

DISSOLVED OXYGEN STUDY OF LOWER LAKE  
WISCONSIN 1996 - 1997

VOLUME I

OLIN CORPORATION WINCHESTER DIVISION  
BADGER ARMY AMMUNITION PLANT  
OCTOBER 30, 1997

**TABLE OF CONTENTS**

**VOLUME I**

**I. ABSTRACT** ..... Page 1

**II. BACKGROUND** ..... Page 1

**III. INTRODUCTION** ..... Page 3

**IV. METHODOLOGY** ..... Page 4

- A. Profile Sampling** ..... Page 4
  - 1. Lake Wisconsin Measurements ..... Page 4
  - 2. Measurements Below the WP&L Dam ..... Page 6
- B. Continuous Monitoring** ..... Page 6
  - 1. Placement of dissolved oxygen probe ..... Page 6
  - 2. Instrument calibration and maintenance ..... Page 7
- C. Chemical Sampling** ..... Page 8

**V. OBSERVATIONS**  
..... Page 8

**APPENDIX A**

**Profile Sampling Dissolved Oxygen and Temperature Data Tables**

- 1. Lake Wisconsin D.O. Readings Summer 1996
- 2. Lake Wisconsin D.O. Readings Summer 1997
- 3. Below WP&L Dam D.O. Readings Summer 1996
- 4. Below WP&L Dam D.O. Readings Summer 1997
- 5. Lake Wisconsin D.O. Readings Sept-96 through May-97

**APPENDIX B**

**Profile Sampling Dissolved Oxygen and Temperature Graphs**

- 1. Lake Wisconsin D.O. Readings Summer 1996
- 2. Lake Wisconsin D.O. Readings Summer 1997
- 3. Below WP&L Dam D.O. Readings Summer 1996
- 4. Below WP&L Dam D.O. Readings Summer 1997
- 5. Lake Wisconsin D.O. Readings Sept-96 through May 97

## **TABLE OF CONTENTS**

### **VOLUME II**

#### **APPENDIX C**

**Continuous Monitoring Dissolved Oxygen and Temperature Data Tables**

#### **APPENDIX D**

**Continuous Monitoring Dissolved Oxygen and Temperature Graphs**

- 1. July, August, September 1996**
- 2. June, July, August 1997**

#### **APPENDIX E**

**Chemical Data Laboratory Reports and Graphs**

#### **APPENDIX F**

**Equipment Lists and Settings**

- 1. Profile Sampling**
- 2. Continuous Monitoring**

#### **APPENDIX G**

**Dissolved Oxygen Study of Lake Wisconsin - 1994 & 1995**

#### **APPENDIX H**

**Lake Wisconsin Profile Weather Observations**

#### **APPENDIX I**

**Photographs**

## I. ABSTRACT

The Badger Army Ammunition Plant (BAAP) conducted a dissolved oxygen study of lower Lake Wisconsin and the Wisconsin River during the period from June of 1996 through September of 1997. The study comprised the following elements:

- A. Frequent dissolved oxygen and temperature measurements from a boat at thirteen locations spanning the area between the BAAP IRM/MIRM discharge and the Wisconsin Power and Light (WP&L) dam. The measurements at each location were taken vertically at two foot intervals beginning at the lake surface and continuing to the lake bottom. These measurements are described in the report as profile sampling.
- B. Continuous monitoring of dissolved oxygen (D.O.) and temperature occurred during the summer months of 1996 and 1997. A continuous D.O. and temperature monitor was installed at the WP&L dam. The probe was placed at a 14 foot depth below the wall of the dam and in front of a running turbine to ensure that it was not in stagnant water.
- C. Determination of chemical background levels in Lake Wisconsin. Lake water samples were taken for chemical analysis of BOD, D.O., total kjeldahl nitrogen, ammonia nitrogen, nitrate-nitrite as N, total phosphorous and chlorophyl A.
- D. During periods of low dissolved oxygen in Lake Wisconsin profile sampling was conducted below the WP&L dam to determine D.O. recovery distance in the Wisconsin River.

It is not the intent of this report to interpret data collected during the study. The report is merely intended as a presentation of the data. No efforts have been made to draw conclusions based on the data. Observations have been added to the narrative to assist the reader in assessing the data. One such observation was that the dissolved oxygen level, at the continuous D.O. monitor, did fall below the 5.0 mg/L level on occasion but for the vast majority of the study period the D.O. was well above 5.0 mg/L. All collected data has been presented both in tables and graphs.

## II. BACKGROUND

Over the past sixteen months Badger Army Ammunition Plant (BAAP) has been conducting a survey of dissolved oxygen (D.O.) levels in Lake Wisconsin. The survey was a condition of the WPDES discharge permit issued by the WDNR to BAAP in March of 1996. The permit indicated that should BAAP wish to pursue a surface water discharge for its treated sanitary and industrial effluents, a complete D.O. survey would first be required. The results of the survey would then be used in the consideration of a Lake Wisconsin discharge. BAAP elected to complete the dissolved oxygen study to hold open the possibility of a surface water discharge.

BAAP currently discharges approximately 4.6 million gallons of carbon treated, highly oxygenated groundwater to Lake Wisconsin on a daily basis via a 36 inch pipeline. This discharge originates from the IRM/MIRM groundwater remediation system. If approved, any future discharge of treated wastewater to Lake Wisconsin would take place in the vicinity of the IRM/MIRM discharge and would likely utilize the same discharge pipe. For this reason the D.O. survey focused on the area of Lake Wisconsin at and immediately below the current discharge point (See Map I).

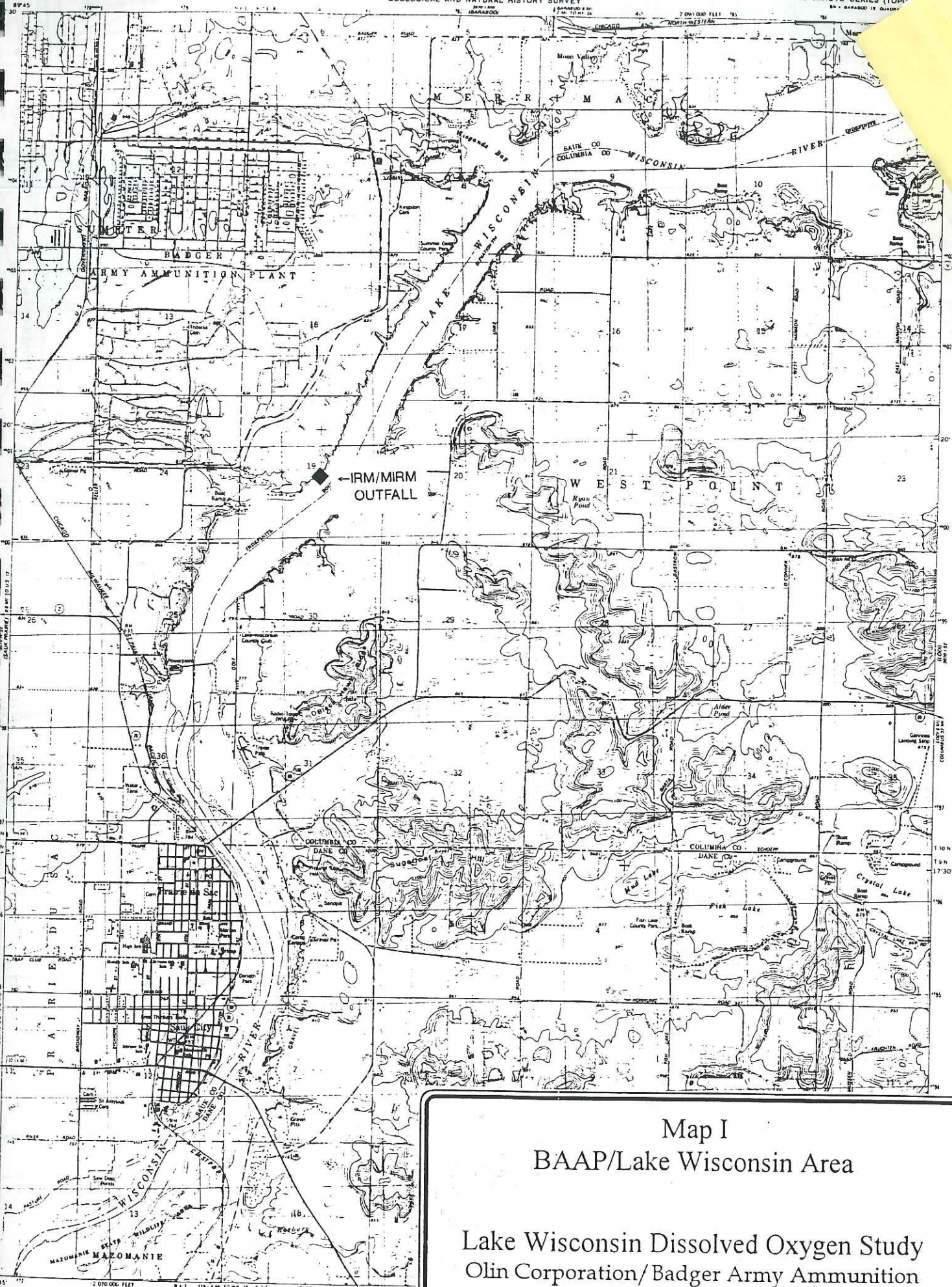
The study was started in June of 1996 and was completed in September of 1997. The study combined the following elements:

- Frequent D.O. and temperature profile measurement from a boat at thirteen locations on Lake Wisconsin (See Map II).
- Continuous D.O. measurement from the Wisconsin Power and Light (WP&L) power dam during the summer months.
- Background chemical sampling of Lake Wisconsin.

In 1992 BAAP began exploring the possibility of discharging all of its treated effluents to Lake Wisconsin rather than the current groundwater discharge. The primary rationale behind this proposed change was that surface water discharges are not subject to the low nitrogen effluent limitations that are imposed on groundwater dischargers. In addition, BAAP's primary mission is to maintain a condition of readiness so that in the event the plant would need to be activated, it could be in a timely manner. BAAP would clearly not be allowed to discharge to groundwater under a production scenario due to the large volume of wastewater which would be produced. It is believed that in the event of plant startup it would be quicker and easier to modify an existing surface water discharge permit than to completely re-write a groundwater discharge permit to account for surface water discharge.

