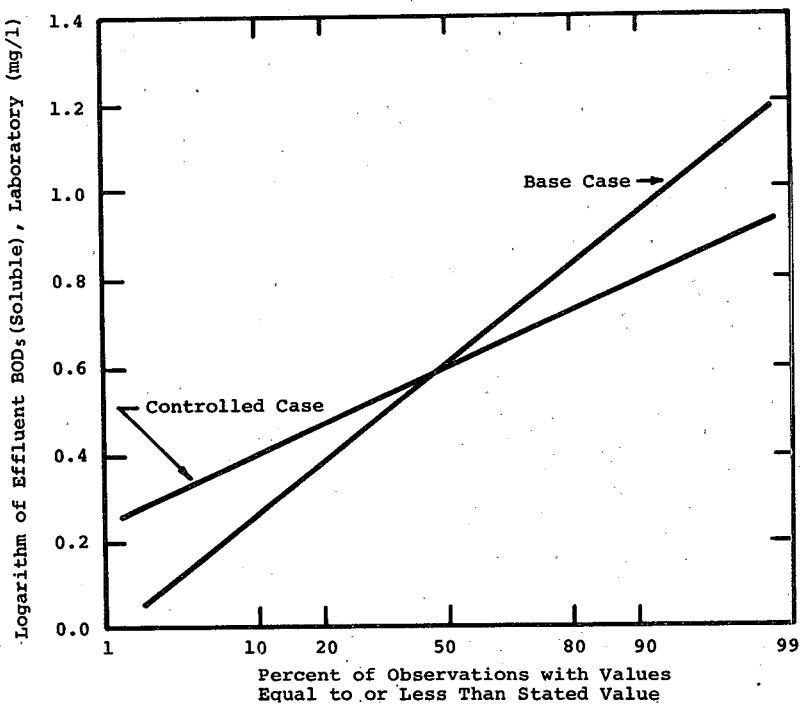


Figure 54. Logarithmic frequency distribution domain for effluent BOD₅ (soluble, laboratory) for base-case and PLI controlled pilot studies.

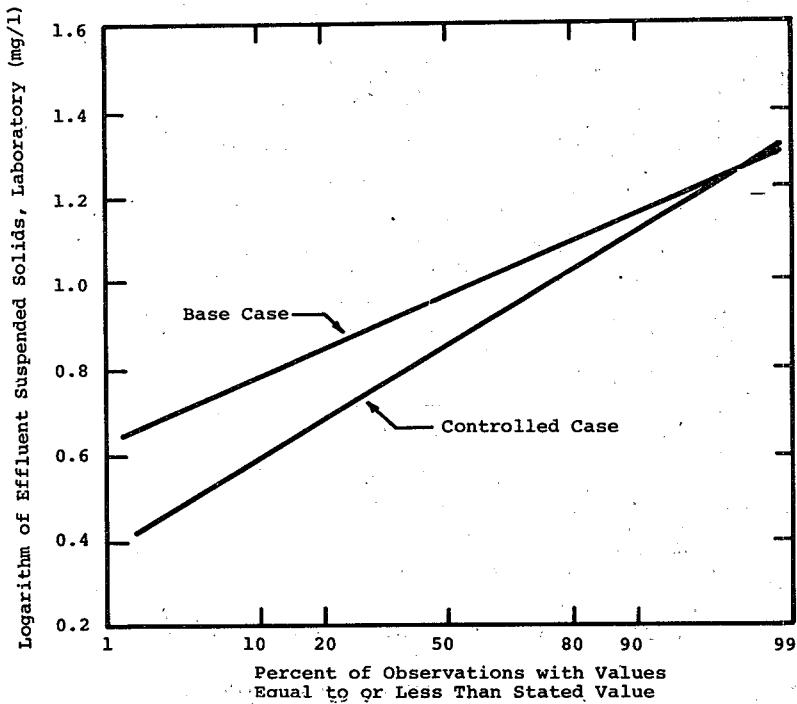


Figure 55. Logarithmic frequency distribution domain for effluent suspended solids (laboratory) for base-case and PLI controlled pilot studies.

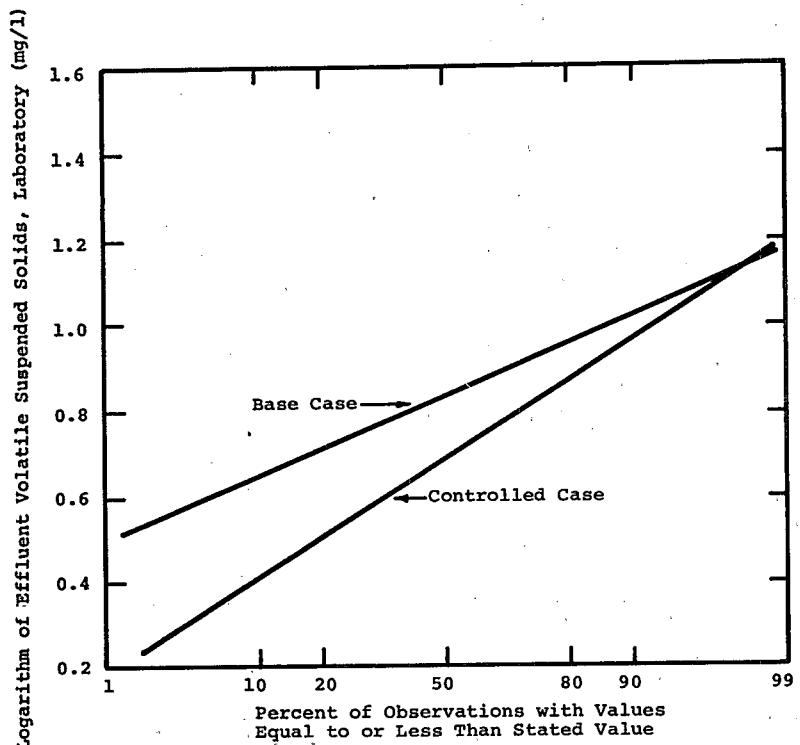


Figure 56. Logarithmic frequency distribution domain for effluent volatile suspended solids (laboratory) for base-case and PLI controlled pilot studies.

TABLE 2: STATISTICAL COMPARISON OF TWO EXPERIMENTAL STUDIES

Type of Analysis	Number of Determinations	Lower 95%-tile	Median	Upper 95%-tile
*** Continuous, On-Line Measurements ***				
Total Effluent TOC (mg/l)				
Uncontrolled Study	192	6.8	10.0	14.5
Controlled Study	83	7.4	15.7	33.5
Effluent Turbidity (JTU)				
Uncontrolled Study	147	15.8	26.6	45.2
Controlled Study	171	31.6	53.1	88.1
*** Laboratory, Off-Line Measurements ***				
Total Effluent TOC (mg/l)				
Uncontrolled Study	8	11.3	13.9	18.2
Controlled Study	8	7.2	11.0	17.0
Soluble Effluent TOC (mg/l)				
Uncontrolled Study	8	6.8	9.6	13.2
Controlled Study	8	6.1	9.7	15.3
Total Effluent BOD ₅ (mg/l)				
Uncontrolled Study	8	11.9	19.0	31.0
Controlled Study	8	1.3	8.7	60.0
Soluble Effluent BOD ₅ (mg/l)				
Uncontrolled Study	8	1.2	3.9	13.3
Controlled Study	8	1.9	3.7	7.8
Suspended Solids (mg/l)				
Uncontrolled Study	95	4.7	9.2	18.0
Controlled Study	97	2.8	7.0	18.0
Volatile Suspended Solids (mg/l)				
Uncontrolled Study	95	3.5	6.7	13.0
Controlled Study	97	1.8	4.8	13.0

Analysis of the simulations showed that the total mass of BOD_u discharged with the effluent was approximately the same for both simulations, PLI controlled and uncontrolled (base-case). Nonetheless, the variability of the BOD_u for the uncontrolled system was somewhat greater than that simulated for the controlled system. These specific observations for the simulations do not compare precisely with the corresponding experimental observations. The general simulations, however, compare favorably with the experimental results obtained. This, of course, lends credence to the mathematical developments.

More specific analysis of the components of the total effluent BOD_u, soluble and particulate, shows that implementation of PLI control serves to decrease the variability in the effluent soluble BOD_u. Considering both effects, the controlled and uncontrolled systems appear to be approximately equivalent in performance.

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APPENDIX A

Program Listing

of

Dynamic Mathematical Model

```

*****
* THIS MACRO CONTAINS THE MASS BALANCES FOR THE J TH STAGE *
*****
MACRO VJDOT,SJ,SNH4J,SNO2J,SNO3J,XAJ,XIJ,XNBJ,XNSJ,XSJ,XTJ=...
STAGE(FOJ,FRJ,SOJ,SNH4OJ,SNO2OJ,SNO3OJ,XAOJ,XIOJ,XNBOJ,XNSOJ,XSOJ,SRJ...
,SNH4RJ,SNO2RJ,SNO3RJ,XARJ,XIRJ,XNBRJ,XNSRJ,XSRJ,ICSJ,ISNH4J,ISNO2J,...
ISNO3J,ICXAJ,ICXIJ,ICXNBJ,ICXNSJ,ICXSJ,VJLO,VJUP,VJ,FTJ,ICVJ)
    VJDOT=FRJ-FTJ+FOJ
    VJC=INTGRL(ICVJ,VJDOT)
    VJ=LIMIT(VJLO,VJUP,VJC)
* CARBONACEOUS SYSTEM
    XTJ=XAJ+XIJ+XSJ
    FSJ=XSJ/XTJ
* SUBSTRATE MASS BALANCE
    CALC1=RT*XTJ*(FSH*(SJ/(KS+SJ))-FSJ)
    SJDOT=(FOJ*SOJ+FRJ*SRJ-FTJ*SJ-VJDOT*SJ)/VJ-CALC1
    SJ=INTGRL(ICSJ,SJDOT)
* STORAGE PRODUCT MASS BALANCE
    CALC2=RXA*XAJ*(FSH/(KFS+FSJ))
    XSJDOT=(FOJ*XSOJ+FRJ*XSRJ-FTJ*XSJ-VJDOT*XSJ)/VJ+CALC1-CALC2/Y1
    XSJ=INTGRL(ICXSJ,XSJDOT)
* ACTIVE MASS BALANCE
    CALC3=RXI*XAJ
    XAJDOT=(FOJ*XAOJ+FRJ*XARJ-FTJ*XAJ-VJDOT*XAJ)/VJ+CALC2-CALC3
    XAJ=INTGRL(ICXAJ,XAJDOT)
* INERT VOLATILE MASS BALANCE
    XIJDOT=(FOJ*XIOJ+FRJ*XIRJ-FTJ*XIJ-VJDOT*XIJ)/VJ +Y2*CALC3
    XIJ=INTGRL(ICXIJ,XIJDOT)
* NITROGENOUS SYSTEM
    CALC4=XNSJ*MUHNS*LIMIT(0.25,100.,SNH4J)/(SNH4J+KSNS)
    CALC6=(CALC3*Y2P-CALC2)*SCNH4S
* AMMONIA SUBSTRATE BALANCE
    CALCA=CALC4/YNS-CALC6
    DSNH4J=(FOJ*SNH4OJ+FRJ*SNH4RJ-FTJ*SNH4J-VJDOT*SNH4J)/VJ-CALCA
    SNH4J=INTGRL(ISNH4J,DSNH4J)
* NITRITE SUBSTRATE BALANCE
    CALC5=XNBJ*MUHNB*LIMIT(0.25,100.,SNO2J)/(KSNB+SNO2J)
    CALCV=VJDOT*SNO2J
    CALCN=CALC4/YNS-CALC5/YNB
    DSN02J=(FOJ*SNO2OJ+FRJ*SNO2RJ-FTJ*SNO2J-CALCV)/VJ+CALCN
    SNO2J=INTGRL(ISNO2J,DSNO2J)
* NITRATE BALANCE
    DSN03J=(FOJ*SNO3OJ+FRJ*SNO3RJ-FTJ*SNO3J-VJDOT*SNO3J)/VJ+CALC5/YNB
    SNO3J=INTGRL(ISNO3J,DSNO3J)
* NITROSOMONAS BALANCE
    CALC7=KDNS*XNSJ
    DXNSJ=(FOJ*XNSOJ+FRJ*XNSRJ-FTJ*XNSJ-VJDOT*XNSJ)/VJ+CALC4-CALC7
    XNSJ=INTGRL(ICXNSJ,DXNSJ)
* NITROBACTER BALANCE
    CALC8=KDNB*XNBJ
    DXNBJ=(FOJ*XNBOJ+FRJ*XNBRJ-FTJ*XNBJ-VJDOT*XNBJ)/VJ+CALC5-CALC8
    XNBJ=INTGRL(ICXNBJ,DXNBJ)
ENDMACRO
*****
* THIS MACRO MIXES THE FLOWS AND CONCENTRATIONS *
*****

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MACRO FTL,SL,SNH4L,SNO2L,SNO3L,XAL,XIL,XNBL,XNSL,XSL=MIX...
FTK,FK,SK,SNH4K,SNO2K,SNO3K,XAK,XIK,XNBK,XNSK,XSK,SOK,SNH4OK,SNO2OK,...
SNO3OK,XAOK,XIOK,XNBOK,XNSOK,XSOK)
NOSORT
    FTL=FTK+FK
    FX1=FTK/FTL
    FX2=FK/FTL
* BYPASS CALCULATIONS IF NO MIXING
    IF(FX2) 10,10,20
10   CONTINUE
    SL=SK
    SNH4L=SNH4K
    SNO2L=SNO2K
    SNO3L=SNO3K
    XAL=XAK
    XIL=XIK
    XNBL=XNBK
    XNSL=XNSK
    XSL=XSK
    GO TO 30
20   CONTINUE
    SL=FX1*SK+FX2*SOK
    SNH4L=FX1*SNH4K+FX2*SNH4OK
    SNO2L=FX1*SNO2K+FX2*SNO2OK
    SNO3L=FX1*SNO3K+FX2*SNO3OK
    XAL=FX1*XAK+FX2*XAOK
    XIL=FX1*XI+FX2*XIOK
    XNBL=FX1*XNBK+FX2*XNBOK
    XNSL=FX1*XNSK+FX2*XNSOK
    XSL=FX1*XSK+FX2*XSOOK
30   CONTINUE
SORT
ENDMACRC
*****
* THIS MACRO CALCULATES RUNNING MEANS AND RUNNING VARIANCES *
*****
MACRO XBARJ,VARJ=STAT(XJ,INDEPJ,TRIGJ)
    CALC10=MODINT(0.0,TRIGJ,1.0,XJ)
    CALC11=MODINT(0.0,TRIGJ,0.0,(XJ**2))
PROC XBARJ,VARJ=LOGIC(CALC10,CALC11)
    IF(INDEPJ) 340,350,340
340  XBARJ=CALC10/INDEPJ
    VARJ=(CALC11-((CALC10)**2)/INDEPJ)/INDEPJ
350  CONTINUE
ENDPRO
ENDMAC
*****
* PARAMETERS AND INITIAL CONDITIONS *
*****
PARAM PLIST=1.,NDEBUG=1,TDEBUG=1000.
PARAM PROPW=8.0
PARAM ITYPE=1,TSHTI=120.,SHFTI=-1
PARAM RTYPE=-2,TSHFTR=120.,SHFTR=2
PARAM CTYPE=+4,TSHFTC=120.,SHFTC=+4

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PARAM STYPE=-3, TSHFTS=120., SHFTS=-3
*** RTYPE = NEGATIVE(CONSTANT) ZERO(MASS PROP. ) POSITIVE(PLI )
*** CTYPE = NEGATIVE(TOTAL MASS) ZERO(AERATOR MASS) POSITIVE(PROPW )
*** STYPE = NEGATIVE(ONE PUMP ) ZERO(MASS PROP. ) POSITIVE(PLI )
*** ITYPE = NEGATIVE(CON. FLOW ) ZERO(PLI FLOW ) POSITIVE(CON. )
PARAM KOEX=1.42, TCHECK=25., RCHECK=10., KODES=1.5, EFF=0.0, KTOD=1.
PARAM TODAVG=76.3, TSSAVG=30., XDESUP=10000., XDESLO=100.
PARAM WLO=0., WUP=5., SLO=.10, SUP=2.
PARAM RLO=.10, RUP=2., FV1UP=1., FV1LO=.01, FV4UP=1.00, FV4LO=1.0
PARAM FTOTAL=28800., VTOTAL=2904., FRAT=.5, FVSTAB=.345, ICFRAC=1.

* INITIAL CONDITIONS
PARAM ICS1=2.996, ICS4=10.788
PARAM ICXA1=2085.5, ICXA4=358.04
PARAM ICXS1=33.133, ICXS4=15.193
PARAM ICXI1=1788.1, ICXI4=305.09
PARAM ICXNS1=0., ICXNS4=0.
PARAM ICXTR=5248.6, ICCLAR=161.30
PARAM ICXNB1=0., ICXNB4=0.

* CARBONACEOUS PARAMETERS
PARAM FSH=0.45, KS=150., KFS=.2, RXA=0.30, RT=5.0, RXI=.015, Y1=0.5, Y2=0.25
PARAM XAO=0., XSO=0.
PARAM ICXVV1=00., ICXNV4=00.

* NITRIFYING PARAMETERS
PARAM MUHNS=0.020, KSNS=1.0, MUHNB=0.04, KSNB=1.0, KDNS=0.005, KDNB=0.005
PARAM YNS=0.05, YNB=0.02, SCNH4S=0.086
PARAM SNH4IN=30.
PARAM SNO2D=0., SNO3D=0., XNSO=0., XNBO=0.
PARAM ISNO21=1.12, ISNO24=9.00
PARAM ISNH41=7.8, ISNH44=9.00
PARAM ISNO31=9., ISNO34=17.5
PARAM AREA= 59., FRACV=0.79, FRACB=0.75
PARAM NELEM=10, HCLAR=9.0
INITIAL
***** * CALCULATION OF CONSTANTS *
***** * FIXED I, H, J, K, L, M, N, H1, NELEM, ITYPE, IRAN1, IRAN2, NDEBUG
***** * FIXED RTYPE, CTYPE, STYPE
STORAGE TFLUX(10), SETFLX(10), VS(10)
A=AREA*0.0929
DX=HCLAR*30.48/FLOAT(NELEM)
CLAR=ICCLAR
SNH40=SNH4IN
F=FAVG
FS=FR
FSU=FSC
FAVG=3.78*FTOTAL/24.
FR=FAVG*FRAT
PROPR=FRAT/TODAVG
S4=ICS4
S1=ICS1
HCLARC=HCLAR*30.48
M=NELEM-1
SIN=TODAVG

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PLISET=PLIST
SAVE1=60000.
SAVE2=9.0E+08
SAVE3=1.3E+06
SAVE4=2.6E+08
SSIN=TSSAVG
THETAA=V4/FAVG
U=(FR+FW)/A*0.1
V1=FVSTAB*V4
V4=VTOTAL*3.78
FWLO=WLO*FAVG
FWUP=WUP*FAVG
FRLO=RLO*FAVG
FRUP=RUP*FAVG
FSLO=SLO*FAVG
FSUP=SUP*FAVG
V1LO=FV1LO*V1
V1UP=FV1UP*V1
V4LO=FV4LO*V4
V4UP=FV4UP*V4
ICV1=ICFRAC*V1UP
Y1P=1.-Y1
Y2P=1.-Y2
XTR=ICXTR
MLSS=ICXA4+ICXI4+ICXS4+ICXNS4+ICXNB4+ICXNV4
FRC=FRAT*FAVG
FSC=FRC
SO=SIN+FRACV*FRACB*KOEX*TSSAVG
ONEOVR=(Y1*PLISET-RXI*(FVSTAB*ALPHA+1.))/(FVSTAB*ALPHA+1.)
ALPHA=1.+1./FRAT
SSAGE=1./ONEOVR
SCAVG=SO
XDESC=XT4
XT4=ICXA4+ICXS4+ICXI4
XT1=ICXA1+ICXS1+ICXII
NOSORT
DO 10 I=1,M
TFLUX(I)=0.
SETFLX(I)=0.
ICC(I)=CLAR
10 CONTINUE
ICC(NELEM)=XTR
IF(STYPE.LT.0.AND.RTYPE.LT.0) ICV1=V1UP
SORT
DYNAMIC
*****
* DYNAMIC SEGMENT *
*****
NOSORT
IF(TIME.GE.TSHFTI) ITYPE=SHFTI
IF(TIME.GE.TSHFTR) RTYPE=SHFTR
IF(TIME.GE.TSHFTS) STYPE=SHFTS
IF(TIME.GE.TSHFTC) CTYPE=SHFTC

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```

SORT
* TIMER SEGMENT OF MODEL
TRG6=0.5-IMPULS(6.,6.)
TRG24=0.5-IMPULS(24.,24.)
TRG168=0.5-IMPULS(168.,168.)
TRGR=0.5-IMPULS(RTIME,RTIME)
T6=MODINT(0.0, TRG6,1.0,1.0)
T24=MODINT(0.0, TRG24,1.0,1.0)
T168=MODINT(0.0, TRG168,1.0,1.0)
TR=MODINT(0.0,TRGR,1.0,1.0)
*****
* INPUT SECTION OF MODEL
*****
PROCEDURE F,SIN,SSIN,SNH40=INPUT(ITYPE)
IF(ITYPE) 3020,3030,3060
* TIME VARYING INPUTS FROM ACTUAL DATA
3020 SSIN=TSSAVG*TSS(TIME-TSHFTI)
SIN=VBOD(TIME-TSHFTI)
SNH40=SNH4IN*VSNH4(TIME-TSHFTI)
* F=FAVG*FLOW(TIME-TSHFTI)
GO TO 3060
* HYDRAULIC VARIATION TO MAINTAIN CONSTANT MASS LOADING
3030 SSIN=TSSAVG*TSS(TIME-TSHFTI)
SIN=VBOD(TIME-TSHFTI)
SNH40=SNH4IN*VSNH4(TIME-TSHFTI)
F=PLISET*V4*MLVSS/SO/24.
3060 CONTINUE
ENDPRO
* INSERT CONVERSIONS THAT WERE DONE IN PRIMARY
FP=F
SSOUT=SSIN
SPFEED=SIN
XIO=SSOUT*FRACV*(1.-FRACB)
XNVO=SSOUT*(1.-FRACV)*KOEX
SO=SPFEED + FRACV*FRACB*KOEX*SSOUT
BODINF=SPFEED*0.54+SSOUT*FRACV*FRACB*0.54
*****
* STORAGE STAGE
*****
V1DOT,S1,SNH41,SNO21,SNO31,XA1,XI1,XNB1,XNS1,XS1,XT1=STAGE(...
0.,FR,SO ,SNH40,SNO20,SNO30,XAO,XIO,XNBO,XNSO,XSO,SR,SNH4R,SNO2R,...
SNO3R,XAR,XIR,XNBR,XNSR,XSR,ICS1,ISNH41,ISNO21,ISNO31,ICXA1,ICXI1,...
ICXNBI,ICXNS1,ICXS1,V1LO,V1UP,V1,FS,V1)
DXNVI=(FR*XNVR-FS*XNV1-V1DOT*XNV1)/V1
XNV1=INTGRL(ICXNVI,DXNVI)
NOSORT
*****
* STORAGE STAGE FLOW CONTROL
*****
IF(STYPE)3070,3080,3090
* ONE PUMP
3070 FS=FR
GO TO 3100
* TWO PUMPS, MASS PROPORTIONAL

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3080 FS=PROPR*F*SIN
      GO TO 3100
* TWO PUMPS. PLI CONTROLLED MIXED LIQUOR
3090 IF(TR-RCHECK)3095,3098,3098
3095 XDESU=F*(SO-EFF*S4)*24.*KOEX/(V4*PLISET*KOES)
      XDESC=LIMIT(XDESLO,XDESUP,XDESU)
      XDDOTS=DERIV(0.,XDESC)
      FSU=(XDESC*FP+V4*XDDOTS)/(XT1-XDESC)
      FSC=LIMIT(FSLO,FSUP,FSU)
      FS=FSC
3098 RCHECK=TR
      IF(V1.LE.V1LO.AND.FS.GT.FR) GO TO 3070
      IF(V1.GE.V1UP.AND.FS.LT.FR) GO TO 3070
3100 CONTINUE
      SORT
*****
*      MIXING AFTER STORAGE STAGE
*****
FTB,SB,SNH4B,SNO2B,SNO3B,XAB,XIB,XNBB,XNSB,XSB=MIX(FS,FP,S1,...)
SNH41,SNC21,SNO31,XA1,XI1,XNBI,XNS1,XS1,SO,SNH40,SNO20,SNO30,XAO,XIO,...
XNBO,XNSO,XSO)
      FT4=FTB
*****
*      AERATION STAGE
*****
V4DOT,S4,SNH44,SNO24,SNO34,XA4,XI4,XNB4,XNS4,XS4,XT4=STAGE(...
FTB,0.,SB,SNH4B,SNO2B,SNO3B,XAB,XIB,XNBB,XNSB,XSB,SR,SNH4R,SNO2R,...)
SNO3R,XAR,XIR,XNBR,XNSR,XSR,ICS4,ISNH44,ISNO24,ISNO34,ICXA4,ICXI4,...
ICXNB4,ICXNS4,ICXS4,V4LO,V4UP,V4,FT4,V4)
      DXNV4=(FS*XNV1+FP*XNVO-FT4*XNV4)/V4
      XNV4=INTGRL(ICXNV4,DXNV4)
*****
*      SECONDARY CLARIFIER SEGMENT
*****
MLSS=XT4+XNS4+XNB4+XNV4
MLVSS=MLSS-XNV4
COVER=4.5+7.5*(MLSS*(FT4-FW-FR)/(A*1.E+06))
BODU=(S4+COVER*((XA4+XS4)/XT4))
BOD5=BODU*.63
U=(FR+FW)*0.1/A
C=INTGRL(ICC,CDOT,10)
MTT=MODINT(0.0,TRG24,1.0,MT)
XTDGT=MODINT(0.0,TRG24,1.0,XTR)
WTOT1=FW*XTR
WTOT2=(FT4-FW-FR)*COVER
WTOT11=MODINT(0.0,TRG24,1.0,WTOT1)
WTOT12=MODINT(0.0,TRG24,1.0,WTOT2)
MTASUM=MODINT(0.,TRG24,1.,MTA)
WTOTI=WTOT11+WTOT12
WTOT=WTOT1+WTOT2
FDGT1=MODINT(0.0,TRG24,1.0,FW)
PROC CCOT,SETFLX,TFLUX,US,XTR,THETAS,MTS,SAGE1,...
      SAGE2=THICK(MLSS,FT4,U,COVER)
      FLUXIN=(FT4*MLSS-(FT4-FR-FW)*COVER) *0.1/A

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```

DO 4000 I=1,NELEM
VS(I)=SVS(C(I))
4000 SETFLX(I)=C(I)*VS(I)
TFLUX(1)=U*C(1)+AMIN1(SETFLX(1),SETFLX(2))
CDOT(1)=(FLUXIN-TFLUX(1))/DX
DO 4010 I=2,M
TFLUX(I)=U*C(I)+AMIN1(SETFLX(I),SETFLX(I+1))
4010 CDOT(I)=(TFLUX(I-1)-TFLUX(I))/DX
CDOT(NELEM)=(TFLUX(M)-U*C(NELEM))/DX
THETAS=0.
MTS=0.
DO 4030 I=1,NELEM
MTS=MTS+DX*A*10.*C(I)
4030 THETAS=THETAS+DX/(VS(I)+U)
XTR=C(NELEM)
IF(WTOT) 5005,5005,4990
4990 SAGE1=MTA/(WTOT*24.)
SAGE2=MT/(WTOT*24.)
5005 CONTINUE
ENDPRO
* RECYCLE SUBSTRATE CALCULATIONS
SR=S4
SNH4R=LIMIT(0.,100.,SNH44)
SNO2R=SNO24
SNO3R=SNO34
* TOTAL SLUDGE MASS CALCULATIONS
MT1=XT1*V1
MT4=XT4*V4
MTA=MT4
MTNVA=XNV4*V4
MT=MTA+MTS+MT1
* RECYCLE SLUDGE MASS
VELA=HCLARC/THETAS
XARP=PIPE(250,ICXA4,HCLARC,VELA,XA4,1)
XSRP=PIPE(250,ICXS4,HCLARC,VELA,XS4,1)
XIRP=PIPE(250,ICXI4,HCLARC,VELA,XI4,1)
XNBRP=PIPE(250,ICXNB4,HCLARC,VELA,XNB4,1)
XNSRP=PIPE(250,ICXNS4,HCLARC,VELA,XNS4,1)
XNVRP=PIPE(250,ICXNV4,HCLARC,VELA,XNV4,1)
MLSSD=XARP+XSRP+XIRP+XNBRP+XNSRP+XNVRP
XAR=XTR*XARP/MLSSD
XIR=XTR*XIRP/MLSSD
XSR=XTR*XSRP/MLSSD
XNSR=XTR*XNSRP/MLSSD
XNBR=XTR*XNBRP/MLSSD
XNVR=XTR*XNVRP/MLSSD
MWT=INTGRL(0.0,WTOT1)
MSOUT=(FT4-FR-FW)*BODU
MSBAR,MSVAR=STAT(MSOUT,T24,TRG24)
PLI=SO*F*24.*KOEX/(MT4*KOES)
PLIBAR,PLIVAR=STAT(PLI,T24,TRG24)
INTER=INTGRL(0.,PLI)
NOSORT
IF(TIME.EQ.0.) GO TO 5050

