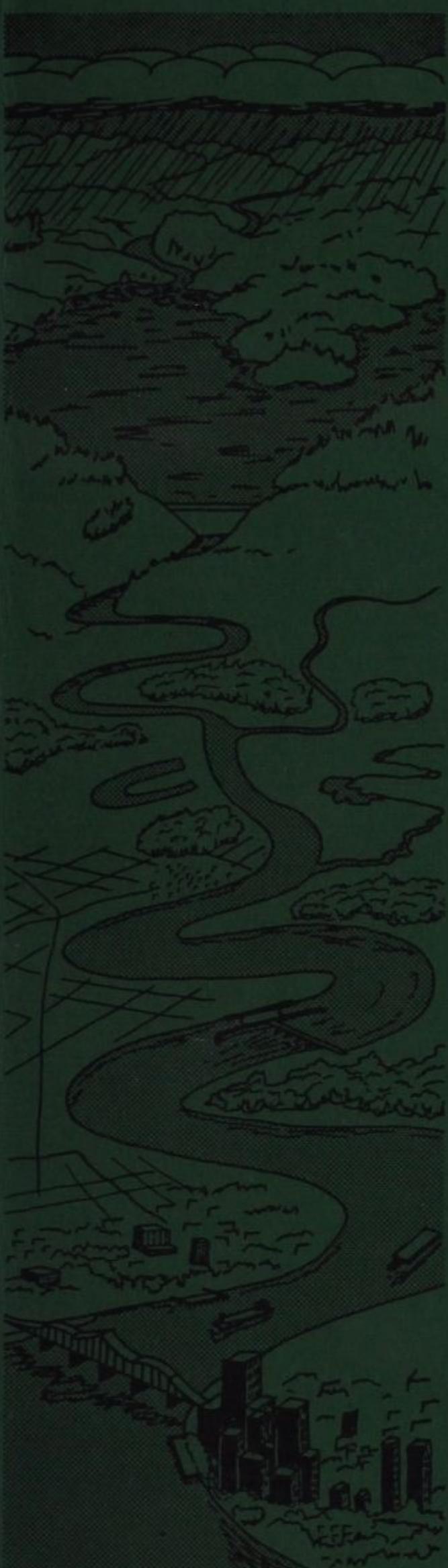


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ENVIRONMENTAL AND WATER QUALITY
OPERATIONAL STUDIES

TECHNICAL REPORT E-85-11

CONFIRMATION OF THE WATER QUALITY
MODEL CE-QUAL-R1 USING DATA FROM
EAU GALLE RESERVOIR, WISCONSIN

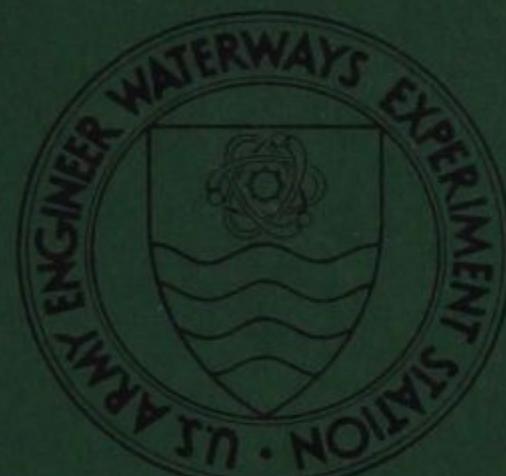
by

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Index (RI). The average RI for each variable indicated that precision was always better than a half-order of magnitude, even for variables that ranged over more than three orders of magnitude. Graphs are presented for all variables, including profiles for the date with the poorest predictions (according to the RI). In addition, comparisons of measured and predicted flux values were satisfactory, helping to ensure that reasonable predictions were made for the correct reasons.

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PREFACE

This report was sponsored by the Office, Chief of Engineers (OCE), US Army, as part of the Environmental and Water Quality Operational Studies (EWQOS), Work Units IB.1 and IC.1. OCE Technical Monitors for EWQOS were Dr. John Bushman, Mr. Earl Eiker, and Mr. James L. Gottesman.

Confirmation of CE-QUAL-R1 using data from Eau Galle Reservoir and the writing of this report were accomplished by Dr. Joseph H. Wlosinski and Dr. Carol D. Collins, Water Quality Modeling Group (WQMG), Ecosystem Research and Simulation Division (ERSD), of the Environmental Laboratory (EL), US Army Engineer Waterways Experiment Station (WES). Total confirmation, other model development, and data collection and manipulation were performed by many other members of the ERSD during the course of EWQOS. The draft report was reviewed by Dr. James L. Martin and Dr. Stephen P. Schreiner, both of the WQMG. The report was edited by Ms. Jessica S. Ruff of the WES Publications and Graphic Arts Division.

The study was conducted under the direct supervision of Mr. Mark S. Dortch, Chief, WQMG, and under the general supervision of Mr. Donald L. Robey, Chief, ERSD, and Dr. John Harrison, Chief, EL, WES. Program Manager of EWQOS was Dr. Jerome L. Mahloch, EL.

During the study and preparation of this report, COL Tilford C. Creel, CE, and COL Robert C. Lee, CE, were Commanders and Directors of WES and Mr. Fred R. Brown was Technical Director. At the time of publication, COL Allen F. Grum, USA, was Director and Dr. Robert W. Whalin was Technical Director.

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CONFIRMATION OF THE WATER QUALITY MODEL CE-QUAL-R1
USING DATA FROM EAU GALLE RESERVOIR, WISCONSIN

PART I: INTRODUCTION

Background

1. CE-QUAL-R1 is a water quality model that is undergoing continuing development by the Corps of Engineers as part of the Environmental and Water Quality Operational Studies (EWQOS). The model predicts the vertical distribution of temperature and other water quality variables in a reservoir through time. The version of the model used for this study was basically the one described in the revised User's Manual (Environmental Laboratory 1982), with changes as reported in Wlosinski and Collins 1985. In addition, a weir subroutine and a macrophyte subroutine were added to the model to better simulate conditions of the Eau Galle Reservoir. All work was done on a VAX-11-750 computer.

2. Model confirmation using data collected on the Eau Galle Reservoir follows a similar study using data collected on DeGray Lake, a Corps of Engineers project located in the Ouachita Mountains in south-central Arkansas (Wlosinski and Collins 1985). One purpose of the two studies was to test the model on reservoirs that differed markedly. DeGray Lake is 32 km long, dendritic, and has a normal depth near 57 m, an area of $5.3 \times 10^7 \text{ m}^2$, and a volume of $7.9 \times 10^8 \text{ m}^3$. Eau Galle Reservoir is 1 km long, circular, and has a normal depth near 10 m, an area of $4.5 \times 10^5 \text{ m}^2$, and a volume of $1.7 \times 10^6 \text{ m}^3$. DeGray is monomictic, while Eau Galle is dimictic. Biologically, Eau Galle is much more productive than DeGray.

Purpose

3. The purpose of this study was to ensure that model performance is suitable for the needs of Corps of Engineers (CE) District and

Division Offices. This was accomplished by comparing model predictions to field measured values. Data collected in 1981 were used for model calibration, while data collected in 1982 were used for confirmation. Graphical and statistical tests were used for the comparisons, which consisted of the concentrations of state variables. In addition, the flux between modeled components was compared in cases where data were available.

Model Description

4. CE-QUAL-R1 is a water quality model that computes the vertical distribution of 37 physical, biological, and chemical constituents in a reservoir through time. In the model, a reservoir is conceptualized as a vertical series of horizontal layers where thermal energy and mass are uniformly distributed in each layer. The horizontal layer thicknesses are variable and dependent on the balance of inflowing and outflowing waters. Variable layer thicknesses permit accurate mass balancing and reduce numerical dispersion during periods of large inflow and outflow.

5. Inflowing waters are distributed vertically based on density differences, so that simulations of surface flows, interflows, and underflows are possible. Water density is dependent on temperature and dissolved and suspended solids concentrations. Outflowing waters are withdrawn from the horizontal layers considering density stratification using the selective withdrawal algorithm of Bohan and Grace (1973). Reservoir outflows, by port, can either be specified or the user can invoke a subroutine that will choose port flows in order to meet a downstream temperature objective.

6. The heat budget includes the components of short- and long-wave radiation, back radiation, reflected solar and atmospheric radiation, evaporative loss, conductive heat transfers, and gain or loss through inflows and outflows. Vertical transport of thermal energy and mass is achieved through entrainment and turbulent diffusion. Entrainment determines the depth of the upper mixed layer and the onset of stratification. It is calculated from the turbulent kinetic energy

influx generated by wind shear and convective mixing using an integral energy approach (Johnson and Ford 1981). Turbulent diffusion tends to reduce gradients and is incorporated using a turbulent or eddy diffusion coefficient that is dependent on the windspeed, magnitude of inflows and outflows, and density stratification.

7. The prediction of water quality is based upon simulation of the interaction of numerous biological and chemical constituents. Forces that directly affect the simulation of these constituents are temperature, irradiation, wind speed, inflow and outflow rates, and inflowing and outflowing masses. The physical distribution of mass is dependent upon the diffusive and convective processes described above and on settling processes.

8. The interactions between and among the constituents ultimately determine the constituent masses. Photosynthesis, dark respiration, photorespiration, and nonpredatory mortality are processes influencing algal and macrophyte mass. Grazing by fish and zooplankton are additional influences on algae. Ingestion, egestion, and respiration affect zooplankton and fish growth. Inorganic compounds such as ammonia-N, nitrite plus nitrate-N, orthophosphate, and silica are consumed and produced as a result of the photosynthetic and respiratory processes of the plants and animals. Orthophosphate and ammonia-N are adsorbed to solids according to a modified equation for the Langmuir isotherm. Ammonia-N is also removed by conversion to nitrite plus nitrate-N under aerobic conditions. Nitrite plus nitrate-N is lost through denitrification.

9. Mass of detritus is dependent on algal and macrophyte mortality, ingestion by fish and zooplankton, egestion of zooplankton, and settling. Decomposition of detritus contributes mass to ammonia-N, nitrite plus nitrate-N, orthophosphate, and inorganic carbon.

10. Inflowing and initial concentrations for dissolved organic matter (DOM) are fractionized between labile and refractory DOM compartments. Refractory DOM is usually more resistant to decomposition than labile DOM and decomposes at a slower rate. Plant photorespiration contributes to labile DOM. As labile DOM decomposes, products are

distributed to inorganic nutrients and refractory DOM.

11. Dissolved oxygen concentration is of primary importance to reservoir management. Oxygen is evolved by algal and macrophyte photosynthesis. Oxygen demand in CE-QUAL-R1 is created by the processes of nitrification, decomposition of organic compounds and sediment, respiration, and oxidation of reduced products of anaerobic reactions. Oxygen may also be gained or lost at the air-water interface. Anaerobic and aerobic conditions resulting from changes in oxygen concentration drive many other modeled processes. If the system becomes anaerobic, decomposition of organic material slows considerably, and certain compounds are released from the sediment. These compounds include ammonia-N ($\text{NH}_4^+ - \text{N}$), orthophosphate-P ($\text{PO}_4^{3-} - \text{P}$), dissolved reduced manganese and iron (Mn^{+2} , Fe^{+2}), and sulfide (S^{-2}). Sediments release almost all the anaerobic compounds generated in CE-QUAL-R1; reductions and inflow account for the remainder. Reoxygenation of the system will reverse these reactions.

12. Total dissolved solids are simulated to obtain an approximation of ionic strength. Calculations based on the equilibrium reactions of bicarbonate, carbonate, and hydroxyl ions and on ionic strength result in the pH value reported for each layer. This value is then used to calculate the carbon dioxide concentration which contributes to plant growth and diffuses across the air-water interface. Total alkalinity is simulated in CE-QUAL-R1 to provide an indication of the buffering capacity of the system. Alkalinity is modeled as a conservative substance, being only advected and diffused.

13. Suspended solids influence both the density and light regimes. Suspended solids are subjected to advection, diffusion, and settling. A more detailed description of the final model used in this study will be available in a revised user's manual.

Eau Galle Reservoir Study Site

14. Eau Galle Reservoir is located in west-central Wisconsin, 56 km upstream of the confluence of the Eau Galle and Chippewa Rivers

and immediately upstream of the town of Spring Valley. The drainage area at the damsite is 165 km^2 , with the majority of the land being used for dairy operations and associated agriculture. At a normal pool elevation of 286.5 m mean sea level (1929 adjustment), the surface area of the pool is 0.5 km^2 , the volume is $1.7 \times 10^6 \text{ m}^3$, the maximum depth is 9.75 m, and the reservoir mean depth is 3.7 m. The dam is a rolled earth-fill structure, with a length of 486 m and a maximum height above the streambed of 37 m. Pool elevation is controlled by a vertical slide gate leading to a horseshoe conduit with an upstream invert elevation of 279.3 m and by an uncontrolled morning glory weir at 286.5 m. During 1982 and 1983, the pool fluctuated between 286.3 and 288.6 m although it rarely exceeded 286.8 m. A more detailed description of the dam, reservoir, and watershed is available in Ashby (1985).

15. An overview of the reservoir is presented in Figure 1. The dam is located in the top right corner of the figure. The in-pool sampling stations are labeled 10, 20, 30, 40, 50, and 60. The Eau Galle River and French Creek join just upstream of the reservoir, and enter at the point labeled A. Lousy and Lohn Creeks enter at B and C, respectively.

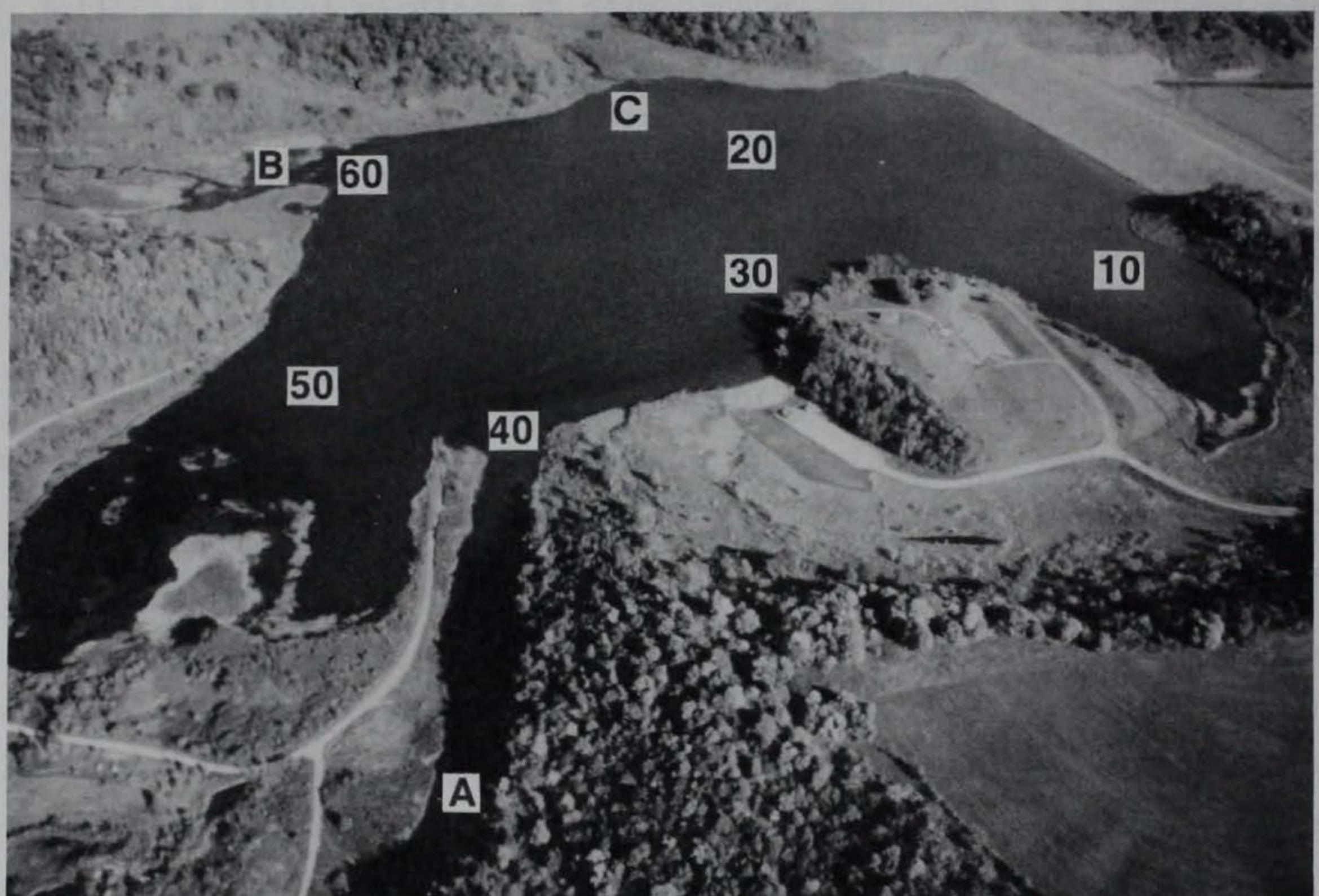


Figure 1. Overview of Eau Galle Reservoir (symbols are defined in text)

PART II: DATA REQUIREMENTS

16. Four types of data were required for the simulation studies: initial conditions, driving variables (also termed boundary conditions or updates), model coefficients, and confirmation data (also termed calibration or verification data). Initial conditions refer to the amounts of state variables at the start of simulation. Driving variables act to change the state variables of the system, but lie outside the system. For CE-QUAL-R1, the driving variables include meteorological data, flow from upstream, and controlled outflow releases. Model coefficients are constants used in the algorithms that comprise the model. Confirmation data refer to field measured values which are then compared to model predictions. Complete data sets are included in Appendix A for 1981 and for 1982. These data sets include only those data needed to simulate the Eau Galle Reservoir. Confirmation data are not included. Information on the sampling program and analytical methods can be found in Johnson and Lauer (1985).

Initial Conditions

17. Initial conditions were measured on 7 April 1981 and 20 April 1982 at the deepest part of the pool, located at station 20 (Figure 1). Those variables for which values were available were temperature, alkalinity, ammonia-N, nitrite plus nitrate-N, oxygen, orthophosphate-P, total dissolved solids, pH, suspended solids, silica, coliforms, sulfate, and sulfide. Reduced and oxidized manganese and iron were obtained from dissolved, and from the difference between total and dissolved, manganese and iron, respectively.

18. Initial conditions for algae were estimated using chlorophyll-a measurements and information from Barko et al. (1985). They found a significant relationship ($r^2 = 0.84$) of 2.8 mg chlorophyll-a per gram of fresh weight. Using this value, and the assumption that 90 percent of fresh weight is water, the conversion to

modeled units of grams dry weight was made. Barko et al. (1985) also found that algal populations were dominated by Bacillariophyceae (diatoms), Cyanophyta (blue-greens), and Pyrrophyta (dinoflagellates); therefore, this grouping was used for the three modeled algal compartments. Because diatoms dominated the reservoir in the spring, the total chlorophyll value for initial conditions was assumed to be diatoms. For purposes of confirmation, the mass of the three algal compartments was summed and converted to chlorophyll-a.

19. Dissolved organic carbon was used to estimate refractory and labile DOM, with 30 percent estimated to be labile. Dissolved organic carbon was assumed to be 46 percent of DOM. Estimates of fish mass were obtained from Leidy and Jenkins (1977). Because the water was well aerated on the day that initial conditions were measured, values for iron sulfide were assumed to be zero. The other variables that were not measured, detritus, zooplankton, and materials in the sediments, were given low initial values or values based on the DeGray Lake study. The ranges of values for initial conditions for the two simulation years are listed in Appendix B.

Driving Variables

20. Initial simulations used meteorological data measured at the National Weather Service station at Minneapolis-St. Paul, Minn., 80 km west of the Eau Galle Reservoir. Daily averages were used for dry bulb and dew point temperatures, cloud cover, barometric pressure, and wind speed. During calibration of the 1981 data set, it was noticed that there was too much mixing during a few critical periods of the year. A comparison of wind speeds between the Minneapolis-St. Paul, Minn., and Eau Claire, Wis., weather stations showed a fairly consistent difference between the stations, with the Eau Claire values being lower. The Eau Claire station is approximately 68 km east of the reservoir. For example, for the first week of May 1981, wind speeds averaged 17.8 km/hr at the Minneapolis station, and 13.5 km/hr at Eau Claire, with maximum winds for the period of 31.3 and 23.2 km/hr, respectively. The

calibration simulation was much better with the lower wind values from Eau Claire. The 1982 confirmation simulation showed the same pattern; therefore, wind data from St. Paul were replaced with values measured at Eau Claire. The wind data used for the simulations are shown in Figure 2 (1981) and Figure 3 (1982). The rest of the meteorological data came from the St. Paul station.

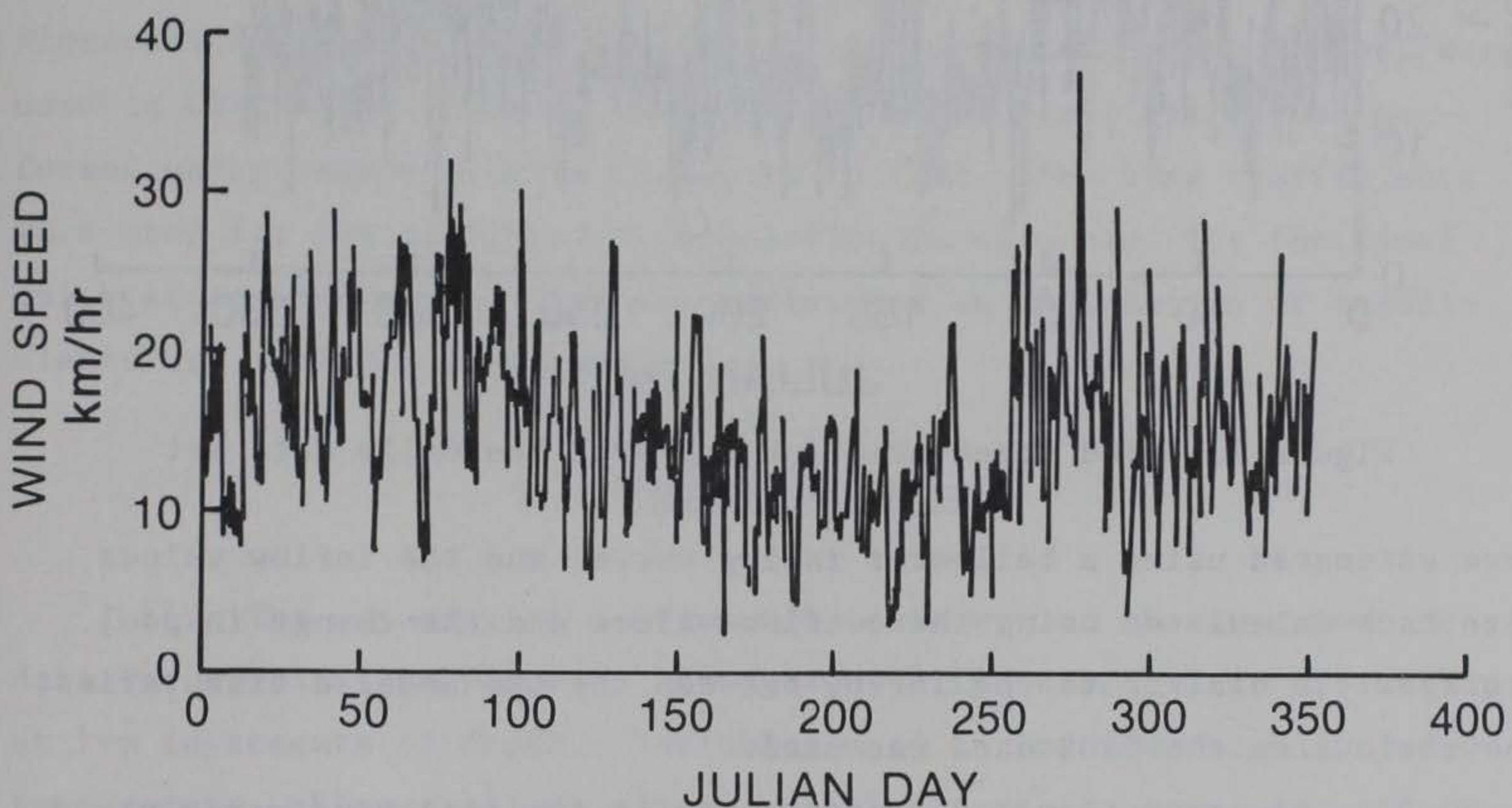


Figure 2. Wind speed used for the 1981 Eau Galle data set

21. Two tributaries were used for simulation purposes. One tributary represented the Eau Galle River and French Creek; the other represented Lousy and Lohn Creeks. For the first simulation, inflow and outflow discharge values were taken from US Geological Survey (USGS) records (1981, 1982), corrected for watershed areas above the gages when compared with areas above the reservoir. These values were not satisfactory, predicting pool levels much lower than measured. In checking the USGS data for the period November 1980 to September 1981, the additional discharge from the reservoir, corrected for areas above the gages, was in error enough to drain the reservoir four times over at the normal pool elevation. Instead of using the USGS data, inflow and outflow discharge values were obtained from damtender records, stored at the US Army Engineer District (USAED), St. Paul. These outflow values

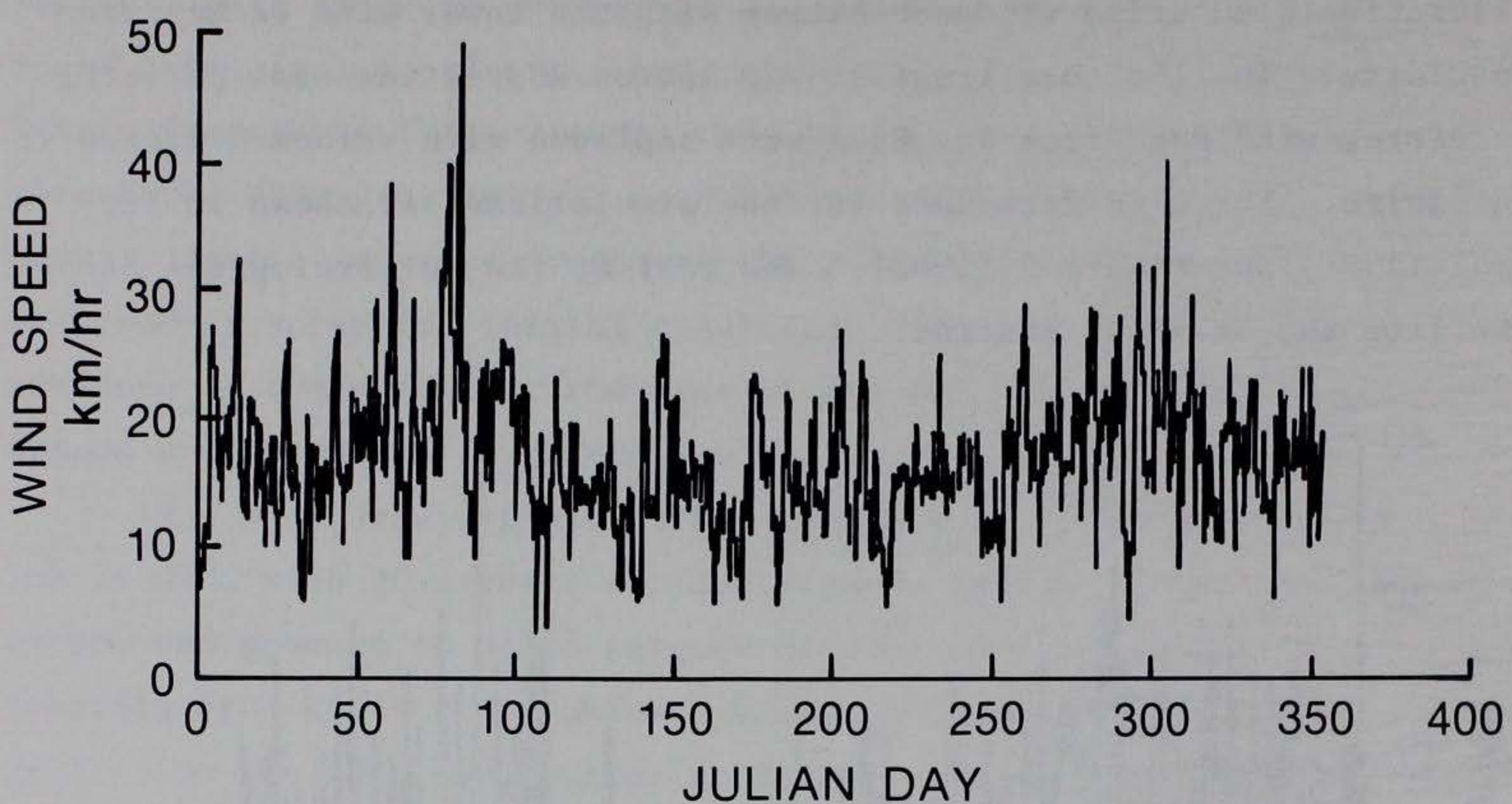


Figure 3. Wind speed used for the 1982 Eau Galle data set

were estimated using a tailwater rating curve, and the inflow values were back-calculated using the outflow values and the change in pool storage. To distribute the inflow between the two modeled tributaries, the ratio from the USGS data was used.

22. Concentrations of constituents in the inflowing water were measured biweekly on all four tributaries. Concentrations for the modeled tributaries were calculated based on the measured value and the amounts of inflow from each tributary. Orthophosphate phosphorus values were found to be related to discharge, so daily concentrations were estimated based on flow using regression techniques. Daily temperature data were available from USGS records measured at Woodville, Wis., approximately 5 km upstream of the reservoir. Using these data, inflow temperatures measured for the four tributaries on a biweekly basis, and regression techniques, daily temperature estimates for the two modeled tributaries were obtained.

Model Coefficients

23. Coefficients included in physical and thermal equations of the model were calibrated using CE-THERM-R1, the thermal portion of CE-QUAL-R1, and temperature data collected in 1981. These coefficients, and others originally estimated from literature values (Collins and Wlosinski 1983, Jørgensen 1979) and other model studies (Wlosinski 1981, Wlosinski and Collins 1985) for biological and chemical processes, were used in CE-QUAL-R1. Again, calibration of the coefficients was performed using reservoir data collected in 1981. The same coefficients were used for the confirmation simulation as were used for the final calibration simulation. Values, units, and an explanation of coefficients are included as Appendix C.

Confirmation Data

24. The majority of confirmation data was of the same form as data for initial conditions. The data usually were collected biweekly at 1-m increments of depth. Variables used for confirmation included temperature, chlorophyll-a, silica, total manganese, total organic carbon, dissolved organic carbon, orthophosphate-phosphorus, inorganic carbon, ammonia-nitrogen, nitrite plus nitrate nitrogen, oxygen, pH, alkalinity, total dissolved solids, suspended solids, total iron, sulfate, dissolved manganese and iron, and sulfide. Chlorophyll-a was compared to the summation of all three modeled algal compartments. Predicted values for Mn^{+2} and Mn (IV) were combined and compared to total manganese. Total organic carbon included all three algal compartments plus labile and refractory DOM, detritus, and zooplankton. Dissolved organic carbon was compared to the labile plus refractory compartments. Total iron included Fe (III), Fe^{+2} , and 63 percent of iron sulfide. Even though the confirmation simulation used data collected in 1982, similar comparisons were made in 1981 for model calibration.

25. In addition to the concentrations of the above variables, flux rates were available for certain processes. These included algal production,* algal settling,** and sediment oxygen demand obtained from a laboratory study (Gunnison, Chen, and Brannon 1983).

* Personal Communication, November 1983, J. W. Barko, Research Biologist, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

** Personal Communication, November 1983, W. F. James, Physical Scientist, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

PART III: METHODS

Rationale

26. Methods for model confirmation follow from the objective of developing the CE-QUAL-R1 model: to provide CE District and Division Offices with a means of studying preimpoundment and postimpoundment water quality problems and the effects of reservoir operation on water quality. The goal of the confirmation process was to supply the best possible tool, within the assumptions specified for CE-QUAL-R1, for reservoir water quality management. Two main processes were used during the EWQOS Program to evaluate the model (Wlosinski 1984): the first tests the software code; the second examines model predictions. Most of the testing of the software code was performed in earlier studies, and the results have been reported by Wlosinski and Collins (1985). The main purpose of the Eau Galle simulations, reported here, was to examine model predictions.

Variability

27. One of the main assumptions of CE-QUAL-R1 is that the reservoir is spatially one dimensional. The model represents a reservoir by a vertical series of layers, each of which is horizontally uniform. Several factors contribute to variability between model and prototype. Near tributaries, inflowing water affects measured concentrations, and the one-dimensional assumption is weakened. Macrophyte beds in shallow areas affect that part of the system more than deeper, macrophyte-free areas. In addition, the equations of the model cannot be solved in closed form; time steps are needed to find approximate solutions to the equations. Within each modeled time step (often 1 day for CE-QUAL-R1), details may be lost. The model will predict one value for each variable in each layer during a time step. In the real system, the actual range of values can be great. Consider, for example, Figure 4, which is a graph of oxygen values measured at three different stations during a

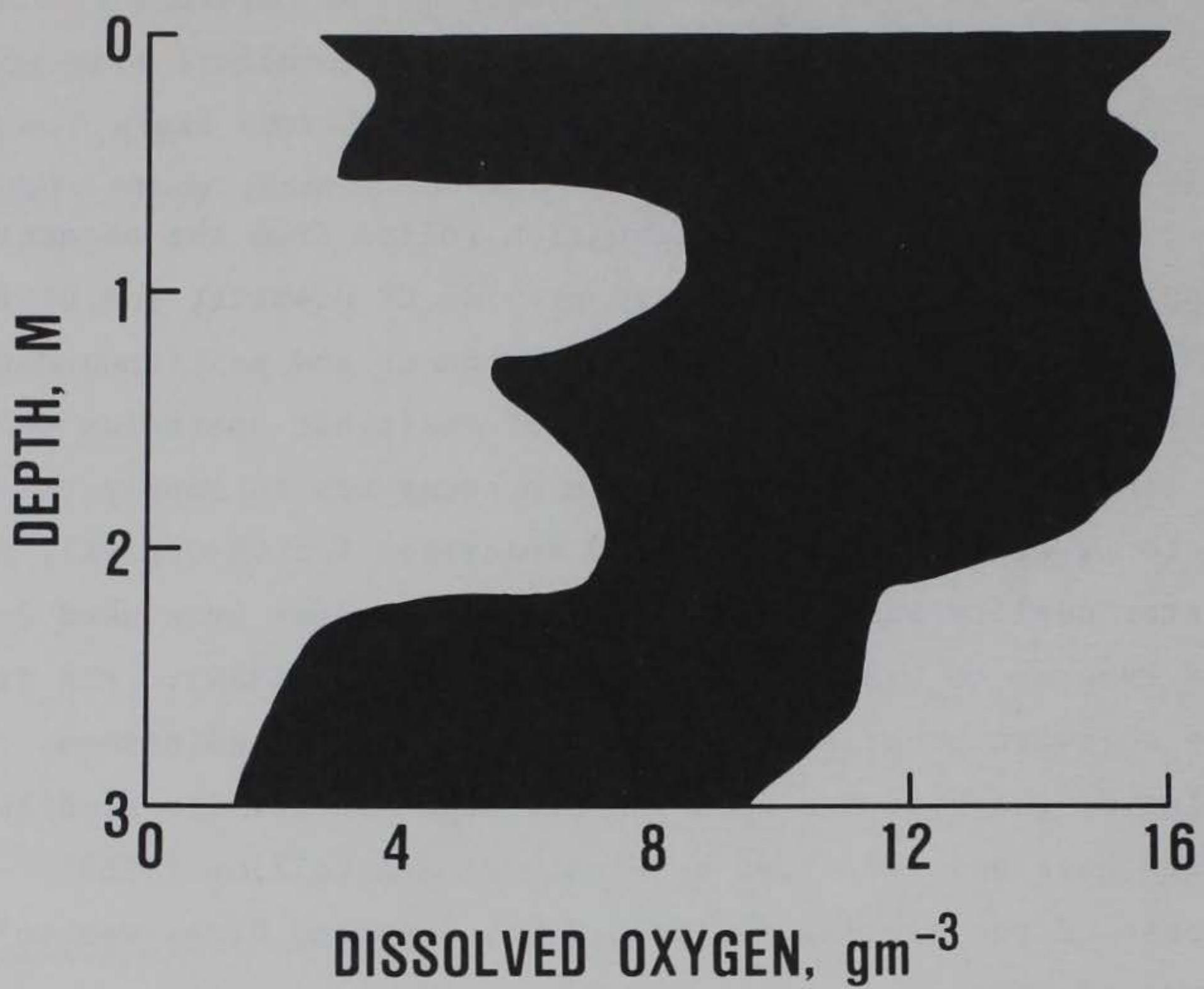


Figure 4. Example of oxygen variability (shaded area) at different locations during a 24-hr period at Eau Galle Reservoir. Data were collected on 2 September 1981

24-hr period on 2 September 1981. The values range between 17 and 182 percent of saturation at the temperatures measured. With such high variability, model evaluation would be very difficult, considering the one-dimensional assumption. Rather than accounting for data variability between stations, the single predicted value for each variable at each layer was compared to the value measured only at station 20. Station 20 was chosen because it was the deepest station and had the most data. The evaluation process would then show whether or not the model is predicting the major changes occurring in the reservoir.

Evaluation Process

28. Both graphical and statistical tests were made for predicted versus measured data. Qualitatively, graphs were prepared showing

vertical profiles of measured versus predicted data for approximately 20 variables. The number of comparisons for each variable on each sampling day was usually between 7 and 10, with between 12 and 32 sampling dates for each variable for each year. In 1981, a total of 3,408 comparisons were made; in 1982, the number was 3,251.

29. Because of the large amounts of measured data that were available for model confirmation, adequate judgment of the total model was difficult by only viewing graphs. A change in a particular algorithm or a different set of coefficients may have improved some variables, or improved some profiles of a particular variable, while making others less desirable. For those cases, statistical analysis for all comparisons was helpful. These analyses were used to test which of two algorithms for a particular process was a better predictor or which of a number of sets of coefficients produced simulation curves that most closely corresponded to all observed data.

30. The statistic used for comparison was the Reliability Index (RI) of Leggett and Williams (1981). It is a good statistic for aggregating and comparing results of different variables because it does not depend on whether the observed or predicted value is greater; also, it is scale variant against additive variation.

31. The statistic was computed for each variable on each sampling day, as well as for each variable over depth and time. An average value for all composite RIs was calculated to give the "goodness" for the entire model. Calculated values of RI could range from 1.0, for the case of perfect prediction, to infinity. If all comparisons had measured versus predicted values within a factor of two of each other, the value for the RI would be 2.0. An RI of 10.0 signifies that the differences between measured and predicted values were an average of one order of magnitude apart, while an RI of 100.0 signifies that the comparisons were two orders of magnitude apart.

32. Besides comparing the concentration of predicted versus measured variables, predicted flux values were compared to their measured counterpart. Data were available on algal settling, gross production, and oxygen utilization at the sediment-water interface. Settling and

gross production values were measured *in situ*. Oxygen utilization values were measured in laboratory studies (Gunnison, Chen, and Brannon 1983). Predicted flux values were not checked for each calibration simulation because the flux utility is used after a CE-QUAL-R1 simulation is finished (Wlosinski 1984).

PART IV: RESULTS AND DISCUSSION

Calibration Simulations

33. Calibration of CE-QUAL-R1, using the 1981 Eau Galle data set, required a number of phases that illustrated the difficulty of producing a model that is always general enough to simulate all reservoirs while only changing model coefficients. Several site-specific modifications had to be made to the model to describe adequately some of the characteristics peculiar to Eau Galle. These changes are discussed in the following paragraphs.

34. Volume of the Eau Galle Reservoir was calculated from sediment range studies performed by the USAED, St. Paul, in 1977. The relationship between measured volume and elevation is presented in Figure 5 (curve A). Model predicted volumes were originally computed from the area-elevation equation,

$$\text{Area} = 5,791 \cdot \text{EL}^{1.954} \quad (1)$$

where

EL = elevation from the pool bottom (m)

Area = area of the pool at a particular elevation (m^2)

The coefficients of Equation 1 were determined from the sediment studies using regression techniques. Volume, predicted as a function of elevation, is also presented in Figure 5. Because the predicted volumes were considered unsatisfactory, other relationships were tried, and the area-elevation algorithm was replaced by

$$\text{Area} = 4,906 \cdot \text{EL}^2 - 5,707 \cdot \text{EL} + 48,453 \quad (2)$$

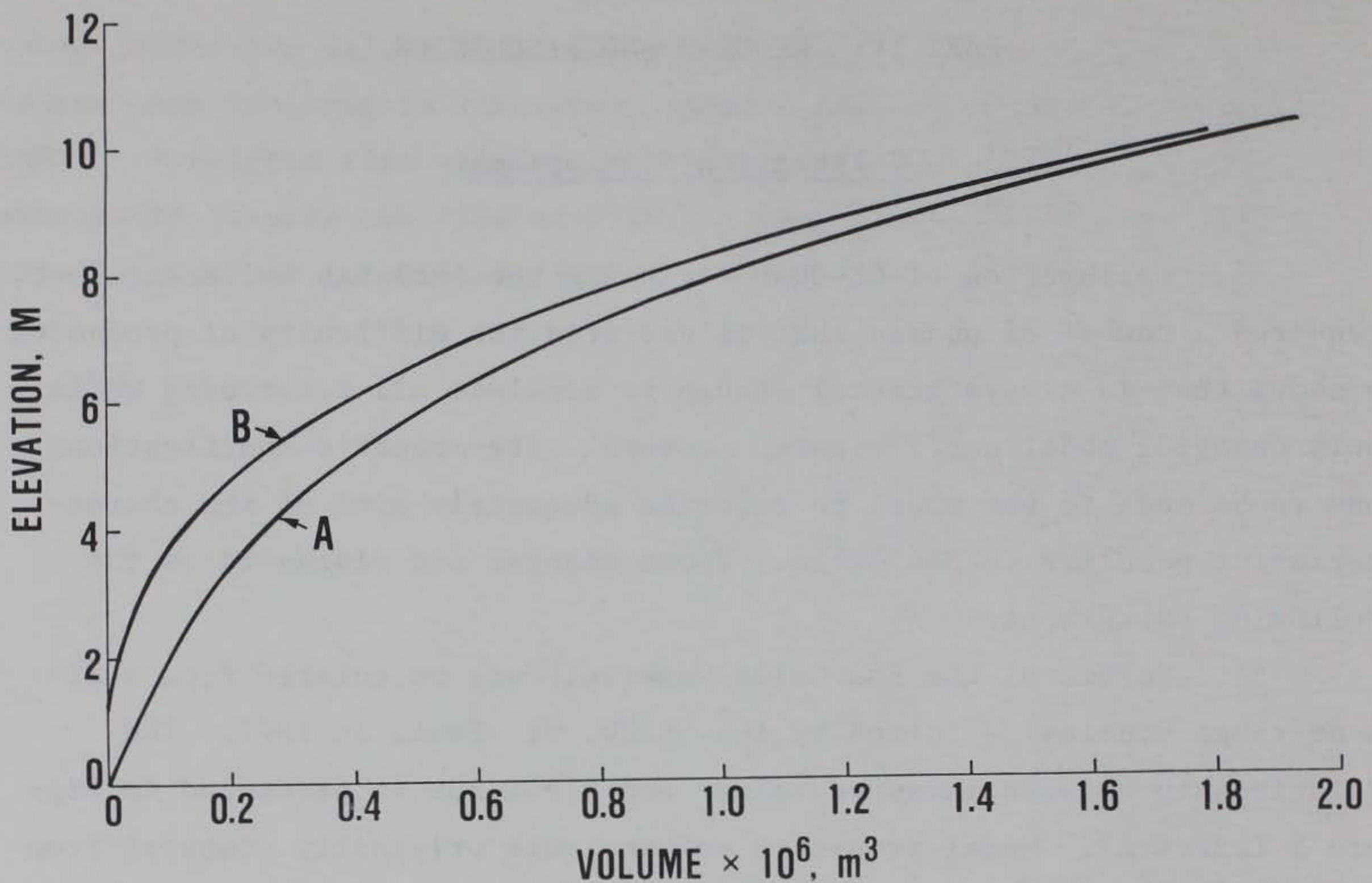


Figure 5. Measured (A) and predicted (B) relationships between elevation and volume in Eau Galle Reservoir

35. Predicted volumes using this relationship were nearly indistinguishable from Figure 5 (curve A). The original volume relationship (corresponding to Equation 1)

$$\text{Vol} = \frac{5,791.\text{EL}^{1.954} + 1}{1.954 + 1} \quad (3)$$

was replaced with

$$\text{Vol} = \frac{4,906.\text{EL}^3}{3} - \frac{5,707.\text{EL}^2}{2} + 49.453.\text{EL} \quad (4)$$

36. These changes were made only for the Eau Galle simulation study. The original area-elevation algorithm used in the model is considered satisfactory for representing drowned river valleys. In the case of the Eau Galle Reservoir, a borrow area in the conservation pool (US Army Engineer District, St. Paul 1964) was large enough to disturb

the original dimensions describing the valley. Figure 6 represents contours for the conservation pool which were obtained from the 1977 sediment range studies. The area below 279 m represents, approximately, the borrow area. This change produced satisfactory temperature predictions, having an average RI of 1.12.

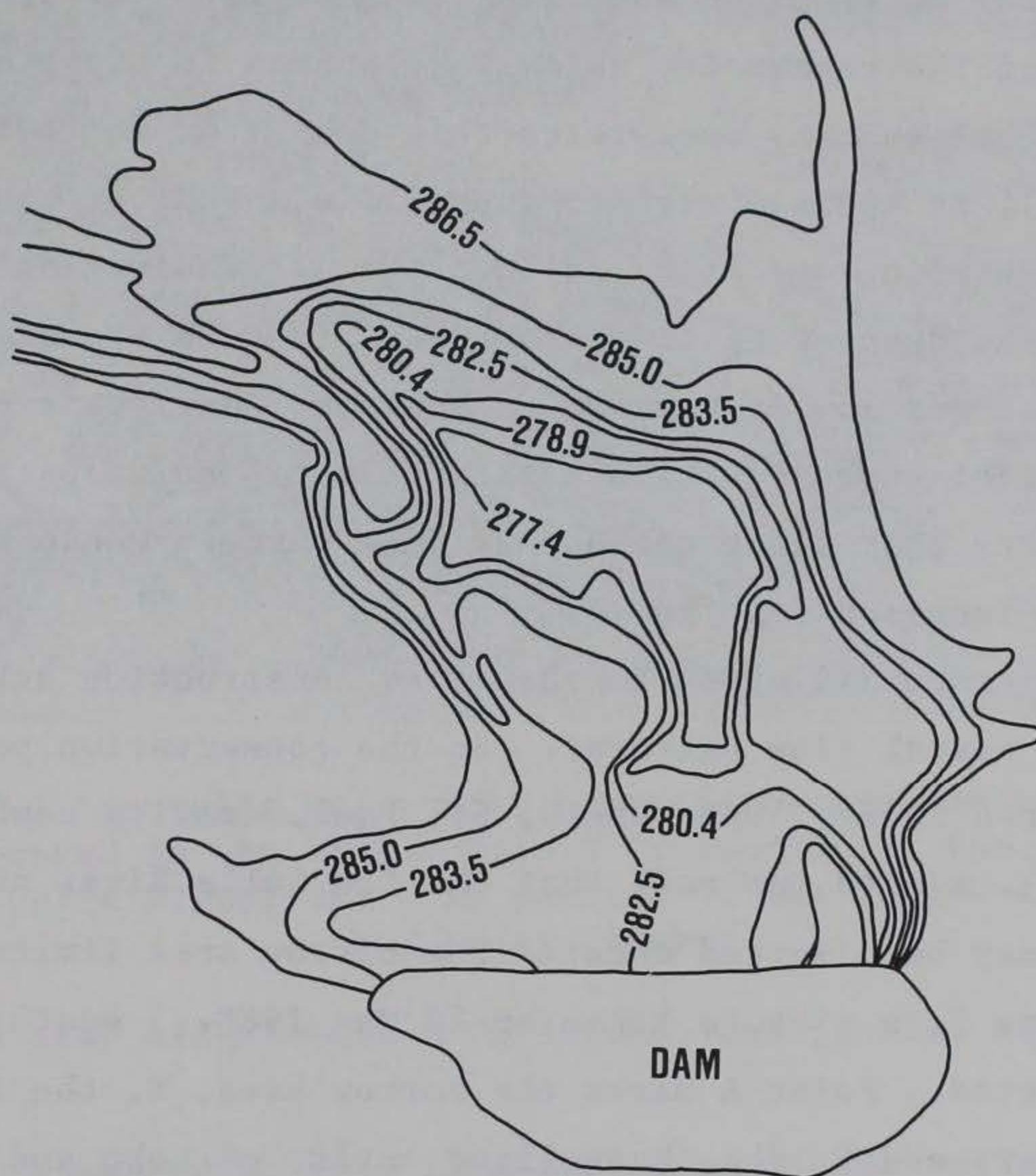


Figure 6. Depth contours for Eau Galle Reservoir

37. After this change was made, the CE-THERM-R1 data set was then used as a basis for the CE-QUAL-R1 data set. The first set of predictions, using coefficients from the literature and other modeling studies, was considered unsatisfactory. The average RI for this simulation was 6.5, compared to 2.84 and 2.59 obtained for the final DeGray Lake simulations for 1979 and 1980, respectively (Wlosinski and Collins 1985). Subsequently, a number of simulations were made during which biological and chemical coefficients were changed. Although predictions improved, they were still considered unsatisfactory, having an average

RI of 5.03. Evidence from these simulations pointed toward problems with inflow, outflow, and mixing in the lower layers of the reservoir.

38. At that time, conversations with personnel of the USAED, St. Paul, led to the discovery that the old river and creek channels may have been diverted from the borrow area. Station 20, where the vertical profiles for calibration and confirmation data were measured, was in the deepest part of the reservoir, which was located in the middle of the borrow area. Unlike many reservoirs this deep area was not next to the dam (Figure 6), in the old river channel. In a typical reservoir, cooler water entering as inflow follows the old thalweg and can replace the water in the deepest part of the reservoir. This cooler water may also be lost as outflow if the dam is equipped for low-level withdrawal. Because the model representation befits this typical reservoir, changes in pool geometry that alter the normal flow pattern would necessitate model changes representing flow.