In 1993 BAAP began work on a WPDES permit application for its sanitary, industrial and IRM/MIRM effluents. This permit application was to include provisions for surface water discharge of all treated effluents to Lake Wisconsin. A study conducted by Mead & Hunt, Inc. in 1992 and published in April of 1994, titled "Prairie du Sac Hydroelectric Project," indicated that at several locations the dissolved oxygen levels in Lake Wisconsin at times degraded to below 5 mg/L. Continuous monitoring during the study indicated that dissolved oxygen levels dropped to below 5 mg/L for days at a time during the summer months. In light of the Mead & Hunt study, the WDNR expressed reservations about further discharges to the Lake and asked BAAP to collect additional data.

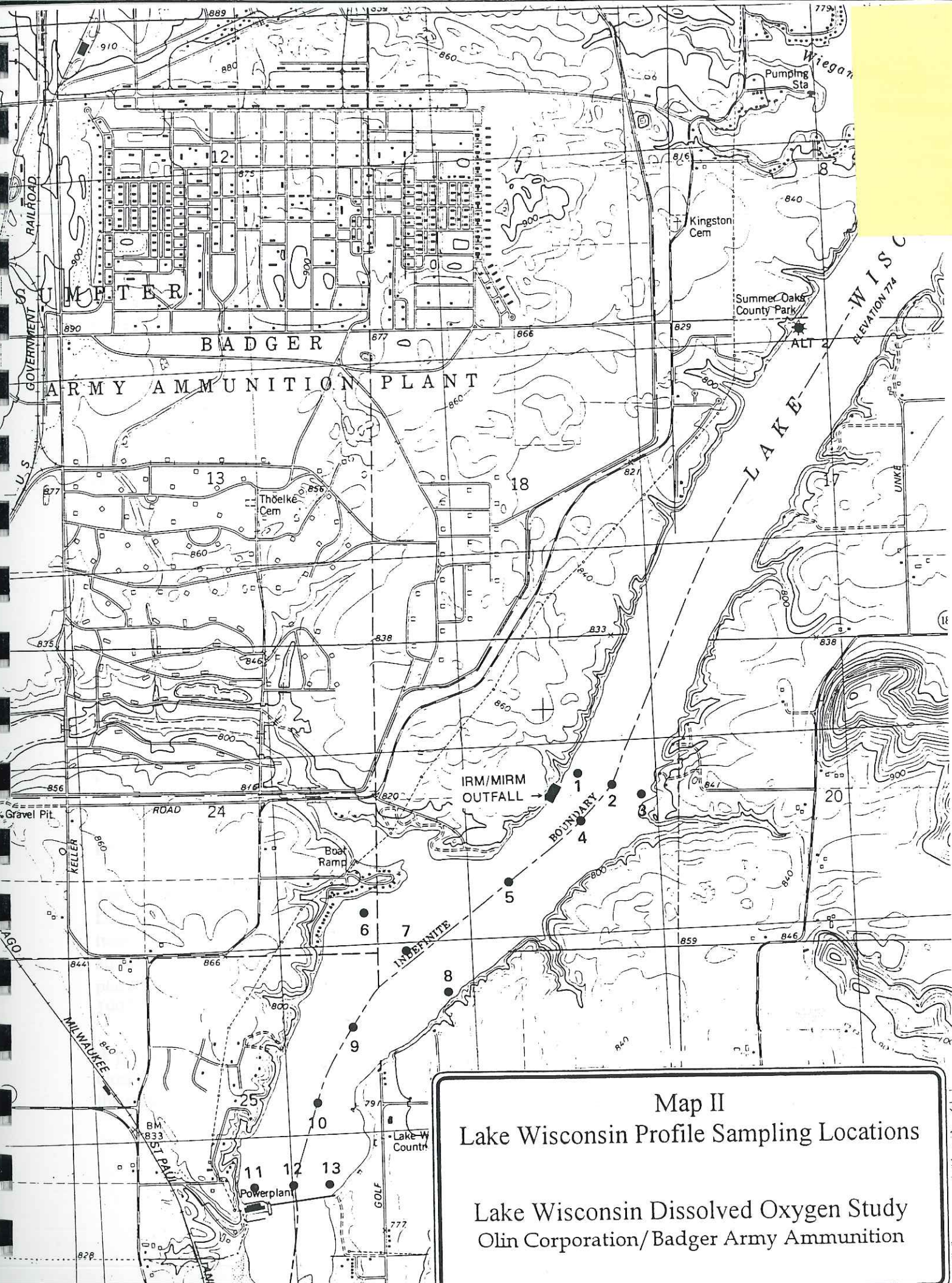




Map I  
BAAP/Lake Wisconsin Area  
Lake Wisconsin Dissolved Oxygen Study  
Olin Corporation/Badger Army Ammunition

Mapped, edited, and published by the Geological Survey  
in cooperation with the Wisconsin Division of Highways  
and Wisconsin Geological and Natural History Survey  
Control by USGS and NOS/NOAA





Map II  
Lake Wisconsin Profile Sampling Locations

Lake Wisconsin Dissolved Oxygen Study  
Olin Corporation/Badger Army Ammunition

BAAP conducted one day testing of dissolved oxygen levels in Lake Wisconsin in August 1994, March 1995 and August 1995. The report documenting this testing was previously submitted to the WDNR and is included again here as Appendix G. These studies involved profile sampling throughout Lake Wisconsin with the general intention of duplicating the Mead and Hunt sampling locations. Dissolved oxygen levels during these three days of sampling were found to be above 5 mg/L. However the WDNR expressed concerns that while these studies showed that dissolved oxygen levels were adequate at times, a more continuous study was necessary to show that dissolved oxygen levels consistently remain above 5 mg/L.

In November of 1995 BAAP submitted it's application for a WPDES discharge permit. At WDNR request, the application was written requesting continued groundwater discharge. However BAAP indicated at this time that it would continue to pursue a surface water discharge. In March of 1996 the WPDES permit was issued. The permit indicated that if BAAP wished to pursue a discharge to Lake Wisconsin, a WDNR approved dissolved oxygen study beginning in June of 1996 and finishing in September 1997 would have to be completed. Through further discussions between BAAP and the WDNR, the exact scope of the study was clarified over the next several months. The WDNR requested that the study include continuous dissolved oxygen monitoring, dissolved oxygen profile sampling and chemical sampling of Lake Wisconsin. The main objectives of the study were to be as follows:

- Conduct an extensive dissolved oxygen survey of Lake Wisconsin in the area of the proposed sanitary outfall which encompasses all seasons, but focuses particularly on the summer months when dissolved oxygen levels are known to be at their lowest.
- Determine background levels of BOD, D.O., total kjeldahl nitrogen, ammonia nitrogen, nitrate-nitrite as N, total phosphorous and chlorophyll a.
- Determine the recovery distance of D.O. levels below the (WP&L) dam during periods of low D.O.

### **III. INTRODUCTION**

The study began in June of 1996 and continued through September of 1997 as scheduled. Dissolved oxygen profile data was collected on 61 separate days. Chemical data was collected twice per month during the summer months (June, July and August) and once per month during all other months for a total of 22 sampling days. Continuous dissolved oxygen monitoring took place during the months of July, August and September of 1996 and June, July and August of 1997. Tables and graphs displaying all of the collected data have been included in the appendices.

A general description of the study protocol as it was carried out is presented below. This protocol closely matches the guidelines agreed upon between the WDNR and BAAP prior to the start of the study.



Profile Sampling - Lake Wisconsin profile sampling was conducted at 13 specified locations for temperature and dissolved oxygen. The sampling locations are shown on Map II. Measurements were taken every two feet from lake surface to the bottom at each location. Sampling was conducted twice per week during the months of June, July and August. Sampling was conducted once per month during all other months. If dissolved oxygen was found to be less than 5 mg/L at the location closest to the WP&L dam inlet (location 11) at a depth of 24 feet, profile sampling continued below the dam at quarter mile increments until dissolved oxygen levels recovered to above 5 mg/L (See Map III for below dam sampling locations). The majority of the sampling was completed prior to 10:00 a.m. so that sampling was completed before peak algal oxygen production began. When necessary sampling continued past 10:00 a.m. but every effort was made to complete sampling activities prior to 12:00 noon. During periods of ice cover, per WDNR recommendation, the number of sampling locations was reduced to three. In some cases alternate sampling locations were used due to dangerous ice conditions.

Continuous Monitoring - A continuous dissolved oxygen meter was installed at the WP&L dam in a location close to where Mead & Hunt had installed the continuous meter during their study. The monitor recorded temperature and dissolved oxygen levels 24 hours per day, seven days a week during the months of July, August and September of 1996 and June, July and August of 1997.