```

```

PLIMN=INTER/TIME
5050 CONTINUE
SORT
SAGEC,SAGEV=STAT(SAGE1,T24,TRG24)
SAGE2C,SAGE2V=STAT(SAGE2,T24,TRG24)
*****
* CONTROLLER SEGMENT
*****
NOSORT
IF(T24-TCHECK) 6000,7000,7000
*****
* CONTROLS WASTING FLOW RATE
*****
6000 IF(CTYPE) 6001,6002,6003
* PLI CONTROL TOTAL MASS
6001 FWU=(SAVE2/(SSAGE*24.)-SAVE3)/SAVE1
GO TO 7000
* PLI CONTROL AERATOR MASS
6002 FWU=(SAVE4/(SSAGE*24.)-SAVE3)/SAVE1
GO TO 7000
* SLUDGE AGE CONTROL (BASED ON TOTAL SLUDGE MASS)
6003 FWU=(SAVE2/(PROPW*24.)-SAVE3)/SAVE1
7000 TCHECK=T24
FWC=LIMIT(FWLO,FWUP,FWU)
FW=FWC
SAVE1=XTDGT
SAVE2=MTT
SAVE3=WTOTI2
SAVE4=MTASUM
*****
* CONTROLS RECYCLE FLOW RATE
*****
IF(RTYPE) 5000,5010,5020
* CONSTANT RECYCLE
5000 FR=FAVG*FRAT
GO TO 5035
* MASS PROPORTIONAL RECYCLE
5010 FR=PROPR*F*SIN
GO TO 5035
* PLI CONTROLLED RECYCLE
5020 IF(TR-RCHECK)5025,5030,5030
5025 XDESU=F*(SO-EFF*S4)*24./(V4*PLISET*KTOD)
XDESC=LIMIT(XDESLO,XDESUP,XDESU)
XDDOTR=DERIV(0.,XDESC)
5030 RCHECK=TR
FRU=(XDESC*FP+V4*XDDOTR)/(XT1-XDESC)
FRC=LIMIT(FRLO,FRUP,FRU)
FR=FRC
5035 CONTINUE
CALL DEBUG(NDEBUG,TDEBUG)
TERMINAL
*****
* OUTPUT SECTION
*****

```

```

METHOD RKSFX
TIMER FINTIM= 168.,DELT=.01,PRDEL=.1,OUTDEL=1.
PRINT XDESC,MLVSS,XT4,XA4,XS4,XI4,XT1,XA1,XS1,XII,S1,S4,CLRCN,..
C(1-10),FRU,FRC,FSU,FSC,PLI,PLIBAR,SAGEC,SAGE2C,COVER,FW,FR,FS,V1,V4,...
MTA,MTS,MT1,MT,BODU,MSOUT,MSBAR,SSAGE,XNS4,XNS1,XNB4,XNB4,MASS
LABEL GENERAL SIMULATIONS
LABEL CONSTANT VOLUME, VARIABLE RECYCLE
LABEL STORAGE VOLUME(10%) RECYCLE RATE FOR BASE CASE(20%)
LABEL PLI= 1.0 PER DAY      TOTAL MASS SRT = 8.0 DAYS
OUTPUT TIME,MLVSS,XDESC
PAGE XYPLDT,WIDTH=8.,HEIGHT=5.,GROUP=(0.0,2000.),MERGE
OUTPUT TIME,COVER
PAGE XYPLDT,WIDTH=8.,HEIGHT=5.,GROUP=(0.0,25.0),MERGE
OUTPUT TIME,S4
PAGE XYPLDT,WIDTH=8.,HEIGHT=5.,GROUP=(0.0,40.),MERGE
OUTPUT TIME,BODU
PAGE XYPLDT,WIDTH=8.,HEIGHT=5.,GROUP=(0.0,40.),MERGE
OUTPUT TIME,PLI
PAGE XYPLDT,WIDTH=8.,HEIGHT=5.,GROUP=(0.0,4.),MERGE
OUTPUT TIME,SO
PAGE XYPLDT,WIDTH=8.,HEIGHT=5.,GROUP=(0.0,100.),MERGE
END
STOP
FUNCTION SVS(S)
C   THE FUNCTION SVS CONTAINS A POLYNOMIAL FIT OF INITIAL SETTLING
C   VELOCITY DATA USED IN THE CLARIFIER MODEL.
C   THE REMAINING FUNCTIONS,TSS,FLOW,VBOD,VSNH4, CONTAIN FOURIER
C   SERIES COEFFICIENTS FOR THE INPUT VARIABLES TOTAL SUSPENDED
C   SOLIDS, INFLUENT FLOW RATE, INFLUENT SUBSTRATE CONCENTRATION,
C   AND INFLUENT AMMONIA CONCENTRATION.
DATA A/.521753E-07/,B/.834793E-02/,D/-103521E-01/,E/.419438E-02/
C=S/1420.
SVS=SQRT(231.37/(A+B*C+D*C**2+E*C**3))
RETURN
END
FUNCTION TSS(TIME)
DIMENSION A(5),B(5),C(5)
DATA A/-154903,-6.96097E-2,-176173,.14660,-9.67005E-02/,
1 B/0.127113,2.60089E-02,-.274343,4.09673E-02,2.49002E-02/,
2 C/1.,2.,7.,14.,21./,F/3.73999E-02/
TSS=1.
DO 10 I=1,5
THETA=F*C(I)*TIME
10 TSS=TSS+A(I)*COS(THETA)+B(I)*SIN(THETA)
RETURN
END
FUNCTION FLOW(TIME)
DIMENSION A(4),B(4),C(4)
DATA F/0.0373999/,A/-0.0988,0.0,-0.0449,0.07425/,B/0.0509,-0.0772,
1-0.2509,0.0365/,C/1.,2.,7.,14./
FLOW=1.
DO 10 I=1,4
THETA=F*TIME*C(I)
10 FLOW=FLOW+A(I)*COS(THETA)+B(I)*SIN(THETA)

```

```

RETURN
END
FUNCTION VBOD(TM)
DIMENSION A(5),B(5),C(5)
DATA A/73.28,.4862,-2.646,5.924,-.7770/,
1 B/0.,15.63,-6.886,-.0252,1.679/,
2 C/1.,5.,2.,9.,13./
F=6.28319/191
TIME=TM*2.
VBOD=0.0
DO 10 I=1,5
THETA=F*TIME*(C(I)-1.)
10 VBOD=VBOD+A(I)*COS(THETA)+B(I)*SIN(THETA)
RETURN
END
FUNCTION VSNH4(TIME)
DIMENSION A(3),B(3),C(3)
DATA A/-0.0794,0.0057,-0.0634/,B/-0.2996,-0.059,-0.0976/
DATA C/1.,2.,3./,F/0.26179/
VSNH4=1.0
DO 10 I=1,3
THETA=F*C(I)*TIME
10 VSNH4=VSNH4+A(I)*COS(THETA)+B(I)*SIN(THETA)
RETURN
END
ENDJOB

```

APPENDIX B
Raw Data for Base-Case Pilot Study

LOCATION: Influent

KEY:

1. Month
2. Day
3. Time
4. Flow Rate (manual), gpm
5. Flow Rate (continuous), gpm
6. Total Organic Carbon (continuous), mg/l
7. Total Organic Carbon (laboratory), mg/l
8. Chemical Oxygen Demand, mg/l
9. Biochemical Oxygen Demand, mg/l
10. Total Phosphorus, mg/l
11. Suspended Solids, mg/l
12. Volatile Suspended Solids

NOTE: A (-1) value designates missing data.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
APRIL	25.	1800.	-1.0	20.0	72.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	25.	1830.	20.0	20.0	80.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	25.	1900.	-1.0	20.0	80.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	25.	1930.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	25.	2000.	-1.0	20.0	78.0	64.6	132.0	18.9	106.0	80.0	
APRIL	25.	2030.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	25.	2100.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	25.	2130.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	25.	2200.	-1.0	20.0	77.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	25.	2230.	20.0	20.0	77.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	25.	2300.	-1.0	20.0	76.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	25.	2330.	-1.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	0.	-1.0	20.0	74.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	30.	-1.0	20.0	73.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	100.	-1.0	20.0	73.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	130.	-1.0	20.0	73.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	200.	-1.0	20.0	74.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	230.	20.0	20.0	77.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	300.	-1.0	20.0	82.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	330.	-1.0	20.0	82.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	400.	-1.0	20.0	80.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	430.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	500.	-1.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	530.	-1.0	20.0	73.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	600.	-1.0	20.0	70.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	630.	20.0	20.0	66.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	700.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	730.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	800.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	830.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	900.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	930.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1000.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1030.	20.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1100.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1130.	-1.0	20.0	41.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1200.	-1.0	20.0	42.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1230.	-1.0	20.0	43.0	-1.0	-1.0	-1.0	-1.0	-1.0	

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
APRIL	26.	1300.	-1.0	20.0	44.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1330.	-1.0	20.0	47.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1400.	-1.0	20.0	50.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1430.	20.0	20.0	56.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1500.	-1.0	20.0	60.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1530.	-1.0	20.0	63.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1600.	-1.0	20.0	64.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1630.	-1.0	20.0	66.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1700.	-1.0	20.0	70.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1730.	-1.0	20.0	71.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1800.	-1.0	20.0	72.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1830.	20.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1900.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	1930.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	2000.	-1.0	20.0	77.0	80.2	303.0	142.0	19.9	-1.0	-1.0
APRIL	26.	2030.	-1.0	20.0	76.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	2100.	-1.0	20.0	78.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	2130.	-1.0	20.0	76.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	2200.	-1.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	2230.	20.0	20.0	73.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	2300.	-1.0	20.0	73.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	26.	2330.	-1.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	0.	-1.0	20.0	74.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	30.	-1.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	100.	-1.0	20.0	82.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	130.	-1.0	20.0	83.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	200.	-1.0	20.0	71.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	230.	20.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	300.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	330.	-1.0	20.0	80.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	400.	-1.0	20.0	79.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	430.	-1.0	20.0	73.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	500.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	530.	-1.0	20.0	70.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	600.	-1.0	20.0	68.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	630.	20.0	20.0	65.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	700.	-1.0	20.0	64.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	730.	-1.0	20.0	62.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
APRIL	27.	800.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	830.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	900.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	930.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1000.	-1.0	20.0	55.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1030.	20.0	20.0	53.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1100.	-1.0	20.0	51.0	42.1	134.0	71.5	13.6	88.0	54.0
APRIL	27.	1130.	-1.0	20.0	51.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1200.	-1.0	20.0	52.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1230.	-1.0	20.0	53.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1300.	-1.0	20.0	54.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1330.	-1.0	21.0	58.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1400.	-1.0	21.0	60.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1430.	20.0	21.0	62.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1500.	-1.0	21.0	66.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1530.	-1.0	21.0	66.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1600.	-1.0	21.0	68.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1630.	-1.0	21.0	72.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1700.	-1.0	21.0	76.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1730.	-1.0	21.0	77.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1800.	-1.0	21.0	82.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1830.	20.0	21.0	89.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1900.	-1.0	21.0	92.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	1930.	-1.0	21.0	92.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	2000.	-1.0	21.0	92.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	2030.	-1.0	21.0	91.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	2100.	-1.0	21.0	91.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	2130.	-1.0	21.0	90.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	2200.	-1.0	21.0	87.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	27.	2230.	20.0	21.0	88.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	0.	-1.0	21.0	87.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	30.	-1.0	21.0	87.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	100.	-1.0	21.0	88.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	130.	-1.0	21.0	90.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	200.	-1.0	21.0	92.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	230.	20.0	21.0	91.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	300.	-1.0	21.0	93.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	APRIL	28.	330.	-1.0	21.0	91.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	400.	-1.0	21.0	93.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	430.	-1.0	21.0	92.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	500.	-1.0	21.0	90.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	530.	-1.0	21.0	83.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	600.	-1.0	21.0	80.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	630.	20.0	21.0	76.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	700.	-1.0	21.0	67.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	730.	-1.0	21.0	65.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	800.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	830.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	900.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	930.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1000.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1030.	20.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1100.	-1.0	20.0	-1.0	-1.0	42.1	160.0	65.0	12.2	86.0
APRIL	28.	1130.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1200.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1230.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1300.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1330.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1400.	-1.0	20.0	62.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1430.	20.0	20.0	67.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1500.	-1.0	20.0	72.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1530.	-1.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1600.	-1.0	20.0	74.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1630.	-1.0	20.0	83.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1700.	-1.0	20.0	87.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1730.	-1.0	20.0	90.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1800.	-1.0	20.0	95.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1830.	20.0	20.0	96.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1900.	-1.0	20.0	95.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1930.	-1.0	20.0	96.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2000.	-1.0	20.0	95.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2030.	-1.0	20.0	94.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2100.	-1.0	20.0	94.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2130.	-1.0	20.0	91.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2200.	-1.0	20.0	90.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2230.	20.0	20.0	88.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	APRIL	28.	2300.	-1.0	20.0	88.0	-1.0	-1.0	-1.0	-1.0
-2-	APRIL	28.	2330.	-1.0	20.0	87.0	-1.0	-1.0	-1.0	-1.0
-3-	APRIL	29.	0.	-1.0	20.0	87.0	-1.0	-1.0	-1.0	-1.0
-4-	APRIL	29.	30.	-1.0	20.0	92.0	-1.0	-1.0	-1.0	-1.0
-5-	APRIL	29.	100.	-1.0	20.0	91.0	-1.0	-1.0	-1.0	-1.0
-6-	APRIL	29.	130.	-1.0	20.0	90.0	-1.0	-1.0	-1.0	-1.0
-7-	APRIL	29.	200.	-1.0	20.0	92.0	-1.0	-1.0	-1.0	-1.0
-8-	APRIL	29.	230.	20.0	20.0	96.0	-1.0	-1.0	-1.0	-1.0
-9-	APRIL	29.	300.	-1.0	20.0	97.0	-1.0	-1.0	-1.0	-1.0
-10-	APRIL	29.	330.	-1.0	20.0	97.0	-1.0	-1.0	-1.0	-1.0
-11-	APRIL	29.	400.	-1.0	20.0	93.0	-1.0	-1.0	-1.0	-1.0
-12-	APRIL	29.	430.	-1.0	20.0	90.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	500.	-1.0	20.0	86.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	530.	-1.0	20.0	84.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	600.	-1.0	20.0	76.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	630.	20.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	700.	-1.0	20.0	70.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	730.	-1.0	20.0	64.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	800.	-1.0	20.0	64.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	830.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	900.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	930.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1000.	-1.0	20.0	45.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1030.	20.0	20.0	44.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1100.	-1.0	20.0	43.0	0	45.7	164.0	69.5
	APRIL	29.	1130.	-1.0	20.0	43.0	0	-1.0	-1.0	15.5
	APRIL	29.	1200.	-1.0	20.0	44.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1230.	-1.0	20.0	44.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1300.	-1.0	20.0	45.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1330.	-1.0	20.0	49.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1400.	-1.0	20.0	52.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1430.	20.0	20.0	57.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1500.	-1.0	20.0	61.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1530.	-1.0	20.0	67.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1600.	-1.0	20.0	72.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1630.	-1.0	20.0	75.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1700.	-1.0	20.0	76.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1730.	-1.0	20.0	76.0	-1.0	-1.0	-1.0	-1.0
	APRIL	29.	1800.	-1.0	20.0	74.0	-1.0	-1.0	-1.0	-1.0

LOCATION: Aerator

KEY:

1. Month
2. Day
3. Time
4. Total Flow Rate (continuous), gpm
5. Dissolved Oxygen (continuous), mg/l
6. Dissolved Oxygen (process meter), mg/l
7. Dissolved Oxygen (bench meter), mg/l
8. Air Flow (continuous), cfm
9. Air Flow (rotameter), cfm
10. Air Pressure, psi
11. Temperature (continuous), °C
12. Temperature (manual), °C
13. pH (bench meter)
14. Suspended Solids (continuous), mg/l
15. Suspended Solids (laboratory), mg/l
16. Volatile Suspended Solids (laboratory), mg/l
17. Chemical Oxygen Demand (laboratory), mg/l

NOTE: A (-1) value designates missing data.

1 -	2 -	3 -	4 -	5 -	6 -	7 -	8 -	9 -	10 -	11 -	12 -	13 -	14 -	15 -	16 -	17
APRIL	25.	1800.	8.00	8.00	1.10	-1.00	2.90	21.40	26.50	6.10	-1.00	-1.00	-1.00	7.05	705.	-1.
APRIL	25.	1820.	8.00	8.00	1.30	-1.00	-1.00	20.60	-1.00	-1.00	-1.00	-1.00	-1.00	600.	-1.	-1.
APRIL	25.	1900.	7.75	1.30	-1.00	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	-1.00	-1.00	630.	-1.	-1.
APRIL	25.	1930.	7.50	1.20	-1.00	-1.00	-1.00	20.20	-1.00	-1.00	-1.00	-1.00	-1.00	630.	-1.	-1.
APRIL	25.	2000.	7.75	1.30	-1.00	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	-1.00	-1.00	690.	-1.	-1.
APRIL	25.	2030.	7.50	1.30	-1.00	-1.00	-1.00	19.40	-1.00	-1.00	-1.00	-1.00	-1.00	690.	-1.	-1.
APRIL	25.	2100.	7.50	1.30	-1.00	-1.00	-1.00	19.00	-1.00	-1.00	-1.00	-1.00	-1.00	594.	-1.	-1.
APRIL	25.	2130.	8.00	1.30	-1.00	-1.00	-1.00	19.20	-8.00	-1.00	-1.00	-1.00	-1.00	675.	-1.	-1.
APRIL	25.	2200.	8.00	1.30	-1.00	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	-1.00	-1.00	660.	-1.	-1.
APRIL	25.	2230.	8.00	1.10	0.40	-1.00	3.80	17.60	31.00	6.10	-1.00	-1.00	-1.00	650.	-1.	-1.
APRIL	25.	2300.	8.00	0.90	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	876.	-1.	-1.	
APRIL	25.	2330.	8.00	0.80	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	840.	-1.	-1.	
APRIL	26.	0.	8.00	0.90*	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	780.	-1.	-1.	
APRIL	26.	30.	7.75	0.70	-1.00	-1.00	-1.00	20.20	-1.00	-1.00	-1.00	-1.00	-1.00	845.	-1.	-1.
APRIL	26.	100.	8.00	1.00	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	744.	-1.	-1.	
APRIL	26.	130.	8.00	0.90	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	-1.00	-1.00	750.	-1.	-1.	
APRIL	26.	200.	8.00	0.80	-1.00	-1.00	20.40	-1.00	-1.00	-1.00	-1.00	-1.00	705.	-1.	-1.	
APRIL	26.	230.	8.00	0.80	0.80	-1.00	20.00	25.00	6.10	-1.00	-1.00	-1.00	740.	-1.	-1.	
APRIL	26.	300.	8.00	0.70	-1.00	-1.00	18.40	-1.00	-1.00	-1.00	-1.00	-1.00	690.	-1.	-1.	
APRIL	26.	330.	7.75	0.60	-1.00	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	870.	-1.	-1.
APRIL	26.	400.	7.75	0.70	-1.00	-1.00	20.20	-1.00	-1.00	-1.00	-1.00	-1.00	870.	-1.	-1.	
APRIL	26.	430.	7.75	0.80	-1.00	-1.00	19.20	-1.00	-1.00	-1.00	-1.00	-1.00	696.	-1.	-1.	
APRIL	26.	500.	8.00	0.80	-1.00	-1.00	19.80	-1.00	-1.00	-1.00	-1.00	-1.00	735.	-1.	-1.	
APRIL	26.	530.	7.35	0.60	-1.00	-1.00	13.20	-1.00	-1.00	-1.00	-1.00	-1.00	846.	-1.	-1.	
APRIL	26.	600.	7.75	0.90	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	-1.00	-1.00	831.	-1.	-1.	
APRIL	26.	630.	7.75	0.50	-1.00	-1.00	3.20	21.00	20.00	-6.00	-1.00	-1.00	837.	-1.	-1.	
APRIL	26.	700.	7.50	0.60	-1.00	-1.00	21.60	-1.00	-1.00	-1.00	-1.00	-1.00	837.	-1.	-1.	
APRIL	26.	730.	8.00	0.20	-1.00	-1.00	16.60	-1.00	-1.00	-1.00	-1.00	-1.00	810.	-1.	-1.	
APRIL	26.	800.	8.00	0.10	-1.00	-1.00	14.00	-1.00	-1.00	-1.00	-1.00	-1.00	936.	-1.	-1.	
APRIL	26.	830.	8.00	0.10	-1.00	-1.00	9.00	-1.00	-1.00	-1.00	-1.00	-1.00	755.	-1.	-1.	
APRIL	26.	900.	8.00	0.20	-1.00	-1.00	32.00	-1.60	-1.00	-1.00	-1.00	-1.00	906.	-1.	-1.	
APRIL	26.	930.	8.50	0.60	-1.00	-1.00	27.80	-1.00	-1.00	-1.00	-1.00	-1.00	960.	-1.	-1.	
APRIL	26.	1000.	9.00	1.10	-1.00	-1.00	24.80	-1.00	-1.00	-1.00	-1.00	-1.00	954.	-1.	-1.	
APRIL	26.	1030.	8.50	1.00	0.90	-1.00	2.20	25.80	16.00	-6.10	-1.00	-1.00	900.	-1.	-1.	
APRIL	26.	1100.	8.50	1.00	-1.00	-1.00	25.20	-1.00	-1.00	-1.00	-1.00	-1.00	855.	-1.	-1.	
APRIL	26.	1130.	9.00	1.20	-1.00	-1.00	25.20	-1.00	-1.00	-1.00	-1.00	-1.00	909.	-1.	-1.	
APRIL	26.	1200.	8.75	0.90	-1.00	-1.00	26.00	-1.00	-1.00	-1.00	-1.00	-1.00	956.	-1.	-1.	
APRIL	26.	1230.	8.75	1.20	-1.00	-1.00	26.80	-1.00	-1.00	-1.00	-1.00	-1.00	947.	-1.	-1.	
APRIL	26.	1300.	8.50	0.90	-1.00	-1.00	26.40	-1.00	-1.00	-1.00	-1.00	-1.00	924.	-1.	-1.	
APRIL	26.	1400.	8.50	0.90	-1.00	-1.00	24.20	-1.00	-1.00	-1.00	-1.00	-1.00	664.	-1.	-1.	
APRIL	26.	1430.	8.50	1.70	1.90	-2.40	24.40	17.50	6.10	24.70	-1.00	-1.00	840.	-1.	-1.	
APRIL	26.	1500.	8.00	2.00	-1.00	-1.00	25.00	-1.00	-1.00	-1.00	-1.00	-1.00	945.	-1.	-1.	
APRIL	26.	1530.	8.50	1.70	-1.00	-1.00	24.00	-1.00	-1.00	-1.00	-1.00	-1.00	855.	-1.	-1.	
APRIL	26.	1630.	8.25	1.70	1.90	-2.20	20.60	-22.50	6.10	24.70	-1.00	-1.00	930.	-1.	-1.	
APRIL	26.	1700.	8.25	1.70	-1.00	-1.00	21.60	-1.00	-1.00	-1.00	-1.00	-1.00	855.	-1.	-1.	
APRIL	26.	1730.	8.25	1.60	-1.00	-1.00	21.40	-1.00	-1.00	-1.00	-1.00	-1.00	930.	-1.	-1.	
APRIL	26.	1800.	8.25	1.70	-1.00	-1.00	20.60	-1.00	-1.00	-1.00	-1.00	-1.00	870.	-1.	-1.	
APRIL	26.	1830.	8.25	1.90	-1.00	-1.00	23.00	-1.00	-1.00	-1.00	-1.00	-1.00	879.	-1.	-1.	
APRIL	26.	1900.	8.00	1.70	-1.00	-1.00	22.60	-1.00	-1.00	-1.00	-1.00	-1.00	900.	-1.	-1.	
APRIL	26.	1930.	8.00	1.80	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	915.	-1.	-1.	
APRIL	26.	2000.	7.75	1.90	-1.00	-1.00	19.60	-1.00	-1.00	-1.00	-1.00	-1.00	930.	-1.	-1.	
APRIL	26.	2030.	3.00	1.80	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	-1.00	-1.00	849.	-1.	-1.	
APRIL	26.	2100.	8.25	1.20	-1.00	-1.00	20.20	-1.00	-1.00	-1.00	-1.00	-1.00	973.	-1.	-1.	
APRIL	26.	2130.	8.50	1.70	-1.00	-1.00	19.60	-1.00	-1.00	-1.00	-1.00	-1.00	924.	-1.	-1.	