39. Evidence did exist to show that construction activities altered these normal flow patterns. On the conservation pool borrow area plan, dated 20 May 1965 (USAED, St. Paul, drawing number M31a.1-L-10/6), a note was made that the Eau Galle River and Lohn and Lousy Creeks may be diverted outside the borrow area limits. This is shown in Figure 7, a picture taken on 23 May 1968, 3 months before the dam was completed. Point A marks the borrow area; B, the inlet of the Eau Galle River; and C, the channelized outlet of Lohn and Lousy Creeks. As can be seen, the river and creeks do not enter the borrow area. Also, a mixing study performed during the summer of 1981 supported this hypothesis. During that study, water from the Eau Galle River entered the reservoir as an underflow at station 40 and continued as an underflow to station 30 (Figure 1). It then spread across the lake as an interflow at a depth from 3-4 m.* It was therefore concluded that the lower elevations of the borrow area were isolated from inflow and outflow effects. To better represent this isolation, it was assumed that the lowest 5 m of the pool was cut off to inflowing and outflowing

* Personal Communication, February 1983, Marc Johnson, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.



Figure 7. Eau Galle Reservoir, 3 months before dam completion (A is located in the borrow pit, B is located at the inflow of the Eau Galle River, and C is located at the inflow of Lohn and Lousy Creeks)

waters. This step aided model predictions, but problem areas still remained.

40. It appeared at this time that some of the variable concentrations in the metalimnion, during the summer months, were reflecting too much input from inflowing waters, whereas the predictions in the epilimnion would be better if some of the inflowing water was mixed with surface waters. In the original model, inflow placement was dependent only on the density of inflowing water compared to the density within the pool. There is no mixing or entrainment with other layers in the reservoir unless density is nearly the same. As can be seen in Figure 1, reservoir tributaries, especially Lohn and Lousy Creeks, are relatively small, and since flows are usually less than $1 \text{ m}^3/\text{sec}$, some mixing is quite reasonable. To test this hypothesis, an algorithm that mixed

inflowing water with the surface layer as a function of wind was added to the model. The algorithm is depicted in Figure 8. The fraction of inflowing water that mixes with the surface increases with an increase in wind or a decrease in inflow discharge. This model change was temporary, being made only for the Eau Galle simulations. Although improvements were made concerning predictions, results were still unsatisfactory. Problems at this time, though, did not appear to be due to mixing or flow problems, but to problems with the biological portion of the model.

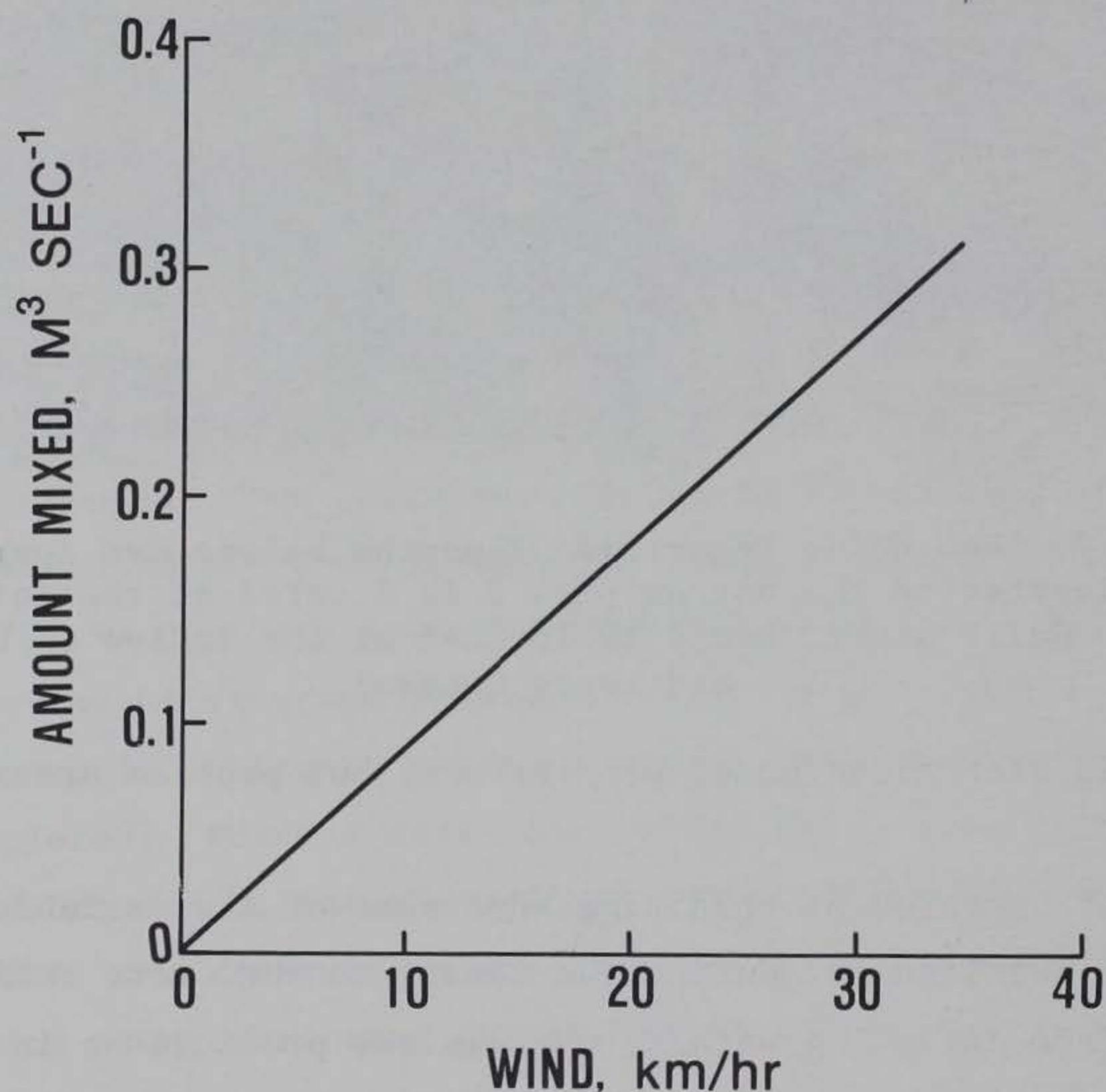


Figure 8. The relationship between the amount of wind and the amount of inflowing water mixing in the surface layer

41. Orthophosphate phosphorus was measured on 7 April 1981, with values ranging in the water column from 0.008 to 0.011 mg/l. It was not possible to predict the diatom bloom of 169 $\mu g/l$ chlorophyll-a measured on 21 April when using the measured orthophosphate values. Even if all of the orthophosphate measured was converted to algae, with no algal

losses to sinking, respiration, zooplankton ingestion, or other factors, the level of algae would not be as high as measured on 21 April. During this 2-week period, flow levels remained low, as did measured concentrations of orthophosphate in the inflow. On 4 April, 3 days before the start of simulation, 1.46 in. of rainfall caused the flow of the Eau Galle River to rise from a normal $0.2\text{-}0.9 \text{ m}^3/\text{sec}$ to $6.7 \text{ m}^3/\text{sec}$. This rise, along with a probable increase in orthophosphate concentrations (Ashby and James 1985), may have supplied the phosphorus needed for growth. The diatoms may have increased their internal phosphorus concentrations by way of luxury uptake (Rhee 1974, Collins 1980). Luxury uptake is not modeled in CE-QUAL-R1, and to do so would make the model more complex than is needed for the Corps. To overcome this problem, the initial conditions for orthophosphate were increased to a value between measured orthophosphate and total phosphorus. For the 1982 confirmation simulations, the measured values (near 0.08 mg/l) for orthophosphate were used.

42. To help locate other problem areas, equivalent changes were made to the flux model, with flux predictions then being checked. Predictions for which data were available (algal setting, gross production, and oxygen utilization at the sediment-water interface) appeared reasonable. Although most of the biological variables are interconnected, with changes to one variable affecting the predicted results of other variables, it appeared from studying the results that most of the problems were due to an excess of nitrogen in the system when anaerobic conditions existed, and to the zooplankton compartment not responding properly to changes in food concentrations. Denitrification can occur intensely in anaerobic environments, a process by which nitrite is reduced to elemental nitrogen, which can then be lost from the system. This process was permanently added to the model after simulations showed improved predictions.

43. To improve the zooplankton-algae relationship, a threshold value at which grazing commences was added to the zooplankton ingestion algorithm. Experimental evidence on a grazing threshold was supplied by Parsons, LaBrasseur, and Fulton (1967) and McAllister (1970). However,

in a review of simulation modeling of zooplankton, Leidy and Ploskey (1980) mention that the need for a grazing threshold may stem from inappropriate assumptions or our ignorance of the grazing dynamics of zooplankton. This may very well be true, but in the case of CE-QUAL-R1, zooplankton are modeled mainly because of their impact on other variables that are of greater environmental impact, namely oxygen and algae. Therefore, to restrain additional complexity, only the threshold for grazing was added.

44. Other changes to the model that were made at this time included a minor correction to the adsorption algorithm and simplifications to the anaerobic portion of the model. As with many other chemical and biological rates in the model, many of the anaerobic processes were temperature dependent. Unfortunately, very little information is available in the literature concerning temperature dependence. Because the temperature coefficients used for both the DeGray Lake and Eau Galle Reservoir simulations were such that the temperature range during the year would have no effect on the rates of anaerobic processes, it was recommended that the temperature coefficients be removed. This change reduces the number of coefficients by 78, and thus saves time in data set preparation.

45. After these changes were made and a number of calibration simulations were made to fine-tune the model, comparisons of predicted to measured values were much more acceptable, giving an overall RI of 2.63. A confirmation simulation, using the same coefficients in the 1982 data set as used for 1981, also produced acceptable results, giving an overall RI of 2.71. However, the fluxes for the confirmation were considered unsatisfactory. Predictions of gross production were nearly an order of magnitude lower than measured values, algal settling predictions were nearly an order of magnitude low, and sediment oxygen utilization was nearly an order of magnitude high, consuming over 80 percent of all oxygen used for respiration. In addition, algal respiration was only 8 percent of gross production, an extremely low value. Thus, it appeared that acceptable predictions were being made for the wrong reasons. After another set of calibration simulations were made, while

adjusting coefficients dealing with the above rates and checking flux predictions, acceptable results were again obtained. The final overall RI for the 1981 data set was 2.57, and for the 1982 confirmation data set, 2.62. A discussion of the flux predictions for the final simulations is provided in the last section of Part IV.

46. Statistical results for each variable from the final calibration simulation are presented in Table 1 (see Wlosinski 1984 for a discussion of statistics). Figure 9 presents four graphs (representing different dates) of each of 19 variables, comparing predictions (solid lines) to measured values (dots). The graph for the date with the poorest RI is included for each variable. Values for the RI ranged from 1.07 to 4.85. In general, variables whose concentration normally ranges over more than one order of magnitude had higher RI values. For example, orthophosphate phosphorus values ranged from 0.001 to over 1.0 mg/l and had an RI of 4.84, whereas total dissolved solids, which ranged from 168 to 225 mg/l, had an RI of 1.24. Predictions of temperature, which are extremely important because of the effect of temperature on most biological processes, were considered excellent, having an RI of 1.09. The timing of initial stratification and of fall overturn was good, as was the shape of the temperature profile.

47. Most of the major dynamics of other variables were predicted correctly. Chlorophyll predictions in the epilimnion were usually within a factor of two. Hypolimnetic predictions were not as good, but were still considered acceptable. Even though the graphics and statistics were performed on the summation of the predicted values for the three algal compartments, individual comparisons in the epilimnion can be made to assess the model's ability to predict seasonal succession of major groups. As stated earlier, Barko et al. (1985) found that algae were dominated by the Bacillariophyceae (diatoms), Cyanophyta (blue-greens), and Pyrrophyta (dinoflagellates). Using data supplied in their paper, graphs representing seasonal succession of the three major compartments were made for the epilimnion (Figure 10). The solid line represents measured data, and the dots represent model predictions. It is apparent that the model reasonably predicted the seasonal succession

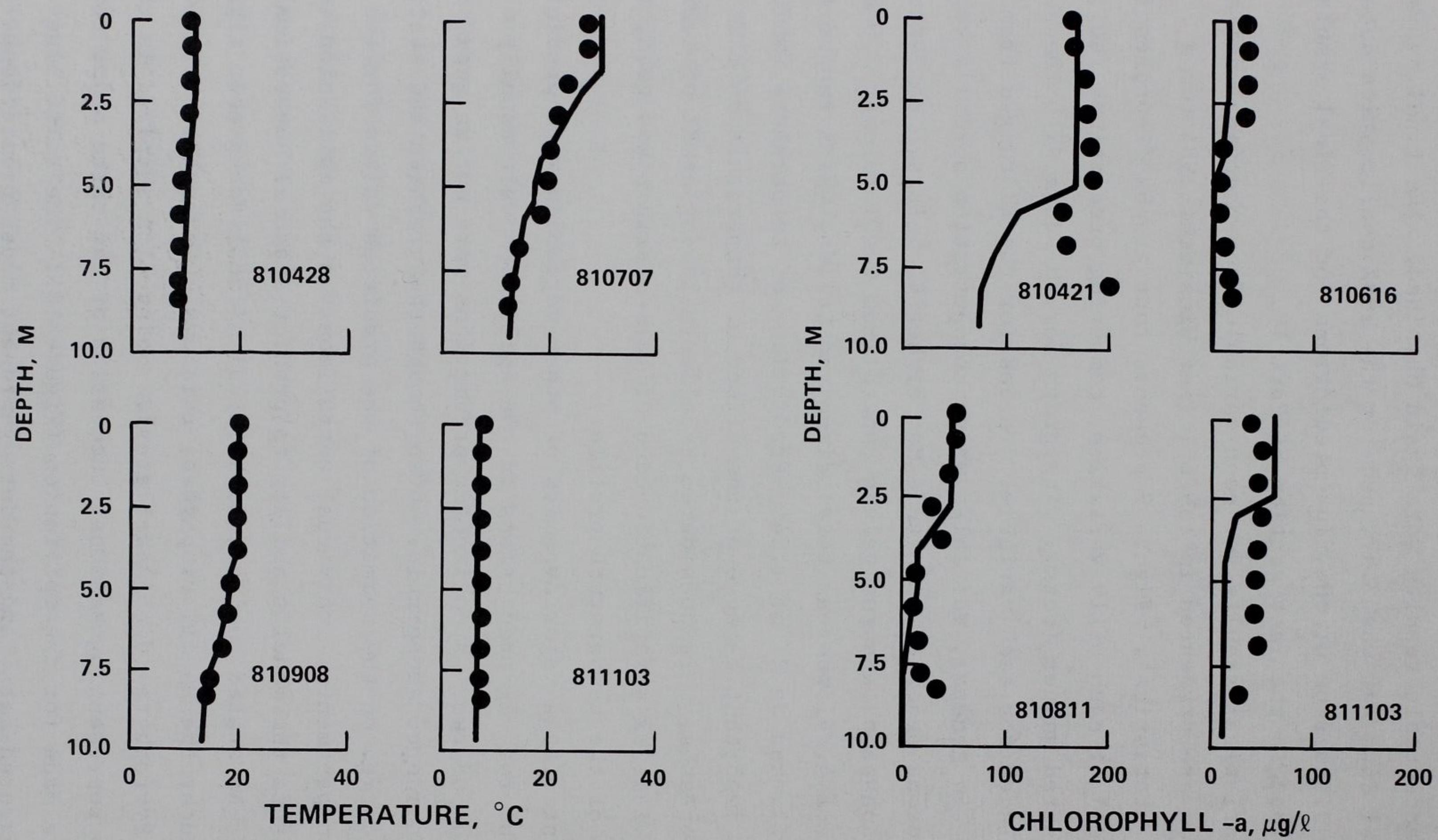


Figure 9. Comparison of predicted values to measured data for 19 variables--final Eau Galle calibration simulation, 1981. The solid line represents model predictions; dots represent measured values (Sheet 1 of 10)

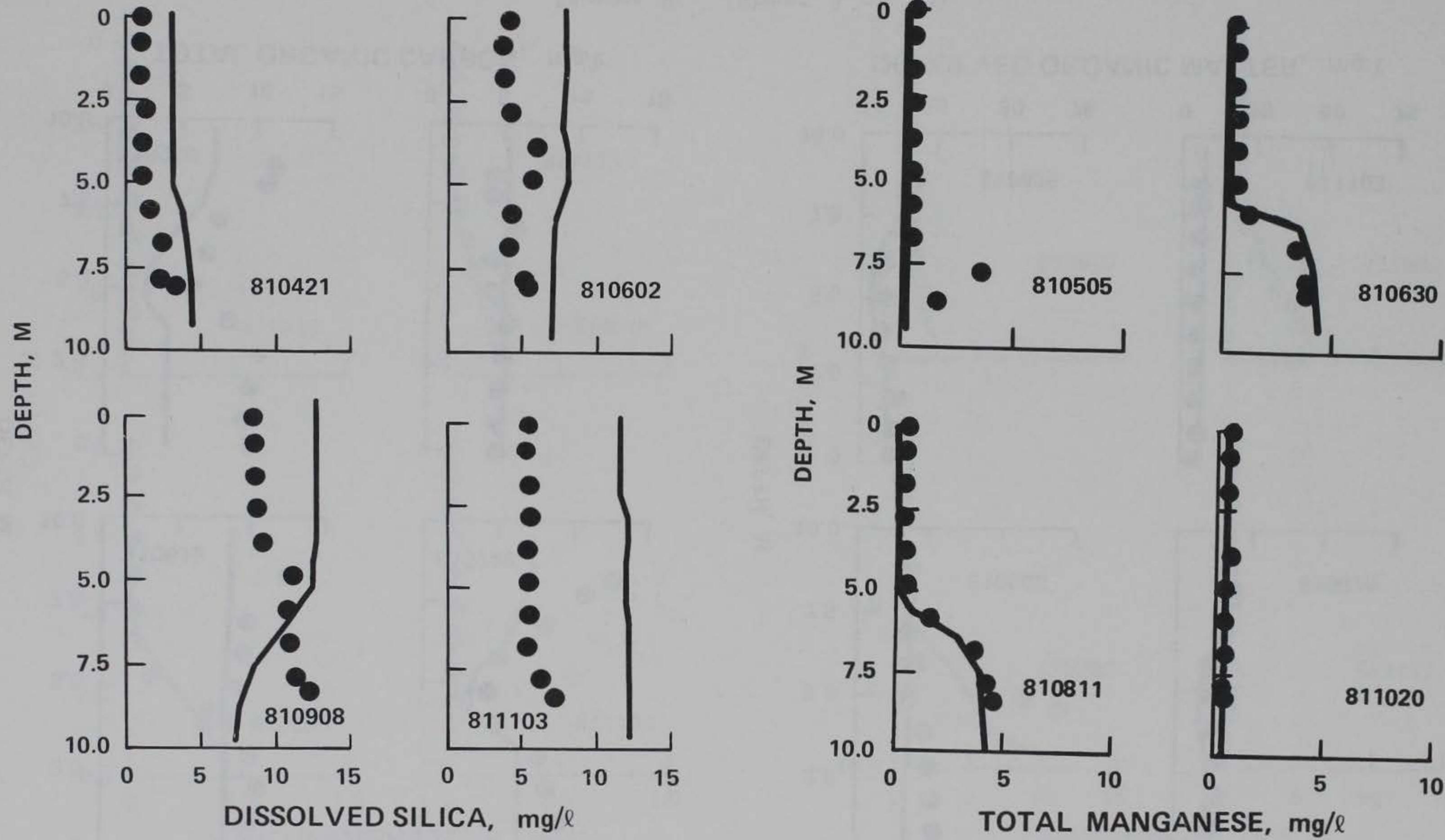


Figure 9. (Sheet 2 of 10)

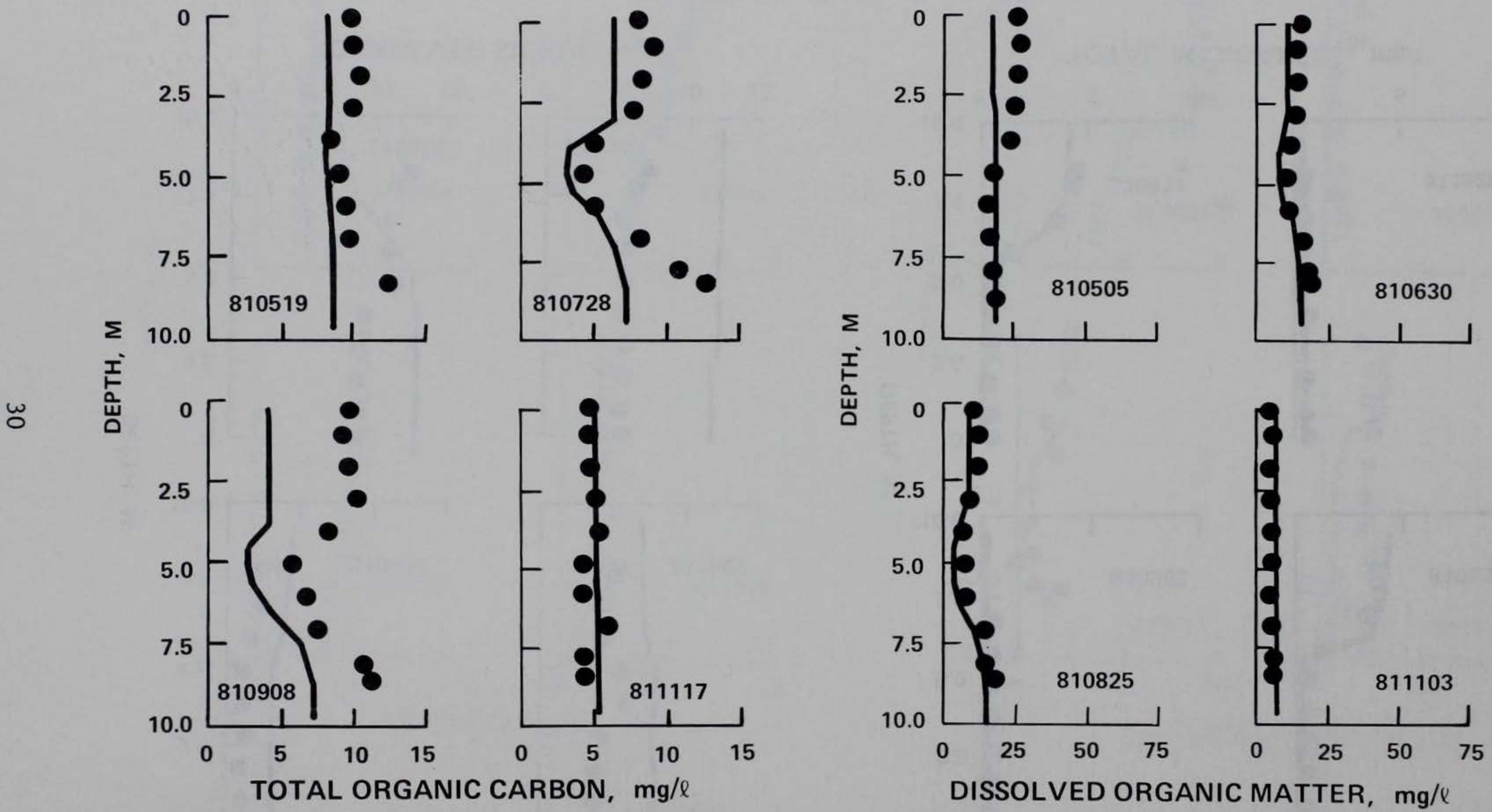


Figure 9. (Sheet 3 of 10)

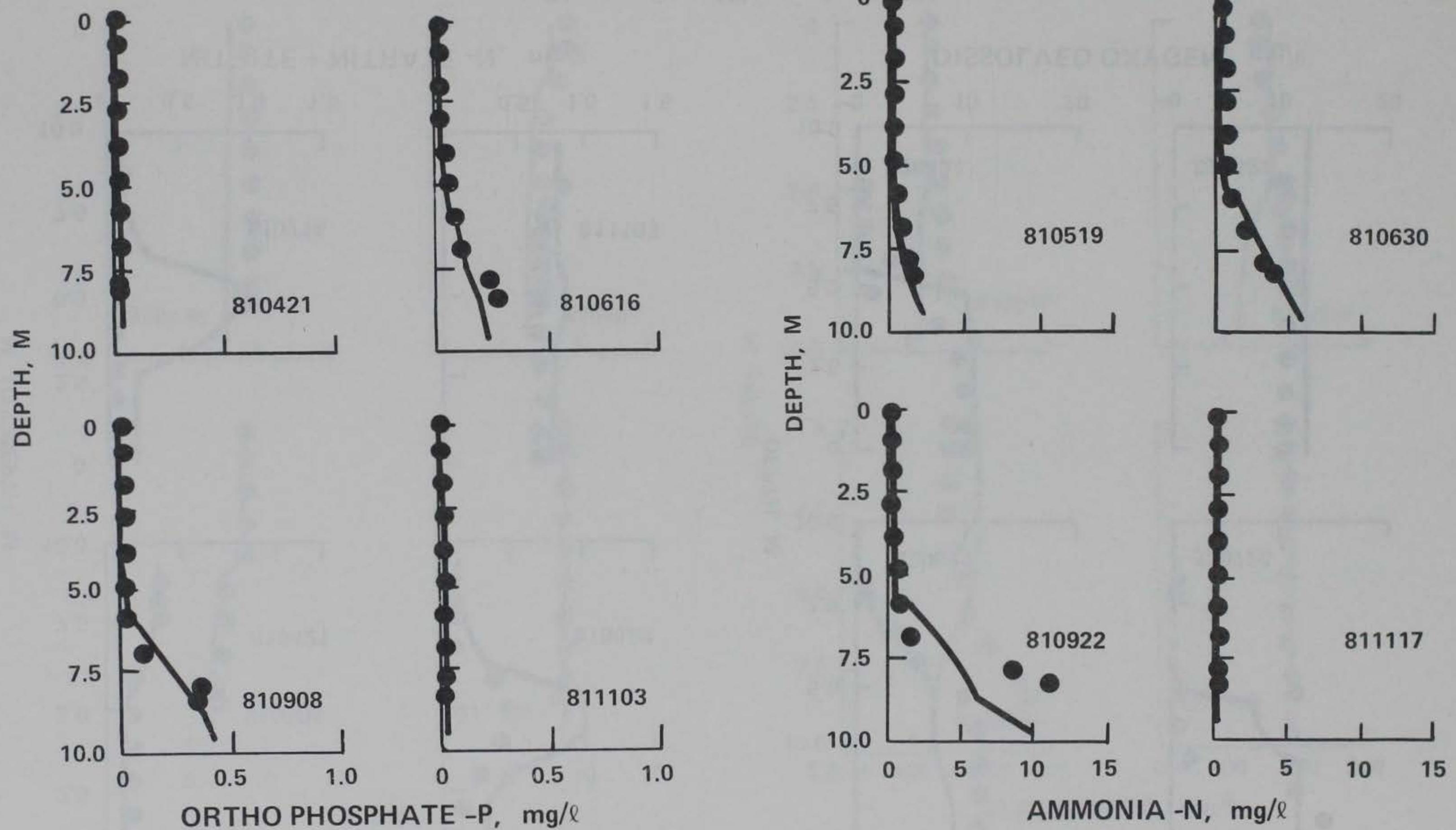


Figure 9. (Sheet 4 of 10)

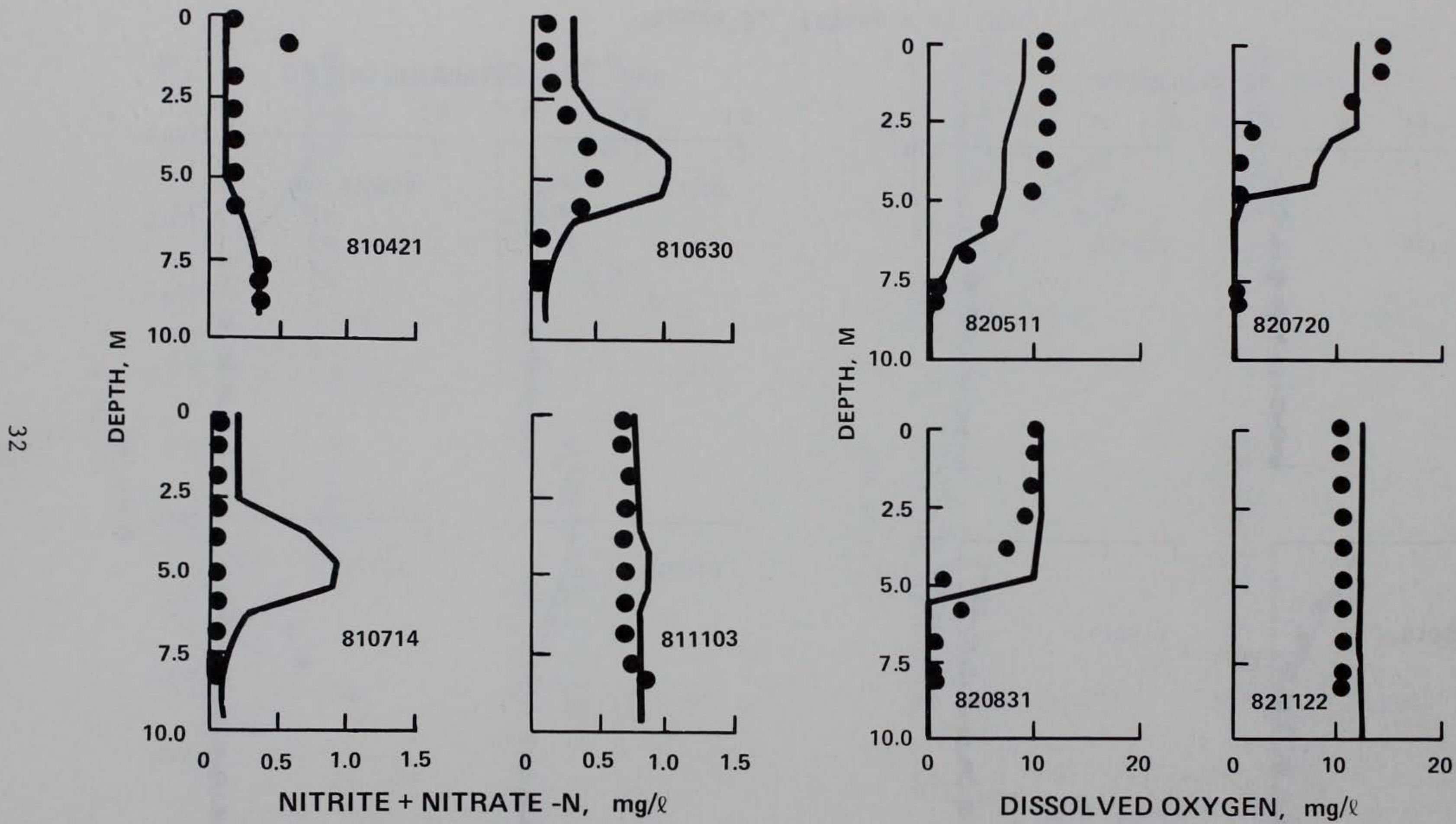


Figure 9. (Sheet 5 of 10)

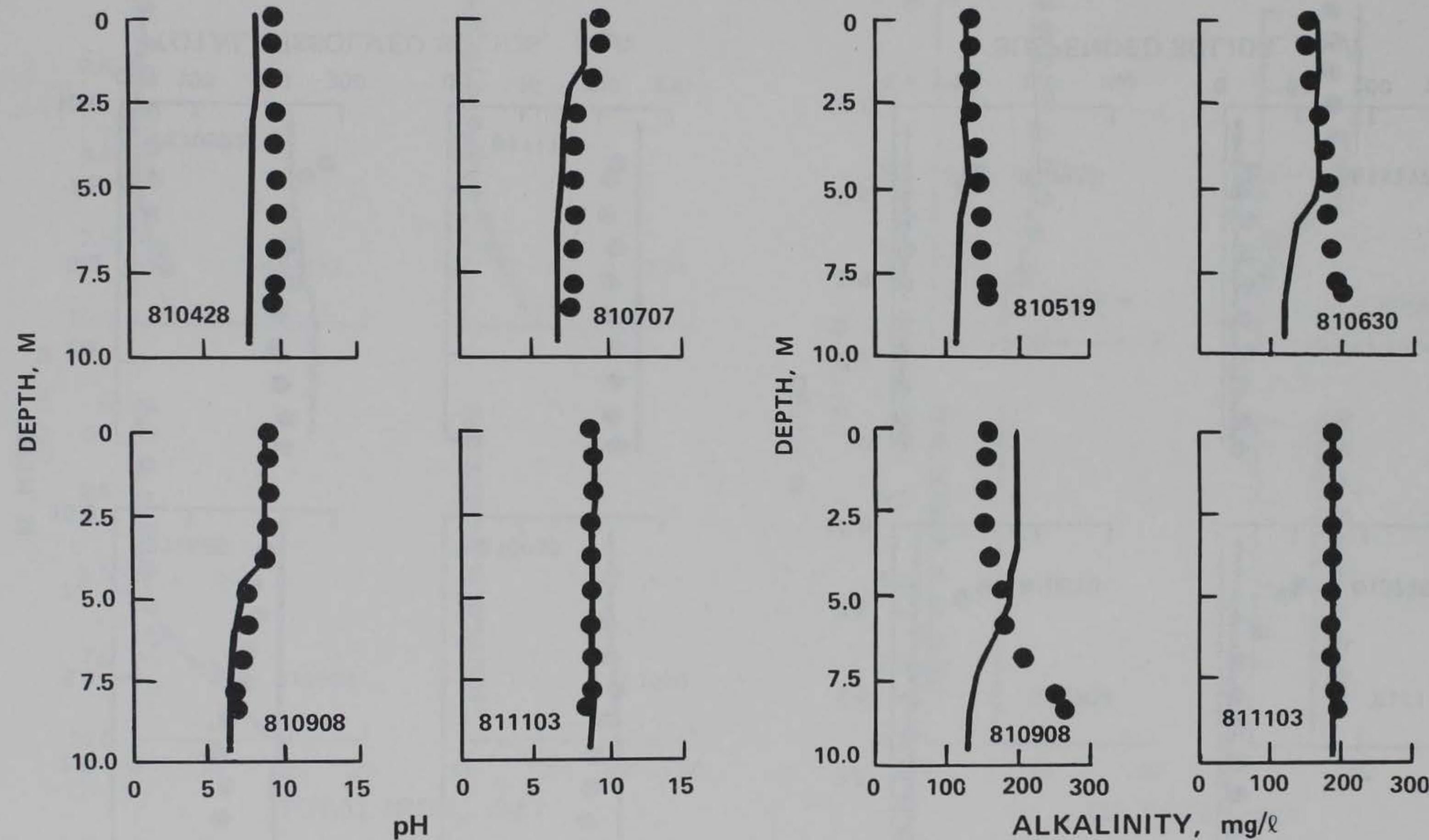


Figure 9. (Sheet 6 of 10)

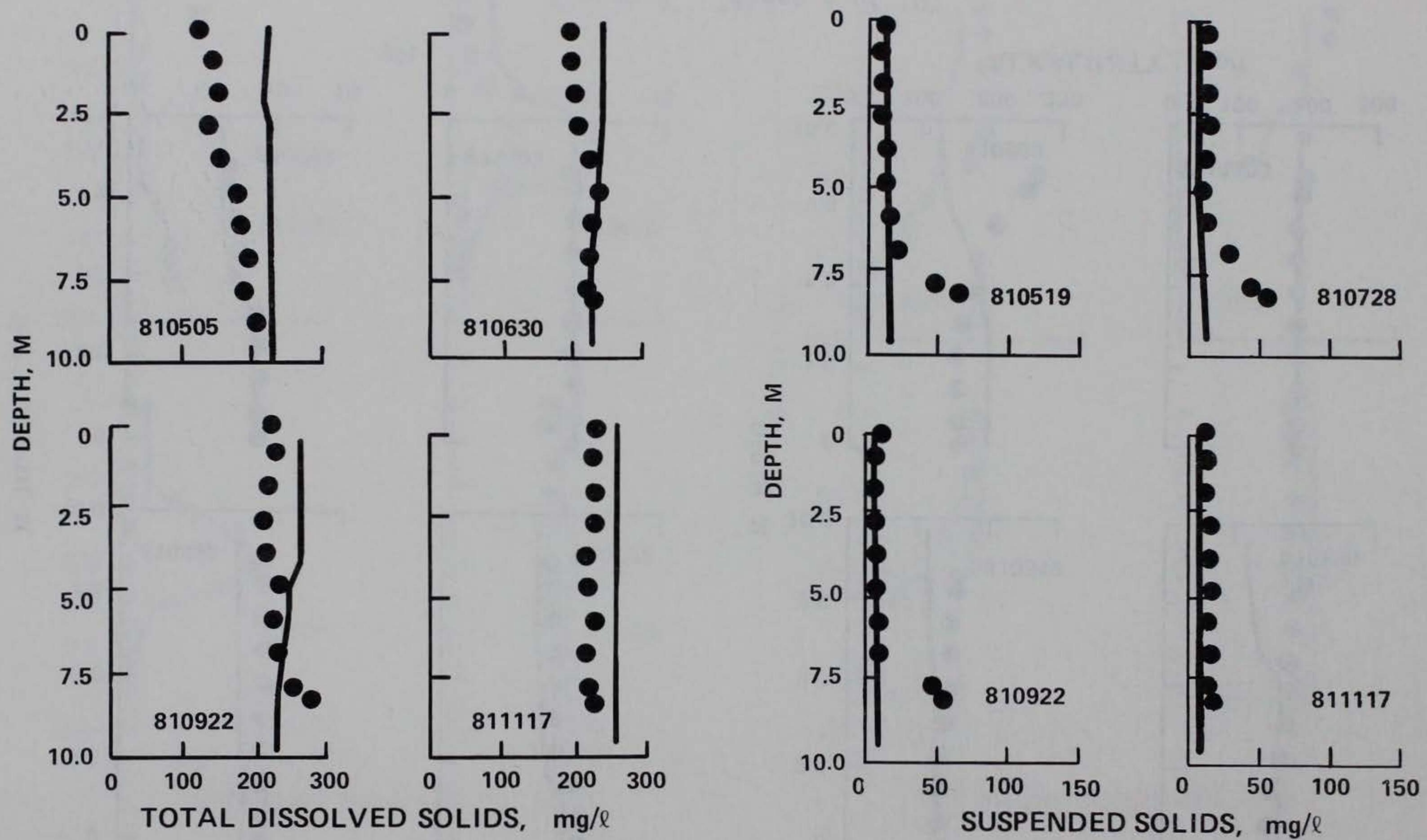


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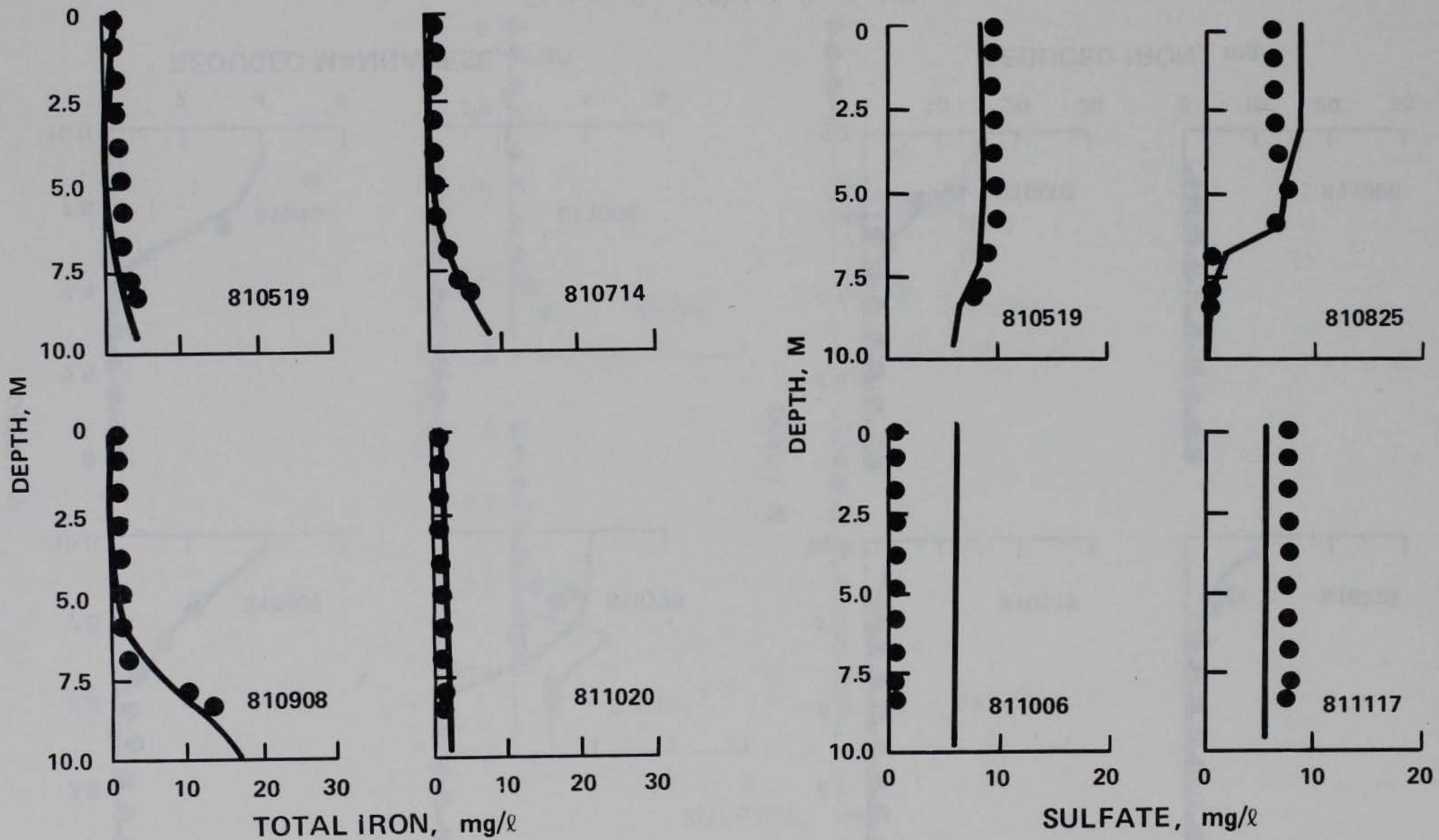


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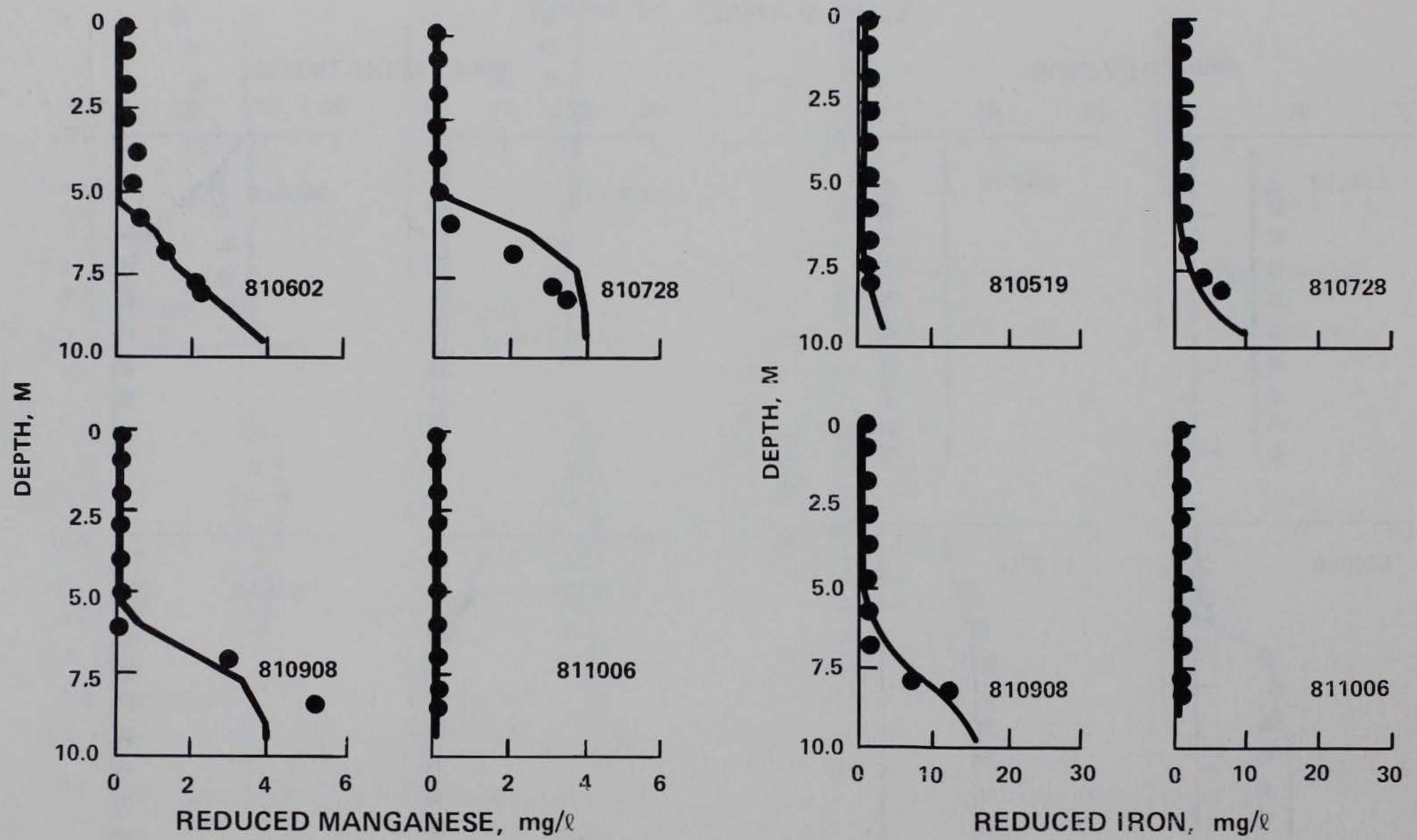


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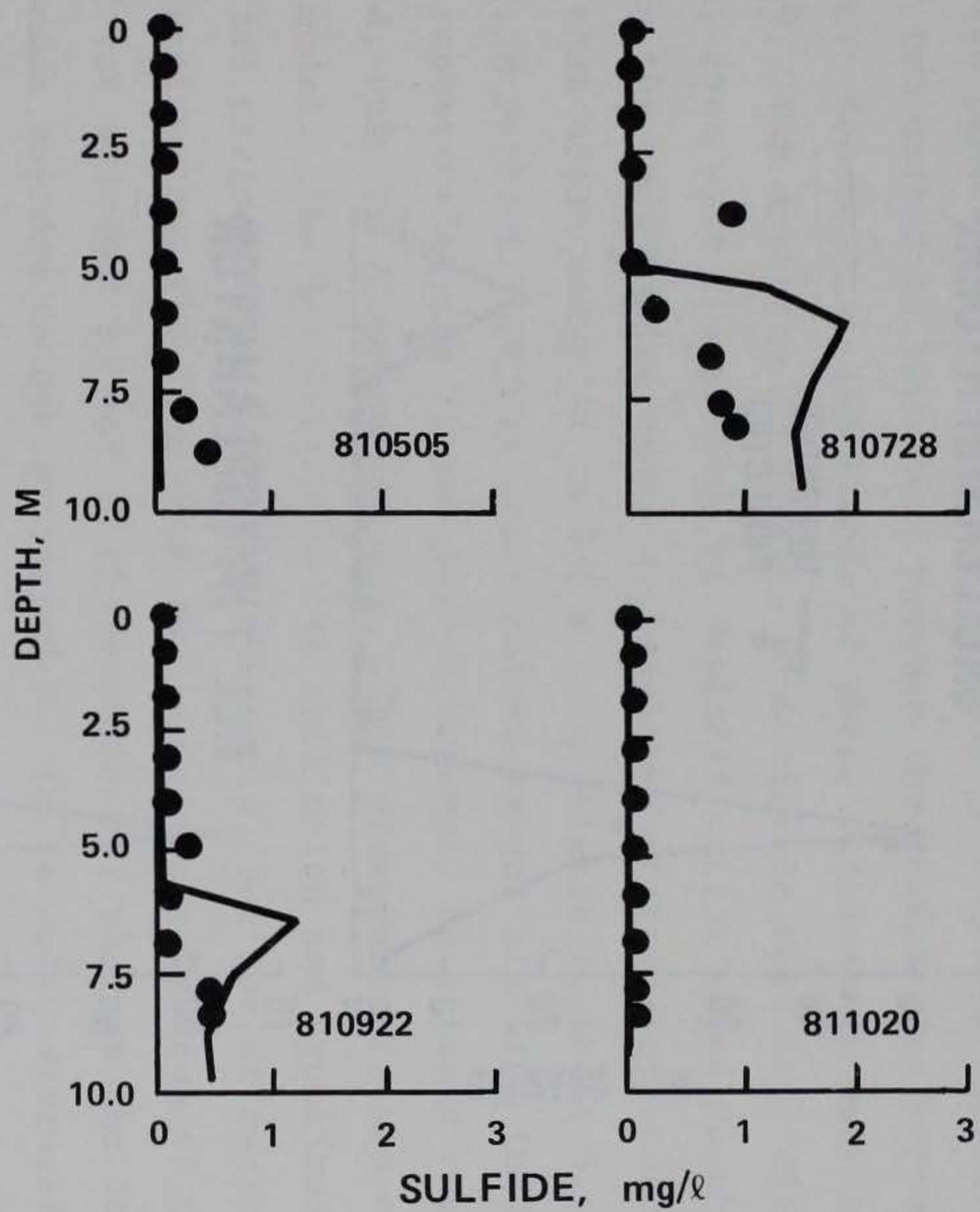


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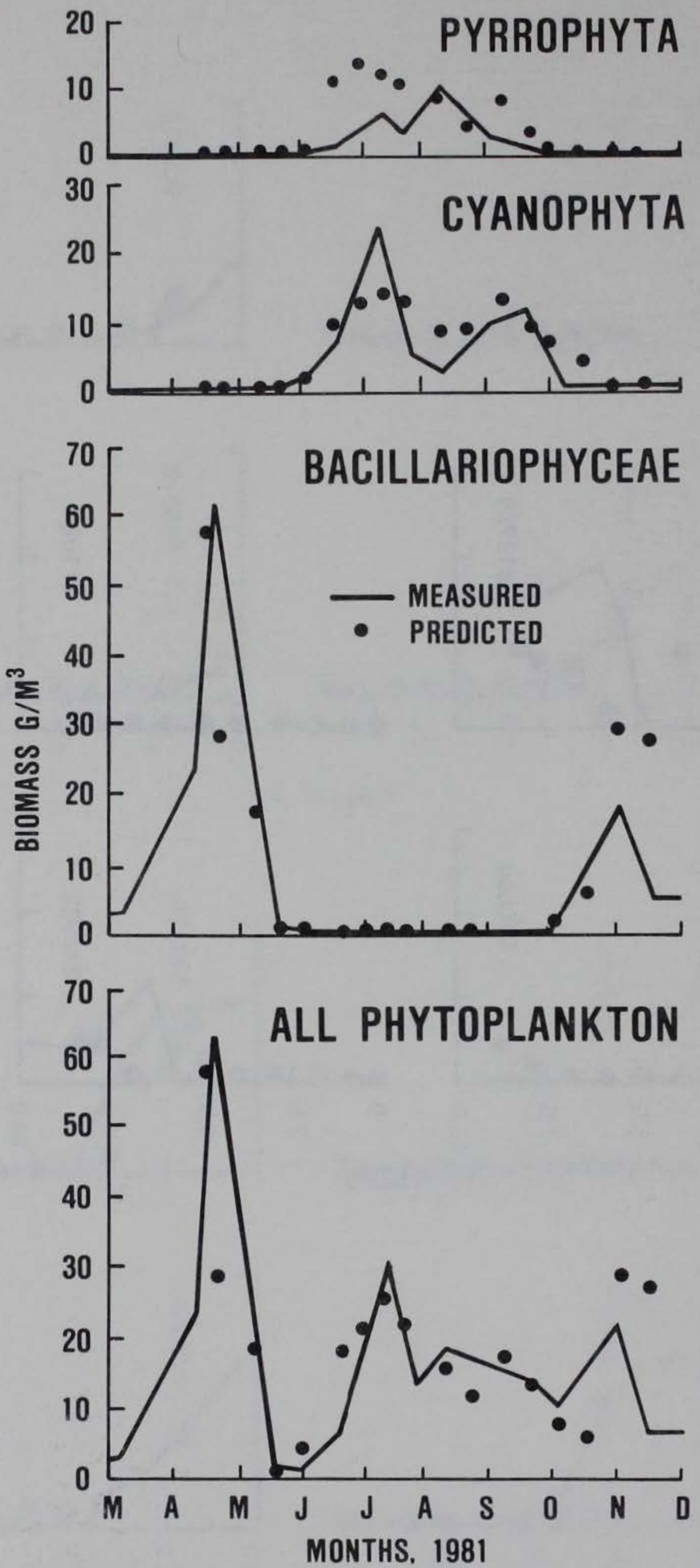


Figure 10. Measured data (solid line) (from Barko et al. 1985) and model prediction (dots) of phytoplankton in the epilimnion at station 20

of the dominant algal groups measured in Eau Galle Reservoir in 1981.