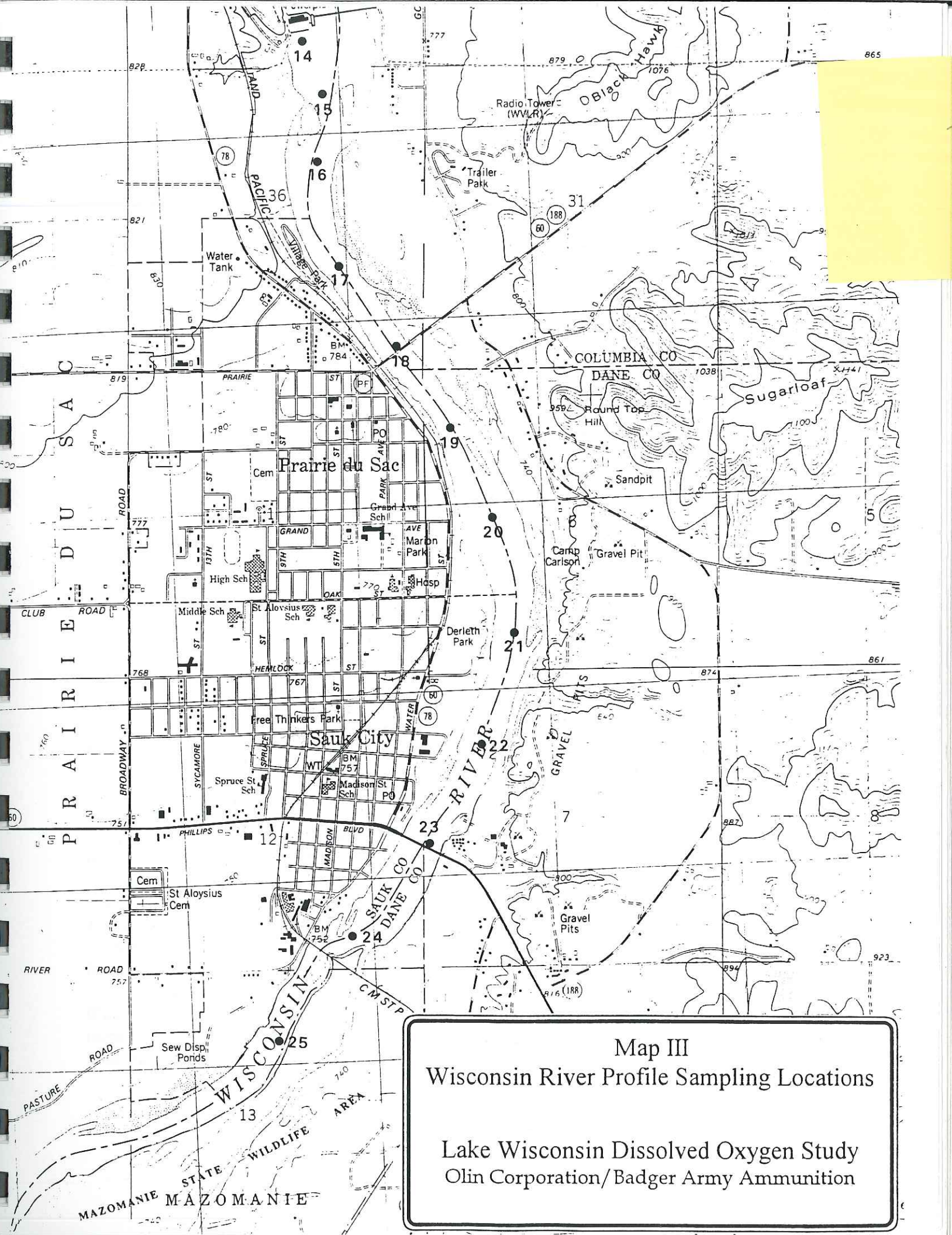
Chemical Sampling - Sampling for biochemical oxygen demand, nitrate-nitrite, ammonia, total kjeldahl nitrogen, total phosphorous and chlorophyll A was carried out twice per month during the months of June, July and August and once per month during all other months. Samples for these parameters were taken as a composite of the three sampling locations closest to the IRM/MIRM outfall.

#### **IV. METHODOLOGY**

##### **A. Profile Sampling**

###### **1. Lake Wisconsin Measurements**

The Dissolved Oxygen (D.O.) concentrations were measured at 13 different sites by boat on the lower region of Lake Wisconsin (see Map II). The readings for D.O. and temperature were taken at the surface and at two-foot intervals to the bottom of the lake. If the reading for D.O. was less than 5.0 mg/L at the 24-foot depth at Site 11 (the site in front of the power house), then readings would be taken below the dam in 1/4-mile increments until readings greater than 5.0 mg/L were obtained throughout the water column. The goal was to complete the lake portion of the study by 10:00 a.m. and the entire study by 12:00 p.m. In an effort to collect data from each site at different times of day, the sampling order of the thirteen location was reversed on an alternating basis. In other words sampling would proceed from Site 1 through Site 13 on one day and then from Site 13 through Site 1 on the following day. In all cases, sampling below the WP&L dam was carried out



Map III  
 Wisconsin River Profile Sampling Locations  
 Lake Wisconsin Dissolved Oxygen Study  
 Olin Corporation/Badger Army Ammunition

after the thirteen lake sites had been sampled. Sampling was carried out on Monday and Thursday of each week during the summer months whenever possible. On several occasions sampling was shifted to Tuesday or Wednesday due to bad weather or holiday schedules. Monthly sampling during the non-summer months was conducted when weather and work schedules allowed.

The D.O. meter was calibrated in the lab each morning using a saturated distilled water that had been aerated for 15 minutes. The barometric pressure in the lab was recorded and the D.O. level of the calibration water was corrected for the barometric pressure. At the time of calibration, the D.O. probe on a 50-foot cord, was inspected for membrane damage and air bubbles. During monthly reading events, the meter and probe were checked the day prior to the study event. Electrode solution and membranes were carried along in the field to be used for maintenance if problems with the probe were encountered. Two four-ounce lead fishing weights were fastened to the 50-foot cord with electrical tie straps so that their weight did not rest on the probe. An additional four-ounce weight was tie-strapped to a large binder clip so it could be added immediately above the other weights for taking readings in river currents. The adjustment knobs on the meter are positioned under a bar to protect the calibration adjustment. Lab tape was stretched from the body of the meter over the bar and back to the meter body effectively making a tent over the adjustments to further ensure the calibration settings would not be bumped out of adjustment. Generally, a calibration change of 0 to 0.1 mg/L was required for each calibration event.

The pH meter was calibrated with 7.0 and 10.0 pH buffers in the lab and fresh buffers were carried along in the field for re-calibration every five sites. pH was only measured at the surface of each site.

On the mornings of the sampling events, the meters were calibrated and the equipment gathered and loaded into a vehicle, generally by 7:20 a.m. The sampling boat was launched from Sauk County Landing near Summer Oaks. Upon arriving at the sites from which measurements were to be taken, the boat was anchored and the D.O. probe placed in the lake. A one-liter aliquot was dipped from the lake's surface; the pH of this sample was taken and recorded in a lab book designed for the study. General weather observations were recorded at least once per day. The weather information has been included as Appendix H. The D.O. readings were then taken by gently agitating the D.O. probe cord, reading the temperature scale and recording the value. The meter was then set for the proper temperature, after which the D.O. reading was taken and recorded. The probe would then be let down to the next two-foot mark on the 50-foot probe cord. The marks consisted of small electrical tie straps fastened around the cord and tape markers at the 10-foot intervals. The readings continued until the weighted probe reached the bottom. The individual sampling sites were not permanently marked, so some variance in site location was to be expected. This resulted in some variation in bottom depth at the sites from day to day.

If the D.O. readings were higher or lower than expected, the D.O. meter calibration was checked using the air calibration method. The lab calibration was never changed unless the probe membrane was changed, required only once during the study.



When sampling during periods of ice, cover the same techniques outlined above were used except that readings were taken from holes augured through the ice. During periods of safe ice cover the D.O. measurements were to be taken at Sites 2, 8 and 12, with a grab sample for chemical analysis taken at Site 2 from three feet below the ice. Site 2 proved to be a hazardous location for winter sampling because of poor ice conditions near the IRM/MIRM discharge. When the ice was not safe at Site 2, the measurements were taken at the Sauk County Boat Landing (Alt 2 on Map II). The ice conditions for Site 12 were generally good, and this site was always used through the ice. Due to poor access to Site 8 measurements were instead taken from Site 10.

## 2. Measurements Below the WP&L Dam

D.O. sampling below the dam was carried out from the boat launched from the VFW Landing in Prairie du Sac. The first readings were taken in the tail waters of the dam (See Site 14 on Map III). Although additional weight was added to the D.O. probe, the force of the current at this location carried the probe downstream, away from the boat. This resulted in the probe cable being carried out at an angle from the boat so that the length of cable released did not represent the true depth of the probe. Cable was let out until the probe hit the river bottom but recorded depth readings at this site are not accurate. However, because the D.O. readings below the dam and in the river were nearly always the same from top to bottom, the exact profile depths at this location are not critical.

Subsequent measurements were taken downstream in approximately quarter-mile increments, until D.O. readings of greater than 5 mg/L were found. In a few cases, dissolved oxygen recovery to 5 mg/L could not be observed because low water conditions made further progress downstream difficult. In these cases, dangerous currents under the railroad bridge below Site 24, prevented further sampling.

## B. Continuous Monitoring

### 1. Placement of dissolved oxygen probe

The meter was initially installed at the WP&L dam on July 9, 1996. The initial position was on the far east edge of the dam at a depth of approximately 3 feet. This initial placement was chosen because the meter was received with only a 5 ft probe cable, thus limiting where it could be placed.

On July 15, 1996 a 50 ft. cable was installed and the meter was moved to a position so that the probe could be placed directly in front of turbine 3. Turbine 3 was to be running 24 hours a day, without interruption thus ensuring free flowing water across the probe. The probe was placed at a depth of 14 feet. This allowed the probe to be pulled slightly into the opening for the turbine intake which is located 13 ft. below the water surface. The probe was moved to a position in front of turbine 2 on July 12, 1996 to allow maintenance to be performed on the other turbine. The probe was removed from the dam on September 30, 1996. On May 28, 1997 the probe was reinstalled in front of turbine 3 and remained there until August 5, 1997 when this turbine was shut down. The probe was repositioned in front of turbine 8 and remained there until its removal from the dam on September 2, 1997.

## 2. Instrument calibration and maintenance

The meter was checked and calibrated on every working day (Mon. - Thurs) while installed at the WP&L dam. The probe was pulled from the water and inspected for damage and potential problems. If no maintenance was required on the electrode membrane the meter was calibrated. If maintenance was required, calibration was performed after completion of maintenance activities. Calibration of the meter consisted of an air calibration technique, corrected for altitude. The calibration was complete when the instrument gave three identical dissolved oxygen readings for the entire duration of each four second display cycle. If the dissolved oxygen reading of the lake following calibration was within 0.5 mg/L of the lake reading prior to calibration the system was deemed in good working order. If the difference was greater than 1.0 mg/L system maintenance was performed.

The meter/probe settings allowed for continuous (readings taken every 4 seconds) monitoring of temperature and dissolved oxygen. The ISCO recording unit would store each DO and temperature reading into internal memory. A hard copy graphical printout was plotted for each point collected (15 points per minute) for a two hour period. A summary of that two hour monitoring period was printed below the graph and includes the period's high, low and average value for each parameter. These printouts were printed onto roll paper within the printer and removed approximately once per week.

### C. Chemical Sampling

Chemical sampling consisted of taking two one-liter aliquots from a depth of three feet at Sites 1, 2 and 3 (See Map II), and compositing them into one sample. A rigid sampling basket on an aluminum pole held a one-liter bottle with a lab stopper on a string in the mouth of the bottle. The sampling bottle was lowered into the lake until a mark three feet from the sample bottle mouth was at the lake's surface. The string was pulled to remove the stopper and the bottle was filled. The two one-liter aliquots were placed in separate one-gallon jugs which served as the compositing vessel. The jugs were placed on ice until the final aliquot from the last sampling site was added, and then the composite jugs were individually mixed and the proper sample bottles filled and placed on ice. The required preservatives were added to the bottles in the lab before going to the lake. The single composite sample was then analyzed for BOD 5-day, total kjeldahl nitrogen, ammonia, phosphorous-total, nitrate-nitrite as N and chlorophyll A. Samples during periods of ice cover were collected through a single hole in the ice and therefore were not composited.