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APRIL 26.	2230.	8.25	1.90	-1.00	-1.00	20.00	-1.00	25.08	-1.00	870.
APRIL 26.	2230.	8.75	1.80	-1.90	-2.70	20.20	24.00	6.10	25.14	-1.00
APRIL 26.	2300.	8.50	1.70	-1.00	-1.00	20.60	-1.00	24.97	-1.00	930.
APRIL 26.	2330.	8.00	1.60	-1.00	-1.00	21.00	-1.00	24.97	-1.00	870.
APRIL 27.	0.	8.25	1.60	-1.00	-1.00	20.80	-1.00	-1.00	-1.00	876.
APRIL 27.	30.	6.25	1.50	-1.00	-1.00	20.80	-1.00	-1.00	-1.00	930.
APRIL 27.	100.	7.25	1.60	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	930.
APRIL 27.	130.	7.50	1.50	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	954.
APRIL 27.	200.	7.75	1.70	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	936.
APRIL 27.	230.	8.00	1.70	-1.70	-2.40	20.40	24.00	6.10	-1.00	-1.00
APRIL 27.	300.	7.50	1.50	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	906.
APRIL 27.	330.	8.00	1.30	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	906.
APRIL 27.	400.	8.00	1.50	-1.00	-1.00	20.40	-1.00	-1.00	-1.00	970.
APRIL 27.	430.	8.00	1.50	-1.00	-1.00	20.80	-1.00	-1.00	-1.00	921.
APRIL 27.	500.	8.50	1.50	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	930.
APRIL 27.	530.	8.25	1.30	-1.00	-1.00	21.60	-1.00	-1.00	-1.00	906.
APRIL 27.	600.	8.25	1.30	-1.00	-1.00	22.00	-1.00	-1.00	-1.00	906.
APRIL 27.	630.	8.00	1.30	-1.50	-2.10	21.60	-6.00	-1.00	-1.00	930.
APRIL 27.	700.	8.50	1.50	-1.00	-1.00	22.20	-1.00	-1.00	-1.00	935.
APRIL 27.	730.	8.50	1.50	-1.00	-1.00	21.80	-1.00	-1.00	-1.00	885.
APRIL 27.	800.	8.50	1.50	-1.00	-1.00	21.80	-1.00	-1.00	-1.00	945.
APRIL 27.	830.	9.00	1.50	-1.00	-1.00	22.80	-1.00	-1.00	-1.00	876.
APRIL 27.	900.	8.75	1.50	-1.00	-1.00	22.80	-1.00	-1.00	-1.00	930.
APRIL 27.	930.	9.50	1.50	-1.00	-1.00	23.40	-1.00	-1.00	-1.00	930.
APRIL 27.	1000.	8.75	1.50	-1.00	-1.00	23.00	-1.00	-1.00	-1.00	945.
APRIL 27.	1030.	8.75	1.50	-1.50	-2.30	23.80	18.00	6.00	-1.00	19.50
APRIL 27.	1100.	8.75	1.40	-1.00	-1.00	24.20	-1.00	-1.00	-1.00	906.
APRIL 27.	1130.	9.00	1.50	-1.00	-1.00	25.00	-1.00	-1.00	-1.00	930.
APRIL 27.	1200.	9.00	1.50	-1.00	-1.00	25.20	-1.00	-1.00	-1.00	970.
APRIL 27.	1230.	8.75	1.50	-1.00	-1.00	26.00	-1.00	-1.00	-1.00	1200.
APRIL 27.	1300.	8.75	1.30	-1.00	-1.00	26.00	-1.00	-1.00	-1.00	970.
APRIL 27.	1330.	8.25	1.50	-1.00	-1.00	24.00	-1.00	-1.00	-1.00	970.
APRIL 27.	1400.	9.00	1.40	-1.00	-1.00	26.00	-1.00	-1.00	-1.00	970.
APRIL 27.	1430.	8.50	1.50	-1.30	-2.10	25.60	-1.00	-1.00	-1.00	970.
APRIL 27.	1500.	8.00	1.40	-1.00	-1.00	24.60	-1.00	-1.00	-1.00	750.
APRIL 27.	1520.	8.25	1.50	-1.00	-1.00	25.00	-1.00	-1.00	-1.00	750.
APRIL 27.	1600.	8.00	1.40	-1.00	-1.00	24.00	-1.00	-1.00	-1.00	765.
APRIL 27.	1630.	8.25	1.40	-1.00	-1.00	24.60	-1.00	-1.00	-1.00	906.
APRIL 27.	1700.	8.75	1.30	-1.00	-1.00	23.00	-1.00	-1.00	-1.00	906.
APRIL 27.	1730.	8.25	1.30	-1.00	-1.00	23.00	-1.00	-1.00	-1.00	780.
APRIL 27.	1800.	7.75	1.50	-1.00	-1.00	24.60	-1.00	-1.00	-1.00	810.
APRIL 27.	1830.	7.75	1.40	-1.30	-2.00	22.40	22.40	6.00	-1.00	840.
APRIL 27.	1900.	7.50	1.30	-1.00	-1.00	21.00	-1.00	-1.00	-1.00	741.
APRIL 27.	1930.	7.50	1.30	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	906.
APRIL 27.	2000.	7.50	1.50	-1.00	-1.00	19.80	-1.00	-1.00	-1.00	906.
APRIL 27.	2030.	7.75	1.40	-1.00	-1.00	22.40	-1.00	-1.00	-1.00	934.
APRIL 27.	2100.	8.00	1.30	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	840.
APRIL 27.	2130.	8.00	1.60	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	780.
APRIL 27.	2200.	8.00	1.40	-1.00	-1.00	16.60	-1.00	-1.00	-1.00	855.
APRIL 27.	2230.	8.00	1.50	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	810.
APRIL 27.	2300.	8.25	1.70	-1.00	-1.00	20.40	-1.00	-1.00	-1.00	825.
APRIL 27.	2330.	7.75	1.40	-1.00	-1.00	20.00	-1.00	-1.00	-1.00	870.
APRIL 28.	0.	7.50	1.40	-1.00	-1.00	20.40	-1.00	-1.00	-1.00	870.
APRIL 28.	30.	7.50	1.50	-1.00	-1.00	20.60	-1.00	-1.00	-1.00	840.
APRIL 28.	100.	8.00	1.50	-1.00	-1.00	20.60	-1.00	-1.00	-1.00	846.
APRIL 28.	130.	7.75	1.50	-1.00	-1.00	20.60	-1.00	-1.00	-1.00	795.

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APRIL	29.	600.	6.00	1.50	-1.00	-1.00	16.60	-1.00	-1.00	-1.00	-1.00	690.
APRIL	29.	630.	6.90	1.40	1.70	3.70	17.60	27.00	6.10	-1.00	-1.00	600.
APRIL	29.	700.	7.80	1.50	-1.00	-1.00	17.00	-1.00	-1.00	-1.00	-1.00	705.
APRIL	29.	730.	6.75	1.40	-1.00	-1.00	17.20	-1.00	-1.00	-1.00	-1.00	720.
APRIL	29.	820.	7.00	1.50	-1.00	-1.00	17.20	-1.00	-1.00	-1.00	-1.00	645.
APRIL	29.	830.	7.00	1.70	-1.00	-1.00	16.80	-1.00	-1.00	-1.00	-1.00	600.
APRIL	29.	900.	7.25	1.60	-1.00	-1.00	13.00	-1.00	-1.00	-1.00	-1.00	675.
APRIL	29.	930.	7.25	1.70	-1.00	-1.00	17.40	-1.00	-1.00	-1.00	-1.00	660.
APRIL	29.	1000.	6.25	1.50	-1.00	-1.00	17.60	-1.20	-1.00	-1.00	-1.00	630.
APRIL	29.	1030.	6.50	1.30	2.90	6.10	14.00	24.00	6.10	-1.00	-1.00	700.
APRIL	29.	1160.	6.50	1.80	-1.00	-1.00	20.40	-1.00	-1.00	25.52	-1.00	585.
APRIL	29.	1130.	-1.00	1.50	-1.00	-1.00	18.80	-1.00	-1.00	-1.00	-1.00	660.
APRIL	29.	1200.	-1.00	1.70	-1.00	-1.00	18.60	-1.00	-1.00	-1.00	-1.00	1100.
APRIL	29.	1230.	-1.00	1.60	-1.00	-1.00	19.00	-1.00	-1.00	-1.00	-1.00	1285.
APRIL	29.	1350.	-1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	910.
APRIL	29.	1330.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1100.
APRIL	29.	1400.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1100.
APRIL	29.	1430.	-1.00	-1.00	-1.00	-1.00	4.50	-1.00	28.00	6.10	-1.00	1100.
APRIL	29.	1500.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1100.
APRIL	29.	1530.	6.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1100.
APRIL	29.	1600.	7.00	1.40	-1.00	-1.00	14.00	-1.00	-1.00	25.25	-1.00	450.
APRIL	29.	1630.	6.50	1.30	-1.00	-1.00	12.00	-1.00	-1.00	25.25	-1.00	420.
APRIL	29.	1700.	6.50	1.40	-1.00	-1.00	11.80	-1.00	-1.00	25.25	-1.00	510.
APRIL	29.	1730.	6.50	1.40	-1.00	-1.00	10.20	-1.00	-1.00	25.14	-1.00	720.
APRIL	29.	1800.	6.50	1.70	-1.00	-1.00	12.80	-1.00	-1.00	25.25	-1.00	465.

LOCATION: Clarifier

KEY:

1. Month
2. Day
3. Time
4. Blanket Level, ft.

NOTE: A (-1) value designates missing data.

-1- -2- -3- -4-

APRIL	25.	1800.	-1.	APRIL	26.	1930.	11.
APRIL	25.	1830.	-1.	APRIL	26.	2000.	-1.
APRIL	25.	1900.	-1.	APRIL	26.	2030.	11.
APRIL	25.	1930.	11.	APRIL	26.	2100.	-1.
APRIL	25.	2000.	-1.	APRIL	26.	2130.	11.
APRIL	25.	2030.	11.	APRIL	26.	2200.	-1.
APRIL	25.	2100.	-1.	APRIL	26.	2230.	11.
APRIL	25.	2130.	11.	APRIL	26.	2300.	-1.
APRIL	25.	2200.	-1.	APRIL	26.	2330.	11.
APRIL	25.	2230.	11.	APRIL	27.	0.	-1.
APRIL	25.	2300.	-1.	APRIL	27.	30.	11.
APRIL	25.	2330.	11.	APRIL	27.	100.	-1.
APRIL	26.	0.	-1.	APRIL	27.	130.	11.
APRIL	26.	30.	11.	APRIL	27.	200.	-1.
APRIL	26.	100.	-1.	APRIL	27.	230.	11.
APRIL	26.	130.	11.	APRIL	27.	300.	-1.
APRIL	26.	200.	-1.	APRIL	27.	330.	11.
APRIL	26.	230.	11.	APRIL	27.	400.	-1.
APRIL	26.	300.	-1.	APRIL	27.	430.	11.
APRIL	26.	330.	11.	APRIL	27.	500.	-1.
APRIL	26.	400.	-1.	APRIL	27.	530.	-1.
APRIL	26.	430.	11.	APRIL	27.	600.	11.
APRIL	26.	500.	-1.	APRIL	27.	630.	-1.
APRIL	26.	530.	11.	APRIL	27.	700.	11.
APRIL	26.	600.	-1.	APRIL	27.	730.	-1.
APRIL	26.	630.	11.	APRIL	27.	800.	11.
APRIL	26.	700.	-1.	APRIL	27.	830.	-1.
APRIL	26.	730.	11.	APRIL	27.	900.	11.
APRIL	26.	800.	-1.	APRIL	27.	930.	-1.
APRIL	26.	830.	10.	APRIL	27.	1000.	11.
APRIL	26.	900.	-1.	APRIL	27.	1030.	-1.
APRIL	26.	1000.	-1.	APRIL	27.	1100.	11.
APRIL	26.	1030.	11.	APRIL	27.	1130.	-1.
APRIL	26.	1100.	-1.	APRIL	27.	1200.	11.
APRIL	26.	1130.	11.	APRIL	27.	1230.	-1.
APRIL	26.	1200.	-1.	APRIL	27.	1300.	11.
APRIL	26.	1230.	11.	APRIL	27.	1330.	-1.
APRIL	26.	1300.	-1.	APRIL	27.	1400.	11.
APRIL	26.	1330.	11.	APRIL	27.	1430.	-1.
APRIL	26.	1400.	-1.	APRIL	27.	1500.	11.
APRIL	26.	1430.	11.	APRIL	27.	1530.	-1.
APRIL	26.	1500.	-1.	APRIL	27.	1600.	11.
APRIL	26.	1530.	11.	APRIL	27.	1630.	-1.
APRIL	26.	1600.	-1.	APRIL	27.	1700.	11.
APRIL	26.	1630.	11.	APRIL	27.	1730.	-1.
APRIL	26.	1700.	-1.	APRIL	27.	1800.	11.
APRIL	26.	1730.	11.	APRIL	27.	1830.	-1.
APRIL	26.	1800.	-1.	APRIL	27.	1900.	11.
APRIL	26.	1830.	11.	APRIL	27.	1930.	-1.
APRIL	26.	1900.	-1.	APRIL	27.	2000.	11.

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APRIL	27.	2030.	-1.	APRIL	28.	2130.	11.
APRIL	27.	2100.	11.	APRIL	28.	2200.	-1.
APRIL	27.	2130.	-1.	APRIL	28.	2230.	11.
APRIL	27.	2200.	11.	APRIL	28.	2300.	-1.
APRIL	27.	2230.	-1.	APRIL	28.	2330.	11.
APRIL	27.	2300.	11.	APRIL	29.	0.	-1.
APRIL	27.	2330.	-1.	APRIL	29.	30.	11.
APRIL	28.	0.	11.	APRIL	29.	100.	-1.
APRIL	28.	30.	-1.	APRIL	29.	130.	11.
APRIL	28.	100.	11.	APRIL	29.	200.	-1.
APRIL	28.	130.	-1.	APRIL	29.	230.	11.
APRIL	28.	200.	11.	APRIL	29.	300.	-1.
APRIL	28.	230.	-1.	APRIL	29.	330.	11.
APRIL	28.	300.	11.	APRIL	29.	400.	-1.
APRIL	28.	330.	-1.	APRIL	29.	430.	11.
APRIL	28.	400.	11.	APRIL	29.	500.	-1.
APRIL	28.	430.	-1.	APRIL	29.	530.	-1.
APRIL	28.	500.	-1.	APRIL	29.	600.	-1.
APRIL	28.	530.	-1.	APRIL	29.	630.	11.
APRIL	28.	600.	-1.	APRIL	29.	700.	-1.
APRIL	28.	630.	11.	APRIL	29.	730.	11.
APRIL	28.	700.	-1.	APRIL	29.	800.	-1.
APRIL	28.	730.	11.	APRIL	29.	830.	11.
APRIL	28.	800.	-1.	APRIL	29.	900.	-1.
APRIL	28.	830.	11.	APRIL	29.	930.	11.
APRIL	28.	900.	-1.	APRIL	29.	1000.	-1.
APRIL	28.	930.	11.	APRIL	29.	1030.	11.
APRIL	28.	1000.	-1.	APRIL	29.	1100.	-1.
APRIL	28.	1030.	11.	APRIL	29.	1130.	11.
APRIL	28.	1100.	-1.	APRIL	29.	1200.	-1.
APRIL	28.	1130.	11.	APRIL	29.	1230.	11.
APRIL	28.	1200.	-1.	APRIL	29.	1300.	-1.
APRIL	28.	1230.	11.	APRIL	29.	1330.	11.
APRIL	28.	1300.	-1.	APRIL	29.	1400.	-1.
APRIL	28.	1330.	11.	APRIL	29.	1430.	11.
APRIL	28.	1400.	-1.	APRIL	29.	1500.	-1.
APRIL	28.	1430.	11.	APRIL	29.	1530.	11.
APRIL	28.	1500.	-1.	APRIL	29.	1600.	-1.
APRIL	28.	1530.	11.	APRIL	29.	1630.	11.
APRIL	28.	1600.	-1.	APRIL	29.	1700.	-1.
APRIL	28.	1630.	11.	APRIL	29.	1730.	11.
APRIL	28.	1700.	-1.	APRIL	29.	1800.	-1.
APRIL	28.	1730.	11.				
APRIL	28.	1800.	-1.				
APRIL	28.	1830.	11.				
APRIL	28.	1900.	-1.				
APRIL	28.	1930.	11.				
APRIL	28.	2000.	-1.				
APRIL	28.	2030.	11.				
APRIL	28.	2100.	-1.				

LOCATION: Recycle Line

KEY:

1. Month
2. Day
3. Time
4. Recycle Flow Rate, gpm
5. Sludge Wasting Rate, gallons/4 hours
6. Suspended Solids (laboratory), mg/l
7. Volatile Suspended Solids, mg/l
8. Chemical Oxygen Demand, mg/l

NOTE: A (-1) value designates missing data.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
APRIL	25.	1800.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	1830.	9.6	338.1	-1.	-1.	-1.
APRIL	25.	1900.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	1930.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	2000.	-1.0	-1.0	2340.	1850.	-1.
APRIL	25.	2030.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	2100.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	2130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	2200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	2230.	9.6	411.6	-1.	-1.	-1.
APRIL	25.	2300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	25.	2330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	0.	-1.0	-1.0	-1.	-1.	4029.
APRIL	26.	30.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	230.	9.6	367.5	-1.	-1.	-1.
APRIL	26.	300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	400.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	430.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	500.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	530.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	600.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	630.	9.6	352.8	-1.	-1.	-1.
APRIL	26.	700.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	730.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	800.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	830.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	900.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	930.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1000.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1030.	9.6	323.4	-1.	-1.	-1.
APRIL	26.	1100.	-1.0	-1.0	2650.	2040.	3850.
APRIL	26.	1130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1230.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1400.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1430.	9.6	338.1	-1.	-1.	-1.
APRIL	26.	1500.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1530.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1600.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1630.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1700.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1730.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1800.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	1830.	9.6	352.8	-1.	-1.	-1.
APRIL	26.	1900.	-1.0	-1.0	-1.	-1.	-1.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
APRIL	26.	1930.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	2000.	-1.0	-1.0	3240.	2450.	4432.
APRIL	26.	2030.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	2100.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	2130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	2200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	2230.	9.5	352.8	-1.	-1.	-1.
APRIL	26.	2300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	26.	2330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	0.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	30.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	100.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	230.	9.6	352.8	-1.	-1.	-1.
APRIL	27.	300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	400.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	430.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	500.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	530.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	600.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	630.	9.6	367.5	-1.	-1.	-1.
APRIL	27.	700.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	730.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	800.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	830.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	900.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	930.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1000.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1030.	9.6	308.7	-1.	-1.	-1.
APRIL	27.	1100.	-1.0	-1.0	3110.	2370.	3767.
APRIL	27.	1130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1230.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1400.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1430.	9.6	352.8	-1.	-1.	-1.
APRIL	27.	1500.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1530.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1600.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1630.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1700.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1730.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1800.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1830.	9.6	323.4	-1.	-1.	-1.
APRIL	27.	1900.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	1930.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	2000.	-1.0	-1.0	3080.	2390.	3767.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
APRIL	27.	2030.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	2100.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	2130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	2200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	2230.	9.6	323.4	-1.	-1.	-1.
APRIL	27.	2300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	27.	2330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	0.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	30.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	100.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	230.	9.6	352.8	-1.	-1.	-1.
APRIL	28.	300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	400.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	430.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	500.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	530.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	600.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	630.	9.6	367.5	-1.	-1.	-1.
APRIL	28.	700.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	730.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	800.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	830.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	900.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	930.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1000.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1030.	9.6	367.5	-1.	-1.	-1.
APRIL	28.	1100.	-1.0	-1.0	3430.	2700.	4239.
APRIL	28.	1130.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1200.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1230.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1300.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1330.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1400.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1430.	9.6	352.8	-1.	-1.	-1.
APRIL	28.	1500.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1530.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1600.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1630.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1700.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1730.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1800.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1830.	9.6	308.7	-1.	-1.	-1.
APRIL	28.	1900.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	1930.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	2000.	-1.0	-1.0	3580.	2800.	4144.
APRIL	28.	2030.	-1.0	-1.0	-1.	-1.	-1.
APRIL	28.	2100.	-1.0	-1.0	-1.	-1.	-1.

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
APRIL	28.	2130.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	28.	2200.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	28.	2230.	9.6	308.7	-1.	-1.	-1.	-1.
APRIL	28.	2300.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	28.	2330.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	0.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	30.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	100.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	130.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	200.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	230.	9.6	367.5	-1.	-1.	-1.	-1.
APRIL	29.	300.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	330.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	400.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	430.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	500.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	530.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	600.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	630.	9.6	367.5	-1.	-1.	-1.	-1.
APRIL	29.	700.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	730.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	800.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	830.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	900.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	930.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1000.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1030.	9.6	252.8	-1.	-1.	-1.	-1.
APRIL	29.	1100.	-1.0	-1.0	3260.	2530.	3874.	
APRIL	29.	1130.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1200.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1230.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1300.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1330.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1400.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1430.	9.6	323.4	-1.	-1.	-1.	-1.
APRIL	29.	1500.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1530.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1600.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1630.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1700.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1730.	-1.0	-1.0	-1.	-1.	-1.	-1.
APRIL	29.	1800.	-1.0	-1.0	-1.	-1.	-1.	-1.

LOCATION: Storage Chamber

KEY:

1. Month
2. Day
3. Time
4. Dissolved Oxygen (continuous), mg/l
5. Dissolved Oxygen (process meter), mg/l
6. Dissolved Oxygen (bench meter), mg/l
7. Air Flow (continuous), cfm
8. Air Flow (rotameter), cfm
9. Air Pressure, psi
10. Suspended Solids (laboratory), mg/l
11. Volatile Suspended Solids, mg/l
12. Chemical Oxygen Demand, mg/l

NOTE: A (-1) value designates missing data.

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
APRIL	25.	1800.	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	1830.	13.8	0.4	0.8	0.8	0.8	0.8	0.8	0.8	0.8	-1.	-1.
APRIL	25.	1900.	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	1930.	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	2000.	13.4	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	2030.	13.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	2100.	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	2130.	13.4	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	2200.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	2230.	13.0	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-1.	-1.
APRIL	25.	2300.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	25.	2330.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	0.	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	30.	13.8	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	100.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	130.	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	200.	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	230.	20.0	2.1	1.5	2.1	1.5	2.1	1.5	2.0	5.5	6.	2.
APRIL	26.	300.	13.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	330.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	400.	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	430.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	500.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	530.	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	600.	12.8	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	630.	12.0	1.9	2.9	1.9	2.9	1.9	5	-1.0	-1.0	-1.	-1.
APRIL	26.	700.	12.8	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	730.	13.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	800.	13.4	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	830.	13.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	900.	13.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	930.	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	1000.	13.8	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	1030.	13.2	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	-1.	-1.
APRIL	26.	1100.	13.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	1130.	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	1200.	13.6	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	26.	1230.	13.4	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.

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—	APRIL	26.	1300.	12.8	-1.0	-1.0	34.2	-1.0	-1.0	-1.	-1.
	APRIL	26.	1330.	14.4	-1.0	-1.0	33.4	-1.0	-1.0	-1.	-1.
	APRIL	26.	1400.	17.4	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	1430.	17.4	1.4	1.1	32.6	5.0	6.4	-1.	-1.
	APRIL	26.	1500.	16.8	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	1530.	17.2	-1.0	-1.0	34.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	1600.	17.0	-1.0	-1.0	34.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	1630.	17.0	-1.0	-1.0	34.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	1700.	17.2	-1.0	-1.0	32.8	-1.0	-1.0	-1.	-1.
	APRIL	26.	1730.	17.0	-1.0	-1.0	31.4	-1.0	-1.0	-1.	-1.
	APRIL	26.	1800.	17.5	-1.0	-1.0	33.6	-1.0	-1.0	-1.	-1.
	APRIL	26.	1830.	17.7	1.5	1.3	34.0	5.5	6.4	-1.	-1.
	APRIL	26.	1900.	17.3	-1.0	-1.0	32.6	-1.0	-1.0	-1.	-1.
	APRIL	26.	1930.	17.5	-1.0	-1.0	34.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	2000.	16.7	-1.0	-1.0	32.0	-1.0	-1.0	2640.	2010.
	APRIL	26.	2030.	16.0	-1.0	-1.0	33.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	2100.	17.3	-1.0	-1.0	32.8	-1.0	-1.0	-1.	-1.
	APRIL	26.	2130.	17.7	-1.0	-1.0	32.4	-1.0	-1.0	-1.	-1.
	APRIL	26.	2200.	18.0	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	2230.	18.0	1.7	0.9	33.0	-1.0	-1.0	-1.	-1.
	APRIL	26.	2300.	17.2	-1.0	-1.0	32.8	-1.0	-1.0	-1.	-1.
	APRIL	26.	2330.	17.8	-1.0	-1.0	33.8	-1.0	-1.0	-1.	-1.
	APRIL	27.	0.	17.8	-1.0	-1.0	34.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	30.	17.0	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	100.	17.4	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	130.	17.8	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	200.	17.6	-1.0	-1.0	32.4	-1.0	-1.0	-1.	-1.
	APRIL	27.	230.	17.0	1.7	1.1	32.6	5.5	6.3	-1.	-1.
	APRIL	27.	300.	17.4	-1.0	-1.0	32.2	-1.0	-1.0	-1.	-1.
	APRIL	27.	330.	17.2	-1.0	-1.0	32.2	-1.0	-1.0	-1.	-1.
	APRIL	27.	400.	17.0	-1.0	-1.0	33.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	430.	17.5	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	500.	18.0	-1.0	-1.0	33.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	530.	17.6	-1.0	-1.0	33.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	600.	17.0	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	630.	17.6	1.3	1.1	32.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	700.	17.2	-1.0	-1.0	32.0	-1.0	-1.0	-1.	-1.
	APRIL	27.	730.	17.0	-1.0	-1.0	32.8	-1.0	-1.0	-1.	-1.

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APRIL	27.	800.	17.8	-1.0	-1.0	31.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	830.	17.4	-1.0	-1.0	33.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	900.	16.4	-1.0	-1.0	32.4	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	930.	17.4	-1.0	-1.0	33.4	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1000.	17.4	-1.0	-1.0	32.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1030.	17.4	1.3	0.9	31.4	8.0	6.3	-1.0	-1.	-1.
APRIL	27.	1100.	16.8	-1.0	-1.0	32.8	-1.0	-1.0	-1.0	2450.	3103.
APRIL	27.	1130.	17.4	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1200.	17.6	-1.0	-1.0	32.4	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1230.	12.2	-1.0	-1.0	17.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1300.	31.0	-1.0	-1.0	75.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1330.	12.0	-1.0	-1.0	17.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1400.	17.0	-1.0	-1.0	32.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1430.	13.6	8.3	5.1	18.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1500.	12.6	-1.0	-1.0	95.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1530.	13.0	-1.0	-1.0	19.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1600.	13.0	-1.0	-1.0	35.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1630.	14.0	-1.0	-1.0	19.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1700.	12.0	-1.0	-1.0	76.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1730.	14.0	-1.0	-1.0	54.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1800.	10.0	-1.0	-1.0	16.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1830.	9.8	7.4	4.8	16.6	14.5	6.5	-1.	-1.	-1.
APRIL	27.	1900.	15.6	-1.0	-1.0	32.4	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	1930.	17.4	-1.0	-1.0	32.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	2000.	17.0	-1.0	-1.0	34.0	-1.0	-1.0	-1.0	2470.	2872.
APRIL	27.	2030.	17.0	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	2100.	17.4	-1.0	-1.0	32.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	2200.	18.0	-1.0	-1.0	30.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	2230.	17.2	1.8	1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	2300.	17.0	-1.0	-1.0	32.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	27.	2330.	17.2	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	0.	17.2	-1.0	-1.0	31.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	30.	17.0	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	100.	17.2	-1.0	-1.0	32.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	130.	17.0	-1.0	-1.0	32.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	200.	17.0	-1.0	-1.0	31.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	230.	17.4	1.7	1.1	34.0	6.0	6.3	-1.0	-1.	-1.
APRIL	28.	300.	17.8	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	330.	17.4	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.