48. Most of the predicted dissolved silica values were above measured values, averaging 9.19 versus 6.05 mg/l, respectively. The problem may be due partly to the model's constant stoichiometric equivalent between algae and silica, which can vary in the field, and partly to silica adsorption and sedimentation in reservoirs, a process not included in the model. Silica adsorption should be considered for future model applications if diatom dynamics are important for a particular study. The major difference of both ammonia-nitrogen and phosphate-phosphorus concentrations was spatial, in that concentration differences of over two orders of magnitude between the surface and bottom waters occurred. Acceptable predictions of these differences were made.

49. The dynamics of nitrite plus nitrate were more difficult to predict, even with the process of denitrification added to the model. Early in the calibration process, problems occurred in predicting the maxima that often occurred at 3-6 m (e.g. Figure 9, sheet 5, date 810630), a problem that was later solved by not allowing inflow into the layers representing the borrow area. However, on 14 July the bulge disappeared, only to recur on 28 July. This disappearance was not predicted by the model. The low values in the epilimnion and hypolimnion during stratified periods were predicted correctly, but for different reasons. In the epilimnion, the loss from the compartment was due to the utilization of the nutrient by way of photosynthesis, whereas the loss in the hypolimnion was due to denitrification. On 14 July, virtually no oxygen was measured at station 20 below 3 m, whereas the model predicted up to 3 mg/l between 3 and 5 m. Since denitrification occurs only under anaerobic conditions, the positive oxygen predictions between 3 and 5 m probably caused the problem with the nitrite-nitrate compartment.

50. Although most of the oxygen predictions were quite close to measured values, the scenario above illustrates the problems that can occur if the predictions are not exact. In this case the problem was due, to a large measure, to the one-dimensional assumption and the mixing of inflowing waters. At 3 m below the surface at station 20, where the confirmation data were measured, the concentration of dissolved

oxygen was 0.5 mg/l and the concentration of nitrite-nitrate was 0.003 mg/l. At station 30 (Figure 1), at the same depth and time, oxygen was measured as 6.8 mg/l and nitrite-nitrate as 0.296 mg/l. Thus, denitrification could have occurred at station 20, but not at 30. This was probably due to the influence of inflowing waters, which affect station 30 more than station 20.* On July 14, oxygen concentrations in the inflowing waters of the Eau Galle River and French Creek were near 6.4 mg/l, and nitrite-nitrate concentrations were near 0.8 mg/l. Temperatures for the two tributaries were 18.0 and 14.5° C, respectively, whereas the temperature at station 30 ranged from 24.7 to 21.7° C. Inflowing water probably entered the reservoir as an underflow and followed the old thalweg to station 30.

51. Because nitrite-nitrate values at station 20 ranged from undetectable limits to 0.03 mg/l, with values below the dam at 0.5 mg/l, it is suggested that under some conditions some of the inflowing water may have followed the thalweg to, and through, the outflow port. For these same reasons, care must be taken when using outflow concentrations predicted by the model if the deepest part of the reservoir is not near the outlet ports. Conditions in the littoral zone may then dominate the outflow.

52. Two other variables exhibited concentration differences between the midlayers and the epilimnion and hypolimnion, this time in the form of minima. Both total organic carbon and dissolved organic carbon had lower concentrations between 3 and 6 m than found in the epilimnion or hypolimnion and, again, lower values in the inflow that were placed in the metalimnion could help explain the dynamics. The model predicted these minima.

53. There was one other event that was not predicted at all by the model. Sulfate, the concentrations of which were normal through August for a system with a clinograde oxygen curve, fell to near zero for four sampling periods in September and October. Unlike the problem

* Personal Communication, November 1983, J. H. Carroll, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

with nitrite plus nitrate, these low values were found at all pool stations, including station 40, as well as the downstream station. Even though some of the inflowing concentrations for this period were low, others were as high as 14.5 mg/l. Although field personnel noticed the low concentrations and authenticated the results,* they were unable to establish a cause for the phenomenon. Sulfate dynamics during other months, as well as the dynamics of other anaerobic variables, were predicted satisfactorily.

54. Macrophyte biomass measurements were taken in 1981 (Filbin and Barko 1985). Because their measurements were taken on an aerial basis, the RI statistic was not used for comparing measured and predicted values. Filbin and Barko reported that the macrophyte biomass and associated epiphytes occupied about 17 percent of the surface area of Eau Galle. This figure was used to convert the predicted mass from units of grams per reservoir to the measured units of grams per square metre. A comparison of predicted versus measured values is presented in Figure 11. Considering that the model lumps all macrophyte and epiphyte species together, predictions are considered acceptable.

Confirmation Simulation

55. Statistical results from the final confirmation simulation of 1982 are presented in Table 2. Comparisons of measured versus predicted values for selected dates are presented in Figure 12. As for 1981, the graph representing the date with the poorest RI is included for each variable. The average RI for all variables was a satisfactory 2.62, with a range from 1.06 to 4.85. The RI for temperature was 1.14, although on a few dates the predicted mixed layer was approximately 1 m too deep. This was probably due to the wind difference between the site and Eau Claire (see paragraph 20), since there was an appreciable difference in temperature predictions depending on the station where meteorological data were measured. The model failed to accurately predict an

* Personal Communication, J. H. Carroll, op. cit.

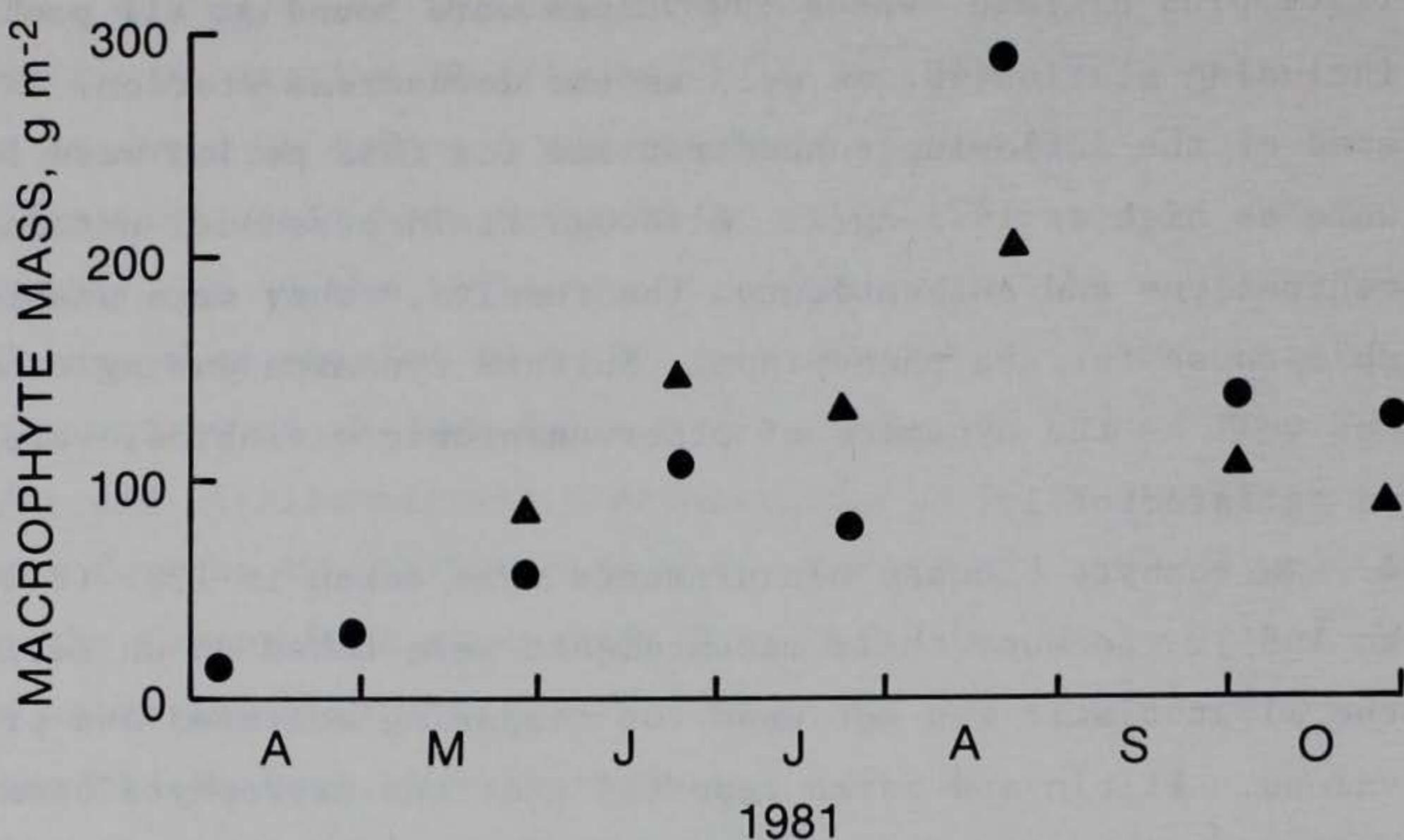


Figure 11. Measured values (circles) and predicted values (triangles) for macrophyte biomass for Eau Galle Reservoir in 1981

algal bloom that was measured on 18 May, which probably also accounted for the high dissolved silica prediction in the epilimnion when the measured values were quite low. Most of the other algal predictions were reasonable, with a predicted average of 19.4 $\mu\text{g/l}$ versus a measured average of 23.5 $\mu\text{g/l}$. As in 1981, most silica predictions were slightly high and were probably due to the lack of silica dynamics in the model.

56. A slight error in predicting temperature can magnify the errors in predicting other variables. This occurred on 5 October, when the measured temperature profile indicated that fall turnover had not yet occurred, and anaerobic conditions existed 8 m below the surface. Complete mixing was predicted before this date, with the effect that concentrations of ammonia, nitrite plus nitrate nitrogen, suspended solids, total manganese, total iron, sulfate, reduced manganese, and reduced iron were poorly predicted for that date. The dynamics of these variables were predicted correctly; it was the timing that was incorrect. In actual applications of the model, it is much more important to predict the dynamics of the system rather than the timing. This is because the timing is due, to a great extent, to meteorological

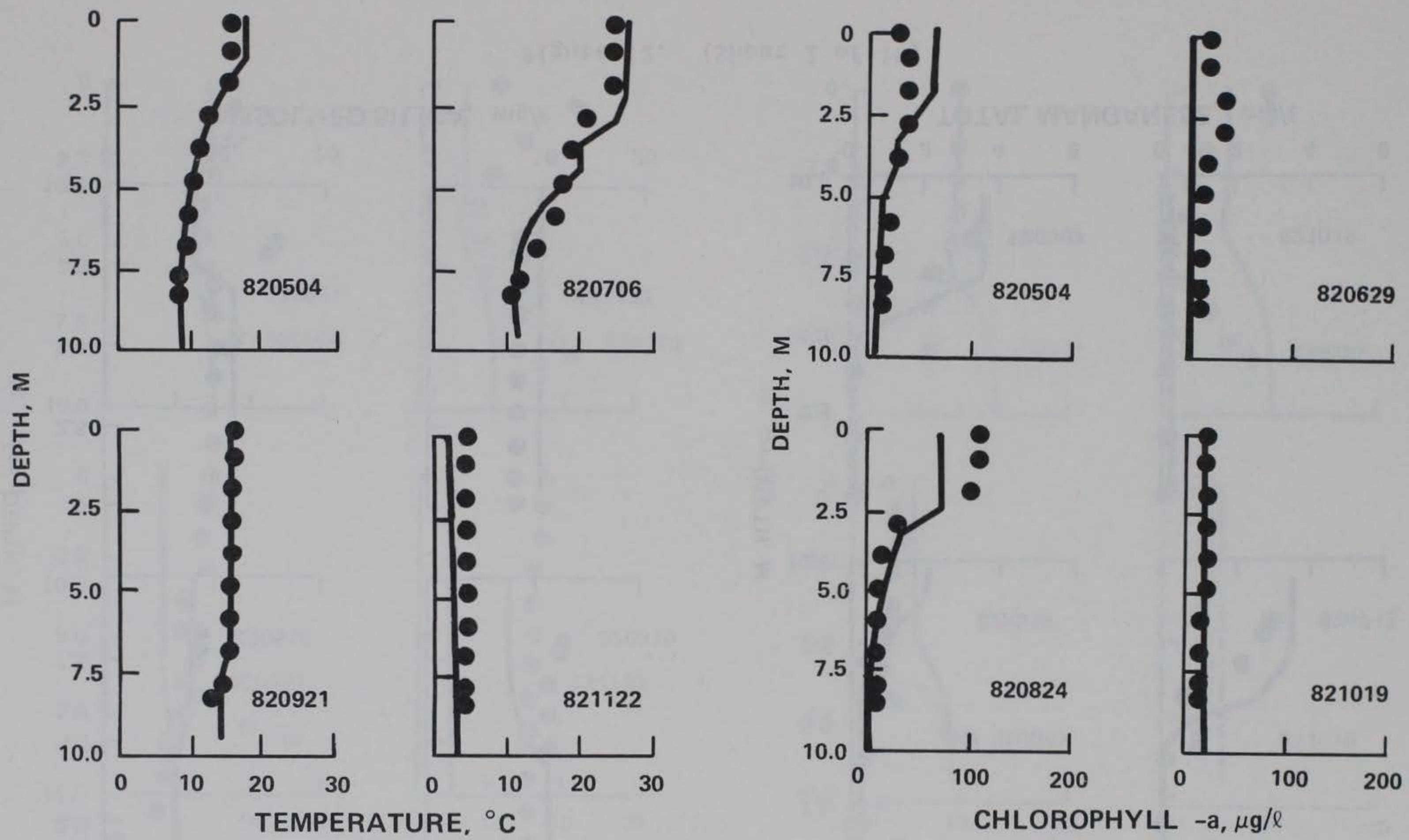


Figure 12. Comparison of predicted values to measured data for 20 variables--final Eau Galle calibration simulation, 1982. The solid line represents model predictions; dots represent measured values (Sheet 1 of 10)

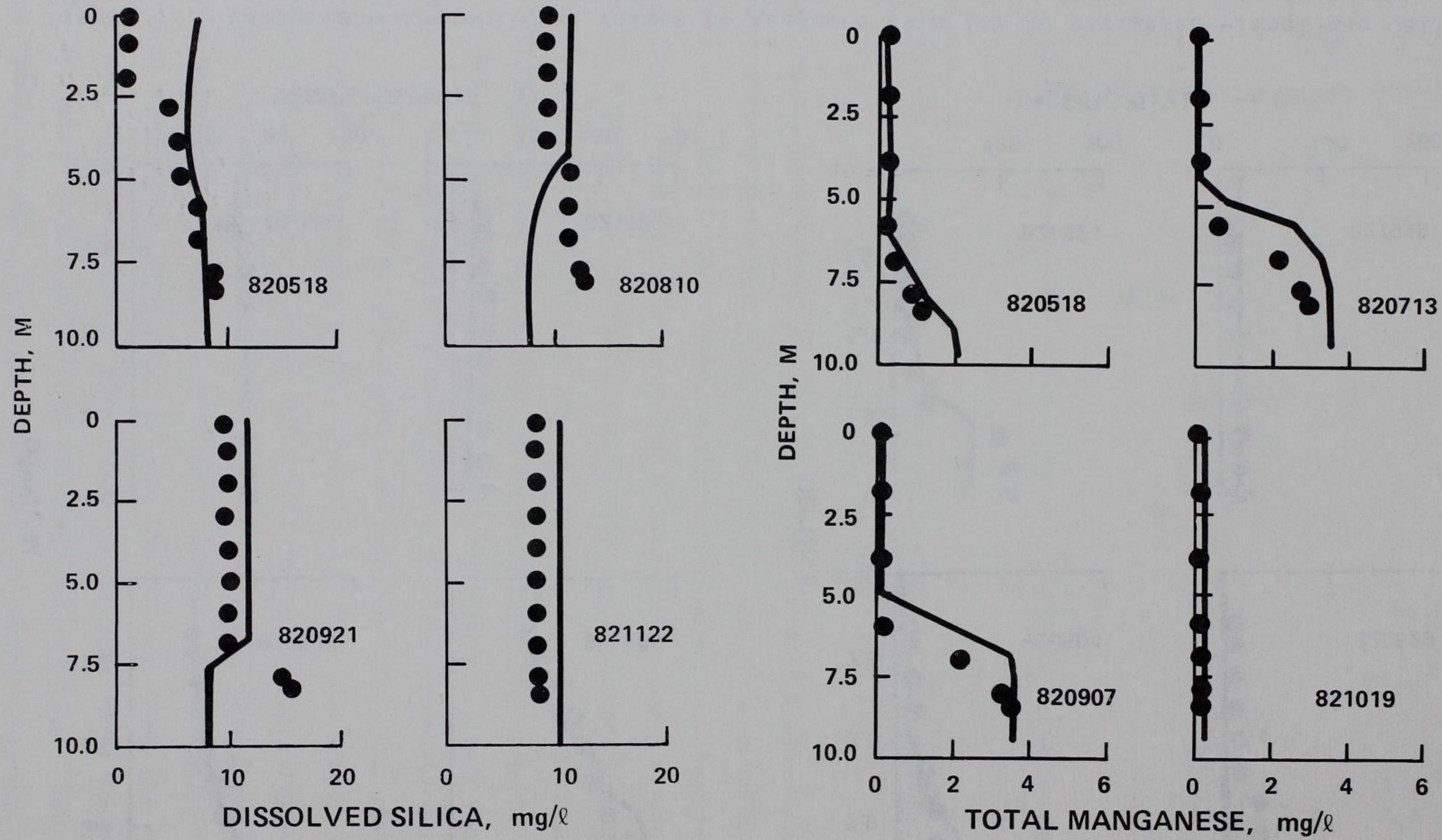


Figure 12. (Sheet 2 of 10)

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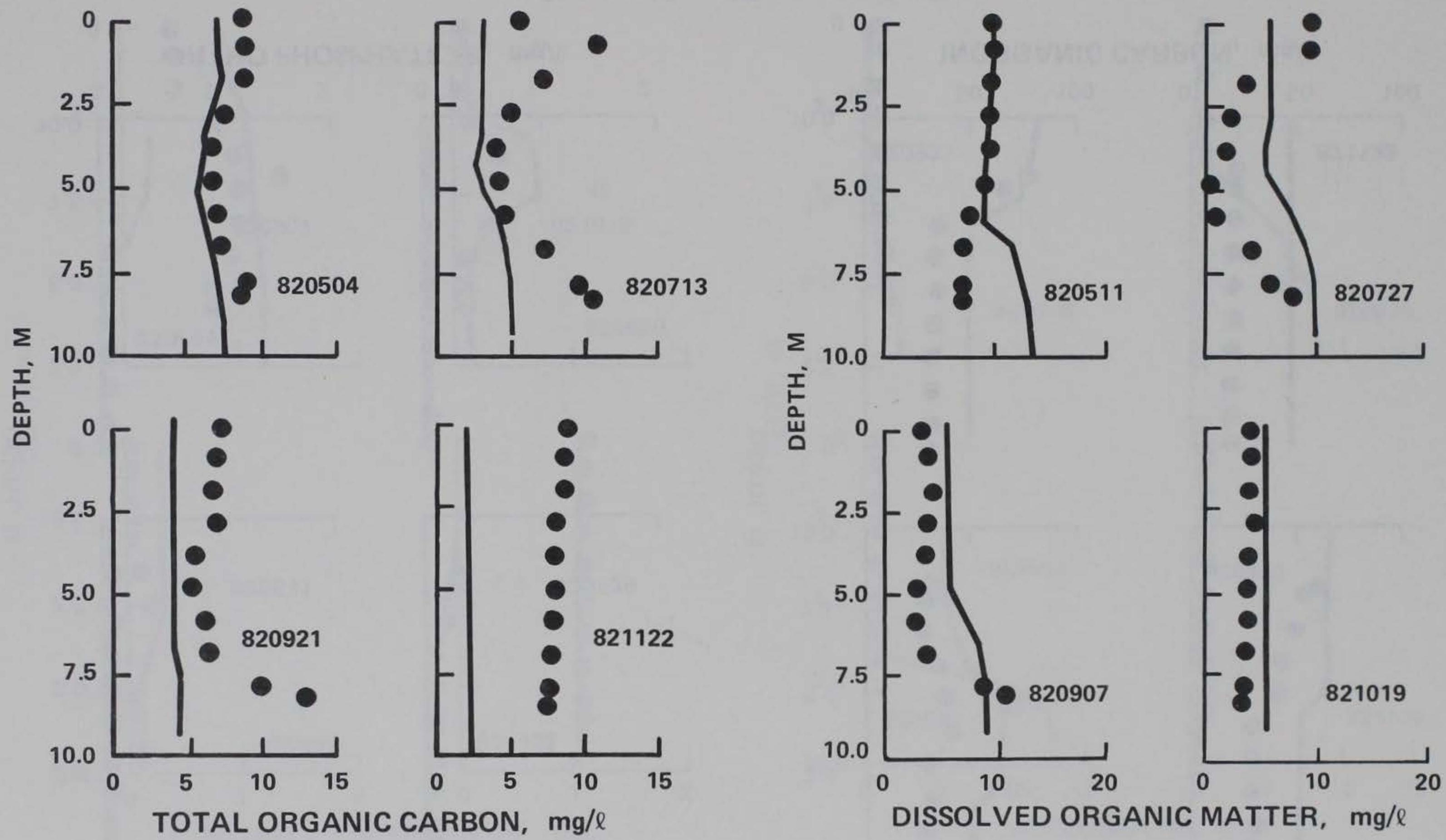


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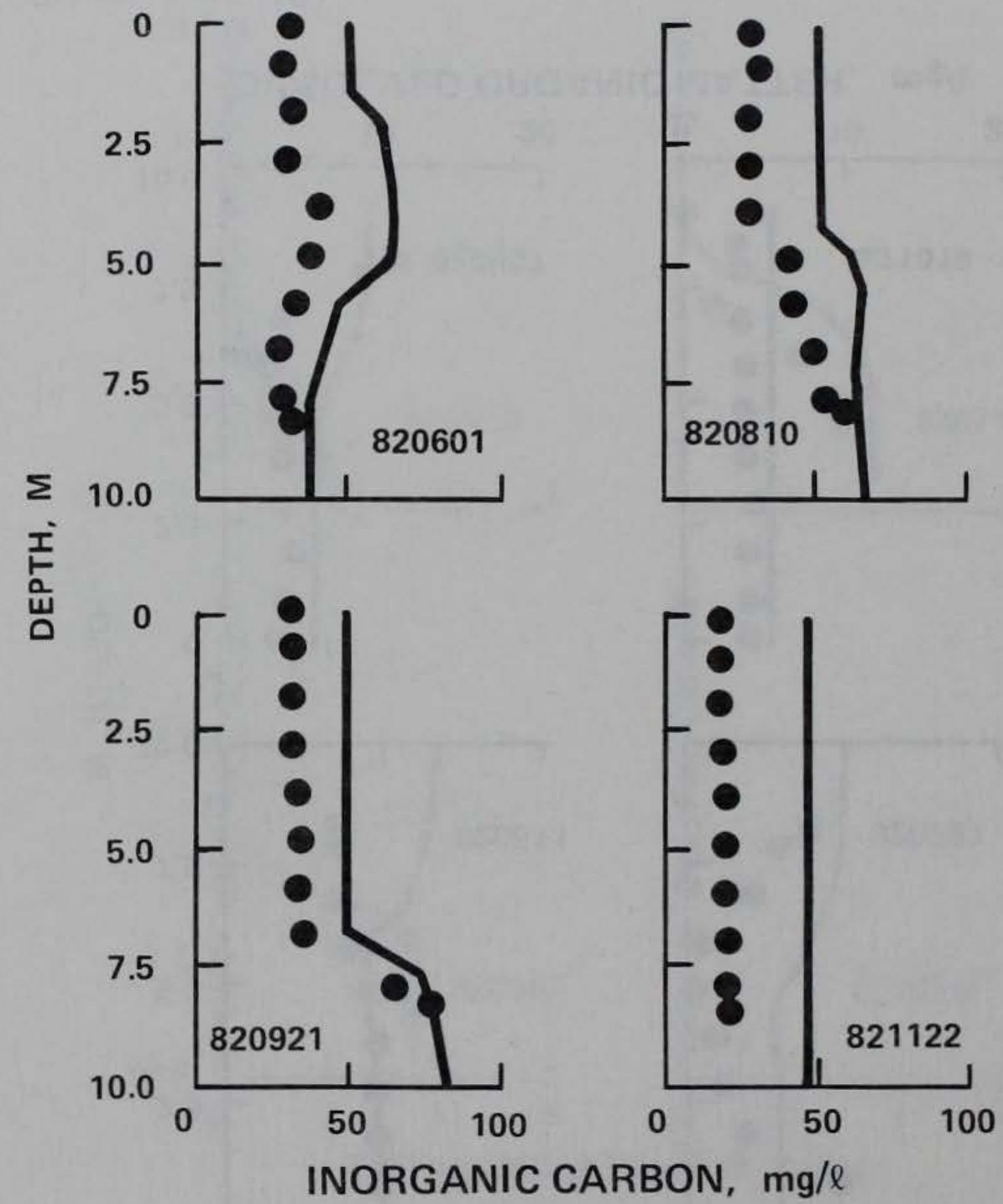
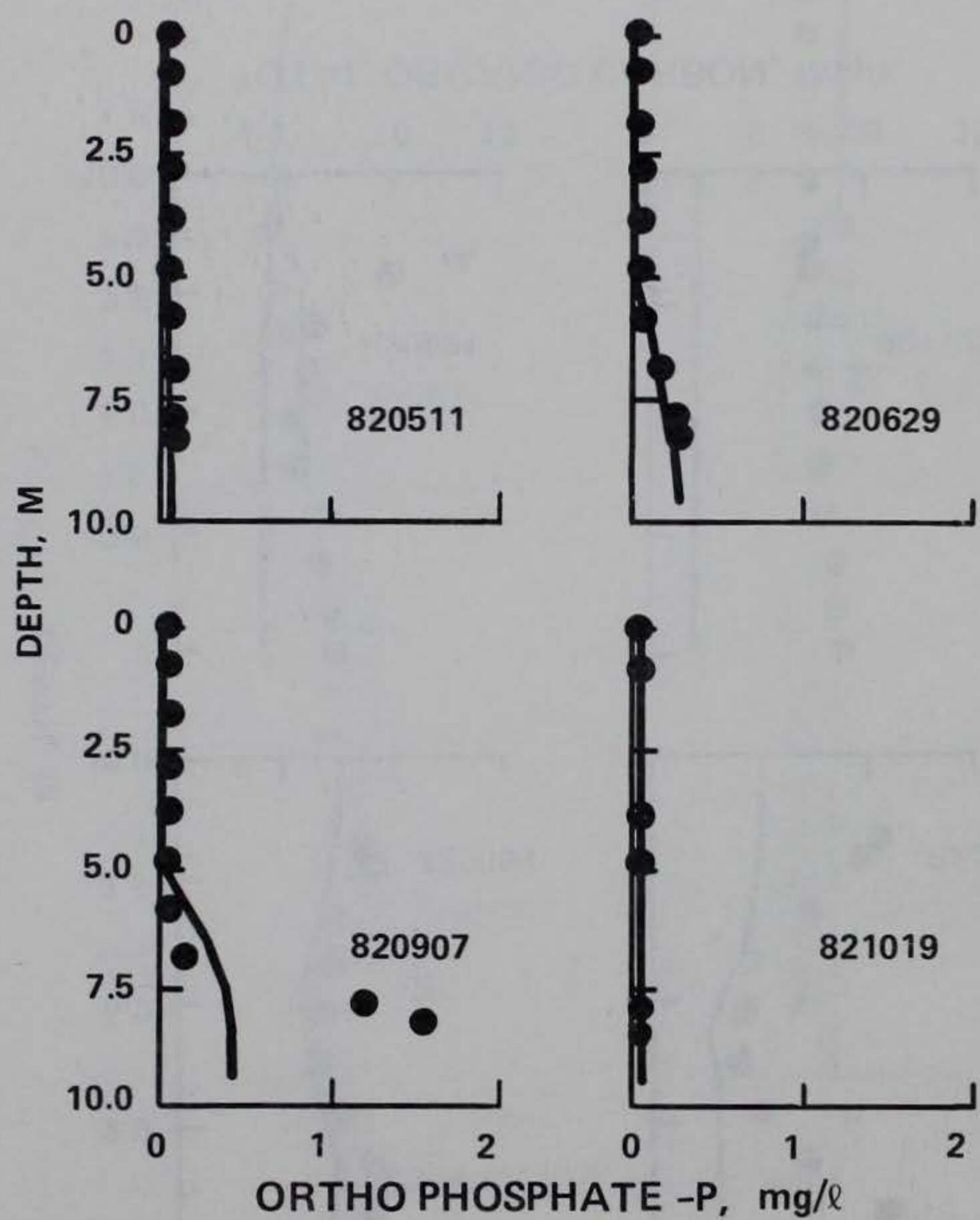


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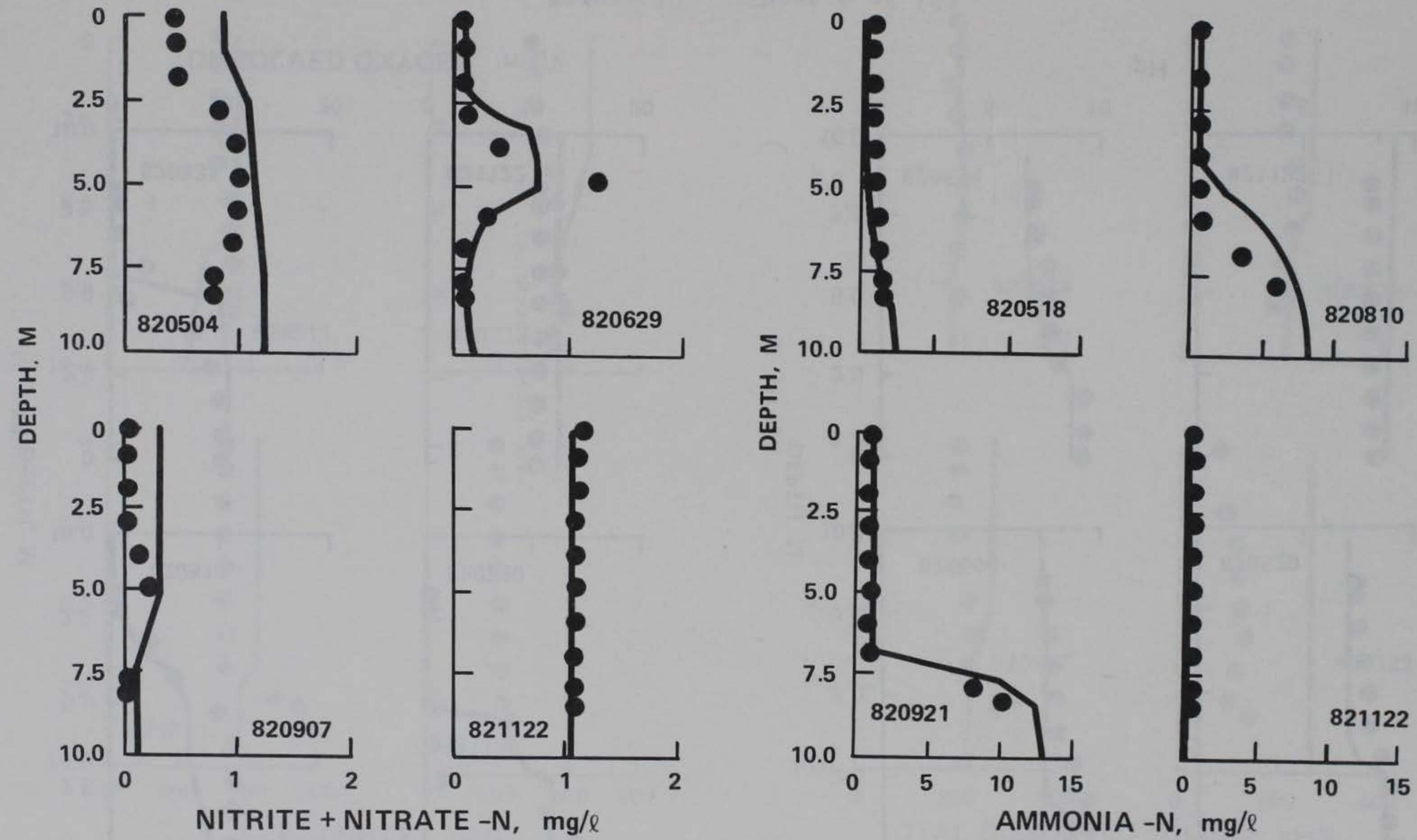


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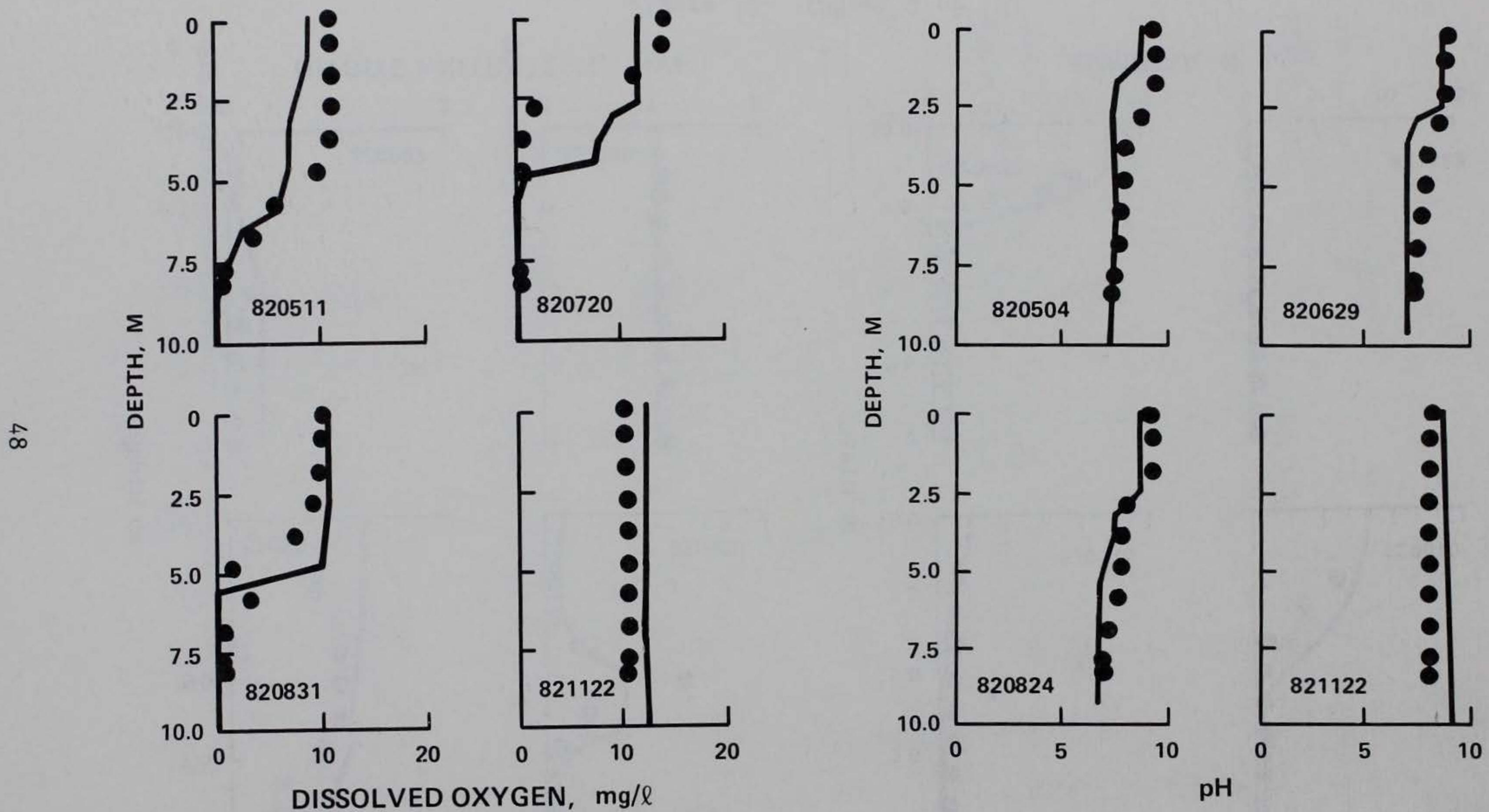


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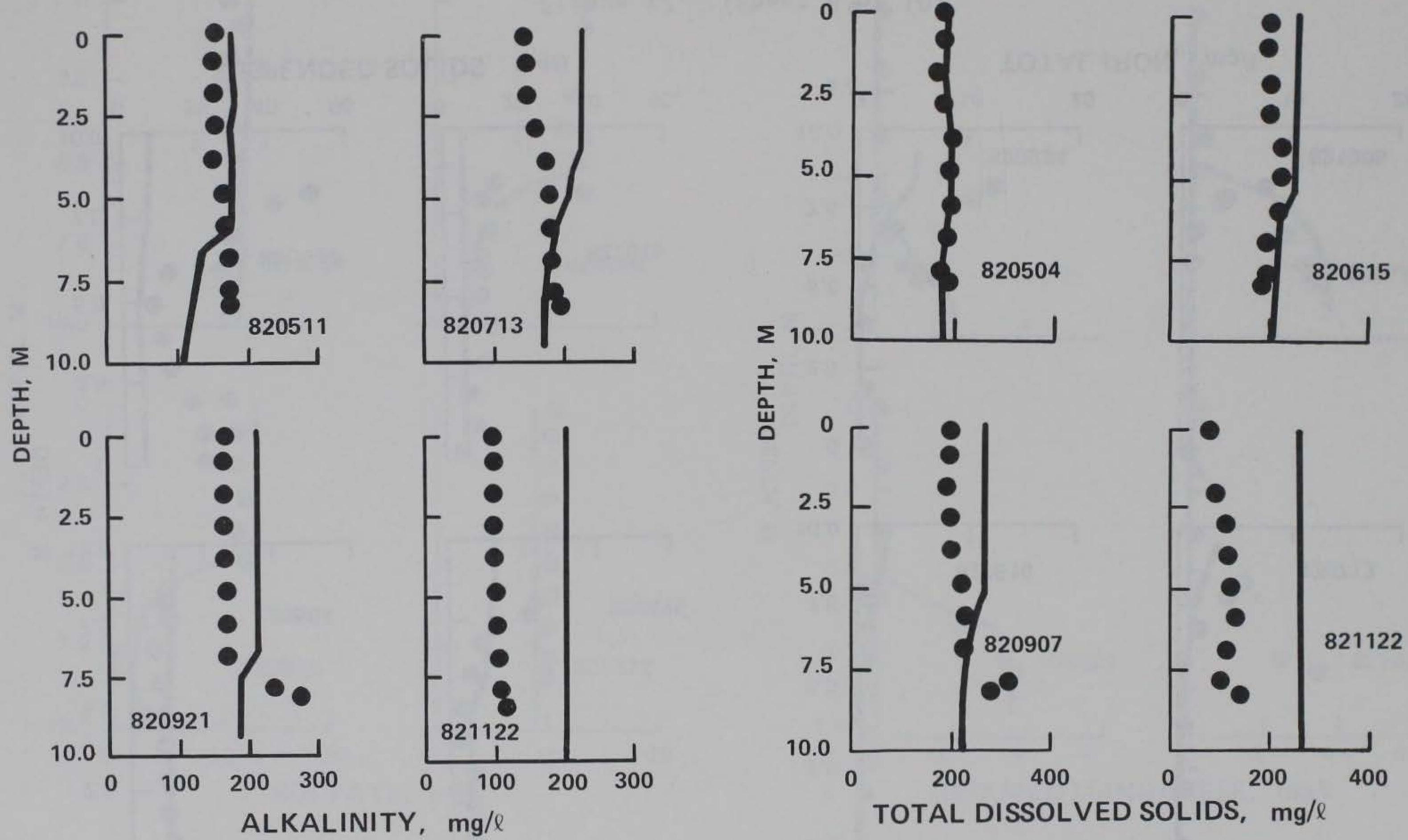


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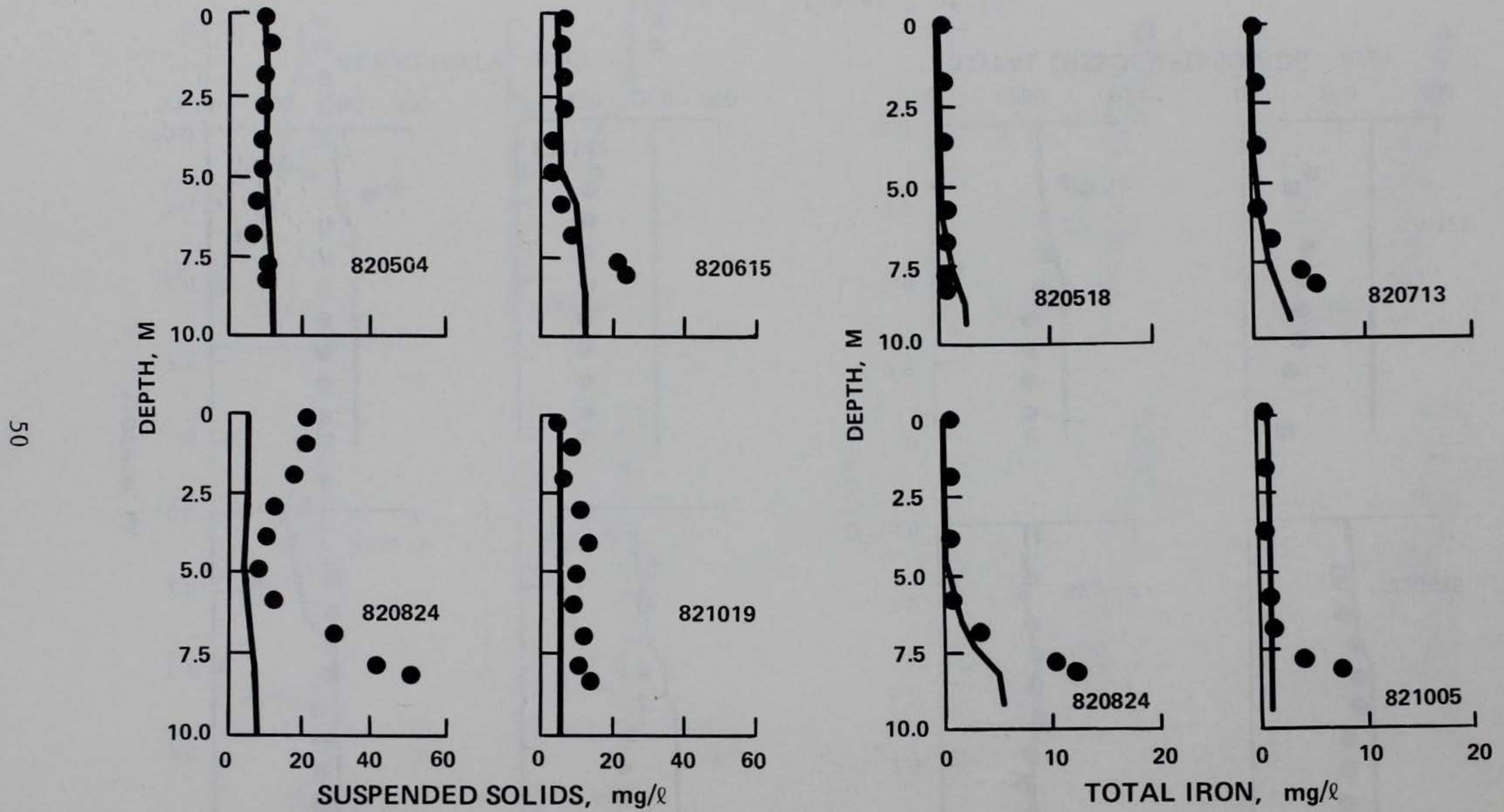


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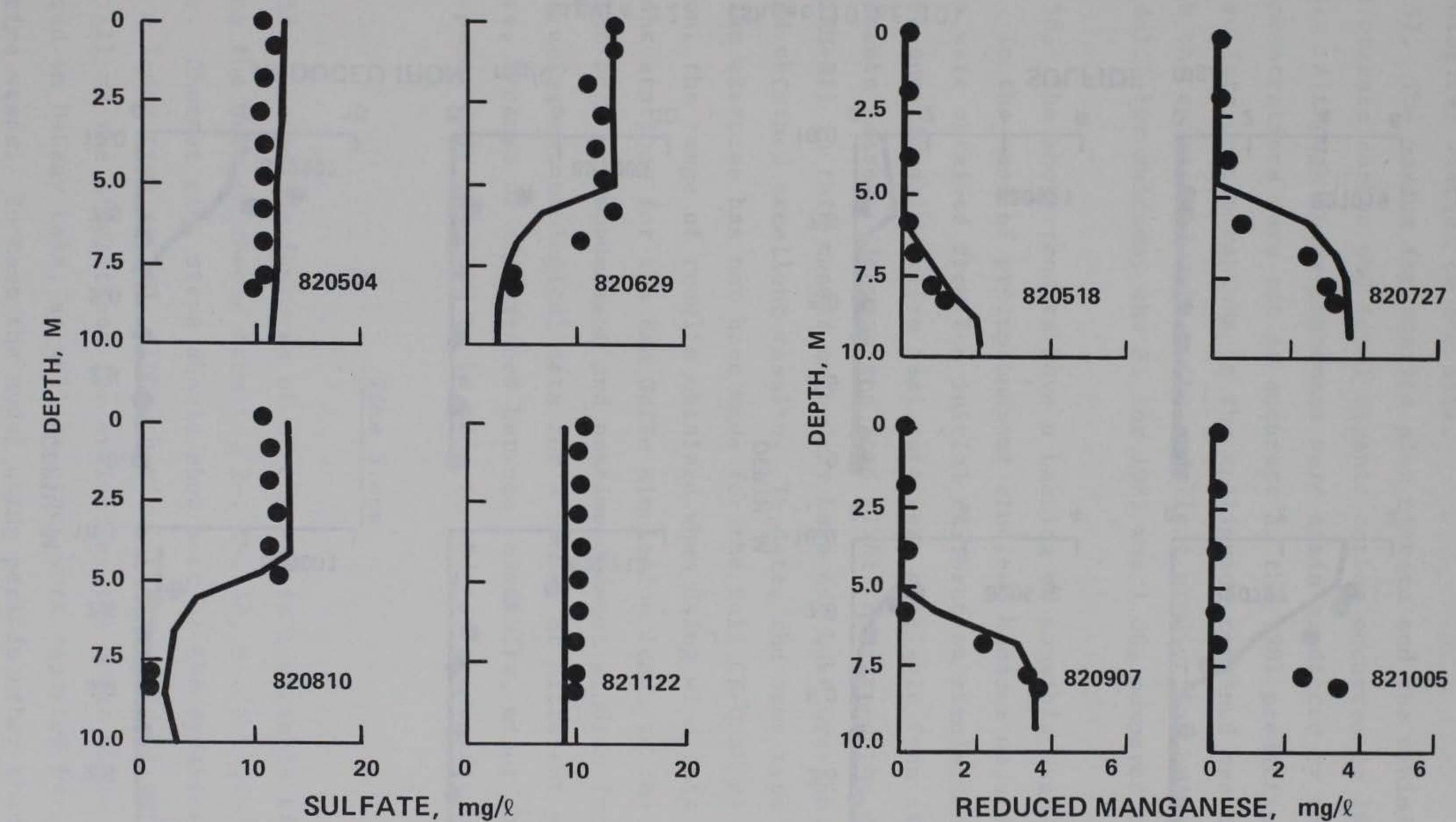


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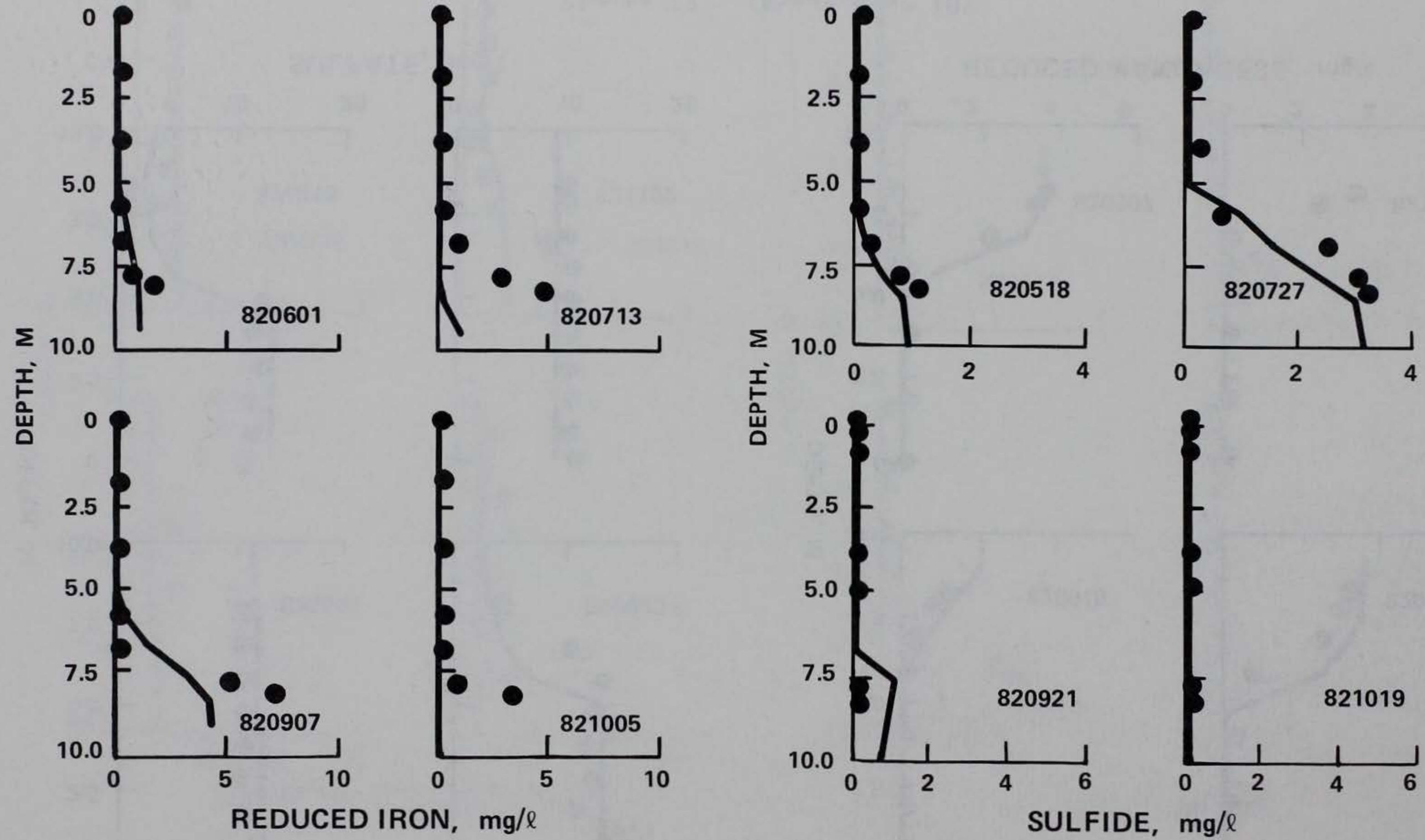


Figure 12. (Sheet 10 of 10)

conditions, which themselves cannot be accurately transferred from the meteorological station to the site.