The laboratory reports for the five parameters which were collected over the course of the study are included in Appendix E. Also included are three graphs which show the results plotted over time. For plotting purposes non-detect results were assumed to be zero.

### V. OBSERVATIONS

During the summer months it was observed that D.O. levels in the lake became more homogeneous from top to bottom when the water cooled or when it was overcast. When the water warmed and the sun was bright, the stratification of the water became more apparent and the surface layers of water had high D.O. levels while the bottom layers of water had low D.O. levels. During the non-summer months dissolved oxygen levels were found to be consistently high and uniform.

Below the dam it was observed that during periods when greater flow was being allowed through the dam, dissolved oxygen recovery occurred at a greater distance down stream. Recovery also seemed to be slower on overcast days.

In reviewing the continuous monitoring dissolved oxygen data it was observed that the dissolved oxygen tended to rise and fall with the algae activity in the water. During sunny, bright stretches the concentration of algae would increase and the dissolved oxygen would increase as well. During cool, cloudy stretches the algae concentration would fall and the dissolved oxygen level would fall as well. The dissolved oxygen level did fall below the 5.0 mg/L level on occasion but for the vast majority of the study period the D.O. was well above 5.0 mg/L.



## APPENDIX A

### Profile Sampling Dissolved Oxygen and Temperature Data Tables

1. Lake Wisconsin D.O. Readings Summer 1996
2. Lake Wisconsin D.O. Readings Summer 1997
3. Below WP&L Dam D.O. Readings Summer 1996
4. Below WP&L Dam D.O. Readings Summer 1997
5. Lake Wisconsin D.O. Readings Sept-96 through May-97

The data tables presented here contain all of the measurements taken during the Lake Wisconsin and Wisconsin River profile sampling. The tables have been grouped according to the list shown above. Each table contains the date of the profiling event, the dissolved oxygen value at each depth and the temperature at each depth. A graphical presentation of this data can be found in Appendix B.

APPENDIX A  
Profile Sampling Dissolved Oxygen and Temperature Data Tables

1. Lake Wisconsin D.O. Readings Summer 1996

DATE	5-Jun-96	5-Jun-96	6-Jun-96	6-Jun-96	10-Jun-96	10-Jun-96	13-Jun-96	13-Jun-96	17-Jun-96	17-Jun-96	20-Jun-96	20-Jun-96	24-Jun-96
Depth Ft.	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C
surface	18.0	10.6	19.0	10.1	17.5	10.0	20.5	9.8	23.0	8.3	20.9	6.5	21.7
2	17.0	12.0	18.1	10.3	17.1	9.8	21.5	9.7	23.1	8.2	19.9	6.2	21.5
4	17.0	10.0	17.4	9.9	17.0	9.8	21.0	9.5	23.2	8.3	19.5	6.2	21.5
6	17.0	9.9	17.2	9.7	17.0	9.7	20.0	9.0	23.4	8.3	19.5	6.2	21.5
8	17.0	9.8	17.2	9.7	17.0	9.8	18.8	8.1	23.6	8.2	19.5	6.1	21.5
10	17.0	9.8	17.2	8.9	17.0	9.7	18.2	7.5	24.5	8.2	19.3	6.2	21.4
12	17.0	9.8	17.1	9.0	16.9	9.6	18.0	7.1	23.5	8.2	19.3	6.2	21.4
14	17.0	9.7	17.0	8.9	16.9	9.7	17.9	7.1	23.5	8.2	19.3	6.1	21.3
16	17.0	9.7	17.1	9.0	16.9	9.7	17.9	7.0	23.5	8.2	19.2	6.2	21.3
18	17.0	9.6	17.0	8.5	16.9	9.7	17.7	6.8	23.6	8.1	19.3	6.1	21.3
20	17.0	9.6	17.0	8.6	16.9	9.6	17.5	6.7	23.2	7.8	19.2	6.1	21.3
22	17.0	9.6	17.0	8.3	16.9	9.7	17.4	6.6	22.8	7.0	19.2	6.1	21.4
24	17.0	9.5	17.0	8.1	16.9	9.6	17.3	6.3	21.4	5.5	19.2	6.1	21.4
26	17.0	8.4	17.0	7.9	16.9	9.7	17.1	6.2	19.2	3.8	19.2	6.1	21.4
28	16.5	6.6	17.0	7.8	16.9	9.6	17.1	6.0	18.2	3.4	19.2	6.1	21.4
30	15.5	0.5	17.0	7.8	16.9	9.6	17.1	6.0	18.0	3.1	19.2	6.0	21.4
32			16.9	7.6	16.9	9.5	17.0	5.5	18.0	2.4	19.1	6.1	21.4
34			16.8	0.4	16.8	0.5	16.3	0.4	17.8	2.2	19.1	5.2	21.4
36									17.6	0.4			21.4



DATE	24-Jun-96	27-Jun-96	27-Jun-96	1-Jul-96	3-Jul-96	3-Jul-96	9-Jul-96	9-Jul-96	11-Jul-96	11-Jul-96	15-Jul-96	15-Jul-96
Depth Ft.	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	D.O.(mg/L)
surface	7.2	23.1	8.7	25.2	8.6	25.0	8.3	24.8	6.2	24.0	6.8	23.2
2	7.0	22.5	8.7	25.2	8.4	24.9	8.2	24.8	6.1	24.0	6.6	23.2
4	6.9	22.2	7.8	25.2	8.2	24.9	7.8	24.9	6.1	24.0	6.3	23.2
6	6.9	22.1	7.7	25.2	8.2	24.9	7.7	24.9	6.0	23.9	6.0	23.2
8	6.9	22.0	7.4	25.2	8.1	24.8	7.6	24.9	6.1	23.9	5.4	23.2
10	6.9	22.0	7.3	25.2	8.1	24.8	7.5	24.9	5.9	23.7	4.9	23.4
12	6.9	22.0	7.3	25.2	7.9	24.8	7.0	24.8	6.0	23.6	4.2	23.2
14	6.8	22.0	7.3	25.2	6.8	24.2	5.8	24.8	6.0	23.4	4.3	23.2
16	6.8	22.0	7.3	25.0	6.2	24.2	4.5	24.8	6.1	23.3	3.8	23.2
18	6.8	22.0	7.3	25.0	6.2	24.1	3.9	24.8	6.1	23.3	3.7	23.1
20	6.8	21.9	6.9	24.9	5.2	24.0	3.8	24.8	5.8	23.3	3.7	23.0
22	6.8	21.9	7.0	24.8	4.8	24.0	3.7	24.8	5.2	23.2	3.6	23.0
24	6.8	21.8	6.8	24.8	4.8	24.0	3.8	24.8	3.3	23.2	3.6	23.0
26	6.8	21.8	6.8	23.6	3.3	23.9	3.3	24.5	1.5	23.2	3.6	23.0
28	6.8	21.8	6.7	23.2	2.1	23.0	2.0	24.3	1.1	23.2	3.6	23.0
30	6.7	21.8	6.7	23.0	1.7	22.2	0.9	24.1	0.7	23.2	3.5	22.9
32	6.5	21.8	6.7	23.0	1.4	21.9	0.4	24.1	0.5	23.2	3.4	22.8
34	6.2	21.6	0.5	22.9	1.1	21.6	0.3	24.0	0.4	23.1	0.3	22.8
36	5.8											0.5

Site 1, 1996

DATE	18-Jul-96	22-Jul-96	25-Jul-96	29-Jul-96	1-Aug-96	5-Aug-96	8-Aug-96
Depth Ft.							
surface	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	10.0	7.6	22.9	23.0	22.4	23.9	24.9
2	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	8.7	7.6	22.9	23.0	22.4	23.9	24.9
4	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	7.1	7.4	23.0	23.0	22.1	23.9	24.6
6	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	7.1	7.3	23.0	23.0	22.0	23.9	24.5
8	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	7.1	6.7	22.9	23.0	22.0	23.9	24.4
10	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	7.0	6.4	22.7	23.0	22.0	23.9	24.3
12	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	7.0	6.1	22.5	23.0	22.0	23.9	24.2
14	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	6.9	5.9	22.5	23.0	22.0	23.5	24.1
16	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	7.0	5.9	22.5	23.0	22.0	22.8	24.0
18	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	6.9	5.9	22.5	23.0	22.0	22.1	23.9
20	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	6.8	5.7	22.5	22.8	22.0	21.9	23.4
22	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	5.7	5.6	22.5	22.5	22.0	21.8	23.2
24	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	4.7	5.6	22.5	22.2	22.0	21.8	23.2
26	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	3.3	5.6	22.5	22.1	22.0	21.6	22.9
28	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	2.8	5.5	22.5	22.1	22.0	21.6	22.9
30	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	2.1	5.5	22.5	22.1	22.0	21.4	22.2
32	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	1.9	5.3	22.5	22.0	22.0	21.2	22.2
34	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	0.5	0.5	22.5	22.1	22.0	21.2	22.2
36	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)	D.O.(mg/L)
	0.5	0.5	22.5	22.1	22.0	21.2	22.2
	Temp C	Temp C	Temp C	Temp C	Temp C	Temp C	Temp C
	22.8	22.8	22.5	22.1	22.0	21.6	22.9