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APRIL	28.	400.	17.2	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	430.	17.0	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	500.	17.6	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	530.	17.2	-1.0	-1.0	31.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	600.	17.8	-1.0	-1.0	33.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	630.	17.4	1.5	1.0	32.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	700.	17.2	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	730.	17.0	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	800.	17.0	-1.0	-1.0	32.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	830.	17.8	-1.0	-1.0	31.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	900.	17.2	-1.0	-1.0	33.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	930.	17.4	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1000.	16.8	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1030.	17.2	1.6	1.0	32.2	6.5	6.5	-1.	-1.	-1.
APRIL	28.	1100.	17.8	-1.0	-1.0	34.0	-1.0	-1.0	-1.0	2590.	2926.
APRIL	28.	1130.	17.0	-1.0	-1.0	33.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1200.	17.0	-1.0	-1.0	33.5	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1230.	17.0	-1.0	-1.0	32.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1300.	18.0	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1330.	17.6	-1.0	-1.0	33.4	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1400.	17.4	-1.0	-1.0	35.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1430.	17.2	1.5	1.0	35.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1500.	17.2	-1.0	-1.0	33.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1530.	17.0	-1.0	-1.0	32.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1600.	17.8	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1630.	17.4	-1.0	-1.0	32.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1700.	16.8	-1.0	-1.0	33.4	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1730.	17.2	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1800.	17.2	-1.0	-1.0	33.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1830.	17.6	1.5	1.0	32.4	6.0	6.3	-1.	-1.	-1.
APRIL	28.	1900.	17.0	-1.0	-1.0	33.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	1930.	17.2	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	2000.	17.4	-1.0	-1.0	32.2	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	2030.	17.0	-1.0	-1.0	31.4	-1.0	-1.0	-1.0	2710.	3151.
APRIL	28.	2100.	17.2	-1.0	-1.0	31.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	2130.	17.4	-1.0	-1.0	33.6	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	2200.	17.0	-1.0	-1.0	32.8	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	2230.	17.4	1.6	1.0	31.0	-1.0	-1.0	-1.0	-1.	-1.
APRIL	28.	2300.	17.0	-1.0	-1.0	32.8	-1.0	-1.0	-1.0	-1.	-1.

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APRIL	28•	2330•	17•0	-1•0	-1•0	31•8	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	0•	17•4	-1•0	-1•0	31•6	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	30•	17•2	-1•0	-1•0	32•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	100•	17•0	-1•0	-1•0	32•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	130•	17•2	-1•0	-1•0	31•6	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	200•	16•8	-1•0	-1•0	34•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	230•	17•6	1•3	0•8	31•6	6•5	6•5	-1•0	-1•0	-1•0
APRIL	29•	300•	18•0	-1•0	-1•0	28•8	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	330•	17•4	-1•0	-1•0	32•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	400•	17•4	-1•0	-1•0	34•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	430•	17•6	-1•0	-1•0	32•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	500•	17•4	-1•0	-1•0	33•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	530•	17•2	-1•0	-1•0	32•4	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	600•	17•8	-1•0	-1•0	33•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	630•	17•0	1•5	0•9	32•2	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	700•	17•4	-1•0	-1•0	33•6	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	730•	17•4	-1•0	-1•0	32•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	800•	16•8	-1•0	-1•0	30•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	830•	17•6	-1•0	-1•0	29•8	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	900•	17•8	-1•0	-1•0	32•2	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	930•	17•6	-1•0	-1•0	31•8	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1000•	18•0	-1•0	-1•0	32•8	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1030•	17•8	1•4	1•1	33•0	6•0	6•3	-1•0	-1•0	-1•0
APRIL	29•	1100•	18•0	-1•0	-1•0	32•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1130•	17•8	-1•0	-1•0	32•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1200•	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1230•	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1300•	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1330•	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1400•	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1430•	-1•0	1•6	1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1500•	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1530•	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1600•	17•4	-1•0	-1•0	31•4	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1630•	18•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1700•	16•6	-1•0	-1•0	34•0	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1730•	17•0	-1•0	-1•0	32•4	-1•0	-1•0	-1•0	-1•0	-1•0
APRIL	29•	1800•	18•0	-1•0	-1•0	32•2	-1•0	-1•0	-1•0	-1•0	-1•0
						3484•			2200•		

LOCATION: Effluent

KEY:

1. Month
2. Day
3. Time
4. Turbidity (continuous), JTU
5. Turbidity (laboratory), JTU
6. TOC (continuous), mg/l
7. TOC (laboratory), mg/l
8. Soluble TOC (laboratory), mg/l
9. COD (laboratory), mg/l
10. Soluble COD (laboratory), mg/l
11. BOD, mg/l
12. Soluble BOD, mg/l
13. Total Phosphorus, mg/l
14. Suspended Solids (laboratory), mg/l
15. Volatile Suspended Solids (laboratory), mg/l

NOTE: A (-1) value designates missing data.

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
APRIL 25.	1800.	-1.0	-1.0	6.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
APRIL 25.	1830.	-1.0	3.5	6.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 25.	1900.	-1.0	-1.0	6.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	5.0
APRIL 25.	1930.	-1.0	-1.0	6.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 25.	2000.	-1.0	-1.0	6.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	4.0
APRIL 25.	2030.	-1.0	-1.0	6.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 25.	2100.	-1.0	-1.0	6.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	8.0
APRIL 25.	2130.	-1.0	-1.0	6.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 25.	2200.	-1.0	-1.0	6.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	6.0
APRIL 25.	2230.	-1.0	-1.0	6.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 25.	2300.	-1.0	-1.0	7.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	9.0
APRIL 25.	2330.	-1.0	-1.0	7.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	0.	-1.0	-1.0	7.7	14.1	9.0	58.3	24.9	22.0	3.5	9.3	-1.0	-1.0	-1.0	-1.0
APRIL 26.	30.	-1.0	-1.0	7.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	100.	-1.0	-1.0	7.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	130.	-1.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	200.	-1.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	9.0
APRIL 26.	230.	-1.0	6.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	300.	-1.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	9.0
APRIL 26.	330.	-1.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	400.	-1.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	11.0	8.0
APRIL 26.	430.	-1.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	500.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	8.0
APRIL 26.	530.	-1.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	600.	-1.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0
APRIL 26.	630.	-1.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	700.	-1.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	5.0
APRIL 26.	730.	-1.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	800.	-1.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	19.0	13.0
APRIL 26.	830.	-1.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	900.	-1.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	6.0
APRIL 26.	930.	-1.0	-1.0	11.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	1000.	21.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	5.0
APRIL 26.	1030.	21.5	7.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	1100.	21.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	23.0	17.0
APRIL 26.	1130.	21.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 26.	1200.	20.5	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0
APRIL 26.	1230.	20.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
APRIL	26.	1300.	19.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	
APRIL	26.	1330.	20.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1400.	20.0	-1.0	9.0	16.0	10.0	79.9	31.0	19.8	4.1	10.6	9.0	5.0		
APRIL	26.	1430.	18.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1500.	17.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	5.0	
APRIL	26.	1530.	19.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1600.	21.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	8.0	
APRIL	26.	1630.	31.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1700.	35.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0	
APRIL	26.	1730.	35.3	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1800.	35.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	7.0	
APRIL	26.	1830.	33.0	9.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	1900.	31.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	7.0	
APRIL	26.	1930.	31.3	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	2000.	31.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	14.0	10.0	
APRIL	26.	2030.	32.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	2100.	32.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	5.0	
APRIL	26.	2130.	32.7	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	2200.	33.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	15.0	12.0	
APRIL	26.	2230.	34.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	26.	2300.	35.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0	
APRIL	26.	2330.	35.3	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	0.	35.5	-1.0	10.0	16.0	16.7	11.9	73.2	37.3	24.9	9.1	10.6	10.0	6.0	
APRIL	27.	30.	35.5	-1.0	10.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	100.	35.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0	
APRIL	27.	130.	34.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	200.	33.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	230.	33.7	9.7	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	11.0	8.0	
APRIL	27.	300.	34.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	330.	34.3	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	11.0	7.0	
APRIL	27.	400.	34.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	430.	34.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	14.0	7.0	
APRIL	27.	500.	34.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	530.	33.7	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	600.	33.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	14.0	7.0	
APRIL	27.	630.	32.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	700.	32.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	14.0	7.0	
APRIL	27.	730.	32.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
APRIL	27.	800.	32.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	13.0	5.0
APRIL	27.	830.	31.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	900.	31.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	
APRIL	27.	930.	31.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1000.	31.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	
APRIL	27.	1030.	29.3	6.5	8.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1100.	27.5	-1.0	8.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	
APRIL	27.	1130.	24.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1200.	22.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	
APRIL	27.	1230.	21.7	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1300.	21.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	
APRIL	27.	1330.	21.3	-1.0	8.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1400.	21.5	-1.0	8.5	12.4	7.7	33.9	27.5	17.5	3.1	9.2	8.0	6.0	6.0	
APRIL	27.	1430.	24.5	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1500.	27.5	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	
APRIL	27.	1530.	28.3	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1600.	29.0	-1.0	8.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	
APRIL	27.	1630.	28.7	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1700.	28.5	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	
APRIL	27.	1730.	28.0	-1.0	8.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1800.	27.5	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	
APRIL	27.	1830.	28.3	8.1	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	1900.	29.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	
APRIL	27.	1930.	29.5	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	2000.	30.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	
APRIL	27.	2030.	30.5	-1.0	8.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	2100.	31.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	
APRIL	27.	2130.	32.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	2200.	34.0	-1.0	9.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	
APRIL	27.	2230.	34.5	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	27.	2300.	35.0	-1.0	9.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	
APRIL	27.	2330.	35.5	-1.0	9.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	28.	0.	36.0	-1.0	10.0	15.2	9.1	53.1	31.0	23.3	4.0	8.8	12.0	9.0	9.0	
APRIL	28.	30.	35.3	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	28.	100.	34.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	
APRIL	28.	130.	35.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	28.	200.	36.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	
APRIL	28.	230.	35.8	8.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
APRIL	28.	300.	35.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	

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APRIL	28.	330.	36.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	400.	36.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	430.	35.0	-1.0	9.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	500.	33.5	-1.0	9.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	530.	33.8	-1.0	9.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	600.	34.0	-1.0	9.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	630.	33.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	700.	32.5	-1.0	9.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	730.	31.3	-1.0	9.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	800.	30.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	830.	24.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	900.	21.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	930.	20.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1000.	19.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1030.	18.3	5.2	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1100.	17.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1130.	16.8	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1200.	16.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1230.	16.0	-1.0	10.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1300.	16.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1330.	15.8	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1400.	15.5	-1.0	10.5	12.9	9.3	45.9	28.1	10.0	*#**	8.7	6.0	4.0	4.0	4.0
APRIL	28.	1430.	15.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1500.	15.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1530.	15.3	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1600.	16.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1630.	17.0	-1.0	10.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1700.	18.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1730.	24.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1800.	28.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	1830.	29.3	5.6	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2000.	28.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2030.	27.5	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2100.	28.0	-1.0	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2130.	28.5	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2200.	29.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL	28.	2230.	28.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

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APRIL 28.	2300.	25.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	11.0	8.0
APRIL 28.	2330.	21.5	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	0.	19.5	-1.0	13.5	14.1	9.8	52.0	31.3	19.5	4.6	10.2	9.0	6.0	6.0	6.0
APRIL 29.	30.	18.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	100.	16.5	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	13.0	11.0
APRIL 29.	130.	15.5	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	200.	15.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	13.0	10.0
APRIL 29.	230.	15.3	7.3	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	300.	16.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	7.0
APRIL 29.	330.	13.5	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	400.	13.5	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	5.0
APRIL 29.	430.	13.8	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	500.	14.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0
APRIL 29.	530.	14.5	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	600.	15.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	13.0	11.0
APRIL 29.	630.	15.5	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	700.	16.5	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	11.0
APRIL 29.	730.	18.5	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	800.	20.5	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	9.0
APRIL 29.	830.	22.5	-1.0	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	900.	23.5	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	12.0	8.0
APRIL 29.	930.	19.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1000.	15.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	11.0	9.0
APRIL 29.	1030.	14.5	6.1	10.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1100.	14.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	13.0	9.0
APRIL 29.	1130.	-1.0	-1.0	9.3	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1200.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	7.0
APRIL 29.	1230.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1300.	-1.0	-1.0	8.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1330.	-1.0	-1.0	8.7	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1400.	-1.0	-1.0	9.0	10.2	6.4	36.3	30.4	13.9	5.1	9.6	11.0	9.0	9.0	9.0
APRIL 29.	1430.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1500.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	7.0
APRIL 29.	1530.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1600.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	5.0
APRIL 29.	1630.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1700.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0
APRIL 29.	1730.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
APRIL 29.	1800.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	5.0

APPENDIX C

Raw Data for Instantaneous F/M Controlled Pilot Study

LOCATION: Influent

KEY:

1. Month
2. Day
3. Time
4. Flow Rate (manual), gpm
5. Flow Rate (continuous), gpm
6. Total Organic Carbon (continuous), mg/l
7. Total Organic Carbon (laboratory), mg/l
8. Chemical Oxygen Demand, mg/l
9. Biochemical Oxygen Demand, mg/l
10. Total Phosphorus, mg/l
11. Suspended Solids, mg/l
12. Volatile Suspended Solids

NOTE: A (-1) value designates missing data.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
AUGUST	1.	1800.	-1.0	17.0	143.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	1830.	25.0	17.0	177.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	1900.	-1.0	19.0	185.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	1930.	-1.0	18.0	186.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2000.	-1.0	19.0	191.0	70.8	260.0	123.0	17.9	64.0	46.0
AUGUST	1.	2030.	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2100.	-1.0	16.0	189.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2130.	-1.0	17.0	192.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2200.	-1.0	18.0	183.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2230.	25.0	19.0	191.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2300.	-1.0	17.0	188.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2330.	-1.0	18.0	174.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	0.	-1.0	19.0	170.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	30.	-1.0	19.0	178.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	100.	-1.0	19.0	162.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	130.	-1.0	20.0	157.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	200.	-1.0	20.0	162.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	230.	-1.0	20.0	161.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	300.	-1.0	19.0	163.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	330.	-1.0	21.0	154.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	400.	-1.0	21.0	156.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	430.	-1.0	21.0	175.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	500.	-1.0	21.0	158.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	530.	-1.0	20.0	132.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	600.	-1.0	22.0	135.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	630.	25.0	20.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	700.	-1.0	21.0	119.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	730.	-1.0	22.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	800.	-1.0	22.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	830.	-1.0	22.0	36.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	900.	-1.0	21.0	50.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	930.	-1.0	22.0	48.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1000.	-1.0	22.0	41.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1030.	25.0	21.0	33.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1100.	-1.0	22.0	35.0	36.4	129.0	58.8	9.5	46.0	44.0
AUGUST	2.	1130.	-1.0	21.0	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1200.	-1.0	21.0	33.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1230.	-1.0	21.0	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	AUGUST	2.	1300.	-1.0	22.0	33.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1330.	-1.0	22.0	37.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1400.	-1.0	22.0	32.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1430.	25.0	23.0	88.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1500.	-1.0	22.0	61.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1530.	-1.0	22.0	5.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1600.	-1.0	22.0	104.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1630.	-1.0	22.0	109.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1700.	-1.0	21.0	119.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1730.	-1.0	22.0	124.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1800.	-1.0	22.0	134.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1830.	25.0	21.0	148.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1900.	-1.0	21.0	153.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	1930.	-1.0	22.0	158.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	2000.	-1.0	23.0	155.0	73.2	237.0	122.0	15.0
	AUGUST	2.	2030.	-1.0	21.0	175.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	2100.	-1.0	21.0	184.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	2130.	-1.0	22.0	193.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	2200.	-1.0	22.0	199.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	2230.	25.0	22.0	191.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	2300.	-1.0	21.0	186.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	2.	2330.	-1.0	22.0	178.0	-1.0	-1.0	-1.0	-1.0
-2-	AUGUST	3.	0.	-1.0	21.0	170.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	30.	-1.0	21.0	161.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	100.	-1.0	20.0	153.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	130.	-1.0	21.0	156.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	200.	-1.0	20.0	158.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	230.	25.0	22.0	154.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	300.	-1.0	20.0	157.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	330.	-1.0	23.0	154.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	400.	-1.0	23.0	150.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	430.	-1.0	23.0	148.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	500.	-1.0	21.0	147.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	530.	-1.0	21.0	144.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	600.	-1.0	21.0	141.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	630.	25.0	22.0	138.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	700.	-1.0	21.0	136.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	730.	-1.0	19.0	131.0	-1.0	-1.0	-1.0	-1.0

-1-	AUGUST	3.	800.	-1.0	21.0	128.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	830.	-1.0	21.0	130.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	900.	-1.0	21.0	123.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	930.	-1.0	22.0	13.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1000.	-1.0	22.0	124.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1030.	-1.0	25.0	18.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1100.	-1.0	19.0	15.0	43.3	145.0	58.5	34.0
	AUGUST	3.	1130.	-1.0	19.0	18.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1200.	-1.0	20.0	26.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1230.	-1.0	19.0	112.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1300.	-1.0	19.0	122.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1330.	-1.0	19.0	155.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1400.	-1.0	20.0	107.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1430.	-1.0	25.0	19.0	70.0	-1.0	-1.0	-1.0
	AUGUST	3.	1500.	-1.0	20.0	60.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1530.	-1.0	20.0	136.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1600.	-1.0	20.0	141.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1630.	-1.0	20.0	138.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1700.	-1.0	18.0	142.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1730.	-1.0	19.0	140.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1800.	-1.0	19.0	144.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1830.	-1.0	25.0	18.0	148.0	-1.0	-1.0	-1.0
	AUGUST	3.	1900.	-1.0	20.0	147.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	1930.	-1.0	19.0	145.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	2000.	-1.0	20.0	149.0	69.3	241.0	-1.0	15.7
	AUGUST	3.	2030.	-1.0	21.0	154.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	2100.	-1.0	19.0	156.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	2130.	-1.0	20.0	150.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	2200.	-1.0	20.0	155.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	2230.	-1.0	25.0	21.0	150.0	-1.0	-1.0	-1.0
	AUGUST	3.	2300.	-1.0	21.0	149.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	3.	2330.	-1.0	21.0	150.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	4.	0.	-1.0	21.0	146.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	4.	30.	-1.0	22.0	157.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	4.	100.	-1.0	23.0	146.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	4.	130.	-1.0	22.0	149.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	4.	200.	-1.0	22.0	153.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	4.	230.	-1.0	21.0	149.0	-1.0	-1.0	-1.0	-1.0
	AUGUST	4.	300.	-1.0	22.0	152.0	-1.0	-1.0	-1.0	-1.0

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
AUGUST	4.	330.	-1.0	20.0	163.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	400.	-1.0	21.0	159.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	430.	-1.0	20.0	161.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	500.	-1.0	20.0	167.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	530.	-1.0	22.0	154.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	600.	-1.0	20.0	151.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	630.	-1.0	22.0	140.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	700.	-1.0	21.0	145.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	730.	-1.0	22.0	144.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	800.	-1.0	22.0	135.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	830.	-1.0	21.0	138.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	900.	-1.0	22.0	136.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	930.	-1.0	23.0	131.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1000.	-1.0	22.0	130.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1030.	-1.0	22.0	65.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1100.	-1.0	21.0	94.0	44.8	161.0	50.0	10.8	34.0	28.0
AUGUST	4.	1130.	-1.0	22.0	111.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1200.	-1.0	21.0	191.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1230.	-1.0	20.0	191.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1300.	-1.0	20.0	192.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1330.	-1.0	20.0	170.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1400.	-1.0	19.0	125.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1430.	-1.0	19.0	89.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1500.	-1.0	19.0	182.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1530.	-1.0	20.0	151.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1600.	-1.0	20.0	149.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1630.	-1.0	19.0	151.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1700.	-1.0	20.0	157.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1730.	-1.0	18.0	158.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1800.	-1.0	20.0	173.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1830.	-1.0	19.0	173.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1900.	-1.0	19.0	178.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	1930.	-1.0	19.0	183.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2000.	-1.0	20.0	180.0	69.5	236.0	236.0	117.0	16.7	54.0
AUGUST	4.	2030.	-1.0	21.0	183.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2100.	-1.0	19.0	178.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2130.	-1.0	19.0	177.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2200.	-1.0	21.0	181.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2230.	-1.0	20.0	183.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	AUGUST	4.	2300.	-1.0	20.0	185.0	-1.0	-1.0	-1.0	-1.0	-1.0
-2-	AUGUST	5.	2330.	-1.0	21.0	183.0	-1.0	-1.0	-1.0	-1.0	-1.0
-3-	AUGUST	5.	0.	-1.0	22.0	177.0	-1.0	-1.0	-1.0	-1.0	-1.0
-4-	AUGUST	5.	30.	-1.0	21.0	178.0	-1.0	-1.0	-1.0	-1.0	-1.0
-5-	AUGUST	5.	100.	-1.0	21.0	182.0	-1.0	-1.0	-1.0	-1.0	-1.0
-6-	AUGUST	5.	130.	-1.0	21.0	181.0	-1.0	-1.0	-1.0	-1.0	-1.0
-7-	AUGUST	5.	200.	-1.0	21.0	182.0	-1.0	-1.0	-1.0	-1.0	-1.0
-8-	AUGUST	5.	230.	-1.0	22.0	192.0	-1.0	-1.0	-1.0	-1.0	-1.0
-9-	AUGUST	5.	300.	-1.0	22.0	194.0	-1.0	-1.0	-1.0	-1.0	-1.0
-10-	AUGUST	5.	330.	-1.0	21.0	195.0	-1.0	-1.0	-1.0	-1.0	-1.0
-11-	AUGUST	5.	400.	-1.0	21.0	191.0	-1.0	-1.0	-1.0	-1.0	-1.0
-12-	AUGUST	5.	430.	-1.0	22.0	194.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	500.	-1.0	22.0	194.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	530.	-1.0	23.0	191.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	600.	-1.0	22.0	175.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	630.	25.0	21.0	177.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	700.	-1.0	22.0	172.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	730.	-1.0	21.0	167.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	800.	-1.0	22.0	169.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	830.	-1.0	22.0	162.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	900.	-1.0	23.0	156.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	930.	-1.0	25.0	156.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1000.	-1.0	25.0	153.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1030.	25.0	25.0	151.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1100.	-1.0	25.0	149.0	46.9	144.0	81.5	10.8	40.0	
AUGUST	5.	1130.	-1.0	25.0	149.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1200.	-1.0	23.0	153.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1230.	-1.0	24.0	143.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1300.	-1.0	21.0	146.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1330.	-1.0	22.0	149.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1400.	-1.0	25.0	173.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1430.	25.0	25.0	161.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1500.	-1.0	23.0	163.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1530.	-1.0	21.0	171.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1600.	-1.0	21.0	178.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1630.	-1.0	20.0	187.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1700.	-1.0	20.0	196.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1730.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	5.	1800.	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
AUGUST	2.	1300.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1330.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1400.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1430.	0.0	2.4	1.7	162.0	15.5	6.2	-1.	-1.	-1.	-1.
AUGUST	2.	1500.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1530.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1600.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1630.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1700.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1730.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1800.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1830.	0.0	2.3	4.8	163.0	15.0	6.2	-1.	-1.	-1.	-1.
AUGUST	2.	1900.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	1930.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	2000.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	2030.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	2100.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	2130.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	2200.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	2230.	0.0	2.6	4.6	162.0	14.5	6.2	-1.	-1.	-1.	-1.
AUGUST	2.	2300.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	2.	2330.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	0.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	30.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	100.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	130.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	200.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	230.	0.0	2.2	2.4	162.0	14.0	6.2	-1.	-1.	-1.	-1.
AUGUST	3.	300.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	330.	0.0	-1.0	-1.0	159.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	400.	0.0	-1.0	-1.0	158.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	430.	0.0	-1.0	-1.0	159.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	500.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	530.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	600.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	630.	0.0	1.7	2.1	161.0	15.0	6.2	-1.	-1.	-1.	-1.
AUGUST	3.	700.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	3.	730.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
AUGUST	1.	1800.	46.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	1830.	46.0	1.1	3.2	129.0	9.5	6.2	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	1900.	45.0	-1.0	-1.0	130.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	1930.	46.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2000.	46.0	-1.0	-1.0	128.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2030.	47.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2100.	46.0	-1.0	-1.0	131.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2130.	45.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2200.	46.0	-1.0	-1.0	131.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2230.	45.0	1.1	2.4	129.0	10.7	6.2	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2300.	48.0	-1.0	-1.0	130.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	1.	2330.	49.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	0.	47.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	30.	45.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	100.	45.0	-1.0	-1.0	128.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	130.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	200.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	230.	0.0	2.8	2.8	158.0	14.5	6.2	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	300.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	330.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	400.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	430.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	500.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	530.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	600.	0.0	-1.0	-1.0	157.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	630.	0.0	2.1	2.3	161.0	14.5	6.2	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	700.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	730.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	800.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	830.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	900.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	930.	40.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	1000.	43.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	1030.	43.0	0.8	2.1	130.0	14.5	6.2	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	1100.	44.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	1130.	46.0	-1.0	-1.0	133.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
AUGUST	2.	1200.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.
		1230.	-1.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.	-1.	-1.	-1.	-1.

NOTE: A (-1) value designates missing data.

1. Month
2. Day
3. Time
4. Dissolved Oxygen (continuous) , mg/l
5. Dissolved Oxygen (process meter) , mg/l
6. Dissolved Oxygen (bench meter) , mg/l
7. Air Flow (continuous) , cfm
8. Air Flow (rotameter) , cfm
9. Air Pressure, psig
10. Suspended Solids (Laboratory) , mg/l
11. Volatile Suspended Solids, mg/l
12. Chemical Oxygen Demand, mg/l

KEY:

LOCATION: Storage Chamber

AUGUST	2.	1900.	-1.0	-1.0	-1.	-1.	-8-	-1-
AUGUST	2.	1930.	-1.0	-1.0	-1.	-1.	-	-2-
AUGUST	2.	2000.	-1.0	-1.0	-1.	-1.	-	-3-
AUGUST	2.	2030.	-1.0	-1.0	-1.	-1.	-	-4-
AUGUST	2.	2100.	-1.0	-1.0	-1.	-1.	-	-5-
AUGUST	2.	2130.	-1.0	-1.0	-1.	-1.	-	-6-
AUGUST	2.	2200.	-1.0	-1.0	-1.	-1.	-	-7-
AUGUST	2.	2230.	-1.0	-1.0	-1.	-1.	-	-8-
AUGUST	2.	2300.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	2.	2330.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	0.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	30.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	100.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	130.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	200.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	230.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	300.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	330.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	600.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	630.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	700.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	730.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	800.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	830.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	900.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	930.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	1000.	-1.0	-1.0	-1.	-1.	-	-
AUGUST	3.	1030.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1100.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1130.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1200.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1230.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1300.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1330.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1400.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1430.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1500.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1530.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1600.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1630.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1700.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1730.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1800.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1830.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1900.	-1.0	-1.0	-2.	-2.	-	-
AUGUST	3.	1930.	-1.0	-1.0	-2.	-2.	-	-

NOTE: A (-1) value designates missing data.