57. The maxima for nitrite plus nitrate and the minima for dissolved organic carbon and total organic carbon occurred in 1982 similar to 1981. Although these phenomena were again predicted by the model, the concentrations were not as accurate as the 1981 predictions. Unlike 1981, sulfate concentrations in the epilimnion remained around 10 mg/l through the summer and fall, with excellent predictions being made by the model. For sulfate, the RI for 1982 was 1.86, compared to 3.41 for 1981.

58. The above results have a bearing on possible uses of the model. In the case of preimpoundment studies, because unsatisfactory results were obtained from the initial calibration simulation, results would be questionable unless real data were available from similar impoundments nearby. Johnson and Ford (1981) confirmed the model (CE-THERM-R1) in this manner on DeGray Lake and Lake Greeson in Arkansas, and obtained excellent results. To date, the same type of confirmation exercise has not been made for the full CE-QUAL-R1 model. In addition, the range of results obtained when using wind data from two different stations for the Eau Galle simulation leads to the recommendation that both preimpoundment and postimpoundment studies include simulations using meteorological data for a number of different years. Furthermore, because of differences between reservoirs, minor changes to the computer code may have to be made to address a specific problem.

Time Steps

59. One of the features of CE-QUAL-R1 is a variable time step, allowing the user to choose from 1-, 2-, 3-, 4-, 6-, 8-, 12- or 24-hr periods. Shorter time steps should show some of the dynamics occurring during a 1-day time period, although simulations would be more expensive. All of the simulations for evaluating the model while using data collected on DeGray Lake, as well as other work reported here, used 24-hr time steps. To test the model using periods other than 24 hr, a

number of simulations were made using a 3-hr time step. The first simulation used the 1981 calibration data set from Eau Galle, without any changes to coefficients. In addition, the same set of driving variables was used. The model simply interpolated the 24-hr data to supply values for 3-hr periods. It would have been more appropriate to supply data measured at 3-hr intervals.

60. The results were not at all satisfactory, indicating that the same set of coefficients cannot be used with different time steps. This problem is probably due to the nonlinearity of some equations. After a number of calibration simulations were made, reasonable results were obtained. To produce satisfactory results for the calibration simulation using 3-hr time steps, eight coefficients had to be changed. These were the mixing coefficient due to wind, the light saturation and maximum gross production coefficients for the three algal compartments, and the zooplankton ingestion coefficient. Although the predictions for macrophytes were not checked, it seems reasonable that for different time steps, the macrophyte gross production and light saturation coefficients should also be changed. The RI for the final 3-hr simulation was 2.69, although only a few calibration runs were made compared to the 24-hr time step. It is recommended that once the model has been calibrated for a set of coefficients and time step, the time step should not be changed.

Flux Predictions

61. Wlosinski (1979), Scavia (1980), Chapra et al. (1983), and Collins and Wlosinski (1984) have shown the need to compare predicted and measured flux values in addition to mass or concentration values. Evaluating models by concentrating solely on the comparison of measured versus predicted concentrations can produce a model that predicts reasonable concentrations for the wrong reasons. As part of the Eau Galle Reservoir study, a number of process rates were measured which could be compared to model predictions. These included algal productivity, sediment oxygen demand, and sedimentation rates of algae.

62. Productivity rates vary extensively over a 24-hr period and from day to day, and are dependent on local conditions such as light, temperature, and the concentrations of nutrients and algae. Nevertheless, comparisons should show rates that are similar. Production rates were measured from noon until 2 pm at discrete intervals between the surface and 3 m on a biweekly sampling schedule. The measured values of $\text{mg O}_2/\text{m}^2/\text{hr}$ were converted to $\text{g O}_2/\text{m}^2/\text{day}$, assuming a 10-hr photosynthetic day, for comparison with predicted values. The comparison, shown in Figure 13, used predictions from an approximate depth of 2 m. It must be remembered that algal processes and rate values used in the model are based upon average daily values. Studies have revealed that photosynthetic capacity, cell division, nutrient uptake, respiration, and grazing vary according to algal circadian rhythms (Prezelin et al. 1977; Chisholm, Azam, and Eppley 1978; and Chisholm 1981). Considering the variability in measured data at different stations and the fact that the measured data are for a much shorter period than the 24-hr time step used, predictions are quite reasonable.

63. Sedimentation rates of algae were also available. Sediment

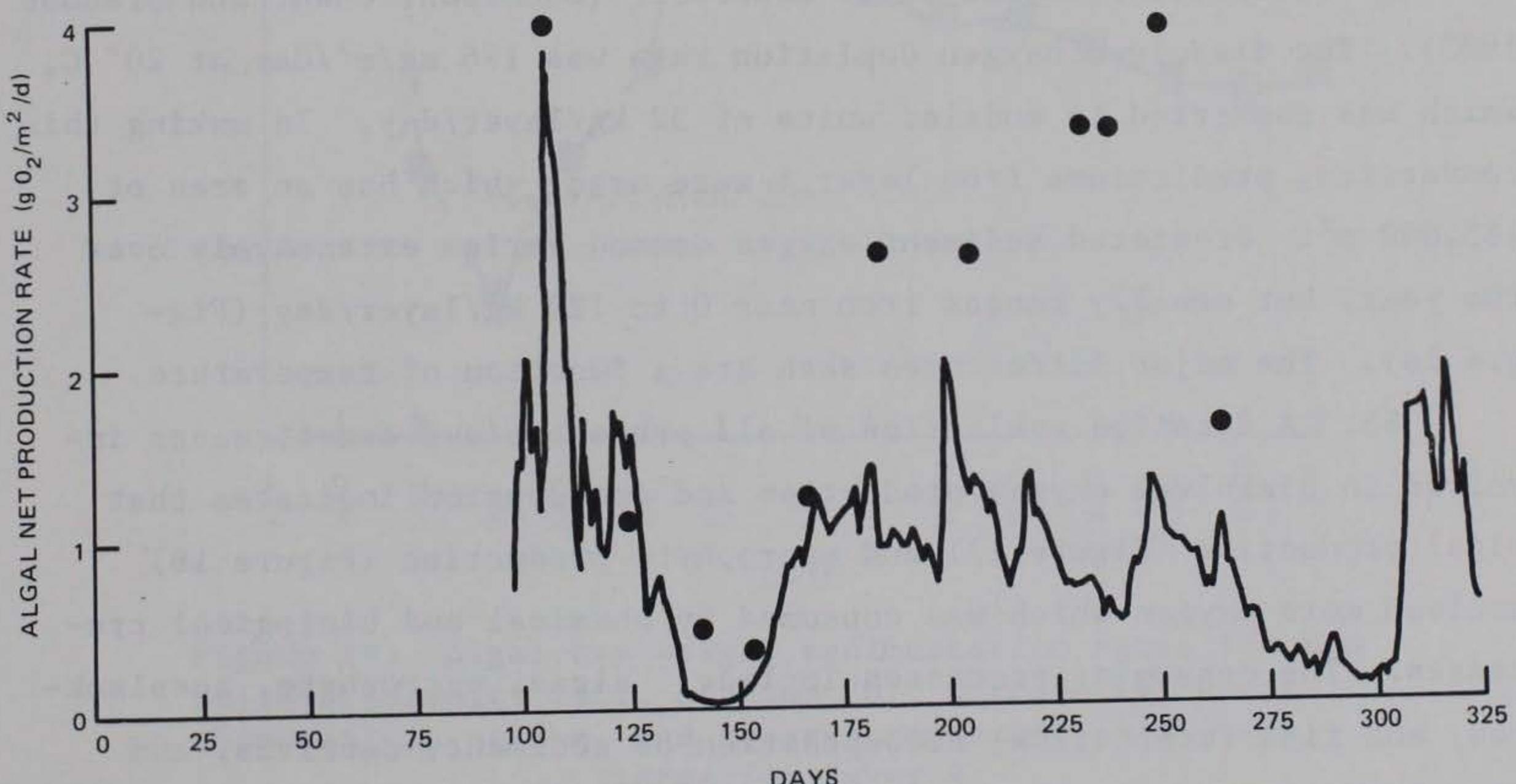


Figure 13. Algal net production rates for Eau Galle Reservoir, 1981, station 20. Circles represent observed rates from 0-3 m; the solid line represents predicted rates at approximately 2 m

traps were deployed at 4 and 8.5 m below the water surface and were retrieved after approximately 2 weeks. Direct comparison of predicted and measured values was not possible because of the variable layer scheme employed in the model. The model predicts values on a per-layer basis, and because the thickness of each layer is variable, the 4- or 8.5-m depth contour may be located in different layers during different time steps. For comparative purposes, the predictions from layer 4 (Figure 14) and layer 8 (Figure 15) were used. In general, the predictions were more uniform than the measured data, and except in June at 4 m, the model predictions were lower than measured values. Part of the difference may be due to the fact that as algae settle in the model, their mass is lost to the nutrients, labile dissolved organic matter, and detritus through respiration and mortality, whereas chlorophyll a in the system decomposes more slowly and may be measured at deeper depths even though the cells are not viable. Most of the values are close enough to be considered reasonable, especially when compared to earlier predictions that were an order of magnitude different than measured values.

64. Sediment oxygen demand was measured in the laboratory on sediment collected from Eau Galle Reservoir (Gunnison, Chen, and Brannon 1983). The dissolved oxygen depletion rate was $176 \text{ mg/m}^2/\text{day}$ at 20° C , which was converted to modeled units of 32 kg/layer/day . In making this conversion, predictions from layer 4 were used, which has an area of $183,000 \text{ m}^2$. Predicted sediment oxygen demand varies extensively over the year, but usually ranges from near 0 to 120 kg/layer/day (Figure 16). The major differences seen are a function of temperature.

65. A detailed evaluation of all processes and constituents involved in dissolved oxygen production and consumption indicates that algal production (Figure 17) and macrophyte production (Figure 18) evolved more oxygen which was consumed by chemical and biological processes. The consuming processes include: algae, macrophyte, zooplankton, and fish respiration; decomposition of sediment, detritus, and dissolved organic matter; ammonia decay; and anaerobic oxidation (Table 3). Correct predictions of anaerobic conditions were made despite the prediction of greater oxygen production versus utilization.

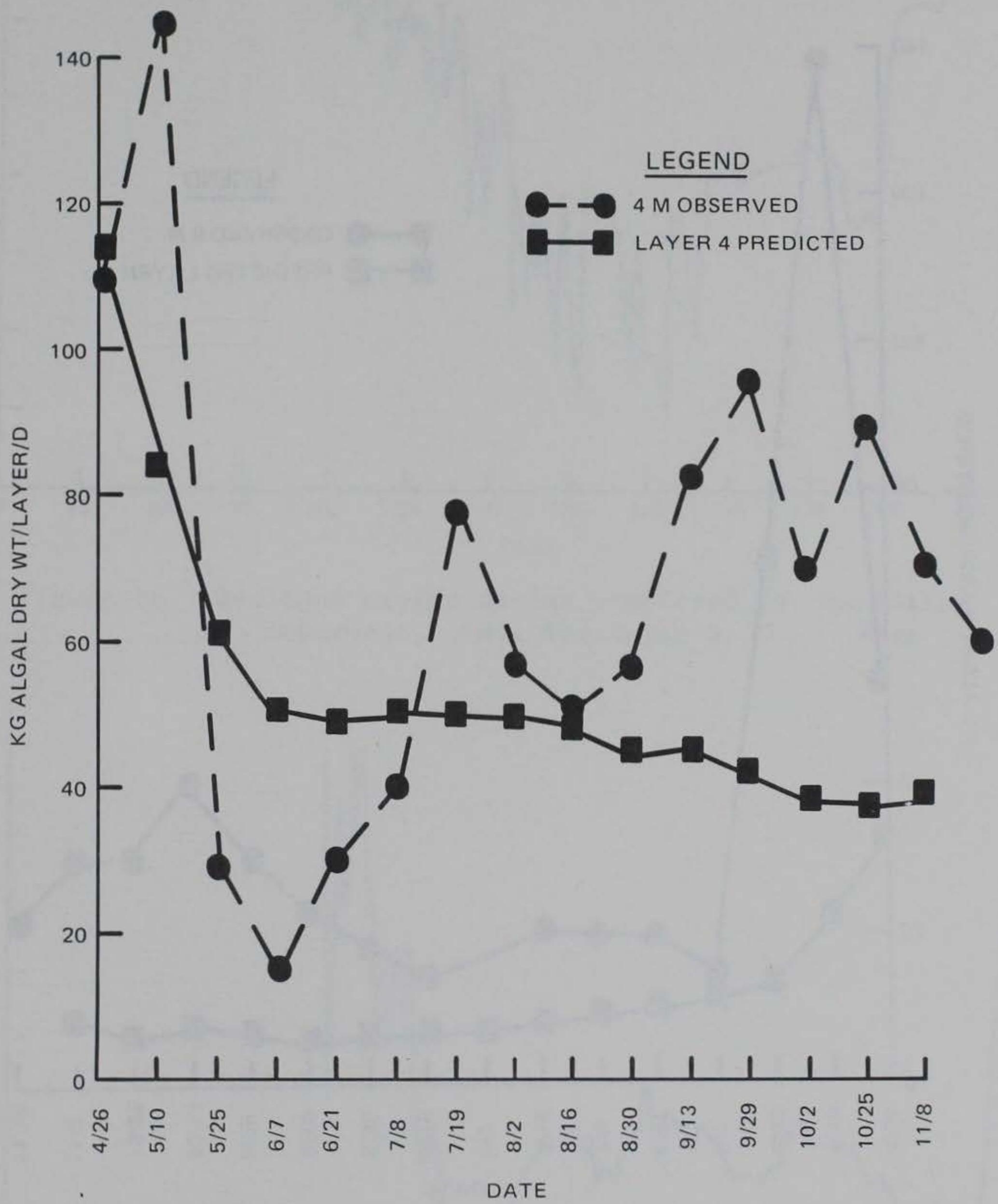


Figure 14. Algal dry weight sedimentation rates for Eau Galle Reservoir, 1981, station 20. Circles represent observations at 4 m, and squares represent predicted rates for layer 4

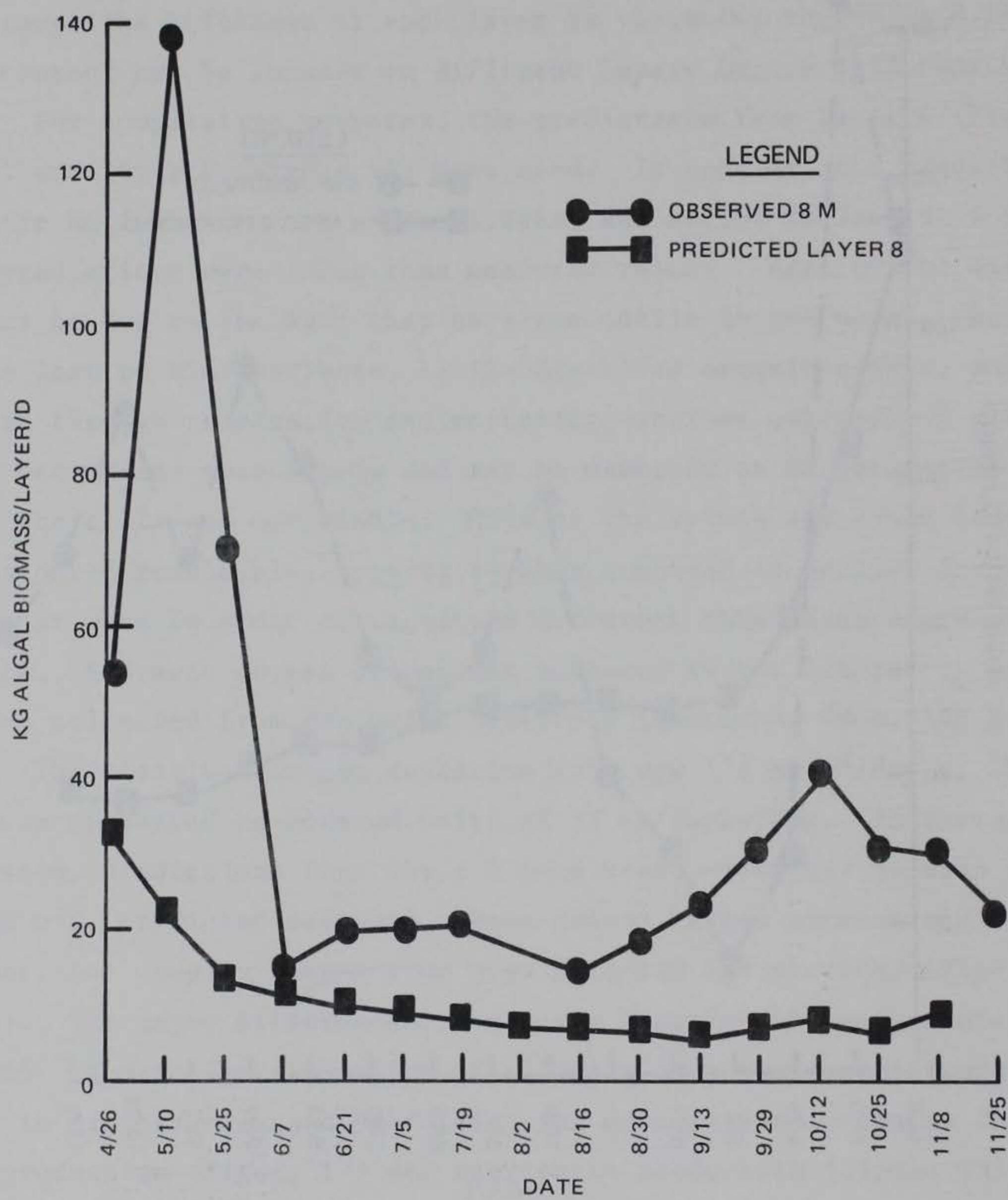


Figure 15. Algal dry weight sedimentation rates for Eau Galle Reservoir, 1981, station 20. Circles represent observations at 8.5 m, and squares represent predicted rates for layer 8

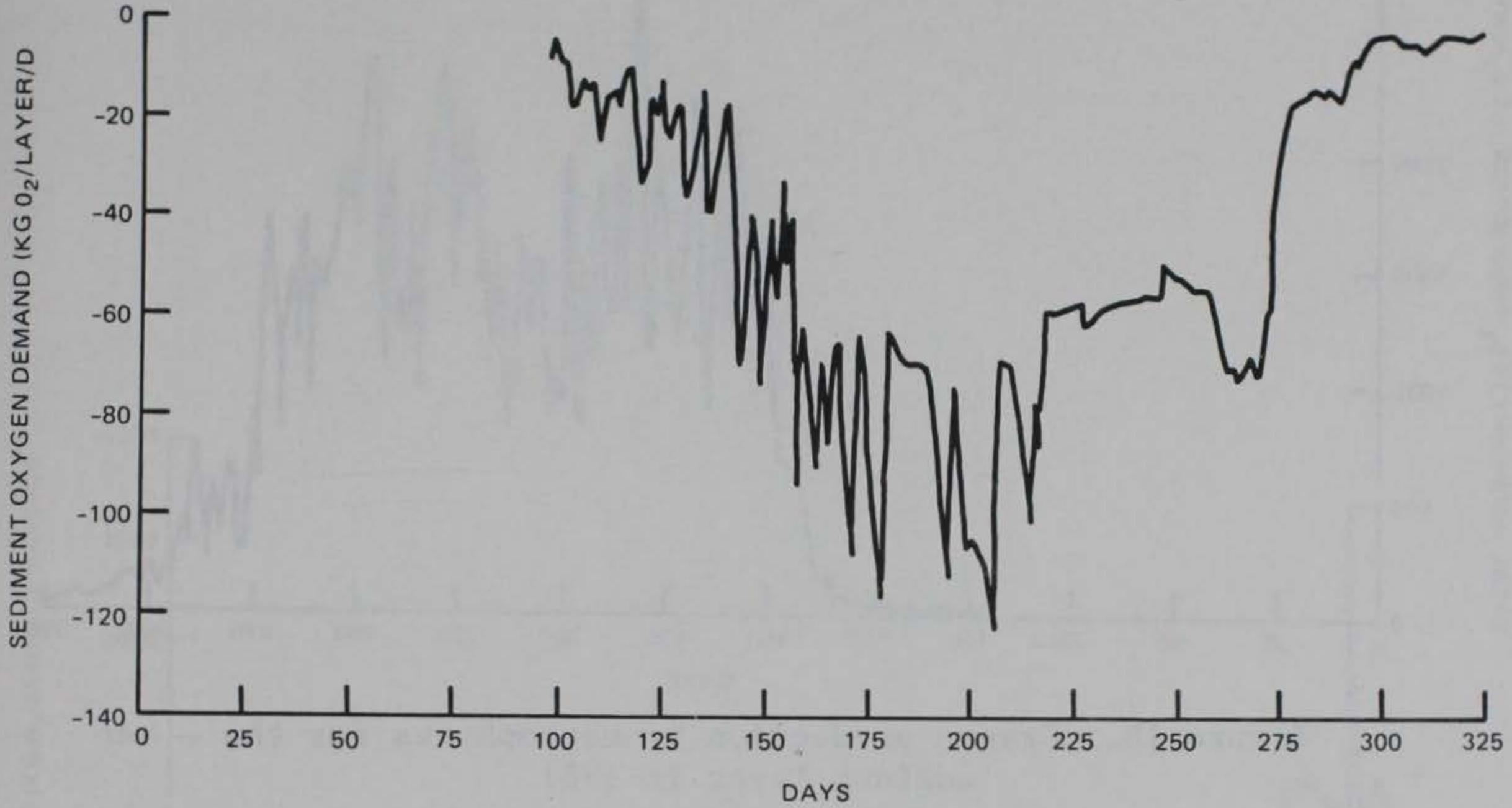


Figure 16. Sediment oxygen demand predicted for Eau Galle Reservoir, 1981, for layer 4

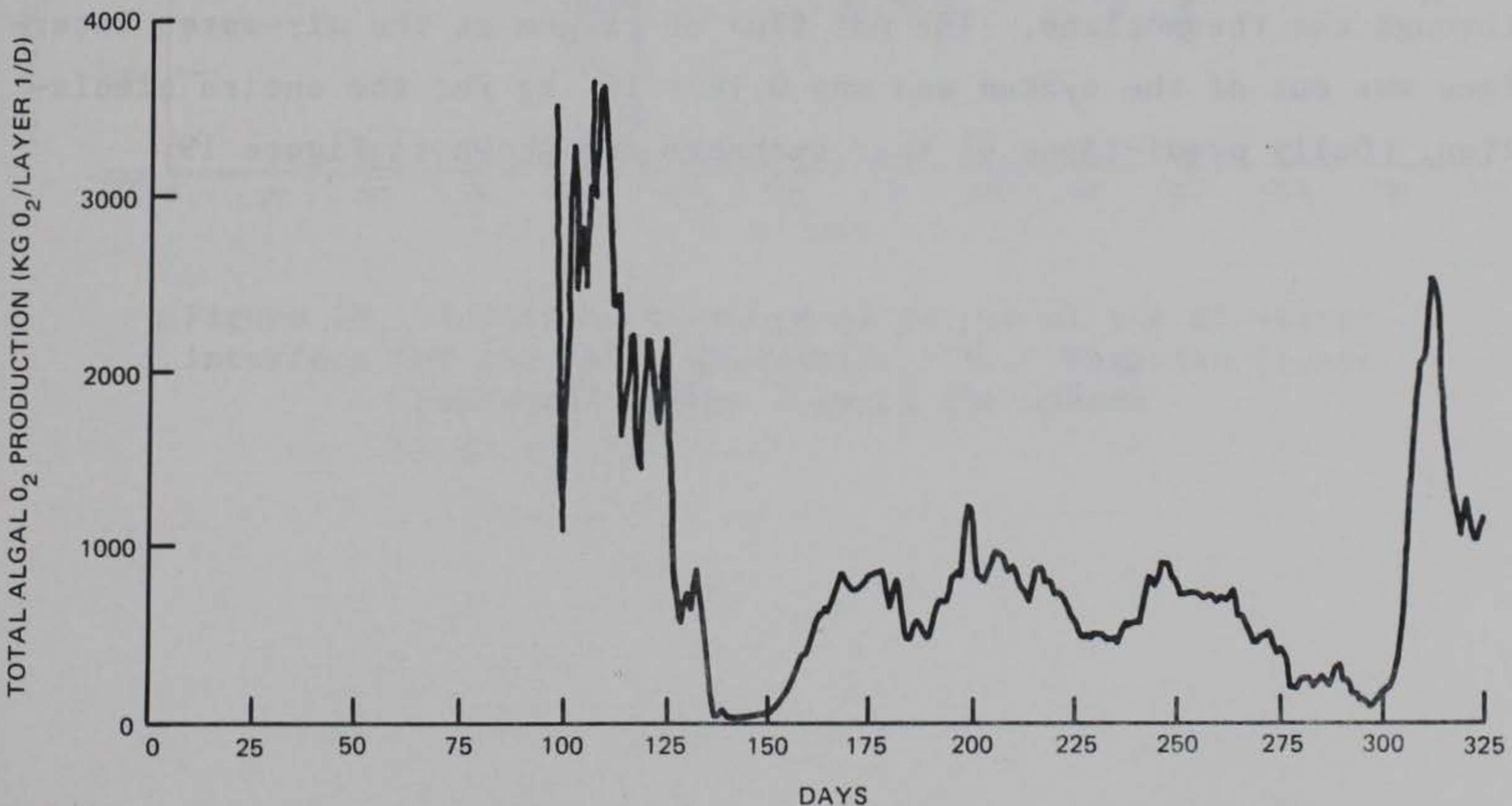


Figure 17. Oxygen production by algae for the surface layer in 1981

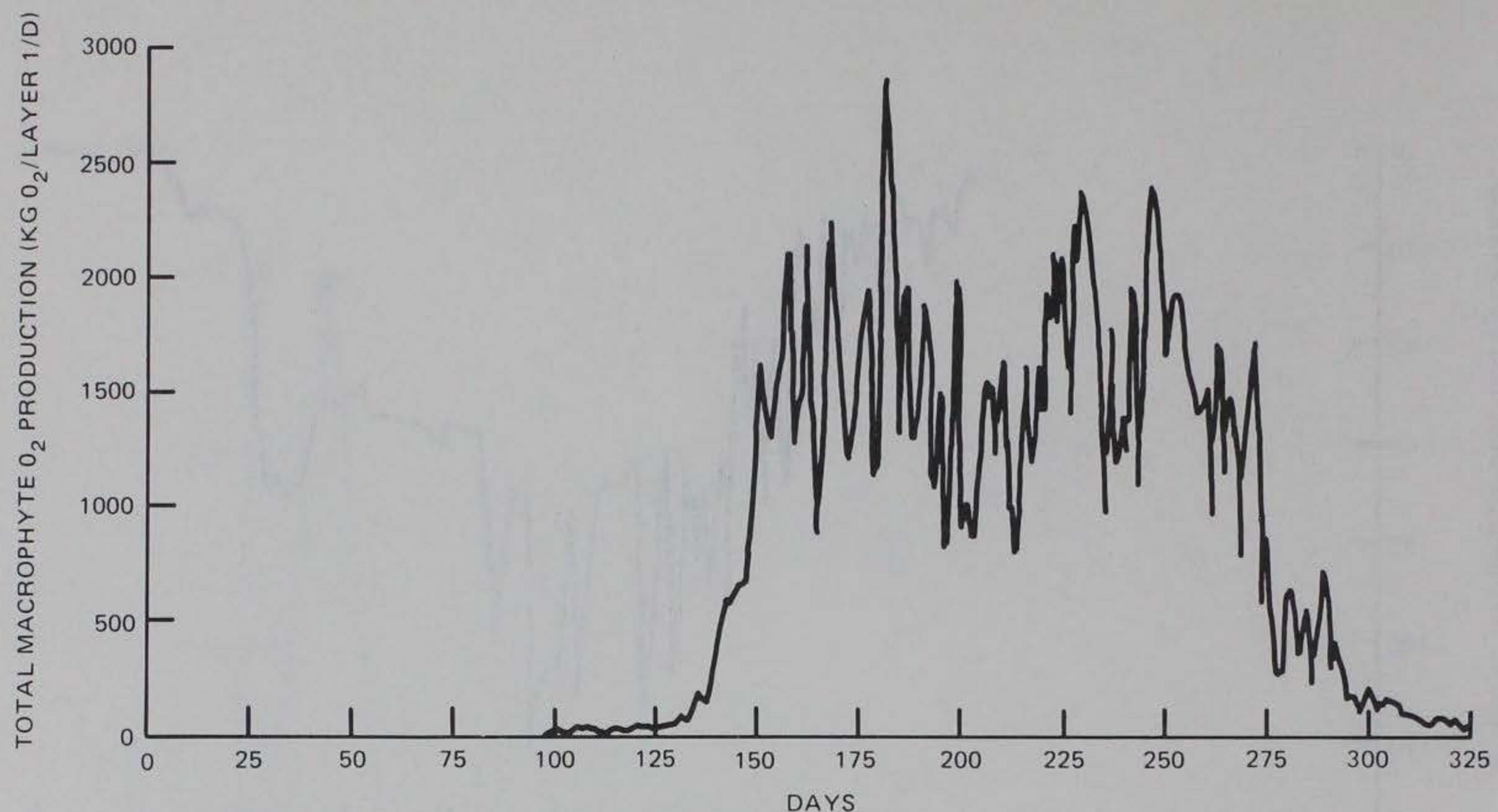


Figure 18. Oxygen production by macrophytes for the surface layer in 1981

This occurred because the majority of oxygen was produced above the metalimnion, and oxygen diffused more rapidly to the atmosphere than through the thermocline. The net flux of oxygen at the air-water interface was out of the system and was 0.14×10^6 kg for the entire simulation. Daily predictions of this exchange are shown in Figure 19.

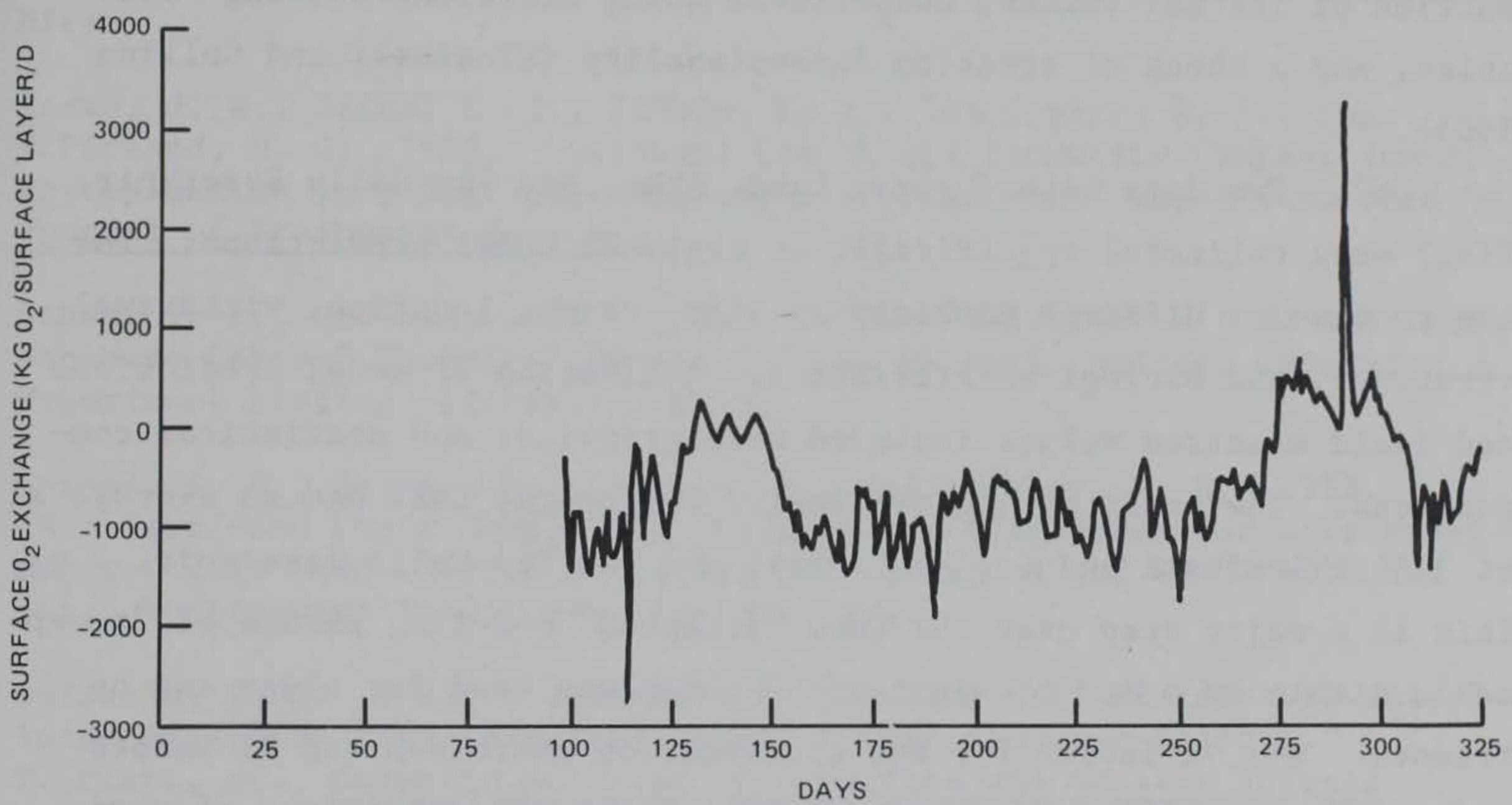


Figure 19. Predicted exchange of oxygen at the air-water interface for Eau Galle Reservoir, 1981. Negative fluxes represent oxygen leaving the system

PART V: SUMMARY AND CONCLUSIONS

66. Simulation of Eau Galle Reservoir was the final step, during the EQWQS Program, in developing the water quality model CE-QUAL-R1. Evaluation has included tests of the code to ensure that computer programming was correct, as well as comparisons of model predictions to field measured values. Tests of the code included evaluations of the stability of predictions, conservation of mass, time step comparisons, entries of initial values, comparisons using different driving variables, and a check of equation dimensionality (Wlosinski and Collins 1985).

67. Two data sets (DeGray Lake, Ark., and Eau Galle Reservoir, Wis.) were collected specifically to evaluate model predictions. The two reservoirs differed markedly in size, shape, location, withdrawal structure, and biological attributes. Evaluation of model predictions and field measured values included both graphical and statistical comparisons. The confirmation simulation for DeGray Lake had an average RI of 2.59 (Wlosinski and Collins 1985), and for Eau Galle Reservoir, 2.62. This is a major step over the once "accepted" modeling phrase of "acceptable within an order of magnitude," which was used for algae and nutrients. All variables for the confirmation exercises had RI values under 5.0. In addition to comparisons of the concentrations of variables, a number of flux values were also investigated for the two reservoirs, and all were considered acceptable. This helps ensure that variable concentrations were predicted for the correct reasons. This is necessary when the model is to be used for comparing different engineering strategies.

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Table 1
Statistical Results from the 1981 Final Calibration Simulation of Eau Galle Reservoir

| Variable | Unit | Number of Dates | Number of Comparison | Observed Mean | Predicted Mean | Reliability Index |
|-------------------------------|------|-----------------|----------------------|---------------|----------------|-------------------|
| Temperature | °C | 32 | 320 | 13.9 | 14.3 | 1.09 |
| Chlorophyll a | µg/l | 16 | 159 | 38.4 | 28.3 | 3.05 |
| Silica | mg/l | 16 | 160 | 6.05 | 9.19 | 1.97 |
| Total manganese | mg/l | 14 | 140 | 1.00 | 0.90 | 4.27 |
| Total organic carbon | mg/l | 16 | 160 | 7.80 | 6.13 | 1.35 |
| Dissolved organic carbon | mg/l | 16 | 160 | 11.5 | 11.4 | 1.32 |
| Orthophosphate phosphorus | mg/l | 16 | 160 | 0.049 | 0.053 | 4.84 |
| Ammonia nitrogen | mg/l | 16 | 160 | 0.86 | 0.74 | 4.85 |
| Nitrate plus nitrite nitrogen | mg/l | 16 | 160 | 0.25 | 0.39 | 2.69 |
| Oxygen | mg/l | 32 | 320 | 7.0 | 8.1 | 2.39 |
| pH | N/A | 32 | 319 | 8.11 | 8.06 | 1.07 |
| Alkalinity | mg/l | 16 | 160 | 164.0 | 161.0 | 1.26 |
| Total dissolved solids | mg/l | 16 | 160 | 203.0 | 239.0 | 1.24 |
| Suspended solids | mg/l | 16 | 160 | 17.0 | 9.1 | 2.05 |
| Total iron | mg/l | 14 | 140 | 1.4 | 1.5 | 2.86 |
| Sulfate | mg/l | 16 | 160 | 5.1 | 6.7 | 3.41 |
| Reduced manganese | mg/l | 13 | 130 | 0.69 | 0.85 | 3.45 |
| Reduced iron | mg/l | 14 | 140 | 0.49 | 0.82 | 3.07 |
| Sulfide | mg/l | 14 | 140 | 0.17 | 0.38 | 2.62 |
| Average | | | | | | 2.57 |
| Total | | | 3,408 | | | |

Table 2

Statistical Results from the 1982 Final Calibration Simulation of Eau Galle Reservoir

| <u>Variable</u> | <u>Unit</u> | <u>Number of Dates</u> | <u>Number of Comparison</u> | <u>Observed Mean</u> | <u>Predicted Mean</u> | <u>Reliability Index</u> |
|-------------------------------|-------------|------------------------|-----------------------------|----------------------|-----------------------|--------------------------|
| Temperature | °C | 28 | 277 | 14.8 | 15.1 | 1.14 |
| Chlorophyll a | µg/l | 14 | 138 | 23.5 | 19.4 | 3.25 |
| Silica | mg/l | 17 | 170 | 7.3 | 8.9 | 1.74 |
| Total manganese | mg/l | 12 | 84 | 1.02 | 1.52 | 4.16 |
| Total organic carbon | mg/l | 18 | 180 | 7.54 | 4.66 | 1.75 |
| Dissolved organic carbon | mg/l | 18 | 180 | 5.58 | 8.64 | 1.92 |
| Orthophosphate phosphorus | mg/l | 18 | 175 | 0.101 | 0.056 | 3.54 |
| Inorganic carbon | mg/l | 13 | 130 | 32.2 | 50.4 | 1.73 |
| Ammonia nitrogen | mg/l | 18 | 179 | 0.85 | 0.99 | 4.81 |
| Nitrate plus nitrite nitrogen | mg/l | 18 | 179 | 0.34 | 0.61 | 3.16 |
| Oxygen | mg/l | 28 | 277 | 5.8 | 8.8 | 2.92 |
| pH | N/A | 28 | 277 | 8.01 | 8.13 | 1.06 |
| Alkalinity | mg/l | 18 | 178 | 164.0 | 187.0 | 1.38 |
| Total dissolved solids | mg/l | 16 | 157 | 197.0 | 241.0 | 1.40 |
| Suspended solids | mg/l | 16 | 158 | 10.8 | 7.1 | 2.18 |
| Total iron | mg/l | 12 | 84 | 2.1 | 1.0 | 2.20 |
| Sulfate | mg/l | 16 | 157 | 9.9 | 11.1 | 1.86 |
| Reduced manganese | mg/l | 12 | 84 | 0.94 | 1.3 | 3.30 |
| Reduced iron | mg/l | 11 | 77 | 1.2 | 0.33 | 4.14 |
| Sulfide | mg/l | 11 | 110 | 0.05 | 0.76 | 4.85 |
| Average | | | | | | 2.62 |
| Total | | | 3,251 | | | |

Table 3
Eau Galle 1981 Oxygen Budget*

| Process | Oxygen Production | Oxygen Utilization |
|------------------------------|----------------------|----------------------|
| Algal photosynthesis | 0.1945×10^6 | |
| Macrophyte photosynthesis | 0.2135×10^6 | |
| Algal respiration | | 0.4734×10^5 |
| Macrophyte respiration | | 0.8863×10^5 |
| Zooplankton respiration | | 0.2815×10^5 |
| Fish respiration | | 0.6555×10^4 |
| Ammonia decay | | 0.4152×10^4 |
| Detritus decomposition | | 0.5678×10^4 |
| Sediment decomposition | | 0.1218×10^6 |
| Labile DOM decomposition | | 0.2373×10^5 |
| Refractory DOM decomposition | | 0.6165×10^4 |
| Anaerobic oxidation | | 0.3762×10^3 |
| Total oxygen produced | 0.4080×10^6 | |
| Total oxygen utilized | | 0.3325×10^6 |

* Units are kilograms/reservoir/227 days.

APPENDIX A: EAU GALLE DATA SETS FOR 1981 AND 1982

TITLE EAU GALLE 1981
 TITLE ST PAUL MET. SOME EAU CLAIRE WIND. NO OUTFLOW IN HOLE.
 TITLE WEIR OUTFLOW. BURM AT 6.1 FOR TRIB INFLOW.
 TITLE NEW IN +OUTFLOW CALC.+DEPTH AREA RELATHIONSHIP
 TITLE WLOSINSKI JUNE 4 84 #1
 JOB 13 324 24 99999 97 81 3 1
 OUTPUT COMPLETE
 PHYS1 1 2 9 44.8 92.3 1.7 0 1.2-09
 PHYS2 850 .4 1.2
 PHYS2+ 1.15 1.15 1.15 1.15 1.15 1.0 1.0 1.0 1.0
 STRUCT PORT+WEIR
 CHOICE SPECIFIED
 PHYS3 4.1 1.08 1.08
 WEIR 7.6 9.75 3.2
 PHYS4 5791. 1.9543
 PHYS5 251.8 .2528
 MIXING .007 .004 .00009 .000200 2.0
 LIGHT .80 .45 .10
 DIFC2 5.40-10 7.50-09
 ALG1 .38 .40 .004 .34
 ALG2 .99 0.05 .020 .06 0.10 85. .05 .07 .140
 ALG3 1.40 0.10 .020 .09 0.1 115. .040 .060 .17
 ALG3A 1.60 0.12 .004 .07 .08 45. .04 .01 .145
 ALG3++ .05
 ALG4 7. 15 28 35 0.1 0.1
 ALG5 12 19. 25. 35. 0.1 0.1
 ALG5+ 0 8 12 17. 0.1 0.1
 PLANT1 .42 .050 .012 .030 .2 .4 .4 1.5
 PLANT2 .04 .10 .01 .005 40. 95. .55 1.8
 PLANT3 7. 21. 24. 34. .2 .2
 Z001 .99 .011 .650 .15 .25 .30 .30 0.20 .20
 Z002 .50 2.0 12 26 36 0.1 0.1
 DET1 .15 4.0 22 0.01
 FISH1 .0180 .2 .03 .15 .15 .15 .37 .15
 FISH2 1. 24.4 28.4 35.2 .1 .1 .8 .01 .01
 DECAY1 0.040 0.01 0.020 1.4 .0012 .0010 .050 .3 .07
 DECAY2 4. 22 .12
 DECAY3 2. 32. 0.1
 DECAY4 2. 32. 0.1
 SSETL .05 30. 40. .0025 .005
 TMP 1.04
 CHEM 4.57 1.14 1.4 1.1 1.4 1.4 0.15 0.14 2.0
 ANAER1 .5 5.0
 ANAER2 0.14 0.16 0 5 35 40 0.1 0.1
 ANAER3 0.35 0 5 35 40 0.1 0.1
 ANAER4 .60 0 5 35 40 0.1 0.1
 ANAER5 0.04 0.02 0 5 35 40 0.1 0.1
 ANAER6 .45 0 5 35 40 0.1 0.1
 ANAER7 .60 0.05 0 5 35 40 0.1 0.1
 ANAER8 0.40 0 5 35 40 0.1 0.1
 ANAER9 0.50 0.6 0 5 35 40 0.1 0.1
 ANAER10 0.040 0 5 35 40 0.1 0.1
 ANAER11 .01 0 5 35 40 0.1 0.1
 ANAER12 0.50 0.05 0 5 35 40 0.1 0.1
 ANAER13 0.014 0 5 35 40 0.1 0.1
 ANAER14 0.40 0 5 35 40 0.1 0.1
 INIT0 9
 INIT1 55.
 INIT2 0.0 .00 .00 109. .052 .682 0.0 300.
 INIT3 2.4 19.3 12.7 .110 5001. 5.8 157. .1 8.0

| | | | | | | | | | |
|--------|-------|------|------|------|-------|------|------|-----|------|
| INIT4 | 24.6 | 0.1 | 0.1 | 1.1 | 0.1 | 0.0 | 9.1 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.52 | | |
| INIT2 | 2.59 | .00 | .00 | 109. | | .052 | .682 | 0.0 | 300. |
| INIT3 | 2.4 | 19.3 | 12.7 | .110 | 5001. | 5.8 | 157. | .1 | 8.0 |
| INIT4 | 24.6 | 0.1 | 0.1 | 1.1 | 0.1 | 0.0 | 9.1 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.52 | | |
| INIT2 | 3.59 | .00 | .00 | 108. | | .043 | .671 | 0.0 | 300. |
| INIT3 | 2.4 | 21.1 | 12.7 | .110 | 5001. | 5.8 | 167. | .1 | 8.0 |
| INIT4 | 23.4 | 0.1 | 0.1 | 0.8 | 0.1 | 0.0 | 9.1 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.85 | | |
| INIT2 | 4.59 | .00 | .00 | 109. | | .044 | .663 | 0.0 | 300. |
| INIT3 | 2.4 | 20.9 | 12.8 | .110 | 5001. | 5.8 | 159. | .1 | 8.1 |
| INIT4 | 23.4 | 0.1 | 0.1 | 0.8 | 0.1 | 0.0 | 7.1 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.85 | | |
| INIT2 | 5.59 | .00 | .00 | 109. | | .045 | .666 | 0.0 | 300. |
| INIT3 | 2.4 | 20.7 | 13.0 | .110 | 5001. | 5.9 | 161. | .1 | 8.1 |
| INIT4 | 23.4 | 0.1 | 0.1 | 1.0 | 0.1 | 0.0 | 9.1 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.85 | | |
| INIT2 | 6.59 | .00 | .00 | 109. | | .037 | .658 | 0.0 | 300. |
| INIT3 | 2.4 | 21.5 | 13.1 | .110 | 501. | 5.9 | 162. | .1 | 8.1 |
| INIT4 | 24.0 | 0.1 | 0.1 | 1.0 | 0.0 | 0.0 | 9.1 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.88 | | |
| INIT2 | 7.59 | .00 | .00 | 108. | | .040 | .659 | 0.0 | 300. |
| INIT3 | 2.4 | 21.8 | 13.2 | .110 | 501. | 6.0 | 159. | .1 | 8.1 |
| INIT4 | 24.6 | 0.1 | 0.1 | 1.0 | 0.1 | 0.0 | 8.9 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.82 | | |
| INIT2 | 8.59 | .00 | .00 | 109. | | .033 | .656 | 0.0 | 300. |
| INIT3 | 2.4 | 20.2 | 13.3 | .110 | 501. | 6.0 | 165. | .1 | 8.2 |
| INIT4 | 24.6 | 0.1 | 0.1 | 1.2 | 0.1 | 0.0 | 8.4 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 6.10 | | |
| INIT2 | 9.59 | .00 | .00 | 110. | | .051 | .654 | 0.0 | 322. |
| INIT3 | 2.4 | 20.4 | 13.2 | .110 | 501. | 6.0 | 158. | .1 | 8.2 |
| INIT4 | 24.3 | 0.1 | 0.1 | 1.1 | 0.1 | 0.0 | 9.3 | 0.0 | 220. |
| INIT5 | 1310. | 0. | 1.6 | 102. | 1210. | 2.77 | 5.95 | | |
| PLANTS | 8. | 8. | 8. | | | | | | |

| FILES | PLTWC | EG812 | EG813 | EG814 | FLUX |
|-------|-------|-------|-------|-------|------|
| ID | EAU | GALLE | 1981 | JUN | #1 |

| | | | | | | |
|----------|--------|-----|-------|-------|--------|------|
| FILES | 24 | 353 | | | | |
| W2 STPAL | 81 113 | .2 | -6.1 | -9.8 | 980.5 | 11.8 |
| W2 STPAL | 81 114 | 1.0 | -4.2 | -8.1 | 982.5 | 15.5 |
| W2 STPAL | 81 115 | .4 | -12.2 | -18.8 | 989.9 | 21.5 |
| W2 STPAL | 81 116 | .1 | -13.3 | -19.2 | 999.2 | 14.6 |
| W2 STPAL | 81 117 | .5 | -5.3 | -12.6 | 995.5 | 19.4 |
| W2 STPAL | 81 118 | .2 | -.8 | -7.8 | 991.8 | 10.9 |
| W2 STPAL | 81 119 | .0 | -1.4 | -6.7 | 982.1 | 8.3 |
| W2 STPAL | 81 120 | .1 | -3.3 | -7.6 | 987.1 | 9.7 |
| W2 STPAL | 81 121 | .6 | -1.3 | -6.7 | 990.6 | 12.0 |
| W2 STPAL | 81 122 | .2 | .1 | -6.6 | 987.7 | 9.7 |
| W2 STPAL | 81 123 | .6 | .2 | -6.9 | 983.5 | 7.9 |
| W2 STPAL | 81 124 | .2 | 3.5 | -3.9 | 977.2 | 11.8 |
| W2 STPAL | 81 125 | .6 | 4.5 | -1.9 | 967.7 | 15.7 |
| W2 STPAL | 81 126 | 1.0 | -1.3 | -6.9 | 971.8 | 23.6 |
| W2 STPAL | 81 127 | .7 | -7.3 | -12.5 | 978.4 | 16.2 |
| W2 STPAL | 81 128 | .5 | -10.2 | -17.2 | 983.1 | 18.8 |
| W2 STPAL | 81 129 | .1 | -10.9 | -17.6 | 997.2 | 13.0 |
| W2 STPAL | 81 130 | .2 | -9.2 | -16.0 | 1000.8 | 11.6 |
| W2 STPAL | 81 131 | 1.0 | -4.0 | -11.8 | 985.4 | 18.3 |
| W2 STPAL | 81 2 1 | .7 | -8.3 | -14.0 | 971.8 | 28.7 |
| W2 STPAL | 81 2 2 | .3 | -19.4 | -26.1 | 981.6 | 23.4 |
| W2 STPAL | 81 2 3 | .4 | -16.8 | -23.2 | 985.7 | 18.8 |