Site 1, 1996

DATE	12-Aug-96	12-Aug-96	15-Aug-96	15-Aug-96	20-Aug-96	20-Aug-96	22-Aug-96	22-Aug-96	26-Aug-96	26-Aug-96	26-Aug-96	29-Aug-96	29-Aug-96
Depth Ft.	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	D.O.(mg/L)
surface	24.0	8.9	25.3	7.5	24.9	6.6	24.1	7.3	24.2	8.0	24.9	9.1	
2	24.0	9.1	25.5	7.5	24.8	6.1	24.1	7.2	24.3	7.9	24.4	9.0	
4	24.1	8.9	25.5	7.3	24.4	5.6	24.1	7.3	24.5	7.8	24.1	8.7	
6	24.1	8.4	25.6	7.4	24.4	5.4	24.1	7.1	24.6	7.5	24.0	8.4	
8	24.1	8.1	25.5	7.6	24.4	5.1	24.1	6.9	24.6	7.3	24.0	8.3	
10	24.1	7.9	25.5	7.7	24.4	5.1	24.0	5.8	24.7	7.2	24.0	6.5	
12	24.1	7.6	25.5	7.7	24.4	4.9	24.0	5.3	24.8	6.9	24.0	6.2	
14	24.1	7.3	25.3	7.7	24.4	4.8	23.9	4.5	24.8	6.7	24.0	6.1	
16	24.1	6.7	25.3	6.6	24.5	4.7	23.6	4.0	24.8	6.6	23.9	5.7	
18	24.0	6.8	23.1	5.6	24.5	4.5	23.5	4.0	24.8	6.5	23.9	5.8	
20	24.0	6.6	25.0	4.7	24.5	4.3	23.5	3.9	24.8	6.3	23.9	5.5	
22	24.0	6.3	25.0	2.9	24.5	3.9	23.5	3.8	24.8	4.4	23.9	4.9	
24	24.0	6.3	24.9	2.8	24.5	3.5	23.5	3.8	24.4	3.9	23.9	4.3	
26	24.0	6.1	24.8	2.2	24.5	3.1	23.4	3.7	24.3	3.4	23.9	3.4	
28	24.0	4.1	24.8	2.1	24.5	3.0	23.4	3.7	24.2	2.8	23.9	3.1	
30	23.4	1.1	24.7	1.9	24.5	2.2	23.4	3.7	24.1	2.2	23.8	3.3	
32	22.5	0.9	24.7	1.6			23.5	3.6	24.1	1.7	23.8	1.8	
34	21.6	0.8					23.5	1.1			23.8	1.6	
36													

Site 2, 1996

Depth	5-Jun-96		5-Jun-96		6-Jun-96		6-Jun-96		10-Jun-96		10-Jun-96		10-Jun-96		13-Jun-96		17-Jun-96		20-Jun-96		24-Jun-96		
	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	
Surface	17.0	10.6	19.1	10.3	17.0	9.6	22.0	9.8	23.6	8.1	20.1	23.6	8.1	20.1	23.6	8.1	20.1	23.6	8.1	20.1	23.6	8.1	20.1
2	16.5	10.7	18.0	10.3	17.0	9.6	22.0	9.5	23.5	8.1	20.0	23.5	8.1	20.0	23.5	8.1	20.0	23.5	8.1	20.0	23.5	8.1	20.0
4	16.4	9.7	17.5	9.9	16.9	9.7	21.0	9.8	23.6	8.1	20.0	23.6	8.1	20.0	23.6	8.1	20.0	23.6	8.1	20.0	23.6	8.1	20.0
6	17.1	9.4	17.2	9.7	16.9	9.7	20.5	9.7	23.5	8.0	19.9	23.5	8.0	19.9	23.5	8.0	19.9	23.5	8.0	19.9	23.5	8.0	19.9
8	17.1	9.4	17.0	9.4	16.9	9.7	19.9	9.2	23.5	8.0	19.8	23.5	8.0	19.8	23.5	8.0	19.8	23.5	8.0	19.8	23.5	8.0	19.8
10	17.1	9.4	17.0	9.4	16.9	9.5	18.3	8.0	23.5	8.0	19.5	23.5	8.0	19.5	23.5	8.0	19.5	23.5	8.0	19.5	23.5	8.0	19.5
12	17.1	9.5	17.0	9.2	16.9	9.6	17.9	7.3	23.5	8.0	19.4	23.5	8.0	19.4	23.5	8.0	19.4	23.5	8.0	19.4	23.5	8.0	19.4
14	17.1	9.4	17.0	8.6	17.0	9.6	16.7	7.0	23.5	8.0	19.3	23.5	8.0	19.3	23.5	8.0	19.3	23.5	8.0	19.3	23.5	8.0	19.3
16	17.1	9.5	16.8	8.5	16.9	9.4	17.5	6.8	23.5	7.8	19.2	23.5	7.8	19.2	23.5	7.8	19.2	23.5	7.8	19.2	23.5	7.8	19.2
18	17.1	9.5	16.9	8.5	17.0	9.3	17.3	6.6	23.5	7.9	19.2	23.5	7.9	19.2	23.5	7.9	19.2	23.5	7.9	19.2	23.5	7.9	19.2
20	17.1	9.4	16.8	8.3	17.0	9.2	17.3	6.6	23.3	7.7	19.2	23.3	7.7	19.2	23.3	7.7	19.2	23.3	7.7	19.2	23.3	7.7	19.2
22	17.1	9.3	16.8	8.2	16.9	9.2	17.2	6.5	22.8	6.8	19.2	22.8	6.8	19.2	22.8	6.8	19.2	22.8	6.8	19.2	22.8	6.8	19.2
24	17.1	8.4	16.8	8.1	16.9	9.1	17.1	6.3	21.5	4.8	19.1	21.5	4.8	19.1	21.5	4.8	19.1	21.5	4.8	19.1	21.5	4.8	19.1
26	17.1	8.2	16.8	8.0	16.9	8.9	17.1	6.1	19.8	3.9	19.1	19.8	3.9	19.1	19.8	3.9	19.1	19.8	3.9	19.1	19.8	3.9	19.1
28	16.5	6.2	16.8	7.9	17.0	0.5	16.9	0.7	18.8	3.1	19.1	18.8	3.1	19.1	18.8	3.1	19.1	18.8	3.1	19.1	18.8	3.1	19.1
30	16.0	1.2	16.8	1.0	18.1	1.1	19.1	1.1	18.1	1.1	19.1	18.1	1.1	19.1	18.1	1.1	19.1	18.1	1.1	19.1	18.1	1.1	19.1



Depth	18-Jul-96		22-Jul-96		25-Jul-96		29-Jul-96		1-Aug-96		5-Aug-96		8-Aug-96	
	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)
Surface	24.0	9.9	23.1	7.7	22.9	9.2	23.2	8.9	22.5	6.7	24.1	9.9	24.9	24.9
2	23.9	8.8	23.1	7.7	23.0	9.1	23.2	8.9	21.0	5.8	24.1	10.0	24.9	24.9
4	23.8	7.6	23.1	7.7	23.0	8.9	23.2	8.7	22.0	5.3	24.1	9.9	24.7	24.7
6	23.8	7.5	23.1	7.5	23.0	8.9	23.2	8.7	22.0	5.2	24.1	9.6	24.5	24.5
8	23.8	7.3	23.1	7.5	23.0	8.9	23.2	8.6	22.0	4.9	24.0	8.5	24.5	24.5
10	23.7	7.3	23.1	7.5	23.0	8.3	23.1	8.2	22.0	4.7	23.9	8.3	24.5	24.5
12	23.6	7.1	23.1	7.3	23.0	8.3	23.1	7.8	22.0	4.7	2.9	8.3	24.3	24.3
14	23.6	7.1	23.1	7.2	22.9	6.1	23.1	7.5	22.0	4.6	23.8	8.0	24.1	24.1
16	23.6	7.2	23.1	6.4	22.6	5.7	23.0	7.6	22.0	4.4	23.6	7.5	24.1	24.1
18	23.5	7.2	23.0	5.1	22.5	4.8	22.9	6.0	22.0	4.4	22.0	2.9	23.9	23.9
20	23.5	6.5	22.9	5.0	22.5	4.3	22.8	4.9	22.0	4.4	21.9	2.7	23.3	23.3
22	23.1	4.9	22.9	5.0	22.5	3.9	22.2	2.7	22.0	4.4	21.6	2.4	23.1	23.1
24	22.8	3.2	22.9	4.9	22.4	3.8	22.2	2.6	22.0	4.5	21.5	2.1	22.9	22.9
26	22.8	2.8	22.9	4.8	22.4	3.6	22.2	2.3	22.0	4.3	21.4	1.5	22.8	22.8
28	22.6	1.8	22.9	4.7	22.3	1.6	22.2	1.6	22.0	0.5	0.9	1.4	22.1	22.1
30	22.7	0.5	22.9	2.5	22.1	0.3	22.1	0.3						

Site 2, 1996

Depth	24-Jun-96		27-Jun-96		1-Jul-96		3-Jul-96		9-Jul-96		11-Jul-96		15-Jul-96	
	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C
Surface	7.0	23.0	8.7	25.9	8.2	24.9	7.7	24.9	6.2	24.1	6.8	23.8	8.9	
2	6.8	22.4	8.4	25.8	8.1	24.9	7.6	24.9	6.3	24.1	6.8	23.8	8.8	
4	6.7	22.1	8.1	25.8	7.7	24.8	7.3	24.9	6.3	24.0	6.5	23.8	8.7	
6	6.7	22.0	7.9	25.8	7.7	24.8	7.2	24.9	6.2	24.0	6.6	23.8	8.5	
8	6.7	21.9	7.3	25.8	7.6	24.6	7.2	24.9	6.2	24.0	6.3	23.8	8.5	
10	6.6	21.9	6.9	25.7	7.6	24.6	7.1	24.9	6.2	23.9	5.8	23.7	8.4	
12	6.6	21.8	6.8	25.6	7.6	24.6	6.5	24.9	6.2	23.9	5.1	23.6	8.2	
14	6.6	21.6	6.8	25.5	7.3	24.5	6.0	24.9	6.2	23.8	4.8	23.5	7.7	
16	6.6	21.6	6.6	25.2	5.8	24.4	5.8	24.9	6.2	23.6	4.7	23.5	7.4	
18	6.6	21.5	6.6	25.1	5.8	24.2	6.0	24.9	6.2	23.5	3.8	23.0	3.4	
20	6.6	21.5	6.6	25.0	5.1	24.2	5.1	24.9	6.2	23.3	3.4	23.0	3.1	
22	6.5	21.5	6.5	24.8	4.7	24.2	4.3	24.9	6.2	23.2	3.2	22.9	2.4	
24	6.6	21.4	6.3	24.4	4.6	24.0	3.6	24.8	5.8	23.2	3.1	22.9	2.3	
26	6.4	21.3	6.1	24.0	3.5	23.8	2.1	24.5	2.1	23.2	2.9	22.9	2.2	
28	6.4	21.3	0.4	23.6	1.7	23.0	0.4	24.2	0.8	23.2	1.4	22.9	2.1	
30	0.4			23.0	0.8			24.0	0.4	23.1	0.7	22.9	0.2	