1. Month
2. Day
3. Time
4. Recycle Flow Rate, gpm
5. Sludge Washing Rate, gallons/4 hours
6. Suspended Solids (Laboratory), mg/l
7. Volatile Suspended Solids, mg/l
8. Chemical Oxygen Demand, mg/l

KEY:

LOCATION: Recycle Line

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-
AUGUST	3.	2000.	-1.	AUGUST	4.	2100.	AUGUST	4.	2130.	AUGUST	4.	2100.	AUGUST
AUGUST	3.	2100.	-1.	AUGUST	4.	2200.	AUGUST	4.	2230.	AUGUST	3.	2200.	AUGUST
AUGUST	3.	2200.	-1.	AUGUST	4.	2300.	AUGUST	4.	2330.	AUGUST	3.	2230.	AUGUST
AUGUST	3.	2300.	-1.	AUGUST	5.	0.	AUGUST	5.	30.	AUGUST	3.	2300.	AUGUST
AUGUST	3.	2330.	-1.	AUGUST	5.	30.	AUGUST	5.	100.	AUGUST	4.	130.	AUGUST
AUGUST	4.	100.	-1.	AUGUST	5.	130.	AUGUST	5.	130.	AUGUST	4.	400.	AUGUST
AUGUST	4.	130.	-1.	AUGUST	5.	300.	AUGUST	5.	330.	AUGUST	4.	330.	AUGUST
AUGUST	4.	200.	-1.	AUGUST	5.	400.	AUGUST	5.	430.	AUGUST	4.	430.	AUGUST
AUGUST	4.	230.	-1.	AUGUST	5.	500.	AUGUST	5.	530.	AUGUST	4.	530.	AUGUST
AUGUST	4.	2330.	-1.	AUGUST	5.	600.	AUGUST	5.	630.	AUGUST	4.	630.	AUGUST
AUGUST	4.	600.	-1.	AUGUST	5.	700.	AUGUST	5.	730.	AUGUST	4.	700.	AUGUST
AUGUST	4.	700.	-1.	AUGUST	5.	730.	AUGUST	5.	730.	AUGUST	4.	730.	AUGUST
AUGUST	4.	800.	-1.	AUGUST	5.	800.	AUGUST	5.	830.	AUGUST	4.	830.	AUGUST
AUGUST	4.	900.	-1.	AUGUST	5.	900.	AUGUST	4.	930.	AUGUST	4.	930.	AUGUST
AUGUST	4.	1000.	-1.	AUGUST	5.	1000.	AUGUST	4.	1030.	AUGUST	4.	1030.	AUGUST
AUGUST	4.	1100.	-1.	AUGUST	5.	1100.	AUGUST	4.	1130.	AUGUST	4.	1130.	AUGUST
AUGUST	4.	1200.	-1.	AUGUST	5.	1200.	AUGUST	4.	1230.	AUGUST	4.	1230.	AUGUST
AUGUST	4.	1300.	-1.	AUGUST	5.	1300.	AUGUST	4.	1330.	AUGUST	4.	1330.	AUGUST
AUGUST	4.	1400.	-1.	AUGUST	5.	1400.	AUGUST	4.	1430.	AUGUST	4.	1430.	AUGUST
AUGUST	4.	1500.	-1.	AUGUST	5.	1500.	AUGUST	4.	1530.	AUGUST	4.	1530.	AUGUST
AUGUST	4.	1600.	-1.	AUGUST	5.	1600.	AUGUST	4.	1630.	AUGUST	4.	1630.	AUGUST
AUGUST	4.	1700.	-1.	AUGUST	5.	1700.	AUGUST	4.	1730.	AUGUST	4.	1730.	AUGUST
AUGUST	4.	1800.	-1.	AUGUST	5.	1800.	AUGUST	4.	1830.	AUGUST	4.	1830.	AUGUST
AUGUST	4.	1900.	-1.	AUGUST	5.	1900.	AUGUST	4.	1930.	AUGUST	4.	1930.	AUGUST
AUGUST	4.	2000.	-1.	AUGUST	5.	2000.	AUGUST	4.	2030.	AUGUST	4.	2030.	AUGUST

NOTE: A (-1) value designates missing data.

- 4. Blanket Level, ft.
- 3. Time
- 2. Day
- 1. Month

KEY:

LOCATION: Clarifier

	1	-	2	-	3	-	4	-	5	-	6	-	7	-	8	-	9	-	10	-	11	-	12	-	13	-	14	-	15	-	16	-	17
AUGUST 4.	260.	31.50	24.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-330.	-1.	-1.	-1.					
AUGUST 4.	230.	31.50	23.00	0.70	4.50	-1.00	46.00	6.10	-1.00	28.00	7.00	-1.00	330.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.				
AUGUST 4.	300.	32.00	22.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.				
AUGUST 4.	330.	33.00	22.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-330.	-1.	-1.	-1.				
AUGUST 4.	400.	33.00	23.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.			
AUGUST 4.	430.	30.50	22.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.				
AUGUST 4.	500.	32.00	23.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.			
AUGUST 4.	530.	30.50	30.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.			
AUGUST 5.	400.	34.50	22.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.				
AUGUST 5.	430.	34.00	25.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.				
AUGUST 5.	500.	33.50	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.				
AUGUST 5.	530.	31.50	21.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.				

1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 15 - 16 - 17
 AUGUST 1. 1800. 30.50 30.00 -1.00 -1.00 124.00 -1.00 55.50 -1.00 -1.00 1200. -1. -1. -1.
 AUGUST 1. 1830. 31.00 28.00 1.440 5.00 125.00 22.50 6.10 37.35 -1.00 7.10 900. -1. -1. -1.
 AUGUST 1. 1900. 31.50 25.00 -1.00 -1.00 131.00 1.00 31.85 -1.00 1.00 630. -1. -1. -1.
 AUGUST 1. 1930. 30.00 27.00 -1.00 -1.00 133.00 1.00 37.90 -1.00 1.00 1260. -1. -1. -1.
 AUGUST 1. 2000. 31.50 36.00 -1.00 -1.00 132.00 1.00 39.00 -1.00 1.00 1170. 1440. 1010. 1562.
 AUGUST 1. 2030. 31.50 29.00 -1.00 -1.00 133.00 1.00 39.55 -1.00 1.00 720. -1. -1. -1.
 AUGUST 1. 2100. 29.50 28.00 -1.00 -1.00 134.00 1.00 40.10 -1.00 1.00 690. -1. -1. -1.
 AUGUST 1. 2130. 29.00 29.00 -1.00 -1.00 136.00 1.00 40.10 -1.00 1.00 660. -1. -1. -1.
 AUGUST 1. 2200. 31.00 29.00 -1.00 -1.00 137.00 1.00 40.10 -1.00 1.00 1440. -1. -1. -1.
 AUGUST 1. 2230. 31.50 28.00 1.00 4.60 139.00 34.00 6.10 40.40 -1.00 1.00 1260. -1. -1. -1.
 AUGUST 1. 2300. 33.00 28.00 1.00 1.00 140.00 3.00 39.55 -1.00 1.00 1050. -1. -1. -1.
 AUGUST 1. 2330. 31.50 29.00 -1.00 -1.00 142.00 1.00 39.55 -1.00 1.00 1560. -1. -1. -1.
 AUGUST 2. 0. 31.50 29.00 -1.00 -1.00 142.00 1.00 40.10 -1.00 1.00 1080. -1. -1. -1.
 AUGUST 2. 30. 32.50 28.00 -1.00 -1.00 144.00 1.00 40.10 -1.00 1.00 960. -1. -1. -1.
 AUGUST 2. 100. 32.00 30.06 -1.00 -1.00 145.03 1.00 40.10 -1.00 1.00 570. -1. -1. -1.
 AUGUST 2. 130. 32.50 28.00 -1.00 -1.00 146.00 1.00 40.10 -1.00 1.00 780. -1. -1. -1.
 AUGUST 2. 200. 31.50 29.00 -1.00 -1.00 147.00 1.00 40.10 -1.00 1.00 1020. -1. -1. -1.
 AUGUST 2. 230. 32.50 28.00 -1.00 -1.00 149.00 1.00 40.10 -1.00 1.00 810. -1. -1. -1.
 AUGUST 2. 300. 30.00 21.00 -1.00 -1.00 131.00 1.00 40.10 -1.00 1.00 360. -1. -1. -1.
 AUGUST 2. 330. 32.50 21.00 -1.00 -1.00 139.00 1.00 40.10 -1.00 1.00 870. -1. -1. -1.
 AUGUST 2. 400. 32.00 24.00 -1.00 -1.00 144.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 430. 30.00 24.00 -1.00 -1.00 148.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 500. 30.50 27.00 -1.00 -1.00 149.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 530. 30.50 31.00 -1.00 -1.00 124.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 600. 30.00 25.00 -1.00 -1.00 148.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 630. 29.00 21.00 -1.00 -1.00 148.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 700. 29.00 24.00 -1.00 -1.00 149.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 730. 30.50 39.00 -1.00 -1.00 127.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 800. 31.00 25.00 -1.00 -1.00 124.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 830. 30.00 28.00 -1.00 -1.00 121.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 890. 29.00 29.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 930. 27.50 29.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1000. 23.00 30.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1030. 28.00 27.00 -1.00 -1.00 119.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1100. 27.50 27.00 -1.00 -1.00 118.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1130. 28.00 26.00 -1.00 -1.00 118.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1200. 31.00 32.00 -1.00 -1.00 119.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1230. 29.00 29.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1300. 29.50 31.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1330. 30.50 28.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1400. 29.00 27.00 -1.00 -1.00 123.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1430. 29.50 26.00 -1.00 -1.00 122.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1500. 30.50 23.00 -1.00 -1.00 125.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1530. 32.00 25.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1600. 31.50 24.00 -1.00 -1.00 130.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1630. 29.50 25.00 -1.00 -1.00 120.00 1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1700. 27.50 29.00 -1.00 -1.00 133.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1730. 32.50 25.00 -1.00 -1.00 137.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1800. 31.50 24.00 -1.00 -1.00 141.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1930. 31.00 25.00 0.80 6.90 140.00 32.00 6.10 53.85 -1.00 7.30 330. -1. -1. -1.
 AUGUST 2. 1950. 30.00 21.00 -1.00 -1.00 111.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 1970. 32.00 20.00 -1.00 -1.00 107.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 2000. 21.00 -1.00 -1.00 103.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 2030. 31.50 21.00 -1.00 -1.00 99.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 2100. 32.00 21.00 -1.00 -1.00 94.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.
 AUGUST 2. 2130. 35.00 21.00 -1.00 -1.00 91.00 -1.00 40.10 -1.00 1.00 330. -1. -1. -1.

NOTE: A (-1) value designates missing data.

1. Month
2. Day
3. Time
4. Total Flow Rate (continuous) gpm
5. Dissolved Oxygen (continuous), mg/l
6. Dissolved Oxygen (process meter), mg/l
7. Dissolved Oxygen (bench meter), mg/l
8. Air Flow (continuous), cfm
9. Air Flow (rotameter), cfm
10. Air Pressure, psi
11. Temperature (continuous), °C
12. Temperature (manual), °C
13. pH (bench meter)
14. Suspended Solids (continuous), mg/l
15. Suspended Solids (laboratory), mg/l
16. Volatile Suspended Solids (laboratory), mg/l
17. Chemical Oxygen Demand (laboratory), mg/l

KEY:

LOCATION: Aerator

-1-	AUGUST	800.	0.0	-1.0	162.0	-1.0	-1.0	-1.	-1.
-2-	AUGUST	830.	0.0	-1.0	162.0	-1.0	-1.0	-1.	-1.
-3-	AUGUST	900.	0.0	-1.0	162.0	-1.0	-1.0	-1.	-1.
-4-	AUGUST	930.	0.0	-1.0	162.0	-1.0	-1.0	-1.	-1.
-5-	AUGUST	1000.	0.0	-1.0	163.0	-1.0	-1.0	-1.	-1.
-6-	AUGUST	1030.	42.0	1.7	2.0	139.0	21.0	6.2	-1.
-7-	AUGUST	1100.	42.0	-1.0	-1.0	139.0	-1.0	-1.0	-1.
-8-	AUGUST	1130.	43.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
-9-	AUGUST	1200.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.
-10-	AUGUST	1230.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.
-11-	AUGUST	1300.	0.0	-1.0	-1.0	165.0	-1.0	-1.0	-1.
-12-	AUGUST	1330.	0.0	-1.0	-1.0	165.0	-1.0	-1.0	-1.
	AUGUST	1400.	0.0	-1.0	-1.0	166.0	-1.0	-1.0	-1.
	AUGUST	1430.	0.0	2.1	3.1	165.0	17.0	6.3	-1.
	AUGUST	1500.	0.0	-1.0	-1.0	165.0	-1.0	-1.0	-1.
	AUGUST	1530.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.
	AUGUST	1600.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.
	AUGUST	1630.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.
	AUGUST	1700.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	1730.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	1800.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	1830.	0.0	2.6	3.0	162.0	15.5	6.3	-1.
	AUGUST	1900.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.
	AUGUST	1930.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.
	AUGUST	2000.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	2030.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	2100.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	2130.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	2200.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
	AUGUST	2230.	0.0	3.0	2.5	163.0	14.0	6.3	-1.
	AUGUST	2300.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.
	AUGUST	2330.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.
	AUGUST	4.	0.	-1.0	-1.0	162.0	-1.0	-1.0	-1.
	AUGUST	4.	30.	0.0	-1.0	162.0	-1.0	-1.0	-1.
	AUGUST	4.	100.	0.0	-1.0	161.0	-1.0	-1.0	-1.
	AUGUST	4.	130.	0.0	-1.0	161.0	-1.0	-1.0	-1.
	AUGUST	4.	200.	0.0	-1.0	160.0	-1.0	-1.0	-1.
	AUGUST	4.	230.	0.0	2.7	3.5	160.0	14.5	6.3

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
AUGUST	4.	300.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	330.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	400.	0.0	-1.0	-1.0	159.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	430.	0.0	-1.0	-1.0	159.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	500.	0.0	-1.0	-1.0	159.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	530.	0.0	-1.0	-1.0	158.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	600.	0.0	-1.0	-1.0	158.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	630.	0.0	-1.0	-1.0	159.0	15.0	6.3	-1.0	-1.	-1.
AUGUST	4.	700.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	730.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	800.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	830.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	900.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	930.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1000.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1030.	40.0	0.5	1.1	134.0	8.0	6.3	-1.0	-1.	-1.
AUGUST	4.	1100.	44.0	-1.0	-1.0	137.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1130.	44.0	-1.0	-1.0	136.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1200.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1230.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1300.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1330.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1400.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1430.	0.0	2.1	3.4	162.0	16.0	6.2	-1.0	-1.	-1.
AUGUST	4.	1500.	0.0	-1.0	-1.0	165.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1530.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1600.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1630.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1700.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1730.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1800.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1830.	0.0	2.2	3.0	158.0	15.0	6.3	-1.0	-1.	-1.
AUGUST	4.	1900.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	1930.	0.0	-1.0	-1.0	159.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	2000.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	2030.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	2100.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.
AUGUST	4.	2130.	0.0	-1.0	-1.0	160.0	-1.0	-1.0	-1.0	-1.	-1.

4057.

2590.

-1-	AUGUST	2200.	0.0	-1.0	160.0	-1.0	-1.0	-1.	-1.
-2-	AUGUST	2230.	0.0	2.2	159.0	16.0	6.2	-1.	-1.
-3-	AUGUST	2300.	0.0	-1.0	-1.0	-1.0	-1.0	-1.	-1.
-4-	AUGUST	2330.	0.0	-1.0	-1.0	159.0	-1.0	-1.	-1.
-5-	AUGUST	0.	0.0	-1.0	-1.0	159.0	-1.0	-1.	-1.
-6-	AUGUST	30.	0.0	-1.0	-1.0	159.0	-1.0	-1.	-1.
-7-	AUGUST	100.	0.0	-1.0	-1.0	159.0	-1.0	-1.	-1.
-8-	AUGUST	130.	0.0	-1.0	-1.0	158.0	-1.0	-1.	-1.
-9-	AUGUST	200.	0.0	-1.0	-1.0	158.0	-1.0	-1.	-1.
-10-	AUGUST	230.	0.0	2.1	158.0	15.0	6.3	-1.	-1.
-11-	AUGUST	300.	0.0	-1.0	-1.0	157.0	-1.0	-1.	-1.
-12-	AUGUST	330.	0.0	-1.0	-1.0	157.0	-1.0	-1.	-1.
0.	AUGUST	400.	0.0	-1.0	-1.0	157.0	-1.0	-1.	-1.
4.	AUGUST	430.	0.0	-1.0	-1.0	127.0	-1.0	-1.	-1.
4.	AUGUST	500.	0.0	-1.0	-1.0	152.0	-1.0	-1.	-1.
5.	AUGUST	530.	0.0	-1.0	-1.0	152.0	-1.0	-1.	-1.
5.	AUGUST	600.	0.0	-1.0	-1.0	153.0	-1.0	-1.	-1.
5.	AUGUST	630.	0.0	2.2	3.4	157.0	13.0	6.2	-1.
5.	AUGUST	700.	0.0	-1.0	-1.0	157.0	-1.0	-1.	-1.
5.	AUGUST	730.	0.0	-1.0	-1.0	158.0	-1.0	-1.	-1.
5.	AUGUST	800.	0.0	-1.0	-1.0	158.0	-1.0	-1.	-1.
5.	AUGUST	830.	0.0	-1.0	-1.0	158.0	-1.0	-1.	-1.
5.	AUGUST	900.	0.0	-1.0	-1.0	160.0	-1.0	-1.	-1.
5.	AUGUST	930.	0.0	-1.0	-1.0	160.0	-1.0	-1.	-1.
5.	AUGUST	1000.	0.0	-1.0	-1.0	161.0	-1.0	-1.	-1.
5.	AUGUST	1030.	0.0	1.8	1.1	131.0	13.5	6.3	-1.
5.	AUGUST	1100.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	4000.
5.	AUGUST	1130.	0.0	-1.0	-1.0	159.0	-1.0	-1.0	-1.
5.	AUGUST	1200.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
5.	AUGUST	1230.	0.0	-1.0	-1.0	135.0	-1.0	-1.0	-1.
5.	AUGUST	1300.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
5.	AUGUST	1330.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
5.	AUGUST	1400.	0.0	-1.0	-1.0	164.0	-1.0	-1.0	-1.
5.	AUGUST	1430.	0.0	1.5	3.0	164.0	14.5	6.3	-1.
5.	AUGUST	1500.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
5.	AUGUST	1530.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.
5.	AUGUST	1600.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
AUGUST	5.	1630.	0.0	-1.0	-1.0	163.0	-1.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	5.	1700.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	5.	1730.	0.0	-1.0	-1.0	162.0	-1.0	-1.0	-1.0	-1.	-1.	-1.	-1.
AUGUST	5.	1800.	0.0	-1.0	-1.0	161.0	-1.0	-1.0	-1.0	-1.	-1.	-1.	-1.

LOCATION: Effluent

KEY:

1. Month
2. Day
3. Time
4. Turbidity (continuous), JTU
5. Turbidity (laboratory), JTU
6. TOC (continuous), mg/l
7. TOC (laboratory), mg/l
8. Soluble TOC (laboratory), mg/l
9. COD (laboratory), mg/l
10. Soluble COD (laboratory), mg/l
11. BOD, mg/l
12. Soluble BOD, mg/l
13. Total Phosphorus, mg/l
14. Suspended Solids (laboratory), mg/l
15. Volatile Suspended Solids (laboratory), mg/l

NOTE: A (-1) value designates missing data.

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11--	-12-	-13-	-14-	-15-
AUGUST	1.	1800.	70.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	2.0	2.0
AUGUST	1.	1830.	83.0	-1.0	50.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	1830.	83.0	-1.0	50.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	1900.	79.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
AUGUST	1.	1930.	85.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2000.	78.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	2.0	1.0
AUGUST	1.	2030.	76.0	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2100.	77.0	-1.0	58.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0
AUGUST	1.	2130.	77.0	-1.0	21.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2200.	82.0	-1.0	7.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
AUGUST	1.	2230.	72.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	1.	2300.	68.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
AUGUST	1.	2330.	66.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	0.	66.0	-1.0	12.0	7.8	10.2	33.8	14.2	11.0	4.4	8.5	5.0	3.0		
AUGUST	2.	30.	62.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	100.	58.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	130.	61.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	200.	60.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	5.0
AUGUST	2.	230.	56.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	300.	54.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	2.0
AUGUST	2.	330.	56.0	-1.0	15.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	400.	53.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	5.0
AUGUST	2.	430.	50.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	500.	44.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	530.	46.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	600.	43.0	-1.0	15.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	3.0
AUGUST	2.	630.	38.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	700.	36.5	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
AUGUST	2.	730.	30.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	800.	18.0	-1.0	6.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
AUGUST	2.	830.	16.5	-1.0	7.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	900.	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	2.0	2.0
AUGUST	2.	930.	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1000.	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	4.0
AUGUST	2.	1030.	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1100.	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	2.0
AUGUST	2.	1130.	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1200.	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	14.0	4.0

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
AUGUST	2.	1230.	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1300.	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1330.	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1400.	42.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1430.	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1500.	2.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-2.0
AUGUST	2.	1530.	48.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1600.	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-2.0
AUGUST	2.	1630.	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1700.	36.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-2.0
AUGUST	2.	1730.	45.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-4.0
AUGUST	2.	1800.	54.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1830.	55.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	1900.	55.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-2.0	-2.0
AUGUST	2.	1930.	56.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	2000.	66.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-5.0
AUGUST	2.	2030.	71.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	2100.	81.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-4.0
AUGUST	2.	2130.	87.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	2200.	84.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-7.0
AUGUST	2.	2230.	80.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	2.	2300.	56.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-12.0
AUGUST	2.	2330.	53.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	0.	56.5	-1.0	-1.0	15.1	10.4	44.9	30.3	18.6	3.5	21.3	18.0	12.0	
AUGUST	3.	30.	56.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	100.	53.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	130.	60.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	200.	51.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	230.	50.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	300.	51.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	330.	46.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	400.	42.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	430.	41.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	500.	42.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	530.	40.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	600.	42.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	630.	39.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
AUGUST	3.	700.	41.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	

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AUGUST	3.	730.	43.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	800.	43.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	8.0
AUGUST	3.	830.	41.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	900.	40.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	7.0
AUGUST	3.	930.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1000.	60.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	9.0	6.0
AUGUST	3.	1030.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1100.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	7.0
AUGUST	3.	1130.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1200.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
AUGUST	3.	1230.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1300.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
AUGUST	3.	1330.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1400.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	2.0	1.0
AUGUST	3.	1430.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1500.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
AUGUST	3.	1530.	52.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1600.	52.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
AUGUST	3.	1630.	59.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1700.	54.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
AUGUST	3.	1730.	54.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1800.	55.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
AUGUST	3.	1830.	56.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	1900.	57.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
AUGUST	3.	1930.	58.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	2000.	60.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	11.0	4.0
AUGUST	3.	2030.	61.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	2100.	56.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	5.0
AUGUST	3.	2130.	60.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	2200.	59.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	5.0
AUGUST	3.	2230.	58.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	3.	2300.	56.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
AUGUST	3.	2330.	54.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	0.	55.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.8	7.0
AUGUST	4.	30.	54.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	100.	56.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
AUGUST	4.	130.	59.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	200.	57.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	10.0	8.0

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
AUGUST	4.	2130.	65.0	-1.0	14.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2200.	65.0	-1.0	14.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2230.	65.0	-1.0	14.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2300.	64.0	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	4.	2330.	64.0	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	0.	61.5	-1.0	15.0	12.6	9.5	35.1	27.7	9.9	2.4	10.0	9.0	4.0		
AUGUST	5.	30.	61.5	-1.0	15.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	100.	62.0	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	130.	62.5	-1.0	16.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	200.	65.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	230.	64.0	-1.0	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	300.	74.0	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	330.	66.0	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	400.	65.0	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	430.	65.0	-1.0	16.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	500.	59.5	-1.0	17.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	530.	55.0	-1.0	16.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	600.	54.0	-1.0	16.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	630.	54.0	-1.0	16.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	700.	48.0	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	730.	45.0	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	800.	46.0	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	830.	42.0	-1.0	15.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	900.	39.0	-1.0	17.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	930.	38.5	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1000.	38.0	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1030.	43.0	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1100.	37.5	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1130.	38.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1200.	35.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1230.	35.0	-1.0	37.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1300.	37.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1330.	81.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1400.	41.5	-1.0	14.0	10.7	8.8	29.1	22.5	29.3	3.7	8.3	7.0	6.0		
AUGUST	5.	1430.	45.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1500.	45.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1530.	50.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST	5.	1600.	55.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
AUGUST 5.	1630.	60.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST 5.	1700.	63.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	13.0	12.0
AUGUST 5.	1730.	77.0	-1.0	14.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
AUGUST 5.	1800.	60.0	-1.0	15.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	19.0	17.0

APPENDIX D

Raw Data for Constant Loading Pilot Study

LOCATION: Influent

KEY:

1. Month
2. Day
3. Time
4. Flow Rate (manual), gpm
5. Flow Rate (continuous), gpm
6. Total Organic Carbon (laboratory), mg/l
7. Total Organic Carbon (laboratory), mg/l
8. Chemical Oxygen Demand, mg/l
9. Biochemical Oxygen Demand, mg/l
10. Total Phosphorus, mg/l
11. Suspended Solids, mg/l
12. Volatile Suspended Solids

NOTE: A (-1) value designates missing data.

		-12-	-11-	-10-	-9-	-8-	-7-	-6-	-5-	-4-	-3-	-2-	-1-
JULY	5°	1800.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	1830.	22.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	1900.	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	1930.	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2000.	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2030.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2100.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2130.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2200.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2230.	21.5	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2300.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5°	2330.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	0.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	30.	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	100.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	130.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	200.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	230.	21.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	300.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	330.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	400.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	430.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	500.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	530.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	600.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	630.	22.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	700.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	730.	-1.0	22.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	800.	-1.0	21.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	830.	-1.0	30.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	900.	-1.0	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	930.	-1.0	30.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	1000.	-1.0	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	1030.	27.0	30.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	1100.	-1.0	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	1130.	1.0	34.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	1200.	-1.0	33.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6°	1230.	-1.0	32.0	+1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
JULY	7.	800.	-1.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	830.	-1.0	25.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	900.	-1.0	29.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	930.	-1.0	29.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1000.	-1.0	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1030.	-1.0	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1100.	-1.0	34.0	-1.0	53.3	170.0	68.8	9.7	54.0	38.0		
JULY	7.	1130.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1200.	-1.0	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1230.	-1.0	28.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1300.	-1.0	35.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1330.	-1.0	35.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1400.	-1.0	61.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1430.	22.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1500.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1530.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1600.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1630.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1700.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1730.	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1800.	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1830.	21.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1900.	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	1930.	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	2000.	-1.0	11.0	-1.0	-1.0	-1.0	70.7	232.0	152.0	18.8	80.0	58.0
JULY	7.	2030.	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	2100.	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	2130.	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	2200.	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	2230.	19.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	2300.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	7.	2330.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	8.	0.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	8.	30.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	8.	100.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	8.	130.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	8.	200.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	8.	230.	20.5	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	
JULY	8.	300.	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	

-1-	JULY	8.	330.	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-2-	JULY	8.	400.	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-3-	JULY	8.	430.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-4-	JULY	8.	500.	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-5-	JULY	8.	530.	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-6-	JULY	8.	600.	-1.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-7-	JULY	8.	630.	22.0	19.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-8-	JULY	8.	700.	-1.0	22.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-9-	JULY	8.	730.	-1.0	22.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-10-	JULY	8.	800.	-1.0	26.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-11-	JULY	8.	830.	-1.0	27.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-12-	JULY	8.	900.	-1.0	26.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	930.	-1.0	26.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1000.	-1.0	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1030.	27.0	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1100.	-1.0	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1130.	-1.0	35.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1200.	-1.0	32.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1230.	-1.0	34.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1300.	-1.0	35.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1330.	-1.0	33.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1400.	-1.0	35.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1430.	27.0	34.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1500.	-1.0	34.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1530.	-1.0	34.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1600.	-1.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1630.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1700.	-1.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1730.	-1.0	26.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1800.	-1.0	26.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1830.	24.5	27.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1900.	-1.0	25.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	1930.	-1.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	2000.	-1.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	2030.	-1.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	2100.	-1.0	23.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	2130.	-1.0	35.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
	JULY	8.	2200.	-1.0	31.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
JULY	8.	2230.	26.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2300.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2330.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	0.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	30.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	100.	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	130.	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	200.	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	230.	21.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	300.	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	330.	-1.0	17.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	400.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	430.	-1.0	23.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	500.	-1.0	24.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	530.	-1.0	23.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	600.	-1.0	25.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	630.	24.0	26.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	700.	-1.0	22.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	730.	-1.0	22.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	800.	-1.0	22.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	830.	-1.0	25.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	900.	-1.0	26.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	930.	-1.0	27.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1000.	-1.0	30.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1030.	26.0	30.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1100.	-1.0	29.0	-1.0	-1.0	39.6	143.0	81.8	10.1	36.0
JULY	9.	1130.	-1.0	29.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1200.	-1.0	28.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1230.	-1.0	28.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1300.	-1.0	28.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1330.	-1.0	27.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1400.	-1.0	27.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1430.	21.0	25.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1500.	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1530.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1600.	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1630.	-1.0	21.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1700.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1730.	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1800.	-1.0	22.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

LOCATION: Aerator

KEY:

1. Month
2. Day
3. Time
4. Total Flow Rate (continuous) gpm
5. Dissolved Oxygen (continuous), mg/l
6. Dissolved Oxygen (process meter), mg/l
7. Dissolved Oxygen (bench meter), mg/l
8. Air Flow (continuous), cfm
9. Air Flow (rotameter), cfm
10. Air Pressure, psi
11. Temperature (continuous), °C
12. Temperature (manual), °C
13. pH (bench meter)
14. Suspended Solids (continuous), mg/l
15. Suspended Solids (laboratory), mg/l
16. Volatile Suspended Solids (laboratory), mg/l
17. Chemical Oxygen Demand (laboratory), mg/l

NOTE: A (-1) value designates missing data.