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|----|-------|---------|-----|-------|-------|-------|------|
| W2 | STPAL | 81 2 4 | .1 | -16.5 | -22.8 | 991.7 | 18.8 |
| W2 | STPAL | 81 2 5 | .9 | -8.3 | -13.6 | 982.2 | 18.8 |
| W2 | STPAL | 81 2 6 | .7 | -5.6 | -10.5 | 982.9 | 15.7 |
| W2 | STPAL | 81 2 7 | 1.0 | -6.7 | -10.5 | 971.6 | 22.7 |
| W2 | STPAL | 81 2 8 | .7 | -12.4 | -18.0 | 978.6 | 14.1 |
| W2 | STPAL | 81 2 9 | .7 | -16.1 | -21.7 | 980.3 | 13.7 |
| W2 | STPAL | 81 2 10 | 1.0 | -18.9 | -25.2 | 983.1 | 24.5 |
| W2 | STPAL | 81 2 11 | .1 | -23.3 | -29.7 | 987.0 | 16.2 |
| W2 | STPAL | 81 2 12 | .5 | -15.1 | -20.9 | 996.2 | 10.2 |
| W2 | STPAL | 81 2 13 | .5 | -6.3 | -11.5 | 999.2 | 13.4 |
| W2 | STPAL | 81 2 14 | .8 | -1.9 | -6.2 | 996.4 | 15.7 |
| W2 | STPAL | 81 2 15 | .8 | 6.0 | .6 | 986.3 | 26.4 |
| W2 | STPAL | 81 2 16 | .6 | 7.4 | .9 | 984.3 | 17.4 |
| W2 | STPAL | 81 2 17 | .8 | 8.0 | 2.8 | 981.6 | 15.0 |
| W2 | STPAL | 81 2 18 | .5 | 9.4 | 4.0 | 982.0 | 16.0 |
| W2 | STPAL | 81 2 19 | .6 | 6.3 | .7 | 981.4 | 11.8 |
| W2 | STPAL | 81 2 20 | .7 | 5.3 | .2 | 984.5 | 10.6 |
| W2 | STPAL | 81 2 21 | 1.0 | 3.6 | .5 | 982.7 | 16.0 |
| W2 | STPAL | 81 2 22 | 1.0 | 2.4 | -2.2 | 975.5 | 28.9 |
| W2 | STPAL | 81 2 23 | .7 | 1.7 | -3.8 | 973.1 | 26.2 |
| W2 | STPAL | 81 2 24 | .1 | 2.4 | -5.8 | 981.5 | 14.1 |
| W2 | STPAL | 81 2 25 | .1 | -.1 | -6.7 | 991.5 | 16.0 |
| W2 | STPAL | 81 2 26 | .6 | -1.6 | -6.5 | 995.0 | 20.1 |
| W2 | STPAL | 81 2 27 | 1.0 | .6 | -2.4 | 982.6 | 18.1 |
| W2 | STPAL | 81 2 28 | 1.0 | -.2 | -4.7 | 984.8 | 25.5 |
| W2 | STPAL | 81 3 1 | .7 | .4 | -6.3 | 985.2 | 23.2 |
| W2 | STPAL | 81 3 2 | .1 | -5.1 | -12.9 | 988.3 | 18.3 |
| W2 | STPAL | 81 3 3 | .6 | -1.5 | -7.4 | 980.7 | 18.3 |
| W2 | STPAL | 81 3 4 | .3 | -1.3 | -7.1 | 979.8 | 16.7 |
| W2 | STPAL | 81 3 5 | .3 | -1.9 | -10.1 | 982.9 | 16.2 |
| W2 | STPAL | 81 3 6 | .3 | -4.9 | -13.2 | 989.4 | 18.3 |
| W2 | STPAL | 81 3 7 | 0.0 | -2.8 | -11.4 | 997.2 | 8.1 |
| W2 | STPAL | 81 3 8 | .4 | .0 | -7.9 | 998.3 | 7.4 |
| W2 | STPAL | 81 3 9 | .8 | 1.5 | -6.1 | 996.7 | 13.2 |
| W2 | STPAL | 81 3 10 | .7 | 1.1 | -5.6 | 995.0 | 12.0 |
| W2 | STPAL | 81 3 11 | .0 | 3.0 | -5.6 | 993.8 | 16.2 |
| W2 | STPAL | 81 3 12 | .2 | 6.4 | -5.9 | 984.6 | 22.0 |
| W2 | STPAL | 81 3 13 | .3 | 1.7 | -8.0 | 988.1 | 20.4 |
| W2 | STPAL | 81 3 14 | .0 | 4.7 | -7.4 | 984.9 | 22.9 |
| W2 | STPAL | 81 3 15 | .1 | 7.6 | -4.7 | 978.2 | 27.1 |
| W2 | STPAL | 81 3 16 | .0 | 2.9 | -7.3 | 985.0 | 16.0 |
| W2 | STPAL | 81 3 17 | .1 | 1.9 | -10.3 | 980.1 | 25.0 |
| W2 | STPAL | 81 3 18 | .3 | -1.3 | -11.5 | 981.1 | 26.4 |
| W2 | STPAL | 81 3 19 | .6 | .8 | -9.2 | 982.9 | 25.9 |
| W2 | STPAL | 81 3 20 | .0 | .8 | -9.2 | 982.0 | 13.2 |
| W2 | STPAL | 81 3 21 | .6 | 3.2 | -7.2 | 985.9 | 10.4 |
| W2 | STPAL | 81 3 22 | .2 | 5.9 | -5.6 | 994.3 | 8.1 |
| W2 | STPAL | 81 3 23 | .6 | 6.7 | -5.3 | 994.9 | 7.4 |
| W2 | STPAL | 81 3 24 | .2 | 8.3 | -5.4 | 994.6 | 13.4 |
| W2 | STPAL | 81 3 25 | .6 | 6.7 | .1 | 988.9 | 14.1 |
| W2 | STPAL | 81 3 26 | .7 | 5.4 | -.4 | 987.4 | 15.7 |
| W2 | STPAL | 81 3 27 | .8 | 8.3 | -.6 | 994.1 | 23.8 |
| W2 | STPAL | 81 3 28 | 1.0 | 15.7 | 6.5 | 984.0 | 25.9 |
| W2 | STPAL | 81 3 29 | 1.0 | 12.6 | 9.2 | 970.9 | 17.4 |
| W2 | STPAL | 81 3 30 | 1.0 | 6.7 | 2.6 | 972.2 | 13.9 |
| W2 | STPAL | 81 3 31 | .9 | 8.7 | 2.3 | 971.9 | 32.2 |
| W2 | STPAL | 81 4 1 | .7 | 6.7 | .4 | 978.7 | 27.3 |
| W2 | STPAL | 81 4 2 | .5 | 13.1 | 2.0 | 980.8 | 17.4 |
| W2 | STPAL | 81 4 3 | .9 | 10.2 | 4.5 | 968.3 | 24.5 |
| W2 | STPAL | 81 4 4 | 1.0 | 1.5 | -3.1 | 971.5 | 29.4 |

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|----|-------|----|---|----|-----|------|------|--------|------|
| W2 | STPAL | 81 | 4 | 5 | .3 | 2.4 | -8.3 | 991.4 | 12.7 |
| W2 | STPAL | 81 | 4 | 6 | .1 | 7.1 | -2.7 | 990.3 | 26.2 |
| W2 | STPAL | 81 | 4 | 7 | .9 | 11.9 | 2.9 | 983.8 | 11.8 |
| W2 | STPAL | 81 | 4 | 8 | .9 | 11.9 | -2.8 | 985.7 | 14.1 |
| W2 | STPAL | 81 | 4 | 9 | .5 | 11.6 | -1.3 | 989.9 | 20.8 |
| W2 | STPAL | 81 | 4 | 10 | .5 | 15.5 | 2.5 | 987.5 | 17.6 |
| W2 | STPAL | 81 | 4 | 11 | .9 | 8.7 | -1.9 | 991.4 | 18.5 |
| W2 | STPAL | 81 | 4 | 12 | .7 | 11.6 | 4.9 | 990.8 | 19.7 |
| W2 | STPAL | 81 | 4 | 13 | 1.0 | 10.4 | 6.5 | 990.2 | 20.6 |
| W2 | STPAL | 81 | 4 | 14 | 0.0 | 3.8 | -7.4 | 1005.4 | 24.1 |
| W2 | STPAL | 81 | 4 | 15 | .0 | 8.4 | -6.3 | 1006.5 | 21.8 |
| W2 | STPAL | 81 | 4 | 16 | .8 | 10.9 | 3.5 | 990.3 | 20.6 |
| W2 | STPAL | 81 | 4 | 17 | .4 | 13.6 | 1.4 | 985.9 | 23.8 |
| W2 | STPAL | 81 | 4 | 18 | .5 | 8.3 | -1.0 | 996.7 | 12.7 |
| W2 | STPAL | 81 | 4 | 19 | .8 | 10.4 | 3.8 | 995.3 | 18.8 |
| W2 | STPAL | 81 | 4 | 20 | .4 | 5.3 | -6.3 | 999.9 | 17.6 |
| W2 | STPAL | 81 | 4 | 21 | 1.0 | 5.6 | -1.3 | 987.1 | 17.8 |
| W2 | STPAL | 81 | 4 | 22 | 1.0 | 11.0 | 8.1 | 978.0 | 11.8 |
| W2 | STPAL | 81 | 4 | 23 | 1.0 | 5.1 | 1.8 | 976.6 | 30.3 |
| W2 | STPAL | 81 | 4 | 24 | .7 | 7.8 | .6 | 985.3 | 18.8 |
| W2 | STPAL | 81 | 4 | 25 | .8 | 9.2 | 1.9 | 985.3 | 10.6 |
| W2 | STPAL | 81 | 4 | 26 | .6 | 14.1 | 4.9 | 987.4 | 10.2 |
| W2 | STPAL | 81 | 4 | 27 | .8 | 16.5 | 9.6 | 986.5 | 21.8 |
| W2 | STPAL | 81 | 4 | 28 | .8 | 10.1 | 4.9 | 985.5 | 17.4 |
| W2 | STPAL | 81 | 4 | 29 | .9 | 9.2 | 5.3 | 982.8 | 10.2 |
| W2 | STPAL | 81 | 4 | 30 | .4 | 9.3 | 5.2 | 987.0 | 10.4 |
| W2 | STPAL | 81 | 5 | 1 | .4 | 9.0 | -1.5 | 992.8 | 12.7 |
| W2 | STPAL | 81 | 5 | 2 | .4 | 11.6 | 2.3 | 986.3 | 16.4 |
| W2 | STPAL | 81 | 5 | 3 | 1.0 | 14.3 | 11.0 | 978.9 | 18.5 |
| W2 | STPAL | 81 | 5 | 4 | 1.0 | 15.1 | 12.4 | 983.8 | 15.5 |
| W2 | STPAL | 81 | 5 | 5 | .6 | 12.8 | 4.3 | 995.8 | 20.1 |
| W2 | STPAL | 81 | 5 | 6 | .3 | 11.1 | -1.0 | 1000.2 | 8.8 |
| W2 | STPAL | 81 | 5 | 7 | .7 | 11.5 | .9 | 996.2 | 6.3 |
| W2 | STPAL | 81 | 5 | 8 | .8 | 12.3 | 3.3 | 987.7 | 13.4 |
| W2 | STPAL | 81 | 5 | 9 | .8 | 8.8 | 2.3 | 991.1 | 20.6 |
| W2 | STPAL | 81 | 5 | 10 | .0 | 6.9 | -5.7 | 995.0 | 21.3 |
| W2 | STPAL | 81 | 5 | 11 | .1 | 9.5 | -6.1 | 993.2 | 16.9 |
| W2 | STPAL | 81 | 5 | 12 | .8 | 10.5 | -4.1 | 992.6 | 14.1 |
| W2 | STPAL | 81 | 5 | 13 | .2 | 13.3 | -.0 | 992.6 | 10.2 |
| W2 | STPAL | 81 | 5 | 14 | .1 | 14.4 | .2 | 989.7 | 6.3 |
| W2 | STPAL | 81 | 5 | 15 | .3 | 16.3 | 1.3 | 989.2 | 6.0 |
| W2 | STPAL | 81 | 5 | 16 | .9 | 17.3 | 3.5 | 992.9 | 14.6 |
| W2 | STPAL | 81 | 5 | 17 | 1.0 | 13.3 | 4.8 | 997.7 | 19.4 |
| W2 | STPAL | 81 | 5 | 18 | .1 | 13.1 | -3.0 | 999.0 | 18.5 |
| W2 | STPAL | 81 | 5 | 19 | 0.0 | 14.4 | -1.3 | 997.1 | 7.6 |
| W2 | STPAL | 81 | 5 | 20 | 0.0 | 17.7 | -.1 | 995.2 | 8.8 |
| W2 | STPAL | 81 | 5 | 21 | .4 | 20.0 | 1.8 | 991.3 | 19.9 |
| W2 | STPAL | 81 | 5 | 22 | .8 | 21.0 | 10.4 | 985.3 | 26.9 |
| W2 | STPAL | 81 | 5 | 23 | 1.0 | 18.9 | 14.2 | 981.6 | 17.4 |
| W2 | STPAL | 81 | 5 | 24 | 1.0 | 13.5 | 9.7 | 980.6 | 18.3 |
| W2 | STPAL | 81 | 5 | 25 | 1.0 | 12.6 | 9.2 | 983.2 | 14.4 |
| W2 | STPAL | 81 | 5 | 26 | 1.0 | 15.3 | 11.6 | 988.8 | 10.2 |
| W2 | STPAL | 81 | 5 | 27 | 1.0 | 16.6 | 10.5 | 990.6 | 8.8 |
| W2 | STPAL | 81 | 5 | 28 | .9 | 16.9 | 14.1 | 986.5 | 12.0 |
| W2 | STPAL | 81 | 5 | 29 | .7 | 19.4 | 12.4 | 985.1 | 17.8 |
| W2 | STPAL | 81 | 5 | 30 | .2 | 15.7 | 5.7 | 990.1 | 14.4 |
| W2 | STPAL | 81 | 5 | 31 | .5 | 16.3 | 7.4 | 990.5 | 14.6 |
| W2 | STPAL | 81 | 6 | 1 | .7 | 21.2 | 10.6 | 986.8 | 17.1 |
| W2 | STPAL | 81 | 6 | 2 | .7 | 18.2 | 14.0 | 983.2 | 12.0 |
| W2 | STPAL | 81 | 6 | 3 | .6 | 18.1 | 12.3 | 985.8 | 17.8 |

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|----|-------|----|-----|-----|------|------|-------|--------|------|
| W2 | STPAL | 81 | 6 | 4 | .4 | 19.5 | 12.2 | 989.5 | 11.8 |
| W2 | STPAL | 81 | 6 | 5 | .3 | 22.6 | 10.4 | 987.1 | 18.1 |
| W2 | STPAL | 81 | 6 | 6 | .1 | 21.0 | 6.6 | 987.7 | 14.1 |
| W2 | STPAL | 81 | 6 | 7 | .9 | 22.2 | 12.9 | 980.5 | 14.6 |
| W2 | STPAL | 81 | 6 | 8 | .8 | 18.3 | 11.7 | 978.2 | 15.5 |
| W2 | STPAL | 81 | 6 | 9 | .8 | 17.8 | 12.5 | 979.0 | 12.0 |
| W2 | STPAL | 81 | 610 | | .1 | 19.0 | 10.4 | 984.5 | 13.9 |
| W2 | STPAL | 81 | 611 | | .8 | 18.7 | 12.4 | 988.9 | 6.7 |
| W2 | STPAL | 81 | 612 | | .8 | 20.6 | 17.4 | 989.5 | 10.0 |
| W2 | STPAL | 81 | 613 | 1.0 | 23.9 | 20.3 | 982.4 | 12.7 | |
| W2 | STPAL | 81 | 614 | | .9 | 22.3 | 19.9 | 980.0 | 16.4 |
| W2 | STPAL | 81 | 615 | | .9 | 18.5 | 12.2 | 985.2 | 13.7 |
| W2 | STPAL | 81 | 616 | | .4 | 16.4 | 8.8 | 988.9 | 22.2 |
| W2 | STPAL | 81 | 617 | | .6 | 20.9 | 10.3 | 987.8 | 22.2 |
| W2 | STPAL | 81 | 618 | | .7 | 18.5 | 6.4 | 989.0 | 22.2 |
| W2 | STPAL | 81 | 619 | | .8 | 15.6 | 8.5 | 990.0 | 8.1 |
| W2 | STPAL | 81 | 620 | | .9 | 16.0 | 12.1 | 986.3 | 13.0 |
| W2 | STPAL | 81 | 621 | | .9 | 15.0 | 13.1 | 983.9 | 7.4 |
| W2 | STPAL | 81 | 622 | | .8 | 16.1 | 11.0 | 986.7 | 13.9 |
| W2 | STPAL | 81 | 623 | | .7 | 15.7 | 12.6 | 989.2 | 11.3 |
| W2 | STPAL | 81 | 624 | | .5 | 20.3 | 14.4 | 989.3 | 19.4 |
| W2 | STPAL | 81 | 625 | | .3 | 18.1 | 12.2 | 996.8 | 13.7 |
| W2 | STPAL | 81 | 626 | | .1 | 18.6 | 12.4 | 999.5 | 2.5 |
| W2 | STPAL | 81 | 627 | | .8 | 21.3 | 14.3 | 993.4 | 15.3 |
| W2 | STPAL | 81 | 628 | 1.0 | 23.1 | 19.2 | 986.3 | 13.9 | |
| W2 | STPAL | 81 | 629 | | .7 | 22.6 | 16.0 | 993.4 | 15.7 |
| W2 | STPAL | 81 | 630 | | .1 | 20.5 | 12.4 | 999.7 | 9.3 |
| W2 | STPAL | 81 | 71 | | .3 | 19.8 | 12.6 | 999.6 | 14.4 |
| W2 | STPAL | 81 | 72 | | .5 | 20.2 | 14.2 | 997.4 | 11.8 |
| W2 | STPAL | 81 | 73 | | .9 | 22.1 | 18.5 | 993.8 | 6.3 |
| W2 | STPAL | 81 | 74 | | .5 | 23.9 | 17.2 | 992.0 | 6.3 |
| W2 | STPAL | 81 | 75 | | .1 | 24.5 | 15.2 | 992.2 | 4.9 |
| W2 | STPAL | 81 | 76 | | .0 | 24.7 | 16.3 | 993.4 | 7.6 |
| W2 | STPAL | 81 | 77 | | .1 | 26.2 | 18.5 | 993.6 | 11.6 |
| W2 | STPAL | 81 | 78 | | .5 | 25.3 | 19.0 | 992.9 | 21.3 |
| W2 | STPAL | 81 | 79 | | .1 | 21.8 | 9.0 | 998.9 | 11.6 |
| W2 | STPAL | 81 | 710 | | .4 | 22.7 | 12.8 | 997.1 | 7.2 |
| W2 | STPAL | 81 | 711 | | .8 | 21.9 | 20.1 | 992.3 | 10.2 |
| W2 | STPAL | 81 | 712 | | .9 | 22.3 | 20.6 | 992.7 | 12.2 |
| W2 | STPAL | 81 | 713 | | .7 | 24.4 | 15.6 | 995.6 | 9.5 |
| W2 | STPAL | 81 | 714 | | .9 | 19.8 | 15.6 | 990.8 | 16.2 |
| W2 | STPAL | 81 | 715 | 1.0 | 18.2 | 15.2 | 990.7 | 16.0 | |
| W2 | STPAL | 81 | 716 | | .6 | 21.2 | 16.7 | 992.4 | 6.7 |
| W2 | STPAL | 81 | 717 | | .3 | 24.2 | 18.1 | 991.3 | 10.2 |
| W2 | STPAL | 81 | 718 | | .5 | 23.3 | 15.6 | 992.3 | 4.4 |
| W2 | STPAL | 81 | 719 | | .7 | 24.3 | 17.6 | 990.3 | 5.6 |
| W2 | STPAL | 81 | 720 | | .7 | 21.5 | 16.5 | 987.1 | 13.4 |
| W2 | STPAL | 81 | 721 | | .9 | 18.5 | 14.2 | 992.4 | 12.7 |
| W2 | STPAL | 81 | 722 | | .9 | 18.5 | 13.3 | 994.2 | 14.1 |
| W2 | STPAL | 81 | 723 | | .9 | 19.9 | 16.2 | 993.3 | 14.1 |
| W2 | STPAL | 81 | 724 | | .7 | 20.4 | 18.1 | 992.6 | 11.3 |
| W2 | STPAL | 81 | 725 | | .7 | 19.4 | 14.4 | 995.0 | 12.5 |
| W2 | STPAL | 81 | 726 | | .6 | 17.4 | 9.2 | 999.4 | 8.3 |
| W2 | STPAL | 81 | 727 | | .8 | 15.6 | 9.0 | 1000.0 | 9.3 |
| W2 | STPAL | 81 | 728 | | .4 | 16.9 | 11.0 | 997.3 | 9.0 |
| W2 | STPAL | 81 | 729 | | .5 | 18.3 | 11.7 | 995.9 | 16.0 |
| W2 | STPAL | 81 | 730 | | .9 | 22.5 | 17.2 | 994.1 | 14.5 |
| W2 | STPAL | 81 | 731 | | .9 | 23.8 | 19.4 | 996.0 | 15.5 |
| W2 | STPAL | 81 | 81 | 1.0 | 21.5 | 19.7 | 995.7 | 10.6 | |
| W2 | STPAL | 81 | 82 | .8 | 22.4 | 19.7 | 991.9 | 8.3 | |

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|----|-------|--------|-----|------|------|--------|------|
| W2 | STPAL | 81 8 3 | .5 | 23.9 | 20.0 | 989.8 | 9.5 |
| W2 | STPAL | 81 8 4 | .6 | 22.9 | 17.3 | 993.7 | 9.7 |
| W2 | STPAL | 81 8 5 | .9 | 22.3 | 18.7 | 993.7 | 14.8 |
| W2 | STPAL | 81 8 6 | .5 | 21.2 | 16.9 | 989.5 | 15.5 |
| W2 | STPAL | 81 8 7 | .8 | 19.2 | 15.9 | 986.4 | 19.0 |
| W2 | STPAL | 81 8 8 | .5 | 19.4 | 15.5 | 988.2 | 7.6 |
| W2 | STPAL | 81 8 9 | .6 | 18.9 | 13.9 | 991.7 | 10.4 |
| W2 | STPAL | 81 810 | .2 | 18.2 | 11.4 | 995.2 | 13.0 |
| W2 | STPAL | 81 811 | .6 | 20.6 | 14.9 | 993.1 | 7.4 |
| W2 | STPAL | 81 812 | .1 | 23.9 | 17.2 | 992.1 | 12.5 |
| W2 | STPAL | 81 813 | .5 | 23.7 | 18.0 | 993.6 | 10.4 |
| W2 | STPAL | 81 814 | .8 | 21.1 | 18.8 | 989.7 | 9.0 |
| W2 | STPAL | 81 815 | .1 | 20.7 | 14.4 | 992.6 | 15.3 |
| W2 | STPAL | 81 816 | .5 | 16.8 | 9.0 | 997.9 | 15.7 |
| W2 | STPAL | 81 817 | .1 | 16.5 | 9.1 | 998.5 | 6.3 |
| W2 | STPAL | 81 818 | .3 | 17.2 | 9.7 | 998.0 | 2.8 |
| W2 | STPAL | 81 819 | .2 | 18.3 | 11.3 | 998.1 | 3.5 |
| W2 | STPAL | 81 820 | .3 | 18.7 | 11.8 | 997.2 | 4.2 |
| W2 | STPAL | 81 821 | .6 | 19.9 | 13.3 | 996.3 | 7.9 |
| W2 | STPAL | 81 822 | .8 | 21.4 | 14.8 | 994.1 | 12.5 |
| W2 | STPAL | 81 823 | 1.0 | 22.7 | 17.5 | 992.3 | 12.0 |
| W2 | STPAL | 81 824 | .8 | 22.5 | 17.8 | 994.5 | 9.5 |
| W2 | STPAL | 81 825 | 1.0 | 21.0 | 18.1 | 995.2 | 11.1 |
| W2 | STPAL | 81 826 | 1.0 | 20.1 | 17.4 | 991.3 | 11.8 |
| W2 | STPAL | 81 827 | 1.0 | 19.6 | 15.8 | 993.6 | 15.3 |
| W2 | STPAL | 81 828 | 1.0 | 18.3 | 14.9 | 993.0 | 13.4 |
| W2 | STPAL | 81 829 | .7 | 19.4 | 15.7 | 989.4 | 3.2 |
| W2 | STPAL | 81 830 | .6 | 20.7 | 16.6 | 987.4 | 5.3 |
| W2 | STPAL | 81 831 | .9 | 22.6 | 17.5 | 984.0 | 16.4 |
| W2 | STPAL | 81 9 1 | .7 | 16.1 | 10.6 | 987.8 | 16.2 |
| W2 | STPAL | 81 9 2 | .1 | 16.2 | 10.7 | 989.4 | 10.9 |
| W2 | STPAL | 81 9 3 | .5 | 17.0 | 12.5 | 992.9 | 13.7 |
| W2 | STPAL | 81 9 4 | .3 | 16.3 | 9.4 | 998.2 | 16.4 |
| W2 | STPAL | 81 9 5 | .5 | 16.1 | 11.5 | 997.5 | 13.9 |
| W2 | STPAL | 81 9 6 | .3 | 19.7 | 14.2 | 995.5 | 18.1 |
| W2 | STPAL | 81 9 7 | .5 | 19.4 | 12.3 | 991.9 | 22.2 |
| W2 | STPAL | 81 9 8 | .1 | 18.0 | 10.3 | 994.6 | 13.7 |
| W2 | STPAL | 81 9 9 | .2 | 21.4 | 13.0 | 987.5 | 13.2 |
| W2 | STPAL | 81 910 | .1 | 23.1 | 15.6 | 985.2 | 6.0 |
| W2 | STPAL | 81 911 | .2 | 22.6 | 13.5 | 989.7 | 11.8 |
| W2 | STPAL | 81 912 | 0.0 | 19.2 | 11.1 | 993.3 | 4.9 |
| W2 | STPAL | 81 913 | .0 | 21.3 | 12.3 | 988.5 | 10.2 |
| W2 | STPAL | 81 914 | .4 | 17.8 | 7.0 | 993.7 | 12.0 |
| W2 | STPAL | 81 915 | .6 | 13.5 | 7.2 | 996.0 | 13.4 |
| W2 | STPAL | 81 916 | .7 | 11.2 | 4.2 | 1000.8 | 11.1 |
| W2 | STPAL | 81 917 | .4 | 10.3 | 4.0 | 1003.9 | 9.0 |
| W2 | STPAL | 81 918 | .6 | 13.1 | 5.0 | 997.7 | 11.3 |
| W2 | STPAL | 81 919 | .2 | 15.6 | 5.6 | 987.8 | 10.9 |
| W2 | STPAL | 81 920 | .3 | 14.8 | 5.9 | 986.7 | 4.4 |
| W2 | STPAL | 81 921 | .8 | 14.6 | 8.5 | 989.2 | 14.1 |
| W2 | STPAL | 81 922 | .5 | 11.3 | 5.4 | 997.2 | 10.4 |
| W2 | STPAL | 81 923 | .6 | 10.5 | 5.7 | 997.2 | 12.7 |
| W2 | STPAL | 81 924 | .9 | 15.2 | 10.3 | 996.3 | 9.5 |
| W2 | STPAL | 81 925 | 1.0 | 16.7 | 13.9 | 990.0 | 12.3 |
| W2 | STPAL | 81 926 | .7 | 16.1 | 11.0 | 982.3 | 19.4 |
| W2 | STPAL | 81 927 | .5 | 11.5 | 2.4 | 990.5 | 26.9 |
| W2 | STPAL | 81 928 | .4 | 9.2 | 2.0 | 996.6 | 9.3 |
| W2 | STPAL | 81 929 | .7 | 14.2 | 7.9 | 989.8 | 19.4 |
| W2 | STPAL | 81 930 | 1.0 | 12.6 | 9.7 | 985.1 | 20.6 |
| W2 | STPAL | 8110 1 | .8 | 6.5 | .4 | 988.0 | 28.2 |

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|----|-------|------|----|-----|-------|-------|--------|------|
| W2 | STPAL | 8110 | 2 | .0 | 5.2 | -1.1 | 994.8 | 12.5 |
| W2 | STPAL | 8110 | 3 | .8 | 7.6 | 1.5 | 987.2 | 21.5 |
| W2 | STPAL | 8110 | 4 | 1.0 | 10.8 | 7.9 | 982.7 | 13.7 |
| W2 | STPAL | 8110 | 5 | 1.0 | 11.8 | 8.6 | 988.9 | 10.6 |
| W2 | STPAL | 8110 | 6 | .4 | 9.4 | 3.1 | 993.9 | 22.2 |
| W2 | STPAL | 8110 | 7 | .1 | 8.1 | .7 | 996.2 | 8.3 |
| W2 | STPAL | 8110 | 8 | .6 | 10.7 | .8 | 991.0 | 19.0 |
| W2 | STPAL | 8110 | 9 | .9 | 9.2 | 4.0 | 988.8 | 17.6 |
| W2 | STPAL | 8110 | 10 | .7 | 11.5 | 8.3 | 993.2 | 11.6 |
| W2 | STPAL | 8110 | 11 | .4 | 10.8 | 6.9 | 997.9 | 16.0 |
| W2 | STPAL | 8110 | 12 | 1.0 | 13.5 | 5.8 | 995.0 | 26.4 |
| W2 | STPAL | 8110 | 13 | 1.0 | 15.8 | 10.8 | 992.1 | 20.1 |
| W2 | STPAL | 8110 | 14 | .9 | 13.3 | 9.7 | 991.0 | 16.2 |
| W2 | STPAL | 8110 | 15 | .3 | 10.4 | 3.5 | 996.4 | 13.9 |
| W2 | STPAL | 8110 | 16 | .3 | 10.8 | 3.4 | 994.2 | 13.0 |
| W2 | STPAL | 8110 | 17 | 1.0 | 11.7 | 7.9 | 977.4 | 20.8 |
| W2 | STPAL | 8110 | 18 | .7 | 5.2 | -2.8 | 982.3 | 37.5 |
| W2 | STPAL | 8110 | 19 | .5 | 7.1 | -1.3 | 985.9 | 18.5 |
| W2 | STPAL | 8110 | 20 | .6 | 9.2 | 1.5 | 987.4 | 17.6 |
| W2 | STPAL | 8110 | 21 | .9 | 3.3 | -2.8 | 999.1 | 13.9 |
| W2 | STPAL | 8110 | 22 | .5 | -.4 | -6.7 | 996.4 | 19.7 |
| W2 | STPAL | 8110 | 23 | .7 | -.2 | -10.4 | 997.2 | 18.1 |
| W2 | STPAL | 8110 | 24 | 1.0 | -.6 | -5.2 | 982.7 | 24.5 |
| W2 | STPAL | 8110 | 25 | .8 | 1.9 | -2.8 | 986.4 | 9.3 |
| W2 | STPAL | 8110 | 26 | .2 | 2.8 | -3.5 | 987.4 | 17.6 |
| W2 | STPAL | 8110 | 27 | .2 | 8.3 | 1.0 | 990.6 | 10.0 |
| W2 | STPAL | 8110 | 28 | .9 | 9.0 | 3.1 | 993.3 | 21.5 |
| W2 | STPAL | 8110 | 29 | .6 | 12.2 | 4.7 | 988.5 | 25.5 |
| W2 | STPAL | 8110 | 30 | .7 | 14.9 | 7.6 | 987.5 | 29.4 |
| W2 | STPAL | 8111 | 1 | .3 | 11.1 | 1.7 | 999.0 | 11.3 |
| W2 | STPAL | 8111 | 2 | .3 | 7.8 | -.6 | 1001.2 | 3.7 |
| W2 | STPAL | 8111 | 3 | .2 | 8.6 | .6 | 1000.4 | 4.9 |
| W2 | STPAL | 8111 | 4 | .3 | 10.3 | 4.7 | 997.4 | 7.4 |
| W2 | STPAL | 8111 | 5 | .8 | 12.8 | 9.1 | 991.8 | 9.7 |
| W2 | STPAL | 8111 | 6 | .6 | 9.2 | 3.2 | 988.2 | 22.2 |
| W2 | STPAL | 8111 | 7 | 0.0 | 5.6 | -2.4 | 990.9 | 7.9 |
| W2 | STPAL | 8111 | 8 | .2 | 8.7 | -1.2 | 986.9 | 13.4 |
| W2 | STPAL | 8111 | 9 | .4 | 6.0 | -5.2 | 993.1 | 25.5 |
| W2 | STPAL | 8111 | 10 | .2 | -.1.0 | -11.2 | 1001.7 | 12.3 |
| W2 | STPAL | 8111 | 11 | .5 | 4.7 | -5.1 | 992.1 | 19.7 |
| W2 | STPAL | 8111 | 12 | 0.0 | 2.7 | -2.4 | 997.5 | 6.9 |
| W2 | STPAL | 8111 | 13 | 0.0 | 5.9 | -.9 | 994.8 | 16.7 |
| W2 | STPAL | 8111 | 14 | .1 | 9.2 | 1.7 | 992.1 | 20.1 |
| W2 | STPAL | 8111 | 15 | .5 | 11.2 | 4.9 | 987.1 | 20.1 |
| W2 | STPAL | 8111 | 16 | .9 | 11.9 | 6.9 | 982.2 | 19.0 |
| W2 | STPAL | 8111 | 17 | .2 | 7.6 | .3 | 983.6 | 12.7 |
| W2 | STPAL | 8111 | 18 | .4 | 4.8 | .5 | 987.3 | 8.3 |
| W2 | STPAL | 8111 | 19 | 1.0 | 3.3 | -.3 | 983.0 | 18.3 |
| W2 | STPAL | 8111 | 20 | 1.0 | -.3 | -2.0 | 985.4 | 22.2 |
| W2 | STPAL | 8111 | 21 | .7 | -3.8 | -7.4 | 987.6 | 16.7 |
| W2 | STPAL | 8111 | 22 | .3 | -9.2 | -10.9 | 986.6 | 7.4 |
| W2 | STPAL | 8111 | 23 | .6 | -7.1 | -9.0 | 983.3 | 13.7 |
| W2 | STPAL | 8111 | 24 | 1.0 | -1.3 | -3.1 | 980.2 | 15.7 |
| W2 | STPAL | 8111 | 25 | 1.0 | -.4 | -2.0 | 987.4 | 10.0 |
| W2 | STPAL | 8111 | 26 | 1.0 | 1.7 | -.8 | 979.7 | 20.6 |
| W2 | STPAL | 8111 | 27 | 1.0 | 1.5 | -1.0 | 974.1 | 17.4 |
| W2 | STPAL | 8111 | 28 | .9 | -.8 | -5.6 | 987.9 | 28.5 |
| W2 | STPAL | 8111 | 29 | 1.0 | -1.7 | -5.3 | 994.5 | 10.0 |
| W2 | STPAL | 8111 | 30 | .7 | -.7 | -3.9 | 991.4 | 13.0 |
| W2 | STPAL | 8111 | 31 | .6 | -1.2 | -4.2 | 979.9 | 20.8 |

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|----|-------|------|----|-----|-------|-------|-------|------|
| W2 | STPAL | 8112 | 1 | 1.0 | .6 | -1.9 | 965.5 | 24.3 |
| W2 | STPAL | 8112 | 2 | 1.0 | -2.6 | -5.0 | 972.0 | 15.3 |
| W2 | STPAL | 8112 | 3 | 1.0 | -5.1 | -7.2 | 977.0 | 17.1 |
| W2 | STPAL | 8112 | 4 | .4 | -3.8 | -6.3 | 992.0 | 13.4 |
| W2 | STPAL | 8112 | 5 | .7 | -8.8 | -10.4 | 990.5 | 11.8 |
| W2 | STPAL | 8112 | 6 | 1.0 | .8 | -2.4 | 979.2 | 14.6 |
| W2 | STPAL | 8112 | 7 | .8 | 1.1 | -2.2 | 980.6 | 20.8 |
| W2 | STPAL | 8112 | 8 | 1.0 | -1.3 | -5.3 | 993.1 | 18.3 |
| W2 | STPAL | 8112 | 9 | .6 | -4.5 | -9.2 | 999.7 | 12.7 |
| W2 | STPAL | 8112 | 10 | .7 | -7.5 | -10.8 | 995.1 | 8.6 |
| W2 | STPAL | 8112 | 11 | 1.0 | -3.0 | -7.6 | 992.3 | 12.7 |
| W2 | STPAL | 8112 | 12 | 1.0 | .1 | -3.0 | 991.5 | 12.7 |
| W2 | STPAL | 8112 | 13 | 1.0 | 0.0 | -2.2 | 991.4 | 11.3 |
| W2 | STPAL | 8112 | 14 | .4 | -10.8 | -14.6 | 988.7 | 18.8 |
| W2 | STPAL | 8112 | 15 | .3 | -14.2 | -17.9 | 987.2 | 7.4 |
| W2 | STPAL | 8112 | 16 | .4 | -16.5 | -20.6 | 988.9 | 12.0 |
| W2 | STPAL | 8112 | 17 | .1 | -16.4 | -21.7 | 994.2 | 17.6 |
| W2 | STPAL | 8112 | 18 | .3 | -16.5 | -22.1 | 997.0 | 11.3 |
| W2 | STPAL | 8112 | 19 | .0 | -19.8 | -24.0 | 993.1 | 11.3 |
| W2 | STPAL | 8112 | 20 | .7 | -9.1 | -13.5 | 977.8 | 26.4 |
| W2 | STPAL | 8112 | 21 | .4 | -2.8 | -5.1 | 968.7 | 14.6 |
| W2 | STPAL | 8112 | 22 | .2 | -5.8 | -9.5 | 974.7 | 18.5 |
| W2 | STPAL | 8112 | 23 | .5 | -9.9 | -13.5 | 978.1 | 20.6 |
| W2 | STPAL | 8112 | 24 | .4 | -9.3 | -13.2 | 983.4 | 15.3 |
| W2 | STPAL | 8112 | 25 | 1.0 | -7.6 | -10.2 | 983.7 | 11.1 |
| W2 | STPAL | 8112 | 26 | 1.0 | -4.0 | -6.6 | 975.6 | 16.2 |
| W2 | STPAL | 8112 | 27 | .9 | -5.9 | -9.0 | 973.2 | 18.5 |
| W2 | STPAL | 8112 | 28 | .2 | -14.4 | -17.7 | 983.4 | 14.4 |
| W2 | STPAL | 8112 | 29 | .7 | -17.8 | -23.0 | 989.4 | 8.8 |
| W2 | STPAL | 8112 | 30 | .8 | -11.9 | -15.3 | 983.8 | 15.7 |
| W2 | STPAL | 8112 | 31 | .8 | -7.6 | -10.9 | 975.8 | 21.5 |

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|----------|----|-------|-----|------|---|-------|---|---------|---|-------|
| OUTL1 | | 24 | 327 | | | | | | | |
| OUTL3 | EG | 81 13 | 1 | .402 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 14 | 1 | .417 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 15 | 1 | .417 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 16 | 1 | .407 | 2 | 0.000 | 3 | * 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 17 | 1 | .407 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 18 | 1 | .407 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 19 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 20 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 21 | 1 | .407 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 22 | 1 | .407 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 23 | 1 | .407 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 24 | 1 | .417 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | | .00 | | | | | | | | |
| OUTL3 | EG | 81 25 | 1 | .417 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 26 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 27 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 28 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 29 | 1 | .387 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 30 | 1 | .382 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 31 | 1 | .392 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 32 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 33 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 34 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 35 | 1 | .392 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 36 | 1 | .392 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 37 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 38 | 1 | .417 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 39 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 40 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 41 | 1 | .412 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 42 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 43 | 1 | .387 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 44 | 1 | .387 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .01 | | | | | | | | |
| OUTL3 EG | 81 45 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .01 | | | | | | | | |
| OUTL3 EG | 81 46 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81 47 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .58 | | | | | | | | |
| OUTL3 EG | 81 48 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 8.41 | | | | | | | | |
| OUTL3 EG | 81 49 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.94 | | | | | | | | |
| OUTL3 EG | 81 50 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.36 | | | | | | | | |
| OUTL3 EG | 81 51 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.16 | | | | | | | | |
| OUTL3 EG | 81 52 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .76 | | | | | | | | |
| OUTL3 EG | 81 53 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 8.89 | | | | | | | | |
| OUTL3 EG | 81 54 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.36 | | | | | | | | |
| OUTL3 EG | 81 55 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | 1.44 | | | | | | | | |
| OUTL3 EG | 81 56 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.04 | | | | | | | | |
| OUTL3 EG | 81 57 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .68 | | | | | | | | |
| OUTL3 EG | 81 58 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .60 | | | | | | | | |
| OUTL3 EG | 81 59 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 6.73 | | | | | | | | |
| OUTL3 EG | 81 60 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.21 | | | | | | | | |
| OUTL3 EG | 81 61 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.25 | | | | | | | | |
| OUTL3 EG | 81 62 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .82 | | | | | | | | |
| OUTL3 EG | 81 63 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .48 | | | | | | | | |
| OUTL3 EG | 81 64 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .37 | | | | | | | | |
| OUTL3 EG | 81 65 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .28 | | | | | | | | |
| OUTL3 EG | 81 66 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .23 | | | | | | | | |
| OUTL3 EG | 81 67 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .20 | | | | | | | | |
| OUTL3 EG | 81 68 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.16 | | | | | | | | |
| OUTL3 EG | 81 69 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.27 | | | | | | | | |
| OUTL3 EG | 81 70 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .93 | | | | | | | | |
| OUTL3 EG | 81 71 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.69 | | | | | | | | |
| OUTL3 EG | 81 72 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.36 | | | | | | | | |
| OUTL3 EG | 81 73 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.30 | | | | | | | | |
| OUTL3 EG | 81 74 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .59 | | | | | | | | |
| OUTL3 EG | 81 75 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .57 | | | | | | | | |
| OUTL3 EG | 81 76 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .42 | | | | | | | | |
| OUTL3 EG | 81 77 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81 78 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81 79 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81 80 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81 81 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .11 | | | | | | | | |
| OUTL3 EG | 81 82 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .11 | | | | | | | | |
| OUTL3 EG | 81 83 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81 84 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81 85 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .13 | | | | | | | | |
| OUTL3 EG | 81 86 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .18 | | | | | | | | |
| OUTL3 EG | 81 87 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .23 | | | | | | | | |
| OUTL3 EG | 81 88 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81 89 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .59 | | | | | | | | |
| OUTL3 EG | 81 90 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .76 | | | | | | | | |
| OUTL3 EG | 81 91 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .51 | | | | | | | | |
| OUTL3 EG | 81 92 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .59 | | | | | | | | |
| OUTL3 EG | 81 93 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .42 | | | | | | | | |
| OUTL3 EG | 81 94 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 7.48 | | | | | | | | |
| OUTL3 EG | 81 95 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 3.82 | | | | | | | | |
| OUTL3 EG | 81 96 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.16 | | | | | | | | |
| OUTL3 EG | 81 97 | 1 | 1.32 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.00 | | | | | | | | |
| OUTL3 EG | 81 98 | 1 | .878 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 99 | 1 | .255 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.00 | | | | | | | | |
| OUTL3 EG | 81100 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81101 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81102 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81103 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81104 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .23 | | | | | | | | |
| OUTL3 EG | 81105 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .20 | | | | | | | | |
| OUTL3 EG | 81106 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81107 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81108 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81109 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81110 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81111 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81112 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81113 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .45 | | | | | | | | |
| OUTL3 EG | 81114 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.75 | | | | | | | | |
| OUTL3 EG | 81115 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .99 | | | | | | | | |
| OUTL3 EG | 81i16 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .57 | | | | | | | | |
| OUTL3 EG | 81i17 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .37 | | | | | | | | |
| OUTL3 EG | 81i18 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81i19 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .23 | | | | | | | | |
| OUTL3 EG | 81i20 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81i21 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .70 | | | | | | | | |
| OUTL3 EG | 81i22 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .99 | | | | | | | | |
| OUTL3 EG | 81i23 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .51 | | | | | | | | |
| OUTL3 EG | 81i24 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 5.21 | | | | | | | | |
| OUTL3 EG | 81i25 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 8.41 | | | | | | | | |
| OUTL3 EG | 81i26 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.35 | | | | | | | | |
| OUTL3 EG | 81i27 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .79 | | | | | | | | |
| OUTL3 EG | 81i28 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .48 | | | | | | | | |
| OUTL3 EG | 81i29 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .29 | | | | | | | | |
| OUTL3 EG | 81i30 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .24 | | | | | | | | |
| OUTL3 EG | 81i31 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .20 | | | | | | | | |
| OUTL3 EG | 81i32 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .16 | | | | | | | | |
| OUTL3 EG | 81i33 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .16 | | | | | | | | |
| OUTL3 EG | 81i34 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .16 | | | | | | | | |
| OUTL3 EG | 81i35 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81i36 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81i37 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .11 | | | | | | | | |
| OUTL3 EG | 81i38 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .11 | | | | | | | | |
| OUTL3 EG | 81i39 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81i40 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81i41 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81i42 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81i43 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .11 | | | | | | | | |
| OUTL3 EG | 81i44 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81i45 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81146 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81147 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81148 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .11 | | | | | | | | |
| OUTL3 EG | 81149 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81150 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81151 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81152 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81153 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81154 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81155 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81156 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81157 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81158 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .03 | | | | | | | | |
| OUTL3 EG | 81159 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .05 | | | | | | | | |
| OUTL3 EG | 81160 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .05 | | | | | | | | |
| OUTL3 EG | 81161 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .05 | | | | | | | | |
| OUTL3 EG | 81162 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .03 | | | | | | | | |
| OUTL3 EG | 81163 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81164 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81165 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .20 | | | | | | | | |
| OUTL3 EG | 81166 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .93 | | | | | | | | |
| OUTL3 EG | 81167 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .59 | | | | | | | | |
| OUTL3 EG | 81168 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .51 | | | | | | | | |
| OUTL3 EG | 81169 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .34 | | | | | | | | |
| OUTL3 EG | 81170 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81171 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .28 | | | | | | | | |
| OUTL3 EG | 81172 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .20 | | | | | | | | |
| OUTL3 EG | 81173 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81174 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81175 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | 14 | | | | | | | | |
| OUTL3 EG | 81176 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 14 | | | | | | | | |
| OUTL3 EG | 81177 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81178 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81179 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81180 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81181 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81182 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81183 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81184 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81185 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81186 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81187 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .04 | | | | | | | | |
| OUTL3 EG | 81188 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81189 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81190 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81191 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81192 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81193 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81194 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81195 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81196 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81197 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81198 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81199 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .20 | | | | | | | | |
| OUTL3 EG | 81200 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .04 | | | | | | | | |
| OUTL3 EG | 81201 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81202 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81203 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81204 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81205 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81206 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81207 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81208 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81209 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81210 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81211 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81212 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81213 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .26 | | | | | | | | |
| OUTL3 EG | 81214 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .17 | | | | | | | | |
| OUTL3 EG | 81215 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81216 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81217 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81218 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81219 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81220 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81221 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81222 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81223 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81224 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81225 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81226 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81227 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .02 | | | | | | | | |
| OUTL3 EG | 81228 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81229 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81230 | 1 | .340 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81231 | 1 | .340 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81232 | 1 | .340 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81233 | 1 | .340 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81234 | 1 | .340 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81235 | 1 | .340 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

| | | | | | | | | | |
|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81236 | 1 | .340 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81237 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81238 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81239 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .37 | | | | | | | | |
| OUTL3 EG | 81240 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.33 | | | | | | | | |
| OUTL3 EG | 81241 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .62 | | | | | | | | |
| OUTL3 EG | 81242 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .31 | | | | | | | | |
| OUTL3 EG | 81243 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .25 | | | | | | | | |
| OUTL3 EG | 81244 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .28 | | | | | | | | |
| OUTL3 EG | 81245 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .14 | | | | | | | | |
| OUTL3 EG | 81246 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .06 | | | | | | | | |
| OUTL3 EG | 81247 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .03 | | | | | | | | |
| OUTL3 EG | 81248 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81249 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81250 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .11 | | | | | | | | |
| OUTL3 EG | 81251 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .08 | | | | | | | | |
| OUTL3 EG | 81252 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .03 | | | | | | | | |
| OUTL3 EG | 81253 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81254 | 1 | .398 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81255 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81256 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81257 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81258 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81259 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81260 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81261 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81262 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81263 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81264 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81265 | 1 | .396 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