Site 2, 1996

	8-Aug-96		12-Aug-96		15-Aug-96		20-Aug-96		22-Aug-96		26-Aug-96		29-Aug-96	
Depth	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C
Surface	8.5	24.1	9.5	25.3	8.1	24.9	6.3	24.8	7.4	25.0	8.0	24.4	9.0	
2	8.0	24.2	9.5	25.3	8.1	24.9	6.5	24.8	7.4	25.0	8.1	24.3	8.5	
4	7.4	24.1	9.5	25.3	7.8	24.9	6.5	24.8	7.6	25.0	7.9	24.0	7.6	
6	7.5	24.1	9.7	25.3	7.3	24.9	6.5	24.7	7.5	24.9	7.6	24.0	7.3	
8	7.4	24.1	9.6	25.3	7.3	24.9	6.2	24.7	7.0	24.9	7.2	24.0	6.3	
10	7.6	24.0	9.5	25.3	7.3	24.9	5.8	24.0	6.4	24.9	6.8	24.0	5.9	
12	7.1	24.1	9.3	25.3	7.1	24.9	5.5	23.9	5.5	24.9	6.2	24.0	6.0	
14	6.1	24.1	9.0	25.3	7.0	24.9	5.3	23.9	5.0	24.9	5.6	24.0	6.1	
16	3.3	24.1	8.5	25.3	7.1	24.9	5.3	23.8	4.4	24.9	5.1	24.0	6.0	
18	3.5	24.1	8.3	25.1	6.1	24.9	5.2	23.5	3.7	24.9	4.8	23.9	5.9	
20	2.9	24.1	7.3	24.9	3.1	24.9	5.0	23.4	3.5	24.9	4.5	23.9	3.9	
22	2.2	24.0	5.5	24.7	1.7	24.9	4.6	23.4	3.1	24.9	4.1	23.9	2.9	
24	1.2	24.0	4.1	24.5	1.5	24.9	4.1	23.3	2.9	24.5	3.3	23.9	2.4	
26	0.8	24.0	3.2	24.5	1.3	24.8	3.0	23.3	2.6	24.2	2.3	23.9	2.0	
28	0.8	23.8	2.0	24.3	1.2	24.6	1.7	24.1		24.1	1.6	23.9	1.8	
30		23.8	1.1					24.1		24.1	0.9			

Depth	5-Jun-96		6-Jun-96		10-Jun-96		13-Jun-96		17-Jun-96		20-Jun-96		24-Jun-96	
	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)
Surface	18.0	10.2	19.1	10.5	17.0	9.6	22.0	9.6	24.0	8.4	20.8	6.6	21.2	
2	17.6	10.2	18.0	10.2	17.0	9.6	21.9	9.7	24.0	8.7	20.0	6.5	21.2	
4	17.5	9.8	17.8	9.9	17.0	9.2	21.0	9.5	23.8	8.5	20.0	6.4	21.2	
6	17.5	9.5	17.1	9.2	16.9	9.1	20.6	9.5	23.8	8.3	19.8	6.3	21.2	
8	17.5	9.5	17.1	9.0	16.9	9.1	20.0	9.2	23.7	8.2	19.6	6.2	21.2	
10	17.5	9.4	17.0	8.3	16.9	8.9	18.0	9.4	23.7	8.2	19.6	6.2	21.2	
12	17.5	9.4	17.0	8.0	16.9	9.0	18.7	7.0	23.5	8.1	19.2	6.2	21.2	
14	17.5	9.5	16.9	8.1	16.9	8.8	17.6	6.9	23.6	8.1	19.4	6.1	21.1	
16	17.4	9.2	16.9	8.1	16.9	8.7	17.6	6.8	23.5	7.9	19.3	6.1	21.1	
18	17.4	8.4	16.9	8.1	16.9	8.7	17.4	6.7	23.4	7.7	19.3	6.1	21.1	
20	17.4	8.2	16.9	8.0	16.9	8.6	17.4	6.5	23.3	7.4	19.2	6.1	21.1	
22	17.2	8.2	16.9	8.0	16.9	8.1	17.3	6.4	23.0	7.1	19.2	6.1	21.1	
24	17.1	7.7	16.8	7.7	16.9	8.3	17.2	6.0	21.8	5.5	19.2	6.1	21.1	
26	16.8	6.4	16.7	0.6	16.8	0.5	17.1	3.8	20.5	4.1	19.2	5.1	21.1	
28	16.1	0.5							19.2	0.6				
30														



Depth	24-Jun-96		27-Jun-96		1-Jul-96		3-Jul-96		9-Jul-96		11-Jul-96		15-Jul-96	
	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C	D.O. (mg/L)	Temp C
Surface	7.0	23.2	8.9	26.0	8.3	26.0	7.7	24.9	6.3	24.1	6.8	23.9	9.1	
2	6.8	22.5	8.9	25.9	8.2	26.0	7.8	24.9	6.3	24.0	6.6	23.9	9.0	
4	6.7	22.0	8.5	25.8	7.9	25.9	7.3	24.8	6.2	24.0	6.5	23.9	9.0	
6	6.7	22.0	8.0	25.4	7.7	25.9	6.7	24.8	6.3	24.0	5.8	23.7	8.9	
8	6.7	21.9	6.9	25.5	7.5	25.8	6.2	24.8	6.3	24.0	5.2	23.8	8.6	
10	6.5	21.4	6.7	25.5	7.7	25.6	6.1	24.8	6.4	24.0	4.8	23.8	8.3	
12	6.5	21.4	6.7	25.5	7.5	25.6	6.2	24.9	6.3	24.0	4.8	23.6	8.2	
14	6.5	21.4	6.6	25.4	7.4	25.5	6.0	24.9	6.3	24.0	4.8	23.5	7.4	
16	6.5	21.4	6.5	25.2	6.8	25.5	6.0	24.9	6.3	23.5	3.4	23.4	6.2	
18	6.5	21.3	6.4	25.1	6.0	25.4	5.8	24.9	6.3	23.5	2.3	23.0	2.1	
20	6.5	21.3	6.4	25.0	5.7	25.3	5.2	24.9	6.3	23.2	2.3	22.8	1.5	
22	6.4	21.3	6.3	24.9	4.6	25.1	3.9	24.8	6.0	23.2	2.4	22.8	1.2	
24	6.3	21.2	6.0	24.1	1.5	25.0	3.3	24.7	1.8	23.2	2.3	22.7	1.1	
26	0.4	21.1	0.4	24.0	0.2	24.8	0.8	24.2	0.9	23.2	0.2	22.7	0.7	
28														
30														

Site 3, 1996

Depth	18-Jul-96		22-Jul-96		25-Jul-96		29-Jul-96		1-Aug-96		5-Aug-96		8-Aug-96	
	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)
Surface	24.1	10.3	23.1	7.7	22.9	8.5	23.2	9.1	22.5	6.3	24.2	9.8	23.8	
2	23.9	9.3	23.1	7.7	23.0	8.4	23.3	9.0	22.1	5.5	24.2	9.8	24.9	
4	23.9	8.7	23.1	7.7	23.0	8.2	23.2	8.9	22.0	5.0	24.1	9.5	24.8	
6	23.7	7.8	23.1	7.5	23.0	8.3	23.2	8.7	22.0	4.5	24.1	9.0	24.5	
8	23.7	7.6	23.1	7.5	23.0	7.6	23.2	8.6	22.0	4.3	23.9	8.9	24.5	
10	23.6	7.6	23.1	7.5	23.0	7.5	23.2	8.6	22.0	4.2	23.9	8.5	24.4	
12	23.6	7.7	23.1	7.3	23.0	8.3	23.2	8.5	22.0	4.3	23.9	8.2	24.5	
14	23.6	7.4	23.1	7.2	22.9	7.9	23.2	8.2	22.0	4.3	23.9	8.1	24.4	
16	23.6	7.5	23.1	6.4	22.9	7.2	23.1	7.9	22.0	4.3	23.6	7.0	24.4	
18	23.6	7.3	23.0	5.1	22.5	3.9	22.9	5.2	22.0	4.3	21.5	2.1	24.1	
20	23.5	6.7	22.9	5.0	22.5	3.1	22.6	3.8	22.0	4.1	21.4	1.5	23.5	
22	2.2	5.1	22.9	5.0	22.4	2.7	22.3	1.8	22.0	4.0	21.4	1.2	22.8	
24	23.0	1.4	22.9	4.9	22.3	0.9	22.2	1.3	22.0	2.0	21.4	1.3	22.8	
26	22.6	0.2	22.9	4.8			22.2	0.3	22.0	0.2	21.4	0.8		
28			22.9	4.7										
30			22.9	2.5										

Depth	8-Aug-96		12-Aug-96		15-Aug-96		20-Aug-96		22-Aug-96		26-Aug-96		29-Aug-96		
	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	
Surface	8.5	24.3	9.3	25.3	6.3	24.9	6.2	24.9	7.2	24.8	7.2	24.9	7.9	24.2	10.1
2	8.1	24.3	9.4	25.5	7.1	24.9	6.5	24.9	7.2	24.8	7.2	24.9	7.8	24.1	8.2
4	7.7	24.3	9.7	25.5	7.2	24.9	6.6	24.9	7.3	24.8	7.3	24.9	7.6	24.0	7.9
6	7.1	24.3	10.0	25.4	7.1	24.9	6.6	24.9	7.1	24.7	7.1	24.9	7.6	24.0	8.0
8	7.3	24.4	9.7	25.4	7.2	24.9	6.6	24.9	6.9	24.3	6.9	24.9	7.5	24.0	7.4
10	7.4	24.3	9.3	25.4	7.2	24.9	6.6	24.9	6.7	24.3	6.7	24.9	7.4	24.0	7.5
12	7.3	24.3	8.1	25.4	7.3	24.9	6.5	24.9	6.7	24.2	6.7	24.9	7.4	24.0	7.5
14	7.5	24.3	7.0	25.4	7.4	25.0	6.3	25.0	4.8	24.1	4.8	24.9	7.3	24.0	7.0
16	7.7	24.1	5.8	25.3	7.0	25.0	6.0	25.0	1.8	23.8	1.8	24.9	7.1	24.0	6.0
18	4.3	24.1	5.3	25.2	6.9	25.0	5.8	25.0	1.8	23.4	1.8	24.9	6.9	23.9	5.3
20	1.7	24.0	4.7	25.1	3.4	25.0	4.7	25.0	1.8	23.3	1.8	24.9	6.6	23.9	5.2
22	0.7	24.0	3.0	24.4	1.5	24.9	4.1	24.9	1.5	23.3	1.5	24.9	6.3	23.9	2.2
24	0.4	23.9	1.0	24.4	1.2	24.9	1.0	24.9	0.8	23.3	0.8	24.9	5.7		
26		23.8	0.6						0.6	23.2	0.6	24.8	4.8		
28															
30															