1 - 2	- 3	- 4	- 5	- 6	- 7	- 8	- 9	- 10	- 11	- 12	- 13	- 14	- 15	- 16	- 17
JULY	5.	18C0.	27.50	8.50	-1.00	1.00	123.00	-1.00	-1.00	49.45	-1.00	-1.00	300.	-1.	-1.
JULY	5.	1830.	30.00	9.00	0.20	1.30	123.00	22.00	6.10	49.45	-1.00	6.60	300.	-1.	-1.
JULY	5.	1900.	30.50	8.50	-1.00	-1.00	123.00	-1.00	-1.00	49.45	-1.00	-1.00	300.	-1.	-1.
JULY	5.	1930.	29.50	8.50	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	5.	2000.	29.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	5.	2030.	29.00	8.50	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	5.	2100.	27.00	8.50	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	5.	2130.	26.50	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	5.	2200.	27.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	5.	2230.	28.50	8.00	-1.00	1.20	123.00	21.50	6.20	48.35	-1.00	7.10	300.	-1.	-1.
JULY	6.	130.	28.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	200.	28.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	2330.	27.00	8.50	-1.00	-1.00	123.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	0.	29.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	30.	3L.50	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	100.	28.50	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	130.	28.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	200.	28.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	230.	29.00	8.00	0.15	1.20	124.00	21.50	6.20	48.35	-1.00	6.90	300.	-1.	-1.
JULY	6.	300.	27.50	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	330.	27.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	400.	28.50	7.50	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	430.	30.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	500.	27.50	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	530.	27.50	7.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	600.	29.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	630.	28.50	8.00	0.20	1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	700.	27.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	730.	27.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	800.	26.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	830.	31.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	900.	32.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	930.	30.00	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1000.	31.00	6.50	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1030.	28.00	6.00	0.20	1.30	125.00	21.00	6.00	48.35	-1.00	6.90	300.	-1.	-1.
JULY	6.	1100.	32.00	7.00	-1.00	-1.00	125.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1130.	33.00	7.00	-1.00	-1.00	125.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1200.	32.00	7.50	-1.00	-1.00	125.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1230.	32.00	7.50	-1.00	-1.00	125.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1360.	31.00	7.00	-1.00	-1.00	125.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1330.	31.50	7.50	-1.00	-1.00	125.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1400.	33.00	7.50	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1430.	34.00	8.50	0.20	1.50	124.00	22.00	6.10	48.35	-1.00	6.60	300.	-1.	-1.
JULY	6.	1500.	36.50	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1530.	33.50	8.00	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1600.	36.50	8.60	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1630.	31.00	7.50	-1.00	-1.00	124.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1730.	30.50	9.00	-1.00	-1.00	122.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1800.	30.50	9.00	-1.00	-1.00	102.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1830.	30.50	9.00	0.20	0.40	120.00	-8.00	6.10	48.35	-1.00	7.10	300.	-1.	-1.
JULY	6.	1900.	32.00	9.00	-1.00	-1.00	120.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	1930.	31.00	8.50	-1.00	-1.00	120.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	2000.	30.00	8.50	-1.00	-1.00	120.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	2030.	31.00	7.50	-1.00	-1.00	120.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	2100.	31.50	8.00	-1.00	-1.00	120.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	2130.	27.00	8.00	-1.00	-1.00	120.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.
JULY	6.	2330.	26.00	8.00	-1.00	-1.00	120.00	-1.00	-1.00	48.35	-1.00	-1.00	300.	-1.	-1.

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13	-14-	-15-	-16-	-17-
JULY	6.	2200.	27.00	7.50	0.15	-1.00	120.00	-1.00	19.00	6.10	58.80	-1.00	-1.00	300.	-1.	-1.	-1.	-1.
JULY	6.	2300.	26.00	8.00	-1.00	120.00	-1.00	120.00	-1.00	58.80	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	6.	26.00	8.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	10.	26.00	7.50	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	100.	26.00	6.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	130.	26.50	7.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	200.	26.00	7.00	-1.00	-1.00	122.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	230.	26.00	6.50	0.10	0.80	123.30	19.00	6.10	-1.00	26.50	7.10	330.	-1.	-1.	-1.	-1.	
JULY	7.	300.	26.50	7.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	330.	25.50	7.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	400.	26.00	7.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	430.	25.50	7.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	500.	25.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	530.	25.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	600.	23.50	8.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	630.	25.00	8.00	0.20	1.00	123.00	20.00	6.10	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	700.	27.50	8.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	730.	26.00	7.50	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	800.	26.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	830.	26.50	7.50	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	900.	27.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	930.	28.00	8.00	-1.00	-1.00	123.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1000.	28.50	8.00	-1.00	-1.00	122.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1030.	30.50	8.00	0.30	1.80	120.00	22.00	6.20	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1100.	30.00	8.00	-1.00	-1.00	120.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1130.	29.50	8.00	-1.00	-1.00	120.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1200.	30.00	8.00	-1.00	-1.00	120.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1230.	24.50	8.00	-1.00	-1.00	120.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1300.	31.50	8.00	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1330.	32.50	7.50	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1400.	39.50	8.00	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	330.	-1.	-1.	-1.	-1.	
JULY	7.	1430.	26.50	58.00	-1.60	1.90	119.00	20.00	6.10	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1500.	24.50	36.00	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1530.	25.50	34.00	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1600.	24.50	32.00	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1630.	25.00	28.00	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1700.	26.00	22.00	-1.00	-1.00	119.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1730.	25.50	48.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1800.	27.00	41.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1830.	27.00	43.00	1.80	1.60	131.00	27.00	6.10	-1.00	57.15	-1.00	71.10	300.	-1.	-1.	-1.	
JULY	7.	1900.	21.50	43.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	1930.	22.50	44.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	2000.	23.00	40.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	2030.	22.50	43.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	2100.	23.00	43.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	2130.	23.50	37.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	2200.	24.00	40.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.	
JULY	7.	2230.	23.00	-1.00	-1.00	131.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.		
JULY	7.	2300.	23.50	-1.00	-1.00	128.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.		
JULY	7.	2330.	24.00	-1.00	-1.00	128.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.		
JULY	8.	0.	23.00	-1.00	-1.00	128.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.		
JULY	8.	30.	24.00	-1.00	-1.00	128.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.		
JULY	8.	100.	23.50	-1.00	-1.00	128.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.		
JULY	8.	130.	24.00	-1.00	-1.00	128.00	-1.00	-1.00	-1.00	-1.00	-1.00	300.	-1.	-1.	-1.	-1.		

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13	-14-	-15-	-16-	-17-
JULY	9.	600.	29.60	13.00	-1.60	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1500.	-1.	-1.	-1.
JULY	9.	630.	29.50	13.00	0.35	2.20	121.00	24.00	6.20	-1.00	-1.00	-1.00	-1.00	-1.00	1470.	-1.	-1.	-1.
JULY	9.	700.	23.50	16.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1380.	-1.	-1.	-1.
JULY	9.	730.	29.60	18.00	-1.60	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1740.	-1.	-1.	-1.
JULY	9.	800.	28.50	16.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1440.	-1.	-1.	-1.
JULY	9.	830.	31.00	25.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1590.	-1.	-1.	-1.
JULY	9.	900.	31.00	10.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.	-1.	-1.	-1.
JULY	9.	930.	32.00	31.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1920.	-1.	-1.	-1.
JULY	9.	1000.	33.50	39.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1660.	-1.	-1.	-1.
JULY	9.	1030.	33.00	48.00	1.60	3.20	121.00	24.00	6.20	-1.00	-1.00	-1.00	-1.00	-1.00	1560.	-1.	-1.	-1.
JULY	9.	1100.	32.50	46.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1680.	680.	1057.	
JULY	9.	1130.	32.00	35.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1320.	-1.	-1.	-1.
JULY	9.	1200.	31.50	50.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1050.	-1.	-1.	-1.
JULY	9.	1230.	28.50	51.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	810.	-1.	-1.	-1.
JULY	9.	1300.	32.00	49.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1320.	-1.	-1.	-1.
JULY	9.	1330.	33.00	43.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1320.	-1.	-1.	-1.
JULY	9.	1400.	32.50	42.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1140.	-1.	-1.	-1.
JULY	9.	1430.	28.50	47.00	2.20	2.20	121.00	22.00	6.10	54.40	-1.00	-1.00	-1.00	-1.00	1710.	-1.	-1.	-1.
JULY	9.	1500.	28.50	45.50	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1560.	-1.	-1.	-1.
JULY	9.	1530.	30.00	38.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1500.	-1.	-1.	-1.
JULY	9.	1600.	30.50	35.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1410.	-1.	-1.	-1.
JULY	9.	1630.	30.00	32.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1350.	-1.	-1.	-1.
JULY	9.	1700.	30.50	30.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1500.	-1.	-1.	-1.
JULY	9.	1730.	31.00	26.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1500.	-1.	-1.	-1.
JULY	9.	1800.	31.00	27.00	-1.00	-1.00	121.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1710.	-1.	-1.	-1.

LOCATION: Clarifier

KEY:

1. Month
2. Day
3. Time
4. Blanket Level, ft.

NOTE: A (-1) value designates missing data.

-1-	-2-	-3-	-4-				
JULY	5.	1800.	-1.	JULY	6.	1900.	10.
JULY	5.	1830.	-1.	JULY	6.	1930.	-1.
JULY	5.	1900.	-1.	JULY	6.	2000.	10.
JULY	5.	1930.	-1.	JULY	6.	2030.	-1.
JULY	5.	2000.	-1.	JULY	6.	2100.	10.
JULY	5.	2030.	-1.	JULY	6.	2130.	-1.
JULY	5.	2100.	-1.	JULY	6.	2200.	10.
JULY	5.	2130.	-1.	JULY	6.	2230.	-1.
JULY	5.	2200.	-1.	JULY	6.	2300.	10.
JULY	5.	2230.	-1.	JULY	6.	2330.	-1.
JULY	5.	2300.	-1.	JULY	7.	0.	10.
JULY	5.	2330.	-1.	JULY	7.	30.	-1.
JULY	6.	0.	-1.	JULY	7.	100.	10.
JULY	6.	30.	-1.	JULY	7.	130.	-1.
JULY	6.	100.	-1.	JULY	7.	200.	10.
JULY	6.	130.	-1.	JULY	7.	230.	-1.
JULY	6.	200.	-1.	JULY	7.	300.	10.
JULY	6.	230.	-1.	JULY	7.	330.	-1.
JULY	6.	300.	-1.	JULY	7.	400.	10.
JULY	6.	330.	-1.	JULY	7.	430.	-1.
JULY	6.	400.	-1.	JULY	7.	500.	10.
JULY	6.	430.	-1.	JULY	7.	530.	-1.
JULY	6.	500.	-1.	JULY	7.	600.	10.
JULY	6.	530.	-1.	JULY	7.	630.	-1.
JULY	6.	600.	-1.	JULY	7.	700.	10.
JULY	6.	630.	-1.	JULY	7.	730.	-1.
JULY	6.	700.	-1.	JULY	7.	800.	10.
JULY	6.	730.	-1.	JULY	7.	830.	-1.
JULY	6.	800.	-1.	JULY	7.	900.	10.
JULY	6.	830.	-1.	JULY	7.	930.	-1.
JULY	6.	900.	-1.	JULY	7.	1000.	-1.
JULY	6.	930.	-1.	JULY	7.	1030.	-1.
JULY	6.	1000.	-1.	JULY	7.	1100.	-1.
JULY	6.	1030.	-1.	JULY	7.	1130.	-1.
JULY	6.	1100.	-1.	JULY	7.	1200.	-1.
JULY	6.	1130.	-1.	JULY	7.	1230.	-1.
JULY	6.	1200.	-1.	JULY	7.	1300.	-1.
JULY	6.	1230.	-1.	JULY	7.	1330.	-1.
JULY	6.	1300.	-1.	JULY	7.	1400.	10.
JULY	6.	1330.	-1.	JULY	7.	1430.	-1.
JULY	6.	1400.	-1.	JULY	7.	1500.	10.
JULY	6.	1430.	-1.	JULY	7.	1530.	-1.
JULY	6.	1500.	-1.	JULY	7.	1600.	10.
JULY	6.	1530.	-1.	JULY	7.	1630.	-1.
JULY	6.	1600.	10.	JULY	7.	1700.	10.
JULY	6.	1630.	-1.	JULY	7.	1730.	-1.
JULY	6.	1700.	10.	JULY	7.	1800.	11.
JULY	6.	1730.	-1.	JULY	7.	1830.	-1.
JULY	6.	1800.	9.	JULY	7.	1900.	11.
JULY	6.	1830.	-1.	JULY	7.	1930.	-1.

-1-	-2-	-3-	-4-				
JULY	7.	2000.	11.	JULY	8.	2100.	11.
JULY	7.	2030.	-1.	JULY	8.	2130.	-1.
JULY	7.	2100.	11.	JULY	8.	2200.	11.
JULY	7.	2130.	-1.	JULY	8.	2230.	-1.
JULY	7.	2200.	11.	JULY	8.	2300.	11.
JULY	7.	2230.	-1.	JULY	8.	2330.	-1.
JULY	7.	2300.	11.	JULY	9.	0.	11.
JULY	7.	2330.	-1.	JULY	9.	30.	-1.
JULY	8.	0.	11.	JULY	9.	100.	-1.
JULY	8.	30.	-1.	JULY	9.	130.	-1.
JULY	8.	100.	11.	JULY	9.	200.	-1.
JULY	8.	130.	-1.	JULY	9.	230.	-1.
JULY	8.	200.	11.	JULY	9.	300.	-1.
JULY	8.	230.	-1.	JULY	9.	330.	-1.
JULY	8.	300.	11.	JULY	9.	400.	-1.
JULY	8.	330.	-1.	JULY	9.	430.	-1.
JULY	8.	400.	11.	JULY	9.	500.	-1.
JULY	8.	430.	-1.	JULY	9.	530.	-1.
JULY	8.	500.	11.	JULY	9.	600.	11.
JULY	8.	530.	-1.	JULY	9.	630.	-1.
JULY	8.	600.	11.	JULY	9.	700.	11.
JULY	8.	630.	-1.	JULY	9.	730.	-1.
JULY	8.	700.	11.	JULY	9.	800.	11.
JULY	8.	730.	-1.	JULY	9.	830.	-1.
JULY	8.	800.	11.	JULY	9.	900.	11.
JULY	8.	830.	-1.	JULY	9.	930.	-1.
JULY	8.	900.	11.	JULY	9.	1000.	11.
JULY	8.	930.	-1.	JULY	9.	1030.	-1.
JULY	8.	1000.	11.	JULY	9.	1100.	11.
JULY	8.	1030.	-1.	JULY	9.	1130.	-1.
JULY	8.	1100.	11.	JULY	9.	1200.	11.
JULY	8.	1130.	-1.	JULY	9.	1230.	-1.
JULY	8.	1200.	11.	JULY	9.	1300.	11.
JULY	8.	1230.	-1.	JULY	9.	1330.	-1.
JULY	8.	1300.	11.	JULY	9.	1400.	11.
JULY	8.	1330.	-1.	JULY	9.	1430.	-1.
JULY	8.	1400.	11.	JULY	9.	1500.	11.
JULY	8.	1430.	-1.	JULY	9.	1530.	-1.
JULY	8.	1500.	11.	JULY	9.	1600.	11.
JULY	8.	1530.	-1.	JULY	9.	1630.	-1.
JULY	8.	1600.	11.	JULY	9.	1700.	11.
JULY	8.	1630.	-1.	JULY	9.	1730.	-1.
JULY	8.	1700.	11.	JULY	9.	1800.	11.
JULY	8.	1730.	-1.				
JULY	8.	1800.	11.				
JULY	8.	1830.	-1.				
JULY	8.	1900.	11.				
JULY	8.	1930.	-1.				
JULY	8.	2000.	11.				
JULY	8.	2030.	-1.				

LOCATION: Recycle Line

KEY:

1. Month
2. Day
3. Time
4. Recycle Flow Rate, gpm
5. Sludge Wasting Rate, gallons/4 hours
6. Suspended Solids (laboratory), mg/l
7. Volatile Suspended Solids, mg/l
8. Chemical Oxygen Demand, mg/l

NOTE: A (-1) value designates missing data.

	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
JULY	5.	1800.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	1830.	10.0	352.8	-1.	-1.	-1.	-1.
JULY	5.	1900.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	1930.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	2000.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	2030.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	2100.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	2130.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	2200.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	2230.	10.0	367.5	-1.	-1.	-1.	-1.
JULY	5.	2300.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	5.	2330.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	0.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	30.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	100.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	130.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	200.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	230.	10.0	352.8	-1.	-1.	-1.	-1.
JULY	6.	300.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	330.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	400.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	430.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	500.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	530.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	600.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	630.	10.0	367.5	-1.	-1.	-1.	-1.
JULY	6.	700.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	730.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	800.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	830.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	900.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	930.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1000.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1030.	10.0	252.8	-1.	-1.	-1.	-1.
JULY	6.	1100.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1130.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1200.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1230.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1300.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1330.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1400.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1430.	10.0	338.1	-1.	-1.	-1.	-1.
JULY	6.	1500.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1530.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1600.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1630.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1700.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1730.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1800.	-1.0	-1.0	-1.	-1.	-1.	-1.
JULY	6.	1830.	10.0	352.8	-1.	-1.	-1.	-1.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
JULY	6.	1900.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	1930.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	2000.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	2030.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	2100.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	2130.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	2200.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	2230.	10.0	367.5	-1.	-1.	-1.
JULY	6.	2300.	-1.0	-1.0	-1.	-1.	-1.
JULY	6.	2330.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	0.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	30.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	100.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	130.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	200.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	230.	10.0	352.8	-1.	-1.	-1.
JULY	7.	300.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	330.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	400.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	430.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	500.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	530.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	600.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	630.	10.0	352.8	-1.	-1.	-1.
JULY	7.	700.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	730.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	800.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	830.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	900.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	930.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1000.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1030.	10.0	352.8	-1.	-1.	-1.
JULY	7.	1100.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1130.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1200.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1230.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1300.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1330.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1400.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1430.	10.0	382.2	-1.	-1.	-1.
JULY	7.	1500.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1530.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1600.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1630.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1700.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1730.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1800.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1830.	10.0	352.8	-1.	-1.	-1.
JULY	7.	1900.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	1930.	-1.0	-1.0	-1.	-1.	-1.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
JULY	7.	2000.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	2030.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	2100.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	2130.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	2200.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	2230.	10.0	352.8	-1.	-1.	-1.
JULY	7.	2300.	-1.0	-1.0	-1.	-1.	-1.
JULY	7.	2330.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	0.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	30.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	100.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	130.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	200.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	230.	10.0	352.8	-1.	-1.	-1.
JULY	8.	300.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	330.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	400.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	430.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	500.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	530.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	600.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	630.	10.0	352.8	-1.	-1.	-1.
JULY	8.	700.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	730.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	800.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	830.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	900.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	930.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1000.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1030.	10.0	352.8	-1.	-1.	-1.
JULY	8.	1100.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1130.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1200.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1230.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1300.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1330.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1400.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1430.	10.0	367.5	-1.	-1.	-1.
JULY	8.	1500.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1530.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1600.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1630.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1700.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1730.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1800.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1830.	10.0	352.8	-1.	-1.	-1.
JULY	8.	1900.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	1930.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	2000.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	2030.	-1.0	-1.0	-1.	-1.	-1.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
JULY	8.	2100.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	2130.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	2200.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	2230.	10.0	352.8	-1.	-1.	-1.
JULY	8.	2300.	-1.0	-1.0	-1.	-1.	-1.
JULY	8.	2330.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	0.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	30.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	100.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	130.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	200.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	230.	10.0	352.8	-1.	-1.	-1.
JULY	9.	300.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	330.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	400.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	430.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	500.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	530.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	600.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	630.	10.0	352.8	-1.	-1.	-1.
JULY	9.	700.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	730.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	800.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	830.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	900.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	930.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1000.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1030.	10.0	264.6	-1.	-1.	-1.
JULY	9.	1100.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1130.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1200.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1230.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1300.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1330.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1400.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1430.	10.0	485.1	-1.	-1.	-1.
JULY	9.	1500.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1530.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1600.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1630.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1700.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1730.	-1.0	-1.0	-1.	-1.	-1.
JULY	9.	1800.	-1.0	-1.0	-1.	-1.	-1.

LOCATION: Storage Chamber

KEY:

1. Month
2. Day
3. Time
4. Dissolved Oxygen (continuous), mg/l
5. Dissolved Oxygen (process meter), mg/l
6. Dissolved Oxygen (bench meter), mg/l
7. Air Flow (continuous), cfm
8. Air Flow (rotameter), cfm
9. Air Pressure, psi
10. Suspended Solids (laboratory), mg/l
11. Volatile Suspended Solids, mg/l
12. Chemical Oxygen Demand, mg/l

NOTE: A (-1) value designates missing data.

-1-	JULY	5.	1800.	9.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	1830.	9.0	4.6	2.8	121.0	9.8	6.2	-1.	-1.	-1.
	JULY	5.	1900.	9.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	1930.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	2000.	7.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	2470.	2843.
	JULY	5.	2030.	9.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	2100.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	2130.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	2200.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	2230.	8.0	2.2	1.3	120.0	8.5	6.3	-1.	-1.	-1.
	JULY	5.	2300.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	5.	2330.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
-2-	JULY	6.	0.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	30.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	100.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	130.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	200.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	230.	8.0	2.5	1.3	120.0	8.5	6.3	-1.	-1.	-1.
	JULY	6.	300.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	330.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	400.	7.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	430.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	500.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	530.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	600.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	630.	8.0	2.1	1.2	119.0	8.5	6.1	-1.	-1.	-1.
	JULY	6.	700.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	730.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	800.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	830.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	900.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	930.	8.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	1000.	7.0	-1.0	-1.0	119.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	1030.	7.0	1.9	1.0	119.0	8.5	6.3	-1.	-1.	-1.
	JULY	6.	1100.	7.0	-1.0	-1.0	118.0	-1.0	-1.0	-1.0	2920.	2990.
	JULY	6.	1130.	0.0	-1.0	-1.0	118.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	1200.	0.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.
	JULY	6.	1230.	8.0	-1.0	-1.0	120.0	-1.0	-1.0	-1.0	-1.	-1.

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-
JULY	7.	800.	200.0	-1.0	-1.0	128.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	830.	200.0	-1.0	-1.0	128.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	900.	200.0	-1.0	-1.0	128.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	930.	200.0	-1.0	-1.0	128.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1000.	200.0	-1.0	-1.0	128.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1030.	200.0	4.1	2.7	125.0	10.5	6.2	-1.0	-1.0	-1.0
JULY	7.	1100.	200.0	-1.0	-1.0	125.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1130.	200.0	-1.0	-1.0	125.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1200.	200.0	-1.0	-1.0	125.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1230.	200.0	-1.0	-1.0	125.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1300.	200.0	-1.0	-1.0	125.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1330.	200.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1400.	200.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1430.	200.0	4.2	2.8	124.0	9.5	6.2	-1.0	-1.0	-1.0
JULY	7.	1500.	200.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1530.	200.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1600.	200.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1630.	200.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1700.	24.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1730.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1800.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1830.	19.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1900.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1930.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2000.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2030.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2100.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2130.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2200.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2230.	19.0	0.0	1.5	123.0	8.5	6.3	-1.0	-1.0	-1.0
JULY	7.	2300.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2330.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	0.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	30.	21.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	100.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	130.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	200.	-1.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	230.	-1.0	0.0	1.5	124.0	8.5	6.3	-1.0	-1.0	-1.0
JULY	8.	300.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	JULY	8.	330.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-12-
-2-	JULY	8.	400.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-11-
-3-	JULY	8.	430.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-10-
-4-	JULY	8.	500.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-9-
-5-	JULY	8.	530.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-8-
-6-	JULY	8.	600.	-1.0	0.0	2.3	124.0	-1.0	-1.0	-1.	-7-
-7-	JULY	8.	630.	-1.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.	-6-
-8-	JULY	8.	700.	-1.0	-1.0	-1.0	123.0	-1.0	-1.0	-1.	-5-
-9-	JULY	8.	730.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-4-
-10-	JULY	8.	800.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-3-
-11-	JULY	8.	830.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-2-
-12-	JULY	8.	900.	-1.0	-1.0	-1.0	124.0	-1.0	-1.0	-1.	-1-
1-	JULY	8.	1030.	21.0	-1.0	1.6	123.0	8.5	6.3	-1.	2714.
2-	JULY	8.	1100.	61.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	1960.
3-	JULY	8.	1130.	63.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	2580.
4-	JULY	8.	1200.	69.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.
5-	JULY	8.	1230.	56.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.
6-	JULY	8.	1300.	58.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.
7-	JULY	8.	1330.	58.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.
8-	JULY	8.	1400.	60.0	-1.0	-1.0	132.0	-1.0	-1.0	-1.	-1.
9-	JULY	8.	1430.	58.0	-1.0	2.8	132.0	-1.0	-1.0	-1.	-1.
10-	JULY	8.	1500.	44.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
11-	JULY	8.	1530.	43.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
12-	JULY	8.	1600.	61.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
13-	JULY	8.	1630.	60.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
14-	JULY	8.	1700.	59.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
15-	JULY	8.	1730.	61.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
16-	JULY	8.	1800.	63.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
17-	JULY	8.	1830.	55.0	1.9	1.2	129.0	10.5	6.1	-1.	-1.
18-	JULY	8.	1900.	54.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
19-	JULY	8.	1930.	56.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
20-	JULY	8.	2000.	52.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	2680.
21-	JULY	8.	2030.	49.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
22-	JULY	8.	2100.	50.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
23-	JULY	8.	2130.	50.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
24-	JULY	8.	2200.	47.0	-1.0	-1.0	129.0	-1.0	-1.0	-1.	-1.
25-	JULY	8.	2230.	46.0	1.3	2.0	129.0	-1.0	-1.0	-1.	-1.