| | | | | | | | | | |
|----------|---------|----------------|---------|---------|---------|---------|---------|---------------|---------|
| | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| | 0.22 | 0.22 | 0.22 | 0.22 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| | 0.16 | 0.16 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| WQ1 ALG1 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| WQ1 ALG2 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| WQ1 ALG3 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T181ALK | 336 | 3 | | | | | | | |
| | 202.680 | 192.920 | 209.660 | 97.180 | 78.040 | 191.080 | 141.660 | 187.620 | 78.000 |
| | 191.800 | 197.680 | 141.980 | 197.740 | 192.920 | 192.920 | 194.220 | 194.040 | 192.920 |
| | 195.920 | 197.560 | 157.200 | 200.620 | 199.740 | 202.620 | 212.380 | 0.000 | |
| T181DOC | 336 | 3 | | | | | | | |
| | 1.676 | 2.170 | 1.312 | 9.520 | 17.662 | 1.530 | 5.996 | 1.712 | 11.614 |
| | 4.354 | 2.264 | 7.728 | 2.722 | 2.558 | 0.288 | 1.918 | 0.112 | 2.012 |
| | 1.476 | 3.820 | 1.382 | 0.694 | 0.912 | 1.782 | 1.782 | | |
| T181NH4 | 336 | 3 | | | | | | | |
| | 0.021 | 0.032 | 0.000 | 0.464 | 0.189 | 0.017 | 0.017 | 0.000 | 0.039 |
| | 0.000 | 0.038 | 0.128 | 0.054 | 0.063 | 0.028 | 0.020 | 0.026 | 0.000 |
| | 0.007 | 0.003 | 0.018 | 0.017 | 0.001 | 0.000 | 0.006 | | |
| T181N02 | 336 | 3 | | | | | | | |
| | 1.993 | 1.944 | 2.108 | 1.348 | 0.661 | 1.570 | 1.348 | 1.150 | 0.583 |
| | 1.042 | 1.088 | 1.650 | 0.996 | 0.805 | 0.970 | 0.898 | 1.039 | 1.174 |
| | 1.050 | 1.282 | 0.986 | 1.439 | 1.489 | 1.639 | 1.765 | | |
| WQ1 DUMY | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T181COLI | 336 | 3 | | | | | | | |
| | 0.010 | 0.010 | 1.100 | 0.686 | 59.622 | 0.940 | 40.900 | 2.3509406.560 | |
| | 20.680 | 67.1001991.440 | 161.880 | 190.200 | 108.140 | 52.120 | 65.600 | 106.620 | |
| | 29.340 | 19.340334.900 | 4.900 | 23.680 | 0.660 | 0.540 | | | |
| DET T1 | 336 | 3 | | | | | | | |
| DET1 | 2.22 | 2.22 | 0.89 | 1.00 | 1.11 | 2.22 | 2.22 | 0.55 | 2.22 |
| DET2 | 2.44 | 1.33 | 2.67 | 2.22 | 0.01 | 1.33 | 1.78 | 3.11 | 2.22 |
| DET3 | 1.33 | 3.11 | 2.00 | 1.56 | 1.56 | 2.22 | | | |
| T181DO | 168 | 6 | | | | | | | |
| | 12.252 | 13.416 | 12.358 | 12.158 | 12.164 | 12.046 | 11.928 | 14.456 | 12.570 |
| | 11.212 | 11.042 | 10.708 | 9.924 | 11.824 | 11.294 | 8.642 | 9.236 | 10.424 |
| | 9.290 | 8.608 | 7.674 | 7.592 | 6.814 | 8.348 | 6.958 | 6.876 | 6.412 |
| | 7.318 | 8.506 | 9.976 | 8.030 | 8.412 | 7.630 | 7.330 | 8.206 | 8.284 |
| | 9.324 | 9.172 | 9.332 | 9.614 | 10.172 | 11.412 | 11.800 | 12.466 | 11.836 |
| | 12.866 | 11.730 | 12.860 | 13.740 | 10.064 | 13.048 | | | |
| T181P | 24 | 37 | | | | | | | |
| | 0.018 | 0.018 | 0.017 | 0.016 | 0.017 | 0.017 | 0.018 | 0.017 | 0.017 |
| | 0.016 | 0.016 | 0.018 | 0.018 | 0.018 | 0.017 | 0.015 | 0.016 | 0.016 |
| | 0.017 | 0.016 | 0.015 | 0.017 | 0.018 | 0.018 | 0.018 | 0.018 | 0.017 |
| | 0.028 | 0.013 | 0.018 | 0.013 | 0.013 | 0.018 | 0.033 | 0.195 | 0.189 |
| | 0.071 | 0.032 | 0.025 | 0.172 | 0.378 | 0.046 | 0.018 | 0.027 | 0.026 |
| | 0.142 | 0.250 | 0.047 | 0.028 | 0.023 | 0.021 | 0.022 | 0.020 | 0.019 |
| | 0.037 | 0.067 | 0.050 | 0.057 | 0.111 | 0.066 | 0.012 | 0.020 | 0.024 |
| | 0.019 | 0.018 | 0.018 | 0.019 | 0.020 | 0.020 | 0.019 | 0.020 | 0.021 |
| | 0.020 | 0.019 | 0.023 | 0.030 | 0.028 | 0.029 | 0.028 | 0.026 | 0.146 |
| | 0.158 | 0.040 | 0.011 | 0.014 | 0.026 | 0.034 | 0.027 | 0.025 | 0.025 |
| | 0.028 | 0.018 | 0.020 | 0.021 | 0.021 | 0.021 | 0.019 | 0.020 | 0.018 |
| | 0.023 | 0.032 | 0.071 | 0.026 | 0.016 | 0.024 | 0.053 | 0.019 | 0.022 |
| | 0.035 | 0.043 | 0.080 | 0.119 | 0.129 | 0.103 | 0.015 | 0.025 | 0.022 |

| | | | | | | | | | |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.020 | 0.020 | |
| 0.020 | 0.020 | 0.020 | 0.019 | 0.019 | 0.019 | 0.021 | 0.021 | 0.021 | |
| 0.021 | 0.021 | 0.021 | 0.021 | 0.019 | 0.019 | 0.019 | 0.020 | 0.019 | |
| 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | 0.020 | 0.021 | 0.019 | |
| 0.045 | 0.031 | 0.028 | 0.025 | 0.021 | 0.024 | 0.023 | 0.024 | 0.023 | |
| 0.024 | 0.023 | 0.022 | 0.023 | 0.021 | 0.021 | 0.018 | 0.018 | 0.018 | |
| 0.018 | 0.018 | 0.018 | 0.018 | 0.019 | 0.019 | 0.019 | 0.020 | 0.020 | |
| 0.022 | 0.020 | 0.019 | 0.024 | 0.021 | 0.022 | 0.022 | 0.023 | 0.018 | |
| 0.018 | 0.019 | 0.019 | 0.020 | 0.020 | 0.020 | 0.020 | 0.019 | 0.019 | |
| 0.019 | 0.019 | 0.019 | 0.027 | 0.023 | 0.023 | 0.023 | 0.022 | 0.023 | |
| 0.024 | 0.022 | 0.022 | 0.022 | 0.022 | 0.022 | 0.023 | 0.023 | 0.023 | |
| 0.023 | 0.023 | 0.023 | 0.023 | 0.023 | 0.022 | 0.023 | 0.023 | 0.023 | |
| 0.023 | 0.018 | 0.018 | 0.019 | 0.020 | 0.020 | 0.026 | 0.023 | 0.017 | |
| 0.017 | 0.018 | 0.018 | 0.023 | 0.019 | 0.019 | 0.018 | 0.018 | 0.018 | |
| 0.020 | 0.020 | 0.020 | 0.020 | 0.019 | 0.019 | 0.019 | 0.019 | 0.019 | |
| 0.019 | 0.020 | 0.019 | 0.019 | 0.019 | 0.020 | 0.020 | 0.020 | 0.020 | |
| 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | |
| 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | |
| 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | |
| 0.017 | 0.017 | 0.017 | 0.017 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | |
| 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | |
| 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | |
| 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | |
| 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | |
| T181SI | 336 | 3 | | | | | | | |
| | 11.110 | 11.122 | 10.880 | 9.064 | 6.206 | 8.338 | 8.704 | 6.464 | 9.606 |
| | 4.695 | 8.604 | 11.908 | 13.990 | 13.342 | 11.216 | 10.625 | 11.711 | 10.665 |
| | 9.552 | 11.191 | 11.374 | 9.347 | 9.904 | 10.491 | 12.039 | | |
| TEMP T1 | 24 | 37 | | | | | | | |
| TEMP | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| TEMP | 2.36 | 1.20 | 1.20 | 1.78 | 2.36 | 2.94 | 2.94 | 2.94 | 2.94 |
| TEMP | 3.52 | 4.10 | 4.68 | 3.52 | 2.94 | 2.36 | 2.36 | 2.36 | 2.36 |
| TEMP | 1.20 | 1.20 | 1.20 | 0.62 | 1.20 | 1.20 | 1.20 | 0.62 | 0.62 |
| TEMP | 1.20 | 1.78 | 1.20 | 0.50 | 0.50 | 0.04 | 0.62 | 1.20 | 1.78 |
| TEMP | 1.78 | 2.94 | 2.36 | 2.36 | 1.78 | 1.78 | 1.78 | 1.20 | 1.20 |
| TEMP | 1.20 | 1.20 | 0.62 | 1.20 | 1.78 | 2.36 | 2.94 | 3.52 | 2.94 |
| TEMP | 3.52 | 3.52 | 4.10 | 4.10 | 4.68 | 4.68 | 5.26 | 5.84 | 6.42 |
| TEMP | 5.26 | 4.10 | 4.10 | 6.42 | 7.00 | 8.16 | 8.74 | 8.74 | 7.58 |
| TEMP | 7.58 | 8.74 | 11.06 | 12.22 | 9.32 | 8.74 | 8.74 | 9.90 | 9.90 |
| TEMP | 3.52 | 4.68 | 7.00 | 8.16 | 9.90 | 10.48 | 12.22 | 10.48 | 11.64 |
| TEMP | 11.06 | 9.90 | 10.48 | 9.90 | 11.64 | 11.06 | 12.22 | 11.06 | 8.16 |
| TEMP | 9.32 | 8.16 | 7.00 | 8.16 | 12.22 | 13.38 | 11.64 | 11.06 | 11.64 |
| TEMP | 12.80 | 13.38 | 13.38 | 14.54 | 13.38 | 12.80 | 12.22 | 11.64 | 10.48 |
| TEMP | 10.48 | 11.64 | 13.38 | 13.96 | 13.96 | 13.96 | 13.96 | 12.80 | 13.38 |
| TEMP15 | 14.54 | 14.54 | 15.70 | 16.86 | 16.28 | 14.54 | 12.80 | 13.38 | 13.96 |
| TEMP | 13.38 | 16.28 | 15.12 | 15.12 | 16.86 | 16.28 | 16.86 | 16.02 | 16.02 |
| TEMP | 16.02 | 16.86 | 17.44 | 17.44 | 16.86 | 16.86 | 16.86 | 18.02 | 17.76 |
| TEMP | 17.34 | 17.17 | 17.02 | 17.60 | 15.12 | 15.70 | 13.96 | 15.12 | 13.96 |
| TEMP | 18.02 | 18.60 | 17.44 | 17.44 | 17.44 | 19.76 | 18.02 | 17.44 | 18.02 |
| TEMP20 | 18.60 | 18.02 | 18.60 | 19.18 | 20.92 | 22.66 | 20.34 | 19.18 | 19.18 |
| TEMP | 19.18 | 18.60 | 18.02 | 16.28 | 16.86 | 18.02 | 19.18 | 18.60 | 20.34 |
| TEMP | 18.60 | 16.28 | 15.70 | 16.28 | 17.44 | 16.28 | 13.96 | 15.70 | 17.44 |
| TEMP | 18.02 | 19.76 | 18.60 | 17.44 | 19.18 | 20.34 | 19.76 | 20.34 | 20.34 |
| TEMP | 18.02 | 19.18 | 19.18 | 17.44 | 18.02 | 19.18 | 18.02 | 19.18 | 17.44 |
| TEMP25 | 16.28 | 16.28 | 16.28 | 16.86 | 15.70 | 16.28 | 17.44 | 17.44 | 17.44 |
| TEMP | 18.02 | 19.18 | 19.76 | 18.02 | 17.44 | 18.02 | 16.28 | 14.54 | 14.54 |
| TEMP | 15.70 | 13.96 | 15.12 | 16.86 | 16.28 | 15.70 | 15.70 | 17.44 | 15.12 |
| TEMP | 15.70 | 16.28 | 14.54 | 13.38 | 12.22 | 11.64 | 11.06 | 11.06 | 12.22 |
| TEMP | 13.38 | 11.64 | 10.48 | 11.64 | 12.22 | 9.90 | 8.74 | 9.32 | 9.32 |
| TEMP30 | 10.48 | 10.48 | 9.90 | 9.90 | 9.90 | 9.90 | 9.90 | 9.90 | 11.06 |

| | | | | | | | | | |
|----------|-------|-------|--------|-------|-------|-------|-------|-------|--------|
| TEMP | 12.80 | 11.64 | 10.48 | 11.06 | 9.32 | 8.16 | 8.74 | 8.74 | 7.00 |
| TEMP | 4.68 | 5.84 | 5.84 | 7.00 | 6.42 | 5.84 | 6.42 | 7.58 | 7.58 |
| TEMP | 8.16 | 8.16 | 9.90 | 11.06 | 8.74 | 7.58 | 8.16 | 9.32 | 9.32 |
| TEMP | 7.00 | 7.58 | 7.00 | 6.42 | 5.26 | 6.42 | 6.42 | 7.00 | 8.16 |
| TEMP35 | 8.74 | 8.16 | 7.00 | 6.42 | 3.52 | 2.36 | 5.84 | 5.26 | 5.26 |
| TEMP | 5.26 | 5.84 | 6.42 | 6.42 | 5.84 | 5.84 | 5.26 | 0.50 | 0.50 |
| WQ1T1TDS | 336 | 3 | | | | | | | |
| WQ2T1TDS | 263. | 263. | 263. | 250. | 221. | 159. | 250. | 212. | 261. |
| WQ2T1TDS | 132. | 245. | 267. | 223. | 262. | 245. | 261. | 258. | 281. |
| WQ1T1TDS | 235. | 276. | 276. | 252. | 260. | 261. | 249. | 252. | 262. |
| T181SS | 336 | 3 | | | | | | | |
| | 0.324 | 0.324 | 0.770 | 8.640 | 7.384 | 3.056 | 4.426 | 1.252 | 17.160 |
| | 3.752 | 1.504 | 22.022 | 7.676 | 7.640 | 5.760 | 6.420 | 2.538 | 4.700 |
| | 5.640 | 0.720 | 4.444 | 1.979 | 0.000 | 3.180 | 0.790 | | |
| T181PH | 168 | 6 | | | | | | | |
| | 7.788 | 7.564 | 7.870 | 8.416 | 7.876 | 7.770 | 7.764 | 8.288 | 7.882 |
| | 7.794 | 8.258 | 7.806 | 8.000 | 8.282 | 9.322 | 8.276 | 7.806 | 8.476 |
| | 8.294 | 8.300 | 8.412 | 8.506 | 8.306 | 8.494 | 8.388 | 8.094 | 8.070 |
| | 8.094 | 7.700 | 8.200 | 8.394 | 8.288 | 8.294 | 8.188 | 8.394 | 8.394 |
| | 8.388 | 8.494 | 8.412 | 8.224 | 8.506 | 8.694 | 8.700 | 8.694 | 8.694 |
| | 8.800 | 8.494 | 8.442 | 8.500 | 8.588 | 8.206 | | | |
| ANATRIB1 | 336 | 25 | | | | | | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 9.88 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.15 | 0.00 | .0 | 9.12 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.20 | 0.00 | .0 | 9.75 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.39 | 0.00 | .0 | 17.53 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.11 | 0.00 | .0 | 8.50 | .0 | | |
| TRIB1 | 0.01 | 0.00 | 0.38 | 0.00 | .0 | 8.60 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.68 | 0.00 | .0 | 10.54 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.23 | 0.00 | .0 | 8.44 | .0 | | |
| TRIB1 | 0.09 | 0.00 | 0.28 | 0.00 | .0 | 8.87 | .0 | | |
| TRIB1 | 0.09 | 0.00 | 0.09 | 0.00 | .0 | 10.60 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 9.57 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.48 | 0.00 | .0 | 9.62 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 9.42 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.20 | 0.00 | .0 | 8.75 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 9.35 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.09 | 0.00 | .0 | 8.34 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.31 | 0.00 | .0 | 8.45 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.66 | 0.00 | .0 | 2.92 | .0 | | |
| TRIB1 | 0.48 | 0.00 | 0.28 | 0.00 | .0 | 6.16 | .0 | | |
| TRIB1 | 0.09 | 0.00 | 0.00 | 0.00 | .0 | 5.55 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.05 | 0.00 | .0 | 1.12 | .0 | | |
| TRIB1 | 0.01 | 0.00 | 0.01 | 0.00 | .0 | 9.55 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.19 | 0.00 | .0 | 8.43 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 8.87 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 8.37 | .0 | | |
| Q1 TRIB2 | 24 | 37 | | | | | | | |
| | 0.19 | 0.21 | 0.17 | 0.16 | 0.18 | 0.18 | 0.19 | 0.18 | 0.18 |
| | 0.16 | 0.17 | 0.19 | 0.22 | 0.22 | 0.20 | 0.16 | 0.16 | 0.17 |
| | 0.19 | 0.16 | 0.16 | 0.20 | 0.22 | 0.22 | 0.23 | 0.23 | 0.20 |
| | 0.11 | 0.12 | 0.22 | 0.12 | 0.12 | 0.22 | 0.52 | 2.72 | 0.86 |
| | 0.33 | 0.15 | 0.15 | 2.00 | 2.61 | 0.17 | 0.08 | 0.16 | 0.19 |
| | 1.43 | 2.05 | 0.19 | 0.15 | 0.16 | 0.16 | 0.19 | 0.18 | 0.18 |
| | 0.44 | 0.39 | 0.16 | 0.28 | 0.26 | 0.17 | 0.04 | 0.09 | 0.15 |
| | 0.13 | 0.17 | 0.18 | 0.20 | 0.22 | 0.23 | 0.21 | 0.23 | 0.24 |
| | 0.18 | 0.12 | 0.23 | 0.23 | 0.08 | 0.17 | 0.12 | 0.16 | 1.56 |
| | 0.39 | 0.13 | 0.04 | 0.08 | 0.20 | 0.29 | 0.25 | 0.24 | 0.25 |
| | 0.26 | 0.11 | 0.19 | 0.21 | 0.22 | 0.22 | 0.19 | 0.21 | 0.18 |
| | 0.25 | 0.04 | 0.21 | 0.15 | 0.11 | 0.23 | 0.58 | 0.17 | 0.18 |

| | | | | | | | | | |
|-----------|---------|---------|---------|---------|----------|---------|---------|---------|---------|
| 0.10 | 0.31 | 0.67 | 0.11 | 0.17 | 0.53 | 0.09 | 0.20 | 0.19 | |
| 0.17 | 0.17 | 0.17 | 0.18 | 0.18 | 0.18 | 0.18 | 0.19 | 0.20 | |
| 0.20 | 0.20 | 0.20 | 0.16 | 0.16 | 0.16 | 0.22 | 0.23 | 0.24 | |
| 0.24 | 0.24 | 0.23 | 0.23 | 0.21 | 0.21 | 0.21 | 0.22 | 0.20 | |
| 0.20 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.24 | 0.24 | 0.12 | |
| 0.24 | 0.35 | 0.38 | 0.33 | 0.26 | 0.30 | 0.31 | 0.33 | 0.31 | |
| 0.33 | 0.32 | 0.30 | 0.32 | 0.28 | 0.29 | 0.23 | 0.23 | 0.23 | |
| 0.23 | 0.23 | 0.23 | 0.23 | 0.24 | 0.24 | 0.24 | 0.26 | 0.27 | |
| 0.31 | 0.28 | 0.22 | 0.35 | 0.30 | 0.32 | 0.33 | 0.35 | 0.23 | |
| 0.23 | 0.25 | 0.25 | 0.28 | 0.28 | 0.28 | 0.28 | 0.27 | 0.24 | |
| 0.24 | 0.24 | 0.25 | 0.45 | 0.35 | 0.33 | 0.33 | 0.31 | 0.35 | |
| 0.35 | 0.31 | 0.31 | 0.31 | 0.29 | 0.28 | 0.33 | 0.34 | 0.32 | |
| 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.29 | 0.32 | 0.32 | 0.32 | |
| 0.32 | 0.05 | 0.05 | 0.13 | 0.21 | 0.19 | 0.38 | 0.33 | 0.21 | |
| 0.21 | 0.23 | 0.25 | 0.36 | 0.27 | 0.27 | 0.24 | 0.24 | 0.24 | |
| 0.29 | 0.28 | 0.29 | 0.29 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | |
| 0.27 | 0.28 | 0.28 | 0.28 | 0.27 | 0.29 | 0.29 | 0.29 | 0.28 | |
| 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | |
| 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | |
| 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | |
| 0.17 | 0.17 | 0.17 | 0.17 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | |
| 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | |
| 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | |
| 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | |
| 0.23 | 0.23 | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| WQ1 ALG1 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| WQ1 ALG2 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| WQ1 ALG3 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T281ALK | 336 | 3 | | | | | | | |
| | 176.960 | 176.800 | 177.880 | 160.560 | 148.560 | 177.680 | 177.440 | 180.520 | 158.040 |
| | 180.640 | 179.080 | 180.400 | 183.440 | 178.080 | 183.400 | 188.160 | 183.560 | 187.080 |
| | 183.560 | 183.920 | 182.560 | 181.920 | 180.440 | 180.280 | 180.480 | 0.000 | |
| T281DOC | 336 | 3 | | | | | | | |
| | 1.416 | 2.336 | 1.576 | 2.880 | 4.168 | 1.044 | 1.064 | 0.612 | 3.368 |
| | 2.976 | 0.440 | 0.464 | 1.056 | 1.084 | 0.244 | 1.328 | 1.056 | 1.528 |
| | 1.436 | 0.704 | 1.044 | 0.564 | 0.532 | 0.848 | 0.868 | | |
| T281NH4 | 336 | 3 | | | | | | | |
| | 0.010 | 0.001 | 0.002 | 0.016 | 0.022 | 0.003 | 0.000 | 0.045 | 0.017 |
| | 0.011 | 0.003 | 0.007 | 0.030 | 0.024 | 0.007 | 0.012 | 0.001 | 0.000 |
| | 0.000 | 0.006 | 0.016 | 0.024 | 0.016 | 0.000 | 0.008 | | |
| T281N02 | 336 | 3 | | | | | | | |
| | 1.768 | 1.814 | 1.745 | 1.536 | 1.481 | 1.671 | 1.761 | 1.616 | 1.387 |
| | 1.628 | 1.482 | 1.575 | 1.432 | 1.466 | 1.460 | 1.501 | 0.503 | 1.652 |
| | 1.473 | 1.643 | 1.664 | 1.871 | 1.794 | 1.758 | 1.768 | | |
| WQ1 DUMMY | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T281COLI | 336 | 3 | | | | | | | |
| | 0.187 | 0.187 | 0.263 | 8.380 | 4.400 | 0.840 | 8.840 | 7.760 | 75.040 |
| | 50.560 | 166.040 | 139.280 | 120.224 | 2028.200 | 170.600 | 223.000 | 86.640 | 85.760 |
| | 50.000 | 71.600 | 28.320 | 13.920 | 9.920 | 4.160 | 3.240 | | |
| DET T2 | 336 | 3 | | | | | | | |
| DET1 | 2.22 | 2.22 | 0.67 | 1.56 | 2.44 | 2.22 | 2.22 | 1.56 | 1.56 |
| DET2 | 7.11 | 3.33 | 0.67 | 1.56 | 0.89 | 0.89 | 0.44 | 2.22 | 2.22 |
| DET3 | 0.22 | 2.00 | 4.22 | 0.89 | 2.00 | 0.89 | | | |
| T281DO | 168 | 6 | | | | | | | |
| | 13.272 | 13.892 | 12.492 | 14.416 | 13.304 | 11.920 | 10.536 | 13.000 | 11.484 |
| | 11.480 | 11.916 | 11.352 | 10.700 | 11.696 | 11.432 | 10.344 | 10.192 | 10.036 |

| | | | | | | | | | |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 11.020 | 10.028 | 9.928 | 9.588 | 8.960 | 10.140 | 9.436 | 10.052 | 8.016 |
| | 9.540 | 9.760 | 9.800 | 9.612 | 10.100 | 9.544 | 9.148 | 9.528 | 9.788 |
| | 10.280 | 9.892 | 10.212 | 10.152 | 10.416 | 11.560 | 10.960 | 11.760 | 11.660 |
| | 12.780 | 11.956 | 9.272 | 13.156 | 10.340 | 13.716 | | | |
| T281P | 24 | 37 | | | | | | | |
| | 0.010 | 0.010 | 0.010 | 0.009 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 0.009 | 0.009 | 0.010 | 0.011 | 0.011 | 0.010 | 0.009 | 0.009 | 0.009 |
| | 0.010 | 0.009 | 0.009 | 0.010 | 0.010 | 0.010 | 0.011 | 0.011 | 0.010 |
| | 0.016 | 0.007 | 0.010 | 0.007 | 0.007 | 0.010 | 0.019 | 0.111 | 0.108 |
| | 0.040 | 0.018 | 0.014 | 0.098 | 0.216 | 0.026 | 0.010 | 0.016 | 0.015 |
| | 0.081 | 0.143 | 0.027 | 0.016 | 0.013 | 0.012 | 0.012 | 0.011 | 0.011 |
| | 0.021 | 0.038 | 0.028 | 0.033 | 0.063 | 0.038 | 0.007 | 0.011 | 0.013 |
| | 0.011 | 0.010 | 0.010 | 0.011 | 0.011 | 0.012 | 0.011 | 0.011 | 0.012 |
| | 0.011 | 0.011 | 0.013 | 0.017 | 0.016 | 0.017 | 0.016 | 0.015 | 0.083 |
| | 0.090 | 0.023 | 0.006 | 0.008 | 0.015 | 0.019 | 0.015 | 0.014 | 0.014 |
| | 0.016 | 0.010 | 0.011 | 0.012 | 0.012 | 0.012 | 0.011 | 0.012 | 0.010 |
| | 0.013 | 0.018 | 0.041 | 0.015 | 0.009 | 0.014 | 0.030 | 0.011 | 0.013 |
| | 0.020 | 0.025 | 0.045 | 0.068 | 0.074 | 0.059 | 0.009 | 0.014 | 0.013 |
| | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.012 | 0.012 | 0.012 |
| | 0.012 | 0.012 | 0.012 | 0.012 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.012 | 0.012 | 0.011 |
| | 0.026 | 0.018 | 0.016 | 0.014 | 0.012 | 0.013 | 0.013 | 0.014 | 0.013 |
| | 0.014 | 0.013 | 0.013 | 0.013 | 0.012 | 0.012 | 0.011 | 0.011 | 0.011 |
| | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.012 |
| | 0.013 | 0.011 | 0.011 | 0.014 | 0.012 | 0.013 | 0.013 | 0.013 | 0.010 |
| | 0.010 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | 0.011 | 0.011 | 0.011 | 0.016 | 0.013 | 0.013 | 0.013 | 0.012 | 0.013 |
| | 0.014 | 0.013 | 0.013 | 0.013 | 0.013 | 0.012 | 0.013 | 0.013 | 0.013 |
| | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 | 0.013 |
| | 0.013 | 0.010 | 0.010 | 0.011 | 0.012 | 0.011 | 0.015 | 0.013 | 0.010 |
| | 0.010 | 0.010 | 0.010 | 0.013 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| T281SI | 336 | 3 | | | | | | | |
| | 13.260 | 12.616 | 11.432 | 11.804 | 10.816 | 12.205 | 12.775 | 12.368 | 12.577 |
| | 12.592 | 12.991 | 13.118 | 14.788 | 14.078 | 12.791 | 13.182 | 14.422 | 13.860 |
| | 13.520 | 13.950 | 13.635 | 13.302 | 13.631 | 13.145 | 13.221 | | |
| TEMP T2 | 24 | 37 | | | | | | | |
| TEMP | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 |
| TEMP | 4.77 | 3.90 | 3.90 | 4.34 | 4.77 | 5.21 | 5.21 | 5.21 | 5.21 |
| TEMP | 5.64 | 6.08 | 6.51 | 5.64 | 5.21 | 4.77 | 4.77 | 4.77 | 4.77 |
| TEMP | 3.90 | 3.90 | 3.90 | 3.46 | 3.90 | 3.90 | 3.90 | 3.46 | 3.46 |
| TEMP | 3.90 | 4.34 | 3.90 | 3.38 | 3.38 | 3.03 | 3.46 | 3.90 | 4.34 |
| TEMP | 4.34 | 5.21 | 4.77 | 4.77 | 4.34 | 4.34 | 4.34 | 3.90 | 3.90 |
| TEMP | 3.90 | 3.90 | 3.46 | 3.90 | 4.34 | 4.77 | 5.21 | 5.64 | 5.21 |
| TEMP | 5.64 | 5.64 | 6.08 | 6.08 | 6.51 | 6.51 | 6.95 | 7.38 | 7.82 |
| TEMP | 6.95 | 6.08 | 6.08 | 7.82 | 8.25 | 9.12 | 9.56 | 9.56 | 8.69 |
| TEMP | 8.69 | 9.56 | 11.30 | 12.16 | 9.99 | 9.56 | 9.56 | 10.43 | 10.43 |
| TEMP | 5.64 | 6.51 | 8.25 | 9.12 | 10.43 | 10.86 | 12.16 | 10.86 | 11.73 |
| TEMP | 11.30 | 10.43 | 10.86 | 10.43 | 11.73 | 11.30 | 12.16 | 11.30 | 9.12 |
| TEMP | 9.99 | 9.12 | 8.25 | 9.12 | 12.16 | 13.03 | 11.73 | 11.30 | 11.73 |

| | | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| TEMP | 12.60 | 13.03 | 13.03 | 13.90 | 13.03 | 12.60 | 12.16 | 11.73 | 10.86 |
| TEMP | 10.86 | 11.73 | 13.03 | 13.47 | 13.47 | 13.47 | 13.47 | 12.60 | 13.03 |
| TEMP15 | 13.90 | 13.90 | 14.77 | 15.65 | 15.21 | 13.90 | 12.60 | 13.03 | 13.47 |
| TEMP | 13.03 | 15.21 | 14.34 | 14.34 | 15.65 | 15.21 | 15.65 | 16.52 | 16.52 |
| TEMP | 16.52 | 15.65 | 16.08 | 16.08 | 15.65 | 15.65 | 15.65 | 16.52 | 17.82 |
| TEMP | 18.26 | 17.39 | 16.52 | 16.95 | 14.34 | 14.77 | 13.47 | 14.34 | 13.47 |
| TEMP | 16.52 | 16.95 | 16.08 | 16.08 | 16.08 | 17.82 | 16.52 | 16.08 | 16.52 |
| TEMP20 | 16.95 | 16.52 | 16.95 | 17.39 | 18.69 | 20.00 | 18.26 | 17.39 | 17.39 |
| TEMP | 17.39 | 16.95 | 16.52 | 15.21 | 15.65 | 16.52 | 17.39 | 16.95 | 18.26 |
| TEMP | 16.95 | 15.21 | 14.77 | 15.21 | 16.08 | 15.21 | 13.47 | 14.77 | 16.08 |
| TEMP | 16.52 | 17.82 | 16.95 | 16.08 | 17.39 | 18.26 | 17.82 | 18.26 | 18.26 |
| TEMP | 16.52 | 17.39 | 17.39 | 16.08 | 16.52 | 17.39 | 16.52 | 17.39 | 16.08 |
| TEMP25 | 15.21 | 15.21 | 15.21 | 15.65 | 14.77 | 15.21 | 16.08 | 16.08 | 16.08 |
| TEMP | 16.52 | 17.39 | 17.82 | 16.52 | 16.08 | 16.52 | 15.21 | 13.90 | 13.90 |
| TEMP | 14.77 | 13.47 | 14.34 | 15.65 | 15.21 | 14.77 | 14.77 | 16.08 | 14.34 |
| TEMP | 14.77 | 15.21 | 13.90 | 13.03 | 12.16 | 11.73 | 11.30 | 11.30 | 12.16 |
| TEMP | 13.03 | 11.73 | 10.86 | 11.73 | 12.16 | 10.43 | 9.56 | 9.99 | 9.99 |
| TEMP30 | 10.86 | 10.86 | 10.43 | 10.43 | 10.43 | 10.43 | 10.43 | 10.43 | 11.30 |
| TEMP | 12.60 | 11.73 | 10.86 | 11.30 | 9.99 | 9.12 | 9.56 | 9.56 | 8.25 |
| TEMP | 6.51 | 7.38 | 7.38 | 8.25 | 7.82 | 7.38 | 7.82 | 8.69 | 8.69 |
| TEMP | 9.12 | 9.12 | 10.43 | 11.30 | 9.56 | 8.69 | 9.12 | 9.99 | 9.99 |
| TEMP | 8.25 | 8.69 | 8.25 | 7.82 | 6.95 | 7.82 | 7.82 | 8.25 | 9.12 |
| TEMP35 | 9.56 | 9.12 | 8.25 | 7.82 | 5.64 | 4.77 | 7.38 | 6.95 | 6.95 |
| TEMP | 6.95 | 7.38 | 7.82 | 7.82 | 7.38 | 7.38 | 6.95 | 3.38 | 3.38 |
| WQ1T2TDS | 336 | 3 | | | | | | | |
| WQ2T2TDS | 184. | 184. | 223. | 212. | 224. | 187. | 221. | 222. | 233. |
| WQ2T2TDS | 193. | 225. | 231. | 229. | 227. | 219. | 234. | 241. | 253. |
| WQ2T2TDS | 196. | 243. | 243. | 240. | 229. | 248. | 247. | 246. | 236. |
| T281SS | 336 | 3 | | | | | | | |
| | 0.160 | 0.160 | 0.048 | 2.160 | 1.300 | 0.864 | 0.640 | 1.688 | 2.224 |
| | 4.948 | 0.368 | 2.580 | 3.144 | 5.808 | 2.468 | 2.824 | 1.508 | 9.200 |
| | 4.640 | 0.208 | 2.824 | 3.188 | 2.448 | 2.100 | 2.563 | | |
| T281PH | 168 | 6 | | | | | | | |
| | 8.216 | 7.796 | 7.932 | 8.484 | 8.116 | 7.948 | 7.780 | 8.200 | 7.900 |
| | 7.848 | 8.048 | 8.048 | 7.784 | 8.068 | 8.236 | 8.136 | 7.968 | 8.152 |
| | 8.168 | 8.152 | 8.356 | 8.520 | 8.304 | 8.452 | 8.268 | 8.364 | 8.020 |
| | 7.884 | 8.052 | 8.152 | 8.236 | 8.136 | 8.204 | 8.172 | 8.188 | 8.204 |
| | 8.020 | 8.188 | 8.284 | 8.352 | 8.436 | 8.452 | 8.436 | 8.452 | 8.520 |
| | 8.556 | 8.356 | 7.916 | 8.636 | 8.536 | 8.216 | | | |
| ANATRIB2 | 336 | 25 | | | | | | | |
| TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 6.96 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.03 | 0.00 | .0 | 6.96 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.18 | 0.00 | .0 | 6.68 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.22 | 0.00 | .0 | 8.53 | .0 | | |
| TRIB2 | 0.03 | 0.00 | 0.33 | 0.00 | .0 | 6.34 | .0 | | |
| TRIB2 | 0.08 | 0.00 | 0.20 | 0.00 | .0 | 5.91 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.50 | 0.00 | .0 | 6.80 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.05 | 0.00 | .0 | 5.75 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 6.44 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.27 | 0.00 | .0 | 7.31 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 6.83 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.03 | 0.00 | .0 | 6.90 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 6.58 | .0 | | |
| TRIB2 | 0.02 | 0.00 | 0.18 | 0.00 | .0 | 6.21 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.05 | 0.00 | .0 | 6.91 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.08 | 0.00 | .0 | 5.92 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.62 | 0.00 | .0 | 5.46 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 3.92 | .0 | | |
| TRIB2 | 0.00 | 0.00 | 0.03 | 0.00 | .0 | 4.17 | .0 | | |
| TRIB2 | 0.02 | 0.00 | 0.00 | 0.00 | .0 | 4.09 | .0 | | |

| | | | | | | | |
|----------|-------|------|------|------|----|------|----|
| TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 3.07 | .0 |
| TRIB2 | 0.12 | 0.00 | 0.10 | 0.00 | .0 | 6.61 | .0 |
| TRIB2 | 0.00 | 0.00 | 0.12 | 0.00 | .0 | 5.39 | .0 |
| TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 6.16 | .0 |
| TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 5.59 | .0 |
| DIAGNOSE | 99999 | | | | | | |

TITLE EAU GALLE 1982
 TITLE ST PAUL MET. SOME WIND FROM EAU CLAIRE WIS.
 TITLE WEIR OUTFLOW. BURM AT 6.1M FOR INFLOW AND OUTFLOW.
 TITLE NEW IN +OUTFLOW CALC.+DEPTH AREA RELATHIONSHIP
 TITLE WLOSINSKI MAY16 84 #1 FINAL VERIFICATION RUN
 JOB 12 328 24 9999 110 82 3 1
 OUTPUT COMPLETE
 PHYS1 1 2 11 44.8 92.3 2.0 0 1.2-09
 PHYS2 850 .4 1.2
 PHYS2+ .90 .90 .90 1.00 1.00 1.0 1.0 1.0 1.0
 STRUCT PORT+WEIR
 CHOICE SPECIFIED
 PHYS3 4.1 1.08 1.08
 WEIR 7.6 9.75 3.2
 PHYS4 5791. 1.9543
 PHYS5 251.8 .2528
 MIXING .007 .004 .00009 .000200 2.0
 LIGHT .80 .45 .10
 DIFC2 5.40-10 7.50-09
 ALG1 .38 .40 .004 .34
 ALG2 .99 0.05 .020 .06 0.10 85. .05 .07 .140
 ALG3 1.40 0.10 .020 .09 0.1 115. .040 .060 .17
 ALG3A 1.60 0.12 .004 .07 .08 45. .04 .01 .145
 ALG3++ .05
 ALG4 7. 15 28 35 0.1 0.1
 ALG5 12 19. 25. 35. 0.1 0.1
 ALG5+ 0 8 12 17. 0.1 0.1
 PLANT1 .42 .050 .012 .030 .2 .4 .4 1.5
 PLANT2 .04 .10 .01 .005 40. 95. .55 1.8
 PLANT3 7. 21. 24. 34. .2 .2
 Z001 .99 .011 .650 .15 .25 .30 .30 0.20 .20
 Z002 .50 2.0 12 26 36 0.1 0.1
 DET1 .15 4.0 22 0.01
 FISH1 .0180 .2 .03 .15 .15 .15 .37 .15
 FISH2 1. 24.4 28.4 35.2 .1 .1 .8 .01 .01
 DECAY1 0.040 0.01 0.020 1.4 .0012 .0010 .050 .3 .07
 DECAY2 4. 22 .12
 DECAY3 2. 32. 0.1
 DECAY4 2. 32. 0.1
 SSETL .05 30. 40. .0025 .005
 TMP 1.04
 CHEM 4.57 1.14 1.4 1.1 1.4 1.4 0.15 0.14 2.0
 ANAER1 .5 5.0
 ANAER2 0.14 0.16 0 5 35 40 0.1 0.1
 ANAER3 0.35 0 5 35 40 0.1 0.1
 ANAER4 .60 0 5 35 40 0.1 0.1
 ANAER5 0.04 0.02 0 5 35 40 0.1 0.1
 ANAER6 .45 0 5 35 40 0.1 0.1
 ANAER7 .60 0.05 0 5 35 40 0.1 0.1
 ANAER8 0.40 0 5 35 40 0.1 0.1
 ANAER9 0.50 0.6 0 5 35 40 0.1 0.1
 ANAER10 0.040 0 5 35 40 0.1 0.1
 ANAER11 .01 0 5 35 40 0.1 0.1
 ANAER12 0.50 0.05 0 5 35 40 0.1 0.1 0.1
 ANAER13 0.014 0 5 35 40 0.1 0.1
 ANAER14 0.40 0 5 35 40 0.1 0.1
 INIT0 11
 INIT1 55.
 2 0.0 0. 0. 82. .192 1.156 0. 111.

| | | | | | | | | | |
|--------|-----------|--------|--------|-------|-----------|-------|-------|----|------|
| 3 | 2.4 | 15.8 | 10.3 | .082 | 5001. | 6.9 | 153. | .1 | 7.8 |
| 4 | 13.3 | 0. | 0. | .5 | 0. | 0. | 11.4 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .33 | 7.64 | | |
| 2 | 1.3 | 0. | 0. | 82. | | .192 | 1.156 | 0. | 111. |
| 3 | 2.4 | 15.8 | 10.3 | .082 | 5001. | 6.9 | 133. | .1 | 7.8 |
| 4 | 13.3 | 0. | 0. | .5 | 0. | 0. | 11.4 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .33 | 7.64 | | |
| 2 | 2.1 | 0. | 0. | 81. | | .200 | 1.155 | 0. | 111. |
| 3 | 2.4 | 17.6 | 10.4 | .081 | 5001. | 7.0 | 140. | .1 | 7.8 |
| 4 | 12.0 | 0. | 0. | .5 | 0. | 0. | 11.1 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .36 | 7.63 | | |
| 2 | 3.1 | 0. | 0. | 81. | | .185 | 1.158 | 0. | 111. |
| 3 | 2.4 | 17.1 | 10.4 | .083 | 5001. | 7.0 | 142. | .1 | 7.8 |
| 4 | 12.1 | 0. | 0. | .5 | 0. | 0. | 11.8 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .36 | 7.66 | | |
| 2 | 4.1 | 0. | 0. | 82. | | .191 | 1.156 | 0. | 111. |
| 3 | 2.4 | 16.4 | 10.4 | .083 | 5001. | 7.1 | 146. | .1 | 7.8 |
| 4 | 12.0 | 0. | 0. | .5 | 0. | 0. | 11.1 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .35 | 7.61 | | |
| 2 | 5.1 | 0. | 0. | 80. | | .191 | 1.141 | 0. | 111. |
| 3 | 2.4 | 17.3 | 10.4 | .083 | 5001. | 7.1 | 153. | .1 | 7.8 |
| 4 | 12.6 | 0. | 0. | .5 | 0. | 0. | 12.4 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .35 | 7.59 | | |
| 2 | 6.1 | 0. | 0. | 81. | | .184 | 1.143 | 0. | 111. |
| 3 | 2.4 | 15.1 | 10.4 | .084 | 501. | 7.1 | 147. | .1 | 7.8 |
| 4 | 12.0 | 0. | 0. | .5 | 0. | 0. | 12.5 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .36 | 7.48 | | |
| 2 | 7.1 | 0. | 0. | 81. | | .187 | 1.167 | 0. | 111. |
| 3 | 2.4 | 15.3 | 10.4 | .084 | 501. | 7.1 | 143. | .1 | 7.8 |
| 4 | 11.3 | 0. | 0. | .5 | 0. | 0. | 11.9 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .36 | 7.62 | | |
| 2 | 8.1 | 0. | 0. | 80. | | .189 | 1.169 | 0. | 111. |
| 3 | 2.4 | 15.8 | 10.4 | .082 | 501. | 7.1 | 147. | .1 | 7.8 |
| 4 | 11.3 | 0. | 0. | .5 | 0. | 0. | 12.4 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .37 | 7.63 | | |
| 2 | 9.1 | 0. | 0. | 82. | | .196 | 1.160 | 0. | 111. |
| 3 | 2.4 | 16.2 | 10.4 | .082 | 501. | 7.1 | 144. | .1 | 7.8 |
| 4 | 12.6 | 0. | 0. | .5 | 0. | 0. | 12.9 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .38 | 7.61 | | |
| 2 | 10.1 | 0. | 0. | 82. | | .187 | 1.174 | 0. | 111. |
| 3 | 2.4 | 18.0 | 10.3 | .081 | 501. | 7.1 | 146. | .1 | 7.8 |
| 4 | 12.0 | 0. | 0. | .5 | 0. | 0. | 11.9 | 0. | 220. |
| 5 | 1310. | 0. | 1.6 | 102. | 1210. | .38 | 7.63 | | |
| PLANTS | 8. | 8. | 8. | | | | | | |
| FILES | PLTWC | EG812 | EG813 | EG814 | FLUX | | | | |
| ID | EAU GALLE | 1982 | MAY 16 | 84 #1 | 24HR.T.S. | | | | |
| MET | 24 | 354 | | | | | | | |
| - | W2 STPL | 82 112 | 0.9 | -14.9 | -20.0 | 986.8 | 6.6 | | |
| - | W2 STPL | 82 113 | 1.0 | -16.4 | -19.2 | 980.8 | 11.7 | | |
| - | W2 STPL | 82 114 | 0.3 | -23.2 | -26.6 | 972.6 | 10.4 | | |
| - | W2 STPL | 82 115 | 1.0 | -16.2 | -20.3 | 973.9 | 27.1 | | |
| - | W2 STPL | 82 116 | 0.1 | -23.6 | -31.7 | 987.1 | 25.7 | | |
| - | W2 STPL | 82 117 | 0.8 | -19.3 | -22.4 | 975.8 | 17.6 | | |
| - | W2 STPL | 82 118 | 0.9 | -12.3 | -15.5 | 979.1 | 13.3 | | |
| - | W2 STPL | 82 119 | 0.6 | -9.1 | -13.1 | 985.0 | 18.3 | | |
| - | W2 STPL | 82 120 | 0.9 | -13.5 | -16.7 | 991.9 | 20.8 | | |
| - | W2 STPL | 82 121 | 0.9 | -9.3 | -12.3 | 996.2 | 15.9 | | |
| - | W2 STPL | 82 122 | 1.0 | -9.0 | -11.5 | 980.9 | 30.1 | | |
| - | W2 STPL | 82 123 | 0.8 | -13.4 | -16.8 | 966.9 | 32.6 | | |
| - | W2 STPL | 82 124 | 0.6 | -22.8 | -28.3 | 979.5 | 16.3 | | |

| | | | | | | | | |
|----|------|----|-----|-----|-------|-------|--------|------|
| W2 | STPL | 82 | 125 | 0.4 | -20.0 | -27.1 | 986.6 | 12.4 |
| W2 | STPL | 82 | 126 | 0.5 | -18.9 | -23.8 | 983.9 | 19.9 |
| W2 | STPL | 82 | 127 | 0.8 | -2.3 | -6.4 | 970.7 | 21.6 |
| W2 | STPL | 82 | 128 | 0.4 | -14.1 | -18.7 | 988.7 | 20.7 |
| W2 | STPL | 82 | 129 | 0.8 | -6.8 | -11.0 | 987.0 | 13.3 |
| W2 | STPL | 82 | 130 | 0.4 | -12.2 | -15.6 | 989.5 | 19.9 |
| W2 | STPL | 82 | 131 | 0.0 | -18.4 | -19.7 | 989.8 | 10.5 |
| W2 | STPL | 82 | 2 1 | 0.6 | -16.3 | -19.5 | 989.6 | 11.4 |
| W2 | STPL | 82 | 2 2 | 0.7 | -12.0 | -15.6 | 992.7 | 16.7 |
| W2 | STPL | 82 | 2 3 | 0.1 | -22.4 | -31.4 | 996.1 | 18.6 |
| W2 | STPL | 82 | 2 4 | 0.9 | -22.3 | -28.6 | 997.8 | 9.9 |
| W2 | STPL | 82 | 2 5 | 0.5 | -21.6 | -24.0 | 994.3 | 13.3 |
| W2 | STPL | 82 | 2 6 | 0.2 | -19.7 | -24.0 | 985.0 | 18.4 |
| W2 | STPL | 82 | 2 7 | 0.4 | -8.5 | -13.8 | 985.1 | 25.9 |
| W2 | STPL | 82 | 2 8 | 0.2 | -16.0 | -21.0 | 989.3 | 17.7 |
| W2 | STPL | 82 | 2 9 | 0.1 | -20.6 | -24.1 | 986.6 | 19.0 |
| W2 | STPL | 82 | 210 | 0.2 | -19.0 | -22.6 | 981.8 | 13.3 |
| W2 | STPL | 82 | 211 | 0.2 | -12.7 | -17.2 | 988.1 | 14.5 |
| W2 | STPL | 82 | 212 | 0.9 | -13.1 | -16.6 | 994.8 | 5.9 |
| W2 | STPL | 82 | 213 | 1.0 | -7.6 | -10.9 | 987.6 | 9.5 |
| W2 | STPL | 82 | 214 | 0.9 | -3.8 | -6.7 | 973.6 | 19.8 |
| W2 | STPL | 82 | 215 | 0.7 | -3.3 | -4.8 | 979.9 | 8.1 |
| W2 | STPL | 82 | 216 | 0.6 | 0.1 | -4.9 | 987.8 | 17.7 |
| W2 | STPL | 82 | 217 | 0.9 | -1.8 | -6.0 | 984.7 | 16.0 |
| W2 | STPL | 82 | 218 | 1.0 | 0.9 | -1.2 | 986.1 | 11.9 |
| W2 | STPL | 82 | 219 | 1.0 | 1.1 | -1.2 | 983.4 | 15.0 |
| W2 | STPL | 82 | 220 | 0.1 | 2.8 | -2.3 | 979.9 | 16.8 |
| W2 | STPL | 82 | 221 | 0.2 | 0.0 | -4.0 | 986.5 | 12.0 |
| W2 | STPL | 82 | 222 | 0.2 | 1.3 | -2.3 | 983.4 | 15.7 |
| W2 | STPL | 82 | 223 | 0.8 | -2.7 | -9.3 | 990.9 | 26.5 |
| W2 | STPL | 82 | 224 | 0.8 | -4.9 | -9.1 | 995.7 | 17.7 |
| W2 | STPL | 82 | 225 | 0.2 | -8.5 | -12.1 | 1006.1 | 10.3 |
| W2 | STPL | 82 | 226 | 0.5 | -4.7 | -8.6 | 1000.7 | 15.0 |
| W2 | STPL | 82 | 227 | 0.6 | -2.9 | -7.2 | 997.5 | 14.4 |
| W2 | STPL | 82 | 228 | 0.6 | 0.0 | -5.5 | 993.4 | 22.3 |
| W2 | STPL | 82 | 3 1 | 0.9 | -4.6 | -10.8 | 990.8 | 16.3 |
| W2 | STPL | 82 | 3 2 | 0.9 | -6.8 | -13.7 | 989.1 | 23.1 |
| W2 | STPL | 82 | 3 3 | 0.8 | -9.3 | -16.3 | 989.2 | 17.9 |
| W2 | STPL | 82 | 3 4 | 0.8 | -5.8 | -12.2 | 982.4 | 18.2 |
| W2 | STPL | 82 | 3 5 | 0.0 | -9.0 | -14.3 | 988.5 | 17.0 |
| W2 | STPL | 82 | 3 6 | 0.3 | -8.5 | -14.4 | 984.5 | 23.4 |
| W2 | STPL | 82 | 3 7 | 0.2 | -14.0 | -19.7 | 989.4 | 13.0 |
| W2 | STPL | 82 | 3 8 | 0.7 | -9.5 | -13.8 | 984.7 | 28.9 |
| W2 | STPL | 82 | 3 9 | 0.8 | -11.9 | -16.9 | 990.8 | 18.7 |
| W2 | STPL | 82 | 310 | 0.5 | -2.1 | -6.1 | 976.9 | 15.8 |
| W2 | STPL | 82 | 311 | 0.5 | -0.9 | -5.4 | 984.2 | 16.1 |
| W2 | STPL | 82 | 312 | 0.9 | 1.6 | -1.6 | 969.3 | 26.8 |
| W2 | STPL | 82 | 313 | 0.1 | 3.2 | -6.1 | 977.8 | 38.1 |
| W2 | STPL | 82 | 314 | 0.6 | 1.6 | -5.1 | 990.8 | 13.2 |
| W2 | STPL | 82 | 315 | 0.9 | 2.0 | -3.1 | 983.3 | 21.3 |
| W2 | STPL | 82 | 316 | 1.0 | 1.8 | -1.0 | 977.4 | 14.8 |
| W2 | STPL | 82 | 317 | 0.8 | 1.8 | -1.6 | 987.6 | 9.0 |
| W2 | STPL | 82 | 318 | 1.0 | 2.9 | -0.4 | 993.6 | 10.9 |
| W2 | STPL | 82 | 319 | 1.0 | 1.7 | -2.0 | 987.4 | 28.7 |
| W2 | STPL | 82 | 320 | 1.0 | 0.8 | -1.7 | 977.5 | 19.6 |
| W2 | STPL | 82 | 321 | 0.6 | 0.9 | -4.4 | 984.0 | 18.1 |
| W2 | STPL | 82 | 322 | 0.6 | 0.2 | -4.2 | 988.8 | 13.3 |
| W2 | STPL | 82 | 323 | 0.5 | 2.0 | -2.2 | 977.1 | 16.6 |
| W2 | STPL | 82 | 324 | 0.6 | 2.2 | -3.8 | 980.5 | 23.1 |
| W2 | STPL | 82 | 325 | 0.2 | -2.7 | -9.4 | 989.6 | 23.2 |