Site 4, 1996

Depth	5-Jun-96		6-Jun-96		6-Jan-96		10-Jun-96		13-Jun-96		17-Jun-96		20-Jun-96		24-Jun-96	
	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	D.O.(mg/L)	Temp C	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)
Surface	17.9	10.1	19.1	10.3	17.0	9.9	22.0	9.5	24.5	8.1	20.2	6.8	21.2			
2	17.5	8.9	18.5	10.3			21.5	9.9	23.8	7.9	19.8	6.5	21.3			
4	17.3	9.5	17.6	10.1	17.0	9.6	21.0	9.4	23.6	8.0	19.6	6.4	21.3			
6	17.4	9.2	17.5	9.6	17.0	9.5	20.6	9.3	23.6	8.0	19.5	6.4	21.2			
8	17.3	9.4	17.2	9.4	16.9	9.6	20.0	9.1	23.6	8.1	19.4	6.2	21.2			
10	17.2	9.2	17.2	8.6	16.9	9.4	18.5	8.1	23.7	8.0	19.4	6.3	21.2			
12	17.2	9.0	17.1	8.7	16.9	9.5	18.0	7.3	23.6	8.0	19.2	6.2	21.2			
14	17.1	8.9	17.0	8.1	17.0	9.4	17.8	7.0	23.6	7.9	19.2	6.2	21.2			
16	17.2	9.1	17.0	7.9	16.9	9.5	17.8	7.0	23.6	7.9	19.2	6.2	21.2			
18	17.1	9.1	17.0	7.9	16.9	9.4	17.5	6.8	23.5	8.0	19.2	6.2	21.1			
20	17.1	9.1	17.0	7.8	16.9	9.4	17.3	6.6	23.5	7.8	19.2	6.2	21.1			
22	17.1	8.8	17.0	7.8	16.9	9.3	17.3	6.5	22.8	6.7	19.2	6.2	21.1			
24	17.0	8.2	17.0	7.9	16.8	9.3	17.1	6.5	22.0	5.7	19.2	6.1	21.1			
26	17.0	7.5	17.0	7.2	16.8	9.1	17.1	6.4	21.1	5.1	19.1	6.2	21.1			
28	16.9	6.9	16.9	7.5	16.8	9.0	17.0	6.2	18.5	3.5	19.1	6.2	21.1			
30	15.0	4.2	16.8	6.8	16.9	7.5	17.0	6.0	18.0	2.5	19.1	6.2	21.1			
32	14.9	0.5	16.0	0.5	16.8	0.8	16.5	0.4	17.9	0.5	19.1	4.2	21.1			
34																



Site 4, 1996

Depth	24-Jun-96		27-Jun-96		1-Jul-96		3-Jul-96		9-Jul-96		11-Jul-96		15-Jul-96	
	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C
Surface	6.8	23.0	8.5	26.0	8.3	26.0	7.8	24.9	6.2	24.1	6.7	23.6	8.2	23.6
2	6.8	22.1	7.8	25.9	8.3	25.9	7.7	24.9	6.1	24.1	6.7	23.8	8.4	23.8
4	6.7	22.0	7.5	25.8	8.1	25.9	7.5	24.9	6.1	24.1	6.4	23.8	8.3	23.8
6	6.8	22.0	7.4	25.6	7.9	25.8	7.3	24.9	6.0	24.0	6.1	23.8	8.3	23.8
8	6.7	22.0	7.4	25.6	7.7	25.8	7.1	24.9	5.9	24.0	5.8	23.7	8.1	23.7
10	6.6	22.0	7.3	25.6	7.7	25.8	6.9	25.0	5.9	23.9	5.5	23.5	7.8	23.5
12	6.6	21.9	7.2	25.6	7.7	25.7	6.7	25.0	5.9	23.8	5.1	23.5	7.7	23.5
14	6.5	21.9	7.1	25.5	6.7	25.5	5.9	25.0	6.0	23.8	4.9	23.2	7.3	23.2
16	6.5	21.9	6.9	25.2	5.9	25.4	5.5	25.0	5.9	23.8	4.7	23.2	5.2	23.2
18	6.5	21.8	6.8	25.0	5.5	25.3	5.4	25.0	5.9	23.5	4.1	23.0	4.4	23.0
20	6.5	21.6	6.6	25.0	5.2	25.2	5.7	25.0	5.9	23.4	3.9	22.9	3.6	22.9
22	6.5	21.5	6.5	25.0		25.2	5.8	25.0	5.1	23.2	3.7	22.9	2.8	22.9
24	6.5	21.5	6.4	24.9	4.8	25.2	5.8	24.8	2.9	23.2	3.6	22.9	2.4	22.9
26	6.5	21.3	6.2	24.8	4.9	25.1	5.4	24.5	1.4	23.2	3.5	22.9	2.3	22.9
28	6.5	21.3	6.2	24.4	4.4	25.0	4.4	24.4	0.8	23.2	3.1	22.8	2.3	22.8
30	6.4	21.3	6.1	23.9	2.9	23.8	1.5	24.0	0.2	23.2	3.0	22.8	2.2	22.8
32	5.8	21.3	5.2	23.0	0.9	22.9	0.5	23.8	0.2	23.1	1.8	22.8	0.7	22.8
34				22.8	0.5	22.8	0.2							

Depth	18-Jul-96		22-Jul-96		25-Jul-96		29-Jul-96		1-Aug-96		5-Aug-96		8-Aug-96	
	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)	Temp C	D.O.(mg/L)
Surface	24.0	9.5	23.1	7.3	23.0	9.1	23.2	9.0	22.5	6.4	24.1	9.6	25.0	
2	24.0	8.3	23.1	7.4	23.0	9.1	23.2	8.9	22.4	6.1	24.1	9.6	24.1	
4	23.9	7.7	23.1	7.4	22.9	8.9	23.2	8.9	22.3	5.3	24.1	9.6	24.9	
6	23.8	7.7	23.1	7.3	22.9	8.9	23.2	8.9	22.1	5.1	24.1	9.2	24.6	
8	23.8	7.7	23.0	7.1	22.9	8.6	23.2	8.8	22.1	5.2	24.1	9.3	24.5	
10	23.7	7.7	23.0	7.2	22.9	8.3	23.2	8.6	22.0	5.2	24.0	9.2	24.5	
12	23.7	7.6	23.0	7.2	22.9	6.5	23.2	8.0	22.0	5.2	24.0	9.2	24.5	
14	23.7	7.6	23.0	7.2	22.9	6.2	23.2	7.8	22.0	5.2	24.0	8.2	24.5	
16	23.7	7.6	23.0	7.1	22.8	5.3	23.1	7.3	22.0	5.2	22.5	5.2	24.1	
18	23.7	7.4	23.0	6.4	22.6	4.9	22.9	5.3	22.0	5.0	22.1	4.3	23.9	
20	23.4	5.9	23.0	5.1	22.5	4.3	22.5	3.4	22.0	5.0	21.8	2.7	23.4	
22	23.3	5.3	22.9	4.8	22.5	4.0	22.3	2.7	22.0	5.0	21.6	2.5	23.1	
24	23.1	5.1	22.9	4.7	22.5	3.7	22.3	2.5	22.0	5.0	21.5	2.3	23.0	
26	23.0	3.3	22.9	4.7	22.5	3.8	22.2	2.1	22.0	4.9	21.5	1.9	22.8	
28	22.9	2.6	22.9	4.5	22.5	4.5	22.2	2.0	22.0	4.9	21.4	1.6	22.4	
30	22.6	1.7	22.9	4.3	22.5	4.8	22.1	1.8	22.0	4.8	21.4	0.3	21.9	
32	22.5	0.3	22.9	4.3	22.3	0.6	22.0	0.2	22.0	0.2			21.4	
34			22.8	4.1										

Site 4, 1996

Depth	8-Aug-96	12-Aug-96	15-Aug-96	20-Aug-96	22-Aug-96	26-Aug-96	29-Aug-96	29-Aug-96	29-Aug-96
Surface	D.O.(mg/L)	9.1	9.6	7.7	24.9	6.4	7.3	24.9	7.7
	Temp C	24.3	24.3	25.5	24.9	24.9	24.8	24.9	24.2
2	D.O.(mg/L)	8.7	9.1	7.4	25.0	6.5	7.4	24.9	7.6
	Temp C	24.2	24.2	25.5	25.0	25.0	24.8	24.9	24.1
4	D.O.(mg/L)	8.2	9.2	7.5	25.0	6.5	7.3	24.9	7.3
	Temp C	24.2	24.2	25.5	25.0	25.0	24.5	24.9	24.0
6	D.O.(mg/L)	8.1	9.5	7.7	25.0	6.5	7.1	24.9	7.1
	Temp C	24.2	24.2	25.5	25.0	25.0	24.2	24.9	24.0
8	D.O.(mg/L)	8.1	9.5	7.0	25.0	6.5	6.5	24.9	6.9
	Temp C	24.2	24.2	25.5	25.0	25.0	24.1	24.9	24.0
10	D.O.(mg/L)	7.7	9.2	7.4	25.0	6.5	5.8	24.9	6.6
	Temp C	24.2	24.2	25.4	25.0	25.0	24.0	24.9	24.0
12	D.O.(mg/L)	7.1	8.9	6.3	25.0	6.3	5.1	24.9	6.4
	Temp C	24.1	24.1	25.1	25.0	25.0	23.9	24.8	24.0
14	D.O.(mg/L)	5.8	8.2	5.4	25.0	6.2	4.3	24.8	5.0
	Temp C	24.1	24.1	25.1	25.0	25.0	23.6	24.6	24.0
16	D.O.(mg/L)	3.7	6.5	4.4	25.0	6.0	4.0	24.6	4.2
	Temp C	24.0	24.0	25.0	24.9	24.9	23.0	24.4	24.0
18	D.O.(mg/L)	2.8	5.9	3.4	24.9	5.7	3.8	24.4	4.0
	Temp C	24.0	24.0	24.9	24.9	24.9	23.5	24.4	24.0
20	D.O.(mg/L)	2.0	5.3	2.6	24.9	5.6	3.3	24.4	4.1
	Temp C	24.0	24.0	24.9	24.9	24.9	23.5	24.4	24.0
22	D.O.(mg/L)	1.4	4.2	2.3	24.8	4.3	3.0	24.4	4.2
	Temp C	24.0	24.0	24.7	24.8	24.8	23.4	24.4	23.9
24	D.O.(mg/L)	1.1	3.7	2.1	24.8	4.3	2.7	24.4	3.9
	Temp C	23.8	23.8	24.5	24.8	24.8	23.4	24.1	23.9
26	D.O.(mg/L)	0.8	2.2	1.8	24.8	4.2	2.5	24.1	3.2
	Temp C	23.8	23.8	24.5	24.7	24.7	23.4	24.1	23.8
28	D.O.(mg/L)	0.5	0.6	1.7	24.7	3.7	1.4	24.1	2.4
	Temp C	22.1	22.1	24.5	24.6	24.6	23.4	23.7	23.7
30	D.O.(mg/L)	0.3	0.5	0.7	24.6	2.0	1.9	23.3	23.8
	Temp C								1.1
32									
34									