-1-	JULY	9.	1630.	64.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1530.	66.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1600.	-1.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1430.	48.0	2.1	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1500.	66.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1330.	46.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1230.	62.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1300.	63.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1200.	65.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1130.	67.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	1030.	66.0	1.8	3.1	121.0	11.5	6.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	900.	20.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	830.	62.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	800.	62.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	630.	51.0	1.5	2.9	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	700.	54.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	530.	56.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	400.	55.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	430.	57.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	500.	58.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	330.	46.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	300.	47.0	-1.0	121.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	100.	53.0	-1.0	129.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	30.	50.0	-1.0	129.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	9.	49.0	-1.0	129.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	9.	0.	45.0	-1.0	129.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	8.	2330.	47.0	-1.0	129.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-	JULY	8.	2300.	47.0	-1.0	129.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
-1-															

3244.

2140.

2770.

3244.

LOCATION: Effluent

KEY:

1. Month
2. Day
3. Time
4. Turbidity (continuous), JTU
5. Turbidity (laboratory), JTU
6. TOC (continuous), mg/l
7. TOC (laboratory), mg/l
8. Soluble TOC (laboratory), mg/l
9. COD (laboratory), mg/l
10. Soluble COD (laboratory), mg/l
11. BOD, mg/l
12. Soluble BOD, mg/l
13. Total Phosphorus, mg/l
14. Suspended Solids (laboratory), mg/l
15. Volatile Suspended Solids (laboratory), mg/l

NOTE: A (-1) value designates missing data.

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
JULY	5.	1800.	38.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
JULY	5.	1830.	39.0	3.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5.	1900.	40.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	4.0
JULY	5.	1930.	38.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5.	2000.	38.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
JULY	5.	2030.	37.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5.	2100.	37.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	3.0
JULY	5.	2130.	37.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5.	2200.	36.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	3.0
JULY	5.	2230.	35.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	5.	2300.	33.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
JULY	5.	2330.	32.0	-1.0	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	0.	30.0	-1.0	16.0	9.8	7.4	26.7	21.0	13.8	3.4	11.1	6.0	5.0		
JULY	6.	30.	30.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	100.	32.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
JULY	6.	130.	32.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	200.	33.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	3.0
JULY	6.	230.	33.5	3.5	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	300.	32.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
JULY	6.	330.	32.5	-1.0	14.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	400.	33.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	5.0
JULY	6.	430.	32.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	500.	31.5	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
JULY	6.	530.	32.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	600.	29.0	-1.0	16.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
JULY	6.	630.	28.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	700.	27.5	-1.0	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
JULY	6.	730.	26.5	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	800.	31.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
JULY	6.	830.	26.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	900.	25.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
JULY	6.	930.	24.5	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	1000.	25.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	4.0
JULY	6.	1030.	-1.0	2.3	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	1100.	-1.0	-1.0	4.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	4.0
JULY	6.	1130.	-1.0	-1.0	0.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	1200.	-1.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
JULY	6.	1230.	-1.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
JULY	6.	1300.	-1.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
JULY	6.	1330.	55.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	6.	1400.	59.0	-1.0	10.0	7.4	6.1	23.7	16.5	10.6	1.3	8.9	5.0	4.0		
JULY	6.	1430.	64.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1500.	67.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1530.	65.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1600.	67.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1630.	69.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1700.	73.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1730.	75.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1800.	76.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1830.	78.0	5.8	14.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1900.	78.0	5.8	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	1930.	76.0	5.8	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2000.	90.0	5.8	15.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2030.	79.0	5.8	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2100.	78.0	5.8	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2130.	78.0	5.8	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2200.	80.0	5.8	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2230.	77.0	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2300.	76.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	6.	2330.	76.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	0.	78.0	-1.0	13.5	10.7	12.8	35.4	27.5	15.4	0.8	11.2	9.0	6.0		
JULY	7.	30.	78.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	100.	78.0	-1.0	14.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	130.	81.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	200.	82.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	230.	85.0	3.7	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	300.	86.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	330.	88.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	400.	86.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	430.	86.0	-1.0	15.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	500.	86.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	530.	77.5	-1.0	18.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	600.	78.0	-1.0	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	630.	71.5	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		
JULY	7.	700.	72.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0		

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
JULY	7.	730.	65.0	-11.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	800.	60.0	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	830.	56.5	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	900.	53.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	930.	-1.0	-1.0	14.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1000.	-1.0	-1.0	23.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1030.	-1.0	3.3	3.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1100.	-1.0	-1.0	3.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1130.	-1.0	-1.0	0.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1230.	47.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1300.	50.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1330.	55.5	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1400.	59.0	-1.0	12.0	12.0	10.7	30.7	32.0	7.0	3.6	5.8	4.0	3.0	3.0	3.0
JULY	7.	1430.	59.5	-1.0	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1500.	62.0	-1.0	13.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1530.	65.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1600.	65.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1630.	65.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1700.	65.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1730.	77.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1800.	78.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1830.	78.0	3.5	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1900.	81.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	1930.	80.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2000.	77.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2030.	81.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2100.	78.5	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2130.	75.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2200.	75.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2230.	74.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2300.	73.5	-1.0	12.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	7.	2330.	73.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	0.	74.0	-1.0	12.0	9.0	11.0	31.3	26.2	6.8	2.1	8.4	3.0	2.0	2.0	2.0
JULY	8.	30.	75.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	100.	74.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	130.	74.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	200.	81.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	230.	81.5	4.8	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	300.	77.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
JULY	8.	330.	78.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	400.	75.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	430.	85.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	500.	74.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	530.	66.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	600.	67.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	630.	65.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	700.	65.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	730.	66.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	800.	63.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	830.	59.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	900.	55.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	930.	-1.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1000.	-1.0	-1.0	3.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1030.	-1.0	-1.0	3.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1100.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1130.	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1200.	-1.0	-1.0	7.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1230.	-1.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1300.	-1.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1330.	-1.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1400.	-1.0	-1.0	9.0	10.8	9.8	27.4	24.1	10.9	2.4	7.5	5.0	4.0	4.0	4.0
JULY	8.	1430.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1500.	-1.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1530.	-1.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1600.	60.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1630.	57.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1700.	58.0	-1.0	9.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1730.	59.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1800.	57.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1830.	54.0	4.5	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1900.	57.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	1930.	56.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2000.	53.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2030.	53.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2100.	59.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2130.	56.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2200.	58.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	8.	2230.	57.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	-12-	-13-	-14-	-15-
JULY	8.	2300.	55.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	3.0
JULY	8.	2330.	53.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	0.	58.0	-1.0	11.5	10.2	14.8	32.6	29.9	9.0	4.2	10.4	6.0	4.0
JULY	9.	30.	56.0	-1.0	12.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	100.	54.5	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	6.0
JULY	9.	130.	55.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	200.	57.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	5.0
JULY	9.	230.	65.0	4.3	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	300.	61.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	7.0	4.0
JULY	9.	330.	61.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	400.	65.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
JULY	9.	430.	56.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	500.	60.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	530.	54.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	600.	55.0	-1.0	10.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
JULY	9.	630.	52.0	-1.0	13.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	700.	50.0	-1.0	11.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	4.0
JULY	9.	730.	55.0	-1.0	11.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	800.	55.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
JULY	9.	830.	44.0	-1.0	9.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	900.	45.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	5.0	3.0
JULY	9.	930.	-1.0	-1.0	7.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1000.	-1.0	-1.0	2.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	6.0	5.0
JULY	9.	1030.	-1.0	2.8	0.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1100.	-1.0	-1.0	20.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	3.0
JULY	9.	1130.	-1.0	-1.0	7.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1200.	-1.0	-1.0	7.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	8.0	4.0
JULY	9.	1230.	54.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1300.	63.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
JULY	9.	1330.	62.0	-1.0	10.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1400.	66.0	-1.0	8.5	10.0	6.5	24.5	24.5	8.8	7.5	4.0	3.0	2.0
JULY	9.	1430.	74.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1500.	80.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	3.0
JULY	9.	1530.	88.0	-1.0	8.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1600.	85.0	-1.0	7.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	3.0	2.0
JULY	9.	1630.	83.0	-1.0	7.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1700.	90.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	4.0
JULY	9.	1730.	90.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
JULY	9.	1800.	95.0	-1.0	8.5	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	4.0	3.0

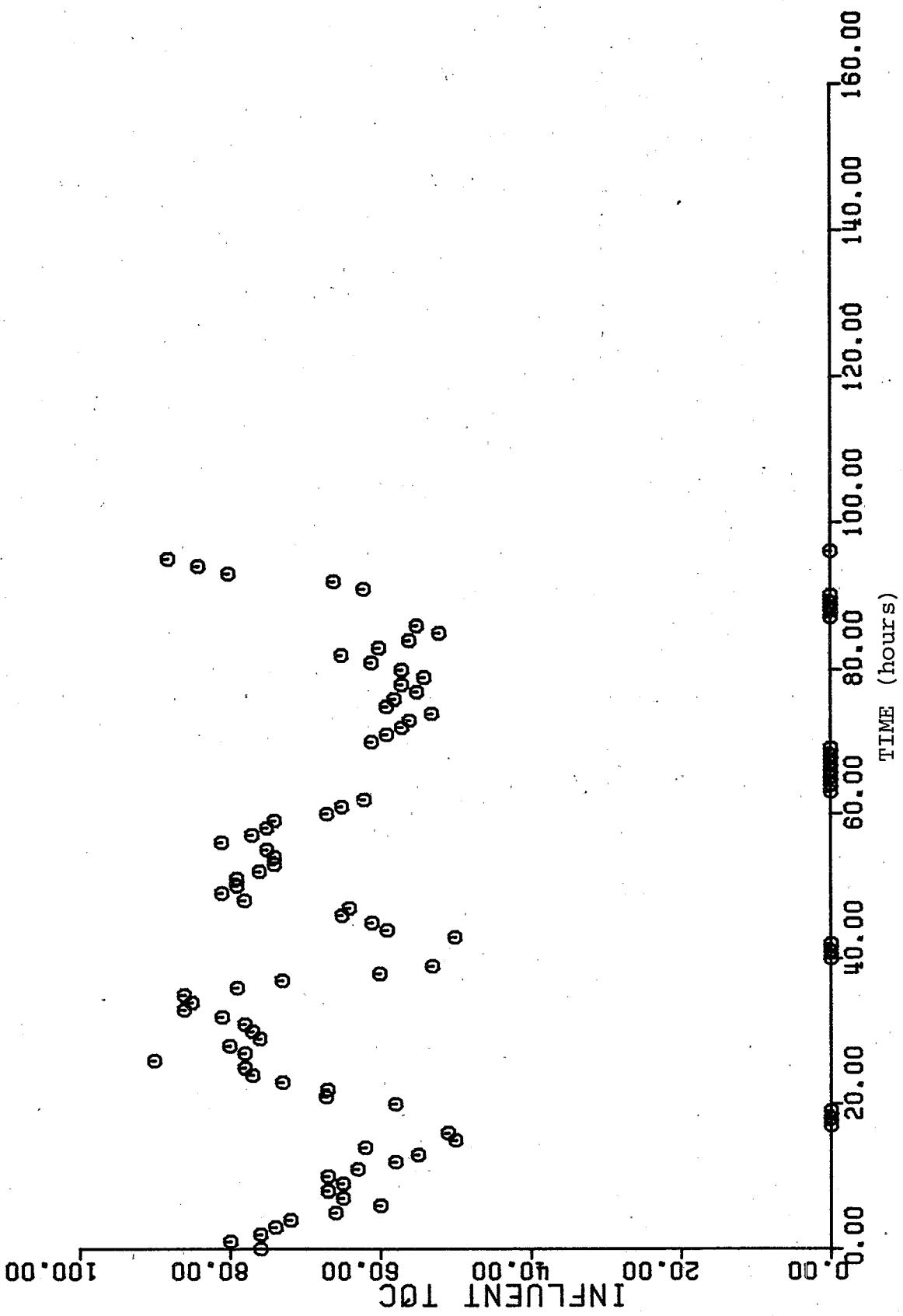


FIGURE D-1. Influent TOC (mg/l) vs. Time (hours) for Constant Loading Pilot Study

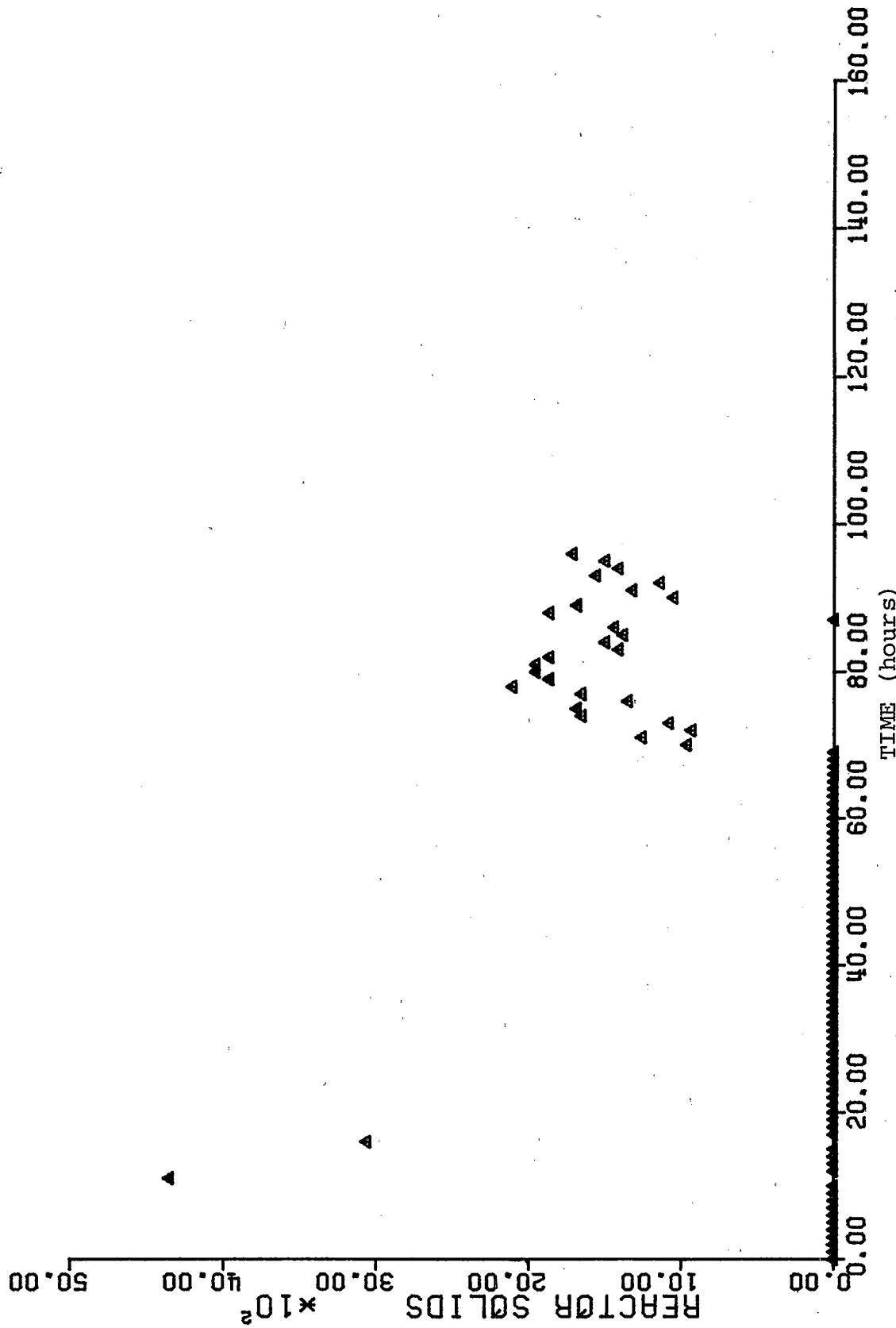


FIGURE D-2. Mixed Liquor Suspended Solids (mg/l) vs. Time (hours)
for Constant Loading Pilot Study

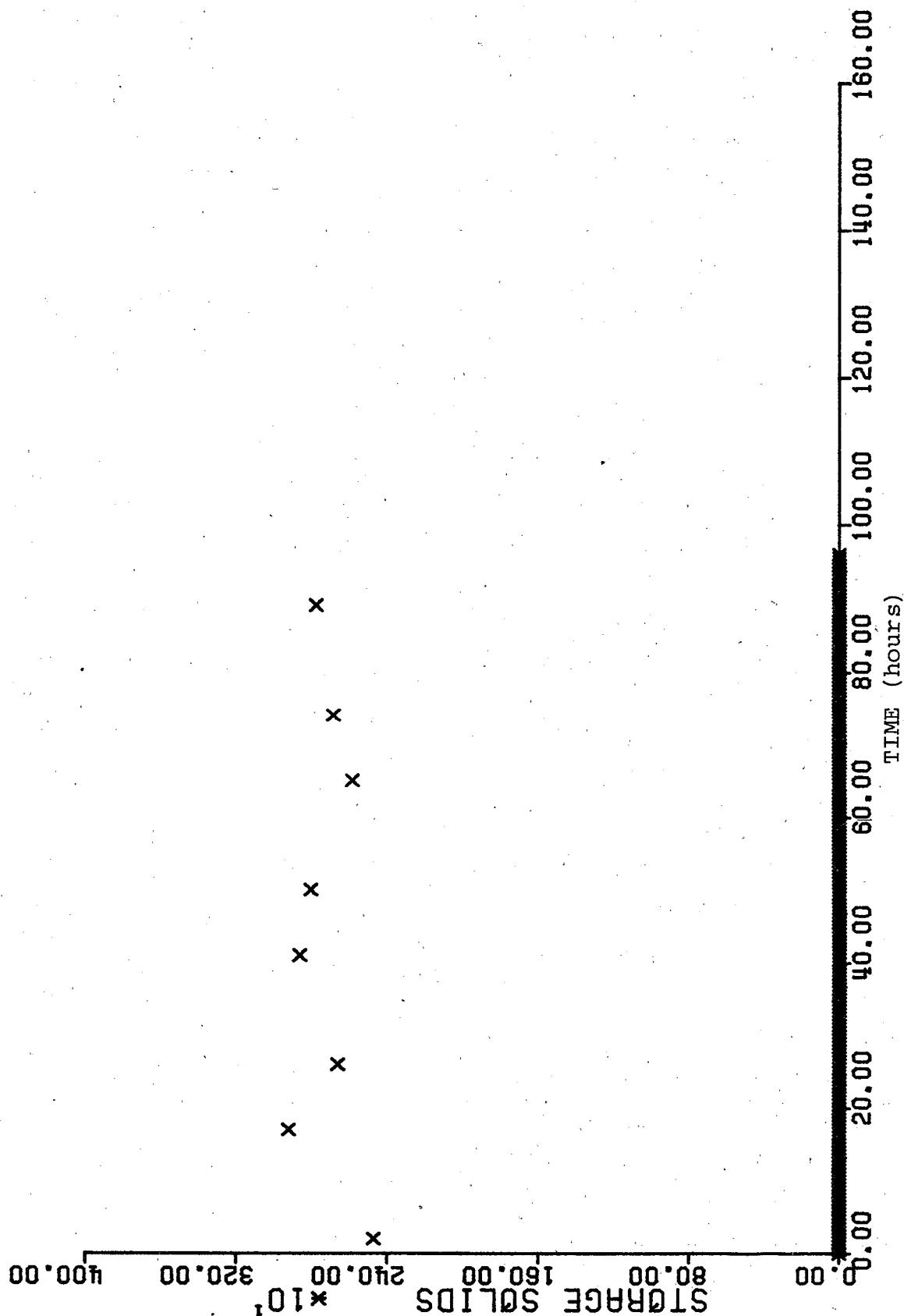


FIGURE D-3. Storage Chamber Suspended Solids (mg/l) vs. Time (hours)
for Constant Loading Pilot Study

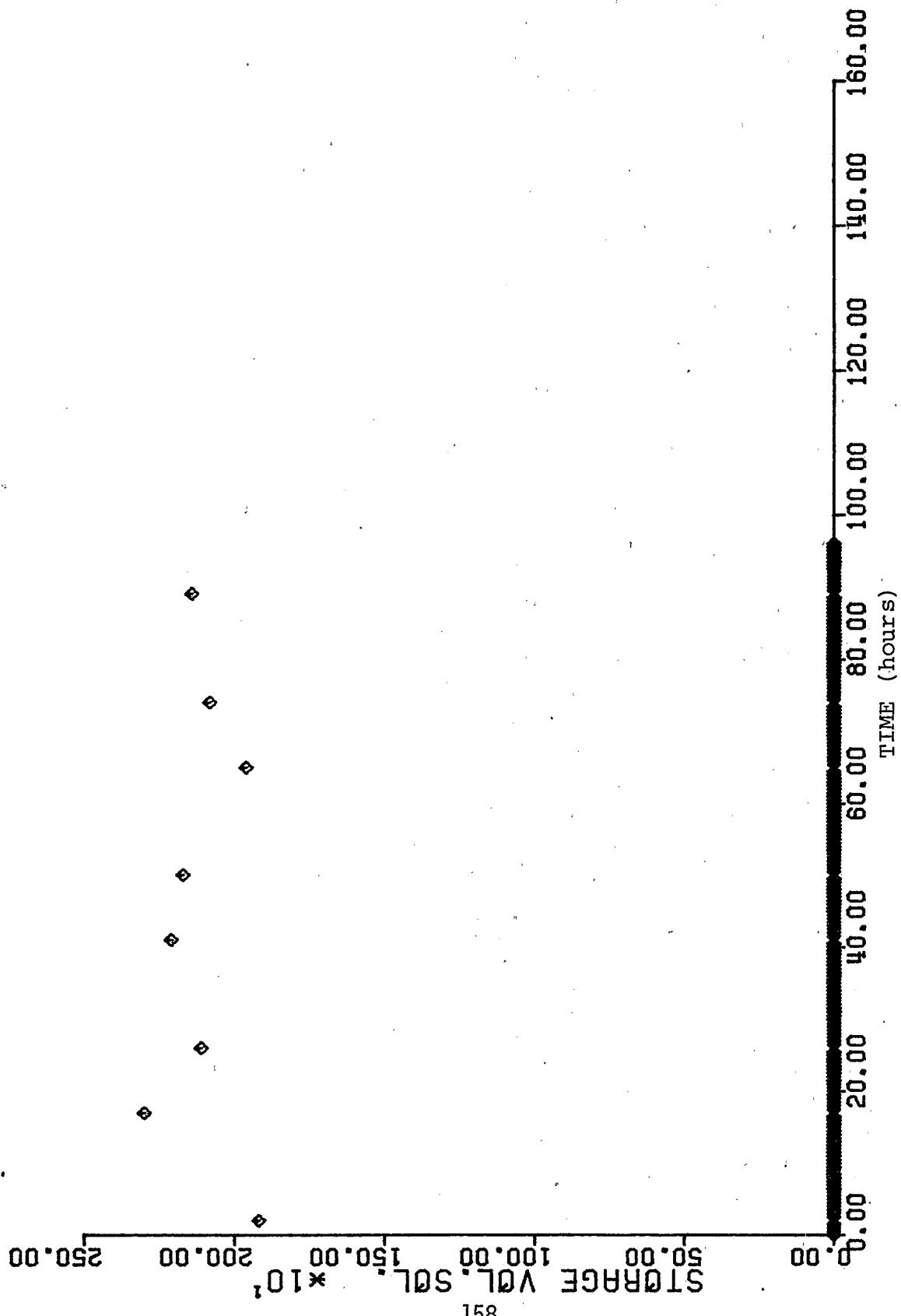


FIGURE D-4. Storage Chamber Volatile Suspended Solids (mg/l) vs. Time (hours)
for Constant Loading Pilot Study

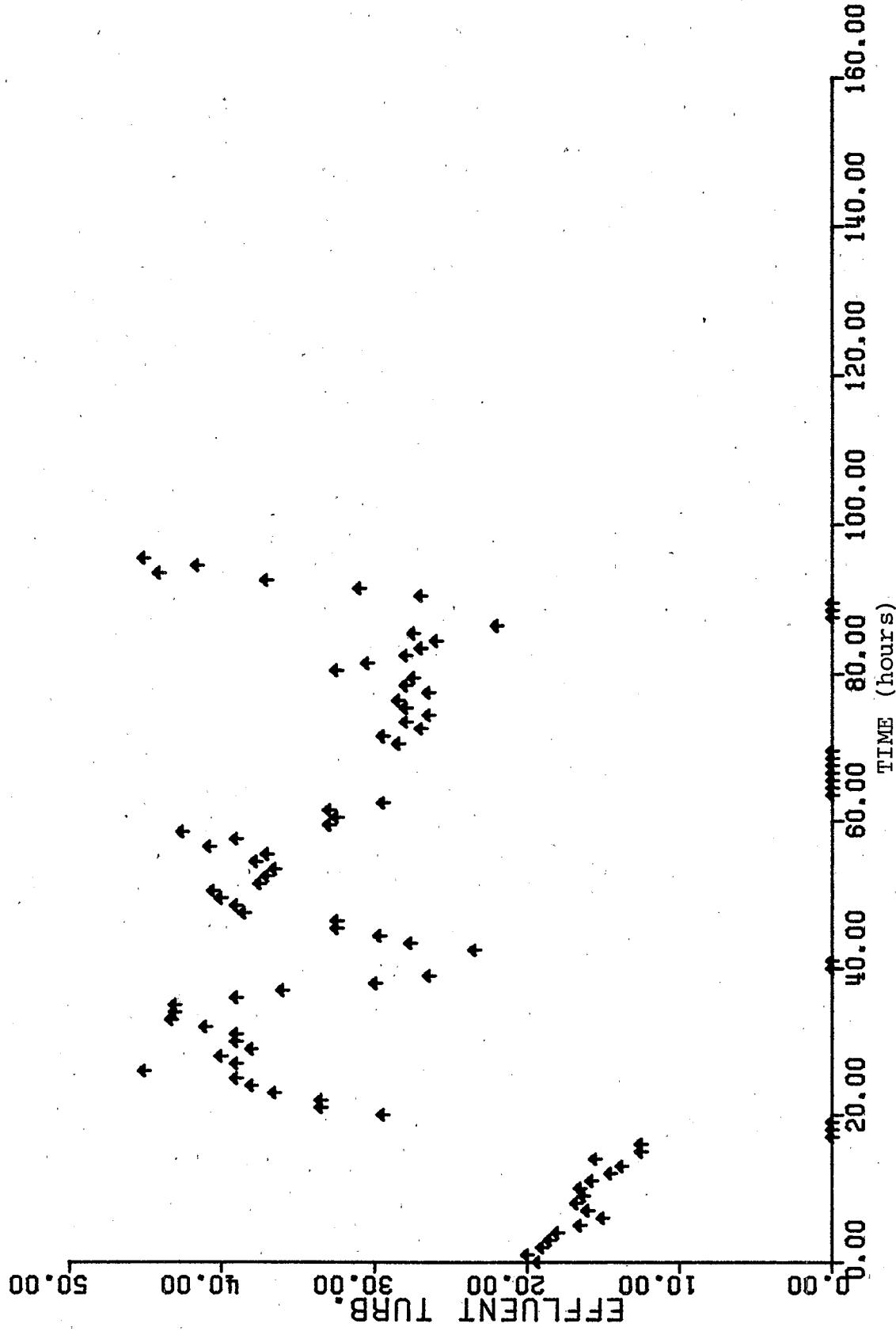


FIGURE D-5. Effluent Turbidity (JTU) vs. Time (hours)
for Constant Loading Pilot Study