| | | | | | | | |
|----|------|--------|-----|------|-------|--------|------|
| W2 | STPL | 82 326 | 0.0 | -4.0 | -11.7 | 996.2 | 15.7 |
| W2 | STPL | 82 327 | 0.0 | -3.5 | -11.3 | 1000.8 | 15.8 |
| W2 | STPL | 82 328 | 0.7 | 3.7 | -3.4 | 994.2 | 24.0 |
| W2 | STPL | 82 329 | 1.0 | 6.8 | -0.6 | 984.6 | 27.9 |
| W2 | STPL | 82 330 | 1.0 | 8.2 | 4.0 | 963.1 | 39.5 |
| W2 | STPL | 82 331 | 0.5 | 6.5 | -1.7 | 980.8 | 32.3 |
| W2 | STPL | 82 4 1 | 0.8 | 4.3 | -5.3 | 989.5 | 20.6 |
| W2 | STPL | 82 4 2 | 1.0 | 10.4 | 3.3 | 967.1 | 28.5 |
| W2 | STPL | 82 4 3 | 0.9 | -4.4 | -8.2 | 965.9 | 49.2 |
| W2 | STPL | 82 4 4 | 0.7 | -5.3 | -14.2 | 989.1 | 19.1 |
| W2 | STPL | 82 4 5 | 0.8 | -3.5 | -11.5 | 990.2 | 24.0 |
| W2 | STPL | 82 4 6 | 0.1 | -3.9 | -13.9 | 994.5 | 11.3 |
| W2 | STPL | 82 4 7 | 0.9 | -2.1 | -9.9 | 993.9 | 14.0 |
| W2 | STPL | 82 4 8 | 1.0 | -1.8 | -5.0 | 987.3 | 9.0 |
| W2 | STPL | 82 4 9 | 0.8 | -0.7 | -4.2 | 982.6 | 16.9 |
| W2 | STPL | 82 410 | 0.9 | 1.2 | -4.4 | 983.6 | 23.8 |
| W2 | STPL | 82 411 | 0.3 | 2.5 | -3.8 | 984.5 | 15.3 |
| W2 | STPL | 82 412 | 1.0 | 6.2 | 2.0 | 971.2 | 24.3 |
| W2 | STPL | 82 413 | 0.4 | 8.8 | 1.2 | 985.4 | 14.6 |
| W2 | STPL | 82 414 | 0.8 | 11.0 | 4.6 | 985.9 | 23.9 |
| W2 | STPL | 82 415 | 0.8 | 13.7 | 8.7 | 978.7 | 22.8 |
| W2 | STPL | 82 416 | 1.0 | 11.9 | 8.6 | 980.5 | 21.5 |
| W2 | STPL | 82 417 | 0.3 | 8.8 | -1.2 | 989.4 | 26.2 |
| W2 | STPL | 82 418 | 0.7 | 11.2 | 1.2 | 986.9 | 24.3 |
| W2 | STPL | 82 419 | 1.0 | 4.4 | 0.6 | 983.8 | 25.3 |
| W2 | STPL | 82 420 | 0.4 | 2.3 | -7.0 | 991.1 | 18.3 |
| W2 | STPL | 82 421 | 0.4 | 6.6 | -5.0 | 999.8 | 12.2 |
| W2 | STPL | 82 422 | 0.0 | 9.4 | -1.1 | 1002.9 | 14.8 |
| W2 | STPL | 82 423 | 0.0 | 15.4 | 0.0 | 994.3 | 22.3 |
| W2 | STPL | 82 424 | 0.0 | 18.0 | 3.0 | 987.2 | 21.8 |
| W2 | STPL | 82 425 | 0.9 | 16.0 | 5.3 | 985.0 | 14.9 |
| W2 | STPL | 82 426 | 0.5 | 10.9 | -2.0 | 994.2 | 13.8 |
| W2 | STPL | 82 427 | 0.0 | 10.9 | -4.5 | 1001.3 | 3.7 |
| W2 | STPL | 82 428 | 0.4 | 11.3 | -3.5 | 1000.8 | 10.7 |
| W2 | STPL | 82 429 | 0.1 | 12.8 | -3.1 | 997.9 | 18.6 |
| W2 | STPL | 82 430 | 0.7 | 12.5 | 3.0 | 997.4 | 8.1 |
| W2 | STPL | 82 5 1 | 0.3 | 15.5 | 2.0 | 999.4 | 4.2 |
| W2 | STPL | 82 5 2 | 0.1 | 18.0 | 1.4 | 997.5 | 9.4 |
| W2 | STPL | 82 5 3 | 0.7 | 20.1 | 7.3 | 992.9 | 14.2 |
| W2 | STPL | 82 5 4 | 0.9 | 22.1 | 13.8 | 986.7 | 23.1 |
| W2 | STPL | 82 5 5 | 0.9 | 13.1 | 7.1 | 987.6 | 15.0 |
| W2 | STPL | 82 5 6 | 0.8 | 9.2 | 5.4 | 984.7 | 14.8 |
| W2 | STPL | 82 5 7 | 0.3 | 10.4 | -0.5 | 984.9 | 13.3 |
| W2 | STPL | 82 5 8 | 0.4 | 14.3 | 3.5 | 990.6 | 8.9 |
| W2 | STPL | 82 5 9 | 0.8 | 17.2 | 9.9 | 989.4 | 19.8 |
| W2 | STPL | 82 510 | 0.7 | 23.1 | 12.9 | 985.1 | 19.2 |
| W2 | STPL | 82 511 | 0.5 | 16.9 | 10.3 | 989.6 | 12.8 |
| W2 | STPL | 82 512 | 1.0 | 14.6 | 11.4 | 989.4 | 15.2 |
| W2 | STPL | 82 513 | 1.0 | 19.1 | 16.5 | 988.5 | 13.7 |
| W2 | STPL | 82 514 | 1.0 | 20.2 | 15.6 | 989.4 | 13.7 |
| W2 | STPL | 82 515 | 0.6 | 18.8 | 13.0 | 990.3 | 12.6 |
| W2 | STPL | 82 516 | 0.7 | 19.6 | 14.6 | 992.4 | 14.0 |
| W2 | STPL | 82 517 | 0.9 | 18.3 | 15.4 | 988.7 | 16.3 |
| W2 | STPL | 82 518 | 0.8 | 18.4 | 12.7 | 986.3 | 11.7 |
| W2 | STPL | 82 519 | 0.2 | 18.4 | 11.8 | 987.9 | 11.1 |
| W2 | STPL | 82 520 | 0.8 | 15.0 | 7.1 | 992.1 | 12.8 |
| W2 | STPL | 82 521 | 1.0 | 13.8 | 5.3 | 991.5 | 19.6 |
| W2 | STPL | 82 522 | 0.8 | 15.0 | 6.2 | 992.4 | 13.1 |
| W2 | STPL | 82 523 | 0.4 | 14.8 | 7.7 | 994.0 | 7.2 |
| W2 | STPL | 82 524 | 0.7 | 16.5 | 10.7 | 993.9 | 6.8 |

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|----|------|--------|-----|------|------|-------|------|
| W2 | STPL | 82 525 | 0.9 | 17.0 | 11.2 | 991.3 | 6.8 |
| W2 | STPL | 82 526 | 1.0 | 16.2 | 12.7 | 984.6 | 14.4 |
| W2 | STPL | 82 527 | 0.8 | 18.8 | 14.9 | 985.6 | 12.0 |
| W2 | STPL | 82 528 | 0.6 | 20.8 | 15.5 | 986.6 | 7.6 |
| W2 | STPL | 82 529 | 0.8 | 20.2 | 16.0 | 984.9 | 5.7 |
| W2 | STPL | 82 530 | 0.6 | 19.7 | 11.1 | 986.9 | 7.2 |
| W2 | STPL | 82 531 | 0.6 | 15.2 | 6.8 | 985.4 | 22.0 |
| W2 | STPL | 82 6 1 | 0.0 | 14.9 | 4.5 | 987.2 | 19.6 |
| W2 | STPL | 82 6 2 | 0.5 | 13.1 | 2.9 | 993.2 | 12.5 |
| W2 | STPL | 82 6 3 | 0.4 | 14.4 | 4.4 | 996.2 | 12.4 |
| W2 | STPL | 82 6 4 | 0.1 | 16.0 | 5.2 | 994.6 | 12.3 |
| W2 | STPL | 82 6 5 | 0.5 | 18.3 | 5.1 | 993.9 | 19.1 |
| W2 | STPL | 82 6 6 | 0.8 | 17.5 | 10.6 | 987.1 | 26.5 |
| W2 | STPL | 82 6 7 | 0.7 | 17.9 | 10.9 | 988.7 | 24.9 |
| W2 | STPL | 82 6 8 | 0.4 | 18.3 | 9.9 | 991.4 | 12.1 |
| W2 | STPL | 82 6 9 | 0.9 | 16.9 | 11.1 | 985.8 | 21.3 |
| W2 | STPL | 82 610 | 0.0 | 16.7 | 4.4 | 992.8 | 19.4 |
| W2 | STPL | 82 611 | 0.4 | 17.9 | 7.2 | 992.9 | 11.7 |
| W2 | STPL | 82 612 | 0.2 | 17.6 | 5.8 | 992.5 | 16.8 |
| W2 | STPL | 82 613 | 0.1 | 20.0 | 5.5 | 993.7 | 12.8 |
| W2 | STPL | 82 614 | 0.7 | 18.2 | 12.5 | 987.4 | 14.1 |
| W2 | STPL | 82 615 | 0.6 | 17.8 | 9.9 | 985.7 | 18.4 |
| W2 | STPL | 82 616 | 0.4 | 19.3 | 9.0 | 987.7 | 13.9 |
| W2 | STPL | 82 617 | 0.7 | 19.2 | 11.3 | 986.7 | 17.1 |
| W2 | STPL | 82 618 | 0.8 | 15.9 | 6.4 | 990.9 | 11.4 |
| W2 | STPL | 82 619 | 0.6 | 15.1 | 7.7 | 988.0 | 13.1 |
| W2 | STPL | 82 620 | 0.7 | 15.9 | 10.0 | 984.3 | 17.5 |
| W2 | STPL | 82 621 | 0.3 | 17.2 | 8.2 | 988.3 | 15.3 |
| W2 | STPL | 82 622 | 0.3 | 17.9 | 7.5 | 993.3 | 6.0 |
| W2 | STPL | 82 623 | 0.6 | 21.8 | 9.7 | 994.5 | 11.5 |
| W2 | STPL | 82 624 | 1.0 | 21.9 | 14.7 | 991.8 | 12.8 |
| W2 | STPL | 82 625 | 0.4 | 19.1 | 9.2 | 994.9 | 14.4 |
| W2 | STPL | 82 626 | 0.6 | 18.6 | 10.0 | 995.4 | 9.4 |
| W2 | STPL | 82 627 | 0.3 | 23.7 | 14.6 | 993.2 | 7.9 |
| W2 | STPL | 82 628 | 0.5 | 24.1 | 15.4 | 989.2 | 9.9 |
| W2 | STPL | 82 629 | 0.8 | 18.9 | 10.0 | 991.1 | 13.7 |
| W2 | STPL | 82 630 | 0.4 | 19.6 | 6.6 | 997.9 | 7.7 |
| W2 | STPL | 82 7 1 | 0.2 | 21.3 | 8.8 | 997.7 | 6.5 |
| W2 | STPL | 82 7 2 | 0.8 | 22.0 | 14.5 | 990.7 | 9.6 |
| W2 | STPL | 82 7 3 | 0.2 | 26.3 | 15.6 | 988.3 | 16.4 |
| W2 | STPL | 82 7 4 | 0.2 | 28.5 | 14.1 | 990.4 | 11.9 |
| W2 | STPL | 82 7 5 | 0.6 | 31.3 | 19.6 | 986.4 | 23.5 |
| W2 | STPL | 82 7 6 | 0.9 | 23.7 | 18.4 | 983.5 | 22.4 |
| W2 | STPL | 82 7 7 | 0.2 | 21.3 | 12.5 | 990.8 | 22.4 |
| W2 | STPL | 82 7 8 | 0.4 | 22.4 | 13.3 | 994.9 | 15.7 |
| W2 | STPL | 82 7 9 | 0.9 | 23.9 | 17.5 | 990.1 | 14.8 |
| W2 | STPL | 82 710 | 1.0 | 17.8 | 14.5 | 985.7 | 17.4 |
| W2 | STPL | 82 711 | 0.4 | 22.4 | 12.5 | 989.2 | 18.3 |
| W2 | STPL | 82 712 | 0.3 | 24.1 | 13.9 | 993.8 | 9.6 |
| W2 | STPL | 82 713 | 0.8 | 24.4 | 15.9 | 995.7 | 5.8 |
| W2 | STPL | 82 714 | 0.4 | 26.1 | 17.0 | 994.1 | 10.6 |
| W2 | STPL | 82 715 | 0.9 | 23.8 | 19.4 | 990.0 | 17.8 |
| W2 | STPL | 82 716 | 0.6 | 27.3 | 20.7 | 988.0 | 22.1 |
| W2 | STPL | 82 717 | 0.4 | 26.7 | 16.7 | 987.0 | 15.6 |
| W2 | STPL | 82 718 | 0.3 | 24.1 | 12.5 | 990.2 | 12.2 |
| W2 | STPL | 82 719 | 0.3 | 24.1 | 13.7 | 990.7 | 16.7 |
| W2 | STPL | 82 720 | 0.4 | 25.6 | 19.4 | 993.5 | 15.3 |
| W2 | STPL | 82 721 | 0.8 | 24.6 | 18.6 | 995.0 | 10.6 |
| W2 | STPL | 82 722 | 0.1 | 25.6 | 17.2 | 999.2 | 11.7 |
| W2 | STPL | 82 723 | 0.3 | 25.5 | 16.2 | 999.8 | 14.3 |

| | | | | | | | | |
|-----|------|----|-----|-----|------|------|--------|------|
| W2 | STPL | 82 | 724 | 0.7 | 26.0 | 19.1 | 995.2 | 21.8 |
| W2 | STPL | 82 | 725 | 0.9 | 25.0 | 18.8 | 996.4 | 13.7 |
| W2 | STPL | 82 | 726 | 0.9 | 22.8 | 16.3 | 997.9 | 14.2 |
| W2 | STPL | 82 | 727 | 0.2 | 24.2 | 13.9 | 997.3 | 13.0 |
| W2 | STPL | 82 | 728 | 0.3 | 24.0 | 12.3 | 998.3 | 11.0 |
| W2 | STPL | 82 | 729 | 0.4 | 24.1 | 13.3 | 993.3 | 21.3 |
| W2 | STPL | 82 | 730 | 0.3 | 22.7 | 13.7 | 994.5 | 18.0 |
| W2 | STPL | 82 | 731 | 0.6 | 23.8 | 14.7 | 992.7 | 17.7 |
| W2 | STPL | 82 | 8 1 | 0.6 | 25.7 | 18.0 | 989.8 | 15.8 |
| W2 | STPL | 82 | 8 2 | 0.6 | 26.4 | 18.1 | 989.4 | 27.0 |
| W2 | STPL | 82 | 8 3 | 0.8 | 29.5 | 20.5 | 988.5 | 22.1 |
| W2 | STPL | 82 | 8 4 | 1.0 | 27.8 | 19.7 | 994.3 | 10.8 |
| W2 | STPL | 82 | 8 5 | 0.6 | 26.9 | 20.0 | 999.5 | 13.4 |
| W2 | STPL | 82 | 8 6 | 0.3 | 24.8 | 18.2 | 1000.8 | 9.2 |
| W2 | STPL | 82 | 8 7 | 0.4 | 25.6 | 17.2 | 996.9 | 12.0 |
| W2 | STPL | 82 | 8 8 | 0.2 | 21.9 | 10.7 | 993.3 | 24.6 |
| W2 | STPL | 82 | 8 9 | 0.5 | 17.1 | 7.2 | 994.3 | 21.1 |
| W2 | STPL | 82 | 810 | 0.4 | 17.5 | 6.3 | 998.7 | 10.9 |
| W2 | STPL | 82 | 811 | 0.1 | 18.7 | 4.1 | 1000.4 | 9.3 |
| W2 | STPL | 82 | 812 | 0.7 | 19.6 | 7.9 | 997.5 | 17.3 |
| W2 | STPL | 82 | 813 | 0.9 | 19.8 | 15.3 | 994.2 | 9.3 |
| W2 | STPL | 82 | 814 | 0.9 | 23.1 | 16.9 | 994.8 | 10.8 |
| W2 | STPL | 82 | 815 | 0.7 | 23.8 | 17.1 | 995.5 | 8.6 |
| W2 | STPL | 82 | 816 | 0.3 | 23.7 | 17.9 | 999.4 | 5.9 |
| W2 | STPL | 82 | 817 | 0.4 | 25.0 | 17.8 | 1000.8 | 7.3 |
| W2 | STPL | 82 | 818 | 0.3 | 25.7 | 19.4 | 996.4 | 15.5 |
| W2 | STPL | 82 | 819 | 0.8 | 26.5 | 18.7 | 994.5 | 14.4 |
| W2 | STPL | 82 | 820 | 0.0 | 23.2 | 10.2 | 1000.6 | 15.5 |
| W2 | STPL | 82 | 821 | 0.4 | 22.8 | 12.8 | 998.0 | 16.0 |
| W2 | STPL | 82 | 822 | 0.7 | 22.3 | 14.4 | 988.4 | 16.5 |
| W2 | STPL | 82 | 823 | 0.5 | 21.4 | 12.5 | 991.6 | 11.3 |
| W2 | STPL | 82 | 824 | 0.6 | 18.7 | 12.6 | 990.8 | 13.2 |
| W2 | STPL | 82 | 825 | 0.2 | 20.8 | 11.7 | 992.5 | 19.7 |
| W2 | STPL | 82 | 826 | 0.7 | 19.9 | 14.2 | 989.3 | 14.7 |
| W2 | STPL | 82 | 827 | 0.1 | 14.6 | 4.9 | 996.1 | 13.8 |
| W2 | STPL | 82 | 828 | 0.9 | 16.3 | 6.7 | 1000.4 | 16.1 |
| W2 | STPL | 82 | 829 | 1.0 | 18.2 | 14.4 | 993.1 | 16.1 |
| W2 | STPL | 82 | 830 | 0.3 | 19.4 | 10.4 | 996.0 | 14.2 |
| W2 | STPL | 82 | 831 | 1.0 | 19.3 | 14.9 | 992.5 | 18.9 |
| W2 | STPL | 82 | 9 1 | 0.8 | 21.9 | 15.8 | 989.7 | 14.3 |
| W2 | STPL | 82 | 9 2 | 0.3 | 18.4 | 9.1 | 990.7 | 25.1 |
| W2 | STPL | 82 | 9 3 | 0.2 | 17.8 | 7.9 | 995.5 | 13.3 |
| W2 | STPL | 82 | 9 4 | 0.3 | 20.1 | 12.8 | 994.6 | 16.9 |
| W2 | STPL | 82 | 9 5 | 0.9 | 19.1 | 14.5 | 993.8 | 13.9 |
| W2 | STPL | 82 | 9 6 | 0.4 | 14.8 | 7.4 | 1001.8 | 15.7 |
| W2 | STPL | 82 | 9 7 | 0.9 | 15.7 | 12.3 | 1001.2 | 14.1 |
| W2 | STPL | 82 | 9 8 | 0.8 | 19.1 | 15.4 | 997.4 | 17.4 |
| W2 | STPL | 82 | 9 9 | 0.9 | 22.8 | 18.3 | 993.1 | 18.9 |
| W2 | STPL | 82 | 910 | 0.7 | 23.0 | 19.3 | 985.4 | 16.4 |
| W2 | STPL | 82 | 911 | 0.3 | 24.1 | 19.3 | 986.0 | 15.4 |
| W2 | STPL | 82 | 912 | 1.0 | 21.7 | 18.7 | 986.0 | 18.0 |
| W2 | STPL | 82 | 913 | 1.0 | 14.1 | 10.4 | 991.1 | 13.5 |
| W2 | STPL | 82 | 914 | 1.0 | 13.3 | 9.1 | 997.3 | 19.1 |
| W2 | STPL | 82 | 915 | 1.0 | 10.7 | 6.3 | 997.9 | 15.1 |
| W2 | STPL | 82 | 916 | 1.0 | 12.5 | 7.0 | 996.6 | 9.4 |
| W2 | STPL | 82 | 917 | 0.8 | 14.4 | 10.1 | 991.1 | 12.6 |
| -W2 | STPL | 82 | 918 | 0.0 | 13.1 | 6.4 | 992.6 | 10.9 |
| W2 | STPL | 82 | 919 | 0.4 | 13.1 | 6.0 | 988.7 | 15.3 |
| W2 | STPL | 82 | 920 | 0.5 | 10.0 | 2.6 | 996.0 | 13.3 |
| W2 | STPL | 82 | 921 | 0.1 | 10.5 | 3.6 | 999.5 | 6.0 |

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|----|------|--------|-----|-----|------|-------|--------|------|
| W2 | STPL | 82 | 922 | 0.4 | 13.1 | 5.4 | 994.5 | 12.8 |
| W2 | STPL | 82 | 923 | 0.6 | 17.0 | 9.4 | 985.8 | 19.7 |
| W2 | STPL | 82 | 924 | 0.9 | 13.3 | 8.9 | 991.7 | 22.5 |
| W2 | STPL | 82 | 925 | 0.5 | 10.8 | 4.1 | 994.6 | 9.3 |
| W2 | STPL | 82 | 926 | 0.2 | 12.3 | 6.6 | 988.5 | 19.0 |
| W2 | STPL | 82 | 927 | 0.4 | 13.2 | 8.1 | 986.7 | 18.8 |
| W2 | STPL | 82 | 928 | 0.8 | 18.4 | 12.2 | 983.0 | 28.9 |
| W2 | STPL | 82 | 929 | 0.8 | 21.1 | 15.9 | 987.8 | 24.7 |
| W2 | STPL | 82 | 930 | 0.8 | 15.0 | 7.3 | 995.7 | 14.6 |
| W2 | STPL | 8210 | 1 | 1.0 | 12.9 | 7.6 | 994.4 | 18.3 |
| W2 | STPL | 8210 | 2 | 0.9 | 13.5 | 10.6 | 985.0 | 18.8 |
| W2 | STPL | 8210 | 3 | 0.2 | 12.5 | 7.1 | 990.0 | 10.4 |
| W2 | STPL | 8210 | 4 | 0.4 | 15.5 | 8.6 | 989.4 | 16.6 |
| W2 | STPL | 8210 | 5 | 0.8 | 17.3 | 11.9 | 990.2 | 15.1 |
| W2 | STPL | 8210 | 6 | 1.0 | 16.0 | 12.3 | 984.2 | 21.6 |
| W2 | STPL | 8210 | 7 | 0.8 | 7.5 | 3.5 | 982.7 | 18.4 |
| W2 | STPL | 8210 | 8 | 0.7 | 9.9 | 5.6 | 985.0 | 17.1 |
| W2 | STPL | 8210 | 9 | 1.0 | 12.5 | 8.7 | 977.6 | 26.5 |
| W2 | STPL | 821010 | | 1.0 | 11.2 | 7.6 | 979.1 | 13.2 |
| W2 | STPL | 821011 | | 1.0 | 9.1 | 5.8 | 985.1 | 16.8 |
| W2 | STPL | 821012 | | 1.0 | 9.3 | 6.1 | 988.2 | 16.2 |
| W2 | STPL | 821013 | | 1.0 | 9.3 | 5.2 | 990.8 | 16.0 |
| W2 | STPL | 821014 | | 0.5 | 12.9 | 5.4 | 984.2 | 20.1 |
| W2 | STPL | 821015 | | 0.2 | 10.9 | 3.0 | 989.2 | 22.1 |
| W2 | STPL | 821016 | | 0.5 | 7.2 | -0.4 | 995.0 | 12.0 |
| W2 | STPL | 821017 | | 0.4 | 12.2 | 3.7 | 988.1 | 21.3 |
| W2 | STPL | 821018 | | 0.7 | 13.5 | 7.8 | 985.6 | 14.8 |
| W2 | STPL | 821019 | | 1.0 | 8.0 | 4.9 | 985.9 | 28.6 |
| W2 | STPL | 821020 | | 0.7 | 2.3 | -3.0 | 989.8 | 27.2 |
| W2 | STPL | 821021 | | 0.4 | 2.0 | -4.2 | 1000.4 | 8.2 |
| W2 | STPL | 821022 | | 0.1 | 4.9 | -0.9 | 999.5 | 16.7 |
| W2 | STPL | 821023 | | 0.2 | 8.3 | 0.7 | 998.9 | 18.5 |
| W2 | STPL | 821024 | | 0.3 | 10.4 | 0.8 | 998.2 | 22.0 |
| W2 | STPL | 821025 | | 0.3 | 11.6 | 2.2 | 997.4 | 15.5 |
| W2 | STPL | 821026 | | 0.7 | 11.3 | 1.1 | 995.9 | 19.4 |
| W2 | STPL | 821027 | | 0.9 | 10.8 | 2.6 | 986.1 | 26.7 |
| W2 | STPL | 821028 | | 1.0 | 10.6 | 5.9 | 978.4 | 18.8 |
| W2 | STPL | 821029 | | 0.9 | 10.6 | 2.1 | 977.4 | 28.1 |
| W2 | STPL | 821030 | | 0.4 | 6.0 | -2.9 | 986.2 | 11.6 |
| W2 | STPL | 821031 | | 0.8 | 6.4 | 0.7 | 987.0 | 4.8 |
| W2 | STPL | 8211 | 1 | 0.8 | 8.7 | 5.4 | 985.6 | 10.0 |
| W2 | STPL | 8211 | 2 | 0.8 | 6.5 | 3.4 | 984.7 | 9.6 |
| W2 | STPL | 8211 | 3 | 1.0 | 0.4 | -4.3 | 986.2 | 32.0 |
| W2 | STPL | 8211 | 4 | 1.0 | -1.4 | -6.1 | 987.2 | 29.7 |
| W2 | STPL | 8211 | 5 | 1.0 | -1.8 | -6.8 | 990.2 | 21.4 |
| W2 | STPL | 8211 | 6 | 0.7 | 1.3 | -5.1 | 987.0 | 14.7 |
| W2 | STPL | 8211 | 7 | 0.5 | 5.4 | -0.5 | 985.0 | 15.8 |
| W2 | STPL | 8211 | 8 | 0.7 | 2.1 | -3.8 | 997.0 | 15.7 |
| W2 | STPL | 8211 | 9 | 1.0 | 2.5 | -0.5 | 998.5 | 23.8 |
| W2 | STPL | 821110 | | 1.0 | 3.3 | 0.6 | 987.9 | 20.5 |
| W2 | STPL | 821111 | | 1.0 | 2.7 | -0.2 | 977.3 | 19.1 |
| W2 | STPL | 821112 | | 0.7 | -2.0 | -9.4 | 980.0 | 40.4 |
| W2 | STPL | 821113 | | 0.8 | -6.7 | -13.5 | 992.2 | 14.5 |
| W2 | STPL | 821114 | | 0.5 | -7.7 | -11.6 | 992.9 | 16.8 |
| W2 | STPL | 821115 | | 0.3 | -2.7 | -7.9 | 987.5 | 23.8 |
| W2 | STPL | 821116 | | 0.1 | -1.9 | -5.8 | 984.7 | 8.2 |
| W2 | STPL | 821117 | | 0.5 | 0.3 | -3.6 | 985.8 | 15.4 |
| W2 | STPL | 821118 | | 0.4 | 5.6 | 1.6 | 986.6 | 20.4 |
| W2 | STPL | 821119 | | 1.0 | 10.1 | 8.1 | 981.5 | 20.2 |
| W2 | STPL | 821120 | | 1.0 | 10.8 | 4.6 | 978.0 | 29.8 |

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|----------|-------|--------|-----|-------|-------|--------|------|-------|---|-------|
| W2 | STPL | 821121 | 0.5 | 1.3 | -7.0 | 992.2 | 11.8 | | | |
| W2 | STPL | 821122 | 1.0 | .5 | -4.7 | 991.7 | 18.2 | | | |
| W2 | STPL | 821123 | 0.3 | -9.9 | -14.4 | 992.1 | 21.9 | | | |
| W2 | STPL | 821124 | 0.0 | -6.9 | -11.9 | 994.7 | 22.8 | | | |
| W2 | STPL | 821125 | 0.6 | -2.3 | -6.5 | 992.3 | 10.5 | | | |
| W2 | STPL | 821126 | 0.2 | -8.2 | -16.2 | 998.4 | 18.1 | | | |
| W2 | STPL | 821127 | 0.4 | -5.8 | -12.3 | 996.2 | 15.1 | | | |
| W2 | STPL | 821128 | 1.0 | -1.2 | -4.4 | 977.1 | 10.6 | | | |
| W2 | STPL | 821129 | 1.0 | 1.1 | -0.8 | 976.1 | 10.9 | | | |
| W2 | STPL | 821130 | 1.0 | 3.3 | 1.3 | 977.5 | 18.2 | | | |
| W2 | STPL | 8212 1 | 1.0 | 6.8 | 5.2 | 979.5 | 18.5 | | | |
| W2 | STPL | 8212 2 | 0.7 | 13.0 | 9.7 | 978.4 | 25.1 | | | |
| W2 | STPL | 8212 3 | 0.5 | 1.5 | -2.5 | 982.7 | 16.4 | | | |
| W2 | STPL | 8212 4 | 1.0 | 0.9 | -2.3 | 986.5 | 10.0 | | | |
| W2 | STPL | 8212 5 | 0.8 | 1.4 | -2.9 | 979.1 | 19.4 | | | |
| W2 | STPL | 8212 6 | 0.2 | -1.9 | -8.2 | 987.1 | 19.8 | | | |
| W2 | STPL | 8212 7 | 0.6 | -7.5 | -14.4 | 1002.4 | 12.7 | | | |
| W2 | STPL | 8212 8 | 0.4 | -10.7 | -19.4 | 1009.0 | 17.1 | | | |
| W2 | STPL | 8212 9 | 0.6 | -10.9 | -20.6 | 998.1 | 21.8 | | | |
| W2 | STPL | 821210 | 0.3 | -5.9 | -13.0 | 988.3 | 23.2 | | | |
| W2 | STPL | 821211 | 0.0 | -13.2 | -18.6 | 994.8 | 15.7 | | | |
| W2 | STPL | 821212 | 0.3 | -10.5 | -17.7 | 988.2 | 12.9 | | | |
| W2 | STPL | 821213 | 0.6 | -2.0 | -6.7 | 975.8 | 19.3 | | | |
| W2 | STPL | 821214 | 1.0 | 0.1 | -1.7 | 978.1 | 12.7 | | | |
| W2 | STPL | 821215 | 0.9 | -1.6 | -3.8 | 988.6 | 13.6 | | | |
| W2 | STPL | 821216 | 0.0 | -6.4 | -9.0 | 994.7 | 6.3 | | | |
| W2 | STPL | 821217 | 0.8 | -2.0 | -5.0 | 981.2 | 20.2 | | | |
| W2 | STPL | 821218 | 1.0 | 0.8 | -1.8 | 971.0 | 15.1 | | | |
| W2 | STPL | 821219 | 1.0 | -0.9 | -5.2 | 981.2 | 22.0 | | | |
| W2 | STPL | 821220 | 0.5 | -3.2 | -7.0 | 985.7 | 11.4 | | | |
| W2 | STPL | 821221 | 0.7 | -3.9 | -6.8 | 983.7 | 16.9 | | | |
| W2 | STPL | 821222 | 0.8 | 0.2 | -2.6 | 978.8 | 19.4 | | | |
| W2 | STPL | 821223 | 1.0 | 2.5 | 0.4 | 976.2 | 16.1 | | | |
| W2 | STPL | 821224 | 1.0 | 3.0 | 0.7 | 981.4 | 17.4 | | | |
| W2 | STPL | 821225 | 0.7 | -1.2 | -3.9 | 983.1 | 24.1 | | | |
| W2 | STPL | 821226 | 0.0 | -5.3 | -9.1 | 994.0 | 10.1 | | | |
| W2 | STPL | 821227 | 0.9 | -2.0 | -4.0 | 985.2 | 17.1 | | | |
| W2 | STPL | 821228 | 0.9 | -8.4 | -10.6 | 974.6 | 37.6 | | | |
| W2 | STPL | 821229 | 0.5 | -15.0 | -18.1 | 986.7 | 10.8 | | | |
| W2 | STPL | 821230 | 0.9 | -11.0 | -12.8 | 987.5 | 10.7 | | | |
| W2 | STPL | 821231 | 0.8 | -5.5 | -9.1 | 984.2 | 19.1 | | | |
| FISH HAR | | 8760 | 2 | | | | | | | |
| | | | 0. | 0. | | | | | | |
| | | | 0. | 0. | | | | | | |
| OUTL1 | | 24 | 354 | | | | | | | |
| OUTL3 EG | 81 12 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | | |
| OUTL3 EG | 81 13 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | | |
| OUTL3 EG | 81 14 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | | |
| OUTL3 EG | 81 15 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | | |
| OUTL3 EG | 81 16 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | | |
| OUTL3 EG | 81 17 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | | |
| OUTL3 EG | 81 18 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | | |
| OUTL3 EG | 81 19 | | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 20 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 21 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 22 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 23 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 24 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 25 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 26 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 27 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 28 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 29 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 30 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 31 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 32 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 33 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 34 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 35 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 36 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 37 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 38 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 39 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 40 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 41 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 42 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 43 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 44 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 45 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 46 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 47 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 48 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 49 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

| | | | | | | | | | |
|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 50 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 51 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 52 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 53 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 54 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 55 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 56 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 57 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 58 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 59 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 60 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 61 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 62 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 63 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 64 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 65 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 66 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 67 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 68 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL082 | .00 | | | | | | | | |
| OUTL3 EG | 81 69 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 70 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 71 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 72 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .00 | | | | | | | | |
| OUTL3 EG | 81 73 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81 74 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81 75 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81 76 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81 77 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81 78 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81 79 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|-----|---|-------|---|-------|---|-------|
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81 80 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81 81 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81 82 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81 83 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .736 | | | | | | | | |
| OUTL3 EG | 81 84 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.44 | | | | | | | | |
| OUTL3 EG | 81 85 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 3.85 | | | | | | | | |
| OUTL3 EG | 81 86 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 3.14 | | | | | | | | |
| OUTL3 EG | 81 87 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.87 | | | | | | | | |
| OUTL3 EG | 81 88 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.44 | | | | | | | | |
| OUTL3 EG | 81 89 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 22.0 | | | | | | | | |
| OUTL3 EG | 81 90 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 35.1 | | | | | | | | |
| OUTL3 EG | 81 91 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 19.4 | | | | | | | | |
| OUTL3 EG | 81 92 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 5.27 | | | | | | | | |
| OUTL3 EG | 81 93 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.13 | | | | | | | | |
| OUTL3 EG | 81 94 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 3.57 | | | | | | | | |
| OUTL3 EG | 81 95 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.01 | | | | | | | | |
| OUTL3 EG | 81 96 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EC | 1.02 | | | | | | | | |
| OUTL3 EG | 81 97 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .736 | | | | | | | | |
| OUTL3 EG | 81 98 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81 99 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81100 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81101 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81102 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81103 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81104 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81105 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81106 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81107 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.13 | | | | | | | | |
| OUTL3 EG | 81108 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.98 | | | | | | | | |
| OUTL3 EG | 81109 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|-----|---|-------|---|-------|---|-------|
| WRFL02EG | 1.81 | | | | | | | | |
| OUTL3 EG | 81110 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.14 | | | | | | | | |
| OUTL3 EG | 81111 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.29 | | | | | | | | |
| OUTL3 EG | 81112 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.33 | | | | | | | | |
| OUTL3 EG | 81113 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .62 | | | | | | | | |
| OUTL3 EG | 81114 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .536 | | | | | | | | |
| OUTL3 EG | 81115 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .103 | | | | | | | | |
| OUTL3 EG | 81116 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .103 | | | | | | | | |
| OUTL3 EG | 81117 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .103 | | | | | | | | |
| OUTL3 EG | 81118 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .103 | | | | | | | | |
| OUTL3 EG | 81119 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .103 | | | | | | | | |
| OUTL3 EG | 81120 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .103 | | | | | | | | |
| OUTL3 EG | 81121 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .160 | | | | | | | | |
| OUTL3 EG | 81122 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .160 | | | | | | | | |
| OUTL3 EG | 81123 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .160 | | | | | | | | |
| OUTL3 EG | 81124 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .160 | | | | | | | | |
| OUTL3 EG | 81125 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .636 | | | | | | | | |
| OUTL3 EG | 81126 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.49 | | | | | | | | |
| OUTL3 EG | 81127 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.34 | | | | | | | | |
| OUTL3 EG | 81128 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.34 | | | | | | | | |
| OUTL3 EG | 81129 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.02 | | | | | | | | |
| OUTL3 EG | 81130 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.05 | | | | | | | | |
| OUTL3 EG | 81131 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.34 | | | | | | | | |
| OUTL3 EG | 81132 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.02 | | | | | | | | |
| OUTL3 EG | 81133 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .636 | | | | | | | | |
| OUTL3 EG | 81134 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.77 | | | | | | | | |
| OUTL3 EG | 81135 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.34 | | | | | | | | |
| OUTL3 EG | 81136 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.77 | | | | | | | | |
| OUTL3 EG | 81137 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.02 | | | | | | | | |
| OUTL3 EG | 81138 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .736 | | | | | | | | |
| OUTL3 EG | 81139 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|-----|---|-------|---|-------|---|-------|
| WRFL02EG | .736 | | | | | | | | |
| OUTL3 EG | 81140 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .736 | | | | | | | | |
| OUTL3 EG | 81141 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .736 | | | | | | | | |
| OUTL3 EG | 81142 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81143 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81144 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81145 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81146 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81147 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81148 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81149 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81150 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81151 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81152 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .227 | | | | | | | | |
| OUTL3 EG | 81153 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81154 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81155 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81156 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .142 | | | | | | | | |
| OUTL3 EG | 81157 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81158 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81159 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81160 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81161 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81162 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81163 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81164 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81165 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81166 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81167 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .142 | | | | | | | | |
| OUTL3 EG | 81168 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .142 | | | | | | | | |
| OUTL3 EG | 81169 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|-----|---|-------|---|-------|---|-------|
| WRFL02EG | .142 | | | | | | | | |
| OUTL3 EG | 81170 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81171 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81172 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81173 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81174 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81175 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81176 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81177 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81178 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81179 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81180 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81181 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81182 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81183 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81184 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81185 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81186 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81187 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81188 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81189 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81190 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .000 | | | | | | | | |
| OUTL3 EG | 81191 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81192 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .142 | | | | | | | | |
| OUTL3 EG | 81193 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81194 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81195 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81196 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81197 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81198 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81199 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

| | | | | | | | | | |
|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81200 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81201 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81202 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .000 | | | | | | | | |
| OUTL3 EG | 81203 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .000 | | | | | | | | |
| OUTL3 EG | 81204 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81205 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81206 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81207 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81208 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81209 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81210 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81211 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81212 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81213 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81214 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81215 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81216 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.02 | | | | | | | | |
| OUTL3 EG | 81217 | 1 | .45 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81218 | 1 | .45 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81219 | 1 | .25 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81220 | 1 | .25 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81221 | 1 | .25 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81222 | 1 | .25 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81223 | 1 | 1.2 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81224 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81225 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81226 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81227 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81228 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81229 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81230 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81231 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81232 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81233 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81234 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81235 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81236 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81237 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81238 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81239 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81240 | 1 | .330 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81241 | 1 | .36 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81242 | 1 | .36 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81243 | 1 | .36 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81244 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .000 | | | | | | | | |
| OUTL3 EG | 81245 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .000 | | | | | | | | |
| OUTL3 EG | 81246 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81247 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81248 | 1 | .368 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81249 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81250 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81251 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81252 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81253 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81254 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81255 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81256 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81257 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81258 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .312 | | | | | | | | |
| OUTL3 EG | 81259 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|-----|---|-------|---|-------|---|-------|
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81260 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81261 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81262 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81263 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .057 | | | | | | | | |
| OUTL3 EG | 81264 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81265 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81266 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81267 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81268 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81269 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81270 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81271 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81272 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81273 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81274 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81275 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81276 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81277 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81278 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81279 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .028 | | | | | | | | |
| OUTL3 EG | 81280 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81281 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .255 | | | | | | | | |
| OUTL3 EG | 81282 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .283 | | | | | | | | |
| OUTL3 EG | 81283 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .255 | | | | | | | | |
| OUTL3 EG | 81284 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81285 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81286 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81287 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81288 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81289 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81290 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81291 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81292 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .085 | | | | | | | | |
| OUTL3 EG | 81293 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.80 | | | | | | | | |
| OUTL3 EG | 81294 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.30 | | | | | | | | |
| OUTL3 EG | 81295 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.04 | | | | | | | | |
| OUTL3 EG | 81296 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .651 | | | | | | | | |
| OUTL3 EG | 81297 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .368 | | | | | | | | |
| OUTL3 EG | 81298 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81299 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81300 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81301 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81302 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81303 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81304 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81305 | 1 | .38 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .170 | | | | | | | | |
| OUTL3 EG | 81306 | 1 | 2.4 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81307 | 1 | .11 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81308 | 1 | .11 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81309 | 1 | .34 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81310 | 1 | .34 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81311 | 1 | .34 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81312 | 1 | .34 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81313 | 1 | .34 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 0.0 | | | | | | | | |
| OUTL3 EG | 81314 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .000 | | | | | | | | |
| OUTL3 EG | 81315 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.75 | | | | | | | | |
| OUTL3 EG | 81316 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 12.5 | | | | | | | | |
| OUTL3 EG | 81317 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 14.1 | | | | | | | | |
| OUTL3 EG | 81318 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 4.76 | | | | | | | | |
| OUTL3 EG | 81319 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

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|----------|-------|---|------|---|-------|---|-------|---|-------|
| WRFL02EG | 1.25 | | | | | | | | |
| OUTL3 EG | 81320 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .510 | | | | | | | | |
| OUTL3 EG | 81321 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .368 | | | | | | | | |
| OUTL3 EG | 81322 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .311 | | | | | | | | |
| OUTL3 EG | 81323 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .311 | | | | | | | | |
| OUTL3 EG | 81324 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81325 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.49 | | | | | | | | |
| OUTL3 EG | 81326 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.83 | | | | | | | | |
| OUTL3 EG | 81327 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .963 | | | | | | | | |
| OUTL3 EG | 81328 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .623 | | | | | | | | |
| OUTL3 EG | 81329 | 1 | .390 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .453 | | | | | | | | |
| OUTL3 EG | 81330 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .311 | | | | | | | | |
| OUTL3 EG | 81331 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .227 | | | | | | | | |
| OUTL3 EG | 81332 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .227 | | | | | | | | |
| OUTL3 EG | 81333 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .227 | | | | | | | | |
| OUTL3 EG | 81334 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81335 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81336 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81337 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81338 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81339 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81340 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81341 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81342 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .198 | | | | | | | | |
| OUTL3 EG | 81343 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81344 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81345 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81346 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81347 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81348 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81349 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |

| | | | | | | | | | |
|----------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81350 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81351 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81352 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81353 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81354 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81355 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81356 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81357 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81358 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | .113 | | | | | | | | |
| OUTL3 EG | 81359 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.15 | | | | | | | | |
| OUTL3 EG | 81360 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 3.85 | | | | | | | | |
| OUTL3 EG | 81361 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 2.01 | | | | | | | | |
| OUTL3 EG | 81362 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.30 | | | | | | | | |
| OUTL3 EG | 81363 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRL02EG | .736 | | | | | | | | |
| OUTL3 EG | 81364 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.70 | | | | | | | | |
| OUTL3 EG | 81365 | 1 | .39 | 2 | 0.000 | 3 | 0.000 | 4 | 0.000 |
| WRFL02EG | 1.70 | | | | | | | | |
| Q1 TRIB1 | 24 | 36 | | | | | | | |
| | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 |
| | 0.288 | 0.280 | 0.280 | 0.280 | 0.280 | 0.280 | 0.280 | 0.280 | 0.294 |
| | 0.294 | 0.294 | 0.294 | 0.294 | 0.294 | 0.294 | 0.294 | 0.294 | 0.294 |
| | 0.294 | 0.294 | 0.294 | 0.294 | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 |
| | 0.293 | 0.293 | 0.290 | 0.290 | 0.290 | 0.290 | 0.290 | 0.290 | 0.290 |
| | 0.282 | 0.282 | 0.282 | 0.327 | 0.327 | 0.327 | 0.327 | 0.327 | 0.327 |
| | 0.327 | 0.327 | 0.327 | 0.327 | 0.327 | 0.327 | 0.327 | 0.340 | 0.385 |
| | 0.409 | 0.409 | 0.409 | 0.485 | 0.485 | 0.485 | 0.710 | 0.838 | 2.022 |
| | 3.639 | 3.544 | 2.886 | 5.057 | 5.588 | 23.880 | 33.623 | 16.157 | 2.973 |
| | 1.353 | 3.640 | 2.163 | 1.210 | 0.943 | 0.810 | 0.748 | 0.748 | 0.748 |
| | 0.748 | 0.748 | 0.748 | 0.748 | 3.570 | 7.139 | 4.947 | 2.056 | 1.513 |
| | 1.749 | 1.749 | 0.942 | 0.704 | 0.362 | 0.362 | 0.238 | 0.238 | 0.238 |
| | 0.252 | 0.484 | 0.484 | 0.969 | 0.969 | 1.472 | 2.234 | 3.153 | 1.794 |
| | 0.553 | 4.565 | 1.605 | 0.264 | 0.624 | 0.527 | 2.228 | 1.687 | 0.886 |
| | 0.716 | 1.583 | 0.749 | 0.688 | 0.618 | 0.618 | 0.618 | 0.618 | 0.618 |
| | 0.618 | 0.605 | 0.605 | 0.605 | 0.605 | 0.532 | 0.507 | 0.482 | 0.475 |
| | 0.415 | 0.428 | 0.428 | 0.605 | 0.605 | 0.532 | 0.507 | 0.428 | 0.428 |
| | 0.404 | 0.428 | 0.452 | 0.452 | 0.444 | 0.422 | 0.444 | 0.444 | 0.421 |
| | 0.397 | 0.397 | 0.417 | 0.393 | 0.393 | 0.372 | 0.393 | 0.393 | 0.393 |
| | 0.365 | 0.365 | 0.365 | 0.365 | 0.342 | 0.342 | 0.342 | 0.325 | 0.395 |
| | 0.442 | 0.419 | 0.372 | 0.325 | 0.325 | 0.395 | 0.372 | 0.349 | 0.349 |
| | 0.325 | 0.325 | 0.349 | 0.347 | 0.323 | 0.323 | 0.486 | 0.392 | 0.347 |
| | 0.323 | 0.296 | 0.273 | 0.318 | 0.318 | 0.318 | 0.192 | 0.342 | 0.335 |
| | 0.312 | 0.312 | 0.312 | 0.312 | 0.134 | 0.312 | 0.312 | 0.312 | 0.311 |
| | 0.312 | 0.312 | 0.312 | 0.312 | 0.310 | 0.310 | 0.310 | 0.310 | 0.310 |
| | 0.332 | 0.332 | 0.339 | 0.339 | 0.429 | 0.429 | 0.429 | 0.519 | 0.564 |

| | | | | | | | | | |
|----------|----------|---------|---------|---------|---------|---------|---------|---------|----------|
| | 0.359 | 0.314 | 0.292 | 0.314 | 0.314 | 0.314 | 0.314 | 0.402 | 0.426 |
| | 0.640 | 0.686 | 0.592 | 0.473 | 0.402 | 0.298 | 0.366 | 0.366 | 0.366 |
| | 0.344 | 0.320 | 0.320 | 0.318 | 0.318 | 0.318 | 0.318 | 0.318 | 0.318 |
| | 0.342 | 0.363 | 0.363 | 0.363 | 0.363 | 0.363 | 0.436 | 0.678 | 0.772 |
| | 0.498 | 0.473 | 0.398 | 0.498 | 0.423 | 0.423 | 0.463 | 0.463 | 0.463 |
| | 0.463 | 0.463 | 5.742 | 3.756 | 1.225 | 0.563 | 0.513 | 0.489 | 0.489 |
| | 0.489 | 0.489 | 0.489 | 0.489 | 0.489 | 0.102 | 0.792 | 0.102 | 0.101 |
| | 0.623 | 0.623 | 0.623 | 0.623 | 0.623 | 0.850 | 5.870 | 15.834 | 11.657 |
| | 7.972 | 0.102 | 1.196 | 1.060 | 1.006 | 0.843 | 0.979 | 4.732 | 2.121 |
| | 0.294 | 0.834 | 0.687 | 0.564 | 0.492 | 0.492 | 0.492 | 0.492 | 0.100 |
| ALG1 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| ALG2 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| ALG3 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T182ALK | 336 | 3 | | | | | | | |
| | 205.140 | 201.380 | 199.060 | 196.740 | 161.710 | 126.620 | 133.030 | 124.400 | 261.000 |
| | 223.700 | 280.000 | 193.220 | 196.100 | 191.340 | 192.460 | 193.460 | 186.040 | 195.100 |
| | 198.800 | 188.140 | 198.100 | 198. | 198. | 198. | | | |
| T182DOC | 336 | 3 | | | | | | | |
| | 1.094 | 1.640 | 1.464 | 1.294 | 6.542 | 11.790 | 5.600 | 4.292 | 1.958 |
| | 5.646 | 1.482 | 1.570 | 1.582 | 1.676 | 2.436 | 1.764 | 1.400 | 1.018 |
| | 1.300 | 0.824 | 1.658 | 1.6 | 1.6 | 1.6 | | | |
| T182NH4 | 336 | 3 | | | | | | | |
| | 0.012 | 0.011 | 0.008 | 0.004 | 0.417 | 0.830 | 0.416 | 0.049 | 0.028 |
| | 0.007 | 0.016 | 0.043 | 0.000 | 0.029 | 0.038 | 0.031 | 0.019 | 0.021 |
| | 0.009 | 0.019 | 0.000 | | | | | | |
| T182N03 | 336 | 3 | | | | | | | |
| | 1.954 | 1.960 | 1.776 | 1.591 | 1.426 | 1.260 | 1.363 | 1.466 | 0.887 |
| | 1.043 | 0.941 | 1.184 | 0.718 | 0.475 | 1.005 | 0.903 | 0.936 | 1.061 |
| | 1.029 | 1.941 | 1.092 | 1.0 | 1.0 | 1.0 | | | |
| WQ1 DUMY | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T182COLI | 336 | 3 | | | | | | | |
| | 3.290 | 1.880 | 2.632 | 3.384 | 260.246 | 517.108 | 9.510 | 141.576 | 1098.150 |
| | 2055.200 | 31.980 | 33.120 | 46.640 | 61.640 | 75.460 | 31.580 | 53.100 | 28.800 |
| | 54.120 | 32.870 | 12.220 | 12. | 12. | 12. | | | |
| DET | 8760 | 1 | | | | | | | |
| | 2. | 2. | | | | | | | |
| T182DO | 168 | 6 | | | | | | | |
| | 11.648 | 11.828 | 12.164 | 13.282 | 12.034 | 14.448 | 12.196 | 13.466 | 13.706 |
| | 12.508 | 13.284 | 12.918 | 12.552 | 11.472 | 13.118 | 12.320 | 10.206 | 10.772 |
| | 11.400 | 11.050 | 9.790 | 8.662 | 8.832 | 8.902 | 8.156 | 7.186 | 7.896 |
| | 8.602 | 8.394 | 7.896 | 9.390 | 10.814 | 7.612 | 7.836 | 10.120 | 8.506 |
| | 8.694 | 9.932 | 8.076 | 8.884 | 8.634 | 9. | 9. | 9. | 9. |
| | 9. | 9. | 9. | | | | | | |
| T182SRP | 336 | 36 | | | | | | | |
| | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 |
| | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 |
| | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 |
| | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 |
| | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 |
| | 0.014 | 0.014 | 0.014 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 |
| | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | 0.015 | 0.015 | 0.016 | 0.017 |
| | 0.017 | 0.017 | 0.017 | 0.016 | 0.016 | 0.016 | 0.021 | 0.024 | 0.051 |
| | 0.087 | 0.087 | 0.072 | 0.122 | 0.134 | 0.557 | 0.782 | 0.379 | 0.072 |
| | 0.036 | 0.087 | 0.054 | 0.033 | 0.027 | 0.024 | 0.024 | 0.024 | 0.024 |
| | 0.024 | 0.024 | 0.024 | 0.024 | 0.084 | 0.162 | 0.114 | 0.050 | 0.039 |
| | 0.041 | 0.041 | 0.028 | 0.026 | 0.015 | 0.015 | 0.012 | 0.012 | 0.012 |