Site 5, 1996

Depth	5-Jun-96		6-Jun-96		10-Jun-96		13-Jun-96		17-Jun-96		20-Jun-96		24-Jun-96	
	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L
Surface	18.0	10.3	18.6	10.3	17.0	9.8	22.0	9.7	23.7	8.5	20.0	6.6	21.4	6.6
2	17.5	10.1	17.9	10.0	17.0	8.8	21.4	9.6	23.8	8.3	20.0	6.6	21.4	6.6
4	17.4	9.7	17.7	9.7	17.0	9.7	21.1	9.5	23.8	8.4	19.8	6.3	21.4	6.3
6	17.3	9.6	17.6	9.5	16.9	9.7	20.8	9.6	23.8	8.2	19.5	6.1	21.4	6.1
8	17.2	9.4	17.5	9.6	16.9	9.7	20.0	9.3	23.8	8.2	19.4	6.1	21.4	6.1
10	17.3	9.3	17.4	9.2	16.9	9.6	18.8	8.0	23.7	8.0	19.4	6.2	21.4	6.2
12	17.2	8.4	17.2	8.9	16.9	9.6	17.8	7.3	23.6	8.0	19.4	6.2	21.3	6.2
14	17.2	9.3	17.1	8.6	16.8	9.5	17.5	7.0	23.6	8.0	19.3	6.1	21.3	6.1
16	17.2	9.2	17.0	8.5	16.8	9.5	17.4	6.9	23.5	7.9	19.3	6.1	21.3	6.1
18	17.2	9.1	17.0	8.3	16.8	9.5	17.3	6.6	23.5	7.9	19.2	6.1	21.3	6.1
20	17.1	8.8	17.0	8.1	16.9	9.4	17.3	6.6	23.0	7.3	19.2	6.1	21.3	6.1
22	17.1	8.3	17.0	8.1	16.9	9.4	17.3	6.5	22.9	6.9	19.2	6.2	21.3	6.2
24	17.0	8.1	17.0	8.0	16.8	9.3	17.2	6.3	23.9	6.8	19.2	6.1	21.3	6.1
26	17.0	7.8	17.0	8.0	16.8	9.3	17.0	6.4	19.8	3.7	19.2	6.1	21.2	6.1
28	16.9	6.8	16.9	0.5	16.8	4.3	17.0	0.8	18.5	3.4	19.2	6.1	21.2	6.1
30	15.2	4.3							18.2	0.5	19.2	6.1	21.2	6.1
32	15.0	1.0									19.2	4.0		
34														



Site 5, 1996

Depth	24-Jun-96		27-Jun-96		1-Jul-96		3-Jul-96		9-Jul-96		11-Jul-96		15-Jul-96	
	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C
Surface	6.9	22.5	8.6	26.1	9.3	25.8	7.5	25.0	6.1	24.1	6.6	23.6	7.4	
2	6.9	22.0	7.9	26.1	9.4	25.4	7.3	25.0	6.1	24.1	6.5	23.6	7.9	
4	6.8	21.9	7.5	26.0	8.9	25.8	7.2	25.0	6.1	24.0	6.2	23.5	7.1	
6	6.8	21.9	7.3	25.8	8.2	25.8	6.9	25.0	6.1	24.0	6.0	23.4	7.0	
8	6.7	21.8	7.2	25.6	7.8	25.7	6.2	25.0	5.9	24.0	5.9	23.4	7.0	
10	6.7	21.7	7.1	25.6	7.7	25.6	6.1	25.0	6.0	24.0	5.0	23.2	6.7	
12	6.7	21.7	6.8	25.6	7.7	25.6	6.2	25.0	6.0	23.8	4.8	23.1	6.7	
14	6.6	21.6	6.8	25.5	7.8	25.4	5.9	25.0	5.8	23.8	4.2	23.1	6.2	
16	6.6	21.6	6.7	25.3	6.4	25.4	5.9	25.0	5.7	23.5	3.9	23.0	5.3	
18	6.6	21.6	6.7	25.0	6.0	25.4	6.0	25.0	5.9	23.5	3.7	22.9	3.7	
20	6.6	21.5	6.5	24.9	5.3	25.4	6.0	24.9	5.1	23.5	3.2	22.9	2.0	
22	6.6	21.5	6.5	24.8	4.9	25.4	5.7	24.9	4.4	23.4	3.0	22.8	2.5	
24	6.5	21.2	6.2	24.0	4.1	25.2	5.4	24.4	1.1	23.2	0.7	22.8	2.3	
26	6.5	21.2	6.2	23.6	3.3	24.1	2.2	24.4	0.9			22.7	2.2	
28	6.5	21.2	1.0	23.4	2.8	23.5	0.6					22.7	2.1	
30	5.2			23.1	17.0							22.7	2.0	
32				22.8	0.3							22.7	0.8	
34														

Depth	18-Jul-96		22-Jul-96		25-Jul-96		29-Jul-96		1-Aug-96		5-Aug-96		8-Aug-96	
	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C
Surface	10.1	23.1	7.1	22.8	8.4	23.1	9.1	22.5	6.2	24.1	9.7	24.9	8.0	
2	8.4	23.1	7.0	22.9	8.5	23.1	9.1	22.1	5.4	24.1	9.6	24.9	7.9	
4	8.3	23.0	7.1	22.9	8.3	23.1	8.8	22.0	5.1	24.1	9.4	24.9	7.9	
6	8.3	23.0	6.9	22.9	8.4	23.1	8.5	22.0	5.0	24.1	9.3	24.6	7.6	
8	8.1	23.0	6.8	22.9	8.3	23.1	8.2	22.2	4.9	24.0	9.3	24.5	7.6	
10	8.2	23.0	6.7	22.9	8.0	23.1	8.3	22.2	4.9	24.0	9.4	24.5	7.9	
12	8.0	23.0	6.8	22.9	7.0	23.1	8.1	22.0	4.9	23.9	8.8	24.5	7.8	
14	8.0	23.0	6.3	22.9	6.1	23.0	7.8	22.0	4.8	23.9	8.3	24.5	7.0	
16	8.0	23.0	5.1	22.8	5.6	23.0	7.6	22.0	4.8	22.5	4.7	24.2	5.5	
18	7.9	22.9	4.5	22.8	4.8	22.9	4.4	22.0	4.8	21.8	3.0	23.9	3.3	
20	7.2	22.9	4.3	22.7	4.4	22.4	3.2	22.0	4.8	21.6	2.5	23.5	2.3	
22	4.5	22.9	4.3	22.5	4.1	22.3	2.8	22.0	4.8	21.5	2.1	23.0	1.5	
24	2.4	22.9	4.3	22.5	3.9	22.2	2.5	22.0	4.7	21.4	1.3	22.9	1.3	
26	1.9	22.9	4.5	22.5	3.7	22.1	2.5	22.0	4.6	21.4	1.9	22.8	1.0	
28	1.1	22.8	4.6	22.5	5.6	22.1	1.4	22.0	4.6	21.4	1.7	22.5	1.0	
30		22.8	4.6	22.5	5.5				1.0	21.4	1.3			
32		22.9	2.0	22.5	2.7									
34		22.9	1.6											

Depth	12-Aug-96		15-Aug-96		20-Aug-96		22-Aug-96		26-Aug-96		29-Aug-96	
	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C	D.O.mg/L	Temp C
Surface	8.5	25.3	7.4	25.0	6.4	24.3	7.1	24.9	8.1	24.1	8.1	24.1
2	8.5	25.5	7.3	25.0	6.4	24.3	7.1	24.9	8.2	24.0	7.7	24.0
4	8.3	25.5	7.4	25.0	6.5	24.3	7.0	24.9	7.5	24.0	7.3	24.0
6	8.4			25.0	6.5	24.2	7.0	24.9	7.7	24.0	7.1	24.0
8	8.1	25.5	7.5	25.0	6.4	24.2	7.1	24.9	7.5	24.0	7.1	24.0
10	8.5	25.4	7.2	25.0	6.5	24.2	7.1	24.9	7.4	24.0	7.0	24.0
12	7.8	25.5	7.2	25.0	6.4	24.2	6.9	24.9	7.2	24.0	6.7	24.0
14	7.8	25.5	7.3	25.0	6.3	24.1	6.5	24.9	7.5	24.0	6.3	24.0
16	7.8	25.5	7.2	24.9	6.2	23.9	4.7	24.9	7.3	24.0	5.7	24.0
18	7.4	25.2	6.1	24.9	6.2	23.8	3.9	24.9	7.1	24.0	5.2	24.0
20	6.9	25.1	5.1	24.9	6.0	23.7	2.8	24.9	5.7	24.0	5.2	24.0
22	6.3	25.0	4.0	24.9	5.9	23.5	2.3	24.5	4.5	24.0	5.2	24.0
24	5.1	24.9	2.9	24.9	5.4	23.5	2.1	24.2	3.7	23.9	5.2	23.9
26	3.8	24.8	2.3	24.9	4.3	23.5	2.0	24.1	3.0	23.9	5.1	23.9
28	2.5	24.8	2.2	24.8	3.8	23.5	1.9	24.1	2.1	23.9	4.1	23.9
30	0.6	24.5	2.1	24.8	3.8	23.5	1.8				2.1	23.8
32	0.3	24.5	1.7	24.6	3.4							23.8
34		24.5	1.6									23.8