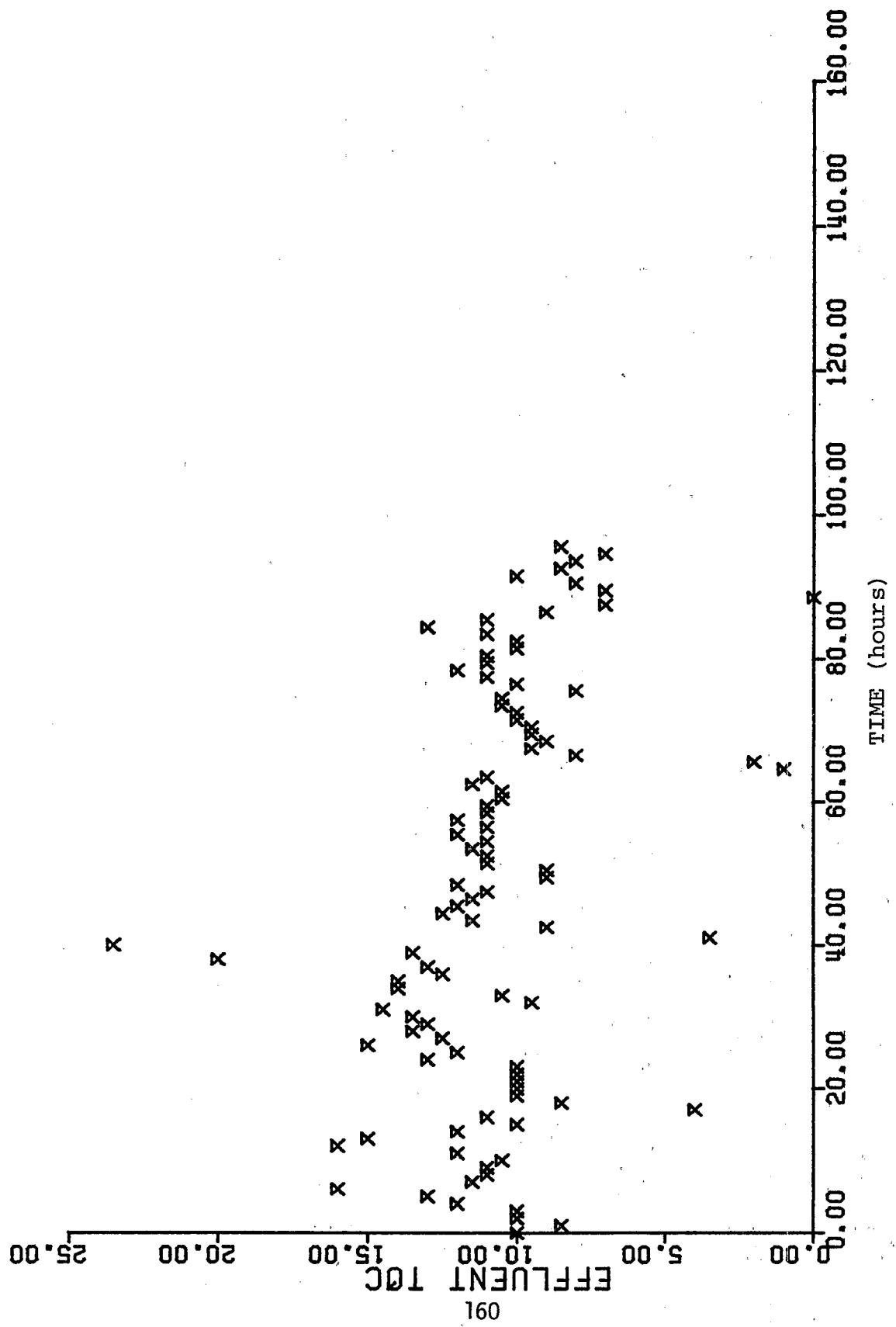


FIGURE D-6. Effluent TOC (mg/l) vs. Time (hours)
for Constant Loading Pilot Study

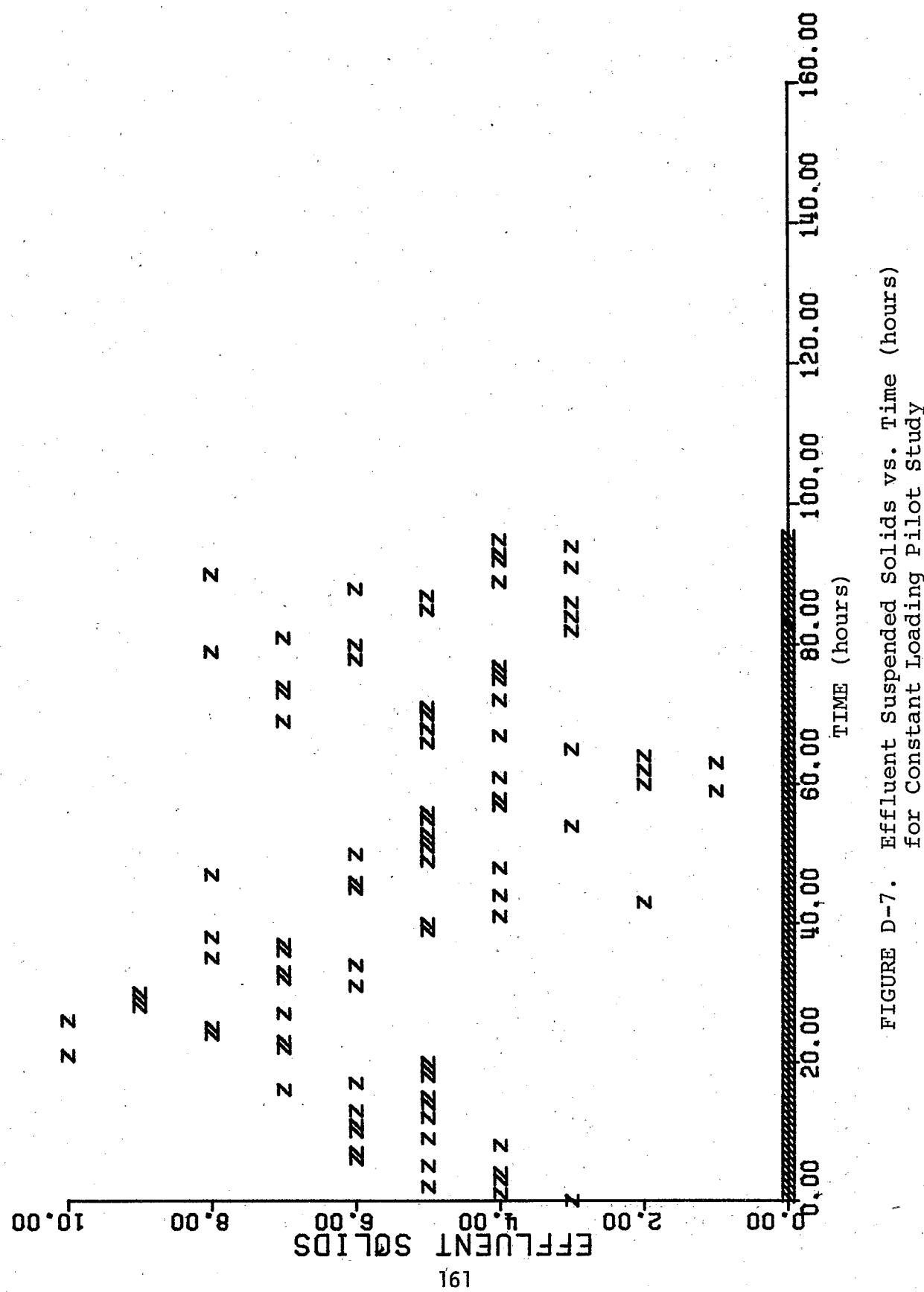


FIGURE D-7. Effluent Suspended Solids vs. Time (hours)
for Constant Loading Pilot Study

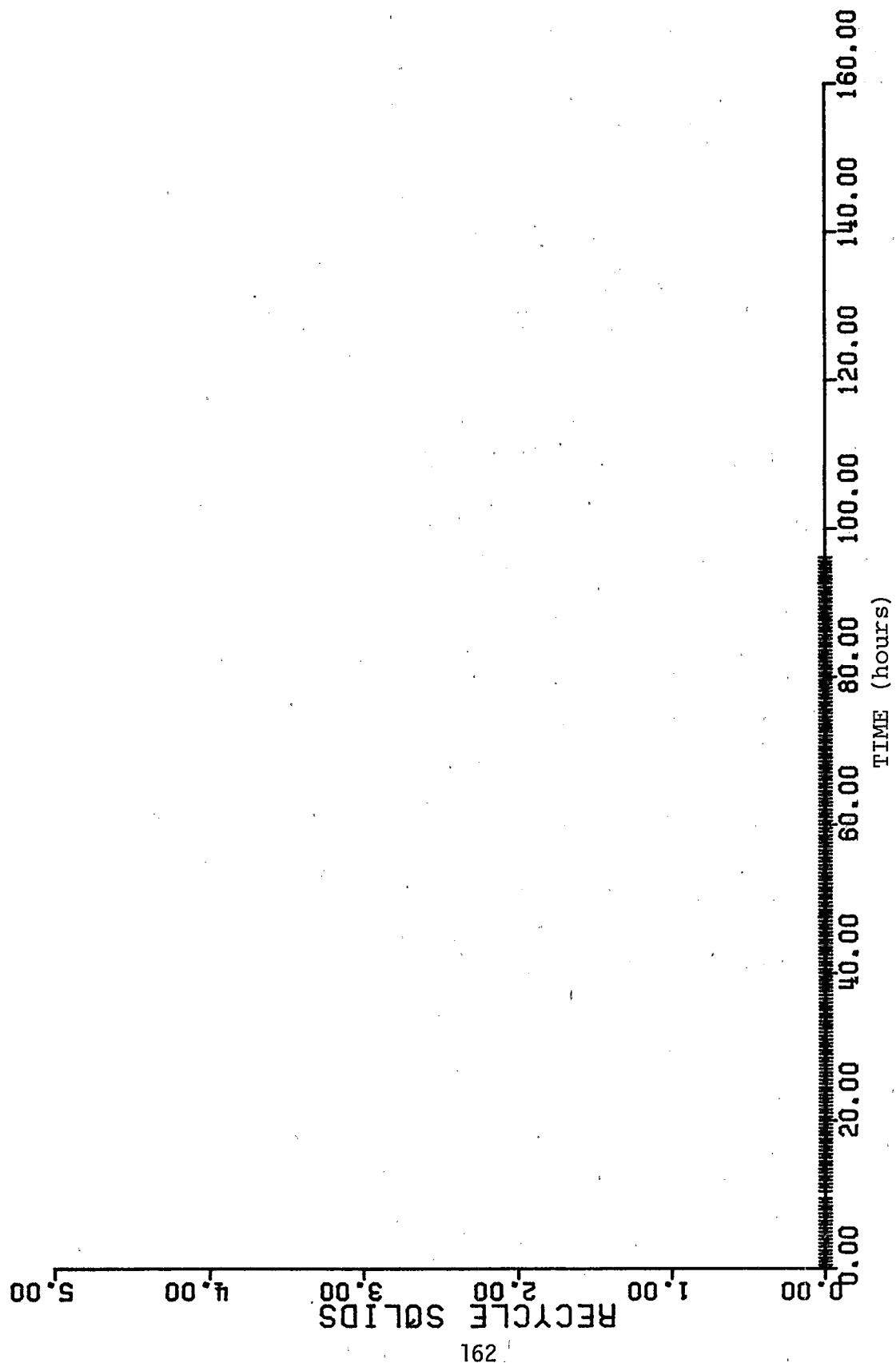
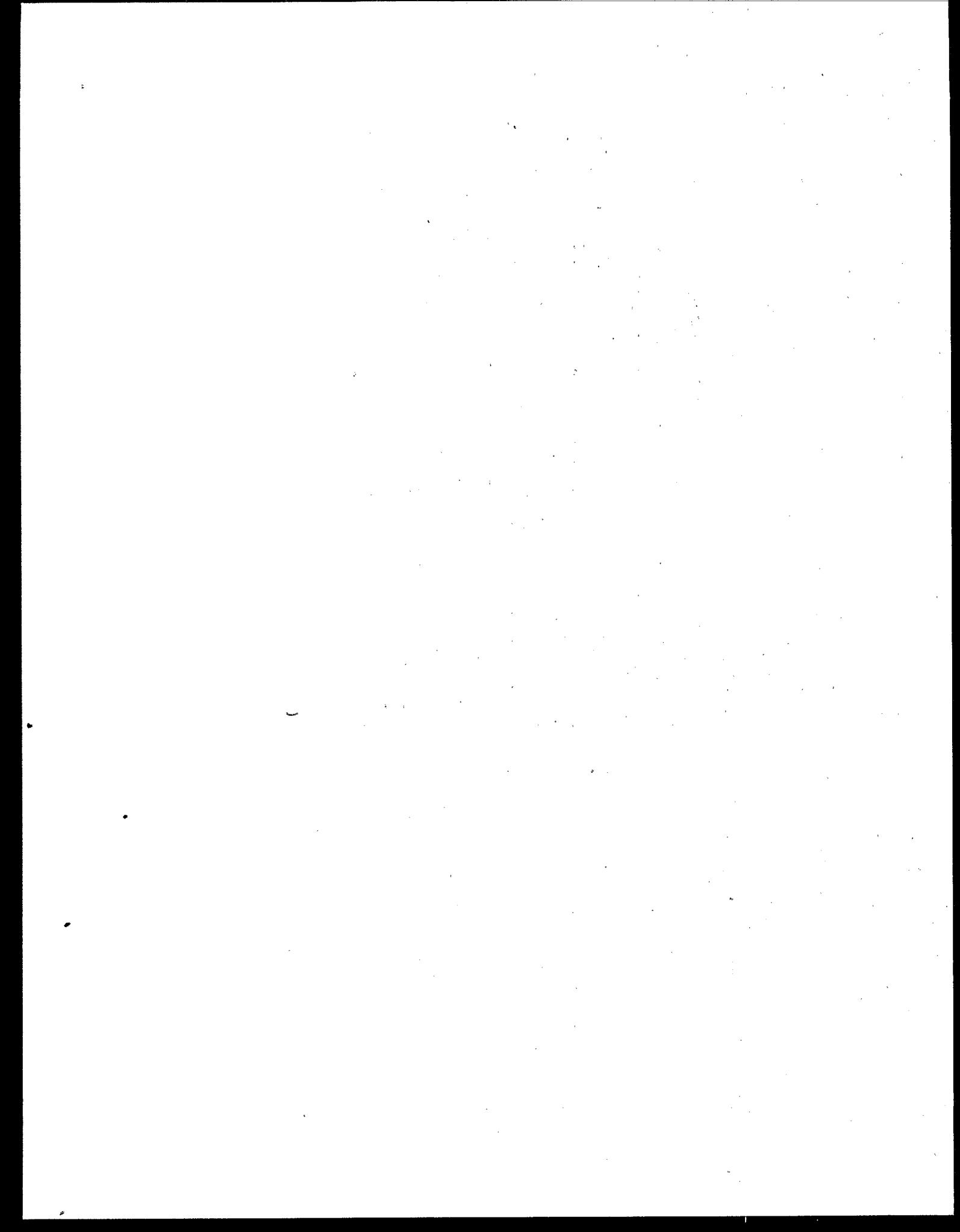
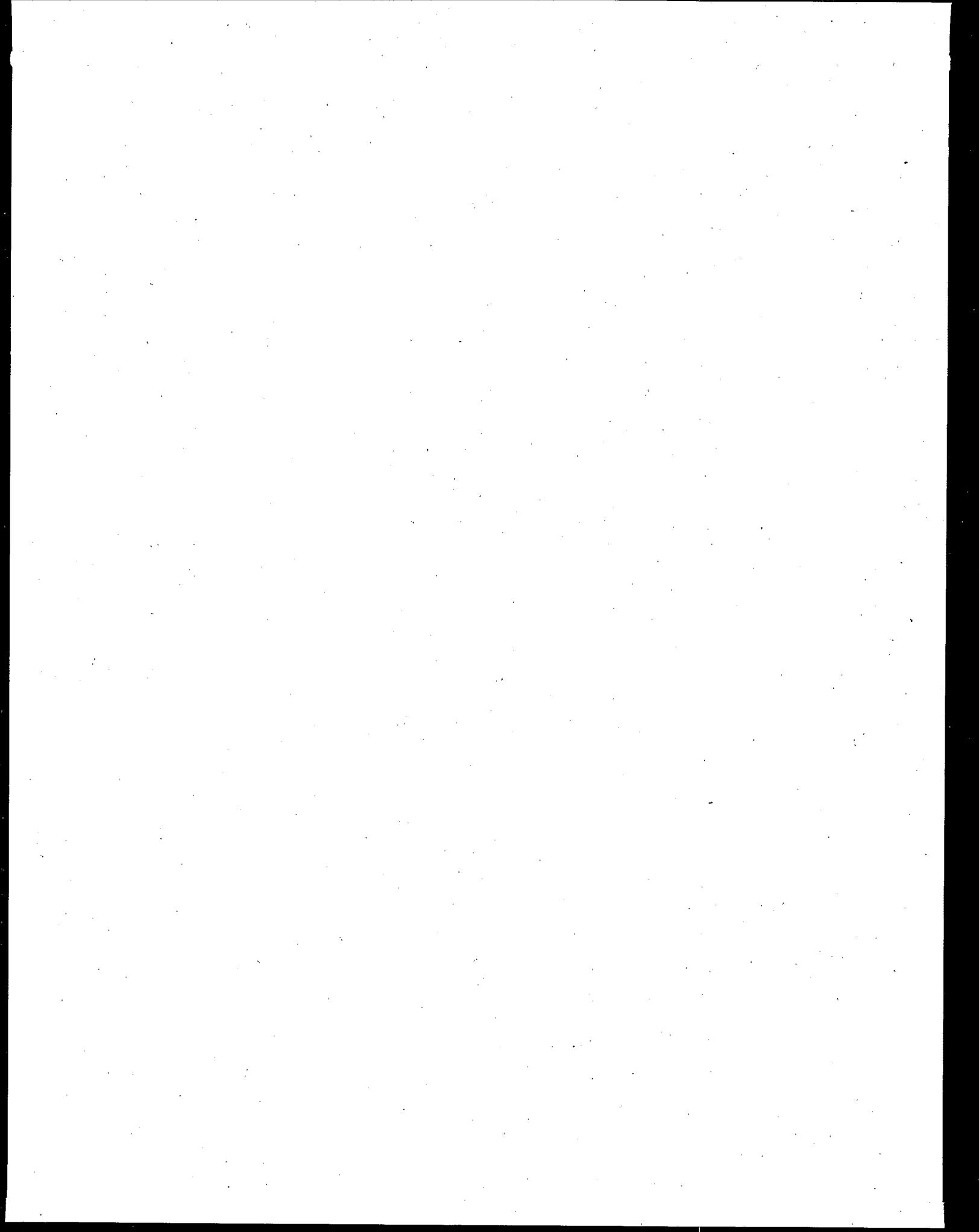


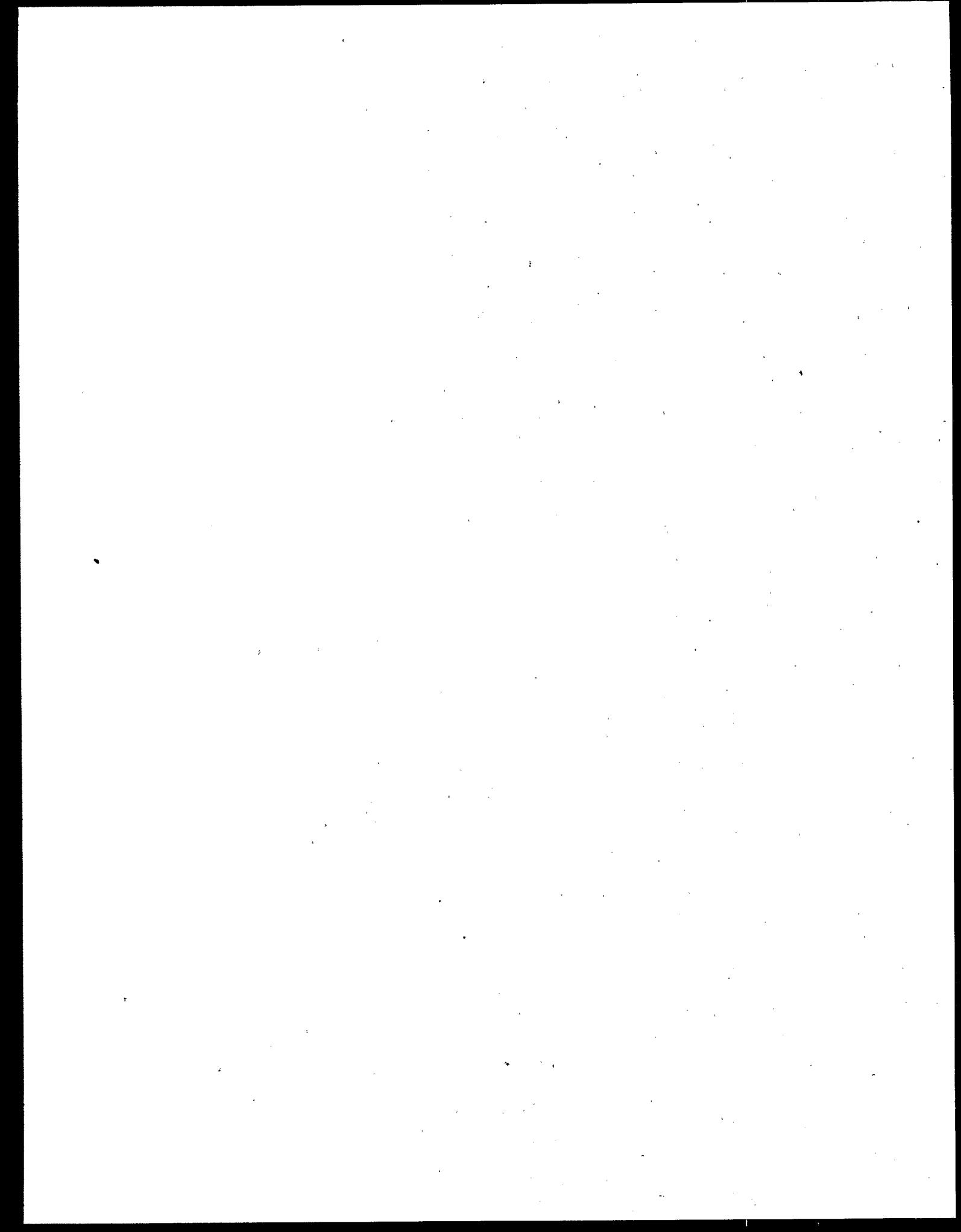
FIGURE D-8. Recycle Suspended Solids (mg/l) vs. Time (hours)
for Constant Loading Pilot Study

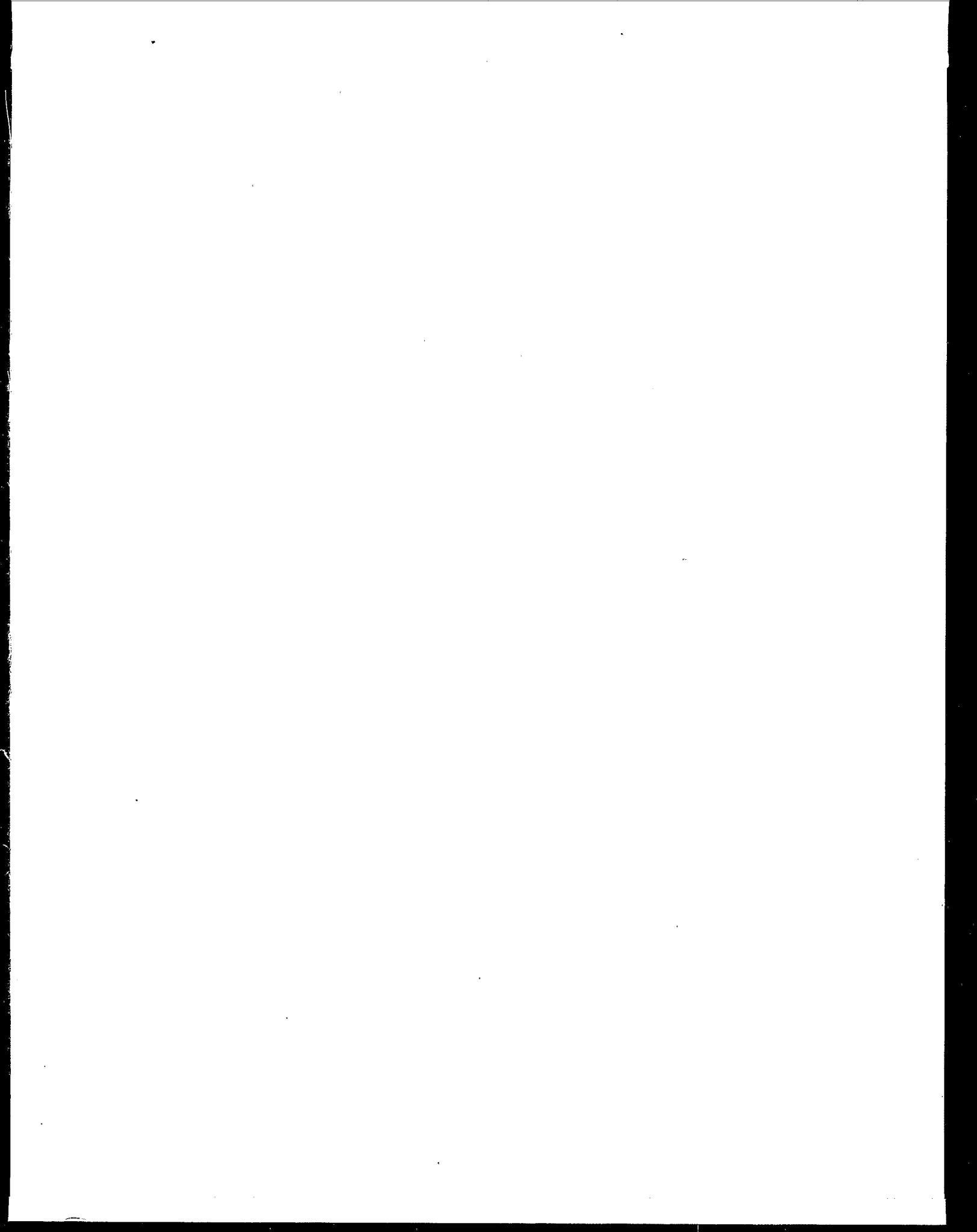
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16. ABSTRACT The focus of this research centers on strategies to control both mean solids retention time (MSRT) and food to microorganism ratio (F/M). Two solids inventory control strategies were examined: (1) control of the recycle flow rate when provision has been made for a fixed volume storage chamber; and (2) control of the recycle flow rate when provision has been made for a variable volume storage chamber. Both strategies were evaluated by simulation using a structured model. The first strategy was also evaluated through a pilot study conducted at the Blue Plains Pilot Waste Treatment Facility. The pilot plant investigation was conducted in two phases. The first was an uncontrolled study to establish base-line conditions. The second phase was the actual application of the control strategy. Extensive data collection allowed comparison of the two studies and evaluation of the utility of the control strategy.		
17. KEY WORDS AND DOCUMENT ANALYSIS		
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