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|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.012 | 0.017 | 0.017 | 0.029 | 0.029 | 0.042 | 0.060 | 0.077 | 0.046 | |
| 0.016 | 0.107 | 0.042 | 0.011 | 0.020 | 0.015 | 0.056 | 0.044 | 0.025 | |
| 0.019 | 0.041 | 0.022 | 0.023 | 0.021 | 0.021 | 0.021 | 0.021 | 0.021 | |
| 0.021 | 0.022 | 0.022 | 0.022 | 0.022 | 0.020 | 0.019 | 0.018 | 0.018 | |
| 0.017 | 0.017 | 0.017 | 0.021 | 0.021 | 0.019 | 0.019 | 0.017 | 0.017 | |
| 0.016 | 0.017 | 0.018 | 0.018 | 0.018 | 0.017 | 0.018 | 0.018 | 0.017 | |
| 0.017 | 0.017 | 0.017 | 0.017 | 0.017 | 0.016 | 0.017 | 0.017 | 0.017 | |
| 0.016 | 0.016 | 0.016 | 0.016 | 0.015 | 0.015 | 0.015 | 0.015 | 0.017 | |
| 0.018 | 0.017 | 0.016 | 0.015 | 0.015 | 0.017 | 0.016 | 0.015 | 0.015 | |
| 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.019 | 0.017 | 0.015 | |
| 0.015 | 0.014 | 0.014 | 0.015 | 0.015 | 0.015 | 0.008 | 0.015 | 0.016 | |
| 0.015 | 0.015 | 0.015 | 0.015 | 0.010 | 0.015 | 0.015 | 0.015 | 0.015 | |
| 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | |
| 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | |
| 0.016 | 0.016 | 0.016 | 0.016 | 0.018 | 0.018 | 0.018 | 0.021 | 0.022 | |
| 0.016 | 0.015 | 0.014 | 0.015 | 0.015 | 0.015 | 0.015 | 0.017 | 0.017 | |
| 0.023 | 0.024 | 0.022 | 0.018 | 0.017 | 0.014 | 0.016 | 0.016 | 0.016 | |
| 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | |
| 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 | 0.017 | 0.023 | 0.025 | |
| 0.018 | 0.017 | 0.016 | 0.018 | 0.016 | 0.016 | 0.016 | 0.016 | 0.016 | |
| 0.016 | 0.016 | 0.133 | 0.089 | 0.033 | 0.020 | 0.019 | 0.018 | 0.018 | |
| 0.018 | 0.018 | 0.018 | 0.018 | 0.018 | 0.007 | 0.027 | 0.007 | 0.007 | |
| 0.007 | 0.007 | 0.007 | 0.007 | 0.007 | 0.012 | 0.135 | 0.356 | 0.263 | |
| 0.182 | 0.007 | 0.032 | 0.029 | 0.028 | 0.024 | 0.027 | 0.111 | 0.053 | |
| 0.013 | 0.027 | 0.023 | 0.020 | 0.018 | 0.018 | 0.018 | 0.018 | 0.007 | |
| T182SI | 336 | 3 | | | | | | | |
| | 12.639 | 13.709 | 12.714 | 11.710 | 10.700 | 9.691 | 9.335 | 8.810 | 8.456 |
| | 5.103 | 3.851 | 8.870 | 11.722 | 12.522 | 12.274 | 11.222 | 11.551 | 11.106 |
| TEMP | 24 | 36 | | | | | | | |
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| 10 | | | | | | | | | |
| | 7.00 | 8.16 | 8.16 | 9.90 | 11.06 | 9.90 | 9.90 | 8.16 | 7.00 |
| | 8.16 | 9.32 | 9.32 | 9.32 | 9.32 | 9.90 | 9.32 | 9.32 | 9.32 |
| | 9.32 | 9.32 | 9.90 | 9.90 | 9.90 | 16.28 | 12.22 | 12.80 | 9.90 |
| | 13.38 | 16.86 | 11.06 | 10.48 | 16.86 | 19.76 | 16.86 | 11.06 | 10.48 |
| | 18.02 | 11.06 | 10.48 | 9.90 | 9.32 | 10.48 | 10.94 | 12.22 | 13.96 |
| | 14.54 | 14.54 | 13.38 | 13.38 | 12.80 | 12.80 | 12.22 | 12.22 | 12.22 |
| | 12.80 | 12.22 | 15.12 | 13.38 | 12.22 | 13.96 | 13.96 | 14.54 | 13.96 |
| | 11.64 | 12.80 | 12.80 | 13.38 | 12.80 | 12.22 | 12.80 | 13.96 | 13.38 |
| | 13.96 | 13.38 | 15.70 | 15.12 | 15.70 | 18.02 | 17.44 | 17.44 | 16.86 |
| | 16.86 | 20.34 | 20.34 | 22.31 | 24.40 | 22.08 | 19.76 | 19.76 | 18.02 |
| | 19.18 | 20.34 | 18.60 | 20.92 | 19.18 | 19.76 | 23.24 | 22.08 | 20.34 |
| | 20.92 | 19.76 | 16.86 | 18.60 | 19.76 | 20.34 | 17.44 | 16.28 | 14.54 |
| | 14.54 | 15.70 | 14.54 | 13.38 | 13.38 | 16.28 | 15.70 | 18.02 | 16.28 |
| | 17.44 | 17.44 | 16.28 | 15.70 | 15.70 | 15.70 | 16.28 | 16.28 | 16.28 |
| | 16.28 | 16.28 | 16.28 | 16.28 | 16.28 | 16.28 | 16.28 | 15.12 | 16.86 |
| | 16.86 | 16.86 | 15.70 | 16.86 | 15.70 | 16.86 | 17.44 | 16.86 | 16.86 |
| | 16.28 | 16.86 | 18.02 | 17.44 | 17.44 | 18.02 | 18.02 | 16.28 | 16.86 |
| | 16.28 | 11.64 | 9.32 | 12.80 | 15.12 | 16.86 | 16.28 | 16.86 | 16.86 |
| | 17.44 | 17.44 | 16.86 | 18.60 | 18.02 | 17.44 | 16.86 | 16.86 | 16.86 |
| | 16.86 | 17.09 | 18.83 | 19.41 | 18.37 | 16.05 | 12.92 | 10.13 | 9.09 |
| | 9.09 | 9.09 | 8.86 | 8.39 | 8.28 | 9.20 | 9.09 | 7.23 | 8.04 |

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|----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 8.86 | 8.39 | 7.29 | 6.94 | 6.64 | 5.61 | 6.30 | 7.12 | 7.46 |
| | 7.00 | 7.35 | 7.70 | 7.12 | 6.07 | 7.23 | 6.65 | 5.03 | 2.24 |
| | 2.01 | 3.17 | 4.45 | 4.10 | 3.95 | 3.90 | 3.70 | 4.20 | 4.10 |
| | 3.80 | 1.80 | 2.50 | 2.10 | 2.50 | 2.36 | 2.82 | 2.94 | 1.90 |
| | 1.78 | 1.08 | 0.85 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 | 1.40 |
| TDS | 8760 | 1 | | | | | | | |
| | 260. | 260. | | | | | | | |
| T182SS | 336 | 3 | | | | | | | |
| | 1.960 | 2.550 | 2.891 | 3.222 | 4.598 | 5.880 | 2.720 | 5.958 | 3.276 |
| | 12.820 | 0.778 | 1.180 | 1.650 | 2.120 | 1.958 | 3.258 | 1.342 | 0.658 |
| T182PH | 10.340 | 2.590 | 5.410 | 5.4 | 5.4 | 5.4 | | | |
| | 168 | 6 | | | | | | | |
| | 8.094 | 8.288 | 8.294 | 7.384 | 7.694 | 7.564 | 7.606 | 7.694 | 7.700 |
| | 7.806 | 7.718 | 7.906 | 8.094 | 8.200 | 8.400 | 8.400 | 8.300 | 8.112 |
| | 7.260 | 7.918 | 8.312 | 7.718 | 7.894 | 7.900 | 8.300 | 8.400 | 8.588 |
| | 8.376 | 7.248 | 8.200 | 8.200 | 7.900 | 7.976 | 7.906 | 7.888 | 7.894 |
| | 7.894 | 8.306 | 7.912 | 8.218 | 8.006 | 8.000 | 7.802 | 8. | 8. |
| | 8. | 8. | | | | | | | |
| ANATRIB1 | 336 | 25 | | | | | | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 9.00 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.20 | 0.00 | .0 | 9.00 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.15 | 0.00 | .0 | 9.00 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 8.53 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.05 | 0.00 | .0 | 10.50 | .0 | | |
| TRIB1 | 0.01 | 0.00 | 0.00 | 0.00 | .0 | 12.60 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.01 | 0.00 | .0 | 10.54 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.30 | 0.00 | .0 | 14.44 | .0 | | |
| TRIB1 | 0.09 | 0.00 | 0.40 | 0.00 | .0 | 9.87 | .0 | | |
| TRIB1 | 0.50 | 0.00 | 0.09 | 0.00 | .0 | 14.60 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 12.57 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 15.62 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 13.42 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 12.75 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 11.35 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 15.34 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.20 | 0.00 | .0 | 12.45 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 13.92 | .0 | | |
| TRIB1 | 0.48 | 0.00 | 0.40 | 0.00 | .0 | 14.16 | .0 | | |
| TRIB1 | 0.09 | 0.00 | 0.00 | 0.00 | .0 | 10.55 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.20 | 0.00 | .0 | 10.12 | .0 | | |
| TRIB1 | 0.01 | 0.00 | 0.01 | 0.00 | .0 | 9.55 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.19 | 0.00 | .0 | 8.43 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 8.87 | .0 | | |
| TRIB1 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 8.37 | .0 | | |
| Q1 TRIB2 | 24 | 36 | | | | | | | |
| | 0.080 | 0.080 | 0.080 | 0.080 | 0.080 | 0.080 | 0.080 | 0.080 | 0.080 |
| | 0.080 | 0.088 | 0.088 | 0.088 | 0.088 | 0.088 | 0.088 | 0.088 | 0.074 |
| | 0.074 | 0.074 | 0.074 | 0.074 | 0.074 | 0.074 | 0.074 | 0.074 | 0.074 |
| | 0.074 | 0.074 | 0.074 | 0.074 | 0.075 | 0.075 | 0.075 | 0.075 | 0.075 |
| | 0.075 | 0.075 | 0.082 | 0.082 | 0.082 | 0.082 | 0.082 | 0.082 | 0.082 |
| | 0.085 | 0.085 | 0.085 | 0.098 | 0.098 | 0.098 | 0.098 | 0.097 | 0.097 |
| | 0.097 | 0.097 | 0.097 | 0.097 | 0.097 | 0.085 | 0.085 | 0.085 | 0.096 |
| | 0.101 | 0.101 | 0.101 | 0.024 | 0.024 | 0.024 | 0.035 | 0.042 | 0.102 |
| | 0.184 | 0.246 | 0.201 | 0.350 | 0.388 | 1.660 | 2.338 | 1.123 | 0.147 |
| | 0.067 | 0.180 | 0.107 | 0.060 | 0.047 | 0.040 | 0.102 | 0.102 | 0.102 |
| | 0.102 | 0.102 | 0.102 | 0.102 | 0.110 | 0.221 | 0.153 | 0.064 | 0.047 |
| | 0.051 | 0.051 | 0.149 | 0.247 | 0.064 | 0.064 | 0.042 | 0.042 | 0.042 |
| | 0.029 | 0.056 | 0.056 | 0.111 | 0.111 | 0.169 | 0.256 | 0.187 | 0.106 |
| | 0.027 | 0.265 | 0.095 | 0.016 | 0.038 | 0.023 | 0.122 | 0.093 | 0.049 |
| | 0.034 | 0.086 | 0.041 | 0.102 | 0.099 | 0.099 | 0.099 | 0.099 | 0.099 |

| | | | | | | | | | |
|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 0.099 | 0.115 | 0.115 | 0.115 | 0.115 | 0.099 | 0.088 | 0.084 | 0.091 |
| | 0.087 | 0.089 | 0.089 | 0.089 | 0.089 | 0.089 | 0.089 | 0.089 | 0.089 |
| | 0.077 | 0.089 | 0.086 | 0.086 | 0.094 | 0.089 | 0.094 | 0.094 | 0.089 |
| | 0.084 | 0.084 | 0.093 | 0.088 | 0.088 | 0.089 | 0.088 | 0.088 | 0.088 |
| | 0.088 | 0.088 | 0.088 | 0.088 | 0.083 | 0.083 | 0.083 | 0.071 | 0.086 |
| | 0.096 | 0.091 | 0.081 | 0.071 | 0.071 | 0.086 | 0.081 | 0.076 | 0.076 |
| | 0.071 | 0.071 | 0.076 | 0.078 | 0.073 | 0.073 | 0.109 | 0.089 | 0.078 |
| | 0.073 | 0.072 | 0.067 | 0.078 | 0.078 | 0.078 | 0.022 | 0.084 | 0.090 |
| | 0.084 | 0.084 | 0.084 | 0.084 | 0.036 | 0.084 | 0.085 | 0.085 | 0.085 |
| | 0.085 | 0.085 | 0.085 | 0.085 | 0.086 | 0.086 | 0.086 | 0.086 | 0.086 |
| | 0.093 | 0.093 | 0.086 | 0.086 | 0.109 | 0.109 | 0.109 | 0.132 | 0.144 |
| | 0.094 | 0.082 | 0.077 | 0.082 | 0.082 | 0.082 | 0.082 | 0.079 | 0.084 |
| | 0.125 | 0.135 | 0.116 | 0.093 | 0.079 | 0.070 | 0.087 | 0.087 | 0.087 |
| | 0.081 | 0.076 | 0.076 | 0.078 | 0.078 | 0.078 | 0.078 | 0.078 | 0.078 |
| | 0.084 | 0.062 | 0.062 | 0.062 | 0.062 | 0.062 | 0.074 | 0.115 | 0.106 |
| | 0.069 | 0.065 | 0.055 | 0.069 | 0.058 | 0.058 | 0.019 | 0.019 | 0.019 |
| | 0.019 | 0.019 | 0.233 | 0.152 | 0.050 | 0.089 | 0.081 | 0.077 | 0.077 |
| | 0.077 | 0.077 | 0.077 | 0.077 | 0.077 | 0.091 | 0.144 | 0.091 | 0.091 |
| | 0.099 | 0.099 | 0.099 | 0.099 | 0.099 | 0.044 | 0.219 | 0.591 | 0.435 |
| | 0.298 | 0.091 | 0.050 | 0.044 | 0.042 | 0.035 | 0.041 | 0.197 | 0.088 |
| | 0.046 | 0.129 | 0.106 | 0.087 | 0.076 | 0.076 | 0.076 | 0.076 | 0.090 |
| ALG | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| ALG2 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| ALG3 | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T282ALK | 336 | 3 | | | | | | | |
| | 174.640 | 174.960 | 175.460 | 175.960 | 174.640 | 173.320 | 169.800 | 172.160 | 253.120 |
| | 265.200 | 263.840 | 183.600 | 183.600 | 173.160 | 184.760 | 192.520 | 178.120 | 181.600 |
| | 187.120 | 183.120 | 185.600 | | 185. | 185. | 185. | | |
| T282DOC | 336 | 3 | | | | | | | |
| | 0.348 | 0.920 | 0.900 | 0.780 | 0.648 | 0.416 | 0.716 | 0.496 | 0.380 |
| | 0.600 | 1.320 | 0.596 | 0.896 | 0.564 | 1.684 | 0.628 | 1.892 | 0.416 |
| | 0.432 | 0.952 | 0.616 | .6 | .6 | .6 | | | |
| T282NH4 | 336 | 3 | | | | | | | |
| | 0.013 | 0.007 | 0.005 | 0.003 | 0.007 | 0.010 | 0.007 | 0.033 | 0.020 |
| | 0.004 | 0.010 | 0.010 | 0.000 | 0.028 | 0.008 | 0.020 | 0.020 | 0.008 |
| | 0.000 | 0.056 | 0.000 | | | | | | |
| T282N03 | 336 | 3 | | | | | | | |
| | 1.916 | 1.869 | 1.771 | 1.673 | 1.610 | 1.546 | 1.611 | 1.674 | 1.532 |
| | 1.509 | 1.416 | 1.458 | 1.442 | 0.748 | 1.618 | 1.535 | 1.748 | 1.580 |
| | 1.475 | 1.484 | 1.604 | 1.6 | 1.6 | 1.6 | | | |
| WQ1 DUMY | 8760 | 1 | | | | | | | |
| | 0. | 0. | | | | | | | |
| T282COLI | 336 | 3 | | | | | | | |
| | 12.040 | 5.908 | 5.732 | 5.472 | 2.808 | 0.144 | 0.080 | 0.420 | 16.712 |
| - | 32.920 | 160.680 | 91.720 | 106.400 | 137.400 | 161.720 | 176.000 | 190.840 | 276.680 |
| | 89.000 | 82.560 | 76.120 | 76. | 76. | 76. | | | |
| DET | 8760 | 1 | | | | | | | |
| | 2. | 2. | | | | | | | |
| T282DO | 168 | 6 | | | | | | | |
| | 13.424 | 12.464 | 12.848 | 13.080 | 12.708 | 12.840 | 12.956 | 13.020 | 13.152 |
| | 12.684 | 12.704 | 12.236 | 11.768 | 11.636 | 12.680 | 12.144 | 11.928 | 12.048 |
| | 10.992 | 12.000 | 11.928 | 12.280 | 10.768 | 10.432 | 10.264 | 9.260 | 9.248 |
| - | 9.648 | 9.612 | 8.888 | 10.096 | 10.908 | 8.428 | 8.056 | 10.288 | 9.560 |
| | 9.404 | 9.464 | 9.456 | 9.424 | 8.804 | 9. | 9. | 9. | 9. |
| | 9. | 9. | | | | | | | |
| T282SRP | 336 | 36 | | | | | | | |
| | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 |

| | | | | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 |
| | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 |
| | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 |
| | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 |
| | 0.008 | 0.008 | 0.008 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.010 | 0.010 | 0.010 | 0.009 | 0.009 | 0.009 | 0.009 | 0.012 | 0.014 | 0.010 |
| | 0.050 | 0.050 | 0.041 | 0.070 | 0.077 | 0.318 | 0.447 | 0.216 | 0.041 | |
| | 0.020 | 0.050 | 0.031 | 0.019 | 0.015 | 0.013 | 0.014 | 0.014 | 0.014 | 0.014 |
| | 0.014 | 0.014 | 0.014 | 0.014 | 0.048 | 0.093 | 0.065 | 0.029 | 0.022 | |
| | 0.024 | 0.024 | 0.016 | 0.015 | 0.009 | 0.009 | 0.007 | 0.007 | 0.007 | |
| | 0.007 | 0.010 | 0.010 | 0.017 | 0.017 | 0.024 | 0.034 | 0.044 | 0.026 | |
| | 0.009 | 0.061 | 0.024 | 0.007 | 0.011 | 0.009 | 0.032 | 0.025 | 0.015 | |
| | 0.011 | 0.024 | 0.013 | 0.013 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 |
| | 0.012 | 0.012 | 0.012 | 0.012 | 0.012 | 0.011 | 0.011 | 0.010 | 0.011 | |
| | 0.010 | 0.010 | 0.010 | 0.012 | 0.012 | 0.011 | 0.011 | 0.010 | 0.010 | 0.010 |
| | 0.009 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 0.009 | 0.009 | 0.010 | 0.010 | 0.010 | 0.009 | 0.010 | 0.010 | 0.010 | 0.010 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.008 | 0.009 | 0.009 |
| | 0.010 | 0.010 | 0.009 | 0.008 | 0.008 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.008 | 0.008 | 0.009 | 0.009 | 0.008 | 0.008 | 0.011 | 0.010 | 0.009 | 0.009 |
| | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.005 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.006 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.010 | 0.010 | 0.010 | 0.012 | 0.013 | |
| | 0.009 | 0.009 | 0.008 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.010 | |
| | 0.013 | 0.014 | 0.012 | 0.011 | 0.009 | 0.008 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 |
| | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.010 | 0.013 | 0.014 | |
| | 0.010 | 0.010 | 0.009 | 0.010 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | 0.009 | 0.009 | 0.076 | 0.051 | 0.019 | 0.011 | 0.011 | 0.010 | 0.010 | 0.010 |
| | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.004 | 0.015 | 0.004 | 0.004 | 0.004 |
| | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.007 | 0.077 | 0.203 | 0.150 | |
| | 0.104 | 0.004 | 0.018 | 0.017 | 0.016 | 0.014 | 0.016 | 0.063 | 0.030 | |
| | 0.008 | 0.015 | 0.013 | 0.011 | 0.010 | 0.010 | 0.010 | 0.010 | 0.004 | |
| T282SI | 336 | 3 | | | | | | | | |
| | 12.666 | 13.821 | 13.436 | 13.194 | 9.534 | 5.872 | 6.698 | 12.462 | 12.275 | |
| | 12.079 | 11.484 | 11.759 | 12.022 | 12.838 | 13.593 | 13.358 | 14.025 | 12.219 | |
| TEMP | 24 | 36 | | | | | | | | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| 6 | | | | | | | | | | |
| 7 | | | | | | | | | | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | |
| 10 | | | | | | | | | | |
| | 8.25 | 9.12 | 9.12 | 10.43 | 11.30 | 10.43 | 10.43 | 9.12 | 8.25 | |
| | 9.12 | 9.99 | 9.99 | 9.99 | 9.99 | 10.43 | 9.99 | 9.99 | 9.99 | |
| | 9.99 | 9.99 | 10.43 | 10.43 | 10.43 | 15.21 | 12.16 | 12.60 | 10.43 | |
| | 13.03 | 15.65 | 11.30 | 10.86 | 15.65 | 17.82 | 15.65 | 11.30 | 10.86 | |
| | 16.52 | 11.30 | 10.86 | 10.43 | 9.99 | 10.86 | 11.20 | 12.16 | 13.47 | |
| | 13.90 | 13.90 | 13.03 | 13.03 | 12.60 | 12.60 | 12.16 | 12.16 | 12.16 | |
| | 12.60 | 12.16 | 14.34 | 13.03 | 12.16 | 13.47 | 13.47 | 13.90 | 13.47 | |
| | 11.73 | 12.60 | 12.60 | 13.03 | 12.60 | 12.16 | 12.60 | 13.47 | 13.03 | |
| | 13.47 | 13.03 | 14.77 | 14.34 | 14.77 | 16.52 | 16.08 | 16.08 | 15.65 | |
| | 15.65 | 18.26 | 18.26 | 19.73 | 21.30 | 19.56 | 17.82 | 17.82 | 16.52 | |

| | | | | | | | | | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 17.39 | 18.26 | 16.95 | 18.69 | 17.39 | 17.82 | 20.43 | 19.56 | 18.26 |
| | 18.69 | 17.82 | 15.65 | 16.95 | 17.82 | 18.26 | 16.08 | 15.21 | 13.90 |
| | 13.90 | 14.77 | 13.90 | 13.03 | 13.03 | 15.21 | 14.77 | 16.52 | 15.21 |
| | 16.08 | 16.08 | 15.21 | 14.77 | 14.77 | 14.77 | 15.21 | 15.21 | 15.21 |
| | 15.21 | 15.21 | 15.21 | 15.21 | 15.21 | 15.21 | 15.21 | 14.34 | 15.65 |
| | 15.65 | 15.65 | 14.77 | 15.65 | 14.77 | 15.65 | 16.08 | 15.65 | 15.65 |
| | 15.21 | 15.65 | 16.52 | 16.08 | 16.08 | 16.52 | 16.52 | 15.21 | 15.65 |
| | 15.21 | 11.73 | 9.99 | 12.60 | 14.34 | 15.65 | 15.21 | 15.65 | 15.65 |
| | 16.08 | 16.08 | 15.65 | 16.95 | 16.52 | 16.08 | 15.65 | 15.65 | 15.65 |
| | 15.65 | 15.82 | 17.12 | 17.56 | 16.78 | 15.04 | 12.69 | 10.60 | 9.82 |
| | 9.82 | 9.82 | 9.65 | 9.29 | 9.21 | 9.90 | 9.82 | 8.42 | 9.03 |
| | 9.65 | 9.29 | 5.47 | 5.21 | 5.73 | 7.21 | 7.73 | 8.34 | 8.60 |
| | 8.25 | 8.51 | 8.78 | 8.34 | 7.55 | 8.42 | 7.99 | 6.77 | 4.68 |
| | 4.51 | 5.38 | 6.34 | 6.08 | 5.81 | 3.38 | 3.81 | 3.38 | 3.38 |
| | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 | 4.77 | 5.12 | 5.21 | 4.43 |
| | 4.34 | 3.81 | 3.64 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 | 3.38 |
| TDS | 8760 | 1 | | | | | | | |
| | 220. | 220. | | | | | | | |
| T282SS | 336 | 3 | | | | | | | |
| | 4.413 | 2.034 | 2.507 | 2.980 | 3.140 | 3.300 | 2.100 | 3.420 | 1.984 |
| | 0.464 | 2.544 | 2.096 | 3.092 | 4.072 | 0.600 | 1.092 | 1.620 | 0.000 |
| | 0.840 | 3.252 | 5.680 | 5.6 | 5.6 | 5.6 | | | |
| T282PH | 168 | 6 | | | | | | | |
| | 8.252 | 8.352 | 8.268 | 7.748 | 7.916 | 7.496 | 7.564 | 7.732 | 7.616 |
| | 7.784 | 7.800 | 7.900 | 8.084 | 8.100 | 8.352 | 8.268 | 8.016 | 8.184 |
| | 7.428 | 8.720 | 8.368 | 8.016 | 7.968 | 7.900 | 8.320 | 8.152 | 8.504 |
| | 8.068 | 8.152 | 8.168 | 8.252 | 7.768 | 7.436 | 8.576 | 7.800 | 7.800 |
| | 7.984 | 7.884 | 7.600 | 7.852 | 7.684 | 7. | 7. | 7. | 7. |
| | 7. | 7. | | | | | | | |
| ANATRIB2 | 336 | 25 | | | | | | | |
| | TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 5.96 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.20 | 0.00 | .0 | 6.96 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.20 | 0.00 | .0 | 5.68 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.22 | 0.00 | .0 | 5.63 | .0 | |
| | TRIB2 | 0.03 | 0.00 | 0.10 | 0.00 | .0 | 5.84 | .0 | |
| | TRIB2 | 0.08 | 0.00 | 0.00 | 0.00 | .0 | 5.91 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.50 | 0.00 | .0 | 6.23 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 6.55 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 7.64 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 9.61 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 8.43 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 8.80 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 9.68 | .0 | |
| | TRIB2 | 0.02 | 0.00 | 0.18 | 0.00 | .0 | 7.81 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 9.21 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.08 | 0.00 | .0 | 10.92 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 9.36 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 8.52 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 9.17 | .0 | |
| | TRIB2 | 0.02 | 0.00 | 0.00 | 0.00 | .0 | 9.09 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 6.07 | .0 | |
| | TRIB2 | 0.12 | 0.00 | 0.10 | 0.00 | .0 | 6.61 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.12 | 0.00 | .0 | 5.39 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.10 | 0.00 | .0 | 6.16 | .0 | |
| | TRIB2 | 0.00 | 0.00 | 0.00 | 0.00 | .0 | 5.59 | .0 | |

DIAGNOSE99999

**APPENDIX B: INITIAL CONDITIONS, EAU GALLE
SIMULATIONS, 1981 AND 1982**

Table B1
Initial Conditions Used for 1981 and 1982 Eau Galle Simulations

| <u>Variable</u> | <u>Units</u> | <u>Model Acronym</u> | <u>1981</u> | <u>1982</u> |
|-------------------------------|------------------|----------------------|--------------|--------------|
| Algae 1 | g/m ³ | ALGAE(,1) | 0 | 0 |
| Algae 2 | g/m ³ | ALGAE(,2) | 0 | 0 |
| Algae 3 | g/m ³ | ALGAE(,3) | 2.77 | 0.33-0.38 |
| Temperature | °C | TEMP | 5.8-6.0 | 6.9-7.1 |
| Alkalinity | g/m ³ | ALKA | 108.0-110.0 | 80.0-82.0 |
| Ammonia-N | g/m ³ | CNH3 | 0.033-0.052 | 0.184 -0.200 |
| Nitrite nitrate-N | g/m ³ | CNO2 | 0.654-0.682 | 1.14-1.17 |
| Refractory dissolved organics | g/m ³ | RFR | 13.5-15.3 | 10.6-12.6 |
| Labile dissolved organics | g/m ³ | DOM | 5.79-6.54 | 4.5-5.4 |
| Detritus | g/m ³ | DETUS | 2.4 | 2.4 |
| Oxygen | g/m ³ | OXY | 12.7-13.3 | 10.3-10.4 |
| Orthophosphate-P | g/m ³ | PO4 | 0.110 | 0.081-0.083 |
| Total dissolved solids | g/m ³ | TDS | 157.0-167.0 | 133.0-153.0 |
| Zooplankton | g/m ³ | ZOO | 0.1 | 0.1 |
| pH | DL* | PH | 8.0-8.2 | 7.8 |
| Suspended solids | g/m ³ | SSOL | 23.4-24.6 | 11.3-13.3 |
| Sediment | g/m ² | SEDMT | 501.0-5001.0 | 501.0-5001.0 |
| Fish | kg/ha | FISH | 55.0 | 55.0 |
| Oxidized manganese | g/m ³ | CMN4 | 0.1 | 0 |
| Reduced manganese | g/m ³ | CMN2 | 0.1 | 0 |
| Oxidized iron | g/m ³ | FE3 | 0.8-1.2 | 0.5 |
| Reduced iron | g/m ³ | FE2 | 0.1 | 0 |
| Iron sulfide | g/m ³ | FESB | 0 | 0 |
| Sulfate | g/m ³ | SO4 | 7.1-9.3 | 11.1-12.9 |
| Sulfide | g/m ³ | S2 | 0 | 0 |

(Continued)

* DL = dimensionless.

Table B1 (Concluded)

| <u>Variable</u> | <u>Units</u> | <u>Model Acronym</u> | 1981 | 1982 |
|---------------------------|------------------|--------------------------|-------------|-----------|
| Sediment iron | g/m ³ | FE | 1310.0 | 1310 |
| Sediment iron sulfide | g/m ³ | FESA | 0 | 0 |
| Sediment sulfur | g/m ³ | S | 1.6 | 1.6 |
| Sediment orthophosphate-P | g/m ³ | XPO4 | 102.0 | 102.0 |
| Sediment nitrogen | g/m ³ | CN | 1210.0 | 1210.0 |
| Silica | g/m ³ | SI | 5.52-6.10 | 0.33-0.38 |
| Coliforms | g/m ³ | COLIF | 220.0-300.0 | 111.0 |

**APPENDIX C: COEFFICIENTS FOR EAU GALLE
SIMULATIONS, 1981 AND 1982**

Table C1
Coefficients Used for 1981 and 1982 Eau Galle Simulations

| Description | Units* | Model Acronym | Value |
|---------------------------------|-----------------|---------------|----------------------|
| <u>Physical</u> | | | |
| Number of outlet ports | DL | NOUTS | 1 |
| Number of tributaries | DL | NTRIBS | 2 |
| Reservoir latitude | decimal degrees | XLAT | 44.8 |
| Reservoir longitude | decimal degrees | XLON | 92.3 |
| Radiation turbidity factor | DL | TURB | 1.7 |
| Empirical heat flux coefficient | m/mb sec | AA | 0 |
| Empirical heat flux coefficient | 1/mb | BB | 1.2×10^{-9} |
| Reservoir length | m | RLEN | 850.0 |
| Minimum layer thickness | m | SDZMIN | 0.4 |
| Maximum layer thickness | m | SDZMAX | 1.2 |
| Port elevation | m | ELOUT | 4.1 |
| Vertical dimension of port | m | PVDIM | 1.08 |
| Horizontal dimension of port | m | PHDIM | 1.08 |
| Weir length | m | WRLNG | 7.6 |
| Weir height | m | WRHGT | 9.75 |
| Empirical weir coefficient | DL | COEF | 3.2 |

(Continued)

* DL = dimensionless.

Table C1 (Continued)

| Description | Units | Model Acronym | Value |
|--|---------------------|---------------|-------------------------|
| <u>Physical (Continued)</u> | | | |
| Wind sheltering coefficient | DL | SHELCF | 0.007 |
| Penetrative convection fraction | DL | PEFRAC | 0.004 |
| Mixing coefficient for wind | DL | CDIFW | 0.00009 |
| Mixing coefficient for flow | DL | CDIFF | 0.0002 |
| Critical density for inflow | DL | CDENS | 2.0 |
| Extinction coefficient | 1/m | EXCO | 0.8 |
| Radiation absorbed in 0.6 m | fraction | SURFRAC | 0.45 |
| Shading coefficient for suspended solids | (1/m) × (mg/l) | EXTINS | 0.1 |
| Diffusion coefficient for oxygen | m ² /sec | DMO2 | 5.4 × 10 ⁻¹⁰ |
| Diffusion coefficient for carbon dioxide | m ² /sec | DMC02 | 7.5 × 10 ⁻⁹ |
| Suspended solids settling | m/day | TSSETL | 0.05 |
| <u>Algae</u> | | | |
| Carbon fraction of dry weight | DL | ALGAC | 0.46 |
| Nitrogen fraction of dry weight | DL | ALGAN | 0.08 |
| Phosphorus fraction of dry weight | DL | ALGAP | 0.004 |
| Shading coefficient | (1/m) × (mg/l) | EXTINP | 0.38 |
| Fraction of dead algae to detritus | DL | ALDIGO | 0.40 |

(Continued)

(Sheet 2 of 12)

Table C1 (Continued)

| Description | Units | Model Acronym | Value |
|----------------------------|-------------------------|---------------|-------|
| <u>Alga 1</u> | | | |
| Maximum production rate | 1/day | TPMAX (1) | 0.99 |
| Settling rate | m/day | TSETL (1) | 0.05 |
| Phosphorus half-saturation | mg/l | PS2PO4 (1) | 0.02 |
| Nitrogen half-saturation | mg/l | PS2N (1) | 0.06 |
| Carbon half-saturation | mg/l | PS2CO2 (1) | 0.10 |
| Light saturation | kcal/m ² /hr | PS2L (1) | 85.0 |
| Maximum excretion rate | 1/day | TPEXCR (1) | 0.05 |
| Maximum mortality rate | 1/day | TPMORT (1) | 0.07 |
| Maximum respiration rate | 1/day | TPRESP (1) | 0.14 |
| Temperature multipliers | | | |
| Low threshold | °C | ALG1T1 | 7.0 |
| Low optimum | °C | ALG1T2 | 15.0 |
| High optimum | °C | ALG1T3 | 28.0 |
| High threshold | °C | ALG1T4 | 35.0 |
| Low minimum | DL | ALG1K1 | 0.1 |
| High minimum | DL | ALG1K4 | 0.1 |

(Continued)

(Sheet 3 of 12)

Table C1 (Continued)

| Description | Units | Model Acronym | Value |
|----------------------------|-------------------------|---------------|-------|
| <u>Alga 2</u> | | | |
| Maximum production rate | 1/day | TPMAX (2) | 1.4 |
| Settling rate | m/day | TSETL (2) | 0.10 |
| Phosphorus half-saturation | mg/l | PS2PO4 (2) | 0.02 |
| Nitrogen half-saturation | mg/l | PS2N (2) | 0.09 |
| Carbon half-saturation | mg/l | PS2CO2 (2) | 0.1 |
| Light saturation | kcal/m ² /hr | PS2L (2) | 115.0 |
| Maximum excretion rate | 1/day | TPEXCR (2) | 0.04 |
| Maximum mortality rate | 1/day | TPMORT (2) | 0.06 |
| Maximum respiration rate | 1/day | TPRESP (2) | 0.17 |
| Temperature multipliers | | | |
| Low threshold | °C | ALG2T1 | 12.0 |
| Low optimum | °C | ALG2T2 | 19.0 |
| High optimum | °C | ALG2T3 | 25.0 |
| High threshold | °C | ALG2T4 | 35.0 |
| Low minimum | DL | ALG2K1 | 0.1 |
| High minimum | DL | ALG2K4 | 0.1 |

(Continued)

(Sheet 4 of 12)

Table C1 (Continued)

| Description | Units | Model Acronym | Value |
|-------------------------------|-------------------------|---------------|-------|
| <u>Alga 3</u> | | | |
| Silica fraction of dry weight | DL | ALGAS | 0.34 |
| Silica half-saturation | mg/l | PS2SI | 0.05 |
| Maximum production rate | 1/day | TPMAX (3) | 1.60 |
| Settling rate | m/day | TSETL (3) | 0.12 |
| Phosphorus half-saturation | mg/l | PS2PO4 (3) | 0.004 |
| Nitrogen half-saturation | mg/l | PS2N (3) | 0.07 |
| Carbon half-saturation | mg/l | PS2CO2 (3) | 0.08 |
| Light saturation | kcal/m ² /hr | PS2L (3) | 45.0 |
| Maximum excretion rate | 1/day | TPEXCR (3) | 0.04 |
| Maximum mortality rate | 1/day | TPMORT (3) | 0.010 |
| Maximum respiration rate | 1/day | TPRESP (3) | 0.145 |
| Temperature multipliers | | | |
| Low threshold | °C | ALG3T1 | 0.0 |
| Low optimum | °C | ALG3T2 | 8.0 |
| High optimum | °C | ALG3T3 | 12.0 |
| High threshold | °C | ALG3T4 | 17.0 |
| Low minimum | DL | ALG3K1 | 0.1 |
| High minimum | DL | ALG3K4 | 0.1 |

(Continued)

(Sheet 5 of 12)

Table C1 (Continued)

| Description | Units | Model Acronym | Value |
|--------------------------------------|-------------------------|---------------|-------|
| Macrophytes | | | |
| Maximum production rate | 1/day | TPLMAX | 0.42 |
| Maximum respiration rate | 1/day | TMRESP | 0.05 |
| Maximum excretion rate | 1/day | TMEXCR | 0.012 |
| Maximum mortality rate | 1/day | TMMORT | 0.03 |
| Dead plants to dissolved organics | fraction | PLDIGO (1) | 0.2 |
| Dead plants to detritus | fraction | PLDIGO (2) | 0.4 |
| Dead plants to sediment | fraction | PLDIGO (3) | 0.4 |
| Temperature difference for mortality | °C | TMPMAC | 1.5 |
| Self shading coefficient | (1/m) × (mg/l) | EXTINM | 0.04 |
| Carbon half-saturation | mg/l | PLIMC | 0.1 |
| Nitrogen half-saturation | mg/l | PLIMN | 0.01 |
| Phosphorus half-saturation | mg/l | PLIMP | 0.005 |
| Plant density | g/m ³ | PLDENS | 40.0 |
| Light saturation | kcal/m ² /hr | PLITE | 95.0 |
| Nutrient fraction from sediments | fraction | PLFRAC | 0.55 |
| Depth with no growth | m | PLNTDEP | 1.8 |
| Temperature multipliers | | | |
| Low threshold | °C | PLTT1 | 7.0 |
| Low optimum | °C | PLTT2 | 21.0 |

(Continued)

Table C1 (Continued)

(Sheet 8 of 15)

| Description | Units | Model Acronym | Value |
|--------------------------------|----------|---------------|-------|
| Macrophytes (Continued) | | | |
| High optimum | °C | PLTT3 | 24.0 |
| High threshold | °C | PLTT4 | 34.0 |
| Low minimum | DL | PLTK1 | 0.2 |
| High minimum | DL | PLTK4 | 0.2 |
| Zooplankton | | | |
| Maximum ingestion | 1/day | TZMAX | 0.99 |
| Maximum mortality | 1/day | TZMORT | 0.011 |
| Ingestion efficiency | fraction | ZEFFIC | 0.65 |
| Preference for alga 1 | DL | PREF (1) | 0.15 |
| Preference for alga 2 | DL | PREF (2) | 0.25 |
| Preference for alga 3 | DL | PREF (3) | 0.30 |
| Preference for detritus | DL | PREF (4) | 0.30 |
| Maximum respiration | 1/day | TZRESP | 0.20 |
| Minimum food concentration | mg/l | ZOOMIN | 0.20 |
| Food half-saturation | mg/l | ZS2P | 0.5 |
| Temperature multipliers | | | |
| Low threshold | °C | ZOOT1 | 2.0 |
| Low optimum | °C | ZOOT2 | 12.0 |

(Continued)

(Sheet 7 of 12)

Table C1 (Continued)

| Description | Units | Model Acronym | Value |
|--------------------------------|-------|---------------|-------|
| <u>Zooplankton (Continued)</u> | | | |
| High optimum | °C | ZOOT3 | 26.0 |
| High threshold | °C | ZOOT4 | 36.0 |
| Low minimum | DL | ZOOK1 | 0.1 |
| High minimum | DL | ZOOK4 | 0.1 |
| <u>Fish</u> | | | |
| Maximum ingestion | 1/day | TFMAX | 0.018 |
| Food half-saturation | mg/l | FS2FSH | 0.2 |
| Preference for sediment | DL | FPSED | 0.03 |
| Preference for alga 1 | DL | FPALG (1) | 0.15 |
| Preference for alga 2 | DL | FPALG (2) | 0.15 |
| Preference for alga 3 | DL | FPALG (3) | 0.15 |
| Preference for zooplankton | DL | FPZOO | 0.37 |
| Preference for detritus | DL | FPDET | 0.15 |
| Temperature multipliers | | | |
| Low threshold | °C | FSH1T1 | 1.0 |
| Low optimum | °C | FSH1T2 | 24.4 |
| High optimum | °C | FSH1T3 | 28.4 |

(Continued)

(Sheet 8 of 12)

Table C1 (Continued)

(Sheet 10 of 13)

| <u>Description</u> | <u>Units</u> | <u>Model Acronym</u> | <u>Value</u> |
|--|--------------|----------------------|--------------|
| <u>Fish (Continued)</u> | | | |
| High threshold | °C | FSH1T4 | 35.2 |
| Low minimum | DL | FSH1K1 | 0.1 |
| High minimum | DL | FSH1K4 | 0.1 |
| Ingestion efficiency | fraction | FEFFIC | 0.8 |
| Maximum mortality | 1/day | TFMORT | 0.01 |
| Maximum respiration | 1/day | TFRESP | 0.01 |
| <u>Decay</u> | | | |
| Labile dissolved organic matter | 1/day | TDOMDK | 0.04 |
| Ammonia | 1/day | TNH3DK | 0.01 |
| Detritus | 1/day | TDETDK | 0.02 |
| Coliforms | 1/day | TCOLDK | 1.4 |
| Sediment | 1/day | TSEDDK | 0.0012 |
| Refractory dissolved organic matter | 1/day | TRFRDK | 0.001 |
| Labile to refractory organics | 1/day | TDOMRF | 0.05 |
| Labile fraction of organic matter | DL | DOMCNT | 0.3 |
| Nitrite-nitrate denitrification | 1/day | TNO2DK | 0.07 |
| <u>Temperature multipliers</u> | | | |
| Dissolved organic matter low threshold | °C | DOMT1 | 4.0 |
| Dissolved organic matter optimum | °C | DOMT2 | 22.0 |

(Continued)

(Sheet 9 of 12)

Table C1 (Continued)

| Description | Units | Model Acronym | Value |
|-----------------------------------|----------------|---------------|--------|
| <u>Decay (Continued)</u> | | | |
| Low minimum | DL | DOMK1 | 0.12 |
| Ammonia low threshold | °C | NH3T1 | 2.0 |
| Ammonia optimum | °C | NH3T2 | 32.0 |
| Ammonia low minimum | DL | NH3K1 | 0.1 |
| Nitrite low threshold | °C | NO2T1 | 2.0 |
| Nitrite optimum | °C | NO2T2 | 32.0 |
| Nitrite low minimum | DL | NO2K1 | 0.1 |
| Coliform Q10 | DL | Q10COL | 1.04 |
| <u>Chemical</u> | | | |
| Phosphorus adsorption desorption | 1/(mg/l) | ADSRBP | 30.0 |
| Solids capacity for phosphorus | mg P/mg solids | ADMAXD | 0.0025 |
| Ammonia adsorption-desorption | 1/(mg/l) | ADSRBN | 40.0 |
| Solids capacity for ammonia | mg N/mg solids | ADMAXN | 0.005 |
| <u>Stoichiometric equivalents</u> | | | |
| Oxygen - ammonia | DL | O2NH3 | 4.57 |
| Oxygen - nitrite | DL | O2NO2 | 1.14 |
| Oxygen - detritus | DL | O2DET | 1.4 |

(Continued)

(Sheet 10 of 12)

Table C1 (Continued)

(Sheet 11 of 13)

| Description | Units | Model Acronym | Value |
|---------------------------------|-----------------------|---------------|-------|
| <u>Chemical (Continued)</u> | | | |
| Oxygen - biological respiration | DL | O2RESP | 1.1 |
| Oxygen - biological production | DL | O2FAC | 1.4 |
| Oxygen - dissolved organics | DL | O2DOM | 1.4 |
| Oxygen - reduced manganese | DL | O2MN2 | 0.15 |
| Oxygen - reduced iron | DL | O2FE2 | 0.14 |
| Oxygen - sulfide | DL | O2S2 | 2.0 |
| <u>Anaerobic</u> | | | |
| Oxygen trigger | mg/l | OXYLIM | 0.5 |
| Sediment thickness | cm | SEDTHK | 5.0 |
| Particulate manganese settling | m/day | TMN4ST | 0.14 |
| Manganese reduction rate | 1/day | TMN4RE | 0.16 |
| Manganese release rate | g/m ² /day | TMNREL | 0.35 |
| Manganese oxidation rate | 1/day | TMN2OX | 0.6 |
| Particulate iron settling | m/day | TFE3ST | 0.04 |
| Iron reduction rate | 1/day | TFE3RE | 0.02 |
| Iron release rate | g/m ² /day | TFEREL | 0.45 |
| Iron oxidation rate | 1/day | TFE2OX | 0.6 |
| Sediment iron sulfide oxidation | 1/day | TFESAD | 0.4 |

(Continued)

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(Sheet 11 of 12)

Table C1 (Concluded)

| Description | Units | Model Acronym | Value |
|-----------------------------------|-----------------------|---------------|-------|
| <u>Anerobic (Continued)</u> | | | |
| Iron sulfide settling | m/day | TFESST | 0.5 |
| Iron sulfide oxidation | 1/day | TFESBD | 0.6 |
| Sulfate reduction | 1/day | TSO4RE | 0.04 |
| Sulfur release rate | g/m ² /day | TSREL | 0.01 |
| Sulfide oxidation | 1/day | TS2OXI | 0.5 |
| Sulfide to iron sulfide reduction | 1/day | TS2DK | 0.05 |
| Orthophosphate sediment release | g/m ² /day | TXP4RE | 0.014 |
| Ammonia sediment release | g/m ² /day | TCNREL | 0.40 |